

PURCHASE AGREEMENT

This Purchase Agreement (together with all attachments referenced herein, the “Agreement”), made and entered into by and between Hughes Fire Equipment Inc. (“Company”), and City of Olympia, a Municipality (“Customer”) is effective as of the date specified in Section 3 hereof.

1. Definitions.

- a. **“Product”** means the fire apparatus and any associated equipment manufactured or furnished for the Customer by Company pursuant to the Specifications.
- b. **“Specifications”** means the general specifications, technical specifications, training, and testing requirements for the Product contained in the Company Proposal for the Product prepared in response to the Customer’s request for proposal.
- c. **“Company Proposal”** means the proposal provided by Company attached as Exhibit C prepared in response to the Customer’s request for proposal.
- d. **“Delivery”** means the date Company is prepared to make physical possession of the Product available to the Customer.
- e. **“Acceptance”** The Customer shall have the opportunity, as described in Section 8(b) below, to inspect the Product for substantial conformance with the material Specifications; unless Company receives a Notice of Defect within the time frame described in Section 8(b), the Product will be deemed to be in conformance with the Specifications and accepted by the Customer.

2. Purpose. This Agreement sets forth the terms and conditions of Company’s sale of the Product to the Customer.

3. Term of Agreement. This Agreement will become effective on the date it is signed and approved by both Customer and Company (“Effective Date”) and, unless earlier terminated pursuant to the terms of this Agreement, it will terminate upon the Customer’s Acceptance and payment in full of the Purchase Price.

4. Purchase and Payment. The Customer agrees to purchase the Product specified on Exhibit A for the total purchase price of \$2,617,274.16 (“Purchase Price”). Prices are in U.S. funds. A credit card convenience fee will be added to the purchase price if the Customer elects to make purchase of the Product in whole, or in part, using a credit card. The cost of the convenience fee will be determined prior to processing credit card.

5. Future Changes. Various state or federal regulatory agencies (e.g. NFPA, DOT, EPA) may require changes to the Specifications and/or the Product and in any such event any resulting cost increases incurred to comply therewith will be added to the Purchase Price to be paid by the Customer. In addition, any future drive train upgrades (engine, transmission, axles, etc.), or any other specification changes have not been calculated into our annual increases and will be provided at additional cost. To the extent practicable, Company will document and itemize any such price increases for the Customer.

6. Agreement Changes. The Customer may request that Company incorporate a change to the Products or the Specifications for the Products by delivering a change order to Company; provided, however, that any such change order must be in writing and include a description of the proposed change sufficient to permit Company to evaluate the feasibility of such change (“Change Order”). Within [seven (7) business days] of receipt of a Change Order, Company will inform the Customer in writing of the feasibility of the Change Order, the earliest possible implementation date for the Change Order, of any increase or decrease in the Purchase Price resulting from such Change Order, and of any effect on production scheduling or Delivery resulting from such Change Order. Company shall not be liable to the Customer for any delay in performance or Delivery arising from any such Change Order. A Change Order is only effective when counter-signed by Company’s authorized representative.

7. Cancellation/Termination. In the event this Agreement is cancelled or terminated by a party before completion, Company may charge a cancellation fee. The following charge schedule based on costs incurred may be applied: (a) 10% of the Purchase Price after order is accepted and entered by Company; (b) 20% of the Purchase Price after completion of approval drawings, and; (c) 30% of the Purchase Price upon any material requisition. The cancellation fee will increase accordingly as costs are incurred as the order progresses through engineering and into manufacturing. Company endeavors to mitigate any such costs through the sale of such Product to another purchaser; however, Customer shall remain liable for the difference between the Purchase Price and, if applicable, the sale price obtained by Company upon sale of the Product to another purchaser, plus any costs incurred by Company to conduct any such sale.

8. Delivery, Inspection and Acceptance. (a) Delivery. Delivery of the Product is scheduled to be within 50 to 55 months of the Effective Date of this Agreement, F.O.B. Customer’s facility in Olympia, WA. Risk of loss shall pass to Customer upon Delivery. Delivery of Product is subject to change pending manufacture’s delivery schedule at time of order placement. Notification of change will be sent to Customer’s address specified in Section 9 hereof. (b) Inspection and Acceptance. Upon Delivery, Customer

shall have fifteen (15) days within which to inspect the Product for substantial conformance to the material Specifications, and in the event of substantial non-conformance to the material Specifications to furnish Company with written notice sufficient to permit Company to evaluate such non-conformance ("Notice of Defect"). Any Product not in substantial conformance to material Specifications shall be remedied by Company within thirty (30) days from the Notice of Defect. In the event Company does not receive a Notice of Defect within fifteen (15) days of Delivery, Product will be deemed to be in conformance with Specifications and accepted by Customer.

9. Notice. Any required or permitted notices hereunder must be given in writing at the address of each party set forth below, or to such other address as either party may substitute by written notice to the other in the manner contemplated herein, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally-recognized private express courier:

Company

Hughes Fire Equipment Inc.

910 Shelley Street

Springfield, Oregon 97477

Customer

City of Olympia Attn: Fire Chief

PO Box 1967

Olympia, WA 98507-1967

10. Standard Warranty. Any applicable manufacturer warranties are attached hereto as Exhibit B and made a part hereof. Any additional warranties must be expressly approved in writing by Company's authorized representative.

a. Disclaimer. OTHER THAN AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER COMPANY, ITS PARENT COMPANY, AFFILIATES, SUBSIDIARIES, LICENSORS OR SUPPLIERS, THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS OR REPRESENTATIVES, MAKE ANY EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCTS PROVIDED HEREUNDER OR OTHERWISE REGARDING THIS AGREEMENT, WHETHER ORAL OR WRITTEN, EXPRESS, IMPLIED OR STATUTORY. WITHOUT LIMITING THE FOREGOING, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, AND THE IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED AND DISCLAIMED. STATEMENTS MADE BY SALES REPRESENTATIVES OR IN PROMOTIONAL MATERIALS DO NOT CONSTITUTE WARRANTIES.

b. Exclusions of Incidental and Consequential Damages. In no event shall Company be liable for consequential, incidental or punitive damages incurred by Customer or any third party in connection with any matter arising out of or relating to this Agreement, or the breach thereof, regardless of whether such damages arise out of breach of warranty, tort, contract, strict liability, statutory liability, indemnity, whether resulting from non-delivery or from Company's own negligence, or otherwise.

11. Persistent Inflationary Environment. If the Producer Price Index of Components for Manufacturing [www.bls.gov Series ID: WPUID6112] ("PPI") has increased at a compounded annual growth rate of 5.0% or more between the month Pierce accepts our order ("Order Month") and a month 14 months prior to the then predicted Ready For Pickup date ("Evaluation Month"), then pricing may be updated in an amount equal to the increase in PPI over 5.0% for each year or fractional year between the Order Month and the Evaluation Month. The seller will document any such updated price for the customer's approval before proceeding and provide an option to cancel the order.

12. Force Majeure. Company shall not be responsible nor deemed to be in default on account of delays in performance due to causes which are beyond Company's control which make Company's performance impracticable, including but not limited to civil wars, insurrections, strikes, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of government, delays in transportation, inability to obtain necessary labor supplies or manufacturing facilities, allocation regulations or orders affecting materials, equipment, facilities or completed products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, epidemics, pandemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their contracts or labor troubles causing cessation, slowdown, or interruption of work.

13. Default. The occurrence of one or more of the following shall constitute a default under this Agreement: (a) the Customer fails to pay when due any amounts under this Agreement or to perform any of its obligations under this Agreement; (b) Company fails to perform any of its obligations under this Agreement; (c) either party becomes insolvent or become subject to a bankruptcy

or insolvency proceedings; (d) any representation made by either party to induce the other to enter into this Agreement is false in any material respect; (e) the Customer dissolves, merges, consolidates or transfers a substantial portion of its property to another entity; or (f) the Customer is in default or has breached any other contract or agreement with Company.

14. Manufacturer's Statement of Origin. It is agreed that the manufacturer's statement of origin ("MSO") for the Product covered by this Agreement shall remain in the possession of Company until the entire Purchase Price has been paid. If more than one Product is covered by this Agreement, then the MSO for each individual Product shall remain in the possession of Company until the Purchase Price for that Product has been paid in full. In case of any default in payment, Company may take full possession of the Product, and any payments that have been made shall be applied as payment for the use of the Product up to the date of taking possession.

15. Independent Contractors. The relationship of the parties established under this Agreement is that of independent contractors and neither party is a partner, employee, agent, or joint venture of or with the other.

16. Assignment. Neither party may assign its rights and obligations under this Agreement unless it has obtained the prior written approval of the other party.

17. Governing Law; Jurisdiction. Without regard to any conflict of laws provisions, this Agreement is to be governed by and under the laws of the state of Oregon.

18. Facsimile Signatures. The delivery of signatures to this Agreement by facsimile transmission shall be binding as original signatures.

19. Federally Funded Purchases. Company is registered with SAM.gov, is in good standing for purchases utilizing federal funds, and has no past, pending, or threatened litigation that would impact its ability to fulfill the obligations committed herein.

20. Entire Agreement. This Agreement shall be the exclusive agreement between the parties for the Product. Additional or different terms proposed by the Customer shall not be applicable, unless accepted in writing by Company's authorized representative. No change in, modification of, or revision of this Agreement shall be valid unless in writing and signed by Company's authorized representative.

21. Conflict. In the event of a conflict between the Customer Specifications and the Company Proposal, the Company Proposal shall control. In the event there is a conflict between the Company Proposal and this Agreement, the Company Proposal shall control.

Accepted and agreed to:

COMPANY: Hughes Fire Equipment Inc.

CUSTOMER: City of Olympia

Name: Rex Hughes

Name: _____

Title: President

Title: _____

Date: 04/02/2024

Date: _____

Signature: 

Signature: _____

EXHIBIT A

**PURCHASE DETAIL FORM
Hughes Fire Equipment Inc.**

Date: _____

Customer Name: City of Olympia

Quantity	Chassis / Body Type – Description	Price per Unit
Two (2)	Pierce Velocity Pumpers AK1075	\$2,543,101.00
Less	Less pre-payment of \$300,000 at contract execution	(51,000.00)
Less	Less pre-payment of \$300,000 one (1) year after contract execution	(39,000.00)
Less	Less pre-payment of \$300,000 two (2) years after contract execution	(27,000.00)
Less	Less pre-payment of \$300,000 three (3) years after contract execution	(15,000.00)
Less	Less payment upon completion at factory discount	(25,254.00)
	Subtotal	\$2,385,847.00
Plus	Washington state sales tax @ 9.40%	224,269.62
Plus	Washington state motor vehicle tax 0.30%	7,157.54
	TOTAL	\$2,617,274.16

Warranty Period: Standard per HFE Proposal AK1075 submitted on February 13, 2024

Training Requirements: Standard per HFE Proposal AK1075 submitted on February 13, 2024

Other Matters: (a) A performance bond will be provided within thirty (30) days of contract execution. (b) Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible. (c) Purchased utilizing Sourcewell Contract No. 113021-OKC-1.

Payment Terms: A progress payment in the amount of \$300,00.00 will be due within 30 days of contract execution. The second progress payment in the amount of \$300,00.00 will be due one (1) year after contract execution. The third progress payment in the amount of \$300,000.00 will be two (2) years after contract execution. The fourth progress payment in the amount of \$300,000.00 will be due three (3) years after contract execution. An invoice will be provided thirty (30) days prior to the progress payment due dates. If payment isn't made when due the associated discount listed, or a portion thereof, will be added to the final invoice. Final payment, including any changes made during the manufacturing process, is due upon completion of the apparatus at the factory and prior to the apparatus leaving the factory for delivery.

[NOTE: If deferred payment arrangements are required, the Customer must make such financial arrangements through a financial institution acceptable to Company.] All taxes, excises and levies that Company may be required to pay or collect by reason of any present or future law or by any governmental authority based upon the sale, purchase, delivery, storage, processing, use, consumption, or transportation of the Product sold by Company to the Customer shall be for the account of the Customer and shall be added to the Purchase Price. All delivery prices or prices with freight allowance are based upon prevailing freight rates and, in the event of any increase or decrease in such rates, the prices on all unshipped Product will be increased or decreased accordingly. Delinquent payments shall be subject to a carrying charge of 1.5 percent per month or such lesser amount permitted by law. Company will not be required to accept payment other than as set forth in this Agreement. However, to avoid a late charge assessment in the event of a dispute caused by a substantial nonconformance with material Specifications (other than freight), the Customer may withhold up to five percent (5%) of the Purchase Price until such time that Company substantially remedies the nonconformance with material Specifications, but no longer than sixty (60) days after Delivery. If the disputed amount is the freight charge, the Customer may withhold only the amount of the freight charge until the dispute is settled, but no longer than sixty (60) days after Delivery. Company shall have and retain a purchase money security interest in all goods and products now or hereafter sold to the Customer by Company or any of its affiliated companies to secure payment of the Purchase Price for all such goods and products. In the event of nonpayment by the Customer of any debt, obligation or liability now or hereafter incurred or owing by the Customer to Company, Company shall have and may exercise all rights and remedies of a secured party under Article 9 of the Uniform Commercial Code (UCC) as adopted by the state of Oregon.

THIS PURCHASE DETAIL FORM IS EXPRESSLY SUBJECT TO THE PURCHASE AGREEMENT TERMS AND CONDITIONS DATED AS OF April, 2024 BETWEEN COMPANY AND CITY OF OLYMPIA WHICH TERMS AND CONDITIONS ARE HEREBY INCORPORATED IN, AND MADE PART OF, THIS PURCHASE DETAIL FORM AS THOUGH EACH PROVISION WERE SEPARATELY SET FORTH HEREIN, EXCEPT TO THE EXTENT OTHERWISE STATED OR SUPPLEMENTED BY COMPANY HEREIN.

Exhibit B - Warranty



Fire and Rescue Apparatus

One (1) Year Material and Workmanship

Basic Apparatus

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.
Warranty Period Ends After:	Twelve (12) months.
Conditions and Exclusions: See Also Paragraphs 2 thru 4	No specific exclusions apply

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship Velocity and Impel Custom Chassis

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.
Warranty Period Ends After:	Three (3) Years, or 30,000 Miles, or 5000 Engine Hours
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies, where applicable, to Goldstar lamination, defroster heater coil and motor blower assembly (excluding the FET PWM module), heater, air conditioning condenser coil and fan/motor assembly, air conditioning evaporator coil and motor blower assembly (excluding the drain pan pump and thermostat), under seat heaters coil and motor blower assembly (excluding the FET PWM module), HVAC electronic switches, HVAC hoses and hard lines, heater water valve, Pierce PS6 seat frames and hardware, Pierce One-Eleven mirrors, Pierce hands-free scba holder, cracking or color loss of roto-molded components, Meritor rear axle, Wabco ABS system, cab door handles, Standen spring suspension components, and the gauge instrument cluster.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

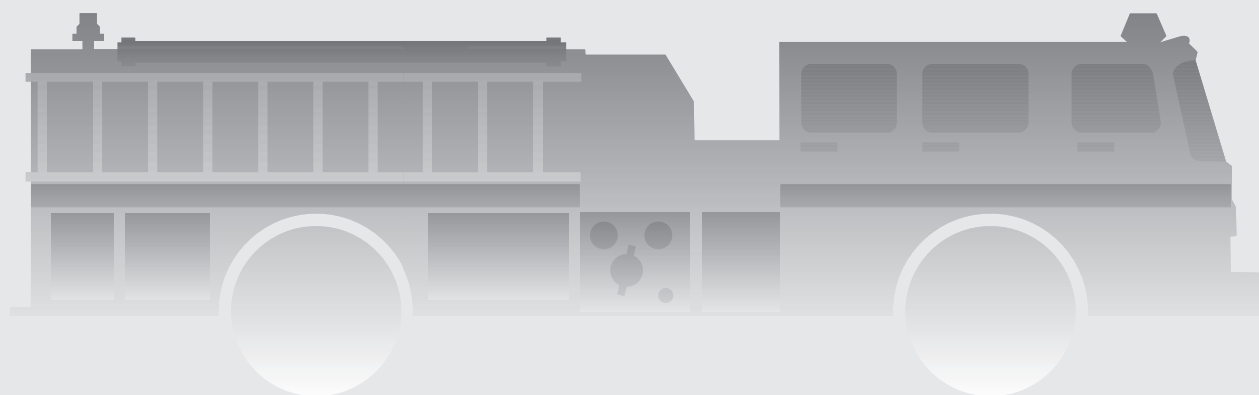
Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Cummins Warranty

Worldwide

Fire Apparatus/Crash Trucks



Coverage

Products Warranted

This Warranty applies to new diesel Engines sold by Cummins and delivered to the first user on or after April 1, 2007, that are used in fire apparatus truck and crash truck* applications Worldwide.

Base Engine Warranty

The Base Engine Warranty covers any failures of the Engine which result, under normal use and service, from a defect in material or factory workmanship (Warrantable Failure). This Coverage begins with the sale of the Engine by Cummins and ends five years or 100,000 miles (160,935 kilometers), whichever occurs first, after the date of delivery of the Engine to the first user.

Engine aftertreatment components included in the Cummins Critical Parts List (CPL) and marked with a Cummins part number are covered under Base Engine Warranty.

Additional Coverage is outlined in the Emission Warranty section.

These Warranties are made to all Owners in the chain of distribution and Coverage continues to all subsequent Owners until the end of the periods of Coverage.

Cummins Responsibilities

Cummins will pay for all parts and labor needed to repair the damage to the Engine resulting from a Warrantable Failure.

Cummins will pay for the lubricating oil, antifreeze, filter elements, belts, hoses and other maintenance items that are not reusable due to the Warrantable Failure.

Cummins will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Cummins will pay reasonable costs for towing a vehicle disabled by a Warrantable Failure to the nearest authorized repair location. In lieu of the towing expense, Cummins will pay reasonable costs for mechanics to travel to and from the location of the vehicle, including meals, mileage and lodging when the repair is performed at the site of the failure.

Owner Responsibilities

Owner is responsible for the operation and maintenance of the Engine as specified in Cummins Operation and Maintenance Manuals. Owner is also responsible for providing proof that all recommended maintenance has been performed.

Before the expiration of the applicable Warranty, Owner must notify a Cummins distributor, authorized dealer or other repair location approved by Cummins of any Warrantable Failure and make the Engine available for repair by such facility. Except for Engines disabled by a Warrantable Failure, Owner must also deliver the Engine to the repair facility.

Service locations are listed on the Cummins Worldwide Service Locator at cummins.com.

Owner is responsible for the cost of lubricating oil, antifreeze, filter elements and other maintenance items provided during Warranty repairs unless such items are not reusable due to the Warrantable Failure.

Owner is responsible for communication expenses, meals, lodging and similar costs incurred as a result of a Warrantable Failure.

Owner is responsible for non-Engine repairs and for "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs and other losses resulting from a Warrantable Failure.

Owner is responsible for a \$100 (U.S. Dollars) deductible per each service visit under this plan in the 3rd, 4th and 5th years of Base Engine Warranty. The deductible will not be charged during the first 2 years of the Base Engine Warranty.

Limitations

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel



exhaust fluid.

This Warranty does not apply to accessories supplied by Cummins which bear the name of another company. Such non-warranted accessories include, but are not limited to: alternators, starters, fans, air conditioning compressors, clutches, filters, transmissions, torque converters, vacuum pumps, power steering pumps, fan drives and air compressors. Cummins branded alternators and starters are covered for the first two years from the date of delivery of the Engine to the first user, or the expiration of the Base Engine Warranty, whichever occurs first.

Failures resulting in excessive oil consumption are not covered beyond the duration of the Coverage or 100,000 miles (160,935 kilometers) or 7,000 hours from the date of delivery of the Engine to the first user, whichever of the three occurs first. Before a claim for excessive oil consumption will be considered, Owner must submit adequate documentation to show that consumption exceeds Cummins published standards.

Failures of belts and hoses supplied by Cummins are not covered beyond the first year from the date of delivery of the Engine to the first user or the duration of the Warranty, whichever occurs first.

Parts used to repair a Warrantable Failure may be new Cummins parts, Cummins approved rebuilt parts or repaired parts. Cummins is not responsible for failures resulting from the use of parts not approved by Cummins.

A new Cummins or Cummins approved rebuilt part used to repair a Warrantable Failure assumes the identity of the part it replaced and is entitled to the remaining Coverage hereunder.

Cummins Inc. reserves the right to interrogate Electronic Control Module (ECM) data for purposes of failure analysis.

CUMMINS DOES NOT COVER WEAR OR WEAROUT OF COVERED PARTS.

CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY AND THE EMISSION WARRANTY SET FORTH HEREINAFTER ARE THE SOLE WARRANTIES MADE BY CUMMINS IN REGARD TO THESE ENGINES. CUMMINS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Emission Warranty

Products Warranted

This Emission Warranty applies to new Engines marketed by Cummins that are used in the United States** in vehicles designed for transporting persons or property on a street or highway. This Warranty applies to Engines delivered to the first user on or after September 1, 1992.

Coverage

Cummins warrants to the first user and each subsequent purchaser that the Engine is designed, built and equipped so as to conform at the time of sale by Cummins with all U.S. federal emission regulations applicable at the time of manufacture and that it is free from defects in material or factory workmanship which would cause it not to meet these regulations within the longer of the following periods: (A) Five years or 100,000 miles (160,935 kilometers) of operation, whichever occurs first, as measured from the date of delivery of the Engine to the first user or (B) The Base Engine Warranty.

If the vehicle in which the Engine is installed is registered in the state of California, a separate California Emission Warranty also applies.

Limitations

Failures, other than those resulting from defects in material or factory workmanship, are not covered by this Warranty.

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel exhaust fluid.

Cummins is not responsible for non-Engine repairs, "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs or other losses resulting from a Warrantable Failure.

**CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL
OR CONSEQUENTIAL DAMAGES.**

* Airport operated crash trucks and fire department
operated trucks employed to respond to fires,
hazardous material releases, rescue and other
emergency-type situations.

** United States includes American Samoa, the
Commonwealth of Northern Mariana Islands, Guam,
Puerto Rico and the U.S. Virgin Islands.



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R. H. SHEPPARD CO., INC.

101 Philadelphia St.

Hanover, PA 17331

Pierce Manufacturing Inc.

2600 American Drive

Appleton, WI 54912

LIMITED WARRANTY: The R. H. Sheppard Co. Inc., ("Sheppard") warrants all M110PKG1 and M110SAU1 steering gears manufactured and sold to Pierce Manufacturing Inc. ("Pierce") for application on Pierce TAK-4 equipped vehicles to be free from defects of workmanship and material under normal use and service for a period of thirty six months from the in service date of the vehicle to its original owner.

Vehicle applications where Sheppard product is used require an application approval before production build. If Pierce uses Sheppard product for any purpose or application which has not been approved by Sheppard in advance, including aftermarket devices (defined as a device added to the steering system directly or indirectly affecting the performance or operation of the Sheppard product in its approved application) not tested and approved by Sheppard this limited warranty SHALL NOT APPLY AND SHALL BE VOID. SHEPPARD MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED. SHEPPARD EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

SHEPPARD SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PRODUCT. Pierce expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

CONDITIONS: Claims under this Limited Warranty may only be made by Pierce. In no event shall Sheppard be held liable for warranty charges by unauthorized persons. No allowance will be made for repairs or alterations, unless made with the written consent of Sheppard. Authorized Pierce dealers shall be the only authorized repair facility for Sheppard products applied to Pierce vehicles. Any warrantable repair made under this Limited Warranty must be made on or before 36 months of the in-service date for the Product to which the claim relates. Sheppard shall not be liable for claims made after such date. Sheppard product fitted to Pierce vehicles that are repaired at a repair facility other than an authorized Pierce dealer within the warranty period will be considered for payment under the guidelines of this agreement only by joint written consideration of Sheppard and Pierce warranty departments. It shall be the responsibility of the Pierce warranty department to notify Sheppard if and when this situation occurs. Sheppard will not be held responsible for damage to other steering components such as but not limited to pumps and reservoirs due to improper adjustment of steering gear relief plungers. Vehicle downtime and towing will not be considered under warranty.

REMEDIES: The sole and exclusive remedy of Pierce for Sheppard's breach of the foregoing warranty is limited to the return and repair or reimbursement as follows:

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
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Warranty Support: In support of the Pierce dealer network, Sheppard will provide a toll-free "Hotline" service to assist in the diagnosis and troubleshooting of steering problems. The R. H. Sheppard Co., Inc. Field Service Department can be reached at 1-800-274-7437 for assistance. Sheppard will require that Pierce dealers contact this toll-free "Hotline" for approval before product is removed from a vehicle in a warranty situation. When contacted regarding a warranty situation, the Sheppard representative will provide an authorization number for removal of the product. This Returned Goods Authorization (RGA) number must be included in all warranty correspondence and attached to all returned goods.

Procedure: In the event of a warranty situation, the servicing dealer shall contact the Sheppard Hotline and receive an RGA number before replacing any steering gear. For M110PKG1 and M110SAU1 steering gear models, the dealer will first obtain an RGA number from Sheppard, and then order the replacement gear from Pierce. Replacement M110PKG1 and M110SAU1 steering gears shall be shipped from Pierce once those models are in full production. A warranty claim for both parts and labor will then be generated by the dealer and sent to Pierce. After reviewing the claim, Pierce will submit it to Sheppard for reimbursement.

Parts Reimbursement: Sheppard agrees to reimburse Pierce at Pierce's purchase price plus 30% mark-up for parts found to be defective within the warranty period. Parts being returned for warranty consideration shall be sent to the R. H. Sheppard Company, 447 E. Middle St., Hanover, PA 17331 ATTN: Warranty Dept. Sheppard's determination as to whether the part is covered by the foregoing warranty is final and conclusive. Sheppard requires the return of complete steering gears only. Individual seals replaced under warranty **should not** be returned unless specifically requested by Sheppard. All parts being returned for warranty consideration must be clearly tagged with all pertinent warranty information including, but not limited to (1) Returned Goods Authorization number (RGA); (2) claim number; (3) date in service; (4) date of failure; (5) mileage; (6) part number; (7) labor hours; (8) dealer labor rate and; (9) dollar amount claimed. Claims submitted without prior authorization are subject to rejection under this agreement.

Labor: Labor to repair Sheppard product found to be defective within the warranty period will be reimbursed at not more than 10 hours per vehicle. Labor shall be reimbursed at the rate of \$85.00 USD per hour for M110PGK1 and M110SAU1 steering gears.

Freight: Pierce will collect M110PGK1 and M110SAU1 warranty material at a designated collection point. Inbound freight to the Pierce collection point will be the responsibility of Pierce. All warranty material should be returned from the Pierce collection point to R. H. Sheppard Co. Freight Collect by a Sheppard-specified common carrier based on location of the Pierce collection point. Sheppard does not require the return of failed seals. Any freight charges incurred for the return of seals will be the responsibility of Pierce. Parts returned for warranty consideration without prior authorization are subject to rejection under this agreement and may be subject to a charge back of inbound freight charges. Parts rejected under this warranty will be returned to Pierce Freight Collect or scrapped by Sheppard at Pierce's discretion.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
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Outside Purchases: Pierce authorized dealers shall be the only outlet for repair, warranty service and parts for Sheppard products applied to Pierce vehicles. Sheppard will not be responsible for consumables such as hoses, belts, fluids, fittings or miscellaneous shop material that may be required for the repair of the product.

Warranty Documentation: Warranty credit memos will be issued monthly to the Pierce Warranty Department. Monthly credit memos will include (1) claim number; (2) part number; (3) parts reimbursement; (4) labor reimbursement; (5) any applicable Pierce reference number and; (6) reason for rejection or acceptance of the claim. Credit memos will be issued in U.S. funds. Debits for warranty claims will not be accepted under this agreement. Claim disposition will constitute the final and conclusive resolution of warranty claims.

Parts Retention: Sheppard will retain parts submitted for warranty consideration for a period of sixty (60) days for any material found to be rejected for warranty. Sheppard will notify Pierce within sixty (60) days of receipt of Sheppard's determination as to whether any such part is covered by this warranty. Warranty reimbursement will be issued within thirty days of receipt of material at Sheppard.

Good-Will Requests: Good-Will requests will be considered jointly between Sheppard and Pierce for equitable compensation.

RECALLS: Sheppard retains the right to review information regarding federal motor vehicle recall and /or product repair programs if Sheppard products fitted to Pierce vehicles are alleged to be non-compliant with federal motor vehicle safety standards. Sheppard retains the right to review any claims of product defect or non-compliance before participating in reimbursement of expenses incurred as a result of alleged non-compliance or defect of its products. Sheppard agrees to negotiate in good faith for the reimbursement of expenses incurred by Pierce for all administrative, material and labor cost and expense associated with any recall where Sheppard product is found to be defective or non-compliant with federal motor vehicle standards.

MISCELLANEOUS: This writing constitutes the full complete and final statement of Sheppard's limited warranty for M110PKG1 and M110SAU1 products sold to Pierce. All prior oral or written correspondence, test data, negotiations, representations, understandings and the like regarding products are merged in this writing and extinguished by it. This limited warranty may not be altered, amended extended or modified except by a writing signed by the President or Vice President of Sheppard. No employee, vendor, dealer, distributor or other representative of Sheppard has authority to make statements to extend, expand, alter or amend the terms of this Limited Warranty. Sheppard expressly disclaims any statements contrary to the Limited Warranty. Sheppard's failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any provisions herein. This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 4

Any legal actions which may arise as a result of disputes, controversies or claims arising out of or related to this limited warranty shall be in such forum as Sheppard and Pierce shall agree, or, in the absence of agreement, in a court of appropriate jurisdiction other than in the county in which either party is located. This Limited Warranty shall not be assigned by Pierce.

COOPERATIVE EFFORT: Sheppard and Pierce agree to work cooperatively toward expanding this warranty coverage to a period of sixty months from the in service date. These cooperative efforts shall focus on examining the effects of increased heat generated by 2007 model engines and its impact on the entire power steering system.

AGREEMENT: This agreement is effective April 3, 2006 and may be modified by mutual agreement between Sheppard and Pierce of a signed amendment to be attached to the original Limited Warranty. There are no third party beneficiaries to this Limited Warranty. This warranty agreement applies to Pierce authorized dealers only. It does not encompass any special arrangements that Pierce may now have or that Pierce may enter into, with any other segments of the trucking industry. This warranty agreement does not apply to non-conforming product removed at Pierce assembly plants.

This Limited Warranty agreement between the R. H. Sheppard Co., Inc and Pierce Manufacturing Inc. may be terminated by either party with thirty days written notice prior to termination.

Signed at Pierce Manufacturing Inc., Appleton, WI this _____ day of _____, 2006.

R. H. SHEPPARD CO., INC.

PIERCE MANUFACTURING INC.

Authorized Signature

Authorized Signature

Title

Title



Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity Chassis Frame & Crossmembers

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Custom chassis frame rail and cross members manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Fifty (50) Years (Expected Life of Apparatus)
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship TAK-4 Independent Front Suspension

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The TAK-4 Front Independent Suspension and Steering Gears shall be free from defects in material and workmanship.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Years -or- 30,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty excludes brake pads, brake rotors, seal boots and shock absorbers.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus



SUPPLIER

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	The Meritor axle shall be covered by Meritor as indicated in the attached Meritor warranty coverage description
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Five (5) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	The exclusions listed in the attached Meritor warranty description shall apply.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

CUMMINS-MERITOR COMMERCIAL VEHICLE SYSTEMS WARRANTY

COVERAGE FOR THE
UNITED STATES AND CANADA
MODEL YEAR 2024 VEHICLES



Meritor

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How to Read Warranty Coverage

Number of Years	Mileage (in thousands) Unl = Unlimited	P = Parts Only P&L = Parts and Labor
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Notice:

Models or components that are approved for use by Cummins-Meritor’s vocational guidelines contained in Cummins-Meritor publication TP-9441 for axles, SP-8320 for trailer axles and TP-12126 for drivelines, or any other products that have an application approval completed with Cummins-Meritor which are not specifically listed, are warranted for one year, unlimited miles, parts only (1/Unl/P).

Products purchased on an incomplete vehicle (glider) are limited to one year, unlimited miles, parts only (1/Unl/P).

Advantage Program

Purchasing additional coverage on select components will continue to safeguard your investment against major repair costs after the initial base coverage expires. You can find out more about the Advantage Program by visiting meritor.com or by contacting Cummins-Meritor at **866-OnTrac1 (866-668-7221)**.

LINEHAUL WARRANTY INFORMATION

Vocational Definition of Linehaul

- Long distance hauling of food, goods and finished materials
- Not included are raw ferrous materials, minerals (except oil), sand, gravel, stone, rocks, topsoil, waste or logs
- Linehaul includes turnpike and hub & spoke

Linehaul Vehicles

- Auto Hauler¹
- Bulk Hauler¹
- Chip Hauler^{1,2}
- Doubles
- Flatbed
- General Freight
- Grain Hauler¹
- Livestock Hauler
- Moving Van
- Pipe Hauler
- Refrigerated Freight
- Tanker¹
- Triples

¹ Cummins-Meritor classifies these vehicle types as high center of gravity, which require special axle housing considerations.

² Chip Hauler vehicles require specific axle models listed below and Linehaul condition to be eligible for Linehaul warranty consideration.

Linehaul Typically Is:

- High mileage operation (over 60,000 miles/year)
- Greater than 30 miles between starts and stops
- Maximum grades of 12%
- Well maintained highways of concrete or asphalt construction (100% on-road)
- Category A job sites, terminals, docks and transfer sites (defined as pavement, concrete or maintained and hard packed gravel).

Note: Category B job sites, terminals, docks, transfer sites (defined as loose or unmaintained sand, dirt or gravel; landfill; farm field; mud; or other similar surfaces) are **NOT** approved for certain linehaul axle models.

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/750/P&L

FD-965	MFS-10-144A-N	MFS-12-143A-N	MFS-13B-132B-N	MFS-14G-132B-N
FF-941	MFS-12-122A-N	MFS-12E-143A-N	MFS-13B-132C-N	MFS-14-132C-N
FF-942	MFS-12-122B-N	MFS-12-144A-N	MFS-14-122A-N	MFS-14F-132C-N
FF-943	MFS-12-122C-N	MFS-13-122A-N	MFS-14-122B-N	MFS-14G-132C-N
FF-944	MFS-12E-122A-N	MFS-13-122B-N	MFS-14F-122B-N	MFS-14-142B-N
FF-961	MFS-12E-122B-N	MFS-13-122C-N	MFS-14G-122B-N	MFS-14F-142B-N
FF-966	MFS-12E-122C-N	MFS-13-132B-N	MFS-14-122C-N	MFS-14G-142B-N
FF-967	MFS-12-124A-N	MFS-13-132C-N	MFS-14F-122C-N	MFS-14-142C-N
FG-941	MFS-12-132B-N	MFS-13-143A-N	MFS-14G-122C-N	MFS-14F-142C-N
FG-943	MFS-12-132C-N	MFS-13-144A-N	MFS-14-124A-N	MFS-14G-142C-N
MFS-10-122A	MFS-12E-132B-N	MFS-13B-122B-N	MFS-14-132B-N	MFS-14-143A-N
MFS-10-143A-N	MFS-12E-132C-N	MFS-13B-122C-N	MFS-14F-132B-N	MFS-14-144A-N

Rear Drive Single Axles – 5/750/P&L

MS-19-14X	MS-23-17H ^{1,2}	RS-23-160	RS-23-185
RS-21-160	MS-23-17X ²	RS-23-161	RS-23-186

¹ Not approved for use in any Category B job sites, terminals, docks or transfer sites.

² Recommend 11 mm minimum wall thickness for these models used in combination with high center of gravity vehicles and trailing arm suspensions or vehicles operating mainly in Canada.

LINEHAUL WARRANTY INFORMATION

Rear Drive Tandem/Tridem Axles – 5/750/P&L

RT-40-160/P ^{1,2}	RZ-166 ²	MA-40-17H ³	MT-34-14X/P ⁴	MT-40-14X/P ⁴
RT-46-160/P ^{1,2}	RT-50-160/P ^{1,2}	RZ-188	MT-40-14T/P	MT-40-14H/E ^{3,4}
RT-46-164/P ^{1,2}	MA-40-165	MA-40-175	MT-40-14X/P ⁴	

¹ These models required for Chip Hauler and Linehaul warranty consideration.

² Each vehicle must have a Request for Application Recommendation (RAR) approved by Cummins-Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

³ Not approved for use in any Category B job sites, terminals, docks or transfer sites.

⁴ Recommend 11 mm minimum wall thickness for these models used in combination with high center of gravity vehicles and trailing arm suspensions or vehicles operating mainly in Canada.

Trailer Axles¹

Beam and Brackets	5/500/P, 1/100/L
TPX3000 Axle Series ²	10/Unl/P, 1/Unl/L
Wheel End Systems ³	
Standard System ⁴	1/100/P&L
AxlePak5	5/Unl/P&L
AxlePak7 ⁵	7/Unl/P&L

¹ For brake components and ABS coverage, refer to appropriate product warranties.

² Structural components only excluding spindle wear. Spindle wear is 5/Unl/P, 1/Unl/L.

³ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

⁴ When installed by Cummins-Meritor.

⁵ When specified with AxlePak7 wheel end system, coverage on Meritor Tire Inflation System (MTIS) thru-tee and stator is 7/Unl/P, 1/Unl/L.

TAG/Pusher Axles¹

TQ, TR Beam and Brackets	5/750/P&L
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¹ For brake components and ABS coverage, refer to appropriate product warranties.

Trailer Mechanical Suspension Systems¹

IMS40 (Integrated Mechanical Suspension – Tandem) ²	1/Unl/P&L
IMS20 (Integrated Mechanical Suspension – Single) ²	1/Unl/P&L

¹ For axle coverage, refer to appropriate product warranties.

² All other suspension components refer to appropriate manufacturer's warranty.

Trailer Air Suspension Systems

MPA40 (Tandem Axle Parallelogram) ¹	
Major Structural Components	5/500/P, 1/100/L
Curbing Damage Warranty ²	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/Unl/P, 3/Unl/L
PinLoc Air Controls	1/100/P&L
PinLoc Actuator	3/300/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/Unl/P, 3/Unl/L
MTA and MTA-Tec6 Trailing Arm Suspension System	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/500/P, 3/300/L
Shock Absorbers	2/200/P&L
Lift Kit System	1/100/P&L

¹ Fastener torque coverage is limited to 2/Unl/P&L when torqued by Cummins-Meritor (For axle and ABS coverage, refer to appropriate product warranties.)

² "Curbing damage" is defined as deformation (bending, buckling or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding sub-frame consisting of the frame rails, cross-members and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferable to another trailer VIN and coverage does not apply if the trailer is deemed to be a total loss, scrapped or otherwise not salvageable.

LINEHAUL WARRANTY INFORMATION

Brake Components

Cam Q Series Trailer Brakes	5/500/P, 1/100/L
Q+ Drum Brake™ ¹	5/500/P, 1/Unl/P&L
ASA	5/500/P, 1/Unl/P&L
Hubs/Cast Drums and Other Wheel-End Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ²	12-Years or Wearable Life/P
EX+ L and EX+LS Air Disc Brake™ ³	5/500/P, 1/Unl/L
EX+L Air Disc Brake Extended Standard Warranty ^{3,4}	5/500/P&L

¹ For Trailer only, 3/300/P against rust jacking when equipped with Platinum Shield III.

² Based on stamped wear diameter max.

³ Warranty coverage for boots, seals, caps, bushings and pins is 2/200/P. Warranty coverage for pads is 1/100/P.

⁴ Applies only to calipers using friction: MA9300 (EX225LXXXCGXXX).

Drivelines

RPL	5/500/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
92N	1/Unl/P

Meritor Tire Inflation System (MTIS)

MTIS Components	5/Unl/P, 1/Unl/L
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GENERAL SERVICE WARRANTY INFORMATION

General Service Vehicles

- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler
- Cross Country Coach
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Newspaper Delivery
- Pick-Up and Delivery
- Pipe Hauler
- Platform Auto Hauler
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Trailer
- Tour Bus
- Wrecker

General Service Typically Is:

- Typically, moderate mileage operation (less than 60,000 miles/year)
- An average of 3 to 30 miles between starts and stops
- Maximum grades of 12%
- Generally, on-road service (less than 10% off-road allowed)
- Category A job sites, terminals, docks and transfer sites (defined as pavement, concrete or maintained and hard packed gravel) or Category B job sites, terminals, docks and transfer sites (defined as loose or unmaintained sand, dirt or gravel; landfill; farm field; mud, or other similar surfaces)

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 2/Uni/P&L

FD-965	MFS-7-113C-N	MFS-12-132C-N	MFS-14G-122B-N	MFS-16-122A-N
FF-941	MFS-7-153C-N	MFS-12E-132C-N	MFS-14-122C-N	MFS-16-133A-N
FF-942	MFS-7-163C-N	MFS-12-143A-N	MFS-14F-122C-N	MFS-16-135A-N
FF-943	MFS-8-113B-N	MFS-12-144A-N	MFS-14G-122C-N	MFS-16-143A-N
FF-944	MFS-8-143A-N	MFS-12E-143A-N	MFS-14-124A-N	MFS-18-133A-N
FF-946	MFS-8-153B-N	MFS-13-122A-N	MFS-14-132B-N	MFS-18-135A-N
FF-961	MFS-8-163B-N	MFS-13-122B-N	MFS-14F-132B-N	MFS-18-193A-N
FF-966	MFS-10-122A	MFS-13B-122B-N	MFS-14G-132B-N	MFS-20-133A-N
FF-967	MFS-10-143A-N	MFS-13-122C-N	MFS-14-132C-N	MFS-20-135A-N
FG-941	MFS-10-144A-N	MFS-13B-122C-N	MFS-14F-132C-N	MFS-20-192A-N
FH-941	MFS-12-122A-N	MFS-13-132B-N	MFS-14G-132C-N	MFS-20-193A-N
FH-946 ¹	MFS-12E-122A-N	MFS-13-132C-N	MFS-14-142B-N	MFS-22-135A-N
FL-941	MFS-12-122B-N	MFS-13B-132B-N	MFS-14F-142B-N	MFS-22H-135A-N
FL-943	MFS-12E-122B-N	MFS-13B-132C-N	MFS-14G-142B-N	MFS-22-193A-N
MFS-6-151A-N	MFS-12-122C-N	MFS-13-143A-N	MFS-14-142C-N	MFS-22H-193A-N
MFS-6-153B-N	MFS-12E-122C-N	MFS-13-144A-N	MFS-14F-142C-N	
MFS-6-162B-N	MFS-12-124A-N	MFS-14-122A-N	MFS-14G-142C-N	
MFS-6-153C-N	MFS-12-132B-N	MFS-14-122B-N	MFS-14-143A-N	
MFS-6-162C-N	MFS-12E-132B-N	MFS-14F-122B-N	MFS-14-144A-N	

¹ Can also be used with reduced steer angles in tag position in Coach applications.

GENERAL SERVICE WARRANTY INFORMATION

Rear Drive Single Axles – 2/Unl/P&L

MS-17-13X	MS-21-14X	RC-23-162 ¹	RS-23-186	MS-26-616-SP
MS-17-14X	MS-23-17X	RC-23-165 ¹	RS-24-160	RS-30-185
MS-19-13X	RS-21-160	RS-23-160	RC-25-160	MS-30-616
MS-19-14X	RC-23-160	RS-23-161	RS-26-185	MS-30-616-SP
MS-21-13X	RC-23-161	RS-23-185	MS-26-616	RS-35-380

¹ 3/Unl/P&L if PreSet by Cummins-Meritor.

Rear Drive Tandem/Tridem Axles – 2/Unl/P&L

MT-34-14X/P	MT-44-14X/P	RT-52-185 ¹	MT-70-380
MT-40-14T/P	RT-46-169	MT-58-616	RZ-188
MT-40-14X/P	MT-52-616	RT-58-185 ¹	

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Cummins-Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Rear Drive Tandem/Tridem – 3/Unl/P&L

RT-40-160/P	RT-46-160/P	RT-46-164/P	RT-50-160/P	RZ-166
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Rear Drive Axles – 1/Unl/P&L

RND-14H	RND-16A
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Brake Components

Cam Q Series Trailer Brakes ¹	3/Unl/P, 1/Unl/L
Cam P ²	2/200/P
Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
Q+ Drum Brake™ ^{1,2}	2/200/P&L
ASA	3/Unl/P
ASA ²	2/200/P
Hubs/Cast Drums and Other Wheel-End Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ³	12-Years or Wearable Life/P
EX+ Air Disc Brake™ ⁴	2/Unl/P&L

¹ For Trailer only, 3/300/P against rust jacking when equipped with Platinum Shield III or Chassis Protect.

² Applies to Tour Bus and Cross Country Coach only.

³ Based on stamped wear diameter max.

⁴ Warranty coverage for boots, seals, caps, bushings and pins is 2/200/P. Warranty coverage for pads is 1/100/P.

Drivelines

RPL	4/400/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
92N	1/Unl/P

PTO – 1/Unl/P&L

MPT-170	MPT-185	MPT-500	MPT-1702
MPT-180	MPT-309	MPT-518	

GENERAL SERVICE WARRANTY INFORMATION

Trailer Axles¹

Beam and Brackets ²	5/Unl/P, 1/Unl/L
TPX4000 Axle Series ³	10/Unl/P, 1/Unl/L
Wheel End Systems ⁴	
Standard System ⁵	1/Unl/P&L
AxlePak5	5/Unl/P&L
AxlePak7 ⁶	7/Unl/P&L
AxlePak10 ⁷	10/Unl/P&L

¹ For brake components and ABS coverage, refer to appropriate product warranties.

² 9000 Series is 3/Unl/P, 1/Unl/L

³ Structural components only excluding spindle wear. Spindle wear 5/Unl/P, 1/Unl/L.

⁴ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

⁵ When installed by Cummins-Meritor.

⁶ When specified with AxlePak7 wheel end system, coverage on Meritor Tire Inflation System (MTIS) thru-tee and stator is 7/Unl/P, 1/Unl/L.

⁷ AxlePak10 is limited to Intermodal Chassis applications equipped with TPX4000 series axles.

TAG/Pusher Axles¹

TQ, TR Beam and Brackets	3/Unl/P, 1/Unl/L
MC14002, MC16003, FH946 ²	2/Unl/P&L

¹ For brake components coverage, refer to appropriate product warranties.

² 3/Unl/P&L if sold with PreSet by Cummins-Meritor.

Meritor Tire Inflation System (MTIS)

MTIS Components	5/Unl/P, 1/Unl/L
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Trailer Mechanical Suspension Systems¹

IMS40 (Integrated Mechanical Suspension – Tandem) ²	1/Unl/P&L
IMS20 (Integrated Mechanical Suspension – Single) ²	1/Unl/P&L

¹ For axle coverage, refer to appropriate product warranties.

² All other suspension components refer to appropriate manufacturer's warranty.

Trailer Air Suspension Systems¹

MPA40 (Tandem Axle Parallelogram) ²	
Major Structural Components	5/Unl/P, 1/Unl/L
Curbing Damage Warranty ³	5/500/P, 1/100/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
PinLoc Air Controls	1/Unl/P&L
PinLoc Actuator	3/Unl/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs and Rebound Straps	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
MTA and MTA-Tec6 Trailing Arm Suspension System	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings ⁴	5/Unl/P, 3/Unl/L
Shock Absorbers	2/Unl/P&L
Lift Kit System	1/Unl/P&L

¹ For axle coverage, refer to appropriate product warranties.

² Fastener torque coverage is limited to 2/Unl/P&L when torqued by Cummins-Meritor.

³ "Curbing damage" is defined as deformation (bending, buckling or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding sub-frame, consisting of the frame rails, cross-members and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or damage resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferable to another trailer VIN and coverage does not apply if the trailer is deemed to be a total loss, scrapped or otherwise not salvageable.

⁴ Raw wood applications 3/Unl/P, 1/Unl/L

HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Heavy Service/Specialty Vehicles

- Airport Rescue Fire Fighting (ARFF)
- Airport Shuttle¹
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer Combination
- Cementing Vehicle
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Mixer
- Demolition
- Drill Rig
- Dump
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Train
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Rear Loader (Refuse)
- Recycling Truck
- Residential Pick-Up (Refuse)
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus¹
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Utility Truck
- Winch Truck

¹ Commercial chassis only

Heavy Service/Specialty Vehicle Typically Is:

- Moderate mileage operation (less than 60,000 miles per year)
- On/off-road vocations (10% or more off-road)
- Moderate to frequent stops/starts (up to 10 stops per mile)
- An average of three (3) miles between starting and stopping

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 2/Uni/P&L

FD-965	MFS-7-113C-N	MFS-12E-132C-N	MFS-14G-122B-N	MFS-16-122A-N
FF-941	MFS-7-153C-N	MFS-12-143A-N	MFS-14-122C-N	MFS-16-133A-N
FF-942	MFS-7-163C-N	MFS-12-144A-N	MFS-14F-122C-N	MFS-16-135A-N
FF-943	MFS-8-113B-N	MFS-12-155	MFS-14G-122C-N	MFS-16-143A-N
FF-944	MFS-8-153B-N	MFS-13-122	MFS-14-124A-N	MFS-18-133A-N
FF-946	MFS-8-163B-N	MFS-13-122B-N	MFS-14-132B-N	MFS-18-135A-N
FF-961	MFS-10-122A	MFS-13B-122B-N	MFS-14F-132B-N	MFS-18-192A-N
FF-966	MFS-10-143A-N	MFS-13-122C-N	MFS-14G-132B-N	MFS-18-193A-N
FF-967	MFS-10-144A-N	MFS-13B-122C-N	MFS-14-132C-N	MFS-20-133A-N
FG-941	MFS-12-122	MFS-13-132B-N	MFS-14F-132C-N	MFS-20-135A-N
FG-943	MFS-12E-122	MFS-13B-132B-N	MFS-14G-132C-N	MFS-20-192A-N
FH-941	MFS-12-122B-N	MFS-13-132C-N	MFS-14-142B-N	MFS-20-193A-N
FH-946	MFS-12E-122B-N	MFS-13B-132C-N	MFS-14F-142B-N	MFS-22-135A-N
FL-941	MFS-12-122C-N	MFS-13-143A-N	MFS-14G-142B-N	MFS-22H-135A-N
FL-943	MFS-12E-122C-N	MFS-13-144A-N	MFS-14-142C-N	MFS-22-193A-N
MFS-6-151A-N	MFS-12-124A-N	MFS-13-155	MFS-14F-142C-N	MFS-22H-193A-N
MFS-6-153B	MFS-12-132B-N	MFS-14-122	MFS-14G-142C-N	RF-16-145
MFS-6-162B	MFS-12E-132B-N	MFS-14-122B-N	MFS-14-143A-N	RF-21-160
MFS-6-162C	MFS-12-132C-N	MFS-14F-122B-N	MFS-14-144A-N	

HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Front Drive Steer Axles – 2/Uni/P&L

MX-10-120	MX-12-120 EVO	MX-16-120	MX-19-140	MX-23-160
MX-10-120 EVO	MX-14-120	MX-18-120	MX-21-140	MX-23-810
MX-12-120	MX-14-120 EVO	MX-17-140	MX-21-160	

Front Drive Steer Axles – 1/Uni/P&L

MX-08-130-FV (FSD-08A)	MX-14-130-FV (FSD-14A)	MX-20-130-FV (FSD-20A)	MX-23-130-SD (SDA-2300)
MX-10-130-FV (FSD-10A)	MX-16-130-FV (FSD-16A)	MX-21-130-FV (FSD-21A)	
MX-12-130-FV (FSD-12A)	MX-18-130-FV (FSD-18A)	MX-21-130-SD (SDA-2100)	
MX-13-130-FV (FSD-13A)	MX-18-130-SD (SDA-1800)	MX-23-130-FV (FSD-23A)	

Rear Drive Axles – 2/Uni/P&L

MS-17-14X	RH-23-160	RS-23-186/380	MS-26-616-SP	RS-30-185/380
MS-19-14X	RS-23-160	RS-24-160	RS-26-185/380	MS-35-380
MS-21-14X	RC-23-161	RC-25-160	RC-26-633	RS-38-380
RS-21-160	RS-23-161	RS-25-160	MS-30-616	MT-58-616
RC-23-160	RS-23-185	MS-26-616	MS-30-616-SP	MT-58-616-SP

Rear Drive Axles – 1/Uni/P&L

RND-14H	RND-16A
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Rear Drive Tandem/Tridem Axles – 2/Uni/P&L

MT-34-14X/P	MT-44-14X/P	MT-52-616	MT-58-616	RT-70-380
MT-40-14T/P	RT-46-169	MT-52-616-SP	MT-58-616-SP	MT-70-380
MT-40-14X/P	RT-58-160	RT-52-185/380 ^{1,2}	RT-58-185/380 ^{1,2}	RZ-188

¹ Axle model designated will vary according to options and variations specified on these axles. Contact Cummins-Meritor Axle Applications Engineering for details.

² Each vehicle must have a Request for Application Recommendation (RAR) approved by Cummins-Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Rear Drive Tandem/Tridem – 3/Uni/P&L

RT-40-160/P/A ³	RT-46-160/P/A ^{1,3}	RT-46-164/P ^{2,3}	RT-50-160/P/A ³	RZ-166
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¹ U.S. only. Canadian warranty = 1/Uni/P for combination vehicles only.

² Axle model designated will vary according to options and variations specified on these axles. Contact Cummins-Meritor Axle Applications Engineering for details.

³ Each vehicle must have a Request for Application Recommendation (RAR) approved by Cummins-Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

PTO – 1/Uni/P&L

MPT-170	MPT-185	MPT-500	MPT-1702
MPT-180	MPT-309	MPT-518	

HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Drivelines

RPL	3/Unl/P, 1/Unl/P&L
92N	1/Unl/P&L
MXL	1/Unl/P&L

Transmission – 1/Unl/P&L

FAT 30

Brake Components

Cam P	3/Unl/P
Cam P	2/100/P
Cam Cast Plus™	2/100/P&L
Q+ Drum Brake™ ¹	3/Unl/P&L
Q+ Drum Brake™ ²	2/100/P&L
ASA	3/Unl/P
ASA ²	2/100/P
Hubs/Cast Drums and Other Wheel-End Components ³	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake ⁴	2/100/P&L

¹ For Trailer only, 3/300/P against rust jacking when equipped with Platinum Shield III.

² Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

³ Based on stamped wear diameter max.

⁴ Warranty coverage for boots, seals, caps, bushings and pins is 2/100/P. Warranty coverage for pads is 1/100/P.

Gearboxes – 1/Unl/P&L

MGX-402	MGX-450	MGX-466	MGX-538
MGX-423	MGX-451	MGX-479	

Transfer Cases – 1/Unl/P

MTC-2212-CV (306)	MTC-3124 (T-2119)	MTC-3312-FV (TC-270)
MTC-3106-FV (TC-137)	MTC-3203	MTC-3220-FC (TC-142)
MTC-3111 (T-2111)	MTC-3205-GV (MTC-25/RTC-25)	MTC-4206-FV (TC-38)
MTC-3112-CV (548C)	MTC-3206-FV (TC-237)	MTC-4208
MTC-3116 (T-2111 through-shaft)	MTC-3206-CS (544)	MTC-4210
MTC-3118-FV (TC-180 and TC-180-23)	MTC-3208-GV (RTC-50)	MTC-4213
MTC-3118-CV (358)	MTC-3209-GV (MTC-60/RTC-60)	
MTC-3120-FV (TC-143)	MTC-3212-CV (315 and 548B)	

Trailer Axles¹

Beam and Brackets ²	5/Unl/P, 1/Unl/L
Wheel End Systems ³	
Standard System ⁴	1/Unl/P&L

¹ For brake components coverage, refer to appropriate product warranties.

² 9000 Series is 3/Unl/P, 1/Unl/L

³ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

⁴ When installed by Cummins-Meritor.

Trailer Air Suspension Systems¹

MTA and MTA-Tec6 Trailing Arm Suspension System	
Major Structural Components ²	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Air Springs	2/200/P, 1/100/L
Bushings ²	5/500/P, 3/300/L
Shock Absorbers	2/200/P&L
Lift Kit System	1/100/P&L

¹ For axle coverage, refer to appropriate product warranties.

² Raw wood applications 3/Unl/P, 1/Unl/L

Meritor Tire Inflation System (MTIS)

MTIS Components	5/Unl/P, 1/Unl/L
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FIRE AND EMERGENCY WARRANTY INFORMATION

Fire and Emergency Vehicles

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Command Vehicle
- Crash Fire Rescue
- Pumper
- Rapid Intervention Vehicle (RIV)
- Tanker

Fire and Emergency Typically Is:

- Lower mileage operations (less than 20,000 miles/year)
- Generally, on-road service (less than 10% off-road)
- An average of three (3) miles between starting and stopping

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/Unl/P&L

FL-941	MFS-18-135A-N	MFS-20-135A-N	MFS-22H-135A-N
FL-943	MFS-18-193A-N	MFS-20-193A-N	MFS-22-193A-N
MFS-18-133A-N	MFS-20-133A-N	MFS-22-135A-N	MFS-22H-193A-N

Front Drive Steer Axles – 2/Unl/P&L

MX-19-140	MX-21-140	MX-21-160	MX-23-160	MX-23-810
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Rear Drive Single Axles – 5/Unl/P&L

RC-23-160	RS-23-185	RC-25-160	RS-35-185 ¹
RS-23-160	RS-23-186	RS-26-185	RS-25-160
RS-23-161	RS-24-160	RS-30-185	

¹ 2/Unl/P&L if PreSet by Cummins-Meritor.

Rear Drive Tandem/Tridem Axles – 5/Unl/P&L

MT-40-14X/P	RT-46-160/P	RT-50-160/P	MT-58-616
RT-40-160/P	RT-46-164/P	MT-52-616	RT-58-185 ¹
MT-44-14X/P	RT-46-169	RT-52-185 ¹	MT-70-380 ²

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Cummins-Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

² 2/Unl/P&L

Transfer Cases – 1/Unl/P

MTC-2212-CV (306)	MTC-3124 (T-2119)	MTC-3220-FC (TC-142)
MTC-3106-FV (TC-137)	MTC-3206-FV (TC-237)	MTC-4206-FV (TC-38)
MTC-3111 (T-2111 through-shaft)	MTC-3206-CS (544)	MTC-4208
MTC-3112-CV (548C)	MTC-3208-GV (RTC-50)	MTC-4210
MTC-3118-FV (TC-180 and TC-180-23)	MTC-3209-GV (MTC-60/RTC-60)	MTC-4213
MTC-3118-CV (358)	MTC-3212-CV (315 and 548B)	
MTC-3120-FV (TC-143)	MTC-3312-FV (TC-270)	

FIRE AND EMERGENCY WARRANTY INFORMATION

Brake Components

Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-End Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake™ ¹	2/Unl/P&L

¹ Warranty coverage for boots, seals, caps, bushings and pins is 2/200/P.
Warranty coverage for pads is 1/100/P.

Drivelines

RPL	4/400/P, 1/Unl/L
MXL	3/350/P, 1/Unl/L
92N	1/Unl/P

PTO – 1/Unl/P&L

MPT-170	MPT-185	MPT-500	MPT-1702
MPT-180	MPT-309	MPT-518	

TRANSIT BUS WARRANTY INFORMATION

Transit Bus Vehicles

- Airport Shuttle
- City Bus
- Commuter Coach
- Shuttle Bus
- Transit Bus
- Trolley

Transit Bus Typically Is:

- Moderate mileage operation (less than 50,000 miles per year)
- Moderate to frequent stops/starts (up to 10 stops per mile)

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/300/P&L

FH-946 FH-941¹ MFS-12-155 MFS-13-155

¹ Commuter coach only – 2/Unl/P&L

Rear Drive Single Axles – 5/300/P&L

RS-23-160 71163 RC-23-162¹ RS-21-160
 RC-23-161 79163 RC-23-165¹

¹ Commuter coach only – 2/Unl/P&L

Tag Axles – 2/Unl/P&L

MC-14002 MC-16003 FH-946

Center Non-drive Axles – 5/300/P&L

MC-26000 71063 79063

Gearboxes – 1/Unl/P&L

MGX-450 MGX-451 MGX-538

Brake Components

Cam Cast Plus™	2/100/P&L
Q+ Drum Brake™ ¹	2/100/P&L
ASA ¹	2/100/P
Hubs/Cast Drums and Other Wheel-End Components	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake ²	2/100/P&L

Drivelines

RPL	3/Unl/P, 1/Unl/L
92N	1/Unl/P&L
MXL	1/Unl/P&L

¹ Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

² Warranty coverage for boots, seals, caps, bushings and pins is 2/100/P.
 Warranty coverage for pads is 1/100/P.

OFF-HIGHWAY SERVICE WARRANTY INFORMATION

Industrial and Off-Highway Service Vehicles

- Load-On/Load-Off
- Port Tractor
- Rail Yard Spotter
- Roll-On/Roll-Off
- Stevedoring Tractor
- Trailer Spotter
- Yard Jockey
- All and Rough Terrain Cranes
- Forestry
- Material Handling
- Specialized Heavy Haul
- Excavator
- Compactor
- Fertilizer Spreader
- Snow Blower
- Mining and Specialized Mining
- Rail Car Mover
- Loader
- Tow Tractor
- Pushback Tractor

Industrial and Off-Highway Service Typically Is:

- Low mileage operation
- Low speed vehicle speed restriction
- Vehicles are not typically licensed for highway use
- Six (6) starts/stops per mile (typical)

Coverage under Cummins-Meritor's warranty require that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Contact Cummins-Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 1/Unl/P

FF - 941	FG - 941	FN - 951	MFS-20-192A-N	MFS-22-193A-N
FF - 943	FG - 943	FS-25	MFS-20-193A-N	MFS-22H-193A-N
FF - 961	FL - 941	MFS-20-133A-N	MFS-22-135A-N	MON-ZO FAMILY
FF - 966	FL - 943	MFS-20-135A-N	MFS-22H-135A-N	

Rear Drive Axles – 1/Unl/P

MT-14X ¹	RS-23-380	RS-30-185	RT-145 ¹
RS-23-186	RS-24-160	RS-30-380	RT-160 ¹

¹ 2/Unl/P for LO/LO Terminal Tractor applications

Planetary Axles – 1/Unl/P

MOB	MOE	MOH	MOT	MOZ
MOC	MOF	MOR	MOX	
MOD	MOG	MOS	MOY	

Gearboxes – 1/Unl/P&L

MGX-402	MGX-450	MGX-466	MGX-538
MGX-423	MGX-451	MGX-479	

PTO – 1/Unl/P&L

MPT-170	MPT-185	MPT-500	MPT-1702
MPT-180	MPT-309	MPT-518	

OFF-HIGHWAY SERVICE WARRANTY INFORMATION

Transfer Cases – 1/Unl/P

MTC-2212-CV (306)	MTC-3118-FV (TC-180 and TC-180-23)	MTC-3208-GV (RTC-50)
MTC-3106-FV (TC-137)	MTC-3118-CV (358)	MTC-3209-GV (MTC-60/RTC-60)
MTC-3111 (T-2111 through-shaft)	MTC-3120-FV (TC-143)	MTC-3220-FC (TC-142)
MTC-3112-CV (548C)	MTC-3124 (T-2119)	
MTC-3116 (T-2111)	MTC-3206-FV (TC-237)	

Drivelines – 1/Unl/P

RPL MXL

Transmission – 1/Unl/P&L

FAT 30

Brake Components

Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-End Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P

TERMS AND CONDITIONS

Coverage Exclusions

Product Description

All

The cost of any repairs, replacements or adjustments to a covered component (1) associated with noise; (2) resulting from the use or installation of non-genuine Cummins-Meritor components or materials; (3) due to vibration associated with improper operation or misapplication of drivetrain components; and (4) damage resulting from corrosion.

For axle assemblies supplied by Cummins-Meritor with suspension and interface brackets designed and/or attached by non-Cummins-Meritor parties, Cummins-Meritor warranty coverage does not apply to the brackets, bracket attachment methods and field issues caused by brackets or bracket attachments to any covered component unless specified in a separate OEM agreement.

Front Axles¹

Linehaul – King Pin Bushings 1yr/Unl P&L
All Other Vocations – King Pin Bushings Excluded

¹ King Pin Bushing wear excluded for all vocations.

Rear Axles

Self-contained traction equalizers and oil filters. The use of NoSPIN differentials will result in the exclusion of axle shafts from warranty considerations. NoSPIN is a product of Eaton.

ASA

Boot and bushing. Bent, broken, over-torqued, missing or otherwise damaged pawl assemblies.

Cam Brake

Brake lining wear and brake shoe “rust-jacking.”

Disc Brake

Pad wear, rotor wear.

Coverage Limitations

Product Description

All

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program. Products purchased on an incomplete vehicle (glider) are limited to one year, unlimited miles parts only (1/Unl/P).

Warranty coverage on vehicles with 1,850 lb-ft engine torque and over may be reduced on individual drivetrain components. Contact your Cummins-Meritor representative for specific details.

Front Axles

Tie rod and tie rod ends limited to 3-year/300,000-mile or published vocational coverage, whichever is less. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Cummins-Meritor.

Rear Axles

Pinion and through shaft seals limited to 3-year/300,000-mile or published vocational coverage, whichever is less, if yoke is installed by Cummins-Meritor. If yoke is not installed by Cummins-Meritor, then Cummins-Meritor does not warrant pinion seals. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Cummins-Meritor.

Rear Axles

The Cummins-Meritor breather part number A-2297-C-8765 with A-3196-J-1336 hose must be used for eligibility of any potential warranty consideration relating to contamination and/or loss of lube in axles.

Cam Brake

Limited to bracket, brake spider and camshaft structural integrity.

STEELite X30

Wearable life is up to the discard diameter of the drum.

Terms and Conditions

(1) What is Covered by this Commercial Warranty?

Meritor Heavy Vehicle Systems, LLC warrants to the owner (“Owner”) that the components listed in this publication, which have been installed by an Original Equipment Manufacturer (“OEM”) as original equipment in vehicles licensed for on-highway use, will be free from defects in material and workmanship. This warranty coverage begins only after the expiration of the OEM’s vehicle warranty for the applicable covered components. Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner or the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed elsewhere in this warranty statement.

Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Components (whether new, used or remanufactured) installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

For certain components, coverage requires the use of specific extended drain interval or synthetic lubricants. For further information about lubrication and maintenance, see Cummins-Meritor publication Maintenance Manual Number 1 and the applicable Cummins-Meritor maintenance manual for the product in question. Other conditions and limitations applicable to this warranty are detailed below.

TERMS AND CONDITIONS

(2) Designation of Vocational Use Required

To obtain warranty coverage, each Owner must notify Cummins-Meritor through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the Cummins-Meritor components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with Cummins-Meritor directly. Failure to notify Cummins-Meritor of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date.

A second Owner and each subsequent Owner must also notify Cummins-Meritor as to the intended vocational use of the vehicle. This notification can be sent directly to Cummins-Meritor or through the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use.

Coverage under Cummins-Meritor's warranty requires that the application of products be properly approved pursuant to OEM and Cummins-Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines and/or contact Cummins-Meritor regarding specific application approval questions on any product line.

(3) What is the Cost of this Warranty?

There is no charge to the Owner for this warranty.

(4) What is not Covered by this Warranty?

This warranty does not cover normal wear and tear; nor does it cover a component that fails, malfunctions or is damaged as a result of (I) improper installation, adjustment, repair or modification (including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage or vocation from that which was originally approved by Cummins-Meritor), (II) accident, natural disaster, abuse or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the axle and/or driveline capacity) or (III) improper or insufficient maintenance (including deviation from approved lubricants, change intervals or lube levels). This warranty does not cover any component or part that is not branded by Cummins-Meritor. **For vehicles that operate full or part time outside of the United States and Canada, a one year, unlimited mileage, parts only warranty (1/Unl/P) will apply.**

(5) Remedy

The exclusive remedy under this warranty shall be the repair or replacement of the defective component at Cummins-Meritor's option. Cummins-Meritor reserves the right to require that all applicable failed materials are available and/or returned to Cummins-Meritor for review and evaluation.

(6) Disclaimer of Warranty

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESSED, IMPLIED OR STATUTORY INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

(7) Limitation of Remedies

In no event shall Cummins-Meritor be liable for special, incidental, indirect or consequential damages of any kind or under any legal theory, including, but not limited to, towing, downtime, lost productivity, cargo damage, taxes or any other losses or costs resulting from a defective covered component.

(8) To Obtain Service

If the Owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either Cummins-Meritor or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM new truck and/or trailer dealer or authorized Cummins-Meritor service location. The dealer will inspect the vehicle and contact Cummins-Meritor for an evaluation of the claim. When authorized by Cummins-Meritor, the dealer will repair or replace during the term of this warranty any defective Cummins-Meritor component covered by this warranty.

(9) Entire Agreement

This is the entire agreement between Cummins-Meritor and the Owner about warranty and no Cummins-Meritor employee or dealer is authorized to make any additional warranty on behalf of Cummins-Meritor. This agreement allocates the responsibilities for component failure between Cummins-Meritor and the Owner.



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Fire and Rescue Apparatus

Three (3) Year Material and Workmanship Meritor Wabco ABS Brake System Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Meritor Wabco ABS brake system shall be covered by Meritor Wabco as indicated in the attached Meritor Wabco warranty coverage description
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	The exclusions listed in the attached Meritor Wabco warranty description shall apply.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

WARRANTY

MODEL YEAR 2021 VEHICLES



Warranty coverage is essential to protecting your investment. But understanding the full details of your coverage can be challenging. This straightforward approach allows you, our valued customer, to better understand how your specific vehicle applications will be covered in your region. Our component warranty coverage is provided according to vocation/usage categories listed below.

- Linehaul covers high mileage operation (over 60,000 miles/year) on well-maintained major highways of concrete or asphalt construction.
- General Service covers moderate mileage operations (less than 60,000 miles/year) on well-maintained public roads (less than 10 percent off-road) typically with less than three (3) stops per mile.
- Heavy Service (Vocational) covers vehicles with more than 10 percent off-road OR moderate to frequent starts/stops typically with more than three (3) stops per mile.
- Off-Highway Service covers lower mileage operations. Vehicles are not typically licensed for highway use.

How to Read Warranty Coverage (Example)

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
3	300	P

- The standard aftermarket warranty for WABCO products - including WABCO Original parts, WABCO Reman Solutions, ProVia quality aftermarket parts and WABCO retrofit solutions - is one year, parts only from in-service date when purchased from ZF distributor networks or its affiliates and/or subsidiaries.

WABCO

WARRANTY - MODEL YEAR 2021 VEHICLES

LINEHAUL/GENERAL SERVICE WARRANTY INFORMATION

LINEHAUL/GENERAL SERVICE VEHICLES

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler (Truck)
- Cross Country Coach
- Doubles
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Pipe Hauler
- Platform Auto Hauler
- Pumper
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Truck
- Triples
- Tour Bus
- Wrecker

LINEHAUL TYPICALLY IS

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction

GENERAL SERVICE TYPICALLY IS

- Moderate mileage operations (less than 60,000 miles/year)
- Well maintained public roads (less than 10% off-road)
- Less than three (3) stops per mile

WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Trailer Lift Axle Control Valve	
Trailer Control Line Filter ³	
Air Compressors (ALL) ²	2/200/P&L
Air Dryers (ALL)	3/300/P&L
Aerodynamics	
OptiFlow [®] TrailerSkirt	2/UnU/P
OptiFlow [®] Trailer Tail and AutoTail	2/UnI/P
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Electronic Braking System (EBS)	
Electronic Stability Control (ESC)	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Trailer ABS (Anti-Lock Braking System) ³	
Driveline Suspension Control	
Clutch Controls	2/200/P&L
Leveling Valves	1/100/P&L
OptiRide [®] Automated Manual Transmission (AMT)	
OptiRide [®] Electronically Controlled Air Suspension (ECAS)	3/300/P&L

WABCO Components ¹ (cont.)	
Safety	
OnGuardACTIVE [®]	3/300/P&L
OnLane [®]	
OnLaneALERT [®]	
OnSide [®]	
Trailer SafeStart [™]	
Trailer TailGUARD [™]	
Telematics	
TrailerCAST [™] Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit [™] Slack Adjuster	6/600/P
MAXXUS [™] Truck Air Disc Brake	5/500/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 17 and 19 Air Disc Brake	2/UnI/P and 1/UnI/L
Pan 22 Air Disc Brake	5/500/P and 1/L
TRISTOP [™] D Actuator w/ IBV or IRB	6/600/P
TRISTOP [™] D Actuator	3/300/P
UNISTOP [™] Actuator	2/200/P
Trailer MAXX22T [™] Air Disc Brake	5/500/P and 1/L

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

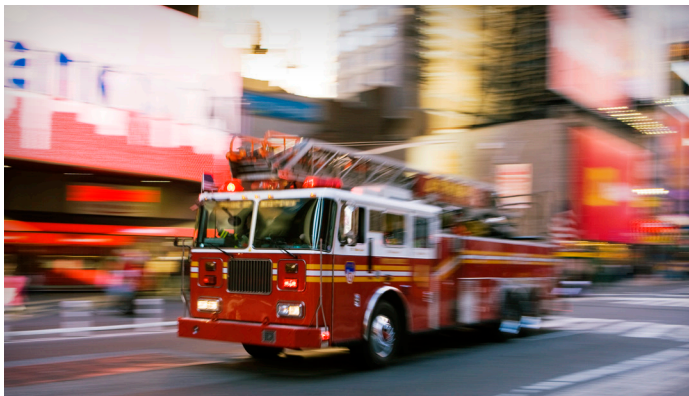
HEAVY SERVICE (VOCATIONAL) WARRANTY INFORMATION

HEAVY SERVICE VEHICLES

- Airport Rescue Fire (ARF)
- Airport Shuttle
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer Combination
- Cementing Vehicle
- City Bus
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Crash Fire Rescue (CFR)
- Mixer
- Demolition
- Drill Rig
- Dump
- Emergency Service
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Trains
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Newspaper Delivery
- Package Delivery
- Pick-up and Delivery
- Rapid Intervention Vehicle (RIV)
- Rear Loader
- Recycling Truck
- Residential Pick-Up/Waste
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Transit Bus
- Trolley
- Utility Truck
- Winch Truck

HEAVY SERVICE TYPICALLY IS

- On/Off road vocations (10% or more off-road) OR
- Moderate to frequent starts/stops typically more than three (3) stops per mile



WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Air Compressors (ALL) ²	
Air Dryers (ALL)	
Trailer Control Line Filter ³	
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	2/200/P&L
Electronic Braking System (EBS)	3/300/P&L
Electronic Stability Control (ESC)	
Trailer ABS Valve ³	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Driveline Suspension Control	
OptiRide® Electronically Controlled Air Suspension (ECAS)	2/200/P&L
Leveling Valves	1/100/P&L
Clutch Controls	2/200/P&L
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
Trailer MAXX22T™	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

WARRANTY - MODEL YEAR 2021 VEHICLES

INDUSTRIAL/OFF-HIGHWAY SERVICE WARRANTY INFORMATION

INDUSTRIAL AND OFF-HIGHWAY SERVICE TYPICALLY IS

- Low mileage operation³
- Vehicles are not typically licensed for highway use

Market	Common Application Types
Agriculture	Fertilizer Spreader, Tractor, Heavy Duty Ag Trailers, Harvester, Sprayer, Skid Loader, Silage Bagger, Slurry Wagons, Grain Cart
Airport Support	Pushback Tractor, Towing Tugs, Aircraft Tow Tractor, Refueling Trucks, Food Service Trucks, Baggage Tractors, De-Icing Equipment, Runway Clearing Equipment
Construction	All-Terrain Crane, Rough Terrain Crane, Excavator, Compactor, Wheel Loader, Road Roller, Motor Grader, Articulated Dump Truck, Rubber Tire Road Roller, Backhoe Loaders, Haul Trucks, Scraper Rough Terrain Forklifts, Trenchers, Drills
Forestry	Logging Forwarder, Kidder, Loaders, Yard Forklifts, Harvesters Fellers
Material Handling	Port Tractor, Rail Yard Spotter, Stevedoring Tractor, Trailer Spotter, Yard Jockey, Scissor Lift, Straddle Carrier, Manlift, Forklift, Boom Lift Telehandlers, Aerial Work Platforms
Mining	Specialized Mining, Excavator, Haul Truck, Underground Loader, Service Trucks, Wheel Loaders, Scrapers, Load Haul Dumps, Personnel Transports, Bolters, Scalars
Municipal	Street Sweeper, Utility Tractor, Utility Trucks, Tree Trimmers, Dump Trucks, Tow Trucks, Flat Bed Trucks, Winch Applications
Oil & Gas	Fracturing Trailer, Injector Heads, Top Drives, Jack/Lift Boats, Wireline Trucks, Load-On / Load-Off
Rail	Railcar Mover, Track Layers, Grinders, Platform Crane, Locomotive Railcars, Ballast Equipment, Winch Applications



WABCO Components ¹	
Air Management	
Air Brake Valves	2/Unl/P
Air Compressors (ALL) ²	
Air Dryers (ALL)	
Brake Actuation	
Air/Hydraulic Actuators	2/Unl/P
Master Cylinders	
Remote Actuators	
Slave and Wheel Cylinders	
Two Fluid Actuators	
Brake Locks	
Brake Locks (ALL)	2/Unl/P
Electric Brake Locks	
Lever Locks	
Braking Systems	
ABS (Anti-Lock Braking System) Air	1/100/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Driveline Suspension Control	
Clutch Controls	1/100/P&L
Leveling Valves	
Electrohydraulics & Controls	
Electronic Pedals	2/Unl/P
Electrohydraulic Brake Valves (EBV)	
Pressure Switches	
Hydraulic Braking Solutions	
Accumulator Charging Valves	2/Unl/P
Hydraulic Throttle Controls and Switches	
Modulating Brake Valves	
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
Caliper Disc Brakes	2/Unl/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
Multiple Disc Brakes	2/Unl/P
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ Equivalent hours of service limit: 2,000 hours for all components.

TERMS AND CONDITIONS

COVERAGE EXCLUSIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

This Warranty shall not apply to the following, but not limited to: (1) damage to the product or its component parts caused by incorrect use, installation, maintenance or repair, including without limitation (a) improper fit of mating components or brackets, damaged threads, cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (b) sensors damaged during removal when seized in block, or associated with sensor adjustments/ alignments, and (c) damage resulting from the use or installation of non-genuine WABCO components or materials; (2) damage to the product, its component parts, or diminished product or component part performance due to incorrect operation, deviation from approved conditions or misapplication; (3) any unauthorized disassembly of the product or its component parts including without limitation (a) obliterated, defaced or missing WABCO or WABCO name plate, serial numbers or label identifying the device as a ZF product or WABCO component, (b) changes to sealed adjusting screws, and (c) opening or attempted repair of non-serviceable components; (4) malfunction of the component due to internal contamination of the vehicle system including without limitation (a) water and other contamination damage that is due to the use of a non-genuine air dryer cartridge or (b) valve failures due to contamination in air system, (5) complaints associated with noise, (6) damage resulting from corrosion (including oxidation of electrical devices and connections).

AIR DRYERS

Mounting brackets (see vehicle OEM). Desiccant cartridge housing only.

AIR SYSTEM COMPONENTS

Normal wear items; Gladhand seals, dash valve knobs, valve actuation handles, treadles, pedals.

ABS, ELECTRONIC STABILITY CONTROL (ESC), ROLL STABILITY CONTROL (RSC), OPTIRIDE®, ONGUARD® AND ONLANE®, COLLECTIVELY “ELECTRONICS”

Failure of electronic components due to overvoltage condition, improper grounding, electrostatic discharge (ESD), improper shielding, electromagnetic interference (EMI), or other wiring or installation issues. Malfunctions and failure codes caused by other electronic subsystem failures (data bus, engine, transmission, dashboard, etc.)

HYDRAULIC COMPONENTS

For certain components, brake fluid DOT3 or DOT4 is used as the operating medium. Use of any other fluid will void all warranties associated with that component. For hydraulic braking applications the brake fluid is considered a maintenance item. Maintenance intervals are listed in TB-1367.

COVERAGE LIMITATIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program.

Products purchased on an incomplete vehicle (glider) are limited to one year, 1/Unl/P.

For vehicles that operate full- or part-time outside of the United States and Canada, a 1-Year/Unlimited Miles parts only (1/Unl/P) will apply.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Proper diagnostics of WABCO Electronics may require the latest version of TOOLBOX PLUS™. Additional labor due to use of an outdated version of TOOLBOX™ software and/or the time to purchase or install the latest version of TOOLBOX PLUS™ are not covered under product warranty.

WARRANTY - MODEL YEAR 2021 VEHICLES

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

ZF CV Systems North America LLC and its North American subsidiaries and affiliates (ZF) warrant to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment will be free from defects in material and workmanship. This warranty coverage begins from the original in-service date to the limits provided and runs concurrently with any warranties provided by OEMs and/or any distribution agreements and/or any service contracts that cover the components listed in this publication, if any. If the components listed in this publication are covered by an OEM warranty and/or service contract, then the OEM's warranty and/or service contract shall supersede ZF's warranty and Owner shall comply with all OEM's warranty and/or service contract requirements for claims under such OEM's warranty and/or service contract until those agreements expire. Once those agreements expire and provided the ZF warranty has not expired under the terms stated above, the ZF warranty will be in effect until its expiration date.

Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed previously in this publication. Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Additional diagnostic time due to use of an outdated version of TOOLBOX™, time to purchase or install latest version of TOOLBOX™ are the responsibility of the authorized ZF distributor networks and are not covered under product warranty. Components installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

(2) Designation of Vocational Use Required. To obtain warranty coverage, each Owner must notify ZF through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the WABCO components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with ZF directly. Failure to notify ZF of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date. A second Owner and each subsequent Owner must also notify ZF as to the intended vocational use of the vehicle. This notification can be sent directly to ZF or through

the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use. Coverage under ZF's warranty requires that the application of products be properly approved pursuant to OEM and ZF, approvals.

- (3) What is the Cost of this Warranty? There is no charge to the Owner for this warranty.
- (4) What is not Covered by this Warranty? In addition to the items listed on "Coverage Exclusions," this warranty does not cover normal wear and tear, or service items; nor does it cover a component that fails, malfunctions or is damaged as a result of (a) improper handling, storage, installation, adjustment, repair or modification including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by ZF, (b) accident, fire or other casualty, natural disaster, road debris, negligence, misuse, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the brake system capacity), or (c) improper or insufficient maintenance (including deviation from maintenance intervals, approved lubricants, or lube levels). This warranty does not cover any component or part that is not sold by ZF.
- (5) To obtain service. If the owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either ZF or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM dealer or ZF distributor networks' servicer. The dealer or ZF authorized servicer will inspect the vehicle and contact ZF for an evaluation of the claim. When authorized by ZF, the dealer or ZF authorized servicer will repair or replace during the term of this warranty any defective WABCO component covered by this warranty.
- (6) Disclaimer of Warranty and Limitation of remedies. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR WARRANTY FOR HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL ZF OR ANY OF ITS AFFILIATES BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, PROGRESSIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND.

- (7) Legal action. Any legal action or claim arising from or related to this Warranty, in contract or otherwise, must be commenced within one year from the accrual of that cause of action, or be barred forever. Any dispute arising in connection with this agreement shall be governed by and construed according to the laws of the State of Michigan and be brought, heard and determined exclusively in either the Circuit Court for the County of Oakland, State of Michigan or the United States District Court for the Eastern District of Michigan. The parties stipulate that the referenced venues are convenient.
- (8) Remedy. The exclusive remedy under this warranty shall be the repair or replacement of the defective component at ZF's option. ZF reserves the right to require that all applicable covered components are available and/or returned to ZF for review and evaluation. THE MAXIMUM LIABILITY, IF ANY, OF ZF FOR ALL DAMAGES, INCLUDING WITHOUT LIMITATION CONTRACT DAMAGES, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORT, IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCT and where indicated in the product and application warranty information above, the inclusion of labor is limited to the standard repair time. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE LIMITATION OF DAMAGES PROVISION SET FORTH IN THIS PARAGRAPH SURVIVES BETWEEN THE ORIGINAL END USER AND ZF EVEN IF THE EXCLUSIVE REMEDY SET FORTH ABOVE IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE. ZF may change the design or make improvements to its Products without incurring any warranty obligation for previously manufactured Product .
- (9) Entire Agreement. This is the entire agreement between ZF and the Owner about warranty and no, ZF employee, or dealer is authorized to make any additional warranty on behalf of ZF unless in writing and signed by an authorized representative of ZF.





**For further product details contact your distributor or the
WABCO Customer Care Center at 855-228-3203.**

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO). For more information, visit: www.wabco-na.com



Fire and Rescue Apparatus

Ten (10) Year Structural Integrity

Custom Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Pierce Custom Cab shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the cab tubular support and mounting structures and other structural components of the cab of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the cab painted by Pierce shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions:	<p>This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:</p> <p>Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25%</p> <p>Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25%</p> <p>Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10%</p> <p>Corrosion Perforation 0-120 months 100%</p> <p>This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.</p> <p>Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.</p>

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship

Command Zone Electronics

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Command Zone control modules shall be free from failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Five (5) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies to all of the control modules for the Command Zone system, including the full color graphic displays. Related wire harnesses, cables and connectors are not covered under this limited warranty and are instead covered under the Pierce One Year Basic Apparatus Limited Warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

54 Months Material and Workmanship

Camera System

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	This limited warranty covers repairs to correct any defect related to materials or workmanship of the Sharpvision camera system installed on the apparatus occurring during the warranty period.
Warranty Begins:	The date of delivery.
Warranty Period Ends After:	Fifty - Four (54) months
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

NEW PRODUCT WARRANTY



**PARTICIPATING OEM SALES
DISTRIBUTOR SALES**

LIMITED WARRANTY ON NEW ALLISON AUTOMATIC TRANSMISSIONS USED IN EMERGENCY VEHICLE APPLICATIONS

Allison Transmission will provide for repairs or replacement, at its option, during the warranty period of each new Allison transmission listed below that is installed in an Emergency Vehicle in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

- **WARRANTY APPLIES** — This warranty is for new Allison transmission models listed below installed in an Emergency Vehicle and is provided to the original and any subsequent owner(s) of the vehicle during the warranty period.
- **REPAIRS COVERED** — The warranty covers repairs or replacement, at Allison Transmission’s option, to correct any transmission malfunction resulting from defects in material or workmanship occurring during the warranty period. Needed repairs or replacements will be performed using the method Allison Transmission determines most appropriate under the circumstances.
- **TOWING** — Towing is covered to the nearest Allison Transmission Distributor or authorized Dealer only when necessary to prevent further damage to your transmission.
- **PAYMENT TERMS** — Warranty repairs, including parts and labor, will be covered per the schedule shown in the chart contained in section “APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE.”
- **OBTAINING REPAIRS** — To obtain warranty repairs, take the vehicle to any Allison Transmission Distributor or authorized Dealer within a reasonable amount of time and request the needed repairs. A reasonable amount of time must be allowed for the Distributor or Dealer to perform necessary repairs.
- **TRANSMISSION REMOVAL AND REINSTALLATION** — Labor costs for the removal and re-installation of the transmission, when necessary to make a warranty repair, are covered by this warranty.
- **WARRANTY PERIOD** — The warranty period for all coverages shall begin on the date the transmission is delivered to the first retail purchaser, with the following exception:

Demonstration Service - A transmission in a new truck or bus may be demonstrated to a total of 5000 miles (8000 kilometers). If the vehicle is within this limit when sold to a retail purchaser, the warranty start date is the date of purchase. Normal warranty services are applicable to the demonstrating Dealer. Should the truck or bus be sold to a retail purchaser after these limits are reached, the warranty period will begin on the date the vehicle was first placed in demonstration service and the purchaser will be entitled to the remaining warranty.

APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE

APPLICABLE MODELS	WARRANTY LIMITATIONS (Whichever occurs first)		ADJUSTMENT CHARGE TO BE PAID BY THE CUSTOMER	
	Months	Transmission Miles Or Kilometers	Parts	Labor
MT, MD 3000, 3200, 3500, 3700	0-24	No Limit	No Charge	No Charge
HT with Hydraulic Controls	0-24	No Limit	No Charge	No Charge
AT, 1000 Series™, 2000 Series™, 2400 Series™	0-36	No Limit	No Charge	No Charge
HT with Electronic Controls	0-60	No Limit	No Charge	No Charge
HD 1000 EVS, 2100 EVS, 2200 EVS 2350 EVS, 2500 EVS, 2550 EVS, 3000 EVS, 3500 EVS, 4000, 4000 EVS, 4500, 4500 EVS, 4700, 4700 EVS, 4800, 4800 EVS	0-60	No Limit	No Charge	No Charge

WHAT IS NOT COVERED

- **DAMAGE DUE TO ACCIDENT, MISUSE, or ALTERATION** — Defects and damage caused as the result of any of the following are not covered:
 - Flood, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle;
 - Misuse of the vehicle;
 - Installation into unapproved applications and installations;
 - Alterations or modification of the transmission or the vehicle, and
 - Damage resulting from improper storage (refer to long-term storage procedure outlined in the applicable Allison Service Manual)
 - Anything other than defects in Allison Transmission material or workmanship

NOTE: This warranty is void on transmissions used in vehicles currently or previously titled as salvaged, scrapped, junked, or totaled.

- **CHASSIS, BODY, and COMPONENTS** — The chassis and body company (assemblers) and other component and equipment manufacturers are solely responsible for warranties on the chassis, body, component(s), and equipment they provide. Any transmission repair caused by an alteration(s) made to the Allison transmission or the vehicle which allows the transmission to be installed or operated outside of the limits defined in the appropriate Allison Installation Guideline is solely the responsibility of the entity making the alteration(s).
- **DAMAGE CAUSED by LACK of MAINTENANCE or by the USE of TRANSMISSION FLUIDS NOT RECOMMENDED in the OPERATOR'S MANUAL** — Defects and damage caused by any of the following are not covered:
 - Failure to follow the recommendations of the maintenance schedule intervals applicable to the transmission;
 - Failure to use transmission fluids or maintain transmission fluid levels recommended in the Operator's Manual.
- **MAINTENANCE** — Normal maintenance (such as replacement of filters, screens, and transmission fluid) is not covered and is the owner's responsibility.
- **REPAIRS by UNAUTHORIZED DEALERS** — Defects and damage caused by a service outlet that is not an authorized Allison Transmission Distributor or Dealer are not covered.
- **USE of OTHER THAN GENUINE ALLISON TRANSMISSION PARTS** — Defects and damage caused by the use of parts that are not genuine Allison Transmission parts are not covered.
- **EXTRA EXPENSES** — Economic loss and extra expenses are not covered. Examples include but are not limited to: loss of vehicle use; inconvenience; storage; payment for loss of time or pay; vehicle rental expense; lodging; meals; or other travel costs.
- **"DENIED PARTY" OWNERSHIP** — Warranty repair parts and labor costs are not reimbursed to any participating or non-participating OEMs, dealers or distributors who perform warranty work for, or on behalf of, end users identified by the United States as being a "denied party" or who are citizens of sanctioned or embargoed countries as defined by the U.S. Department of Treasury Office of Foreign Assets Control. Furthermore, warranty reimbursements are not guaranteed if the reimbursement would be contrary to any United States export control laws or regulations as defined by the U.S. Department of Commerce, the U.S. Department of State, or the U.S. Department of Treasury.

OTHER TERMS APPLICABLE TO CONSUMERS AS DEFINED by the MAGNUSON-MOSS WARRANTY ACT

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Allison Transmission does not authorize any person to create for it any other obligation or liability in connection with these transmissions.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THESE TRANSMISSIONS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS, BUT NOT LIMITED TO, LOST WAGES OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.**

** Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

OTHER TERMS APPLICABLE TO OTHER END-USERS

THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE ALLISON TRANSMISSION MODELS LISTED ABOVE AND IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLISON TRANSMISSION DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH TRANSMISSIONS. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY.

QUESTIONS

If you have any questions regarding this warranty or the performance of warranty obligations, you may contact any Allison Transmission Distributor or Dealer or write to:

Allison Transmission, Inc.
P.O. Box 894
Indianapolis, IN 46206-0894
Attention: Warranty Administration PF-9



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship - Transmission Oil Cooler Three (3) Year Collateral Damage Coverage

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The transmission cooler shall be free from component or structural failures caused by defects in material and/or workmanship. Collateral damage up to \$10,000 per occurrence is available for the first three (3) years.
Warranty Begins:	The date of delivery to the first retail purchaser.
Warranty Period Ends After:	Five (5) Years on Oil Cooler and three (3) years on collateral damage coverage
Conditions and Exclusions: See Also Paragraphs 2 thru 4	<p>This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty.</p> <p>This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.</p> <p>Towing is covered to the nearest distributor or authorized dealer only when necessary to prevent further damage to your transmission.</p> <p>Labor costs for the removal and reinstallation of goods may be covered when necessary to make repairs. Please contact your OEM for authorization.</p> <p>Replacement of cooler during the warranty period is limited to 100% of reasonable labor costs up to a maximum of \$700 to remove, replace, or repair the oil cooler.</p>

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

 **UNITED PLASTIC FABRICATING, INC.**
WARRANTY
FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

LIFETIME SERVICE WARRANTY

United Plastic Fabricating, Inc. (hereinafter called "UPF") warrants each POLY-TANK®, Booster/Foam Tank POLYSIDE® Wetside Tank, Integrator Tank/Body, ELLIPSE™ Elliptical Tank, Ellip-T-Tank Tank and DEFENDER™ Skid Tank to be free from defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in an emergency response for fire suppression). All UPF Tanks must be installed and operated in accordance with the UPF Installation and Operating Guidelines. Failure to do so can void the warranty.

Every UPF Tank is inspected and tested before leaving our facility. Should your UPF Tank require service, please notify UPF via email, fax, in writing or by calling UPF at 1-978-975-4520. Please provide the serial number, a description of the service request, the location along with the phone number and name of the contact person. Our goal is to have scheduled work completed within a reasonable time period.

Under a valid warranty claim, UPF will cover the cost to repair the UPF Tank including the customary and reasonable costs to make the tank accessible such as the removal and reinstallation of the tank if authorized in advance (pre-approved) by UPF. The warranty will not cover tanks that have been improperly installed, operated, misused, abused, or modified from its intended or designed use. Serial number must not have been altered, defaced or removed. Tanks that are not stored or installed properly which results in the tank suffering UV damage will not be covered by this agreement.

Should UPF determine that the service claim is valid under this warranty for a tank located outside of the United States and Canada, UPF will assume the costs for labor and material for the warranty repair as described above plus all travel costs to the U.S. port of embarkation. Costs for airline travel outside of the U.S. and Canada will not be the responsibility of UPF.

In the event the tank shall become stationed in an area of the world that is considered to be a war zone or where unsafe conditions exist for the safe passage of United States Nationals, as reported by the United States Department of State, (<http://www.state.gov>), and a request to perform service or warranty repairs, UPF reserves the right to refuse to honor such requests. It is the purchaser's responsibility to relocate the tank to an area where such repairs can be performed without undue risk to UPF employees or their designee. UPF will make every reasonable effort to support our products through alternative means.

For Ellipse™ elliptical tanks, a separate five year warranty provided by the subcontractor is applied to the sub-frames, chute linings (rubber isolation strips) and metal components. The stainless steel wrap provided by UPF shall be warranted by the subcontractor performing the wrap installation in accordance with their warranty in place at the time of the installation. UPF will not be liable for any warranty costs associated with the wrap, sub-frames, chute linings (rubber isolation strips) and metal components but will assist with all claims on behalf of its customer.

For PolySide® wetsided tanks and Integrator™ Tank/Body units, all polypropylene components related to the tank shall carry the standard UPF lifetime



UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

service warranty. Other polypropylene components, including but not limited to compartments, wheel wells, fenders and other body related components shall be warranted by UPF for a period of ten years. The warranty for the PolySide® and Integrator™ units excludes paint or hardware, which shall be covered by the manufacturer of the paint/hardware.

All UPF tanks 50 gallons or less utilized for non-fire applications and installed on specialty vehicles such as ATVs, trailers, boats, etc. are covered under a separate warranty policy available from UPF. Further, UPF Protector™ foam and water trailers are warranted under a separate warranty policy available from UPF.

This UPF warranty is transferable within the United States only with prior written approval by UPF (except an original apparatus manufacturer may assign this warranty to the first titled owner/lessee of the apparatus).

UPF will NOT reimburse any unnecessary work and/or work that has not been pre-approved. Any and all third party charges must be pre-authorized and approved in writing by UPF prior to commencing the work. Any unauthorized third party repairs, alterations, actions or modifications will not be covered and can void the warranty. UPF will be the sole determining authority as to whether a service claim will be valid and covered under this warranty.

In no event will UPF be liable for an amount in excess of the purchase price of the booster/foam tank at the time of manufacture or for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of failure of its product. Loss of contents (water, foam, etc.) shall not be the responsibility of UPF. Further, UPF is not responsible for costs associated with service repairs to chassis, sub-frames, bodies, valves, dumps, hoses, pressure vacuum vents, and other components (i.e. liquid level transducers, etc.). Further, UPF will not cover the cost for travel of the vehicle to and from a repair facility.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly cancelled. UPF neither assumes, nor authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation or incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF UPF.



BULLETIN

TO: All Dealer Service Representatives
From: Kevin Hanegraaf
DATE: January 4, 2010
RE: UPF Tank Warranty Policy – Truck in Accident
Service Topic #292



To keep the UPF tank warranty valid on trucks that have been involved in a vehicular accident, it is UPF's policy that the customer must remove the tank from the truck and send it back to one of UPF's facilities for inspection. In the event that this does not take place, the warranty will be considered null and void.

The customer must remove and send the tank back to UPF for inspection in order to maintain the original warranty coverage, at which time it will be:

- Filled with water
- Visually inspected
- Ultraviolet spark tested on articulating test stand in the dark
- Recommendation for repairs if necessary provided by UPF
- Fully evaluated and repaired by UPF

If your customer chooses to leave the tank on the truck and wants a technician to inspect and/or repair the tank in the field, then **the warranty is no longer in effect.** This direction is upheld by UPF because the technician cannot inspect the entire tank when it is still installed on the truck.

Note: This memo is intended to relay the information Pierce has received on UPF's tank warranty for trucks that are in a vehicular accident. In the event of an actual claim, we direct you to consult with UPF's service Manager Maura Watts (800-638-8265 x253)



Fire and Rescue Apparatus

Ten (10) Year Structural Integrity Apparatus Body

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The apparatus body shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the body tubular support and mounting structures and other structural components of the body of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



AMDOR Inc. TERMS OF BUSINESS AND GENERAL INFORMATION

Warranty:

All AMDOR Inc. roll-up door products are warranted for a period of 10 years from the date of delivery (with the exception of wet paint adhesion - please see below). AMDOR Inc. liability covers the replacement or repair of any component that fails due to defects in material and / or workmanship during the coverage period. We accept no liability for claims made for damages to any part (or parts) of a vehicle and / or machine (of any type) or injury claims by a person or persons assumed or alleged to have been brought about by the use or misuse of any product supplied by AMDOR Inc. Warranty coverage does not extend to door attachments including (but not limited to) decals, emblems, stripes and adhesives.

In order to initiate the claims process please contact your authorized representative of AMDOR Inc. Warranty claims must be accompanied by a written description providing full and reasonable details as to the nature of the defect. Upon receipt of your claim arrangements will be made to inspect the defective product (if necessary). Justified warranty claims will be repaired, exchanged, or credited to the customer's account at AMDOR Inc.'s discretion. All warranty claims must be approved in writing by the Customer Service Manager for AMDOR Inc. There are no exceptions to this clause.

Limited warranty coverage includes the labor associated with the disassembly and assembly of products deemed to be defective by AMDOR Inc. Labor allowances are based on a set time schedule as determined by AMDOR Inc. The maximum allowable hourly labor rate is \$ 50. All warranty labor claims must be approved in writing by an authorized representative of AMDOR Inc. prior to commencement of work. Allowances for removal and installation:

Curtain replacement:	3/4 hour
Balancer replacement:	1 hour
Door ajar switch	3/4 hour
Bottom Panel Assembly:	1/2 hour
Slat replacement:	3/4 hour
Door removal and replacement	1 1/2 hours

Items authorized for return must be accompanied by a Return Goods Authorization (RGA) number. We will accept collect shipments of items deemed to be defective provided that they are returned via the most economical carrier. Should items be

returned by means other than the most economical carrier the difference will be charged back to the sender.

AMDOR Inc. reserves the right to reject any claim when a product has been opened, interfered with or modified. Claims may also be rejected when damage to the product (or any sub-assembly) has been brought about by accident, misuse, abuse, vandalism, incorrect installation, temperature extremes, chemical exposure or any factor other than regular operating conditions.

Limited Wet Paint Match Adhesion Warranty

AMDOR Inc. warrants wet paint finishes applied by AMDOR utilizing our approved factory paint specification. All wet paint match colors must be approved in writing by an authorized OEM representative. AMDOR Inc. will provide a color spray out for this purpose. The time required for shipping and consideration of initial color spray outs will be considered over and above stated lead times. Warranty coverage will extend for a period of not less than 5 years from the date of delivery as determined by AMDOR Inc.'s Packing Slip. AMDOR reserves the right to determine whether individual units will be replaced and / or repaired by an AMDOR approved vendor. An allowance will be made for labor associated with the disassembly and assembly of individual units at the prescribed hourly rate of \$ 50 per hour. Compensation for labor will not exceed the maximum time allowance permitted for door removal and replacement. Written approval including specified allowance for time must be obtained from AMDOR prior to initiating work. Warranty coverage will extend to the following visible paint system defects:

- 1./ Loss of mechanical adhesion as evidenced by peeling, cracking or blistering which exposes the substrate material.
- 2./ Corrosion of the substrate due to paint system failure.
- 3./ Fading which results in a substantial departure from the primary AMDOR approved body color.

Wet paint adhesion limited warranty coverage will be excluded when damages to the system are determined by AMDOR Inc. to be a result of the following:

- 1./ Damage caused through the use of attachments including (but not limited to) decals, labels, adhesives, non factory approved coatings.
- 2./ Loss of gloss, discoloration or damage due to improper maintenance (including but not limited to) mechanical wash systems, pressure washers, steam cleaners, non approved wash or polishing agents.
- 3./ Abuse, acts of nature, excessive heat / cold, chemical exposure, vandalism and / or accidents.
- 4./ Scratches, chips, abrasions, or dents from any source.

This document supercedes all previous written and / or verbal warranties provided by AMDOR Inc. and / or it's affiliates.

Waterous Seven-Year Limited Warranty

WATEROUS warrants, to the original Buyer only, that products manufactured by WATEROUS will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one-half (7-1/2) years from the date of shipment by WATEROUS, whichever period shall be the first to expire; provided the Buyer notifies WATEROUS, in writing, of the defect in said product within the warranty period, and said product is found by WATEROUS to be nonconforming with the aforesaid warranty. When required in writing by WATEROUS, defective products must be promptly returned by Buyer to WATEROUS at WATEROUS' plant at South St. Paul, Minnesota, or at such other place as may be specified by WATEROUS, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail. The aforesaid warranty excludes any responsibility or liability of WATEROUS for:

- (a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;
- (b) defects in products manufactured by others and furnished by WATEROUS hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, WATEROUS will assign to Buyer, if requested by Buyer;
- (c) any product or part, altered, modified, serviced or repaired other than by WATEROUS, without its prior written consent;
- (d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and
- (e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of WATEROUS, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of WATEROUS to:

- (a) the replacement at the agreed point of delivery of any product or part, which upon inspection by WATEROUS or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- (b) the repair of such product or part, or
- (c) the refund or crediting to Buyer of the net sales price of the defective product or part.

BUYER'S REMEDIES CONTAINED HEREIN ARE EXCLUSIVE OF ANY OTHER REMEDY OTHERWISE AVAILABLE TO BUYER.

Waterous Company
125 Hardman Avenue South
South St. Paul, MN 55075 USA
www.waterousco.com





Ten (10) Year Material and Workmanship
Stainless Steel Piping
Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Table with 2 columns: Label (Coverage, Warranty Begins, Warranty Period Ends After, Conditions and Exclusions) and Description (Stainless steel piping shall be free from structural failures... Pierce's obligation under this warranty is limited to repairing or replacing without charge... This warranty does not cover the use of fluoroprotein (FP) type foam...)

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

- (a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce...
(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions...
(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce...
(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period...

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use.



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Custom Body

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the body shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	<p>This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:</p> <p>Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25%</p> <p>Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25%</p> <p>Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10%</p> <p>Corrosion Perforation 0-120 months 100%</p> <p>This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty.</p> <p>Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.</p>

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship

Goldstar® Gold Leaf Lamination

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Each Goldstar® gold leaf lamination shall be free from defects in material and workmanship.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

EXHIBIT C Company Proposal



February 13, 2024

Olympia Fire Department, WA
Two (2) Velocity Pumpers AK1075
Build Location: Appleton, WI

Proposal Price	\$2,543,101.00	
Washington State sales tax @ 9.40%		239,051.49
Washington State motor vehicle tax @ 0.30%		7,629.30
Total Bid Price Including Sales Tax		\$2,789,781.79
Less pre-payment of \$300,000 at contract execution	(51,000.00)	
Less pre-payment of \$300,000 one (1) year after contract execution	(39,000.00)	
Less pre-payment of \$300,000 two (2) years after contract execution	(27,000.00)	
Less pre-payment of \$300,000 three (3) years after contract execution	(15,000.00)	
Less payment upon completion at factory discount	(25,254.00)	
Subtotal including all pre-pay discounts	\$2,385,847.00	
Washington State sales tax @ 9.40%		224,269.62
Washington State motor vehicle tax @ 0.30%		7,157.54
Total Bid Price Including Pre-Pay Discounts & Sales Tax		\$2,617,274.16

Terms:

Price Expiration: The above pricing is valid until April 26, 2024.

Future Changes: Various state or federal regulatory agencies (e.g. NFPA, DOT, EPA) may require changes to the Specifications and in any such event any resulting cost increases incurred to comply will be added to the Purchase Price to be paid by the Customer and documented on a Change Order.

Component Price Volatility: Company shall not be responsible for any unforeseen price increase enacted by the suppliers of major components of the Product (including but not limited to engine, transmission, and fire pump) after the execution of contract or purchase order. Any price increase major components of the product will be passed through to the Customer and will be documented on a Change Order.

Multiple Unit Pricing: Multiple unit pricing is based on the apparatus being purchased, manufactured and delivered at the same time. If apparatus are not ordered, manufactured and delivered at the same time, revised pricing will be required.

Delivery: Based on Pierce's current delivery schedule the apparatus would be ready for delivery from factory within 50 to 55 months after contract execution or purchase order. Delivery is subject to change pending Pierce's delivery schedule at time of order. This time does not include any possible delays that may be caused by national disasters or pandemic.

Payment Terms:

a. If pre-payment discount options are elected, the following terms will apply:

i. Pre-Payment of \$300,000.00 at Contract Execution Discount: If elected, an invoice will be provided upon order processing for the pre-payment in the amount of **\$300,000.00**. Upon receipt of invoice, payment must be made within thirty (30) days. If payment is not made when due, the above mentioned pre-payment discount or a portion thereof, will be added back to the final invoice.

ii. Pre-Payment of \$300,000.00 One (1) Year After Contract Execution Discount: If elected, an invoice will be provided 1 year after contract execution for the pre-payment in the amount of **\$300,000.00**. Upon receipt of invoice, payment must be made within thirty (30) days. If payment is not made when due, the above mentioned pre-payment discount or a portion thereof, will be added back to the final invoice.

iii. Pre-Payment of \$300,000.00 Two (2) Years After Contract Execution Discount: If elected, an invoice will be provided 2 years after contract execution for the pre-payment in the amount of **\$300,000.00**. Upon receipt of invoice, payment must be made within thirty (30) days. If payment is not made when due, the above mentioned pre-payment discount or a portion thereof, will be added back to the final invoice.

iv. Pre-Payment of \$300,000.00 Three (3) Years After Contract Execution Discount: If elected, an invoice will be provided 3 years after contract execution for the pre-payment in the amount of **\$300,000.00**. Upon receipt of invoice, payment must be made within thirty (30) days. If payment is not made when due, the above mentioned pre-payment discount or a portion thereof, will be added back to the final invoice.

v. Payment Upon Completion at Factory Discount: If elected, final payment is due prior to apparatus leaving the factory for delivery. If payment is not processed upon receipt of invoice the discount total will be required in addition to the invoice amount.

b. If pre-payment discount options are not elected standard payment terms will apply: Final payment will be due 30 days after the apparatus leaves the factory for delivery. If payment is not made at that time a late fee will be applicable.

c. Payments made for apparatus using a credit card will be applicable to a credit card convenience fee.

Consortium Purchase: The proposal is based on the apparatus being purchased through Sourcewell utilizing Contract No. 113021-OKC-1 valid until 2/10/2026. It is the purchaser's responsibility to determine if the use of consortiums meets their purchasing requirements.

Performance Bond: A performance bond is included in the above price and will be provided after order placement. If customer elects to remove the performance bond **\$8,194.00** may be deducted from the purchase price. All purchase orders must include the following verbiage if a performance bond is elected, "**Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.**"

Transportation: Transportation of the apparatus to be driven from the factory to the customers location is included in the above pricing. However, if permits are not obtainable, due to the weight of the apparatus, and the apparatus must be transported on a flat bed, additional Transportation charges will be the responsibility of the customer. We will provide pricing at that time if necessary. If customer elects to drive the apparatus from the factory, **\$11,000.00** may be deducted from the purchase price. if this option is elected payment in full and proof of insurance must be provided prior to leaving the factory and the customer is responsible for compliance with all state, local and federal DOT requirements including the driver possessing a valid CDL license.

Inspection Trips: Two (2) factory inspection trips for **four (4)** customer representatives is included in the above pricing. The inspection trips will be scheduled at times mutually agreed upon between the manufacture's representative and the customer, during the window provided by the manufacturer. Airfare, lodging and meals while at the factory are included. In the event the customer is unable to travel to the factory or the factory is unable to accept customers due to the restrictions caused by a national disaster or pandemic then the Dealership reserves the right to use forms of electronic media to accomplish the intention of the inspection trips. Every effort will be made to make the digital media as thorough as possible to satisfy the expectations of the of the customer. If the customer elects to forgo an inspection trip **\$2,400.00** per traveler (per trip) will be deducted from the final invoice.

Acceptance of Proposal:

- a. If the customer wishes to purchase the proposed apparatus Hughes Fire Equipment will provide the Customer its form of Purchase Agreement for the Customer's review and signature.
- b. If the Customer desires to use its standard form of purchase order as the Purchase Agreement, the purchase order is subject to review for any required revisions prior to acceptance.
 - i. Purchase orders must be addressed to Hughes Fire Equipment, Inc., 910 Shelley Street, Springfield, Oregon 97477.
 - ii. Purchase order must reference "**Two (2) Velocity Pumpers AK1075 dated 02/13/2024.**"
 - iii. Purchase order must include the following verbiage if a performance bond is elected, "**Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.**"
 - iv. Purchased order should reference, "**Purchased utilizing Sourcewell Contract No. 113021-OKC-1.**"
 - v. Purchase orders must be signed and dated by authorized personnel.

By signing below you agree to purchase the above apparatus.

Customer Signature: _____

Date: _____

PO # (if applicable): _____

Proudly serving you, while you serve your communities since 1987

Olympia Fire Department

Hughes Fire Equipment is pleased to submit a proposal to Olympia Fire Department for a **Pierce® triple combination pumper** per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications.

PIERCE MANUFACTURING was founded in 1913. Since then we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land.

Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification.

In accordance with the current edition of applicable NFPA standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment.

Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment.

GENERAL DESIGN AND CONSTRUCTION

To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system.

QUALITY AND WORKMANSHIP

Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested

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and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal.

In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce.

To demonstrate the quality of our products and services, a list of at least twenty five (25) fire departments/municipalities that have purchased vehicles for a second time is provided.

DELIVERY

The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. An orientation video shall be created using this truck.

MANUAL AND SERVICE INFORMATION

At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

SAFETY VIDEO

At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance.

PERFORMANCE TESTS

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus when fully loaded will not have less than 25 percent nor more than 50 percent on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle. The apparatus will meet the current edition of applicable NFPA standards acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Hughes Fire Equipment by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within fifty (50) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in

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Appleton, Wisconsin. The parts facility stocks in excess of \$5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Personal and Advertising Injury\$1,000,000

General Aggregate\$2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

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Each Accident Combined Single Limit:\$1,000,000

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate:\$3,000,000

Each Occurrence:\$3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

PRODUCT LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Each Occurrence:\$25,000,000

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Aggregate:\$25,000,000

The umbrella policy will be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.

SINGLE SOURCE MANUFACTURER

Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.

Your apparatus will be manufactured in Appleton, Wisconsin.

SPECIAL INSTRUCTIONS

The apparatus being proposed will be designed and built to match the 29257. However, some variation may be necessary due to changes in our manufacturing processes or our product offering. Revisions in NFPA guidelines and/or other regulations may also affect our ability to match the previous unit.

NFPA 2024 STANDARDS

This unit will comply with the NFPA standards effective January 1, 2024, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions.

Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus.

All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal

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of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack.

A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating.

The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications.

An official of the company will designate, in writing, who is qualified to witness and certify test results.

NFPA COMPLIANCY

Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA".

PUMP TEST

Underwriters Laboratory (UL) will test, approved, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department.

GENERATOR TEST

If the unit has a generator, Underwriters Laboratory (UL) will test, approved, and certify the generator. The test results will be provided to the Fire Department at the time of delivery.

BREATHING AIR TEST

If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection*.

VEHICLE INSPECTION PROGRAM CERTIFICATION

To assure the vehicle is built to current NFPA 1900 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus.

A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.

INSPECTION TRIP(S)

The bidder will provide two (2) factory inspection trip(s) for for four people customer representative(s). The inspection trip(s) will be scheduled at times mutually agreed upon between the manufacturer's representative and the customer. All costs such as travel, lodging and meals will be the responsibility of the bidder.

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BID BOND NOT REQUESTED

A bid bond will not be included. If requested, the following will apply:

All bidders will provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language, which assures that the bidder/principal will give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract.

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

PERFORMANCE BOND, 1 YEAR

The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required.

Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter.

Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible.

If the Producer Price Index of Components for Manufacturing [www.bls.gov Series ID: WPUID6112] ("PPI") has increased at a compounded annual growth rate of 5.0% or more between the month Pierce accepts the order ("Order Month") and a month 14 months prior to the then predicted Ready For Pickup date ("Evaluation Month"), then pricing may be updated in an amount equal to the increase in PPI over 5.0% for each year or fractional year between the Order Month and the Evaluation Month.

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The seller will document any such updated price for the customer's approval before proceeding and provide an option to cancel the order.

APPROVAL DRAWING

A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc.

A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.

DRAWING, COMPARTMENT LAYOUT

A basic drawing will be provided for the interior body compartments. This drawing will be provided for graphic representation only and will include such things as shelves, trays, reels, dividers, air control panels, air bottle storage bins, poly boxes & etc.

CAB CABINET DRAWINGS

There will be 3D multi-view drawings of each cabinet in the cab provided, including dimensions. This will include any auxiliary cabinets located behind the crew cab doors (if applicable). The drawings will be provided when the job is in detailed engineering.

ELECTRICAL WIRING DIAGRAMS

Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.

VELOCITY CHASSIS

The Pierce Velocity® is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength and capacity for the intended load to be sustained and the type of service required. The chassis will be the manufacturer's first line tilt cab.

MAXIMUM OVERALL HEIGHT

The maximum overall height of the apparatus will be 10' 6".

WHEELBASE

The wheelbase of the vehicle will be 204.5".

GVW RATING

The gross vehicle weight rating will be 46,800#.

FRAME

The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040

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in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.

FRONT NON DRIVE AXLE

The Oshkosh TAK-4® front axle will be of the independent suspension design with a ground rating of 22,800 lb.

Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron.

The center cross members and side plates will be constructed out of 80,000-psi yield strength steel.

Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations.

There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension.

The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load.

Camber at load will be 0 degrees for optimum tire life.

The ball joint bearing will be of low friction design and be maintenance free.

Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided.

The wheel ends will have little to no bump steer when the chassis encounters a hole or obstacle.

The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase.

The axle will have a turning angle of up to 45 degrees.

FRONT SUSPENSION

Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 22,800 lb.

The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment.

Each wheel will have torsion bar type spring. In addition, each front wheel end will also have energy absorbing jounce bumpers to prevent bottoming of the suspension.

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The suspension design will be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms.

The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side.

The independent suspension was put through a durability test that simulated 140,000 miles of inner city driving.

FRONT SHOCK ABSORBERS

KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.

FRONT OIL SEALS

Oil seals with viewing window will be provided on the front axle.

FRONT TIRES

Front tires will be Michelin 425/65R22.50 radials, 20 ply XZE wide base tread, rated for 22,800 lb maximum axle load and 68 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 12.25" polished aluminum disc type wheels with a ten (10)stud, 11.25" bolt circle.

REAR AXLE

The rear axle will be a Meritor™, Model RS-26-185, with a capacity of 27,000 lb.

TOP SPEED OF VEHICLE

A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 65 MPH / 104 KPH.

REAR SUSPENSION

The rear suspension will be a Reyco Model 79KB with a ground rating of 27,000 lb. Spring hangers and mounting components will be cast. The suspension utilizes two (2) attaching points with variable rate spring cams and rubber bushed adjustable torque arms.

REAR OIL SEALS

Oil seals will be provided on the rear axle(s).

REAR TIRES

Rear tires will be four (4) Michelin 12R22.50 radials, 16 ply all season XDN2 tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 8.25" polished aluminum disc wheels with a ten (10) stud 11.25" bolt circle.

TIRE BALANCE

All tires will be dynamically balanced with wheel weights. Wheel weights will not be located on the outside of the wheels. Weights will be located inside, out of sight.

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TIRE PRESSURE MANAGEMENT

There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires.

The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.

Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.

CHROME LUG NUT COVERS

Chrome lug nut covers will be supplied on front and rear wheels.

FRONT HUB COVERS

Stainless steel hub covers will be provided on the front axle. An oil level viewing window will be provided.

HUB COVERS (REAR)

Stainless steel baby moon covers will be provided over the rear axle hubs.

MUD FLAPS

Mud flaps with a Pierce logo will be installed behind the front and rear wheels.

WHEEL CHOCKS

There will be two (2) pairs of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.

Wheel Chock Brackets

There will be two (2) pairs of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted forward of the left side rear tire and rearward of the right side rear tire.

ELECTRONIC STABILITY CONTROL

A vehicle control system will be provided as an integral part of the ABS brake system from Meritor Wabco.

The system will monitor and update the lateral acceleration of the vehicle and compare it to a critical threshold where a side roll event may occur. If the critical threshold is met, the vehicle control system will automatically reduce engine RPM, engage the engine retarder (if equipped), and selectively apply brakes to the individual wheel ends of the front and rear axles to reduce the possibility of a side roll event.

The system will monitor directional stability through a lateral accelerometer, steer angle sensor and yaw rate sensor. If spinout or drift out is detected, the vehicle control system will selectively apply brakes to the individual wheel ends of the front and rear axles to bring the vehicle back to its intended direction.

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ANTI-LOCK BRAKE SYSTEM

The vehicle will be equipped with a Wabco 4S4M, anti-lock braking system. The ABS will provide a four (4) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any wheel begins to lockup, a signal will be sent to the control unit. This control unit will then reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

AUTOMATIC TRACTION CONTROL

An anti-slip feature will be included with the ABS. The Automatic Traction Control will be used for traction in poor road and weather conditions. The Automatic Traction Control will act as an electronic differential lock that will not allow a driving wheel to spin, thereby supplying traction at all times. The ABS electronic control unit (ECU) will work with the engine ECU, sharing information concerning wheel slip. Engine ECU will use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of how much the driver is asking for. An "off road traction" switch will be provided on the instrument panel. Activation of the switch will allow additional tire slip to let the truck climb out and get on top of deep snow or mud.

BRAKES

The service brake system will be full air type.

The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance.

The brake system will be certified, third party inspected, for improved stopping distance.

The rear brakes will be Meritor™ 16.50" x 7.00" cam operated with automatic slack adjusters. Dust shields will be provided.

BRAKE SYSTEM AIR COMPRESSOR

The air compressor will be a Cummins/WABCO with 18.7 cubic feet per minute output.

BRAKE SYSTEM

The brake system will include:

- Bendix® dual brake treadle valve
- Heated automatic moisture ejector on air dryer
- Total air system capacity of 4,362 cubic inches
- Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi
- Spring set parking brake system
- Parking brake operated by a push-pull style control valve
- A parking "brake on" indicator light on instrument panel
- Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi

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- A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa)
- 1/4 turn drain valve on each air tank

The air tank will be primed and painted to meet a minimum 750 hour salt spray test.

The air tanks will be same as frame color .

To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.

BRAKE SYSTEM AIR DRYER

The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.

BRAKE LINES

Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.

AIR INLET

One (1) air inlet with 3D series male coupling will be provided. It will allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will be located forward in the driver side lower step well of cab. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female fitting will also be provided with the loose equipment.

ADDITIONAL AIR TANK

An additional air tank with 1454 cubic inch displacement will be provided to increase the capacity of the main air brake system. This tank will be plumbed into the rear half of the brake system.

The air tank will be primed and painted to meet a minimum 750 hour spray test. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.

The air tank(s) will be same as frame color .

The output flow of the engine air compressor will vary with engine rpm. Full compressor output will only be achieved at governed engine speed. Engine speed will be limited by generators, pumps and other PTO driven options.

AIR COMPRESSOR, BRAKE SYSTEM MAINTENANCE

A Kussmaul, Model 091-9B-4 air compressor will be provided. It will be driven by the 120 volt shoreline electrical system and will be located behind the driver's seat.

The compressor will maintain the air pressure in the chassis air brake system while the vehicle is not in use.

A pressure switch will sense when the system pressure drops and automatically start the compressor, which then will run until pressure is restored.

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AUXILIARY AIR COMPRESSOR COVER

A ventilated painted aluminum cover will be fabricated and installed over the auxiliary air compressor for protection.

BRAKE LOCK SYSTEM

The apparatus will be provided with a secondary brake lock system.

It will be configured in the following manner:

- Two (2) door switches (not hooked up)
- Seat sensor (not hooked up)
- Brake valve with detection that the brake has been applied.
- A second brake applied sensor is added into this system to have double redundancy on detection, this is the one addition versus the standard system.
- Same physical ECU as the full system but with a special program for the "Security Only" mode.

There will be a keypad located on the driver's side of the engine tunnel

There will be an override button and it will be located behind switch panel 11

REMOTE AIR TANK DRAIN

There will be a remote cable controlled drain valve installed on each air supply reservoir. The drain valve will be actuated from the side of the vehicle and be a vinyl covered stainless steel cable, firmly attached to the underside of the vehicle. A loop will be provided at the cable end for ease of pulling the drain.

ENGINE

The chassis will be powered by an electronically controlled engine as described below:

Make:	Cummins®
Model:	X15
Power:	565 hp at 1700 rpm
Torque:	1850 lb-ft at 1150 rpm
Governed Speed:	2100 rpm
Emissions Level:	EPA 2027
Fuel:	Diesel
Cylinders:	Six (6)
Displacement:	912 cubic inches (14.9L)
Starter:	Delco 39MT+™
Fuel Filters:	Frame mounted spin-on style filter from Cummins®.

The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.

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The engine will be filled with FA-4 10W30 oil as required by Cummins.

REMOTE MOUNTED ENGINE FILTERS

The engine fuel and oil filters will be remote mounted for ease of maintenance.

IDLE REDUCTION, BATTERY MANAGEMENT SYSTEM, LITHIUM ION

Command Zone™ electronics system is CAN interfaced with the Battery Management System (BMS) controller for a fully integrated Idle Reduction Technology (IRT) system.

The BMS is designed for use with matching lithium-ion battery pack.

The BMS provides numerous system integration options facilitating temperature, voltage, current and State of Charge monitoring for the batteries.

The BMS manages battery module configurations including isolation measurement.

The IRT system will use a lithium-ion battery pack connected in parallel to lead acid batteries for full truck integration with standard wiring configurations.

BMS Features

- Monitors lithium-ion battery pack cell voltage, temperature, stack voltage, current, State of Charge, errors, contactor status
- BMS manages the lithium-ion battery pack
- Charger control via multiple CAN bus communications. J1939 for Command Zone™ and an isolated battery high speed CAN (250 kpbs) bus connected directly to lithium-ion battery pack.
- Multiple and configurable digital and analog I/O for shore power charge enable, ignition, switched battery, engine start.
- Automatic lithium-ion battery pack balance control
- Controls up to 4 contactors with configurable actions
- System ground isolation verification
- Outputs State of Charge and warning messages to the Command Zone™ system.
- BMS controller will control contactors to meet requirements when the lithium-ion battery pack charges and discharges.

Lithium-Ion Battery Pack

The vehicle will be equipped with lithium-ion battery pack with the following features.

- Automatic cell operation and balancing
- Temperature monitoring of cells
- Thread bolts
- Maintenance free
- No hydrogen generation or gassing
- Voltage, nominal 12.8 V
- Capacity @ 25C greater than 100 Ah

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- Discharge Cont. greater than 100 A
- Low voltage discharge cutoff protection
- Delivers stable voltage during discharge and increases equipment performance
- Provides longer life cycle than lead acid batteries
- Multiple levels of protection operation outside of current, voltage, and temperature limits with no thermal runaway, no corrosive acid leaks and no explosive gassing
- Environmentally safe because it does not contain toxic metals such as cobalt, lead, cadmium or any corrosive acids or alkalis
- Fuse protection for each lithium-ion battery pack

Location

The BMS, contactors and lithium-ion battery pack will be mounted into the standard right-side battery box eliminating the need to take up valuable pump or body compartment space and provide easy access for maintenance.

Lead Acid Battery Amperage Monitoring

The vehicle will require one (1) J1939 CAN based amperage monitoring system to broadcast the current flow of the lead acid batteries to the BMS and Command Zone™ III system or greater system.

The lead acid battery amperage monitoring system will be mounted near the lead acid batteries.

Cab Temperature Sensor

A J1939 CAN based temperature sensor will be mounted in the cab behind the officer seat to be integrated into the Command Zone™ system for IRT cab HVAC control.

Engine Interlock

Additional Command Zone™ system I/O and relays are required for BMS control and engine start/stop function.

IDLE REDUCTION, LITHIUM-ION, SYSTEM

The Command Zone™ electronics system auto shut down / auto start system will reduce engine idle time by allowing a parked, non-running apparatus to operate to the current edition of applicable NFPA standards warning, DOT and user defined Mission Critical options by utilizing a fully-charged lithium-ion battery pack to run at 150 amps for a minimum of one hour. This time will be based on the vehicle's factory configuration.

The system will not inhibit additional loads outside or those used to calculate its operational performance.

The system will estimate its remaining capacity based on the load it is experiencing. This estimation will be presented on the vehicle display and through the vehicle's broadcasted web page.

The system will monitor multiple conditions and react accordingly. The conditions monitored include battery voltage, cab temperature, engine temperature. These component conditions will initiate certain actions depending on the threshold changes and settings of the system. The primary focus of the system will be to ensure the vehicle has enough battery capacity to start at any time.

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The information center is intended for use on mobile severe duty emergency vehicles. The display will be usable by individuals wearing protective clothing including heavy gloves and in a wet and dirty environment.

System Requirements

The vehicle will require the Command Zone™ information center and other options.

Operational Scenario

The following is the expected nominal operation of the system:

- System is enabled or disabled by system maintainer by signing into the administrator screen of the information center which becomes the default setting
- Apparatus arrives on scene
- Parameters are met for engine shutdown
- Engine is shutdown
- System begins monitoring lithium-ion battery pack State of Charge (SOC)
- System activates heating or cooling system (if applicable)
- Lithium-ion battery pack SOC falls below threshold
- Engine auto starts

System Operation

Vehicle engine will shut off after 5 minutes of idle. This will allow for driveline components, such as the engine turbo, to return to an idle condition prior to shut down.

IRT can be activated manually prior to 5 minute shut off using the information center controls.

Vehicle electronics will remain operational:

- NFPA and DOT Lighting
- User defined Mission Critical
- Heater system and air conditioning requires vehicle engine operation. (Dependent on HVAC system installed).
- The vehicle engine will start automatically when reserve power has been depleted.

System Interlocks

The following conditions must be met to arm the auto shutdown / start system:

- Battery switch on
- Ignition on (Ignition must be on to turn on the Battery Management System (BMS) system)
- Parking brake is applied
- Chassis transmission is in neutral
- Cab fully engaged into lockdown latches
- Engine at idle
- No PTO activity
- No pump activity

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- Service brake not applied
- Shore power is not energized

Current Setting

The operator will have the capability to change the current setting of the IRT system. This will override the default setting for that ignition cycle only if the IRT system is enabled from the administration screen.

The operator will not be able to enable the IRT system, if high idle is enabled.

Note: In order for High Idle switch in cab to be enabled, the IRT system will be required to be disabled by the operator. All other high idle functions work as designed with exception that the cab high idle switch and OK to Engage High Indicator are disabled when IRT is enabled.

Auto Shutdown

The chassis diesel engine shutdown will be activated when all the following conditions have been met for five (5) consecutive minutes:

- Parking brake engaged
- Transmission is in neutral
- Lithium-ion battery pack SOC is sufficient
- Service brake is not pressed
- Water pump is inactive (If equipped)
- Engine is at idle
- Aerial Master/PTO is inactive (If equipped)
- PTO/Generator is inactive (If equipped)

When the engine is shut down due to the operational mode interlocks being met, the display will bring forward the IRT screen.

Auto Shutdown Sequence

60-Second Mark

- 60 seconds before the engine is auto shutdown, there will be a service notification on the information center. The information center will auto-navigate to the IRT screen when this occurs.

30-Second Mark

- 30 seconds before the engine is auto shutdown, there will be a service notification on the information center.

10-Second Mark

- 10 seconds before the engine is auto shutdown, there will be a service notification on the information center.

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0-Second Mark

- At the 0-second mark, engine will be commanded to shut down. The information center will auto-navigate to the IRT screen when this occurs.

Auto Start

The following interlock conditions will initiate the auto-start sequence:

- Lithium-ion battery pack State of Charge is depleted
- Battery System Voltage is below 12.0 V
- Lead acid batteries are supporting more than 20A of the load 1 minute 30 seconds after engine is off
- Cab cooling is required
- Cab heating is required
- Water pump is active (If equipped)
- Aerial Master/PTO is active (If equipped)
- PTO/Generator is active(If equipped)
- There is a reported issue with the lithium-ion Battery Management System (BMS)

Auto Start Sequence

60-Second Mark

- 60 seconds before the engine is auto start, there will be a service notification on the information center.

30-Second Mark

- 30 seconds before the engine is auto start, there will be a service notification on the information center.

10-Second Mark

- 10 seconds before the engine is auto start, there will be a service notification on the information center.

0-Second Mark

- At the 0-second mark, engine will be commanded to start.

Engine Auto Starting

Vehicle Monitoring

- The vehicle will monitor engine RPM to ensure the engine has successfully started. If engine RPM is greater than 600, the engine will be considered to have been started.

Cranking Cycles

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- Each engine crank will be a maximum of 5 seconds. There will be a delay of 10 seconds before another attempt can be made. The engine will attempt to crank a maximum of 3 cycles.

Failed Start

- If the truck fails to start, the IRT system will enter a faulted state, and a service notification will occur. In the faulted state all loads will be shut off, to allow the user to make a final attempt at starting.

The controller will exit the IRT operation without starting the engine, if any of the following are true:

- Ignition is off
- Shore power is energized
- Cab lock down latches become disengaged
- Park brake is released
- Transmission is not in neutral
- Comm Loss with engine
- Comm Loss with transmission
- Comm Loss with CZ Related modules
- Comm Loss with Lead Acid current sensor
- Comm Loss with lithium-ion battery pack BMS
- IRT mode is disabled

"Interlocks not met" will be displayed on the IRT mode screen in this condition.

Quick Start

The system will immediately start the engine if any of the following conditions are true when in IRT mode:

- Service brake is pressed for 3 seconds
- Engine start switch is activated

Cab Temperature Control

The IRT system will allow the operator to enable and disable control for HVAC while in the IRT state. The operator will be able to select a temperature range for the system to maintain. While the IRT system is maintaining the cabin temperature range, it will override user HVAC inputs.

Cab Temperature - HVAC Cooling

Cooling setpoints will be 80 degrees Fahrenheit, 75 degrees Fahrenheit, and 70 degrees Fahrenheit

If the cabin temperature rises 5 degrees above the setpoint, the IRT system will initiate the 60 second startup sequence to start the engine. While the engine is running, the IRT system will turn blowers on at 100 percent and command maximum cooling.

When cabin temperature falls 5 degrees below the setpoint, the IRT system will initiate the 60 second shutdown sequence.

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Cab Temperature - HVAC Heating

Heating setpoints will be 55 degrees Fahrenheit, 60 degrees Fahrenheit, and 65 degrees Fahrenheit

If the cabin temperature falls 5 degrees below the setpoint, the IRT system will initiate the 60 second startup sequence to start the engine. While the engine is running, the IRT system will turn blowers on at 100 percent and command maximum heating.

When cabin temperature rises 5 degrees above the setpoint, the IRT system will initiate the 60 second shutdown sequence.

Touch Screen Operation

Virtual Switch

No virtual switch panel operations will be allowed while in IRT mode. Overhead switch panels will still functional while the auto start system is active. This will allow the NFPA warning, DOT, and scene lights to be turned off or on.

Debugging Command Zone

Debugging will not be allowed while the IRT is "Operational".

Command Zone Information Screen Operation

Once the IRT system is enabled and interlock requirements are met the IRT system mode screen will be displayed.

Two (2) control switches will appear on the display. Indicators and colors are built into the firmware of the system and cannot be changed.

Virtual IRT enable switch will be located on the left-hand side of the screen.

The inner green ring will default to ON when the system is enabled.

The IRT can be activated and deactivated depressing the center of the switch.

The IRT can only be disabled for the current ignition switch cycle and will reactivate to the ON state during the next cycle.

The outer segments of the IRT switch show the State of Charge (SOC). All segments green indicates the lithium-ion battery pack is at a full state of charge. Segment colors will turn off clockwise as the SOC of the battery pack is decreased. When one remaining segment is shown it will turn amber showing the SOC is low. If the truck is in IRT mode with engine off, it will auto start the engine and will not re-enter IRT mode until SOC is 80 percent or higher.

Virtual IRT shutdown switch is located below the IRT switch and can be utilized to enter IRT immediately when IRT interlock requirements are met prior to the timed interval to shut the engine off.

Virtual bar graph below the IRT switch will indicate the amperage draw from the lithium-ion battery pack in the IRT mode for all lights and or loads activated with the engine off.

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Virtual bar graph displays a bar in the center of the graph that will indicate the truck specific amperage requirements from the report for NFPA, DOT and user defined mission critical options selected to operate in the IRT mode. Activations of additional loads will show the green bar go above the center point. The bar used only as a gauge to view that amperage usage is higher than reported and will decrease time with engine in IRT mode. Operator may activate loads as needed through the fully integrated system.

Virtual cab temperature control switch will be located on the right-hand side of the screen.

The virtual cab temperature control switch inner green ring will retain the previous setting when the system is enabled.

The cab temperature switch can be activated and deactivated by depressing the switch center.

Arrow buttons below the switch will move the cab temperature switch left or right. There are three selections each for cooling or heating the cab. These ranges are set in firmware and cannot be modified.

The bar graph below the cab temperature switch will have a green indicator showing where the operator setpoint is selected.

The operator will have 3 cooling setpoints (80 degrees Fahrenheit, 75 degrees Fahrenheit, 70 degrees Fahrenheit).

The operator will have 3 heating setpoints (55 degrees Fahrenheit, 60 degrees Fahrenheit, 65 degrees Fahrenheit).

Deactivation of the cab temperature switch will increase the amount of IRT engine off time to maximum efficiency because the engine will not have to start and stop as needed to keep the requested temperature range in the cab to meet operational requirements for each department.

ENGINE BRAKE

A Jacobs® engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver.

The driver will be able to turn the engine brake system on/off and have a high, medium and low setting.

The engine brake will activate when the system is on and the throttle is released.

The high setting of the brake application will activate and work simultaneously with the variable geometry turbo (VGT) provided on the engine.

The engine brake will be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated.

The ABS system will automatically disengage the auxiliary braking device, when required.

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CLUTCH FAN

A Horton® fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and fully engaged in "Pump" position.

ENGINE AIR INTAKE

An air intake with an ember separator (to prevent road dirt, burning embers, and recirculating hot air from entering the engine) will be mounted at the front of the apparatus, on the passenger side of the engine. The ember separator will be mounted in the air intake with flame retardant, roto-molded polyethylene housing. It will be easily accessible by the hinged access panel at the front of the vehicle.

EXHAUST SYSTEM

The exhaust system will be stainless steel from the turbo to the engine's aftertreatment device. The exhaust system will include an aftertreatment device to meet current EPA standards. An insulation wrap will be provided on all exhaust pipe between the turbo and the aftertreatment device to minimize the transfer of heat to the cab.

The exhaust will terminate horizontally ahead of the right side rear wheels and will be extend 2.00" past the body rub rail . The exhaust pipes will be aluminized steel.

There will be an aluminized steel exhaust diffuser with a standard straight tip on the end provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

RADIATOR

The radiator and the complete cooling system will meet or exceed the current edition of applicable NFPA and engine manufacturer cooling system standards.

For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The core will be made of aluminum fins, having a serpentine design, brazed to aluminum tubes. The tubes will be brazed to aluminum headers. The radiator core will have a minimum frontal area of 1434 square inches. Supply tank made of glass-reinforced nylon and a return tank of cast aluminum alloy will be crimped on to the core assembly using header tabs and a compression gasket to complete the radiator core assembly. The radiator will be compatible with commercial antifreeze solutions.

There will be a full steel frame around the entire radiator core assembly. The radiator core assembly will be isolated within the steel frame by rubber inserts to enhance cooling system durability and reliability. The radiator will be mounted in such a manner as to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. The radiator assembly will be isolated from the chassis frame rails with rubber isolators.

The radiator assembly will include an integral de-aeration tank permanently mounted to the top of the radiator framework, with a readily accessible remote-mounted overflow tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap.

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A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system.

A heavy-duty fan will draw in fresh, cool air through the radiator. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.

COOLANT LINES

Gates® silicone or a combination of silicone and rubber hoses will be used for the radiator and cab heater hoses installed by the chassis manufacturer.

The chassis manufacturer will also use Gates® brand hose on other heater and auxiliary coolant circuits. There will be some areas in which an appropriate Gates product is not available. In those instances a comparable silicone hose from another manufacturer will be used.

Rubber hoses will be used for the overhead defrost/heater system only in the drain tubes of the cab.

Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.

FUEL TANK

A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps.

A .75" drain plug will be located in a low point of the tank for drainage.

The engine fuel fill inlet will be located adjacent to the DEF inlet and a single air bottle behind a common door on the driver side of the vehicle. The fuel fill inlet will be marked "Ultra Low Sulfur - Diesel Fuel Only."

A .50" diameter vent will be installed from tank top to just below fuel fill inlet.

The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.

All fuel lines will be provided as recommended by the engine manufacturer.

DIESEL EXHAUST FLUID TANK

A 4.5 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle.

A 0.50" drain plug will be provided in a low point of the tank for drainage.

A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the air bottle storage behind a common door on the driver side of the vehicle.

The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.

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The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.

FUEL PRIMING PUMP

A Cummins automatic electronic fuel priming pump will be integrated as part of the engine.

FUEL SHUTOFF

A fuel line shutoff valve will be installed on both the inlet and outlet of the primary fuel filter.

FUEL SEPARATOR

The engine will be equipped with a Racor in-line spin-on fuel and water separator in addition to the engine fuel filters.

TRANSMISSION

An Allison 6th generation, Model EVS 4500P, electronic, torque converting, automatic transmission will be provided.

Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock).

A transmission temperature gauge with amber light and buzzer will be installed on the cab instrument panel.

TRANSMISSION SHIFTER

A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation.

The transmission ratio will be: 1st - 4.70 to 1.00, 2nd - 2.21 to 1.00, 3rd - 1.53 to 1.00, 4th - 1.00 to 1.00, 5th - 0.76 to 1.00, 6th - 0.67 to 1.00, R - 5.55 to 1.00.

TRANSMISSION COOLER

A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.

DRIVELINE

Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints.

The shafts will be dynamically balanced before installation.

A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.

STEERING

Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and an Eaton, Model VN20, hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings.

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A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.

STEERING WHEEL

The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.

LOGO AND CUSTOMER DESIGNATION ON DASH

The dash panel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row.

The first row of text will be: Olympia

The second row of text will be: Fire

The third row of text will be: Department

BUMPER

A one (1) piece, ten (1) gauge, 304-2B type polished stainless steel bumper, a minimum of 10.00" high, will be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength.

The bumper will be extended 19.00" from front face of cab.

Gravel Pan

A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate.

CENTER HOSE TRAY

A hose tray, constructed of aluminum, will be placed in the center of the bumper extension.

The tray will have a capacity of 150' of 1.75" double jacket cotton-polyester hose.

Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.

Center Hose Tray Cover

A bright aluminum treadplate cover will be provided over the center hose tray.

The cover will be attached with a stainless steel hinge.

One (1) D-ring latch will secure the cover in the closed position and a pneumatic stay arm will hold the cover in the open position.

LIFT AND TOW MOUNTS

Mounted to the frame extension will be lift and tow mounts. The lift and tow mounts will be designed and positioned to adapt to certain tow truck lift systems.

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The lift and tow mounts with eyes will be painted the same color as the frame.

TOW EYES

Two (2) chromed steel tow eyes will be installed on the inside of the frame through the face of the bumper extension. The tow eyes will not be used for lifting of the apparatus.

The tow eyes will be fabricated from 1.00" diameter round stock and formed with a 4.00" diameter.

CAB

The Velocity cab will be designed specifically for the fire service and will be manufactured by Pierce Manufacturing.

To provide quality at the source and single source customer support, the cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises.

For reasons of structural integrity and enhanced occupant protection, the cab will be of heavy duty design, constructed to the following minimal standards.

The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts) and rear wall areas. The A-pillar will be constructed of 0.25" heavy wall extrusions joined by a solid A356-T6 aluminum joint casting. The B-pillar and C-pillar will also be constructed from 0.25" heavy wall extrusions. The rear wall will be constructed of two (2) 4.00" x 2.00" outer aluminum extrusions and two (2) 3.00" x 2.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 7.50" x 3.50" x 0.125" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.75" thick corner casting at each of the front corners of the roof assembly.

The front of the cab will be constructed of a 0.25" thick firewall, covered with a 0.125" front skin (for a total thickness of 0.38"), and reinforced with 24.50" wide x 10.00" deep x 0.50" thick supports on each side of the engine tunnel. The cross-cab support will be welded to the A-pillar, 0.25" firewall, and engine tunnel, on the left and right sides.

The cab floors will be constructed of 0.1875" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.44" of structural material at the front floor area. The front floor area will also be supported with three (3) 0.50" plates bolted together that also provides the mounting point for the cab lift. This tubing will run from the front of the cab to the 0.1875" thick engine tunnel, creating the structure to support the forces created when lifting the cab.

The cab will be a full-tilt style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab.

The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants.

The centerline of front axle to the rear of the cab will be 70.00" long.

The forward cab section will have an overall height (from the cab roof to the ground) of approximately 102.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of

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approximately 112.00". The raised portion will start at the most forward point of the B-pillar and continue rearward to the back of the cab. The overall height listed will be calculated based on a truck configuration with the lowest suspension weight ratings, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed.

The cab will have an interior width of not less than 93.50". The driver and passenger seating positions will have a minimum 24.00" clear width at knee level.

To reduce injuries to occupants in the seated positions, proper head clearance will be provided. The floor-to-ceiling height inside the forward cab will be no less than 60.25". The floor-to-ceiling height inside the crew cab will be no less than 62.95" in the center position and 68.75" in the outboard positions.

The crew cab will measure a minimum of 57.50" from the rear wall to the backside of the engine tunnel (knee level) for optimal occupant legroom.

FENDER LINERS

Full-circular, aluminum, inner fender liners in the wheel wells will be provided.

PANORAMIC WINDSHIELD

A one (1)-piece, safety glass windshield with more than 2,802 square inches of clear viewing area will be provided. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: the outer light, the middle safety laminate, and the inner light. The 0.114" thick outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance.

WINDSHIELD WIPERS

Three (3) electric windshield wipers with a washer, in conformance with FMVSS and SAE requirements, will be provided. The wiper blades will be 21.65" long and together will clear a minimum of 1,783 square inches of the windshield for maximum visibility in inclement weather.

The windshield washer fluid reservoir will be located at the front of the vehicle and be accessible through the access hood for simple maintenance.

FAST SERVICE ACCESS FRONT TILT HOOD

A full-width access hood will be provided for convenient access to engine coolant, steering fluid, wiper fluid, cab lift controls, headlight power modules, and ember separator. The hood will also provide complete access to the windshield wiper motor and components. The hood will be contoured to provide a sleek, automotive appearance. The hood will be constructed of two (2) fiberglass panels bonded together and will include reinforcing ribs for structural integrity. The hood will include air cylinders to hold the hood in open and closed positions, and a heavy duty latch system that will meet FMVSS 113 (Hood Latch System). The spring-loaded hood latch will be located at the center of the hood with a double-action release lever located behind the Pierce logo. The two (2)-step release

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requires the lever first be pulled to the driver side until the hood releases from the first latch (primary latch) then to the passenger side to fully release the hood (secondary latch).

ENGINE TUNNEL

To provide structural strength, the engine tunnel sidewalls will be constructed of 0.50" aluminum plate that is welded to both the 0.25" firewall and 0.38" heavy wall extrusion under the crew cab floor. To maximize occupant space, the top edges will be tapered.

The engine tunnel will be insulated for protection from heat and sound. Perforated foil faced insulation will be over a 1.00" thick closed cell foam affixed with pressure sensitive adhesive and further secured with mechanical fasteners. Thermal rating for this insulation will be -40 degrees Fahrenheit to 300 degrees Fahrenheit. The noise insulation keeps the dBA level within the limits stated in the current edition of applicable NFPA standards.

INTERIOR CAB INSULATION

The cab will include 1.50" insulation in the ceiling, 3.00" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation.

CAB REAR WALL EXTERIOR COVERING

The exterior surface of the rear wall of the cab will be overlaid with brushed stainless steel except for areas that are not typically visible when the cab is lowered.

CAB LIFT

A hydraulic cab lift system will be provided, consisting of an electric-powered hydraulic pump, fluid reservoir, dual lift cylinders, remote cab lift controls and all necessary hoses and valves. The hydraulic pump will have a backup manual override, for use in the event of an electrical failure.

The cab lift controls will be located at the driver side front of the cab, easily accessible under the full width front access hood. The controls will include a permanently mounted raise/lower switch. A "cab unlocked" indicator light will be located at the controls that will indicate when the cab is not in the locked position for safe road travel. For enhanced visibility during cab tilt operations, a remote control tether with on/off switch will be supplied on a coiled cord that will extend from 2' (coiled) to 6' (extended).

The cab will be capable of tilting 42 degrees and 80 degrees with crane assist to accommodate engine maintenance and removal. The cab pivots will be located 46.00" apart to provide stability while tilting the cab.

The rear of the cab will be locked down by a two (2)-point, automatic, hydraulic, double hook mechanism that fully engages after the cab has been lowered (self-locking). The dual 2.25" diameter hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the cab is in the tilt position.

For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the driver side between the chassis and cab frame when cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered.

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Cab Lift Interlock

The cab lift safety system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.

GRILLE

A bright finished aluminum mesh grille screen, inserted behind a formed bright finished grille surround, will be provided on the front center of the cab, and will serve as an air intake to the radiator.

DOOR JAMB SCUFFPLATES

All cab door jambs will be furnished with a 1.00" polished stainless steel scuffplate, mounted on the striker side of the jamb.

SCUFFPLATE

An "L"-shaped brushed stainless steel scuffplate will be provided on the edge of the rear facing seat risers. The angle will be full-length of each seat riser on both sides of the cab.

FRONT CAB TRIM

A band of 22 gauge polished stainless steel trim will be installed across the front of the cab, from door hinge to door hinge. The trim band will be centered on the head lights and applied with two (2)-sided tape. A 0.625" self adhesive trim strip will be applied around the perimeter of the trim band.

There will be polished stainless steel corner covers provided over the painted cab corner where the cab turn signals are located.

MIRRORS

A Retrac, Model 613423, dual vision, motorized, west coast style mirror, with chrome finish, will be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass will be heated and adjustable with remote control within reach of the driver.

FRONT CROSS VIEW MIRROR

An 8.00" diameter round convex mirror will be provided over the officer's side front corner of the cab. The mirror will provide the driver with a view of the front bumper and the area several feet in front of the truck.

The mirror housing, tubing, clamps, and hardware will be constructed of corrosion resistant stainless steel.

The mirror will be heated with the control inside the cab.

CAB DOORS

The forward cab and crew cab doors will be the half-height style door. To enhance entry and egress to the cab, the forward cab doors will be a minimum of 43.59" wide x 64.71" high. The crew cab doors will measure a minimum of 37.87" wide x 73.75" high.

The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.125". The exterior door skins will be constructed from 0.090" aluminum.

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The forward cab door windows will include a 7.50" high x 10.00" wide drop area at the front to enhance visibility.

A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be chrome/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands.

Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands.

The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed.

A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit.

A chrome grab handle will be provided on the inside of each cab and crew cab door.

A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted.

The cab steps at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.

Door Panels

The inner cab door panels will be constructed out of brushed stainless steel. The cab door panels will be removable.

RECESSED POCKET WITH ELASTIC COVER

To provide organized storage (clutter control) in the cab for miscellaneous equipment, the cab interior will be provided with recessed storage pockets. The pockets will be 5.63" wide x 2.00" high x 4.00" deep. The pockets will be provided with a perforated elastic material cover to secure the equipment in the pocket. The pockets will be installed in all available mounting locations of the overhead console.

ELECTRIC WINDOW CONTROLS

Each cab entry door will be equipped with an electrically operated tempered glass window. A window control panel will be located on the door panel within easy reach of the respective occupant. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second. The driver control panel will contain a control switch for each cab door's window. All other door control panels will contain a single switch to operate the window within that door.

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The window switches will be connected directly to the battery power. This allows the windows to be raised and lowered when the battery switch is in the off position.

ELECTRIC CAB DOOR LOCKS

The front driver and passenger doors will have a door lock master switch (custom designed rotary lock knob) built into the interior door latch that will control all front and rear side exit door locks. Each rear cab door will have its own lock control. Each door will have a keyed exterior lock mechanism built into the door handle assembly.

The cab exterior cabinet door compartments will have a mechanism provided to allow the door to have keyless entry. Only the cab exterior cabinet doors will be tied to the lock master switch.

There will be one (1) concealed switch on the exterior of the cab, located under engine hood, Driver's side, that operates the cab door and exterior EMS compartment locks.

The lock system will include two (2) key FOBs that allow for keyless entry into the vehicle. The key FOB system will use code hopping technology for high security and be FCC part 15 compliant.

DUAL STEPS

A dual step will be provided below each cab and crew cab door. The steps will be designed with a grip pattern punched into bright aluminum treadplate material providing support, slip resistance, and drainage. The steps will be a bolt-on design and provide a 24.00" wide x 7.00" deep stepping surface. The step design raises the middle step higher and closer to the cab floor, resulting in a 12.00" distance from the step to cab floor in the cab and a 13.50" distance from the step to cab floor in the crew cab. Stepping distances from the ground to first step will be 16.50" and from first step to middle step will be 12.00".

The steps and vertical surfaces of the step wells shall be coated with black Safe-Stride® non-slip surface treatment.

The first step will be lit by a white 12 volt DC LED light provided on the step.

CAB EXTERIOR HANDRAILS

A Hansen knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress. Each handrail will be provided with white LED lights. The lights will be activated when the parking brake is applied. The LED lights may be load managed.

STEP LIGHTS

There will be four (4) white P25 LED step lights provided. The lights will be installed at each cab and crew cab door, one (1) per step. The lights will be located in the driver side front doorstep, driver side crew cab doorstep, passenger side front doorstep and passenger side crew cab doorstep.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light.

The light(s) will have a chrome housing.

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The lights will be activated when the adjacent door is opened.

FENDER CROWNS

Stainless steel fender crowns will be installed at the cab wheel openings. The fender crowns will have a radius outside corner that will allow the fender crown to extend out further than the standard width crown, thus extending beyond the sidewall of the front tires and allow the crew cab doors to open fully.

GRAB HANDLE(S)

There will be one (1) chrome grab handle(s) mounted in the interior of the cab officer side cab dash, mounted vertical. The grab handle(s) will be securely mounted.

INTERIOR CREW CAB DOOR HANDRAIL

A handrail will be provided on each interior crew cab door pan. The handrails will be mounted at a 45 degree angle. These are in addition to the standard crew cab door handle.

STORAGE COMPARTMENT

Provided on each side of the cab, below the cab floor and to the rear of the crew cab access doors, will be a storage compartment.

The compartments will be approximately 10.71" wide x 19.25" high x 22.00" deep at the top and 18.75" at the bottom. The bottom front of the compartment will be blistered for side wall support. The clear door opening will be 9.50" wide x 16.50" high.

Each door will be a painted single pan construction with a quarter turn mini D-Handle latch. A rubber covered bumper will be used as a door stop.

The compartment interior will be painted spatter gray.

Compartment Light

There will be no lights required in the compartments.

CAB ROOF DRIP RAIL

For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be constructed of bright polished extruded aluminum, and be bonded to the sides of the cab. The drip rail will extend the full length of the cab roof.

WORK SURFACE(S)

There will be one (1) work surface(s) provided on the engine tunnel. The work surface(s) will be approximately as large as possible with a 1" lip and constructed of 0.19" aluminum to allow the mounting of equipment. The work surface(s) will be located tight to the instrument panel to extend to the compartment on the top of the engine tunnel. . There will be a 1.00" lip provided around the entire edge of each work surface. Each work surface will be painted to match the cab interior.

AIR BOTTLE HOLDERS

There will be one (1) Gen II Hands-Free bracket(s) provided in the crew cab. For efficiency and convenience, the bracket will include an automatic spring clamp that allows the user to store the SCBA bottle by simply pushing it into the bracket. For protection of all occupants in the cab, in the event of an

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accident, the inertial components within the clamp will constrain the SCBA bottle for up to a 9G force (dynamic sled test), which meets the current edition of applicable NFPA standards.

The bracket(s) will be located rear wall of the crew cab, driver's side in board of the hand lights, low.

CAB INTERIOR

With safety as the primary objective, the wrap-around style cab instrument panel will be designed with unobstructed visibility to instrumentation. The dash layout will provide the driver with a quick reference to gauges that allows more time to focus on the road.

The center console will be a high impact ABS polymer and will be easily removable.

The passenger side dashboard will be constructed of painted aluminum for durability and low maintenance. For enhanced versatility, the passenger side dash will include a flat working surface.

To provide optional (service friendly) control panels, switches and storage modules, a painted aluminum overhead console will also be provided.

To complete the cab front interior design, painted aluminum modesty panels will be provided under the dash on both sides of the cab. The driver side modesty panel will provide mounting for the battery switch and diagnostic connectors, while the passenger side modesty panel provides a glove box, and ground access to the main electrical distribution panel via quick quarter turn fasteners.

To provide a deluxe automotive interior, the engine tunnel, side walls and rear wall will be covered by a leather grain vinyl that is resistant to oil, grease, and mildew.

The headliner will be installed in both forward and rear cab sections. The headliner panel will be a composition of an aluminum panel covered with a sound barrier and upholstery.

The cab structure will include designated raceways for electrical harness routing from the front of the cab to the rear upper portion of the cab. Raceways will be extruded in the forward door frame, floor, walls and overhead in the area where the walls meet the ceiling. The raceways located in the floor will be covered by aluminum extrusion, while the vertical and overhead raceways will be covered by painted aluminum covers. The raceways will improve harness integrity by providing a continuous harness path that eliminates wire chafing and abrasion associated with exposed wiring or routing through drilled metal holes. Harnesses will be laid in place.

CAB INTERIOR UPHOLSTERY

The cab interior upholstery will be 36 oz black vinyl. All cab interior materials will meet FMVSS 302 (flammability of interior materials).

CAB INTERIOR PAINT

The following metal surfaces will be painted black, vinyl textured paint:

- Modesty panel in front of driver
- Vertical surface of dash in front of the officer (not applicable for recessed dash)
- Glove box in front of the officer (if applicable)
- Power distribution in front of the officer

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- Rear heater vent panels

The remaining cab interior metal surfaces will be painted gray, vinyl texture paint.

CAB FLOOR

The cab and crew cab flooring will be constructed with bright aluminum treadplate.

DEFROST/AIR CONDITIONING SYSTEM

A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area.

Cab Defroster

A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following:

- One (1) adjustable will be directed towards the left side cab window
- One (1) adjustable will be directed towards the right side cab window
- Six (6) fixed outlets will be directed at the windshield

The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements.

Cab/Crew Auxiliary Heater

There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat risers with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward positions.

Air Conditioning

A 19.10 cubic inch compressor will be installed on the engine.

A roof-mounted condenser with a 78,000 BTU output at 2,400 SCFM that meets and exceeds the performance specification will be installed on the cab roof. The condenser cover to be painted to match the cab roof.

The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours.

The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab.

The evaporator unit will have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications.

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Adjustable air outlets will be strategically located on the forward plenum cover per the following:

- Four (4) will be directed towards the seating position on the left side of the cab
- Four (4) will be directed towards the seating position on the right side of the cab

Adjustable air outlets will be strategically located on the evaporator cover per the following:

- Five (5) will be directed towards crew cab area

A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be secured with four (4) screws.

The air conditioner refrigerant will be R-134A and will be installed by a certified technician.

Climate Control

An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control.

The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature.

The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position.

Gravity Drain Tubes

Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.

The drain tubes will terminate under the cab, on the inboard side of the front wheelwells.

SUN VISORS

Two (2) smoked Lexan™ sun visors will be provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab.

There will be no retention bracket provided to help secure each sun visor in the stowed position.

GRAB HANDLE

A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The grab handle will be securely mounted to the post area between the door and windshield.

The driver's grab handle will be 3.00" higher than the officer's grab handle, to allow additional clearance between the steering wheel and grab handle.

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ENGINE COMPARTMENT LIGHTS

There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination.

These light(s) will be activated automatically when the cab is raised.

ACCESS TO ENGINE DIPSTICKS

For access to the engine oil and transmission fluid dipsticks, there will be a door on the engine tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on the vertical surface. The door will be flush with the wall of the engine tunnel.

The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. An additional port will be provided for filling the engine oil.

The door will have a rubber seal for thermal and acoustic insulation. One (1) flush lift and turn latch will be provided on the access door.

MAP BOX

There will be one (1) map box(es) with three (3) bins, open at top, installed ship loose. The map box will be divided into three (3) bins, each being 12.00" wide x 4.00" deep x 8.00" high. The map box will be constructed of .125" aluminum and will be painted to match the cab interior.

MAP POCKET(S)

There will be one (1) map pocket(s) installed install forward of the officer's seat on the lower dash. Each pocket will be 10.50" wide x 10.00" high x 1.00" deep and constructed of polished stainless steel.

CAB SAFETY SYSTEM

The cab will be provided with a safety system designed to protect occupants in the event of a side roll or frontal impact, and will include the following:

- A supplemental restraint system (SRS) sensor will be installed on a structural cab member behind the instrument panel. The SRS sensor will perform real time diagnostics of all critical subsystems and will record sensory inputs immediately before and during a side roll or frontal impact event.
- A slave SRS sensor will be installed in the cab to provide capacity for eight (8) crew cab seating positions.
- A fault-indicating light will be provided on the vehicle's instrument panel allowing the driver to monitor the operational status of the SRS system.
- A driver side front air bag will be mounted in the steering wheel and will be designed to protect the head and upper torso of the occupant, when used in combination with the 3-point seat belt.
- A passenger side knee bolster air bag will be mounted in the modesty panel below the dash panel and will be designed to protect the legs of the occupant, when used in combination with the 3-point seat belt.
- Air curtains will be provided in the outboard bolster of outboard seat backs to provide a cushion between occupant and the cab wall.

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- Suspension seats will be provided with devices to retract them to the lowest travel position during a side roll or frontal impact event.
- Seat belts will be provided with pre-tensioners to remove slack from the seat belt during a side roll or frontal impact event.

Frontal Impact Protection

The SRS system will provide protection during a frontal or oblique impact event. The system will activate when the vehicle decelerates at a predetermined G force known to cause injury to the occupants. The cab and chassis will have been subjected, via third party test facility, to a crash impact during frontal and oblique impact testing. Testing included all major chassis and cab components such as mounting straps for fuel and air tanks, suspension mounts, front suspension components, rear suspensions components, frame rail cross members, engine and transmission and their mounts, pump house and mounts, frame extensions and body mounts. The testing provided configuration specific information used to optimize the timing for firing the safety restraint system. The sensor will activate the pyrotechnic devices when the correct crash algorithm, wave form, is detected.

The SRS system will deploy the following components in the event of a frontal or oblique impact event:

- Driver side front air bag
- Passenger side knee bolster air bag
- Air curtains mounted in the outboard bolster of outboard seat backs
- Suspension seats will be retracted to the lowest travel position
- Seat belts will be pre-tensioned to firmly hold the occupant in place

Side Roll Protection

The SRS system will provide protection during a fast or slow 90 degree roll to the side, in which the vehicle comes to rest on its side. The system will analyze the vehicle's angle and rate of roll to determine the optimal activation of the advanced occupant restraints.

The SRS system will deploy the following components in the event of a side roll:

- Air curtains mounted in the outboard bolster of outboard seat backs
- Suspension seats will be retracted to the lowest travel position
- Seat belts will be pre-tensioned to firmly hold the occupant in place

SEATING CAPACITY

The seating capacity of the vehicle (including tiller cab and belted seat positions in the rescue body) will be five (5).

DRIVER SEAT

A USSC, Model P1A, air suspension seat will be provided in the cab for the driver. For increased convenience, the seat will include a manual control to adjust the height (2.50" travel) and horizontal position (6.00" travel). To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 90 degrees to 45 degrees rearward. To ensure safe operation, the seat will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.

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The seat will include the following features incorporated into the side roll protection system:

- Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position.
- A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt and retract the seat to its lowest travel position.

The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

Shipped loose with the seat will be no additional contaminant mitigation vinyl covers.

OFFICER SEAT

A USSC, P1A, SCBA air suspension seat will be provided in the cab for the officer. For optimal comfort, the seat will be provided with 17.00" deep cushion. For increased convenience, the seat will include a manual control to adjust the height (3.00" travel) and horizontal position (4.25" travel). To ensure safe operation, the seat will be equipped with a sensor in the seat cushion and belt receptacle that will activate an alarm indicating the seat is occupied but not buckled.

The seat back will be an SCBA back style with a 95 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 0.75" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location.

The seat will include the following features incorporated into the side roll protection system:

- Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position.
- A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt, then retract the seat to its lowest travel position.

The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

There will be no additional contaminant mitigation vinyl covers shipped loose with the seat.

REAR FACING LEFT SIDE CABINET

A rear facing cabinet will be provided in the crew cab at the left side outboard position with interior and exterior access. The cabinet will be mounted off the edge of the seat riser so that it is even with the crew cab door frame.

The cabinet will be 24.00" wide x 40.50" high x 24.00" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings. The nylon webbing will be permanently fastened at the inboard side of the cabinet. Two (2) vertical metal bars the height of the cabinet will hook onto footman loops at the top and 1.00" web straps will loop through footman loops located at the bottom of the cabinet. The straps will attach to the bottom of the bar with a spring clip and hook fastener. The interior clear door opening will be 19.25" wide x 37.50" high.

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The cabinet will include two (2) infinitely adjustable shelves with a 0.75" up-turned lip painted to match the cab interior.

The cabinet will include no louvers.

The cabinet will also provide exterior access with one (1) reverse hinged double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. A pneumatic stay arm will be provided as a door stop. The clear door opening will 19.75" wide x 38.00" high.

The exterior access will be provided with a polished stainless steel scuffplate on the lower door frame.

The cabinet will be constructed of smooth aluminum and painted to match the cab interior.

Cabinet Light

There will be one (1) Amdor H2O LED strip light installed on the left side of the interior cabinet door opening. The lights will be controlled by an automatic door switch and a rocker switch on the front of the cabinet.

REAR FACING RIGHT SIDE CABINET

A rear facing cabinet will be provided in the crew cab at the right side outboard position. The cabinet will be mounted off the edge of the seat riser so that it is even with the crew cab door frame.

The cabinet will be 21.50" wide x 40.50" high x 20.00" deep. The interior door will be web netting. The netting will be made with 1.00" wide nylon material with 2.00" openings permanently fastened on the right side with spring clip and hook fasteners on the left side to secure it. The clear door opening will be 16.75" wide x 37.50" high.

The cabinet will include two (2) infinitely adjustable shelves with a 0.75" up-turned lip painted to match the cab interior.

The cabinet will include no louvers.

The cabinet will also provide access from outside the cab with one (1) reverse hinged double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. A pneumatic stay arm will be provided as a door stop. The exterior clear door opening will be 16.00" wide x 38.00" high. The door will be located on the side of the cab over the wheelwell.

The exterior access will be provided with a polished stainless steel scuffplate on the lower door frame.

The cabinet will be constructed of smooth aluminum, and painted to match the cab interior.

Cabinet Light

There will be one (1) Amdor H2O LED strip light installed on the right side of the exterior cabinet door opening. The lighting will be controlled by an automatic door switch and a rocker switch on the front of the cabinet.

FORWARD FACING CENTER SEATS

There will be two (2) forward facing, USSC Valor, SCBA seats provided at the center position in the crew cab. For optimal comfort, the seats will be provided with 15.00" deep cushions. To ensure safe

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operation, the seats will be equipped with a sensor in the seat cushion and belt receptacle that will activate an alarm indicating the seat is occupied but not buckled.

The seat backs will be an SCBA style with a 95 degree fixed recline angle. The SCBA cavity will be adjustable from front to rear in 0.75" increments to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location.

The seats will include the following features incorporated into the side roll protection system:

- A seat safety system will be included. When activated, this system will pretension the seat belts.

The seats will be furnished with a 3-point, shoulder type seat belts. The seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

FORWARD FACING PASSENGER SIDE OUTBOARD SEAT

There will be one (1) forward facing, USSC Valor foldup seat provided at the passenger side outboard position in the crew cab. For optimal comfort, and to maximize accessibility to the crew cab, the seat will be provided with 17.00" deep cushion. The seat back will be an I-back style and include recline capability. To ensure safe operation, the seat will be equipped with a sensor in the seat cushion and belt receptacle that will activate an alarm indicating the seat is occupied but not buckled.

The seat will include the following features incorporated into the side roll protection system:

- Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position.
- A seat safety system will be included. When activated, this system will pretension the seat belt.

The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

Shipped loose with the seat will be no additional contaminant mitigation vinyl covers.

REAR FACING CENTER CABINET

A rear facing cabinet will be provided in the crew cab on the top rear of the engine tunnel.

The cabinet will be 43.00" wide x 16.00" high x 18.00" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings. The nylon webbing will be permanently fastened at the bottom side of the cabinet and have spring clip and hook fasteners on the opposite side to secure it. The clear door opening will be 40.50" wide x 13.00" high.

There will be two (2) "Z" shaped vertical dividers with a flange on the top and bottom for mounting provided Match #34790.

The cabinet will include no adjustable shelves or trays painted to match the cab interior.

The cabinet will include no louvers.

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The cabinet will be constructed of smooth aluminum and painted to match the cab interior.

Cabinet Light

There will be one (1) white Amdor LED strip light installed horizontally above the interior cabinet door opening. The lighting will be controlled by a rocker switch on the front of the cabinet.

LIP ON CABINET

There will be a 1.00" lip provided around the top perimeter of the cabinet. There will NOT be anything stored on the top portion without restraints

There will be one (1) cabinets(s) provided with the lip top of the compartment above the engine tunnel.

CABINET FALSE FLOOR

A sweep out false floor will be provided on the floor of the cabinet located both rear facing EMS compartments to provide ease of access to remove contents. The floor will not impact the clear door opening height.

The false floor will be provided in two (2) cabinets.

FORWARD FACING OVERHEAD STORAGE COMPARTMENT

There will be an overhead forward-facing storage compartment installed at the raised roof within the crew cab. The compartment will be 74.00" wide x 10.00" high x 14.00" deep.

The compartment will include two (2) lift up compartment doors. Non-locking latch paddle handle latches and gas operated stay arms will be provided. The compartment will be provided with no divider between each door opening.

The storage compartment lighting will consist of one (1) white LED strip light installed horizontally above each compartment door opening.

The compartments will be constructed of smooth aluminum, and painted to match the cab interior.

SEAT UPHOLSTERY

All seat upholstery will be black, sewn with red stitching, ValorTechXD anti-microbial material.

AIR BOTTLE HOLDERS

All SCBA type seats in the cab will have a "Hands-Free" auto clamp style bracket in its backrest. For efficiency and convenience, the bracket will include an automatic spring clamp that allows the occupant to store the SCBA bottle by simply pushing it into the seat back. For protection of all occupants in the cab, in the event of an accident, the inertial components within the clamp will constrain the SCBA bottle in the seat and will exceed the NFPA standard of 9G.

There will be a quantity of two (2) SCBA brackets.

SEAT BELTS

All seating positions in the cab, crew cab and tiller cab (if applicable) will have red seat belts.

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To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of applicable NFPA and CAN/ULC - S515 standards.

The 3-point shoulder type seat belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location.

Any flip up seats will include a 3-point shoulder type belts only.

SHOULDER HARNESS HEIGHT ADJUSTMENT

All seating positions furnished with 3-point shoulder type seat belts will include a height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter.

A total of five (5) seating positions will have the adjustable shoulder harness.

HELMET STORAGE PROVIDED BY FIRE DEPARTMENT

NFPA 1900, 2024 edition, section 11.1.8.4.1 requires a location for helmet storage be provided.

There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.

CAB DOME LIGHTS

There will be four (4) dual LED dome lights with black bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab.

The color of the LED's will be red and white.

The white LED's will be controlled by the door switches and the lens switch.

The color LED's will be controlled by the lens switch.

In order to ensure exceptional illumination, each white LED dome light will provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.

ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS

The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed.

The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.

OVERHEAD MAP LIGHTS

There will be two (2) Peterson, Model M371S, rectangular LED adjustable map lights installed in the cab:

- One (1) overhead in front of the driving position.
- One (1) overhead in front of the passenger's position.

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Each light will include a switch on the light housing.

The light switches will be connected directly to the battery switched power.

MAP LIGHT

There will be two (2) Federal Littlite® LED map light(s) provided in the cab and located two in the crew cab between the seats. Each map light will have a on/off switch with a 18.00" long flexible neck that exits the side of the chassis mount. The map light(s) wiring will exit from the bottom of the chassis mount.

Each light will be provided with red and white LEDs.

The light switch(es) will be connected directly to the battery switched power.

CAB SPOTLIGHT

There will be two (2) Whelen®, Model Arges™, Model PRO*****, remote lights with white LEDs, 5 to 60 degree optics and black housing located on the cab roof, one each side behind the lightbar.. The lights will be mounted on painted Z brackets.

This lights may be load managed when the parking brake is applied.

SPOTLIGHT CONTROLLER

There will be two (2) wired dash mounted remote controllers provided for the spotlights. One (1) remote will be on the driver side to control the driver side spotlight, and one (1) remote will be on the passenger side to control the passenger side spotlight.

Spotlight Controller Locations

The remotes to control the spotlights will be located one (1) within reach of the driver and one (1) within reach of the officer.

HAND HELD LIGHT

There will be four (4) Streamlight, Fire Vulcan, Model #44451, hand lights provided with a vehicle mount with 12VDC direct wire charging rack and quick release buckle strap mounted one under the PS forward facing crew seat, two on the rear wall of the crew cab, low near the floor, one on the rear wall DS between the door and the SCBA bracket, see photo of current ..

Each light housing will be orange in color and be provided with a C4, LED and two (2) "ultra bright blue tail light LEDs". The tail light LEDs will have a dual mode of blinking or steady.

CAB INSTRUMENTATION

The cab instrument panel will consist of gauges, an LCD display, telltale indicator lights, alarms, control switches, and a diagnostic panel. The function of instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section directly forward of the driver. Gauge and switch panels will be designed to be removable for ease of service and low cost of ownership.

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Gauges

The gauge panel will include the following ten (10) ivory gauges with chrome bezels to monitor vehicle performance:

- Voltmeter gauge (Volts)
 - Low volts (11.8 VDC)
 - Amber indicator on gauge assembly with alarm
 - High volts (15 VDC)
 - Amber indicator on gauge assembly with alarm
 - Very low volts (11.3 VDC)
 - Amber indicator on gauge assembly with alarm
 - Very high volts (16 VDC)
 - Amber indicator on gauge assembly with alarm
- Tachometer (RPM)
- Speedometer (Primary (outside) MPH, Secondary (inside) Km/H)
- Fuel level gauge (Empty - Full in fractions)
 - Low fuel (1/8 full)
 - Amber indicator on gauge assembly with alarm
 - Very low fuel (1/32) fuel
 - Amber indicator on gauge assembly with alarm
- Engine oil pressure gauge (PSI)
 - Low oil pressure to activate engine warning lights and alarms
 - Red indicator on gauge assembly with alarm
- Front air pressure gauge (PSI)
 - Low air pressure to activate warning lights and alarm
 - Red indicator on gauge assembly with alarm
- Rear air pressure gauge (PSI)
 - Low air pressure to activate warning lights and alarm
 - Red indicator on gauge assembly with alarm
- Transmission oil temperature gauge (Fahrenheit)
 - High transmission oil temperature activates warning lights and alarm
 - Amber indicator on gauge assembly with alarm
- Engine coolant temperature gauge (Fahrenheit)
 - High engine temperature activates an engine warning light and alarm
 - Red indicator on gauge assembly with alarm
- Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions)
 - Low fluid (1/8 full)
 - Amber indicator on gauge assembly with alarm

All gauges and gauge indicators will perform prove out at initial power-up to ensure proper performance.

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Indicator Lamps

To promote safety, the following telltale indicator lamps will be integral to the gauge assembly and are located above and below the center gauges. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols.

The following amber telltale lamps will be present:

- Low coolant
- Trac cntl (traction control) (where applicable)
- Check engine
- Check trans (check transmission)
- Aux brake overheat (Auxiliary brake overheat)
- Air rest (air restriction)
- Caution (triangle symbol)
- Water in fuel
- DPF (engine diesel particulate filter regeneration)
- Trailer ABS (where applicable)
- Wait to start (where applicable)
- HET (engine high exhaust temperature) (where applicable)
- ABS (antilock brake system)
- MIL (engine emissions system malfunction indicator lamp) (where applicable)
- SRS (supplemental restraint system) fault (where applicable)
- DEF (low diesel exhaust fluid level)

The following red telltale lamps will be present:

- Warning (stop sign symbol)
- Seat belt
- Parking brake
- Stop engine
- Rack down

The following green telltale lamps will be provided:

- Left turn
- Right turn
- Battery on

The following blue telltale lamp will be provided:

- High beam

Alarms

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.

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Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.

Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for 3 to 5 seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

Indicator Lamp and Alarm Prove-Out

Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver.

Emergency master switch: A molded plastic push button switch with integral indicator lamp will be provided. Pressing the switch will activate emergency response lights and siren control. A green lamp on the switch provides indication that the emergency master mode is active. Pressing the switch again disables the emergency master mode.

Headlight / Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking lights and the headlights. The second switch position will activate the parking lights. The third switch position will activate the headlights.

Panel backlighting intensity control switch: A three (3)-position momentary rocker switch will be provided. The first switch position decreases the panel backlighting intensity to a minimum level as the switch is held. The second switch position is the default position that does not affect the backlighting intensity. The third switch position increases the panel backlighting intensity to a maximum level as the switch is held.

The following standard controls will be integral to the gauge assembly and are located below the right hand gauges. All switches have backlit labels for low light applications.

High idle engagement switch: A two (2)-position momentary rocker switch with integral indicator lamp will be provided. The first switch position is the default switch position. The second switch position will activate and deactivate the high idle function when pressed and released. The "Ok To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.

"Ok To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.

The following standard controls will be provided adjacent to the cab gauge assembly within easy reach of the driver. All switches will have backlit labels for low light applications.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will deactivate vehicle ignition. The second switch position will activate vehicle ignition.

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The third momentary position will disable the Command Zone audible alarm if held for 3 to 5 seconds. A green indicator lamp will be activated with vehicle ignition.

Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.

4-way hazard switch: A two (2)-position maintained rocker switch will be provided. The first switch position will deactivate the 4-way hazard switch function. The second switch position will activate the 4-way hazard function. The switch actuator will be red and includes the international 4-way hazard symbol.

Heater, defroster, and air conditioning control panel.

Turn signal arm: A self-canceling turn signal with high beam headlight and windshield wiper/washer controls will be provided. The windshield wiper control will have high, low, and intermittent modes.

Parking brake control: An air actuated push/pull park brake control valve will be provided.

Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the overhead console on the driver's side, up to four (4) switch panels in the engine tunnel console facing the driver, up to four (4) switch panels in the overhead console on the officer's side and up to two (2) switch panels in the engine tunnel console facing the officer. All switches will have backlit labels for low light applications.

Diagnostic Panel

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.

The diagnostic panel will include the following:

- Engine diagnostic port
- Transmission diagnostic port
- ABS diagnostic port
- SRS diagnostic port (where applicable)
- Command Zone USB diagnostic port
- ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
- Diesel particulate filter regeneration switch (where applicable)
- Diesel particulate filter regeneration inhibit switch (where applicable)

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Cab LCD Display

A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function. The upper left section will display the outside ambient temperature.

The upper right section will display, along with other configuration specific information:

- Odometer
- Trip mileage
- PTO hours
- Fuel consumption
- Engine hours

The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

AIR RESTRICTION INDICATOR

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.

- Ammeter.

"DO NOT MOVE APPARATUS" INDICATOR

There will be a Whelen®, Model M2B, 2.50" high x 4.00" long x 1.00" deep light with blue flashing LEDs, blue lens and chrome trim, located in the driving compartment. This light will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On."

The same circuit that activates the Do Not Move Apparatus indicator will activate a steady tone alarm when the parking brake is released.

Per NFPA 1901 2016 Edition section 13.11.1, A red flashing light located in the driving compartment is required to be activated when something is not stowed and the parking brake is released.

Per fire department specification and request of this light to be blue in place of red, this apparatus will be non-compliant to NFPA 1901 standards effective at time of contract execution.

DO NOT MOVE TRUCK MESSAGES

Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged).

The following messages will be displayed (where applicable):

- Do Not Move Truck
- DS Cab Door Open (Driver Side Cab Door Open)

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- PS Cab Door Open (Passenger's Side Cab Door Open)
- DS Crew Cab Door Open (Driver Side Crew Cab Door Open)
- PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open)
- DS Body Door Open (Driver Side Body Door Open)
- PS Body Door Open (Passenger's Side Body Door Open)
- Rear Body Door Open
- DS Ladder Rack Down (Driver Side Ladder Rack Down)
- PS Ladder Rack Down (Passenger Side Ladder Rack Down)
- Deck Gun Not Stowed
- Lt Tower Not Stowed (Light Tower Not Stowed)
- Fold Tank Not Stowed (Fold-A-Tank Not Stowed)
- Aerial Not Stowed (Aerial Device Not Stowed)
- Stabilizer Not Stowed
- Steps Not Stowed
- Handrail Not Stowed

Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.

SWITCH PANELS

The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliqué. Documentation will be provided by the manufacturer indicating the rated cycle life of the switches. The switch panel(s) will be located in the overhead position above the windshield on the driver side overhead to allow for easy access.

Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout.

The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

WIPER CONTROL

For simple operation and easy reach, the windshield wiper control will be an integral part of the directional light lever located on the steering column. The wiper control will include high and low wiper speed settings, a one (1)-speed intermittent wiper control and windshield washer switch. The control will have a "return to park" provision, which allows the wipers to return to the stored position when the wipers are not in use.

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SPARE CIRCUIT

There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the ignition switched power
- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate officer side dash area, in EMS compartment(s), on the officer's side of the engine tunnel and on the driver's side of the engine tunnel
- Termination will be with 15 amp, power point plug with rubber cover
- Wires will be sized to 125 percent of the protection

The circuit(s) may be load managed when the parking brake is set.

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate behind officer seat
- Termination will be with heat shrinkable butt splicing
- Wires will be sized to 125 percent of the protection

Battery direct loads cannot be Load Managed.

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be 20 amps at 12 volts DC
- Power and ground will terminate under the crew cab seat
- Termination will be with heat shrinkable butt splicing
- Wires will be sized to 125 percent of the protection

Battery direct loads cannot be Load Managed

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power

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- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate front wall of RS4, 3' coil
- Termination will be with heat shrinkable butt splicing
- Wires will be sized to 125 percent of the protection

Battery direct loads cannot be Load Managed

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate behind driver's seat
- Termination will be with heat shrinkable butt splicing
- Wires will be sized to 125 percent of the protection

Battery direct loads cannot be Load Managed

DASH PANEL RECESS

The dash panel across from the officer will be recessed to accommodate the mounting of miscellaneous items. The recess will be 7.25" down x 7.81" back and 20.88" wide.

STEREO RADIO

There will be one heavy duty AM/FM / Weatherband / Bluetooth stereo radio. The radio will be installed within reach of the officer. There will be 5.25" speakers installed one (1) pair of 5.25" speakers in the cab and one (1) pair of 5.25" speakers in the crew cab. The antenna will be a roof-mounted rubber antenna located on the left side of the cab.

The following Jensen features will be included:

- 180 watts max power (45W x 4); 100 watts RMS (25W x 4)
- Bluetooth® streaming audio (A2DP/AVRCP)
- Weatherband
- AM/FM tuner with 30 presets
- Audio settings (volume/bass/treble/balance/fade)
- Toggle switch between day and night display
- Daylight-readable, segmented LCD
- Two-wire power with non-volatile memory and clock support
- Low battery alert

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SPECIAL VISOR LIGHT SWITCH

There will be a separate visor light switch provided in the cab to allow the front visor light to activate when the high beams are activated and the switch is on. The switch will provide power to the light(s) to illuminate all light functions if multiple power inputs are needed to illuminate the light or if multiple lights are present.

The switch will be labeled high brow cut .

This switch will override the control of the standard visor light control.

INFORMATION CENTER

An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing.

The information center will have the following specifications:

- Operate in temperatures from -40 to 158 degrees Fahrenheit
- LCD optically bonded to hardened AR glass lens
- Five weather resistant user interface switches
- Grey with black accents
- Sunlight Readable
- Linux operating system
- Minimum of 1000nits rated display
- Display can be changed to an available foreign language
- A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area.
- Programmed to read US Customary

General Screen Design

Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used.

If a caution or warning situation arises the following will occur:

- An amber background/text color will indicate a caution condition
- A red background/text color will indicate a warning condition
- The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages.
- A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol.

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Home/Transit Screen

This screen will display the following:

- Vehicle Mitigation (if equipped)
- Water Level (if the water level system includes compatible communications to the information center)
- Foam Level (if the foam level system includes compatible communications to the information center)
- Seat Belt Monitoring Screen
- Tire Pressure Monitoring (if equipped)
- Digital Speedometer
- Active Alarms

On Scene Screen

This screen will display the following and will be auto activated with pump engaged (if equipped):

- Battery Voltage
- Fuel
- Oil Pressure
- Coolant Temperature
- RPM
- Water Level (if equipped)
- Foam Level (if equipped)
- Foam Concentration (if equipped)
- Water Flow Rate (if equipped)
- Water Used (if equipped)
- Active Alarms

Virtual Buttons

There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels.

Page Screen

The page screen will display the following and allow the user to progress into other screens for further functionality:

- Diagnostics
 - Faults
 - Listed by order of occurrence
 - Allows to sort by system
 - Interlock
 - Throttle Interlocks
 - Pump Interlocks (if equipped)
 - Aerial Interlocks (if equipped)
 - PTO Interlocks (if equipped)

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- Load Manager
 - A list of items to be load managed will be provided. The list will provide a description of the load.
 - The lower the priority numbers the earlier the device will be shed should a low voltage condition occur.
 - The screen will indicate if a load has been shed (disabled) or not shed.
 - "At a glance" color features are utilized on this screen.
- Systems
 - Command Zone
 - Module type and ID number
 - Module Version
 - Input or output number
 - Circuit number connected to that input or output
 - Status of the input or output
 - Power and Constant Current module diagnostic information
 - Foam (if equipped)
 - Pressure Controller (if equipped)
 - Generator Frequency (if equipped)
- Live Data
 - General Truck Data
- Maintenance
 - Engine oil and filter
 - Transmission oil and filter
 - Pump oil (if equipped)
 - Foam (if equipped)
 - Aerial (if equipped)
- Setup
 - Clock Setup
 - Date & Time
 - 12 or 24 hour format
 - Set time and date
 - Backlight
 - Daytime
 - Night time
 - Sensitivity
 - Unit Selection
 - Home Screen
 - Virtual Button Setup
 - On Scene Screen Setup
 - Configure Video Mode
 - Set Video Contrast
 - Set Video Color
 - Set Video Tint
- Do Not Move

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- The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicated
 - Driver Side Cab Door
 - Passenger's Side Cab Door
 - Driver Side Crew Cab Door
 - Passenger's Side Crew Cab Door
 - Driver Side Body Doors
 - Passenger's Side Body Doors
 - Rear Body Door(s)
 - Ladder Rack (if applicable)
 - Deck Gun (if applicable)
 - Light Tower (if applicable)
 - Hatch Door (if applicable)
 - Stabilizers (if applicable)
 - Steps (if applicable)
- Notifications
 - View Active Alarms
 - Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
 - Silence Alarms - All alarms are silenced
- Timer Screen
- HVAC (if equipped)
- Tire Information (if equipped)
- Ascendant Set Up Confirmation (if equipped)

Button functions and button labels may change with each screen.

COLLISION MITIGATION

There will be a HAAS Alert®, Model HA7 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA7 cellular transponder module will be installed behind the cab windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C.

The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground.

While responding with emergency lights on, the HA7 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app.

While on scene with emergency lights on, the HA7 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app.

The HA7 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription.

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Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.

VEHICLE DATA RECORDER

There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided.

The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line.

The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs:

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off
- Seat Occupied Status - Yes/No by Position
- Seat Belt Buckled Status - Yes/No by Position
- Master Optical Warning Device Switch - On/Off
- Internal clock syncs the time and date when a laptop is connected

Seat Belt Monitoring System

A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display and in the center overhead of the cab instrument panel. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following:

- Seat Occupied & Buckled = Green LED indicator illuminated
- Seat Occupied & Unbuckled = Red LED indicator with audible alarm
- No Occupant & Buckled = Red LED indicator with audible alarm
- No Occupant & Unbuckled = No indicator and no alarm

The seat belt monitoring screen will become active on the Command Zone color display when:

- The home screen is active:
 - and there is any occupant seated but not buckled or any belt buckled with an occupant.
 - and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated.

The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.

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INTERCOM SYSTEM

A Setcom MS-900MAX-16 wireless intercom master station will be provided and mounted POS B.

The system will have the following features;

- Up to 7 radio transmit and/or intercom positions.
- 16 separate talk-group channels.
- Range: Up to 1,500 feet (line of sight).

RADIO / INTERCOM INTERFACE CABLE

The apparatus manufacturer will supply and install one (1) radio interface cable before delivery of the vehicle.

The radio equipment to be used by the customer will be:

- Motorola High Power , Model Motorola XTL5000

WIRELESS INTERCOM HEADSET

There will be two (2) Setcom, Model CSB-900MAX-16 headset(s) provided driver and officer. Each headset location will included a 12 volt DC charging pigtail with plug.

Each headset will feature:

- Radio Transmit for LibMAX system
- Number of Users per Channel seven (7)
- Channels / Talk Groups sixteen (16)
- Dual Ear Muff-Behind the Head
- Always Live on Intercom
- Radio Push-to-Talk and Volume Control in the Headset

WIRELESS INTERCOM HEADSET

There will be three (3) Setcom, Model CSB-901MAX-16 headset(s) provided crew cab seats. Each headset location will included a 12 volt DC charging pigtail with plug.

Each headset will feature:

- Intercom only for LibMAX system
- Number of Users per Channel seven (7)
- Channels / Talk Groups sixteen (16)
- Dual Ear Muff-Behind the Head
- Always Live on Intercom
- Intercom Push-To-Talk
- Push-on/Push-off and Volume Control in the Headset

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GPS / MULTIMODE ANTENNA INSTALLATION

There will be two (2) customer supplied GPS / Multimode antenna(s) with stud mount for thick roof material to be installed on the roof installed on the crew cab, routed to behind the officer's seat. The antenna coax cable(s) will be run per the packing list / instructions provided to the third party installer.

Specific shipping requirements will be followed. The GPS / Multimode antenna will be sent to the apparatus manufacturers preferred installer prior to cab fabrication.

TWO WAY RADIO INSTALLATION

There will be one (1) customer supplied two way radio(s) sent to the apparatus manufacturers preferred radio installer to be installed LOC5 per the shipping document.

No antenna mount or whip will be included in this option.

Specific radio shipping requirements will be followed.

TWO WAY RADIO SPEAKER INSTALLATION

There will be one (1) customer supplied two way radio speakers sent to the apparatus manufacturers preferred third party installer to be installed below the overhead dash, just to the right of the do not move light .

Specific shipping requirements will be followed.

RADIO ANTENNA MOUNT

There will be two (2) standard antenna-mounting base(s), Model MATM, with 17 feet of coax cable and weatherproof cap provided for a two (2)-way radio installation. The standard mount will be located on the cab roof, just to the rear of the officer seat and the additional mount(s) will be located one each side top of the crew cab. The cable(s) will be routed route to behind the officer's seat .

VEHICLE CAMERA SYSTEM

There will be a color vehicle camera system provided with the following:

- One (1) Standard Definition (SD) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse.

The camera images will be displayed on the left side vehicle information center display. Audio from the microphone on the rear camera will be not provided.

The following components will be included:

- One (1) SV-CW134639CAI Camera
- All necessary cables

CAMERA SWITCHER

A camera switcher is not required.

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ELECTRICAL POWER CONTROL SYSTEM

The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible.

Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership.

Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA.

Solid-State Control System

A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules, electronic control modules to include black housings, a power indicator and status indicator located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices.

The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership.

For increased reliability and simplified use the control system modules will include the following attributes:

- Green LED indicator light for module power
- Red LED indicator light for network communication stability status
- Control system self test at activation and continually throughout vehicle operation
- No moving parts due to transistor logic
- Software logic control for NFPA mandated safety interlocks and indicators
- Integrated electrical system load management without additional components
- Integrated electrical load sequencing system without additional components
- Customized control software to the vehicle's configuration
- Factory and field programmable to accommodate changes to the vehicle's operating parameters

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To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications:

- Module circuit board will meet SAE J771 specifications
- Operating temperature from -40C to +70C
- Storage temperature from -40C to +70C
- Vibration to 50g

IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)

Operating voltage from eight (8) volts to 32 volts DC

The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

Circuit Protection and Control Diagram

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

On-Board Electrical System Diagnostics

The on-board information center will include the following diagnostic information:

- Text description of active warning or caution alarms
- Simplified warning indicators
- Amber caution indication with intermittent alarm
- Red warning indication with steady tone alarm

Advanced diagnostic feature will be provided in this control system. From the Command Zone display or connected wireless device, these features allow the user to monitor the real-time status of every input or output on the vehicle. It also allows users logged in as an administrator to force on inputs or outputs to assist the troubleshooting process.

TCU Module with WiFi

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will communicate through a white WiFi antenna allowing a line of site communication range of up to 300 feet with a roof mounted antenna.

The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone™, control and information system.

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The TCU capability will record faults from the engine, transmission, ABS and Command Zone™, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data TCU will provide up to 2 Gigabytes of data storage.

The TCU will provide a means to download the TCU information and update software in the device.

Indicator Light and Alarm Prove-Out System

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

Voltage Monitor System

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.

The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

Dedicated Radio Equipment Connection Points

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment. The studs will consist of the following:

- 12-volt 40-amp battery switched power
- 12-volt 60-amp ignition switched power
- 12-volt 60-amp direct battery power

There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

EMI/RFI Protection

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.

The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself.

EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

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ELECTRICAL SYSTEM PROGNOSTICS

There will be a software based vehicle tool provided to predict remaining life of the vehicles critical fluid and events.

The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals.

Prognostics will include the following:

- Engine oil and filter
- Transmission oil and filter

TELEMATICS SYSTEM

Your vehicle will include a cellular-based vehicle telematics system including a telematic control unit with external cellular Wi-Fi and GPS antenna. Pierce will provide access to a web-based user interface portal that will allow users to access vehicle data collected as part of the system, allow users to configure monitoring tools, provide a global view of the location of each vehicle that has the system, provide a summary of fleet data, etc. The web-based user interface portal or certain features thereof may be provided on a subscription basis.

The telematic control unit will be fully integrated into the electrical system of the vehicle, will monitor the vehicle through the CAN data bus, and will transmit data through a secure AT&T 4G LTE cellular connection, and be provided with a 3 year subscription.

The web-based user interface portal will provide, among other features:

- User defined interval notifications
- User defined fault alerts
- Remote access to Command Zone™ diagnostics
- Vehicle analytics and activity monitoring
- Vehicle system status

The system is activated while building your vehicle and thereafter remains active for a 60-day grace period starting when your vehicle ships from the factory. This means that the system is active at the time of factory acceptance and during the 60-day grace period. By selecting this option, it is agreed that use of the system and the web-based user interface portal will be subject to the terms set forth in the Data Systems Agreement referenced at <https://www.piercemfg.com/privacy-statement>. Customers will be provided with an initial login at the time of factory acceptance to verify performance of the system and the web-based user interface portal. The term of the subscription, if any, will begin when the vehicle ships from the factory. If customers do not log into the web-based user interface portal and confirm acceptance of the terms before the 60-day grace period ends, the system will be deactivated, and no new data will be collected or retained Pierce. Reactivation can be coordinated through the customer's authorized Pierce Dealer.

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ELECTRICAL

All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.

Electrical wiring and equipment will be installed utilizing the following guidelines:

1. All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof.
2. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body.
3. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.
4. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug).
5. All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area.
6. All electrical terminals in exposed areas will have silicon applied completely over the metal portion of the terminal.

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments.

An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

The results of the tests will be recorded and provided to the purchaser at time of delivery.

BATTERY SYSTEM

There will be three (3) Stryten/Exide, Model 31S950X3W, 12 volt DC group 31 batteries provided and mounted in the left side battery box.

These batteries will be rated at 950 CCA cold cranking amps with a reserve capacity of 190 amps and have threaded stainless steel studs.

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BATTERY SYSTEM

There will be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel.

MASTER BATTERY SWITCH

There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system.

An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.

BATTERY COMPARTMENTS

The batteries will be stored in well-ventilated compartments that are located under the cab and bolted directly to the chassis frame. The battery compartments will be constructed of 3/16" steel plate and be designed to accommodate a maximum of three (3) group 31 batteries in each compartment. The compartments will include formed fit heavy-duty roto-molded polyethylene battery tray inserts with drains on each side of the frame rails. The batteries will be mounted inside of the roto-molded trays.

JUMPER STUDS

One (1) set of battery jumper studs with plastic color-coded covers will be installed on the battery box on the driver's side. This will allow enough room for easy jumper cable access.

POWER CONVERTER / BATTERY CHARGERS

There will be two (2) Progressive Dynamics, Inc., Model PD2180, power converter / battery chargers installed. Each PD2180 will be capable of charging up to three (3) separated banks of batteries. The PD2180s will be wired in parallel to increase maximum output capability to each battery system.

Each PD2180 will contain the following features:

- Four-Stage Charging System constantly monitors battery voltage, then automatically selects one of four charging modes: BOOST, NORMAL, STORAGE, or EQUALIZE.
- Digital meter displays current, voltage mode, blown fuse indication, and battery type.
- Reverse battery protection prevents charger damage if battery leads are accidentally reversed.
- Over Voltage Protection prevents high voltage spikes from damaging sensitive electronic components in the charger.
- Electronic Current Limiting limits the maximum output current to the rating of the charger to prevent overheating and damage caused by shorts or excessive loads.
- Regulated Output Voltage prevents AC line voltage variations from being transmitted to the batteries and 12 Volt circuits.
- Intelligent Cooling Fan only runs as fast as required to maintain constant operating temperature reducing thermal stress.
- Automatic Over-temperature Shutdown prevents charger damage in the event the fan is unable to cool the charger due to inadequate compartment ventilation.

The PD2180s will be powered from a dedicated 30A VAC shoreline.

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The battery charger will be located in the left front body compartment mounted on the ceiling as far to the left side as practical.

AUTO EJECT FOR SHORELINE

There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus.

The shoreline inlet(s) will include red weatherproof flip up cover(s).

There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.

The shoreline(s) will be connected to ventilation system, compressor and receptacles.

There will be a mating connector body supplied with the loose equipment.

There will be a label installed near the inlet(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

The shoreline receptacle will be located on the driver side of cab, above wheel.

KUSSMAUL AUTO EJECT FOR IRT SHORELINE

There will be one (1) Kussmaul™, Model 091-159-30-120, 30 amp 120 volt AC shoreline inlet provided to operate the IRT dedicated 120 volt AC circuit on the apparatus.

The shoreline inlet will include red weatherproof flip up cover.

There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.

The shoreline will be connected to the Idle Reduction Technology battery chargers.

A mating connector body will be supplied with the loose equipment.

There will be a label installed near the inlet that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

The IRT dedicated shoreline receptacle will be located on the left side of the cab.

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SUB FEED CIRCUIT BREAKER BOX - IRT SHORELINE

A Cutler Hammer sub feed box will be supplied to protect the idle reduction technology (IRT) charger circuits when IRT shoreline power source is used.

The box will be installed in the LS3.

The sub feed box will distribute power to the idle reduction technology battery chargers in the vehicle.

A label for each breaker will be provided adjacent to the circuit breaker panel.

Identification of circuits will be done in a durable manner that provides years of service.

ALTERNATOR

A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.

ELECTRONIC LOAD MANAGER

An electronic load management (ELM) system will be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system.

For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed.

The system will include the following features:

- System voltage monitoring.
- A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off.
- Sixteen available electronic load shedding levels.
- Priority levels can be set for individual outputs.
- High Idle to activate before any electric loads are shed and deactivate with the service brake.
 - If enabled:
 - "Load Man Hi-Idle On" will display on the information center.
 - Hi-Idle will not activate until 30 seconds after engine start up.
- Individual switch "on" indicator to flash when the particular load has been shed.
- The information center indicates system voltage.

The information center, where applicable, includes a "Load Manager" screen indicating the following:

- Load managed items list, with priority levels and item condition.
- Individual load managed item condition:

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- ON = not shed
- SHED = shed

SEQUENCER

A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator.

For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed.

Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation.

When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order.

Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals:

- Cab Heater and Air Conditioning
- Crew Cab Heater (if applicable)
- Crew Cab Air Conditioning (if applicable)
- Exhaust Fans (if applicable)
- Third Evaporator (if applicable)

SWITCH, COMMAND ZONE DISPLAY

A virtual switch will be provided for the load manager in the Command Zone display on cab instrument panel.

HEADLIGHTS

There will be a HiViz® part number FT-4X6-4KIT, that includes four (4) 4.00" high x 6.00" long rectangular LED lights with parking lamp illumination around the outside of the lamps mounted in the front quad style, headlights to include chrome bezels on each side of the cab grille:

- the outside lamp on each side will contain a part number FT-4X6-HL with low beam LEDs
- the inside lamp on each side will contain a part number FT-4X6-H with high beam LEDs

The low beam lights will be activated when the headlight switch is on.

The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.

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DIRECTIONAL LIGHTS

There will be two (2) Whelen® M62T*, amber LED directional lights provided. The lights will be mounted to stainless steel bezels and located on the outside cab corners, next to the headlights.

The color of the lenses will be the same color as the LED's.

The trim shall be chrome.

The flash pattern of the directional lights will be Steady On (Arrow).

INTERMEDIATE LIGHT

There will be two (2) Truck-Lite®, part number 30375Y, 2.24" diameter lights with amber LEDs, grommet mount and chrome cover furnished, one (1) each side in the rear fender panel. The light will double as a turn signal and marker light.

CAB CLEARANCE/MARKER/ID LIGHTS

There will be two (2) Truck-Lite Model 35200Y, 1.00" high x 4.00" wide x 1.25" deep lights with amber LEDs and amber lenses provided to indicate the presence and overall length of the vehicle in the following locations:

- Two (2) lights installed as front side clearance lights will be installed, one (1) on each side above the cab doors.

The lights will be installed with no guard.

All other forward facing clearance lights will be included with the visor scene light.

REAR CLEARANCE/MARKER/ID LIGHTING

There will be three (3) Truck-Lite®, Model 33050R, LED lights used as identification lights recessed and located at the rear of the apparatus per the following:

- As close as practical to the vertical centerline
- Centers spaced not less than 6.00" or more than 12.00" apart
- Red in color
- All at the same height

There will be two (2) Truck-Lite, Model 33050R, LED lights recessed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:

- To indicate the overall width of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the rear
- All at the same height

There will be two (2) Truck-Lite, Model 33050R, LED lights recessed on the side of the apparatus as marker lights as close to the rear as practical per the following:

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- To indicate the overall length of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the side
- All at the same height

There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

Per FMVSS 108 and CMVSS 108 requirements.

REAR FMVSS LIGHTING

The rear stop/tail and directional lighting included in the rear tail light housing will include the following:

- Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs
- Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern.
- The lens color(s) to be clear.

There will be two (2) Whelen Model M62BU, LED backup lights provided in the tail light housing.

LICENSE PLATE BRACKET

One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus.

One (1) white LED light with chrome housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

LIGHTING BEZEL

There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.

BACK-UP ALARM

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.

CAB PERIMETER SCENE LIGHTS

There will be four (4) Amdor, Model AY-LB-12HW0**, white LED strip lights provided, one (1) for each cab door that will meet NFPA ground lighting requirements .

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These lights will be activated automatically when the battery switch is on and the exit doors are opened or by the same means as the body perimeter scene lights.

PUMP HOUSE PERIMETER LIGHTS

There will be two (2) Amdor, Model AY-LB-12HW020, 350 lumens each, 20.00" LED weatherproof strip lights with brackets provided under the pump panel running boards, one (1) each side.

If the combination of options in the vehicle does not permit clearance for a 20.00" light, a 12.00" version of the Amdor light will be installed.

The lights will be controlled by the same means as the body perimeter lights.

BODY PERIMETER SCENE LIGHTS

There will be two (2) Amdor, Model AY-LB-12HW020, 350 lumens, 20.00" long, white LED's, 12 volt DC lights provided at the rear step area of the body, one (1) each side shining to the rear.

The perimeter scene lights will be activated when a switch within reach of the driver is activated and the parking brake is applied.

ADDITIONAL PERIMETER LIGHTS

There will be six (6) Amdor® Model AY-LB-12HW020, 350 lumens, 20.00" long, with white LED's installed with one (1) light under the side of extended front bumper, facing the left side, one (1) light under the side of extended front bumper, facing the right side, one (1) light under compartment LS1, one (1) light under compartment LS3, one (1) light under compartment RS1 and one (1) light under compartment RS3.

With the chassis battery switch energized, the lights will be activated by the same means as the body perimeter lights.

ENHANCED SOFTWARE FOR PERIMETER LIGHTS

All perimeter lights will be deactivated when the parking brake is released unless alternate control is selected.

The cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors closed.

STEP LIGHTS

Four (4) white LED step lights will be provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light.

These step lights will be actuated with the pump panel light switch.

All other steps on the apparatus will be illuminated per the current edition of applicable NFPA standards.

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ADDITIONAL STEP LIGHT

There will be Model P25 white LED step lights with chrome housing to provide additional lighting. The step lights will be installed for the PS wedge step above the pump panel.. The quantity of additional step lights will be one (1) light.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

The additional step lights will be activated by the same means as the standard step lights.

SCENE LIGHTS

There will be two (2) Whelen, Model PEL*C LED scene light(s) with chrome flange(s) installed on the side of the apparatus, each side of the body, ahead of the rear wheels and as low as possible to illuminate the ground near the rear tires, label the switch "curb lights"..

A control for the light(s) selected above will be the following:

a switch at the driver's side switch panel

a switch at the passenger's side switch panel

no additional switch location

no additional switch location

These lights may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be a HiViz Model FT-BG2-R2**C-80-ML-*, 3.90" high x 80.00" long 64,600 raw lumens 12 volt DC light with white and amber LEDs provided and mounted on the cab roof front brow.

The painted parts of the light housing and brackets to be black.

The white flood and scene LEDs will be controlled by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel.

The amber identification and clearance LEDs will be controlled by the head light switch.

The white LEDs may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be one (1) HiViz Model FT-MB-15-*-* , 2.06" high x 19.77" long x 2.45" deep, 5,544 effective lumens 12 volt DC light(s) with a combination of flood and spot optics and adjustable mounting bracket(s) installed on the cab top of cab above the passenger's door.

The painted parts of the light housing and brackets to be painted job color.

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The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel.

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be one (1) HiViz Model FT-MB-15-*-* , 2.06" high x 19.77" long x 2.45" deep, 5,544 effective lumens 12 volt DC light(s) with a combination of flood and spot optics and adjustable mounting bracket(s) installed on the cab top of the cab above the driver's door.

The painted parts of the light housing and brackets to be painted job color.

The light(s) will be activated by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel.

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will two (2) HiViz Model FT-MB-15-*-* , 7,920 raw lumens 2.06" high x 19.77" long x 2.45" deep light(s) with white LEDs and a combination of flood and spot optics located, top of body, driver's side, one forward and one rear.

The painted parts of the light housing and brackets to be painted job color.

The light(s) will be controlled by the same control that has been selected for the driver's side scene light(s).

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will two (2) HiViz Model FT-MB-15-*-* , 7,920 raw lumens 2.06" high x 19.77" long x 2.45" deep light(s) with white LEDs and a combination of flood and spot optics located, top of body, passenger's side, one forward and one rear.

The painted parts of the light housing and brackets to be painted job color.

The light(s) will be controlled by the same control that has been selected for the passenger's side scene light(s).

The light(s) may be load managed when the parking brake is applied.

HOSE BED LIGHTS

There will be white 12 volt DC LED light strips provided to light the hose bed area. Hose bed lights will meet the photometric levels listed in the current edition of applicable NFPA standards for Hose Bed lighting requirements.

- Light strip(s) will be installed below lower support tube on the left side of the hose bed cover.
- Light strip(s) will be installed below lower support tube on the right side of the hose bed cover.

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The lights will be activated when the hosebed cover is raised.

REAR SCENE LIGHT(S)

There will be two (2) Whelen, Model PEL *C, 2.25" high x 7.88" wide x 1.63" deep LED scene light(s) with 45 degree chrome housing installed at the rear of the apparatus, rear of body, below the steps on the extended depth rear compartment, each side.

The light(s) will be controlled by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel and by a switch in a stainless steel cup located at the rear of the apparatus no more than 72.00" from the ground.

The light(s) may be load managed when the parking brake is applied.

REAR SCENE LIGHT(S)

There will be one (1) surface mounted HiViz, Model FT-GESM, 20,500 equivalent lumens 8.65" high x 10.61" wide x 2.75" deep light(s) with white LEDs installed at the rear of the apparatus, driver's side rear bulkhead, high.

The light(s) to include black bezel and black optic holder(s).

The light(s) will be controlled by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel, when the emergency master switch is activated and the transmission is shifted into reverse and by a stainless steel cup switch at the passenger's side rear bulkhead.

The light(s) may be load managed when the parking brake is applied.

WALKING SURFACE LIGHT

There will be Model FRP, 4" round black 12 volt DC LED floodlight(s) with bolt mount provided to illuminate the entire designated walking surface on top of the body.

The light(s) will be activated when the body step lights are on.

MASTER SWITCH FOR 12 VOLT LIGHTS

A master "on/off" switch will be provided for the 12 volt light(s) located all scene lights.

A total of two (2) switch(es) will be provided driver's side and passenger's switch panel.

WATER TANK

Booster tank will have a capacity of 500 gallons and be constructed of polypropylene plastic by United Plastic Fabricating, Incorporated.

Tank joints and seams will be nitrogen welded inside and out.

Tank will be baffled in accordance with the current edition of applicable NFPA standards.

Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments.

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Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding.

Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover.

All partitions will interlock and will be welded to the tank bottom and sides.

Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions.

Tank top will be sufficiently supported to keep it rigid during fast filling conditions.

Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes.

A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank.

Sump will include a drain plug and the tank outlet.

Tank will be installed in a fabricated cradle assembly constructed of structural steel.

Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel bar channel or rectangular tubing.

Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on.

Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle.

Mounting system will be approved by the tank manufacturer.

Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long.

Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover.

An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.

SLEEVE, PLUMBING, THROUGH TANK

Two (2) sleeves will be provided in the water tank for a 3.00" pipe to the rear.

HOSE BED

The hose bed will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength.

Upper and rear edges of side panels will have a double break for rigidity.

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The upper inside area of the beavertails will be covered with brushed stainless steel to prevent damage to painted surface when hose is removed.

Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.

The hose bed interior walls will be painted to match the lower body color.

Hose bed will accommodate Match 29257, clear dimensions, #1 250' of 2.5" (8.25" clear), #2 and #3 250' of 2.5 (5.25" clear), #4 (2) trays hotel pack side by side (13.25" clear) trays to slide on divider bottom, #6 1000' of 5" remaining width. .

HOSE BED DIVIDER

Four (4) hosebed dividers will be furnished for separating hose.

Each divider will be constructed of a .25" brushed aluminum sheet. Flat surfaces will be sanded for uniform appearance, or constructed of brushed aluminum.

Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed.

Divider will be held in place by tightening bolts, at each end.

Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.

HOSE BED COVER

A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down. A stationary bridgework support assembly will be provided at the rear to support the cover.

The cover will be reinforced so that it can support the weight of a man walking on the cover.

The cover is designed with the left cover opening first.

If access to the water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that the tank may be filled without raising cover doors.

Chrome grab handles and four (4) gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is to be provided at the rear, in the center of the support, to assist in opening the cover.

The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.

HOSE RESTRAINT REAR

At the rear of the hose bed, a black vinyl flap will be provided. The vinyl flap will be split into two sections center. The vinyl flap will be provided with hook and loop between each section. The top of the vinyl flap will be attached to the top of the hosebed with permanent web straps looping through

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footman loops. The bottom of the vinyl flap will attach to the bottom of the hosebed with StayPut shock cord loop with pull tab. The bottom of the flap will be not weighted.

HOSE BED STORAGE COMPARTMENT

An aluminum treadplate storage compartment will be provided at the front of the hose bed.

The compartment will be over the area to the right of the fill dome within the hosebed.

The dimensions of the compartment will be as large as possible, match #29257.

An access door will be provided on top of the compartment hinged along the rearward edge with a pair of flush lift and turn latches.

There will be 12 volt DC LED strip lighting provided in the compartment.

Opening the compartment door(s) will automatically turn the compartment lighting on.

A cross-divider will be provided just behind the fill tower. The divider will be bolted to the side sheet.

DEFLECTOR, HOSE

A 4" deep 3/16" aluminum 4-way hose deflector will be provided at the rear of the hosebed with the rear hosebed handrail bolted to the rear edge of the deflector. This deflector will extend 4.00" to the rear and have a angle support.

REMOVABLE HOSE TRAY(S) IN HOSE BED

There will be two (2) removable U-shaped hose tray(s) provided inside the hose bed.

Tray will be sized 150' of 1.75" hose.

Tray will be fabricated of poly with a minimum of two (2) hand hold cutouts on each side. Tray will slide on stainless steel angles. Bottom of angles will be lined with Dura-surf anti friction poly slides for ease of removal. A stop will be provided at the front of the tray to prevent the tray from moving forward and a strap will be supplied at the rear.

Tray will be located side x side, 7' long, just to the left of the 5" bed. Include a retainer so the trays will not fall out when the hose is removed. NOTE: the trays will slide on the feet of the two hose bed dividers and a support in the center. .

HOSEBED PARTITION

one (1) partitions will be provided between the cross divider and the front body wall. The partitions will be located next to the fill dome.

HOSE BED COVER CYLINDERS

The gas filled cylinders will be 180 lb to assist in opening and closing the cover.

LETTERING, HOSE BED REAR FLAP

The lettering designation on the rear flap of the hose bed cover will be OFD.

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There will be white reflective lettering provided on the rear flap. There will be three (3) letters provided. The reflective lettering will be approximately 10.00" high. The lettering will be centered on the hose bed. The layout of the lettering will be straight.

RUNNING BOARDS

Running boards will be fabricated of .125" bright aluminum treadplate.

Each running board will be supported by a welded 2.00" square tubing and channel assembly, which will be bolted to the pump compartment substructure.

Running boards will be 14.75" deep and spaced .50" away from the pump panel. The front and rear outside corner of the running board will be finished with a 45 degree corner where it lines up with the body.

A splash guard will be provided above the running board treadplate.

TAILBOARD

The tailboard will also be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly.

The tailboard area will be 18.00" deep in the center area and 8.00" deep to the rear of the side compartments. The tailboard will be T-shaped. The outboard sides of the tailboard will be angled at 45 degrees beginning at the point where the body meets the tailboard at the forward outboard edge angling rearward to the rear edge of the tailboard.

The exterior side will be flanged down and in for increased rigidity of tailboard structure.

REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL

The rear facing surfaces of the center rear wall will be smooth aluminum.

The bulkheads, the surface to the rear of the side body compartments, will be smooth and the same material as the body.

Any inboard facing surfaces below the height of the hosebed will be brushed stainless steel.

REAR TOW EYES

Two (2) tow eyes, which are an integral part of the body mounting substructure, will be installed below the rear of the truck.

The tow eyes will be of adequate strength to allow the truck to be pulled from the eyes.

REAR TOW BAR

One (1) tow bar will be installed under the tailboard.

The tow bar assembly will be designed and positioned to allow up to a 30-degree upward angled pull of 17,000 lb, or a 20,000 lb straight horizontal pull in line with the centerline of the vehicle.

The tow bar design will have been tested and evaluated using finite element analysis techniques.

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HOSE TRAY COVER

There will be two (2) removable bright aluminum treadplate cover/s, with flush mount pawl latches, provided for one (1) in each side running board running board tray.

HOSE TRAY

Two (2) hose trays will be made free floating one (1) in each side running board.

The tray(s) will be flanged and drop in from the top. The ends will be tapered at the front and rear towards the center. No fasteners will be used to secure the tray(s).

Capacity of the tray will be 20.00' of 5.00" soft suction hose.

Rubber matting will be installed on the floor of the tray to provide proper ventilation. Drain holes will be provided.

COMPARTMENTATION

Body and compartments will be fabricated of 0.125", 5052-H32 aluminum.

Side compartments will be an integral assembly with the rear fenders.

Circular fender liners will be provided for prevention of rust pockets and ease of maintenance.

Side compartment flooring will be of the sweep out design with the floor higher than the compartment door lip.

The side compartment door opening will be framed by flanging the edges in 1.75" and bending out again 0.75" to form an angle.

Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate or polished stainless steel.

The top of the compartment will be covered with bright aluminum treadplate rolled over the edges on the front, rear and outward side. These covers will have the corners welded.

Side compartment covers will be separate from the compartment tops.

Front facing compartment walls will be covered with bright aluminum treadplate.

All screws and bolts which protrude into a compartment will have acorn nuts on the ends to prevent injury.

UNDERBODY SUPPORT SYSTEM

Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load will be provided.

The backbone of the support system will be the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads.

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Forward to the rear axle, the support system will include "L"-shaped support members bolted to the chassis frame rails. These welded support members will include vertical formed channels, horizontal structural channels, and support gussets. These parts extend from the chassis frame outward underneath the body.

Rearward to the rear axle, the body support system will include two rearward facing "L"-shaped support members bolted to the chassis frame rails. These support members will be connected to the two body supporting crossmembers forming a boxed foundation for the rear body support system.

Steel upper platform decks will be mounted on the top of these support members to create a floating substructure which will result in a 500 lb equipment support rating per lower compartment.

All structural components of this system will be made from high strength 50K steel plate material or structural steel componentry. The steel frames as well as the steel vertical angles will be treated with an epoxy E-coat to provide resistance to corrosion and chemicals as standard.

The floating substructure will be separated from the horizontal members with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body.

Isolators will have a broad load range, proven viability in vehicular applications, be of a fail-safe design and allow for all necessary movement in three (3) transitional and rotational modes.

The neoprene isolators will be installed in a pattern which assimilates a three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body.

A design with body compartments hanging on the chassis in an unsupported fashion will not be acceptable.

AGGRESSIVE WALKING SURFACE

All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards.

LOUVERS

Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate.

TESTING OF BODY DESIGN

Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis, strain gauging, and model analysis will be performed with special attention given to fatigue, life and structural integrity of the body and substructure.

Body will be tested while loaded to its greatest in-service weight.

The criteria used during the testing procedure will include:

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- Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb.
- Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions.
- Driving the vehicle at 35 mph on a washboard road.
- Driving the vehicle at 55 mph on a smooth road.
- Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement.

Evidence of actual testing techniques will be made available upon request.

ENGINEER COMPARTMENT

An engineers compartment will be provided ahead of the water pump on both sides of the body. The compartments will be designed as if they were a transverse style compartment, 96.00" wide, but they will not be transverse.

The compartment will be 20.00" wide x 38.00" high x 26.50" deep. The door opening will be 17.00" wide x 36.00" high. The top of the compartment will be approximately 66.50" above the ground.

The compartment will be furnished with vertically hinged, lap style, compartment doors that have a D handle latch and positive door hold open device.

LEFT SIDE COMPARTMENTATION

The left side compartmentation will consist of three lap door compartments.

A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 34.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 28.63" wide x 61.88" high.

A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high.

A full height, vertically hinged, double door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 47.75" wide x 67.63" high x 25.88" deep in the lower 26.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 62.88" high.

The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.

Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

The vertically hinged doors will be furnished with a positive door holder.

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The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.

RIGHT SIDE COMPARTMENTATION

The right side compartmentation will consist of three lap door compartments.

A full height, vertically hinged, single door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 34.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 28.63" wide x 61.88" high.

A horizontally hinged, single lift-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 59.25" wide x 27.00" high.

A full height, vertically hinged, double door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 47.75" wide x 67.63" high x 25.88" deep in the lower 26.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 43.50" wide x 62.88" high.

The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.

Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

The vertically hinged doors will be furnished with a positive door holder.

The lift-up door will be furnished with two gas-charged cylinders to assist in the opening of the door and to maintain the door in an open position. There will be a field adjustable, three-position bracket mounted on the vertical side door opening that will allow the door to be held open at 87°, 90°, or 93°.

SIDE COMPARTMENT DOORS

All hinged compartment doors will be lap style with double panel construction and will be a minimum of 1.50" thick. The doors will be made out of the same material as the body. To provide additional door strength a "C" section reinforcement will be installed between the outer and interior panels.

Doors will be provided with a closed cell rubber gasket around the surface that laps onto the body. A second heavy-duty automotive rubber molding with a hollow core will be installed on the door framing that seals onto the interior panel, to ensure a weather resisting compartment.

All compartment doors will have polished stainless steel continuous hinge with a pin diameter of .25" that is bolted or screwed on with stainless steel fasteners. (Hinges which are welded on will not be acceptable.)

All door locking mechanisms will be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside shifts into the lock area.

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Doors will be latched with recessed, polished stainless steel "D" ring handles and FMVSS approved door locking mechanisms.

To prevent corrosion caused by dissimilar metals, compartment door handles will not be attached to outer door panel with screws. A rubber gasket will be provided between the "D" ring handle and the door.

REAR COMPARTMENTATION

A roll-up door compartment above the rear tailboard will be provided.

The interior dimensions of this compartment will be 40.00" wide x 40.63" high x 31.88" deep. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartment will be calculated with the compartment door closed.

A louvered, removable access panel will be furnished on the back wall of the compartment.

The rear compartment will be open into the rear side compartments.

The clear door opening of this compartment will be a minimum of 33.25" wide x 30.88" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

ROLLUP REAR COMPARTMENT DOOR

The rear compartment will have a rollup door.

The door will be double faced, aluminum construction, satin aluminum and manufactured by AMDOR™ brand rollup doors.

The door will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement.

Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress.

The door will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials.

Bottom panel flange of rollup door will be equipped with two (2) cut-outs to allow for easier access with gloved hands.

A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 1250 for all compartment doors. The lift bar will be located at the bottom of door with

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striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals.

All injection molded rollup door wear components will be constructed of Type 6 Nylon.

The door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door.

The header for the rollup door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

SCUFFPLATE(S)

Two (2) scuffplates stainless steel scuffplate(s) will be furnished located directly under the fuel fill door(s).

SCUFFPLATE

A pair of stainless steel scuffplates will run down the entire inside trailing edge of the lower extended beavertail compartment and have a 90 degree bend which will cover the areas on the inside of the beavertail to prevent paint chipping from hose couplings.

SCUFFPLATE

Brushed stainless steel will be provided on the front bulkhead areas of the body. Both sides of the front bulkhead areas will have brushed stainless steel in place of aluminum treadplate.

COMPARTMENT DOOR MODIFICATION

There will be one (1) compartment door that will be provided with the capability to open past 90 degrees.

The door(s) to receive this modification are located engineer compartment on the driver's side.

DOOR GUARD

There will be one (1) compartment door that will include a guard/drip pan designed to protect the roll-up door from damage when in the retracted position and contain any water spray. The guard will be fabricated from stainless steel and installed R1.

KEYED LOCK(S)

A keyed lock will be furnished for eight (8) compartment doors. The compartmentation, to have a keyed lock, will be all body compartments..

LIFTUP DOOR PULL STRAPS

two (2) compartment doors will be provided with pull straps. The pull straps will be 10.00" long and black in color.

The straps will be installed directly to the inside of the liftup door.

The liftup door compartments to have these straps will be LS2 and RS2.

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REVERSE HINGED DOOR

The two (2) compartment doors, located LS3 and RS3, will have the hinge at the rear of the door.

DOOR FRAME SCUFFPLATE

Eight (8) scuffplates will be provided for the lower door frame of body compartments . Each scuffplate will be polished stainless steel with a .38" lip down.

SCUFFPLATE ON INTERIOR OF COMPARTMENT DOOR(S)

The 12 compartment doors will include a polished stainless steel scuffplate to cover the entire width and height on the inside panel of each door pan.

Scuffplate will be located cab and body compartment door pans.

COMPARTMENT LIGHTING

There will be nine (9) compartments with Amdor, Model AY-9220, white 12 volt DC LED compartment light strips. The lights will be mounted with mechanical fasteners.

There will be two (2) strip lights installed vertically in each compartment opening per the latest NFPA requirements.

The lights will be activated when the battery switch is on and the respective compartment door is opened.

COMPARTMENT LIGHTING

There will be two (2) Truck-Lite, Model 44308C, 4.00" diameter white LED lights provided in two (2) of the compartment(s), lift up doors.

The lights will be held in place by a Truck-Lite Model 40700 grommet.

Opening the compartment door will automatically turn the compartment lighting on.

MOUNTING TRACKS

There will be seven (7) sets of tracks for mounting shelf(s) in LS2, LS3, LS4, RS1, RS2, RS3, RS4 and B1. These tracks will be installed vertically to support the adjustable shelf(s). The tracks will be painted to match the compartment interior.

ADJUSTABLE SHELVES

There will be 12 shelves with a capacity of 500 lb provided.

The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides.

Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track.

The shelves will be held in place by .12" thick stamped plated brackets and bolts.

The location(s) will be determined at a later date.

SLIDE-OUT ADJUSTABLE HEIGHT TRAY

There will be one (1) slide-out tray provided.

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Each tray will have 2.00" high sides and a capacity rating of up to 500 lb in the extended position.

Each tray will be designed to be as wide as the compartment space will allow.

Each tray will be constructed of aluminum painted spatter gray.

Each tray will be mounted on a pair of side mounted slides. The slide mechanisms will have ball bearings for ease of operation and years of dependable service. The slides will be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location.

An automatic lock will be provided for both the in and out tray positions. The lock trip mechanism will be located at the front of the tray and will be easily operated with a gloved hand.

The tray(s) will be located B1 1/3 of the height.

SLIDE-OUT ADJUSTABLE HEIGHT TRAY

There will be one (1) slide-out tray provided. Each tray will have a capacity rating of up to 500lb in the extended position.

Each tray will be as wide and as deep as the compartment will allow.

The side height of the tray(s) will be as follows:

- Front: 2.00" high
- Rear: 9.00" high
- Left and Right Sides: 3.00" high

Each tray will be mounted on a pair of side mounted slides. The slide mechanisms will have ball bearings for ease of operation and years of dependable service. The slides will be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location.

An automatic lock will be provided for both the in and out tray positions. The lock trip mechanism will be located at the front of the tray and will be easily operated with a gloved hand.

The tray(s) will be located B1 must be 32.5" clear depth front to rear, full width, recess the latch in the tray to clear the door. .

SINGLE HANDED BAR LATCH

A bar will be provided to tie together the two (2) spring loaded locks that are provided as standard at the front of a slide-out tray in order to provide single hand operation of the tray.

The single hand operation bar will be provided on a total of two (2) slide-out trays located floor mounted slide-out trays.

SLIDE-OUT FLOOR MOUNTED TRAY

There will be one (1) floor mounted slide-out tray(s) provided B1. A capacity rating will not be available on this tray due to a reduced side height being less than 2.00". The tray(s) will be constructed of .188" aluminum with welded corners. The finish will be painted to match compartment interior.

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The tray(s) will be designed for maximum compartment width with a 32.50" depth.

The side height of the tray(s) will be as follows:

- Front: 1.00" high
- Rear: 4.00" high
- Left and Right Sides: 4.00" high

There will be two (2) side mount slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2. The slides will be located on the sides of the tray so that the tray can be located as close to the compartment floor as possible.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand. The latch will be modified to allow access to the latch with a 32.50" depth tray.

SLIDE-OUT FLOOR MOUNTED TRAY

There will be one (1) floor mounted slide-out tray(s) provided.

Each tray will have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position.

Each tray will be constructed of aluminum painted spatter gray

There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand.

The location(s) will be RS1.

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SLIDE-OUT FLOOR MOUNTED TRAY

There will be one (1) floor mounted slide-out tray(s) provided B1. A capacity rating will not be available on this tray due to a reduced side height being less than 2.00". The tray(s) will be constructed of .188" aluminum with welded corners. The finish will be painted to match compartment interior.

The tray(s) will be designed for maximum compartment width with a 32.50" depth.

The side height of the tray(s) will be as follows:

- Front: 1.00" high
- Rear: 4.00" high
- Left and Right Sides: 2.00" high

There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand. The latch will be modified to allow access to the latch with a 32.50" depth tray.

SWING OUT TOOLBOARD

A swing out aluminum toolboard will be provided.

It will be a minimum of .188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard.

The board will be mounted on a pivoting device at the back of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 pounds.

The board will have positive lock in the stowed and extended position.

The board will have a D-ring handle to secure it in the stowed position.

The board will be mounted on adjustable tracks from front to back within the compartment.

There will be Two (2) toolboard(s) provided. The toolboard(s) will be spatter gray painted and installed LS2 full height and width and RS2 full height and width.

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PARTITION, TRANSVERSE REAR COMPARTMENT

Two (2) partitions will be bolted in place to separate the left and right side rear compartments from the rear tailboard compartment. The partition will be body material painted spatter gray.

VERTICAL COMPARTMENT PARTITION

Seven (7) partitions will be bolted in to be determined. Each partition will be to be determined vertical height of the compartment. Each partition will be painted spatter gray.

COMPARTMENT GRATING

Vinyl grating will be provided in 19 compartments. The locations are, all floors, shelves and trays in the body .

The vinyl grating will be .50" thick and be cross bonded by .25" diameter ribbed sections spaced for aeration.

ALUMINUM PEGBOARD

Two (2) horizontally installed tracks, with 0.19" aluminum pegboard will be installed on the back wall of two (2) compartments. The holes will be .203" diameter , punched 1.00" on center. The pegboard will be spatter gray painted. The pegboard(s) will be located in LS2 and LS3.

Retainers will be used to mount the pegboard to the tracks.

RECESS, BLISTER, COMPARTMENT WALL

A quantity of one (1) blister(s) will be provided in the fuel tank access panel. Located above the fuel tank between the frame to the crossmember. Min 6" deep x 6" high x as wide as possible..

VENTILATION SYSTEM

A compartment ventilation system will be incorporated in up to ten (10) compartments. The system will consist of a 400 cfm twin fan motor located in the pump house area. PVC tubing will be used to force the air into each compartment.

A timer will allow the system to operate two (2) hours on and four (4) hours off.

RUB RAIL

Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail.

Trim will be 2.12" high with 1.38" flanges turned outward for rigidity.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

BODY FENDER CROWNS

Polished stainless steel fender crowns will be provided around the rear wheel openings with a dielectric barrier will be provided between the fender crown and the fender sheet metal to prevent corrosion.

The fender crowns will be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion. Rubber welting will be provided between the body and crown.

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BODY FENDER LINER

A painted to match the lower body color fender liner will be provided. The liners will be removable to aid in the maintenance of rear suspension components.

HARD SUCTION HOSE

Hard suction hose will not be required.

HANDRAILS

The handrails will be Hansen LED backlit knurled aluminum. The handrails will be lit with a white LED light. The handrails will be activated with the application of the parking brake.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails.

Handrails will be provided to meet current edition of applicable NFPA standards. The handrails will be installed as noted on the sales drawing.

HANDRAILS

One (1) Hansen LED lit knurled aluminum vertical handrail will be located on each rear beavertail. The handrail will be lit with a white LED light. The hand rail will be activated with the application of the parking brake.

HANDRAIL

There will be one (1) full width horizontal handrail provided below the hose bed at the rear of the apparatus. The handrail will be Hansen LED backlit knurled aluminum. The handrail will be lit with a white LED light. The handrail will be activated with the application of the parking brake.

ADDITIONAL HANDRAIL

One (1) handrail, 10.00" long, will be mounted driver's side catwalk forward.

The handrails will be Hansen LED backlit knurled aluminum. The handrails will be lit with a white LED light. The handrails will be activated with the application of the parking brake.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails.

ADDITIONAL HANDRAIL

Three (3) handrails, will be mounted one below each crosslay and one on the front of the DS body.

The handrails will be Hansen LED backlit knurled aluminum. The handrails will be lit with a white LED light. The handrails will be activated with the application of the parking brake.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

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Drain holes will be provided in the bottom of all vertically mounted handrails.

EXTINGUISHER/AIR BOTTLE/ STORAGE (TRIANGULAR)

A total of one (1) extinguisher/air bottle/storage compartments will be provided passenger's side forward wheel well. The triangular shaped compartment will be sized to fit a 8.00" diameter extinguisher in the lower area and a 8.50" diameter extinguisher in the upper area. The compartment will be approximately 25.50" deep. A partition will be provided to separate the compartment. Also inside the compartment, black rubber matting will be provided. The compartment will be furnished with a drain hole. A polished stainless steel, triangular shaped door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottles. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

AIR BOTTLE COMPARTMENT STRAP

A strap will be provided in the air bottle compartment(s) to help contain the bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.

AIR BOTTLE STORAGE (TRIPLE)

A quantity of two (2) air bottle compartments designed to hold (3) air bottles up to 7.25" in diameter x 26.00" deep will be provided on the left side forward of the rear wheels and on the right side rearward of the rear wheels. A polished stainless steel door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

Inside the compartment, black rubber matting will be provided.

AIR BOTTLE COMPARTMENT STRAP

A strap will be provided in the air bottle compartment(s) to help contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.

AIR BOTTLE STORAGE (SINGLE)

A quantity of one air bottle compartment, approximately 7.50" wide x 7.50" tall x 26.00" deep, will be provided on the driver side rearward of the rear wheels. The triangular door will cover the air bottle opening, the DEF tank access, and fuel fill. The compartment will be square with angled corners. A polished stainless steel door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

Inside the compartment, black rubber matting will be provided.

AIR BOTTLE COMPARTMENT STRAP

A strap will be provided in the air bottle compartment to help contain the air bottle when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.

EXTENSION LADDER

There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.

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ROOF LADDER

There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

HYDRAULIC LADDER RACK

Ground ladders will be mounted above the right side of the hose body in a specially designed swing-down cradle. This cradle will be electric/hydraulic operated. The system design will have been life cycle tested for dependable service.

An independent hydraulic pump powered by a 12-volt electric motor will operate the hydraulics. The hydraulic pump and reservoir will be accessible from the ground through a stainless steel inspection door.

The ladder rack will incorporate two hydraulic rotary actuators, one each located inside the front compartment and the rear compartment. The actuators will be completely enclosed within each compartment to eliminate any pinch points while operating the ladder rack. Lifting arms will be attached outside the compartment body to the front and rear actuator.

The rack can be designed in certain situations to provide lifting capabilities up to 500 lb.

The maximum height of the rack from the ground in the lowered position will be no more than 47.00".

The electric control panel will have a master switch on/off switch, an actuation switch, an operation indicator light and operation instructions. The electric controls will be located at the pump panel adjacent to the ladder rack in such a manner to allow the operator full view of the area into which the ladders will be lowered.

Two (2) air operated safety locks will be furnished to securely maintain the ladder bracket assembly in the travel position. These air operated safety locks will be controlled from the ladder rack control panel.

A polished stainless steel enclosure shall be provided over the hydraulic ladder rack locks at the front and the rear on the right side to cover the ladder rack locks (2) and provide mounting for any rear warning lights.

Ladders will be secured to the brackets with two (2) locks retaining the roof ladder and the extension ladder. The locks will be such that when the roof ladder is removed, the clamps can be moved a half turn to hold the extension ladder in place.

LADDER RACK INTERLOCK AND NOT STOWED INDICATOR LIGHT

An interlock will be provided to prevent operation of the ladder rack unless the apparatus parking brake has been activated.

A steady red indicator light will be located on the cab instrument panel and illuminated when the hydraulic ladder rack is not in the stowed position. The light will be labeled "Ladder Rack". In addition, the "Do Not Move Apparatus" light located in the cab will be activated when the hydraulic ladder rack is not in the stowed position.

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HYDRAULIC LADDER RACK DEPLOYED LIGHTS

There will be two (2) Truck-Lite catalog number 15***, 1.20" high x 2.49" wide x 0.94" deep lights with chrome trim, amber flashing LEDs and provided per the following:

- One (1) light installed on the front of the hydraulic ladder rack
- One (1) light installed on the rear of the hydraulic ladder rack
- The warning light lens color(s) to be clear

The lights will be activated when the battery switch is on and the hydraulic ladder rack is not in the stowed position.

FOLDING LADDER STORAGE

There will be mounting clips designated for (1) folding ladder. Pierce will supply and install mounting clips on the inboard side of the hydraulic ladder rack when in the stored position.

ADDITIONAL FOLDING LADDER

One (1) Revolution 2.0 Model 13117 Little Giant folding ladder will be provided. The stored dimensions will be 55.50" high x 23.75" wide x 9.25" deep. The weight will be 32 lbs.

The ladder will be located mounted below the ladder rack, match #29257.

HYDRAULIC LADDER RACK PUMP LOCATION

The hydraulic pump for the ladder rack will be located in the cargo area, right side. An access door will be provided to fill the pump.

BACKBOARD COMPARTMENT

Two (2) backboard compartments will be mounted to the underside of the bright aluminum treadplate hose bed cover on the left side and right side. The compartment(s) will be fabricated of bright aluminum treadplate and will have a bright aluminum treadplate drop-down door at the rear with lift and turn latch. The compartment(s) will be sized for a backboard 74.00" long x 20.00" wide x 2.50" high.

LITTLE GIANT LADDER STORAGE

A painted aluminum pocket for a Little Giant Little Giant Revolution Model 17 - 12017 ladder will be provided below the hydraulic ladder rack. The pocket will be attached to the underside of the rack allowing the ladder to be inserted into the pocket from the top when the rack is in the deployed position. Ladder clamps will be provided to secure the ladder in the pocket. The pocket will be painted to match the ladder rack.

8' PIKE POLE

There will be 8' Nupla RH-8DA aluminum pike pole(s) provided with D-grip handles and roof/vent rubbish hooks. One (1) pike pole will be provided. The pike pole(s) will be located ladder rack, inboard.

10' PIKE POLE

There will be one (1) Fire Hooks Unlimited APH-10, 10' pike pole(s) with fiberglass "D" handles provided.

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PIKE POLE STORAGE

There will be One (1) pike pole 8' or longer pike pole(s) stored in painted aluminum tube(s) with a 1.38" notch, to accommodate a New York style pike pole for the pike pole head located on the hydraulic ladder rack.

6' PIKE POLE PROVIDED BY FIRE DEPARTMENT

The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike poles.

There will be two (2) 6' pike pole(s) provided. The pike pole(s) will be a Fire Hooks Unlimited 6' all purpose hook model APH-6.

PIKE POLE STORAGE

Aluminum tubing will be used for the storage of two (2) pike poles and will be located installed between LS4 and RS4, one with access from each side, for 6' NY Hooks. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided. The pike pole tube will be notched to allow a New York style pike pole to fit into the tube.

PIKE POLE STORAGE

There will be four (4) Zico, Model LPVM-5, low profile pike pole mounting bracket(s) used for pike pole storage and located on the ladder rack.

BELL

One (1) South Park chrome plated, 12.00" bronze cast bell, complete with an eagle, will be mounted on the passenger's side of the front bumper extension. This bell will be equipped with an electric striker.

One (1) switch will activate the striker, in the cab at the officer position.

LABELS AND TAGS

one (1) ID label/tag will be provided. The label/tag will be black colored with contrasting lettering. The label/tag will be located easy to see near the breaker for the booster reel and sized appropriately for the specified location(s). The label/tag will state the following "indicate the location for the breaker for the booster reel".

FOLDING STEPS FRONT OF BODY

Folding steps will be provided full height on the left side body compartments to provide access to the cargo bed. Steps will be spaced evenly on the sales drawing. Actual quantity may vary due to pump panel interferences but will meet the NFPA required maximum stepping height.

The Trident steps will be bright finished, non-skid with a luminescent tread coating, that is rechargeable from any light source and can hold a charge for up to 24 hours, on the stepping surface.

The steps can be used as a hand hold with two openings wide enough for a gloved hand.

REAR FOLDING STEPS

Bright finished, non-skid folding steps with a luminescent tread coating, that is rechargeable from any light source and can hold a charge for up to 24 hours, on the stepping surface will be provided at the rear. The steps can be used as a hand hold with two openings wide enough for a gloved hand.

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SLIDE-OUT PLATFORM

Two (2) slideout platforms will be provided below the crosslay area, each side. The capacity rating will be 500 lbs in the extended position. Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand.

There will be an On Scene Solutions Access white 12 volt DC LED light provided to illuminate the ground area.

Three (3) additional folding steps will be located installed on the rear wall of the PS engineer compartment. The step(s) will be bright finished, non-skid, with a luminescent tread coating, that is rechargeable from any light source and can hold a charge for up to 24 hours, on the stepping surface. The step(s) can be used as a hand hold with two openings wide enough for a gloved hand.

One (1) additional wedge step will be provided, the width will be 12.00" wide and located above the PS pump panel. The step(s) will be a minimum of 8.00" deep.

PUMP COMPARTMENT

The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. The pump compartment will be constructed of the same material as the body compartmentation.

The pump compartment substructure will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.

The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.

Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly.

PUMP MOUNTING

Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump.

LEFT SIDE PUMP CONTROL PANELS

All pump controls and gauges will be located at the left side of the apparatus and properly identified.

Layout of the pump control panel will be ergonomically efficient and systematically organized.

The pump operator's control panel will be removable in two (2) main sections for ease of maintenance:

The upper section will contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels will be removable from the face of the pump panel for ease of maintenance. Below the sub panels will be located all valve controls and line pressure gauges.

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The lower section of the panel will contain all inlets, outlets, and drains.

All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding.

IDENTIFICATION TAGS

The identification tag for each valve control will be recessed in the face of the tee handle.

All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge.

All line pressure gauges will be mounted directly above the corresponding discharge control tee handles and recessed within the same chrome plated casting as the rod guide for quick identification. The gauge and rod guide casting will be removable from the face of the pump panel for ease of maintenance. The casting will be color coded to correspond with the discharge identification tag.

All remaining identification tags will be mounted on the pump panel in chrome plated bezels.

The pump panel on the right side will be removable with lift and turn type fasteners.

Trim rings will be installed around all inlets and outlets.

The trim rings for the side discharge outlets will be color coded and labeled to correspond with the discharge identification tag.

ACCESS DOOR

A liftup, brushed stainless steel door will be provided above the left side pump panel for access to the cargo compartment above the pump. It will have a D-handle latch and a gas strut and be as large as possible.

Each door must open 105 degrees or greater to eliminate being mistaken as a stepping surface.

This door will be labeled as a non-step surface.

ACCESS DOOR

A liftup, brushed stainless steel door will be provided above the right side pump panel for access to the cargo compartment above the pump. It will have a D-handle latch and a gas strut and be as large as possible.

Each door must open 105 degrees or greater to eliminate being mistaken as a stepping surface.

This door will be labeled as a non-step surface.

PLATFORM

A bright aluminum treadplate platform will be provided over the cargo area one door above the hose reel and one on the right side as large as possible. This platform will be properly reinforced to support

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the weight of firefighters. Two (2) lift-up doors, each with a flush lift and turn latch, will be provided in the platform to allow access to this section of the cargo area. The doors will be sized for access to the hose reel and storage.

BRUSHED S/S PANELS OUTSIDE PUMP HOUSE

Brushed stainless steel panels will be furnished on the outside of the pump house in place of the standard aluminum treadplate panels.

PUMP

Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal type.

Pump will be the class "A" type.

Pump will deliver the percentage of rated discharge at pressures indicated below:

- 100% of rated capacity at 150 psi net pump pressure.

-70% of rated capacity at 200 psi net pump pressure.

-50% of rated capacity at 250 psi net pump pressure.

Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings).

Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping.

Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used.

Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency.

The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold.

Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply.

Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.

Pump will be equipped with a self-adjusting, maintenance-free, mechanical shaft seal.

The mechanical seal will consist of a flat, highly polished, spring fed carbon ring that rotates with the impeller shaft. The carbon ring will press against a highly polished stainless steel stationary ring that is sealed within the pump body.

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In addition, a throttling ring will be pressed into the steel chamber cover, providing a very small clearance around the rotating shaft in the event of a mechanical seal failure. The pump performance will not deteriorate, nor will the pump lose prime, while drafting if the seal fails during pump operation.

Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.

PUMP TRANSMISSION

The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work.

Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.

PUMPING MODE

An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. The interlock system will be designed to allow stationary pumping only.

AIR PUMP SHIFT

Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel.

Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump".

The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements.

The pump shift control in the cab will be illuminated to meet NFPA requirements.

TRANSMISSION LOCK-UP

The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.

AUXILIARY COOLING SYSTEM

A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be a separate unit. It will be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger will be plumbed to the master drain valve.

INTAKE RELIEF VALVE - PUMP

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There will be One (1) Waterous Model #83827 relief valve(s) installed on the suction side of the pump preset at 135 psig.

The relief valve(s) will have a working range of 50 psi to 250 psi.

The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag.

PRESSURE CONTROLLER

A Pierce Pump Boss Model PBA300 pressure governor will be provided.

A pressure transducer will be installed in the water discharge manifold on the pump.

The display panel will be located at the pump operator's panel.

PRIMER SYSTEM

A Waterous electric pump priming system conforming to standards outlined in the current edition of applicable NFPA standards will be furnished with the apparatus.

One (1) VPO electric motor driven rotary vane primer will be provided.

One (1) VAP vacuum activated priming valve will be plumbed main pump.

One (1) momentary push-button control will be located at the pump operator's panel.

The push button control system control will operate an electric priming motor and the priming valve will automatically open during priming and close when the primer is deactivated.

RECIRCULATING LINE

A .50" diameter recirculating line, from the pump to the water tank, will be furnished with a with a "T" swing handle valve controlled at the pump operator's control panel.

PUMP OVERHEAT INDICATOR LIGHT

A pump overheat indicator light with alarm, will be installed at the pump operator's panel. The pump overheat system will activate around approximately 120 degrees.

A test button, indicator light and audio alarm will be provided at the pump operators panel. A green light will indicate power to the system. When the test button is pressed it will turn the green light red, indicating system activated.

PUMP MANUALS

There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.

PLUMBING, STAINLESS STEEL AND HOSE

All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass

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or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness.

Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings.

Plumbing manifold bodies will be ductile cast iron or stainless steel.

All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame.

All water carrying gauge lines will be of flexible polypropylene tubing.

All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.

MAIN PUMP INLETS

A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.

SHORT SUCTION TUBE(S)

The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.

MAIN PUMP INLET CAP

The main pump inlets will have National Standard Threads with a long handle chrome cap.

The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

VALVES

There will be Four (4) Waterous 2.50" full flow valves. The valves will be used No. 1 left side discharge, No. 2 left side discharge, No. 3 right side discharge and No. 4 right side discharge .

The Waterous full flow valve will have a 2.50" chromium plated bronze ball forming a hard, durable surface. There will be a hydraulically balanced floating seal assembly that will be self adjusting for wear.

If Waterous valves are desired for outlets 3.00" and larger, that valve will be picked within the specific outlet category.

All remaining discharge valves and auxiliary inlets will be Akron Unibody valves with a stainless-steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.

If an outlet location chosen from above uses a valve smaller than 2.50", that valve will be substituted with a Waterous 2.50" full flow valve. This option will supersede any specific outlet category option that requires a valve smaller than 2.50".

The location of the valve for the two (2) inlets will be recessed behind the pump panel.

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INLET CONTROL

The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.

LEFT SIDE INLET

There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

RIGHT SIDE INLET

There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

LARGE DIAMETER REAR INLET

A 6.00" inlet rear inlet with screen will be provided using 5.00" piping and a 5.00" butterfly valve.

Screen will provide cathodic protection against corrosion in piping.

Piping will contain only large radiused elbows, no mitered joints.

The plumbing will be routed to the rear through the water tank. The inlet will terminate beside the rear compartment, above the tailboard, on the right side.

Bleeder valves will be located near the threaded connection and the valve control.

REAR INLET CONTROL

The rear inlet will be gated with an electric operated control at the pump operator's panel. The control will be momentary to allow the valve to be gated for ease of operation. Indicator lights will be provided to show if the valve is open or closed.

REAR INLET ELBOW & CAP

The rear 5.00" inlet will be furnished with a 5.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with a Storz cap.

REAR INLET INTAKE RELIEF VALVE

An Elkhart Brass Style 40 intake pressure relief valve will be provided on the inlet side of the valve preset at 125 psig .

The pressure relief valve will be adjustable from 75 to 250 psi.

The outlet will be 2.50" National Standard hose thread and terminate below the frame rails and will have a "do not cap" warning tag near the discharge outlet.

REAR INLET TERMINATION

The rear inlet with elbow will allow enough length to clear full depth lower extended rear corner as to not interrupt the flow of water through the hose. An estimated location to allow the flow of water to not

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be interrupted is above the rear portion of the lower rear extended compartment, right side. This rear inlet termination may be moved from the specified location based on available room.

INLET BLEEDER VALVE

A 0.75" bleeder valve will be provided for each side gated inlet.

The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel.

The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

The water discharged by the bleeders will be routed below the chassis frame rails.

TANK TO PUMP

The booster tank will be connected to the intake side of the pump with 4.00" heavy-duty piping and a quarter turn 3.50" Waterous valve. The air control will be remotely located at the operator's panel. The tank to pump line will run straight, without elbows, from the pump into the front face of the water tank and angle down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing.

A check valve will be provided in the tank to pump supply line to prevent the possibility of back filling the water tank.

TANK REFILL

A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.

DISCHARGE OUTLET CONTROLS

The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve.

If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel.

Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.

LEFT SIDE DISCHARGE OUTLETS

There will be Two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

LEFT SIDE OUTLET ELBOWS

The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

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The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

RIGHT SIDE DISCHARGE OUTLETS

There will be Two (2) discharge outlets with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

RIGHT SIDE OUTLET ELBOWS

The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

LARGE DIAMETER DISCHARGE OUTLET

There will be an Akron 8800 4.00" flat ball valve with 5.00" plumbing terminating with a 5.00" MNST chrome adapter on the right side pump panel.

The valve will be controlled with a(n) Pierce large handwheel with indicator located at the pump operators panel.

LARGE DIAMETER OUTLET ELBOWS

The 5.00" outlet will be furnished with a 5.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap.

FRONT DISCHARGE OUTLET

There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located in the center bumper tray.

Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel.

There will be automatic drains provided at all low points of the piping.

REAR DISCHARGE OUTLET

There will be Two (2) discharge outlets piped to the rear of the hose bed, left side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel.

REAR OUTLET ELBOWS

The 2.50" discharge outlets located at the rear of the apparatus will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

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The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

DISCHARGE CAPS/ INLET PLUGS

Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets.

Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size.

The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

OUTLET BLEEDER VALVE

A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.

The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel.

The handles will be chrome plated and provide a visual indication of valve position.

The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to.

The water discharged by the bleeders will be routed below the chassis frame rails.

DELUGE RISER

A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel with a handwheel control.

TELESCOPIC PIPING

The deluge riser piping will include a 18.00" Task Force Model XG18 Extend-A-Gun extension.

This extension will be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation.

A position sensor will be provided on the telescopic piping that will activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.

MONITOR

An Akron Model 3423 monitor will be properly installed on the deluge riser. This monitor will include both a fixed mounting base and a portable base with two (2) clappered 2.5" inlets.

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The monitor will be painted to match the lower body.

NOZZLE, DELUGE

Akron model #2499 Quad Stacked pyrolite deluge tips will be provided.

The tip sizes will be 1.375", 1.50", 1.75", and 2.00".

This will include an Akron 3488 pyrolite stream shaper.

The deluge riser will have male National Pipe Threads for mounting the monitor.

CROSSLAY HOSE BEDS, 1.50"

Three (3) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying 200' of 1.75", Single stack, forward of the 2.5" crosslay. To be 23" working depth, with the swivels located 12" inboard. Front and third crosslay on PS, second swivel on the DS. Match 29257 and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve.

Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.

The crosslay controls will be at the pump operator's panel.

The center crosslay dividers will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a brushed finish.

Vertical scuffplates, constructed of stainless steel, will be provided at the front and rear ends of the bed on each side of vehicle.

Crosslay bed flooring will consist of removable perforated brushed aluminum.

CROSSLAY HOSE BEDS

One (1) crosslay with 2.50" outlets will be provided. Each bed to be capable of carrying 200' of 2.5". Single stack rearward of the 1.75" crosslays. 23" working depth. swivel located with-in 12" from the driver's side. and will be plumbed with 3.00" i.d. pipe and gated with a 3.00" quarter turn ball valve.

Outlets to be equipped with a 2.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus.

The crosslay controls will be at the pump operator's panel.

The center crosslay dividers will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a DA finish. The remainder of the crosslay bed will be painted job color.

Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

Crosslay bed flooring will consist of removable perforated brushed aluminum.

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Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 1900 2024 Edition 13.7.5.3.

CROSSLAY/DEADLAY HOSE RESTRAINT

There will be black vinyl end flap provided across each end of one (1) crosslay/deadlay opening(s) to secure the hose during travel. Each vinyl end flap will be permanently attached at the top of the crosslay/deadlay opening(s). 1.00" web straps will loop through footman loops at the opposite end of the permanently attached vinyl. They will be attached with bungee cord and hook fasteners.

CROSSLAY COVER

A hinged .19" aluminum treadplate cover will be installed over the crosslay hose beds. It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface.

The cover will be provided with rubber latch hold open device.

The hinge will be to the front of the hose beds.

The crosslay dividers will be shortened at each end by 7.00" to allow room for hose nozzles. The dividers will be unpainted with a uniform finish.

BOOSTER HOSE REEL

A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the above the pump on the left side of the apparatus.

The exterior finish of the reel will be painted #269 gray from the reel manufacturer.

A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus.

Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 2.00" valve and 2.00" plumbing.

Reel motor will be protected from overload with a circuit breaker rated to match the motor.

An electric rewind control switch will be installed on the reel side pump panel.

Booster hose, 1.00" diameter and 200 feet, with chrome plated Barway, or equal couplings will be provided.

Working pressure of the booster hose will be a minimum of 800 psi.

Capacity of the hose reel will be 200 feet of 1.00" booster hose.

HOSE REEL BLOWOUT

one (1) hose reel blowout(s) will be furnished to blow out any remaining water from the reel(s). The blowout will be piped from the wet tank of the brake system to the reel, and will be controlled at the pump operator's panel.

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There will be one (1) polished stainless steel, captive roller and guide assembly mounted behind the access door on the driver's side.

CIRCUIT BREAKER ACCESS

A cutout will be provided for access to the circuit breaker, on the booster hose reel motor cover.

FOAM SYSTEM

A foam system will not be required on this apparatus.

The following drawing(s) will be provided for approval by the customer. The drawing(s) will be made for up One (01) Truck apparatus and/or similar Pierce job number.

PUMP OPERATOR'S PANEL DRAWING

A detailed drawing to scale of the pump operator's panel will be provided for the customer to review. The drawing will include all of the gauges, controls, switching, etc., located on the pump operator's panel. The customer will be allowed to make changes and/or mark-ups to this approval drawing. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line.

The finalized and signed customer approved pump operator's panel drawing will become part of the contract documents.

Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion.

REMAINING PUMP PANEL(S)

Detailed drawing(s) to scale of the remaining pump panel(s) will be provided for the customer to review. The drawing(s) will include all of the gauges, controls, switching, etc., located on the pump panel(s). The customer will be allowed to make changes and/or mark-ups to these approval drawing(s). The fire apparatus manufacturer will make revisions (If needed) to the drawing(s) per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line.

The finalized and signed customer approved pump panel drawing(s) will become part of the contract documents.

Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion.

COLOR CODED TAGS

A detailed drawing/chart of the colors used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line.

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The finalized and signed customer approved drawing/chart of the colors will become part of the contract documents.

SPECIAL TEXT/VERBIAGE TAGS

A detailed drawing/chart of the text/verbiage used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line.

The finalized and signed customer approved drawing/chart of the text/verbiage will become part of the contract documents.

PUMP PANEL CONFIGURATION

The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.

PUMP AND GAUGE PANEL

The pump and gauge panels will be constructed of stainless steel with a brushed finish. A polished aluminum trim molding will be provided on both sides of the pump panel.

PUMP ACCESS

Right Side Panel

The right side upper pump panel will be removable.

Panel Fastener

The removable panels will be secured with black swell latch .

The left side pump panels will be attached with screws.

The right side lower pump panel (drain bank) will be attached with screws.

PUMP COMPARTMENT LIGHT

There will be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGEC, flange(s) installed in the pump compartment.

Engine monitoring graduated LED indicators will be incorporated with the pressure controller.

Also provided at the pump panel will be the following:

- Master Pump Drain Control

THROTTLE READY GREEN INDICATOR LIGHT

There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.

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OK TO PUMP INDICATOR LIGHT

There will be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.

- Low Fuel Indicator Light and Audible Alarm

AIR HORN BUTTON

An air horn control button will be provided at the pump operator's control panel. This button will be red in color and properly labeled and put within easy reach of the operator.

FOAM/WATER TANK CAPACITY TAG

one (1) labels will be installed Provide a tag next to the water level gauge. The label will be worded as follows; water tank capacity 500 gallons.

VACUUM AND PRESSURE GAUGES

The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©.

The gauges will be a minimum of 4.50" in diameter and will have white faces with black lettering, with a pressure range of 30.00" 0-600 psi.

The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel.

The red LED backlight will be activated by the pump in gear interlock circuit.

Test port connections will be provided at the pump operator's panel. One (1) will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and polished stainless steel plugs. They will be marked with a label.

PRESSURE GAUGES

The 13 individual line pressure gauges for the discharges will be interlube filled and manufactured by Class 1©.

They will be a minimum of 2.50" in diameter and will have white faces with black lettering.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

Gauges will have a pressure range of 30.00" 0-400 psi.

The individual pressure gauge will be installed as close to the outlet control as practical.

The red LED backlight will be activated by the pump in gear interlock circuit.

WATER LEVEL GAUGE

There will be an electronic water level gauge provided on the operator's panel that registers water level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The water level indicators will be as follows:

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- 100 percent = Green
- 75 percent = Yellow
- 50 percent = Yellow
- 25 percent = Yellow
- Refill = Red

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the water tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from water and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.

There will be a Hale part number 106877, 4-light driver module included with this installation to power additional water level gauges.

The system(s) will be energized when parking brake is applied.

WATER LEVEL GAUGE

There will be three (3) additional water level indicator(s), Whelen®, Model PSTANK2, LED module with chrome trim, installed one (1) each side rearward of crew cab doors and one (1) on rear body bulkhead and one (1) on the left side of the body rear bulkhead.

This light module(s) will include four (4) colored levels, and function similar to the water level indicator located at the operators panel:

- First green module indicates a full water level
- Second blue module indicates a water level above 3/4 full
- Third amber module indicates a water level above 1/2 full
- Last red module indicates a water level above 1/4 full and empty
 - Above 1/4 this light will be steady burning
 - At empty this light will be flashing

The flash rate will be determined by the main water level tank sensor.

This module will be activated when the parking brake is applied.

STEP/LIGHT SHIELD

There will be an aluminum treadplate stepping surface no less than 8.00" deep and properly reinforced to support a man's weight, installed over the pump operators panel.

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- There will be 12 volt DC white LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house.
- One (1) pump panel light will come on when the pump is in ok to pump mode.

There will be a light activated above the pump panel light switch when the parking brake is applied. This is to afford the operator some illumination when first approaching the control panel.

There will be one (1) white LED, step light provided above this step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. The step light will be activated by the pump panel light switch.

AIR HORN SYSTEM

Two (2) Hadley®, eTone, chrome air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air in the brake system.

Air Horn Location

The air horns will be located on each side of the bumper, just outside of the frame rails.

Air Horn Control

The air horn(s) will be activated by the following:

- Right side foot switch, after the emergency master switch is activated
- Left side foot switch, The control to be available when the emergency master switch is on.
- Steering wheel horn ring with electric/air horn selector switch

ELECTRONIC SIREN

A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone will be provided.

This siren to be active when the battery switch is on and that emergency master switch is on.

Siren head will be recessed in a switch panel, easy reach from the driver's position , as required by the customer.

The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.

SPEAKER

There will be one (1) Whelen, Model SA315P, black nylon composite, 100-watt, speaker with through bumper mounting brackets provided. The speaker will be connected to the siren amplifier.

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The speaker will be recessed in the left side of the front bumper, towards the outside.

AUXILIARY MECHANICAL SIREN

There will be a Federal Signal Model Q2B mechanical siren furnished and installed in the front of the apparatus.

The Q2B will be chrome finish.

The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on.

The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery.

The mechanical siren will be mounted on the bumper deck plate. It will be mounted on the left side. A reinforcement plate will be furnished to support the siren.

MECHANICAL SIREN CONTROL

The mechanical siren will be activated by the following:

- Left side foot switch. The left side foot switch will be deactivated when the E-Master is on.
- Right side foot switch. The right side foot switch will be deactivated when the parking brake is applied.

A momentary chrome push button switch will be included in the right side dash panel to activate the siren brake.

FRONT ZONE UPPER WARNING LIGHTS

There will be one (1) 92.00" Whelen® Freedom™ IV LED lightbar mounted on the cab roof.

The lightbar will include the following:

- One (1) red flashing LED module in the left side rear corner position
- One (1) red flashing LED module in the left side end position.
- One (1) red flashing LED module in the left side front corner position.
- One (1) red flashing LED module in the left side first front position.
- Open in the left side second front position.
- One (1) white flashing LED module in the left side third front position.
- One (1) red flashing LED module in the left side fourth front position.
- Open in the left side fifth front position.
- One (1) red flashing LED module in the left side sixth front position.

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- One (1) white flashing LED module in the left side seventh front position.
- One (1) strobe traffic light controller in the center positions.
- One (1) white flashing LED module in the right side seventh front position.
- One (1) red flashing LED module in the right side sixth front position.
- Open in the right side fifth front position.
- One (1) red flashing LED module in the right side fourth front position.
- One (1) white flashing LED module in the right side third front position.
- Open in the right side second front position.
- One (1) red flashing LED module in the right side first front position.
- One (1) red flashing LED module in the right side front corner position.
- One (1) red flashing LED module in the right side end position.
- One (1) red flashing LED module in the right side rear corner position.

There will be clear lenses and colored filters included on the lightbar.

There will be a switch in the cab to control the flashing LED modules.

The strobe tube will be powered from an external power supply.

The strobe traffic light controller will be disabled when the parking brake is applied.

The six (6) red flashing LED modules in the front and two (2) red flashing LED modules in the rear corner positions may be load managed when the parking brake is applied.

POWER SUPPLY, STROBE

There will be one (1) Whelen®, Model PE215 strobe power supply set to national standard high priority provided in the apparatus to power the traffic light controller strobe tube.

The power supply will be controlled by a cab switch with emergency master control.

There will be no momentary switch to activate the traffic light controller.

Power to this power supply will be deactivated when the parking brake is applied.

CAB FACE WARNING LIGHTS

There will be four (4) Whelen®, Model M6**, 4.31" high x 6.75" wide x 1.37" deep flashing LED warning lights installed on the cab face, above the headlights in a housing that matches the headlights per the following:

- The left side outside warning light to include red LEDs.
- The left side inside warning light to include red LEDs.
- The right side inside warning light to include red LEDs.
- The right side outside warning light to include red LEDs.
- The warning light lens colors to be the same as the LEDs.
- The housing to be polished and the trim shall be chrome.

The lights will be controlled per the following:

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- A switch in the cab, on the switch panel will control the lights.
- White LEDs will be deactivated when the parking brake is applied.
- Amber LEDs will be deactivated when the parking brake is released.
- Amber, blue, green or red LEDs in the inside positions may be load managed when the parking brake is applied.

SIDE ZONE LOWER LIGHTING

There will be six (6) Whelen®, LED flashing warning lights with chrome trim located in the following positions:

- Two (2) Model M6V2**, 4.31" high x 6.75" long x 2.25" deep lights with a combination of warning LED's and scene LED's installed one (1) each side on the bumper extension. The side front lights to be red.
- Two (2) Model M6**, 4.31" high x 6.75" long x 1.38" deep lights with warning LED's installed one (1) each side of cab rearward of crew cab doors. The side middle lights to be red.
- Two (2) Model M6V2**, 4.31" high x 6.75" long x 2.25" deep lights with a combination of warning LED's and scene LED's installed one (1) each side above rear wheels. The side rear lights to be red.

The warning LED lens color(s) to be the same as the LEDs.

There will be a switch in the cab on the switch panel to control the flashing warning lights.

The scene LED's will be activated when a directional signal is activated and when the perimeter lights are activated. The scene LED's may be load managed when the parking brake is applied.

INTERIOR CAB DOOR WARNING LIGHTS

There will be four (4) Whelen® Model TLI**, 1.5" high x 5.2" long x 0.5" deep flashing LED warning lights with black trim.

- One (1) light(s) to include amber flashing LED's on the left side cab door
- One (1) light(s) to include amber flashing LED's on the right side cab door.
- One (1) light(s) to include amber flashing LED's on the right side crew cab door.
- One (1) light(s) to include amber flashing LED's on the left side crew cab door.

The lens color(s) to be clear.

Each light will be located in the door pan as low and far to the outside as practical..

Each light will be activated when the battery switch is on, respective door is opened and no other controls are on.

The lights will be installed with standard hardware.

ELECTRICAL CONNECTORS FOR WARNING LIGHTS

The lights shall be installed with a weatherproof insulated crimped connectors in order to provide ease of connection/disconnection of the circuit applied to.

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SIDE WARNING LIGHTS

There will be two (2) Whelen® Model VTX609*, 1.00" high x 1.63" diameter flashing LED light(s) with chrome trim provided.

The light(s) will be located on the side(s) of the apparatus install on the exterior of the lift-up doors above the pump panel, each side.

The color of the light(s) will be blue.

The lens(es) will be clear.

The light(s) will be activated with a separate switch in cab.

The light(s) will be disabled if white when the parking brake is applied.

The lights may be load managed if colored when the parking brake is applied.

EXTERIOR DOOR WARNING LIGHTS

There will be two (2) Truck-Lite®, Model 33050R, LED light(s) provided near the exterior of the compartment doors on the lift up door to the cargo and booster hose area. Wired to the switch for this lift up door..

The lights will be activated when the specific door open indicator in cab is illuminated.

REAR ZONE LOWER LIGHTING

There will be two (2) Whelen®, Model M6**, 4.31" high x 6.75" wide x 1.37" deep flashing LED warning lights with chrome trim located at the rear of the apparatus per the following:

- The left side rear warning light to include amber LEDs
- The right side rear warning light to include amber LEDs
- The warning light lens colors to be the same as the LEDs

There will be a switch in the cab on the switch panel to control the lights.

MOUNTING, RECESS LIGHT

There will be two (2) pairs of upper rear warning lights, on the rear bulkheads, recessed into the body. The lights will be flush to the compartment sheet and will be installed rear warning.

REAR OF HOSE BED WARNING LIGHTS

There will be two (2) Whelen, Model L31H*F, 4.00" high x 7.18" in diameter LED warning beacons provided at the rear of the truck.

- The driver's side beacon to include amber LED's.
- The passenger's side beacon to include red LED's.
- The lens will be the same color as the LED's.

The lights will be activated by a switch located in the cab on the switch panel.

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REAR UPPER ZONE BLOCKING LIGHTS

There will be two (2) Whelen, Model M6*, flashing LED lights provided at the rear of apparatus at a level of 62.00" or higher, high on the rear bulkheads.

The color of these lights will red LED/red lens.

The lights will be activated with the rear upper warning switch.

These lights will be installed without a flange.

The rear warning lights will be mounted on brackets with all wiring totally enclosed. At the right side, the warning light will be installed on a stainless steel enclosure, which covers the hydraulic ladder rack lock. At the left side, the warning light will be installed on a stainless steel bracket that is at the same height as the right side ladder lock enclosure.

TRAFFIC DIRECTING LIGHT

There will be one (1) Whelen Model TADF6, 34.00" long x 2.35" high x 2.38" deep, LED traffic directing light installed at the rear of the apparatus.

There will be the Model TDP60000 red and amber LED light assembly included with this installation.

There will be four (4) switches installed in the cab to control this traffic directing light. Two switches on driver side switch panel and two switches on officer side switch panel.

- When power to the traffic directing light is on and the emergency master switch is on, the red LED's will be activated in a warning light pattern.
- One (1) switch will deactivate the red LED's and activate the amber LED's in a left traffic directing light pattern.
- One (1) switch will deactivate the red LED's and activate the amber LED's in a right traffic directing light pattern.
- If the left traffic directing switch is on and the right traffic directing switch is on the amber LED's will flash in a flash out pattern.

This traffic directing light will be surface mounted over the rear door, at the rear of the apparatus as high as practical.

The traffic directing light control switches will be located in the driver side overhead switch panel, in the right end panel position.

120 VOLT RECEPTACLE

There will be one (1), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with interior duplex flip up cover(s), installed EMS compartment to the rear of the driver's seat. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline inlet.

There will be a label installed near the receptacle(s) that state the following:

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- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

120 VOLT RECEPTACLE

There will be three (3), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with exterior gray flip up cover(s), installed LS3 front wall high, LS2, front wall, RS1 front wall high. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline inlet.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

LOOSE EQUIPMENT

The following equipment will be furnished with the completed unit:

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

NFPA LOOSE EQUIPMENT

NFPA Required Loose Equipment Provided by Fire Department

The following loose equipment as outlined in NFPA 1900, 2024 edition, table 8.1 will be provided by the fire department:

- One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front.
- Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band.
- Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities.

NFPA Loose Equipment That Shall be Considered:

The following loose equipment as outlined in NFPA 1900, 2024 edition, appendix table A.8.4 (a) should be considered:

- 800 ft (60 m) of 2.50" (65 mm) or larger fire hose.
- 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose.

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- One (1) handline nozzle, 200 gpm (750 L/min) minimum.
- Two (2) handline nozzles, 95 gpm (360 L/min) minimum.
- One (1) smooth bore or combination nozzle with shutoff and with 2.50" (65 mm) inlet that flows a minimum of 250 gpm (950 L/min).
- Four (4) SCBA apparatus
- Four (4) SCBA spare cylinders
- One (1) first aid kit.
- Four (4) combination spanner wrenches.
- Two (2) hydrant wrenches.
- One (1) double female 2.50" (65 mm) adapter with national hose (NH) threads.
- One (1) double male 2.50" (65 mm) adapter with national hose (NH) threads.
- One (1) rubber mallet, for use on suction hose connections.
- Two (2) salvage covers each a minimum size of 12 ft × 18 ft (3.7 m × 5.5 m).
- One (1) automatic external defibrillator (AED).

SOFT SUCTION HOSE PROVIDED BY FIRE DEPARTMENT

Hose is not on the apparatus as manufactured. The fire department will provide suction or supply hose.

DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PAINT PROCESS

The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows:

1. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.
2. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high

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temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion.

3. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.
4. Finish Sanding - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat.
5. Sealer Primer - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated.
6. Basecoat Paint - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment.
7. Clear Coat - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer.

After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color.

All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly.

The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T. standard in critical areas. The manufacture's written paint standards will be available upon request.

Environmental Impact

Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions:

- Topcoats and primers will be chrome and lead free.
- Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals.
- Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor.

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- Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient
- Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean.
- Paint wastes are disposed of in an environmentally safe manner.
- Empty metal paint containers will be recycled to recover the metal.
- Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.

CAB PAINT

The cab will be painted red #213.

BODY PAINT

The body will be painted to match the lower section of the cab.

PAINT CHASSIS FRAME ASSEMBLY

The chassis frame assembly will be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc.

Components treated with epoxy E-coat protection prior to paint:

- Two (2) C-channel frame rails

Components that are included with the chassis frame assembly that will be painted not e-coated are:

- Cross members
- Axles
- Suspensions
- Steering gear
- Battery boxes
- Bumper extension weldment
- Frame extensions
- Body mounting angles
- Rear Body support substructure (front and rear)
- Pump house substructure
- Steel fuel tank
- Castings
- Individual piece parts used in chassis and body assembly

The E-coat process will meet the technical properties shown.

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AXLE HUB PAINT

All axle hubs will be painted to match lower job color.

SAFE-STRIDE® COATING ON HOSE TRAY COVER(S)

The treadplate hose tray cover(s) will be coated with a black Safe-Stride® non-slip surface treatment. There will be one (1) cover(s) coated located front bumper .

SAFE-STRIDE® COATING ON GRAVEL PAN

The treadplate bumper gravel pan will be coated with a black Safe-Stride® non-slip surface treatment.

SAFE-STRIDE® COATING ON RUNNING BOARDS

The running board assemblies will be coated with black Safe-Stride® non-slip surface treatment.

PAINTED RAIN DRIP

The cab roof rain drip will be painted to match the cab roof paint color.

COATING TAILBOARD

The tailboard assembly will be coated with Safe-Stride® black non-slip surface treatment.

This coating will meet the NFPA required slip resistance for stepping and standing surfaces.

COMPARTMENT INTERIOR PAINT

The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

REFLECTIVE BAND

An 8.00" black reflective band will be provided across the front of the vehicle and along the sides of the cab and body.

The reflective band provided on the cab face will be below the headlights on the fiberglass.

REAR CHEVRON STRIPING

There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, will be covered.

The colors will be red and yellow diamond grade.

Each stripe will be 6.00" in width.

This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

LAMINATE REFLECTIVE STRIPE

The reflective stripe located each side of the vehicle entire length of the stripe will be laminated.

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STRIPE, REFLECTIVE, "S" RIBBON

"S" type ribbon(s) will be added to the reflective stripe on LS3 and RS3. Areas adjacent to the "S" portion of the stripe will be shaded and highlighted with an air brush to give it a ribbon affect. There will be one (1) pair on the vehicle.

REFLECTIVE STRIPE OUTLINE

A black vinyl outline will be provided for each chevron stripe at the rear of the truck.

OUTLINE, REFLECTIVE STRIPE

A 0.50" silver outline will be applied at both the top and the bottom of the reflective band.

One (1) 0.50" silver outline will be located 0.50" down from the top edge and one (1) will be located 0.50" up from the bottom edge of the reflective band.

There will be two (2) sets of silver outline stripes required for this application

VINYL OUTLINE STRIPE

A 0.25" black vinyl stripe will be applied to the chevron striping on the interior of the cab doors.

REFLECTIVE CHEVRON STRIPE ON HYDRAULIC LADDER RACK

Chevron reflective striping will be applied to the rear facing hydraulic ladder rack pivot arm to increase visibility, and to match the rear of the unit.

INVERTED "V" CHEVRON STRIPING ON CAB AND CREW CAB DOORS

There will be alternating chevron striping located on the inside of each cab and crew cab door.

The striping will consist of the following colors:

The first color will be ruby red

The second color will be black

The size of the striping will be 4.00".

LETTERING

The lettering will be totally encapsulated between two (2) layers of clear vinyl.

LETTERING

Twenty-one (21) to forty (40) genuine gold leaf lettering, 3.00" high, with outline and shade will be provided.

LETTERING

There will be genuine gold leaf lettering, 5.00" high, with outline and shade provided. There will be two (2) letters provided.

LETTERING

There will be reflective lettering, 18.00" high, with outline and shade provided. There will be one (1) letter provided.

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LETTERING

There will be genuine gold leaf lettering, 4.00" high, with outline and shade provided. There will be four (4) letters provided.

LETTERING

There will be reflective lettering, 2.00" high, with outline and shade provided. There will be three (3) letters provided.

EMBLEMS

There shall be a pair of emblems approximately 12.00" in diameter installed on the upper crew cab doors. The emblems shall be circular with firetrucks in the center.

EMBLEMS

There will be a pair of emblems approximately 13.00" in diameter installed between the cab doors. The seals will be circular with a handpainted building scene.

MALTESE CROSS INSTALLATION

There will be one (1) pair of maltese crosses, comprised of printed effect gold leaf material, provided and installed behind the crew cab window.

CAB GRILLE DESIGN

An American flag design will be painted on the custom cab grille.

LETTERING/NUMERAL ON CAB GRILLE

One (1) painted letter/numeral with outline, as determined by the fire department, will be provided on the custom cab grille.

FIRE APPARATUS PARTS MANUAL

There will be one (1) custom parts manual(s) in USB flash drive format for the complete fire apparatus provided.

The manual(s) will contain the following:

- Job number
- Part numbers with full descriptions
- Table of contents
- Parts section sorted in functional groups reflecting a major system, component, or assembly
- Parts section sorted in alphabetical order
- Instructions on how to locate parts

Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

Service Parts Internet Site

The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital

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photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

CHASSIS SERVICE MANUALS

There will be one (1) chassis service manuals on USB flash drives containing parts and service information on major components provided with the completed unit.

The manual will contain the following sections:

- Job number
- Table of contents
- Troubleshooting
- Front Axle/Suspension
- Brakes
- Engine
- Tires
- Wheels
- Cab
- Electrical, DC
- Air Systems
- Plumbing
- Appendix

The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

CHASSIS OPERATION MANUAL

The chassis operation manual will be provided on one (1) USB flash drive.

ONE (1) YEAR MATERIAL AND WORKMANSHIP

A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.

THREE (3) YEAR MATERIAL AND WORKMANSHIP

The Pierce custom chassis limited warranty certificate, WA0284, is included with this proposal.

ENGINE WARRANTY

A Cummins **five (5) year** limited engine warranty will be provided. A limited warranty certificate, WA0181, is included with this proposal.

STEERING GEAR WARRANTY

A Sheppard **three (3) year** limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.

FIFTY (50) YEAR STRUCTURAL INTEGRITY

The Pierce custom chassis frame and crossmembers limited warranty certificate, WA0038, is included with this proposal.

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FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY

The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.

SINGLE REAR AXLE FIVE (5) YEAR MATERIAL AND WORKMANSHIP WARRANTY

A Meritor™ Axle 5 year limited warranty will be provided.

ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY

A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included with this proposal.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.

FIVE (5) YEAR MATERIAL AND WORKMANSHIP

The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.

CAMERA SYSTEM WARRANTY

A Pierce fifty four (54) month warranty will be provided for the camera system.

COMPARTMENT LIGHT WARRANTY

The compartment lights will not offer an extended warranty.

TRANSMISSION WARRANTY

The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission.

Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.

TRANSMISSION COOLER WARRANTY

The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.

WATER TANK WARRANTY

A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

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ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY

An AMDOR roll-up door limited warranty will be provided. The roll-up door will be warranted against manufacturing defects for a period of **ten (10) years**. A **five (5) year** limited warranty will be provided on painted roll up doors.

The limited warranty certificate, WA0185, is included with this proposal.

PUMP WARRANTY

The Waterous pump will be provided with a Seven (7) year material and workmanship limited warranty.

A copy of the warranty certificate will be submitted with the bid package (no exception).

TEN (10) YEAR PUMP PLUMBING WARRANTY

The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

THREE (3) YEAR MATERIAL AND WORKMANSHIP

The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA0018, is included with this proposal.

VEHICLE STABILITY CERTIFICATION

The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1900, current edition, section 7.14, Vehicle Stability. The certification will be provided at the time of bid.

ENGINE INSTALLATION CERTIFICATION

The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.

POWER STEERING CERTIFICATION

The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.

CAB INTEGRITY CERTIFICATION

The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below:

- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.
- European Occupant Protection Standard ECE Regulation No.29.

Olympia Fire Department

- SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks.

Side Impact

The cab will be subjected to dynamic preload where a 14,320-lbs moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lbs of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident.

Roof Crush

The same cab will be subjected to a roof crush force of 22,050 lbs. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons.

Additional Roof Crush

The same cab will be subjected to a roof crush force of 100,000 lbs. (Four and a half times the load criteria of ECE 29)

Frontal Impact

The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420.

Additional Frontal Impact

The same cab will withstand a frontal impact of 65,200 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420)

The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.

There will be no exception to any portion of the cab integrity certification. Nonconformance will lead to immediate rejection of bid.

CAB DOOR DURABILITY CERTIFICATION

Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.

WINDSHIELD WIPER DURABILITY CERTIFICATION

Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 *Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles*. The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.

ELECTRIC WINDOW DURABILITY CERTIFICATION

Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.

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SEAT BELT ANCHOR STRENGTH

Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria.

SEAT MOUNTING STRENGTH

Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

PERFORMANCE CERTIFICATIONS

Cab Air Conditioning

Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria.

Cab Defroster

Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.

Cab Auxiliary Heater

Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.

AMP DRAW REPORT

The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

The manufacturer of the apparatus will provide the following:

- Documentation of the electrical system performance tests.
- A written load analysis, which will include the following:
 - The nameplate rating of the alternator.
 - The alternator rating under the conditions specified per:
 - Applicable NFPA 1901 or 1906 (Current Edition).
 - The minimum continuous load of each component that is specified per:

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- Applicable NFPA 1901 or 1906 (Current Edition).
- Additional loads that, when added to the minimum continuous load, determine the total connected load.
- Each individual intermittent load.

All of the above listed items will be provided by the bidder per the current edition of applicable NFPA standards.

**Solicitation Number: RFP #113021****CONTRACT**

This Contract is between Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 (Sourcewell) and Oshkosh Corporation, 1917 Four Wheel Dr., Oshkosh, WI 54902 (Supplier), and Supplier's consolidated subsidiaries as defined in the Proposal.

Sourcewell is a State of Minnesota local government unit and service cooperative created under the laws of the State of Minnesota (Minnesota Statutes Section 123A.21) that offers cooperative procurement solutions to government entities. Participation is open to eligible federal, state/province, and municipal governmental entities, higher education, K-12 education, nonprofit, tribal government, and other public entities located in the United States and Canada. Sourcewell issued a public solicitation for Firefighting Apparatus and Fire Service Vehicles from which Supplier was awarded a contract.

Supplier desires to contract with Sourcewell to provide equipment, products, or services to Sourcewell and the entities that access Sourcewell's cooperative purchasing contracts (Participating Entities).

1. TERM OF CONTRACT

- A. **EFFECTIVE DATE.** This Contract is effective upon the date of the final signature below.
- B. **EXPIRATION DATE AND EXTENSION.** This Contract expires February 10, 2026, unless it is cancelled sooner pursuant to Article 22. This Contract may be extended one additional year upon the request of Sourcewell and written agreement by Supplier.
- C. **SURVIVAL OF TERMS.** Notwithstanding any expiration or termination of this Contract, all payment obligations incurred prior to expiration or termination will survive, as will the following: Articles 11 through 14 survive the expiration or cancellation of this Contract. All other rights will cease upon expiration or termination of this Contract.

2. EQUIPMENT, PRODUCTS, OR SERVICES

- A. **EQUIPMENT, PRODUCTS, OR SERVICES.** Supplier will provide the Equipment, Products, or Services as stated in its Proposal submitted under the Solicitation Number listed above.

Supplier's Equipment, Products, or Services Proposal (Proposal) is attached and incorporated into this Contract.

All Equipment and Products provided under this Contract must be new and the current model. Supplier may offer close-out, refurbished, or remounted Equipment or Products if they are clearly indicated in Supplier's product and pricing list. Unless agreed to by the Participating Entities in advance, Equipment or Products must be delivered as operational to the Participating Entity's site.

This Contract offers an indefinite quantity of sales, and while substantial volume is anticipated, sales and sales volume are not guaranteed.

B. **WARRANTY.** Supplier warrants that all Equipment, Products, and Services furnished are free from liens and encumbrances, and are free from defects in design, materials, and workmanship. In addition, Supplier warrants the Equipment, Products, and Services are suitable for and will perform in accordance with the ordinary use for which they are intended. Supplier's dealers and distributors must agree to assist the Participating Entity in reaching a resolution in any dispute over warranty terms with the manufacturer. Any manufacturer's warranty that extends beyond the expiration of the Supplier's warranty will be passed on to the Participating Entity.

C. **DEALERS, DISTRIBUTORS, AND/OR RESELLERS.** Upon Contract execution and throughout the Contract term, Supplier must provide to Sourcewell a current means to validate or authenticate Supplier's authorized dealers, distributors, or resellers relative to the Equipment, Products, and Services offered under this Contract, which will be incorporated into this Contract by reference. It is the Supplier's responsibility to ensure Sourcewell receives the most current information.

3. PRICING

All Equipment, Products, or Services under this Contract will be priced at or below the price stated in Supplier's Proposal.

When providing pricing quotes to Participating Entities, all pricing quoted must reflect a Participating Entity's total cost of acquisition. This means that the quoted cost is for delivered Equipment, Products, and Services that are operational for their intended purpose, and includes all costs to the Participating Entity's requested delivery location.

Regardless of the payment method chosen by the Participating Entity, the total cost associated with any purchase option of the Equipment, Products, or Services must always be disclosed in the pricing quote to the applicable Participating Entity at the time of purchase.

A. **SHIPPING AND SHIPPING COSTS.** All delivered Equipment and Products must be properly packaged. Damaged Equipment and Products may be rejected. If the damage is not readily

apparent at the time of delivery, Supplier must permit the Equipment and Products to be returned within a reasonable time at no cost to Sourcewell or its Participating Entities. Participating Entities reserve the right to inspect the Equipment and Products at a reasonable time after delivery where circumstances or conditions prevent effective inspection of the Equipment and Products at the time of delivery. In the event of the delivery of nonconforming Equipment and Products, the Participating Entity will notify the Supplier as soon as possible and the Supplier will replace nonconforming Equipment and Products with conforming Equipment and Products that are acceptable to the Participating Entity.

Supplier must arrange for and pay for the return shipment on Equipment and Products that arrive in a defective or inoperable condition.

Sourcewell may declare the Supplier in breach of this Contract if the Supplier intentionally delivers substandard or inferior Equipment or Products.

B. SALES TAX. Each Participating Entity is responsible for supplying the Supplier with valid tax-exemption certification(s). When ordering, a Participating Entity must indicate if it is a tax-exempt entity.

C. HOT LIST PRICING. At any time during this Contract, Supplier may offer a specific selection of Equipment, Products, or Services at discounts greater than those listed in the Contract. When Supplier determines it will offer Hot List Pricing, it must be submitted electronically to Sourcewell in a line-item format. Equipment, Products, or Services may be added or removed from the Hot List at any time through a Sourcewell Price and Product Change Form as defined in Article 4 below.

Hot List program and pricing may also be used to discount and liquidate close-out and discontinued Equipment and Products as long as those close-out and discontinued items are clearly identified as such. Current ordering process and administrative fees apply. Hot List Pricing must be published and made available to all Participating Entities.

4. PRODUCT AND PRICING CHANGE REQUESTS

Supplier may request Equipment, Product, or Service changes, additions, or deletions at any time. All requests must be made in writing by submitting a signed Sourcewell Price and Product Change Request Form to the assigned Sourcewell Supplier Development Administrator. This approved form is available from the assigned Sourcewell Supplier Development Administrator. At a minimum, the request must:

- Identify the applicable Sourcewell contract number;
- Clearly specify the requested change;
- Provide sufficient detail to justify the requested change;

- Individually list all Equipment, Products, or Services affected by the requested change, along with the requested change (e.g., addition, deletion, price change); and
- Include a complete restatement of pricing documentation in Microsoft Excel with the effective date of the modified pricing, or product addition or deletion. The new pricing restatement must include all Equipment, Products, and Services offered, even for those items where pricing remains unchanged.

A fully executed Sourcewell Price and Product Change Request Form will become an amendment to this Contract and will be incorporated by reference.

5. PARTICIPATION, CONTRACT ACCESS, AND PARTICIPATING ENTITY REQUIREMENTS

A. PARTICIPATION. Sourcewell's cooperative contracts are available and open to public and nonprofit entities across the United States and Canada; such as federal, state/province, municipal, K-12 and higher education, tribal government, and other public entities.

The benefits of this Contract should be available to all Participating Entities that can legally access the Equipment, Products, or Services under this Contract. A Participating Entity's authority to access this Contract is determined through its cooperative purchasing, interlocal, or joint powers laws. Any entity accessing benefits of this Contract will be considered a Service Member of Sourcewell during such time of access. Supplier understands that a Participating Entity's use of this Contract is at the Participating Entity's sole convenience and Participating Entities reserve the right to obtain like Equipment, Products, or Services from any other source.

Supplier is responsible for familiarizing its sales and service forces with Sourcewell contract use eligibility requirements and documentation and will encourage potential participating entities to join Sourcewell. Sourcewell reserves the right to add and remove Participating Entities to its roster during the term of this Contract.

B. PUBLIC FACILITIES. Supplier's employees may be required to perform work at government-owned facilities, including schools. Supplier's employees and agents must conduct themselves in a professional manner while on the premises, and in accordance with Participating Entity policies and procedures, and all applicable laws.

6. PARTICIPATING ENTITY USE AND PURCHASING

A. ORDERS AND PAYMENT. To access the contracted Equipment, Products, or Services under this Contract, a Participating Entity must clearly indicate to Supplier that it intends to access this Contract; however, order flow and procedure will be developed jointly between Sourcewell and Supplier. Typically, a Participating Entity will issue an order directly to Supplier or its authorized subsidiary, distributor, dealer, or reseller. If a Participating Entity issues a purchase order, it may use its own forms, but the purchase order should clearly note the applicable Sourcewell

contract number. All Participating Entity orders under this Contract must be issued prior to expiration or cancellation of this Contract; however, Supplier performance, Participating Entity payment obligations, and any applicable warranty periods or other Supplier or Participating Entity obligations may extend beyond the term of this Contract.

Supplier's acceptable forms of payment are included in its attached Proposal. Participating Entities will be solely responsible for payment and Sourcewell will have no liability for any unpaid invoice of any Participating Entity.

B. **ADDITIONAL TERMS AND CONDITIONS/PARTICIPATING ADDENDUM.** Additional terms and conditions to a purchase order, or other required transaction documentation, may be negotiated between a Participating Entity and Supplier, such as job or industry-specific requirements, legal requirements (e.g., affirmative action or immigration status requirements), or specific local policy requirements. Some Participating Entities may require the use of a Participating Addendum; the terms of which will be negotiated directly between the Participating Entity and the Supplier. Any negotiated additional terms and conditions must never be less favorable to the Participating Entity than what is contained in this Contract.

C. **SPECIALIZED SERVICE REQUIREMENTS.** In the event that the Participating Entity requires service or specialized performance requirements not addressed in this Contract (such as e-commerce specifications, specialized delivery requirements, or other specifications and requirements), the Participating Entity and the Supplier may enter into a separate, standalone agreement, apart from this Contract. Sourcewell, including its agents and employees, will not be made a party to a claim for breach of such agreement.

D. **TERMINATION OF ORDERS.** Participating Entities may terminate an order, in whole or in part, immediately upon notice to Supplier in the event of any of the following events:

1. The Participating Entity fails to receive funding or appropriation from its governing body at levels sufficient to pay for the equipment, products, or services to be purchased; or
2. Federal, state, or provincial laws or regulations prohibit the purchase or change the Participating Entity's requirements.

E. **GOVERNING LAW AND VENUE.** The governing law and venue for any action related to a Participating Entity's order will be determined by the Participating Entity making the purchase.

7. CUSTOMER SERVICE

A. **PRIMARY ACCOUNT REPRESENTATIVE.** Supplier will assign an Account Representative to Sourcewell for this Contract and must provide prompt notice to Sourcewell if that person is changed. The Account Representative will be responsible for:

- Maintenance and management of this Contract;
- Timely response to all Sourcwell and Participating Entity inquiries; and
- Business reviews to Sourcwell and Participating Entities, if applicable.

B. BUSINESS REVIEWS. Supplier must perform a minimum of one business review with Sourcwell per contract year. The business review will cover sales to Participating Entities, pricing and contract terms, administrative fees, sales data reports, supply issues, customer issues, and any other necessary information.

8. REPORT ON CONTRACT SALES ACTIVITY AND ADMINISTRATIVE FEE PAYMENT

A. CONTRACT SALES ACTIVITY REPORT. Each calendar quarter, Supplier must provide a contract sales activity report (Report) to the Sourcwell Supplier Development Administrator assigned to this Contract. Reports are due no later than 45 days after the end of each calendar quarter. A Report must be provided regardless of the number or amount of sales during that quarter (i.e., if there are no sales, Supplier must submit a report indicating no sales were made).

The Report must contain the following fields:

- Participating Entity Name (e.g., City of Staples Highway Department);
- Participating Entity Physical Street Address;
- Participating Entity City;
- Participating Entity State/Province;
- Participating Entity Zip/Postal Code;
- Participating Entity Contact Name;
- Participating Entity Contact Email Address;
- Participating Entity Contact Telephone Number;
- Sourcwell Assigned Entity/Participating Entity Number;
- Item Purchased Description;
- Item Purchased Price;
- Sourcwell Administrative Fee Applied; and
- Date Purchase was invoiced/sale was recognized as revenue by Supplier.

B. ADMINISTRATIVE FEE. In consideration for the support and services provided by Sourcwell, the Supplier will pay an administrative fee to Sourcwell on all Equipment, Products, and Services provided to Participating Entities. The Administrative Fee must be included in, and not added to, the pricing. Supplier may not charge Participating Entities more than the contracted price to offset the Administrative Fee.

The Supplier will submit payment to Sourcwell for the percentage of administrative fee stated in the Proposal multiplied by the total sales of all Equipment, Products, and Services purchased

by Participating Entities under this Contract during each calendar quarter. Payments should note the Supplier's name and Sourcewell-assigned contract number in the memo; and must be mailed to the address above "Attn: Accounts Receivable" or remitted electronically to Sourcewell's banking institution per Sourcewell's Finance department instructions. Payments must be received no later than 45 calendar days after the end of each calendar quarter.

Supplier agrees to cooperate with Sourcewell in auditing transactions under this Contract to ensure that the administrative fee is paid on all items purchased under this Contract.

In the event the Supplier is delinquent in any undisputed administrative fees, Sourcewell reserves the right to cancel this Contract and reject any proposal submitted by the Supplier in any subsequent solicitation. In the event this Contract is cancelled by either party prior to the Contract's expiration date, the administrative fee payment will be due no more than 30 days from the cancellation date.

9. AUTHORIZED REPRESENTATIVE

Sourcewell's Authorized Representative is its Chief Procurement Officer.

Supplier's Authorized Representative is the person named in the Supplier's Proposal. If Supplier's Authorized Representative changes at any time during this Contract, Supplier must promptly notify Sourcewell in writing.

10. AUDIT, ASSIGNMENT, AMENDMENTS, WAIVER, AND CONTRACT COMPLETE

A. **AUDIT.** Pursuant to Minnesota Statutes Section 16C.05, subdivision 5, the books, records, documents, and accounting procedures and practices relevant to this Agreement are subject to examination by Sourcewell or the Minnesota State Auditor for a minimum of six years from the end of this Contract. This clause extends to Participating Entities as it relates to business conducted by that Participating Entity under this Contract.

B. **ASSIGNMENT.** Neither party may assign or otherwise transfer its rights or obligations under this Contract without the prior written consent of the other party and a fully executed assignment agreement. Such consent will not be unreasonably withheld. Any prohibited assignment will be invalid.

C. **AMENDMENTS.** Any amendment to this Contract must be in writing and will not be effective until it has been duly executed by the parties.

D. **WAIVER.** Failure by either party to take action or assert any right under this Contract will not be deemed a waiver of such right in the event of the continuation or repetition of the circumstances giving rise to such right. Any such waiver must be in writing and signed by the parties.

E. **CONTRACT COMPLETE.** This Contract represents the complete agreement between the parties. No other understanding regarding this Contract, whether written or oral, may be used to bind either party. For any conflict between the attached Proposal and the terms set out in Articles 1-22 of this Contract, the terms of Articles 1-22 will govern.

F. **RELATIONSHIP OF THE PARTIES.** The relationship of the parties is one of independent contractors, each free to exercise judgment and discretion with regard to the conduct of their respective businesses. This Contract does not create a partnership, joint venture, or any other relationship such as master-servant, or principal-agent.

11. INDEMNITY AND HOLD HARMLESS

Supplier must indemnify, defend, save, and hold Sourcewell and its Participating Entities, including their agents and employees, harmless from any claims or causes of action, including attorneys' fees incurred by Sourcewell or its Participating Entities, arising out of any act or omission in the performance of this Contract by the Supplier or its agents or employees; this indemnification includes injury or death to person(s) or property alleged to have been caused by some defect in the Equipment, Products, or Services under this Contract to the extent the Equipment, Product, or Service has been used according to its specifications. Sourcewell's responsibility will be governed by the State of Minnesota's Tort Liability Act (Minnesota Statutes Chapter 466) and other applicable law.

12. GOVERNMENT DATA PRACTICES

Supplier and Sourcewell must comply with the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, as it applies to all data provided by or provided to Sourcewell under this Contract and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Supplier under this Contract.

13. INTELLECTUAL PROPERTY, PUBLICITY, MARKETING, AND ENDORSEMENT

A. INTELLECTUAL PROPERTY

1. *Grant of License.* During the term of this Contract:
 - a. Sourcewell grants to Supplier a royalty-free, worldwide, non-exclusive right and license to use the trademark(s) provided to Supplier by Sourcewell in advertising and promotional materials for the purpose of marketing Sourcewell's relationship with Supplier.
 - b. Supplier grants to Sourcewell a royalty-free, worldwide, non-exclusive right and license to use Supplier's trademarks in advertising and promotional materials for the purpose of marketing Supplier's relationship with Sourcewell.
2. *Limited Right of Sublicense.* The right and license granted herein includes a limited right of each party to grant sublicenses to their respective subsidiaries, distributors, dealers,

resellers, marketing representatives, and agents (collectively “Permitted Sublicensees”) in advertising and promotional materials for the purpose of marketing the Parties’ relationship to Participating Entities. Any sublicense granted will be subject to the terms and conditions of this Article. Each party will be responsible for any breach of this Article by any of their respective sublicensees.

3. Use; Quality Control.

- a. Neither party may alter the other party’s trademarks from the form provided and must comply with removal requests as to specific uses of its trademarks or logos.
- b. Each party agrees to use, and to cause its Permitted Sublicensees to use, the other party’s trademarks only in good faith and in a dignified manner consistent with such party’s use of the trademarks. Upon written notice to the breaching party, the breaching party has 30 days of the date of the written notice to cure the breach or the license will be terminated.

4. As applicable, Supplier agrees to indemnify and hold harmless Sourcewell and its Participating Entities against any and all suits, claims, judgments, and costs instituted or recovered against Sourcewell or Participating Entities by any person on account of the use of any Equipment or Products by Sourcewell or its Participating Entities supplied by Supplier in violation of applicable patent or copyright laws.

5. Termination. Upon the termination of this Contract for any reason, each party, including Permitted Sublicensees, will have 30 days to remove all Trademarks from signage, websites, and the like bearing the other party’s name or logo (excepting Sourcewell’s pre-printed catalog of suppliers which may be used until the next printing). Supplier must return all marketing and promotional materials, including signage, provided by Sourcewell, or dispose of it according to Sourcewell’s written directions.

B. **PUBLICITY.** Any publicity regarding the subject matter of this Contract must not be released without prior written approval from the Authorized Representatives. Publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Supplier individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from this Contract.

C. **MARKETING.** Any direct advertising, marketing, or offers with Participating Entities must be approved by Sourcewell. Send all approval requests to the Sourcewell Supplier Development Administrator assigned to this Contract.

D. **ENDORSEMENT.** The Supplier must not claim that Sourcewell endorses its Equipment, Products, or Services.

14. GOVERNING LAW, JURISDICTION, AND VENUE

The substantive and procedural laws of the State of Minnesota will govern this Contract. Venue for all legal proceedings arising out of this Contract, or its breach, must be in the appropriate state court in Todd County, Minnesota or federal court in Fergus Falls, Minnesota.

15. FORCE MAJEURE

Neither party to this Contract will be held responsible for delay or default caused by acts of God or other conditions that are beyond that party's reasonable control. A party defaulting under this provision must provide the other party prompt written notice of the default.

16. SEVERABILITY

If any provision of this Contract is found by a court of competent jurisdiction to be illegal, unenforceable, or void then both parties will be relieved from all obligations arising from that provision. If the remainder of this Contract is capable of being performed, it will not be affected by such determination or finding and must be fully performed.

17. PERFORMANCE, DEFAULT, AND REMEDIES

A. **PERFORMANCE.** During the term of this Contract, the parties will monitor performance and address unresolved contract issues as follows:

1. *Notification.* The parties must promptly notify each other of any known dispute and work in good faith to resolve such dispute within a reasonable period of time. If necessary, Sourcewell and the Supplier will jointly develop a short briefing document that describes the issue(s), relevant impact, and positions of both parties.
2. *Escalation.* If parties are unable to resolve the issue in a timely manner, as specified above, either Sourcewell or Supplier may escalate the resolution of the issue to a higher level of management. The Supplier will have 30 calendar days to cure an outstanding issue.
3. *Performance while Dispute is Pending.* Notwithstanding the existence of a dispute, the Supplier must continue without delay to carry out all of its responsibilities under the Contract that are not affected by the dispute. If the Supplier fails to continue without delay to perform its responsibilities under the Contract, in the accomplishment of all undisputed work, the Supplier will bear any additional costs incurred by Sourcewell and/or its Participating Entities as a result of such failure to proceed.

B. **DEFAULT AND REMEDIES.** Either of the following constitutes cause to declare this Contract, or any Participating Entity order under this Contract, in default:

1. Nonperformance of contractual requirements, or
2. A material breach of any term or condition of this Contract.

The party claiming default must provide written notice of the default, with 30 calendar days to cure the default. Time allowed for cure will not diminish or eliminate any liability for liquidated or other damages. If the default remains after the opportunity for cure, the non-defaulting party may:

- Exercise any remedy provided by law or equity, or
- Terminate the Contract or any portion thereof, including any orders issued against the Contract.

18. INSURANCE

A. REQUIREMENTS. At its own expense, Supplier must maintain insurance policy(ies) in effect at all times during the performance of this Contract with insurance company(ies) licensed or authorized to do business in the State of Minnesota having an "AM BEST" rating of A- or better, with coverage and limits of insurance not less than the following:

1. *Workers' Compensation and Employer's Liability.*

Workers' Compensation: As required by any applicable law or regulation.

Employer's Liability Insurance: must be provided in amounts not less than listed below:

Minimum limits:

\$500,000 each accident for bodily injury by accident

\$500,000 policy limit for bodily injury by disease

\$500,000 each employee for bodily injury by disease

2. *Commercial General Liability Insurance.* Supplier will maintain insurance covering its operations, with coverage on an occurrence basis, and must be subject to terms no less broad than the Insurance Services Office ("ISO") Commercial General Liability Form CG0001 (2001 or newer edition), or equivalent. At a minimum, coverage must include liability arising from premises, operations, bodily injury and property damage, independent contractors, products-completed operations including construction defect, contractual liability, blanket contractual liability, and personal injury and advertising injury. All required limits, terms and conditions of coverage must be maintained during the term of this Contract.

Minimum Limits:

\$1,000,000 each occurrence Bodily Injury and Property Damage

\$1,000,000 Personal and Advertising Injury

\$2,000,000 aggregate for Products-Completed operations

\$2,000,000 general aggregate

3. *Commercial Automobile Liability Insurance.* During the term of this Contract, Supplier will maintain insurance covering all owned, hired, and non-owned automobiles in limits of liability not less than indicated below. The coverage must be subject to terms

no less broad than ISO Business Auto Coverage Form CA 0001 (2010 edition or newer), or equivalent.

Minimum Limits:

\$1,000,000 each accident, combined single limit

4. *Umbrella Insurance*. During the term of this Contract, Supplier will maintain umbrella coverage over Employer's Liability, Commercial General Liability, and Commercial Automobile.

Minimum Limits:

\$2,000,000

Failure of Supplier to maintain the required insurance will constitute a material breach entitling Sourcewell to immediately terminate this Contract for default.

B. CERTIFICATES OF INSURANCE. Prior to commencing under this Contract, Supplier must furnish to Sourcewell a certificate of insurance, as evidence of the insurance required under this Contract. Prior to expiration of the policy(ies), renewal certificates must be mailed to Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 or sent to the Sourcewell Supplier Development Administrator assigned to this Contract. The certificates must be signed by a person authorized by the insurer(s) to bind coverage on their behalf.

Failure to request certificates of insurance by Sourcewell, or failure of Supplier to provide certificates of insurance, in no way limits or relieves Supplier of its duties and responsibilities in this Contract.

C. ADDITIONAL INSURED ENDORSEMENT. Supplier agrees to list Sourcewell and its Participating Entities, including their officers, agents, and employees, as an additional insured under the Supplier's commercial general liability insurance policy with respect to liability arising out of activities, "operations," or "work" performed by or on behalf of Supplier, and products and completed operations of Supplier.

D. WAIVER OF SUBROGATION. Omitted.

E. UMBRELLA/EXCESS LIABILITY/SELF-INSURED RETENTION. The limits required by this Contract can be met by either providing a primary policy or in combination with umbrella/excess liability policy(ies), or self-insured retention.

19. COMPLIANCE

A. LAWS AND REGULATIONS. All Equipment, Products, or Services provided under this Contract must comply fully with applicable federal laws and regulations, and with the laws in the states and provinces in which the Equipment, Products, or Services are sold.

B. **LICENSES.** Supplier must maintain a valid and current status on all required federal, state/provincial, and local licenses, bonds, and permits required for the operation of the business that the Supplier conducts with Sourcewell and Participating Entities.

20. BANKRUPTCY, DEBARMENT, OR SUSPENSION CERTIFICATION

Supplier certifies and warrants that it is not in bankruptcy or that it has previously disclosed in writing certain information to Sourcewell related to bankruptcy actions. If at any time during this Contract Supplier declares bankruptcy, Supplier must immediately notify Sourcewell in writing.

Supplier certifies and warrants that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Supplier certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this Contract. Supplier further warrants that it will provide immediate written notice to Sourcewell if this certification changes at any time.

21. PROVISIONS FOR NON-UNITED STATES FEDERAL ENTITY PROCUREMENTS UNDER UNITED STATES FEDERAL AWARDS OR OTHER AWARDS

Participating Entities that use United States federal grant or FEMA funds to purchase goods or services from this Contract may be subject to additional requirements including the procurement standards of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, 2 C.F.R. § 200. Participating Entities may have additional requirements based on specific funding source terms or conditions. Within this Article, all references to “federal” should be interpreted to mean the United States federal government. The following list only applies when a Participating Entity accesses Supplier’s Equipment, Products, or Services with United States federal funds.

A. **EQUAL EMPLOYMENT OPPORTUNITY.** Except as otherwise provided under 41 C.F.R. § 60, all contracts that meet the definition of “federally assisted construction contract” in 41 C.F.R. § 60-1.3 must include the equal opportunity clause provided under 41 C.F.R. §60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 C.F.R. §, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 C.F.R. § 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.” The equal opportunity clause is incorporated herein by reference.

B. DAVIS-BACON ACT, AS AMENDED (40 U.S.C. § 3141-3148). When required by federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. § 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 C.F.R. § 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-federal entity must report all suspected or reported violations to the federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. § 3145), as supplemented by Department of Labor regulations (29 C.F.R. § 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-federal entity must report all suspected or reported violations to the federal awarding agency. Supplier must be in compliance with all applicable Davis-Bacon Act provisions.

C. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (40 U.S.C. § 3701-3708). Where applicable, all contracts awarded by the non-federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations (29 C.F.R. § 5). Under 40 U.S.C. § 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence. This provision is hereby incorporated by reference into this Contract. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

D. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT. If the federal award meets the definition of “funding agreement” under 37 C.F.R. § 401.2(a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental,

developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 C.F.R. § 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

E. CLEAN AIR ACT (42 U.S.C. § 7401-7671Q.) AND THE FEDERAL WATER POLLUTION CONTROL ACT (33 U.S.C. § 1251-1387). Contracts and subgrants of amounts in excess of \$150,000 require the non-federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401- 7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251- 1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). Supplier certifies that during the term of this Contract will comply with applicable requirements as referenced above.

F. DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 AND 12689). A contract award (see 2 C.F.R. § 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 C.F.R. §180 that implement Executive Orders 12549 (3 C.F.R. § 1986 Comp., p. 189) and 12689 (3 C.F.R. § 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. Supplier certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

G. BYRD ANTI-LOBBYING AMENDMENT, AS AMENDED (31 U.S.C. § 1352). Suppliers must file any required certifications. Suppliers must not have used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Suppliers must disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the non-federal award. Suppliers must file all certifications and disclosures required by, and otherwise comply with, the Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352).

H. RECORD RETENTION REQUIREMENTS. To the extent applicable, Supplier must comply with the record retention requirements detailed in 2 C.F.R. § 200.333. The Supplier further certifies that it will retain all records as required by 2 C.F.R. § 200.333 for a period of 3 years after grantees or subgrantees submit final expenditure reports or quarterly or annual financial reports, as applicable, and all other pending matters are closed.

I. ENERGY POLICY AND CONSERVATION ACT COMPLIANCE. To the extent applicable, Supplier must comply with the mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

J. BUY AMERICAN PROVISIONS COMPLIANCE. To the extent applicable, Supplier must comply with all applicable provisions of the Buy American Act. Purchases made in accordance with the Buy American Act must follow the applicable procurement rules calling for free and open competition.

K. ACCESS TO RECORDS (2 C.F.R. § 200.336). Supplier agrees that duly authorized representatives of a federal agency must have access to any books, documents, papers and records of Supplier that are directly pertinent to Supplier's discharge of its obligations under this Contract for the purpose of making audits, examinations, excerpts, and transcriptions. The right also includes timely and reasonable access to Supplier's personnel for the purpose of interview and discussion relating to such documents.

L. PROCUREMENT OF RECOVERED MATERIALS (2 C.F.R. § 200.322). A non-federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. § 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

M. FEDERAL SEAL(S), LOGOS, AND FLAGS. The Supplier not use the seal(s), logos, crests, or reproductions of flags or likenesses of Federal agency officials without specific pre-approval.

N. NO OBLIGATION BY FEDERAL GOVERNMENT. The U.S. federal government is not a party to this Contract or any purchase by an Participating Entity and is not subject to any obligations or liabilities to the Participating Entity, Supplier, or any other party pertaining to any matter resulting from the Contract or any purchase by an authorized user.

O. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS. The Contractor acknowledges that 31 U.S.C. 38 (Administrative Remedies for False Claims and Statements) applies to the Supplier's actions pertaining to this Contract or any purchase by a Participating Entity.

P. FEDERAL DEBT. The Supplier certifies that it is non-delinquent in its repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowance, and benefit overpayments.

Q. CONFLICTS OF INTEREST. The Supplier must notify the U.S. Office of General Services, Sourcewell, and Participating Entity as soon as possible if this Contract or any aspect related to the anticipated work under this Contract raises an actual or potential conflict of interest (as described in 2 C.F.R. Part 200). The Supplier must explain the actual or potential conflict in writing in sufficient detail so that the U.S. Office of General Services, Sourcewell, and Participating Entity are able to assess the actual or potential conflict; and provide any additional information as necessary or requested.

R. U.S. EXECUTIVE ORDER 13224. The Supplier, and its subcontractors, must comply with U.S. Executive Order 13224 and U.S. Laws that prohibit transactions with and provision of resources and support to individuals and organizations associated with terrorism.

S. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. To the extent applicable, Supplier certifies that during the term of this Contract it will comply with applicable requirements of 2 C.F.R. § 200.216.

T. DOMESTIC PREFERENCES FOR PROCUREMENTS. To the extent applicable, Supplier certifies that during the term of this Contract will comply with applicable requirements of 2 C.F.R. § 200.322.

22. CANCELLATION

Sourcewell or Supplier may cancel this Contract at any time, with or without cause, upon 60 days' written notice to the other party. However, Sourcewell may cancel this Contract immediately upon discovery of a material defect in any certification made in Supplier's Proposal. Cancellation of this Contract does not relieve either party of financial, product, or service obligations incurred or accrued prior to cancellation.

**** Remainder of page intentionally blank ****

Sourcewell

Oshkosh Corporation

DocuSigned by:
Jeremy Schwartz
C0FD2A139D06489...

[Handwritten Signature]

By: _____

By: _____

Jeremy Schwartz

James W. Johnson

Title: Chief Procurement Officer

Title: Executive Vice President and President
Fire & Emergency Segment

4/5/2022 | 4:53 PM CDT

Date: _____

Date: APRIL 5 '22

Approved:

DocuSigned by:
Chad Coquette
7E42B8F817A64CC...

By: _____

Chad Coquette

Title: Executive Director/CEO

4/5/2022 | 4:54 PM CDT

Date: _____

RFP 113021 - Firefighting Apparatus and Fire Service Vehicles

Vendor Details

Company Name: Pierce Manufacturing
Does your company conduct business under any other name? If yes, please state: WISCONSIN
Address: 2600 American Drive
Appleton , WI 54914
Contact: Michelle Swokowski
Email: mswokowski@piercemfg.com
Phone: 920-832-3272
Fax: 920-740-6252
HST#:

Submission Details

Created On: Monday October 18, 2021 12:41:15
Submitted On: Tuesday November 30, 2021 16:18:31
Submitted By: Michelle Swokowski
Email: mswokowski@piercemfg.com
Transaction #: 724f061f-10fb-4d93-bd02-b5afd9c2b906
Submitter's IP Address: 198.190.231.15

Specifications

Table 1: Proposer Identity & Authorized Representatives

General Instructions (applies to all Tables) Sourcewell prefers a brief but thorough response to each question. Do not merely attach additional documents to your response without also providing a substantive response. Do not leave answers blank; respond "N/A" if the question does not apply to you (preferably with an explanation).

Line Item	Question	Response *
1	Proposer Legal Name (one legal entity only): (In the event of award, will execute the resulting contract as "Supplier")	Oshkosh Corporation
2	Identify all subsidiary entities of the Proposer whose equipment, products, or services are included in the Proposal.	Pierce Manufacturing Inc. Oshkosh Airport Products, LLC
3	Identify all applicable assumed names or DBA names of the Proposer or Proposer's subsidiaries in Line 1 or Line 2 above.	As used herein, the "Company," "we," "us" and "our" refers to Oshkosh Corporation and its consolidated subsidiaries. "Oshkosh" refers to Oshkosh Corporation, subsidiaries, Pratt & Miller Engineering & Fabrications, LLC (Pratt Miller), Pierce Manufacturing Inc. (Pierce), McNeilus Companies, Inc. (McNeilus) and its wholly owned subsidiaries, Oshkosh Airport Products, LLC (Airport Products), Kewaunee Fabrications, LLC (Kewaunee (IMT) or any other subsidiaries. Other assume names herein are often identified to be Frontline Communications, ARFF, Airport , Pierce.
4	Proposer Physical Address:	Oshkosh Corporation 1917 Four Wheel Dr. Oshkosh WI, 54902 Pierce Manufacturing Inc. 2600 American Dr. Appleton WI, 54914 Oshkosh Airport Products, LLC. 1515 County Rd. O Neenah WI, 54956
5	Proposer website address (or addresses):	www.oshkoshcorp.com www.Piercemfg.com, www.frontlinecomm.com, www.oshkoshairport.com,
6	Proposer's Authorized Representative (name, title, address, email address & phone) (The representative must have authority to sign the "Proposer's Assurance of Compliance" on behalf of the Proposer and, in the event of award, will be expected to execute the resulting contract):	James W. Johnson Executive Vice President and President, Fire & Emergency Segment Pierce Manufacturing Inc. 2600 American Drive Appleton, WI 54914 Email: jjohnson@piercemfg.com Phone: 920-832-3000 Refer to authorized signers for Oshkosh Corporation, Pierce Manufacturing and Oshkosh Airport Products in additional documents.
7	Proposer's primary contact for this proposal (name, title, address, email address & phone):	Michelle Swokowski Sales Operations Manager, Pierce Manufacturing Inc. 2600 American Drive Appleton WI 54914 Email: mswokowski@piercemfg.com Phone: 920-832-3272
8	Proposer's other contacts for this proposal, if any (name, title, address, email address & phone):	Brianna Propson, Sales Representative, Oshkosh Airport Products, LLC. 1515 County RD O Neenah WI, 54956 Email: bpropson@airport.oshkoshcorp.com Phone: 920-215-5135

Table 2: Company Information and Financial Strength

Line Item	Question	Response *
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9

Provide a brief history of your company, including your company's core values, business philosophy, and industry longevity related to the requested equipment, products or services.

Oshkosh Corporation Overview

Oshkosh Corporation was founded in 1917, driven by a breakthrough four-wheel drive system that gave people the courage and confidence to go places they never thought they would. Today, more than 14,000 Oshkosh team members are putting over 850 active patented technologies to work serving, developing, and connecting communities around the world. Oshkosh Corporation is a leading manufacturer and marketer of access equipment, specialty vehicles and truck bodies for the primary markets of access equipment, defense, fire & emergency and municipal, refuse hauling, concrete placement as well as airport services. s. Oshkosh products can be found in more than 150 countries under the brands of JLG®, Pierce®, Oshkosh® Defense, McNeilus®, IMT®, Jerr-Dan®, Frontline™, Oshkosh® Airport Products, and London™ and Pratt Miller.

Pierce and Airport Products are subsidiaries of Oshkosh and are part of the Fire & Emergency Segment of Oshkosh. We believe in advancing the world around us through building, serving, and protecting people and communities. We are united by a common purpose: to make a difference in people's lives. Our values are the belief system that helps us ensure our behaviors are aligned with our purpose and drive us to do great work for great people.

Oshkosh Core Values:

WE PUT PEOPLE FIRST

- We treat people how they need to be treated.
- We keep people safe, within our walls and those using our products.
- We care for the emotional, physical, and financial wellbeing of our people.
- We celebrate what makes each of us unique.
- We value other's words and ideas.
- We respect the impact we have on each other; on the people we serve and in communities around the world.

WE DO THE RIGHT THING

- We do the right thing, the right way, for the right reasons.
- We take responsibility for our actions.
- We speak up and share our thoughts and concerns.
- We keep our promises.
- We respect our environment: both where we work and the planet we rely on.

WE PERSEVERE

- We push the bounds of technology and engineering to bring value to our customers and those who count on us.
- We challenge the impossible to make a difference every day.
- We are courageous and steadfast.
- We strive to overcome obstacles and achieve our goals.

WE ARE BETTER TOGETHER

- We welcome ideas different from our own.
- We rely on diversity to drive innovation.
- We create an inclusive, empowering environment for all.
- We work together across geographies, platforms, business units and functions to help our company reach its fullest potential.

Business Philosophy:

Our strategy is "Innovate. Serve. Advance." We innovate customer solutions by combining leading technology and operational strength to empower and protect the everyday hero. We serve and support those who rely on us with a relentless focus throughout the product lifecycle. We advance by expanding into new markets and geographies to make a difference around the world.

As a corporation, our culture is one committed to conducting business with integrity, in accordance with the highest ethical standards and in compliance with applicable laws and regulations. The guidelines, laws, regulations, policies, and procedures that govern our conduct as employees and contractors of Oshkosh Corporation are embodied in our Code of Ethics & Standards of Conduct - The Oshkosh Way.

Business Longevity:

Pierce was founded in 1913 and is the leading domestic designer and manufacturer of fire apparatus assembled on custom chassis, designed, and manufactured to meet the special needs of firefighters. Pierce also designs and manufactures fire apparatus assembled on commercially available chassis, which are produced for multiple end-customer applications. Pierce's engineering expertise allows it to design its vehicles to meet stringent industry guidelines and government regulations for safety and effectiveness. Pierce primarily serves domestic municipal customers, but also sells fire apparatus to the DoD, airports, universities, and large industrial companies, and in international markets. Pierce's history of innovation, research and development in consultation with firefighters has resulted in a broad product line that features a wide range of innovative, high-quality custom and commercial firefighting equipment with advanced fire suppression capabilities. In an effort to be a single-source supplier for its customers, Pierce offers a full line of custom and commercial fire apparatus and emergency vehicles, including pumpers, aerial platform, ladder and tiller trucks, tankers, light-, medium- and heavy-duty rescue vehicles, wildland

		<p>rough terrain response vehicles, mobile command and control centers, bomb squad vehicles, hazardous materials control vehicles and other emergency response vehicles. Refer to "Pierce Timeline.pdf" in Financial Strength and Stability folder.</p> <p>Oshkosh Airport Products is a leader in the design and sale of ARFF vehicles to domestic and international airports. These highly specialized vehicles are required to be in service at most airports worldwide to support commercial airlines in the event of an emergency. Our first Aircraft Rescue and Fire Fighting (ARFF) vehicle was delivered to the U.S. Navy in 1968.</p> <p>We are able to attract and retain new customers because we take pride in a quality product we build and provide second to none in service and support nationwide. We are the leading manufacturer of fire apparatus because of this – our loyal customers!</p> <p>Refer to "9. Oshkosh Corporation 2020 Annual Report.pdf", "9. Oshkosh Strategy Innovate Serve Advance Strategy.pdf", "9. The_Oshkosh_Way_English.pdf", "9. 2020_Sustainability_Report.pdf", and "9. Equal Employment Opportunity.pdf" in Financial Strength and Stability folder for more information.</p>	
10	What are your company's expectations in the event of an award?	<p>The Sourcewell consortium program will extend another avenue for the fire industry customer base to purchase a fire apparatus efficiently and effectively through a proven program.</p> <p>The Sourcewell consortium will be a nationwide including Canada avenue that is promoted across the Pierce sales force that consists of 23 authorized Pierce Dealers and their respective team members.</p> <p>The fundamental expectation is around education and promotion. The Pierce Dealer network and Airport Products sales team is expected to understand our product and the tools available to the customer to achieve what is in the best interest of the customer.</p>	*
11	Demonstrate your financial strength and stability with meaningful data. This could include such items as financial statements, SEC filings, credit and bond ratings, letters of credit, and detailed reference letters. Upload supporting documents (as applicable) in the document upload section of your response.	<p>Pierce Manufacturing Inc. and Oshkosh Airport Products, LLC are subsidiaries of Oshkosh Corporation, which is a publicly traded company.</p> <p>We have attached our annual report, SEC Filings along with the Dunn & Bradstreet report often used by lenders and investors to determine a company's eligibility for credit. This report along with any of the financial statements demonstrate Oshkosh Corporation and its subsidiaries to be financially sound. For additional information please refer to the below path. http://investor.oshkoshcorporation.com/investors/overview/</p> <p>Oshkosh Corporation maintains an investment grade credit rating. The rating agencies periodically update the Company's credit ratings as events or changes in economic conditions occur. As of September 30, 2021, the long-term credit ratings assigned to the Company's senior debt securities by the credit rating agencies engaged by the Company were as follows: Fitch Ratings BBB-; Moody's Investor Services, Inc. Baaa3; Standards & Poor's BBB.</p> <p>Refer to "11. Oshkosh Corp Q4 and-Full-Year-Results-2021.pdf", "11. Oshkosh Corporation Form 10-K.pdf", "11. D&B Finance Analytics Report.pdf", "11. Bank of America. Oshkosh Reference.pdf", "11. Pierce Manufacturing Certificate of Status 062021.pdf", and "11. Oshkosh Airport Products Certificate of Status July 2021.pdf" in Financial Strength and Stability folder for more information.</p>	*

12	What is your US market share for the solutions that you are proposing?	<p>Pierce is the leader in domestic market share of fire apparatus. Oshkosh Corporation is traded on the New York Stock Exchange since 2002. Financial information can be obtained by visiting the below link. http://investor.oshkoshcorporation.com/investors/financial-information/annual-and-quarterly-reports/default.aspx</p> <p>Fire & Emergency segment. Through Pierce, the Company is the leading domestic designer and manufacturer of fire apparatus assembled on custom chassis, designed and manufactured to meet the special needs of firefighters. Pierce also designs and manufactures fire apparatus assembled on commercially available chassis, which are produced for multiple end-customer applications. Pierce's engineering expertise allows it to design its vehicles to meet stringent industry guidelines and government regulations for safety and effectiveness. Pierce primarily serves domestic municipal customers, but also sells fire apparatus to the DoD, airports, universities and large industrial companies, and in international markets. Pierce's history of innovation, research and development in consultation with firefighters has resulted in a broad product line that features a wide range of innovative, high-quality custom and commercial firefighting equipment with advanced fire suppression capabilities. In an effort to be a single-source supplier for its customers, Pierce offers a full line of custom and commercial fire apparatus and emergency vehicles, including pumpers, aerial platform, ladder and tiller trucks, tankers, light-, medium- and heavy-duty rescue vehicles, wildland rough terrain response vehicles, mobile command and control centers, bomb squad vehicles, hazardous materials control vehicles and other emergency response vehicles.</p> <p>The Company, through Airport Products, is a leader in the design and sale of ARFF vehicles to domestic and international airports. These highly specialized vehicles are required to be in service at most airports worldwide to support commercial airlines in the event of an emergency. Many of the largest airports in the United States, including LaGuardia International Airport, John F. Kennedy International Airport, O'Hare International Airport, Denver International Airport, Baltimore-Washington International Airport, Dallas/Fort Worth International Airport, Tampa International Airport, Philadelphia International Airport and San Francisco International Airport, are served by the Company's ARFF vehicles. The U.S. government also maintains a fleet of ARFF vehicles that are used to support military operations throughout the world. Internationally, the Company's vehicles serve, among others, Beijing, China and more than fifty other airports in China; Singapore; Indonesia; Quebec, Canada; Abu Dhabi, UAE; and Birmingham, Cardiff, Manchester and Liverpool, United Kingdom. In addition, the Company has recently delivered ARFF vehicles to airports in Mexico, Japan, Egypt, Nepal, Iraq and the British Virgin Islands. The Company believes that the performance and reliability of its ARFF vehicles contribute to the Company's strong position in this market.</p> <p>The Company, through its Frontline brand, is a leading manufacturer, system designer and integrator of broadcast vehicles, including electronic field production trailers, satellite news gathering and electronic news gathering vehicles for broadcasters and command trucks for local and federal governments along with being a leading supplier of military simulator shelters and trailers under the Oshkosh Specialty Vehicles (OSV) brand. The Company's vehicles have been used worldwide to broadcast the NFL Super Bowl, the FIFA World Cup and the Olympics.</p>	*
13	What is your Canadian market share for the solutions that you are proposing?	<p>Pierce along with their strong dealer sales and service network that has driven increase Canadian market share. The Pierce Canadian dealer consist of 3 dealers that lead multiple service locations. We also partner with MAXI-METAL Inc leveraging the MAXI Saber program since 2016 and US Contender since 2017. Each Dealer has a signed dealer agreement to sell Pierce fire apparatus in the designated territory awarded to them. They are Prime on contracts and are supported by the 2500+ Pierce employees.</p>	*
14	Has your business ever petitioned for bankruptcy protection? If so, explain in detail.	No	*

15	<p>How is your organization best described: is it a manufacturer, a distributor/dealer/reseller, or a service provider? Answer whichever question (either a) or b) just below) best applies to your organization.</p> <p>a) If your company is best described as a distributor/dealer/reseller (or similar entity), provide your written authorization to act as a distributor/dealer/reseller for the manufacturer of the products proposed in this RFP. If applicable, is your dealer network independent or company owned?</p> <p>b) If your company is best described as a manufacturer or service provider, describe your relationship with your sales and service force and with your dealer network in delivering the products and services proposed in this RFP. Are these individuals your employees, or the employees of a third party?</p>	<p>Pierce and Airport Products are best described as manufacturers.</p> <p>Pierce and Airport Products are best described as manufacturers. The Pierce Dealer network consists of 20 US based Dealers and 3 Canadian based Dealers. Each Dealer has a signed dealer agreement to sell Pierce fire apparatus in the designated territory awarded to them. They are Prime on contracts and are supported by the 2500+ Pierce employees. The Company believes the geographic breadth, size and quality of its Pierce fire apparatus sales and service organization are competitive advantages in a market characterized by a few large manufacturers and numerous small, regional competitors.</p> <p>Pierce's fire apparatus is sold through an extensive network of independent sales and service organizations with over 300 hundred sales representatives in the U.S. and Canada, which combine broad geographical reach with high frequency of contact with fire departments and municipal government officials. These sales and service organizations are supported by product and marketing support professionals and contract administrators at Pierce. The Company believes high frequency of contact and local presence are important to cultivate major, and typically infrequent, purchases involving the city or town council, fire department, purchasing, finance and mayoral offices, among others, that may participate in a fire apparatus bid and selection process. After the sale, Pierce's nationwide local parts and service capability is available to help municipalities maintain peak readiness for this vital municipal service.</p> <p>Oshkosh Airport Products The Company markets its Oshkosh-branded ARFF vehicles through a combination of direct sales representatives domestically and an extensive network of representatives and distributors in international markets, including Canada. Certain of these international representatives and distributors also handle Pierce products and will follow the same process as noted above. For service, we support both with internal service support which is available 24/7/365 via our support line at 1-800-222-6635 and external sales representatives.</p> <p>Refer to "15. Pierce. Airport Manufacturer. Products.pdf" in Company Information and Financial Strength folder for an overview of our manufacturing capabilities and product offerings.</p>
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16	If applicable, provide a detailed explanation outlining the licenses and certifications that are both required to be held, and actually held, by your organization (including third parties and subcontractors that you use) in pursuit of the business contemplated by this RFP.	<p>Pierce Manufacturing Inc. holds state licensing for Sales, Manufacturing, Motor Vehicles, and dealer license used accordance to the state laws. The Pierce Dealer network licenses independently holds as required by law in the state in which they sell. Airport Products holds manufacturer's license, where required.</p> <p>We also hold our Vendors accountable to the utmost standards. Beyond ISO certifications and compliance, we require our supply chain of major components to obtain a score of 80% or above on a supplier quality audit performed by Oshkosh Corporation supplier quality.</p> <p>ISO 9001:2015 Certification: Pierce Manufacturing Inc. was the first single-source manufacturer of custom fire apparatus in North America to achieve ISO 9001 certification. Pierce has achieved ISO 9001:2015 certification which covers all aspects of our business life cycle, from engineering and manufacturing to customer service. ISO 9001 certification demonstrates a company's commitment to quality. To keep their ISO 9001 registered status, companies are re-audited twice per year through third-party verification to prove they are maintaining good practices. ISO 9001 certification further assures customers that a fundamental quality system is in place. It's a solid foundation for continuous improvement always striving to get even better. An ISO-certified manufacturer, like Pierce, accepts nothing but the best from its suppliers. Pierce asks its suppliers to meet many of the same stringent quality requirements and works with them to improve their quality systems as well.</p> <p>Refer to "16. ISO 9001.2015 Pierce Mfg and entities.pdf" in Financial Strength and Stability folder for certificate.</p> <p>UL/ULC: Pierce is the first fire apparatus manufacturer to be both third party certified to NFPA 1901-2013 edition and ULC listed to Canada ULC-S515-04 standard. Third Party Vehicle Inspection Program by Underwriters Laboratories to ensure our products are 100% N.F.P.A. compliant to 1901 standards. The certification includes all design, production, operational and performance testing of the complete apparatus. All products must pass all tests before a truck is released into Canada. This commitment to quality applies to trucks sold in the U.S. as well.</p> <p>Refer to "16. Sample UL Certs 35796 Pump Line Voltage Aerial Cert.pdf" in Financial Strength and Stability folder for sample certificate.</p> <p>ISO 14001:2015 Certification: Our Neenah facility is also ISO 14001:2015 certified for our Environmental Management System. Various Pierce and Airport Products vehicles are manufactured in this space.</p> <p>Refer to "16. ISO 14001 Oshkosh Airport Products.pdf" in Financial Strength and Stability folder for certificate.</p>
17	Provide all "Suspension or Debarment" information that has applied to your organization during the past ten years.	Neither Oshkosh Corporation or subsidiary such as Pierce Manufacturing and Airport Products have suspension or debarment that applies within the past 10 years.

Table 3: Industry Recognition & Marketplace Success

Line Item	Question	Response *
18	Describe any relevant industry awards or recognition that your company has received in the past five years	<p>Oshkosh Corporation is honored to be named and recognized for the following awards and recognitions. World's Most Ethical Companies in 2016, 2017, 2018, 2019, 2020 and 2021. Oshkosh is one of only 124 companies, representing 52 industry sectors in 19 countries on five continents named to this prestigious list. We were the only company selected in the "Trucks and Other Vehicles" category, underscoring our commitment to leading ethical business standards and practices. This achievement is only possible with a commitment to sustainability, connecting with our communities and strong ethical culture and team members who believe in doing the right thing. Link: https://investors.oshkoshcorp.com/news/news-details/2021/Oshkosh-Corporation-named-one-of-the-Worlds-Most-Ethical-Companies-for-sixth-consecutive-year/default.aspx</p> <p>FORTUNE's World's Most Admired Companies in 2019 and 2020. Oshkosh Corporation is one of 330 companies to achieve this honor, as ranked by industry peers, highlighting some of the most respected and successful companies from around the world. https://investors.oshkoshcorp.com/news/news-details/2021/Oshkosh-Corporation-named-one-of-the-Worlds-Most-Admired-Companies-by-FORTUNE/default.aspx</p>

In 2020 and 2021, the company was awarded one of America's Most Responsible Companies by Newsweek. Oshkosh has earned this award for two consecutive years and is ranked #159 out of 399 companies on the list. America's Most Responsible Companies were defined based on key performance indicators around environmental, social and corporate governance areas. For more info please refer to the link below: <https://www.oshkoshcorp.com/en/news/12-23-20-most-responsible-newsweek>

Oshkosh Corporation was named a Military Friendly Company in 2017, 2018, 2019, 2020 and 2021. Being named a Military Friendly Company highlights our commitment to caring for our team member and having a culture where veterans can thrive. . Please reference the link for additional detail: <https://www.oshkoshcorp.com/en/news>

Oshkosh Corporation has been listed on the Dow Jones Sustainability World Index in 2019, 2020 and 2021. Please review the link below for additional info. <https://investors.oshkoshcorp.com/news/news-details/2020/Oshkosh-Corporation-Named-to-the-Dow-Jones-Sustainability-World-Index-for-Second-Consecutive-Year/default.aspx>

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World's Most Ethical Companies in 2016, 2017, 2018, 2019, 2020 and 2021. Oshkosh is one of only 124 companies, representing 52 industry sectors in 19 countries on five continents named to this prestigious list. We were the only company selected in the "Trucks and Other Vehicles" category, underscoring our commitment to leading ethical business standards and practices. This achievement is only possible with a commitment to sustainability, connecting with our communities and strong ethical culture and team members who believe in doing the right thing.

Link: <https://investors.oshkoshcorp.com/news/news-details/2021/Oshkosh-Corporation-named-one-of-the-Worlds-Most-Ethical-Companies-for-sixth-consecutive-year/default.aspx>

FORTUNE's World's Most Admired Companies in 2019 and 2020. Oshkosh Corporation is one of 330 companies to achieve this honor, as ranked by industry peers, highlighting some of the most respected and successful companies from around the world. <https://investors.oshkoshcorp.com/news/news-details/2021/Oshkosh-Corporation-named-one-of-the-Worlds-Most-Admired-Companies-by-FORTUNE/default.aspx>

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Oshkosh was named one of the "World's Best Employers" by Forbes in 2020. The 2020 results included 750 multinational and large corporations across 45 countries. Oshkosh is ranked #76 out of 750.
Please refer to the link: <https://www.oshkoshcorp.com/en/news/12-11-20-forbes>

Oshkosh is one of Barron's 100 Most Sustainable Companies for the years 2019, 2020 and 2021. Please review the link for additional information. <https://investors.oshkoshcorp.com/news/news-details/2021/Oshkosh-Corporations-focus-on-sustainability-earns-recognition-from-Barrons-and-SP-Global/default.aspx>

Pierce's focus on energy efficiency is focused on being good stewards of company resources, budgets, and the company's ecological footprint. This earned them the recognition for Focus on Energy 2020 Energy Efficiency Excellence Award <https://www.piercemfg.com/pierce/blog/pierce-recognized-with-focus-on-energy-excellence-award>

		<p>Pierce also Achieved TRUE (Total Resource Use and Efficiency) Zero Waste Certification at the Gold level. TRUE certification is administered by Green Business Certification Inc. (GBCI), an organization that independently recognizes excellence in green business industry performance and practice globally</p> <p>2021 Sterling Manufacturing Business Excellence Award - Florida facility has been awarded the 2021 Sterling Manufacturing Business Excellence Award at the Gold Level! This award went out to the company that was found to be a high performing manufacturer in seven categories. Pierce Bradenton demonstrated outstanding leadership and management systems to meet the need of customers and stakeholders https://www.facebook.com/Pierce/posts/10165217512965527</p> <p>Pierce was awarded the "Above and Beyond Award" by ESGR August of 2021. Pierce was 1 of 3 large companies in Wisconsin recognized for their outstanding support of our Guard and Reserve forces.</p> <p>Oshkosh Corporation has been named one of the "Best Managed Companies" by the Wall Street Journal in 2018 and 2019. Please visit the link for additional detail: https://www.businesswire.com/news/home/20191209005496/en/Oshkosh-Corporation-Named-One-of-the-%E2%80%9CBest-Managed-Companies-of-2019%E2%80%9D-by-the-Wall-Street-Journal</p> <p>ISO 14001:2015 Environmental Management System To further solidify and standardize our environmental performance, Pierce Manufacturing and the Airport Products Group are in the first domestically of formalizing an Environmental Management System for our Neenah manufacturing facility in accordance with ISO 14001:2015 for all of Oshkosh Corporation Recognized by RobecoSAM with the Industry Mover Award for critical steps taken to propel corporate sustainability by measuring impact and disclosing results. Oshkosh Corporation has achieved many awards throughout the years. Many of the awards highlight specific subsidiaries such as Pierce and Airport Products. There are many more that have not been incorporated but are incorporated on our websites. We are proud and work hard to maintain these achievements.</p> <p>Refer to "18. TRUE CERTS-ID 1000128616.pdf" in Additional Documents folder for certificate.</p>	
19	What percentage of your sales are to the governmental sector in the past three years	Oshkosh has great relationship with various governmental sectors throughout the organization. We are a publicly traded company therefore the information available does not include specific sales detail.	*
20	What percentage of your sales are to the education sector in the past three years	Pierce and Airport on occasion will sell to education sectors such as Universities, Colleges, High Schools, or Fire schools. The market for our product in this group is limited.	*
21	List any state, provincial, or cooperative purchasing contracts that you hold. What is the annual sales volume for each of these contracts over the past three years?	<p>Pierce Manufacturing participates in nationwide and state-level contracts. All programs are aligned to offer the best solutions on a consistent platform. Contracts with an asterisk (*) also have contracts held by Airport Products.</p> <ol style="list-style-type: none"> 1. Sourcewell* 2. H-GAC* 3. NASPO Value Point 4. NPPGov 5. Lamas 6. BuyBoard 7. Florida Sherriff's 8. Ohio State 9. Costars 	*
22	List any GSA contracts or Standing Offers and Supply Arrangements (SOSA) that you hold. What is the annual sales volume for each of these contracts over the past three years?	Current GSA (General Services Administration) contract is GS30F021DA	*

Table 4: References/Testimonials

Line Item 23. Supply reference information from three customers who are eligible to be Sourcewell participating entities.

Entity Name *	Contact Name *	Phone Number *	
Knoxville Fire Department	Bobby Palmer	865-595-4474	*
Howell Fire District #3	Louis Memmolo,III	732-905-8530	*
Clark County	Riccardo Terzo	702-455-8341	*
Tampa International Airport	Oren Hanson	813-267-0335	

Table 5: Top Five Government or Education Customers

Line Item 24. Provide a list of your top five government, education, or non-profit customers (entity name is optional), including entity type, the state or province the entity is located in, scope of the project(s), size of transaction(s), and dollar volumes from the past three years.

Entity Name	Entity Type *	State / Province *	Scope of Work *	Size of Transactions *	Dollar Volume Past Three Years *	
U.S. Army	Government	District of Columbia - DC	Pumpers, rescues, aerials	N/A	N/A	*
U.S. Air Force	Government	District of Columbia - DC	Pumpers, rescues, aerials	N/A	N/A	*
Bureau of Land Management	Government	District of Columbia - DC	Wildland pumpers	N/A	N/A	*
U.S. Navy	Government	District of Columbia - DC	Pumpers, rescues, aerials	N/A	N/A	*
U.S. Marine Corps	Government	District of Columbia - DC	Pumpers, rescues, aerials	N/A	N/A	*

Table 6: Ability to Sell and Deliver Service

Describe your company's capability to meet the needs of Sourcewell participating entities across the US and Canada, as applicable. Your response should address in detail at least the following areas: locations of your network of sales and service providers, the number of workers (full-time equivalents) involved in each sector, whether these workers are your direct employees (or employees of a third party), and any overlap between the sales and service functions.

Line Item	Question	Response *	
25	Sales force.	<p>Pierce Manufacturing has an inside sales force that manages a given territory The support can range from dealers, customer request, trade shows, warranties, specifics support within the bids, managing the sale and configuration The inside sales folks work with internal Pierce contacts to ensure a successful build and delivery to our preferred dealer network.</p> <p>The Oshkosh Airport Products sales force consists of 2 regional sales managers who are direct employees of Oshkosh Airport Products. Our sales team is committed to the full customer lifecycle, from initial contact throughout the vehicle life. In addition, our internal sales managers coordinate with our Canadian dealership to support the customer relationship.</p> <p>Refer to "25. 26. 27. Directory - Pierce Dealership Territories Map.pdf", "25. 26. Pierce Authorized Dealer_2021_Listing.pdf", "25. ARFF RSM Map Nov 2021.pdf", and "25. Pierce and Airport Internal Contacts Org Chart.pdf" in the Additional Documents folder for more information.</p>	*
26	Dealer network or other distribution methods.	<p>Pierce product is sold via the authorized Pierce Dealer network of 300+ sales representatives that are located across the US and Canada and are backed by the Pierce factory support of 2500+ employees to assist with product, quality, and service. In addition, the sales force is comprised of legacy tenure as well as new generations. Many of our sales representatives came from or are still part of the fire industry in some way.</p> <p>There are Dealers located across the US and Canada that have been assigned territory to provide Sales, Service, and aftermarket support 24/7 365 days of the year. The dealer network has invested in on hand inventory as well as the factory and dedicated aftermarket inventory available online for them to utilize and drop ship to the end customer's location.</p> <p>As previously mentioned, we also partner with MAXIMETAL to support our Canadian customers by being a distributor for MAXIMETAL products.</p> <p>Oshkosh Airport Products sells direct domestically and partners with dealer organizations internationally, including Canada.</p> <p>Refer to "25. 26. 27. Directory - Pierce Dealership Territories Map.pdf" and "25. 26. Pierce Authorized Dealer_2021_Listing.pdf" in the Additional Documents folder for more information.</p>	*

27	Service force.	<p>Pierce and its dealer network offer a wide variety of Aftermarket services to help customers maintain their Pierce branded fire apparatus. 70+ service centers throughout North America are dedicated to servicing Pierce apparatus thru its industry-leading, independently owned & managed dealer network. 20 United States & 3 Canadian dealerships support our wide array of service centers. Pierce authorized service centers offer:</p> <ul style="list-style-type: none"> • Dedicated Service Professionals • Nearly 250 mobile service vehicles, strategically located throughout North America • Offer scheduled & unscheduled maintenance services • 24/7 access to Pierce Technical Support Hot-Line, • Ability to execute warranty-related repairs, in accordance with the Pierce limited warranty statement. <p>Pierce also offers a full line of spare parts, available for purchase thru its dedicated dealer network. The spare parts warehouse, located in Appleton, Wisconsin, boasts over 100,000 sq. ft. of storage space, all of which supports Pierce fire apparatus. Key facts about the warehouse include:</p> <ul style="list-style-type: none"> • Dedicated and committed on-hand spare parts inventory • Management of over 100,000 unique spare part numbers (inventory, min/max, pricing, country of origin, etc.) • Same-day & next-day shipping services from UPS, FedEx, and XPO • 24/7 website to locate and check pricing & availability of spare parts by authorized dealer • Tens of thousands of digital photographs & 3D artwork of replacement parts for fast & easy identification <p>Pierce offers a complete set of training classes, for both operators & maintainers, to keep your Pierce apparatus running at peak performance.</p> <ul style="list-style-type: none"> • Regional & Corporate training events held throughout the calendar year • Instructors with over 100 combined years of Pierce & industry expertise • Innovative "Training Truck"; key technology mounted on stand-alone truck to simulate any key system • Technology training on key components such as Pierce Ultimate Configuration (PUC™) water pumps, TAK-4® independent suspension systems, Husky™ Foam systems, and Command Zone™ III • Operation overview of foam & aerial devices <p>Attached you will find a summary per authorized dealer mobile vehicles and acknowledgment of service technicians along with dealer contact and the territory they cover.</p> <p>Oshkosh Airport Products employs full time Field Service Representatives to provide vehicle in-service, training, and service work. We also rely on support from organizations across the US and have service provider agreements to provide local support to our customers as well. In addition, we are supported through Oshkosh Corporation's training center to provide world-class maintenance and operations training. These trainings are designed specifically for our ARFF products and are available to our dealers and customers alike.</p> <p>Refer to "25. 26. 27. Directory - Pierce Dealership Territories Map.pdf", "27. Pierce Dealer Service & Sales Coverage.pdf", and "27. ARFF Service Providers Map.pdf" in the Additional Documents folder for more information.</p>
28	Describe the ordering process. If orders will be handled by distributors, dealers or others, explain the respective roles of the Proposer and others.	<p>When the customer works with the Pierce authorized dealer they will accept all purchase orders; however, every sale is configured in the Pierce customized truck configurator, Pulse. This sales tool includes the corresponding cooperative procurement option applicable to the sale. This option is used to generate monthly audits that Pierce performs with their dealer network as well as generate the quarterly required reports sent direct to the contracting agency. The authorized Dealer network utilizes the customized apparatus specification software (PULSE) to configure to the customer's expectations and is used internally throughout the supply chain of the order from booking the order to engineer the final product. The tool is supported with internal communication tools such as workflow, Communication Central, online scheduling, Build Status, and a complete Truck Library. This provides our Dealer network a direct link to the factory to accurately communicate details to the end user.</p> <p>Airport Products will be the primary point of contact for sales inquiries, except where we have an authorized dealer. With complexity of ARFF vehicles, our team will work directly with the customer to customize their truck configuration using the base vehicle as a starting point. Options will be added to the base price with the Sourcewell discount. This quotation will be used by the customer to issue a purchase order or contract which will be reviewed by Airport Products and accepted. Airport Products will then be responsible for manufacture of the vehicle.</p>
29	Describe in detail the process and procedure of your customer service program, if applicable. Include your response-time capabilities and commitments, as well as any incentives	<p>AFTERMARKET PIERCE MODEL</p> <p>Pierce service after the sale is where we truly are set apart from others. The Pierce Dealer network spans across the US and Canada and each have made investment in facilities, inventory, staff, and training. The Dealer is the first point of contact for the customer however all customers can access Pierceparts.com to aid in any</p>

that help your providers meet your stated service goals or promises.

service needs they may have.

TEAM MEMBERS

Pierce Service Brigade

An army of 600 service technicians across the US and Canada.

Certified Master Technicians

We specifically created the Pierce Certified Master Technician program to ensure that our Service Brigade professionals possess the highest level of proficiency with today's sophisticated emergency vehicles, including non-Pierce apparatus.

The Right Attitude and the Right Tools

Our team members take pride in going home at the end of each day knowing they made a difference. The mobile training unit takes Customer Service training to another level and brings training to the customer. This mobile unit has built-in training tools and props that are configurable to the training needs of our customers. It allows the technician to troubleshoot, dismantle, and most importantly, provide the hands-on training customers ask for.

INVENTORY

As the manufacturer, facilities are available in Appleton, WI, Weyauwega, WI, and Bradenton, FL. These facilities are equipped with factory personnel and committed healthy stock of inventory dedicated to service and replacement parts to ensure quick response and minimize down time.

Furthermore, Pierce Manufacturing Inc. houses inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority and extends a customized, Pierce aftermarket website for authorized Dealers to conduct business in real-time.

FACTORY HOURS OF OPERATION

Pierce Manufacturing Inc. and Oshkosh Airport products also maintains a 24 hour/ 7 day a week, toll free emergency hot line and employs a staff of dedicated individuals to troubleshooting and parts support. Pierce Customer Service core hours of operation are Monday – Friday, 7:30 a.m. – 4:00 p.m. CST. We also have Pierce factory technicians on call for after-hours support available 24 hours a day, seven days a week.

PROBLEM IDENTIFICATION & RESOLUTION

As product or service issues are identified by the customer, they are to contact their local Pierce authorized dealer since they are the customer's first point of contact. All issues are documented, resolved, and archived for future reference by the local dealership. If there is an issue that needs elevated assistance, the dealership will contact the Pierce customer service account representative for assistance.

Parts identification is provided to both the dealer and the Fire Department through an on-line web-based application for the specific truck. Access will be granted using the specific VIN number of the vehicle and the online web application provides the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings, and access to all current operation, maintenance, and service publications. The end user can access this information via the Guest Login.

TECHNICAL SERVICE SUPPORT

Both Pierce and their authorized Dealers can provide both in-house and on-site service for the apparatus along with training per request. Replacement parts and various levels of service after delivery are available from your local Pierce authorized dealer, including but not limited to those shown below:

SERVICE:

Warranty repair for Pierce product line for all items except for those that must be handled directly by an authorized component manufacture such as engine and transmission.

Direct access to Pierce technical support

Routine preventative maintenance

Annual aerial ladder testing

Pump testing

Ground ladder testing

NFPA 1911 annual inspections maintenance and testing

Repairs from small minor issues to major overhauls and many other services

Dealer repair services extend to most other fire and emergency rescue product lines in addition to Pierce Manufacturing

Service provided by EVT, ASE, Pierce and industry specific certified technicians

All Pierce authorized sales and service dealers have access to Pierce's extensive level of technical and customer service support staff

PARTS:

Pierce authorized dealers maintain a large assortment of products supplied with fire

		<p>apparatus. Including, but not limited to, the most commonly required parts and components required for apparatus repair. This level of inventory enables "out of service" time to be kept to a bare minimum.</p> <p>All Pierce authorized sales and service dealers have access to Pierce's extensive level of replacement parts inventory, which is more than \$15M as well as any Pierce required fabrication services.</p> <p>Oshkosh Airport Products partners with Pierce Manufacturing's internal customer support team to provide the same superior service for municipal products with the smaller scale of ARFF products. We maintain a 24 hour/ 7 day a week, toll free emergency hot line with core hours of operation being Monday through Friday, 7:30 a.m. – 4:00 p.m. CST. We also have Pierce factory technicians on call for after-hours support available 24 hours a day, seven days a week via our service support line 1-800-222-6635</p>	
30	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in the United States.	<p>Pierce Manufacturing Inc has 20 US based authorized dealers, each which has an establishes sales and service infrastructure to support the sale of our whole goods from time of sale through its lifecycle.</p> <p>We are committed to support the customer by educating them in all possible avenue to ensure they know the benefits of Sourcewell.</p> <p>Pierce will be able to support the entire US including Hawaii and Alaska along with Canada regions. Our established dealer network includes assignment for these territories.</p> <p>Airport Products is able and willing to provide our products and services to participating entities in the United States.</p>	*
31	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in Canada.	<p>Pierce Manufacturing Inc has 3 US based authorized dealers, each which has an establishes sales and service infrastructure to support the sale of our whole goods from time of sale through its lifecycle. Pierce Manufacturing Inc. has three Dealers that cover the Canadian territories – Commercial Emergency Equipment, Safety Source, and L 'Arsenal.</p> <p>Commercial Emergency Equipment is the largest of those exclusive dealers. They cover Western Canada (BC, AB, SK, MB), Ontario, as well as the Northern Territories (YT, NWT, NT).</p> <p>Pierce brands the MAXI Saber custom-chassis fire apparatus which are also marketed in Canada. Pierce is our authorized dealers are in exclusive product partnership since 2016 with MAXIMETAL. Pierce is committed to growing the market in Canada while also providing service support.</p> <p>Airport Products will work in conjunction with our authorized dealer(s), and together we are able and willing to provide our products and services to participating entities in Canada.</p>	*
32	Identify any geographic areas of the United States or Canada that you will NOT be fully serving through the proposed contract.	<p>There are no geographic areas in the US or Canada that we will not be fully servicing through the proposed contract.</p> <p>Pierce and Airport Products are proud to provide excellent coverage across the nation. There are no areas throughout US or Canada that we are not able to fully support either through our dealer network or direct coverage through coverage.</p>	*
33	Identify any Sourcewell participating entity sectors (i.e., government, education, not-for-profit) that you will NOT be fully serving through the proposed contract. Explain in detail. For example, does your company have only a regional presence, or do other cooperative purchasing contracts limit your ability to promote another contract?	<p>There are no defined sectors that Pierce or Airport Products would not be willing and able to sell to and extend the after the sale service and support we pride ourselves on.</p>	*
34	Define any specific contract requirements or restrictions that would apply to our participating entities in Hawaii and Alaska and in US Territories.	<p>Pierce and Airport Products is not aware of any specific contract requirements or restrictions that apply to members. Those territories determine what contracts they support and allow to be used.</p>	*

Table 7: Marketing Plan

Line Item	Question	Response *
35	Describe your marketing strategy for promoting this contract opportunity. Upload representative samples of your marketing materials (if applicable) in the document upload section of your response.	<p>The marketing strategy we have taken with all the awards has begun with marketing to our sales force. The initial launch provides the sales team:</p> <ul style="list-style-type: none"> • Overview of the contract and what differentiates it from the others • Training and updating internal User Guide/Handbook • Adding the contract option to our custom truck configurator Pulse • Adding the contract to the internal communication portal • Update www.piercemfg.com and www.oshkoshairport.com website with the addition of the new contract • Develop a flyer or FAQ to provide sales reps and customers as a takeaway • Including a Sourcewell purchased truck at Pierce shows. The Sourcewell consortium logo is noted on the configuration that is displayed on the truck. <p>Refer to "35. Pierce Example Marketing.pdf" in the Marketing Plan/Samples folder.</p> <p>Additional marketing brochures available in the Marketing Plan/Samples folder. Please refer to these files for current representative material.</p>
36	Describe your use of technology and digital data (e.g., social media, metadata usage) to enhance marketing effectiveness.	<p>Pierce has a dedicated marketing team that manages our website and social media; we also have 23 Dealers that have established websites and utilize social media platforms such as twitter, Instagram, and Facebook to share messaging. We are able to track engagement and metadata on our followers through these platforms. Not only is our marketing team well versed in looking at industry trends, we also partner with external organizations for a more robust approach to technology.</p> <p>Both Pierce and Airport Products' websites will include award and have a direct link to the Sourcewell website where facts and information can be obtained.</p> <p>Airport Products also utilizes Showpad for organization and distribution of marketing material which is available to our domestic and international sales team. This tool allows us to share information across the globe, including information on available purchasing consortiums. This tool allows users to track customer engagement with the material.</p>
37	In your view, what is Sourcewell's role in promoting contracts arising out of this RFP? How will you integrate a Sourcewell-awarded contract into your sales process?	<p>Sourcewell's role in promoting the Fire Apparatus contract is primarily accessibility to customers and/or their procurement officials.</p> <p>Sourcewell's role is to be partner with the awarded vendors and understand the product on the contract so that as a joint effort, end users can be informed and educated on cooperative procurement and how this contract best fits them. This may include training creation, networking at a specific show or dealer location.</p> <p>Cooperative procurement needs to fold into the sales process shortly after introductions. A Sales representative should understand what programs the customer has been a part of and/or what they know about cooperative procurement programs available. That basic understanding is a must have from the onset.</p> <p>This program won't determine what apparatus they buy or what customization they can have – this program provides them the avenue to get what they need through an efficient procurement process.</p> <p>For the Airport direct sales team, all opportunities that are not competitively bid will be provided information on the Sourcewell contract as an avenue for purchase.</p>
38	Are your products or services available through an e-procurement ordering process? If so, describe your e-procurement system and how governmental and educational customers have used it.	<p>We do not offer an e-procurement ordering process due to the complexity of our product. We have determined this platform does not fit in our business model.</p>

Table 8: Value-Added Attributes

Line Item	Question	Response *

39	Describe any product, equipment, maintenance, or operator training programs that you offer to Sourcewell participating entities. Include details, such as whether training is standard or optional, who provides training, and any costs that apply.	<p>Training is offered in several different ways:</p> <ul style="list-style-type: none"> • A customer can request factory personnel to provide training and it will be added to the sale or available at a later date. • The dealer may have a training program to offer that introduces the customer to the dealer's support team • The customer may choose to attend regional training classes offered throughout the year. <p>All customers receive a Delivery Orientation class prior to placing the apparatus in service. Other training is often customized to the customer's needs and scheduled around their calendars. Factory and/or Dealer training may include Operation, Maintenance, Foam training, Aerial training, Customer Mechanics, or customizable.</p> <p>On-site training during vehicle in-service is standard. This provides a basic vehicle operations and maintenance overview. This training is consistent with industry standards. Refer to "39. Pierce Training Offerings.pdf" in Additional Documents for more information on Pierce training.</p> <p>We also offer additional training through our Oshkosh Product Training Center. We have two rigorous courses focused on the vehicles chassis and firefighting systems. The cost of additional maintenance or operations courses are not included and schedule and pricing is available on our training website. Specialized training can also be requested and will be quoted at time of request. https://oshkoshcorporation.csod.com/LMS/catalog/Welcome.aspx.</p> <p>Refer to "39. Striker Chassis and Firefighting Maintenance Training Outline.pdf" in Additional Information folder for ARFF training outline.</p>
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40	Describe any technological advances that your proposed products or services offer.	<p>Oshkosh Corporation a leader in innovation and each of our products and technologies is designed with customers and end-users in mind, including advances in electrification, autonomy and active safety and intelligent products. Leveraging the latest in technology for today and tomorrow across the different markets we serve differentiates us and helps us remain market leaders and stay ahead of the competition. Advancing our company into new markets and categories will support continued growth for the company.</p> <p>Through this contract, we offer numerous proprietary features that stand out from others and not limited to:</p> <ul style="list-style-type: none"> • Electric Vehicles - Pierce Manufacturing and Oshkosh Airport Products have introduced the Volterra™ platform of electric vehicles for the fire and emergency market, with the first municipal truck already in service with the City of Madison, Wisconsin. The Striker® Volterra performance hybrid Aircraft Rescue and Fire Fighting (ARFF) vehicle is available for demonstration, as available, at customer locations. Refer to "40. Volterra Press Release.pdf" in Additional Documents folder for more information. • Idle Reduction Technology (IRT) - Power NFPA 1901 required devices, user-defined mission critical on-scene loads, and HVAC climate control with the main chassis engine shut down for one hour of run time at 150 amps. Featuring built-in safety interlocks and Pierce Command Zone™ auto-start for battery power monitoring and engine re-start, departments can work more safely and efficiently without a second thought. Pierce Idle Reduction Technology is an option on new apparatus and as an aftermarket solution Refer to "40. Pierce-Manufacturing-Idle-Reduction-Technology-6-21.pdf" in Additional Documents folder for more information. • Ascendant® class of aerial products – Pierce patented design that offers 107' of vertical reach and 100' of horizontal reach; rated at a 750 lb (dry) / 500 lb (wet) tip load capacity with an additional 100 lb equipment allowance; flow up to 1,500 gpm and is capable of a store front blitz feature as standard. • Pulse - Customized in-house truck configurator that allows us to build to the customer's level of customization • TAK-4® Suspension – offers shorter stopping distance, no brake steer, improved ride quality, and proven technology used by the US military. • Command Zone™ III electronics – provides vehicle reliability, easy serviceability, 5-yr standard warranty • Pierce Ultimate Configuration (PUC™) - Eliminates the pumphouse so you can build your apparatus around your needs and not the pump. It minimizes vehicular space used for fire suppression and maximizes space for equipment while still providing big pump, foam and CAFS capabilities. • Husky™ foam systems - Hydraulic drive powered; Single point, direct injection, flow-based system using digital technology to indicate pump position and a flow meter; a built-in flush system, equipped with an auxiliary foam pick-up; a foam tank refill system is available to fill the foam tank(s) from the ground. • Snozzle® HRET – The Snozzle High Reach Extendible Turret is available in a 50 ft or 65 ft configuration. Our HRET is available on the Oshkosh Striker 4x4, 6x6 and 8x8. • Eco EFP™ Foam Measurement System – Measure foam percentages from every discharge on the vehicle without using foam on the Oshkosh Striker vehicles. Eco EFP measures both the solution and foam flows on the vehicle, and even archives the testing data with a time and date stamp for three years. Refer to "40. Eco EFP Brochure.pdf" in Additional Documents folder for more information. <p>The Company's advanced design and engineering capabilities have contributed to the development of innovative and/or proprietary, severe-duty components that enhance vehicle performance, reduce manufacturing costs and strengthen customer relationships. The Company's advanced design and engineering capabilities have also allowed it to integrate many of these components across various segments and product lines, which enhances its ability to compete for new business and reduces its costs to manufacture its products compared to manufacturers who simply assemble purchased components. The Company has been a supplier of electric-powered products for more than 20 years and recently launched several new products that leverage zero emissions electrification for mobility across all segments.</p>
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41	Describe any "green" initiatives that relate to your company or to your products or services, and include a list of the certifying agency for each.	<p>Oshkosh Corporation, including Pierce and its sister segments, have Environmental Policies & Procedures including, but not limited to, an Environmental Protection Policy and an Energy Management Policy. Please refer to our response in question 18 on our recent award achievements as well. Refer to "9. 2020_Sustainability_Report.pdf" in the Financial Strength and Stability folder.</p> <p>Pierce Sustainability Efforts Sustainability is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Pierce is continuously improving how we make and distribute products. It's about reducing the environmental impact of our products and production, improving workplace conditions, reducing costs, increasing value, and being active in our communities.</p> <p>Pierce has established waste and energy Key Performance Indicators (KPIs) and are developing and implementing plans to meet these goals month over month. KPIs are tracked, recorded, and shared monthly with the teams and our sister segments including Corporate.</p> <p>Oshkosh Corporation conducts internal environmental audits using a third-party environmental auditing tool. These audits are completed on all sites on a rotating basis. Each facility is audited at least once every three years.</p> <p>Pierce is an active member of the Dow Jones Sustainability Index (DJSI). The Dow Jones Sustainability Indices (DJSI) launched in 1999, are a family of indices evaluating the sustainability performance of the largest 2,500 companies listed on the Dow Jones Global Total Stock Market Index.</p> <p>Department of Energy's Better Buildings, Better Plants Program Pierce along with the other Oshkosh segments demonstrate our commitment to improving energy performance by signing a voluntary pledge to reduce our energy intensity by 25% over a ten-year period with the U.S. Department of Energy's Better Buildings, Better Plants Program. Leading manufacturers and industrial-scale energy using organizations implement cost-effective energy efficiency improvements that save energy and improve competitiveness.</p> <p>ISO 14001:2015 Environmental Management System To further solidify and standardize our environmental performance, Pierce Manufacturing and the Airport Products Group are in the process of formalizing an Environmental Management System for our Neenah manufacturing facility in accordance with ISO 14001:2015. Refer to "16. ISO 14001 Oshkosh Airport Products.pdf" in Financial Strength and Stability folder.</p> <p>Community – Goodwill Pierce works with the local Goodwill in many different facets. One is the reuse of our safety glasses. Our friends at Goodwill clean and repackage the glasses for reuse at our facilities. It is a cost savings, but most importantly it is helping our community and reducing waste to landfill.</p>
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42	Identify any third-party issued eco-labels, ratings or certifications that your company has received for the equipment or products included in your Proposal related to energy efficiency or conservation, life-cycle design (cradle-to-cradle), or other green/sustainability factors.	<p>Pierce Manufacturing has received certifications and awards towards our commitment to energy efficiency, conservation, and sustainability. All certifications and awards are driven through Key performance Indicators (KPIs), auditing and continuous performance throughout the Pierce family and Oshkosh Corporation. Certifications and awards are attached and linked for reference.</p> <p>CERTIFICATIONS: ISO 14001:2015 Certification Our Neenah, WI facility has received the ISO 14001:2015 certification, demonstrating our strong commitment to performance, implementation of a world-class environmental management system, and completion of a rigorous third-party evaluation.</p> <p>TRUE Zero Waste Certification The Total Resource Use and Efficiency (TRUE) Zero Waste certification program, administered by Green Business Certification Inc., provides rigorous third-party certification for zero waste goals. Facilities earn credits toward certification for activities in redesigning processes, reducing waste, reusing materials, and finding solutions other than landfill for waste. Our Neenah, WI facility has achieved TRUE certification at the Gold Level.</p> <p>AWARDS: The advances Pierce has made in sustainable practices thus far have been recognized by numerous agencies, both governmental and private. Additionally, we have obtained certifications and joined programs which serve as pledges to our continuous improvement in sustainability and environmental stewardship. The majority of the awards referenced below you will also find in the table 3 question 18.</p> <p>Energy Efficiency Excellence Award The Energy Efficiency Excellence Award recognizes business participants of Focus on Energy, Wisconsin's statewide energy efficiency and renewable resources program, who have demonstrated an outstanding commitment to reducing energy waste by implementing energy-saving upgrades in their facilities and operations. In 2020, Pierce was honored with this award for our efforts in reducing energy in our products and production.</p> <p>Wisconsin Recycling Excellence Award The Department of Natural Resources recognizes outstanding recycling and waste minimization efforts through its annual Recycling Excellence Award program. Pierce received the Overall Program Award in 2020 for our diverse and extensive waste reduction efforts.</p> <p>GREEN / SUSTAINABILITY: Dow Jones Sustainability Index Our sustainability efforts have been recognized through our inclusion on the Dow Jones Sustainability World Index (DJSI). The DJSI, is a family of best-in-class benchmarks which track the stock performance of the world's leading companies in terms of economic, environmental, and social criteria. 2021 marked the third consecutive year we were named to the Index, highlighting our commitment to sustainable business practices.</p> <p>World's Most Ethical Companies In 2021, we celebrated our sixth consecutive year being named one of the World's Most Ethical Companies by Ethisphere™. The assessment considers over 200 data points on culture, environmental and social practices, ethics and compliance activities, diversity and inclusion, and initiatives to support a strong value chain.</p> <p>Green Masters The Green Masters Program is an assessment and recognition program for Wisconsin businesses interested in improving and being recognized for their sustainability initiatives. 2021 marked the seventh consecutive year we were deemed a Green Master, indicating that we are in the top 20% of companies evaluated.</p>
43	Describe any Women or Minority Business Entity (WMBE), Small Business Entity (SBE), or veteran owned business certifications that your company or hub partners have obtained. Upload documentation of certification (as applicable) in the document upload section of your response.	<p>Oshkosh Corporation is a large publicly traded company and does not qualify for diversity certifications. However, as an organization Oshkosh is a member of National Minority Supplier Development Council (NMSDC). At Oshkosh Corporation we are about building, protecting and serving communities throughout the globe. We are committed to working with a diverse supply base that is representative of our customers and the communities we serve.</p> <p>Refer to "43. Oshkosh Supplier Diversity.pdf" in Additional Documents for more information.</p>
44	What unique attributes does your company, your products, or your services offer to Sourcwell participating entities? What makes your proposed solutions unique in your industry as it applies to Sourcwell participating entities?	<p>Oshkosh Corporation is a trusted partner with over 100 years in business, focused on innovation with the customer in mind. With our work in electrification and intelligent products, we will continue to lead in the specialty truck manufacturing market. Our customers benefit from the size and scale of a large organization yet receive focused attention from our subsidiaries and their respective dealerships.</p> <p>Pierce is a leading manufacturer of customized fire apparatus with a dealer network second to none. The longevity, stability, and family tradition in the fire industry that is threaded throughout our dealer network sets us apart from others. Our partnership with the other segments within the Oshkosh Corporation and the backing of our parent company, Oshkosh Corporation leverages innovation and financial strength.</p> <p>Pierce understands the customer's needs and provides the detail, the commitment, and the follow through long after the apparatus is delivered.</p> <p>Oshkosh Airport Products completes the full products supported by this contract through its Oshkosh Striker ARFF. Airport Products is dedicated to leading the way in technology, product support and customer service in the ARFF market.</p>

Table 9: Warranty

Describe in detail your manufacturer warranty program, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your warranty materials (if applicable) in the document upload section of your response in addition to responding to the questions below.

Line Item	Question	Response *
45	Do your warranties cover all products, parts, and labor?	<p>Yes, Our one-year bumper to bumper warranty covers all product, parts, and labor. Pierce, the "manufacturer", warrants each newly manufactured fire apparatus to the original end user/purchaser of specified periods stated below from the date of delivery.</p> <p>The standard Cab & chassis warranty provides a one-year warranty that warrants against defects in product, workmanship, and/or design. This warranty shall apply provided the vehicle is properly maintained.</p> <p>Nothing contained in this warranty shall make the Manufacturer liable beyond the express limitations hereof, for loss, injury, or damage of any kind to any person or entity resulting defect or failure of the product (except as covered by Product liability insurance).</p> <p>Refer to "45. 01-WA0008 100208 Pierce 1 year.pdf" and "45. Oshkosh 1 Year Basic Vehicle Warranty.pdf" in the Warranty folder for our standard 1 year warranty.</p> <p>The Manufacturer's warranty shall not apply to the following:</p> <ul style="list-style-type: none"> • Wear items • Normal adjustments and maintenance services. • Failures resulting from the product being operated in a manner not in accordance with the operation manual or for a purpose not recommended by the Manufacturer. • Any product which shall have been repaired, modified, or altered in any way to have been adversely affected the unit's stability or reliability. • Items subjected to misuse, negligence, accident, or improper maintenance. • Loss of time or use of the product, inconvenience, or other incidental expenses. <p>The authorized Pierce dealer manages all warranty issues on behalf of the end customer. The Pierce dealer utilizes an online claim filing system known as One Warranty for claim processing. Pre-approval for a claim or request for credit (post- correction claim) can be filed via the One Warranty system in the event a warrantable failure is found.</p> <p>All Standard and Extended Warranty claims are subject to specific Standard and Extended Warranty guidelines. Specific warranties exist for particular makes, models, chassis, options, etc. for Pierce products. Specific warranty bulletins are provided at time of sale to the end customer.</p> <p>Refer to a sampling of our other warranty statements and manufacturers' statements on engines, transmissions, water pump, etc. in the Warranty folder. A summary of warranty is also available "45. Warranty Overview.pdf".</p>
46	Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	<p>We do have some base and extended warranties that have mileage limitations set to them. Limitations varies based on the options of the vehicle.</p> <p>Examples of base warranties are our structural warranties which carry a 100,000-mile limit.</p> <p>Extended warranties carry various mileage limits based on the specific coverage.</p> <p>Paint warranties are prorated based on age of the unit.</p>
47	Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	<p>We pride ourselves with the coverage we have across the nation. There are no areas that we do not have coverage throughout US or Canada. Warranty is managed through our Pierce authorized dealers and dealer travel expenses are covered per our established internal One Warranty guidelines.</p> <p>Airport Products warranty is managed through authorized service representatives or our internal resources. Travel expenses are covered per our established internal one Warranty guidelines.</p>
48	Are there any geographic regions of the United States or Canada (as applicable) for which you cannot provide a certified technician to perform warranty repairs? How will Sourcewell participating entities in these regions be provided service for warranty repair?	<p>Pierce prides themselves in the coverage we have across the nation. Pierce requires a certified technician for each area Therefore we are to support all regions throughout US or Canada. Airport Products will provide service through internal or external service representatives.</p>

49	Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	Major components installed but not manufactured by Pierce or Airport Products are covered under original equipment manufacturer's warranties passed through to end user/customer. These include, but are not limited to, engine, transmission, water pump, ABS, and axles. Component Warranties In some cases, suppliers will offer warranties beyond the Pierce or Airport Products one-year warranty. Warranties provided by individual suppliers other than Pierce or Airport Products apply after the one-year vehicle warranty. The administration of individual supplier warranties, per the supplier, are to be addressed directly with the supplier themselves.	*
50	What are your proposed exchange and return programs and policies?	Pierce offers a return/exchange program for aftermarket parts only to the purchaser (Pierce dealer) and the dealer may extend this and other terms and conditions to the end customer. Aftermarket Parts Warranty Pierce and Airport Products warrants the purchaser that the parts sold by aftermarket be free from defects in product and workmanship for the period of six months from the delivery of the product. This Parts Warranty does not include freight, labor, travel, or markup. It is a part warranty only. Return of Defective Parts If parts used in the repair of an apparatus are required to be returned to Pierce, Dealers will receive notification. Dealers have up to 30 days to return the defective component or the warranty claim will be rejected.	*
51	Describe any service contract options for the items included in your proposal.	Authorized Pierce dealers may offer service contracts for preventative maintenance purposes. No service contracts are included in this proposal.	*

Table 10: Payment Terms and Financing Options

Line Item	Question	Response *	
52	Describe your payment terms and accepted payment methods.	All sales of Pierce apparatus are sold through the authorized Pierce dealers. Payment terms are Cash on Delivery (COD) or prepayment unless otherwise agreed upon by the Pierce dealer. Oshkosh Airport Products' standard payment terms are net 30 days after delivery of vehicle. Accepted payment methods include check and wire transfer.	*
53	Describe any leasing or financing options available for use by educational or governmental entities.	The same logic behind our custom chassis applies to our financial services: Tailor the product to the department, not the other way around. The Company offers two- to fifteen-year municipal lease financing programs to its Fire & Emergency segment customers in the U.S. through the Pierce Financial Solutions program, provided by PNC Equipment Finance. Programs include competitive lease financing rates, creative and flexible finance arrangements and the ease of one-stop shopping for customers' equipment and financing. The Company executes the lease financing transactions through a co-branded arrangement with an independent third-party finance company. The Company typically provides credit support in connection with these financing and leasing arrangements With industry-leading tax-exempt rates, zero documentation fees, flexible payment plans and quick approvals that can bypass voter referendums, we make it easy to get behind the wheel of your new Pierce. Refer to "53. Pierce Financial Solutions Testimonials.pdf" and "53. Financial_Solutions.pdf" in the Additional Documents folder.	*
54	Describe any standard transaction documents that you propose to use in connection with an awarded contract (order forms, terms and conditions, service level agreements, etc.). Upload a sample of each (as applicable) in the document upload section of your response.	Pierce has a variation of standard warranty documents. Sample documents are included in the warranty document uploads. No standard transaction documents are being requested to use in connection with an awarded contract. No service contracts are included in this proposal. Authorized Pierce dealers may offer service contracts for preventative maintenance purposes.	*
55	Do you accept the P-card procurement and payment process? If so, is there any additional cost to Sourcwell participating entities for using this process?	Pierce, Airport Products, and their independent dealers do not find that P-card procurement and payment feasible due to the size and build complexity of our products	*

Table 11: Pricing and Delivery

Provide detailed pricing information in the questions that follow below. Keep in mind that reasonable price and product adjustments can be made during the term of an awarded Contract as described in the RFP, the template Contract, and the Sourcewell Price and Product Change Request Form.

Line Item	Question	Response *
56	Describe your pricing model (e.g., line-item discounts or product-category discounts). Provide detailed pricing data (including standard or list pricing and the Sourcewell discounted price) on all of the items that you want Sourcewell to consider as part of your RFP response. If applicable, provide a SKU for each item in your proposal. Upload your pricing materials (if applicable) in the document upload section of your response.	Combination of line item and percentage discount are provided in an attached PDF document identified as follows <ul style="list-style-type: none"> • Product Category • Identification ID# • Product Description • List Price • Percentage off per product • Line Item (Contract) Price The Percentage Discount items are also applicable to the unpublished options added to the published base specification with a standard discount off of List contingent on the product.
57	Quantify the pricing discount represented by the pricing proposal in this response. For example, if the pricing in your response represents a percentage discount from MSRP or list, state the percentage or percentage range.	The pricing presented in this proposal represents a 5.5% discount from Pierce's list price for unpublished options. ARFF products (Airport Products) represents a 7% discount off of list price.
58	Describe any quantity or volume discounts or rebate programs that you offer.	Multi-Unit Purchase Discount: Additional discounts may be available for identical multi-unit purchases. Discount varies dependent upon the number of identical units, the configuration of the units, and will be handled on a case-by-case basis. Pre-Payment Discount Discount amount varies dependent upon apparatus price, delivery schedule, extent of pre-payment, and applicable rate. If elected, payment for the entire contract amount is due within thirty (30) days of contract execution. This deduction is in addition to all other discounts listed above. If this option is elected, final payment for any changes processed during manufacturing is due prior to the unit leaving the factory for delivery. Payment & pricing options: Chassis Progress Payment Discount: Discount of approximately 3% of the custom chassis price is offered if a chassis progress payment is made three (3) months prior to the RFP (ready for pick up from the factory) date. Example: Chassis progress payment in the amount of \$220,714.00 could earn a discount of (\$6,621.00). This discount is not available for Commercial chassis products. Aerial Device Progress Payment Discount: Discount of approximately 2% of the aerial device price is offered if an aerial device progress payment is made two (2) months prior to the RFP (ready for pick up from the factory) date. Example: Aerial device progress payment in the amount of \$310,385.00 could earn a discount of (\$6,207.00).
59	Propose a method of facilitating "sourced" products or related services, which may be referred to as "open market" items or "nonstandard options". For example, you may supply such items "at cost" or "at cost plus a percentage," or you may supply a quote for each such request.	Sourced or open market items may be provided by the Pierce authorized dealer and would be quoted at time of request.

60	Identify any element of the total cost of acquisition that is NOT included in the pricing submitted with your response. This includes all additional charges associated with a purchase that are not directly identified as freight or shipping charges. For example, list costs for items like pre-delivery inspection, installation, set up, mandatory training, or initial inspection. Identify any parties that impose such costs and their relationship to the Proposer.	<p>Pre-Delivery Expenses Dealer provided options can be added to the apparatus contract upon request and will be handled by the Pierce authorized dealer. Dealer provided options can vary depending upon the customer's request and can include but are not limited to the items listed below. Pricing will be provided to each customer upon request and varies by dealership and customer location.</p> <ul style="list-style-type: none"> Factory inspection trips Weekly construction photo progress reports Orientation DVD specific to your apparatus Loose Equipment Engine and or transmission diagnostic software Loose equipment (open market items) such as but not limited to monitors, hose, intercom system, radio equipment, and rescue tools and equipment Pre-delivery service consisting of basic fluids and filters Custom fabrication for tool mounting and communication equipment Other items as requested by customer and deemed sourced or open market Delivery Sales and other taxes, license, handling, or title fees are also not included. 	*
61	If freight, delivery, or shipping is an additional cost to the Sourcewell participating entity, describe in detail the complete freight, shipping, and delivery program.	<p>Transportation Expenses Prices quoted in RFP #113021 are FOB Manufacturer's facility. Transportation of the apparatus from the factory to the customer's facility can be added to the contract. In most cases the apparatus is delivered to the Pierce authorized dealer facility in the area for a Pre-Delivery inspection and the installation of any dealer provided options, if applicable. If there is not a Pierce authorized dealer facility near the customer location, the apparatus may be delivered directly to the facility. The cost for this transportation varies dependent upon the type of apparatus and the proximity of your facility to the location of the manufacturer's facility. Delivery is conducted in accordance with DOT regulations. Delivery charges can vary based on the logistic or shipping location and requirements for example, more if flatbed, barge, or container ship transport is required.</p>	*
62	Specifically describe freight, shipping, and delivery terms or programs available for Alaska, Hawaii, Canada, or any offshore delivery.	<p>Shipping and Delivery programs for areas such as Alaska, Hawaii, or any offshore delivery requires coordination of different transit methods. Most often the apparatus is flatbed to the port destination, prepared for ocean transit, and travel to final destination (roll-on/roll off vessel is preferred). This unique shipping and delivery requirements are priced on a case-by-case basis as required. Shipping within the contiguous US states and Canada, shipping is calculated using numerous factors including but not limited to the type of apparatus which impacts permits as well as the distance to destination. Shipping expenses are not included in the base specifications cost.</p>	*
63	Describe any unique distribution and/or delivery methods or options offered in your proposal.	For ARFF vehicles, due to size and weight restrictions all trucks will be transported via low-boy or flatbed. All required licenses and permits will be obtained prior to shipment.	*

Table 12: Pricing Offered

Line Item	The Pricing Offered in this Proposal is: *	Comments
64	b. the same as the Proposer typically offers to GPOs, cooperative procurement organizations, or state purchasing departments.	Pierce will not favor one GPO over another. Therefore, pricing model is consistent across all.

Table 13: Audit and Administrative Fee

Line Item	Question	Response *
65	Specifically describe any self-audit process or program that you plan to employ to verify compliance with your proposed Contract with Sourcewell. This process includes ensuring that Sourcewell participating entities obtain the proper pricing, that the Vendor reports all sales under the Contract each quarter, and that the Vendor remits the proper administrative fee to Sourcewell. Provide sufficient detail to support your ability to report quarterly sales to Sourcewell as described in the Contract template.	<p>Pierce takes pride in upholding the integrity of the programs and contracts we participate in. System software changes have been built to facilitate the information gathered throughout any of our programs to efficiently run reports on demand. These reports are run at a minimum monthly for internal audit purposes and quarterly for contract requirements.</p> <p>All base specifications and additional upgrade options have been created in our customized truck configurator tool, PULSE so that a Dealer can copy that base specification to confirm line-item pricing. Any changes made to the base specification is then controlled and captured in a Change Report that can be validated to honor the Percentage Discount on options added.</p> <p>The process (see additional documents) outline shows that Pierce has a closed-loop process that provide checks and balances for all involved. Our reporting capabilities for other contracts have been noted to be timely, thorough, and accurate. The volume of sales under our consortium programs requires Pierce to have a well-defined and efficient process. Awarded contracts are audited on product cost, labor efficiencies, product margin and customer satisfaction.</p> <p>Refer to "Table 13. Question 65 Audit and Administrative Fee.pdf" in Pricing folder.</p>
66	If you are awarded a contract, provide a few examples of internal metrics that will be tracked to measure whether you are having success with the contract.	On a monthly basis Pierce will provide the percentage of Sourcewell orders to each authorized dealer in which they can compare to the prior year, this is provided in their monthly dashboards.
67	Identify a proposed administrative fee that you will pay to Sourcewell for facilitating, managing, and promoting the Sourcewell Contract in the event that you are awarded a Contract. This fee is typically calculated as a percentage of Vendor's sales under the Contract or as a per-unit fee; it is not a line-item addition to the Member's cost of goods. (See the RFP and template Contract for additional details.)	The Administrative Fee that Pierce will pay to Sourcewell for this proposed contract is aligned with the other contracts awarded to Pierce to create alignment and consistency. That fee will be a flat \$2000.00 USD per customer purchase order or separate contract.

Table 14A: Depth and Breadth of Offered Equipment Products and Services

Line Item	Question	Response *
68	Provide a detailed description of the equipment, products, and services that you are offering in your proposal.	<p>Pierce is offering an array of fire apparatus to meet the customer's needs across the US and Canada, including Hawaii and Alaska. Authorized Pierce dealers may offer service contracts for preventative maintenance purposes. Our product portfolio includes the industry standard categories: Custom and Commercial Pumper products Aerial products, Command, ARFF, Rescue products, Tanker products, and Specialty vehicles.</p> <p>CUSTOM AND COMMERCIAL PUMPER PRODUCTS Pumper products include commercial and custom chassis with varying body sizes, pump rates, water tank capacity, and pump module style.</p> <p>AERIAL PRODUCTS Aerial products include ladders, platforms, and tillers. These provide ladder lengths ranging from 61' – 110'. Selections will include various axle configurations, pumping rates, ladder styles, and material.</p> <p>EMERGENCY RESPONSE VEHICLES - Designed to support the demands of emergency response. Many models fall under this category such as large mobile command, mid-size command vehicle, small mobile command, and cru 22mobile command vehicle.</p> <p>RESCUE PRODUCTS Rescue products will include commercial and custom chassis offerings along with a walk-in or non-walk-in style. The configuration capabilities vary but includes capacity to integrate complex A /V, network and radio systems, air tool systems, breathing air systems with compressors, hydraulic rescue tool systems and winching capabilities, crew seating with storage, and custom fabricated shelves and trays.</p> <p>TANKER PRODUCT Tanker products offer a dual role of water transport and on-the-spot firefighting. Pierce offers Elliptical tankers, Tanker/Pumper models, Dry side and Wet side styles to choose from. Each tanker is custom designed to accommodate the fire department's water, foam and equipment storage needs. Pierce Tankers feature solid, lightweight, corrosion-free polypropylene tanks. The tanks are form-fitted specifically for Pierce vehicles and come with a lifetime warranty.</p> <p>SPECIALTY VEHICLES Specialty vehicles are those unique vehicles that have a purpose in which just one may be needed. Specialty vehicles may range from a mini pumper to a Wildland Type III vehicle or a Industrial Fire Fighting Vehicle.</p> <p>Maxi-Metal Partnership MAXIMETAL PRODUCTS- are distributed in the USA through PIERCE MANUFACTURING and the dealer network under the brand name "CONTENDER BY MAXIMETAL. The "Contender by MAXIMETAL" product line will be submitted by MAXI-METAL for consideration.</p> <p>Aircraft Rescue and Fire Fighting Vehicles (ARFF) – Airport Products offers the Oshkosh Striker 4x4, 6x6 and 8x8 along with the Stinger Q4 RIV (Rapid Intervention Vehicle). The ARFF vehicle will be equipped to meet NFPA 414 requirements with optional equipment and configurations to meet individual airport needs.</p>
69	Within this RFP category there may be subcategories of solutions. List subcategory titles that best describe your products and services.	<p>Please see question 68 subcategories as they are described. There is also literature included to provide the breath of products we sell, service and support. No service contracts are included in this proposal. Example below of subcategories Category - Emergency Response Vehicles , ARFF, Aerial, Pumper, Rescue, Tanker, Specialty Subcategory - Ladder, Pumpers, Walk In, Pumper Tanker, Wildland, Platforms, Rescue -Pumper, Non Walk-In Dry-side Tanker, Mini-Pumper, Command</p>

Table 14B: Depth and Breadth of Offered Equipment Products and Services

Indicate below if the listed types or classes of equipment, products, and services are offered within your proposal. Provide additional comments in the text box provided, as necessary.

Line Item	Category or Type	Offered *	Comments	
70	Firefighting apparatus and service vehicles, of all types, such as: pumper/engine, initial attack, mobile water supply, aerial, quint, special service, mobile foam, command and communications, and purpose-built firefighting or rescue trailers	<input checked="" type="radio"/> Yes <input type="radio"/> No	Frontline leads service on command and communications.	*
71	Wildland fire apparatus, of all types, such as: fire suppression equipment, mobile water supply, and crew carriers	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A	*
72	Aircraft rescue and firefighting vehicles	<input checked="" type="radio"/> Yes <input type="radio"/> No	Oshkosh Airport Products	*
73	Purpose-built chassis and vehicle components for firefighting apparatus and fire service vehicles	<input checked="" type="radio"/> Yes <input type="radio"/> No	Pierce has a variety of custom built chassis that you will find within the documents	*
74	Equipment, options, accessories, and supplies complementary or incidental to the purchase of a turnkey or complete unit of the types described in Lines 70-72 above	<input checked="" type="radio"/> Yes <input type="radio"/> No	Can be open source Offering is only in conjunction with a new order.....	
75	Services related to the offering of the solutions described in Lines 70-74, including installation, customization, remount, refurbishment, inspection, repair, maintenance, training, and support	<input checked="" type="radio"/> Yes <input type="radio"/> No	We are required to provide training of our vehicle per compliance with NFPA. We do provide options within our proposals for this, and extended durations that have added cost associated.	*

Table 15: Industry Specific Questions

Line Item	Question	Response *
76	Describe available service and repair options for the equipment and products offered in your proposal.	<p>Pierce Master Technician Program</p> <p>The Pierce Master Technician Program is focused on recognizing service technicians throughout the dealer network for their knowledge and ability to provide expert service on Pierce apparatus. With this tiered level program, a technician can work their way up from having one certification to the level of Master Technician. Active participation in the ASE & EVT programs is encouraged. A Pierce Master Technician must successfully complete the defined core classes dedicated to exclusive Pierce products. A cumulative final exam is taken upon completion of the core classes to obtain a Pierce Master Technician status. Pierce has over a 150 Master Technicians certified.</p>
77	Describe available remount or refurbishing services included within your proposal, the pricing method for such services, and any related order processes.	<p>Remount and refurbished services are offered however each job is quoted independently from one another. This is required due to the complexity to refurb or remount. Refurb and remount pricing will not be part of this submission however pricing can vary depending on the repair or service needed.</p>
78	Describe your compliance with US standards for the equipment and products offered in your proposal, including applicable federal and state requirements.	<p>Pierce fire apparatus are built with pride and dedication to a product that helps save lives. We have many internal quality check points throughout the build process and before the fire apparatus can be delivered it must go through third party testing by Underwriters Laboratories (UL).</p> <p>Pierce contracts with Underwriter's Laboratories to inspect Pierce apparatus for compliance to NFPA standards. Every NFPA 1901 apparatus manufactured in the Appleton facility is reviewed by a UL certified inspector after it is completed.</p> <p>Each apparatus is subjected to a visual inspection of construction and installed components such as chassis, driving and crew compartments, body compartments, steps, warning lights, reflective trim, warning, and instructional labels, etc. The inspection checklist, based on apparatus type, may have over 100 items to check.</p> <p>Once the UL inspection is complete a certification of NFPA compliance is provided to the customer upon delivery of their fire apparatus.</p> <p>Oshkosh ARFF products comply with latest edition of NFPA 414 and the Federal Aviation Administration Advisory Circular (AC) 150/5110-10E.</p>
79	Describe your compliance with Canadian standards for the equipment and products offered in your proposal, including applicable federal and provincial requirements.	<p>CERTIFIED: UL/ULC</p> <p>NFPA 1901 UL Certification & UL Canada (ULC) Certification</p> <p>Pierce is the first fire apparatus manufacturer to be both 3rd party certified to NFPA 1901-2009 edition and ULC listed to Canada ULC-S515-04 standard by Underwriters Laboratories. Stages of testing include road, pump, weight, brake, performance and aerial application. All products must pass all tests before a truck is released into Canada. This commitment to quality applies to trucks sold in the U.S. as well.</p> <p>All chassis' comply with Canadian Motor Vehicle Safety Standards CMVSS.</p> <p>Oshkosh ARFF products comply with latest edition of NFPA 414 and the Federal Aviation Administration Advisory Circular (AC) 150/5110-10E. We will work with the customer on specific Canadian requirements to ensure compliance as needed.</p>

Exceptions to Terms, Conditions, or Specifications Form

Only those Proposer Exceptions to Terms, Conditions, or Specifications that have been accepted by Sourcewell have been incorporated into the contract text.

Documents

Ensure your submission document(s) conforms to the following:

1. Documents in PDF format are preferred. Documents in Word, Excel, or compatible formats may also be provided.
2. Documents should NOT have a security password, as Sourcewell may not be able to open the file. It is your sole responsibility to ensure that the uploaded document(s) are not either defective, corrupted or blank and that the documents can be opened and viewed by Sourcewell.
3. Sourcewell may reject any response where any document(s) cannot be opened and viewed by Sourcewell.
4. If you need to upload more than one (1) document for a single item, you should combine the documents into one zipped file. If the zipped file contains more than one (1) document, ensure each document is named, in relation to the submission format item responding to. For example, if responding to the Marketing Plan category save the document as "Marketing Plan."
 - [Pricing](#) - Table 12. Pricing.zip - Tuesday November 30, 2021 15:16:30
 - [Financial Strength and Stability](#) - Table 2. Financial Strength and Stability.zip - Tuesday November 30, 2021 14:31:23
 - [Marketing Plan/Samples](#) - Table 7. Marketing Plan.Samples.zip - Tuesday November 30, 2021 13:40:24
 - WMBE/MBE/SBE or Related Certificates (optional)
 - [Warranty Information](#) - Table 9. Warranty Information.zip - Tuesday November 30, 2021 13:41:02
 - [Standard Transaction Document Samples](#) - SALES_TEMPLATE_Sales Proposal Order Form .pdf - Tuesday November 30, 2021 13:43:12
 - [Upload Additional Document](#) - Additional Documents.zip - Tuesday November 30, 2021 16:02:10

Addenda, Terms and Conditions

PROPOSER AFFIDAVIT AND ASSURANCE OF COMPLIANCE

I certify that I am the authorized representative of the Proposer submitting the foregoing Proposal with the legal authority to bind the Proposer to this Affidavit and Assurance of Compliance:

1. The Proposer is submitting this Proposal under its full and complete legal name, and the Proposer legally exists in good standing in the jurisdiction of its residence.
2. The Proposer warrants that the information provided in this Proposal is true, correct, and reliable for purposes of evaluation for contract award.
3. The Proposer, including any person assisting with the creation of this Proposal, has arrived at this Proposal independently and the Proposal has been created without colluding with any other person, company, or parties that have or will submit a proposal under this solicitation; and the Proposal has in all respects been created fairly without any fraud or dishonesty. The Proposer has not directly or indirectly entered into any agreement or arrangement with any person or business in an effort to influence any part of this solicitation or operations of a resulting contract; and the Proposer has not taken any action in restraint of free trade or competitiveness in connection with this solicitation. Additionally, if Proposer has worked with a consultant on the Proposal, the consultant (an individual or a company) has not assisted any other entity that has submitted or will submit a proposal for this solicitation.
4. To the best of its knowledge and belief, and except as otherwise disclosed in the Proposal, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest. An organizational conflict of interest exists when a vendor has an unfair competitive advantage or the vendor's objectivity in performing the contract is, or might be, impaired.
5. The contents of the Proposal have not been communicated by the Proposer or its employees or agents to any person not an employee or legally authorized agent of the Proposer and will not be communicated to any such persons prior to Due Date of this solicitation.
6. If awarded a contract, the Proposer will provide to Sourcewell Participating Entities the equipment, products, and services in accordance with the terms, conditions, and scope of a resulting contract.
7. The Proposer possesses, or will possess before delivering any equipment, products, or services, all applicable licenses or certifications necessary to deliver such equipment, products, or services under any resulting contract.
8. The Proposer agrees to deliver equipment, products, and services through valid contracts, purchase orders, or means that are acceptable to Sourcewell Members. Unless otherwise agreed to, the Proposer must provide only new and first-quality products and related services to Sourcewell Members under an awarded Contract.
9. The Proposer will comply with all applicable provisions of federal, state, and local laws, regulations, rules, and orders.
10. The Proposer understands that Sourcewell will reject RFP proposals that are marked "confidential" (or "nonpublic," etc.), either substantially or in their entirety. Under Minnesota Statutes Section 13.591, subdivision 4, all proposals are considered nonpublic data until the evaluation is complete and a Contract is awarded. At that point, proposals become public data. Minnesota Statutes Section 13.37 permits only certain narrowly defined data to be considered a "trade secret," and thus nonpublic data under Minnesota's Data Practices Act.
11. Proposer its employees, agents, and subcontractors are not:
 1. Included on the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: <https://www.treasury.gov/ofac/downloads/sdnlist.pdf>;
 2. Included on the government-wide exclusions lists in the United States System for Award Management found at: <https://sam.gov/SAM/>; or
 3. Presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated

by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Vendor certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this solicitation.

By checking this box I acknowledge that I am bound by the terms of the Proposer's Affidavit, have the legal authority to submit this Proposal on behalf of the Proposer, and that this electronic acknowledgment has the same legal effect, validity, and enforceability as if I had hand signed the Proposal. This signature will not be denied such legal effect, validity, or enforceability solely because an electronic signature or electronic record was used in its formation. - Michelle Swokowski, Sales Operations Manager, Oshkosh Corporation/ Pierce Manufacturing/ Oshkosh Airport Products

The Proposer declares that there is an actual or potential Conflict of Interest relating to the preparation of its submission, and/or the Proposer foresees an actual or potential Conflict of Interest in performing the contractual obligations contemplated in the bid.

Yes No

The Bidder acknowledges and agrees that the addendum/addenda below form part of the Bid Document.

Check the box in the column "I have reviewed this addendum" below to acknowledge each of the addenda.

File Name	I have reviewed the below addendum and attachments (if applicable)	Pages
Addendum_4_Fire_Apparatus_RFP_113021 Sat November 20 2021 12:53 PM	<input checked="" type="checkbox"/>	5
Addendum_3_Fire_Apparatus_RFP_113021 Thu November 11 2021 02:09 PM	<input checked="" type="checkbox"/>	1
Addendum_2_Fire_Apparatus_RFP_113021 Fri October 29 2021 09:20 AM	<input checked="" type="checkbox"/>	1
Addendum_1_Fire_Apparatus_RFP_113021 Fri October 29 2021 09:20 AM	<input checked="" type="checkbox"/>	1

Exhibit F

SUPPLEMENTAL TERMS & CONDITIONS

Hughes Fire Equipment, Inc.

Sourcewell Master Contract No. 113021-OKC

This Supplemental Terms & Conditions Agreement ("Agreement") is effective as of the date of the last authorizing signature ("effective date"). The parties ("Parties") to this Agreement are the City of Olympia, a Washington municipal corporation ("City") and Hughes Fire Equipment, Inc. an Oregon Corporation and an authorized dealer of Oshkosh Corporation, parent company of Pierce Manufacturing ("Supplier").

The City seeks to acquire two (2) velocity triple combination pumpers for the not-to-exceed contract amount of Two Million, Six Hundred Seventeen Thousand, Two Hundred Seventy-four and 16/100 Dollars (\$2,617,274.16), and the City desires to engage the Supplier to provide this product to the City.

Now, therefore, the Parties agree as follows:

I. Supplier shall provide all work described in this Agreement; this Agreement consists of these terms and conditions and attached exhibits, each of which are a part of this Agreement:

- Component List Exhibit F1
- Contract Pricing Worksheet Exhibit F2
- Statement of Compliance with Nondiscrimination Requirement..... Exhibit F3
- Equal Benefits Compliance Declaration Exhibit F4

II. These terms and conditions amend and supplement the Hughes Fire Equipment Purchase Agreement, the Purchase Detail Form (Exhibit A), Warranty (Exhibit B), the Company Proposal (Exhibit C), the Customer Specifications (Exhibit D), the Oshkosh Corporation Master Contract No. 113021-OKC (Exhibit E) and take precedence over any conflicting provisions of those documents. Any and all references to the Sourcewell in the Oshkosh Corporation Master Contract shall be supplanted with "City of Olympia."

1. RETENTION OF RECORDS, AUDIT ACCESS AND PROOF OF COMPLIANCE WITH CONTRACT

A. Retention of Records. The Supplier and its subcontractors shall maintain books, records, and documents of its performance under this Agreement in accordance with generally accepted accounting principles. The Supplier shall retain for seven (7) years after the date of final payment under the Agreement all financial information, data, and records for all Work.

B. Audit Access. The Supplier shall provide access to its facilities, including those of any subcontractors, to the City, the state, or federal agencies or officials at all reasonable times in order to monitor and evaluate the Work/Product provided under this Agreement. The City shall give reasonable notice to the Supplier of the date on which the audit begins.

2. AUDIT EXCEPTION

The Supplier is financially responsible for and shall repay the City all indicated amounts following an audit exception that occurs due to the negligence, intentional act, or failure for any reason to comply with the terms of this Agreement by the Supplier, its officers, employees, agents, or representatives. This duty to repay survives the expiration or termination of this Agreement.

3. PUBLIC RECORDS REQUESTS

This Agreement is a public record and will be available for inspection and copying by the public in accordance with the Public Records Act, chapter 42.56 RCW (the "Act").

If the Supplier considers any portion of any record provided to the City under this Agreement, whether in electronic or hard copy form, to be protected under law, the Supplier shall clearly identify each such portion with words such as "CONFIDENTIAL," "PROPRIETARY," or "BUSINESS SECRET." If a request is made for disclosure of a record so identified, the City will determine whether the material should be made available under the Act. If the City determines that the material is subject to disclosure, the City will notify the Supplier of the request and allow the Supplier ten (10) business days to take whatever action it deems necessary to protect its interests. If the Supplier fails or neglects to take such action or fails to provide the City with a court order enjoining release of records by the end of the 10 business days, the City will release the record(s) deemed by the City to be subject to release. The City is not liable to the Supplier for inadvertently releasing records pursuant to a public records request when records are not clearly identified by the Supplier as "CONFIDENTIAL," "PROPRIETARY," or "BUSINESS SECRET."

4. NONDISCRIMINATION AND EQUAL EMPLOYMENT OPPORTUNITY

A. In all Supplier services, programs or activities, and all Supplier hiring and employment made possible by or resulting from this Agreement, Supplier and Supplier's employees, agents, subcontractors, and representatives shall not unlawfully discriminate against any person based on any legally protected class status including but not limited to: sex, age (except minimum age and retirement provisions), race, color, religion, creed, national origin, marital status, veteran status, sexual orientation, gender identity, genetic information, or the presence of any disability, including sensory, mental, or physical handicaps; provided, however, that the prohibition against discrimination in employment because of disability does not apply if the particular disability prevents the performance of the essential functions required of the position.

This requirement applies, but is not limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Supplier shall not violate any of the terms of Chapter 49.60 RCW, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973 or any other applicable federal, state or local law or regulation regarding nondiscrimination. Any material violation of this provision is grounds for termination of this Agreement by the City and, in the case of the Supplier's breach, may result in ineligibility for further City agreements.

B. In the event of Supplier’s noncompliance or refusal to comply with the above nondiscrimination plan, this Agreement may be rescinded, canceled, or terminated in whole or in part, and the Supplier may be declared ineligible for further agreements or contracts with the City. The Supplier, will, however, be given a reasonable time in which to correct this noncompliance.

C. To assist the City in determining compliance with the foregoing nondiscrimination requirements, Supplier shall complete and return the Statement of Compliance with Nondiscrimination attached as Exhibit C. If the contract amount is \$50,000 or more, the Supplier shall execute and is bound by the attached Equal Benefits Declaration - Exhibit D.

5. TERMINATION FOR NON-APPROPRIATION

If sufficient funds are not appropriated or allocated for payment under this Agreement for any future fiscal period, the City is not obligated to continue the Agreement after the end of the current fiscal period, and this Agreement will automatically terminate upon the completion of all remaining Services for which funds are allocated. No penalty or expense accrues to the City in the event this provision applies.

6. GENERAL PROVISIONS.

A. Governing Law. This Agreement is governed by and must be interpreted in accordance with the laws of the State of Washington.

B. Venue. All lawsuits or other legal actions whatsoever with regard to this Agreement must be brought in Thurston County, Washington, Superior Court.

CITY OF OLYMPIA

By: _____

Steven J. Burney

City Manager

City of Olympia

PO Box 1967

Olympia WA 98507-1967

Date of Signature: _____

APPROVED AS TO FORM:

Mark Barber

City Attorney

I certify that I am authorized to execute this Agreement on behalf of the Supplier.

HUGHES FIRE EQUIPMENT, INC.

By:  _____

Rex Hughes

President

910 Shelley Street

Springfield, OR 97477

541.747.0072

rhughes@hughesfire.com

Date of Signature: 04/02/2024

Exhibit F1 - Component List

Option List

2/14/2024



Customer: Olympia Fire Department, WA
Representative Klein, Andrew P
Organization: Hughes Fire Equipment, Inc
Requirements Manager:
Description: Olympia Pumper 2024
Body: Pumper, Medium, Aluminum, 2nd Gen
Chassis: Velocity Chassis (Big Block), 2010

Bid Number: 1075
Job Number:
Number of Units: 2
Bid Date: 12/21/2023
Stock Number:
Price Level: 48 (Current: 48)
Lane: Unknown 2-3

Line	Option	Type	Option Description	Qty
1	0766611		Boiler Plates, Pumper Fire Department/Customer - Olympia Fire Department Operating/In conjunction W-Service Center - Operating Miles - 50 Miles Number of Fire Dept/Municipalities - 25 Bidder/Sales Organization - Hughes Fire Equipment Delivery - an orientation video shall be created using this truck. Dealership/Sales Organization, Service - Hughes Fire Equipment	1
2	0661794		Single Source Compliance	1
3	0584456		Manufacture Location, Appleton, Wisconsin	1
4	0584452		RFP Location: Appleton, Wisconsin	1
5	0588609		Vehicle Destination, US	1
6	0670275		Unit to be Similar in some Aspects, Excluding Pump Panel Fill in Blank - 29257	1
7	0816491		Comply NFPA 1900 Changes Effective Jan 1, 2024, With Exceptions	1
8	0533347		Pumper/Pumper with Aerial Device Fire Apparatus	1
9	0588611		Vehicle Certification, Pumper	1
10	0661778		Agency, Apparatus Certification, Pumper/Tanker, U.L.	1
11	0816495		Certification, Vehicle Inspection Program, NFPA 1900	1
12	0000114		Inspection Trip(s) Qty, - 02 Fill in Blank - for four people	2
13	0766110		Consortium, Sourcewell	1
14	0537375		Unit of Measure, US Gallons	1
15	0030006		Bid Bond Not Requested	1
16	0816571		Performance Bond, 100% with 25% Warranty Bond, 1 Yr, and Payment Bond, PPI Terms	1
17	0000007		Approval Drawing	1
18	0745732		Drawing, Cab Cabinets, 3D View	1
19	0082910		Drawing, Compartment Layout, Standard Pumper Body	1
20	0002928		Electrical Diagrams	1
21	0564202		Velocity Chassis (Big Block), 2010	1
22	0021007		Maximum Overall Height Size - 10' 6"	1
23	0000110		Wheelbase Wheelbase - 204.5"	1
24	0000070		GVW Rating GVW rating - 46,800#	1
25	0000203		Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	1
26	0020018		Frame Liner Not Req'd	1
27	0508849		Axle, Front, Oshkosh TAK-4, Non Drive, 22,800 lb, Imp/Vel	1
28	0010427		Suspension, Front TAK-4, 22,800 lb, Qtm/AXT/Imp/Vel/Enf/SFR	1
29	0087572		Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	1
30	0000322		Oil Seals, Front Axle	1
31	0804559		Tires, Front, Michelin, XZE (wb), 425/65R22.50, 20 ply	1
32	0019611		Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	1
33	0530466		Axle, Rear, Meritor RS26-185, 27,000 lb, Imp/Vel	1
34	0544250		Top Speed of Vehicle, 65 MPH /104 KPH	1
35	0010556		Suspen, Rear, Reyco, Spring, 27,000 lb	1
36	0000485		Oil Seals, Rear Axle	1
37	0070728		Tires, Rear, Michelin, XDN2, 12R22.50, 16 ply, Single	1

Line	Option	Type	Option Description	Qty
38	0019625		Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot, Single	1
39	0779879	SP	Tire Balancing, All, Single Axle, Inside Wheel Weights	1
40	0620570		Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle Qty, Tire Pressure Ind - 6	1
41	0801909		Lug Nut, Covers, Chrome	1
42	0003245		Axle Hub Covers w/center hole, S/S, Front Axle	1
43	0003240		Axle Hub Covers, Rear, S/S Baby Moon (Pair)	1
44	0002045		Mud Flap, Front and Rear, Pierce Logo	1
45	0544802		Chocks, Wheel, SAC-44-E, Folding, (Up to 44" Diameter Tires) Qty, Pair - 02	2
46	0544806		Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal Qty, Pair - 02 Location, Wheel Chocks - Left Side Rear Tire, Forward and Right Side Rear Tire, Rearward	2
47	0820509		ESC/ABS/ATC Wabco Brake System, Single Rear Axle, NFPA 1900	1
48	0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	1
49	0000730		Brakes, Meritor, Cam, Rear, 16.50 x 7.00"	1
50	0020784		Air Compressor, Brake, Cummins/Wabco 18.7 CFM	1
51	0000785		Brake Reservoirs, Three Paint Color, Air Tanks - Frame color	1
52	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
53	0000790		Brake Lines, Nylon	1
54	0000854		Air Inlet, w/Disconnect Coupling Location, Air Coupling(s) - a) DS Step Well, Forward Qty, Air Coupling (s) - 1	1
55	0000845		Air Tank, Additional for Extra Capacity Paint Color, Air Tanks - Frame color	1
56	0891350		Compressor, Air, Kussmaul 091-9B-4, 120V Brake System Location - behind the driver's seat	1
57	0633303	SP	Cover, Air Compressor, Protection, Ventilated Alum. Painted	1
58	0723071	SP	Brake Lock, United Safety, Security Only, Override not Labeled Location - on the driver's side of the engine tunnel Fill in Blank - behind switch panel 11	1
59	0055486		Drain, Remote Air Tank, w/Pull Cable, All Tanks	1
60	0808499		Engine, Cummins X15, 565 hp, 1850 lb-ft, W/OBD, EPA 2027, Velocity	1
61	0811409		Not Required, Engine Contingency Adjustment	1
62	0730808		Filters, Remote Mounted, Oil, Fuel, X15, VEL/AXT/Enf	1
63	0820303		Not Required, High Idle w/Electronic Engine, Custom	1
64	0729212		Idle Reduction, Battery Management System, BMS, Lithium, IRT	1
65	0729210		Idle Reduction, Lithium, Engine Auto Shut Down 5 min. and Auto Start	1
66	0732613		Not Required, Location IRT Power Converter	1
67	0732621	SP	Approved, Idle Reduction System	1
68	0687994		Engine Brake, Jacobs Compression Brake, Cummins Engine Switch, Engine Brake - e) ISC/ISM/ISL9/ISX Hi Med Lo	1
69	0552334		Clutch, Fan, Air Actuated, Horton Drive Master	1
70	0123135		Air Intake, w/Ember separator, Imp/Vel	1
71	0814375		Exhaust System, Horizontal, Right Side Exhaust, Diffuser - Aluminized Steel (Standard) Exhaust, Material/Finish - Aluminized Steel (Standard) Location, Diffuser Termination - 2.00" Past Rub Rail (Standard) Tip, Exhaust - Straight Tip (Standard)	1
72	0787999		Radiator, Impel/Veloccity	1
73	0722487		Cooling Hoses, Gates Silicone and Rubber Combination, Velocity	1
74	0660971		Fuel Tank, 65 Gallon, Left Side Fill, Common Door Triangular Shaped	1
75	0001129		Lines, Fuel	1
76	0662965		DEF Tank, 4.5 Gallon, DS Fill, Rear of Axle, Common Air Bottle Door	1
77	0723716		Fuel Priming Pump, Electronic, Automatic, Cummins, No Swt Req'd	1
78	0582243		Shutoff Valves, Fuel Line @ Primary Filter, Cummins	1
79	0699437		Cooler, Chassis Fuel, Not Req'd.	1
80	0578959		Fuel/Water Separator, Racor Inline	1
81	0801886		Trans, Allison 6th Gen, 4500 EVS P, Imp/Vel/Enf	1

Line	Option	Type	Option Description	Qty
82	0512762		Transmission, Shifter, 6-Spd, Push Button, 4500, Imp/Vel/Qtm/DCF/Enf Trans, ratio - 4500 EVS, 6Spd	1
83	0684459		Transmission Oil Cooler, Modine, External	1
84	0001375		Driveline, Spicer 1810	1
85	0669988		Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	1
86	0001544		Not Required, Steering Assist Cylinder on Front Axle	1
87	0509230		Steering Wheel, 4 Spoke without Controls	1
88	0690274		Logo/Emblem, on Dash Text, Row (1) One - Olympia Text, Row (2) Two - Fire Text, Row (3) Three - Department	1
89	0123625		Bumper, 19" Extended, Imp/Vel	1
90	0616492		Tray, Hose, Center, 19" Bumper, Outside Air Horns, Imp/Vel Grating, Bumper extension - Grating, Rubber Capacity, Bumper Tray - 21) 150' of 1.75"	1
91	0630813		Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray Stay arm, Tray Cover - b) Pneumatic Stay Arm	1
92	0510226		Lift & Tow Package, Imp/Vel, AXT, Dash CF	1
93	0534715		Tow Eyes, 1" Rd Bar, 4" Diameter Chromed, Through Bumper Face	1
94	0668315		Cab, Velocity FR, 7010 Raised Roof	1
95	0724207		Engine Tunnel, X12-15, MX13, Mech Fasteners, Velocity FR	1
96	0887600		Cab Insulation, Impel/Velocity FR	1
97	0677477		Rear Wall, Exterior, Cab, Brushed Stainless Steel	1
98	0199683		Cab Lift, Elec/Hyd, w/Manual Override, Unlocked Ind Light, Imp/Vel	1
99	0123176		Grille, Bright Finished, Front of Cab, Velocity	1
100	0002224		Scuffplates, S/S At Cab Door Jambs, 4-Door Cab Material Trim/Scuffplate - c) S/S, Polished	1
101	0596406	SP	Scuffplate, L-Shaped, Seat Riser, Crewcab, Vel/Imp/AXT Material Trim/Scuffplate - b) S/S, Brushed	1
102	0527032		Trim, S/S Band, Across Cab Face, Rect Lights, Velocity Material Trim/Scuffplate - c) S/S, Polished Turnsignal Covers - Polished S/S Covers	1
103	0015440		No Chrome Molding, On side of cab	1
104	0521669		Mirrors, Retractable, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex	1
105	0663040		Mirror, 8.00" Convex, Round, Cab Front, Front Cross View, Heated	1
106	0667921		Door, Half-Height, Velocity FR 4-Door Cab, Raised Roof Key Model, Cab Doors - 751 Cab, Exterior Door Handle, Finish - 4-Door, Chrome/Black	1
107	0655511		Door Panel, Brushed Stainless Steel, Impel/Velocity 4-Door Cab	1
108	0667905		Storage Pockets w/ Elastic Cover, Recessed, Overhead, Impel/Velocity FR	1
109	0667902		Controls, Electric Windows, All Cab Doors, Impel/Velocity FR	1
110	0784477	SP	Electric Door Locks, Cab Doors, Cabinet Ext Doors, Conceal Switch Loc, Imp/Vel Location - under engine hood, Driver's side	1
111	0732495	SP	Steps, 4-Door Cab, Dual, Safe-Stride, Imp/Vel Light, Step, Additional - P25 LED	1
112	0770200		Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door Cab Color, Handrail Light - White Control, Handrail Light - Parking Brake	1
113	0892637		Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 1Lt Per Step Color, Trim - Chrome Housing	1
114	0005772		Fenders, S/S on cab, w/Radius corner, 2.00" wide	1
115	0586967		Grab Handle, Chrome, Specify Location, Qty Location - officer side cab dash, mounted vertical Qty, - 1	1
116	0586968		Handrail, Interior, Crew Cab Doors, Angled	1
117	0592071		No Windows, Side of Crew Cab, Vel/Imp	1
118	0568605		Not Required, Interior Trim, No Cab Side Windows	1
119	0012090		Not Required, Windows, Front/Side of raised roof	1
120	0509286		Not Required, Windows Rear of Crew Cab, Imp/Vel	1
121	0558334		Not Required, Trim, Cab Rear Windows, No Rear Windows	1
122	0617823		Compt, Storage, 10.71 W x 19.25 H x 22 D, (1) Ea Side C/C, Mini D-Ring, Imp/Vel Light, Aux Cab Compartments - Not Required	1

Line	Option	Type	Option Description	Qty
122			Finish, Cab Compt/Component - Spatter Gray	
123	0123686		Drip Rail, Cab Roof, Impel/Velocity/Velocity SLT	1
124	0728434	SP	Work Surface, 3/16" Alum, Engine Tunnel, Size, Lip, Location, Vel/Imp Location - tight to the instrument panel to extend to the compartment on the top of the engine tunnel. Qty, - 01 Size - as large as possible with a 1" lip Material Finish, Cab Interior - Painted Lip - 1.00"	1
125	0664465		Bracket, Air Bottle, Hands-Free II Location - rear wall of the crew cab, driver's side in board of the hand lights, low Qty, - 01	1
126	0748671		Cab Interior, Vinyl, Velocity FR, CARE Color, Cab Interior Vinyl/Fabric - Endure Vinyl - Black	1
127	0667943		Cab Interior, Paint Color, Impel/Velocity FR Color, Cab Interior Paint - a) gray	1
128	0052101		Floor, Alum Cab & Crew Cab, AXT/Imp/Vel/Dash CF, CARE	1
129	0741239		HVAC, Heavy-Duty, Impel/Velocity FR, CARE Paint Color, A/C Condenser - Painted to Match Cab Roof HVAC System, Filter Access - Removable Panel Auxiliary Cab Heater - Both	1
130	0639675		Sun Visor, Smoked Lexan, AXT, Imp/Vel, Saber FR/Enforcer Sun Visor Retention - No Retention	1
131	0092424		Grab Handles, Driver & Officer Door Post	1
132	0583938		Lights, Engine Compt, Custom, Auto Sw, WIn 3SC0CDCR, 3" LED, Trim Qty, - 01	1
133	0122516		Fluid Check Access, Imp/Vel Latch, Door, Storage - Lift and Turn Latch, Flush	1
134	0002505		Map box, 3 bin, Open from Top, Custom Chassis Location - ship loose Qty, - 1	1
135	0608345	SP	Map Pocket, S/S, 10.50" W x 10.00" H x 1.00" D Location - install forward of the officer's seat on the lower dash Qty, - 01	1
136	0583042		Side Roll and Frontal Impact Protection	1
137	0622618		Seating Capacity, 5 Seats	1
138	0764478		Seat, Driver, USSC, Valor, P1A, Air Ride, I-Back, Safety, PRIMARY USSC, CMC Vinyl Cover, Addt'l - (0) None	1
139	0797631		Seat, Officer, USSC, Valor, P1A, Air Ride, SCBA, Safety, PRIMARY, Imp/Vel USSC, CMC Vinyl Cover, Addt'l - (0) None	1
140	0002517		Not Required, Radio Compartment	1
141	0746565	SP	Cabinet, Rr Fcng, LS, 24 W x 40.5 H x 24 D, Web, J-Hk,Ext Acc,Sp Mtg,Imp/Vel Type of fastener - spring clip and hook Restraint Location - Inboard Light, Short Cabinet - Amdor H2O, Interior, Left Side Scuffplate, Material/Finish - S/S, Polished Material Finish, Shelf - Painted - Cab Interior Shelf/Tray, Cabinet - (2) Shelves, Adjustable, 0.75" Up-Turned Lip Door, Cab Exterior Cabinet - Double Pan, Rev. Hinged, Locking #751 Door, Exterior Stop - Stay Arm Louvers, Cabinet - 0-No Louvers	1
142	0102783		Not Required, Seat, Rr Facing C/C, Center	1
143	0821461	SP	Cabinet, Rr Fcng, RS, 21.5 W x 40.5 H x 20 D, Web, Ext Acc, Sp Mtg, Imp/Vel Light, Short Cabinet - Amdor H2O, Exterior, Right Side Scuffplate, Material/Finish - S/S, Polished Material Finish, Shelf - Painted - Cab Interior Shelf/Tray, Cabinet - (2) Shelves, Adjustable, 0.75" Up-Turned Lip Door, Cab Exterior Cabinet - Double Pan, Rev. Hinged, Locking #751 Door, Exterior Stop - Stay Arm Louvers, Cabinet - 0-No Louvers Fastener, Web, Cab Cabinet - Spring Clip and Hook, Left	1
144	0108189		Not Required, Seat, Forward Facing C/C, LS Outboard	1
145	0765312		Seat, Fwd Fcng C/C, Ctr, (2) USSC, Valor, SCBA, 95 D, Safety, SECONDARY	1

Line	Option	Type	Option Description	Qty
146	0761174		Seat, Fwd Fcng C/C, RS Otbrd, USSC, Valor, I-Back, Foldup, Safety, SECONDARY	1
147	0737622	SP	USSC, CMC Vinyl Cover, Addtl - (0) None Cabinet, Rear Facing, Top Eng Tnl, 43 W x 16 H x 18 D, Web, Sp Div, Imp/Vel Location - Match #34790 Type of fastener - spring clip and hook Restraint Location - Bottom (towards the ground) Light, Short Cabinet - Amdor, Interior, White, Horizontal Material Finish, Shelf - Painted - Cab Interior Shelf/Tray, Cabinet - (0) None Louvers, Cabinet - 0-No Louvers	1
148	0765148		Cabinet Floor, Qty, False Floor Location - both rear facing EMS compartments Qty, - 02	2
149	0752005		Lip, Top of Interior Cabinet, All Sides Location - top of the compartment above the engine tunnel Qty, - 1 Lip - 1.00"	1
150	0683732	SP	Compt, Storage, Fwd Facing, Overhead, 74 W x 10 H x 14 D, Imp/Vel RR Latch, Storage Compt - a) Non Locking Qty, Compt Door - (2) Light, Overhead Compt - Pierce, Horizontal Mounted	1
151	0625186		Upholstery, Seats In Cab, All ValorTechXD (Cordura), USSC, CARE Color, Cab Interior Vinyl/Fabric - n) Black/Red Sticking	1
152	0543991		Bracket, Air Bottle, Hands-Free II, Cab Seats Qty, - 02	2
153	0603867		Seat Belt, ReadyReach Seat Belt Color - Red	1
154	0604864		Seat Belt Height Adjustment, 5 Seats, Imp/Vel, Dash CF	1
155	0817557		Helmet Storage, Provided by Fire Department, NFPA 2024	1
156	0647647		Lights, Dome, FRP Dual LED 4 Lts Color, Dome Lt - Red & White Color, Dome Lt Bzl - Black Control, Dome Lt White - Door Switches and Lens Switch Control, Dome Lt Color - Lens Switch	1
157	0896451		Enhanced Software for Cab and Crew Cab Dome Lts	1
158	0628472		Light, Map, Overhead, Peterson M371S LED, Rectangular w/Switch 2lts 12vdc power from - Battery switched	1
159	0649587		Light, Map, Federal Littlite, LED, Gooseneck Location - two in the crew cab between the seats Qty, - 02 12vdc power from - Battery switched Length, Gooseneck - 18" Control, Map Light - On/Off Gooseneck Exit, Map Light - Side Wire Exit, Map Light - Bottom	2
160	0739629	SP	Spotlight, Wln Arges, 2 Lights Location - one each side behind the lightbar. Bracket, Spotlight - Z Bracket - 2 Lts Scene Light Optics - 5 to 60 Deg	1
161	0739628	SP	Controller, Spotlight, Wln Arges Dash Mount, 2 Lt	1
162	0649967		Location, Spotlight Controller, Driver and Officer, 2 Lts	1
163	0804719		Handlts, (4) Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lts, 12v, Orange Location, Portable Hand Light - one under the PS forward facing crew seat, two on the rear wall of the crew cab, low near the floor, one on the rear wall DS between the door and the SCBA bracket, see photo of current .	1
164	0568369		Cab Instruments, Ivory Gauges, Chrome Bezels, Impel/Velocity 2010	1
165	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
166	0002600		Ammeter, Cab Instrument Panel	1
167	0769384	SP	Light, Do Not Move Apparatus, Wln M2B Blue LED, Non-NFPA 2016 Alarm, Do Not Move Truck - Steady Alarm	1
168	0509042		Messages, Open Dr/DNMT, Color Dsply,	1
169	0611681		Switching, Cab, Membrane, Impel/Velocity/Quantum, Dash CF, AXT WiFi MUX Location, Emerg Sw Pnl - Driver's Side Overhead	1

Line	Option	Type	Option Description	Qty
170	0555915		Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	1
171	0820904		Wiring, Spare, 15 A 12V DC 1st NFPA1900 Qty, - 04 12vdc power from - Ignition power Wire termination - 15 amp power point plug Location, Spare Wiring - Officer Dash, EMS Compt, Engine Tunnel - Officer's Side and Engine Tunnel - Driver's Side	4
172	0820897		Wiring, Spare, 15 A 12V DC, Batt Dir, 2nd NFPA1900 Location, Wiring - front wall of RS4, 3' coil 12vdc power from - Battery direct Wire termination - Butt Splice	1
173	0820898		Wiring, Spare, 15 A 12V DC, Batt Dir, 3rd NFPA1900 Location, Wiring - Behind Drive's Seat 12vdc power from - Battery direct Wire termination - Butt Splice	1
174	0821191		Wiring, Spare, 20 A 12V DC, Batt Dir, 1st NFPA1900 Location, Wiring - under the crew cab seat 12vdc power from - Battery direct Wire termination - Butt Splice	1
175	0820894		Wiring, Spare, 15 A 12V DC, Batt Dir, 1st NFPA1900 Location, Wiring - Behind Officer Seat 12vdc power from - Battery direct Wire termination - Butt Splice	1
176	0566101		Recess, Dash Panel, Officer Side, Vel/Imp	1
177	0819994		Radio, Jensen, AM/FM/WB, Bluetooth Speakers, AM/FM Radio - Two (2) pairs of speakers, Cab/Crew Antenna, AM/FM Radio - Roof-mounted rubber antenna LS Location, AM/FM Radio - b) within reach of the officer	1
178	0776464	SP	Switches, Separate Visor Lt Control, Interlocked to High Beam, MUX, RS Sw, LS Sw Label, text - high brow cut	1
179	0814201		Vehicle Information Center, 7" Color Display, Touchscreen, MUX, CL714 System Of Measurement - US Customary	1
180	0816633		Collision Mitigation, HAAS Alert (R2V), HA7 Subscription, HAAS R2V - R2V - 5 Year Data Plan Subscription	1
181	0606249		Vehicle Data Recorder w/CZ and Overhead Display Seat Belt Monitor	1
182	0891613		Intercom, Setcom, Wireless, LiberatorMAX-16, Location Location - POS B	1
183	0746595		Cable, Radio to Intercom Interface, Setcom LiberatorMAX, 1 Radio Radio, First Two-Way Model - Motorola XTL5000 Radio, First Two-Way Make - Motorola High Power	1
184	0891619		Headset, Setcom, CSB-900MAX-16, Wireless, Radio Transmit Qty, - 02 Location - driver and officer	2
185	0891618		Headset, Setcom, CSB-901MAX-16, Wireless, Intercom Only Qty, - 03 Location - crew cab seats	3
186	0788631	SP	Install Customer Provided GPS/Multimode Antenna(s), Location Location - installed on the crew cab, routed to behind the officer's seat Qty, - 02	2
187	0597940		Install Customer Provided Two-Way Radio Speaker(s) Location - below the overhead dash, just to the right of the do not move light Qty, - 01	1
188	0559156		Install Customer Provided Two-Way Radio(s) Location - LOC5 Qty, - 01	1
189	0003757		Antenna, Std and Add'l Mts Only, 2-way Radio,Cust,Spl Cable Routing Location - route to behind the officer's seat Qty, - 02 Location 1 - one each side top of the crew cab	2
190	0817058		Camera, Pierce, LS Mux, R Camera, SD, CL714 Camera System Audio - Not Provided	1
191	0814831		Not Required, Camera Switcher	1

Line	Option	Type	Option Description	Qty
192	0896458		Pierce Command Zone, Advanced Electronics & Control System, Vel WiFi CZT Color, Antenna - White Antenna Module Housings - Black Housing with Power and Status Ind	1
193	0896456		Prognostics, Electrical System	1
194	0816093		ClearSky Telematics, Remote Fleet & On-scene Management, AT&T Commercial Subscription, Telematics - 3 Year Subscription	1
195	0730603		Electrical System, Velocity ESP, Cummins, Paccar	1
196	0735191		Batteries, (3) Stryten/Exide Grp 31, 950 CCA ea, Threaded Stud, LS Bat Box	1
197	0008621		Battery System, Single Start, All Custom Chassis	1
198	0123174		Battery Compartment, Imp/Vel	1
199	0724049		Battery Charger/Converter, (2) PD2180, 80 Amp x 2, IRT	1
200	0814893		Location, Body, Charger, Front Side Compartment, LS Location, Comp Body - Ceiling, Left	1
201	0814971		Not Required, Remote Battery Charger Indicator	1
202	0016857		Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super Qty, - 01 Color, Kussmaul Cover - b) red Shoreline Connection - ventilation system, compressor and receptacles	1
203	0026800		Shoreline Location Location, Shoreline(s) - DS Cab Side	1
204	0724036		Shoreline, IRT, 30A 120V, Kussmaul Auto Eject, 091-159-30-120, Super Color, Kussmaul Cover - b) red	1
205	0724033		Shoreline Location IRT Location, Shoreline, IRT - Cab Side - LS	1
206	0723255		Sub Feed Breaker Box, Cutler Hammer, For IRT Shoreline Location, CB Panel - LS3	1
207	0647728		Alternator, 430 amp, Delco Remy 55SI	1
208	0092582		Load Manager/Sequencer, MUX Enable/Disable Hi-Idle - e)High Idle enable	1
209	0720839		Switch, CZ Display Only, Load Manager	1
210	0747306	SP	Headlights, Rect LED, HiViz FT-4X6-4KIT, AXT/DCF/Enf/Imp/Sab/Vel Hi Lo Bm Color, Headlight Bez - Chrome Bezel	1
211	0816071	SP	Light, Directional, WIn M62T, Cab Crn, Bezel, Imp/Vel Color, Lens, LED's - m)match LED's Color, Trim - Chrome Flash Pattern, Directional Lts - Steady On (Arrow)	1
212	0768311		Light, Directional/Marker, Intermediate, Truck-Lite 30375Y Grm Mt LED 2lts	1
213	0734710		Lights, Clearance/Marker, Side, Truck-Lite 35200Y 2 Lts, Others With Visor Lt Light Guard - Without Guard	1
214	0563675		Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	1
215	0804514		Lights, Tail, WIn M62BTT* Red Stop/Tail & M62T* Amber Dir Arw For Hsg Color, Lens, LED's - Clear Flash Pattern, Directional Lts - Steady On (Arrow)	1
216	0806466		Lights, Backup, WIn M62BU, LED, For Tail Lt Housing	1
217	0889577		Bracket, License Plate & Light, P25 LED, Stainless Brkt Color, Trim - Chrome Housing	1
218	0556842		Bezels, WIn, (2) M6 Chrome Pierce, For mtg (4) WIn M6 lights	1
219	0589905		Alarm, Back-up Warning, PRECO 1040	1
220	0817254		Lights, Perimeter Cab, Amdor AY-LB-12HW0** LED 4Dr	1
221	0769572		Lights, Perimeter Pump House, Amdor AY-LB-12HW020 LED 2lts	1
222	0770056		Lights, Perimeter Body, Amdor AY-LB-12HW020 LED 2lts, Rear Step Control, Perimeter Lts - DS Switch Panel and Parking Brake Applied	1
223	0769570		Lights, Perimeter, Amdor AY-LB-12HW020 20", Brkt Qty, - 06 Location, Additional Perimeter Lights - Under Front Bumper, Left Side, Ext'd Bumper, 1lt, Under Front Bumper, Right Side, Ext'd Bumper, 1lt, Under Compt LS1, 1lt, Under Compt LS3, 1lt, Under Compt RS1, 1lt and Under Compt RS3, 1lt	6
224	0896454		Enhanced Software for Perimeter Lts	1
225	0556360		Lights, Step, P25 LED 4lts, Pump Pnl Sw	1
226	0892654		Light, Step, Additional, P25 LED Qty, Lights - 01 Location, Lights - for the PS wedge step above the pump panel.	1

Line	Option	Type	Option Description	Qty
226			Color, Trim - Chrome Housing	
227	0657818		Lights, Side Scene, WIn, PEL*C LED 1st	2
			Location, Lights - each side of the body, ahead of the rear wheels and as low as possible to illuminate the ground near the rear tires, label the switch "curb lights".	
			Qty, - 02	
			Switch, Lt Control 1 DC,1 - a) DS Switch Panel	
			Switch, Lt Control 2 DC,2 - g) PS Switch Panel	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
228	0741463		Light, Extruded Brow, HiViz FT-BG2-R275C-80-ML-*, 80", Sw Fet	1
			Control, Scene Lts - Cab Sw Panel DS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Black	
229	0756032		Lights, HiViz FT-MB-15-*-* , 19.77" , 2nd	1
			Location - top of cab above the passenger's door	
			Qty, - 01	
			Control, Scene Lts - Cab Sw Panel DS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Job Color	
			Scene Light Optics - combination	
230	0756033		Lights, HiViz FT-MB-15-*-* , 19.77" , 1st	1
			Location - top of the cab above the driver's door	
			Qty, - 01	
			Control, Scene Lts - Cab Sw Panel DS and Cab Sw Panel PS	
			Color, Lt Housing HiViz - Job Color	
			Scene Light Optics - combination	
231	0890894		Lights, HiViz FT-MB-15-*-* 19.77" , 2nd	2
			Location - top of body, passenger's side, one forward and one rear	
			Qty, - 02	
			Control, Scene Lts - PS Scene Lts	
			Color, Lt Housing HiViz - Job Color	
			Scene Light Optics - combination	
232	0740585		Lights, HiViz FT-MB-15-*-* 19.77" , 1st	2
			Location - top of body, driver's side, one forward and one rear	
			Qty, - 02	
			Control, Scene Lts - DS Scene Lts	
			Color, Lt Housing HiViz - Job Color	
			Scene Light Optics - combination	
233	0532358		Not Required, Deck Lights, Other Hose Bed & Rear Lighting	1
234	0893593		Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips	1
			Control, Hose Bed Lts - Auto Cover Sw	
235	0645677		Lights, Not Required, Rear Work, Alt. 12 Volt Lights At Rear Body	1
236	0645637		Lights, Rear Scene, WIn, PEL*C LED, 45 Deg Flange	2
			Location, Lights - rear of body, below the steps on the extended depth rear compartment, each side	
			Qty, - 02	
			Control, Rear Scene Lts - Cab Switch Panel DS, Cab Switch Panel PS and Cup Switch At Rear SS	
237	0733247		Lights, Rear Scene, HiViz FT-GESM* , Surface Mt	1
			Location, Lights - driver's side rear bulkhead, high	
			Qty, - 01	
			Control, Rear Scene Lts - Cab Switch Panel DS, Cab Switch Panel PS, Reverse w/E-Master and Body Switch, PS Rear Bulkhead SS	
			Color, Lt Housing HiViz - Black Bezel & Black Optic Holder	
238	0709438		Lights, Walk Surf, FRP Flood, LED	1
239	0638557		Switch, Master, 12 Volt Scene Lights	2
			Location - driver's side and passenger's switch panel	
			Qty, - 02	
			Fill in Blank - all scene lights	
240	0060115		Pumper, Medium, Aluminum, 2nd Gen	1
241	0554271		Body Skirt Height, 20"	1
242	0028244		Tank, Water, 500 Gallon, Poly, Med	1
243	0003405		Overflow, 4.00" Water Tank, Poly	1
244	0028107		Not Required, Foam Cell Modification	1
245	0633066		Sleeve, Through Tank	2
			Qty, Sleeve - 2	

Line	Option	Type	Option Description	Qty
245			Water Tank Sleeve - Plumbing/Hydraulic Diameter - 3" Plumbing	
246	0553729		Not Required, Restraint, Water Tank, Heavy Duty	1
247	0003429		Not Required, Direct Tank Fill	1
248	0003424		Not Required, Dump Valve	1
249	0048710		Not Required, Jet Assist	1
250	0030007		Not Required, Dump Valve Chute	1
251	0514778		Not Required, Switch, Tank Dump Master	1
252	0126633		Hose Bed, Aluminum, Pumper	1
253	0723549		Painted Hose Bed	1
254	0003481		Paint Color, Hose Bed Interior - Match Lower Body Hose Bed Capacity, Special	1
255	0083488		Capacity, Hosebed - Match 29257, clear dimensions, #1 250' of 2.5" (8.25" clear), #2 and #3 250' of 2.5 (5.25" clear), #4 (2) trays hotel pack side by side (13.25" clear) trays to slide on divider bottom, #6 1000' of 5" remaining width. Divider, Hose Bed, .25" Unpainted	4
256	0805760		Qty, Hosebed Dividers - 4	1
257	0807353		Cover, Hose Bed, Alum Treadplate	1
258	0767150		Hose Restraint, Hose Bed, Vinyl, Rear, Separate From Top, Split 2-Sec Color, Vinyl Cover - c) black location - center Vinyl Flap Weight - Not Weighted Type of fastener, Inboard, Split Hose Bed - Velcro Fastener, Rear Restraint, Top - Permanent Attachment Fastener, Rear Restraint, Bottom - StayPut Shock Cord Loop Pull Tab Compt, Storage, Front of Hose Bed, Top Door	1
259	0010133		Location - over the area to the right of the fill dome Dimensions - as large as possible, match #29257 Latch, Door, Storage - Lift and Turn Latch, Flush, Pair Hinge Location - Rearward	1
260	0520829	SP	Cross-Divider, Hose Bed	1
261	0097956		Deflector, Hose, Rear Base of Hose Bed, 4-way 3/16" Treadplate Hose Tray, Poly, Removable, Hose Bed, Deluxe	2
262	0065896	SP	Location - side x side, 7' long, just to the left of the 5" bed. Include a retainer so the trays will not fall out when the hose is removed. NOTE: the trays will slide on the feet of the two hose bed dividers and a support in the center. Qty, - 02 Size - 150' of 1.75" hose Partition, Hose Bed, Front Sheet to Cross Divider	1
263	0649080		Location - next to the fill dome Qty, - 1	1
264	0740286		Gas Cylinders, 180 lb, Aluminum Hose Bed Cover	3
265	0695399		Lettering, Hose Bed Rear Flap, Reflective Color, Lettering - a) white Qty, Lettering - 03 Lettering, Hosebed - OFD Centering, Lettering, Rear Flap - Centered on Hose Bed Layout, Lettering - Straight Size, Lettering, Rear Flap, Reflective - 10.00"	1
266	0678627		Running Boards, 14.75" Deep, Front and Rear 45 Degree Corners	1
267	0690037		Tailboard, 18" & 8" Deep, T-Shaped, Angled Corners	1
268	0889214		Wall, Rear, Smooth Aluminum/Body Material	1
269	0042711	SP	Material, Rear Wall Inboard Facing Surfaces - Brushed S/S Tow Eyes, w/Tow Bar, 2G Pumper	2
270	0695615		Cover, Run Board Tray, Alum 4-Way, Removable Location, Hose Tray, Running Board - a) both sides Qty, - 02	2
271	0895820		Tray, Hose, Running Board, Free Floating, Tapared Both Corners, 20' of 5" Location, Hose Tray, Running Board - a) both sides Qty, Tray, Hose - 2	1
272	0525533	SP	Construction, Compt, Alum, 2G Pumper	1
273	0063610		Engineer Compt, Full-Width, 20" W x 38.0" H x 26.5" Deep, Lap Door LS 152" Lap, Full Height Front & Rear, FDLER	1

Line	Option	Type	Option Description	Qty
274	0063624		RS 152" Lap, Full Height Front & Rear, FDLER	1
275	0063911		Doors, Lap w/ "D" Handles - Side Compartments	1
276	0073700		Compt, Rear, Rollup, 37.75" FF, 31.88" D	1
277	0594003		Door, Amdor, Rollup, Rear Compartment	1
			Color, Roll-up Door - AMDOR Satin Aluminum	
			Latch, Roll-up Door - Locking, 1250, Match Compartments	
278	0554995		No Body Modification Required	1
279	0053189	SP	Scuffplate, S/S, Lower Extended Beavertail, Inside Corner	1
280	0509866		Scuffplate, Front Bulkheads, Brushed S/S IPO Alum Treadplate	1
281	0615721	SP	Scuffplate, S/S Under Fuel Fill Door, Qty	2
			Qty, Scuffplates - 02	
282	0062742		Compartment Door(s), Open Past 90 Degrees	1
			Qty, Door Accessory - 01	
			Location, Door Accessory - engineer compartment on the driver's side	
283	0019845		Guard, Drip Pan, S/S, Rollup Door	1
			Qty, Door Accessory - 01	
			Location, Door Accessory - R1	
284	0003915		Keyed Locks for Latches, Lap Doors (#751 Lock to Match Cab)	8
			Qty, Door Accessory - 08	
			Location, Door Accessory - all body compartments.	
285	0731558		Pull Strap for Liftup Doors	2
			Qty, Door Accessory - 02	
			Location, Door Accessory - LS2 and RS2	
			Color, Strap - Black	
			Length, Pull Strap - 10.00"	
286	0003919		Reverse Hinge Compartment Door	2
			Qty, Door Accessory - 02	
			Location, Door Accessory - LS3 and RS3	
287	0004010		Scuffplate, Polished S/S Bottom of Door Frame	8
			Location, Door Accessory - body compartments	
			Qty, Scuffplates - 08	
288	0004012		Scuffplate, Polished S/S, Inside Each Compartment Door	12
			Qty, Door Accessory - 12	
			Location, Door Accessory - cab and body compartment door pans	
289	0659353		Lights, Compt, Amdor AY-9220 LED, Dual Lt Strip	9
			Qty, - 09	
290	0692633		Lights, Truck-Lite 44308C, LED Grommet Mt Additional, Dual Lt	2
			Location, Lights - lift up doors	
			Qty, - 02	
291	0687146		Shelf Tracks, Painted	7
			Qty, Shelf Track - 07	
			Location, Shelf Track - LS2, LS3, LS4, RS1, RS2, RS3, RS4 and B1	
292	0600350		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	12
			Qty, Shelf - 12	
			Material Finish, Shelf - Painted - Spatter Gray	
			Location, Shelves/Trays, Predefined - * Locations To Be Determined At A Later Date	
293	0559456		Tray, 500 lb Slide-out, 2" Sides - Adj. Height, Full Width	1
			Location - B1 1/3 of the height	
			Qty, Tray (slide-out) - 01	
			Material Finish, Tray - Painted - Spatter Gray	
294	0728451	SP	Tray, 500 lb Slide-out, Adj. Height, High/Special Side Ht, Max Width/Depth	1
			Location - B1 must be 32.5" clear depth front to rear, full width, recess the latch in the tray to clear the door.	
			Qty, Tray (slide-out) - 01	
			Tray, Side Height, Front - 2"	
			Tray, Side Height, Rear - 9"	
			Tray, Side Height, Right & Left - 3"	
295	0609657	SP	Bar, Single Hand Operation, Slide-Out Tray	2
			Location - floor mounted slide-out trays	
			Qty, Tray (slide-out) - 02	
296	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides	1
			Qty, - 01	
			Location, Tray Slide-Out, Floor Mounted - RS1	

Line	Option	Type	Option Description	Qty
296			Material Finish, Tray - Painted - Spatter Gray	
297	0708751	SP	Tray, Floor Mounted, Slide-Out, Side Slide, FW/32.50"D, Low/Spcl Sides, Latch, 3/16" Qty, - 01 location - B1 Material - paint to match compt interior Tray, Low Side Height, Front - 1" Tray, Low Side Height, Rear - 4" Tray, Low Side Height, Right & Left - 4"	1
298	0608086	SP	Tray, Floor Mounted, Slide-Out, FW/32.50"D, Low/Spcl Sides, Latch Access, 3/16", 2G Qty, - 01 location - B1 Material - paint to match compt interior Tray, Low Side Height, Front - 1" Tray, Low Side Height, Rear - 4" Tray, Low Side Height, Right & Left - 2"	1
299	0540317		Toolboard, Swing-out, Alum, .188", Peg Board Qty - 2 Location, Pivot - Back Mounting, Toolboard - Adjustable Frt-back Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Toolboard - LS2 - Full Height/Width and RS2 - Full Height/Width	2
300	0726441		Partition, Trans Rear Compt Qty, Partition - 02 Location, Partition - c) both sides Material Finish, Partition - Painted - Spatter Gray	2
301	0726403		Partition, Vertical Compt, Special Height Qty, Partition - 07 Fill in Blank - to be determined Location - to be determined Material Finish, Partition - Painted - Spatter Gray	7
302	0004000		Matting, Vin-A-Grip in Compartment Location - all floors, shelves and trays in the body Qty, Comp. Accessory - 19	19
303	0659095		Pegboard, 3/16" Aluminum, Back Wall Compartments, w/Track Qty, Comp. Accessory - 02 Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Pegboard Back Compt Wall - LS2 and LS3	2
304	0516612		Recess, Blister, Compt Wall Location - in the fuel tank access panel. Located above the fuel tank between the frame to the crossmember. Min 6" deep x 6" high x as wide as possible. Qty, - 1	1
305	0064190		Ventilation System, Compartment	1
306	0004016		Rub Rail, Aluminum Extruded, Side of Body	1
307	0784811		Fender Crowns, Rear, Stainless, w/Removable Liner Material Finish, Fender Liner - Painted Lower Body	1
308	0519849		Not Required, Hose, Hard Suction	1
309	0621021		Handrails, Side Pump Panels, Per Print, Hansen Knurled Alum Tubing, LED Backlit Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - White	1
310	0625975		Handrails, Beavertail, Hansen Tubing, Knurled Aluminum, LED Backlit Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - White	1
311	0625966		Handrail, Rear, Below Hose Bed, Full Width, Hansen, Knurled Aluminum LED Backlit Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - White	1
312	0609286		Handrail, Extra - 15-20" Long, Hansen Tubing, Knurled Aluminum LED Backlit Location, Handrails - one below each crosslay and one on the front of the DS body Qty, Handrails - 03	3

Line	Option	Type	Option Description	Qty
312			Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - White	
313	0614589		Handrail, Extra - 10" Long, Hansen Tubing, Knurled Aluminum LED Backlit Location, Handrails - driver's side catwalk forward Qty, Handrails - 01	1
314	0816729		Switch, Handrail Light Control - Park Brake Color, Light, Hansen Handrail - White Compt, Extinguisher (2) Fender Panel, Triangular Door, 8"/8.5"Dia Location, Bracket/comp. - passenger's side forward wheel well Qty, - 1	1
315	0654143		Door Finish, Fender Compt - Polished Latch, Air Bottle Compt - Southco C2 Chrome Raised Insert, Air Bottle Compt - Rubber Matting Compt, Air Bottle, Single, Tri Door (DEF/Fuel), Fender Panel	1
316	0657522		Door Finish, Fender Compt - Polished Latch, Air Bottle Compt - Southco C2 Chrome Raised Insert, Air Bottle Compt - Rubber Matting Compt, Air Bottle, Triple, Fender Panel Qty, Air Bottle Comp - 2	2
317	0004225		Door Finish, Fender Compt - Polished Ladder, 24' Duo-Safety 900A 2-Section	1
318	0004230		Ladder, 14' Duo-Safety 775A Roof	1
319	0015036		Rack, Ladders, Hydraulic, RS, Air Clamps Ladder Rack Lock Enclosure/Light Mounting Bracket - RS Front & Rear S/S Enclosures	1
320	0756375		Location, Hydraulic Ladder Rack Controls - Pump Panel Lights, Hyd Lad Rack Deployed, Truck-Lite 15**** Color, Light - Amber Flashing Color, Lens, LED's - Clear Trim, T-L 15 - Chrome	1
321	0522837	SP	Not Required, Folding Ladder, Alternate Ladder Provided	1
322	0761307		Mounting Clips, Folding Ladder, Hydraulic Ladder Rack Location, Folding Ladder Storage - Hydraulic Rack - Inboard	1
323	0812235		Ladder, Little Giant, Revolution 2.0 - Model 17, 13117 Location - mounted below the ladder rack, match #29257	1
324	0564381		Hydraulic Pump, Ladder Rack, Special Location Location - in the cargo area, right side	1
325	0725033		Compt w/Door, Backboard, Bottom of 4-Way Hose Bed Cover Qty, Backboard Compt - 2 Location, driver's/passenger's/center - LS & RS Latch, Door, Storage - Lift and Turn Latch Size, Backboard, Predefined - 74"L x 20"W x 2.50"H	2
326	0890312	SP	Pocket, Little Giant Ladder, Bottom Side of Hydraulic Ladder Rack Ladder, Make/Model - Little Giant Revolution Model 17	1
327	0069338		Pike Pole, 8' Nupla, Vent Hook, RH-8DA, w/D Handle Location - ladder rack, inboard Qty, Pike Poles - 1	1
328	0566822		Pike Pole, 10' Fire Hooks Unlimited, Fiberglass, APH-10, w/D Handle Qty, - 01	1
329	0760176		Tube, Pike Pole 8' or Longer, Hydraulic Ladder Rack Inboard Qty, Pike Poles - 1 Material/Finish, Tube, Pike Pole - Painted Aluminum Width, Notch, Pike Pole Tube - 1.38", NY Notch	1
330	0816918		Pike Pole, 6', Provided by Fire Department, NFPA 2024 Qty, - 02 Pike Pole Make/Model - Fire Hooks Unlimited 6' All Purpose Hook	2
331	0733065		Not Required	1
332	0058193		Tubes, Alum, Pike Pole Storage, Spcl Notch, NY PP Head Location - installed between LS4 and RS4, one with access from each side, for 6' NY Hooks Qty, Pike Pole Tubes - 02	2

Line	Option	Type	Option Description	Qty
333	0592963		Mounting Bracket, Quic Mount Low Profile, LPVM-5, Zico Location - on the ladder rack Qty, - 04	4
334	0019270		Bell, 12" Chrome w/Eagle, w/Electric Striker Location, Acc. Misc. - b) passenger's side Location, Switch - c) officer's position Qty, Momentary Switch - One (1) switch	1
335	0583624		Labels and Tags, Misc. ID Location - easy to see near the breaker for the booster reel Qty, - 01 Fill in Blank - indicate the location for the breaker for the booster reel Color - 1) black	1
336	0785100		Steps, Folding, Front of Body, Cargo Bed Access, Trident Coating, Step - luminescent Location, Steps - Full Height Left Side	1
337	0591883		Steps, Folding, Rear of Body, Trident Coating, Step - luminescent	1
338	0000458		Platform, Slide Out, 500 lb Capacity, Alum 4-Way Location, Additional Step - below the crosslay area, each side Qty, Slideout Step - 2 Light, Long Step - On Scene Solutions Access	2
339	0724154		Step, Folding - Extra, Body Only, Trident Qty, Folding Step - 03 Location, Additional Step - installed on the rear wall of the PS engineer compartment Coating, Step - luminescent	3
340	0090749	SP	Step, Wedge, Additional, Specify Width Location, Additional Step - above the PS pump panel Qty, Add. Wedge Step - 1 Width - 12.00"	1
341	0007545		Pump House, Side Control, 45", Control Zone	1
342	0035501		Pump House Structure, Std Height	1
343	0608224		Access Door, Cargo Compt, RS, 105 Deg Lift-up Door, Latch & Hold Open Selections Door, Material & Finish, Storage - Brushed S/S Latch, Door, Storage - "D" Handle Latch w/ Gas Strut	1
344	0608222		Access Door, Cargo Compt, LS, 105 Deg Lift-up Door, Latch & Hold Open Selections Door, Material & Finish, Storage - Brushed S/S Latch, Door, Storage - "D" Handle Latch w/ Gas Strut	1
345	0775493	SP	Platform, Over Cargo Area, Special Size, w/(2) Liftup Doors Size - one door above the hose reel and one on the right side as large as possible Fill in Blank - the hose reel and storage Location - one door above the hose reel and one on the right side as large as possible	1
346	0020364		Brushed S/S, IPO Aluminum 4-way, Pump House	1
347	0004425		Pump, Waterous, CSU, 1500 GPM, Single Stage	1
348	0004482		Seal, Mechanical, Waterous	1
349	0816447		Trans, Pump, Waterous C22 Series	1
350	0635600		Pumping Mode, Stationary Only	1
351	0605126		Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	1
352	0003148		Transmission Lock-up, EVS	1
353	0004547		Auxiliary Cooling System	1
354	0014486		Not Required, Transfer Valve, Single Stage Pump	1
355	0737989		Valve, Relief Intake, Waterous Qty - 1 Pressure Setting - 135 psig	1
356	0794959		Controller, Pressure, Pierce, Pump Boss, PBA300	1
357	0641743		Primer, Waterous, VPO Motor, (1) VAP Valve, (1) Push Button Control	1
358	0892395	SP	Line, 0.50" Recirculating, "T" Swing Handle Valve	1
359	0890482		Pump Overheat Ind, 120 Deg, Light/Alarm, IC	1
360	0780364		Manuals, Pump, (2) Total, Electronic Copies	1
361	0602512		Plumbing, Stainless Steel and Hose, Single Stage Pump, Control Zone	1

Line	Option	Type	Option Description	Qty
362	0089437		Plumbing Without Foam System	1
363	0004645		Inlets, 6.00" - 1250 GPM or Larger Pump	1
364	0014650		Pump Suction Tube(s), Short, All	1
365	0004646		Cap, Main Pump Inlet, Long Handle, NST, VLH	1
366	0743394		Valves, Full Flow Waterous, Akron/Elkhart Aux Inlet Valves	4
			Valve, Brand - Akron	
			Qty, Valves - 4	
			Inlet/Outlet Location - No. 1 Left Side Discharge, No. 2 Left Side Discharge, No. 3 Right Side Discharge and No. 4 Right Side Discharge	
367	0016158		Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	2
			Qty, Inlets - 2	
368	0004700		Control, Inlet, at Valve	1
369	0004660		Inlet (1), Left Side, 2.50"	1
370	0004680		Inlet, Right Side, 2.50"	1
371	0544977		Inlet, Rear, 4"-6" w/5" Plmb, Thru Tank, RS, w/Bleeder Valve	1
			Inlet, Size - Six	
372	0024831		Control, Rear Inlet, Electric, w/Indicator Lights	1
373	0012609		Elbow & Cap, Rear Inlet, 5" FNST x 5" Storz	1
374	0746865		Valve, Relief Intake, Rear Inlet, Elkhart	1
			Pressure Setting - 125 psig	
375	0517832	SP	Rear Inlet Spcl Location, Pipe Lgth allow to Clr FDLER Crner, w/o change in Flow	1
			Fill in Blank - above the rear portion of the lower rear extended compartment, right side	
376	0092568		No Rear Auxiliary Inlet Requested	1
377	0723049		Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	1
378	0079347		Tank to Pump, (1) 3.50" Valve, 4.00" Plumbing, Air Control, Waterous Valve	1
379	0004905		Outlet, Tank Fill, 1.50"	1
380	0062133		Control, Outlets, Manual, Pierce HW if applicable	1
381	0004940		Outlet, Left Side, 2.50"	2
			Qty, Discharges - 02	
382	0005091		Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
383	0092570		Not Required, Outlets, Left Side Additional	1
384	0035094		Not Required, Elbow, Left Side Outlets, Additional	1
385	0004945		Outlet, Right Side, 2.50"	2
			Qty, Discharges - 02	
386	0025091		Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
387	0092571		Not Required, Outlets, Right Side Additional	1
388	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
389	0816625		Outlet, Large Diameter, Right Side, Akron Valve	1
			Outlet, Large Diameter, Plumbing - 5.00"	
			Outlet, Large Diameter, NST Adapter - 5.00" MNST	
			Outlet, Large Diameter, Valve Actuation - Pierce large handwheel	
390	0005099		Elbow, Large Dia Outlet, 30 Deg, 5.00" FNST x 5.00" Storz	1
391	0649939		Outlet, Front, 1.50" w/2" Plumbing	1
			Fitting, Outlet - 1.50" NST with 90 degree swivel	
			Drain, Front Outlet - Automatic	
			Location, Front, Single - in center bumper tray	
392	0004995		Outlet, Rear, 2.50"	2
			Qty, Discharges - 02	
			Location, Outlet - b) left side	
393	0045091		Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
394	0092574		Not Required, Outlet, Rear, Additional	1
395	0085695		Not Required, Elbow, Rear Outlets, Large, Additional	1
396	0092573		Not Required, Outlet, Hose Bed/Running Board Tray	1
397	0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	1
398	0723042		Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	1
399	0091106		Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	1
400	0543541		Monitor, Akron 3423, With (2) 2.5" Inlet Ground Base	1
			Monitor Finish - Painted to Match Lower Body	
401	0046968		Nozzle, Akron 2499, Quad Stacked Tips and 3488 Shaper	1
402	0005070		Deluge Mount, NPT	1
403	0723726		Speedlay Module Not Required	1

Line	Option	Type	Option Description	Qty
404	0722432		Hose Restraint Not Required, No Speedlay Module	1
405	0723395		Speedlays, Not Required	1
406	0723394		Speedlays, Not Required	1
407	0029210		Crosslays Sngl Sheet, (2+) 1.50", Spl. Cap/Arrangement Capacity, Special Xlay - 200' of 1.75", Single stack, forward of the 2.5" crosslay. To be 23" working depth, with the swivels located 12" inboard. Front and third crosslay on PS, second swivel on the DS. Match 29257 Qty, Crosslays - 3	3
408	0820191		Crosslay, 2.50", 3.00" Plb, Special Capcity or Single Stack Capacity, Special Xlay - 200' of 2.5". Single stack rearward of the 1.75" crosslays. 23" working depth. swivel located with-in 12" from the driver's side. Qty, Crosslays - 1	1
409	0591138		Hose Restraint, Crosslay/Deadlay, Vinyl, Strap Fasteners, Each Side, Ends Color, Vinyl Cover - c) black Qty, - 01 Type of fastener - bungee cord and hook Restraint Location - Top (towards roof of truck)	1
410	0029260		Not Required, Speedlays	1
411	0750536		Hose Restr, Spdly, Not Required, No Spdly	1
412	0615255		Cover, Crosslay, 3/16" Alum Treadplate, Front Hinge Stay arm, Tray Cover - f) Rubber Latch	1
413	0525972	SP	Divider, Crosslay, 7.00" Short, Unpainted Location - all three center CL dividers Qty, - 03	3
414	0638039		Reel, Booster - Over Pump, 2" Valve & Plmbing Location, Hose Reel - above the pump on the left side Finish, Reel - Painted Gray	1
415	0011060		Switch, Reel Rewind - One at Pump Panel	1
416	0045300		Hose, Booster - 200' of 1.00"/800 PSI	1
417	0005244		Capacity, Hose Reel 200' of 1"	1
418	0007428		Nozzle for Booster Reel Not Req'd	1
419	0005326		Blowout, Hose Reel - Valve at Panel Qty, - 1	1
420	0045252		Roller Assembly, Captive Style Location - behind the access door on the driver's side Qty, - 1	1
421	0724117	SP	Access Cutout for Circuit Breaker Reset Button	1
422	0044333		Not Required, Foam System	1
423	0012126		Not Required, CAF Compressor	1
424	0552517		Not Required, Refill, Foam Tank	1
425	0042573		Not Required, Foam System Demonstration	1
426	0045465		Not Required, Foam Tanks	1
427	0091110		Not Required, Foam Tank Drain	1
428	0091079		Not Required, Foam Tank #2	1
429	0091112		Not Required, Foam Tank #2 Drain	1
430	0746447		Approval Dwg, All Pump Panel(s), Includes Color And Label Tags Num Of Truck(s) or Sim Unit, ALL Pump Pnl, Dwg - 01	1
431	0032479		Pump Panel Configuration, Control Zone	1
432	0005525		Material, Pump Panels, Side Control Brushed Stainless	1
433	0721765		Panel, Pump Access - Right Side Only, Side Control Latch, Pump Panel Access, Side Mount - Swell Latch, Black	1
434	0583824		Light, Pump Compt, WIn 3SC0CDCR LED White Qty, - 01	1
435	0586382		Gauges, Engine, Included With Pressure Controller	1
436	0005601		Throttle, Engine, Incl'd w/Press Controller	1
437	0739224		Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	1
438	0549333		Indicators, Engine, Included with Pressure Controller	1
439	0745568		Indicator Light, Pump Panel, Ok To Pump, Green	1
440	0005602		Indicator, Low Fuel w/ Alarm	1
441	0069390		Control, Air Horn At Pmp Pnl, Red Button	1
442	0723480	SP	Tag, Special Wording, Foam/Water Tank Capacity Location - Provide a tag next to the water level gauge Qty, - 01	1

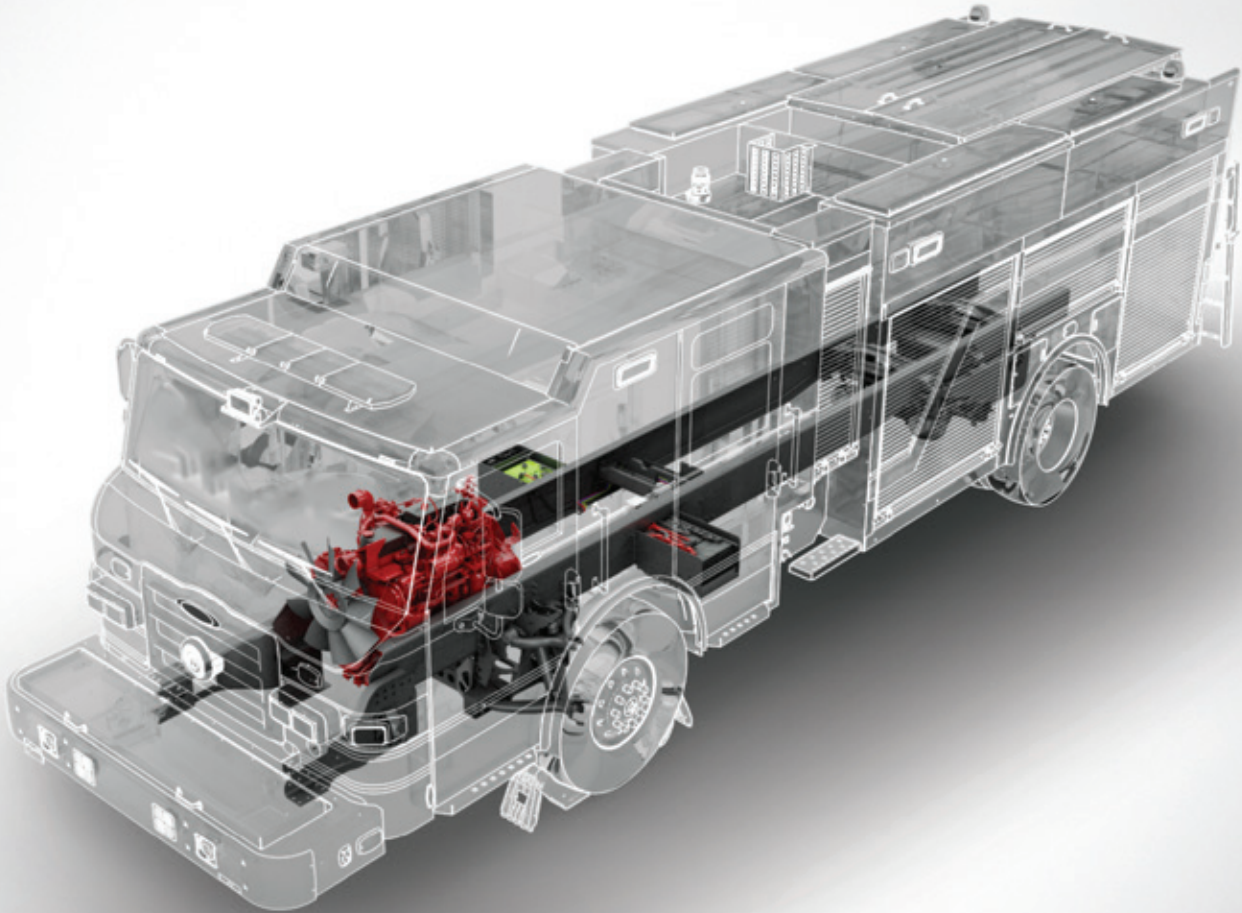
Line	Option	Type	Option Description	Qty
442			Fill in Blank - water tank capacity 500 gallons	
443	0677894		Gauges, 4.50" Master, Class 1, Special, LED	1
			Gauge Pressure Range - 30"-0-600 psi Light,Class One, Pressure - Red LED	
444	0677881		Gauge, 2.50" Pressure, Class 1, Special, LED	13
			Qty, Gauges/Disc. - 13 Gauge Pressure Range - 30"-0-400 psi Light,Class One, Pressure - Red LED	
445	0757359		Gauge, Water Level, Class 1, Remote Module Driver	1
			Activation, Water Level G - pb) parking brake is applied	
446	0750438		Water Level Gauge, WIn PSTANK2, LED 1-Light, 4-Level	3
			Qty, - 03 Activation, Water Level G - pb) parking brake is applied Location, Water Level Gauge, Multi-Select - Each Side Custom Cab & Rear Body and LS Body Rear Bulkhead Color, Trim - Chrome Trim	
447	0006774		Not Required, Foam Level Gauge	1
448	0682503		Light Shield/Step 8", LED, P25 LED Stp Lt	1
449	0606694		Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	1
450	0606834		Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	1
451	0757092		Control, Air Horn, Multi Select	1
452	0893652	SP	Control, Air Horn, Ft Sw, LS, Interlocked	1
			Control, Interlocks - E Master On	
453	0745090	SP	Control, Air Horn, Ft Sw, RS, Emaster	1
454	0757084		Control, Air Horn, Horn Ring	1
455	0525667		Siren, WIn 295SLSA1, 100 or 200 Watt	1
456	0047779		Location, Elect Siren, Recessed In Switch Panel	1
			Location - easy reach from the driver's position	
457	0076156		Control, Elec Siren, Head Only	1
458	0601302		Speaker, (1) WIn, SA315P, 100 watt	1
			Connection, Speaker - siren head	
459	0601555		Location, Speaker, Frt Bumper, Recessed, Left Side, Outside Frame,Outbrd (Pos 7)	1
460	0895310		Siren, Federal Q2B	1
			Finish, Q2B Siren - Chrome	
461	0006095		Siren, Mechanical, Mounted Above Deckplate	1
			Location, Siren, Mech - a) Left	
462	0748305		Control, Mech Siren, Multi Select	1
463	0896207	SP	Control Mech Siren, Ft Sw RS, E-Master	1
464	0896209	SP	Control Mech Siren, Ft Sw LS, E-Master	1
465	0740391		Sw, Siren Brake, Momentary Chrome Push Button, RS	1
466	0746353		Not Required, Warning Lights Intensity	1
467	0744042	SP	Lightbar, WIn, Freedom IV-D, 92", RRRR_WR_RWStrWR_RW_RRRR	1
			Filter, Whl Freedom Ltbrs - Colored Filters	
468	0790846		Power Supply, WIn PE215 Traffic Light Controller, Single Strobe Tube	1
			Opticom Priority - b) High Opticom Activation - Cab Switch & E-Master Momentary Opticom Activation - No Activation	
469	0898734		Light, Front Zone, WIn M6** M6** M6** M6** Q Bzl	1
			Color, Lens, LED's - Colored Color, Lt DS Frnt Outside - Left Red Color, Lt PS Frnt Outside - Right Red Color, Lt DS Front Inside - Left Red Color, Lt PS Front Inside - Right Red Color, Q Bezel and Trim - Polished Chrome	
470	0799987		Lights, Side Zone Lower, WIn M6V2**, M6**, M6V2** 6lts	1
			Location, Lights Front Side - b)each side bumper Color, Lens, LED's - Match Color, Lt Side Front - Red Color, Lt Side Middle - Red Color, Lt Side Rear - Red Control, Scene Lts - Directional Light and Perimeter light Location, Lights Mid Side - Rearward of Crew Cab Doors Location, Lights Rear Side - Over Rear Wheels	

Line	Option	Type	Option Description	Qty
471	0895614		Lights, Door Interior Flash, 4 Dr Cab, WIn TLI** Color, Lens, LEDs - Clear Color, Trim - Black Trim Control, Door Int Flash - None (Doors only) Location, Light, Door Int Flash - Low and Outside Color, Lt Cab Left - Amber Flashing Color, Lt Cab Right - Amber Flashing Color, Lt Crew Cab Left - Amber Flashing Color, Lt Crew Cab Right - Amber Flashing Mount, Hardware, Lights - Standard Hardware	1
472	0815847		Connectors, Door Interior Flash, All Cabs, Weatherproof	1
473	0892175	SP	Lights, Side, WIn VTX609* LED Location - install on the exterior of the lift-up doors above the pump panel, each side Qty, - 02 Color, Lights, Warning - d) blue Control, Light - d) separate switch Color, Trim - Chrome Trim	2
474	0613817	SP	Lights, Door Exterior Flash, Compt, Truck-Lite 33050R LED Location, Lights - on the lift up door to the cargo and booster hose area. Wired to the switch for this lift up door. Qty, - 02	2
475	0759142		Lights, Rear Zn Lwr, WIn M6*, Color, Lens, LED's - Colored Color, Lt DS Rear - Left Amber Color, Lt PS Rear - Right Amber	1
476	0006700		Mounting, Lights, Recess In Rear Bulkhead (pair) Location - rear warning Qty, Lights, Pair - 2	2
477	0636558		Light, Rear Zone Up, WIn L31H*F LED Beacon Color, Lens, LED's - m)match LED's Color, Beacon, DS LED's - Amber Color, Beacon, PS LED's - Red	1
478	0558774		Light, Rear Zone Up Block, WIn M6* LED, Colored Lens Location, Lights - high on the rear bulkheads Color, Light - ai) red/red Flange Kit - w/o) with out flange Control, Light - a) rear upper warning	1
479	0025876		Mounting, Rear Warn Lights, LS S/S to Match RS, RS - S/S Ladder Lock Enclosed	1
480	0720980	SP	Light, Traffic Directing, WIn TADF6, TDP60000 34" Long RA LED, Emas Warn 4Sw	1
481	0529860		location, TDL, Surface Mounted Over Rear Door	1
482	0530564		Location, Traf Dir Lt Control Switches, Overhead Sw Panel, DS Right End	1
483	0781579		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Cab Qty, - 01 Location 1 - EMS compartment to the rear of the driver's seat AC Power Source - Shoreline Cover, Receptacle - Interior, Flip Up Duplex Cover(s)	1
484	0779722		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body Qty, - 03 Location 1 - LS3 front wall high, LS2, front wall, RS1 front wall high AC Power Source - Shoreline Cover, Receptacle - Exterior Gray Flip Up Cover(s)	3
485	0519934		Not Required, Brand, Hydraulic Tool System	1
486	0649753		Not Required, PTO Driven Hydraulic Tool System	1
487	0007150		Bag of Nuts and Bolts Qty, Bag Nuts and Bolts - 1	1
488	0816508		NFPA Required Loose Equipment, Pumper, NFPA 2024, Provided by Fire Department	1
489	0816941		Soft Suction Hose, Provided by Fire Department, NFPA 2024	1
490	0027023		No Strainer Required	1
491	0816939		Extinguisher, Dry Chemical, NFPA 2024, Provided by Fire Department	1
492	0816937		Extinguisher, 2.5 Gal. Pressurized Water, NFPA 2024, Provided by Fire Department	1
493	0816998		Axe, Flathead, Provided by Fire Department	1
494	0817000		Axe, Pickhead, Provided by Fire Department	1

Line	Option	Type	Option Description	Qty
495	0741569		Paint Process / Environmental Requirements, Appleton	1
496	0709763		Paint, Single Color, Velocity/Impel	1
			Paint Color, Cab - red #213	
497	0709845		Paint, Single Color, Body	1
			Paint, Body - Match Lower Cab	
498	0646897		Paint Chassis Frame Assy, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Standard Black	
499	0693797		No Paint Required, Aluminum Front Wheels	1
500	0693792		No Paint Required, Aluminum Rear Wheels	1
501	0733739		Paint, Axle Hubs	1
			Paint, Axle Hub - Lower Job Color	
502	0753821		Coating, Safe-Stride, Running Board	1
			Color, Safe-Stride - Black	
503	0778019	SP	Coating, Safe-Stride, Black, Hose Tray Cover	1
			Location - front bumper	
			Qty, - 01	
504	0778038		Coating, Safe-Stride, Black, Bumper Gravel Pan	1
505	0620095		Paint, Drip Rail, Cab	1
506	0788880		Coating, Safe-Stride, Black, Tailboard	1
507	0007230		Compartment, Painted, Spatter Gray	1
508	0544099		Reflective Band, 8"	1
			Color, Reflect Band - A - e) black	
509	0510041		Reflective across Cab Face, Imp/Vel	1
510	0536954		Stripe, Chevron, Rear, Diamond Grade, Pumper	1
			Color, Rear Chevron DG - yellow	
511	0630541		Laminate Reflective Stripe	1
			Location - entire length of the stripe	
512	0011949		"S" Ribbon, Shaded in Reflective Stripe, Pair	1
			Location - on LS3 and RS3	
			Qty, - 1	
513	0821269	SP	Stripe, 0.50", Silver, Vinyl on Reflective Band, One @ Top & One @ Bottom	1
514	0567374		Stripe, Black Outline each Chevron Stripe @ Rear (Not Warranted)	1
515	0587074		Stripe, .25" Black Vinyl on Interior Cab Door Chevrons	1
516	0667282		Stripe, Reflective, Chevron, Hydraulic Ladder Rack Arm, Rear Only	1
517	0509398		Stripe, Reflective, Chevron, Cab and Crew Cab Doors Interior	1
			Color, Reflect Band - B - p) black	
			Size, Chevron Striping - 04	
			Color, Reflect Chev - A - c) ruby red	
518	0027372		Lettering Specifications, (GOLD STAR Process)	1
519	0686434		Lettering, Gold Leaf, 3.00", (21-40)	1
			Outline, Lettering - Outline and Shade	
520	0686256		Lettering, Gold Leaf, 4.00", Each	4
			Qty, Lettering - 04	
			Outline, Lettering - Outline and Shade	
521	0686042		Lettering, Reflective, 2.00", Each	3
			Qty, Lettering - 03	
			Outline, Lettering - Outline and Shade	
522	0686236		Lettering, Gold Leaf, 5.00", Each	2
			Qty, Lettering - 02	
			Outline, Lettering - Outline and Shade	
523	0685978		Lettering, Reflective, 18.00", Each	1
			Qty, Lettering - 01	
			Outline, Lettering - Outline and Shade	
524	0526776	SP	Emblem/Logo, Pair, Olympia Fire Department	1
525	0526777	SP	Emblem, Pair, Seal, Olympia Fire Department	1
526	0684225		Emblem, Maltese Cross, Printed Effect Gold Leaf, 9"-11", Pair	1
			Qty, - 01	
			Location, Emblem - behind the crew cab window	
527	0759630	SP	Emblem, American Flag & Numeral (1) w/Outline, Painted on Cab Grille, Custom Cab	1
528	0772003		Manual, Fire Apparatus Parts, USB Flash Drive, Custom	1
			Qty, - 01	

Line	Option	Type	Option Description	Qty
529	0772037		Manual, Chassis Service, USB Flash Drive, Custom Qty, - 01	1
530	0773381		Manual, Chassis Operation, (1) USB Flash Drive, Custom	1
531	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
532	0611136		Warranty, Chassis, 3 Year, Velocity/Impel, WA0284	1
533	0696698		Warranty, Engine, Cummins, 5 Year, WA0181	1
534	0684953		Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	1
535	0595767		Warranty, Frame, 50 Year, Velocity/Impel, WA0038	1
536	0595698		Warranty, Axle, 3 Year, TAK-4, WA0050	1
537	0733306		Warranty, Single Axle, 5 Year, Meritor, General Service, WA0384	1
538	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
539	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
540	0744240		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
541	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
542	0695416		Warranty, Pierce Camera System, WA0188	1
543	0708760		Warranty, Not Applicable, LED Strip Lights	1
544	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1
545	0685945		Warranty, Transmission Cooler, WA0216	1
546	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
547	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
548	0693126		Warranty, AMDOR, Roll-up Door, 10 Year/5 Year Painted, WA0185	1
549	0734463		Warranty, Pump, Waterous, 7 Year Parts, WA0382	1
550	0648675		Warranty, 10 Year S/S Pumbing, WA0035	1
551	0641372		Warranty, Foam System, Not Available	1
552	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
553	0595421		Warranty, Goldstar, 3 Year, Apparatus, WA0018	1
554	0819254		Certification, Vehicle Stability, CD0196	1
555	0808577		Certification, Engine Installation, Velocity, Cummins X15, 2027	1
556	0686786		Certification, Power Steering, CD0098	1
557	0892701		Certification, Cab Integrity, Impel/Velociry FR, CD0190	1
558	0548950		Certification, Cab Door Durability, Velocity/Impel, CD0001	1
559	0548967		Certification, Windshield Wiper Durability, Impel/Velociry, CD0005	1
560	0667411		Certification, Electric Window Durability, Velocity/Impel FR, CD0004	1
561	0549273		Certification, Seat Belt Anchors and Mounting, Imp/Vel/Vel SLT, CD0018	1
562	0735950		Certification, Cab HVAC System Perf, Vel/Imp FR, CD0166/CD0168/CD0176/CD0177	1
563	0545073		Amp Draw Report, NFPA Current Edition	1
564	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
565	0799248		Appleton/Florida BTO	1
566	0000018		PUMPER, 2ND GEN	1
567	0000012		PIERCE CHASSIS	1
568	0004713		ENGINE, OTHER	1
569	0046396		EVS 4000 Series TRANSMISSION	1
570	0020011		WATEROUS PUMP	1
571	0020009		POLY TANK	1
572	0028047		NO FOAM SYSTEM	1
573	0020006		SIDE CONTROL	1
574	0020007		AKRON VALVES	1
575	0020015		ABS SYSTEM	1
576	0658751		PUMPER BASE	1

IDLE REDUCTION TECHNOLOGY



LESS NOISE. FEWER EMISSIONS. MINIMAL FUEL. AND NO ENGINE POWER.

Perform on and off the scene, in open and closed spaces, with less wear on firefighters and the truck. Pierce® Idle Reduction Technology pairs automatic diesel engine controls with high-performance lithium-ion and lead-acid batteries.

Power NFPA 1901 required devices, user-defined mission critical on-scene loads, and HVAC climate control with the main chassis engine shut down with one hour of run time at 150 amps. Featuring built-in safety interlocks and Pierce Command Zone™ auto-start for battery power monitoring and engine re-start, departments can work more safely and efficiently without a second thought.

Pierce Idle Reduction Technology is an option on new apparatus and available as an aftermarket solution.



Lithium-ion batteries



Command Zone screen

Components

Lithium-ion batteries for performance, lead-acid batteries for vehicle startup, and Pierce Command Zone Multiplexed Electrical System for control

Touchscreen Display

Command Zone required to activate or deactivate system

Safety Interlocks

Automatic Idle Reduction System activates when the following conditions are satisfied for 5 minutes:

- Cab is lowered & locked
- Battery & ignition are on
- Vehicle is running
- Pump is not engaged
- Chassis park brake is set
- Transmission is in neutral

Battery Charging

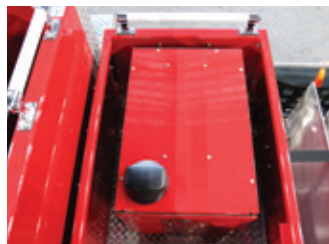
Via chassis while operating or dedicated 30 amp power drop at the station

Efficiencies

- Less engine wear
- Lower fuel & DEF fluid usage
- Reduced soot buildup from idling
- Less frequent service intervals
- Lower total cost of ownership

Emissions Control

Zero chassis emissions when operating under lithium-ion power



Aftermarket unit



Aftermarket switch panel

Aftermarket Solution

The system can be added to vehicles already in service with a unit that is mounted in the cargo area.

Instead of Command Zone, the system is controlled by a switch panel in the cab.

www.piercemfg.com




Pierce Manufacturing Inc., An Oshkosh Corporation Company
P.O. Box 2017, Appleton WI 54912-2017 USA

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Exhibit F2

Oshkosh Corporation Classification - Restricted

		CONTRACT PRICING WORKSHEET	
		Contract No.	Date Prepared
		#113021-OKC-1	3/8/2024
Buying Agency:	City of Olympia	Dealer:	Hughes Fire Equipment
Contact Person:	Mark Rains	Sales Rep:	Andy Klein
Member Number:	2366	Phone:	541-747-0072
Phone:	360-753-8453	Email:	aklein@hughesfire.com
Email:	mrains@ci.olympia.wa.us	Pierce Bid #:	AK1075
Base Spec.			
Sourcewell ID #	Description:	Published Contract Price	
259	Enforcer Pumper, Custom chassis,152" 2nd Gen, Medium	\$	645,847.29
Removed Options from Base Spec.			
Notes: (do not list options removed)		Before Discount Price	
<i>If audited by Sourcewell be prepared to show detail.</i>		\$	38,604.83
<i>With Pierce Discount (5.5%)</i>		\$	36,481.56
Added Options to Base Spec.			
Notes: (do not list options added)		Before Discount Price	
<i>If audited by Sourcewell be prepared to show detail.</i>		\$	680,410.34
<i>With Pierce Discount (5.5%)</i>		\$	642,987.77
Qty	2	Subtotal (Base Spec+Added/Removed Options)	\$ 2,504,707.00
Other Expenses			
Description	Price		
Customer Travel	\$	19,200.00	
Transportion	\$	11,000.00	
Performance Bond	\$	8,194.00	
Taxes	\$	231,427.16	
	\$	-	
Total Other Expenses	\$	269,821.16	
Discounts			
Description	Price		
Prepayment Discounts	\$	157,254.00	
	\$	-	
	\$	-	
Total Discount	\$	157,254.00	
Total Purchase Price (matches customer PO)		\$	2,617,274.16

Bid 1075: Olympia Pumper 2024

Sourcewell 259 - Enforcer Pumper - 1250GPM - 152" 2nd Gen

Pulse # 1	Option Description 1	Pulse # 2	Option Description 2	Additions	Subtractions
0082910	Drawing, Compartment Layout, Standard Pumper Body			907.24	-
0745732	Drawing, Cab Cabinets, 3D View			1,060.44	-
0002928	Electrical Diagrams	0076695	Electrical Diagrams, (1) Paper Copy & (1) CD copy	-	(31.71)
0564202	Velocity Chassis (Big Block), 2010	0649754	Enforcer Chassis	62,974.19	-
0000203	Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	0649713	Frame Rails, 10.25" x 3.50" x .375", Saber FR/Enf	1,259.46	-
0508849	Axle, Front, Oshkosh TAK-4, Non Drive, 22,800 lb, Imp/Vel	0635815	Axle, Front, Dana, D-2000F, 18,000 lb Saber FR/Enforcer	-	(11,989.95)
	Suspension, Front TAK-4, 22,800 lb,		Suspension, Front, Standens, Taper Leaf, 18,000 lb, Saber		
0010427	Qtm/AXT/Imp/Vel/Enf/SFR	0637879	FR/Enforcer	34,812.67	-
0804559	Tires, Front, Michelin, XZE (wb), 425/65R22.50, 20 ply	0582936	Tires, Front, Goodyear, G289 WHA, 315/80R22.50, 20 ply	2,363.14	-
			Wheels, Front, Accuride, 22.50" x 9.00", Steel, Hub Pilot,		
0019611	Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	0789277	315/80R, 5.25" Inset	3,099.97	-
0530466	Axle, Rear, Meritor RS26-185, 27,000 lb, Imp/Vel	0728303	Axle, Rear, Dana S23-172, 24,000 lb, Saber/Enforcer	5,027.79	-
0010556	Suspen, Rear, Reyco, Spring, 27,000 lb	0565379	Suspen, Rear, Single Slipper Spring, 24,000 lb, Saber/Enforcer	1,563.09	-
0070728	Tires, Rear, Michelin, XDN2, 12R22.50, 16 ply, Single	0587216	Tires, Rear, Goodyear, G622 RSD, 12R22.50, 16 ply, Single	3,462.90	-
	Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot,				
0019625	Single	0654806	Wheels, Rear, Accuride, 22.50" x 8.25", Steel, Hub Pilot, Single	3,996.06	-
0779879	Tire Balancing, All, Single Axle, Inside Wheel Weights	0568081	Tire Balancing, Counteract Beads	506.99	-
0801909	Lug Nut, Covers, Chrome			172.91	-
0003245	Axle Hub Covers w/center hole, S/S, Front Axle	0057936	Covers, Lug Nut, Chrome	-	(11.05)
0003240	Axle Hub Covers, Rear, S/S Baby Moon (Pair)			173.52	-
0002045	Mud Flap, Front and Rear, Pierce Logo			838.66	-
			Chocks, Wheel, Pumper, NFPA, Provided by Fire Department,		
0544802	Chocks, Wheel, SAC-44-E, Folding, (Up to 44" Diameter Tires)	0602478	NFPA 2016	1,574.20	-
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	0544690	Mounting Brackets, Chocks, Provided by Fire Department	1,099.85	-
	ESC/ABS/ATC Wabco Brake System, Single Rear Axle, NFPA				
0820509	1900	0010670	ABS Wabco Brake System, Single rear axle	3,958.17	-
0030185	Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	0690932	Brakes, Bendix, ADB-22X, 17" Disc, Front	-	(883.87)
			Air Dryer, Wabco System Saver 1200 IWT, Heated, 10" Frame,		
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	0644228	Standen, SFR/Enf	65.75	-
0000854	Air Inlet, w/Disconnect Coupling	0000854	Air Inlet, w/Disconnect Coupling	5.87	-
0000845	Air Tank, Additional for Extra Capacity			532.60	-
0891350	Compressor, Air, Kussmaul 091-9B-4, 120V Brake System			1,313.57	-
0633303	Cover, Air Compressor, Protection, Ventilated Alum. Painted			353.08	-
0723071	Brake Lock, United Safety, Security Only, Override not Labeled			3,653.62	-
0055486	Drain, Remote Air Tank, w/Pull Cable, All Tanks			919.40	-
	Engine, Cummins X15, 565 hp, 1850 lb-ft, W/OBD, EPA 2027,		Engine, Cummins L9, 400 hp, 1250 lb-ft, W/OBD, EPA 2021,		
0808499	Velocity	0736450	Saber FR/Enforcer	129,437.51	-
0730808	Filters, Remote Mounted, Oil, Fuel, X15, VEL/AXT/Enf			3,613.53	-
0820303	Not Required, High Idle w/Electronic Engine, Custom	0001244	High Idle w/Electronic Engine, Custom	2.11	-
	Idle Reduction, Battery Management System, BMS, Lithium,				
0729212	IRT			14,186.39	-
	Idle Reduction, Lithium, Engine Auto Shut Down 5 min. and				
0729210	Auto Start			9,853.18	-
0552334	Clutch, Fan, Air Actuated, Horton Drive Master	0644227	Clutch, Fan, Air Actuated, Saber FR/Enforcer	-	(491.63)
	DEF Tank, 4.5 Gallon, DS Fill, Rear of Axle, Common Air Bottle				
0662965	Door	0595087	DEF Tank, 4.5 Gallon, DS Fill, Forward of Rear Axle	282.05	-
0582243	Shutoff Valves, Fuel Line @ Primary Filter, Cummins	0552712	Not Required, Shutoff Valve, Fuel Line	439.89	-
0578959	Fuel/Water Separator, Racor Inline	0690880	No Selection Required From This Category	650.68	-
			Trans, Allison 5th Gen, 3000 EVS P, w/Prognostics,		
0801886	Trans, Allison 6th Gen, 4500 EVS P, Imp/Vel/Enf	0642572	Imp/Vel/DCF/SFR/Enf	20,675.06	-
0001375	Driveline, Spicer 1810	0001370	Driveline, Spicer 1710	39.60	-
0509230	Steering Wheel, 4 Spoke without Controls	0605356	Steering Wheel, 4 Spoke without Controls, Saber FR/Enforcer	-	(3,287.82)
0123625	Bumper, 19" Extended, Imp/Vel	0606569	Bumper, 10" Extended, S/S, Saber FR/Enforcer	263.09	-
0616492	Tray, Hose, Center, 19" Bumper, Outside Air Horns, Imp/Vel			515.72	-
0630813	Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray			761.54	-
	Tow Eyes, 1" Rd Bar, 4" Diameter Chromed, Through Bumper				
0534715	Face	0002270	Tow Hooks, Chrome	1,303.63	-
0668315	Cab, Velocity FR, 7010 Raised Roof	0648332	Cab, Enforcer, 7010	-	(1,984.45)
0677477	Rear Wall, Exterior, Cab, Brushed Stainless Steel	0632103	Rear Wall, Exterior, Cab, Saber FR/Enforcer	270.44	-
	Cab Lift, Elec/Hyd, w/Manual Override, Unlocked Ind Light,				
0199683	Imp/Vel	0644201	Cab Lift, Elec/Hyd, Saber FR/Enforcer	382.79	-
0002224	Scuffplates, S/S At Cab Door Jamb, 4-Door Cab			997.71	-
0596406	Scuffplate, L-Shaped, Seat Riser, Crewcab, Vel/Imp/AXT			354.40	-
			Not Required, Trim, S/S Band, Across Cab Face,		
0527032	Trim, S/S Band, Across Cab Face, Rect Lights, Velocity	0647932	AXT/Saber/Enforcer	346.99	-
	Mirror, 8.00" Convex, Round, Cab Front, Front Cross View,				
0663040	Heated			477.69	-

0655511	Door Panel, Brushed Stainless Steel, Impel/Velocity 4-Door Cab	0655543	Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	468.75	-
0784477	Electric Door Locks, Cab Doors, Cabinet Ext Doors, Conceal Switch Loc, Imp/Vel			2,288.39	-
0732495	Steps, 4-Door Cab, Dual, Safe-Stride, Imp/Vel	0638310	Steps, 4-Door Cab, Saber FR/Enforcer	2,788.68	-
0770200	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door Cab	0770194	Handrail, Exterior, Knurled, Alum, 4-Door Cab	983.00	-
0892637	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 1Lt Per Step	0634786	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	-	(89.59)
0005772	Fenders, S/S on cab, w/Radius corner, 2.00" wide	0002141	Fenders, s/s on cab - Saber/Enforcer	276.13	-
0586967	Grab Handle, Chrome, Specify Location, Qty			141.96	-
0586968	Handrail, Interior, Crew Cab Doors, Angled			654.74	-
0592071	No Windows, Side of Crew Cab, Vel/Imp	0637984	Window, Side of C/C, Fixed, Saber FR/Enforcer	-	(151.66)
0617823	Compt, Storage, 10.71 W x 19.25 H x 22 D, (1) Ea Side C/C, Mini D-Ring, Imp/Vel			1,403.72	-
0123686	Drip Rail, Cab Roof, Impel/Velocity/Velocity SLT			414.13	-
0664465	Bracket, Air Bottle, Hands-Free II			1,028.47	-
0728434	Work Surface, 3/16" Alum, Engine Tunnel, Size, Lip, Location, Vel/Imp			539.80	-
0052101	Floor, Alum Cab & Crew Cab, AXT/Imp/Vel/Dash CF, CARE	0052100	Floor, Rubber Padded, Cab & Crew Cab, Saber/Enforcer	679.61	-
0741239	HVAC, Heavy-Duty, Impel/Velocity FR, CARE	0722696	HVAC, Standard-Duty, Enforcer, CARE	1,771.37	-
0092424	Grab Handles, Driver & Officer Door Post	0634328	Grab Handles, Driver and Officer Door Posts, Saber FR/Enforcer	280.68	-
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 35COCDRCR, 3" LED, Trim	0002526	Light, Engine Compt, All Custom Chassis	251.50	-
0002505	Map box, 3 bin, Open from Top, Custom Chassis			648.28	-
0608345	Map Pocket, S/S, 10.50" W x 10.00" H x 1.00" D			541.79	-
0583042	Side Roll and Frontal Impact Protection	0583039	Not Required, Side Roll and Frontal Impact Protection	13,984.56	-
0764478	Seat, Driver, USSC, Valor, P1A, Air Ride, I-Back, Safety, PRIMARY	0636957	Seat, Driver, Pierce PSV, Air Ride, High Back, PRIMARY, SFR/Enf	-	(42.96)
0797631	Seat, Officer, USSC, Valor, P1A, Air Ride, SCBA, Safety, PRIMARY, Imp/Vel	0636946	Seat, Officer, Pierce PSV, Fixed, SCBA, PRIMARY, SFR/Enf	457.22	-
0746565	Cabinet, Rr Fcng, LS, 24 W x 40.5 H x 24 D, Web, J-Hk,Ext Acc,Sp Mtg,Imp/Vel	0632852	Seat, Rr Fcng C/C, LS Otbrd, Pierce PSV, SCBA, PRIMARY, SFR/Enf	2,898.63	-
0821461	Cabinet, Rr Fcng, RS, 21.5 W x 40.5 H x 20 D, Web, Ext Acc, Sp Mtg, Imp/Vel	0632848	Seat, Rr Fcng C/C, RS Otbrd, Pierce PSV, SCBA, PRIMARY, SFR/Enf	3,371.34	-
0765312	Seat, Fwd Fcng C/C, Ctr, (2) USSC, Valor, SCBA, 95 D, Safety, SECONDARY	0632658	Seat, Fwd Fcng C/C, Ctr, (2) Pierce PSV, SCBA, SECONDARY, SFR/Enf	-	(112.15)
0761174	Seat, Fwd Fcng C/C, RS Otbrd, USSC, Valor, I-Back, Foldup, Safety, SECONDARY	0108190	Not Required, Seat, Forward Facing C/C, RS Outboard	2,875.36	-
0737622	Cabinet, Rear Facing, Top Eng Tnl, 43 W x 16 H x 18 D, Web, Sp Div, Imp/Vel			2,398.90	-
0765148	Cabinet Floor, Qty, False Floor			409.68	-
0752005	Lip, Top of Interior Cabinet, All Sides			204.84	-
0683732	Compt, Storage, Fwd Facing, Overhead, 74 W x 10 H x 14 D, Imp/Vel RR			1,565.56	-
0543991	Bracket, Air Bottle, Hands-Free II, Cab Seats	0065740	Bracket, Air Bottle, Zico, ULLH, Load & Lock, In Cab Seats	2,122.73	-
0604864	Seat Belt Height Adjustment, 5 Seats, Imp/Vel, Dash CF			345.27	-
0628472	Light, Map, Overhead, Peterson M371S LED, Rectangular w/Switch 2lts			217.18	-
0649587	Light, Map, Federal Littlite, LED, Gooseneck			788.60	-
0739629	Spotlight, Wln Arges, 2 Lights			3,126.59	-
0739628	Controller, Spotlight, Wln Arges Dash Mount, 2 Lt			523.51	-
0804719	Handlts, (4) Streamlight, Fire Vulcan, 44451, C4 LED, Tail Lts, 12v, Orange	0602637	Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016 Classification	1,775.52	-
0568369	Cab Instruments, Ivory Gauges, Chrome Bezels, Impel/Velocity 2010	0622803	Cab Instruments, Black Gauges, Black Bezels, Enforcer MUX	-	(461.22)
0002600	Ammeter, Cab Instrument Panel			462.71	-
0769384	Light, Do Not Move Apparatus, Wln M2B Blue LED, Non-NFPA 2016	0543751	Light, Do Not Move Apparatus	499.84	-
0555915	Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	0644179	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	296.81	-
0820894	Wiring, Spare, 15 A 12V DC, Batt Dir, 1st NFPA1900			138.56	-
0820897	Wiring, Spare, 15 A 12V DC, Batt Dir, 2nd NFPA1900			190.11	-
0820898	Wiring, Spare, 15 A 12V DC, Batt Dir, 3rd NFPA1900			138.56	-
0820904	Wiring, Spare, 15 A 12V DC 1st NFPA1900			824.10	-
0821191	Wiring, Spare, 20 A 12V DC, Batt Dir, 1st NFPA1900			190.11	-
0566101	Recess, Dash Panel, Officer Side, Vel/Imp			725.06	-
0819994	Radio, Jensen, AM/FM/WB, Bluetooth			1,808.85	-
0776464	Switches, Separate Visor Lt Control, Interlocked to High Beam, MUX, RS Sw, LS Sw			609.34	-
0814201	Vehicle Information Center, 7" Color Display, Touchscreen, MUX, CL714	0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	122.19	-
0606249	Vehicle Data Recorder w/CZ and Overhead Display Seat Belt Monitor	0606247	Vehicle Data Recorder w/CZ Display Seat Belt Monitor	420.26	-
0891613	Intercom, Setcom, Wireless, LiberatorMAX-16, Location			2,105.14	-

0746595	Cable, Radio to Intercom Interface, Setcom LiberatorMAX, 1 Radio			663.62	-
0891619	Headset, Setcom, CSB-900MAX-16, Wireless, Radio Transmit			2,898.50	-
0891618	Headset, Setcom, CSB-901MAX-16, Wireless, Intercom Only			4,347.37	-
0559156	Install Customer Provided Two-Way Radio(s)			1,309.81	-
0597940	Install Customer Provided Two-Way Radio Speaker(s)			169.01	-
0788631	Install Customer Provided GPS/Multimode Antenna(s), Location			1,056.26	-
0003757	Antenna, Std and Add'l Mts Only, 2-way Radio,Cust,Spl Cable Routing			451.81	-
0817058	Camera, Pierce, LS Mux, R Camera, SD, CL714			839.12	-
0896458	Pierce Command Zone, Advanced Electronics & Control System, Vel WiFi CZT	0796552	Pierce Command Zone, Advanced Electronics & Control System, Enforcer, Blk WiFi	-	(7,865.56)
0816093	ClearSky Telematics, Remote Fleet & On-scene Management, AT&T Commercial			1,404.16	-
0735191	Batteries, (3) Stryten/Exide Grp 31, 950 CCA ea, Threaded Stud, LS Bat Box	0079166	Batteries, (4) Stryten/Exide Grp 31, 950 CCA ea, Threaded Stud	-	(169.24)
0724049	Battery Charger/Converter, (2) PD2180, 80 Amp x 2, IRT	0036234	Receptacle, Battery Charging, Cab Step Area, Driver's Side	4,647.80	-
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super			749.11	-
0026800	Shoreline Location			132.30	-
0724036	Shoreline, IRT, 30A 120V, Kussmaul Auto Eject, 091-159-30-120, Super			1,060.04	-
0723255	Sub Feed Breaker Box, Cutler Hammer, For IRT Shoreline			549.31	-
0647728	Alternator, 430 amp, Delco Remy 55SI	0647729	Alternator, 320 amp, Delco Remy 40SI	890.22	-
0092582	Load Manager/Sequencer, MUX	0784767	Load Manager/Sequencer, MUX	-	(29.71)
0747306	Headlights, Rect LED, HiViz FT-4X6-4KIT, AXT/DCF/Enf/Imp/Sab/Vel Hi Lo Bm	0648596	Headlights, Rectangular Halogen, AXT/Dash CF/Saber/Enforcer	3,562.77	-
0816071	Light, Directional, Wln M62T, Cab Crn, Bezel, Imp/Vel	0648426	Light, Directional, Wln 60A00TAR Arrow, Common Bzl, Above Headlts,Sab/Enf	877.95	-
0768311	Light, Directional/Marker, Intermediate, Truck-Lite 30375Y Grm Mt LED 2lts	0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	70.06	-
0734710	Lights, Clearance/Marker, Side, Truck-Lite 35200Y 2 Lts, Others With Visor Lt	0647802	Lights, Clearance/Marker/ID, Front, P25 LED 5 Lts, Saber FR/Enforcer	83.77	-
		0647899	Lights, Directional/Marker, Cab Front Side, Weldon 9186-8580-29 LED, Sab/Enf	-	(69.08)
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	0090155	Lights, Clearance/Marker/ID, Rear, Truck-Lite 35200R LED 7Lts	7.39	-
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw For Hsg	0650675	Lights, Tail, Wln 60BTT* Red LED Stop/Tail & 60A00TAR Amb LED Dir For Housing	578.34	-
0806466	Lights, Backup, Wln M62BU, LED, For Tail Lt Housing	0797629	Lights, Backup, Wln 600, LED for Wln 3 & 4 Place Housing	275.41	-
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	0664481	Bracket, License Plate & Light, P25 LED	68.63	-
0556842	Bezels, Wln, (2) M6 Chrome Pierce, For mtg (4) Wln M6 lights	0743554	Bezels, Wln, (2) CAST4V, For Mtg (4) 600 Lts	-	(1,260.04)
0817254	Lights, Perimeter Cab, Amdor AY-LB-12HW0** LED 4Dr	0758572	Lights, Perimeter Cab, CLC-1049-12-AL LED 4Dr	217.01	-
0769572	Lights, Perimeter Pump House, Amdor AY-LB-12HW020 LED 2lts	0758563	Lights, Perimeter Pump House, CLC-1049-12-AL LED 2lts	85.27	-
0770056	Lights, Perimeter Body, Amdor AY-LB-12HW020 LED 2lts, Rear Step	0758585	Lights, Perimeter Body, CLC-1049-12-AL LED 2lts, Rear Step	303.35	-
0769570	Lights, Perimeter, Amdor AY-LB-12HW020 20", Brkt			1,326.96	-
0556360	Lights, Step, P25 LED 4lts, Pump Pnl Sw	0556337	Lights, Step, P25 LED at Rear Tailboard, 2lts Perm Lts	6.63	-
0892654	Light, Step, Additional, P25 LED			166.60	-
0657818	Lights, Side Scene, Wln, PEL*C LED 1st			1,448.29	-
0741463	Light, Extruded Brow, HiViz FT-BG2-R275C-80-ML-*, 80", Sw Fet			9,331.73	-
0756033	Lights, HiViz FT-MB-15-*-* 19.77", 1st			2,539.18	-
0756032	Lights, HiViz FT-MB-15-*-* 19.77", 2nd			2,539.18	-
0740585	Lights, HiViz FT-MB-15-*-* 19.77", 1st			3,848.45	-
0890894	Lights, HiViz FT-MB-15-*-* 19.77", 2nd			3,848.45	-
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	0657535	Lights, Work, (2) Wln PEL*C LED, w/Alternative Hose Bed Lights	-	(539.21)
0893593	Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips	0645877	Lights, Hose Bed, Sides, Dual LED Light Strips	55.28	-
0645637	Lights, Rear Scene, Wln, PEL*C LED, 45 Deg Flange			1,666.35	-
0733247	Lights, Rear Scene, HiViz FT-GESM*, Surface Mt			1,815.90	-
0638557	Switch, Master, 12 Volt Scene Lights			464.53	-
0028244	Tank, Water, 500 Gallon, Poly, Med	0028245	Tank, Water, 750 Gallon, Poly, Med	-	(1,816.86)
0633066	Sleeve, Through Tank	0633066	Sleeve, Through Tank	506.35	-
0083488	Divider, Hose Bed, .25" Unpainted	0003488	Divider, Hose Bed, Unpainted	2,589.75	-
0805760	Cover, Hose Bed, Alum Treadplate			8,094.98	-
0807353	Hose Restraint, Hose Bed, Vinyl, Rear, Separate From Top, Split 2-Sec			917.65	-
0767150	Compt, Storage, Front of Hose Bed, Top Door	0589278	Hose Restraint, Hose Bed, Velcro Strap on Top, 2" Heavy Nylon Web at Rear	1,057.00	-
0520829	Deflector, Hose, Rear Base of Hose Bed, 4-way 3/16" Treadplate			539.77	-

0097956	Hose Tray, Poly, Removable, Hose Bed, Deluxe			2,084.37	-
0065896	Partition, Hose Bed, Front Sheet to Cross Divider			339.83	-
0649080	Gas Cylinders, 180 lb, Aluminum Hose Bed Cover			132.56	-
0740286	Lettering, Hose Bed Rear Flap, Reflective			97.82	-
0695399	Running Boards, 14.75" Deep, Front and Rear 45 Degree Corners	0013512	Running Boards, 12.75" Deep	132.56	-
0678627	Tailboard, 18" & 8" Deep, T-Shaped, Angled Corners	0689621	Tailboard, 16" Deep	1,768.89	-
0889214	Tow Eyes, w/Tow Bar, 2G Pumper	0003531	Tow Bar, Under Tailboard	4.45	-
0042711	Cover, Run Board Tray, Alum 4-Way, Removable			607.20	-
0695615	Tray, Hose, Running Board, Free Floating, Taped Both Corners, 20' of 5"			1,867.75	-
0525533	Engineer Compt, Full-Width, 20" W x 38.0" H x 26.5" Deep, Lap Door			6,334.12	-
0063610	LS 152" Lap, Full Height Front & Rear, FDLER	0083650	LS 152" Rollup, Full Height Front & Rear	1,724.06	-
0063624	RS 152" Lap, Full Height Front & Rear, FDLER	0083657	RS 152" Rollup, Low	6,764.64	-
0073700	Compt, Rear, Rollup, 37.75" FF, 31.88" D	0083700	Compt, Rear, Rollup, 37.75" FF, 25.88" D	2,694.31	-
0594003	Door, Amdor, Rollup, Rear Compartment	0692746	Door, Gortite, Rollup, Rear Compartment	168.94	-
0053189	Scuffplate, S/S, Lower Extended Beavertail, Inside Corner			415.44	-
0509866	Scuffplate, Front Bulkheads, Brushed S/S IPO Alum Treadplate			368.87	-
0615721	Scuffplate, S/S Under Fuel Fill Door, Qty			482.94	-
0062742	Compartment Door(s), Open Past 90 Degrees			33.14	-
0019845	Guard, Drip Pan, S/S, Rollup Door			197.62	-
0003915	Keyed Locks for Latches, Lap Doors (#751 Lock to Match Cab)			882.20	-
0731558	Pull Strap for Liftup Doors			183.16	-
0003919	Reverse Hinge Compartment Door			366.31	-
0004010	Scuffplate, Polished S/S Bottom of Door Frame			1,580.92	-
0004012	Scuffplate, Polished S/S, Inside Each Compartment Door			3,152.19	-
0659353	Lights, Compt, Amdor AY-9220 LED, Dual Lt Strip	0616670	Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	1,895.72	-
0692633	Lights, Truck-Lite 44308C, LED Grommet Mt Additional, Dual Lt			862.88	-
0687146	Shelf Tracks, Painted	0687139	No Shelf Tracks Required	1,298.95	-
0600350	Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations			3,325.72	-
0559456	Tray, 500 lb Slide-out, 2" Sides - Adj. Height, Full Width			1,530.58	-
0728451	Tray, 500 lb Slide-out, Adj. Height, High/Special Side Ht, Max Width/Depth			2,045.83	-
0609657	Bar, Single Hand Operation, Slide-Out Tray			522.69	-
0608086	Tray, Floor Mounted, Slide-Out, FW/32.50"D, Low/Spcl Sides, Latch Access, 3/16", 2G			1,722.71	-
0647091	Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides			1,164.75	-
0708751	Tray, Floor Mounted, Slide-Out, Side Slide, FW/32.50"D, Low/Spcl Sides, Latch, 3/16"			1,788.99	-
0540317	Toolboard, Swing-out, Alum, .188", Peg Board			3,056.14	-
0726441	Partition, Trans Rear Compt			655.51	-
0726403	Partition, Vertical Compt, Special Height			2,496.70	-
0004000	Matting, Vin-A-Grip in Compartment			3,754.69	-
0659095	Pegboard, 3/16" Aluminum, Back Wall Compartments, w/Track			1,542.41	-
0516612	Recess, Blister, Compt Wall			528.49	-
0064190	Ventilation System, Compartment			4,942.78	-
0621021	Handrails, Side Pump Panels, Per Print, Hansen Knurled Alum Tubing, LED Backlit	0626229	Handrails, Side Pump Panels, Per Print	761.72	-
0625975	Handrails, Beavertail, Hansen Tubing, Knurled Aluminum, LED Backlit	0004126	Handrails, Beavertail, Standard	668.62	-
0625966	Handrail, Rear, Below Hose Bed, Full Width, Hansen, Knurled Aluminum LED Backlit	0004146	Handrail, Rear, Below Hose Bed, Full Width	881.96	-
0609286	Handrail, Extra - 15-20" Long, Hansen Tubing, Knurled Aluminum LED Backlit			1,565.21	-
0614589	Handrail, Extra - 10" Long, Hansen Tubing, Knurled Aluminum LED Backlit			524.69	-
0816729	Compt, Extinguisher (2) Fender Panel, Triangular Door, 8"/8.5" Dia			1,474.62	-
0654143	Compt, Air Bottle, Single, Tri Door (DEF/Fuel), Fender Panel			1,474.62	-
0657522	Compt, Air Bottle, Triple, Fender Panel			2,949.23	-
0015036	Rack, Ladders, Hydraulic, RS, Air Clamps	0004300	Brackets, Adjustable, RS	15,295.70	-
0522837	Not Required, Folding Ladder, Alternate Ladder Provided	0733387	Ladder, 10' Duo-Safety Folding 585A	-	(375.06)
0761307	Mounting Clips, Folding Ladder, Hydraulic Ladder Rack	0761352	Trough, Folding Ladder, Behind Ladders on Ladder Brackets	-	(26.40)
0812235	Ladder, Little Giant, Revolution 2.0 - Model 17, 13117			925.56	-
0564381	Hydraulic Pump, Ladder Rack, Special Location			700.13	-
0725033	Compt w/Door, Backboard, Bottom of 4-Way Hose Bed Cover			1,696.60	-

0890312	Pocket, Little Giant Ladder, Bottom Side of Hydraulic Ladder Rack			1,686.43	-
0069338	Pike Pole, 8' Nupla, Vent Hook, RH-8DA, w/D Handle			339.14	-
0566822	Pike Pole, 10' Fire Hooks Unlimited, Fiberglass, APH-10, w/D Handle	0602877	Pike Pole, Pumper, Provided by Fire Department, NFPA 2016	303.29	-
0760176	Tube, Pike Pole 8' or Longer, Hydraulic Ladder Rack Inboard			238.15	-
0058193	Tubes, Alum, Pike Pole Storage, Splc Notch, NY PP Head			619.33	-
0592963	Mounting Bracket, Quic Mount Low Profile, LPVM-5, Zico			535.38	-
0019270	Bell, 12" Chrome w/Eagle, w/Electric Striker			3,244.49	-
0583624	Labels and Tags, Misc. ID			93.41	-
0785100	Steps, Folding, Front of Body, Cargo Bed Access, Trident	0591804	Step, Folding, Front of Body, Left Side, Trident	820.87	-
0591883	Steps, Folding, Rear of Body, Trident	0592994	Steps, Folding, Rear of Body, w/LED, Trident	-	(12.96)
0000458	Platform, Slide Out, 500 lb Capacity, Alum 4-Way			3,604.07	-
0724154	Step, Folding - Extra, Body Only, Trident			1,294.14	-
0090749	Step, Wedge, Additional, Specify Width			749.49	-
0608222	Access Door, Cargo Compt, LS, 105 Deg Lift-up Door, Latch & Hold Open Selections			768.79	-
0608224	Access Door, Cargo Compt, RS, 105 Deg Lift-up Door, Latch & Hold Open Selections			768.79	-
0775493	Platform, Over Cargo Area, Special Size, w/(2) Liftup Doors			1,447.27	-
0020364	Brushed S/S, IPO Aluminum 4-way, Pump House			560.43	-
0004425	Pump, Waterous, CSU, 1500 GPM, Single Stage	0004420	Pump, Waterous, CSU, 1250 GPM, Single Stage	472.44	-
0004482	Seal, Mechanical, Waterous	0004481	Seal, Grafoil, Waterous	1,221.84	-
0737989	Valve, Relief Intake, Waterous	0746501	Valve, Relief Intake, Elkhart	40.13	-
0641743	Primer, Waterous, VPO Motor, (1) VAP Valve, (1) Push Button Control	0072153	Primer, Trident, Air Prime, Air Operated	302.09	-
0892395	Line, 0.50" Recirculating, "T" Swing Handle Valve			527.77	-
0890482	Pump Overheat Ind, 120 Deg, Light/Alarm, IC			880.10	-
0743394	Valves, Full Flow Waterous, Akron/Elkhart Aux Inlet Valves	0084610	Valves, Akron 8000 series- All	3,275.11	-
0004680	Inlet, Right Side, 2.50"	0029147	Not Required, Inlet, Right Side	1,742.38	-
0544977	Inlet, Rear, 4"-6" w/5" Plmb, Thru Tank, RS, w/Bleeder Valve	0092569	No Rear Inlet (Large Dia) Requested	8,912.79	-
0024831	Control, Rear Inlet, Electric, w/Indicator Lights	0064116	No Rear Inlet Actuation Required	1,220.03	-
0012609	Elbow & Cap, Rear Inlet, 5" FNST x 5" Storz	0092696	Not Required, Cap, Rear Inlet	662.73	-
0746865	Valve, Relief Intake, Rear Inlet, Elkhart	0009648	No Rear Intake Relief Valve Required on Rear Inlet	1,409.86	-
0517832	Rear Inlet Spcl Location, Pipe Lgth allow to Clr FDLER Crner, w/o change in Flow			141.88	-
0079347	Tank to Pump, (1) 3.50" Valve, 4.00" Plumbing, Air Control, Waterous Valve	0029043	Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing	1,018.85	-
0004945	Outlet, Right Side, 2.50"	0004945	Outlet, Right Side, 2.50"	2,528.55	-
0816625	Outlet, Large Diameter, Right Side, Akron Valve	0005047	Outlet, 4" w/4" Right, Handwheel	262.95	-
0005099	Elbow, Large Dia Outlet, 30 Deg, 5.00" FNST x 5.00" Storz	0005097	Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz	33.37	-
0649939	Outlet, Front, 1.50" w/2" Plumbing	0092572	Not Required, Outlet, Front	3,354.28	-
0004995	Outlet, Rear, 2.50"	0092575	Not Required, Outlet, Rear	5,928.44	-
0091106	Outlet, 3.00" Deluge w/TFT Extend-a-Gun XG18, Handwheel	0005065	Outlet, 3.00" Deluge Riser	3,419.17	-
0543541	Monitor, Akron 3423, With (2) 2.5" Inlet Ground Base	0029302	No Monitor Requested	5,517.49	-
0046968	Nozzle, Akron 2499, Quad Stacked Tips and 3488 Shaper	0029304	No Nozzle Req'd	1,299.56	-
0029210	Crosslays Sngl Sheet, (2+) 1.50", Spl. Cap/Arrangement	0029167	Crosslays Sngl Sheet Unpainted, (2+) 1.50", Std. Cap	4,718.96	-
0820191	Crosslay, 2.50", 3.00" Plb, Special Capacity or Single Stack	0029196	Not Required, 2.50" Crosslay	5,406.33	-
0591138	Hose Restraint, Crosslay/Deadlay, Vinyl, Strap Fasteners, Each Side, Ends	0591145	Hose Restraint, Crosslay/Deadlay, Top/Ends, Elastic Netting	-	(295.61)
0615255	Cover, Crosslay, 3/16" Alum Treadplate, Front Hinge			912.56	-
0525972	Divider, Crosslay, 7.00" Short, Unpainted			680.49	-
0638039	Reel, Booster - Over Pump, 2" Valve & Plmbing			6,180.75	-
0045300	Hose, Booster - 200' of 1.00"/800 PSI			498.85	-
0005326	Blowout, Hose Reel - Valve at Panel			544.65	-
0045252	Roller Assembly, Captive Style			532.75	-
0724117	Access Cutout for Circuit Breaker Reset Button			141.89	-
0746447	Approval Dwg, All Pump Panel(s), Includes Color And Label Tags	0738072	Approval Dwg, Pump Panel(s), Not Required	907.27	-
0005525	Material, Pump Panels, Side Control Brushed Stainless	0635355	Material, Pump Panels, Side Control Painted FormCoat Black	1,585.74	-
0583824	Light, Pump Compt, Wln 35COCDRCR LED White	0693336	Light, Pump Compt, Truck-Lite 44308C LED Grommet Mt	-	(59.55)
0586382	Gauges, Engine, Included With Pressure Controller	0536401	Gauges, Engine, Included With Pierce Pressure Controller	-	(195.47)
0005602	Indicator, Low Fuel w/ Alarm			163.87	-
0069390	Control, Air Horn At Pmp Pnl, Red Button			255.45	-
0723480	Tag, Special Wording, Foam/Water Tank Capacity			26.24	-
0677894	Gauges, 4.50" Master, Class 1, Special, LED	0511078	Gauges, 4.00" Master, Class 1, 30"-0-600psi	399.82	-
0677881	Gauge, 2.50" Pressure, Class 1, Special, LED	0511100	Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1,848.43	-
0757359	Gauge, Water Level, Class 1, Remote Module Driver	0062586	Gauge, Water Level, Class 1, Pierce Std	1,021.30	-
0750438	Water Level Gauge, Wln PSTANK2, LED 1-Light, 4-Level			2,159.44	-
0682503	Light Shield/Step 8", LED, P25 LED Stp Lt	0593161	Light Shield, S/S LED	366.64	-
0606694	Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	0606697	Air Horns, (2) Grover, In Bumper	-	(258.38)
0757092	Control, Air Horn, Multi Select	0016065	Control, Air Horn, Horn Ring, PS Chrome Push Button	-	(574.52)

0757084	Control, Air Horn, Horn Ring			189.54	-
0745090	Control, Air Horn, Ft Sw, RS, Emaster			340.76	-
0893652	Control, Air Horn, Ft Sw, LS, Interlocked			277.26	-
0047779	Location, Elect Siren, Recessed In Switch Panel	0510206	Location, Elect Siren, Recessed Overhead In Console	205.79	-
0895310	Siren, Federal Q2B			5,360.90	-
0006095	Siren, Mechanical, Mounted Above Deckplate			-	(240.27)
0896209	Control Mech Siren, Ft Sw LS, E-Master			396.05	-
0896207	Control Mech Siren, Ft Sw RS, E-Master			396.05	-
0740391	Sw, Siren Brake, Momentary Chrome Push Button, RS			339.11	-
0744042	Lightbar, Wln, Freedom IV-D, 92", RRRR_WR_RWStrWR_RW_RRRR	0606721	Lightbar, Wln, Freedom IV-V, 60", R_RR__RR__RR_R	3,712.70	-
0790846	Power Supply, Wln PE215 Traffic Light Controller, Single Strobe Tube			929.53	-
		0540384	Lights, Front Zone, Wln M6*C LED, Clear Lens, in Common Bzl	-	(1,250.34)
0898734	Light, Front Zone, Wln M6** M6** M6** M6** Q Bzl			2,619.87	-
0799987	Lights, Side Zone Lower, Wln M6V2**, M6**, M6V2** 6lts	0540679	Lights, Side Zone Lower, Wln M6*C LED, Clear Lens 2pr	3,728.94	-
0895614	Lights, Door Interior Flash, 4 Dr Cab, Wln TL**			1,408.77	-
0892175	Lights, Side, Wln VTX609* LED			689.47	-
0613817	Lights, Door Exterior Flash, Compt, Truck-Lite 33050R LED			179.19	-
0759142	Lights, Rear Zn Lwr, Wln M6*,	0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt Housing	37.34	-
0006700	Mounting, Lights, Recess In Rear Bulkhead (pair)			1,518.27	-
0636558	Light, Rear Zone Up, Wln L31H*F LED Beacon	0088745	Light, Rear Zone Up, Wln L31HRFN LED Beacon, Red LED	26.02	-
0558774	Light, Rear Zone Up Block, Wln M6* LED, Colored Lens	0006551	Not Required, Lights, Rear Upper Zone Blocking	878.12	-
0025876	Mounting, Rear Warn Lights, LS S/S to Match RS, RS - S/S Ladder Lock Enclosed	0016610	Mounting, Rear Warn Lights, Std Mount, S/S Brackets	198.82	-
0720980	Light, Traffic Directing, Wln TADF6, TDP60000 34" Long RA LED, Emas Warn 4Sw			3,320.26	-
0529860	location, TDL, Surface Mounted Over Rear Door			403.72	-
0530564	Location, Traf Dir Lt Control Switches, Overhead Sw Panel, DS Right End			135.59	-
0781579	Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Cab			463.62	-
0779722	Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body			1,390.83	-
0816941	Soft Suction Hose, Provided by Fire Department, NFPA 2024	0067022	Hose, 6.00" Soft Suction - 15 Ft. Long	-	(1,320.67)
0646897	Paint Chassis Frame Assy, E-Coat, Standard	0646897	Paint Chassis Frame Assy, E-Coat, Standard	-	(731.33)
0693797	No Paint Required, Aluminum Front Wheels	0693798	Paint, Front Wheels	-	(278.62)
0693792	No Paint Required, Aluminum Rear Wheels	0693793	Paint, Rear Wheels, Single Axle	-	(560.49)
0778019	Coating, Safe-Stride, Black, Hose Tray Cover			463.30	-
0778038	Coating, Safe-Stride, Black, Bumper Gravel Pan			702.12	-
0753821	Coating, Safe-Stride, Running Board			1,191.73	-
0620095	Paint, Drip Rail, Cab			793.80	-
0788880	Coating, Safe-Stride, Black, Tailboard			723.69	-
0544099	Reflective Band, 8"	0544129	Reflective Band, 1"-6"-1"	-	(604.57)
0510041	Reflective across Cab Face, Imp/Vel	0007357	Reflective on Front Bumper	1.73	-
0536954	Stripe, Chevron, Rear, Diamond Grade, Pumper	0536954	Stripe, Chevron, Rear, Diamond Grade, Pumper	12.01	-
0630541	Laminate Reflective Stripe			820.43	-
0011949	"S" Ribbon, Shaded in Reflective Stripe, Pair			854.45	-
0567374	Stripe, Black Outline each Chevron Stripe @ Rear (Not Warranted)			343.51	-
0821269	Stripe, 0.50", Silver, Vinyl on Reflective Band, One @ Top & One @ Bottom			229.02	-
0587074	Stripe, .25" Black Vinyl on Interior Cab Door Chevrons			114.51	-
0667282	Stripe, Reflective, Chevron, Hydraulic Ladder Rack Arm, Rear Only			152.73	-
0509398	Stripe, Reflective, Chevron, Cab and Crew Cab Doors Interior	0552453	Stripe, Reflective, Chevron, Cab and Crew Cab Doors Interior, Diamond Grade	309.26	-
0686434	Lettering, Gold Leaf, 3.00", (21-40)	0686159	Lettering, Reflective, 3.00", (41-60)	30.91	-
0685978	Lettering, Reflective, 18.00", Each			174.59	-
0686042	Lettering, Reflective, 2.00", Each			62.76	-
0686236	Lettering, Gold Leaf, 5.00", Each			141.83	-
0686256	Lettering, Gold Leaf, 4.00", Each			200.51	-
0526776	Emblem/Logo, Pair, Olympia Fire Department			926.52	-
0526777	Emblem, Pair, Seal, Olympia Fire Department			3,901.05	-
0684225	Emblem, Maltese Cross, Printed Effect Gold Leaf, 9"-11", Pair			1,047.09	-
0759630	Emblem, American Flag & Numeral (1) w/Outline, Painted on Cab Grille, Custom Cab			2,662.38	-
0772003	Manual, Fire Apparatus Parts, USB Flash Drive, Custom	0526005	Manuals, One (1), Fire Apparatus Parts, & (1) CD, Custom Chassis	-	(264.59)
0772037	Manual, Chassis Service, USB Flash Drive, Custom	0543577	Manuals, (1) Chassis Service & (1) CD, Custom	-	(268.24)
Total				680,410.34	(38,604.83)

Exhibit "F3"


STATEMENT OF COMPLIANCE WITH NONDISCRIMINATION REQUIREMENT

The Olympia City Council has made compliance with the City's *Nondiscrimination in Delivery of City Services or Resources* ordinance (OMC 1.24) a high priority, whether services are provided by City employees or through contract with other entities. It is important that all contract agencies or vendors and their employees understand and carry out the City's nondiscrimination policy. Accordingly, each City agreement or contract for services contains language that requires an agency or vendor to agree that it shall not unlawfully discriminate against an employee or client based on any legally protected status, which includes but is not limited to: race, creed, religion, color, national origin, age, sex, marital status, veteran status, sexual orientation, gender identity, genetic information, or the presence of any disability. Listed below are methods to ensure that this policy is communicated to your employees, if applicable.

- Nondiscrimination provisions are posted on printed material with broad distribution (newsletters, brochures, etc.).
- Nondiscrimination provisions are posted on applications for service.
- Nondiscrimination provisions are posted on the agency's web site.
- Nondiscrimination provisions are included in human resource materials provided to job applicants and new employees.
- Nondiscrimination provisions are shared during meetings.

Failure to implement at least two of the measures specified above or to comply with the City of Olympia's nondiscrimination ordinance constitutes a breach of contract.

By signing this statement, I acknowledge compliance with the City of Olympia's nondiscrimination ordinance by the use of at least two of the measures specified above.



(Signature)

04/02/2024

(Date)

Rex Hughes

Print Name of Person Signing

Alternative Section for Sole Proprietor: I am a sole proprietor and have reviewed the statement above. I agree not to discriminate against any client, or any future employees, based on any legally protected status.

(Sole Proprietor Signature)

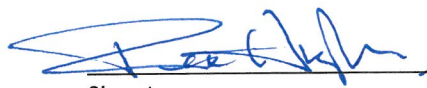
(Date)

Exhibit "F4"
EQUAL BENEFITS COMPLIANCE DECLARATION

Suppliers or consultants on City agreements or contracts estimated to cost \$50,000 or more shall comply with Olympia Municipal Code, Chapter 3.18. This provision requires that if Suppliers or consultants provide benefits, they do so without discrimination based on age, sex, race, creed, color, sexual orientation, national origin, or the presence of any physical, mental or sensory disability, or because of any other status protected from discrimination by law. Suppliers or consultants must have policies in place prohibiting such discrimination, prior to contracting with the City.

I declare that the Consultant listed below complies with the City of Olympia Equal Benefits Ordinance, that the information provided on this form is true and correct, and that I am legally authorized to bind the Consultant.

Hughes Fire Equipment Inc.
Supplier Name


Signature

Rex Hughes
Name (please print)

04/02/2024
Date

President
Title