Heiman Fire Equipment
Stock CT244

BID SPECIFICATIONS

FOR

ROSENBAUER CUSTOM FIRE APPARATUS

One (1)
00-00-1499

OVERALL HEIGHT

An overall height restriction has not been specified for this apparatus.

One (1)
00-00-1509

OVERALL LENGTH

An overall length restriction has not been specified for this apparatus.

One (1)
00-00-1519

OVERALL WIDTH

An overall width restriction has not been specified for this apparatus.

One (1)
00-00-1529

WHEELBASE

A wheelbase restriction has not been specified for this apparatus.

One (1)
00-00-1539

ANGLE OF APPROACH

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of the NFPA 1901 Guideline.

One (1)
00-00-1549

ANGLE OF DEPARTURE

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of the NFPA 1901 Guideline.

One (1)
00-00-1605

NFPA PUMPER EQUIPMENT ALLOWANCE

In compliance with the current NFPA guidelines, the apparatus shall be engineered to provide an allow of 2000 pounds of fire department provided loose equipment.

One (1)
00-00-3220

CONTRACT CHANGE NOTICE

The quoted delivery time is based upon our receipt of the specified materials required to produce the apparatus in a timely manner. "Delivery" means the date company is prepared to make physical possession of vehicle available to the customer.

The Company shall not be responsible nor deemed to be in default on account of delays in performance due to causes which are beyond the Company's control which make the 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, pandemics, epidemics, 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.

After execution and acceptance of this Purchase Process, the Buyer may request that the Company incorporate a change to the Products or the Specifications for the Products by delivering a Change Order to the Company; provided, however, that any such Change Order must be in writing and include a description of the proposed change sufficient to permit the Company to evaluate the feasibility of such Change Order. Within seven (7) working days of receipt of a Change Order, the Company will inform the Buyer 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. The Company shall not be liable to the Buyer for any delay in performance or delivery arising from any such Change Order. Purchase Price may be modified only by mutual written agreement of the Parties because of changes to the Apparatus required or requested by the Buyer during the construction process pursuant to Appendix C, Change Order Policy. Any changes in the Purchase Price resulting from changes to the Apparatus required or requested by the Buyer during the construction process shall be stated in the Change Order signed by both parties. Additional Changes: If various state or federal regulatory agencies (e.g., NFPA, DOT, EPA) require changes to the specification and/or the product that result in a cost increase to comply therewith this cost will be added to the Purchase Price to be paid by the customer.

One (1)
01-06-0560

ELECTRONIC STABILITY CONTROL

Electronic stability control shall be supplied on the chassis.

One (1)
01-07-0060

ENGINEERING BLUEPRINTS

ROSENBAUER has submitted "proposal" blueprints which are "representative" of the vehicle being proposed and these have been generated on computer-aided-design (CAD) equipment.

The blueprints are provided as follows:

Sheet No. 1:

- Left side exterior view
- Right side exterior view
- Rear exterior view

ROSENBAUER shall provide construction drawings for approval prior to actual construction of the vehicle.

The design of the equipment is in accordance with the best engineering practices. The equipment design and accessory installation shall permit accessibility for use, maintenance and service. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks or other elements, which might cause injury to personnel or equipment.

All oil, hydraulic, and air tubing lines and electrical wiring shall be located in protective positions properly attached to the frame or body structure and shall have protective loom or grommets at each point where they pass through structural members, except where a through-frame connector is necessary.

Parts and components will be located or positioned for rapid and simple inspection and recognition of excessive wear or potential failure. Whenever functional layout of operating components determines that physical or visual interference between items cannot be avoided, the item predicted to require the most maintenance shall be located for best accessibility.

One (1)
01-07-1100

CHANGE ORDERS

To ensure the proper engineering and construction of the purchaser's custom fire apparatus in a timely manner, the contractor shall consider the order final and complete after any changes made during the pre-construction conference are mutually approved. Change orders requested after the pre-construction conference are discouraged. It shall be understood and agreed that any changes, if approved, after the order has been released to Engineering, shall constitute a valid cause for production delay and without penalty to the contractor.

One (1)

== Pumper/Tanker Warranties - 401.025 04/01/25 ==

One (1)
01-16-0100

BODY WARRANTY

The manufacturer shall provide a one (1) year body warranty. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-19-0250

ALUMINUM BODY WARRANTY - FIVE YEAR

Rosenbauer America, LLC warrants to the original purchaser only, that the all-aluminum body, fabricated by Rosenbauer America, LLC, under normal use and with reasonable maintenance, be structurally sound and will remain free from corrosion perforation for a period of FIVE (5) years.

This warranty does not apply to the following items that are covered by a separate warranty: paint finish, hardware, moldings, and other accessories attached to this body. In addition, this warranty does not apply to any part or accessory manufactured by others and attached to this body.

ROSENBAUER AMERICA, LLC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE ALUMINUM BODY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND HEREBY DISCLAIMED.

Rosenbauer America, LLC will replace without charge, repair or make a fair allowance for any defect in material or workmanship demonstrated to its satisfaction to have existed at the time of delivery or not due to misuse, negligence, or accident. If Rosenbauer America, LLC elects to repair this body, the extent of such repair shall be determined solely by Rosenbauer America, LLC, and shall be performed solely at the Rosenbauer America, LLC factory, or at an approved facility. The expense of any transportation to or from such repair facility shall be borne by the purchaser and is not an item covered under this warranty.

Rosenbauer America, LLC will not be liable for damages and under no circumstances will its liability exceed the price for a defective body. The remedies set forth herein are exclusive and in substitution for all other remedies to which the purchaser would otherwise be entitled.

Rosenbauer America, LLC will be given a reasonable opportunity to investigate all claims. The purchaser must commence any action arising out of, based upon or relating to agreement or the breach hereof, within twelve months from the date the cause of the action occurred.

Note: *Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.*

One (1)
01-19-2800

GALVANIZED SUBFRAME WARRANTY

Subject to the provisions, limitations and conditions set forth in this warranty, Rosenbauer America, LLC (hereby referred to as "seller"), hereby warrants to each original purchaser only that each new hot dip galvanized body subframe (exclusive of paint finish and hardware) is structurally sound and free of all structural defects of both material and workmanship and further warrants that it will maintain such structural integrity for the duration of ownership by the original purchaser. This warranty terminates upon transfer of possession or ownership by the original purchaser.

This warranty is conditioned upon normal use and reasonable maintenance of such subframe; prompt written notice of all defects to seller or one of the seller's then authorized dealers in the area; no repair or additions there to except by seller or authorized by it; said defect not resulting from misuse, negligence, accident, remount, overloading beyond applicable weight rating by customer or third parties. If any such conditions are not complied with, this warranty shall become void and unenforceable.

Should repairs become necessary under the terms or the warranty, the extent of that repair shall be determined solely by the seller and shall be performed solely at Rosenbauer America, LLC or

a repair facility designated by the seller. The expense of any transportation to or from such repair facility shall be that of the purchaser and is not an item covered by this warranty.

Seller reserves the unrestricted right at any time from time to time to make changes in the design of and/or improvements on its products without thereby imposing any obligation on itself to make corresponding changes or improvements in or on its products theretofore manufactured.

EXCLUSIONS AND LIMITATIONS: THIS MANUFACTURER'S WARRANTY IS PROVIDED IN PLACE OF ANY AND ALL OTHER REPRESENTATIONS OR IMPLIED WARRANTIES. NO PERSON IS AUTHORIZED TO MAKE ANY REPRESENTATIONS OR WARRANTY ON BEHALF OF ROSENBAUER AMERICA, LLC OR ANY OF ITS DISTRIBUTORS OTHER THAN SET FORTH IN THIS MANUFACTURER'S WARRANTY. YOUR RIGHT TO SERVICE AND REPLACEMENT OF PARTS ON THE TERMS EXPRESSLY SET FORTH HERIN ARE YOUR EXCLUSIVE REMEDIES AND NEITHER THE MANUFACTURER NOR ANY OF ITS DISTRIBUTORS SHALL BE LIABLE FOR DAMAGES, WHETHER ORDINARY, INCIDENTAL OR CONSEQUENTIAL.

Note: *Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.*

One (1)
01-20-0250

PAINT WARRANTY FIVE YEAR

The PPG paint performance guarantee will cover the areas of the vehicle finished with the specified product for a period of FIVE (5) years beginning the day the vehicle is delivered to the purchaser.

The full apparatus body, manufactured and painted by Rosenbauer America, LLC, shall be covered for the following paint failures as outlined on the guarantee certificate:

- Peeling or delaminating of the topcoat and/or other layers of paint.
- Cracking or checking.
- Loss of gloss caused by cracking, checking, or hazing.
- Any paint failure caused by defective PPG Fleet Finishes, which are covered by this guarantee.

All guarantee exclusions, limitations, and methods of claims are covered in the full certificate provided to the original purchaser.

Note: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.

One (1)
01-21-0150

LETTERING WARRANTY

Rosenbauer America, LLC warrants to the original purchaser only, that the lettering and striping, installed by Rosenbauer America, LLC, will remain free from defects for a period of one (1) year under normal use.

Rosenbauer America, LLC will replace without charge, repair or make a fair allowance for any defect in material or workmanship demonstrated to its satisfaction to have existed at the time of delivery or not due to misuse, negligence, or accident. If Rosenbauer America, LLC elects to repair this item, the extent of such repair shall be determined solely by Rosenbauer America, LLC, and shall be performed solely at the Rosenbauer America, LLC factory, or at an approved facility. The expense of any transportation to or from such repair facility shall be borne by the purchaser and is not an item covered under this warranty.

One (1)
01-17-0850

PUMP WARRANTY

Rosenbauer America, LLC (Rosenbauer) warrants, to the original buyer only, that products and parts manufactured by Rosenbauer America, LLC will be free from defects in material and workmanship under normal use and service for a period of two (2) years from the date the product is first placed in service, or one and one half years from the date of shipment by Rosenbauer America, LLC, whichever period will be the first to expire; provided the buyer notifies Rosenbauer in writing, of the defect in said product within the warranty period, and said product is found by Rosenbauer America to be conforming with the aforesaid warranty.

When required in writing by Rosenbauer, defective products must be promptly returned by the buyer to the Rosenbauer plant or at such other place as may be specified by Rosenbauer with transportation and other charges prepaid. A Return Goods Authorization (RGA) is required for all products and parts and may be requested by phone, fax or mail. The aforesaid warranty excludes any responsibility or liability of Rosenbauer America, LLC for:

- Damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes or improper maintenance, or attributable to written specifications or instructions furnished to the buyer.
- Defects in products manufactured by others and furnished by Rosenbauer America 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, Rosenbauer America will assign to the buyer, if requested by the buyer.
- Any product or part, altered, modified, serviced or repaired other than by Rosenbauer America, without its prior written consent.
- The cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation.
- Normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, etc.)
- Failure of the buyer to properly drain the fire pump and the attached plumbing system after each use. (Light Alloy Aluminum only)
- Failure of the buyer to maintain a dry pump and plumbing system between each and every use. (Light Alloy Aluminum only)

All other warranties are excluded, whether expressed or implied by operation of law or otherwise, including all implied warranties of merchantability or fitness for purpose. Rosenbauer America shall not be liable for consequential or incidental damages directly or indirectly arising

or resulting from breach of any of the terms of this limited warranty or from the sale, handling, or use of any other product or part. Rosenbauer America liability hereunder, either for breach of warranty or for negligence, is expressly limited at Rosenbauer America option:

- To the replacement at the agreed point of delivery of any product or part, which upon inspection by Rosenbauer America or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- To the repair of such product or part, or
- To 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 the buyer.

One (1)
01-17-1050

STAINLESS STEEL PLUMBING WARRANTY

The manufacturer shall provide a ten (10) year warranty on the stainless steel plumbing components and installation. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-18-0050

FOAM TANK WARRANTY

The manufacturer shall provide a warranty for the G3 foam tank. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-18-0900

WATER TANK WARRANTY

The manufacturer shall provide a warranty for the G3 water tank. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-33-3100

BODY MANUAL - PRINTED

Rosenbauer shall provide with the vehicle upon delivery, one (1) complete delivery manual. This manual shall be in a notebook type binder, with reference tabs for each section of the vehicle.

Within each section shall be:

- Individual component manufacturer instruction and parts manuals
- Warranty forms for the body
- Warranty forms for all major components
- Warranty instructions and format to be used in compliance with warranty obligations
- Wiring diagrams
- Installation instruction and drawings for major parts
- Visual graphics and electronic photos for the installation of major parts
- Necessary normal routine service forms, publications and components of the body portion of the apparatus

- Technical publications for training and instruction on major body components
- Warning and safety related notices for personnel protection
- Cab and chassis manuals on parts, service and maintenance shall be provided

One (1)
02-90-1100

FREIGHTLINER CHASSIS

A Freightliner 2-door chassis per the attached specifications shall be furnished:

One (1)

== Pumper/Tanker-DC Electrical System - 401.025 04/01/25 ==

One (1)
50-03-1000

LOW VOLTAGE ELECTRICAL SYSTEM SPECIFICATIONS

The electrical system shall include all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The electrical equipment installed by the apparatus manufacturer shall conform to current automotive electrical system standards, the latest Federal DOT standards, and the requirements of the applicable NFPA standards.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.

The wiring between the cab and body shall be joined using Deutsche type connectors or an enclosed in a terminal junction panel area. This system will permit body removal with minimal impact on the apparatus electrical system. All connections shall be crimp-type with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.

Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box or covered with a removable electrical

panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified every three-inches (3") by color coding or permanent marking with a circuit function code and identified on a reference chart or electrical wiring schematic per requirements of applicable NFPA #1901 standards.

The electrical circuits shall be provided with low voltage overcurrent protective devices. Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. The overcurrent protection shall be suitable for electrical equipment and shall be automatic reset type and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards.

The electrical system shall include the following:

- Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body.
- The electrical wiring shall be harnessed or be placed in a protective loom.
- Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof.
- Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.
- A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
- All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.

The warning lights shall be switched in the chassis cab with labeled switches in an accessible location. Individual rocker switches shall be provided only for warning lights provided over the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator. The warning light switches shall be of the rocker type. For easy nighttime operation, an integral indicator light shall be provided to indicate when the circuit is energized. All switches shall be appropriately identified as to their function.

A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and "call for the right of way". When the parking brake is applied, a "blocking right of way" system shall automatically activate per requirements of the applicable NFPA standards. All "clear" warning lights shall be automatically turned off upon application of the parking brake.

NFPA REQUIRED TESTING OF ELECTRICAL SYSTEM

The apparatus shall be electrically tested upon completion of the vehicle and prior to delivery. The electrical testing, certifications, and test results shall be submitted with delivery documentation per requirements of the applicable NFPA standards. The following minimum testing shall be completed by the apparatus manufacturer:

1. Reserve capacity test:

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for ten (10) minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a failed test.

2. Alternator performance test at idle:

The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

3. Alternator performance test at full load:

The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed. The test duration shall be a minimum of two (2) hours. Activation of the load management system is permitted during this test. However, if an alarm sounds due to excessive battery discharge, as detected by the system requirements in the NFPA standards, or a system voltage of less than 11.7 volts dc for more than 120 seconds is present, the test has failed.

4. Low voltage alarm test:

Following the completion of the above tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts dc for a 12 volt system shall be considered a test failure. The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.

NFPA REQUIRED DOCUMENTATION

The following documentation shall be provided on delivery of the apparatus:

a. Documentation of the electrical system performance tests required above.
b. A written load analysis, including:

1. The nameplate rating of the alternator.
2. The alternator rating under the conditions.
3. Each specified component load.
4. Individual intermittent loads.

One (1)
50-05-1510

WEATHER RESISTANT ELECTRICAL JUNCTION BOX

The electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required. The main body junction panel shall be located in the pump compartment.

One (1)
50-12-1120

ELECTRICAL CONSOLE WITH EMERGENCY LIGHT SWITCH PANEL – THERMAL COATED

An electrical console shall be constructed of .125" black LineX coated smooth aluminum material, and mounted in the cab of the truck chassis. Console shall be designed and installed between the driver and passenger seats. The top face of the console shall be designed as the switch panel for all emergency light switches. The switch panel shall be hinged for easy access to the switch connections.

All emergency light switches shall be lighted, rocker style. Switches shall be internally lit when the switch circuit is in the on position. A plug-in identification label is to be provided and installed adjacent to each rocker switch with backlighting provided behind the label.

SWITCHES

A rocker style internally lighted switch shall be provided and wired through a heavy-duty relay to activate power to the emergency lights. The emergency lights shall be activated by a single "MASTER SWITCH" on the electrical console.

One (1)
50-15-1100

BATTERY SYSTEM

The battery system shall be supplied with the chassis.

One (1)
50-15-3100

MASTER ELECTRIC SWITCH

A battery disconnect switch shall be located conveniently to the driver of the apparatus. The switch shall disconnect the 12 volt power supply from the battery system.

One (1)
50-15-7700

BATTERY CHARGER AND AIR COMPRESSOR

A Kussmaul Pump Plus 1000 PLC model #51-21-1100 battery charger and air compressor system shall be installed. The 12 volt compressor system shall be designed to maintain the air pressure in the chassis brake system whenever the pressure drops below a predetermined level.

The battery charger shall be supplied from the 12 volt shore power receptacle and be a fully automatic high output charging system. The unit shall be mounted in a clean dry area and will be accessible for service and/or maintenance.

One (1)
50-20-1610

AUTO-EJECT

A Kussmaul "Super Auto-Eject" 20-amp automatic disconnect device shall be provided and installed on the 110-volt shoreline connection. The device shall be complete with weatherproof cover and matching plug with bar graph display, part number 091-55-234, incorporated into the cover. The Auto-Eject shall be activated by the chassis starter switch to disconnect the plug. The Super Auto-Eject shall be completely sealed to prevent contamination of the mechanism by inclement weather and road conditions. The Super Auto-Eject shall have an internal switch to open and close the AC circuit after the mating connector is inserted and before the connector is removed.

One (1)
50-20-1120

SHORE POWER PLUG

The shore power plug shall be located at the left front cab door.

One (1)
51-00-1700

12 VOLT POWER SOURCE

One (1) 12 volt power and ground connection rated at 30 amps shall be provided on the apparatus for the installation of a mobile two-way radio.

--install a labeled loop of wire in the center console

One (1)
51-00-4000

The power source shall be run through the chassis master battery switch and shall be deactivated when the master switch is in the "OFF" position.

One (1)
51-05-6400

PUMP ENCLOSURE LIGHTS

One (1) LED work light shall be provided in the pump enclosure.

One (1)
51-05-9000

The control switch shall be mounted on the light head.

One (1)
52-01-1200

BACK-UP ALARM

An automatic electric back-up alarm shall be wired to the back-up light circuit, and mounted under the rear of the apparatus body.

One (1)
52-02-1100

BACKUP CAMERA

A chassis supplied rear camera system shall be mounted on the rear of the vehicle. All system components shall be installed by the apparatus body manufacturer.

One (1)
52-15-1200

RADIO ANTENNA BASE

One (1) radio antenna base shall be supplied and installed on the apparatus, the antenna coax terminating in the cab. The location shall be determined by the customer.

--install a labeled loop of coax in the center console

One (1)
53-01-1200

MARKER LIGHTS

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements.

One (1)
53-02-1200

LICENSE PLATE BRACKET

A stainless steel license plate bracket shall be provided at the rear of the apparatus. The bracket shall have a LED light.

One (1)
53-03-2750

TAIL LIGHTS

One (1) pair of Whelen M62BTT LED tail/brake lights shall be provided. The rectangular 4"x6" lights shall be red.

One (1)
53-04-2750

TURN SIGNALS

One (1) pair of Whelen M62T LED turn signals with populated sequential chevron arrow shall be provided.

One (1)
53-06-3550

BACKUP LIGHTS

One (1) pair of Whelen Series M62BU LED backup lights shall be installed on the rear of the apparatus body. The dimensions shall be 4" x 6" and the lens color shall be clear.

One (1)
53-07-1210

FOUR LIGHT HOUSING

One (1) pair of chrome plated tail light housings shall be supplied. Each housing shall be designed to hold four (4) Whelen M6 rear lights located at the lower rear corners of the body.

One (1)
53-05-1800

MID BODY LED TURN SIGNALS

One (1) pair of mid body LED turn signals shall be provided. The location of the turn lights shall be at mid-body near the rear wheel axle.

One (1)
54-02-1420

GROUND LIGHTS

Each door shall include a Whelen 3SC0CDCR LED NFPA compliant ground light mounted to the underside of the cab step below each door.

Each light shall include a polycarbonate lens, a housing which is vibration welded and a bulb which shall be shock mounted for extended life.

The ground lighting shall be activated when the parking brake is set.

One (1)
54-02-2320

CAB STEP LIGHTS

There shall be LED cab step lights supplied below the chassis cab doors. The lights shall be mounted below the cab doors and illuminate the chassis cab steps. There shall be two (2) LED lights located on each side of the chassis cab.

One (1)
54-03-1220

GROUND LIGHTS

There shall be two (2), one each side, Whelen 3SC0CDCR LED NFPA compliant ground light mounted to the underside of the rub rail of the pump house.

Each light shall include a polycarbonate lens, a housing which is vibration welded and a bulb which shall be shock mounted for extended life.

The ground lighting shall be activated when the parking brake is set.

One (1)
54-03-1620

GROUND LIGHTS

There shall be two (2) Whelen 3SC0CDCR LED NFPA compliant ground light mounted to the underside of the rear step.

Each light shall include a polycarbonate lens, a housing which is vibration welded and a bulb which shall be shock mounted for extended life.

The ground lighting shall be activated when the parking brake is set.

One (1)
54-04-1999

The ground lights shall automatically activate when the parking brake is applied.

Two (2)
54-10-1300

STEP LIGHT

Two (2) LED step light(s) with clear lens shall be installed.

Two (2)
54-10-1470

REAR TAILBOARD LIGHTS

Two (2) Federal Signal Commander 10 LED strip light, model COMSTLS18C-W, shall be installed to illuminate the rear tailboard. Each light stick shall feature 18 white LEDs and be fully encapsulated for moisture and vibration resistance. The light stick shall be provided with a 5 year free replacement warranty. The light shall be 1" x 11-½", with the 18 LEDs creating a 10" light strip. The step light shall be horizontally mounted into a 45 degree stainless steel bracket, # COMSTL-BKT45.

One (1)
54-11-2100

The step/walkway light switch shall be installed and wired to the parking brake.

One (1)
54-15-5924

LEFT SIDE BODY SCENE LIGHTING

The following scene lighting shall be located on the left side of the body:

One (1)
54-15-1295

SCENE LIGHT

One (1) Whelen 900 Series Model #904SLC scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super-LED® and Smart LED® technology.

The 904SLC shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The 904SLC shall have the ability to be installed as a surface mount scene light.

One (1)
54-15-1460

The scene light shall be installed on a treadplate mounting plate.

One (1)
54-15-6400

SCENE LIGHT SWITCHING

One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the left side scene light(s). The switch shall be labeled "LEFT SCENE".

One (1)
54-15-5928

RIGHT SIDE BODY SCENE LIGHTING

The following scene lighting shall be located on the right side of the body:

One (1)
54-15-1295

SCENE LIGHT

One (1) Whelen 900 Series Model #904SLC scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super-LED® and Smart LED® technology.

The 904SLC shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The 904SLC shall have the ability to be installed as a surface mount scene light.

One (1)
54-15-1460

The scene light shall be installed on a treadplate mounting plate.

One (1)
54-15-6500

SCENE LIGHT SWITCHING

One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the right side scene light(s). The switch shall be labeled "RIGHT SCENE".

One (1)
54-15-5932

REAR BODY SCENE LIGHTING

The following scene lighting shall be located on the rear of the body:

One (1)
54-15-1295

SCENE LIGHT

One (1) Whelen 900 Series Model #904SLC scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super-LED® and Smart LED® technology.

The 904SLC shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The 904SLC shall have the ability to be installed as a surface mount scene light.

One (1)
54-15-6600

SCENE LIGHT SWITCHING

One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the rear scene light(s). The switch shall be labeled "REAR SCENE".

One (1)
54-15-6700

SCENE LIGHT SWITCHING

The rear scene lights shall activate automatically upon placing the transmission into reverse.

One (1)
55-11-2100

DOOR OPEN LIGHT

A red flashing, warning light shall be provided and installed in the driver's compartment to indicate an open passenger or apparatus compartment door. The warning light shall also be attached to folding equipment racks and light towers as specified. The light shall be a flashing Whelen OS red LED (OSROOFCR) light and shall be properly marked and identified.

One (1)
56-01-1380

ELECTRONIC SIREN

A Federal Signal PA300 siren, model PA300-100, full function and programmable 100 watt electronic siren shall be mounted in the cab. The siren shall have the following features: seven position rotary selector switch, digital Grover air horn, wail, yelp, priority, and Hi-Lo tones, radio rebroadcast, P.A. with a hard wired microphone and P.A. volume control. The system includes two (2) programmable Convergence Network serial ports for network devices and two programmable auxiliary backlit buttons (by default set to air horn and manual siren). The siren is fully programmable through the Convergence Network software. Hands free operation shall allow the operator to turn the siren on and off from the horn ring through a horn/siren selector switch. The siren shall be capable of driving (1) 100-watt speaker. The new PA300-100 comes with a five (5) year warranty.

One (1)
56-02-1600

SPEAKER

One (1) Federal Signal DynaMax 100-watt speaker, model #ES100C, shall be installed. The speaker shall feature a Neodymium driver and a high strength composite housing that is chemical resistant and maintains rigidity at high temperatures.

One (1)
56-02-1650

SPEAKER

One (1) stainless steel grille shall be installed on the speaker.

One (1)
56-03-1200

SPEAKER LOCATION

The siren speaker shall be installed in the left side of the apparatus bumper.

One (1)
57-02-1900

LIGHTBAR

One (1) Whelen Justice series light bar shall be included with the apparatus cab. The light bar shall be a model JE2NFPA and shall be mounted on the roof of the cab, towards the front, above the windshield.

The light bar shall feature:

- A 56" light bar designed for high performance
- Four (4) red Linear Super LED corner modules

- Four (4) red CON3 LED hinged modules
- Two (2) white CON3 LED hinged modules with exterior clear optic lenses
- Clear hard coated lenses to provide extended life/luster protection against UV & chemical stresses
- Designed in accordance with NFPA Zone A requirements

One (1)
57-10-0600

WARNING LIGHT ACTIVATION

The warning lights shall be activated through the master warning switch.

One (1)
58-71-1820

UPPER REAR WARNING LIGHTS

One (1) pair of Whelen Super LED, rotating beacons, P/N L31H*F, shall be installed, one each side on the upper rear of the apparatus body. The unit shall have dimensions of 4" high x 7-9/16" deep.

One (1)
57-20-8100

The driver side warning light shall be a Whelen LED rotator, model L31HRF with a red lens.

One (1)
57-20-8101

The officer side warning light shall be a Whelen LED rotator, model L31HRF with a red lens.

One (1)
58-74-5100

REAR WARNING LIGHT MOUNTING

The upper rear lights shall be mounted on cast aluminum stanchions attached to the apparatus body, one on each side.

One (1)
58-03-2100

LOWER FRONT WARNING LIGHTS

One (1) pair of Whelen model LINZ6 LED warning lights shall be installed, one each side one the front of the chassis cab. The warning light shall incorporate six Super-LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output. The dimensions of the lights shall be 2" x 4".

One (1)
57-20-2000

The driver side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

One (1)
57-20-2001

The officer side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

Two (2)
58-01-2200

Each light shall be surface mounted with a Whelen Model LIN6FC chrome flange.

One (1)
58-09-2100

INTERSECTION WARNING LIGHTS

One (1) pair of Whelen model LINZ6 LED warning lights shall be installed, one each side of the chassis. The warning light shall incorporate six Super-LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output. The dimensions of the lights shall be 2" x 4".

One (1)
57-20-2000

The driver side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

One (1)
57-20-2001

The officer side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

Two (2)
58-01-2200

Each light shall be surface mounted with a Whelen Model LIN6FC chrome flange.

One (1)
58-26-2100

LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model LINZ6 LED warning lights shall be installed, one each side one of the apparatus, mid body. The warning light shall incorporate six Super-LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output. The dimensions of the lights shall be 2" x 4".

One (1)
57-20-2000

The driver side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

One (1)
57-20-2001

The officer side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

Two (2)
58-01-2200

Each light shall be surface mounted with a Whelen Model LIN6FC chrome flange.

One (1)
58-36-2100

LOWER REAR SIDE WARNING LIGHTS

One (1) pair of Whelen model LINZ6 LED warning lights shall be installed, one each side of the apparatus body, towards the rear of the body. The warning light shall incorporate six Super-LEDs, a clear non-optic hard coated polycarbonate lens, clear optic collimator and utilize a metalized reflector for maximum output. The dimensions of the lights shall be 2" x 4".

One (1)
57-20-2000

The driver side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

One (1)
57-20-2001

The officer side warning light shall be a Whelen Model LINZ6R red LED with clear lens.

Two (2)
58-01-2200

Each light shall be surface mounted with a Whelen Model LIN6FC chrome flange.

One (1)
58-81-2000

LOWER REAR WARNING LIGHTS

One (1) pair of Whelen model M6 LED warning lights shall be installed, one each side on the lower rear of the apparatus body. The dimensions of the lights shall be 4-5/16" x 6-3/4".

One (1)
57-20-1200

The driver side warning light shall be a Whelen Model M6R red Super-LED with color lens.

One (1)
57-20-1201

The officer side warning light shall be a Whelen Model M6R red Super-LED with color lens.

One (1)

== Pumper/Tanker-Chassis Modifications - 401.025 04/01/25 ==

One (1)
10-02-1100

FLUID DATA PLAQUE

A fluid data plaque containing required information shall be provided based on the applicable components for this apparatus, compliant with NFPA Standards:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Drive axle lubricant
- Power steering fluid
- Pump transmission lubrication fluid
- Other NFPA applicable fluid levels or data as required

Location shall be in the driver's compartment or on driver's door.

One (1)
10-02-1300

NO RIDE LABEL

A "NO RIDERS" label shall be applied on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion is prohibited.

One (1)
10-02-1500

HEIGHT LENGTH & WEIGHT WARNING LABEL

A highly visible label indicating the overall height, length, and weight of the vehicle shall be installed in the cab dash area.

CAB SEATING POSITION LIMITS

A label shall be installed in the cab to indicate seating positions for firefighters. A weight allowance of 250 pounds for each shall be factored into the gross vehicle weight rating of the chassis.

One (1)
10-02-2500

HELMET WARNING TAG

A label shall be installed in the cab, visible from each seating position. The label shall read "CAUTION: DO NOT WEAR HELMET WHILE SEATED." Helmets must be properly stowed while the vehicle is in motion according to the current edition of NFPA 1901.

One (1)
10-03-6000

REAR TOWING PROVISIONS

There shall be two tow eyes furnished under the rear of the body and attached directly to the chassis frame rails. There shall be a reinforcement spreader bar connecting the two tow eyes. Tow eyes are to be constructed of 3/8" plate steel with a 4" I.D. hole, large enough for passing through a tow chain end hook.

One (1)
80-43-2400

The tow plates shall be painted black.

One (1)
10-04-0002

Bumper, Existing Commercial Bumper

One (1)
10-06-1110

HUB AND LUG NUT COVERS

The apparatus shall have chrome or stainless steel hub and lug nut covers on the front and single rear axles.

One (1)
10-06-1600

TIRE PRESSURE INDICATOR

There shall be a tire pressure indicator, p/n RWTG1235, at each tire's valve stem on the vehicle that shall indicate if there is insufficient pressure in the specific tire.

One (1)
10-07-1500

EXHAUST HEAT SHIELD

A heat shield shall be installed under the body in the areas where the exhaust system is routed.

One (1)
10-08-2100

REAR MUD FLAPS

A pair of black mud flaps shall be installed behind the rear wheels.

One (1)
10-10-1440

CAB STEP ENCLOSURE

The driver side of the Freightliner chassis shall be equipped with a modular step/fuel tank enclosure constructed from slip resistant aluminum tread plate to conform with applicable NFPA

standards. The entire step/enclosure is to be of a one piece design, bolted in place for ease of removal.

Heavy steel supports shall be provided to support the driver and passenger side cab entrance steps. Supports shall be attached directly to the chassis frame rails, and shall provide adequate support to the steps to minimize flex and distortion.

One (1)
10-10-1460

CAB STEP ENCLOSURE

The passenger side of the Freightliner chassis shall be equipped with a modular step enclosure constructed from slip resistant aluminum tread plate to conform with applicable NFPA standards. The entire step/enclosure is to be of a one piece design, bolted in place for ease of removal.

Heavy steel supports shall be provided to support the driver and passenger side cab entrance steps. Supports shall be attached directly to the chassis frame rails, and shall provide adequate support to the steps to minimize flex and distortion.

One (1)

== PTO Pump/Plumbing Maverick - 401.025 04/01/25 ==

One (1)
20-27-1250

ROSENBAUER NH FIRE PUMP

A Rosenbauer Model NH-1250 fire pump shall be mounted and installed. The midship combination normal and high pressure pump system shall have a rated capacity of 1250 GPM and shall meet all applicable sections of NFPA standards. The pump shall be constructed and mounted in accordance with the following specifications. The pump shall be equipped with a Kunkle relief valve.

PUMP PERFORMANCE

Normal Pressure
100% of rated capacity at 150 pounds net pressure
70% of rated capacity at 200 pounds net pressure
50% of rated capacity at 250 pounds net pressure
100% of rated capacity at 165 pounds net pressure

High Pressure
80 GPM at 600 PSI

The pump shall be capable of normal volume and high pressure flows simultaneously. Multiple discharge outlets shall be designed to flow both normal volume and high pressure at the same time.

PUMP BODY

The pump shall incorporate a single stage normal pressure 1250 GPM impeller assembly. The pump shall incorporate a high pressure, four-stage pump with an 80 GPM rating at 600 PSI.

Both the normal pressure and high pressure impellers shall be housed in the same pump body. A single impeller shaft shall support both the normal and high pressure impellers. Separate normal and high pressure pumps will not be acceptable.

The main pump body shall be easily removable without disturbing setting of the pump on the chassis or engine.

The pump manufacturer shall test the pump for 10 minutes hydrostatically at a pressure of 500 PSIG. Hydrostatic certification by the pump manufacturer shall be provided.

IMPELLER SHAFT

The high-grade impellers shall be accurately balanced and mounted on a stainless steel pump shaft. The shaft shall be supported by three roller bearings; two located in the gearbox and one in the suction inlet. Bearings shall be protected from water and sediment by maintenance free self-adjusting mechanical seals.

Both the normal pressure and high pressure impellers will be installed in an oppositely imposed manner to balance the thrust load and to increase bearing and seal life.

PUMP DRIVE SYSTEM

Fire pump shall incorporate high strength helical gear drive single stage transmission. Pump drive system shall be with a heavy-duty PTO system bolted directly to the chassis transmission. There shall be a heavy-duty drive shaft furnished from the PTO to the midship pump transmission.

--NP/HP switch to be located in cab and pump panel

One (1)
20-27-0150

PUMP BODY & IMPELLER MATERIAL

The pump body and impeller is to be of high quality seawater resistant light alloy. All parts that come into contact with water shall be special treated light alloy or stainless steel. Heavy cast iron pumps are not acceptable.

Fire Pump must be completely drained and keep dry between uses. Warranty implications apply

One (1)
20-27-5400

UL LISTING

Rosenbauer pumps are listing in the Underwriters Laboratories Inc. directory. The UL Listing means that Rosenbauer's manufacturing processes have been tested and approved to meet recognized safety standards. Once a manufacturer has earned the UL Listing, the manufacturer's facilities are periodically checked to ensure that they continue to meet UL standards. The UL mark is the most recognized, accepted and trusted symbol for product safety in the world.

One (1)
20-29-1200

TRIDENT PRIMER – AUTOMATIC

An automatic fire pump priming system shall be provided and installed. The system shall be oil-less type and environmentally safe. Once engaged, the system shall be fully automatic and not require any action from the pump operator/engineer when pump draft is lost. This feature provides an additional safety margin by maintaining pump flow from the available water source automatically during drafting operations. When air is introduced during a drafting operation from conditions such as whirlpools or turbulence from porta-tank refill operations, the priming system shall automatically engage to remove the air and stabilize water flow and pump pressure. For additional safety, the entire system shall operate at less than 70dBA of ambient noise.

The priming system shall engage automatically whenever the pump discharge falls below five (5) psi and shall remain engaged until a pump prime has been achieved. The priming system shall automatically disengage when a positive pump discharge pressure has been established. The electrical current draw from the chassis batteries shall not exceed four (4) amps at any given time of operation and allow for unlimited run time without causing an overheat condition for of any of the system components.

A single engagement switch shall be provided on the pump control panel that will allow the operator to engage the automatic pump priming system. There shall be a light provided on the pump control panel to indicate when the system is engaged. The pump shall be capable of taking suction and discharging water with a lift of 10 feet in not more than 30 seconds with the pump dry, through 20 feet of suction hose of appropriate size. The priming system shall comply with applicable sections of NFPA standards.

One (1)
20-29-1250

PRIMER CONTROL

A rocker switch control shall be provided on the pump operator's panel, for the main pump primer control.

One (1)
27-10-3112

PRESSURE GOVERNOR AND MONITORING DISPLAY

A Fire Research PumpBoss Max series PBA500-A00 pressure governor and control module kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module housing shall be waterproof and have dimensions not to exceed 7 1/2" high by 3 5/8" wide. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 2" from the front of the control module. The control LCD shall be 3.5” in

size with a minimum brightness of 1000 nits and optically bonded to 3mm Borofloat Glass. Inputs for monitored engine information shall be from a J1939 data bus or independent sensors. Outputs for engine control shall be on the J1939 data bus or engine specific signal wiring. Inputs from the pump discharge and intake pressure sensors shall be electrical.

The following continuous displays shall be provided:

- Engine RPM; shown on LCD screen
- Check engine and stop engine warning; shown on LCD screen
- Engine oil pressure; shown on LCD screen
- Engine coolant temperature; shown on LCD screen
- Transmission Temperature; shown on LCD screen
- Battery voltage; shown on LCD screen
- Pressure and RPM operating mode LEDs
- Pressure / RPM setting; shown on LCD screen
- Throttle ready / Ok to Pump LEDs.

On screen (LCD) message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. LCD Screen and LED's intensity shall be automatically adjusted for day and nighttime operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button.

It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Battery Voltage
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Transmission Temperature
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Out of Water (visual alarm only)
- No Engine Response (visual alarm only).

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

The pressure governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready and Ok to Pump LED shall light when the interlock signal is recognized. The pressure governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the pressure governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The pressure governor shall limit a discharge pressure

increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor control module shall be programmed at installation for a specific engine.

One (1)
20-28-3400

PTO PUMP SHIFT SPECIFICATIONS -- PUMP AND ROLL

An electric powered PTO pump shift shall be installed in the cab driver's area where not subject to accidental engagement.

An electric powered locking rocker switch for PTO pump engagement shall be installed in the cab driver's area. The pump shift system shall permit "pump and roll" operations, as well as stationary pumping operations.

The following indicator lights shall be included with pump shift.

- A green indicator light, labeled "PUMP ENGAGED" shall indicate pump PTO has successfully been engaged.
- A green indicator light, labeled "OK TO PUMP" shall indicate the PTO is engaged and parking brake is activated. Pump control is through the pressure governor.
- A red indicator light, labeled "PUMP & ROLL" shall indicate the PTO is engaged and parking brake is released. Pump control is through the driver's throttle pedal.
- Pump shift and interlocks shall comply with applicable sections of the NFPA standards.
- An instruction label and nameplate shall be provided to indicate proper pump engagement instructions.

One (1)
20-28-4100

PLUMBING - HIGH PRESSURE SIDE

The high pressure side of the Rosenbauer pump shall be plumbed to the front bumper turret.

One (1)
20-28-4200

PLUMBING - HIGH PRESSURE SIDE

The high pressure side of the Rosenbauer pump shall be plumbed to the hose reel.

One (1)
21-00-2000

PUMP ANODES

There shall be sacrificial, zinc anodes in the pump steamer ports which shall protect the pump and piping from electrolysis. These anodes shall also act as screens.

One (1)
21-00-3300

PUMP PLUMBING SYSTEM

The fire pump plumbing system shall be of rigid stainless steel pipe or flexible piping with stainless steel fittings. Mechanical grooved couplings shall be installed to permit flexing of the plumbing system and allow for quick removal of piping or valves for service. Flexible hose couplings shall be threaded stainless steel or mechanical grooved coupling connections.

The fire pump and plumbing shall be hydrostatically tested in compliance to applicable sections of NFPA standards. The test results shall be included in the delivery documentation.

One (1)
21-01-0200

FIRE PUMP MASTER DRAIN

The fire pump plumbing system and fire pump shall be piped to a single push-pull type master pump drain assembly.

ADDITIONAL LOW POINT DRAINS

The plumbing system shall be equipped with additional low point manually operated drain valves to allow total draining of the fire pump plumbing system. These valves shall be accessible from the side of the vehicle and labeled.

One (1)
21-01-5500

STAINLESS STEEL INTAKE MANIFOLD

The suction manifold assembly shall be fabricated with Schedule #10 type 304 stainless steel. All threaded fittings shall be a minimum of Schedule 10 stainless steel. The suction manifold assembly shall have radiused sweep elbows to minimize water turbulence into the suction volute. The suction manifold shall be welded and pressure tested prior to installation. The stainless steel manifold assembly shall be attached to the pump intake volute with a heavy-duty, flexible Victaulic coupling.

The stainless steel manifold assembly shall have a ten (10) year warranty.

One (1)
21-01-6500

STAINLESS STEEL DISCHARGE MANIFOLD

The discharge manifold assembly shall be fabricated with minimum of Schedule #10 Type 304 stainless steel. All threaded fittings shall be a minimum of Schedule #40 stainless steel. The discharge manifold assembly shall have radiused sweep elbows to minimize water turbulence. The manifold shall be welded and pressure tested prior to installation. The stainless steel manifold inlet shall be attached to the pump discharge and have additional brackets as required to support the discharge manifold, valves and related components.

The stainless steel manifold assembly shall have a ten (10) year warranty.

One (1)
21-01-7300

PLUMBING SYSTEM

The plumbing system shall be unpainted.

One (1)
21-01-8100

HOSE THREADS

The hose threads shall be National Standard Thread (NST) on all base threads on the apparatus intakes and discharges.

One (1)
22-03-1600

LEFT SIDE -- 6" UNGATED INTAKE

One (1) 6" ungated suction intake shall be installed on the left side pump panel to supply the fire pump from an external water supply. The threads shall be 6" NST. The intake shall be provided with a removable screen.

One (1)
22-41-5700

A 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be equipped long handles.

One (1)
22-03-2600

RIGHT SIDE -- 6" UNGATED INTAKE

One (1) 6" ungated suction intake shall be installed on the right side pump panel to supply the fire pump from an external water supply. The intake shall be provided with a removable screen.

One (1)
22-41-5700

A 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be equipped long handles.

One (1)
22-51-5210

WATER TANK TO PUMP LINE

A 3" water tank to the rear mounted fire pump line shall be provided with a full flow quarter turn ball valve, 4" piping, and with flex hose and stainless steel hose clamps. The tank to pump line shall be equipped with a check valve to prevent pressurization of the water tank.

The line shall be flow tested during the fire pump testing and shall meet applicable requirements of NFPA standards.

One (1)
22-50-0120

The tank to pump valve shall be controlled at the the pump operator's panel with one controller and the chassis cab's switch panel with a second controller.

One (1)
24-62-1310

The valve shall be an Akron 8000 Series three-inch (3") valve with a stainless ball.

One (1)
22-55-4810

The 3" valve shall be equipped with an Akron mini Navigator Pro 9327 controller and a 12 volt electric motor actuator shall be provided on the specified 3" discharge. The controller shall be

push button type and provide position indication through a full color backlit LCD display. A color-coded name plate shall be installed over the valve control.

One (1)
23-02-1300

FIRE PUMP TO WATER TANK FILL LINE

A 2" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve with 2" piping and flex hose to tank. The valve control handle shall have a nameplate located near the valve control.

One (1)
24-62-1200

The valve shall be an Akron 8000 Series two-inch (2") valve with a stainless ball.

One (1)
22-55-4012

An Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature shall be provided on the intake. The handle shall be equipped with a color-coded name plate.

One (1)
25-08-1200

ROSENBAUER FOAM SYSTEM -- PUMP PANEL& CAB CONTROLLED

A built in Rosenbauer Fix Mix foam system, suitable for all commercially available foaming agents, shall be incorporated into the construction of the Rosenbauer pump. The system shall provide a constant proportioning regardless of water pressure and volume. The Rosenbauer Fix Mix system shall be capable of providing foam at high pressure.

The foam system shall be controlled from the pump panel and the chassis cab console.

One (1)
25-08-1312

The system shall be capable of providing a constant foam proportioning independent of pump output and pump pressure. The system shall have a control switch at the pump operator's panel and the chassis cab for controlling the foam proportioner foam supply.

One (1)
25-08-1332

The system shall deliver foam at a proportioning rate of 1%.

One (1)
25-20-1200

1" FOAM TANK CONTROL -- CLASS A

A Class A foam tank shall be plumbed with 1" valve and corrosion resistant hose from the foam tank to the foam inlet of the foam system. The manually opened valve shall be provided behind the pump panel with a label.

One (1)
25-21-1300

INTEGRAL CLASS A FOAM TANK -- 20 GALLON

A twenty (20) gallon Class A foam tank shall be installed within the water tank. The non-corrosive foam tank shall meet applicable sections of NFPA standards. The foam concentrate tank shall be provided with sufficient wash partitions so that the maximum dimension perpendicular to the plane of any partition shall not exceed 36 inches. The swash

partition(s) shall extend from wall to wall and cover at least 75 percent of the area of the plane of the partition.

The foam concentrate tank shall be provided with a fill tower or expansion compartment having a minimum area of 12 square inches and having a volume of not less than 2 percent of the total tank volume. The fill tower opening shall be protected by a completely sealed air-tight cover. The cover shall be attached to the fill tower by mechanical means. The fill opening shall be designed to incorporate a 1/4 inch removable screen and shall be located so that foam concentrate from a five (5) gallon container can be dumped directly to the bottom of the tank to minimize aeration without the use of funnels or other special devices.

The foam tank fill tower shall be equipped with a pressure/vacuum vent that enables the tank to compensate for changes in pressure or vacuum when filling or withdrawing foam concentrate from the tank. The pressure/vacuum vent shall not allow atmospheric air to enter the foam tank except during operation or to compensate for thermal fluctuations. The vent shall be protected to prevent foam concentrate from escaping or directly contacting the vent at any time. The vent shall be of sufficient size to prevent tank damage during filling or foam withdrawal.

A color coded label or visible permanent marking that reads "FOAM TANK FILL" shall be placed at or near any foam concentrate tank fills opening. A label shall be placed at or near any foam concentrate tank fill opening that specifies the type of foam concentrate the system is designed to use. Any restrictions on the types of foam concentrate that can be used with the system shall also be stated, and a warning message that reads "WARNING: DO NOT MIX BRANDS AND TYPES OF FOAM."

The foam concentrate tank outlet connection shall be designed and located to prevent aeration of the foam concentrate and shall allow withdrawal of 80 percent of the foam concentrate tank storage capacity under all operating conditions with the vehicle level.

One (1)
25-22-9350

The foam tank(s) shall be fabricated by G3.

One (1)
25-23-1000

FOAM TANK DRAIN -- UNDER TANK

The foam tank shall have a 1" gate valve drain provision installed.

One (1)
20-30-3200

MIDSHIP FIRE PUMP DRIVESHAFTS AND INSTALLATION

The midship PTO fire pump shall be installed and shall include installation of the fire pump, modification and/or fabrication of new drivelines and all pump-mounting brackets. The PTO drive shaft(s) shall be spin balanced prior to final installation.

One (1)
20-31-3600

INTAKE RELIEF/DUMP VALVE

A TFT A18 series, 2-1/2" intake relief/dump valve preset at 125 psi shall be permanently installed on the suction side of the fire pump. The valve shall have an adjustment range of 75 psi to 250 psi, and shall be designed to automatically self-restore to a non-relieving position when excessive pressure is no longer present.

Discharge side of the intake relief valve shall be plumbed away from the pump operator.

One (1)
20-31-4100

FIRE PUMP COOLING

The fire pump shall be equipped with 3/8" cooling line from the pump to the water tank. This re-circulation line shall be controlled by a pump panel control valve with nameplate label noting it as the "fire pump bypass cooler". There shall be a check valve installed in the pump cooler line to prevent tank water from back flowing into the pump when it is not in use.

One (1)
20-31-5100

CHASSIS ENGINE HEAT EXCHANGER COOLING SYSTEM

The apparatus shall be equipped with a heat exchanger for supplementary chassis engine cooling during fire pump operations. A manually opened valve, mounted at the operator's panel, shall direct water from the fire pump to the heat exchanger that is mounted in the engine radiator cooling hose. The system shall provide cooling water from the fire pump to circulate around the engine radiator coolant without mixing or coming in direct contact with the engine coolant.

A nameplate label shall be installed on the pump panel noting "engine cooling system" with "on-off" opening directions noted.

One (1)
20-31-1100

UNDERWRITERS LABORATORIES FIRE PUMP TEST

The pump shall undergo an Underwriters Laboratories Incorporated test per applicable sections of NFPA standards, prior to delivery of the completed apparatus.

The UL acceptance certificate shall be furnished with the apparatus on delivery.

One (1)
20-31-1500

FIRE PUMP TEST LABEL

A fire pump performance and rating label shall be installed on the fire apparatus pump panel. The label shall denote levels of pump performance and testing completed at factory. These shall include GPM at net pump pressure, RPM at such level, and other pertinent data as required by applicable NFPA standards. In addition, the pressure control device, tank to pump flow tests, and other required testing shall be completed.

In addition, the entire pump, suction and discharge passages shall be hydrostatically tested to a pressure as required by applicable NFPA standards. The pump shall be fully tested at the pump manufacturer's factory to the performance specifications as outlined by applicable NFPA standards. Pump shall be free from objectionable pulsation and vibration.

If applicable, the fire pump shall be tested and rated as follows:

- 100% of rated capacity at 150 pounds net pressure.
- 70% of rated capacity at 200 pounds net pressure.
- 50% of rated capacity at 250 pounds net pressure.
- 100% or rated capacity at 165 pounds net pressure.

One (1)
22-12-1100

LEFT SIDE -- 2-1/2" GATED INTAKE

One (1) 2-1/2" gated suction intake shall be installed on left side pump panel to supply the fire pump from an external water supply. The control valve shall be a quarter turn ball valve and shall have 2-1/2" NST female thread of chrome plated brass.

The intake shall be equipped with a ¾" drain and bleeder valve. A nameplate label and removable screen shall be installed.

One (1)
21-01-2500

An Innovative Controls ¾" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
22-41-1100

A 2-1/2" chrome plated plug shall be provided. The threads shall be NST and the plug shall be equipped rocker lugs and chain or cable securement.

One (1)
24-62-1250

The valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
22-55-4050

The valve shall be equipped with a manually operated, swing-type manual control located adjacent the intake. The valve shall be equipped with a color-coded name plate.

One (1)
23-08-2510

TWO (2) 2" SPEEDLAY DISCHARGES

Two (2) 2" pre-connect hose speedlays shall be installed above the pump, controlled with quarter turn 2" diameter ball valves. The outlets shall be equipped 2" NPT female chicksan swivel x 1-1/2" male NST hose threads.

The hosebed decking shall be constructed with a removable slat material.

Two (2)
21-00-3500

NON Foam Capable Discharge

One (1)

21-00-4000

Each hose bed shall provide for a minimum capacity of 200 feet of 1-3/4" diameter double jacket hose with the hose and nozzle provided by the fire department.

Two (2)
21-01-2200

A Class 1 automatic type 3/4" bleeder valve shall be installed.

Two (2)
23-08-8100

REMOVABLE TRAY FOR PRE-CONNECTED HOSE BEDS

The 1-3/4" pre-connect hosebed(s) shall be equipped with two (2) "U" shaped aluminum hose tray(s). The unit shall be equipped with pull out hand holes.

Two (2)
24-61-1200

The specified valve shall be an Akron 8000 Series two-inch (2") valve with a stainless ball.

Two (2)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

Two (2)
27-02-1500

Two (2) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-08-3750

SPEEDLAY COVER

Black cargo webbing shall be provided at each speedlay hosebed. The webbing shall be permanently attached on the forward side and have velcro and a grab handle at the rear. A velcro retaining strap on both ends shall be provided. It shall be permanently attached on the cab side at the top of the crosslays with a footman's loop.

Two (2)
23-09-4100

LEFT SIDE PUMP PANEL -- 2-1/2" DISCHARGE

Two (2) 2-1/2" discharge shall be installed on the left side pump panel area and shall be controlled by a quarter turn ball valve. The discharge shall have 2-1/2" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

Two (2)
21-00-3500

NON Foam Capable Discharge

Two (2)

21-01-2500

An Innovative Controls ¾" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

Two (2)
24-02-1200

Two (2) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

Two (2)
24-03-1200

Two (2)
24-03-1400

Two (2) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

Two (2)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

Two (2)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

Two (2)
27-02-1500

Two (2) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

Two (2)
23-10-4100

RIGHT SIDE PUMP PANEL -- 2-1/2" DISCHARGE

Two (2) 2-1/2" discharge shall be installed on the right side pump panel area and shall be controlled by a quarter turn ball valve. The discharge shall have 2-1/2" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

Two (2)
21-00-3500

NON Foam Capable Discharge

Two (2)
21-01-2500

An Innovative Controls ¾" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

Two (2)
24-02-1200

Two (2) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

Two (2)
24-03-1400

Two (2) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

Two (2)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

Two (2)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

Two (2)
27-02-1500

Two (2) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-13-3100

REAR LEFT SIDE -- 2-1/2" DISCHARGE

One (1) 2-1/2" discharge shall be installed on the left side rear panel of the apparatus body and shall be controlled by a quarter turn ball valve on the pump panel. The discharge shall have 2-1/2" NPT x 2-1/2" NST male hose threads. The outlet shall be equipped with an engraved nameplate label shall be installed adjacent the valve control handle.

One (1)
21-00-3500

NON Foam Capable Discharge

One (1)
21-01-2500

An Innovative Controls ¾" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve

complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
24-02-1200

One (1) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

One (1)
24-03-1400

One (1) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

One (1)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
24-11-1100

FRONT BUMPER MONITOR DISCHARGE

One (1) 2" discharge shall be piped to the front center bumper area with 2" NPT male threads. The quarter turn ball valve shall be controlled in the chassis cab. The monitor shall be supplied by a flexible high pressure hose mounted with adequate support brackets and abrasion resistant mountings.

Low point drains shall be installed where necessary. A color coded nameplate label shall be provided.

One (1)
21-00-3504

The specified discharge shall be plumbed for foam.

Two (2)
21-01-2200

A Class 1 automatic type 3/4" bleeder valve shall be installed.

One (1)
24-15-3520

ELECTRICALLY REMOTE CONTROLLED MONITOR

An Elkhart Brass monitor, part number 02007101HD, shall be provided that features an integrated Wi-Fi communication system that allows for configuration and diagnostics via a Wi-Fi capable device.

The monitor shall be constructed from durable, hard anodized, lightweight Elk-O-Lite® material with a variable cross-sectional and vaned waterway for flows up to 750 gpm (3000 lpm) at 600 psi, (42 bars) for continuous duty. Monitor shall be constructed with thrust rods and thrust bearings on both horizontal and vertical rotational joints for improved product longevity. It shall be configured with female 2.5“ NPT or 2.5” BSPT style inlet connection and with male 2.5“ NHT or 2.5” BSPP style outlet connection.

The monitor shall have two (2) heavy duty gear motors that allow for simultaneous vertical and horizontal adjustment, one motor shall control up to 350 degree horizontal rotation while the other motor shall control up to 135 degrees vertical travel (-45 degree to +90 degree vertical rotation from horizontal). The horizontal and vertical motors shall have a manual override device for use in the event of power failure; electric controls shall be NEMA 4 rated and allow for programmable horizontal center position, vertical and horizontal stops, stow and deploy positions, keep out zones, and motor speeds fast or slow; electric control shall allow for horizontal and vertical oscillation, electric control shall be CAN compatible. It shall be compatible with both 12VDC and 24VDC power supply and shall include auxiliary output for driving an external device (i.e. light or camera).

EXM2 600 JOYSTICK CONTROLLER (7031X2)

- A remote monitor Joystick control, part number 02007031, with NEMA 4 rating shall include integrated CAN output and connect directly to monitor without the need for an intermediate communication module. It shall provide user interface for proportional monitor up/down, left/right rotation, stow, deploy, programmable horizontal and vertical automatic oscillation, nozzle control functions, and valve control functions. It shall also provide the user feedback for power on. The system shall provide programming capability for horizontal and vertical stops, stow and deploy positions, block-out zones, and motor speeds fast or slow. A 10’ CAN harness part number 37543010 shall be included with Joystick controller for connection directly to monitor.

  The Joystick trigger shall be wired to allow for connection to a relay which shall provide power output to open and close the monitor specific discharge valve when not controlled by the CAN network.

SELECTABLE FLOW NOZZLE (6000 SERIES)

- Elkhart Brass model 6000, part number 06000-202, “Selectable Flow” nozzle shall be provided. Flow range of nozzle shall be from 15GPM to 200GPM, manually selected. The nozzle shall have electrical pattern control from straight stream to wide fog controlled buy the specified Joystick controller located inside the chassis cab.

STREAM SHAPER (MINI)

An Elkhart Brass model 282A-mini, part number 03476001, shall be provided. The stream shaper shall be installed between specified monitor and nozzle to reduce water flow turbulence increasing water nozzle flow performance.

QUICK CONNECT FOR SIDEWINDER EXM2 (7150)

A quick connect, part number 00007150, shall be compatible with the 7100HDX2 Sidewinder EXM2 600, providing a reliable means to remove the monitor from plumbing without the use of any tools. It shall incorporate a safety mechanism that prevents removal of the monitor when in a pressurized state.

EXM2 POSITION DISPLAY MODULE (7051X2)

A Position Feedback Display, part number 02007051, shall provide user feedback for horizontal and vertical monitor positioning based on absolute position sensors. It shall also indicate when monitor has reached programmed stow position, and provide available range of motion through back-light feature. It shall be CAN compatible and shall be compatible with both 12VDC and 24VDC. In-Cab display mounting location to be specified by purchaser. A 10' CAN harness, part number 37543010 and CAN splitter, part number 24196000 shall be included with display for ease of installation.

--locate air blow out control at pump panel

One (1)
27-03-1750

IN-CAB PUMP AND ROLL DISCHARGE PRESSURE GAUGE

One (1) 2-1/2" discharge pressure gauges (0-600 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located in the chassis cab for pump and roll operations.

One (1)
27-37-3200

DISCHARGE AIR BLOWOUT

An air blow out shall be provided for the previous discharge. The air supply must be supplied from the chassis air system and be connected to a quarter turn valve located on the pump operator's panel.

One (1)
24-30-3800

ELECTRIC REWIND HOSE REEL

One (1) Hannay painted steel hose reel with leak proof ball bearing swing joint, adjustable friction brake, electric rewind shall be installed. The reel shall be plumbed with wire reinforced, high-pressure hose coupled. The reel shall be bolted to a mounting system for easy service or removal.

The hose reel is to be mounted in the upper rear body compartment.

One (1)
21-00-3504

The specified discharge shall be plumbed for foam.

One (1)
24-31-2100

A push button hose reel rewind switch shall be installed to control the electric rewind hose reel. The exact location shall be determined at construction.

One (1)
24-32-1200

A 1" discharge shall be provided and piped from the fire pump to the hose reel with flexible high pressure hose. The quarter turn ball valve shall be controlled on pump panel. A color-coded nameplate label shall be provided near the valve control handle.

One (1)
21-01-2500

An Innovative Controls ¾" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
24-32-1800

The specified hose reel shall be piped to the high pressure side of the fire pump.

One (1)
24-61-1115

One (1) Akron 8000 Series one-inch (1") valve with a stainless ball shall be supplied.

One (1)
24-53-6020

The valve shall be equipped with a KZCO KZ, Valve Model EH-2 12 volt electric actuator. The valve control shall be push button or rocker type switch with indicator light provided. When the valve is open, the indicator light shall illuminate. When the valve is closed the indicator light shall be off.

The control shall be properly identified with a color-coded name plate.

One (1)
27-03-1600

HIGH PRESSURE DISCHARGE GAUGE

One (1) 2-1/2" diameter discharge pressure gauges (0-600 PSI) shall be provided for the high pressure pump. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
24-33-1700

Three (3) 50-foot lengths of 1" water hose (150-foot) with pin lug couplings and 800 PSI working pressure shall be provided and mounted on the specified hose reel.

One (1)
24-33-5240

A Task Force Tips Ultimatic Automatic, model #BH-BGT automatic high pressure nozzle with shutoff shall be provided. The nozzle design shall allow for straight stream through dense wide

fog patterns. For corrosion resistance and durability the nozzle shall be constructed from hardcoat anodized aluminum alloy, a protective rubber bumper with fog teeth, stainless steel inlet debris screen, laser engraved serial number, reflective labeling and five year warranty. An Impulse pistol grip trigger valve shall be provided for easy operation.

The nozzle shall have a 25mm (1") female NH inlet, which allows the nozzle to swivel when tightened, and an automatically adjusted flow range of 40-500 LPM (10-125 GPM) at 700-5500 kPa (100-800 PSI).

One (1)
24-33-8000

The specified booster reel nozzle shall be mounted adjacent the hose reel area in secure clip or clamp type mountings.

One (1)
24-33-9600

One (1) stainless steel four sided captive type roller assembly shall be provided. The location of the captive rollers shall be:

One (1)
27-37-3150

BOOSTER REEL AIR BLOWOUT

An air blow out shall be provided for the booster reel. The air supply must be supplied from the chassis air system and be connected to a quarter turn valve located on the pump operator's panel.

One (1)
80-43-1600

HOSE REEL PAINTING

The hose reel(s) shall be painted silver gray.

One (1)

== Maverick-Side Mount Pump Compt - 401.025 04/01/25 ==

One (1)
26-02-4200

SIDE MOUNT PUMP ENCLOSURE

All pump suction and discharge controls are to be mounted on the driver side pump operator's panel so as to permit operation of the pump from a central location. The control panel shall be located at the front of the apparatus body, on the left side. Panel shall house pressure gauge and controls for the pump, including throttle if specified. Panel shall have an anodized aluminum shield with adequate illumination for nighttime operation. The lights shall be controlled by the operator's panel light switch. The valve controls shall be neatly arranged for access and visibility. All controls shall be clearly marked with permanent type labels and color-coded. The electrical wiring and all gauge lines shall be properly tie wrapped to prevent kinking or cutting of the lines.

The following controls and equipment shall be provided on the pump panel or within the pump enclosure:

- Primer.
- Pump and plumbing area service lights.

- Pressure control device and throttle control.
- Fire pump and engine instruments.
- Pump intakes and discharge controls.
- Master intake and discharge gauges.
- Tank fill control.
- Tank suction control.
- Water tank level gauge.
- Pump panel lights.

One (1)
26-30-1100

LEFT SIDE RUNNING BOARD -- SIDE MOUNT PANEL

The left side mount pump panel shall be equipped with side running board. The running board will extend along the width of the pump enclosure from the forward end of the body module to behind the chassis cab.

The running board shall be constructed of aluminum tread plate, bolted in place with stainless steel fasteners. The step surfaces shall be in compliance with applicable sections of NFPA requirements.

One (1)
26-30-1150

RIGHT SIDE RUNNING BOARD -- SIDE MOUNT PANEL

The right side mount pump panel shall be equipped with side running board. The running board will extend along the width of the pump enclosure from the forward end of the body module to behind the chassis cab.

The running board shall be constructed of aluminum tread plate, bolted in place with stainless steel fasteners. The step surfaces shall be in compliance with applicable sections of NFPA requirements.

One (1)
26-31-1300

PUMP ENCLOSURE ACCESS DOOR -- RIGHT SIDE UPPER

A pump panel access door shall be provided on the upper right side of the side mount pump enclosure. The door shall be constructed of 14 gauge #304 brushed stainless steel with push button type latches.

One (1)
26-35-3200

PUMP PANELS -- SIDE MOUNT

The pump operator's panel, along with the lower left hand and right hand pump panels shall be constructed of 14 gauge #304 brushed stainless steel and be fastened to the pump enclosure with 1/4" stainless steel bolts.

The instrument area shall have a stainless steel continuous hinge that shall swing for easy access to gauges.

One (1)

26-35-1100

LEFT SIDE PUMP PANEL -- BOLTED

The pump panel installed on the left hand side of the pump enclosure shall be fastened to the pump enclosure with 1/4" stainless steel bolts.

One (1)
26-35-1200

RIGHT SIDE PUMP PANEL -- BOLTED

The pump panel installed on the right hand side of the pump enclosure shall be fastened to the pump enclosure with 1/4" stainless steel bolts.

One (1)
26-36-5100

PUMP PANEL STAINLESS STEEL TRIM PANELS

Stainless steel intake and discharge trim rings shall be installed to the apparatus with mounting bolts. These assemblies will be used to identify intake and discharge ports with color and verbiage, using separate identification tags protected by chrome plated bezels. These trim rings are designed and manufactured to withstand the environment and shall be backed by a warranty equal to that of the exterior paint and finish. All labels shall be backed with 3M permanent adhesive (200MP), which meets UL969 and NFPA standards.

One (1)
26-50-1010

PUMP COMPARTMENT HEATER SYSTEM

The interior of the pump enclosure shall be equipped with a hot water heater system. The heater shall have a minimum of 35,000BTU and two centrifugal scroll case fans with a combined rating of 425CFM. The unit shall be piped to the chassis radiator system with standard heater hose. The hose shall be properly clamped and secured in place and be properly protected from engine exhaust or mechanical damage.

One (1)
26-50-1230

The heater system shall be equipped with a 12-volt blower fan with switch located on the pump operator's panel. The switch shall be labeled accordingly.

One (1)
26-50-3100

PUMP ENCLOSURE HEAT PAN

A removable casing constructed of galvanized steel, completely enclosing the underside of the pump compartment and heated by the engine exhaust shall be provided. The heat pan assembly shall include individual panels that can be easily removed from their mounting locations. The two outer slide-out panels shall be bolted in place.

One (1)
26-55-1100

LABELS

Safety, information, data, and instruction labels for apparatus shall be provided and installed at the operator's instrument panel.

The labels shall include rated capacities, pressure ratings, and engine speeds as determined by the certification tests. The no-load governed speed of the engine, as stated by the engine manufacturer, shall also be included.

The labels shall be provided with all information and be attached to the apparatus prior to delivery.

One (1)
26-55-2400

COLOR CODED PUMP PANEL LABELING AND NAMEPLATES

Discharge and intake valve controls shall be color coded in compliance to guidelines of applicable sections of NFPA standards.

Innovative Controls permanent type nameplates and instruction panels shall be installed on the pump panel for safe operation of the pumping equipment and controls.

One (1)
26-56-2000

PUMP ENGAGED LIGHT

One (1) pump panel light shall be illuminated at the time the fire pump is engaged into operation. The remaining lights shall be controlled by a switch located on the operator's instrument panel.

One (1)
27-01-2610

MASTER DISCHARGE AND INTAKE GAUGE BEZEL

Two (2) 4" diameter IC discharge pressure (0-600 PSI) and intake gauges (30"-0-600 PSI) shall be provided. The gauges and test ports shall be mounted in an IC bezel assembly, part number 3101813. The gauges will be located on the pump instrument panel.

The master gauges shall have clear scratch resistant molded crystals with captive O-ring seals shall be used to ensure distortion free viewing and to seal the gauge. The gauges shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from –40°F to +160°F. Each gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy. A polished chrome-plated brass bezel shall be provided to prevent corrosion and protect the lens and gauge case.

One (1)
27-35-4024

WATER/FOAM TANK LEVEL GAUGE - PUMP PANEL

The apparatus shall be equipped with an Innovative Controls SL Series Tank Level Monitor System shall be installed. The display model # shall be 3030359-04. The system shall include an electronic dual water/foam display module, two (2) pressure transducer-based sender units, and two (2) 15' connection cables. The display module shall show the volume of water/foam in the tanks using 10 super bright easy-to-see LEDs arrangement. The 10-LED arrangement shall form a straight vertical pattern to easily distinguish the tank level at a glance. Tank level indication is enhanced by the use of green LEDs at the full and near-full levels, amber LEDs

between ¾ and ¼ tank levels, and red LEDs at the near-empty and empty levels. The electronic dual water/foam display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound. The potted dual water/foam display module shall be mounted to a chrome plated panel-mount bezel with a durable easy-to-read polycarbonate insert featuring blue graphics and a water icon for water and red graphics and a foam icon for foam.

All programming functions shall be accessed and performed from the front of the display module. The programming includes self-diagnostics, manual or self-calibration, and networking capabilities to connect remote slave displays. Low tank level warnings shall include flashing red LEDs starting below the ¼ level and an output for an audible alarm.

The display module shall receive an input signal from a pressure transducer. This stainless steel sender unit shall be installed on the outside of the water tank near the bottom. All wiring, cables and connectors shall be waterproof without the need for sealing grease.

Location of the water/foam tank level display shall be at the pump panel.

One (1)

== Single Axle MAVERICK - 401.025 04/01/25 ==

One (1)
25-26-1900

WATER TANK - 2000 GALLON

The apparatus shall be equipped with a two-thousand (2000) gallon polypropylene water tank. The tank shall be equipped with a standard four-inch (4") overflow pipe or a six-inch (6") pipe as required for dump chute operations. The overflow pipe shall dump behind the rear axle of the apparatus.

One (1)
25-25-0060

WATER TANK

The apparatus shall be equipped with a "T" shaped tank.

One (1)
25-44-1400

WATER TANK FILL TOWER

A fill tower measuring approximately 10” x 10” square shall be provided on the water tank up to and including 3500 gallons total capacity.

One (1)
25-42-1100

The apparatus shall be equipped with a polypropylene water tank. The tank body and end bulkheads shall be constructed of .75" thick, polypropylene, nitrogen-welded and tested inside and out. Tank construction shall conform to applicable NFPA standards. The tank shall carry a lifetime warranty.

The transverse and longitudinal .375" thick swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments.

The .5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during fast fill operations. Drilled and tapped holes for lifting eyes shall be provided in the top area of the booster tank.

A combination vent/water fill tower shall be provided at front of the tank. The 0.5" thick polypropylene fill and overflow tower shall be equipped with a hinged lid and a removable polypropylene screen. The overflow tube shall be installed in fill tower and piped with a minimum schedule 40 PVC pipe through the tank.

The water tank sump shall be located in the forward area of the tank. There will be a schedule 40 polypropylene tank suction pipe from the front of the tank to the tank sump. The tank drain and clean out shall be located in the bottom of the tank sump. The sump shall have a minimum 3" threaded outlet on the bottom to be used for a combination clean out and drain.

The pump to tank refill connection shall be a sized to mate with tank fill discharge line. A deflector shield inside the tank will also be provided.

The tank shall rest on the body cross members in conjunction with such additional cross members, spaced at a distance that would not allow for more than 530 square inches of unsupported area under the tank floor. In cases where overall height of the tank exceeds 40 inches, cross member spacing must be decreased to allow for not more than 400 square inches of unsupported area.

The tank must be isolated from the cross members through the use of hard rubber strips with a minimum thickness and width dimension of 1/4” x 1” and a hardness of approximately 60 durometer. The rubber must be installed so it will not become dislodged during normal operation of the vehicle. Additionally, the tank must be supported around the entire bottom outside perimeter and captured both in the front and rear as well as side to side to prevent tank from shifting during vehicle operation.

A picture frame type cradle mount with a minimum of 2" x 2" x 1/4” mild steel, stainless steel, or aluminum angle shall be provided or the use of corner angles having a minimum dimension of 4" x 4" x 1/4” by 6” high are permitted for the purpose of capturing the tank.

Although the tank is designed on a free floating suspension principle, it is required that the tank have adequate vertical hold down restraints to minimize movement during vehicle operation. If proper retention has not been incorporated into the apparatus hose floor structure, an optional mounting restraint system shall be located on top of the tank, half way between the front and the rear on each side of the tank. These stops can be constructed of steel, stainless steel or aluminum angle having minimum dimensions of 3" x 3" x 1/4” and shall be approximately 6” to 12” long. These brackets must incorporate rubber isolating pads with a minimum thickness of 1/4” inch and a hardness of 60 durometer affixed on the underside of the angle. The angle should then be bolted to the body side walls of the vehicle while extending down to rest on the top outside edge of the upper side wall of the tank.

Hose beds floors must be so designed that the floor slat supports extend full width from side wall to side wall and are not permitted to drop off the edge of the tank or in any way come in contact with the individual covers where a puncture could occur. Tank top must be capable of supporting loads up to 200 lbs per sq. foot when evenly distributed. Other equipment such as generators, portable pumps, etc. must not be mounted directly to the tank top unless provisions have been designed into the tank for that purpose. The tank shall be completely removable without disturbing or dismantling the apparatus structure.

One (1)
25-42-1190

The water tank shall be certified for the capacity of the water tank prior to delivery of the apparatus. This capacity shall be recorded on the manufacturer's record of construction and the certification shall be provided to the purchaser when the apparatus is delivered.

One (1)
25-50-2500

DIRECT TANK FILL

A 2-1/2" diameter direct tank fill inlet shall be provided, including a 2-1/2" female NH swivel, plug and screen.

The valve shall be located and controlled on the right side rear of body.

One (1)
24-62-1250

The valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
22-55-4050

The valve shall be equipped with a manually operated, swing-type manual control located adjacent the intake. The valve shall be equipped with a color-coded name plate.

One (1)
25-50-2670

The direct tank fill inlet shall include a 2-1/2" female NH swivel, plug and screen.

One (1)
25-62-1260

QUICK DUMP - REAR

A Newton 10" quick dump valve shall be provided and externally mounted. The location shall be at the center rear of the apparatus.

One (1)
25-62-2300

A single electric operated control shall be provided to open and close the rear dump valve. The switch shall be conveniently located on the apparatus body near the valve.

One (1)
25-62-2650

The Newton dump valve installed on the water tank shall be constructed of stainless steel.

One (1)
25-62-4300

A swivel dump shall be fabricated with .125” aluminum and attached to the Newton Quick Dump.

The swivel dump shall have the ability to dump water from the driver's side or the officer's side and any point in between. The swivel dump is 70 inches long when fully extended. The swivel dump shall have an extension that is hinged and can be folded up when the dump is not in use. The dump shall have the ability to be stowed on either the driver's side or the officer's side of the truck. The latch that holds the extension in the stowed position shall also help support the swivel dump extension.

When the extension is in the down and extended position, there shall be no less than a 34 inch clearance from level ground to the bottom of the dump to ensure that there is enough clearance for the swivel dump to offload into all portable drop tanks.

The dump shall meet NFPA requirements for water delivery on three sides of the vehicle.

One (1)
25-62-4310

CAST HANDLE

A cast handle shall be installed on the underside of the dump chute extension. When the extension is flipped up for storage, the handle provides a firm grip to position the chute on the locking pin and to lift it from the locking pin when deployed.

One (1)
29-10-1000

HOSEBED SINGLE AXLE

The hose bed compartment deck shall be constructed entirely from maintenance-free, extruded aluminum slats. The slats shall have an anodized, radiused ribbed top surface. The slats shall be of widths approximately 3/4" high x 6" wide and shall be welded into a one-piece grid system to prevent the accumulation of water and allow ventilation to assist in drying hose.

The apparatus hose body shall be properly reinforced without the use of angles or structural shapes and free from all projections that might injure the fire hose.

The main apparatus hose body shall run the full length of the apparatus body from behind the pump panel area to the rear face of the body.

The upper rear interior of the hose body on the right and left sides shall be overlaid with brushed stainless steel to protect the painted surface from damage by hose couplings.

One (1)
29-10-5100

HOSE BED STORAGE CAPACITY

The hose bed shall be designed to have a storage capacity for a minimum of 55 cubic feet of fire department supplied fire hose.

One (1)
29-10-8100

ALUMINUM HOSEBED DIVIDER

One (1) adjustable hosebed divider constructed of .250" aluminum shall be installed on the apparatus.

One (1)
29-20-2000

VINYL HOSEBED COVER

The apparatus shall be equipped with a vinyl hosebed cover.

The cover, approximately 74” wide, shall be secured utilizing a velcro fastening system at the front and sides of the hosebed body.

One (1)
29-20-5600

The vinyl cover shall be red in color.

One (1)
30-01-1820

1/8" ALUMINUM BODY

The body shall be fabricated of aluminum extrusions, smooth aluminum sheet and aluminum treadplate.

The aluminum extrusion alloy shall be 6061 with a temper rating of T6, and have a tensile strength of 45,000 PSI and yield strength of 40,000 pounds. The aluminum extrusions shall 3" x 3" aluminum tubing, 1-3/4" x 3" aluminum tubing and 3" x 3" aluminum angle and specially designed extrusions, up to .250" wall thickness where applicable.

The smooth aluminum sheet material alloy shall be 5052 with a temper rating of H32, and have a tensile strength of 33,000 PSI and yield strength of 28,000 pounds.

The aluminum treadplate alloy shall be 3003 with a temper rating of H22, and have a tensile strength of 30,000 PSI and yield strength of 28,000 pounds.

The extrusions shall be designed as structural-framing members with the smooth aluminum and treadplate fabricated to form compartments, hosebeds, and floors. All aluminum material shall be welded together using the latest mig spray pulse arc welding system.

Compartment floors shall be of the sweep out design with the floor higher than the compartment door lip and to be water and dust proof. All compartments shall be made to the maximum practical dimensions to provide maximum storage capacity. To ensure maximum storage space, the apparatus shall be constructed without any void spaces between the body and the compartment walls. Double wall construction does not meet this requirement.

All exterior compartments shall have polished aluminum drip moldings installed above the doors where necessary to prevent water from entering the compartments.

Wheel well panels shall be formed aluminum that is welded in place. There shall be no visible bolt heads, retention nuts or fasteners on the exterior surface of the panel. To fully protect the wheel well area from road debris and to aid in cleaning, a full depth radius wheel well liner shall

be provided. The frame side of the wheel well area on each side of the opening shall be attached to the frame side of the front and rear compartments. All seams on the frame side of the body shall be welded and caulked to prevent moisture from entering the compartments.

The rear wheel wells shall be radius cut for a streamlined appearance. A fenderette shall be furnished at each rear wheel well opening, held in place with stainless steel fasteners.

FASTENERS

All aluminum and stainless-steel components shall be attached using stainless-steel fasteners.

Compartment door hinges, handrails and running boards shall be attached using minimum 1/4" diameter machine bolt fasteners.

3/16" diameter fasteners shall only be used in nonstructural areas such as door handles, trim moldings, gauge mounting, etc.

One (1)
30-01-2250

ELECTROLYSIS CORROSION CONTROL

The apparatus shall be assembled using ECK or electrolysis corrosion control, on all high corrosion potential areas, such as door latches, door hinges, trim plates, fenderettes, etc. This coating is a high zinc compound that shall act as a sacrificial barrier to prevent electrolysis and corrosion between dissimilar metals. This shall be in addition to any other barrier material that may be used.

All 1/4" diameter and smaller screws and bolts shall be stainless steel.

Due to the expected life of the vehicle, proposals will only be acceptable from manufacturers that include these corrosion features.

One (1)
30-02-2200

COMPARTMENT FLOORS

The compartment floors shall be constructed of smooth aluminum material, to match the compartment interior walls.

One (1)
30-10-1100

GALVANIZED SUB-FRAME

The apparatus body subframe shall be constructed entirely of heavy steel structural channel material.

Two full frame lengths, three-inch (3") 3.4 pound per foot longitudinal steel channels shall form the sides of the body subframe and sides of the water tank cradle. Subframe crossmembers shall be fabricated with three inch (3") 3.4 pound per foot heavy steel channel cross members welded to the longitudinal body subframe sides and the full length frame pads.

Two full frame length 1/2" x 3" flat steel frame pads shall be attached to the body subframe and rest on top of the chassis frame rails for proper frame weight distribution.

The steel frame pads, longitudinal steel channels and subframe crossmembers shall be attached to the chassis frame rails using heavy "U" bolt fasteners to allow removal of the subframe and body assembly from the chassis. There shall be a barrier provided between the subframe and body to prevent electrolysis.

The rear subframe and lower body platform support members shall be of the "two piece" design, fabricated of 3.4 lb. per foot heavy channel and welded to the full length subframe channel liners at the rear.

A minimum of two rear platform support channels shall be provided and constructed of 3.4 lb. Per foot heavy steel material. Each support channel shall have welded in gusset where the support meets the rear subframe rails.

After fabrication the entire subframe assembly shall be hot dip galvanized to prevent corrosion. The hot dip galvanized subframe shall have a lifetime warranty against failure due to corrosion.

This steel subframe shall carry the weight of the apparatus body, tank, water and equipment. This method of apparatus construction gives an excellent strength/weight ratio.

One (1)
31-01-1300

BODY CONFIGURATION

The aluminum apparatus body shall be up to 220" long, reference the drawing for actual body length.

One (1)
44-06-2200

SINGLE AXLE WHEEL AREA

For ease of accessibility and maintenance, wheel well panels shall be double break formed painted smooth plate that is welded in place.

To fully protect the wheel well area from road debris and to aid in cleaning, a full depth (minimum of 25") radius wheel well liner shall be provided. Wheel well liner shall be smooth aluminum to prevent corrosion.

One (1)
44-06-4100

FENDERETTES

The rear wheel wells shall be radius cut for a streamlined appearance. A polished aluminum fenderette shall be furnished at each rear wheel well opening, held in place with concealed stainless-steel fasteners.

One (1)
31-01-3115

BODY WIDTH

The overall width of the pumper body shall not exceed 102".

COMPARTMENT DEPTH

The left side compartments on the pumper body shall have the following dimensions:

Lower portion depth of 26"
Upper portion depth of 13"

The lower right side compartments on the pumper body shall be 26" deep.

One (1)
29-00-1300

HOSEBED WIDTH

The width of the pumper body hosebed shall be 74".

One (1)
32-03-0066

COMPARTMENT HEIGHT

The left side body compartments shall be 66" high.

One (1)
32-03-1030

COMPARTMENT HEIGHT

The right side body compartments shall be 30" high.

Five (5)
30-02-1150

ROLL UP DOOR CONSTRUCTION

The roll up door(s) shall be fabricated from aluminum extrusions and be manufactured and assembled in the United States.

The door slats shall be double-wall extrusions with dimensions of 1.366" high x .315" thick. The exterior surface shall be flat and the interior surface concave to deflect loose equipment to prevent the door from jamming. Each slat shall have interlocking end shoes to prevent the slat from moving side to side resulting in binding of the door. Each slat shall be separated by a co-extruded PVC and rubber inner seal to prevent metal to metal contact and minimize dirt and moisture from entering the compartment. The inner seal shall not be visible from the exterior to maintain a clean appearance of door. The slats shall have interlocking joints with a folding locking flange to provide security and prevent penetration by sharp objects.

The track shall be a one (1) piece aluminum assembly that has an attaching flange and finishing flange incorporated into the design that facilitates installation and provides a finished look to the door without additional trim or caulking. A low-profile side seal shall be utilized to maximize usable compartment space.

A drip rail designed to prevent water from dripping into the compartment shall be provided. The drip rail shall have a built in replaceable non-contacting seal to eliminate scratching of the surface of the door.

Bottom rail extrusion must have smooth back to prevent loose equipment from jamming the door and have "V" shaped double seal to prevent water and debris from entering the compartment. The door latch system shall be a full width one (1) piece lift bar that enables the user to operate with one hand.

The roll mechanism shall have a clip system that connects the curtain slats to the operator drum to allow for easy tension adjustment without tools. A four (4) inch diameter counterbalanced operator drum shall be incorporated to assist in lifting the door.

Five (5)
30-02-1230

DOOR FINISH

The roll up doors shall have a natural finish.

One (1)
32-05-1120

LEFT FRONT COMPARTMENT

There shall be one (1) full height compartment located ahead of the rear wheels. The compartment shall be equipped with a full height roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1252

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V5 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each

compartment door.

One (1)
32-05-1355

LEFT OVERWHEEL COMPARTMENT

There shall be one (1) compartment above the rear wheels. The compartment shall be equipped with a roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1252

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V5 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
32-05-1630

LEFT REAR COMPARTMENT

There shall be one (1) low compartment located behind the rear wheels. The compartment shall be equipped with a roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1252

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V5 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
32-06-1030

RIGHT FRONT COMPARTMENT

There shall be one (1) low compartment located ahead of the rear wheels. The compartment shall be equipped with a low roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1252

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V5 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
32-06-1630

RIGHT REAR COMPARTMENT

There shall be one (1) low compartment located behind the rear wheels. The compartment shall be equipped with a low roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1252

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V5 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
33-60-1150

REAR BODY CONFIGURATION

The rear of the apparatus body shall be of the flat back design.

One (1)
33-61-1300

REAR STEP - 12" BOLT-ON

A 12" deep step surface shall be provided at the rear of the apparatus body, bolted in place and easily removable for replacement or repair. The tailboard shall be constructed of .188" aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards. The ends of the tailboard shall be designed with approximately a 30-degree angle on each side.

A label shall be provided warning personnel that riding on the rear step while the apparatus is in motion is prohibited.

One (1)
90-02-4100

SLIDE OUT LADDER MOUNTINGS IN HOSEBED WITH DOOR

The ladders shall be stored in the hosebed in a full width enclosed compartment. The area shall house three (3) sets of dual ladder slide in tracks to store specified ladders in a horizontal

position. The mounting system shall be equipped with fiberglass angles and stop at front of ladders.

A full width aluminum diamond plate swing up door, with dual gas operators, shall be installed to enclose the ladder storage area.

One (1)
90-03-0226

LADDER SOURCE

New ground ladders shall be provided by the manufacturer.

One (1)
90-03-3300

ROOF LADDER

One (1) Duo Safety Model 775-A, 14-foot aluminum roof ladder with folding roof hooks on one end and spikes on the other end shall be provided on the apparatus. The ladder shall meet or exceed all latest NFPA Standards.

One (1)
90-06-4600

EXTENSION LADDER

One (1) Duo-Safety Model 900-A, 24-foot two (2) section aluminum extension ladder shall be provided on the apparatus. The ladder shall meet or exceed all the latest NFPA standards.

One (1)
90-08-2600

FOLDING LADDER

One (1) Duo Safety Model 585-A, 10-foot folding aluminum ladder shall be provided on the apparatus. The ladder shall meet or exceed all the latest NFPA Standards.

One (1)
90-03-0236

FOLDING ATTIC LADDER SOURCE

New folding attic ladders shall be provided by the manufacturer.

One (1)
90-02-5310

INTERNAL FOLDING ATTIC LADDER MOUNTING

An internal mounting shall be provided for the specified folding attic ladder.

One (1)
90-16-2600

PIKE POLE

One (1) 8' pike pole with round handle shall be provided. The pike pole shall be of fiberglass construction.

One (1)
90-16-2800

PIKE POLE

One (1) 10' pike pole with round handle shall be provided. The pike pole shall be of fiberglass construction.

Two (2)
90-16-5400

PIKE POLE MOUNTING BRACKET

Two (2) tube shall be provided for pike pole mounting. The tube shall have a 2" interior diameter and shall be mounted in the ladder tunnel.

One (1)
90-16-6115

PIKE POLE SOURCE

The pike poles shall be provided by the body builder.

Two (2)
90-25-7100

HARD SUCTION MOUNTING

Two (2) horizontally mounted aluminum hard suction hose tray with velcro straps shall be provided above the driver side body compartments.

One (1)
90-25-9115

SUCTION HOSE SOURCE

New suction hose shall be provided by the body builder.

Two (2)
90-25-3120

SUCTION HOSE

Two (2) 6.0" x 10-foot length of Kochek PVC flexible suction hose shall be supplied. The suction hose shall have light-weight couplings provided.

Two (2)
90-25-6100

HOSE COUPLINGS

Light-weight aluminum couplings shall be provided on the suction hose. A long handle female swivel shall be provided on one end and a rocker lug male shall be provided for the other end.

One (1)
90-30-3400

PORTABLE WATER TANK MOUNTING BRACKET

There shall be a fully enclosed folding tank storage carrier provided on the passenger side of the booster tank and above the lower compartments to carry a portable folding tank. The tank carrier shall hold the folding tank in the vertical position for travel, and fold down over the lower body side for loading and unloading. The folding tank carrier shall be fabricated of smooth aluminum painted to match the body side and have polished aluminum treadplate end caps. There shall be a hinged bracket that is bolted to the top of the lower compartments with rubber stops to prevent the folding tank carrier from touching the body side when in the down position. There shall be a reinforcement plate installed on the compartment top where the folding tank carrier is attached. There shall be two heavy-duty clamps provided to hold the tank in the travel position.

One (1)
90-30-5115

FOLDING TANK SOURCE

New folding tank shall be provided by the body builder.

One (1)

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One (1)
44-01-1450

FRONT BODY PROTECTION PANELS

Aluminum tread plate overlays and panels shall be installed on the front of the body compartment from the lower edge to the top of the compartment doors.

One (1)
44-01-6000

CATWALKS - DOOR HEADER

The door header and the top of the compartments shall be aluminum treadplate.

One (1)
44-01-4000

REAR BODY PROTECTION PANELS

The rear body panels of the body shall be a smooth material, to allow for the proper application and installation of a "Chevron" stripe on the rear.

One (1)
33-62-5300

REAR INTERMEDIATE STEP

An intermediate fixed step shall be provided at the rear of the apparatus body, bolted in place and easily removable for replacement or repair. The intermediate step shall be constructed of .188" polished aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards and be approximately 8" deep x 48" wide.

One (1)
38-90-2050

EZ CLIMB ACCESS LADDER - LEFT REAR

There shall be a swing out and down access ladder supplied and installed on the apparatus, for accessing the top of the apparatus. It shall be of an all aluminum design and shall incorporate treads six (6") inches deep and no more than eighteen (18") inches apart. The ground to the first step dimension, on level ground, shall be no more than twenty-four (24") inches.

The access ladder shall have integrated hand holds in the steps, to aid in the ascent/descent of the ladder.

When in the deployed position the ladder shall have an angle of approximately 75-degrees to facilitate ascending and descending the ladder. The ladder shall be retained in the stowed and deployed position by two (2) gas cylinders and shall not require the use of latches to hold it in position.

One (1)
33-70-1500

HANDRAIL REAR STEP

Two (2) extruded aluminum non-slip handrails, approximately 48" in length, shall be provided and vertically mounted on the rear access ladder, one (1) on each side.

One (1) extruded aluminum non-slip handrail, approximately 48" in length, shall be installed on the rear of the apparatus body, on the opposite side from the rear access ladder.

One (1)
33-70-2100

HANDRAIL BELOW HOSEBED

One (1) extruded aluminum non-slip handrail, approximately 48” in length, shall be provided and horizontally mounted below the hosebed on the rear of the apparatus.

One (1)
44-02-1100

EXTRUDED ALUMINUM RUB RAILS

Full body length polished aluminum rub rails shall be bolted in place on the lower right and left body sides. The side rub rails shall be a heavy extruded aluminum "C" channel.

One (1)
44-02-2000

NYLON SPACERS FOR RUB RAILS

There shall be nylon spacers provided between the rub rail and the body. This shall allow wash out and replacement in the event of damage.

One (1)
44-11-5100

WHEEL WELL PROVISION LOCATION

The wheel well provisions shall be located on the left side of the apparatus, ahead of the rear wheels.

One (1)
44-10-9160

A breathing air cylinder storage compartment shall be provided in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in place and removeable for repair or replacement.

Compartment shall be provided with SCBA cylinder scuff protection. A brushed aluminum door with push button trigger latch shall be provided. All SCBA compartments mounted in the wheel well area shall have an O-ring gasket with finger latch assembly.

7.5" diameter opening
101 body 26" deep

One (1)
44-10-6000

A one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)
44-11-5300

WHEEL WELL PROVISION LOCATION

The wheel well provisions shall be located on the left side of the apparatus, behind of the rear wheels.

One (1)
44-10-9160

A breathing air cylinder storage compartment shall be provided in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in place and removeable for repair or replacement.

Compartment shall be provided with SCBA cylinder scuff protection. A brushed aluminum door with push button trigger latch shall be provided. All SCBA compartments mounted in the wheel well area shall have an O-ring gasket with finger latch assembly.

7.5" diameter opening
101 body 26" deep

One (1)
44-10-6000

A one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)
44-11-5500

WHEEL WELL PROVISION LOCATION

The wheel well provisions shall be located on the right side of the apparatus, ahead of the rear wheels.

One (1)
44-10-9160

A breathing air cylinder storage compartment shall be provided in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in place and removeable for repair or replacement.

Compartment shall be provided with SCBA cylinder scuff protection. A brushed aluminum door with push button trigger latch shall be provided. All SCBA compartments mounted in the wheel well area shall have an O-ring gasket with finger latch assembly.

7.5" diameter opening
101 body 26" deep

One (1)
44-10-6000

A one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)
44-11-5700

WHEEL WELL PROVISION LOCATION

The wheel well provisions shall be located on the right side of the apparatus, behind of the rear wheels.

One (1)
44-10-9160

A breathing air cylinder storage compartment shall be provided in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in place and removeable for repair or replacement.

Compartment shall be provided with SCBA cylinder scuff protection. A brushed aluminum door with push button trigger latch shall be provided. All SCBA compartments mounted in the wheel well area shall have an O-ring gasket with finger latch assembly.

7.5" diameter opening
101 body 26" deep

One (1)
44-10-6000

A one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)

== MAVERICK-AC Electrical System - 401.025 04/01/25 ==

One (1)

== Maverick-Equipment Systems - 401.025 04/01/25 ==

One (1)

== Pumper/Tanker - Single Axle - Pnt/Ltr/St - 401.025 04/01/25 ==

One (1)
80-22-1504

BODY PAINT PROCESS

While constructing the truck body, all aluminum parts that are to be finish painted shall be properly fitted on the body and then removed to be painted as individually. The back side of all aluminum parts shall be sanded smooth of any burrs and sharp edges.

During reassembly of the apparatus, care shall be exercised in fitting and fastening the parts back in their respective position on the vehicle.

All aluminum parts shall be bolted to the body using stainless steel fasteners. Zinc or Cadmium plated fasteners are not acceptable. All bright metal fittings, if unavailable in stainless steel shall be heavily chrome plated. Iron fittings shall be copper plated prior to chrome plating.

All seams shall be caulked both inside and along the exterior edges with a urethane automotive sealant to prevent moisture from entering between any body panels.

The body and all parts shall be thoroughly washed with a grease cutting solvent (PPG DX330) prior to any sanding. After the body has been sanded and the weld marks and minor imperfections are filled and sanded, the body shall be washed again with (PPG DX330) to remove any contaminants on the surface.

The next two to four coats (depending on need) shall be a PPG DelFleet F4936 High Solids Epoxy Gray Primer. The film build shall be 4-6 mils when dry. The primer surfacer coat, after appropriate dry time, shall be sanded with 320-600 grit sandpaper to ensure maximum gloss of the paint. The last step is the application of at least three coats of PPG Delfleet polyurethane two-component color (single stage). The film build being 2-3 mils dry. The single stage polyurethane, when mixed with corresponding catalyst shall provide a UV barrier to prevent fading and chalking.

All products and technicians are certified by PPG every two (2) years.

One (1)
80-06-1100

APPARATUS COLOR

--body to match chassis Red L0762EY MED RED ELITE EY

One (1)
80-30-1100

INTERIOR COMPARTMENT FINISH

Six (6) apparatus side compartment interiors are to be painted with a spatter finish material. The compartments shall be cleaned with a grease remover, and then the surface sanded and prepared for painting. The compartment shall be provided with two (2) coats of white epoxy. The compartments are then coated with a splatter paint top coat.

One (1)
80-42-1500

TOUCH-UP PAINT

One (1) two (2) ounce bottle of touch-up paint shall be furnished with the completed truck at final delivery.

One (1)
80-50-1100

LETTERING

The dealer shall supply the apparatus lettering.

One (1)
80-70-1300

CAB AND BODY STRIPE

A straight Scotchlite reflective stripe, 4" in width, shall be applied horizontally around the cab and body in compliance with applicable NFPA 1901 standards. The purchaser shall specify the color and location of the stripe.

One (1)
80-75-1600

COLOR OF STRIPING MATERIAL

The color of the striping material shall be white.

One (1)
80-72-1100

CHEVRON STRIPING

The entire rear portion of the body shall have 3M reflective striping installed. The chevron style striping shall be applied at a 45-degree upward angle pointing towards the center upper portion of the rear panel.

One (1)
80-75-1500

COLOR OF STRIPING MATERIAL

The color of the striping material shall be red.

One (1)
80-75-1800

COLOR OF STRIPING MATERIAL

The color of the striping material shall be yellow.

One (1)
80-79-1000

YELLOW SAFETY TAPE - STANDING & WALKING SURFACES

The apparatus shall meet NFPA 1901 15.7.1.6 designating any horizontal standing or walking surface higher than 48-in (1220 mm) from the ground and not guarded by railing or structure at least 12-in (300 mm) high shall have at least a 1-in (25 mm) wide safety yellow line delineation that contrasts with the background to mark the outside perimeter of the designated standing or walking surface area, excluding steps and ladders.

One (1)

== Pumper/Tanker - Loose Equipment - 401.025 04/01/25 ==

One (1)
90-47-0099

FOLDING PORTABLE WATER TANK

A 2100-gallon, 22 oz vinyl, portable water tank shall be provided. The tank shall include an aluminum support frame.