Rosenbauer South Dakota

One (1) == Bid Prep Forms R Series FX Pumper - 1021.021 12/17/21 ==

S One (1) Information Request Form (Factory Required)
00-00-1100

INFORMATION REQUEST FORM

Please allow a minimum of 2 weeks of processing time for bids and 3 weeks for proposals. Trucks with numerous special options may require additional processing time. If expedited processing is required, please call ahead to make sure accommodations can be made before submitting files.

REQUEST TYPE	PROPOSAL		REQUESTED RETURN DATE	**2-25-21**
	BID	x	BID DATE	
	DRAWING ONLY			
	CONSORTIUM			
DEPARTMENT NAME	R Series 750 FD/HD Commander SC 18668-18672			
STREET ADDRESS				
PO BOX				
CITY/STATE/ZIP				
PHONE				
DEALERSHIP	**Rosenbauer Minnesota LLC**			
SALES REP	Tim Thompson			

INFORMATION NEEDED

x	Body Price		Amp Report -Must include chassis specs		ISO Certificate (Please download from dealer website)
x	Drawing		10% Bid Bond (Mail & E-Mail)		Cert of Insurance PDF
	Drawing Update / W&B Update -Must Include Marked Up Drawing		10% Bid Bond PDF **E-Mail Only**		Company History
x	Weight & Balance		5% Bid Bond (Mail & E-Mail)		Reference List
x	Chassis Price		5% Bid Bond PDF **E-Mail Only**		Legals -Please provided specific list of required items
	Match Previous Build -Must Include Job Number/Name		Please note job number here		

PENALTY CLAUSE?		**YES**	x	**NO**	**AMOUNT**
PENALTY CLAUSE VERBIAGE					

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Please insert penalty clause language here or submit a scan of penalty clause specification with project submission.	
MISC NOTES:	
SEND TO:	
NAME	Tim T
ADDRESS	100 Third Street
CITY/STATE/ZIP	Lyons SD 57041
EMAIL	tthompson@rosenbaueramerica.com

One (1) Fire Department Name
00-00-1300

R Series 750 FD/HD
Commander SC 18668-18672

BID SPECIFICATIONS

FOR

ROSENBAUER CUSTOM PUMPER

One (1) Overall Height Restriction, NONE
00-00-1499

OVERALL HEIGHT

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

One (1) Overall Length Restriction, NONE
00-00-1509

OVERALL LENGTH

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

One (1) Overall Width Restriction, NONE
00-00-1519

OVERALL WIDTH

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

One (1) Wheelbase Restriction, NONE
00-00-1529

WHEELBASE

A wheelbase restriction has not been specified for this apparatus.

One (1) Angle of Approach, NFPA Minimum, 8 Degrees
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 NFPA 1901.

One (1) Angle of Departure, NFPA Minimum, 8 Degrees
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 NFPA 1901.

One (1) Contract Change Notice
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 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, 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) Financial Stability Response
00-12-1100

FINANCIAL STABILITY SPECIFICATIONS

With high-profile instances of fire apparatus manufacturers encountering financial difficulties, it is imperative that fire departments be diligent in evaluating the financial position of the companies they solicit to build on their emergency response vehicles. A contract entered into with a company on shaky ground is a dangerous prospect, since conducting business with a manufacturer in such condition could open the department to monumental problems.

Take, for instance, the growing theme of manufacturers *requiring* as opposed to *offering* pre-payment and progressive payment options with a corresponding discount off the price of a vehicle. Such offers are made with an ulterior motive in mind, as it can be generally inferred that manufacturers requiring pre-payments and progressive payments do so because they need your cash *today* to fund production of other vehicles already in the backlog.

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Should problems arise, as has been the case in situations too numerous to mention, your department risks losing any down payments already made or even the entire cost of a piece of equipment should certain pre-pay discount situations go awry.

While pre-payment discounts may be enticing, it is important to know just how stable the manufacturer seeking your funds is before you make that commitment. If you enter into one of these agreements and the manufacturer hits a rough patch, it is you that will be hurting, because your funds may not be recoverable. However, if you enter into a contract with a financially sound manufacturer, you will reap all of the benefits of a well-built truck at a lower cost. You may equally, by taking advantage of the time-value of money, be able to afford more truck than initially thought, because funds saved by leveraging pre-payment options could allow you get some added features that you might not necessarily have been able to afford.

With this in mind, it must be noted that Rosenbauer is a company with rock-solid financial stability. This is a statement not made lightly, as we can prove it to you. We can provide language that you can insert into your bid specifications that stipulates that in order for bids to be accepted by a fire department, the company bidding must meet several fiscal criteria.

The first criteria call for the successful bidder to meet a debt-to-equity ratio not exceeding a 2.0 rating. Rosenbauer presently stands at a 1.51 rating, which is well-below the accepted rating. This low number results from Rosenbauer owning more assets with a marginal debt service. This means we are not using lenders to fund our operations, nor our growth.

The second requirement is that the debt coverage ratio of the successful body builder exceeds a 100 rating. The higher the number, the better able a company is to meet its payment obligations with banks and creditors. Rosenbauer's number is at 279.6, which is nearly three times the required amount. The higher the debt coverage ratio, the easily and more fluidly a company is positioned to pay its monthly obligations and operating costs.

The third criteria require that the equity ratio of the successful bidder must exceed .30 rating. A higher equity ratio indicates that the body builder has increased flexibility to meet its financial obligations which translates into greater financial stability. Rosenbauer currently has an equity ratio of .387 which is well above the accepted rating and an excellent indicator of financial strength.

When exploring and evaluating various manufacturers to consider for building your apparatus, there is little doubt you will find one that stands on as firmly a financial ground as Rosenbauer. While others are experiencing stressful issues that raise doubts as to the company's long-term viability, Rosenbauer continues to demonstrate a strengthening of its financial position in the apparatus manufacturing industry. Because Rosenbauer meets and exceeds all the above-stated financial bid requirements, we are best positioned to ensure customers of a strong relationship with the company, which cannot be claimed by most of our competitors in this volatile market.

The Rosenbauer America Dun and Bradstreet number is 02-447-3584. To acquire a Dun and Bradstreet report, telephone them at 1-800-234-3867 (in Canada 800-463-6362) or visit their web site address at www.dnb.com. Dun and Bradstreet is nationally-recognized, independent financial analysis company.

One (1) Calculated Center of Gravity
01-06-0500

CENTER OF GRAVITY

The apparatus, prior to acceptance, will be required to meet the vehicle stability of the applicable NFPA Automotive Fire Apparatus Standard.

A calculated center of gravity shall be provided. The calculated or measured center of gravity (CG) shall be no higher that 80-percent of the rear axle track width.

One (1) Technical Drawings, Representative Drawings (3-View) (Left/Right/Rear)
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 be 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) Change Orders
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) Mnls, Bdy Complete, Electronic Internet Service
01-33-3409

"ON-LINE" SERVICE MANUAL SUPPORT

As part of the standard delivery manual, **ROSENBAUER** shall give a password-protected link to the end user, allowing access to the manufacturers' database on service parts. The internet-based system shall allow the end user to access the major component supplier's service parts listing such as Hale, Waterous, Akron, etc. This shall be accomplished with simplistic point and click features on the manufacturer line item within the "stripper" or "line item sheet". This will include, automatic updates, printable schematics and manufacturer's web links and is available in the commercially available format of Adobe Acrobat Reader to access these documents. Rosenbauer America, LLC shall submit with the bid proposal, a sample set of on line Adobe formatted material that has been printed from the manufacturer’s website.

Parts Listings within Manuals

The manuals will include cross-reference part numbers from the **ROSENBAUER** part number to the vendor parts. Example: **ROSENBAUER** Hydraulic Ladder Rack, Part #LR-MN-0002 cross-referenced to Ziamatic Corporation Part 098-MN2345. This will allow for reference between individual parts and complete installation assemblies as completed by the body builder. The manuals will list all components of the vehicle that includes a vendor part utilized in a complete installation via the manufacturer’s "line item sheet" or "stripper" utilized to manufacture the completed vehicle. These are "As Built" and proposals with "typical" or "generic" manuals will be rejected.

Illustrative Schematics within Manuals

ROSENBAUER shall include installation diagrams and drawings of all major sub assemblies. This will include components such as hydraulic ladder rack assemblies, pump panels, tanks, fire pumps, etc. The drawings shall be linked via an Internet based service program, in an electronic

format from the manufacturers "stripper" (line item listing) of the manufacturing document. **ROSENBAUER** shall submit, upon request, a sample schematic.

Digital Images within Manuals

In addition to two and three-dimensional installation drawings, **ROSENBAUER** shall make accessible, via an internet based link, the actual photos of the installed components listed within the "stripper" or line sheet. This will include, but not limited to wiring terminals, main body distribution strips, fire pump shifting, auxiliary components, etc. **ROSENBAUER** shall submit a sample of these upon request.

Installation Instructions within Manuals

ROSENBAUER "work instructions" or "installation instructions" shall be included with the service manuals. These documents shall be accessible via a web-based link to the individual vehicle manufactured. The work instructions shall give systematic instructions of the component installation process. **ROSENBAUER** shall submit, upon request, a sample set of instructions.

Automatic Updates of Manuals and Parts Listings

The online manuals will include automatic updates that are accessible via the web link. When clicking on the part within the manufacturer's stripper or line sheet, it will allow the end user to access the component manufacturer website for updated information. This will allow for latest parts and service components from the individual part manufacturer or vendor.

Electrical Schematics

To maintain the vehicles electrical systems, the manufacturer shall provide to the purchaser the instructional manuals, complete electrical information and schematics on the vehicle. The electrical information shall be provided as follows:

Wiring Systems 12 and 120 Volt:

- Graphic symbols for electrical diagrams.
- Wire labeling, imprinting codes and index.
- Computer generated electrical schematics indicating the circuit number, wire size, switches, circuit breaker and terminals on the vehicle.

ROSENBAUER shall submit, upon request, a sample set of diagrams.

One (1) == Warranties - R Series Pumper - 1021.021 12/17/21 ==

Rosenbauer South Dakota

One (1) Warranty, Apparatus, Body Warranty, 1 Year
01-16-0150

BODY WARRANTY

We warrant each new motorized fire apparatus manufactured by ROSENBAUER AMERICA, LLC for a period of ONE YEAR from the date of delivery, except for chassis and other components noted herein.

Under this warranty we agree to furnish any parts to replace those that have failed due to defective material or workmanship where there is no indication of abuse, neglect, unusual or other than normal service providing that such parts are, at the option of ROSENBAUER AMERICA, LLC, made available for our inspection at our request, returned to our factory or other location designated by us with transportation prepaid within thirty days after the date of failure or within one year from the date of delivery of the apparatus to the original purchaser, whichever occurs first, and inspection indicates the failure was attributed to defective material or workmanship.

The warranty on the chassis and chassis supplied components, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty will not apply to any fire apparatus that has been repaired or altered outside our factory in any way, which in our opinion might affect its stability or reliability.

This warranty shall not apply to those items that are usually considered normal maintenance and upkeep services: including, but not limited to, normal lubrication or proper adjustment of minor auxiliary pumps or reels.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability in connection with the sales of our apparatus unless made in writing by ROSENBAUER AMERICA, LLC.

One (1) Warranty, Bdy, Alum, 5 Years
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.

Rosenbauer South Dakota

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) Warranty, Paint, PPG, 5 Years
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.

Rosenbauer South Dakota

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) Pump Warranty, Waterous, 7 Years
01-17-0750

PUMP WARRANTY

Waterous warrants, to the original buyer only, that products and parts manufactured by Waterous will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one half 7-1/2 years from the date of shipment by Waterous, whichever period will be the first to expire; provided the buyer notifies Waterous in writing, of the defect in said product within the warranty period, and said product is found by Waterous to be conforming with the aforesaid warranty.

When required in writing by Waterous, defective products must be promptly returned by the buyer to the Waterous Company at Waterous' plant at South St. Paul, Minnesota, or at such other place as may be specified by Waterous with transportation and other charges prepaid. A returned materials authorization (RMA) is required for all products and parts and may be requested by phone, fax or mail. The previously mentioned warranty excludes any responsibility or liability of Waterous for:

A. 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 by buyer;

B. Defects in products manufactured by others and furnished by Waterous hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, Waterous will assign to the buyer, if requested by Buyer;

C. Any product or part, altered, modified, serviced or repaired other than by Waterous, without its prior written consent.

D. The cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation.

E. Normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, etc.)

Rosenbauer South Dakota

This warranty is subject to Waterous' conditions of sale (Waterous Company form number F-2190 as currently in effect all of which are herein incorporated and by this reference made a part hereof.

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. Waterous 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. Waterous' liability hereunder, either for breach of warranty or for negligence, is expressly limited at Waterous' option:

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

B. To the repair of such product or part, or

C. 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) Plmbg Warranty, Stnls Stl, 10 Years
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.

S One (1) Rosenbauer Commander Chassis 450HP 20/24 axles
09-01-0297

CUSTOM CHASSIS

The chassis shall be a Rosenbauer Commander per attached specifications.

One (1) Cast Fuel Assembly on Rr
09-01-5200

CAST ALUMINUM FUEL FILL ASSEMBLY

There shall be a cast aluminum fuel fill assembly furnished in the driver's side behind rear axle for the rear mount fuel tank. The fuel fill assembly shall consist of a polished cast aluminum housing with fuel fill neck and cap.

One (1) Hrzntl Chassis Exhaust (Front of Rr wheel)
09-01-6100

HORIZONTAL CHASSIS EXHAUST

The chassis exhaust system shall be extended to the front of the right rear wheel.

One (1) == R Series DC Electrical System COMMANDER - 1021.021 12/17/21 ==

One (1) Whelen Light Package - Commander
50-01-9012

One (1) Siren, Elect, Whelen 295SLSA1
56-01-1602

ELECTRIC SIREN AND CONTROL

One (1) Whelen model #295SLSA1 electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard wired PA microphone.

One (1) Spkr, Whelen SA315P, 100 Watt
56-02-1750

SPEAKER

One (1) Whelen Model #SA315P, nylon composite speaker shall be installed. The speaker shall be wired to the electric siren located in the cab.

One (1) Spkr Lctn, To Be Determined by Body Mfg
56-03-1800

SPEAKER LOCATION

The siren speaker shall be installed on the apparatus bumper extension, as determined by the body manufacturer.

One (1) Lt Bar, Whelen, Ultra Freedom IV, #F4N7QLED, LED, 72" (fully populated)
57-02-2502

LIGHTBAR

One (1) Whelen Ultra Freedom IV fully populated light bar shall be included with the apparatus cab. The light bar shall be a model F4N7QLED and shall be mounted on the roof of the cab, towards the front, above the windshield.

The light bar shall feature:

- A 72" light bar designed for high performance
- Two (2) red Linear Super LED corner modules
- Two (2) red 400 series Linear Super LED endcap lights
- Ten (10) red 400 series Linear Super LED lights
- Two (2) white 400 series Linear Super LED lights with 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) Lightbar Cntrl, with Master Warning Switch
57-10-0600

Rosenbauer South Dakota

LIGHTBAR ACTIVATION

The front upper light bar shall be activated through the master warning switch.

One (1) Wrn Lts, Whelen, Upper Rr (2) M9 LED
58-71-1774

UPPER REAR WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one each side on the upper rear of the apparatus body. The dimensions of the lights shall be 6-1/2" x 10-3/8".

One (1) Wrn Lt, Drvr, Whelen, M9, Red LED, Color Lens, Ea
57-20-1400

The driver side warning light shall be a Whelen Model M9R red Super-LED™ with color lens.

One (1) Wrn Lt, Offcr, Whelen, M9, Red LED, Color Lens, Ea
57-20-1401

The officer side warning light shall be a Whelen Model M9R red Super-LED™ with color lens.

Two (2) Flange, Chrome, Wrn Lt, Whln, M9 Ea
58-01-2180

Each light shall be mounted with a Whelen Model M9FC chrome flange.

One (1) Wrn Lts, Whelen, Upper Side Rr (2) M9 LED
58-61-2100

UPPER SIDE REAR WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one each side on the upper portion of the body side, towards the rear of the body. The dimensions of the lights shall be 6-1/2" x 10-3/8".

One (1) Wrn Lt, Drvr, Whelen, M9, Red LED, Color Lens, Ea
57-20-1400

The driver side warning light shall be a Whelen Model M9R red Super-LED™ with color lens.

One (1) Wrn Lt, Offcr, Whelen, M9, Red LED, Color Lens, Ea
57-20-1401

The officer side warning light shall be a Whelen Model M9R red Super-LED™ with color lens.

Two (2) Flange, Chrome, Wrn Lt, Whln, M9 Ea
58-01-2180

Each light shall be mounted with a Whelen Model M9FC chrome flange.

One (1) Wrn Lts, Whelen, Uppr Wing, (2) M6 LED
58-03-6302

UPPER WING FRONT WARNING LIGHTS

One (1) pair of Whelen model M6 LED warning lights shall be installed, one each side one the front of the chassis cab upper wing area. The dimensions of the lights shall be 4-5/16" x 6-3/4".

One (1) Wrn Lt, Drvr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1200

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

One (1) Wrn Lt, Offcr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1201

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

Two (2) Flange, Chrome, Wrn Lt, Whln, M6, Ea
58-01-2140

Each light shall be mounted with a Whelen Model M6FC chrome flange.

One (1) Wrn Lts, Whelen, Intrsct (2) M6 LED
58-09-2000

INTERSECTION WARNING LIGHTS

One (1) pair of Whelen model M6 LED warning lights shall be installed one each side of the chassis cab. The dimensions of the lights shall be 4-5/16" x 6-3/4".

One (1) Wrn Lt, Drvr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1200

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

One (1) Wrn Lt, Offcr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1201

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

Two (2) Flange, Chrome, Wrn Lt, Whln, M6, Ea
58-01-2140

Each light shall be mounted with a Whelen Model M6FC chrome flange.

One (1) Wrn Lts, Whelen, Low Mid Bdy (2) M2 LED, in Rub Rail
58-26-2400

LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model M2 LED warning lights, model M2WR, shall be installed , one each side of the apparatus, mid-body in the rub rail. The dimensions of the lights shall be 4-1/4" x 2-11/16".

Will only fit in EXT rub rail WITHOUT bezel

One (1) Wrn Lt, Drvr, Whelen, M2, Red LED, Color Lens, Ea
57-20-1000

The driver side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

One (1) Wrn Lt, Offcr, Whelen, M2, Red LED, Color Lens, Ea
57-20-1001

The officer side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

One (1) Wrn Lts, Whelen, Low Rr Side (2) M2 LED, in Rub Rail
58-36-2400

LOWER REAR SIDE WARNING LIGHTS

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One (1) pair of Whelen model M2 LED warning lights shall be installed , one each side of the apparatus, towards the rear of the body, in the rub rail. The dimensions of the lights shall be 4-1/4" x 2-11/16".

Will only fit in EXT rub rail WITHOUT bezel

One (1) Wrn Lt, Drvr, Whelen, M2, Red LED, Color Lens, Ea
57-20-1000

The driver side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

One (1) Wrn Lt, Offcr, Whelen, M2, Red LED, Color Lens, Ea
57-20-1001

The officer side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

One (1) Wrn Lts, Whelen, Low Rr (2) M6 LED
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) Wrn Lt, Drvr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1200

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

One (1) Wrn Lt, Offcr, Whelen, M6, Red LED, Color Lens, Ea
57-20-1201

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

One (1) Tail/Brake Lts, Whelen, LED, M6 (Pair)
53-03-2750

TAIL LIGHTS

One (1) pair of Whelen M6 LED tail/brake lights shall be provided. The rectangular 4"x6" lights shall be red.

One (1) Turn Signals, Whelen, LED w/ Arrow, M6 (Pair)
53-04-2750

TURN SIGNALS

One (1) pair of Whelen M6 LED turn signals with populated sequential chevron arrow shall be provided.

One (1) Backup Lts, Whelen, LED, M6 (Pair)
53-06-3550

BACKUP LIGHTS

One (1) pair of Whelen Series M6 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) Tail Lt Bezel, 4 Lts, Whln M6 (Pair), ABS Chrome
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) Elecal, Base, Multi-Plex, Weldon V-MUX Bdy
50-04-1000

LOW VOLTAGE ELECTRICAL SYSTEM SPECIFICATIONS VMUX

A Weldon V-MUX® style 6060 Input/output "Hercules HC" Nodes shall be provided for the multiplexed electrical system; with a sealed to IP67 enclosure, sealed Deutsch connectors, (16) switch inputs, (4) analog sensor inputs, (32) output channels, dual A & B V-MUX communication ports, dual CAN communication ports, and built in LED network status indicators . The Hercules node shall be capable of carrying up to 120 amps of load at high temperatures (85C), be field programmable via USB, and support on-board diagnostics. [Item #6060-0000-00]

Weldon V-MUX style 6000 Input/output **"Hercules"** Nodes shall be provided for the multiplexed electrical system; with a durable extruded aluminum enclosure, sealed Deutsch connectors, (16) switch inputs, (3) analog sensor inputs, (26) output channels, dual A & B communication ports, and built in LED status indicators. The Hercules node shall be capable of carrying up to 120 amps of load at high temperatures, be field programmable, and support complete on-board diagnostics. [Item #6000-0000-04]

Weldon V-MUX style 6010 Input/output **"Mini"** Nodes shall be provided for the multiplexed electrical system, with a durable Deutsch enclosure, sealed Deutsch connectors, (4) switch inputs, (1) analog sensor input, (12) output channels, dual A & B communication ports, and built in LED status indicators. The Mini node shall be capable of carrying up to 55 amps of load at high temperatures, be field programmable, and support complete on-board diagnostics. [Item #6010-0000-00]

Weldon V-MUX style 6020 **"Input expansion"** Nodes shall be provided for the multiplexed electrical system, with a durable Deutsch enclosure, sealed Deutsch connectors, (16) switch inputs, dual A & B communication ports, and built in LED status indicators. The Input expansion Node shall be field programmable. [Item #6020-0000-00]

Weldon V-MUX style 6030 **"8x16"** Nodes shall be provided for the multiplexed electrical system; with a durable extruded aluminum enclosure, sealed Deutsch connectors, (8) switch inputs, (2) analog sensor inputs, (16) output channels, dual A & B communication ports, and

built in LED indicators. The 8x16 Node shall be capable of carrying up to 80 Amps of load at high temperatures, be field programmable, and support complete on-board diagnostics. [Item #6030-0000-00]

Weldon V-MUX style 6241 **"Vista IV"** Nodes shall be provided as color display interfaces for the multiplexed electrical system; to indicate real-time status of doors, seats, sensors, and other components of the vehicle. The menu-oriented displays shall allow the user to control interior and exterior vehicle lights, interior HVAC, system Diagnostics, engine High Idle, among other multiplexed functions. The Vista IV shall support vehicle cameras, GPS display, and DVD video, through use of four NTSC-format video plug-in channels. The Vista IV display shall have the ability to automatically change screens based on vehicle state so as to show warning message or status. Messages will be displayed in a variety of text fonts and color graphics. Device controls will be accessed by means of seven fixed buttons using a custom label and eight screen-based menu-driven buttons. The Vista IV will support both flush surface mounting or 6” and 9” Pana Vise™ riser-mount options. The Vista IV can be updated (flashed) via a USB port, not requiring a PC/laptop interface. There is also a touch screen option with the Vista IV Standard. [Item #624x-xxxx-xx: exact part number will be based on configuration.]

Weldon V-MUX style **"Touchscreen Vista"** Nodes shall be provided as touchable interactive color display interfaces for the multiplexed electrical system; to indicate real-time status of doors, seats, sensors, and other components of the vehicle. The menu-oriented touch interface shall allow the user to control interior and exterior vehicle lights, interior HVAC, system Diagnostics, engine High Idle, among other multiplexed functions. The Touchscreen Vista shall support vehicle cameras, GPS navigation, and DVD video, through use of four NTSC-format video channels. The Vista touch only is protected by an ABS housing. The housing is slightly less than doubled in size to fit in most OEM radio openings. The Vista IV touch only has mounting options with aftermarket radio installation kits for a clean factory look. The Touchscreen Vista display shall have the ability to automatically change screens based on vehicle state so as to show warning message or status. Messages will be displayed in a variety of text fonts and color graphics. Device controls will be nominally screen based, with an integrated interface with style 6311 PODS Button Modules. USB port is integrated for updating/programming display and will remain powered for USB charging abilities. [Item #624x-xxxx-xx: exact part number will be based on configuration.]

A Weldon V-MUX style 6310 **"PODS"** Controller with 6311 Button Modules shall be provided so as to support up to 64 programmable buttons which communicate along an expandable daisy-chaining serial link. The PODS Controller and Button Modules shall have built-in LED status indicators and be field programmable. [Item #6310-0000-24 (PODS Controller), #6311-0400-00 (4-button module), #6311-0300-00 (3-button module)]

One (1) Dr Open/Hazard Wrn Lt, Flashing LED Red Lens
55-11-1300

Rosenbauer South Dakota

DOOR OPEN LIGHT

One (1) 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 LED marker light with a red lens and shall be properly marked and identified.

One (1) Swtch Panel, Cab Dash
50-12-1200

DASH MOUNTED EMERGENCY ELECTRICAL SWITCH PANEL

An electrical switch panel shall be designed and mounted in the cab dash area. All switches shall be provided with backlighted snap-in legend inserts.

SWITCHES

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.

An internally lighted "master" switch shall be provided and wired through a heavy-duty relay to activate power to the emergency lights.

One (1) Batteries, With Supl'd Chs
50-15-1100

BATTERY SYSTEM

The battery system shall be supplied with the chassis.

One (1) Battery Swtch, Mstr Disconnect , Chs Sppld
50-15-3100

MASTER ELECTRIC SWITCH

One (1) 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) Air Horns, (2) Rcsd, One Ea Side Bumper, 24.5" Stuttertone, Chrome
50-41-3002

AIR HORNS

Two (2) 24.5" Stuttertone chrome plated air horns shall be recess mounted into the front bumper with one positioned on each side. An air protection valve shall be provided in the air horn piping that will not allow the chassis air brake system to drop below 90 PSI.

One (1) Air Horn Cntrl, Driver, Sgle Ft Swtch
50-43-2100

AIR HORN FOOT SWITCH

One (1) foot switch shall be installed to activate the air horn system on the driver's side of the floor.

One (1) Air Horn Cntrl, Officer, Sgle Ft Swtch
50-43-2200

AIR HORN FOOT SWITCH

One (1) foot switch shall be installed to activate the air horn system on the officer's side of the floor.

One (1) Lt, Pump Cmpt, 12 Volt LED With Swtch
51-05-6400

PUMP ENCLOSURE LIGHTS

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

One (1) Switch on Light Head
51-05-9000

The control switch shall be mounted on the light head.

One (1) Back Up Camera, Install Chassis Supl'd
52-02-1100

BACKUP CAMERA

One (1) 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) Marker Lts, LED, DOT Requirements
53-01-1200

MARKER LIGHTS

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

One (1) License Plate Brkt, Stainless w/ LED Lt, Rr,
53-02-1200

LICENSE PLATE BRACKET

One (1) stainless steel license plate bracket shall be provided at the rear of the apparatus. The bracket shall have a LED light.

One (1) Ground Lts, Pump Panel , LED, TecNiq Pair
54-03-1280

PUMP PANEL GROUND LIGHTS

Two (2) TecNiq LED #LED E10 ground lights shall be installed under the pump panel running boards. One (1) light shall be located on the driver's side and one (1) light located on the officer's side of the apparatus.

One (1) Ground Lts, Rear Step , LED, TecNiq Pair
54-03-1680

REAR STEP GROUND LIGHTS

Two (2) TecNiq LED #LED E10 ground lights shall be installed under the rear step. One (1) light shall be located on the driver's side and one (1) light located on the officer's side of the apparatus.

One (1) Lt Swtch , Ground Lts w/ Park Brake
54-04-1999

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

One (1) Step Lt, Rr Tailboard, LED, Ea
54-10-1450

REAR TAILBOARD LIGHTS

One (1) LED step lights with clear lens shall be installed to illuminate the step surfaces at the rear of the apparatus body.

One (1) Lt Swtch , Step/Wlkwy Lts Wired Park Brake Swtch
54-11-2100

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

One (1) Scene Light Package R Series FX Pumper
54-15-0050

SCENE LIGHT

One (1) Whelen M9 Series Model # M9LZC scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super-LED® and Smart LED® technology.

The M9LZC shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The M9LZC shall have the ability to be installed as a surface mount scene light.

Voltage: +12v
Size: H=6.51”, W=10.34”, D=1.892”
Amp Draw: 6.0 Amps
Lens Color: Clear

Six (6) Scene Lt, Whelen, M9LZC LED, w/Chr trim ring
54-15-1292

SCENE LIGHT

Six (6) Whelen M9 Series Model # M9LZC scene light(s) shall be provided. The steady burn scene light shall incorporate Linear Super-LED® and Smart LED® technology.

The M9LZC shall be furnished with a chrome trim ring, a rubber gasket, screws, and screw grommets for installation. The M9LZC shall have the ability to be installed as a surface mount scene light.

Voltage: +12v

Size: H=6.51”, W=10.34”, D=1.892”
Amp Draw: 6.0 Amps
Lens Color: Clear

Two (2) Scene Lt Lctn, Left Side Of Bdy
54-15-5502

SCENE LIGHT LOCATION

Two (2) scene light shall be located on the left side of the apparatus body.

Two (2) Scene Lt Lctn, Right Side Of Bdy
54-15-5602

SCENE LIGHT LOCATION

Two (2) scene light shall be located on the right side of the apparatus body.

Two (2) Scene Lt Lctn, Rr Of Bdy
54-15-5700

SCENE LIGHT LOCATION

Two (2) scene light shall be located on the rear of the apparatus body.

One (1) Scene Lt Swtch , Rr Scene Lts, Auto w/ Reverse
54-15-6700

SCENE LIGHT SWITCHING

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

Three (3) 3-Way Cntrl Swtch, All Lts, Driver VISTA/Pmp Pnl
54-15-6390

SCENE LIGHT SWITCHING

All scene light(s) shall activate via a virtual scene light switch located on the driver's Vista screen and by a switch on the pump panel. The switching shall be wired to operate in a three-way configuration to allow the light(s) to be controlled from either location regardless of switch position. The switches shall be labeled "SCENE LIGHTS".

One (1) == R Series Pumper -Chassis Modifications - 1021.021 12/17/21 ==

One (1) Label, Data, Fluid Levels
10-02-1100

FLUID DATA PLAQUE

One (1) 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) Label, Data, Height x Length, Weight
10-02-1200

DATA & WARNING LABELS

HEIGHT LENGTH & WEIGHT

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

One (1) Label, Data, "No Ride" Rr Step
10-02-1300

NO RIDE LABEL

One (1) "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) Label, Data, Tire Pressure
10-02-1400

TIRE PRESSURE LABEL

A label shall be placed in a visible area that indicates the front and rear tire pressure.

One (1) Label, Indicating Number of Seats
10-02-2100

CAB SEATING POSITION LIMITS

One (1) 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) Label, "Caution: Do Not Wear Helmet While Seated"
10-02-2500

HELMET WARNING TAG

One (1) 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) Tow Plates (2), Rr Frame Rail, Under Step
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) Painting, Tow Plates, Blk
80-43-2400

The tow plates shall be painted black.

One (1) Frnt Bmpr, 4000, 2-Rib S/S 12"H, T/P Apron, T/P Wings, 18" Extnsn
10-05-4118

BUMPER

The chassis shall feature a standard, two (2) rib 12" high by 102" wide wrap around style bumper constructed from highly polished, 10 gauge, 316 stainless steel.

The bumper shall be mounted to an eighteen inch (18") long chassis frame extension.

A contoured apron / gravel shield fabricated from NFPA compliant, slip-resistant polished aluminum shall enclose the top and end "wing" areas between the bumper and the cab.

One (1) Bumper Cmpt, Center, Hosewell Compt
10-04-2719

FRONT BUMPER COMPARTMENT

One (1) recessed fire hose compartment constructed from smooth aluminum shall be installed in the center of the front bumper extension. Water drain holes shall be drilled in the bottom.

One (1) Bumper Cmpt Door, Alum T/P, Flat Style
10-04-3150

BUMPER COMPARTMENT DOOR

One (1) aluminum tread plate door for the front bumper compartment shall be supplied. The flat door shall have a stainless steel hinge at the rear and a latch to secure the compartment.

One (1) Bumper Compt Door Gas Shock
10-04-3460

BUMPER COMPARTMENT DOOR SHOCK

A gas shock shall be supplied to hold the front bumper compartment door in the open position.

One (1) Tire Pressure Indicator, Sngl Axle, RWTG1235
10-06-1601

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) == R Series FX Pump & Plumbing - 1021.021 12/17/21 ==

One (1) Pump, Waterous, CXVC20, 1 Stage, Midship
19-20-3000

WATEROUS CXVC20 SINGLE STAGE PUMP

A Waterous model CXVC20, single stage centrifugal pump shall be designed to mount on the chassis frame rails and shall be split-drive shaft driven. The pump casing shall be of high-tensile, close-grained ductile iron. Pump body shall be a single piece housing, for easy removal of impeller assembly including wear rings and bearings from beneath the pump without disturbing the mounting or piping.

IMPELLER

A matched bronze impeller specifically designed for the fire service will be provided. It will be accurately balanced both mechanically and hydraulically, for vibration-free operation. Stainless steel heat-treated and precisely ground to size. It shall be supported on both ends by oil or grease lubricated ball bearings.

Replaceable wear rings, bronze, reverse-flow, labyrinth-type shall be provided. Deep groove ball bearings shall be located outside the pump to give rugged support and proper alignment to the impeller shaft. The bearings shall be oil or grease lubricated. All bearings shall be completely separated from the water being pumped.

PUMP TRANSMISSION

The housing shall be constructed of high tensile aluminum and be of three (3) piece, horizontally split design. The transmission driveline shafts shall be made from alloy steel forging, hardened and ground to size. The drive and driven sprockets shall be made of steel and shall be carbonized and hardened.

The drive chain shall be Morse HV involute form chain. The lubrication system shall be an impeller shaft driven oil pump to deliver oil to an integral spray header, to completely pressure lubricate the drive chain.

PUMP MOUNTING

The pump shall be bolted to steel angles in pump module, using grade 8 bolts.

DRIVELINE

Hollow-tube drivelines and universals shall be properly matched to the engine and transmission output torque ratings.

One (1) Pump Flow Rtng, Waterous, CXC20, 1500 GPM

20-23-2130

1500 GPM FIRE PUMP SPECIFICATIONS

The centrifugal type fire pump shall be a Waterous model CXC20 midship mounted with a rated capacity of 1500 GPM. The pump shall meet NFPA 1901 requirements.

The pump shall be certified to meet the following deliveries:

1500 GPM @ 150 PSI
1500 GPM @ 165 PSI
1050 GPM @ 200 PSI
750 GPM @ 250 PSI

One (1) Intk, Ungated, 6", LH Side
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) Cap, 6", Chrome Long Hndl
22-41-5700

One (1) 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be equipped long handles.

One (1) Intk, Ungated, 6", RH Side
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) Cap, 6", Chrome Long Hndl
22-41-5700

One (1) 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be equipped long handles.

One (1) Pump Seal, Mech, Waterous
20-26-2200

FIRE PUMP MECHANICAL SHAFT SEAL

The Waterous fire pump shall be equipped with self-adjusting, maintenance free, 'mechanical shaft seal' which is designed to be functional in the unlikely event of a seal failure.

One (1) Pump Impeller, Waterous, Flame Plated Hubs
20-26-2400

IMPELLER HUBS

The Waterous fire pump impeller hubs shall be "Flame Plated", impregnated with tungsten carbide to assure maximum pump life and efficiency despite the presence of abrasive particles,

such as fine sand, in the water being pumped.

One (1) Pump Shift, Waterous, Elec/Pneumatic Operated
20-26-3200

ELECTRIC/PNEUMATIC PUMP SHIFT

The fire pump shift shall be air-operated incorporating an air cylinder with an electrically actuated pneumatic switch to shift from ROAD to PUMP and back. The fire pump shift control switch and valve shall be mounted in the cab.

The fire pump shift system shall be equipped with a means to prevent unintentional movement of the control device from its set position. The system shall include a nameplate indicating the chassis transmission shift selector position to be used for pumping and located so that it can be easily read from the driver's position.

The system shall include the applicable NFPA standard interlocks, pump shift and OK TO PUMP indicator lights in the cab and pump panel. The fire pump shift system shall be equipped with an interlock system to ensure that the pump drive system components are properly engaged in the pumping mode of operation so the pumping system can be safely operated from the pump operator's position.

If applicable, the secondary braking device shall be automatically disengaged for pumping operations.

One (1) Pressure Gvrnr, FRC, In-Cntrl, w/Bdy, TGA300
27-10-3400

PRESSURE GOVERNOR AND ENGINE-PUMP MONITORING

One (1) Fire Research InControl series TGA300 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 5 1/2" high by 10 1/2" wide by 2" deep. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.

The following continuous displays shall be provided:

- Pump discharge; shown with four daylight bright LED digits more than 1/2" high
- Pump Intake; shown with four daylight bright LED digits more than 1/2" high
- Pressure / RPM setting; shown on a dot matrix message display
- Pressure and RPM operating mode LEDs
- Throttle ready LED
- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Oil pressure; shown on a dual color (green/red) LED bar graph display
- Engine coolant temperature; shown on a dual color (green/red) LED bar graph display

- Transmission Temperature: shown on a dual color (green/red) LED bar graph display
- Battery voltage; shown on a dual color (green/red) LED bar graph display.

The dot-matrix 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. All LED intensity shall be automatically adjusted for day and night time 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 panel. There shall be an USB port located at the rear of the control module to upload future firmware enhancements.

Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical. The discharge pressure display shall show pressures from 0 to 600 psi. The intake pressure display shall show pressures from -30 in. Hg to 600 psi.

The 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 LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the 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 governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor, monitoring and master pressure display shall be programmed to interface with a specific engine.

One (1) Screens/Anodes, Pump
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) Piping, Stnls Stl - 1250 GPM & Up
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) Pump Drain, Master, Manifold, Push Pull Type
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) Intk Manifold, Stnls Stl
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) Dschg Manifold, Stnls Stl
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) Painting, Pump & Piping, Silver
21-01-7100

FIRE PUMP & PLUMBING SYSTEM PAINTING

The fire pump and plumbing system shall be painted by the fire apparatus manufacturer. The fire pump and the plumbing shall be painted metallic silver.

One (1) Threads, National Hose (NST)
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) Tank-To-Pump, Water Tank, 3" Vlv/4" Piping, Midship, Pmpr/Tnkr
22-51-5210

WATER TANK TO PUMP LINE

One (1) 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) Single Tank to Pump Control - Pump Operator's Panel
22-50-0100

The tank to pump valve shall be controlled at the pump operator's panel.

One (1) Vlv Mfger, AKR, 8000, (3")
24-62-1300

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

One (1) Intk Vlv Cntrl, Pull Rod, 1/4 Turn, AKR - IC
22-55-4012

One (1) 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) Tank Fill/Cooling Line, Water Tank, 2"
23-02-1300

FIRE PUMP TO WATER TANK FILL LINE

One (1) 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) Vlv Mfger, AKR, 8000, (2")
24-62-1200

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

One (1) Intk Vlv Cntrl, Pull Rod, 1/4 Turn, AKR - IC
22-55-4012

One (1) 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) Primer, Trident Air Primer, Automatic
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) Primer Control - Main Pump Manual Push Button
20-29-1252

PRIMER CONTROL

A manual push button shall be provided on the pump operator's panel, for the manually priming the main pump.

One (1) Dump-Relief Vlv, Suction Side, TFT A18
20-31-3600

INTAKE RELIEF/DUMP VALVE

One (1) 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) Pump Cooler, Bypass-To-Tank, 3/8"
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) Heat Exchanger, Engine, Hook-Up Only
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) Pump Test, Pumper, UL
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) Pump Test, Label
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) Intk, Aux, Gtd, 2-1/2", NST, Left Side
22-12-1104

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) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only
21-01-2502

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) Plug, 2-1/2", Chrome Rocker Lug, w/Chain
22-41-1100

One (1) 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) Vlv Mfger, AKR, 8000, (2-1/2")
24-62-1254

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

One (1) Intk Vlv Cntrl, AKR, Mnl Swing Type-Adjacent
22-55-4050

The valve shall be equipped with one (1) manually operated, swing-type manual control located adjacent the intake. The valve shall be equipped with a color-coded name plate.

One (1) Dschg, 1-1/2", Front Center Bumper, Swivel, NST Chrome Swivel
23-05-2202

1-1/2" DISCHARGE FRONT CENTER BUMPER, Chrome

One (1) 1-1/2" discharge shall be installed at front center bumper area with chrome swivel outlet with 1-1/2" NST male threads. The valve control shall be on pump panel and a nameplate label provided at valve control area.

The plumbing shall be flexible hose with abrasion resistant support mountings.

One (1) Drain/Bleeder, Class 1, Automatic
21-01-2200

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

One (1) Hose Connection, Abv Frnt Bmpr, Swivel
23-05-9200

The hose connection for the front discharge shall be swivel type located above the front bumper deck level.

S One (1) S.O.R. / Vlv Mfger, AKR, 8000, (2")
24-61-1154

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

One (1) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge
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) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Crosslay Dschgs, (2) 1-1/2", Over Pump Panel, NST 200 ft x1-3/4-in ea w/divider
23-06-2202

TWO (2) 1-1/2" CROSSLAY DISCHARGES

Two (2) pre-connect 1-3/4" hose crosslays shall be installed over pump enclosure, with quarter turn 2" diameter ball valves. The outlets shall be a 2" NPT female swivel x 1-1/2" male NST hose threads.

The crosslay hosebeds shall have smooth aluminum sides. The hosebed decking shall be constructed with slots integrated into the hosebed floor.

Each hosebed shall provide for a minimum capacity of 200 feet of 1-3/4" diameter double jacket hose with nozzle, for hose provided by the fire department. A divider shall be installed to separate the crosslay beds.

plumbed to foam

Two (2) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only
21-01-2502

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) Vlv Mfger, AKR, 8000, (2")
24-61-1204

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

Two (2) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge
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) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Crosslay Cvr, Alum T/P, Sngl, W/Vinyl End Flaps (Non NFPA Walking Surface)
23-08-3300

CROSSLAY HINGED COVER WITH END FLAPS

The crosslay hosebed shall be equipped with a single aluminum diamond plate hinged cover with vinyl end flaps with hook & loop fasteners. The cover shall have rubber bumpers, latching devices, and lift up handle on each end of the cover.

The hosebed cover shall be labeled, "Not a Standing or Walking Surface", per NFPA.

One (1) Vinyl Cover, Color, RED

29-20-5600

The vinyl cover shall be red in color.

One (1) Crosslay Trim, Alum Angles, Both Sides

23-08-4130

CROSSLAY HOSE BED TRIM

The crosslay hosebed shall be equipped anodized aluminum angle overlays, one on each end of the hosebed.

One (1) Crosslay Dschgs, Over Pump Panel, Normal Height

23-08-5019

CROSSLAY HOSEBEDS

Crosslay hosebed(s) shall be mounted over the upper pump panel or gauge panel in the upper portion of the pump enclosure. The crosslay hosebed shall be approximately 12" from the top of the pump enclosure.

Two (2) Dschg, 2-1/2", Left Side, Pump Panel, NST

23-09-4102

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) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only

21-01-2502

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) Elbow, 2-1/2"F x 2-1/2" NST M, Chrome

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) Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain

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) Vlv Mfger, AKR, 8000, (2-1/2")

24-61-1254

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

Two (2) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge

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) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Dschg, 2-1/2", Right Side, Pump Panel, NST
23-10-4102

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

One (1) 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.

One (1) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only
21-01-2502

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) Elbow, 2-1/2"F x 2-1/2" NST M, Chrome
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) Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain
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) Vlv Mfger, AKR, 8000, (2-1/2")
24-61-1254

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

One (1) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge
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) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Dschg, 3" x 4"NST, Right Side, Pump Panel, NST
23-10-5202

RIGHT SIDE PUMP PANEL -- 3" x 4" DISCHARGE

One (1) 3" discharge shall be installed on the right side pump panel area and shall be controlled by a full flow 3" slow-close quarter turn ball valve. The discharge shall have 4" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

One (1) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only
21-01-2502

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) Elbow, LW Alum, 5" Storz x 4"F
24-02-2600

One (1) lightweight aluminum elbow with 30 degree slant shall be provided. Threads shall be 5" Storz with lugs and manual locks x 4" female swivel NST with rocker lugs.

One (1) Cap, LW Alum, 5" Storz, w/Cable
24-03-2200

One (1) 5" lightweight aluminum Storz cap with cable or chain securement shall be provided.

One (1) Vlv Mfger, AKR, 8000, (3")
24-61-1304

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

One (1) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR Slow Close - IC w/Gauge
24-53-0300

One (1) Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature and a manual slow-close device shall be provided on the specified discharge. The handle shall be equipped with color-coded name plate.

One (1) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Dschg, 2-1/2", Right Rr, NST
23-13-3202

Rosenbauer South Dakota

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

One (1) 2-1/2" discharge shall be installed on the right 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) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only
21-01-2502

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) Elbow, 2-1/2"F x 2-1/2" NST M, Chrome
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) Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain
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) Vlv Mfger, AKR, 8000, (2-1/2")
24-61-1254

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

One (1) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge
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) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Monitor Dschg, 3", Over Midship Pump Enclsr , NPT
24-11-6300

3" MONITOR DISCHARGE

One (1) 3" discharge shall be piped to the area over the pump enclosure with 3" NPT male threads provided. The pipe shall be equipped with Victaulic couplings (if necessary) and shall be properly secured to prevent movement when a monitor or deck gun is attached. The quarter turn ball valve shall be controlled on pump panel.

A color coded nameplate label shall be provided adjacent the valve control handle.

One (1) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn
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) Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn
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) Vlv Mfger, AKR, 8000, (3")
24-61-1304

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

One (1) Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR Slow Close - IC w/Gauge
24-53-0300

One (1) Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature and a manual slow-close device shall be provided on the specified discharge. The handle shall be equipped with color-coded name plate.

One (1) Gauge, Dschg, IC, 2-1/2" (0-400 PSI), WF
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) Foam System Provisions, Future Installation, Dept or Dealer Installed
25-01-0010

FOAM SYSTEM PROVISIONS

Provisions shall be provided for the future installation of a department/dealer supplied foam system.

One (1) Foam Plmbg, Sngl Class A Tank, 1" Mnl Vlv
25-20-1200

1" FOAM TANK CONTROL -- CLASS A

One (1) 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) Foam Tank, Intgrl Poly, 20 Gal, Class A
25-21-1300

INTEGRAL CLASS A FOAM TANK -- 20 GALLON

One (1) 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) Foam Tank Drain, 1" Gate Vlv, Under Tank
25-23-1000

FOAM TANK DRAIN -- UNDER TANK

The foam tank shall have one (1) 1" gate valve drain provision installed.

One (1) Foam Tank Gauge, FRC TankVision Pro 300, Class A, Pump Panel #WLA360-A00
27-36-1100

CLASS A FOAM TANK GAUGE

One (1) Fire Research TankVision Pro model WLA360-A00 foam tank indicator kit shall be installed at the operator's panel. The kit shall include an electronic indicator module, a pressure sensor, a 10-ft sensor cable and a tank vent. The indicator shall show the volume of Class A foam concentrate in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of Polycarbonate/Nylon, and have a distinctive green label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels and a datalink to connect remote indicators. Low foam warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the foam tank near the bottom. No probe shall be placed on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors. The foam tank vent shall be installed on the foam fill tower.

One (1) == R Series Pumper-Side Mount Pump Compt - 1021.021 12/17/21 ==

One (1) Pump Enc, Side Mt, Extrd Alum, 40-49"W
26-02-1200

SIDE MOUNT PUMP ENCLOSURE

The side mount pump enclosure shall be removable and supported from the chassis frame rails. This enclosure will allow independent flexing of the pump enclosure from the body and allow for quick removal. The support structure shall be constructed of extruded aluminum tubing and angle.

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 fire pump, valves and controls shall be accessible for service and maintenance as required by applicable sections of NFPA standards.

The "master" gauges shall be suitably enclosed and mounted on a full pump compartment width "hinged" gauge panel constructed of the same material as the pump operators control panel,

allowing access to the backside of all gauges and gauge lines. The individual gauges shall be mounted inline with the control handle or adjacent to the control handle. Panel is to include a stainless steel piano hinge, flush mounted chrome plated trigger latch, and stainless steel cable end stops. Electrical wiring and all gauge lines shall be properly tie wrapped to prevent kinking or cutting of the lines when the panel is opened.

The following controls and equipment as specified in the specifications, 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) Rng Brd, LH Pump Panel, Alum T/P, SM
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) Rng Brd, RH Pump Panel, Alum T/P, SM
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) Pump Side Access Door, Upper LH, Line-X
26-31-3300

PUMP ENCLOSURE ACCESS DOOR -- LEFT SIDE UPPER

A pump panel access door shall be provided on the upper left side of the side mount pump enclosure. The access door shall be approximately 18" high and as wide as possible. The door shall be constructed aluminum coated with black Line-X with push button type latches.

One (1) Pump Panel, Line X, LH/RH, SM
26-35-5100

PUMP PANEL -- SIDE MOUNT

The pump operator's panel, along with the lower left hand and right hand pump panels shall be constructed of Line-X aluminum material 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) Pump Panel, Bltd, LH
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) Pump Panel, Hngd, RH
26-35-1400

HINGED PUMP PANEL -- RIGHT SIDE

The pump panel installed on the on the right hand side of the pump enclosure shall be hinged with push-button latches.

One (1) Labels, Test Data and Safety Placards
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) Labels, Color Coded
26-55-2050

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.

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

One (1) Pump Panel LED Lts, (3) Tecniq E10-W0001-1, Midship LH w/ Sw on Pmp Oprtr's Pnl
26-56-1125

MIDSHIP PUMP PANEL LIGHTS -- LEFT SIDE

Three (3) Techiq E10-W0001-1 or equal LED lights with clear lenses shall be installed under an instrument panel light hood on the left side pump panel. The lights shall be controlled by a switch located on the operator's instrument panel.

One (1) Pump Panel LED Lts (2), Midship RH, Tecniq E10-W0001-1
26-56-1225

MIDSHIP PUMP PANEL LIGHTS -- RIGHT SIDE

Two (2) Tecniq E10-W0001-1 or equal LED lights with clear lenses shall be installed under an instrument panel light hood on the right side pump panel. The lights shall be controlled by a switch located on the operator's instrument panel.

One (1) Pump Panel Lt (1), Actuated w/Pump Engagement
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) Gauge, Test Taps
27-01-4100

TEST TAPS

Test taps for pump intake and pump pressure shall be provided on the pump instrument panel and be properly labeled.

One (1) Water Tank Gauge, FRC, TankVision Pro 300, Pump Panel WLA300-A00
27-35-1100

WATER TANK GAUGE

One (1) Fire Research TankVision Pro model WLA300-A00 tank indicator kit shall be installed on the pump panel. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of Polycarbonate/Nylon material, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns

to display tank volume, adjustable brightness control levels and a datalink to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall place on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

One (1) == HLHD/HRHD Rapid Response 1000 Tank - 1021.021 12/17/21 ==

One (1) Water Tank, 750 Gal, Pmpr/Tnkr , Poly
25-26-1402

WATER TANK - 750 GALLON

The apparatus shall be equipped with a seven-hundred-fifty (750) gallon polypropylene water tank. The tank shall be equipped with a four-inch (4") overflow pipe (a six-inch (6") overflow pipe shall be provided if required by dump valve installation).

One (1) Water Tank, Rectangular Tank
25-25-0062

WATER TANK

The apparatus shall be equipped with a rectangular tank.

One (1) Water Tank, Fill Tower, 10" x 10", <1500 Gals
25-44-1300

WATER TANK FILL TOWER

A fill tower measuring approximately 10” x 10” square shall be provided on the water tank up to and including 1500 gallons total capacity.

One (1) Water Tank Drain, 1", 1/4 Turn Vlv
25-50-1100

WATER TANK DRAIN VALVE

One (1) 1" diameter gated quarter-turn drain valve shall be provided for the water tank.

S One (1) S.O.R. / Hosebed, Grating, Extrd Alum, <180" Long
29-10-1000

HOSEBED SINGLE AXLE

The hose bed compartment deck shall be constructed of two sheets of maintenance-free ¼” aluminum. The sheet shall have slots cut out of it to prevent the accumulation of water and allow ventilation to assist in drying hose. The apparatus hose bed 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 bed 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 bed 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) Hosebed, Strge Cpcty, 55 Cubic Feet, Minimum
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) Hosebed Cvr, Vinyl, <180" L, <74" W, Velcro
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) Vinyl Cover, Color, RED
29-20-5600

The vinyl cover shall be red in color.

One (1) BODY CONSTRUCTION
30-00-0000

S One (1) S.O.R. / Bdy Const - Rosenbauer FXR - 3/16" Alum - SA Pmpr/Tnkr
30-01-1904

3/16" 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) Compartment Top / Hosebed Side - Painted, Each Side, with TP Walking Surface
30-01-4010

COMPARTMENT TOP - HOSEBED SIDES

The compartment tops and hosebed risers shall be provided and installed at the front and along each side of the main hosebed for added depth to meet the hose storage requirement. The compartment tops and risers shall form the right and left side vertical hosebed sides. Hosebed risers shall be constructed of the same material as the body and painted to match body color.

The compartment tops shall be equipped with an embossed treadplate walking surface with a yellow visibility stripe.

One (1) Smooth Alum Compt Floors
30-02-2200

COMPARTMENT FLOORS

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

One (1) Sub Frame, Hot-Dip Galv
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) Bdy, Frmd Alum, Pmpr/Tnkr , Up to 156"
31-01-1110

BODY CONFIGURATION

The formed apparatus body shall be up to 156" long, reference the drawing for actual body length.

One (1) Whl Well Panel, Alum Pntd, Sngl Axle - Alum

Rosenbauer South Dakota

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) Fenderette, Polished Aluminum

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) 98" OAW, 25" Full Dpth/15-25" Half Dpth, SA HL/HR

31-01-2152

BODY WIDTH

The overall width of the pumper body shall not exceed 98".

COMPARTMENT DEPTH

The left side compartments on the pumper body shall have the maximum available height and depth dimensions. These dimensions shall remain consistent for the full height and depth of the compartment.

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

Lower portion depth of 25"
Upper portion depth of 15"

One (1) Hosebed, Pmpr, <180" L, 68" Wide

29-00-1200

HOSEBED WIDTH

The width of the pumper body hosebed shall be 68".

S One (1) S.O.R. / Cmpt Height, 74.5" High Left

32-03-0070

COMPARTMENT HEIGHT

The left side body compartments shall be 74.5".

S One (1) S.O.R. / Cmpt Height, 74.5" High Right

32-03-1070

Rosenbauer South Dakota

COMPARTMENT HEIGHT

The right side body compartments shall be 74.5" high.

One (1) Roll-Up Drs - ROM Mfg
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 to shall be incorporated to assist in lifting the door.

Seven (7) Dr Strap, EZ-Pull Down, Ea
30-02-1260

EZ-PULL DOWN STRAPS

Seven (7) elastic nylon straps shall be provided and installed on each roll up door . The straps shall be secured to the side wall of the interior compartment in a way that will allow the EZ-Pull strap to contract automatically and tuck inside the compartment when closed to prevent the strap

from dangling and hindering closing of the door. When the door is the open position, the straps shall be installed so that they are fully extended as to not interfere with removing items from the compartment. For the ease of locating, the straps shall be bright orange in color.

One (1) Ahd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish
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 single natural finish roll up door.

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Upr Hgh Sde - Sgle Comp't - Roll Up Dr - Natural Finish
32-05-1355

LEFT OVERWHEEL COMPARTMENT

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

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Bhnd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish
32-05-1720

LEFT REAR COMPARTMENT

There shall be one (1) full height compartment located behind the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door.

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Ahd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish
32-06-1120

RIGHT 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 single natural finish roll up door.

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Upr Hgh Sde - Sgle Comp't - Roll Up Door - Natural Finish
32-06-1455

RIGHT HIGH SIDE COMPARTMENTS

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

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Bhnd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish
32-06-1720

RIGHT REAR COMPARTMENT

There shall be one (1) full height compartment located behind the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door.

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (1) Ea Cmpt
55-01-5112

COMPARTMENT LIGHT

One (1) LUMA BAR vertically mounted roll-up compartment LED door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Rr Bdy, Flat Back
33-60-1102

REAR BODY CONFIGURATION

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

One (1) Rr Cntr Comp't - Full Ht Roll Up/Trans- Natural Finish
32-08-0210

REAR CENTER COMPARTMENT

There shall be one (1) full height compartment located at the rear of the apparatus. The compartment shall be equipped with a full height natural finish roll up door. The compartment shall be open to the rear side compartments, providing a transverse compartment at the rear of the truck.

The compartment shall be equipped with the following:

One (1) Vents, Compts, Louvers, Includes Filters (Ea)
44-40-1100

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

One (1) Shelving Tracks, (2) Unistrut, Alum
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) Cmpt LED Lt, Luma Bar, (2) Ea Cmpt
55-01-5114

COMPARTMENT LIGHTS

Two (2) LUMA BAR vertically mounted roll-up compartment LED 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 build up.

One (1) Cmpt Lt, Dr Swtch, Auto, Ea
55-06-1100

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

One (1) Rr Step, Pmpr-Tnkr Bdy, Bolt-On, 14"
33-61-1400

REAR STEP - 14" BOLT-ON

A 14" 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.

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

One (1) Access Ladder, Rosenbauer EZ Climb, Left Rr
38-90-2050

ACCESS LADDER _EZ CLIMB - 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.

S One (1) S.O.R. / Bdy Trim, Frnt Bdy, Ht of Side Cmpts, Alum painted
44-01-1400

FRONT BODY PANELS

Painted aluminumpanels shall be installed on the front of the body from the lower edge to the top of the compartment doors. The material shall be bolted in place and sealed to prevent any moisture entry between the overlay and the body structure.

One (1) Bdy Trim, Entire Rr Bdy, Smooth for Chevron Stripe
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) Rub Rails, Lwr Bdy, Extrd Alum

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) Rub Rails, Spacers, Nylon

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) Whl Well Cmpt, Four (4) SCBA Tube, Brshd S/S Dr

44-10-3020

One (1) breathing air cylinder storage compartment for four (4) SCBA cylinders (not supplied) shall be provided and located 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 removable for repair or replacement.

The compartment shall be provided with SCBA cylinder scuff protection. A brushed stainless steel door shall be provided.

Four (4) Whl Well Compt, SCBA Compt Straps

44-10-6000

Four (4) 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) Fuel Fill Cap, LH Whl Well Panel-Open

44-07-1200

FUEL PIPING AND FILL CAP

There shall be a fuel fill cap provided in the recessed area of the left side rear wheel well clearly marked, "DIESEL FUEL ONLY". The fill shall be piped to the fuel tank.

One (1) Whl Well Cmpt, Four (4) SCBA Tube, Brshd S/S Dr

44-10-3020

One (1) breathing air cylinder storage compartment for four (4) SCBA cylinders (not supplied) shall be provided and located 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 removable for repair or replacement.

The compartment shall be provided with SCBA cylinder scuff protection. A brushed stainless steel door shall be provided.

Four (4) Whl Well Compt, SCBA Compt Straps
44-10-6000

Four (4) 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.

S One (1) S.O.R. / Whl Well Cmpt, Sngl SCBA Tube, Dr Stainless steel door
44-10-1300

One (1) breathing air cylinder storage compartment shall be provided and located 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 removable for repair or replacement.

Compartment shall be provided with SCBA cylinder scuff protection. Stainless steel door

One (1) Whl Well Compt, SCBA Compt Straps
44-10-6000

One (1) 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) Ladder Strge, Vrtcl Slide In, Right Rr Bdy
90-02-3500

SLIDE OUT VERTICAL LADDER MOUNTINGS

The ladder shall slide into the right rear of the apparatus, through the right side of the body. The vertically mounted slide in assembly shall be an integral part of the body and accessible through a hinged door.

One (1) Compt Door, Smooth, With Chevron
90-02-2920

The hinged door shall be constructed of smooth material, with chevron striping applied to match the rear of the apparatus body.

One (1) Ladder Mtg, Fldg Attic, Internal
90-02-5310

INTERNAL FOLDING ATTIC LADDER MOUNTING

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

One (1) Ladders, Provd'd By Purchaser/Fire Dept
90-03-0400

LADDER SOURCE

New ground ladders shall be provided by the purchaser.

Two (2) Pike Pole Mtg, In Ladder Tunnel, Ea
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) Suction Hose Compt, In Comp'ts, Left Side (Ea)
90-25-7900

HARD SUCTION MOUNTING

One (1) hard suction hose compartment shall be provided at the top of the body compartments, behind the roll up door, on the left side. The design shall allow the hose to be individually removed from the rear of the apparatus. The hard suction hose compartment shall have a hinged door with push to latch door catches.

One (1) Compt Door, Smooth, With Chevron
90-02-2920

The hinged door shall be constructed of smooth material, with chevron striping applied to match the rear of the apparatus body.

One (1) Suction Hose Compt, In Comp'ts, Right Side (Ea)
90-25-8000

HARD SUCTION MOUNTING

One (1) hard suction hose compartment shall be provided at the top of the body compartments, behind the roll up door, on the right side. The design shall allow the hose to be individually removed from the rear of the apparatus. The hard suction hose compartment shall have a hinged door with push to latch door catches.

One (1) Compt Door, Smooth, With Chevron
90-02-2920

The hinged door shall be constructed of smooth material, with chevron striping applied to match the rear of the apparatus body.

One (1) Suction Hose Provd'd By, Purchaser/Fire Department
90-25-9300

SUCTION HOSE SOURCE

New suction hose shall be provided by the purchaser.

Two (2) Non-Bdy Bldr Suppl'd Suction Hose, Flex, PVC, 6"x10'-MN
90-25-3199

SUCTION HOSE

Two (2) 6.0" x 10 foot length of PVC flexible suction hose shall be supplied by the Dealer or Purchaser or Fire Department. The suction hose shall have light weight couplings provided.

Two (2) Non-Bdy Bldr Supl'd Sctn Hse Cplgs, Alum, LH FM x RLM-MN
90-25-6120

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HOSE COUPLINGS

Light weight aluminum couplings shall be provided on the Dealer/Purchaser/Fire Department supplied 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) == R Series FX Paint / Stripe - Single Axle - 1021.021 12/17/21 ==

One (1) Bdy Paint, Sngl Axle, Pmpr/Tnkr - Sngl Color
80-05-1200

BODY PAINT PROCESS

All bright metal fittings, if unavailable in stainless steel shall be heavily chrome plated. Iron fittings shall be copper plated prior to chrome plating. If applicable, any and all accessory times shall be removed from the body prior to cleaning and painting. Any accessory items that are to be painted, shall be painted separately and installed after the body is painted and cured.

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 CFX436) 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 CFX436) 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 FBC-color, the film build being 2-3 mils dry. Followed by three coats PPG DelFleet F3906 high build clear, the film build being 2-3 mils dry. This shall provide a UV barrier to prevent fading and chalking.

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

One (1) Apparatus Color
80-06-1100

APPARATUS COLOR

The apparatus shall be ____ in color.

One (1) Bdy Paint
80-06-1000

BODY PAINT PROCESS

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 panel.

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) Compt Finish, Spatter Coat, Up to 8 Cmpts
80-30-1200

INTERIOR COMPARTMENT FINISH

Eight (8) 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) Bdy Paint, Touch Up, 2 oz. Bttl, One Color
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) Stripe, Sngl Reflective, 4", Straight Design
80-70-1300

CAB AND BODY STRIPE

A straight Scotchlite reflective stripe, 4" minimum 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) Reflective Stripe Material, White

Rosenbauer South Dakota

80-75-1600

COLOR OF STRIPING MATERIAL

The color of the 3M brand striping material shall be white.

One (1) Stripe, Reflective, Oralite V98, Chevron Pattern Entire Rr Red/Yellow

80-72-1108

CHEVRON STRIPING

The entire rear portion of the body shall have Oralite V98 reflective red and yellow 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) NFPA Standing / Walking Surfaces Yellow Safety Tape (NFPA 15.7.1.6)

80-79-1000

YELLOW SAFETY TAPE - STANDING & WALKING SURFACES

The apparatus shall be NFPA standard 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) == R Series FX Pumper Loose Equipment - 1021.021 12/17/21 ==