

First Choice Fire & Safety Inc.

One (1) == 2000 UPF Elliptical With Pump - 10.000 12/04/06 ==

Y__N__

One (1) Instruction To Bidders Mobile Water Supply Apparatus
00-A0-1400

Y__N__

INSTRUCTIONS TO BIDDERS

The purpose of these instructions and specifications are to describe the requirements, construction, and delivery of a Fire Fighting Apparatus as outlined herein for the _____ here after referred to as the "Purchaser".

Bid envelopes shall be plainly labeled _____.

Bids will only be considered from companies which have an established reputation in the field of fire apparatus construction and have been in business for a minimum of twenty-five (25) years.

Each bidder shall furnish satisfactory evidence of his ability to construct the apparatus specified, and shall state the location of the factory where the apparatus is to be built. The bidder shall also show that they are in a position to render prompt service and furnish replacement parts for said apparatus.

It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, telegrams, or telephone bids will not be considered.

The purchaser reserves the right to accept or reject any or all bids on such basis as the purchaser deems to be in its best interest.

All bid prices shall remain effective for 45 calendar days from the bid opening date.

The apparatus is to be of current year of manufacture and is to be new.

The bid price shall not include any local, state, or federal taxes.

DELIVERY

Each bidder shall clearly state the delivery date of the vehicle in calendar days. This shall be after receipt of the signed contract.

INTENT OF SPECIFICATIONS

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It is the intent of these specifications to cover the furnishing and delivery to the purchaser a complete unit equipped as herein specified, with a view of obtaining the best results and the most acceptable apparatus for the purchaser.

These specifications cover only the general requirements as to the type of construction and test to which the apparatus must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

All equipment and components shall comply with the National Fire Protection Association Pamphlet 1901 (2016 Edition), Standard for Automotive Fire Apparatus, for Pumper Fire Apparatus Equipped with a Fire Pump. In addition, the apparatus shall also comply with all federal, state, ICC, and DOT regulations, standards, and laws relating to commercial vehicles as well as to the fire apparatus.

Loose equipment shall be provided only as stated in the following pages.

LIABILITY

The bidder, if his/her bid is accepted, shall defend any and all suits and assume liability for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the contract to the extent allowable under the law.

COMMERCIAL GENERAL LIABILITY INSURANCE

Each bidder shall supply proof of product liability and facility insurance equal to or exceeding \$5,000,000. This shall be provided as part of the proposal.

GENERAL REQUIREMENTS

This specification package, along with any herein listed exceptions, shall be submitted as a part of the bidder's entire bid proposal. Do not detach or omit these sheets.

Proposal specifications must be on the manufacturer's own standard forms. In no case shall a bidder photocopy these specifications as his proposal specifications.
"NO EXCEPTIONS"

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Each bidder is required to provide in his bid to the purchaser a complete and accurate description of his own apparatus in the exact sequence of these specifications.

EXCEPTIONS, VARIATIONS, OR CLARIFICATIONS

These specifications are based upon performance criteria which have been developed by the purchaser as a result of extensive research and careful analysis of the data. Subsequently, these specifications reflect the only type of fire apparatus that is acceptable at this time. Therefore, major exceptions to the specifications will not be accepted.

All bidders shall place a "Y" for yes or a "N": for no next to each and every paragraph in the column provided on the right-hand edge of the paper, indicating compliance or noncompliance with that paragraph of the specifications.

A number shall be inserted next to the paragraph which relates to an explanation on page(s) entitled "Exceptions" that the bidder shall include with their proposal specifications.

Any exception shall be clearly defined with details as to the proposed alternative, referencing manufacturer and model where appropriate. Descriptive literature shall be provided to help evaluate the exception. A general exception cannot be taken for any paragraph. A full word for word Written Comparison shall be included within the bid for any exception listed. Each exception shall be considered by the degree of impact and total effect on the bid. Proposals taking total exception to the specifications shall not be considered by the purchaser.
"NO EXCEPTIONS"

The purchaser shall determine which (if any) exceptions are acceptable and this determination shall be final.

The purchaser shall assume that failure to cite an exception indicates full compliance with the specifications. Should the equipment not comply with all requirements of this document, the equipment shall be rejected at the final inspection. All equipment shall be inspected for material, workmanship, and compliance with the specifications prior to acceptance. All equipment found to be in noncompliance shall be identified and the purchaser reserves the right to accept or reject the specific items. The noncompliant rejected equipment shall be replaced or reworked to meet the requirements of this document at no additional cost to the purchaser.

The bidder shall have thirty (30) days after delivery to fulfill that part(s) of the specifications which does not comply to the original outlined specifications. Bidder shall incur all expenses of pickup and redelivery of the apparatus.

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CONSTRUCTION

The materials specified are considered absolute minimum. Exceptions will not be accepted or permitted since all raw materials of the specified type are available to all manufacturers. Since all manufacturers have the ability to shear, break, and weld as these specifications require, all basic design requirements shall be complied with.

The apparatus shall be constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of service to which the apparatus is to be subjected when placed in service. All parts of the apparatus shall be of adequate strength to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment, and service.

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Bid Bond

Y__N__

BID BOND

A bid bond will be submitted with the bidder's proposal. The bond will be for an amount equal to 10% of the proposed bid price. Failure to provide an acceptable, valid bid bond with the proposal will result in the immediate rejection of the bidder's proposal.

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Apparatus Documentation NFPA 4.20

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DATA REQUIRED OF THE CONTRACTOR - NFPA 4.20

NFPA 4.20.1 Fire Apparatus Documentation

The contractor will supply, at the time of delivery, at least one (1) copy of the following documents:

- (1) The manufacturer's record of apparatus construction details, including the following information:
 - a. Owner's name and address
 - b. Apparatus manufacturer, model and serial number
 - c. Chassis make, model, and serial number
 - d. GAWR of front and rear axles and GVWR
 - e. Front tire size and total rated capacity in pounds
 - f. Rear tire size and total rated capacity in pounds
 - g. Chassis weight distribution in pounds with water and manufacturer-mounted equipment front and rear
 - h. Engine make, model, serial number, rated horsepower, and related speed and governed speed; and if so equipped, engine transmission PTO(s) make, model, and gear ratio

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- i. Type of fuel and fuel tank capacity
 - j. Electrical system voltage and alternator output in amps
 - k. Battery make, model, and capacity in cold crank amps (CCA)
 - l. Transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio.
 - m. Ratios of all driving axles.
 - n. Maximum governed road speed
 - o. Pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number
 - p. Pump transmission make, model, serial number, and gear ratio
 - q. Auxiliary pump make, model, rated capacity in gallons per minute, (liters per minute where applicable) and serial number
 - r. Water tank certified capacity in gallons or liters
 - s. Aerial device type, rated vertical height in feet (meters), rated horizontal reach in feet (meters), and rated capacity in pounds (kilograms)
 - t. Paint manufacturer and paint number(s)
 - u. Company name and signature of responsible company representative
 - v. Weight documents from a certified scale showing actual loading on the front axle, rear axles(s), and over all fire apparatus (with the water tank full but without personnel, equipment, and hose)
- (2) If the apparatus is a mobile foam fire apparatus, the certification of foam tank capacity
- (3) Certification of compliance of the optical warning system
- (4) Siren manufacturer's certification of the siren
- (5) Written load analysis and results of the electrical system performance tests
- (6) Certification of slip resistance of all stepping, standing and walking surfaces
- (7) If the apparatus has a fire pump, the pump manufacturer's certification of suction capability
- (8) If the apparatus has a fire pump, and special conditions are specified by the purchaser, the pump manufacturer's certification of suction capacity under the special conditions
- (9) If the apparatus has a fire pump, a copy of the apparatus manufacturer's approval for stationary pumping applications
- (10) If the apparatus has a fire pump, the engine manufacturer's certified brake horsepower curve for the engine furnished, showing the maximum governed speed
- (11) If the apparatus has a fire pump, the pump manufacturer's certification of the hydrostatic test (12) If the apparatus has a fire pump, the certification of inspection and test for fire pump.
- (13) If the apparatus is equipped with an auxiliary pump, the apparatus manufacturer's certification of the hydrostatic test

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- (14) When the apparatus is equipped with a water tank, the certification of water tank capacity
- (15) If the apparatus has an aerial device, the certification of inspection and test for the aerial device
- (16) If the apparatus has an aerial device, all the technical information required for inspection to comply with NFPA 1911
- (17) If the apparatus has a foam proportioning system, the foam proportioning system manufacturer's certification of accuracy and the final installer's certification the foam proportioning system meets this standard
- (18) If the apparatus has a CAFS, the documentation of the manufacturer's pre-delivery tests
- (19) If the apparatus has a line voltage power source, the certification of the test for the power source
- (20) If the apparatus is equipped with an air system, air tank certificates, the SCBA fill station certification, and the results of the testing of the air system installation
- (21) Any other required manufacturer test data or reports
Operation & Service Documentation - NFPA 2016

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OPERATION AND SERVICE DOCUMENTS - NFPA 4.20.2

NFPA 4.20.2.1 - The contractor shall deliver with the fire apparatus complete operation and service documentation covering the completed apparatus as delivered and accepted.

The documentation shall address at least the inspection, service and operations of the fire apparatus and all major components thereof.

The contractor shall also deliver with the fire apparatus the following documentation for the entire apparatus and each major operating system or major component of the apparatus:

- (1) Manufacturer's name and address
- (2) Country of manufacture
- (3) Source for service and technical information
- (4) Parts replacement information
- (5) Descriptions, specifications, and ratings of the chassis, pump (if applicable) and the aerial device (if applicable)
- (6) Wiring diagrams for low-voltage and line voltage systems to include the following information:
 - (a) Pictorial representations of circuit logic for all electrical components and wiring
 - (b) Circuit identification
 - (c) Connector pin identification
 - (d) Zone location of electrical components

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- (e) Safety interlocks
- (f) Alternator-battery power distribution circuits
- (g) Input/output assignment sheets or equivalent circuit logic implemented in multiplexing systems
- (7) Lubrication charts
- (8) Operating instructions for chassis, any major components such as pump or aerial device, and any auxiliary systems
- (9) Precautions related to multiple configurations of aerial devices, if applicable
- (10) Instructions regarding the frequency and procedure for recommended maintenance
- (11) Overall apparatus operating instructions
- (12) Safety considerations
- (13) Limitations of use
- (14) Inspection procedures
- (15) Recommend service procedures
- (16) Troubleshooting guide
- (17) Apparatus body, chassis, and other component manufacturers' warranties
- (18) Special data required by this standard
- (19) A material safety data sheet (MSDS) for any fluid that is specified for use on the apparatus
- (20) One (1) copy of the latest addition of FAMA's Fire Apparatus Safety Guide

NFPA 4.20.2.4 - The contractor will deliver with the apparatus all manufacturers' operations and service documents supplied with components and equipment that are installed or supplied by the contractor.

Highway Performance NFPA 2016

Y___N___

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HIGHWAY PERFORMANCE NFPA 4.15

NFPA 4.15.1 - The apparatus, when loaded to its estimated in-service weight, shall be capable of the following performance while on dry, paved roads that are in good condition:

1: Accelerating from 0 to 35 mph (55 km/hr) within 25 seconds on a 0 percent grade;

2: Attaining a speed of 50 mph (80 km/hr) on a 0 percent grade;

3: Maintaining a speed of at least 20 mph (32 km/hr) on any grade up to and including 6 percent.

NFPA 4.15.2 - The maximum top speed of fire apparatus with a GVWR over 26,000 lb (11,800 kg) shall not exceed either 68 mph (109 km/hr) or the

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manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

NFPA 4.15.3 - If the combined water tank and foam agent tank capacities on the fire apparatus exceed 1250 gallons, or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus shall not exceed either 60 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

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NFPA Tag Requirements

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NFPA TAG REQUIREMENTS

A label that states the number of personnel the vehicle is designed to carry shall be located in an area visible to the driver.

A sign that reads "**OCCUPANTS MUST BE SEATED AND BELTED WHEN APPARATUS IS IN MOTION**" shall be provided and located in the chassis cab in an area that is visible from each seating position.

An accident prevention sign that states "**OVERALL HEIGHT OF APPARATUS __ INCHES**"

One "Final Stage Label" shall be attached to the drivers side door jamb. The label shall certify that the complete vehicle conforms to the federal motor vehicle safety standards, which have been previously fully certified by the incomplete vehicle manufacture or by the intermediate vehicle manufacture and have not been affected by the final stage manufacture.

An accident prevention sign that states "**DANGER: DO NOT RIDE ON REAR STEP WHILE VEHICLE IS IN MOTION - DEATH OR SERIOUS INJURY MAY RESULT**" shall be provided and installed at the rear of the apparatus.

A label stating "**DO NOT WEAR HELMET WHILE SEATED**" shall be visible from each seating location.

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00-E4-9900

Warranty (1) Year

Y__N__

WARRANTY

Each bidder shall include a copy of their warranty with the bid proposal. The following minimum warranties shall be provided, **NO EXCEPTION.**

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The finest materials and utmost care go into the fabrication of each new apparatus. By using normal care, without abuse, this equipment will give you lasting service.

Each new motorized Fire and Rescue Apparatus is to be free from defects in material and workmanship, under normal use and service, for a period of one year. Our obligation under this warranty is limited to replacing or repairing, as the manufacturer may elect, any part or parts thereof, which, upon examination, would be determined to be defective. Such defective part or parts will be replaced free of charge, and without charge for installation, to the original purchaser.

All warranty work related to the apparatus (not including vehicle chassis) is to be performed at the manufacturer's factory or at an authorized service center.

This does not obligate the manufacturer to bear the costs of transportation charges and related expenses incurred in the replacement of parts.

BODY WARRANTY

The manufacturer shall warrant the entire stainless steel body against rust and/or full corrosion perforation and metal fatigue for a period of thirty (30) years from the date of delivery to the original purchaser, provided the apparatus is used in a normal and reasonable manner.

The term "body" shall be inclusive of the following:

- Hose bed side walls
- Compartments and compartment supports
- Compartment doors *except roll-up doors, when specified*
- Complete subframe including pump house framing

WATER TANK WARRANTY

The contracted tank manufacturer shall warrant that the tank provided shall be of first-class workmanship and that, under normal conditions, shall show no defects due to faulty design, workmanship, or material for the Lifetime of the vehicle to the original owner.

PUMP WARRANTY

The contracted pump manufacturer shall warrant that the pump provided shall be of first-class workmanship and that, under normal conditions, shall show no

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defects due to faulty design, workmanship, or materials for a period of five (5) years.

PUMP PLUMBING WARRANTY

The galvanized or stainless steel plumbing components, as specified, and ancillary brass fittings used in the construction of the water/foam plumbing system shall be warranted for a period of ten (10) years or 100,000 miles. This covers structural failures caused by defective design or workmanship, or perforation caused by corrosion, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser for a period of ten years from the date of delivery.

12 VOLT ELECTRICAL WARRANTY

The 12 volt electrical system and ancillary components used in the construction of the apparatus shall be warranted for a period of five (5) years. This covers failures caused by defective design or workmanship, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser, for a period of five (5) years from the date of delivery.

Items specifically covered are:

- Electrical harnesses and harness installation
- Switches, circuit breakers, and relays
- LED Lighting: FMVSS required and warning lights
- Electrical connectors and connections, against corrosion or deterioration

Items excluded, as they are covered by specific warranties supplied by the manufacturer of the components:

- Chassis electrical systems and components installed by the chassis manufacturer.
- Batteries, battery chargers, two-way radio equipment, and similar equipment.
- Periodic cleaning and tightening of battery terminal connections.
- Accident, negligence, or unauthorized alteration of original equipment.

PAINT WARRANTY

The paint on the unit will be provided with a ten (10) year paint finish guarantee which will cover the finish for the following items:

- Peeling or delamination of the top coat and/or other layers of paint.
- Cracking or checking.
- Loss of gloss caused by defective finishes which are covered by this guarantee.

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CHASSIS WARRANTY

Chassis shall be warranted by the chassis manufacturer as per the chassis manufacturer's issued warranty.

100% WARRANTY ON ALL OTHER ITEMS FOR ONE YEAR.

THIS WILL NOT APPLY

1. To normal maintenance services or adjustments.
2. To damage caused by negligence of normal maintenance.
3. To any vehicle which shall have been repaired or altered outside our factory in any way, so as, in our judgement, to affect its stability, nor which has been subjected to negligence, or accident, nor to any vehicle made by us which shall have been operated at a speed exceeding the factory-rated speed, or loaded beyond the factory-rated load capacity.
4. To major components such as purchased chassis and associated equipment furnished with chassis, signaling devices, generators, batteries, or other trade accessories, inasmuch as they are usually warranted separately by their respective manufacturers or to ancillary equipment used in rescue or firefighting.
5. To loss of time or use of vehicle, inconvenience or other incidental expenses.

THIS WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR APPLICATION.

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Dimension Cover Sheet

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OVERALL APPARATUS DIMENSIONS AND REQUIREMENTS

6. Wheelbase of chassis:
7. Cab-to-axle dimension of chassis:
8. Overall length of apparatus:
9. Overall width of apparatus body:

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10. Overall height of apparatus:
11. Overall length of body including rear step:
12. Front overhang from center of front axle:
13. Rear overhang from center of rear axle:
14. Pump panel width:

One (1)
01-05-1800

Peterbilt Chassis Specifications

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CAB AND CHASSIS

MAKE & MODEL - 2023 Peterbilt model 367
4 x 2 Two Door cab and chassis.

WHEEL BASE - AS REQUIRED
CAB TO AXLE - AS REQUIRED

Front mounted tow hooks, (2) Frame mounted

FRAME RAILS: Heat treated alloy steel (120,000 PSI Yield) 10.375" x 3.705" x 0.438"

BUMPER

Full width, Aerodynamic, chrome plated steel (0.142" material thickness)

FRONT AXLE: - I-Beam type 14,000 lb capacity

Front suspension - Spring Parabolic, Taper Leaf, 14,000 lb capacity, with shock absorbers

Includes: Spring pins Rubber bushing, Maintenance free

BRAKE SYSTEM

Dual air system for straight truck applications.

Includes:
Air compressor air supply line

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Brake Chambers, Spring (2) Rear Parking
Brake Lines Color Coded Nylon
Dust shields, Front
Automatic slack adjusters front and rear
Parking Brake Valve - Color coded yellow knob, located on instrument panel
DV2 heated moisture ejector on wet tank
Drain valve Twist Type
Spring Brake modulator valve
Gauge, Air Pressure located in instrument cluster Air 1 and Air 2 gauges

AIR BRAKE ABS (Bendix Antilock Brake System) Full vehicle wheel control system (4-channel)

Brakes, Front, Air Cam S-Cam; 16.5" x 5.0"; Includes 20 Sq. In. MGM Long Stroke Brake Chambers

Includes Dust Shields, Front Brake
Brake Linings, Front Non-Asbestos for S-Cam Brake

Brakes, Rear, Air Cam 16.5" x 7.0"; Includes MGM TR3030 Long Stroke Brake Chamber and Heavy Duty Spring Actuated Parking Brake

Brake Shoes, Rear Cast

AIR COMPRESSOR (Bendix Tu-Flo 550) 13.2 CFM

Bendix AD-9 air dryer with heater

STEERING COLUMN - Tilting
Steering Wheel 2-Spoke, 18" diameter, Black
Steering Gear (TRW/Ross TAS-65) Power

EXHAUST SYSTEM - Single, Horizontal stainless steel muffler w/internal catalytic converter, short tail pipe, frame mounted right side for emissions.

ENGINE EXHAUST BRAKE - Dlogic engine exhaust brake for Peterbilt Engine, electronically activated

ELECTRICAL SYSTEM - 12-Volt, Standard Equipment

Includes:
Fuses, Electrical SAE Blade-Type

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Turn signal switch self-canceling, Headlight Dimmer (with Flash-To-Pass feature)

Horn electric single

Integral parking light with front turn signal and rear tail lights

Stop, turn, tail and B/U lights dual, rear combination with reflector

Electric key operated starter switch

Front flush mounted turn signals, with reflectors and auxiliary side turn signals - Solid State Flashers

Data Link Connector in cab for vehicle programming and diagnostics

Windshield Wipers single motor, electric, cowl mounted

2-Speed integral windshield wiper switch with turn signal switch with wash and intermittent feature

Wiring, Chassis color coded and continuously numbered

ALTERNATOR -(Leece-Neville 4949PA) 12 volt 270 Amp. Capacity with self excite, includes 1-gauge charging circuit, pad mounted.

STARTER MOTOR (Delco MT-42 type 450) 12-Volt; with Thermal Over-Crank Protection

BATTERY SYSTEM - (Peterbilt) Maintenance-Free (3) 12-VOLT 2775CCA Total

IGNITION SWITCH - Keyless

Circuit Breakers Manual-Reset (Main Panel) SAE type III with trip indicators, replaces all fuses except for 5-amp fuses

Body builder wiring back of cab at left frame, includes sealed connectors for Tail/Amber Turn/Marker/Backup/Accessory Power/Ground and sealed connector for Stop/Turn.

CIGAR LIGHTER

HORN, ELECTRIC (2)

HORN AIR -Grover Chrome Stuttertone, Single Trumpet, Air Solenoid operated, mounted one each side of cab hood

Air horn switches - (LineMaster 632-S) passenger side switch located on floor board center in front of officers seat near firewall, drivers side left of steering column near firewall. Driver also to activate switch at steering wheel.

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A pressure protection valve shall be provided for the air horn system preset at 90 psi.

Headlights - Long life halogen, composite aero design for two light system, Includes Daytime Running Lights

GRILLE - Chrome

FRONT END - Tilting, fiberglass with three piece construction

PAINT

Paint schematic; ID LETTERS "GA"

PAINT TYPE; Base coat/clear coat, 1 tone - CUSTOM RED

Paint to match Dupont 20726 ALT. #1 (As per the Spartan/FFA Carolina Forest stations aerial unit S/N YC037129 per Spartan Customer Service info)

KEYS - All Alike, ID Z-001

ENGINE

Engine, diesel Electro-Hydraulic fuel System, 50 state, 330 HP @ 2000/2200 RPM, 950 lb - ft torque @ 1200 RPM, 2200 RPM governed speed, 330 peak HP (Max) Includes No.2 bell housing

Includes:

Fuel/Water separator mounted on engine and fuel filter in a single assembly

Wet type cylinder sleeves

Gauge, Air cleaner restriction - Air cleaner mounted

Cruise Control - Electronic, Controls integral to steering wheel

Engine shutdown - Electric, switch Operated

Governor Road speed, electronic

Engine oil drain plug - Magnetic

Oil Filter, Engine Spin-On type

Engine oil change system 30 Quart Capacity

Damper, Crankshaft Viscous

Fan Optimized position

Fuel Filter Engine mounted

ENGINE WATER COOLER - (Sen-Dure) auxiliary, for use with Fire Trucks

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Fan Drive (Horton DriveMaster) two speed type with residual torque device for disengaged fan speed

Includes - Fan Nylon

Fan drive special effects for cooling ring w/ fan schroud effects, engine mounted

RADIATOR Aluminum; 2 row, cross flow, over under system, with 630 square inch louvered, with 270 square inch charge air cooler, 4.25" core.

Includes:

Antifreeze - Shell Rotella Extended Life Coolant -40F

Deaeration system with surge tank

Radiator hoses premium, rubber

Expanded engine temp effects to allow higher engine operating temperature range, includes nylon surge tank and 15 psi pressure cap

Air Cleaner - Single element w/ ember separator

OMIT - Over-Temperature Protection (For Engine Coolant)

Engine control, remote mounted provision for, Includes: Wiring for body builder installation of PTO controls, with ignition switch control.

Throttle, hand control - Engine speed control for PTO, electronic, stationary preset, two speed settings; mounted on steering wheel. (NOTE! USED AS A FAST IDLE CONTROL BY BODY BUILDER)

TRANSMISSION - AUTOMATIC (Allison EVS-3000P) Close Ratio, 6-Speed; with PTO gear and less retarder

Includes:

6 speed transmission programming

Synthetic transmission fluid (Castrol TranSynd)

Oil level sensor

Oil cooler, water to oil type in combination w/ air to oil type

Transmission oil pan Magnet in Oil Pan

Transmission shift control (Allison) Push Button Type

Allison WT Spare Input/Output for Fire truck/Emergency vehicles

REAR AXLE - Single (Dana Spicer 26105S) single reduction 26,000 lb. Capacity hypoid gearing with 200 wheel ends

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Gear Ratio: 6.14 = 67.9 mph

Includes: Rear axle drain plug (1) magnetic

Axle, Rear, Lube (EmGard 75W-90) Synthetic oil; 40 thru 49.99 pints

SUSPENSION - Rear, spring, single Vari-Rate, 31,000 lb. Capacity, includes 4500 lb. Auxiliary Rubber Spring

Axle, rear, lube EmGard 75W-90 synthetic oil

FUEL TANK -Top Draw; D Style, Steel, 50 U.S. Gallon capacity, 16" deep, with quick connect outlet, mounted right side, under cab.

Includes: Fuel lines nylon tubing with O-Ring snap-on quick-connect fittings at both ends

Heated fuel/water separator (Fleetguard) w/ indicator light

CAB - Conventional, Steel, 2 door

Includes:

Clearance/Marker lights (5) Flush Mounted

Arm Rest (2) molded plastic, Smoke Gray, One each door

Floor covering rubber, Black

Coat hook located on rear wall, centered above rear window

Grab Handle, cab interior (1) "A" Pillar mounted passenger side

Grab Handle, cab interior (2) "B" Pillar mounted, one each side

Two steps per door

Glass, All windows tinted

CAB INTERIOR TRIM - Deluxe for extended cab

Includes:

Console, Overhead molded plastic with dual storage pockets and retainer nets and CB radio pocket, Smoke Gray with Black netting over storage pockets

"A" Pillar cover - Molded Plastic, Smoke Gray

Headliner - Printed Cloth

Instrument Panel Trim - Molded plastic, Drawbridge Gray with Black center section, hidden cup holder and ash tray (pullout)

Dome Light, Cab - Rectangular, center mounted, Integral to console - Door activated, Timed Theater Dimming

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Sun Visor (2) Padded vinyl integral to console with Toll Ticket Strap and with integral extenders
Storage Pocket, Door - Molded plastic, Smoke Gray Full-Length - Driver Door
Cab Interior Trim Panels - Molded Plastic, Full Height - All interior sheet metal is covered
Door Trim Panels - molded plastic; Driver and Passenger Doors

SEATING

Driver Seat - Gra-Mag Non-Suspension, high back with integral head rest, vinyl, fixed seat back

Includes - RED 3-point Seat Belt, lap and shoulder belt

Passenger seat - Gra-Mag High back style non-suspension high back w/Integrated headrest, vinyl, fixed back.

Includes - RED 3-point Seat Belt, lap and shoulder belt.

INSTRUMENT PANEL - Center Section, Flat Panel

GAUGE CLUSTER - English with english electronic Speedometer

Includes:

Odometer Display, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout

Warning System Low Fuel, Low oil pressure, High engine coolant temp, and low battery voltage (Visual and Audible)

Gauge Cluster Gauges (5) Engine oil pressure (Electronic), Water temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter

Gauge, Oil temp, Allison Transmission

Gauge, Air Cleaner Restriction (Filter-Minder) with black bezel mounted in instrument panel

AIR CONDITIONER -

Includes:

Refrigerant Hydrofluorocarbon HFC-134A

Heater Hoses - Premium

Fresh Air Filter for HVAC

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MIRRORS - (2) (Lang Mekra) Styled; Rectangular, 7.09" x15.75", brackets breakaway type, with 102" wide spacing, with integral Convex both sides, with all heated heads, Thermostatically controlled, with clearance lights LED, powered both sides, Bright heads & Brackets..

GRAB HANDLE (2) Towel Bar Type Anti-Slip Rubber inserts; for cab entry mounted left and right

WHEELS

Wheels Seals, Front Oil Lubricated Bearings

Wheels, front disc, 22.5" painted steel, 10-stud (285.75MM BC) hub piloted, flanged nut, metric mount, 8.25 DC rims; with steel hubs

Wheel painted Custom 20726 RED - front

Wheels, rear dual disc, 22.5" painted steel, 10-stud (285.75MM BC) hub piloted, flanged nut, metric mount, 8.25 DC rims; with steel hubs

Includes: Wheel seals, rear oil lubricated, includes wheel bearings

Wheels painted Custom 20726 RED - rear

TIRES

Front tires: (2) 12R22.5 Michelin XZE 486 rev/mile, load range H, 16 ply

Rear tires: (4) 12R22.5 Michelin XZY-2 487 rev/mile, load range H, 16 ply

ADDITIONAL ITEMS TO BE PROVIDED:

ONE SET ONLY FOR THE ORDER OF FIVE (5) TANKERS:

*** ONE (1) CD FOR PARTS, SERVICE & MAINTENANCE.**

*** ONE (1) SET OF DIAGNOSTIC CABLES TO CONNECT TO CUSTOMER FURNISHED LAP TOP COMPUTER.**

One (1)
04-01-0600

Allison Transmission Lockup - Commercial Chassis - 3000 EVS

Y___N___

TRANSMISSION SHIFT LOCK - ALLISON-3000 EVS

First Choice Fire & Safety Inc.

The transmission shall have a shift lock-up to keep the automatic transmission in direct gear during pumping operations. The transmission shift lock-up shall be automatically activated when the pump is placed in gear and deactivated when the pump is taken out of gear.

One (1)
04-02-0100

Fuel Tank Cover - Driver Side

Y__N__

FUEL TANK ENCLOSURE

The fuel tank and entrance steps will be clad with polished aluminum diamond plate. This will be done in a manner which is both safe and practical, and shall add to the appearance of the apparatus. All steps shall have a positive, skid-resistant surface.

One (1)
04-03-0010

CM - Chassis Passenger Side Trim

Y__N__

PASSENGERS TRIM

The passengers side entrance steps and engine after treatment components will be clad with polished aluminum diamond plate. This will be done in a manner which is both safe and practical, and shall add to the appearance of the apparatus. All steps shall have a positive, skid-resistant surface.

One (1)
04-05-1500

Console Between Seats - With Electrical Panel

Y__N__

CONSOLE BETWEEN THE DRIVER AND OFFICER SEAT

An aluminum console shall be specially designed to fit between the driver and the officer seats, to house all electrical lighting switches.

The console shall also be designed to hold the customer's specified communication equipment.

One (1)
04-06-0500

Exact layout shall be approved by the customer, prior to construction.

CM - Exhaust Heat Shield - Horizontal Exhaust

Y__N__

EXHAUST

The chassis horizontal exhaust pipe shall be equipped with a stainless steel heat shield to protect the body compartments.

One (1)
04-07-0500

The exhaust pipe shall discharge engine exhaust to the right side of the apparatus.

Mudflaps - Front & Rear

Y__N__

MUDFLAPS

Heavy-duty black rubber mudflaps shall be provided behind the front tires.

10026-0002

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One (1)
04-08-0500

Black, anti-sail mudflaps shall be installed behind the rear wheels.
Small Rear Stainless Steel Tow Eyes

Y__N__

CHASSIS MODIFICATIONS - REAR STAINLESS STEEL TOW EYES

Two (2) stainless steel tow eyes shall be attached directly to the chassis frame rails at the rear.
Helmet Holders (2)

One (1)
04-10-0950

Y__N__

HELMET STORAGE

Two (2) Ziamatic model UHH-1 helmet holders shall be provided and mounted in the cab. Mounting location to be approved by the customer at pre-paint inspection.
Vehicle Data Recorder - Seat Belt Warn - Weldon - NFPA

One (1)
04-10-1400

Y__N__

VEHICLE DATA RECORDER AND SEAT BELT WARNING SYSTEM

DATA RECORDING SYSTEM

The chassis shall be equipped with a Weldon *Vehicle Data Recorder* (VDR) system. The system shall be designed to meet NFPA 1901. The following information shall be recorded:

- Vehicle Speed
- Acceleration
- Deceleration
- Engine Speed
- Engine Throttle Position
- ABS Event
- Seat Occupied Status
- Seat Belt Status
- Master Optical Warning Device Switch Position
- Service Brake
- Engine Hours
- Time
- Date

Each portion of the data shall be recorded at the specified intervals and stored for the specified length of time to meet NFPA 1901 guidelines, and shall be retrievable by connecting a laptop computer to the VDR system. The laptop connection shall be a panel-mounted, female, type-B USB connection point, remotely mounted in the left side foot well of the cab.

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SEAT BELT WARNING

A Weldon seat belt warning system, integrated with the *Vehicle Data Recorder* system, shall be installed for each seat within the cab. The system shall activate an indicator light in the instrument panel, a digital seat position indicator with a seat position legend in the switch panel, and an audible alarm.

The warning system shall activate when any seat is occupied with a minimum of 60 pounds, and the corresponding seat belt remains unfastened. The warning system shall also activate when any seat is occupied, and the corresponding seat belt was fastened in an incorrect sequence. Once activated, the visual indicators and audible alarm shall remain active until all occupied seats have the seat belts fastened.

One (1)
04-10-1410

Tire Pressure - Visual Indicator - Single Axle

Y__N__

TIRE PRESSURE INDICATOR – NFPA 4.13.4

Reel Wheels *Tire Watch* stainless steel electronic LED valve caps that shall be installed on all wheels. Caps shall illuminate with a red LED when tire pressure drops 8 psi. The valve caps are self-calibrating, and are set to the pressure of the tire upon installation.

One (1)
04-11-1000

Tire Chains - Onspot Six (6) Strand

Y__N__

SNOW CHAINS - ONSPOT

One set of Onspot six (6) strand snow chains shall be provided and installed on the rear axle of the chassis to provide instant traction while traveling on ice and snow at speeds below 35 MPH.

Control switch shall be located in the cab.

One (1)
05-00-0600

Ignition On Light

Y__N__

IGNITION ON LIGHT

A green "MASTER DISCONNECT ON" indicator light, visible from the driver's position, shall be provided.

One (1)
05-00-0800

Ignition - Key Chain

Y__N__

IGNITION - KEY CHAIN

The key to the chassis ignition shall be permanently chained to the dash to prevent accidental removal of the key from the cab.

One (1)
05-00-1000

Battery Disconnect Switch

Y__N__

10026-0002

05/23/22

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MASTER LOAD DISCONNECT SWITCH

The chassis battery system shall be equipped with a Cole-Hersee model 2484-09 master load disconnect switch, installed in the cab and accessible to the driver.
Kussmaul 1000 Battery Charger with Auto Eject

One (1)
05-01-1200

Y__N__

BATTERY CHARGER, BUILT-IN BATTERY SAVER AND BAR GRAPH DISPLAY

A Kussmaul Auto Charge #1000 Series Model #091-215-12, 15 amp battery charger and 3 amp Battery Saver shall be provided and installed. The charger shall include a Model #091-199-001 remote digital display.

The Auto Charge 1000 with Parasitic Load Compensation (PLC) is a compact, microprocessor controlled, completely automatic, single channel battery charger designed for vehicles with a single battery system. The PLC charger is designed to withstand the shock and vibration encountered by vehicle mounted equipment.

The Battery Saver component shall eliminate drain on vehicle's battery system when vehicle is not in use. The system shall automatically disconnect auxiliary vehicle loads from battery when the charger is energized.

Parasitic Load Compensation feature is designed especially to meet the heavy duty requirements of emergency vehicles. Parasitic load compensation allows the operator to input the total number of parasitic load amps on the vehicle. The charger will then shift the absorption stage set point so the battery voltage will drop to the float voltage when the desired current is reached. This will lead to a longer battery life and prevent overcharging or overheating.

It is to be powered by a Kussmaul #091-55-120 20 amp 120V auto-eject inlet receptacle, with weather proof cover and box, located on the left-hand pump panel.

One (1)
05-02-1511

Power Points - Two (2) 12 V Cigarette Lighter Type & USB PORT - Center Console

Y__N__

POWER POINT CONSOLE MOUNT

The cab shall include two (2) 12 volt cigarette-lighter-type receptacles in the center console to provide a power source for 12 volt electrical equipment. The cab shall also include two (2) universal serial bus (USB) charging receptacles in the cab dash to provide a power source for USB chargeable electrical equipment. Each USB port shall be capable of a 5 Volt-500 milliampere output. The receptacles shall be wired to be live with the battery master switch.

One (1)
05-03-0500

Charging System - External Jumper Posts

Y__N__

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CHASSIS MODIFICATION - EXTERNAL JUMPER POSTS

One (1) set of external jumper posts shall be supplied on the unit, located near the batteries, and directly connected to the batteries.

The posts will be clearly color-identified, so there will be no confusion when connecting jumper cables or a battery charger to the posts.

One (1)
05-06-1000

Antenna Mount

Y__N__

RADIO ANTENNA MOUNT

An antenna mounting base, Model MATM, with 17 feet of coax cable and weatherproof cap shall be provided for a two-way radio.

The mount shall be located on the cab roof.

The cable shall be routed to the right side interior for customer to route to the instrument panel if needed.

One (1)
05-06-1005

Radio Mounting (1)

Y__N__

RADIO MOUNTING

A customer-supplied, pre-programmed radio will be installed in the cab.
Pump Shift - Dash Mounted (Midship)

One (1)
07-00-0500

Y__N__

PUMP CONTROL

Provisions shall be made for placing the pump drive system in operation, using controls and switches that are identified, and within convenient reach of the operator.

A "PUMP ENGAGED" indicator shall be provided in the driving compartment and on the operator's panel to indicate that the pump shift process has been successfully completed. An "OK TO PUMP" indicator shall be provided in the driving compartment to indicate that the pump is engaged, the chassis transmission is in pump gear, and the parking brake is engaged.

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.

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The system shall include the applicable NFPA standard interlocks, pump shift, and "OK TO PUMP" indicator lights in the cab and at the pump panel. The fire pump 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 that 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)
07-00-0500

Pump Shift - Dash Mounted (Midship)

Y__N__

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

One (1)
07-03-1600

Pump System -Hale QFLO 125 - 1250 GPM

Y__N__

PUMP - HALE QFLO SERIES

1250 GPM, SINGLE-STAGE, MIDSHIP-MOUNTED CENTRIFUGAL PUMP

10026-0002

First Choice Fire & Safety Inc.

The pump must deliver the percentage of rated capacity at the pressure listed below:

- 100% of rated capacity at 150 PSI net pump pressure
- 100% of rated capacity at 165 PSI net pump pressure
- 70% of rated capacity at 200 PSI net pump pressure
- 50% of rated capacity at 250 PSI net pump pressure

PUMP ASSEMBLY

15. The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 1250 GPM (US GPM), NFPA-1901 rated performance.
16. The entire pump will be assembled and tested at the pump manufacturer's factory.
17. The pump shall be driven by a driveline from the truck transmission. The engine shall provide horsepower and RPM to enable pump to meet and exceed its rated performance.
18. The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 500 PSI. The pump shall be fully tested at the pump manufacturer's factory to performance specs as outlined by the latest NFPA Pamphlet No. 1901. Pump will be free from objectionable pulsation and vibration.
19. The pump body and related parts shall be of fine-grain alloy cast iron, with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel. Pumps utilizing castings made of lower tensile strength cast iron are not acceptable.
20. Pump body shall be split on a single plane, for easy removal of entire impeller assembly, including wear rings and bearings, from beneath the pump, without disturbing piping or the mounting of the pump in chassis.
21. Pump shaft to be rigidly supported by three bearings for minimum deflection. The bearings shall be heavy-duty, deep-groove ball bearings in the gearbox and they shall be splash lubricated.
22. Mechanical seal only required on the inboard side of the pump. The mechanical seal must be two (2) inches in diameter and shall be spring-loaded, maintenance-

First Choice Fire & Safety Inc.

free and self-adjusting. Mechanical seal construction shall be a carbon sealing ring, stainless steel coil spring, Viton rubber cup, and a tungsten carbide seat.

23. Pump impeller shall be hard, fine-grain bronze of the mixed-flow design; accurately machined, hand ground, and individually balanced. The vanes of the impeller intake eyes shall be of sufficient size and design to provide ample reserve capacity, utilizing minimum horsepower.
24. The pump shaft will be heat-treated, electric furnace, corrosion-resistant stainless steel. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

GEARBOX

1. The gearbox shall be assembled and tested at the pump manufacturer's factory. (No Exceptions.)
2. Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque in road operating conditions. The gearbox shall be designed with ample capacity for lubrication reserve, and to maintain the proper operating temperature.
3. The gearbox driveshafts shall be of heat-treated chrome-nickel steel, and at least 2-3/4 inches in diameter, on both the input and output driveshafts. They shall withstand the full torque of the engine.
4. All gears, both drive and pump, shall be of highest quality, electric furnace chrome-nickel steel. Bores shall be ground to size and teeth integrated, shaved, hardened, and ground to give an extremely accurate gear for long life, smooth and quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)
5. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.
6. If gearbox is equipped with a power shift, the shifting mechanism shall be a heat-treated, hard-anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.
7. For automatic transmissions, three green warning lights shall be provided to indicate to the operator when the pump has completed the shift from Road to Pump position. Two green lights to be located in the driver compartment, and one green light on pump operator's panel, adjacent to the throttle control. For manual

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One (1)
07-07-2200

transmissions, one green warning light will be provided for the driver compartment. All lights to have appropriate identification/instruction plates.
Hale Anode System

Y__N__

HALE ANODE SYSTEM

Two (2) Hale anodes shall be installed in the pump to prevent damage caused by galvanic corrosion within the pump.

One (1) installed in the suction side of the pump and one (1) installed in the discharge side of the pump.

The anodes should be inspected every 12 months and replaced when over 75% of the zinc has been consumed. Performance of the anode life will vary with water quality and PH.

One (1)
07-10-0500

Pump System - Hale QD Relief Valve

Y__N__

QD PRESSURE CONTROL MECHANISM

The pump will be equipped with an automatic pressure control device.

A single bronze, variable pressure setting relief valve will be provided and be made of ample capacity to prevent undue pressure rise, as per NFPA 1901.

The relief valve will be normally-closed, and will open against pump pressure, with a control light to signal when open.

In the event of a relief valve control failure, the pump is to remain operable for the complete range of the pump's rated capacity, without requiring the closing of any emergency "in case of failure" (on/off) valves.

One (1)
07-15-0000

Pump System - Hale Primer - ESP

Y__N__

HALE PRIMING PUMP

A Hale *ESP* environmentally-safe, oil-less primer shall be provided.

The priming pump will be a positive displacement vane-type, shall be electrically-driven, and shall conform to standards outlined in NFPA 1901.

One *PVG* priming control valve will both open the priming valve and start the priming motor.

One (1)
07-16-1002

Trident Auto Air Primer with Lift Gauge (Pump Only) 31.011.3

Y__N__

AUTOMATIC FIRE PUMP PRIMING SYSTEM WITH LIFT GAUGE

10026-0002

05/23/22

First Choice Fire & Safety Inc.

A Trident Model #31.011.3 automatic air-operated priming system shall be installed. The unit shall be of all brass and stainless steel construction, and designed for fire pumps of 1,250 GPM (4,690 LPM) or more. Due to corrosion exposure, no aluminum or vanes shall be used in the primer design. The primer shall be a three-barrel design with ¾" NPT connection to the fire pump.

The primer shall be mounted above the pump impeller so that the priming line will automatically drain back to the pump. The primer shall also automatically drain when the panel control actuator is not in operation. The inlet side of the primer shall include a brass 'wye' type strainer with removable stainless steel fine-mesh strainer to prevent entry of debris into the primer body.

AUTOMATIC PRIMER CONTROL WITH VACUUM GAUGE PANEL

The 12 volt primer control shall be an automatic-type, with a pump panel three-way switch to operate an air solenoid valve. The air valve shall direct air pressure from the air brake system to the primer. To prevent freezing, no water shall enter the primer valve control.

A vacuum gauge, 2" in diameter, with graduations from zero to 30 feet, shall be installed in the primer control panel. The gauge shall be physically connected to the vacuum side of the primer, and read only when the primer is running, so it will never see or be subject to damage from high pump intake pressures.

The automatic priming switch shall have three positions as follows:

- **Prime** - the lower position shall be a momentary "push-to-prime". The "Prime" position also allows the operator to "ramp" test the primer without the fire pump being engaged.
- **Off** - center position
- **Auto-Prime** - in the upper position, a green LED pilot light shall be illuminated when the switch is the "Auto-Prime" position. The *Auto-Prime* operates automatically when the pump pressure drops below 20 PSIG. The primer shuts off automatically when the pump pressure is re-established, and exceeds 20 PSIG. The *auto* mode only operates when the fire pump is engaged.

Warranty - The primer shall be covered by a five (5) year parts warranty.

One (1)
09-75-0010

Fire Research - TachP3 Model TPA600-A00 - Engine Monitoring Display Y___N___

ENGINE MONITORING DISPLAY

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Fire Research *TachP3* model TPA600-A00 engine monitoring display kit shall be installed. The kit shall include a display module, audible alarm buzzer, and cables. The display module shall consolidate four (4) instruments into one device. The case shall be waterproof and have dimensions not to exceed 4.2" high by 4.2" wide by 0.7" deep. Inputs for engine information shall be from a J1939 (or ISO11898) CAN bus.

The following continuous LED displays shall be provided:

- Engine RPM
- Oil Pressure
- Engine Coolant Temperature
- Battery Voltage

When available on J1939, the transmission temperature is visible with the push of a button.

The program shall have self-diagnostic capabilities. It shall monitor inputs and support programmable audible and visual warning alarms for the following conditions:

- Low Oil Pressure
- Low Battery Voltage
- High Battery Voltage
- High Engine Coolant Temperature

One (1)
09-75-0010

Fire Research - TachP3 Model TPA600-A00 - Engine Monitoring Display Y___N___

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One (1)
09-76-0015

Class 1 - Twister Remote Electronic Throttle

Y___N___

INSTRUMENTATION - REMOTE THROTTLE CONTROL

One (1)
09-76-0015

The apparatus shall be equipped with a Class1 *Twister* remote throttle control.
Class 1 - Twister Remote Electronic Throttle

Y___N___

INSTRUMENTATION - REMOTE THROTTLE CONTROL

One (1)
10-01-0100

The apparatus shall be equipped with a Class1 *Twister* remote throttle control.
Pump System Piping Stainless Steel & Class 1 Hose

Y___N___

PIPING

All piping shall be heavy-duty, 304 grade, schedule 10 stainless steel or Class 1 high-pressure flexible hose. All stainless steel fittings shall be threaded or welded.

Class 1 flexible hose shall be Black SBR synthetic rubber hose with 300# working and 1200# burst pressure, with stainless steel fittings.

Whenever possible, sweep-type elbows shall be utilized, in order to reduce friction loss. Thread-in 45's and 90's will be used elsewhere.

Victaulic or rubber couplings shall be used, where necessary, to allow flexing of plumbing, which will prevent damage or loosening of the piping, which can occur with rigid plumbing.

All threaded joints shall have non-hardening type sealant for easy removal for repairs.

All piping, including intake and discharge lines, shall be hydrostatically tested. A vacuum test shall be applied to the pump, plumbing, and valves, to test for leaks.

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The system shall be tested, and shall show minimum loss of no more than 10 inches of vacuum over a 5 minute period, as required by NFPA section 16.13.6.4.

SYNFLEX SUCTION, DISCHARGE, PRESSURE AND CONTROL LINES

Small lines within the pump enclosure shall be constructed from Synflex hose. Uses include, but are not limited to, such lines as priming control, gauge lines, drain lines, air control valves, pump shift, supplemental cooling, foam flush, and air bleeder valves.

One (1)
10-01-0210

Fire Pump & Plumbing System Painting

Y__N__

FIRE PUMP & PLUMBING SYSTEM PAINTING

The fire pump and plumbing system shall be painted job color, or the lower color when a two paint scheme is specified. No exceptions.

One (1)
10-02-0000

Valves - All Akron HD 8000 Series w/ Stainless Steel Ball

Y__N__

AKRON VALVES

All pump intake and discharge valves shall be *AKRON 8000* heavy-duty swing-out series. The valves shall have an all-brass body with flow-optimizing stainless steel ball, and dual-polymer seats. The valves shall be capable of dual-directional flow, while incorporating a self-locking ball feature, using an automatic friction lock design, and specially designed flow-optimizing stainless steel ball. All stainless steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require the lubrication of seats or any other internal waterway parts, and be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valves shall carry a ten (10) year manufacturers warranty. The valve shall be manufactured and assembled in the United States.

One (1)
10-05-0000

Elkhart Intake Relief Valve

Y__N__

INTAKE RELIEF VALVE

An Elkhart Brass intake relief valve shall be installed on the suction side of the pump. The valve shall be the preset type at 125 PSI and is adjustable from 75 to 250 PSI, and shall be designed to prevent vibration from altering the setting. The relief outlet shall be directed below the pump with the discharge terminating in a 2-1/2" male NST connection. The discharge shall be away from the pump operator and labeled "Do Not Cap".

One (1)
10-15-0400

U.L. Pump Certification Test

Y__N__

U.L. PUMP CERTIFICATION TEST

First Choice Fire & Safety Inc.

One (1) certification test shall be performed at the manufacturers on-site testing facility, by Underwriters Laboratories.

The certification shall include at minimum:

- A) Pumping Test - NFPA 16.13.2
- B) Pumping Engine Overload Test – NFPA 16.13.3
- C) Pressure Control System Test - NFPA 16.13.4
- D) Priming System Tests - NFPA 16.13.5
- E) Vacuum Test - NFPA 16.13.6
- F) Water Tank-To-Pump Flow Test - NFPA 16.13.7
- G) If Fire Pump is Driven by the Chassis Engine: Engine Speed Advancement Interlock Test – NFPA 16.13.8
- H) Gauge and Flowmeter Test – NFPA 16.13.9

A test plate shall be provided at the pump operator's position that gives the rated discharges and pressures, together with the speed of the engine, as determined by the certification test. The plate shall be completely engraved with all information at the factory, and attached to the vehicle prior to delivery. The original U.L. certificate shall be provided upon acceptance and payment of the apparatus in full.
Vented Lug Caps & Plugs

One (1)
10-15-0600

Y__N__

VENTED LUG CAPS AND PLUGS

All intake and discharge plugs and caps shall be vented-lug type, designed to relieve trapped pressure and help reduce possible operator injuries.
Suction - 6" With Long Handle Chrome Caps-Pair

One (1)
12-01-1000

Y__N__

STEAMER INLETS

Two (2) 6" steamer inlets shall be provided on the pump panels, one (1) on the left side and one (1) on the right side.

One (1)
12-06-2000

Both inlets shall have screens and chrome caps with long handles.
Suction - Hale MIV-E Suction Valves - Left and Right Side

Y__N__

TWO (2) HALE (MIV-E) ELECTRIC MASTER INTAKE VALVES

Both the left and right side suction inlets shall be equipped with a full-flow butterfly-type valve, designed to mount on the fire pump, between the suction tube extension and suction tube, behind the pump compartment panel. The entire valve shall be cast, manufactured and tested at the pump manufacturer's factory.

First Choice Fire & Safety Inc.

When the valve is installed in the fire pump suction, the fire pump shall be capable of achieving an NFPA / UL test rating of 1500 GPM (5678 LPM) through a single 6 inch NST suction hose.

A pressure relief valve shall be provided that is factory pre-set to 125 PSI (9 BAR) and field- adjustable from 75 to 250 PSI (5 to 17 BAR). The pressure relief valve shall provide over- pressure protection for the suction hose, even when the intake valve is closed.

An integral relief valve mounting pad shall be provided on the valve body. This mounting pad shall provide a Hale type 115 4-3/8 inch bolt circle flange for normal installation. The mounting pad shall have 2-1/2 inch female NPT threads to permit remote mounting of the relief valve, without special adapters.

The outlet of the pressure relief valve shall have 2-1/2 inch NPT threads to allow directing the discharge flow away from the pump operator position.

The inlet valves shall be operated by a 12 VDC electric motor with remote override handwheel, located next to the suction tube.

Each valve shall be provided with panel placards indicating control operation. The placards shall have status lights to indicate whether the valve is open, closed, or traversing from one position to another. Each valve shall be provided with a gear actuator that will cycle the valve from OPEN to CLOSED position in no less than 3 seconds.

The gear actuators shall be sealed units, designed to provide reliable service in the harsh pump compartment environment. The ratio of the gear actuator shall be such that the handwheel will close the valve in no more than 10 complete turns.

The 12 VDC motor on the electric operated valve shall be provided with an automatic-resetting, thermally-compensated, over-current protection circuit breaker, to protect the 12 VDC motor and apparatus electrical system.

The valve body shall have a 3/4 inch female NPT threaded port on the top to allow installation of an NFPA compliant large diameter hose air bleeder valve.

The air bleeder valve shall be mounted on the operator panel, and be controllable by the pump operator.

The valve body shall have a 1/4 inch female NPT threaded port on the bottom to permit connection of an individual water drain valve.

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A suction tube extension 7-1/4 inches wide shall be used to allow for the additional length of the inlet valve.

The shorter suction tube extension, along with a 4, 6, or 9 inch suction tube, will keep the suction tube threads within the apparatus running boards while maintaining clearance for adapters.

A panel mounted manual override shall be provided to permit operation of the electric remote control valve in the event of abnormal operating conditions.

The manual override shall be designed to permit operation of the valve without the use of special tools or disassembly of the pump compartment panel or valve.

One (1)
12-07-0500

Suction - (1) 2-1/2" - Side Mount Panel - Left Side

Y___N___

SUCTION - LEFT SIDE

One (1) 2-1/2" suction valve shall be installed on the left side of the unit. The valve body shall be mounted behind the pump panel, with a 2-1/2" NST chrome inlet swivel, chrome plug and chain, and removable inlet strainer.

One (1)
12-07-1000

Suction - (1) 2-1/2" - Side Mount Panel - Right Side

Y___N___

SUCTION - RIGHT SIDE

One (1) 2-1/2" suction valve shall be installed on the right side of the unit. The valve body shall be mounted behind the pump panel, with a 2-1/2" NST chrome inlet swivel, chrome plug and chain, and removable inlet strainer.

One (1)
13-01-1500

Tank To Pump - 3" - Midship Pumps

Y___N___

TANK TO PUMP

There shall be one (1) 3" gated tank to pump line, piped to the tank sump.

Piping from the sump to the valve shall be 4" diameter.

The line shall be plumbed directly into the back of the pump for maximum efficiency.

A full-flow, inline ball valve, with check valve, shall be provided to prevent accidental pressurization of the water tank through the pump connection.

One (1)
13-02-1000

A control with a function plate will be located on the operator's panel.
Tank Fill - 2-1/2"

Y___N___

TANK FILL - 2-1/2"

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There shall be a 2-1/2" tank refill line installed, with a 2-1/2" inline valve.

Valve shall be controlled at the pump operator's panel, and will be clearly marked "TANK REFILL/PUMP COOLER".

One (1)
14-01-1200

Booster Reel - Hannay - Steel - In Dunnage - Left Side

Y__N__

BOOSTER REEL

A Hannay steel booster reel with painted discs shall be installed over the pump compartment, left side.

The reel shall be constructed utilizing a steel welded base.

Rewind shall be a 12v electric motor that will chain-drive the reel drum.

The booster reel shall have an automatic brake to prevent the booster hose from unwinding.

Reel shall include 150' of 1" booster hose.

A TFT *Twister* model #DS1040 1" nozzle shall be provided.

A weatherproof push button switch shall be provided near the reel on the pump panel.

A gear-driven manual rewind shall be included.

Chrome rollers and guides shall be provided on the left side of the pump compartment.

The booster reel discharge control shall be located at the operator's control panel.

One (1)
14-02-0500

Crosslay - (2) 1.75" w/2" Plumbing - Double-Stack

Y__N__

CROSSLAY HOSEBEDS W/ 2" PLUMBING

Two (2) crosslays shall be installed over the pump compartment.

Each section of the crosslay shall be capable of holding 200' of 1.75" double-jacketed hose, in a double-stack load.

A 2" mechanical swivel with 1.5" NST hose connector shall be used in each crosslay, to allow deployment of hose in either direction.

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Stainless steel rollers with nylon guides shall be mounted on both ends, and below the crosslays.

A 1/4" aluminum divider shall separate the crosslays, and poly-plas matting shall be used on the stainless steel crosslay floor.

Each crosslay shall be plumbed with 2" piping and a 2" valve, and shall be controlled at the operator's panel.

One (1)
14-02-4600

Crosslay - Hinged Lid

Y__N__

CROSSLAY LID

A polished aluminum diamond plate lid shall be provided over the crosslay(s).

The lid shall have full length stainless steel hinge with velcro straps to hold lid firmly in place.

One (1)
14-02-4610

Crosslay - Vinyl End Covers

Y__N__

CROSSLAY VINYL FLAPS

Black vinyl flaps shall be installed on each end of the crosslay to retain the hose load. The flaps shall be secured with 2" wide straps with Velcro fasteners.

Meets NFPA 15.10.5 - Any hose storage area shall be equipped with a positive means to prevent unintentional deployment of the hose from the top, side, front, and rear of the hose storage area while the apparatus is underway in normal operations.

One (1)
14-02-5000

Dunnage Compartment

Y__N__

DUNNAGE COMPARTMENT

The remaining area behind the crosslay(s) shall be used for additional storage space.

One (1)
14-02-5600

Close Off Panel Sides of Dunnage Compartment S/S

Y__N__

DUNNAGE COMPARTMENT

Each side of the dunnage compartment shall be enclosed with 12 gauge satin-finish stainless steel.

One (1)
14-05-1510

Sump Box - Floating - Left Side Running Board

Y__N__

SUMP BOX

The left side running board shall have a 12 gauge stainless steel floating sump box.

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The sump box shall have matting and drain holes in the floor of the compartment.

It shall be capable of holding _____.

The hose shall be secured with Zico Quic-straps to prevent unintentional deployment of the hose per NFPA 15.10.5.

One (1)
14-05-2010

Sump Box - Floating - Right Side Running Board

Y___N___

SUMP BOX

The right side running board shall have a floating 12 gauge stainless steel floating sump box as large as possible.

The sump box shall have matting and drain holes in the floor of the compartment.

It shall be capable of holding _____.

The hose shall be secured with Zico Quic-straps to prevent unintentional deployment of the hose per NFPA 15.10.5.

One (1)
15-01-0700

Discharges - (2) 2-1/2" Left Side

Y___N___

DISCHARGES LEFT SIDE

Two (2) 2-1/2" discharges shall be located on the left side pump panel and be controlled from the operator's panel.

Discharge shall terminate with a 2-1/2" NST 30 degree turn down with chrome cap and retainer chain.

One (1)
15-02-0500

Discharge - (1) 2-1/2" Right Side

Y___N___

DISCHARGE RIGHT SIDE

One (1) 2-1/2" discharge shall be located on the right side pump panel and be controlled from the operator's panel.

Discharge shall terminate with a 2-1/2" NST 30 degree turn down with chrome cap and retainer chain.

One (1)
15-02-1500

Discharge - (1) 3" Right Side 3" NST x 4" 30 degree Storz adapter

Y___N___

DISCHARGE RIGHT SIDE

One (1) 3" discharge shall be located on the right side pump panel and be controlled from the operator's panel.

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Discharge shall terminate with a 3" NST x 4" 30 degree Storz adapter with blind cap and retainer chain.

One (1)
15-10-0500

Drain - Pump Master Valve

Y___N___

PUMP MASTER DRAIN

A master drain that will have the capacity to drain all lines and main pump at the same time. The master drain will be mounted on the left side panel and will be readily accessible.

One (1)
15-10-0700

Drain Valves - Side Discharges Innovative Controls Lift Lever

Y___N___

DRAIN VALVES

All side discharges and auxiliary suction drain valves shall be Innovative Controls 3/4" ball brass drain valves with chrome-plated lift lever handles and ergonomic grips. Each lift handle grip shall feature built-in color-coding labels and a verbiage tag identifying each valve, also supplied by Innovative Controls. The colors labels shall also include valve open and close verbiage. The drain valves shall located in the lower portion of the pump panels. All other discharges shall have Class 1 3/4" automatic bleeder drains.

One (1)
19-00-0100

Independent Pump Module

Y___N___

INDEPENDENT PUMP MODULE

The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The pump module shall be fabricated and constructed from the same material as the body. The design shall allow for normal frame deflection without imposing stress on the pump module structure. The pump module shall consist of a welded tubular stainless steel frame work, properly braced to withstand chassis frame flexing. The pump module shall be bolted to the frame rails of the chassis.

One (1)
19-02-0000

Pump Panel - Side Control - Midship Pump - Class A

Y___N___

SIDE MOUNTED OPERATOR'S PANEL

CONSTRUCTION

The pump house shall be a properly supported structure mounted between the body and chassis cab and shall be bolted to the chassis frame rails. The panel shall be supported by 1-1/2" stainless steel tubing.

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The pump and all of the pump mounted valves shall be completely enclosed by the pump house design.

Left and right side pump house panels shall consist of upper and lower stainless steel removable panels.

Stainless panels to be brushed satin finish 12 gauge 304 material to ensure longevity.

The left side of the pump house shall consist of an upper hinged panel containing all required gauges.

The lower panel shall contain left side specified discharges, inlets, drains, and pump controls.

The right side of the pump house shall consist of a double vertically hinged access door. The door will be swing open style with quick opening latch.

A separate lower panel shall contain the specified right side mounted discharges and inlets and their respective drains.

The bottom panel shall be fastened to the pump house with stainless steel bolts and shall be completely removable.

INNOVATIVE CONTROLS PUSH/PULL VALVE CONTROL HANDLES

For valve actuation, the apparatus pump panel shall be equipped with Innovative Controls side mount valve controls.

The ergonomically designed push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and verbiage. The control rod, double laminated locking clips and rod housing shall be stainless steel and provide a true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall minimize rod deflection, never need lubrication, and ensure consistent long term operation. Where required locking 1/4 turn push-pull T-handle controls will be provided.

The control assembly shall include a decorative chrome plated zinc panel mounting bezel and 4 mounting bolts.

IDENTIFICATION LABELS FOR PUMP PANEL

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Innovative Controls verbiage label bezels shall be installed. The bezel assemblies will be used to identify apparatus components. These labels shall be designed and manufactured to withstand the specified apparatus service environment.

The verbiage label bezel assemblies shall include a chrome plated panel mount bezel with durable easy to read UV resistant polycarbonate inserts featuring the specified verbiage and color coding. The UV resistant polycarbonate verbiage and color inserts shall be sub-surface screen printed to eliminate the possibility of wear and protect the inks from fading. Both the insert labels and bezel shall be backed with 3M permanent adhesive (200MP), which meets UL969 and NFPA standards.

SIDE MOUNTED OPERATOR'S PANEL

The following items shall be located on the left side pump panel:

*Individual 0-400# compound discharge gauges shall be provided for each 1.5" or larger discharge

*One (1) -30 to 400 psi master pressure gauge

*One (1) -30 to 400 psi master vacuum gauge

*One (1) engine oil pressure gauge with audible & visual alarm

*One (1) engine water temperature gauge with audible & visual alarm

*One (1) engine voltmeter

*One (1) waterproof engine tachometer

*Two (2) UL test connections

*One (1) master pump house lighting switch

*One (1) engine throttle control

*One (1) relief valve control and open indicator light

*One (1) primer control

*All discharge controls

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- *One (1) tank fill/pump bypass control
- *One (1) tank to pump valve control
- *One (1) pump ENGAGED indicator light
- *One pump certification plate

One (1)
19-04-0020

*One liquid level meter with sensor in the water tank
Running Board - Aluminum Diamond Plate

Y___N___

RUNNING BOARDS

Running boards shall be provided on each side of the pump module and extend from the front of the side compartments forward to the back of the cab. Running boards shall be constructed of 1/8" aluminum diamond plate. The rear edge shall be formed upward 1-1/2" to provide a kick strip along the bottom of the pump panel. The outer edge shall be bent downward to provide a safety rail.

One (1)
19-10-1800

Running boards are supported by 1.50" structural stainless steel tubing welded to the panel framing and shall be able to support a minimum of 500 pounds. The running board stepping surface will comply with the latest version of NFPA 1901. Side Mount Pump Panel Lighting Standard

Y___N___

PANEL LIGHTING

The side mount pump panel shall be illuminated by four (4) TecNiq (model E10-W000-1) 6.00" LED lights with clear lens.

Lights shall be mounted across the top of the gauge panel and shall be protected by a full width polished stainless steel shield.

Lights are controlled by a master panel mounted lights switch.

One (1)
20-01-1500

One (1) side pump panel light shall be illuminated when the pump is shifted into gear form inside the cab, affording the operator illumination when first approaching the control panel.

Gauges - 4.0" No-Shok Master Gauges

Y___N___

4.0" NOSHOK MASTER GAUGES

The master intake and master discharge gauges shall be 4" diameter No-Shok pressure gauges. Each gauge shall have a one-piece die-cast brass case that

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integrates the valve stem connection, movement support, and bourdon tube support into a single unit that eliminates distortion and leakage. Clear scratch resistant molded crystals with captive O-ring seals shall be used to ensure distortion free viewing and to seal the gauge. The gauges shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to $+160^{\circ}\text{F}$. Each gauge shall meet ANSI B40.1 Grade 1A requirements with an accuracy of $\pm 1\%$ full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated brass bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauges shall be installed into decorative chrome-plated mounting bezels that incorporate valve-identifying verbiage.

The master gauges shall be installed on the pump panel no more than 6 inches apart. The gauge on the left shall be the master pump intake gauge and display a range from -30 to 400 psi with Black graphics on a White background. The gauge on the right shall be the master pump discharge gauge and display a range from -30 to 400 psi with Black graphics on a White background.

One (1)
20-01-2200

Gauge - 2-1/2" No-Shok Discharge Gauges

Y__N__

2-1/2" NOSHOK GAUGES

The valve discharge gauges shall be 2 ½ " diameter No-Shok pressure gauges. Each gauge shall have a one-piece die-cast brass case that integrates the valve stem connection, movement support, and bourdon tube support into a single unit that eliminates distortion and leakage. Clear scratch resistant molded crystals with captive O-ring seals shall be used to ensure distortion free viewing and to seal the gauge. The gauges shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to $+160^{\circ}\text{F}$.

Each gauge shall exceed ANSI B40.1 Grade B requirements with an accuracy of $\pm 1.5\%$ full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy. A polished chrome-plated brass bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauges shall be installed into decorative chrome-plated mounting bezels that incorporate valve-identifying verbiage and color labels. The gauges shall display a range from 0 to 400 psi with Black graphics on a White background.

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One (1)
20-03-0500

ICI SL-10 LED Water Level - Pump Panel

Y__N__

ICI WATER LEVEL MONITOR

An Innovative Controls SL-10 Series Tank Level Monitor System shall be installed. The system shall include an electronic display module, a pressure transducer-based sender unit, and a 10' connection cable. The display module shall show the volume of water in the tank using 10 superbright easy-to-see LEDs. Tank level indication is enhanced by the use of green LEDs at the full and near-full levels, amber LEDs between $\frac{3}{4}$ and $\frac{1}{4}$ tank levels, and red LEDs at the near-empty and empty levels. A wide-angle diffusion lens in front of the LEDs creates a 180° viewing angle. The electronic display module shall be waterproof and shock resistant being encapsulated in a urethane-based potting compound. The potted display module shall be mounted to a chrome plated panel-mount bezel with a durable easy-to-read polycarbonate insert featuring blue graphics and a water icon.

All programming functions shall be accessed and performed from the front of the display module. The programming includes self-diagnostics, manual or self-calibration, and networking capabilities to connect remote slave displays. Low tank level warnings shall include flashing red LEDs starting below the $\frac{1}{4}$ level, down-chasing LEDs when the tank is almost empty, and an output for an audible alarm.

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

Location of water tank level monitor shall be on the pump operators panel.

One (1)
20-03-6052

Whelen Plus XL Tank - Large 4 Light Display LED (3)

Y__N__

WHELEN TANK LEVEL LIGHTS

There shall be three (3) Whelen Strip-Light Plus XL tank lights surface mounted within a chrome bezel. Lights will be mounted vertically one (1) on each side of the body and one (1) on the rear of the body.

The light strips shall feature four (4) colors of LED lights to indicate the fluid level of a tank. The lights shall change in color to indicate the water level of the tank in $\frac{1}{4}$ tank increments, the colors shall change from green indicating a full tank to blue, amber, and red as the tank level drops.

One (1)
20-05-3000

Air Horn Button Pump Panel

Y__N__

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AIR HORN BUTTON ON PANEL

An air horn button shall be installed on the pump operators panel.

This button will allow pump operator to activate air horns at any point in time.
Button will be waterproof and marked properly.

One (1)
25-01-0500

Tank Fill - Akron 2-1/2 Right Rear

Y__N__

2-1/2" REAR DIRECT TANK FILL

There shall be one (1) 2.5" Akron Brass style 8825 valve provided and terminate with a Red Head 2.50" 30 degree chrome elbow, with Trident chrome plug with retainer chain. A 3/4" bleeder will be installed.

The valve will be installed on the rear of the tank to the right of the rear dump valve.

One (1)
25-01-1000

Tank Fill - Akron 3.0" Left Rear

Y__N__

3.00" REAR DIRECT TANK FILL

There shall be one (1) 3.0" Akron Brass style 8830 valve provided and terminate with a Red Head 2.50" 30 degree chrome elbow, with Trident chrome plug with retainer chain. A 3/4" bleeder will be installed.

The valve will be installed on the rear of the tank to the left of the rear dump valve.

One (1)
25-01-1100

Tank Fill - Akron 3.0" Right Rear

Y__N__

3.0" REAR DIRECT TANK FILL

There shall be one (1) 3.0" Akron Brass style 8830 valve provided and terminate with a Red Head 2.50" 30 degree chrome elbow, with Trident chrome plug with retainer chain. A 3/4" bleeder will be installed.

The valve will be installed on the rear of the tank to the right of the rear dump valve.

One (1)
26-05-0500

Newton S/S Dump - Rear 10" Manual

Y__N__

DUMP VALVE-10" NEWTON REAR

There shall be one (1) Newton model 1050-34 10" square stainless steel Newton dump valve provided and installed center rear of the unit in the lowest portion of the tank. The dump will have a top mounted manual control handle.

One (1)
26-05-1200

10" Newton Electric Side Dumps Behind Rear Axles

Y__N__

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SIDE DUMP VALVES BEHIND REAR WHEELS

Side dump valves shall be provided on each side of the apparatus behind the rear wheels.

Left side dump valve will be a Newton model 1041-34-19.5" left hand electric actuated with angled flange, with model 5018SR-34 electric actuated telescoping chute mounted on the driver's side behind the rear wheels.

Right side dump valve will be a Newton model 1046-34-27" left hand electric actuated with angled flange, with model 50-18-34 electric actuated telescoping chute mounted on the passenger's side behind the rear wheels.

This system shall allow the chutes to extend approximately 17". (Note) Actuators for both valves and chute will be mounted on the sides.

The valves shall be recessed behind the side body panels. The stainless steel slide extensions will extend and retract automatically when the valve is opened. Control switches shall be located in the cab and near each dump valve.

Hinged stainless steel doors painted to match the body color shall be provided over each valve opening. The doors shall open and close automatically upon activation of the valve.

One (1)
28-00-0300

2000 Gallon UPF Poly Elliptical Tank

Y___N___

UPF ELLIPSE - ELLIPTICAL POLY-TANK

The tank shall have a capacity of 2000 U.S. gallons and shall be elliptical in shape. The tank and its integral support structure shall be manufactured from a PT2E copolymer ultra high impact polypropylene with physical properties equal to or greater than Amoco's Acctuff TM 3045 resin. The fabrication shall be of a welded construction utilizing a nitrogen shielding gas for optimum weld consistency and purity. Exterior seams are to be extrusion welded for maximum strength and integrity.

The tank shall be self-supportive in design. The integral and internal supports must not contain any non-polymer material in their construction. The barrel shall be constructed with 3/8" sheet in a series of prefabricated sections utilizing one piece cell modules containing 3/4" and 1/2" thick partitions to form the tank. NO EXCEPTION. Each cell module shall contain one longitudinal and one transverse partition creating an NFPA compliant compartment type baffling system.

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The Closed-Curve TM compartment type baffling system shall include primary transverse partitions and end walls that shall extend down to the bottom of the support sills. Channel shaped longitudinal sill supports shall be externally welded to the underside of the barrel and the tank end walls as well as to the primary transverse partitions. These longitudinal sills shall be constructed from 3/4" PT2E polypropylene and shall be fully extrusion welded. Drain holes shall be provided at the ends of each section.

Provisions are to be incorporated for air and water to adequately pass through the Closed-Curve TM baffles to facilitate filling and evacuation requirements and shall be staggered in a efficient design to reduce water turbulence while in motion.

FILL TOWER

A fill tower shall be located mid-point of the tank and shall have a minimum 6" vent/overflow pipe which is to be internal of the tank and shall terminate behind the vehicle's rear most axle. The tower shall have an open area of no less than 500 square inches and must be at least 8" in height from the highest point on the elliptical barrel. The fill tower lid shall be of a hinged-type design and shall hinge back towards the center of the tank. The lid shall be retained using a rubber pull latch and sealed with a bulb-type EDPM gasket. A tether shall be provided to hold the lid in the open position.

SUMP

A sump shall be provided at the front underside of the tank along the tank's longitudinal centerline. This sump shall be fabricated from 1/2" PT2E copolymer polypropylene with a 3/4" PT2E floor. Provisions for a 3" NPTF clean-out port will be provided in the floor of the sump. An anti-swirl device in the form of a horizontal plate will be provided internally to avoid cavitation over the sump during rapid evacuation. A 3" NPTF tank-to-pump suction connection shall be provided in the forward wall of the sump.

A discharge sump shall be incorporated at the rear of the tank which will provide a mounting surface for (a) dump valve(s). This sump shall be fabricated from 3/4" PT2E polypropylene. The rear dump surface shall allow ___" round/square dump valve to bolt to the tank. The two side dumps shall allow for ___" round/square dump valves to bolt to the tank. The bottom of the sump shall be at least 6" lower than the bottom of the elliptical tank floor.

The tank shall be mounted to the truck chassis utilizing a structural tubular stainless steel subframe which provides a properly cushioned mounting surface

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for the tank. Captive mounting brackets adequately sized for the tank shall be provided to attach the tank to the subframe utilizing a cushioned isolator for positive and negative vertical retention. The subframe shall be bolted to brackets fastened to the side of the truck chassis. The front mounts are to be spring-loaded to allow for chassis flexing under extreme road conditions. There shall be a 1" polypropylene strip attached to the underside of the subframe to isolate the subframe from the chassis. The forward section of the strip shall have a double tapered relief to eliminate point loading the frame rail.

The exterior portion of the tank that is visible shall be jacketed by a 20 gauge mirrored finish stainless steel to provide an aesthetically pleasing appearance. The elliptical portion and both heads of the tank shall be jacketed with 16 gauge 304 stainless steel sheet. There shall be Styrofoam filler panels fastened to the outside of the tank shell to provide internal support for the stainless steel jacket. The jacket shall be held in constant tension and attached to the tank utilizing stainless steel hardware.

One (1)
30-00-0000

Elliptical Tank Body

Y___N___

STAINLESS STEEL BODY & COMPARTMENT CONSTRUCTION

The complete apparatus body and sub frame shall be fabricated of 12 gauge type 304 grade stainless steel sheeting with a tensile strength of 87,000 psi and a yield strength of 39,000 psi.

All body and compartment components shall be break form design. Compartments are constructed of 12 gauge type 304 stainless steel. This shall include compartment floors, side walls and ceiling. No Exception. Compartments shall be formed from a single sheet of metal when possible. The exterior of the compartments shall be solid seam welded. The corner seams shall be caulked with Gray silicone caulking. All burrs shall be removed to eliminate sharp edges.

Interior of compartments are to be left natural stainless steel with a swirl finish applied to give a lasting and pleasing appearance.

COMPARTMENT SUPPORTS

Compartment floor supports shall be provided fabricated of 12 gauge stainless steel 2.00" x 4.00" support members and shall be installed under the compartment floors. The supports shall be formed "U" sections that will extend the full width beneath the compartment floors. The upper body walkway floor will be supported in a similar fashion.

STAINLESS STEEL SUBFRAME

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A 1.50" x 3.00" stainless steel tubular sub frame shall be fabricated to support the body and tank. Structural stainless steel rails shall run the full length of the body across the top of the chassis frame rails. Appropriate 3.00" stainless steel cross members shall be utilized to ensure rigidity with cross members being space no more than 24" apart.

The sub frame and cross members shall be Mig welded. All compartments and all stainless steel sheeting is TIG welded with 308 stainless steel filler wire.

The complete body structure shall be secured to the chassis frame rails with high grade 5/8" diameter U-bolts.

One inch x three inch heavy duty rubber sill will be installed between the body sub frame and chassis frame rails to prevent stress on the body and tank components. The rubber sill shall be retained by a full length stainless steel channel.

STEPPING, STANDING, & WALKING SURFACES

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards.

WHEEL WELLS

12 gauge stainless steel wheel wells shall be an integral part of the body construction.

Wheel wells and cabinetry are to be designed so road debris will not be trapped on top of the cabinets.

Full one piece circular, 24" deep stainless steel wheel well liners shall be installed. The fender flares shall be bright polished stainless steel and are attached to the wheel well using stainless steel bolts.

WIRING ACCESS PANELS

Wiring access panels shall be provided in the body interior corner compartments. The panels shall be bolted in place to allow easy removal for service.

FUEL TANK ACCESS

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If the apparatus is equipped with a rear frame mounted fuel tank a removable bolted on access panel will be provided in the rear compartment wall.

REMOVAL OF BODY

The completed body with all related parts will be able to be removed in its entirety and accompany the water tank when removed.

FASTENERS

All fasteners used in securing components to the body shall be type 304 stainless steel.

COMPARTMENT VENTS

Compartments shall have a minimum of two (2) 4" louvered stainless steel vents per compartment. They shall be installed in the rear wall of each compartment in a fashion to prevent foreign matter and water from entering.

COMPARTMENT DRAINS

Duckbill type rubber floor drains will be installed in the corners of the lower compartment floors.

One (1)
30-00-0001

Beavertail Supports-Elliptical Tank

Y___N___

BEAVERTAIL SUPPORTS

Two inch wide vertical beavertail supports shall be fabricated and attached to the rear bumper and the rear vertical panel.

One (1)
30-00-0003

Tank Access Ladder Center-Elliptical Tank

Y___N___

TANK ACCESS LADDER

A stainless steel ladder fabricated of rolled tubing shall be provided on the drivers side center of the apparatus for access to the top of the tank and the tank manway.

The ladder shall be curved to the shape of the tank and attached to the tank outer wrap only.

One (1)
31-01-3000

All rung are to be knurled non-slip for safety and NFPA compliance.
Suction Hose Compartment - Elliptical Tank

Y___N___

SUCTION HOSE STORAGE COMPARTMENTS

10026-0002

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Compartments fabricated of 12 gauge stainless steel shall be provided on each side of the apparatus. Each compartment shall be capable of holding a 6" x 10' length of suction hose.

Each compartment shall also include a 2" diameter stainless steel tube capable of holding various length pike poles.

One (1)
31-01-3100

Suction Hose Door-Elliptical Tank-Aluminum

Y__N__

SUCTION HOSE DOOR

Rear vertically hinged aluminum diamond plate doors shall be installed on each hose tube using stainless steel piano hinges, with Southco E3-17-22 all stainless steel door latches. Door(s) shall be wired to the door ajar circuit.

One (1)
31-01-4800

Compartments - 48" Forward

Y__N__

FORWARD SIDE BODY COMPARTMENTS

Two (2) compartments shall be located one each side forward of the rear axles.

Compartments shall have inside dimensions: 30.00" high x 28.00" deep x 48.00" wide.

Door opening size will be approximately 27.00" high x 45.00" wide.

Compartments shall have double vertically hinged doors.

One (1)
56-20-0006

Rear Bumper 18"

Y__N__

REAR BUMPER

The rear bumper shall be fabricated of 1.50" x 1.50" and 1.50" x 3.00" structural stainless steel tubing. The bumper shall be fully welded design and shall be welded to the rear side body compartments.

The rear bumper shall be 18" deep and run full width of the vehicle.

One (1)
56-30-0001

Aluminum Diamond Plate Step

Y__N__

BUMPER STEP SURFACE

The bumper step shall be covered with aluminum diamond plate with welded end caps. The bumper stepping surface will comply with the latest version of NFPA 1901.

One (1)
57-00-0551

Top Side Body Aluminum Trim

Y__N__

TOP SIDE BODY TRIM

10026-0002

05/23/22

First Choice Fire & Safety Inc.

The top of all side body compartments shall be covered with Aluminum diamond plate.

One (1)
57-00-0606

Top overlay edges shall be angled downward and extended over the outer body panel approximately 1.00"
Rear Body Elliptical Painted Finish

Y__N__

REAR BODY TRIM

One (1)
57-00-0651

The rear body panel below the tank shall have a painted finish.
Exterior Aluminum Finish

Y__N__

EXTERIOR BEAVERTAIL TRIM

One (1)
57-00-0664

The exterior sides of the beavertails shall be covered with aluminum diamond plate.
Interior Painted Finish

Y__N__

INTERIOR BEAVERTAIL TRIM

One (1)
57-00-0701

The interior sides of the beavertails shall be painted.
Compartment Trim Aluminum Finish

Y__N__

FRONT COMPARTMENT TRIM

One (1)
57-00-0901

Front exterior wall of the front compartments shall be covered with Aluminum diamond plate.
Pump House Trim Aluminum Finish

Y__N__

PUMP HOUSE TRIM

One (1)
57-20-0310

The front of the pump house shall be covered with Aluminum diamond plate.
Rub Rails 1.00 x 1.50 S/S

Y__N__

STAINLESS STEEL RUB RAILS

One (1)
60-00-1152

Rub rails shall be provided and installed below each side compartment. The rub rail assembly shall be constructed of 1.00" x 1.50" heavy-duty 14-gauge 304 grade stainless steel tubing with black end caps and will be DA finished. Rub rails shall be bolted to the lower exterior edge of the apparatus body, with 0.50" nylon spacers installed between the body and the rub rail.
Zico PTS-HA Hydraulic Tank Lift System Passenger Side

Y__N__

ZICO HYDRAULIC PORTABLE TANK SYSTEM

10026-0002

05/23/22

First Choice Fire & Safety Inc.

A ZICO Model #PTS-HA, Portable Tank System shall be provided. Unit includes two (2) self-contained hydraulic actuators. These hydraulic actuators create a strong rigid system designed to sustain a maximum load of 500 lbs.

The PTS-HA shall securely store the portable tank specified over the side compartments and lowers the portable tank to a convenient height at the flip of a switch for quick, easy, and safe retrieval.

An NFPA compliant flashing light shall be provided on each end of the bracket and wired to the hazard light in the cab to activate when system is out of stored position.

LOCATION: The portable tank bracket shall be installed on passenger's side of the apparatus.

CONTROL SWITCH LOCATION

The Zico lift control switch shall be mounted in the passenger side pump panel.
Stainless Steel Zico Cover

One (1)
60-00-1206

Y__N__

ZICO LIFT PORTABLE TANK STAINLESS STEEL COVER

The complete top and side of the bracket shall be covered with 16 gauge 4F finished stainless steel designed to protect the portable tank.
Tank Bracket Sized For 1500 Gallon Tank

One (1)
60-00-1611

Y__N__

TANK SIZE

The Zico tank lift system shall be sized to hold a 1500 gallon portable tank.
Tank Bracket Sized for 2500 gallon tank

One (1)
60-00-1613

Y__N__

TANK SIZE

The Zico tank lift system shall be sized to hold a 2500 gallon portable tank.
Suction Hose V tray - (2) - (1) Each Side

One (1)
60-00-2100

Y__N__

SUCTION HOSE MOUNTING BRACKETS

Two (2) aluminum V-Trays shall be provided and mounted on stainless steel unistrut tracking. One (1) mounted on the left side over the upper compartments and one (1) mounted on the right side over the ladders.

The hose shall be held in place with quick release holders.

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One (1) No Driver's Side Front Wheel Well Compt. Y__N__
60-00-5655

One (1) Air Bottle Compartment SS - Triple Bottle Y__N__
60-00-5670

AIR BOTTLE STORAGE COMPARTMENT (TRIPLE COMPARTMENT)

One (1) spare air bottle compartment shall be provided and located, in the front portion of the driver's side rear wheel well area. The compartment will be capable of holding three (3) spare air bottles. The compartment shall be fabricated of stainless steel and lined to prevent vibration. The compartment shall have a drain hole in the floor.

One (1) No Driver's Side Rear Wheel Well Compt. Y__N__
60-00-5705

One (1) Air Bottle Compartment SS - Triple Bottle Y__N__
60-00-5717

AIR BOTTLE STORAGE COMPARTMENT (TRIPLE COMPARTMENT)

One (1) spare air bottle compartment shall be provided and located, in the rear portion of the driver's side rear wheel well area. The compartment will be capable of holding three (3) spare air bottles. The compartment shall be fabricated of stainless steel and lined to prevent vibration. The compartment shall have a drain hole in the floor.

One (1) No Officer's Side Front Wheel Well Compt. Y__N__
60-00-5805

One (1) No Officer's Side Rear Wheel Well Compt. Y__N__
60-00-5905

One (1) Air Bottle Compartment SS - Triple Bottle Y__N__
60-00-5920

AIR BOTTLE STORAGE COMPARTMENT (TRIPLE COMPARTMENT)

One (1) spare air bottle compartment shall be provided and located, in the rear portion of the officer's side rear wheel well area. The compartment will be capable of holding three (3) spare air bottles. The compartment shall be fabricated of stainless steel and lined to prevent vibration. The compartment shall have a drain hole in the floor.

One (1) Wheel Well Door - Painted Y__N__
60-00-6101

COMPARTMENT DOOR(S)

The wheel well compartment(s) where specified will have a vertically hinged painted stainless steel door(s) with Southco #E3-17-22 all stainless steel door latch. The door(s) shall be labeled: "SPARE SCBA CYLINDER". Door(s) shall be wired to the door ajar circuit.

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One (1)
60-00-6101

Wheel Well Door - Painted

Y__N__

COMPARTMENT DOOR(S)

The wheel well compartment(s) where specified will have a vertically hinged painted stainless steel door(s) with Southco #E3-17-22 all stainless steel door latch. The door(s) shall be labeled: "SPARE SCBA CYLINDER". Door(s) shall be wired to the door ajar circuit.

One (1)
60-00-6101

Wheel Well Door - Painted

Y__N__

COMPARTMENT DOOR(S)

The wheel well compartment(s) where specified will have a vertically hinged painted stainless steel door(s) with Southco #E3-17-22 all stainless steel door latch. The door(s) shall be labeled: "SPARE SCBA CYLINDER". Door(s) shall be wired to the door ajar circuit.

One (1)
60-00-6101

Wheel Well Door - Painted

Y__N__

COMPARTMENT DOOR(S)

The wheel well compartment(s) where specified will have a vertically hinged painted stainless steel door(s) with Southco #E3-17-22 all stainless steel door latch. The door(s) shall be labeled: "SPARE SCBA CYLINDER". Door(s) shall be wired to the door ajar circuit.

One (1)
60-02-1001

Shelf Tracking S/S with (1) Adjustable Shelf for 2 compartments

Y__N__

SHELVING - ADJUSTABLE

A total of two (2) adjustable shelves shall be provided and installed in customer specified location.

Shelf construction where specified shall be rigid with 2" lip on the front and rear, and fabricated of 3/16" aluminum.

The shelving shall be adjustable by means of a threaded tightener that slides in a track to allow precise adjusting height. All tracking will be stainless steel uni-strut.

One (1)
60-03-0502

Pull Out Trays (2) Accuride 300#

Y__N__

TRAYS - PULL OUT

Two (2) Accuride slide out trays shall be provided and installed in customer specified location.

Sliding tray where specified shall be mounted in a manner that provides for

First Choice Fire & Safety Inc.

maximum clearance overhead.

The tray shall have a capacity of 300 pounds in the fully extended position.

The side mounted slides are to be equipped with ball bearings for ease of operation.

Tray will lock automatically in the open and closed positions. Manual type locks will not be acceptable.

LOCATION:

One (1)
60-03-3010

Mateflex Interlocking Tiles

Y___N___

FLOOR MATTING

All compartment floors shall be lined with Black Mateflex 13" X 13" x 9/16" interlocking tiles with tapered edging at the front compartment opening.
Compartment Doors S/S 18 Gauge Standard

One (1)
62-00-0500

Y___N___

COMPARTMENT DOORS

Doors to be fabricated of 304 grade stainless steel with 18 gauge inner and outer panels.

The doors shall be 3/4" thick and reduce the compartment depth by approximately 5/8" with the door closed.

The double panel design provides strength and a tight fit with 5/8" insulation installed between the panels for sound dampening.

Doors shall be of a rigid design. Door outer panel edges will be folded and welded to the inner panel.

Welding of the inner panel directly to the outer panel face shall not be permitted due to distortion caused by welding.

The use of body filler prior to painting of the outer door panels shall not be permitted. **No Exception**

Each door is to have closed cell rubber seal to provide a weather proof seal between the door and compartment.

The compartment doors shall pivot on full length stainless steel piano hinges with a 3/16" pin diameter.

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Hinges shall be welded to compartment wall and bolted to doors with 10-24 stainless steel bolts.

Compartment doors will have stainless steel flush bent "D" ring handles. Latching mechanism shall be non-locking safety slam positive latch. Gasket material is placed between the door handles and outer door panels to prevent electrolytic reaction between dissimilar metals to protect paint finish.

Mechanism is enclosed in stainless steel not exposed to equipment stored in compartment.

An inner two point latch shall be provided on the second door of all double doors with a rubber covered pull cable when applicable.

Interior of doors shall be left natural stainless with swirl finish applied to give a lasting and pleasing appearance.

One (1)
62-00-0800

Drip Rails For Hinged Compartment Doors

Y___N___

DRIP RAILS

Bright aluminum "J" channel shall be provided over each lower side body compartment and at the front and rear of the compartments.

One (1)
62-01-0500

Door Closures Power Hydraulic Vertically Hinged

Y___N___

DOOR CLOSURES

All vertically hinged doors shall have power lift gas filled cylinders installed.

Closure shall assist in the closing of door once it has past the halfway point.

One (1)
70-02-0500

Electrical - Commercial Elliptical

Y___N___

12 VOLT ELECTRICAL SYSTEM

All wiring and electrical equipment shall meet N.F.P.A. 1901 (2016 edition) and SAE standards.

A master optical warning device switch that energizes all of the optical warning devices shall be provided.

The optical warning system shall be capable of two separate signaling modes during emergency operations. One mode shall signal to drivers and pedestrians that the apparatus is responding to an emergency and is calling for the right of way. The other mode shall signal that the apparatus is stopped and is blocking the right of way. Switching of modes shall be controlled by the parking brake.

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All wiring to be GXL ultra high temperature cross link type.
Wiring installed by the builder to be run in protective split loom where exposed to the outside.

Where wires pass through body compartments or panels grommets, snap bushings, or compression fittings shall be utilized.

All wiring harnesses and associated wiring shall be secured with nylon "ultra violet resistant" cable ties or bolted to the body with cable clamps.

Polyolefin "heat shrink" tubing with adhesive or Deutsch water tight connectors shall be used on all exterior wiring connections.

Flexible non-conductive polyurethane film shall be sprayed on all terminal studs, relays, starter, batteries, etc. to prevent corrosion.

All wiring shall be protected by automatic reset circuit breakers which conform to SAE standards. Any required exterior fuses shall be protected by an environmentally sealed fuse holder.

The breakers shall be selected to prevent wire damage when subjected to extreme current overload. Wiring to be color, function, and/or number coded.

A Class I power distribution relay board shall be utilized.
Distribution board contains independently switching relays with selectable input polarity. Relays can be connected in either their normally open or normally closed positions.

Relay board features heavy duty components, visual diagnostics, and load management inputs. System is user friendly for trouble shooting.

A wiring diagram for the body electrical system shall be included with the apparatus.

JUNCTION BOX

The electrical junction box for all 12 volt wiring shall be located in a convenient location. It will be recessed into the compartment wall not to protrude into the storage area. It shall have a removable access panel.

The compartment shall be sealed and weather proof. All components in compartment shall have identification tags.

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CLEARANCE LIGHTS

All required Clearance lights shall be provided at the rear and on each side of the unit to meet Federal regulations. All lights will be (LED) Light Emitting Diode type with a five (5) year warranty.

On apparatus 30 feet in length or longer, a Trucklite model 60072Y Amber LED turn signal light with stainless steel flange shall be mounted one (1) each side in rear wheel well area at approximately running board height.

LED STEP AREA LIGHTING

Four (4) step area lights shall be provided. One mounted each side on the front compartment face to illuminate the panel running board steps and two mounted at the rear of the unit to illuminate the rear tailboard step. These lights shall be activated when the parking brake is applied.

Whelen 3SCOCDCR series 3.00" round LED lights shall be utilized. Depending on body application the lights will either be mounted in a rubber grommet or surface mounted with a chrome flange.

HAZARD LIGHT

A red flashing light shall be located in the driving compartment, and shall be illuminated automatically whenever the apparatus parking brake is not fully engaged and any passenger or equipment compartment door is open, any ladder or equipment rack is not in the stowed position, a stabilizer system is deployed, a powered light tower is extended, or any other device is opened, extended, or deployed that creates a hazard or is likely to cause damage to the apparatus if the apparatus is moved. The lights shall be marked "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

One (1)
70-02-1570

License Plate Light - LED

Y__N__

LICENSE PLATE LIGHT

One (1) Trucklite model 15055 LED license plate light and bracket shall be provided on the rear of the unit.

One (1)
70-02-1700

Emergency Warning Light Switches Commercial Cab

Y__N__

EMERGENCY WARNING LIGHT SWITCH CONTROLS

All warning light switches shall be mounted in the cab in a readily accessible location.

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A master switch and individual switches to be provided to allow preselection of lights. The light switches are to be "rocker" type with an internal indicator light to show when the switch is energized. All switches to be properly identified and mounted in a removable panel for ease in servicing. Identification of the switches shall be done by either printing or etching on the switch panel.

One (1)
70-02-2800

Whelen M6 Quad Cluster LED Rear Stop, LED Turn, LED Backup

Y__N__

WHELEN M6FCV4 QUAD CLUSTER REAR DOT LIGHTING

BACKUP LIGHTS

Two (2) Whelen model M6BUW Super LED backup lights

STOP/TAIL LIGHTS

Two (2) Whelen model M6BTT series Super LED Brake/Tail lights

DIRECTIONAL LIGHTS

Two (2) Whelen model M6T series Super LED arrow directional turn signal lights

The backup lights, stop/tail lights, and directional lights along with rear lower level warning lights shall be installed on the lower rear face of the unit and shall be recessed in chrome plated flange.

One (1)
70-02-3100

Compartment Lights Soundoff Signal (1) 10"

Y__N__

COMPARTMENT LIGHTS

One (1) SoundOff Signal model ECVCLLED10, 10" strip LED compartment light shall be provided in each compartment. The lighting shall be mounted in the ceiling of the compartment.

All compartment lighting shall be automatic by the opening and closing of the door.

One (1)
71-00-0100

All main apparatus body compartments shall have door ajar switches.
Back Up Alarm

Y__N__

BACK-UP ALARM

There shall be electronic beeper that sounds when the truck is placed in reverse. The beeper shall be heard over all engine noise, by persons near or on the truck.
Ground LED Lighting Commercial 2 Door SQ Or Ellip

One (1)

Y__N__

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71-03-0100

LED GROUND LIGHTING

The apparatus shall be equipped with lighting capable of providing illumination at a minimum level of two (2) foot candle on ground areas within 30.00" of the edge of the apparatus in areas designed for personnel to climb onto the apparatus or descend from the apparatus to the ground level. Lighting designed to provide illumination on areas under the driver and crew riding area exits, which shall be activated automatically when the parking brake is set. Lights shall be installed in a manner that illuminates all walkways and steps for safe operation of the apparatus.

TecNiq E10-WSOO-1 6.00" LED lights mounted in a stainless steel bracket shall be utilized.

One (1) light located each side under the panel running boards.

Two (2) lights mounted under the rear step.

One (1) light located each side under the cab steps.

One (1)
71-04-0099

(1) SoundOff LED Pump Compartment Light

Y___N___

PUMP COMPARTMENT LIGHT

One (1) SoundOff model ECVCSLLED10-10" LED pump compartment light shall be provided within the pump enclosure. The control switch shall be located on the pump operators panel.

One (1)
71-05-0000

Light - Engine Compartment - TecNiq E18

Y___N___

ENGINE COMPARTMENT LIGHT

There shall be a TecNiq E18 high output utility light with switch, mounted inside engine compartment, to provide sufficient lighting for vehicle maintenance.

One (1)
71-31-3009

Whelen Dunnage Area LED Lights Elliptical Tank

Y___N___

DUNNAGE AREA LIGHTS

There shall be two (2) Whelen 3SCOCDRCR series 3.00" round LED lights provided and mounted on the front tank head facing the crosslay area to provide adequate illumination of this area. The lights will be activated when the parking brake is applied.

One (1)
72-35-4000

Innovative Controls Electrical Load Manager

Y___N___

ELECTRICAL LOAD MANAGER

10026-0002

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The apparatus shall be equipped with an Innovative Control Electrical Load Manager (ELM) for performing electrical load management. The ELM shall have 16 programmable outputs to supply warning and load switching requirements. Outputs 1-12 shall be independently programmable to activate during the scene mode, the response mode, or both.

These outputs can also be programmed to activate with the ignition or master warning switch, or to sequence and shed along with the priority. Output 13 shall be designated to activate a fast idle system. Output 14 shall provide a low voltage warning for an isolated battery. Output 15 is a user configurable output and shall be programmable for activating between 10.5 and 15 volts. Output 16 shall provide a low voltage alarm that activates at the NFPA required 11.8 volts.

The ELM shall have a digital display to indicate system voltage in normal operation mode and also indicate the output configuration during programming mode. The ELM shall be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMI/RFI protection. The ELM shall have an operating temperature range of -40C to +105C (-40F to +220F).

One (1)
75-12-0102

Whelen F4N0VLED 60" Freedom IV Lightbar

Y__N__

WHELEN NFPA APPROVED UPPER LEVEL LIGHT PACKAGE

ZONE A - FRONT UPPER

A Whelen Freedom IV model F4N0VLED 60" lightbar shall be mounted centered on the front of the cab roof. The lightbar shall be 60.00 inches in length. The lightbar shall feature four (4) corner Red Linear-LEDs and four (4) front Linear LEDs (2) Red & (2) Clear lights. The clear lights shall be disabled when the parking brake is engaged.

One (1)
75-30-0004

L31H - Super Red LED Zone C

Y__N__

ZONE C - UPPER

Two (2) model L31HRFN Super Red LED 360 beacon lights mounted on the upper rear light stanchions.

One (1)
75-30-1018

Whelen M9 Zone B&D (4) Zone C (2)

Y__N__

ZONE B & D - SIDE UPPER

Two (2) Whelen M9 Super LED lights with chrome bezels will be mounted one each side on the upper front side corners of the body.

Two (2) Whelen M9 Super LED lights with chrome bezels will be mounted one each side on the upper rear side corners of the body.

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ZONE C - REAR UPPER

Two (2) Whelen M9 Super LED lights with chrome bezels will be mounted on the upper rear of the body.

One (1)
75-30-1050

Whelen Upper Level Light Lens Color - Red

Y__N__

UPPER LEVEL LIGHT LENS COLOR

The upper level lights shall have red lenses.

One (1)
75-30-1055

Whelen Upper Level Light Lens Color - Clear

Y__N__

UPPER LEVEL LIGHT LENS COLOR

The upper level lights shall have clear lenses.

One (1)
75-40-0602

Whelen M Series LED Lower Level Lighting Commercial Cab (4)

Y__N__

WHELEN LOWER LEVEL LIGHTING

ZONE A - LOWER

Two (2) M7 series Super LED lights with chrome bezels mounted on the lower portion of the front grille.

ZONE B & D- SIDE LOWER

Two (2) M4 series Super LED lights with chrome bezels mounted one (1) each side on the front lower corner of the cab fenders.

Two (2) M6 series Super LED lights with chrome bezels mounted one (1) each side in the rear body fender area.

ZONE C - LOWER

Two (2) M6 Super LED lights mounted on the lower rear of the apparatus in M6FCV4 chrome housing.

One (1)
75-40-0800

Whelen Lower Level Light Lens Color - Red

Y__N__

LOWER LEVEL LIGHT LENS COLOR

The lower level lights shall have red lenses.

One (1)
83-02-1600

Arrow Stick - Whelen TAZ86 LED

Y__N__

ARROW STICK

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One (1) Whelen TAZ86 LED Traffic Advisor light shall be mounted center rear of unit. The TADCTL1 control head shall be mounted in the chassis cab. 1.74" high x 2.17" deep x 36.00" long

One (1)
84-01-0606

The unit shall include eight (8) Linz6 LED lamps with amber lens.
Voyager Observation System - Rear Camera - Left & Right

Y__N__

VOYAGER OBSERVATION SYSTEM

The apparatus shall be equipped with a Voyager Observation system. The system shall help prevent common backing accidents by allowing the driver to see what is behind the apparatus.

The system shall include a Voyager AOM713WP 7" Color Tri-View heavy duty Monitor mounted in the cab and a VCCS130 Voyager color camera shall be mounted on the rear of the vehicle and left and right side in customer specified location.

Monitor System Includes:

7" Wide Format, Heavy Duty Color LCD Panel

Waterproof housing

Backlit controls

Integrated audio speaker

NTSC and PAL video signal compatible

Three camera (A/V) inputs

Manual (pushbutton) or automatic (trigger) source selection

Turn-signal (pulsed DC) compatible trigger inputs (AV2, AV3)

Auto power on (standby)

Day/Night brightness modes

On Screen Display (OSD) for AV source, picture adjustment and volume level

Non-volatile memory for picture and volume adjustment settings

Anti-glare/Anti-scratch protective lens

Removable sun-visor included

Camera System includes:

Built-in microphone.

LED enhanced low-light performance and image orientation selector switch.

Siren - Whelen - Model #295SLSA1

One (1)
85-01-1700

Y__N__

WHELEN 295SLSA1 ELECTRONIC SIREN AMPLIFIER

A Whelen Model 295SLSA1 electronic siren amplifier shall be provided and installed in the cab within reach of the officer and driver.

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Standard features include Radio Rebroadcast, Public Address, Manual, Wail, Yelp, Airhorn, and Piercer tones. PTT (Push To Talk) switch on unidirectional microphone over-rides all siren functions. All siren functions are backlit in a soft, non-glare green for ease of nighttime visibility. Contemporary styling complements most Whelen power controls and Traffic Advisor Control Consoles for proper aesthetic stacking. An adjustable bail bracket allows mounting in a variety of positions. Each model is mounted on a slide out chassis with an integral quick disconnect plug for ease of maintenance or replacement. Park Kill feature, disables the siren when the vehicle is in park. Volume control knob on faceplate standard.

Selectable 100 or 200 watt output, standard.

Si-Test®, silent self-diagnostic.

5 year warranty on amplifier.

Size: 2-1/2" (64mm) H x 6" (152mm) W x 6-7/8" (175mm) D

One (1)
85-02-0500

Speaker - 100 watt

Y__N__

SIREN SPEAKER

One (1), 100 watt siren speaker shall be recess mounted in the front bumper.

One (1)
85-05-0500

Air Horns - On side fenders

Y__N__

AIR HORNS - ON SIDE HOOD

Two (2) Grover Stutter tone air horns will be mounted one (1) each side on the side of the hood.

One (1)
85-05-1552

Air Horn Control Foot Switch Linemaster Driver

Y__N__

AIR HORN CONTROL - FOOT SWITCH

There shall be a Linemaster SP-491-S119 momentary floor mounted foot switch provided for Air horn operation and installed on the drivers side floor in the cab.

One (1)
88-01-0502

Six (6) Tech Guardian Elite

Y__N__

SCENE LIGHTS

Six (6) FireTech HI-Viz model GESM Gaurdian Elite 20,500 lumens LED, (9.65" high x 10.63" wide) white scene lights will be installed on the body.

Two (2) located each side of the body, one (1) at the front and one (1) at the rear, and two (2) located on the rear face of the unit.

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Lights will be controlled by three individual switches located in the cab. Rear lights will also be activated when unit is put into reverse.

One (1)
88-04-1006

FireTech 65" Brow Light 12 Volt - With Marker Lights

Y__N__

BROW LIGHT

One (1) FireTech model FT-B-65-ML3-W brow light shall be provided and installed between the windshield and light bar. The light will have three (3) integrated amber marker lights and 51 LEDs capable of producing 26,928 lumens. The light features four (4) different patterns; spot, flood, scene and marker lights. The light will be controlled by a switch in the cab.

One (1)
94-01-0600

(2) Receptacles - 120 VOLT

Y__N__

OUTLETS

Two (2) 120 volt 20 amp. twist-lock outlet (NEMA L5-20) with weatherproof cover shall be provided with wiring in flexible conduit to circuit breaker panel.

Location shall be:

One (1)
98-00-0100

Paint And Preparation - Body Only

Y__N__

PAINT AND PREPARATION

All metal surfaces will be properly sanded, prepared and finished ready for our Axalta Coating Systems pretreatment. This is done to insure optimum adhesion, corrosion resistance, and durability.

After pretreatment, 1220S Axalta Coating Systems 5000 URO primer filler is applied designed to fill any minor surface defects and provide an adhesion layer between the pretreatment and the Imron Base Coat/Clear Coat. This is also applied to improve color gloss, retention, and durability of the paint.

Next the URO primer will be sanded to a smooth prepainting surface. The surface will be decontaminated and prepared for application of High Solids Axalta Coating Systems Productive Base Coat/Clear Coat finish to complete the finished paint process.

A full inspection is performed of Defects, Depth Imagery, Gloss, Film Build, Color Match and Texture, all to meet or exceed Axalta Coating Systems OEM fleet finish specifications.

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Body assemblies that cannot be finish painted upon assembly shall be painted prior to finish assembly. All doors are removed and painted separate from the body.

Prior to reassembly and reinstallation of lights, handrails, door hardware, and any miscellaneous items; a gasket material or silicone sealant shall be applied to prevent damage to the finish painted surfaces and to protect against electrolysis between dissimilar metals.

Touch up paint shall be provided for each color paint used.

The complete apparatus body will be painted a single color to match the color of the cab. The cab shall remain as painted from the chassis supplier.

Paint Color _____ - Paint # _____

Paint Stripe Wheels Single Axle

Y___N___

One (1)
98-01-0100

PAINTED WHEELS

Vehicle wheels shall be painted to match the exterior paint.

3.00" Lettering - Gold Vinyl

Y___N___

One (1)
99-00-0500

LETTERING

Lettering shall be provided. It shall be computer generated, non-reflective, Gold Metallic Acrylic Vinyl Applique with a black border.

Computer generated lettering provides a proportional layout design and durable finish.

Included will be a maximum of sixty five (65) three (3) inch letters.

Reflective Striping - 4"

Y___N___

One (1)
99-01-0500

REFLECTIVE STRIPING

A 4" wide white reflective stripe shall be applied to the unit in a straight line.

Per NFPA 15.9.3.1 this shall include at least 50 percent of the cab and body length on each side, excluding the pump panel areas, and at least 25 percent of the width of the front of the apparatus.

Door Warning - Chevron 2-Door Cab

Y___N___

One (1)
99-03-2000

REFLECTIVE MATERIAL - INTERIOR CAB DOOR

The cab doors shall have a minimum of 96 square inches of reflective material

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One (1)
99-03-2202

affixed to the inside of each door per NFPA 1901 14.1.6
Chevron Rear reflective elliptical

Y__N__

REFLECTIVE CHEVRON - NFPA 15.9.3.2

50 percent of the rear-facing vertical surfaces, visible from the rear of the apparatus, shall be equipped with retroreflective striping in a chevron pattern sloping downward and away from the centerline of the vehicle at an angle of 45 degrees. Each stripe shall be 6" in width. Included will be the entire rear vertical surface of the body.

One (1)
A2-01-2500

Stripe Colors will be Red & Yellow.
Portable tank - FDT 2500 Steel Frame

Y__N__

PORTABLE TANK

A 2500 gallon portable tank will be included. The tank will be a Husky model STF-2500, 22 ounce yellow EXLON "High Performance Liner Material" with steel frame.

One (1)
B1-10-5900

Two (2) Suction Hose - 6" x 10' Flex

Y__N__

SUCTION HOSE

Two (2) Firequip Maxi-Flex 6" x 10' light weight PVC Suction hose with male and 6" long handled female couplers.

One (1)
B2-01-6000

Strainer - 6" Barrel

Y__N__

SUCTION HOSE STRAINER

One (1) South Park #BS4522AC, 6.00" barrel strainer will be provided and mounted in customer specified location.

One (1)
F1-01-0001

Zico AC32 Wheel chocks - underbody (2)

Y__N__

WHEEL CHOCKS

Two (2) Zico AC32 wheel chocks will be provided and mounted under the left front compartment.

One (1)
O4-00-6100

Traffic Vest NFPA Customer Supplied

Y__N__

SAFETY FIRE VEST

The NFPA required Safety Vest will be supplied and installed by the purchaser before the truck is placed into service.

One (1)
O4-00-6110

Traffic Cones Customer Supplied

Y__N__

10026-0002

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First Choice Fire & Safety Inc.

TRAFFIC CONES

The NFPA required traffic cones will be supplied and installed by the purchaser before the truck is place into service.

One (1)
O4-00-6120

Automatic External Defibrillator (AED) Customer Supplied

Y___N___

AUTOMATIC EXTERNAL DEFIBRILLATOR (AED)

The NFPA required AED will be supplied and installed by the purchaser before the truck is placed into service.