Fouts Bros Fire Equipment

FB-94 CUSTOM PUMPER

Fouts Fire
138 Roberson Mill Road
Milledgeville, GA 31061
www.firesales@foutsfire.com
1-844-304-0010

Fouts Bros Fire Equipment

Fouts Bros Fire Equipment

SCOPE AND GENERAL REQUIREMENTS

It is the intent of the manufacturer to provide a new fire apparatus that will withstand the continuous use encountered in the emergency fire fighting service. The apparatus shall be of the latest type, symmetrically proportioned and constructed with due consideration of the load to be sustained.

All parts not specifically mentioned herein, but which are necessary in order to furnish a complete fire apparatus, shall be furnished and shall conform to the best practices known to the fire apparatus industry.

The unit is to be of current year manufacture, and is to be new and unused. The bid price shall not include any local, State, or Federal taxes. The Bidder shall not be liable for any State or Federally mandated tax or program after the sale of this apparatus.

These specifications shall be construed as minimum. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and be furnished.

PRIME BIDDER, MANUFACTURER

The manufacturer shall be prime bidder and shall identify the location of their facility.

BIDDERS BACKGROUND

Bids are requested from responsible manufacturers who are engaged in the manufacture of fire apparatus. To insure reliable and complete acceptance of the apparatus, bidder shall have been in operation for a minimum of thirty (30) years in the manufacturing of fire apparatus.

The manufacturer of the apparatus must be fully owned and managed by a Parent Company, Corporation, or Individual(s) that is 100% held by United States of America based Company, Corporation, or United States citizen(s).

Fouts Bros Fire Equipment

Proposals from any manufacturer that is fully or partially owned and/or operated by a foreign company, Corporation or Individual(s) under any type of ownership, partnership, or any similar type of agreement will be immediately rejected.

If the manufacturer of the apparatus, or if any owner, shareholder, or immediate relative of an owner or shareholder that has previously been involved in or held ownership in any company that has filed bankruptcy or any other type of reorganization plan, it must be clearly stated in the bid proposal. The statement must include details and dates of all occurrences.

FAMA COMPLIANCE

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA) and must provide certificate of membership.

FAIR, ETHICAL AND LEGAL COMPETITION

In order to ensure fair, ethical, and legal competition the apparatus manufacturer shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

PROPRIETARY PARTS

It is the intention of the purchaser for all bidders to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors whereas replacement parts are more readily available and at reduced cost. The use of proprietary parts may not be acceptable to the purchaser.

MANUFACTURER'S DISCRETION

Materials, parts, or procedures used are subject to change at manufacturer's discretion at any time to provide equal or better products.

MANUFACTURING LOCATION

The apparatus shall be manufactured in Milledgeville, Georgia.

Fouts Bros Fire Equipment

PRODUCT QUALITY AND WORKMANSHIP

The components provided and workmanship performed shall be of the highest quality available for this application. Special consideration shall be given to the following areas:

A). Accessibility to various components that require periodic maintenance or lubrication checks.

B). Ease of vehicle and pump operation.

C). Features beneficial to the intended operation of the apparatus.

Construction of the complete apparatus shall be designed to carry the loads intended to meet the road and terrain conditions and speed requirements desired when specified by the purchaser.

Welding shall not be employed in the assembly of the apparatus in a manner that will prevent the removal of any major component part for service and/or repair.

INSURANCE REQUIREMENTS

Each bidder must submit with their bid proposal a Certificate of Insurance listing the proposed manufacturer's product liability insurance coverage. Liability insurance shall be a minimum amount of ten (10) million dollars. Submitted certificate shall name the apparatus manufacturer, insurance company, policy number, and effective dates of the insurance policy. Bids submitted without the required certificate will be considered non responsive and automatically rejected. No exceptions are allowed to the minimum insurance coverage requirement.

The manufacturer shall maintain full insurance coverage on the purchaser's cab and chassis from time of first possession by the manufacturer until the apparatus is delivered and accepted by the purchaser (No Exceptions). Purchaser reserves the right to require proof of insurance from the manufacturer's insurance carrier prior to entering into a contract for the apparatus.

PAYMENT TERMS

Fouts Bros Fire Equipment

Full payment for the apparatus shall be made at time of delivery of the completed vehicle. Due to insurance liability, the apparatus will not be left at the purchaser's location without full acceptance and payment or prior agreement between the Purchaser and Bidder.

Final delivery price shall not include any Local, State or Federal taxes. The manufacturer shall not be liable for any State or Federal mandated tax or program after sale or delivery of the apparatus.

DELIVERY REQUIREMENTS

Delivery of the completed vehicle shall be no more than 120 calendar days after delivery of the chassis to the apparatus manufacturer.

VEHICLE ACCEPTANCE AND DELIVERY

The customer shall pickup the vehicle at the manufacturing facility and shall supply evidence of sufficient insurance coverage to transport the vehicle.

FUEL TANK FILLED AT DELIVERY

The fuel tank and DEF tank (if applicable) shall be filled upon final delivery at the factory.

OVERALL HEIGHT

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

OVERALL LENGTH

No overall length restriction has been specified for this apparatus.

OVERALL WIDTH

No overall width restriction has been specified for this apparatus.

OVERALL WHEELBASE

No overall wheelbase restriction has been specified for this apparatus.

PUMP MODULE WIDTH

No pump module width restriction has been specified for this apparatus.

ANGLE OF APPROACH

No angle of approach restriction has been specified for this apparatus.

ANGLE OF DEPARTURE

No angle of departure restriction has been specified for this apparatus.

NFPA 1900 COMPLIANCE

The National Fire Protection Association standard #1900 (most recent edition) is hereby adopted and made a part of these specifications, the same as if they were written out in full detail, insofar as they apply with the exception of any sections dealing with “Equipment Recommended for Various Types of Apparatus”. Bidders are to provide only the equipment requested herein and the Department will supply the rest before the apparatus is put into service. The unit shall comply with all federal, state, ICC, and DOT motor vehicle regulations, standards, and laws relating to commercial vehicles as well as to fire apparatus on the date of the bid.

ROLLOVER STABILITY - NFPA 1900: CHASSIS ESC SYSTEM

The apparatus shall meet the rollover stability criteria defined in NFPA 1900 by being equipped with an Electronic Stability Control (ESC) system as provided by the chassis manufacturer.

ROAD TEST CERTIFICATION

A road test shall be conducted with the finished apparatus fully loaded. During this time, the apparatus shall not show loss of power and/or overheating. The transmission drive shaft or shafts and rear axle shall run free from abnormal vibration or noise throughout the operating range of the apparatus. The apparatus, when loaded, shall have not less than 25% or more than 45% of the

weight on the front axle and not less than 55% or more than 75% on the rear axle.

A). The apparatus must be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed RPM of the engine.

B). The apparatus must be capable of accelerating from a steady speed of 15 mph to a true speed of 35 mph within 30 seconds. This shall be accomplished without moving the gear selector.

C). The fully loaded apparatus shall be capable of obtaining a speed of 50 to 55 mph on a level concrete highway.

D). The manufacturer shall furnish copies of the engine installation approvals signed by the appropriate engine company upon delivery of the chassis to the Fire Department.

E). The manufacturer shall furnish copies of the transmission approval signed by the transmission manufacturer upon delivery of the chassis to the Fire Department.

F). The manufacturer shall furnish copies of the front and rear axle approvals upon delivery of the apparatus to the Fire Department.

ROAD TEST FAILURE

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the manufacturer within thirty (30) days of the first trials. Such trials shall be final and conclusive and failure to comply with changes, as the purchaser may consider necessary to conform to any clause of the specifications within thirty (30) days after notice is given to the manufacturer of such changes, shall be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser, or its use by the purchaser during the above-specified period with permission of the manufacturer, shall not constitute acceptance.

Fouts Bros Fire Equipment

VEHICLE TOP SPEED

The rear axle shall be geared for a top speed of 68 mph at engine governed RPM.

NFPA TOP SPEED STATEMENT

Per NFPA 1900 section 7.16.2, the maximum top speed of fire apparatus with a GVWR over 33,000 lbs. shall not exceed either 68 MPH or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

Per NFPA 1900 section 7.16.3, 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 lbs., 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.

CHASSIS DATA LABELS

The following information shall be on labels affixed to the vehicle:

Fluid Data:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Pump primer fluid (if applicable)
- Drive axle(s) lubrication fluid
- Air conditioning refrigerant
- Air conditioning lubrication
- Power steering fluid
- Cab tilt mechanism fluid (if applicable)
- Transfer case fluid
- Equipment rack fluid (if applicable)
- Air compressor system lubricant

- Generator system lubricant (if applicable)

Chassis Data:

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

Location shall be in the driver's compartment of the chassis cab.

OVERALL HEIGHT, LENGTH, GVW DATA PLAQUE

A "high visibility" plate shall be permanently mounted in the cab, visible to driver when seated.

The plate shall show the overall height of the completed apparatus in feet and inches, the overall length of the completed apparatus in feet and inches.

The plate shall also show the gross vehicle weight rating (GVWR) in tons.

Text shall also be supplied on the plate, indicating that the information shown is current upon completion of the apparatus. If the overall height of the apparatus changes after the apparatus is put into service, then the purchaser must revise the dimensions on the plate.

FAMA SAFETY GUIDE

One (1) copy of the latest edition of FAMA's Fire Apparatus Safety Guide shall be provided with the completed apparatus.
== CHASSIS, CUSTOM - FB-94 - 7.500 05/29/24 ==
CUSTOM CHASSIS

CUSTOM CHASSIS SPECIFICATION

CHASSIS PROVIDER

Fouts Bros Fire Equipment

The Spartan chassis, as detailed in the attached specifications, shall be ordered and supplied by the apparatus manufacturer.

HUB COVERS (front)

Stainless steel hub covers shall be provided on the front axle.

HUB COVERS (rear)

A pair of stainless steel high hat hub covers shall be provided on rear axle hubs.

COVERS, LUG NUT

Stainless steel lug nut covers shall be supplied on front and rear wheels.

EXHAUST SYSTEM

The chassis exhaust system shall be provided as detailed in the chassis specifications. NO modifications shall be made by the apparatus manufacturer.

HOT EXHAUST DANGERS LABEL - FAMA# 04

A permanent label shall be provided near any hot exhaust surface that warns of potential injury or death that could be caused by contact with the surface. The label shall also state precautions that should be taken while working on or around the surface.

BUMPER

The front bumper shall be provided as detailed in the chassis specifications.

DRY-MAT - CHASSIS SUPLLIED FRONT BUMPER COMPARTMENT

The front bumper compartment shall contain turtle tile, dry-mat flooring to allow for hose to dry.

The turtle tile shall be black in color.

A safety sign FAMA22, which warns of the need to secure hose, shall be visible to personnel at each hose storage area.

REAR MUD FLAPS

A pair of black rubber mud flaps, with the manufacturer's logo, shall be provided and installed behind the rear wheels.

DUAL USB PORT

One (1) Kussmaul model # 091-219-5 shall be installed in the console. It shall contain two (2) 2.4 amp USB charging ports.

PUMP, MODULE, AND RELATED ITEMS

NFPA 1900 COMPLIANT PUMP

The fire pump and related plumbing on the specified apparatus shall be installed in accordance with applicable NFPA 1900 guidelines at the time the contract was placed.

HALE QMAX PUMP ASSEMBLY

The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis.

The entire pump shall be assembled and tested at the pump manufacturer's factory.

The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. Pump shall be free from objectionable pulsation and vibration.

The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2069 bar). All metal moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.

Pump body shall be horizontally split, on a single plane in two (2) sections 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.

The pump shall have one (1) double suction impeller. The pump body shall have two opposed discharge volute cutwaters to eliminate radial unbalance. (No exceptions)

Pump shaft to be rigidly supported by three bearings for minimum deflection. One high lead bronze sleeve bearing to be located immediately adjacent to the impeller (on side opposite the gearbox). The sleeve bearing is to be lubricated by a force fed, automatic oil lubricated design, pressure balanced to exclude foreign material. (No exceptions.) The remaining bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.

Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined 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.

Impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body, and of wrap-around double labyrinth design for maximum efficiency. (No exceptions.)

The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless steel to be superfinished under for longer shaft life. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

ELECTRONIC PUMP MANUALS

Two (2) sets of electronic fire pump service and operation manuals shall be provided with the completed apparatus.

Fouts Bros Fire Equipment

PUMP WARRANTY

The pump shall be covered by the Hale Pro-Tech 5-year pump warranty against workmanship and materials. Both parts and labor shall be covered for the first 2 years and years 3-5 shall have parts only coverage.

GEARBOX

Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of drive through torque of the engine system. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.

The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2.75" in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine.

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 and hardened, to give an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.

If the 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.

MIDSHIP PUMP RATIO

The ratio for the midship pump shall be 2.32:1 (23).

MECHANICAL SEAL

The pump shall have a mechanical seal. One (1) only required on the suction (inboard) side of the pump. The mechanical seal shall be two (2) inches in

diameter and shall be spring loaded, maintenance 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 with Teflon backup seal.

1500 GPM FIRE PUMP SPECIFICATIONS

The centrifugal type fire pump shall be a Hale model QMAX midship mounted with a rated capacity of 1500 GPM. The pump shall meet NFPA 1900 requirements.

The pump shall be certified to meet the following deliveries:

1500 gpm (5678 L/M) @ 150 psi (10.3 bar)
1050 gpm (3974 L/M) @ 200 psi (13.8 bar)
750 gpm (2839 L/M) @ 250 psi (17.2 bar)

LEFT SIDE INLET - 6.00"

One (1) 6.00" steamer inlet with male NST threads shall be provided on the left side of the pump module. The inlet shall have a removable screen.

INLET CAP

One (1) 6.00" chrome plated cap with long handles and NSTF threads shall be supplied. The cap shall be capable of withstanding 500 PSI and be trimmed with the apparatus manufacturer's logo in the center of the cap.

RIGHT SIDE INLET - 6.00"

One (1) 6.00" steamer inlet with male NST threads shall be provided on the right side of the pump module. The inlet shall have a removable screen.

INLET CAP

One (1) 6.00" chrome plated cap with long handles and NSTF threads shall be supplied. The cap shall be capable of withstanding 500 PSI and be trimmed with the apparatus manufacturer's logo in the center of the cap.

FIRE PUMP SPLIT SHAFT DRIVESHAFTS AND INSTALLATION

Fouts Bros Fire Equipment

The mid-ship split shaft fire pump shall be installed and shall include installation of the fire pump, modification and/or fabrication of new drivelines and all pump-mounting brackets.

PUMP DRIVELINE

The pump transmission driveline shall be supplied with 1710 series yokes and bearings to match the cab chassis driveline.

TRANSMISSION LOCK-UP DEVICE

The automatic chassis transmission shall be delivered to the body builder with high gear lock up device installed on the automatic transmission, to allow proper gear ratio for pump operation. The transmission shall be programmed by the chassis manufacturer to include this feature.

PUMP SHIFT CONTROLS

The pump shift controls shall be supplied with the custom chassis.

PIPING AND MANIFOLDS

All the plumbing and/or piping in the pump module shall be of 304 stainless steel or flexible piping for long life. All NPT pipe thread connections larger than 0.75” connections shall be avoided in the construction of the plumbing system.

The flexible piping shall be black SBR synthetic rubber hose with 300 working pounds and 1,200 pounds burst pressure for sizes 1.50” through 4.00”. Sizes 0.75”, 1.00” and 5.00” are rated at 250 lb. working and 1,000 lb. burst pressure. All sizes are rated at 30 HG vacuum. Reinforcement consists of two (2) plies of high tensile strength tire cord for all sizes sand helix wire installed in sizes 1.00” through 5.00” for maximum performance in tight bend applications. The material has a temperature rating of –40 degrees F to 210 degrees F. Full flow couplings are precision machined from high tensile strength stainless steel.

MASTER PUMP DRAIN

The pump shall be equipped with a Class 1 master pump drain to allow draining of the lower pump cavities, volute and selected water carrying lines and accessories. The drain shall have an all brass body with a stainless steel return spring.

U.L. TEST POINTS

Two (2) U.L. test points shall be mounted on the pump panel for testing of the vacuum and pressures. The test points shall be a single piece with individual ports for suction and discharge.

INDIVIDUAL DRAINS

One (1) individual Class1 lift up drain valve shall be furnished for each 1.50" or larger discharge port and each 2.50" gated auxiliary suction.

PUMP CERTIFICATION

The fire pump shall be tested to meet the flow requirements of the pump. A written certification shall be provided with the completed vehicle.

RELIEF VALVE

There shall be one (1) suction side stainless steel relief pump valve provided on the pump system. The valve shall be configured with a 2.50" male NST discharge outlet.

FIRE PUMP PRIMING SYSTEM

A Trident Model #31.001.2 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 (4,600 LPM) or more. The primer shall be three-barrel design with direct connection to the Hale fire pump. The primer shall automatically drain when the panel control actuator is not in operation. The connection to the pump shall have an integral Hale strainer.

The priming system shall be capable to a vertical lift to 22.00" of mercury and shall be fully compliant to applicable NFPA standards for vertical lift. The system

shall create vacuum by using air from the chassis air brake system through a three-barrel multi-stage internal “venturi nozzles” within the primer body.

The primer control shall have a manually operated, panel mounted “push to prime” air valve; which will direct air pressure from the air brake storage tank to the primer body. To prevent freezing, no water shall flow to and from the panel control.

THERMAL RELIEF VALVE

A Hale Model TRV120 Thermal Relief Valve shall be provided on the pump. If water temperature in the pump exceeds 120 degrees Fahrenheit, the thermal relief valve shall automatically open and discharge pump water to the ground, through a 0.375" discharge line, routed below the pump module. The thermal relief valve shall automatically close when the water temperature is lowered.

PUMP COOLING/BYPASS LINE

There shall be a 0.25" line installed from the discharge side of the pump to the water tank. The line shall be used to cool the pump during long periods of pumping when water is not being discharged. The pump cooler shall be controlled with a multi-turn 1/4" valve on main pump panel, and shall be clearly labeled "Pump Cooler".

This discharge shall implement a Class 1 model 14BV all brass ball type 1/4 turn valve with a 1.00" x 3.00" chrome plated handle control located on the pump panel. The handle shall have a recessed area for mounting of the identification label which shall clearly state "PUMP COOLER".

CHASSIS ENGINE HEAT EXCHANGER COOLING SYSTEM

The apparatus shall be equipped with a heat exchanger for supplementary chassis engine cooling during fire pump operations. The system shall provide cooling water from the fire pump to circulate around the engine radiator coolant without mixing or coming in direct contact with the engine coolant. The unit shall be installed by the chassis manufacturer and connected to the plumbing system by the fire apparatus manufacturer.

This system shall implement a Class 1 model 14BV all brass ball type 1/4 turn valve with a 1.00" x 3.00" chrome plated handle control located on the pump panel. The handle shall have a recessed area for mounting of the identification label which shall clearly state "ENGINE COOLER".

ANODES

The fire pump shall be equipped with replaceable alloy anodes. The pump shall have one (1) anode on each intake section and one (1) anode on the discharge section of the fire pump, for a total of three (3).

PRESSURE GOVERNOR and ENGINE MONITORING DISPLAY

A Fire Research PumpBoss Max series PBA501-D00 pressure governor and control module kit shall be installed.

The following continuous displays shall be provided:

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

The pressure governor shall operate in two (2) control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. In pressure mode the pressure governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase.

LEFT SIDE FORWARD AUXILIARY INTAKE

One (1) 2.50" gated suction intake shall be installed on the left hand side pump panel in the forward position to supply the fire pump from an external water

supply. The intake shall have a 2.50" chrome plated female NST swivel connection with screen.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the left hand side auxiliary suction.

VALVE ACTUATOR

The valve shall be controlled by a swing type handle. It shall be located adjacent to the intake at the operator's panel.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

INLET PLUG

One (1) 2.50" FNST chrome plated plug with chain shall be provided.

TANK TO PUMP LINE

One (1) 3.00" tank to pump line shall be provided for connection between the water tank and the fire pump.

An Akron Brass 3.00" generation II swing-out valve shall be provided for the tank to pump line.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod.

TANK FILL/ RECIRULATION LINE

One (1) 2.00" fire pump to water tank refill and pump bypass cooler line shall be provided.

An Akron Brass 2.00" generation II swing-out valve shall be provided for the tank fill line.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod.

Fouts Bros Fire Equipment

LEFT SIDE FRONT PANEL DISCHARGE

One (1) 2.50" discharge with valve shall be located on the left side panel.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the discharge.

The valve shall be manually operated at the left hand side panel with a rack and sector control. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

The discharge shall be equipped with an integral, stainless steel, 45-degree elbow terminating with 2.50" MNST threads.

DISCHARGE CAP

One (1) 2.50" FNST chrome plated cap with chain shall be provided.

LEFT SIDE REAR PANEL DISCHARGE

One (1) 2.50" discharge with valve shall be located on the left side panel.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the discharge.

The valve shall be manually operated at the left hand side panel with a rack and sector control. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

The discharge shall be equipped with an integral, stainless steel, 45-degree elbow terminating with 2.50" MNST threads.

DISCHARGE CAP

One (1) 2.50" FNST chrome plated cap with chain shall be provided.

RIGHT SIDE FRONT PANEL DISCHARGE

One (1) 3.00" discharge with valve shall be located on the right side panel.

An Akron Brass 3.00" generation II swing-out valve shall be provided for the discharge. The valve shall be of the slow-close design so as not to allow the valve to open or close in less than 3 seconds.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

The 3.00" outlet shall be equipped with an integral, stainless steel, 45-degree elbow terminating with 3.00" MNST threads.

STORZ ADAPTER

One (1) TFT model AA1ST-NL adapter shall be provided. The adapter shall be configured with a 5.00" rigid Storz coupling and a 3.00" FNST rigid rocker lug coupling.

STORZ CAP

One (1) TFT model #A01ST 5.00" Storz cap with lanyard shall be provided.

RIGHT SIDE REAR PANEL DISCHARGE

One (1) 2.50" discharge with valve shall be located on the right side panel.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the discharge.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

The discharge shall be equipped with an integral, stainless steel, 45-degree elbow terminating with 2.50" MNST threads.

DISCHARGE CAP

One (1) 2.50" FNST chrome plated cap with chain shall be provided.

CROSSLAY PRE-CONNECT DISCHARGE #1

One (1) 1.75" crosslay pre-connect shall be installed in the pump module above the pump. The crosslay shall be plumbed using 2.00" stainless steel pipe, and/or flexible piping.

The crosslay discharge shall terminate below the hose bed floor with a 1.50" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

Crosslay discharge #1 shall be designed to accommodate a minimum of 200 feet of 1.75" fire hose.

An Akron Brass 2.00" generation II swing-out valve shall be provided for crosslay #1 discharge.

The quarter turn valve shall be manually operated with a Class 1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

CROSSLAY PRE-CONNECT DISCHARGE #2

One (1) 1.75" crosslay pre-connect shall be installed in the pump module above the pump. The crosslay shall be plumbed using 2.00" stainless steel pipe, and/or flexible piping.

The crosslay discharge shall terminate below the hose bed floor with a 1.50" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

Crosslay discharge #2 shall be designed to accommodate a minimum of 200 feet of 1.75" fire hose.

An Akron Brass 2.00" generation II swing-out valve shall be provided for crosslay #2 discharge.

The quarter turn valve shall be manually operated with a Class 1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

CROSSLAY PRE-CONNECT DISCHARGE #3

One (1) 2.50" crosslay pre-connect shall be installed in the pump module above the pump. The crosslay shall be plumbed using 2.50" stainless steel pipe, and/or flexible piping.

The crosslay discharge shall terminate below the hose bed floor with a 2.50" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

Crosslay discharge #3 shall be designed to have a minimum total capacity of 3.5 cubic feet.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the discharge.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

LOWERED CROSSLAYS

The crosslay hose bed floor will be approximately 52" above the side running boards.

DUNNAGE AREA

A dunnage area shall be provided above the pump enclosure for equipment mounting and storage. This area shall be furnished with a 0.1875" aluminum floor and shall be enclosed on the sides.

NOTE: The size of this storage area may vary when top mounted crosslays, booster reel(s), etc., are specified and located in this area.

ANTI-SLIP TREAD STRIPS DUNNAGE

Anti-Slip tread strips shall be provided in the floor of the dunnage area. Each strip shall be approx 6.00" wide x 24.00" long, and black in color.

CROSSLAY DIVIDER(S)

Two (2) crosslay dividers shall be provided, one (1) between the #1 and #2 crosslay, and one (1) between the #2 and #3 crosslay.

Each divider shall be constructed from 0.188" thick abraded aluminum plate and shall be mounted on a base T-extrusion that provides lower support the length of the divider.

ALUMINUM CROSSLAY COVER

A 0.1875" polished aluminum tread plate cross lay cover shall be provided with a full length stainless steel hinge at the rear of the cover.

CROSSLAY COMPARTMENT ENDS - VINYL FLAPS

The crosslay compartment shall be enclosed on each end using a heavy duty vinyl flap to prevent hose from accidently unloading. The cover shall be secured with a black shock cord/ hook system on the bottom and permanently secured on the top.

The crosslay end flaps shall be Red in color.

DECK GUN DISCHARGE

One (1) 3.00" discharge with valve shall be located on the top of the pump. The discharge shall be plumbed to the top of the module using 3.00” schedule 10 stainless steel pipe. The pipe shall terminate in a 3.00” MNPT thread.

An Akron Brass 3.00" generation II swing-out valve shall be provided for the deck gun discharge. The valve shall be of the slow-close design so as not to allow the valve to open or close in less than 3 seconds.

The quarter turn valve shall be manually operated with a Class 1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

One (1) Class1 automatic 0.75" drain valve(s) shall be installed. The valve shall have an all brass body with heavy duty neoprene seal. The valve shall be normally open and shall close at 6 psi using an all brass check assembly with stainless steel spring.

DECK GUN MOUNTING ADAPTER

One (1) 3.00" FNPT 150# Ansi Companion Flange shall be installed on the end of the deck gun outlet for mounting of a deck gun.

LEFT HAND SIDE REAR DISCHARGE -NO 1

One (1) 2.50" discharge with valve shall be plumbed to the left hand side rear of the apparatus.

An Akron Brass 2.50" generation II swing-out valve shall be provided for the discharge.

Each of the quarter turn valve shall be manually operated with a Class1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

A 2.50" Class1 discharge pressure gauge (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters.

The discharge shall have a 2.50" FNST swivel rocker lug x 2.50" MNST 30-degree chrome elbow adapter provided.

Fouts Bros Fire Equipment

DISCHARGE CAP

One (1) 2.50" NSTF chrome plated cap with chain shall be provided.

FRONT DISCHARGE

One (1) 1.50" discharge with 2.00" schedule 10 stainless steel piping, flexible hosing, 45 degree elbows, and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the apparatus. A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability. Automatic discharge drains shall be provided at all low points in the plumbing.

An Akron Brass 2.00" generation II swing-out valve shall be provided for the front discharge.

The quarter turn valve shall be manually operated with a Class1 locking push pull control rod. It shall have a chrome plated zinc handle with a recessed area for 1.00” x 3.00” identification tag. The controls shall be locked in any position.

Trident automatic 0.75" drain valve(s) shall be installed in the front discharge plumbing. The valve shall be normally open and shall close at 6 psi.

The discharge shall come equipped with a lift-up 0.75" drain valve and a matching color coded bezel.

DISCHARGE ADAPTER

The disharge shall terminate with a 1.50" MNST mattydale swivel shall be located through the center of the hose box flooring.

4.50" MASTER PRESSURE GAUGE

One (1) Class1, 4.50" liquid filled master pressure gauge with stainless steel bezel shall be provided, reading from 0 Hg. to 400 psi. It shall be accurate to within 1%. The gauge shall have a white face and black markings. The gauge shall be located on the pump operator's panel.

4.50" MASTER INTAKE GAUGE

One (1) Class 1, 4.50" liquid filled master intake gauge(s) with stainless steel bezel shall be provided, reading from -30" Hg. to 400 psi. It shall be accurate to within 1%. The gauge shall have a white face and black markings. The gauge shall be located on the pump operator's panel.

LED WATER LEVEL GAUGE (PUMP PANEL)

One (1) Hale model # “ITL-40R” Tank Level Gauge for indicating water level shall be installed on the pump operator's panel. The tank level gauge shall indicate the liquid level or volume on an easy to read LED display with a visual indicator at nine (9) precise levels, using one (1) color. The system shall include the ability to display “text messages” and have built-in diagnostic capabilities. Additional secondary displays (if requested) are to be easily integrated and will receive data from the same source as the Master Display.

The LED display shall be red in color.

CLASS1 MINI WATER LEVEL GAUGE

One (1) Hale Intelli-Tank model # 610-00049 remote mini tank level gauge for indicating the water level of the tank shall be provided in the cab. The tank level gauge shall indicate the liquid level on an easy 4 light display and show increments of 1/4 of a tank.

PUMP, MODULE, AND RELATED ITEMS

ALUMINUM PUMP MODULE CONSTRUCTION

The pump module shall be constructed entirely of extrusions and aluminum plate. The framework shall be formed from beveled aluminum alloy extrusions The pump module design must allow normal frame deflection through isolation mounts without imposing stress on the pump module structure or side running boards. The pump module shall consist of a welded framework, properly braced to withstand chassis frame flexing. The pump module support shall be bolted to the frame rails of the chassis.

Fouts Bros Fire Equipment

INDEPENDENT PUMP MODULE

The pump module shall be fabricated as individual unit independent from the body.

PUMP PANEL -- SIDE MOUNT

The pump operator's control panel shall be located on the left hand side of the apparatus. The pump enclosure side panels shall be completely removable and designed for easy access and servicing.

HINGED GAUGE PANEL

A full width, horizontally hinged gauge access panel shall be located on the left hand side of the pump module above the main control panel.. Two (2) black powder coated SouthCo. push type locks locks shall be provided along with lanyards.

PUMP ENCLOSURE ACCESS DOOR -- RIGHT SIDE UPPER

A pump panel access door shall be provided on the upper right side of the side mount pump enclosure. The access door shall be approximately 24.00" high and as wide as possible. Three (3) black powder coated SouthCo. push type locks locks shall be provided along with lanyards.

The drains located on the right hand side panel shall be fastened to the lower panel, which shall be stationary.

PUMP PANEL MATERIAL

The pump module panels shall be fabricated from 14 gauge 304L stainless steel with a brushed finish.

PUMP PANEL LIGHT SHIELD, LH SIDE PANEL

One (1) LED strip light shall be installed under an instrument panel light hood on the left side pump panel.

PUMP PANEL LIGHT SHIELD, RH SIDE PANEL

One (1) LED strip light shall be installed under an instrument panel light hood on the right side pump panel.

A weather resistant switch, located on the pump operator's panel shall be provided to activate the lights.

PUMP COMPARTMENT LIGHT

One (1) LED strip light shall be provided inside the pump compartment area. The light shall activate with the switch on the pump operator's panel.

LEFT SIDE RUNNING BOARD

The left pump panel shall be equipped with a side running board. The running board shall be constructed of 0.125" embossed fire apparatus bright aluminum treadplate. It shall be a minimum of approximately 11.00" deep x the width of the module. The running board shall have an upward bend on the inside edge to act as a kick plate. The running board shall be attached to a frame mounted outrigger support structure. The running board shall have a 3.00" downward bend on the front and side faces with a 1.00" underside return for superior strength.

LEFT SIDE RUNNING BOARD GROUND LIGHT

One (1) ground light shall be installed beneath the left side running board. The light shall be a TecNiq model T44 series, 4.00" round, 8 diode LED light with outward facing angle brackets. The light shall activate along with the body mounted ground lights.

RIGHT SIDE RUNNING BOARD

The right pump panel shall be equipped with a side running board. The running board shall be constructed of 0.125" embossed fire apparatus bright aluminum treadplate. It shall be a minimum of approximately 11.00" deep x the width of the module. The running board shall have an upward bend on the inside edge to act

as a kick plate. The running board shall be attached to a frame mounted outrigger support structure. The running board shall have a 3.00" downward bend on the front and side faces with a 1.00" underside return for superior strength.

RIGHT SIDE RUNNING BOARD GROUND LIGHT

One (1) ground light shall be installed beneath the right side running board. The light shall be a TecNiq model T44 series, 4.00" round, 8 diode LED light with outward facing angle brackets. The light shall activate along with the body mounted ground lights.

FRONT PUMP HOUSE COVER

The front of the pump enclosure shall be covered with .125" aluminum treadplate.

HOSE RESTRAINT LABEL - FAMA# 22

A permanent label shall be provided near any hose storage area. The label shall instruct the operator to insure that all hose is properly secured prior to placing the apparatus in motion and to provide warning of potential dangers, including injury or death, in failing to do so.

INTAKE/DISCHARGE CAP PRESSURE LABEL - FAMA# 18

A permanent label shall be provided in all areas that intakes and discharges are capped. The label shall give instruction on how to properly remove the cap. The label shall also warn of potential dangers, injury or death that be caused by failing to follow proper cap removal procedures.

TRAINED OPERATOR ONLY LABEL - FAMA# 25

A permanent label shall be provided on the pump panel that states that only properly trained personnel should operate the apparatus and shall indicate that injury or death could occur as a result.

PUMP PANEL ID PLATE

An identification plate shall be installed on the pump operator control panel to identify the fire pump serial number, model number, and performance.

COLOR CODED PUMP PANEL LABELING AND NAMEPLATES

Discharge and intake valve controls shall be color coded in compliance to guidelines of applicable sections of NFPA standards. Innovative Controls permanent type nameplates and instruction panels shall be installed on the pump panel for safe operation of the pumping equipment and controls.

WATER TANK AND RELATED COMPONENTS

1000 GALLON POLY TANK- "L" DESIGN

The tank shall have a capacity of 1000 US gallons / 832 Imperial gallons / 3785 liters.

TANK MATERIAL

The tank shll be constructed of virgin, stress-relieved, high-impact copolymer polypropylene. Tank shell thickness may vary depending on the application and may range from 0.50" to 1.00” as required.

CONSTRUCTION

The booster and/or foam tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments.

All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All partitions and spacing shall comply with NFPA 1900.

Tank covers shall incorporate minimum of (2) lifting lugs, for use with the tank empty only, consisting of 2.00” copolymer dowels. The dowels shall be drilled and tapped to accommodate lifting eyes with a minimum security factor of 3 to 1. The lifting dowels shall be welded to the internal partitions and extend through the covers to assist in minimizing cover flex during normal operation.

Fouts Bros Fire Equipment

CAPACITY CERTIFICATION

All water and foam tanks shall be tested and certified as to capacity.

WATER FILL TOWER AND COVER

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 0.50" polypropylene and shall be a minimum dimension of 12.00" x 12.00" outer perimeter. The tower shall have a 0.25" thick removable polypropylene screen and a polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid.

FILL TOWER LOCATION

The fill tower shall be located in the left front area of the tank.

Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of 4.00" that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1900 so as to not interfere with rear tire traction.

SUMP

There shall be one (1) sump standard per tank. On all tanks that require a front suction, a 3.00" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3.00" N.P.T. threaded outlet on the bottom for a drain plug per NFPA. This shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 3.00” above the inside floor.

WATER TANK CLEAN-OUT PLUG

A 3.00" cleanout plug shall be provided in the bottom of the tank.

FOAM TANK - 20 US GALLONS - CLASS A

Fouts Bros Fire Equipment

A foam tank shall be installed inside the main water tank. The foam tank shall have a capacity of 20 U.S. gallons for Class A foam and will not reduce the capacity of the water tank.

DO NOT MIX FOAM LABEL

A FAMA19 warning label shall be placed near the foam tank fill that reads “Foam Failure Hazard. Do NOT mix brands and types of foam concentrate. Mixed concentrate fay fail to form proper foam. Poor foam may fail to suppress fire leading to death”.

FOAM FILL TOWER, CLASS A

The foam tank shall have a manual fill tower. The fill tower shall be constructed of 0.50" polypropylene and shall be a minimum dimension of 10.00" x 10.00" outer perimeter. The capacity of the tank shall be engraved on the top of the fill tower lid. The tower shall have a 0.25" thick removable polypropylene screen and a stainless steel hinged-type cover. Inside the fill tower, approximately 1.50” down from the top, there shall be an anti-foam fill tube that extends down to the bottom of the tank. A pressure vacuum vent shall be provided in the lid of the fill tower.

HOSE BED -72.00"- LOW DESIGN

The body shall have an intergraded upper hose bed. The floor of the hose bed shall be a removable welded assembly constructed of 6.00” wide aluminum hose bed slats and structural channel cross members. Two (2) cross car Unistrut style channels shall be incorporated in the design for divider mounting.

ALUMINUM HOSEBED DIVIDER(S) (1)

There shall be One (1) hosebed divider(s) provided. The hosebed divider(s) shall be constructed of 0.25" smooth aluminum plate with an extruded aluminum base welded to the bottom. The divider(s) shall be adjustable from side to side in the hose bed to accommodate varying hose loads.

HOSEBED PARTITION REINFORCEMENT

The top and rear edge of each of the hose bed partitions will have a 0.75" integral tubing reinforcement welded on for additional support.

HOSE BED COVER

A heavy duty 18 oz. vinyl hose bed cover shall be provided to protect the hose load from the weather. The cover shall extend from the front of the hosebed to the rear and then extend downward to cover the exposed rear of the bed and from the left side to the right side of the hosebed. The cover shall be secured utilizing a velcro fastening system at the front and sides of the hosebed body.

The vinyl cover shall be red in color.

OPEN HOSE BED DUNNAGE AREA

This open storage area is located on the top of the apparatus between the rear of the pump module and the front of the hosebed area, above the booster tank, as part of the apparatus body section. A vertical bulkhead shall be provided and installed at the front of the hose bed area, forming a storage area that is separated from the hose bed. The approximate dimension of this inside area shall be80.1875” front to back, 72.00” side to side, and approximately 6.875 ” deep with a 1,000 gallon tank, and 17.875" deep with a 750 gallon tank.

The rear face of the bulkhead shall serve as a mounting surface for the hose bed dividers, resulting in the ability to move any hose bed divider across the entire width of the hose bed. The floor of the dunnage area shall utilize .125" polished embossed aluminum diamond plate.

APPARATUS BODY

BODY DESIGN AND CONSTRUCTION

The body shall be modular in design, allowing it to be removed and remounted on a new chassis. The body shall be fabricated using aluminum extrusions, angle, smooth aluminum sheet and aluminum treadplate. The apparatus body shall have full height compartments on both sides.

The body shall have a "L" tank design in order to incorporate a lowered hose bed.

FLOOR AND UNDERSTRUCTURE

The tank area floor shall be a single piece design made of 0.1875" aluminum sheet. The floor shall be supported by extruded 6061 aluminum alloy 2.00" x 4.00" x 0.250" wall structural tube crossmembers.

BODY AND COMPARTMENT FABRICATION - 3/16" ALUMINUM

All compartment panels and body side sheets will be fabricated entirely of 0.1875" aluminum.

COMPARTMENT CONSTRUCTION

The compartments shall be completely formed of 0.1875" aluminum. The interior height of the compartments will be measured from the compartment floor to the ceiling. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartments will be measured from the back wall to the inside of the door frame.

COMPARTMENT FLOORS

Compartment floors will be welded to the compartment walls and have a sweep out design for easy cleaning.

FRONT BODY COMPARTMENT WALLS

The front compartment walls of both forward most compartments shall be sheet finished. No overlay material shall be visible from the interior of the compartments.

REAR BODY COMPARTMENT WALLS

The rear compartment walls of both rearward most compartments shall be sheet finished. No overlay material shall be visible from the interior of the compartments.

Fouts Bros Fire Equipment

COMPARTMENT TOP

The top of the compartments shall be an integral portion of the body. No overlay material shall be visible from the interior of the compartments.

ACCESS PANELS

Removable access panels will be provided to access fuel tank sender, electrical junction compartment and rear body mounts.

Protective panels will be located in the rear compartments providing access to the lights and associated wiring. The covers will also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.

COMPARTMENT LOUVERS

Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.

COMPARTMENT SHELF TRACKS - ALUMINUM

All side body compartments be furnished with adjustable shelving track installed. The shelving track shall include a minimum of four (4) aluminum Uni-strut style channel tracks, mounted vertically on compartment side walls or vertical partitions.

COMPARTMENT SHELVING - SIDE COMPARTMENTS

Adjustable shelving shall be installed in the side compartments as identified later in this specification. Each shelf shall be made of 0.1875” smooth aluminum with a 2.00” high perimeter on the front and rear with side supports. Shelving will be vertically adjustable with spring nuts in aluminum strut channel.

FENDER PANELS

A single piece wheel well panel made of 0.1875" aluminum sheet shall be installed with no sharp edges to cut or damage cleaning equipment used in the wheel well area. The wheel well design shall provide for maximum wheel jounce and for use of tire chains without contacting the fender panel.

REAR WHEEL WELL LINERS

The rear wheel wells shall be equipped with replaceable circular liners to prevent road debris damage to adjacent side compartments. The liners shall be made from a single circular panel of 0.125" smooth aluminum and shall be the full depth of the side compartments. They shall be bolted in place and shall feature end flange bottom drains.

REAR BODY FENDERETTES

A roll-formed, polished stainless steel fenderette shall be installed around the outboard edge of the rear wheel well openings to protect the body sides from road debris. They shall be bolted to the body and shall be replaceable.

BODY FRONT WALL OVERLAY

The front face of the side compartments, next to the driver and officer pump panels will be overlaid with full height aluminum tread plate protection panels.

TOP PROTECTION

The top of the welded in compartment ceiling will be overlaid with aluminum tread plate to provide an NFPA compliant stepping surface.

BODY SIDE RUB RAILS

Replaceable extruded aluminum channel rub rails, 2.00" high x 0.75" deep x 0.125" wall, shall be provided below the lower side compartments. Each rub rail shall have a black rubber bumper strip and mounting stand-off spacers. All rub rail ends shall be angle cut, back toward the body to eliminate the possibility of snagging crew clothing or equipment.

TOW HOOKS – REAR

Two (2) painted tow eyes will be furnished on the rear of the vehicle. The tow eyes will be made from plate steel and will be bolted directly to the chassis frame rails with grade 8 bolts and will extend below the body.

BODY WIDTH

The width of the apparatus body from the outside face of the left compartments to the outside face of the right compartments shall be 100.00" wide.

ROLL-UP DOORS

All lower compartment doors shall be equipped with AMDOR brand roll-up doors. The slats shall be 1.00” double wall aluminum with continuous ball and socket hinge joints designed to prevent water ingression and weather tight recessed dual durometer seals.

The interior door curtains shall be smooth to prevent equipment hang-ups. The door tracks and side frames shall each be one-piece aluminum. Each side seal shall be recessed, and non-marring with UV stabilizers to prevent warping.

The bottom panel flange shall have cut-outs for ease of access with gloved hands. The door strikers shall provide support beneath the lift bar to prevent door curtain bounce and potential false door ajar indications.

DOOR LOCKS- KEYED, MANUAL

Each roll-up door door shall have a cylindrical lock installed by the roll-up door manufacturer.

The lock key type shall be: J-236

COMPARTMENT LIGHT(S)

One (1) full height Luma Bar LED strip light(s) shall be installed inside each of the body compartments.
Cmpt Lt, Dr Swtchs Amdor, Magnetic

COMPARTMENTS- LEFT

LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L1

Compartment "L1": There shall be one (1) full height compartment ahead of the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment shall be a minimum of 50.00" wide by 67.00" high with a lower depth of 25.5" and an upper depth of 13.50". The door opening shall measure 46.50” wide by 62.00" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum full depth adjustable shelf/ shelves located in the compartment.

LEFT SIDE ABOVE WHEEL COMPARTMENT, L2

Compartment "L2": There shall be one (1) compartment located directly over the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment shall be a minimum of 59.00" wide by 34.50" highwith a depth of 13.50 ". The door opening shall measure approximately 54.00" wide by 31.50" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum half depth adjustable shelf/ shelves located in the compartment.

LEFT SIDE COMPARTMENT BEHIND REAR WHEELS, L3

Compartment "L3": There shall be one (1) full height compartment located behind the rear wheels on the left side of the apparatus. The approximate

interior dimensions of this compartment shall be a minimum of 56.50 wide by 67.00" high with a lower depth of 25.50" and an upper depth of 13.50". The door opening shall measure approximately 51.50" wide by 57.00" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum full depth adjustable shelf/ shelves located in the compartment.

PASSENGER'S SIDE COMPARTMENT DIMENSIONS:

RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R1

Compartment "R1": There shall be one (1) full height compartment ahead of the rear wheels on the right side off the apparatus. The approximate interior dimensions of this compartment shall be a minimum of 50.00" wide by 67.00" high with a lower depth of 25.5" and an upper depth of 13.50". The door opening shall measure 46.50" wide by 62.00" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum full depth adjustable shelf/ shelves located in the compartment.

RIGHT SIDE ABOVE WHEEL COMPARTMENT, R2

Compartment "R2": There shall be one (1) compartment located directly over the rear wheels on the right side of the apparatus. The approximate interior dimensions of this compartment shall be a minimum of 59.00" wide by 34.50" highwith a depth of 13.50 ". The door opening shall measure approximately 54.00" wide by 31.50" high.

Fouts Bros Fire Equipment

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum half depth adjustable shelf/ shelves located in the compartment.

RIGHT SIDE COMPARTMENT BEHIND REAR WHEELS, R3

Compartment "R3": There shall be one (1) full height compartment located behind the rear wheels on the right side of the apparatus. The approximate interior dimensions of this compartment shall be a minimum of 56.50 wide by 67.00" high with a lower depth of 25.50" and an upper depth of 13.50". The door opening shall measure approximately 51.50" wide by 57.00" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum full depth adjustable shelf/ shelves located in the compartment.

REAR BODY CONFIGURATION

The CR1 compartment will form a “flat back” design with no recess at the rear of the body.

REAR CENTER COMPT W/ LOW HOSEBED, CR1

There shall be one (1) compartment located at the rear of the apparatus, directly below the hose bed access area. This compartment shall be designated as CR1 within these specifications.

The approximate interior dimensions of this compartment shall be 42.00" wide and 26.00" high with a depth of 28.00". The door opening shall measure approximately 38.00" wide x 20.00" high.

ADJUSTABLE SHELVING TRACKS

There shall be vertically mounted uni-strut shelf trac for shelving installation.

ADJUSTABLE SHELF

There shall be One (1) 0.1875" aluminum full depth adjustable shelf/ shelves located in the compartment.

SLIDE-OUT TRAY

One (1) 600 lb. slide-out tray with 100% extension shall be mounted in the compartment. The tray shall be fabricated from 0.188" smooth aluminum sheet with a 2.00" vertical flange along all four sides.

REAR STEP - TAPERED ENDS

The rear step shall be 12.00" deep and extend beyond the body compartments. The step shall be 100.00” wide and have tapered corners for improved clearance. The step shall be fabricated from 0.1875" tread plate plate and shall be rigidly reinforced. The rear edge of the step shall be designed to accommodate the rear clearance lights. The rear step overlay shall be bolted in place with an approximate 0.25" clearance gap between the step and rear body panel.

HARD SUCTION STORAGE

Two (2) horizontally mounted aluminum hard suction hose trays with velcro straps shall be provided. Each shall be capable of storring one (1) section of hard suction hose.

The suction hose storage shall be loacted above the left and right side compartments.

SUCTION HOSE SOURCE

New suction hose(s) shall be provided by the manufacturer and shall be detailed later in this specification.

GROUND LADDER STORAGE

The ground ladders shall be stored beneath the hose bed, to the right of the water tank. The ladders shall be stored vertically on their beam in an aluminum rack with poly scuff strips.

The ladders shall be accessible through a hinged treadplate aluminum door with thumb type latches on the rear of the body.

The ladder storage shall have capacity for the following:

- One (1) Alco-Lite aluminum 24 ft. two-section extension ladder, model # PEL-24
- One (1) Alco-Lite aluminum 14 ft roof ladder, model # PRL-14
- One (1) Alco-Lite aluminum 10 ft. folding ladder, model # FL-10

LADDER SOURCE

The ladder(s) shall be provided by the manufacturer and shall be detailed later in this specification.

PIKE POLE STORAGE

There shall be two (2) aluminum tubes for the storage of pike poles installed in the ground ladder storage compartment.

PIKE POLE SOURCE

The pike poles shall be provided by the purchaser.

SCBA BOTTLE COMPARTMENTS

Four (4) SCBA bottle tube compartments shall be installed, one (1) over each wheel well area. The compartments shall be constructed of a black molded non-abrasive plastic polymer designed to provide SCBA scuff protection. The doors

shall be stainless steel with a brushed finish and have a black weatherproof SouthCo. latch assembly.

FUEL FILL

An aluminum cup style fuel fill shall be installed in the left hand side wheel well rear of the axle. It shall be labeled “Ultra Low Sulphur Diesel Fuel Only”.

STEPS

All steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of at least 500 pounds. Steps shall be provided at any area that personnel may need to climb and shall be adequately lighted.

FOLDING STEPS- LH SIDE REAR

Two (2) Innovative Controls model 3004234 lighted folding steps shall be provided on the left hand side rear of the body.

FOLDING STEP- RH SIDE REAR

One (1) Innovative Controls model 3004234 lighted folding step shall be provided on the right hand side rear of the body.

FOLDING STEPS - LH SIDE FRONT OF BODY

Four (4) Innovative Controls model 3007732 lighted folding steps shall be provided on the left hand side front of the body.

FOLDING STEPS - RH SIDE FRONT OF BODY

Four (4) Innovative Controls model 3007732 lighted folding steps shall be provided on the right hand side front of the body.

STEP LIGHTS ACTIVATION

The step light(s) shall be wired to activate with the parking brake.

EXTERIOR GRAB RAILS

Each grab rail shall be Hansen non-slip, 1.25" diameter extruded polished aluminum grab rails with rubber inserts designed to provide maximum gripping ability, strength, and durability.

TWO (2) VERTICAL RAILS ON REAR

Two (2) vertical grab rails shall be mounted on the rear of the body, one (1) on each side.

GRAB RAIL, RH FRONT

One (1) grab rail shall be mounted on the front of the body on the right hand side.

ONE (1) HANDRAIL, BELOW HOSE BED LEVEL

One (1) horizontal, full width handrail shall be installed on the rear, below the level of the hose bed

NFPA 1900 CERTIFIED 12 VOLT ELECTRICAL SYSTEM

The 12 volt apparatus body electrical system shall be provided and be in compliance with NFPA 1900 testing and certification procedures as follows:

Tests shall be performed when the air temperature is between 0°F and 110°F. The three tests defined in NFPA shall be performed in the order in which they appear. Before each test, the batteries shall be fully charged until the voltage stabilizes at the voltage regulator set point and the lowest charge current is maintained for 10 minutes. Failure of any of these tests shall require a repeat of the sequence.

RESERVE CAPACITY TEST

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged.

The engine shall be shut off, and the minimum continuous electrical load shall be activated for 10 minutes.

All electrical loads shall be turned off prior to attempting to restart the engine. Failure to restart the engine shall be considered a test failure of the battery system.

ALTERNATOR PERFORMANCE TEST AT IDLE

The minimum continuous electrical load shall be activated with the engine running at idle speed.

The engine temperature shall be stabilized at normal operating temperature.

The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

ALTERNATOR PERFORMANCE TEST AT FULL LOAD

The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed.

The test duration shall be a minimum of 2 hours.

Activation of the load management system shall be permitted during this test.

An alarm sounded by excessive battery discharge, as detected by the warning system or a system voltage of less than 11.8 V for more than 120 seconds shall be considered a test failure.

LOW VOLTAGE ALARM TEST

The following test shall be started with the engine off and the battery voltage at or above 12 V for a 12 V nominal system.

With the engine shut off, the total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals.

The test shall be considered a failure if the alarm does not sound in less than 140 seconds after the voltage drops to 11.70 V for a 12 V nominal system.

The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.

CERTIFICATION DOCUMENTATION

At the time of delivery, the OEM shall provide the following documentation:

1. Documentation of the electrical system performance tests.

2. A written electrical load analysis, including the following:

- The nameplate rating of the alternator.
- The alternator rating under the conditions specified above.
- Each of the component loads specified that make up the minimum continuous electrical load.
- Additional electrical loads that, when added to the minimum continuous electrical load, determine the total continuous electrical load.
- Each individual intermittent electrical load.

LOW VOLTAGE BATTERY CHARGER/ CONDITIONER TEST

If the apparatus is equipped with a low voltage battery charger/conditioner, it shall be tested as follows:

1. Low voltage batteries are fully charged to at least 12.66 V for a 12 V nominal system with the engine off and the shoreline disconnected.

2. Connect a DC ammeter to each output of the low voltage battery charger/conditioner.

3. Connect the shoreline to power the low voltage battery charger/conditioner.

4. Perform the test with the engine off and the shoreline power cord connected.

5. Add or apply loads to each charger output so that the output current is between 80 percent and 100 percent of the rated output current for that output.

6. Record the low voltage battery voltage and output current for each charger output at the beginning of the test and every 20 minutes.

7. Maintain the load for 60 minutes.

8. Record the low voltage battery voltage and output current for each charger output at the end of the test with the load still applied and the charger/conditioner powered.

9. Remove any added load.

The test shall be considered a failure if the charger/conditioner does not maintain an output voltage of at least 12.54 V for a 12 V nominal system, or if it cannot maintain at least 80 percent of the rated output current for the duration of the test.

12 VOLT ELECTRICAL SYSTEM

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

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE

J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

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

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified every three-inches (3") by color coding or permanent marking with a circuit function code.

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

The electrical system shall include the following:

- Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body.
- The electrical wiring shall be harnessed or be placed in a protective loom.

- Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof.
- Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.
- All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.

ROCKER SWITCHES

The warning lights and electrical functions shall be controlled by switch panels as detailed in the chassis specification.

CAB GROUND LIGHTS

The cab ground lights shall be supplied with the custom chassis.

FRONT OF BODY GROUND LIGHTS

Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the front of the body. One (1) light shall be located on the driver side and one (1) light shall be located on the officer side of the apparatus.

REAR STEP GROUND LIGHTS

Two (2) TecNiq model E10-WS00-1 LED ground lights with outward facing angle brackets shall be installed under the rear step of the apparatus, one (1) each side.

GROUND LIGHT SWITCHING

The cab and body ground lights shall activate by engaging the parking brake.

REAR DIRECTIONALS

Rear directional lighting shall be supplied as follows:

Two (2) Whelen model M62BTT LED brake/tail lights shall be installed on the rear of the body. Each light shall have a red lens.

Two (2) Whelen model M62T Amber LED turn signal lights shall be installed on the rear of the body. Each light shall have an amber lens.

Two (2) Whelen model M62BU LED reverse lights shall be installed on the rear of the body.

HOUSINGS FOR DIRECTIONALS

The two (2) sets of Whelen rear signal lights shall each be housed in a vertical chrome plated housing, designed to hold four (4) lights each. The fourth opening shall be for the lower rear warning lights. The lights shall be mounted in order, from top to bottom, as described above.

Two (2) amber LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side if the apparatus is 30 feet long or longer.

MARKER LIGHTS

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements. The side and rear of the body will be provided with reflectors. All marker lights shall be incorporated into the headlight circuit of the cab/chassis

Two (2) amber reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30 feet long or longer.

Four (4) red reflectors shall be provided on the apparatus rear, one (1) each side and two (2) on the rear.

LICENSE PLATE BRACKET

There shall be a license plate bracket mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket

Fouts Bros Fire Equipment

HOSE BED LOADING LIGHT

One (1) 12V LED hosebed light shall be installed on the front of the hosebed of the apparatus. This light shall provide illumination of the hosebed area.

WORK LIGHTS ACTIVATION

The work light(s) shall be wired to activate with the parking brake.

SIDE FACING UPPER CAB SCENE LIGHTS

One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed, one (1) each side of the cab. The light(s) shall be supplied and installed with a chrome bezel.

SIDE FACING UPPER FRONT BODY SCENE LIGHTS

One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed. The lights shall be located on the left and right sides of the upper front portion of the apparatus body. Each light shall be supplied and installed with a chrome bezel.

SIDE FACING UPPER REAR BODY SCENE LIGHTS

One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed. The lights shall be located on the left and right sides of the upper rear portion of the apparatus body. Each light shall be supplied and installed with a chrome bezel.

REAR FACING UPPER BODY SCENE LIGHTS

One (1) pair of Whelen M92SLC EZ Series LED scene lights shall be installed. The lights shall be located on the rear of the apparatus body, one (1) each side. Each light shall be supplied and installed with a chrome bezel.

SCENE ACTIVATION

The scene lights shall be activated by individual rocker switches located in the switch panel, one (1) for each side of the apparatus.

SCENE LIGHT SWITCHING

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

LED POLE LIGHTS- TWO (2)

Two (2) Whelen Pioneer Plus Model # PFH2P1 top mount pull up telescopic lights shall be installed, one (1) on each side of above the pump module, mounted in the dunnage area.

Each 150 watt 12v DC Pioneer lighthead shall have 19,872 usable lumens and shall be in a die-cast white powder coated aluminum housing . An on/off switch with weatherproof boot shall be provided on the lighthead.

BACK-UP CAMERA INSTALLATION

The chassis supplied back-up camera shall be installed at the rear of the body.

WARNING LIGHT FLASH PATTERN

All of the perimeter warning lights shall be set to the default NFPA flash pattern as provided by the warning light manufacturer.

HEADLIGHT FLASHER

An alternating high beam headlight flashing system shall be supplied with the custom chassis.

CAB FRONT LIGHTBAR

One (1) WHELEN model F4N7QLED 72.00” Freedom IV LED lightbar shall be supplied and mounted. The clear lights shall be disabled with park brake engaged.

The lightbar configuration (driver side to passenger side) shall be:

SECTION	INTERNAL COMPENENT	LENS' COLOR

1	OPEN	Clear
2	Red Short Super LED	Clear
3	Red Corner Super LED	Clear
4	OPEN	Clear
5	White Long Super LED	Clear
6	Red Long Super LED	Clear
7	OPEN	Clear
8	Red Long Super LED	Clear
9	OPEN	Clear
10	OPEN	Clear
11	Red Long Super LED	Clear
12	OPEN	Clear
13	Red Long Super LED	Clear
14	OPEN	Clear
15	Red Long Super LED	Clear
16	White Long Super LED	Clear
17	OPEN	Clear
18	Red Corner Super LED	Clear
19	Red Short Super LED	Clear
20	OPEN	Clear
21	OPEN	Clear
22	OPEN	Clear
23	OPEN	Clear
24	OPEN	Clear
25	OPEN	Clear
26	OPEN	Clear
27	OPEN	Clear
28	OPEN	Clear
29	OPEN	Clear
30	OPEN	Clear

LIGHT BAR SWITCH

The light bar shall be controlled by a rocker switch located on the switch panel. The switch shall be labeled "LIGHT BAR". The switch shall only be active when the master warning switch is engaged.

SIDE FACING UPPER FRONT BODY WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper front portion of the apparatus body.

The driver side warning light shall be a Whelen Model M9RC red LED with clear lens.

The officer side warning light shall be a Whelen Model M9RC red LED with clear lens.

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

SIDE FACING UPPER REAR BODY WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear portion of the apparatus body.

The driver side warning light shall be a Whelen Model M9RC red LED with clear lens.

The officer side warning light shall be a Whelen Model M9RC red LED with clear lens.

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

UPPER REAR WARNING LIGHTS

One (1) pair of Whelen model M9 LED warning lights shall be installed, one (1) each side of the upper rear of the apparatus body.

The driver side warning light shall be a Whelen Model M9RC red LED with clear lens.

The officer side warning light shall be a Whelen Model M9RC red LED with clear lens.

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

UPPER WARNING SWITCH

The upper warning lights shall be controlled by a rocker switch on the switch panel. The switch shall be labeled "UPPER LEVEL WARNING". The switch shall only be active when the master warning switch is engaged.

LOWER FRONT WARNING LIGHTS

The lower front warning lights shall be supplied with the custom chassis.

LOWER INTERSECTION WARNING LIGHTS

The lower intersection warning lights shall be supplied with the custom chassis.

LOWER CAB SIDE WARNING LIGHTS

The lower cab side warning lights shall be supplied with the custom chassis.

LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side of the apparatus, mid-body.

The driver side warning light shall be a Whelen Model M6RC red Super-LED with clear lens.

The officer side warning light shall be a Whelen Model M6RC red Super-LED with clear lens.

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

LOWER REAR WARNING LIGHTS

One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side of the lower rear of the apparatus body.

The driver side warning light shall be a Whelen Model M6RC red Super-LED with clear lens.

The officer side warning light shall be a Whelen Model M6RC red Super-LED with clear lens.

The warning lights on the rear of the body shall be mounted in the lower section of each tail light casting.

LOWER WARNING SWITCH

The lower warning lights shall be controlled by a rocker switch on the switch panel. The switch shall be labeled "LOWER LEVEL WARNING". The switch shall only be active when the master warning switch is engaged.

ELECTRIC SIREN AND CONTROL

The electric siren shall be supplied with the custom chassis.

ELECTRONIC SIREN SPEAKER

The electronic siren speaker(s) shall be supplied with the custom chassis.

FEDERAL Q2B MECHANICAL SIREN

One (1) FEDERAL SIGNAL Q2B mechanical siren shall be supplied and pedestal mounted on the front bumper extension.

The Q2B siren shall be mounted on the left hand side of the bumper extension.

MASTER WARNING LIGHT CONTROL

To eliminate inadvertent operation the mechanical siren shall be operable only when the Master Warning switch is in the "ON" position and the parking brake is released.

MECHANICAL SIREN BRAKE

A red momentary type siren brake rocker switch shall be provided in the switch panel on the dash.

SIREN CONTROL SWITCHES

One (1) foot switch for the siren shall be provided on the left side of the driver's side cab floor and one (1) on the right side of the officer's side cab floor.

Fouts Bros Fire Equipment

PAINT, STRIPING, AND LETTERING SECTION

CHASSIS PAINT

The chassis shall be painted by the OEM Chassis Manufacturer.

PAINT PROCESS

The body exterior shall have no mounted components prior to painting to assure full coverage of treatments. Compartment doors (if applicable) will be painted separately to assure proper paint coverage on body, doorjambs and door edges. All surfaces shall be sanded to remove all burrs and imperfections before etching and treatment.

The body shall be totally removed from the chassis during the painting process to insure the entire unit is covered.

PPG wax & grease solvent shall be used to clean and prep the body surface prior to any sanding. The surface shall then be rinsed with freshwater. This step removes wax, grease and other surface contaminants, thus leaving a bright, clean and conditioned surface.

PAINT FINISH

The body shall be painted with a PPG Delfleet Evolution Paint System.

As part of the curing process the painted body shall go through a baking process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

After bake and ample cool down time, the coated surface shall be sanded using 3M 1000, 1200, and or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M Super-duty compound to add extra shine to coated surface. No more than .5 mil shall be removed in this process.

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

ANTI-CORROSION PROTECTION

Where dissimilar metals must be joined, overlaid, share perforations or otherwise come in contact with each other to achieve construction, performance or aesthetic requirements, such items shall be separated by a continuous contact, nonconductive coating or film to prevent or otherwise mitigate the effects of electrolysis. Only stainless-steel hardware and fasteners shall be used in the construction of the apparatus. Where stainless steel fasteners pass through an aluminum component, the fastener contact surfaces, including the head, washer and nut shall be coated with ECK anti-corrosion material.

UNDERCOATING

The body underside, including the sub-frame and the inside of the wheel wells, NOT THE WHEEL WELL LINERS, shall be thoroughly coated with SWT commercial automotive undercoat and sound deadening material to protect the body module against corrosion. The coating shall be black and shall be tested to ASTM B117 Salt Spray test for 1,000 hours at 10-mils.

COMPARTMENT INTERIOR FINISH

The interior of the compartments shall be finish painted with Multispec #344767 Gray Stone scuff resistant paint to provide a protective application over all of the compartment interior surfaces.

WHEEL RIMS

The chassis wheels shall be as furnished by the chassis OEM. No additional finishes shall be provided by apparatus manufacturer.

REFLECTIVE LETTERING - PURCHASER SUPPLIED

Reflective lettering shall be installed by the purchaser.

REAR CHEVRON STRIPING

At least 50% of the rear facing vertical surface shall be covered with alternating strips of reflective striping.

Each stripe shall be a minimum of 6.00" in width and shall be applied to the apparatus at 45° angle.

RED & FLUORESCENT YELLOW-GREEN ORALITE V98

The Oralite V98 reflective tape shall be #12 red and #112 fluorescent yellow-green in color.

SUCTION HOSE

Two (2) 6.00" X 10’ section(s) of KOCHEK, PVC type hard, suction hose shall be provided on the apparatus. The hose(s) shall be light weight type with pyrolite, long handle female x rocker lug male, NST threads. The hose shall be black in color.

EXTENSION LADDER, 2 SECTION

One (1) 24 foot, Alco-Lite model# PEL-24, two (2) section aluminum extension Ladder shall be supplied with the finished apparatus.

ROOF LADDER

One (1) 14 foot, Alco-Lite model # PRL-14, single section aluminum roof ladder with folding roof hooks shall be supplied with the finished apparatus.

FOLDING ATTIC LADDER

One (1) 10 foot, Alco-Lite model# FL-10, aluminum folding attic ladder shall be supplied with the finished apparatus.

ONE YEAR APPARATUS WARRANTY

The complete apparatus detailed herein shall be warranted against defects in materials and workmanship for a period of twelve (12) months, effective upon pick up or delivery of the completed apparatus to the purchaser, as detailed in the respective warranty documents. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

Other warrantees, as provided by individual component manufacturers may extend beyond this warranty.

APPARATUS BODY WARRANTY, TEN YEAR

The apparatus body as detailed herein shall have a structural warranty against defects in materials and workmanship for a period of ten (10) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the body shall void this warranty.

PLUMBING WARRANTY, TEN YEAR

A Stainless Steel Plumbing/Piping warranty shall be provided by the apparatus manufacturer for products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of ten (10) years effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the plumbing shall void this warranty.

PAINT WARRANTY, FIVE YEAR

The finish paint as used on the proposed apparatus shall be warranted against defects in materials and workmanship for a prorated period of five (5) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

TANK WARRANTY, LIFETIME

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

APPARATUS ELECTRICAL WARRANTY, TWO YEAR

Fouts Bros Fire Equipment

The apparatus electrical system as detailed herein shall have an electrical warranty against defects in materials and workmanship for a period of two (2) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the electrical system shall void this warranty.

AKRON BRASS WARRANTY

The Akron Brass valves shall be warranted by Akron Brass for a period of ten (10) years from the date of delivery. The warranty for electronics shall be warranted by Akron Brass for a period of five (5) years from date of delivery.