

W.S. Darley & Co.



**W.S. Darley & Co.**

***FIRE APPARATUS SPECIFICATIONS***

**LIGHT TACTICAL PUMPER**

***For***

***A well-prepared Fire Department***



Darley Representative:  
Specifications Dated: 2-6-2025

# W.S. Darley & Co.

## **THANK YOU!**

Thank you for the opportunity to present these specifications. Our company looks forward to working with you to provide the best service possible, and the best product available, as detailed within these specifications.

## **FIRE APPARATUS SPECIFICATIONS**

### **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 and longevity 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 during the assembly of the apparatus in a manner that might prevent the removal of any major component part for service and/or repair.

### **SAFETY GUIDE**

One (1) copy of the FAMA Fire Apparatus Safety Guide shall be provided. This guide provides safety instructions for operators of this fire apparatus.

### **DOT/NFPA COMPLIANCE**

The proposal for fire apparatus conforms with all Federal Department of Transportation (DOT) rules and regulations in affect at the time of bid, and with all National Fire Protection Association (NFPA) guidelines for automotive fire apparatus as published at the time of bid, except as modified by customer specifications. Any increased costs incurred by Seller because of future changes in, or addition to said DOT or NFPA standards will be passed along to the Buyer as an addition to the price set forth above in the contract. The apparatus is designed to meet the applicable and available recommendations of NFPA (Pump, storage, and equipment allowance).

### **PAYMENT REQUIREMENTS**

Payment for the value of the chassis shall be made to Darley upon chassis completion and invoicing by Darley. The remaining balance of the contract shall be paid in full upon completion of the vehicle. See contract for more details.

### **DELIVERY REQUIREMENTS**

See Sales Contract for specific anticipated delivery timeline and delivery details.

### **CUSTOMER FINAL INSPECTION AND DRIVE AWAY**

This specification anticipates a final customer inspection at the Seller's factory with drive away delivery of the completed unit to be taken care of by the buyer/customer.

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## **DRAWING REQUIREMENTS**

### **APPARATUS DRAWINGS**

Darley will provide one (1) set of drawings of the apparatus as proposed. The drawings shall include left side, right side, top, front and rear views of the apparatus.

Critical dimensions such as overall height, overall length, body width, cab dimensions, pump module dimensions (when applicable), compartment dimensions, and overall body dimensions are on the drawings. Water tank size and pump type are also stated on the drawings.

### **WARRANTY**

The following warranties shall be provided:

#### **ONE YEAR DARLEY APPARATUS WARRANTY**

The Darley apparatus herein shall include a warranty against defects in materials and workmanship for a period of twelve (12) months, effective upon pick up or delivery of the apparatus to the destination, as found in the available warranty document.

#### **DARLEY FIRE PUMP WARRANTY**

Upon pick up or delivery, for a period of ten (10) years, the Darley Company guarantees to replace any defective part or parts in the Champion pump. This Champion pump is guaranteed to deliver the performance as specified on the certification label.

This warranty does not obligate the Darley Company to bear costs of labor or transportation of repairs or alterations not previously authorized by same.

The Darley Company shall not be responsible, under the terms of this warranty, for the cost of repairs or alterations of any Champion pump.

The Darley Company makes no warranty of trade accessories incorporated in the assembly or employed in conjunction with any Champion pump. Improper use of the pump or excessive overloading of the pump beyond recommended limits of capacity and pressure shall void this warranty.

#### **LIFETIME TANK WARRANTY**

The water and foam tanks herein are warranted, to the original owner of the apparatus, to be free from defects in material and workmanship for the normal service life of the apparatus in which the tanks are installed, per the available warranty document.

#### **COPOLYMER BODY WARRANTY**

PolyBilt Body Company, LLC (hereinafter "PB") offers a twenty year warranty on its PB Polymer Body products (hereinafter "Body"). PB warrants to the original owner of the apparatus (hereinafter "Purchaser") the Body to be free from defects in material and workmanship for the following term: PB warrants Body to be free from rust and corrosion for twenty years. Further, PB warrants the Body to be free from defects in material and workmanship for twenty years. As to defects in material and workmanship of sub frame, door hinges, latches, body components and so forth, this warranty is limited to one year from the date of purchase. If this Body is utilized outside North America, then this warranty shall expire one year from the date of purchase. Installation of the Body must be in

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accordance with PB's instructions. This warranty extends to the Purchaser and may not be assigned without the prior written approval of PB; except an original equipment manufacturer may assign this warranty to the first titled owner of the apparatus.

What this Warranty does not cover: PolyBilt's warranty does not extend to Body which has been misused, abused, improperly installed or for which payment has not been made. The warranty is void if repairs or alterations to the Body are made by unauthorized persons, or the Body serial numbers have been altered or defaced.

## **FIVE YEAR DARLEY COPOLYMER BODY PAINT WARRANTY**

Subject to the provisions, limitations, and conditions set forth in this warranty, the Seller hereby warrants to the original Purchaser, the finish paint on the copolymer body is free of defects and blisters and further warrants that it will maintain such integrity and shall not result in unreasonable gloss or color loss, for a period of five (5) years following the date the apparatus leaves the Seller facility.

## **MANUAL AND DATA REQUIREMENTS FIRE APPARATUS DOCUMENTATION**

Upon completion, Darley shall supply the following on a USB jump drive and/or SharePoint link:  
---The manufacturer's record of construction details.  
---Operation and service documentation schematics/manuals, as available.  
---Vendor manuals as available.

## **CHASSIS PROVIDER**

The chassis, as detailed in these specifications, shall be ordered and supplied by Darley. The chassis portion of the contract shall be paid for as detailed in the Darley proposal and contract verbiage.

## **MANUFACTURER RIGHTS**

The Darley Company reserves the right to incorporate the latest technology or standards, including changes to features and brand names, or model or equipment being supplied.

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## **CHASSIS SPECIFICATIONS**

### MODEL

2025 or current model year - Ford F550 4-door, 4x4

### DIMENSIONS

Wheelbase: 179"

C/A: 60"

GAWR front: 7,500 lbs.

GAWR rear: 14,706 lbs.

GVW total: 19,500 lbs.

### ENGINE

6.7L 4V OHV Power Stroke Diesel V8

Stainless steel exhaust

### TRANSMISSION

Torqshift 10 speed automatic W/3OD

### AXLES

7500 lb. rated front

With Power Disc brakes and Power steering

7,500 lb. Extra Heavy Duty front end suspension

Transfer case

14,706 lb. rated rear

With power Disc brakes

14,706 lb. rear suspension

Payload Plus Package Upgrade

High capacity trailer tow package

### BRAKE SYSTEM

Four wheel ABS Power Disc brake package

### CHASSIS AND FUEL TANK

40 gallon fuel tank behind rear axle

### TIRES AND WHEELS

19.5" wheels

225/70RX19.5G BSW Max Traction tires (four rear - two front)

### CAB

Chrome grille surround, chrome front bumper w/front fog lights

Transmission Skid Plate

Power door locks w/Remote keyless entry (2 FOBs), Power windows

Rear camera kit & 8" video screen in Sync 4 display

40/20/40 Front Bench Seat - gray

4X4 electronic shift with rotary control on dash panel

Crew 70/30 split bench seat

HVAC w/Air conditioning, heater/defroster

Air bags

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## GAUGES AND CONTROLS

Gauge package (volt/tach/trans temp), w/self-canceling turn signals

## ELECTRICAL AND LIGHTING

Dual, heavy duty alternators (Total 410 Amps)

Dual 78 AH 750 CCA batteries

Single electric horn, Halogen headlights

Front Fog Lights, Upper cab clearance lights

Windshield wipers, Hazard Light switch, 12 volt and 120 volt dash power outlets

## PAINT

One color finish paint (Ford Red), clear coat paint

## **DARLEY MAX-SS EDITION - SUPER SINGLE PACKAGE**

This Ford F550 chassis shall undergo a factory approved "Super Single" tire and wheel modification, applying larger super single tires and wheels to be used. The scope of work shall be as follows:

This package shall utilize a highly engineered set of components, intended to increase ground clearance and improve off-road capability of the Ford F550 4x4 chassis. Larger wheels and tires shall replace the factory wheels and tires. The factory front fenders shall be replaced to allow space for the larger front tires. A suspension lift shall be installed, as well as longer shocks front and rear. Speedometer correction shall be included and confirmed to be accurate upon completion of the installation.

## **FENDERS**

The front fenders shall be altered with a larger flare radius design that bolt on. These wider and larger radius fenders shall allow proper fit for the 40" tires. A 3/16" sun fade-resistant, plastic rock guard liner shall also be installed. The fenders shall be coated with a black textured finish to match the bumper.

## **WHEELS and TIRES**

The wheels shall be precision machined, forged aluminum, measuring 20" high x 11" wide drilled with the F550 bolt pattern. This bolt pattern and dished wheel rim design shall allow the wheel to flip from front to rear to provide the same overall outside track width of approximately 92 inches wide. They shall be powder-coated black with polished aluminum accents, stamped DOT approved, and rated to 7,390lb weight capacity per wheel. The tires shall be 335/80 R20 Continental MPT81, black side wall tires measuring approx. 40" tall. They are to be mounted and balanced. There shall be a total of four (4) mounted tires and wheels. A spare is optional.

## **LIFT KIT WITH SHOCKS**

There shall be a roughly 4" suspension lift kit installed, with longer shocks installed to replace the factory Ford gas shocks. A longer, heavier-duty radius arm kit shall be installed to correct caster and reposition the front axle back into the correct operating angle.

If and when the midship Darley pump is to be utilized, the rear axle housing shall be shimmed to provide the proper operating angle, necessary for correcting the driveline angles with the addition of the Darley PSMC pump transmission, into the middle of the three piece factory Ford driveline. If no midship pump is used, this shim or spacer will not be required.

All parts shall be installed, tested, and will carry a 24-month/24,000 mile warranty. A 4-wheel computer steering alignment shall be performed to ensure all tires are tracking correctly. The speedometer shall be computer corrected and verified to be accurate before delivery.

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All OE chassis take off parts become Darley property and are figured into the package price.

## **CHASSIS MODIFICATIONS**

The following modifications and installations shall also be performed to the chassis after delivery to the apparatus manufacturer:

### **CONTROL CONSOLE BETWEEN SEATS**

A center control console shall be installed, on the cab floor, between the driver and the officer seat. The top shall be hinged to allow access to the components and wiring inside the console. The top of the console shall contain items such as the rocker switch panel for all warning lights and the door ajar warning light. It shall also contain the electronic siren head, and other controls (as applicable).

### **MAX-BUMPER WITH BRUSH GUARD**

An aluminum "Extra Wide" front bumper assembly with brush guard, winch tray, and mounting kit shall be provided and installed as a replacement for the factory Ford front bumper. This heavy duty replacement bumper features a 2" receiver built in under the winch tray and can be used with a portable style winch or as a secure attachment point. This bumper shall be black in color and includes a pair of round cutouts for 6" recessed driving lights.

### **LED DRIVING LIGHTS IN BUMPER**

Two (2) 6" round 7200 lumen LED lights shall be mounted, one each side in the custom front bumper. Each shall be wired to the factory Fog Light switch in the dash or shall be controlled by a toggle switch mounted in the center console, in the event the chassis did not come equipped with the factory fog light option.

### **FRONT WINCH POWER**

A 12 volt circuit with appropriate high amperage wiring shall be provided, with a push-in style receptacle near the receiver. A high amperage, slow blow fuse shall be provided near the batteries for circuit protection.

### **RECEIVER HITCH**

There shall be a black, powder coated custom built receiver hitch mounted on the rear of the vehicle for trailer towing. It shall be securely mounted to the frame and centered just below the tailboard provided with a 2" receiver. The 2" square hitch receiver assembly shall also allow attachment of a portable winch. A high amperage, 12 volt circuit with appropriate wiring shall be provided, with a receptacle near the receiver.

*NOTE: The portable cradle and winch are not included in base price.*

### **TRAILER WIRING**

Wiring shall be installed to the rear of the vehicle to provide electrical connections for trailer towing. The wiring shall terminate below the tailboard center. The wiring shall terminate with both a 4-wire and 7-wire Bargman round plug with trailer brakes, back-up lights, ground, left turn/brake, right turn/brake, and clearance lights power.

### **FUEL FILL**

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The chassis fuel fill inlet line shall be routed to a recessed area at the left side of the body, rearward of the rear wheels. A diesel fuel fill cap shall be provided. A label, designating the type of fuel to be used, shall be installed near the diesel fuel fill.

## **DEF FILL**

The chassis diesel exhaust fluid (DEF) fill inlet line shall be routed to a recessed area at the left side of the body, forward of the rear wheels. A DEF fill cap shall be provided. A label designating that this fill is ONLY for DEF, shall be installed near the DEF fill port.

## **NFPA COMPLIANT TREADPLATE RUNNING BOARDS**

A set of NFPA compliant running boards, that meet the appropriate stepping depth and abrasiveness, shall be provided. The running boards shall be fabricated from bright, embossed aluminum treadplate and shall be supplied and installed below the chassis cab doors.

The running board height, from the ground to the top of the first step shall be approximately 23" from the ground, but not to exceed 24". A bright aluminum diamond plate vertical back splash, from the top of the running board to below the cab shall be provided and installed. The back splash shall be mounted to allow for independent movement of the cab.

## **MASTER SWITCH - CHASSIS ON/OFF**

A master switch shall be provided inside the cab on the floor alongside of the driver's seat just inside the driver's door in a convenient location. This switch is used to connect or disconnect all 12 volt power to the fire related body and pumping accessories. This master switch shall include a green colored master switch "on" pilot light.

## **BATTERY CHARGER**

An automatic battery charger shall be installed inside the chassis cab and connected to the chassis batteries. The maximum output shall be 15 amps. The system automatically becomes inactive when the batteries are fully charged. A built-in battery saver feature shall be included for auxiliary electrical loads such as hand lights and portable radios. A digital charge status display shall be mounted near the receptacle for powering the charger.

A 120 Volt duplex outlet shall be installed between the rear seats of the cab powered from the same shoreline receptacle when the Auto-Eject is plugged in for this charger.

## **120V SUPER AUTO-EJECT W/CHARGE INDICATION**

A 120 volt, super auto eject receptacle with a charge status display with red weatherproof covers shall be provided and connected to the on-board charger, specified elsewhere. The receptacle shall be wired so when the vehicle ignition is energized, the receptacle automatically ejects the external plug from the receptacle. The Super Auto Eject shall be a completely sealed assembly to prevent internal contamination. The internal switch arrangement shall eliminate the possibility of arcing at the contacts.

To reduce corrosion and ensure long lasting performance, the Auto-Eject receptacle shall be installed in the driver's side running board back splash. A mating plug shall be furnished and shipped loose.

## **REAR MUD FLAPS**

Two (2) black hard rubber mud flaps shall be installed behind the rear wheels, one each side.



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## **CHASSIS EXHAUST**

The chassis exhaust pipe shall discharge at the rear wheels and extend out to the side of the body.

## **BACK-UP ALARM (Chassis Provided)**

One (1) electronic back up alarm shall be provided with the chassis. See the chassis specifications.

## **IDENTIFICATION DATA PLATE**

An identification plate shall be installed in the driver's area of the cab, specifying the quantity and types of fluids used in the vehicle (as applicable):

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Pump primer fluid
- Drive axle lubrication fluid
- Air conditioning refrigerant
- Air conditioning lubrication oil
- Power steering fluid
- Transfer case fluid
- Air compressor system lubricant

The ID plate shall also include the following:

- 1.) Build Date
- 2.) Delivery Date
- 3.) Paint Information
- 4.) VIN Number

## **OCCUPANT PLATE**

An identification plate shall be installed in the driver's area of the cab, specifying the quantity of personnel allowed to ride in the apparatus.

## **TRAVEL HEIGHT AND GVWR LABEL**

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 (or meters), the overall length of the completed apparatus in feet and inches (or meters).

The plate shall also show the gross vehicle weight rating (GVWR) in pounds or kilograms.

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.

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## ODIN CAFS PUMP & PLUMBING

The following Darley Pump/Odin CAFS product and plumbing accessories shall be provided:

### ODIN DIESEL MONGOOSE (CAFS)

Odin® Mongoose 46/23 Specification

This model provides a “self-contained” diesel powered “slide-in” type Compressed Air Foam System (CAFS). The CAFS shall be designed to fit into the back of a standard length and width pick-up truck or fire service body. The CAFS shall be designed to discharge water only, air only, foam solution only or compressed air foam from the same discharge outlet. In addition, the consistency of the compressed air foam (expansion ratio), wet/dry shall be fully adjustable.

Engine: The engine shall be a Kubota: 24.8 HP @ 3600 rpm, water-cooled, 3 cylinder, diesel-powered, 12 vdc electric start.

Water Pump: The water pump shall be a Darley 2BE single-stage centrifugal pump with a vertically split aluminum case. It shall have a replaceable bronze impeller and seal rings on a stainless steel shaft. The pump seal shall be of a mechanical design.

Air Compressor: The air compressor shall be of the encapsulated rotary screw type, designed and installed to supply a minimum of 50 cfm @ 125 psi (1416 L/min @ 8.6 b) of free air at maximum engine rpm. The compressor air/oil receiver shall be built and designed by the compressor manufacturer. All airlines shall be rated to a minimum of 250 psi (17.24 b). All control air fittings shall be either brass or chrome construction. Stainless steel or brass check valves shall be utilized at air injection points to prevent water/solution back-flow into airlines.

Foam Concentrate Proportioner: The automatic foam proportioner shall be the Darley Fast Foam 50. It shall be provided and installed to inject foam concentrate into all foam discharges. The proportioner shall automatically meter the correct percentage of foam concentrate, based on current flow, into the water stream. A check valve shall be provided ahead of the foam injection point to prevent foam solution back-flow. The concentrate pump shall be a 12VDC, electrically driven, positive displacement pump. The concentrate pump shall be rated to flow ½ gpm @ 150psi (1.89L/min @ 10.3b). The proportioner on/off switch, ratio controls, operating instructions and low concentrate warning light shall be mounted on the pump panel. For sustained operation of the injection system, it may be necessary to operate the vehicle’s main engine for adequate voltage.

Drive System: The water pump is directly driven off the engine crankshaft. The air compressor is belt driven off the engine crankshaft to the side of the engine. They shall be driven via a dry Gates Polychain® drive system. The complete drive system shall have a 2,000 hour rated service life and shall be designed and rated for the imposed speed and load.

Electrical System: All electrical equipment installed by the manufacturer shall conform to current automotive electrical system standards and the requirements of the applicable NFPA apparatus standards. The wiring shall be individually and permanently color and function coded. The installation shall meet SAE Standard J1128 in its latest edition for GXL or SXL temperature rating. All exposed wiring shall run in loom with a minimum of 280°F (137.8°C) rating. All wiring loom shall be properly supported and attached to frame members along the entire run. At any point where wire or looms must pass through metal, rubber grommets shall be installed to protect the wire from abrasion. The main low voltage electrical terminal block and circuit breaker panel shall be provided behind the operator’s panel in a location providing easy access. The electrical connections shall be made using heat shrink and/or weatherproof connectors. All electrical circuits shall be protected with automatic reset breakers or fuses.

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Priming System: A Darley 12 VDC electric, oil-less, rotary-vane priming system shall be utilized. The primer shall be capable of priming the water pump through 20' of hard suction hose with a 10' lift. The primer control and instruction plate shall be mounted on the operator's panel.

Plumbing, Hoses and Lines: All piping shall be stainless steel. Use of grooved end pipe couplings are required for flexibility and movement of system components on mobile equipment. Hydraulic hoses will only be used for air injection lines and not control air lines. Flexible piping may be used where applicable. Check valves are required throughout the system to maintain integrity and shall be placed so that the air, water foam and foam solution do not inadvertently mix. Drain cocks shall be provided on the water pump to prevent freeze damage.

**Tank to Pump:** There shall be a 2.5" tank to pump suction valve fitted in the module and controlled from the operator's panel. **Inlets:** A 2½" NH male suction inlet with cap and lanyard shall be provided on the operator's panel. **Water Only Outlet:** There shall be one 2½" water only discharge with valve operator push pull provided on the control panel. **CAF Outlet:** There shall be one (1) CAF mix point. There shall be a 1½" NH Male CAF outlet on the panel, controlled by the single mix point. A swing check valve shall be installed on the mix point to prevent foam from back flowing into the pump. The CAF mix point controls shall be grouped together on the panel with easy to read calibration marks laser cut into the panel. The mix point foam solution valve shall be a 1 ½" self-locking, swing-out valve. **Direct Tank Fill:** A separate valve with a 2½" NH female swivel connection and plug shall be provided and controlled at the operator's panel for "direct tank fill" operations with a pressurized water source. **Tank Refill:** A 1½" tank refill line with a 1½" valve and flexible, reinforced wire-braid, hydraulic hose shall be provided.

**Module Frame:** The module frame shall be constructed of aluminum and designed for rigorous fire service use. Main structure will use 1.5" square wall 6061 grade tubing, ¼" thick wall. The structure will be rectangular in shape to facilitate the optional full cover lid and optional sides.

No lid, nor sides are required. The hinged lid and lid lighting is to be omitted when building the unit. This CAFS pumping system will be enclosed inside the rear compartment of the rescue-wildland body with a removable cover and a hinged lid over this area that needs to be opened during operation and can also be used for service. This pumping compartment will be lit up by the LED strip lighting on the inside left and right roll up door tracks.

## CAFS SYSTEM MOUNTING

The rear mount CAFS module shall be mounted in the rear of the body between the side body compartments. Smooth aluminum, removable, access panels shall be provided in compartments #2, #3, #5 and # 6 to assist in servicing the Odin Mongoose CAFS pump system. This diesel powered Mongoose shall be tied into the chassis onboard fuel tank and shall be mounted per the manufacturer's recommendations. The unit shall fit nicely up to the water tank with appropriate air supply in and out of the engine. The exhaust shall be routed up and out of this compartment approx. 12" and include a rain cap to prevent the egress of any water into the exhaust system.

This pump compartment is to be enclosed behind an aluminum roll-up door to provide protection for the pump panel from road debris and dirt that often collects at the back of a vehicle when driving down the road. LED strip lighting to be activated when the door is opened to illuminate the pump panel.

The door ajar circuit and "DO NOT MOVE APPARATUS LIGHT shall NOT be tied into this roll-up door. This door will need to be opened when pumping with this unit. Rather than a hinged cover on the Mongoose, the cover over the top of the pump, at about the same height as the body, can be made of embossed diamondplate and be removable as needed for service. This embossed diamondplate cover shall also be the area allowed to crawl on to access the water or foam tank fill towers, if necessary.

## REMOTE CONTROLLED FRONT BUMPER TURRET (CAFS)

There shall be 1.5" plumbing using high pressure hose supplied to the front bumper for a solid mounted turret discharge. The turret shall be a remote-control monitor that uses a joystick to control up and down and left and right and shall be able to turn on and off the stream of CAFS coming from the Odin Mongoose. The turret shall be

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mounted at the center of the front of the truck. A #187 CAFS smooth bore tip shall be included on the outlet of the monitor.

The discharge mix point shall be controlled at the Mongoose control panel. The valve shall be a quarter turn ball type of fixed pivot design and be constructed of bronze. The On/Off discharge control shall be located in the cab on the joystick. No other controls are needed in the cab other than the joystick.

This discharge shall be capable of delivering water, foam solution, or compressed air foam.

A pair of adjustable fog spray nozzles shall be installed, one on each side wing through the face of the front bumper. These spray nozzles shall be tied into the front discharge plumbing. There shall be a separate "FRONT SPRAY" toggle switch in the cab on the center console that activates an electronic valve that turns on these nozzles. A simple quarter turn flow control valve shall be mounted behind the bumper, one per side, to turn on/off each nozzle independently and control the flow to each nozzle to vary stream reach. The nozzles are also adjustable to modify fog spray/stream shape.

## **BOOSTER REEL - SIDE COMPARTMENT**

One (1) booster reel shall be installed in the right side rear compartment with the hose designed to deploy out of the back of the truck. It shall include all required piping and ON/OFF valve in compt. #6.

The reel shall have a welded frame and base and a 12 volt electric motor to chain drive the reel drum. All 12 volt electric switch connections shall be coated to protect against moisture.

Rollers shall be provided as needed to provide smooth deployment of the hose without damage to the vehicle or the hose. A fairlead style roller shall be supplied at the opening in the back of the body behind the door.

An automatic brake to provide some resistance shall be supplied on the reel to prevent involuntary unwinding of the hose. The reel shall have a capacity for at least 100 ft. of 1" booster hose. The booster reel discharge controls shall be located at the operator's control panel.

## **REEL REWIND SWITCH**

One (1) push button rewind switch shall be provided on the back of the body near where the hose deploys.

## **CAFS FOR REEL**

The booster reel shall be plumbed for CAFS, including all necessary hardware, check valve, etc. It shall be teed into the CAFS mix point on the inside of the Mongoose. It can also deliver foam solution, plain water, or compressed air.

## **BOOSTER HOSE**

One (1) 100 ft. length(s) of 1" Neidner Reeltex booster hose, with a 300 PSI rating shall be supplied. The hose jacket shall be RED in color and made from spun polyester. Swivel couplings shall be of an aluminum finish.

## **DARLEY FOAM TANK POWERFILL**

A Darley 12 volt power foam tank fill system DFRS001-KIT shall be installed to eliminate the need to climb up onto the top of the truck to fill the foam tank through the fill tower. The system shall operate completely while standing on the ground. The system shall operate by attaching a suction hose to a pre-plumbed panel connection using a

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cam-lock fitting. The pick-up wand shall then be placed in the foam concentrate container. The operator then lifts a toggle switch to activate the 12 volt pumping system, which manually fills and stops only when the switch is released. When the "onboard" foam tank is full, a green light will illuminate. All components are designed to be used with Class A foam (water based concentrated soap) and therefore require no flushing.

System includes:

- High-capacity concentrate pump, w/continuous-duty 12-volt motor
- "Tank Full" Indicator light on the panel plate
- Stainless steel fittings and cap with a 6 ft long x 1" concentrate pick-up wand and check valves

## **POWERFILL CONTROL**

The Foam Tank refill inlet and control shall be at the right side of the pump system module. Controls shall be inside compartment #6, with access to the foam tank shut-off valve.

## **WATER TANK, FIRE BODY & RELATED COMPONENTS**

### **INTEGRAL BODY/TANK CONSTRUCTION**

The water tank shall be integral with the body. The body and water tank shall be fabricated using the same special high strength copolymer materials, providing a durable, impact resistant, corrosion resistant, and lightweight design. Due to the added strength and durability provided with this integral design, there shall be NO EXCEPTION to this requirement.

### **COPOLYMER BODY CONSTRUCTION**

The body shall be fabricated using special high strength, copolymer sheet materials, providing a durable, impact resistant, corrosion resistant, and lightweight body. The body shall be fabricated using Aristech TI-4007-L polymer (or equal) extruded sheets. All seams shall be fully welded. All outside corners on the body shall have a minimum 1/2" radius. The entire body shall be a welded assembly; assembled and painted prior to mounting on the sub frame and the chassis.

Due to the importance of the strength and impact resistance of the copolymer material, there shall be no exception to these requirements.

Only builders who can show examples of previously constructed copolymer bodies shall be accepted.

### **CONTOURED BODY**

The copolymer body shall have a contoured body side design, for a cosmetically appealing appearance, and to resemble the curved lines of most cab lines available with this body.

### **REAR TOW EYES**

Two (2) heavy duty laser cut steel tow eyes, 1/2" thick with a 1.5" I.D. cutout, shall each be bolted to the rear chassis frame rails with 3/4" grade 8 bolts. The tow eyes shall extend through the rear body panel and include stainless steel trim plates. The tow eyes shall be painted black.

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## **COMPARTMENT CONSTRUCTION**

The compartments, including the floors, shall be constructed of the same heavy duty smooth copolymer material as used for the body. All seams shall be completely welded. Divider walls between compartments shall be single wall construction with a minimum wall thickness of 3/8". Compartment floors shall be a minimum of 1-1/8" thick and shall have a minimum of a 3/4" lip above bottom of the door opening, providing a sweep out design. All compartment door opening lips shall be protected with polished stainless steel trim. For adequate ventilation and air displacement, each compartment shall be properly louvered with square black heavy plastic vents. The forward wall of the front compartments, and rearmost wall of the rear compartments, shall have removable panels, constructed from the same body material, to cover and protect all 12 volt electrical accessories mounted on the walls. The panels shall be removable to provide access to those components. Compartment interiors shall be provided in a natural unpainted finish.

## **FENDER PANELS**

Side fender panels above the rear wheels shall be heavy duty smooth copolymer material. Each shall be painted the same color as the exterior body.

## **FENDER LINERS**

Copolymer fender liners shall be welded into the wheel well area, above the rear wheels. Adequate clearance shall be provided for the installation of Super Single tires on larger 20" wheels. The inner liners shall be textured black copolymer material.

## **HOSE BED (NONE)**

There shall be no hose bed present on this apparatus. The fill towers of the tanks shall protrude out through the top of the tank of this rescue style body. The top is not intended for personnel to regularly be on top of this vehicle.

## **SLIDE IN REAR BODY STORAGE COMPARTMENTS**

There shall be two (2) full length, slide-in storage compartments incorporated into the rear of the body. The compartments shall be located on the left and right upper sides of the body, in the upper sections of the side compartments. The roof of this Poly rescue body shall enclose these storage compartments. Each compartment shall be approximately 7" wide x 8" high x the full length of the 120" long body. The compartments shall have enough capacity for storing up to 3" diameter hard suction hoses.

Hinged smooth aluminum doors shall enclose the ends of these compartments and be painted or Chevron striped to match the back of the body.

## **FASTENERS**

All fasteners used to mount or secure components to the body shall be of stainless steel construction. Items fastened directly into the copolymer shall use sheet metal screws, stainless steel T-nuts or threaded brass inserts, depending on application.

## **TREAD PLATE AND TRIM**

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All treadplate shall be bright aluminum. Any horizontal surfaces with aluminum tread plate shall be overlaid with embossed 1/8" bright aluminum tread plate. The aluminum tread plate shall meet recommended requirements for non-slip surfaces.

## **RUB RAILS**

Rub rails shall be installed using solid black rubber material designed to help protect the lower body and cushion against accidental contact. Each rub rail shall be mounted below the lower side compartments and at the vehicle rear body, next to the rear tailboard. Each end shall have a hard black rubber end cap.

There shall be bright polished scuff strips mounted between the body surface and the rub rails.

## **REAR FOLDING STEPS**

Three (3) large, 12 volt lighted, heavy duty chrome folding steps shall be furnished and installed at the left side of the apparatus rear. There shall be a barrier material installed between the body surface and the steps.

## **L REAR VERTICAL HANDRAIL**

One (1) vertically mounted handrail, approximately 30" long, shall be provided, on the left side at the apparatus rear. It shall be 1-1/4" extruded aluminum tubing with rubber grip inserts, mounted in chrome stanchions. There shall be a barrier material installed between the body surface and the handrail.

## **SUBFRAME**

The body shall be attached to and supported by a heavy duty, spring loaded, steel subframe bolted to the truck frame. The subframe shall be spring mounted to the chassis frame to allow for independent flexing of the body in relation to the chassis frame. The subframe shall be constructed from structural steel angle and C-channels. No welding shall be allowed to the truck frame. Isolator strips shall be installed at all contact points between the chassis frame and the subframe and between the body and the subframe.

The subframe shall be carbon steel, sandblasted, then be hot dipped galvanized for superior corrosion resistance.

Due to the importance of the subframe flexibility and corrosion resistance, there shall be no exception to these requirements.

WL008 POLYPAK LIGHT TACTICAL WILDLAND/RESCUE BODY (60" CA) (Rear Pump)

## **400 GALLON TANK - COPOLYMER**

A 400 gallon water (booster) tank shall be provided. The booster tank shall be constructed of a copolymer material, properly baffled.

The tank shall be provided with at least one (1) full length swash partition (baffle) and the required number of widthwise baffles so that the maximum dimension of any spaces in the tank, either transverse or longitudinal, shall not exceed 46", and measure not less than 23".

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Baffles shall have openings at both the top and bottom to permit movement of air and water between spaces to allow maximum flow requirements. Baffles shall form an integral part of the tank, and design shall be to provide and maintain safe road stability regardless of water level.

Tank shall have an overflow designed to prevent damage to the tank under high flow conditions and enclosed in front tank filler. The overflow is to be designed and located to prevent water loss on fast stops or starts and is also to be located not to adversely affect the traction for the rear tires.

Tank outlet connection shall be designed with an anti-swirl baffle in the tank to prevent air from mixing with the water when pumping from the tank.

A fill tower shall be installed on the tank top. It shall be of adequate size, minimum 10" X 10", to accommodate overflow and vents, to have a hinged cover and poly screen installed.

The tank shall be mounted to the chassis frame, per manufacturer's requirements.

## **FOAM TANK**

One (1) 25 gallon foam tank shall be provided, integral within the water tank and shall have a rectangular fill tower, approximately 10" x 10", with a hinged cover and a removable poly screen. A tank drain shall be provided inside the pump compartment.

An access hole from inside compartment #6 shall be provided to service the connections to the front of the foam tank. A removable cover shall be provided.

## **2.5" RIGHT REAR TANK FILL**

One (1) 2.5" tank fill shall be provided at the right rear of the Mongoose and shall go directly into the water tank. A port shall be provided on the rear wall of the tank with a diffuser installed.

## **FENDERS**

Flexible black textured fenders shall be attached to trim out the wheel well openings and to protect the sides of the body from mud and debris from the tires.

## **REAR TAILBOARD**

The rear tailboard shall be bolted to a heavy duty hot dipped galvanized steel support assembly attached to the chassis frame. The rear tailboard shall be approximately 8" deep and constructed of bright embossed aluminum tread plate. The aluminum tread plate shall meet recommended requirements for non-slip surfaces.

The rear tailboard shall be bolted to the support assembly with a small gap between the tailboard and the body.

The step height from ground to first step shall not exceed 24". A removable, receiver, "drop step" is required to access the tailboard to meet this requirement due to the suspension lift and the super single tires and wheels.

## **COPOLYMER COMPARTMENTS**

### **LEFT SIDE**



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1.) One (1) compartment in front of the left side rear wheel, approximately 34" wide x 48" high x 21" deep. The door opening shall be approximately 30" wide x 47" high.

2.) One (1) compartment over the left side rear wheel, approximately 45.5" wide x 30" high x 21" deep. The door opening shall be approximately 39" wide x 28" high.

3.) One (1) compartment behind the left side rear wheel, approximately 34" wide x 48" high x 21" deep. The door opening shall be approximately 34" wide x 47" high.

## **RIGHT SIDE**

4.) One (1) compartment in front of the right side rear wheel, approximately 34" wide x 48" high x 21" deep. The door opening shall be approximately 30" wide x 47" high.

5.) One (1) compartment over the right side rear wheel, approximately 45.5" wide x 30" high x 21" deep. The door opening shall be approximately 39" wide x 28" high.

6.) One (1) compartment behind the right side rear wheel, approximately 36" wide x 57" high x 21" deep. The door opening shall be approximately 34" wide x 47" high.

## **TRANSVERSE FRONT STORAGE**

The Poly body shall have transverse storage provided at the front of the body before the start of the water tank. This storage space is to be accessed from the left or right front compartment. There shall be storage designed for a backboard and long handled tools like rakes, brooms, shovels, and swatters. The body will be designed with six (6) tubes welded into this area at the front of the tank to be able to secure these long handled items.

## **ROLL UP DOORS**

The side compartment door openings shall be fitted with roll-up style doors.

## **ROLL UP DOOR CONSTRUCTION**

All compartments are to feature roll-up style doors. Each shutter slat, track, bottom rail, and drip rail shall be constructed from anodized aluminum. Compartment doors shall be equipped with smooth opening and closing roll-up doors complete with the following features:

- 1" aluminum double wall slats with continuous ball & socket hinge joint designed to prevent water ingress and weather tight recessed dual durometer seals
- Double wall reinforced bottom panel with stainless steel lift bar latching system
- Bottom panel flange with cut-outs for ease of access with gloved hands
- Reusable slat shoes with positive snap-lock securement
- Smooth interior door curtain to prevent equipment hang-ups
- One-piece aluminum door track / side frame
- Non-marring recessed side seals with UV stabilizers to prevent warping
- Dual leg bottom seal (wear component material to be Type 6 Nylon)
- Door ajar switch system shall be provided using magnetic switches
- Door striker w/support beneath the lift bar to prevent door curtain bounce and potential false door ajar indications.

## **SIDE ROLL UP DOOR FINISH**

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The side roll up doors shall be in a natural aluminum brushed or satin finish.

## **UNISTRUT MOUNTING TRACKS**

Unistrut type tracks shall be provided in the body compartment(s). The tracks shall be mounted vertically from floor to ceiling. A minimum of four (4) tracks shall be provided for each compartment specified.

All compartments shall have Unistrut track installed, except for compartment #6 (due to Booster Reel).

Note: Compartments #1 and #4 only have one recommended location for a shelf. It is to be positioned between the backboard compartment and the upper transverse storage tubes.

## **ADJUSTABLE SHELVING**

There is no shelving included in the base price. Shelving and other compartment storage solutions are optional and priced specifically for each compartment. Please evaluate your equipment list and request shelving, pull out trays, and tool-boards based on your specific fire department equipment storage needs.

## **PAINT, STRIPING, AND LETTERING SECTION**

### **PAINT FINISH**

The apparatus body shall be painted with DuPont/Axalta system paint. The compartment doors, if specified to be painted, shall be painted separately to ensure proper paint coverage. The apparatus shall be prepared and painted using the following procedures.

All surfaces to be painted shall be properly prepared and cleaned. Painting, including primers and final coatings to be applied per the paint manufacturer's recommendations and instructions. The compartment interiors shall be unpainted and in their natural white finish. A pint of touch up paint shall be provided for each color used.

### **PAINT COLOR**

The apparatus body paint color shall be "cross referenced" from the chassis paint and shall be painted to match the main chassis color as close as possible. A single color, red paint job is standard in the base specifications.

### **WHEEL RIMS**

The wheels shall be black powder coated. No additional finishes shall be provided by the manufacturer.

### **LETTERING**

Up to sixty (60) 3" vinyl letters with a shadow or border outline shall be supplied and installed on the apparatus.

NOTE: The lettering layout is expected to be provided at order entry.

### **REFLECTIVE STRIPE**

Reflective striping shall be applied to the side of the vehicle chassis and body on at least 50% of the overall length of the vehicle. At least 50% of the rear and 25% of the front of the vehicle width shall have striping applied.

Striping shall be 3M Scotchlite reflective striping with Controltac adhesive (or equal).

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The stripe shall be a single color **4"** wide reflective stripe. The reflective stripe color shall be **WHITE**.

The reflective stripe shall be applied in a straight line along each side of the apparatus. The height of the stripe from the ground to the center of the stripe shall be per NFPA recommendations.

## **CAB DOOR REFLECTIVE MATERIAL**

There shall be a reflective material installed on the lower interior portion of each cab door to warn oncoming traffic that a door is opened. The reflective material shall be installed on the lower interior portion of the driver and officer cab doors. The color of the reflective material shall be **WHITE**.

## **REAR CHEVRON STRIPING**

There shall be alternating reflective striping provided at the apparatus rear, in a chevron stripe pattern. At least 50% of the apparatus rear shall have the retroreflective chevron striping. The chevron pattern shall slant downward on both sides of the vehicle at an angle of 45 degrees, pointing in the direction of the bottom rear corners of the apparatus. The chevron stripes shall each be 6" wide.

## **CHEVRON - INSTALL**

The Chevron is primarily to be installed on the outer body sides and below the roll up door compartment.

## **CHEVRON COLORS**

The chevron pattern shall be alternating RED and LEMON YELLOW stripes.

## **12 VOLT ELECTRICAL SYSTEM (Multiplexing)**

### **MULTIPLEXING**

A multiplexed wiring system shall be installed, controlling all electrical functions installed by the apparatus manufacturer. The system shall incorporate the use of "nodes" in key locations around the vehicle.

### **ELECTRICAL LOAD MANAGEMENT**

Electrical Load management shall also be part of this multiplex system, allowing diminished and load shedding capabilities of some functions.

### **GENERAL WIRING**

Apparatus body wiring shall be high temperature compatible wire, insulated with chemically cross-linked polyethylene and to withstand prolonged temperatures of up to 350 degrees Fahrenheit. The wiring shall be resistant to grease, oil, fluids, and abrasion and shall meet or exceed S.A.E. Certification J1128. It shall be stranded copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected. Wiring not within the multiplexed system shall be individually color coded and function labeled every three (3) inches on the insulation.

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All required testing shall be performed before the apparatus is delivered. All required test documents shall be supplied at the time of apparatus delivery.

All wiring for the apparatus shall be installed in accordance with quality electrical standards, protected in loom or conduit. Grommets shall be installed where wire passes through body panels, where applicable.

## **WIRING DIAGRAMS**

Electrical wiring diagrams of the specific apparatus shall be furnished with the completed apparatus.

## **12 VOLT SWITCHES (CENTER CONSOLE)**

There shall be a rocker switch panel provided in the cab console between the driver and officer seats.

This switch panel shall control warning lights and 12-volt accessories. The switches shall be rocker style switches. Each switch shall have a pilot light indicating the "on" position. There shall be a main master rocker switch to cut power to all warning light rocker switches. The master switch shall be red in color with a red pilot light. Each switch shall be labeled as to its function.

## **RUNNING LIGHTS & REFLECTORS**

There shall be LED running lights and reflectors mounted on the body. The lights shall be recess mounted in rub rails or the body. They shall be installed at any running boards, body sides, and rear tail board. The lights and reflectors shall meet all US Federal Motor Vehicle Safety Standards.

## **LICENSE PLATE HOLDER & LED LIGHT**

A license plate holder with LED light shall be provided on the rear of the apparatus body. The light shall be wired to illuminate with the running lights.

## **REAR DIRECTIONALS (LED)**

Rear directional lighting shall be supplied as follows:

- Two (2) 6" x 4" LED stop and tail lights, one each side - Red.
- Two (2) 6" x 4" LED turn signals, one each side - Amber.
- Two (2) 6" x 4" LED back up lights, one each side - Clear.

## **HOUSINGS FOR DIRECTIONALS**

The rear running lights shall each be housed in a chrome plated bezel designed to hold four (4) lights each. The fourth light location shall be utilized for lower rear warning lights.

## **REAR STEP LIGHTS (LED)**

Two (2) clear LED step lights shall be installed, one each side on the back of the apparatus, to illuminate the stepping surface. Lighted folding steps also satisfy this requirement.

The lights shall be activated with a "Step Light" switch located in the cab.

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## **FRONT STEP LIGHTS (LED)**

Four (4) small, clear, LED lights shall be furnished and shall be located, two each side on the upper return flange of the running boards to illuminate respective stepping surfaces.

The lights shall be activated by the "Step Light" switch located in the cab.

## **COMPARTMENT LIGHTING (LED)**

Each body compartment shall contain a minimum of one (1) LED white/clear vertical strip light assembly.

Each light strip provided shall be run from near the floor to the full height of the compartment. Strip lighting provides uniform light dispersion throughout the compartment even when shelves are installed. The compartment strip lighting shall be automatically activated whenever a compartment door is opened.

## **"DO NOT MOVE APPARATUS" LIGHT (LED)**

A flashing red LED light, properly labeled with the words "Warning - Do Not Move Apparatus When Light Is On", shall be located in the cab. The light shall be activated automatically when any cab or body compartment door is opened, as long as the chassis parking brake is not applied.

In addition, accessories such as a telescoping light(s) shall also be connected to this ajar circuit, to activate the light when any of these items are not properly nested, and the vehicle parking brake is not set.

## **FOUR DOOR CAB GROUND LIGHTING (LED)**

The four (4) door cab shall have a clear LED ground light below each stepping area of each entry door to illuminate the ground at the step area. The lights shall be wired to activate when the apparatus parking brake is set.

## **UNDER BODY GROUND LIGHTS (LED)**

Four (4) clear LED ground lights shall be provided. Each shall have a clear lens and shall be mounted on brackets, angled outward, beneath the apparatus. The lights shall be wired to activate when the apparatus parking brake is set.

The lights shall be mounted as follows:

- Two (2) at the forward body area, one each side.
- Two (2) at the rear tailboard, one each side.

## **WARNING LIGHT SYSTEM**

The following warning lights shall be installed in zones and properly switched.

## **WHELEN WARNING LIGHT SYSTEM (LED) LIGHT BAR**

Zone A - (Upper Front) - A 60" LED lightbar shall be provided and installed. The lightbar shall incorporate an anodized, extruded, heavy duty aluminum base and include two front and rear corner modules, and four forward facing interior modules. All modules are to include both RED and WHITE LEDs.

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The front and rear of each corner module shall consist of duo white and red linear LEDs installed on a conformal coated PCB board with a thermal pad/aluminum bracket heat sink assembly. The solid state lightbar shall be vibration resistant. All electronic components are covered by a five year factory warranty. The bar shall include a permanent mount kit with hardware. Lens Color: Clear  
Light bar shall be mounted on the centered forward section of the cab roof. The light colors shall be as follows: Combination of RED and CLEAR "white" lights. All forward facing WHITE lights shall be switched as Front Scene lights and be controlled with a switch inside the chassis cab.

**Zone A (Lower Front)** - Two (2) LED warning lights shall be mounted one each side, on the front face of the chassis cab, cab grille, or grille guard.

The light color shall be as follows:

Driver's Side - **Red**, Officer's Side - **Red**

**Zone B (Right Side)** - Two (2) LED warning lights shall be mounted on the right side of the vehicle. One at the lower front bumper area, one towards the rear in the wheelwell.

**Zone D (Left Side)** - Two (2) LED warning lights shall be mounted on the left side of the vehicle. One at the lower front bumper area, one towards the rear in the wheelwell.

The light colors shall be as follows:

Driver's Side - **Red**

Officer's Side - **Red**

**Zone C (Rear-Upper)** - Two (2) Super-LED® beacons shall be provided. Each high profile 12 volt beacon shall incorporate 32 Super-LEDs installed in sets of eight on four PC boards. The four PC boards shall be installed on a LED ballast. The beacons shall have an optic hard coated polycarbonate lens, and a metalized reflector with clear optic collimators. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The dome lens shall be sealed to a black powder coated die cast aluminum base with an "O" ring gasket assembly. The solid state beacon light shall be vibration resistant. An installation kit including mounting hardware shall be provided for surface mounting. The light colors shall be as follows:

Driver's Side - **Red**

Officer's Side - **Red**

**Zone C (Rear-Lower)** - Two (2) 6 x 4 LED warning lights shall be mounted, one each side, at the lower rear of the apparatus. The light colors shall be as follows:

Driver's Side - Red.

Officer's Side - Red.

## **CERTIFICATE**

This warning light system shall be certified by the light manufacturer to meet the requirements of the applicable chapter of the NFPA, current at the time of contract.

## **TRAFFIC ADVISOR (LED)**

A rear "arrowstick" or traffic advisor shall be provided. The traffic advisor shall incorporate a rectangular extruded black powder coated aluminum chassis with six amber LED® lights with waterproof connectors. The solid-state traffic advisor shall be vibration resistant.

The traffic advisor shall include a control head mounted in the cab. It shall have four programmable directional sequence flash patterns of left, right, split, and flash. The LED display on the control head shall replicate the directional sequence. Lens Color: Amber

## **RECESSED MOUNTING**

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The rear directional light bar shall be recessed into the rear Poly body panel of the apparatus, centered at the upper rear portion. The recessed pocket in the body shall be trimmed with a decorative stainless steel enclosure around the arrowstick.

## **SIREN AMPLIFIER**

A 12 volt siren amplifier shall be provided and installed on the center console. The siren shall have the ability for either 100 or 200 watt output. The operating controls will consist of a power switch, manual button, PA volume switch, horn button, and rotary switch. The siren amplifier shall include appropriate circuit protection. The solid state siren speaker amplifier shall be vibration resistant. The microphone shall be hardwired to the siren. The electronic siren control shall be recessed in center console between driver and officer seats.

## **SIREN SPEAKER**

One (1) siren speaker, with a 100 watt driver shall be provided and installed. The siren speaker(s) shall be mounted in a protected location that optimizes the sound projection from the speaker.

## **BACK-UP CAMERA INSTALLATION**

A rear view, "back-up camera", system shall be installed as part of the chassis supplied package. The system shall include a camera mounted at the upper rear center of the body (when possible) and adjusted to provide a clear view of the back of the truck's tailboard and at least 30 feet behind the vehicle. The color display in the chassis dash shall be utilized as the monitor. The rear camera display shall activate when the vehicle is placed in reverse.

## **12V SCENE LIGHTING**

There shall be 12 volt scene lighting installed on the apparatus as follows:

### **LED TELESCOPIC SCENE LIGHT(S) 12 VOLT**

Two (2) Spectra MS LED side mount push up telescopic scene light(s) shall be installed. The light pole(s) shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole, when elevated, shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a minimum 2.75" offset. Wiring shall extend from the pole bottom with a 4' retractile cord.

Each specified lamp head shall have 36 ultra-bright white LEDs, 30 for flood lighting and 6 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 10.8/5.4 amps, and generate 14,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamp head shall be no more than 6 1/2" high by 8 3/4" wide by 3 1/4" deep and have a heat resistant handle. The lamp head and mounting arm shall be powder coated. The LED scene light shall be for fire service use.

### **LIGHT LOCATION**

The light(s) shall be mounted on the front face of the body with the light head mounted just above the body.

### **LIGHT SWITCHING**

Two (2) remote 12 volt weather resistant switch(es) shall be provided and installed inside the cab for the specified light(s). Each switch shall be properly labeled to indicate the light it controls.

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## **EQUIPMENT SECTION**

### **EQUIPMENT**

The following equipment (if listed below) shall be supplied with the apparatus. It shall be shipped loose unless detailed below or otherwise in these specifications.

Two (2) section(s) of 3" clear PVC Kochek or equal flexible suction hose, with pyrolite, NST 2-1/2" couplings shall be provided. One hose to be 9.5" feet long, the other to be 9 feet long. Female end to have rocker lugs. The shorter hose is to have the barrel strainer pre-installed on the male end.

One (1) barrel strainer(s) to fit 2-1/2" NST hard suction hose shall be supplied.

One (1) pair of Zico folding wheel chocks shall be provided. The chocks shall comply with NFPA 1901, current edition at time of proposal or order, and shall meet the SAE-J348 standard. The chocks shall be approximately 12" tall x 11-1/4" wide x 21" long, and weigh approximately 20 lbs.

One (1) pair of Zico horizontal mount folding wheel chock brackets shall be installed behind the driver side rear wheels.

### **PURCHASER RESPONSIBILITY**

It shall be the responsibility of the Purchaser to furnish any NFPA recommended items not detailed in these specifications.



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## **OPTIONS**

### **OPTION** (not included in base price): **IN CAB – WATER LEVEL GAUGE**

A mini water level gauge shall be installed in the center console of the chassis to indicate the current water level in the tank. It shall be tied into the water level gauge of the rear pump unit.

### **OPTION** (not included in base price): **PUMP AREA HEATER**

A 12 volt fan forced heater shall be installed in the pump area that will help to protect the pump and plumbing from damage caused by very cold weather. The heater shall be an air to liquid radiator style and supplied by the antifreeze/coolant from the chassis engine. Silicone 5/8" heater hoses shall be routed from the chassis engine into the rear mounted pump area and shall be routed safely inside the chassis frame rail and protected with corrugated loom. A toggle switch shall be provided in the pump area to activate the heater fan and can be activated once the master switch is activated in the chassis cab. This heat also can be beneficial to keep the side compartments warmer than without this heater being specified.

### **OPTION** (not included in base price): **REAR SCENE LIGHTS**

A pair of 7" x 9" rear facing LED scene lights are to be installed on the back of the body, one on each side. They are to be activated by a toggle switch in the cab. They are also to be activated when the chassis transmission is placed in reverse to provide additional light when backing up the vehicle.

### **OPTION** (not included in base price): **WINCH – 10 K PORTABLE**

A Warn M10S, 12 volt portable electric winch, with a rated line pull of 10,000 lbs. shall be provided. It shall have a 12V reversible electric motor. It shall be mounted on a portable cradle for a 2" receiver.

Features:

- 100 ft. of synthetic rope with a clevis hook and safety latch
- 12 volt remote control with a 12 ft. cable
- Automatic load-holding brake
- Clutch for free spooling

### **OPTION** (not included in base price): **SHELVES – FIXED IN FRONT COMPARTMENTS**

Two (2) heavy duty fixed aluminum shelves, with edges turned up approximately 2" for added strength, shall be provided. One in compartment #1, and one (1) in compartment #4.

### **OPTION** (not included in base price): **ADJUSTABLE SHELVES (priced each)**

A heavy duty fixed aluminum shelf, with edges turned up approximately 2" for added strength, shall be provided.