Specification for:

Skeeter Type 5 Step-Side, Demo 14215

Submitted To:

Skeeter Brush Truck
5511 Binz Engleman Kirby, TX 78219

Specification 1321
July 16, 2015

Prepared by:
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Skeeter Brush Trucks, LLC

Proposal

We are pleased to submit the following specifications to you for a **Skeeter Type 5 Step-Side, Demo 14215** per your request for quotation. The following paragraphs will describe in detail the apparatus proposed. Loose equipment not specifically requested will not be provided.

Skeeter Brush Trucks, LLC. a wholly owned company of Siddons-Martin Emergency Group, is a custom fire apparatus manufacturer specializing in Brush-Grass-Wildland fire fighting vehicles. Our 22,000 square foot manufacturing facility is located in Kirby, Texas and is operated by some of the most experienced wildland firefighting vehicle manufacturing individuals in the business. Our performance and quality minded approach to manufacturing generates some of the most reliable vehicles in the industry, thus yielding a very high return on investment.

Skeeter Brush Trucks, LLC. provides the very best sole source product and service solutions to the fire service. Skeeter Brush Trucks LLC carries $1,000,000 in liability insurance, with $3,000,000 in excess umbrella liability insurance. The opportunity to place this Skeeter Brush Truck in your department is greatly appreciated and we are certain it will fulfill your every requirement. We look forward to working for you.

Siddons-Martin Emergency Group sales and service professionals are dedicated and experienced in all aspects of the fire apparatus business. Our core business is the sales and service of fire apparatus.

Service Advantage

Siddons-Martin Emergency Group currently staffs eleven (11) service centers located throughout Texas, Louisiana, and New Mexico, and maintains a fleet of service vehicles to provide on-site service of your SKEETER Brush Truck. The Siddons-Martin Emergency Group Service Department is dedicated to the fire service and provides service and maintenance exclusively on fire apparatus. Siddons-Martin Emergency Group employs numerous EVT trained technicians and is constantly engaged in continuing factory and EVT training classes and programs in order to stay abreast of the rapidly improving technologies incorporated within today's fire apparatus. SMEG is an authorized sales and service dealer for Pierce Mfg., and an authorized service center for Waterous, Hale, and Darley fire pumps, and an OEM distributor for all major fire equipment accessories.

Construction and Design

Skeeter Brush Trucks body and component designs are engineered. Body construction (unless otherwise noted) is done in-house, using the best in design and materials. RBM's for body frames are among the very highest in the industry. Wiring harnesses are custom manufactured in-house, and meet or exceed OEM standards. All wiring is protected, run through conduit, and distributed through one, easily accessed, sealed control box.

Chassis Operation Manual

The chassis manufacturer shall provide one (1) operational manual. This manual may be in a either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Fire Pump Operational Manual

A fire pump service, instruction, and operational manual shall be supplied. This manual may be in a either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Foam System Operational Manual

A foam system service, instruction, and operational manual shall be supplied. This manual may be in a either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Apparatus Operational Manuals

The fire apparatus manufacturer shall provide two (2) operational manuals. These manuals may be in a either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Compliance To Standards

This vehicle shall meet or exceed State and Federal Motor Vehicle Standards. Please note: the vehicle being proposed in "non-compliant" to all NFPA standards. The purchaser assumes all liability and full responsibility for this vehicle specification, and the inclusion or exclusion of any NFPA provisions or equipment on the vehicle.

100044.2 - PAINT

1. Cab Color: Red
2. Cab Secondary Color: N/A
3. Description: Solid Red
4. Bumper Color: Brushed Aluminum
5. Wheel Color: Red
6. Body Color: Brushed Aluminum
7. Cab Steps: Red

100024.1 - CHASSIS SPECIFICATIONS

One (1) FORD F-550 rear axle drive 4 x 4, dual rear wheels (DRW), two door XL cab and chassis

GVWR: 19,500 pounds

Wheelbase: 141.8"

Cab to Axle: 60"

Grille: black

Tow Hooks: front loops

Driving Front Axle and Suspension: 7,000# HD front package, 7,000# suspension package, stabilizer bar, front shocks, manual hubs

Transfer Case: cab controlled high and low range HD front package, stabilizer bar, front shocks, manual hubs

Tires: two (2) front tires shall be 225/70R19.50, radial all weather highway tread

Front Wheels: two (2) 19.50" x 6.00" steel disc, eight (8)-hole pattern steel disc wheels

Rear Axle and Suspension: 14,706# wide track rear axle, 14,706# suspension package, stabilizer bar, limited slip

Tires: four (4) 225/70R19.50 all weather type radial tires

Rear Wheels: four (4) 19.50" x 6.00" steel disc, eight (8)-hole pattern steel disc wheels

Braking System: four (4) wheel disc brake system with an Anti Lock (ABS)

Engine:
- Model: Power Stroke 6.7 turbo-charged diesel
- Number of Cylinders: Eight (8) "V" configuration
- Displacement: 6.7 liters
- Rated Brake Horsepower: 300 at 2800 rpm
- Rated Torque: 660 ft lbs
- Turbocharger

Cooling System: a coolant mixture protected to -30 degrees Fahrenheit

Exhaust System: horizontally mounted, discharge on right side aft of wheels

Fuel Tank: 40 gallon rear mounted, left side filler extension

Transmission: six speed automatic

Steering: power steering system

Batteries: two (2) 78 amp-hr 750CCA 12-volt batteries

Alternator: single 200 amp 12 volt

Cab Construction: XL Series two (2) door steel construction, sun visors, tinted glass, roof clearance lights, grab handles interior

Mirrors: black manually telescope fold-away in/out for view adjustment.

Cab Paint: single color, air bags front and air curtains side

Climate Controls: controls for heat, defroster, and air conditioning

Window and Door Controls: manual

Air Bags: driver's and passenger's front, seat side, and side curtain

Cab Instruments: standard type, four (4) rocker switches

Drivers and Passenger Seat: 40/20/40 vinyl bucket type seats with three (3) point safety harnes, center flip down seat back

Printed Manuals: one (1) printed chassis operation manual

Cab Accessories: AM/FM radio, two radio speakers and antenna

Customer Operated Regen System

Jack and Lug Wrench Set

Color: Ford Red

100046.1 - CHASSIS LIFT KIT

A 6" Fabtech heavy duty, 4 link, off road suspension lift kit with heavy-duty off road shocks shall be installed on the chassis. The system is designed to significantly increase wheel travel, in addition to giving the chassis increased ground clearance.

NOTE: THE END USER MUST BE AWARE THAT LIFTING THE CHASSIS AND ADDING LARGER TIRES WILL ALTER THE VEHICLES CENTER OF GRAVITY. THIS WILL AFFECT THE VEHICLES HANDLING CHARACTERISTICS.

IN ADDITION, THE LARGER TIRES WILL AFFECT STOPPING DISTANCE. THE SYSTEM IS NOT RECOMMENDED FOR VEHICLES THAT OPERATE PRIMARILY IN AN ON ROAD ENVIRONMENT. THE SYSTEM IS HIGHLY RECOMMENDED FOR VEHICLES THAT OPERATE IN OFF ROAD OR ROUGH TERRAIN ENVIRONMENTS.

TURNING RADIUS MAY BE REDUCED (if needed) 1-3 DEGREES TO PREVENT TIRE RUB.

100048.1 - FRONT AND REAR SUPER SINGLE TIRES AND WHEELS

The front and rear tires will be 335/80R20 22PR, severe service radial all terrain tread. The tire weight rating shall be load range "M", and match the rim rating. Wheels for the front and rear axles will be 20" x 11.00" steel disc, ten (10)-hole pattern special order for Military/Government off road application. The weight rating of the rims will be 6,750 each.

100053.1 - SPARE SUPER SINGLE TIRE AND WHEEL

One (1) spare wheel and tire shall be 335/80R20 22PR, severe service radial all terrain tread. The tire weight rating shall be load range "M", and match the rim rating. Wheel for the spare shall be 20" x 11.00" steel disc, ten (10)-hole pattern special order for Military/Government off road application. The weight rating of the rim will be 6,750 each.

100055.1 - MOUNTING SPARE TIRE AND WHEEL

The spare tire and wheel shall be mounted on top of the water tank. An aluminum plate shall be installed with a mounting assembly for the wheel and tire.

100062.1 - FRONT BUMPER

The factory bumper shall be removed and replaced with a custom fabricated, heavy duty aluminum bumper and grille protection assembly. The bumper extension unit shall be brushed aluminum finish.

100058.1 - REAR MUD FLAPS

The chassis shall be supplied with mud flaps with the manufacturer's logo. The mud flaps shall be installed behind the rear wheels.

100110.1 - CAB STEPS

The cab shall be equipped with custom painted steel tubing step assemblies, on each side of the cab.

100086.1 - CUSTOM FABRICATED CONSOLE AND SWITCH PANEL

A custom fabricated poly (plastic) electrical console and enclosure shall be located between the driver's and passenger's seats. It shall house the siren, switches, cup holder, and auxiliary equipment.

100076.1 - NO WINCH PROVIDED

No winch will be provided with vehicle.

100243.1 - FIRE PUMP SPECIFCATIONS

A Hale HPX200-B18 fire pump shall be installed on the apparatus. The pump/engine shall perform to the standards of ISO 9 and NFPA 1906 low-pressure pump rating. Typical pump performance from 4 foot draft at sea level using a 2.5" suction line and a 2.5" discharge shall be.

240 GPM @ 10 PSI
190 GPM @ 75 PSI
150 GPM @ 100 PSI.
60 GPM @ 150 PSI.

Pump
The pump body shall be made of alloy aluminum castings coupled together with a stainless steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 350 PSI for 10 minutes. The impeller shall be bronze. The renewable clearance rings shall be made of anodic plated bronze to inhibit galvanic corrosion. The impeller shall be 4.87 inches in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.

Engine
The engine shall be a four cycle gasoline Briggs and Stratton Vanguard series V-Twin, overhead valve, air cooled design. Engine rating shall be 18 BHP at 4000. Engine displacement shall be 570cc and shall be designed to meet CARB (California Air Resources Board) standards. A 12-volt electric system shall be provided with electric starter and a 16 amp alternator. Recoil backup engine starting shall be provided. Engine shall be equipped with a residential muffler with USDA approved spark arrestor.

100272.1 - STAINLESS STEEL PLUMBING SYSTEM

The auxiliary fire pump plumbing system shall be built completely of stainless steel piping, fittings, and connections. Victaulic couplings shall be installed to permit flexing of the plumbing system and allow for quick removal of piping or valves for service. Tank connections and remote plumbing shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections.

100285.1 - VALVES

All valves used in the plumbing installation shall be stainless steel quarter turn full flow type.

The plumbing installation shall include quarter turn ball valves with local "on-valve" handle control, with custom embossed labeling for each valve.

100470.1 - NO PUMP EXHUAST

100268.1 - FUEL TANK

A remote fuel tank shall be installed for the auxiliary fire pump assembly at the rear of the apparatus. The fuel tank shall be mounted in a bracket with detachable hold down device or strap. The fuel tank shall have capacity of approximately six (6) gallons. There shall be a fuel hose with plug in connections and primer bulb furnished between the fuel tank and carburetor assembly for the auxiliary pump.

100255.1 - AUXILIARY FIRE PUMP MOUNTING PROVISIONS

The auxiliary fire pump shall be installed at the right side rear of the body. The sub-structure shall have welded in mounting sub-plates between the structural members. The pump shall be mounted on a di-electric surface under pump and bolts through the sub-plates.

100254.1 - PUMP ENGINE OIL DRAIN

The fire pump engine shall have an oil drain line installed. It shall allow for easy oil draining.

100270.1 - 2-1/2" GATED INTAKE -- REAR

One (1) 2-1/2" gated suction intake shall be installed on rear area to supply the fire pump from an external water supply. The valve shall be a controlled with a direct quarter-turn ball valve control handle and shall have 2-1/2" NH female thread with removable screen with plug. The color coded label shall be installed near the control handle.

100283.1 - TANK TO PUMP LINE INSTALLATION

The 2.5" tank to pump line shall be installed with a flexible hump hose connection and stainless steel clamps to the water tank. The valve shall be controlled with a manually operated handle directly on the valve.

100281.1 - WATER TANK FILL AND COOLING LINE

One (1) 1" fire pump to water tank refill and bypass cooler line shall be provided. The pump to tank valve shall be a 1" full flow quarter turn ball valve with local control handle. A 1" flex hose shall be installed to the water tank. A nameplate label shall be installed next to the valve.

100288.1 - HOSE REEL

One (1) Hannay aluminum hose reel shall be installed. The reel shall have leak proof ball bearing swing joint, adjustable friction brake, electric 12 volt rewind and manual crank rewind provisions.

The reel shall be mounted on the left side rear corner of the flatbed body.

100292.1 - REEL CAPACITY

The hose reel shall have a capacity of 150 feet of hose.

100295.1 - HOSE REEL DISCHARGE

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

100259.1 - CLASS A FOAM SYSTEM

A Scotty Model #4171 Class A through-the-pump foam system shall be installed to supply all discharges. The unit shall be mounted between the discharge and suction side of a pump. The unit shall be adjustable, permitting various foam ratio percentages to be educted depending on the nozzles in use. Foam selection percentages between .3 and 1% shall be available. The foam system has been designed for simplicity of operation and maintenance. A flush system will be installed.

100200.1 - WATER TANK SPECIFICATIONS

The water tank shall have a capacity of 400 gallons.

100205.1 - NFPA COMPLIANCE

The water tank construction shall conform to applicable NFPA standards.

100213.1 - TANK TO PUMP CONNECTION

A 3" pipe shall be provided on the water tank for connection of the tank to the suction side of the pump with a flexible hump hose assembly. The tank suction valve and hump hose required to complete this connection shall be supplied by the final assembler.

100227.1 - FOAM TANK SPECIFICATIONS

The Class A foam tank shall have a capacity of 10 gallons.

100114.1 - STEP-SIDE BODY -- ALUMINUM

The body will be a custom fabricated severe service step-side type, constructed of all aluminum. The body shall be 114” long by 96” wide, designed for a 60" cab to axle dimension. The body shall be specifically designed and engineered for off-road wildland firefighting.

100124.1 - FLAT-BED MOUNTING

The body shall be bolted to the chassis frame rails at the rear end of the frame. There shall be brackets installed at the middle of the body frame to prevent side to side movement. The body shall be spring mounted at the front of the body frame. The flexible mounting system shall allow for body/chassis flexing during extreme off road conditions.

100120.1 - SQUARE CORNERS -- FLAT-BED

The front corners of the flat-bed body shall be square.

100125.1 - HEADACHE RACK

The front of the body shall have a 2” formed aluminum tube headache rack. The rack shall extend the full width of the body and be attached to the front body corners. The assembly shall extend above the chassis cab and have mounting platform for installation of the light bar and two work lights. Wiring for the lights will be placed inside the tubing for protection. The headache rack shall have four (4) vertical 2" tubes for extra strength.

100127.1 - FUEL FILLER

The fuel filler tube and cap shall be installed at the left hand side, rear of the body.

100128.1 - FENDER PANELS

The lower portion of the flat-bed body shall have fender panels over and aft of the rear wheel panel area. The panels shall be constructed of polished aluminum tread plate. The wheel well openings will be cut out to conform to the wheels.

100129.1 - REAR BODY PANEL

A vertical body panel shall be installed at the rear of the body constructed of .190" smooth aluminum. The panel shall house the running lights, taillights, back-up lights, and emergency lights. The body panel shall be angled to allow for a 30 degree angle of departure.

100144.1 - DRIVER'S SIDE UPPER BODY COMPARTMENT

A body equipment storage compartment shall be installed on the flatbed surface, right side of the apparatus. The dimensions shall be approximately 48" wide, 24" high, and 18" deep. The compartment shall be constructed of .125" aluminum tread plate on all exterior surfaces. The compartment shall be equipped with a lift up door with latch installed. The door shall be equipped with dual gas operated door opening assistant cylinders. Turtle tile shall be installed on the floor.

100148.1 - PASSENGER'S SIDE UPPER BODY COMPARTMENT

A body equipment storage compartment shall be installed on the flatbed surface, left side of the apparatus. The dimensions shall be approximately 48" wide, 24" high, and 18" deep. The compartment shall be constructed of .125" aluminum tread plate on all exterior surfaces. The compartment shall be equipped with a lift up door with latch installed. The door shall be equipped with dual gas operated door opening assistant cylinders. Turtle tile shall be installed on the floor.

100159.1 - UNDER BODY COMPARTMENT -- REAR CENTER

An under body equipment storage compartment shall be installed under the flatbed surface located in the center rear of the apparatus. The dimensions shall be approximately: 33" wide, 5" high, and 96" front to rear. The compartment shall be for by the vertical body beams, upper floor surface, and an aluminum lower floor area. The compartment shall be equipped with a hinged drop down door with dual latches installed.

100166.1 - REAR SLIDE-OUT TRAY

The rear center compartment shall be equipped with an .190" aluminum slide out tray on UHMW plastic slide pads. The tray shall be full width and full length of the compartment interior.

100161.1 - COMPARTMENT DOOR KEY LOCKS

The hinged compartment doors shall be equipped with key type door locks.

100163.1 - AUTOMATIC COMPARTMENT DOOR LIGHT SWITCHES

Each exterior compartment light shall be automatically controlled by a door activated switch.

100164.1 - DOOR OPEN LIGHT

A "door open" or equipment operation warning light shall be installed on cab dash. The light shall be flashing LED light with a red lens.

100168.1 - HOSE TRAY -- LEFT SIDE

A hose storage tray shall be installed over the left side equipment compartment, on the left side of the apparatus. The dimensions shall be approximately: 16" wide, 8" high, and 60" long. The hose tray shall be constructed entirely of .125" aluminum tread plate on all exterior surfaces. The assembly shall be equipped with a hinged lift up aluminum tread plate door on top, enclosed front panel, and open rear area. The hose tray shall be equipped with Turtle Tile floor covering.

100176.1 - TOOL STORAGE TRAY/COMPARTMENT -- RIGHT SIDE

A tool storage compartment shall be installed over the right side equipment compartment, on the right side of the apparatus. The dimensions shall be approximately: 16" wide, 8" high, and 60" long. The compartment shall be constructed of .125" aluminum tread plate on all exterior surfaces. The compartment shall be equipped with a hinged lift up aluminum tread plate door with a latch installed. The compartment shall be equipped with Turtle Tile floor covering.

100180.1 - REAR PULL OUT STEP

There shall be a rear "Pull-Out-Fold-Down" step located at the rear of the apparatus, step shall be stowed in a pocket under the rear of the unit. Storage pocket shall be fabricated to allow easy access to deploying for operation.

100181.1 - FOLDING STEP

A Signature 4 lighted 8" square folding step of die cast zinc shall be installed. The step shall comply with NFPA non-slip standards and shall be installed on the rear left side of the body. The step shall be equipped with lighting to NFPA standard.

100325.1 - ELECTRICAL ENCLOSURE

An electric wiring enclosure for the 12 volt wiring shall be installed in the forward wall of the right side compartment with a removable panel. The dimensions of the enclosures shall be approximately 20" high, 18" wide, and 4" deep.

100326.1 - 12 VOLT ELECTRICAL SPECIFICATIONS

The following describes the low voltage electrical system on the apparatus including all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The apparatus manufacturer shall conform to the latest Federal DOT standards, current automotive electrical system standards and the applicable requirements of the NFPA.

Wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops shall not exceed 10 percent in all wiring from the power source to the using device. 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. Exposed wiring shall be run in a loom with a minimum 289 degree Fahrenheit rating. Wiring looms shall be properly supported and attached to body members. Electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

All wiring connections and terminations shall provide positive mechanical and electrical connections and be installed in accordance with the device manufacturer's instructions. When wiring passes through metal panels, electrical connections shall be with mechanical type fasteners and rubber grommets

Wiring between cab and body shall be split using Deutsche type connectors or enclosed in a terminal junction panel allowing body removal with minimal impact on the apparatus electrical system. Connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather resistant connectors shall be provided throughout the system.

Electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. When required, automatic reset breakers and relays shall be housed in the main body junction panel.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless enclosed in an electrical junction box or covered with a removable electrical panel. Wiring shall be secured in place and protected against heat, liquid contaminants and damage.

Low voltage overcurrent protective devices shall be provided for the electrical circuits. The devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. Overcurrent protection devices shall be automatic reset type suitable for electrical equipment 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. Electro-magnetic interference suppression shall be provided in the system 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. All terminal plugs located outside of the cab or body shall be treated with a corrosion preventative compound.
All electrical wiring shall be placed in a protective loom or be harnessed.
Exposed connections shall be protected by heat shrink material and sealed connectors.
Large fender washers shall be used when fastening equipment to the underside of the cab roof and all holes made in the roof shall be caulked with silicone.
Electrical components installed in exposed areas shall be mounted in a manner that will not allow moisture to accumulate inside.
A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
All lights in a weather exposed area that have their sockets shall have corrosion preventative compound added to the socket terminal area.
Warning lights shall be switched in the chassis cab with labeled rocker type switches located in an accessible location. Individual rocker switches shall be provided only for warning lights provided exceeding the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be appropriately identified as to their function and mounted on a switch panel mounted in the cab convenient to the operator. For easy nighttime operation, an integral indicator light shall be provided to indicate when a circuit is energized.

A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency "calling for the right of way". When the parking brake is activated, a "blocking the right of way" system shall be automatically activated per NFPA requirements. "Clear" warning lights shall be automatically shed on actuation of parking brake.

100327.1 - ELECTRICAL HARNESS AND WIRING

All wiring shall be hidden, enclosed, or protected under the body in protective material, or within the apparatus body components. In addition, split loom conduits shall be installed and enclosed, suitably secured and protected against heat and physical damage.

100090.1 - BATTERY MASTER DISCONNECT

A battery disconnect system shall be installed to control the 12 volt power supply from the battery system to the body and cab final stage manufacturer installed equipment. The solenoid shall be controlled by the standard key starter switch.

100328.1 - DOT IDENTIFICATION LIGHTS

All LED identification lights shall be installed on the vehicle as required by applicable highway regulations.

100329.1 - LICENSE PLATE MOUNTING

An LED license plate light shall be installed on the rear vertical wall of the body.

100330.1 - BRAKE, TURN, TAIL LIGHTS

Two (2) Whelen M6 Series Model M6BTT 4-5/16" x 6-3/4" brake, turn, tail lights with M6FC chrome flanges shall be provided. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The light-heads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens. The light-heads shall be surface mountable via two screws.

The light-heads shall utilize an optic collimator and a chrome vacuum metalized reflector for maximum illumination. The light-head shall include 164 flash patterns including: a variety of CA Title 13 compliant, sinkable, left/right, top/bottom, in/out, and steady burn. The light-heads shall have the Whelen exclusive NERM (Non-Emergency Recognition Mode) feature.

The lens/reflector assembly shall be wet sealed and resistant to: water, moisture, dust, and other environmental conditions. The outer lens shall have a hard coating applied to increases strength and ensure longevity. The light engine shall be installed at the rear of the unit and be completely sealed. The pc board shall be conformal coated for additional protection.

The lights shall be furnished with five 6" wire pigtails, a Santoprene rubber gasket and the #M6FC chrome flanges shall be included for installation.

100331.1 - BACK-UP LIGHTS

Two (2) Whelen M-Series, 4" x 6" rear LED back-up lights shall be installed.

100068.1 - OFF-ROAD LIGHTS

There shall be two (2) Warn 4" HID (High Intensity Discharge) lights installed on front bumper/grille guard.

100070.1 - NO BUMPER GROUND LIGHTS

There shall be no under bumper ground lights installed.

100073.1 - GROUND LIGHTS - CAB

Two (2) Grote #61E41 LED ground lights shall be installed under the cab step area in compliance with NFPA standards.

100182.1 - GROUND LIGHTS - UNDER REAR STEP

Two (2) Grote #61E41 LED ground lights shall be installed under the rear step area, one on each side of the apparatus, wired to parking brake circuit.

100184.1 - WORK LIGHTS

Four (4) Grote #61E41 LED step lights with clear lens shall be installed, wired to switch on the cab dash. Location shall be: in each corner of the protective tubing assembly to light the pump panel and the front body walkway area.

100322.1 - SCENE LIGHTS

Six (6) Rigid Manufacturing Dually 20211 scene lights shall be installed. The LED scene lights shall incorporate clear LED's with a clear optic polycarbonate lens for maximum illumination.

Location shall be: Two (2) outward facing, each side of body, two (2) rear facing.

100324.1 - BACK-UP ALARM

One (1) Buyers #BA107 back up alarm shall be installed.

100312.1 - ELECTRONIC SIREN

One (1) Whelen, Model #CCSRN3 CENCOM siren and twenty-one (21) auxiliary switches with noise canceling microphone shall be provided. Siren head will be mounted low on the front dash in easy reach of the driver.

100313.1 - SIREN SPEAKER

One (1) Whelen Model #SA315P Projector Series siren speaker shall be provided with bracket. The 100 watt siren speaker shall be designed in a black nylon composite housing with 123 decibel rating.

Location shall be: Behind the front bumper.

100310.1 - MOUNTING OF LIGHT BAR WITH PROTECTIVE GUARD

The cab bar light shall be mounted on the headache bar shelf with an aluminum brush guard protective guard assembly.

100309.1 - LIGHTBAR

A Whelen Legacy low profile Super-LED NFPA lightbar shall be installed. The 54" lightbar shall be designed to meet the minimum clearing requirements for Zone A Upper. The internal components of the lightbar shall be housed within a two piece extruded aluminum base/top. The outer shell shall be clear optic polycarbonate lenses designed to maximize light output and shield against environmental elements.

The lightbar shall utilize snap-in brackets to hold in the lightheads. The brackets shall give the end user the ability to make quick repairs. The lightbar shall have all solid state components. The lightbar shall have two wire harnesses exiting the unit: one (1) 17 conductor 22 gauge control cable which controls all internal light functions; and one (1) 2 conductor 10 gauge cable for main power and ground. Each cable shall be 15' long.

The lightbar shall have four (4) red Linear Super-LED corner modules to provide off angle protection for the front and rear of the vehicle. Each corner module shall consist of twelve (12) Super-LEDs mounted within a vacuum metalized parabolic reflector. The corner module shall also utilize an optic collimator for maximum light output. The twelve (12) LEDs shall be mounted in one straight line.

The solid state I/O board shall be microprocessor controlled. The I/O board shall have built-in reverse-polarity protection and output-short protection. The board shall have the ability to flash sixteen (16) LED warning lights. There shall be a data bank of 13 Scan-Lock flash patterns including steady burn. The board shall also have outputs to add takedown and alley lights. Low power and cruise light function shall also be included. The cruise light function shall allow the user to employ the four (4) corner modules as marker courtesy lights.

The lightbar shall include clear "Take Down" and "Alley Lights" included.

The lightbars shall have an amber "Traffic Advisor" built into the rear portion of the lightbar.

100315.1 - NFPA WARNING LIGHTS

ZONE A -- LOWER FRONT WARNING LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a chrome flange shall be in the front forward facing area of the front bumper. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lightheads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens. The lightheads shall be surface mountable via two screws. The lightheads shall utilize an optic collimator and a chrome vacuum metalized reflector for maximum illumination.

ZONE B AND D -- INTERSECTION LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a M6FC chrome flange shall be installed on bumper extension, as far forward as possible. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The light-heads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE B AND D -- LOWER REAR CORNER WARNING LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a chrome flange shall be installed in lower rear side corner body area. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lightheads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE B AND D -- UPPER SIDE REAR WARNING LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a M6FC chrome flange shall be installed in the upper rear body side panel. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lightheads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE B AND D -- UPPER REAR WARNING LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a chrome flange shall be installed in the upper rear corner of the handrails. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lightheads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE C -- LOWER REAR WARNING LIGHTS
Two (2) Whelen M-7 Series Model #M7R 3" x 7" warning lights and a chrome flange shall be lower rear of body. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lightheads configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

100335.1 - CUSTOM GRAPHICS

The apparatus shall be provided with two (2) custom designed sign gold graphics, emblems, or seals. The installation shall be designed primarily with letters and numbers as specified. The purchaser shall approve of the design graphics to installation.

100337.1 - CAB AND BODY STRIPING

The cab and body shall have a straight Scotchlite reflective stripe applied horizontally. The stripe shall be a 4'' minimum in width and be applied horizontally around the cab and body in accordance with NFPA standards. The purchaser shall specify the color and location of the stripe.

100343.1 - FRONT CHEVRON STRIPING

There shall be alternating chevron striping installed across the front bumper where permitted. The chevron striping shall consist of 6” diamond grade striping in the following colors:

The first color shall be red diamond grade

The second color shall be lime yellow diamond grade

100345.1 - REAR CHEVRON STRIPING

There shall be alternating chevron striping installed on the rear vertical body panel. The chevron striping shall consist of 6” diamond grade striping in the following colors:

The first color shall be red diamond grade.

The second color shall be lime yellow diamond grade.

100346.1 - CAPACITIES PLACARD

The apparatus shall have a reflective placard that provides the following information:

Water Tank Capacity
Pump Capacities
NWCG Typing
Skeeter Contact Information

100348.1 - FOAM NOZZLE

Three (3) Task Force Tips model # DS1040BCP Bubble Cup dual gallonage foam nozzles with stainless steel shutoff ball shall be supplied. The nozzles shall be capable of producing either a fog or straight stream with the ability to instantly aspirate foam by sliding a sleeve forward. For corrosion resistance the nozzles shall be constructed from hardcoat anodized aluminum. An integral pistol grip handle shall be positioned directly below the valve handle. The nozzles shall be configured for flow settings of 10 and 40 GPM at 100 PSI, and have a 1" female NH swivel rocker lug inlet and have a twist off position for positive shut off of the water flow.

100350.1 - SPANNER AND HYDRANT WRENCH SET WITH MOUNTING BRACKET

One (1) Kocheck lightweight spanner wrench holder shall be installed. The bracket shall hold one (1) hydrant wrench and two (2) universal spanners. It shall be mounted on the rear vertical exterior panel of the left side compartment.

100040.1 - CHASSIS PREPARATION

The chassis cab shall be "prepped" for fire apparatus production as follows:
a) Wash and clean chassis
b) Weight chassis for NFPA reports
c) Quality control check in.

100041.1 - SEATING

There shall be a label identifying the number of seat belted locations on the unit.

100042.1 - WARNING LABEL -- SEAT BELT USAGE

A warning label for use of seat belts shall be installed in the cab by the chassis manufacturer.

100043.1 - LOUD NOISE WARNING LABEL

A final stage manufacturer shall install "hearing loss" potential warning labels on the vehicle in any areas or fixed equipment that produces excessive noise levels. (exhaust outlet, sirens and air horns shall not be required for such equipment.)

100135.1 - WARNING LABEL -- NO RIDING ON REAR

A warning label stating: "NO RIDING ON REAR OF APPARATUS" shall be installed on rear of the apparatus. The label shall be applied to the vehicle at the rear step area. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion, is prohibited.

100136.1 - SKEETER BRUSH TRUCK EMBLEMS

Three (3) Skeeter Brush Trucks emblems will be affixed to the cab and body.

100196.1 - FINAL ASSEMBLY AND APPARATUS FINISHING PREP SPECIFICATIONS

The apparatus shall be assembled in a high quality and controlled environment. The fit, form, and finish of the body shall be to the highest level fire apparatus manufacturing standards. On completion, the apparatus shall be totally ready for final inspection and road testing as required by the general requirement section for this specified vehicle.

100361.1 - FIRE PUMP TEST

The fire pump shall undergo factory fire pump run-in tests for a minimum of 2 hours prior to delivery of the completed apparatus. The factory pump testing results shall be furnished on delivery.

100362.1 - ELECTRICAL LOAD ANALYSIS

A 12 volt electrical load analysis shall be provided to denote response and stationary modes of electrical amp load.

100363.1 - COMPLIANCE

The fire apparatus shall be built to the purchaser's requirements in compliance to all State, Local, and Federal highway safety requirements. The vehicle is not intended to meet any or all standards of the NFPA.

100364.1 - FACTORY FIRE PUMP TEST

The pump shall undergo an full in factory fire pump test, which shall be witnessed and certified test by the factory engineer, prior to delivery of the completed apparatus. The factory test acceptance certificate shall be furnished with the apparatus on delivery.

100365.1 - ROAD TEST

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise.

100366.1 - APPARATUS WARRANTY SKEETER MANUFACTURED ITEMS

A five (5) year parts and labor warranty on items manufactured by Skeeter Brush Trucks. Skeeter Brush Trucks is a subsidiary of Siddons/Martin Emergency Group, a Pierce Platinum Dealer, which has 13 service centers between Texas, Louisiana, and New Mexico. In the event the apparatus is deployed outside of its normal area of operational, warranty and service can be performed at any Siddons-Martin facility at the discretion of the fire department. For warranty issues please contact your local Siddons-Martin or Skeeter Brush Truck service center and request warranty from the service advisor at that location.

100368.1 - FIRE PUMP WARRANTY

Hale Products, Inc., herein referred to as “Hale”, warrants products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of three years (3). This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence or accident, and is not altered, treated or repaired by someone other than Hale or its designee. Items not manufactured by Hale shall bear only the limited warranties offered by their respective manufacturers.

The exclusive remedy for breach of this warranty shall be to give Hale written notice thereof and to request a Returned Goods Authorization. Upon receipt of the Returned Goods Authorization, the buyer will return the non-conforming material to Hale F.O.B. its plant within thirty days after the buyer has received the Returned Goods Authorization. Thereupon Hale at its own election shall repair or replace the same or repay the price thereof. No proximate, incidental, consequential or other damages shall be recoverable. Hale shall not be liable for consequential damages or contingent liabilities including; but not limited to, loss of life, personal injury, loss of crops, loss due to fire or water property damage, and consequential trade or other commercial loss arising out of the failure of Manufacturer’s product.

HALE MAKES NO WARRANTIES OF FREEDOM FROM PATENT INFRINGEMENT, OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE OR OTHER LIKE OR DIFFERENT EXPRESS OR IMPLIED WARRANTIES EXCEPT AS MADE ABOVE. More

100369.1 - WATER TANK WARRANTY

MANUFACTURE LIMITED WARRANTY AND NOTICE OF DISCLAIMER OF EXPRESS AND IMPLIED WARRANTIES

Manufacture issues this limited warranty to the customer who is the original retail purchaser ("Customer") of a polypropylene tank (the "Tank") (10 to 4000) gallons.

Manufactures specific warranty will be issued at pre-construction meeting.

100351.1 - PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be conducted at the manufacturer's plant. The transportation to this meeting shall be the responsibility of purchaser.

100353.1 - TERMS OF PAYMENT AND PREPAYMENT PROVISIONS

Terms of payment for the specified vehicle shall be only cash on delivery and acceptance for the unit. No bid will be considered which requires the purchaser to deposit with the bidder a down payment, prepayment of chassis, or any other such consideration as a condition of the bid. Such a requirement shall be grounds for immediate rejection of the bid.

100356.1 - DEMONSTRATION AND FAMILIARIZATION OF VEHICLE

The bidder shall demonstrate and familiarize the purchaser regarding the vehicle's operation. This shall included operation of chassis, major components, review of delivery information and documentation. This demonstration shall be completed at Skeeter Brush Trucks factory location in Kirby, Texas.

100358.1 - DELIVERY REQUIREMENTS

The apparatus shall be picked up at the manufacturer's plant by the purchaser.