

TEHAMA COUNTY FIRE DEPARTMENT

SPECIFICATIONS FOR

ONE NEW TACTICAL 2000 GALLON WATER TENDER/FIRE ENGINE APPARATUS VEHICLE

GENERAL SPECIFICATIONS: This apparatus must be new. The apparatus furnished under this specification shall be designed and constructed in accordance with the specifications therein. The fire apparatus must come complete with all necessary operating accessories customarily furnished, whether stipulated herein or not, with such modifications and attachments as may be necessary to enable the apparatus to function reliably and efficiently in sustained operation. All parts, equipment and accessories shall be completely installed, assembled and or/adjusted as required and shall conform in strength, quality of materials and workmanship to recognized industry standards. Additionally, the apparatus furnished shall comply with the most current Federal Vehicle Standards, California Air Resources Pollution Control requirements, the requirements of the California Department of Transportation, ICC and California Motor Vehicle Code, including axle and load limits. The apparatus shall also meet the requirements of the current National Fire Protection Association (NFPA) 1901 standards.

The apparatus will be used primarily to replenish other firefighting apparatus and initial attack firefighting. The apparatus will travel on unimproved mountainous roads, which will cause abnormal stress, vibration and other operational hazards to the apparatus. The elevation in Tehama County ranges from 250 feet to a 5,000 foot elevation. Winter temperatures are below freezing and the summer temperatures are over 110 degrees Fahrenheit. The apparatus will be expected to operate at these elevations and extreme conditions. Quality workmanship is required throughout to assure life expectancy. All parts of the apparatus shall be strong enough to withstand general services under full load. The construction shall be very rugged and ample safety factors shall be provided to carry the loads specified to meet road and speed conditions.

The apparatus shall be so designed and constructed that the various parts are readily accessible for lubrication, inspection, adjustment and repair. Ease of operation (including pump operation, driving and engine operation/maintenance) shall be of paramount consideration during design and construction.

Contact: Please contact Battalion Chief Monty Smith, Tehama County Fire Department with any questions regarding these specifications.

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APPARATUS SPECIFICATIONS

CHASSIS- Two axle, must carry all equipment and intended load; pump must be fit to the chassis frame; chassis frame rails to be painted black.

BODY- Conventional cab; cab to be painted fire engine red with Dupont Imron Elite or equivalent.

POWERTRAIN- Diesel engine- Minimum 400 HP. All hoses to be silicone. Vehicle shall have the ability to attain a fully loaded maximum speed of 65 mph level highway. Engine brake required (no equivalent).

TRANSMISSION- Allison automatic (EVS) 3000 5 speed transmission with transmission cooler (no equivalent accepted). All hoses to be silicone. Engine brake required (no equivalent).

BRAKES- Kussmaul Auto Eject Air Brake System (no equivalent accepted), and a NFPA compliant secondary braking system.

One (1) air inlet with male coupling will be provided Auto Eject Kussaul Model # 091-28 (no equivalent accepted). It will allow fire station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will be located in the driver side lower step well of cab. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female coupling will also be provided with the loose equipment. Must have a Bendix Air AD-IS heated air dryer or equivalent.

Air tank drains shall have ¼ valves.

POWER STEERING

ALTERNATOR- Minimum 270 Amp

FUEL TANK- Minimum 50-gallon fuel capacity

WHEELS & TIRES- Constructed of steel and painted to match base color of vehicle. Wheels and tires must be rated to carry maximum weight.

SEATING- The driver's seat shall be an air cushion plus high back covered in vinyl material. It shall have a NFPA compliant seat belt and pressure sensor for the seat belt monitor.

The passenger's seat shall be a high back covered in vinyl material. It shall have a NFPA compliant seat belt, and a pressure sensor for the seat belt monitor.

AIR HORN- A minimum of one (1) Grover or equivalent chrome emergency air horn shall be installed. The horn is to be piped to the wet tank utilizing ¼" tubing. A pressure protection valve shall be provided in-line. The air horn shall be actuated electrically from the driver and passenger side.

TOW HOOKS- Two (2) Each front, Two (2) Rear capture point tow hooks. Rear to be located at the rear of the apparatus and will be mounted directly to the chassis frame rails. The inner and outer edges of the tow eyes will be radiused.

MASTER BATTERY SYSTEM- A Cole Hersee 75903 or equivalent master battery switch, to activate the battery system, will be provided inside the cab within easy reach of the driver. The master battery disconnect switch will be wired between the starter solenoid and the remainder of the electrical loads on the apparatus. A “battery on” indicator light, visible from the driver’s position will be provided. *A Kussmaul Autocharge 1000 battery charger with internal battery saver (no equivalent accepted) will be provided. For the battery charger, one (1) receptacle will be provided. The one (1) receptacle will be Kussmaul Auto-Eject 15WP (no equivalent accepted), and will be installed driver side at pump panel.

VEHICLE GAUGES/CAB INSTRUMENTS-

Engine Temperature Gauge and audible Warning device.

Engine Oil Pressure Gauge and audible Warning device

Transmission Temperature Gauge and audible Warning device

Speedometer with Odometer.

Engine Tachometer.

Engine Hour Meter.

Fuel Level Gauge.

Voltmeter: Low voltage red warning light and audible alarm.

Air Brake Pressure Gauge and audible Warning device.

Air Filter Restriction Indicator.

Circuit Breakers: For overload protection of electrical circuits.

Ignition Switch: Keyless type. Bidder will provide a list of the electrical system, which are controlled by the ignition switch.

Windshield Wiper Control with intermittent feature and washer.

HEATER/DEFROSTER/AIR CONDITIONING- The system will deliver a 12,000 BTU/hour in the air conditioning mode when tested per SAE J1484 with inlet air conditions of 80 degrees F. dry bulb and 67 degrees F. wet bulb. Includes Hydroflurocarbon HFC-134A refrigerant.

STEREO- AM/FM with Bluetooth for Cell Phone communications

MIRRORS- Minimum size shall be 5” x 12”; heated and bottom portion to be fisheye.

BODY AND TRUCK CUSTOMIZATION- Body and chassis will be painted fire engine red, with color to be approved by the Tehama County Fire Department.

All step surfaces on the apparatus should be aluminum non-skid checker plate. Any places on the apparatus that require stepping up more than one step are required to be supplied with adequate foot pads and handholds.

Equipment compartments to be constructed with roll up doors. All compartments will be ventilated to the exterior. All compartments to be equipped with limit switches that will set off visual and audible alarm in the cab of the apparatus if a compartment door is left open and the apparatus is shifted out of “Park”.

Chassis and all modifications are to be designed, engineered, and built to carry the following items:

- a) 2,000 gallon poly tank with electronic tank level indication in the cab and on the pump panel and 2- 2 1/2 " tank fill valves located on the bottom rear of the tank. Tank to be painted to match chassis.
- b) Tank shall be 2,000 gallons and baffled to meet current NFPA standards.
- c) 1000 GPM, PTO driven, pump and roll capable pump (100 psi at 100 gpm idle speed) with:
 - 2- 1 1/2" preconnects with crosslay hose bed and aluminum cover for 200' of 1 3/4" double jacketed hose, single hose tier in width.
 - 1- 2 1/2" Deadlay with crosslay hose bed and aluminum crosslay cover sized for 200' of 3" double jacketed hose, two (2) hose tiers in width.
 - 1- rear hose bed with three (3) dividers and aluminum cover sized for a minimum of 1000' of 3 " double jacketed hose packed flat, 200' of 2 1/2 double jacketed hose packed flat, and 300' of 1 3/4" double jacketed hose packed flat two (2) tier in width on the top of the tank .4- 2 1/2" discharges, two (2) on driver side pump panel, one (1) rear, one (1) passenger side pump panel)
 - Electronic priming motor, fluidless
 - 2- 2 1/2" gated pump suction connections, one per side
 - 2- large diameter pump suction connections equipped with one per side
 - 1-tank to pump connection
 - Master Suction and Discharge Gauges with backlight
 - Gauges for each discharge with backlight
 - All valves to be Akron Swing Away (no equivalent accepted)
 - SS (or equivalent) pump panels with adequate LED lighting
 - Pump should be equipped with a pump cooler circuit to maintain minimal flow through the pump at all times. All other safety and functional features required for fire service rated apparatus mounted pumps.
 - Newton dump valve or equivalent, with electronic actuation of the dump valve from the cab and the driver's side rear corner of the apparatus. Both switches to have safety cover installed on switches.
 - Rear mounted air actuated Bertolini B/Mc 71-A-3 spray head mounted centerline of the vehicle with air control valve in cab (no equivalent accepted)Front bumper mounted air actuated Bertolini B/Mc 71-A-3 spray head mounted centerline of the vehicle with air control valve in cab.
- d) Storage space on side of truck for 2,100 gallon ridged frame drop tank. Drop tank to be supplied with apparatus.
- e) 4 Storage compartments (1 large in front of rear axle on both the drivers and passenger sides not to be less than 60" wide x 26" tall x 24" in depth. 1 behind the rear axle on both the drivers and passenger sides not to be less than 40" wide x 26" tall x 24" in depth). Compartments are for two SCBA packs with Zico walk-away brackets, miscellaneous equipment, fire hose and appliances (SCBA packs, fire hose and appliances provided by Tehama County Fire Department).
- f) Two sections of NFPA prescribed hard suction sized for the pump installation as well as storage racks to accommodate them. Hard suction to be supplied with apparatus.
- g) Fold-a-tank low flow strainer sized for use with the hard suction.

- h) Ladder racks mounted on passenger side of tank suitable to carry a 24' extension ladder, a 14' roof ladder, and a 10' folding attic ladder. Ladders to be Duo Safety Brand made of aluminum or equivalent, and supplied with apparatus.
- i) Pike pole bracketry mounted on driver's side for a 10' pike pole and a 6' pike pole. Pike poles to be supplied with apparatus.
- j) Installation of reel line, below the tank and between the frame rails, accessible from the rear of the apparatus. Reel line supplied with apparatus.
- k) Two over-the-wheel storage compartments for spare SCBA bottles. (Spare SCBA bottles to be supplied by TCFD)
- l) Two over the wheel storage compartments for one 2 ½ gallon pressurized water can and one 20lb. ABC extinguisher (water can and ABC extinguisher provided by Tehama County Fire Department).

EMERGENCY LIGHTING- To be supplied per NFPA 1901 requirements. All warning lights and light bar to be Whelen WeCan LED (no equivalent accepted), California Title 13 compliant and shall include:

- Lightbar on top of cab.
- Grill mounted emergency lighting.
- Front fender mounted emergency lighting.
- Rear side mounted emergency lighting.
- Rear body emergency lighting.
- Emergency lighting on all four corners of custom body.

Apparatus to be equipped with six scene lights, two on each side and two on rear. Installation of two LED scene lights, mounted on extending poles, powered off the chassis.

SIREN/SPEAKERS- Apparatus to be equipped with Whelen 100 Watt siren (no equivalent accepted) and a recessed speaker in the front bumper.

RADIO- Apparatus to be wired for radio system (radio to be supplied by TCFD) with a roof mounted antenna coax run into center console.

BACK UP CAMERA- Back up camera placed on rear of buildup with camera screen placed in cab, visible from driver's seat activated when vehicle is placed in reverse.

ADDITIONAL BID REQUIREMENTS-

- A mid-construction visit by TCFD personnel to the location of the apparatus shall be required at bidder's cost. Bidder shall be responsible to pay for transportation, food, and lodging for two TCFD staff members to attend.
- The completed apparatus shall be delivered by the vendor under its own power within 250 calendar days from the date of notice of award, with all equipment specified to:
 - Tehama County Fire Department
 - 604 Antelope Blvd.
 - Red Bluff, CA 96080

- Liquidated damages in the amount of \$200.00 per calendar day, beginning the day after the declared delivery date, shall be deducted from the final payment until the apparatus is delivered and considered acceptable.
- Bidder must provide scaled drawings showing both sides, front, rear and top views, location and size of compartments and hose beds, discharge gates, suction intakes , control gauges (Pump Panel), valves, lights, overall dimensions of the body, location of mid-ship pump, projected axle loading with full complement of double jacket fire hose, projected equipment and tool weight and full tank of water.

IMPORTANT:

ANY EXCEPTIONS TO THE ABOVE SPECIFICATIONS MUST BE EXPLAINED IN WRITTEN DETAIL AND INCLUDED WITH BID PROPOSAL