

Pittsburg County, Oklahoma  
**COUNTY PURCHASING OFFICE**  
 Pittsburg County Court House  
 McAlester, Oklahoma  
 Phone: (918) 423-4934

**INVITATION TO BID**

PLEASE REVIEW TERMS AND CONDITIONS ON REVERSE SIDE RELATING TO SUBMISSION OF THIS BID.

Notarized Affidavit completions and signature required on reverse side.

DATE ISSUED	<b>26-Mar-18</b>
PAGE 1 OF _____	

BID NUMBER <b>BID # 28</b>	BID CLOSING DATE AND HOUR <b>April 6, 2018 @ 5:00PM</b>	REQUIRED DELIVERY DATE <small>Days after award of Purchase Order</small>
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TERMS:	DATE OF DELIVERY:
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Item	Quantity	Unit of issue	DESCRIPTION	Unit Price	Total
			<p><b>Pittsburg County wishes to advertise for the following for Kiowa Fire Department:</b></p> <p><b>One (1) 2018, Extended Cab, 4x4 Brush Truck</b>  <b>Lease Purchase with Financing Included</b></p> <p><b>See Specifications Attached</b></p> <p><b><u>PLEASE MARK CLEARLY ON FRONT OF SHIPPING ENVELOPE BID &amp; BID NUMBER</u></b></p>		

**TERMS AND CONDITIONS**

1. Sealed bids will be opened in the Commissioner's Conference Room, Pittsburg County Courthouse, McAlester, Oklahoma, at the time and date shown on the invitation to bid form.
2. Late bids will not be considered. Bids must be received in sealed envelopes (one to an envelope) with bid number and closing date written on the outside of the envelope.
3. Unit prices will be guaranteed correct by the bidder.
4. Firm prices will be F.O.B. destination.
5. Purchases by Pittsburg County, Oklahoma, are not subject to state or federal taxes.
6. This bid is submitted as a legal offer and any bid when accepted by the County constitutes a firm contract.
7. Oklahoma laws require each bidder submitting a bid to a county for goods or services to furnish a notarized sworn statement of non-collusion. A form is supplied below.
8. Bids will be firm until delivered.

(DATE)

AFFIDAVIT: I, the undersigned, of lawful age, being first duly sworn on oath say that he (she) is the agent authorized by the bidder to submit the above bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity; quality or price in the prospective contract or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder/contractor has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma (or other entity) any money or other thing of value, either directly or indirectly in the procuring of the award of a contract pursuant to this bid.

Subscribed and sworn before this \_\_\_\_\_ day  
of \_\_\_\_\_ 20 \_\_\_\_\_ (seal)

My commission expires \_\_\_\_\_ Signed by: \_\_\_\_\_ Title: \_\_\_\_\_  
(MANUAL SIGNATURE OF UNDERSIGNED)

Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
NOTARY PUBLIC (CLERK OR JUDGE) City: \_\_\_\_\_ State \_\_\_\_\_  
Zip \_\_\_\_\_

NOTE: Other terms and conditions can be added at the discretion of the county officers.

RESOLUTION

18-226

To ~~Be~~ Advertise

The Board of County Commissioners, Pittsburg County, met in regular session on Monday, March 26, 2018.

WHEREAS, Pittsburg County wishes to advertise for the following for Kiowa Fire Department:

One (1) 2018, Extended Cab, 4x4 Brush Truck  
Lease Purchase with Financing Included

A bid package containing complete specifications and an "Invitation to Bid" are available at the Pittsburg County Clerk's Office, 115 E. Carl Albert Parkway, Room 103, McAlester, Oklahoma 74501 or online at [pittsburg.okcounties.org](http://pittsburg.okcounties.org).

THEREFORE, each competitive bid submitted to the County must be accompanied with an affidavit for filing with the competitive bid form, as required by 61 O.S. § 138.

Sealed bids will be received and filed with the Pittsburg County Clerk until Friday, April 6, 2018 at 5:00 p.m. All bids received after 5:00 p.m. on April 6, 2018 will NOT BE OPENED. Bids will be opened on Monday, April 9, 2018 at 10:00 a.m. in the Board of County Commissioners Conference Room 115 E. Carl Albert Parkway, McAlester, Oklahoma. Bid will be awarded to the lowest or best bidder. The Board of County Commissioners, Pittsburg County, reserves the right to reject any and all bids and re-advertise.

BOARD OF COUNTY COMMISSIONERS  
PITTSBURG COUNTY, OKLAHOMA

ATTEST:

CHAIRMAN:

Ross Selman

MEMBER:

Chad Ryan

MEMBER:

[Signature]

COUNTY CLERK:

Alope Dammell



## **Brush Truck Custom Made for Kiowa FD, OK**

### **Cab & Chassis**

Unit is to be installed on a 2018, Extended Cab, 4 x 4.

- GVWR: 16,500 lb
- GAWR front: 7,000 lbs.
- GAWR rear: 12,000 lbs.
- 4.88 Ratio Limited Slip Axle
- Rear and Front Stabilizer suspension bar
- Axle – Front Monobeam with coil spring suspension
- Extra Heavy Service Suspension Package

The power train should consist of the following:

- V10, 6.8 L Gas Motor
- Torque: 457 lb-ft @ 3250 rpm.
- Horsepower: 362 hp SAE net @ 4750 rpm.
- TorqShift 5-Speed Automatic Transmission with Tow/Haul Mode
- Manual Shift-On-Stop (MSOS) 4x4 System with Manual-locking Hubs
- Heavy Duty Alternator – 175 amps
- Battery System 12 volts, 650 CCA, 78 Amp-hr.
- Brake System – 4-Wheel Anti-lock System (ABS), Hydro-Boost
- Parking Brake cable actuated
- Engine Block Heater

Interior requirements are:

- Black floor mats in place of carpeting
- Front Seats – vinyl 40/20/40 split bench
- Rear Seats – 60/40 vinyl flip-up/fold-down bench seat with 3 head restraints
- Upfitter switches (4)
- Air conditioning with high output fresh air heater
- Am/Fm Stereo with digital clock

Exterior requirements are as follows:

- The chassis shall be painted by the chassis manufacturer according to the chassis manufacturer's factory standards.
- Cab to be Race Red
- Black front bumper
- Black grill
- Dual front tow hooks
- The chassis exhaust system shall be extended to the rear of the right rear wheel.
- The wheel base should be 192" wheelbase, Cab to Axle (C.A.) should be 84"

Major Standard Features:

- Two (2) front tow hooks
- Exterior cargo light – Back of cab
- Front and rear stabilizer bars
- 40-gallon fuel tank capacity

- Grab handles – Driver and front passenger
- Power steering
- Roof clearance lights
- Solar tinted glass
- Steering damper
- Windshield wipers – interval

**Safety & Security:**

- Airbag – Driver and front passenger
- Belt-Minder safety belt reminder
- BlockerBeam – includes valance air dam

**Chassis Warranty:**

- 3 years 36,000 miles bumper to bumper
- 5 years 60,000 miles Transmission
- 5 years 100,000 miles motor

**Inside Doors Reflective**

All driving and crew compartment doors shall have at least 96 in<sup>2</sup> of reflective material affixed to the inside of each door.

**Stainless Steel Side Step Bars**

One (1) set of 3" diameter stainless steel side step bars. Steps to be marine grade 304 primed stainless steel polished to a mirror finish with molded plastic step pad. Step area is compressed, rather than a cut out hole, to enhance strength and prevents interior corrosion. Lifetime Limited Warranty.

Plastic step pad shall be covered with a Stainless Steel non-slip texture cover.

**Black Brush Guard**

A black coated grille/brush guard which wraps to the outside of the headlights shall be installed at the front of the chassis cab. A grille guard to protect the vehicle's grille area and a headlamp guard to protect the vehicle's headlamps shall be supplied.

There shall be a winch carrier to mount the winch with a 2" front receiver mounted directly on cab & chassis frame without drilling.

**Removable Winch 9,500 lbs.**

There shall be a 9500 lbs. Thermometric removable electric winch. As per NFPA 1906 (13.2.2), the winch shall have a minimum wire rope length of 125 ft (38m) with a large latched hook. The wire rope will be 5/16" in diameter and shall be constructed of aircraft wire rope and galvanized to help resist corrosion.

**Flat Bed Body**

One (1) custom Fire Application aluminum flat bed body, 132" long x 94-5/8" wide. The aluminum plate used in construction is .100" 3003-H22 polished aluminum alloy treadplate.

Body sub-frame is made from 6061-T6 aluminum tubes and channels. Sub-frame crossmembers are installed every 16". The channel is 1-1/2" wide x 3" high x 3/16" thick.

The body crossmembers shall extend the full width to support the compartment framing and shall be welded to the sub-frame main members.

The Body sub-frame main members consist of 6061-T6 Aluminum square tubing of 2" wide x 6" high x 3/16" thick.

Aluminum headache rack with light bar brackets and protective cross members shall be installed. The uprights will be angled inward to match the aerodynamic contour of the chassis cab. Headache rack is designed to protect the back of the cab and occupants and also increase the driver rear view and to improve the driving efficiency while driving to an emergency response.

The perimeter shall be made with 1/8" thick forged 3003H14 Aluminum. Forged aluminium brings a strong design that was specially made to embed emergency lighting & designed to fit properly a 4" reflective stripping.

The body shall be attached to the chassis rails with a minimum of four (4) heavy duty "U" bolts. The body shall be separated from the chassis by 3/8" Teflon. Attachment of the body and sub-frame will allow the body to resist from all distortion and off road operational condition.

The body is a modular design to allow removal from the chassis for major repair or mounting on a new chassis. Isolating material between the body and the chassis to be installed

All welding shall be done electrically using 5356 aluminum welding wire.

Rear vertical skirt will be made from 1/8" 3003-H22 aluminum alloy treadplate.

Rear skirt to include Signal, brake, reverse lights, D.O.T., license plate & NFPA steps.

Clearance, marker, license plate lights and reflectors will be furnished and installed per D.O.T. Junction box supplied and installed under the flat bed.

License plate light shall be an Eon light with SS polish case that has a light output equivalent to a 10 watt halogen lamp. Eon light to have a 50,000 hr LED life.

LED Signal, brake and reverse lights will be High Quality lights recessed mount into rear aluminum skirt area of body per FMVSS 108 and CMVSS 108 requirements. Light to be LED Oval with chromed housing.

Two (2) LED Amber marker/clearance lights with chrome housing and clear lens will be installed on the front side of the bed, one (1) each side. Two (2) LED Red marker/clearance lights with chrome housing and clear lens will be installed on the rear side of the bed, one (1) each side. Three (3) LED Red marker/clearance lights with chrome housing and clear lens will be installed at the rear center of the bed. Amber & Red reflectors shall be installed around the perimeter of the bed as per DOT requirement.

Two (2) heavy duty tow eyes shall be installed at the rear of the body (NFPA 1906 requirement). The tow eyes will be fastened directly to each rear chassis frame rail. Hardware shall have a clear and unobstructed access (Shipped loose).

The rear of the flat bed shall have two (2) non-skid rear steps for access to pump and controls. The rear steps shall be made so it can be folded up for use in rough terrain. All steps shall sustain a minimum static load of 500 lb (227 kg) without deformation (NFPA 1906 & 1901 compliant). Stepping height from the ground to the first step shall not exceed 24".

Access handrails shall be provided where steps for climbing are located.

An angle of approach and an angle of departure of at least 20 degrees shall be maintained at the front and the rear of the vehicle when it is loaded.

This will be no exception to the body specifications. Pre-built commercial flatbed bodies are not acceptable.

### **Transverse Walkway**

A transverse walkway shall be provided at the front of the flatbed, ahead of the fire skid unit and compartments. On each side of the walkway there shall be an access stepping and standing area for fire fighters. The stepping areas shall be 25-1/2" Wide x 22" deep. One egress step shall be provided on the driver and officer's side of the flatbed.

The walk way, from left to right, shall be 50-5/8" Wide x 31-3/4" Deep.

One aluminum structured safety gate shall be provided at each side step access. The gate shall be hinged vertically. The gate shall open inwards and have a positive, mechanical, safety lock and handle.

### **Compartments**

All compartments will be made with 0.125" tread plate aluminum sheet.

All compartments shall have a minimum of one (1) louvered panel bolted into a wall to provide the proper airflow inside the compartment.

All compartments shall be of sweep-out type with no lip at bottom edge for easy cleaning.

All door lock mechanisms shall be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside into the lock area.

### **Right (Passenger) Side Compartment**

One (1) 62" long x 24" high x 22" deep compartment behind the transverse walkway, located at the right (passenger) side of the water tank.

The drop-down compartment door shall be latched with recessed "D" Ring polished stainless steel handle & latch.

Compartment door shall be equipped with Tread Plate aluminum door complete with the following features: door ajar switch, LED strip lights, stainless steel piano hinge with removable screws.

There shall be a set of tracks for future installation of adjustable shelf(s) in each compartment. These tracks shall be installed vertically on the walls of the compartment(s) and shall offer a multitude of height adjustment possibilities.

One (1) switch shall be installed so the compartment light(s) shall come on with a switch in the cab.

#### **Left (Driver) Side Compartment**

One (1) 96" long x 24" high x 22" deep compartment behind the transverse walkway, located at the left (driver) side of the water tank.

The drop-down compartment doors shall be latched with recessed "D" Ring polished stainless steel handle & latch.

Compartment doors shall be equipped with Tread Plate aluminum door complete with the following features: door ajar switch, LED strip lights, stainless steel piano hinge with removable screws.

There shall be a set of tracks for future installation of adjustable shelf(s) in each compartment. These tracks shall be installed vertically on the walls of the compartment(s) and shall offer a multitude of height adjustment possibilities.

One (1) switch shall be installed so the compartment light(s) shall come on with a switch in the cab.

#### **Left (Driver) Side Pre-connect Hose tray**

One (1) aluminum storage pre-connect hose tray shall be supplied and installed on top of the driver side compartments.

The dimensions of the storage tray shall be full length of the top compartment, 96" L x 22" W x 8" H.

Hose tray shall have a 1-1/2" Pre-Connect elbow.

The area shall be designed to prevent the accumulation of water and allow for ventilation to aid in drying hose in the storage area. Black Tiles to be installed and bolted on the floor.

The storage tray shall be covered with black canvas and rear net.

#### **Wheel Chocks**

Medium Wheel Chocks with storage brackets shall be provided and mounted underneath the flatbed behind the chassis cab.

#### **Rear Mud Flaps**

Rear rubber mud flaps are provided. A bracket attached to the side of the muffler pipe end is installed to prevent any damaged that can occur to the mud flap.

#### **Electrical components**

A 12 volt electrical system is supply.

The wiring is secured in place, readily accessible and protected against heat, water and physical damage.

Electrical harness lines shall be mechanically attached to the frame or body structure of the apparatus.



All wiring will be run in heat and moisture resistant plastic convoluted split loom.

Electrical harness lines shall be furnished with protective looms, grommets, or other devices at each point where they pass through body panels or structural members or wherever they lie against a sharp metal edge. A through-the-frame connector shall be permitted to be used in place of metal protective looms or grommets.

Switches, relays, terminals, and connectors shall have a direct current (dc) rating of 125 percent of maximum current for which the circuit is protected.

Conductor insulation will conform to S.A.E. requirements. All circuit are protected by automatic reset circuit breakers.

All wiring furnished will conform to the national Electric Code.

All circuits will be wired in conformance with S.A.E. J1292, Automobile wiring standard.

All wiring will be function worded schematically.

A set of electric diagram will be remit upon delivery.

### **Console**

One fire application custom console installed between seats with rocker switch. To be quickly identified and visible to the driver and passenger while seated, the rocker switches shall be installed on the top face of the console designed with a 40 deg. angle. This area shall be able to hold at least two rows of rocker switch. All switches shall be appropriately identified by panel mounted legends.

The first lighted rocker switch shall be a red Master Optical Warning switch. A master body disconnect automatic switch, normally open contacts, shall be provided to disconnect all electrical loads not provided by the chassis manufacturer. The starter solenoids shall be connected directly to the batteries.

All rocker switches to have a green "On" indicator that is visible from the driver's position shall be provided.

The console has an area to accommodate department map books, clipboards etc.

The console has an area for one (1) radio heads & Siren installation.

All electrical components like breaker, relays, wiring etc. will be installed inside this customized console and protected with an aluminium box. This console will be design to easily gain access to those breaker, relays, wiring, etc.

Controls and switches that are expected to be operated by the driver while the apparatus is in motion shall be within convenient reach for the driver.

Console shall be painted black scratch free finish.

### **Emergency lighting**

One (1) 56" LED Lightbar, shall be mounted on the aluminum headrache rack.

Mounted on front grill, Two (2) LED, one (1) each side, red with clear lens with a chrome flange.

Mounted each side of the chassis, Two (2) Super LED, one (1) each side, red with clear lens with a chrome flange.

Mounted each side of the flatbed, Two (2) Linear Super LED, one (1) each side, red with clear lens with a chrome flange.

Mounted in the rear of the flatbed, Two (2) Linear Super LED, one (1) each side, red with clear lens with a chrome flange.

### **Siren & Speaker**

One (1), 100 watts electronic siren amplifier with PA and switch control center to be provided and installed. Siren shall have wail, hyper-yelp and air horn tones as well as public address and shall be capable of radio rebroadcast.

One (1) 100 watt speaker, shall be provided and mounted on the front bumper with universal mounting bracket.

### **Four (4) Scene Lights**

Four (4) swivel LED scene flood lights, two (2) on the headache rack facing rear, one (1) on each side and two (2) on the headache rack facing front, one (1) on each side, shall be installed and connected to a switch in the cab console.

### **Three (3) Scene Lights**

Three (3) swivel LED scene flood lights, one (1) on the top of the water tank facing rear and one (1) on each side of the pump platform shall be installed and connected to a switch in the pump panel at the rear.

### **Compartment Lights switches**

One (1) switch per compartment shall be installed so the compartment light(s) shall come on only when compartment door is open.

### **Door Ajar**

One (1) door ajar warning light shall be provided and installed in the console to indicate an open body compartment door. The light shall be properly marked with a sign "Warning Door Ajar".

### **Back-Up Alarm**

One (1) back-up alarm that meets the type D (87 dBA) requirements of SAEJ994 shall be provided at the rear of the apparatus. It will activate when the transmission is placed in reverse.

### **Fire Pumps Mfg Drop-In-Unit**

### **Tank**

The water tank shall be constructed of 1/2" thick polypropylene sheet. The material shall be of a certified, high quality, non-corrosive, stress relieved thermo plastic, black in colour with a textured finish, and UV stabilized for maximum protection. The skid type booster tank shall be of a standard configuration and shall be so designed to have complete modular slide in capability. All joints and seams are to be fully nitrogen welded and electronically tested for maximum strength. The unit shall incorporate transverse partitions manufactured for 3/8" PT2E polypropylene which shall interlock with a series of

longitudinal partitions constructed of 1/2" PT2E polypropylene. All swash partitions shall be so designed to allow for maximum water and air flow between compartments and are fully welded to each other as well as to the inside of the tank. The passenger side rear wall of the tank shall have a standard built in sight gauge 2" in width, and 70% transparent.

#### **Fill tower and tank cover**

The tank shall be equipped with a combination vent/overflow and manual fill tower. The fill tower shall be an 8" round by 6" high with a moulded drop-on type cover. The cover shall be fastened to the tower with a tether to prevent loss. The tower shall be located in the right rear corner of the tank. There shall be a vent / overflow installed inside and to the extreme rear of the tower approximately 2" down from the top. This vent / overflow shall be of a standard schedule 40 polypropylene pipe with minimum ID of 3". The vent / overflow shall be piped internally toward the front and exit out the front tank wall with a 1" extension past the front tank wall.

The tank cover shall be constructed of 1/2" thick PT2E polypropylene, black in color, UV stabilized, and incorporate an exclusive self locking design.

#### **Tank Capacity**

The tank shall have a capacity of 300 U.S. gallons of water. The tank shall be covered by the *ALL OUT* No Fault Life Time Warranty.

In addition, a 10 gallon Drop-in integrated foam cell will be included.

#### **Sump**

The floor of the tank shall be manufactured from 3/4" PT2E polypropylene. There shall be one (1) sump as standard per tank. The sump shall be integral to the tank floor and be a minimum of 5/8" deep recessed into the floor. The sump shall not be visible from or protrude through the bottom of the tank.

#### **Tank Outlets**

There shall be two standard tank outlets located in the same vertical plane on the driver side rear wall of the tank. One (1) 2-1/2" female NPT tank to pump suction fitting and one (1) 1-1/2" female NPT tank fill fitting with flow deflector

#### **1" Tank Drain**

There shall be a 1" tank drain to the rear right side of the tank with a plug.

#### **Tank Mounting Blocks**

The cover shall incorporate two (2) booster reel mounting blocks that shall be to accommodate two (2) each sliding nut fasteners. These mounting blocks shall be welded to the covers running from the rear edge of the tank forward.

#### **Skid Base**

There shall be a full width skid base manufactured of 3/4" PT2E polypropylene welded to the tank. This base shall be 48" wide by 96" long and shall extend 34" past the tank in the rear to allow for pump mounting. The pump mounting area shall be supported by 1/2" PT2E polypropylene gussets 15" high by 32" long. The gussets shall be equipped with 2" holes to assist in lifting the unit. The mounts shall allow for the truck to be secured directly to a truck bed without the need for any skid frame work underneath.

Tank will be baffled in accordance with NFPA bulletin 1906 requirements.

### Mounting

The Drop-In-Unit shall be mounted in a manner that allows access to the engine, pump, and auxiliary systems for routine maintenance. The Drop-In-Unit shall not be welded or otherwise permanently secured to other components.

### Poly under Tank Storage with Slide-out Trays

The full area under the skid base of the tank will be utilized to incorporate an 8-1/2" poly storage frame.

Manufacturer will provide two (2) slide-out storage trays under the skid unit for storage of customer tools.

The internal dimensions of those slide-out trays shall be 92-1/4" L x 15-1/2" W x 7-1/4" H with a latched with recessed, polished stainless steel "D" ring handles and locks.

### Fire Pump

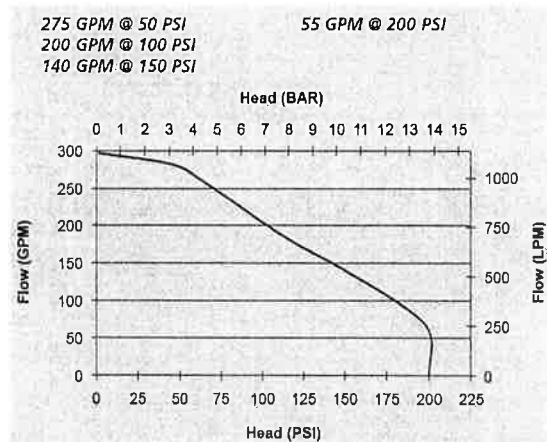
The pump shall be a 20 Horsepower midrange single stage centrifugal pump, bolted directly to the engine, with a 2.5" Victaulic (or equivalent to) suction inlet, and a 1.5" Victaulic (or equivalent to) discharge outlet.

The volute and pump head shall be a lightweight, high strength, seawater resistant, aluminum alloy. The impeller shall be a bronze enclosed type for maximum efficiency, fully machined and balanced. The engine crankshaft shall serve as the pump shaft, with the impeller mounted directly on the crankshaft. The shaft seal shall be self-adjusting, self-lubricating, and mechanical type. The pump shall be equipped with a brass drain cock.

The pump piping shall be flexible to prevent any breakage caused by vibration.

The pump shall be capable of a maximum discharge volume of 275 GPM. at 50 PSI, and a maximum discharge pressure of 200 PSI while pumping 55 GPM.

The performances are based on a maximum altitude of 500ft and any higher elevation will lower the pump performance. The standard engine performance drop 3% for every 1000 ft.



### Engine

The pump shall be driven by a 4-stroke gasoline powered, 20 horsepower engine. The engine shall be air-cooled, 12 volt electric start.

The engine shall be connected to the main battery and fuel tank of the truck.

### **Pump Controls**

A control panel shall be supplied and installed on the pump. The controls shall consist at a start switch, throttle and choke cable controls, hour meter, 2.5" diameter discharge pressure gauge and a work light.

### **Exhaust Primer**

The pump engine shall be equipped with a quieter exhaust venturi type primer capable of 15'-20' lift for fast positive priming. The control for the primer shall be capable of being operated by a person operating controls at the primary pump operator's position.

### **Foam System**

There shall be an around the pump foam eductor/mixer installed integral to the pump. The eductor shall be plumbed from the foam cell with 1/2" flexible reinforced tubing to throughout the eductor to a suction fitting on the pump impeller housing. The eductor shall be calibrated to educt foam concentrate of 0% to 3.75% at flow rates from 15 to 125 at 100 psi.

### **Plumbing and Valves**

Intake and discharge piping shall not interfere with the routine maintenance of the pump, engine, or auxiliary systems and shall not unduly restrict the servicing of these components.

### **Suction Piping - 2.5" - Two (2) Industrial Valves – Steel**

All piping on the suction side shall be made of steel (welded joints) painted red. The suction piping, the pump and the discharge shall be tested to 400 PSI.

The suction piping shall consist of a 2.5" tank to pump line with a 2.5" flexible rubber hump hose to minimize flex and vibration between the pump and the tank.

RIGID PIPING SHALL NOT BE ACCEPTABLE.

Between the tank and the pump there shall be a 2.5" industrial valve. This valve shall remain open to pump from the tank.

This pipe shall have a tee into the suction side of the pump, and shall continue to the rear of the truck for overboard suction where there shall be an additional 2.5" Industrial Valve.

The overboard suction connection shall have a 2.5" NST male adapter and a 2.5" NSTF plug with retaining cable.

To draft, the tank to pump valve shall be closed, a suction hose connected to the overboard suction connection and placed in a static water supply, and the primer activated.

### **Discharge Piping**

All piping shall be steel piping or high pressure flexible hose. A 2.5" X 2.5" square steel manifold shall be piped directly to the discharge outlet of the pump. Attached to this

discharge manifold, by means of welded steel pipe nipples, shall be all the discharge valves. All piping shall be painted red to match the pump.

### **1" Tank Fill**

There shall be a 1" valve piped from the discharge manifold as a means for refilling the tank. The valve shall be an industrial quarter turn valve handle and 1" NPT threads, and shall be connected to the tank fill port by 1" high pressure flexible hose.

### **Garden Hose Discharge to Rear**

There shall be a standard garden hose valve piped from the manifold of the pump. The valve shall be an industrial quarter turn valve with handle and 3/4" threads.

### **One (1) 1" Discharge To Rear**

There shall be one (1) 1" valve piped from the discharge manifold to the rear of the truck for connection of forestry hose. The valve shall be an industrial quarter turn valve with 1" NST threads. The valve shall be furnished with a 1" NST cap and chain.

### **One (1) 1.5" Discharge To Rear**

There shall be one (1) 1.5" valve piped from the discharge manifold to the rear of the truck for connection of forestry hose. The valve shall be an industrial quarter turn valve with 1.5" NST threads. The valve shall be furnished with a 1.5" NST cap and chain.

### **Discharge to Booster Reel**

There shall be 1" valve piped from the discharge manifold to the booster reel. The valve shall be industrial quarter turn valve handle and 1" NPT threads, and shall be connected to the reel by 1" high pressure flexible hose.

### **Booster Reel**

One (1) 12v electric rewind booster reel capable of handling 100' of 1" diameter booster hose. The reel shall have a push button rewind control and a backup geared crank rewind handle. The reel shall be equipped with a 1" NPT 90 degree swivel inlet, and a 1" NST outlet riser. The reel shall be manufactured of steel and shall be primed and painted red. The reel shall be installed on right rear corner of the truck bed facing rear of the truck.

100' of 1" rubber booster hose shall be supplied and installed on the reel.

High mounted roller and spool assemblies shall be furnished and installed on the reel.

### **Two (2) Transverse Walkway Discharges**

There shall be one (1) whip line plumbed from the discharge manifold with 1-1/2" industrial quarter turn valve. The whip line shall be connected to a "T" at the front of the water tank, there shall be two (2) 1" industrial quarter turn valves gating at the end of each whip line.

### **One (1) 1.5" Discharge to Pre-connected Hose Tray**

One (1) 1.5" valve piped from the discharge manifold to the pre-connected hose tray. The valve shall be an industrial quarter turn valve with a handle and be connected to the pre-connected hose tray by high-pressure flexible plumbing.

### **Testing**

The pump shall be tested after the pump and all its associated piping and equipment have been installed on the fire apparatus. The tests shall be conducted at the manufacturer's approved facility.

The testing shall include at least the pumping tests, the priming device test, the vacuum test, the water tank-to-pump flow test and the piping integrity test.

### **General Warranty**

The manufacturer warrants to the original purchaser that the manufacturer will, at its election, either replace or repair any part of the new equipment sold to the purchaser hereunder which has been given no abnormal use; and which has received proper maintenance; and which is determined by the manufacturer to be defective in material or workmanship; and which has, within one (1) year after delivery to the purchaser be returned at the purchaser's expense, with transportation charges prepaid, to the manufacturer's factory OR which has, within one (1) year after delivery to the purchaser, been pre-approved by the manufacturer for a third-party to perform the work. All problems shall be reported to the manufacturer in writing and damaged parts shall be returned to the manufacturer.

### **Exclusions from warranty:**

1. The manufacturer incurs no liability under this warranty or otherwise for parts, accessories or components not manufactured by it, but purchased for assembly into the equipment, but the manufacturer will assign to the Purchaser whatever warranty rights are extended by the supplier of such part, accessory or component
2. The manufacturer incurs no liability under this warranty or otherwise, for equipment which has been abused, altered or improperly maintained, or for equipment which has been returned for inspection or repair more than ten (10) days after defect complained of has been or should have been discovered by the Purchaser, or Equipment which is operated after the defect has been discovered.
3. The manufacturer incurs no liability for alteration or repairs unless the Purchaser first receives manufacturer / written consent or approval. The manufacturer will not be responsible for work or repairs made or done by others.
4. The Manufacturer incurs no liability for design alterations, parts, accessories or components which are not standard but are specified by the Purchaser for incorporation into the equipment.

The manufacturer shall not be liable for transportation charges either in shipment to or by it and shall not be liable for loss of use, or consequential damage of any kind in connection with the sales, alteration, repair or replacement of any equipment or part thereof. Liability under this warranty is limited to replacement or repair and in any event shall not exceed the purchase price paid. This warranty is not transferable by the Purchaser. The manufacturer reserves the right to make changes in design or add any improvements to the Equipment at any time without incurring any obligation to install or modify same on other equipment previously supplied.

There are no other warranties, conditions or representations, expressed or implied, except the above.

### **Water Tank Warranty Limited Lifetime**

The manufacturer warrants each water and/or foam tank to be free from manufacturing defects in material and workmanship for the service life of the original vehicle. Every tank shall be thoroughly inspected and tested for leaks before leaving our facility and must be installed in accordance with the manufacturers installation guidelines.

The manufacturer will repair or, at its option, replace the tank with a new tank. The manufacturer will cover customary and reasonable costs to remove and install the tank. This warranty will not cover the tanks that have been improperly installed, misused, or abused. The serial number must not have been altered, defaced or removed. The manufacturer will not cover any unauthorized third party repairs or alterations. Any of these actions may void the warranty.

There are no warranties, expressed or implied, which extend beyond the description of the face, hereof. There is no express or implied warranty of merchantability or a warranty of fitness for a particular purpose. Additionally, this warranty is in lieu of all other obligations or liabilities on the part of the manufacturer.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly canceled. The manufacturer neither authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

In no event will the manufacturer be liable for an amount in excess of the currently published retail price plus installation and removal cost of the tank, for any loss or damage, whether direct or indirect, incidental, consequential, or otherwise arising out of failure of its product.

This warranty gives you the specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation of incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

The warranty is transferable within the United States and Canada at the discretion of the manufacturer by notifying the manufacturer within thirty (30) days of the vehicle transfer date. At that time, the manufacturer will, at its discretion, provide a transfer of ownership form.

**Manufacturer's discretion**

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



KIOWA FIRE DEPARTMENT  
BRUSH TRUCK

Lease purchase with financing included.

Please include option for

5 year lease

7 year lease

10 year lease