



CET Fire Truck
Demo Truck 2014
Revised April 4th 2014

Ford Cab & Chassis

Unit is to be installed on a Ford F350, 2014, 2 Doors Regular Cab, 4 x 4.

- GVWR : 14,000 lbs
- Front Axle : 5,940 lbs
- Rear Axle : 9,750 lbs
- 3.73 Ratio Limited Slip Axle
- Front Stabilizer suspension bar
- Transfer case skid plate

The power train should consist of the following:

- 6.2L 2-valve SOHC EFI V8
- Heavy-Duty TorqShift 6-speed SelectShift Automatic with Tow/Haul Mode
- Part-time four wheel drive
- Engine Block Heater
- Heavy Duty 157 amp alternator

Interior requirements are XL Decor package:

- Upfitter switches (4)
- Air conditioning with high output fresh air heater
- Am/Fm Stereo/digital clock and 2 speakers
- Black floor mats in place of carpeting

Exterior requirements are as follows (XL Decor package):

- The chassis shall be painted by the chassis manufacturer according to the chassis manufacturer's factory standards.
- Cab to be Ford Vermillion RED (F1)
- Front and rear black bumper
- Black grill
- Dual front tow hooks
- Black side cab steps
- The chassis exhaust system shall be extended to the rear of the right rear wheel.
- The wheel base is 141" with a CA at 60"

Major Standard Features:

- Axle – Front Monobeam with coil spring suspension
- Battery – 650 CCA 78-AH
- Brakes – Anti-lock System (ABS)
- Dual instruments panel mounted cupholders
- Exterior cargo light – Back of cab
- Fuel tank – 40 gallon capacity
- Grab handles – Driver and front passenger
- Automatic hub locks (4 x 4)
- Power steering
- Roof clearance lights
- Solar tinted glass
- Steering damper
- Windshield wipers – interval

Safety & Security:

- Airbag – Frontal, driver and front passenger
- Belt-Minder safety belt reminder

Engine Speed Control Device

An automatic engine speed control device shall be installed to allow an increase in the engine speed when the apparatus is parked. (NFPA 1906, 5.2.1.4 requirement).

An interlock shall prevent the operation of this engine speed control device unless the parking brake is fully engaged and the transmission is in neutral or park, or unless the engine speed control device is used with chassis engine driven components, in which case it shall be interlocked with the engagement of those components.

Inside Doors Reflective

All driving and crew compartment doors shall have at least 96 in² of reflective material affixed to the inside of each door.

Stripping

4" White reflective stripe shall be applied on the Cab & the truck bed.

Stainless Steel Brush Guard

A Warn Trans4mer stainless steel 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.

Outer wheel inserts

The front and rear wheels shall be dressed with polished, stainless steel wheel liners, hub covers and lug nut covers. Brand to be Realwheels.

CET Flat Bed Body

One (1) custom Fire Application aluminum flat bed body, 110" 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.

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 polished 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 Grote Automotive 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".

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.

Compartments

All compartments will be made with 1/2" polypropylene 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.

Transverse compartment

One (1) transverse compartment of 13-1/2" long x 22" high x 94" transverse shall be installed behind the chassis cab. Each side door shall be horizontally hinged, drop down style, with retaining cables.

The overlap polypropylene compartment doors shall be securely attached to the body with a full stainless steel hinge. Door openings shall be fitted with solid neoprene weather strip completely sealing the perimeter of the compartment door opening. Drop down door shall be installed with retaining cable. Compartment door seams is sealed with a pliable automotive body caulking. The compartment doors is latched with recessed, polished stainless steel "D" ring handles and locks.

Top Hose Lay

One (1) fully enclosed cross lay tray made from polypropylene sheet shall be supplied and installed on top of the front transverse compartment.

Dimension of the Storage Tray to be full length of the front transverse x 9" wide x 8" high.

Hose lay shall have a top hinge polypropylene cover for easy loading and protective black nylon net with snaps on each side.

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 Turtle Tiles to be installed on the floor.

Right (Passenger) Side Compartment

One (1) 62" long x 30" high x 22" deep compartment behind the chassis, located at the right (passenger) side of the water tank.

Compartment door shall be equipped with Amdor brand roll-up doors complete with the following features: door ajar switch, LED Lumabar light, aluminum double wall slats with continuous ball & socket hinge joint and recessed slat seal, double wall reinforced bottom panel with stainless steel lift bar latching system, reusable slat shoes with positive snap-in securement, one-piece aluminum door track / side frame, top gutter with non-marring seal, non-marring side seals, bottom seal, with all wear component material to be Type 6 Nylon. Roll-up doors shall be anodized gray.

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.

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 Turtle Tiles to be installed on the floor.

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

Left (Driver) Side Compartment

One (1) 62" long x 30" high x 22" deep compartment behind the chassis, located at the left (driver) side of the water tank.

Compartment door shall be equipped with Amdor brand roll-up doors complete with the following features: door ajar switch, LED Lumabar light, aluminum double wall slats with continuous ball & socket hinge joint and recessed slat seal, double wall reinforced bottom panel with stainless steel lift bar latching system, reusable slat shoes with positive snap-in securement, one-piece aluminum door track / side frame, top gutter with non-marring seal, non-marring side seals, bottom seal, with all wear component material to be Type 6 Nylon. Roll-up doors shall be anodized gray.

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.

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 Turtle Tiles to be installed on the floor.

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

Rear Storage Compartment

One (1) integrated to the platform compartment with opening 5" high x 22" wide x 104" long for suction hose storage and folding ladders or pike poles. A flip down horizontally hinges door is furnished at the rear. The interior compartment is made from polished 3003-H14 alloy smooth plate. Steel frame underneath Drop-In-Unit shall not be acceptable.

Wheel Chocks

Medium Kochek 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 built in emergency light switch panel have a master switch plus individual switches for selective control. The switch panel is located in the cab on the driver's side to allow for easy access. The switches on the dashboard are lighted rocker type.

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

The complete electrical system is separated from the chassis wiring system except for a power supply connection at chassis battery. It is also protected by bolt-on type automatic circuit breakers.

All wiring will be run in heat and moisture resistant plastic convoluted split loom. Loom shall be held in place with screw-mounted holders spaced at appropriate distance.

Grommets will be used where conductors or loom pass through metal.

Power control relays and solenoids shall have a direct current rating of 125 percent of the 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 (2) of electric diagram will be remit upon delivery.

Clearance, marker, license plate lights and reflectors will be furnished per D.O.T.

Emergency Lighting

One (1) 54" LED Whelen Lightbar, Liberty model # SLN2VLED shall be provided and mounted on the poly headrache.

- 4 x Red SUPER LED Corners

- 2 x Red SUPER LED Inner

- 2 x White SUPER LED Inner

- 2 x Front Facing Takedown lamps

For Blocking Right-of-Way Mode of operation, white Super LED Inner lights (2) shall be turned off when parking brake is applied.

Mounted on front Ford grill, Two (2) Whelen M4 series Linear Super LED, one (1) each side, red with clear lens with a chrome flange.

Mounted each side of the chassis, Two (2) Whelen M4 series Linear Super LED, one (1) each side, red with clear lens with a chrome flange.

Mounted each side of the body, Two (2) Whelen M4 series Linear Super LED, one (1) each side, red with clear lens with a chrome flange.

Mounted in the rear section of the body Two (2) Whelen M4 series Linear Super LED, one (1) each side, red with clear lens, each with a chrome flange.

Siren & Speaker

One (1) Whelen, model # 295SLSA1, 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) Whelen, model # SA315P, 100 watt speaker, to be provided and mounted on the front bumper with SAK1 universal mounting bracket.

Console

One CET aluminum fire application custom console installed between seats with rocker switch. The central portion of the front bench shall be removed to fix the custom console in place. 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 rocker style internally lighted and 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 will have an area to accommodate department map books, clipboards etc; area to be at least 16" long x 13" wide x 9" high.

Map Light, 12" gooseneck Halogen, Havis Shield, model C-MAP-S, side mounted on the cab console.

The console shall have an area for radio head & Siren installation.

All electrical components like breaker, relays, wiring etc. will be installed inside this customized consol and protected with an aluminium box. This consol 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 Herculiner finish.

Telescopic Scene Lights

Two (2) Fire Research Spectra LED Scene Light model SPA512-Q20-ON top mount pull up telescopic light shall be installed. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall extend 4' and rotate 360 degrees. A 3 1/2" round mounting flange shall be provided. Wiring shall extend from the pole bottom with a 4' retractile cord.

The lamp head shall have eighty four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 18/9 amps, and generate 20,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamp head shall be no more than 5 3/8" high by 14" wide by 3 3/4" deep and have a heat resistant handle. On/Off lamp head switch shall be install on each lamp.

The lamp head and mounting arm shall be powder coated. The LED scene light shall be for fire service use. Location of the lights shall be on the front of the flatbed, one on each side of the unit.

Rear Work Lights

Two (2) Whelen Nano model #NP6W LED work lights shall be provided and mounted on the top rear of the water tank.

Vehicle Data Recorder (VDR)

There shall be a Weldon model #6444-0000-00 Vehicle Data Recorder as part of the NFPA standard. The vehicle data recorder shall meet all aspects of NFPA standards as per functionality and recording.

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.

Door Ajar

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

CET 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 teather 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. The cover shall incorporate (4) 2" polypropylene for hold-down and lifting provisions.

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.

10 gallon Drop-in integrated foam cell will be included. A label that reads "Foam" shall be placed at any foam concentrate tank fill opening.

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 nylon 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 107" 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.

Pump, PFP-20hpKHL-MR

The pump shall be a CET PFP-20hpKHL-MR single stage centrifugal pump, bolted directly to the engine, with a 2.5" NPT suction inlet, and a 1.5" NPT discharge outlet. The volute and pump head shall be made from aluminum alloy, high strength. 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 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.

The pump shall be capable of a maximum discharge volume of 265 g.p.m. at 50 psi, and a maximum discharge pressure of 200 psi while pumping 45 g.p.m. In the center of the performance curve, the pump shall be capable of pumping 190 g.p.m. at 100 psi and 115 g.p.m. at 150 psi.

The performances are base 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.

Centerline of any control shall be no more than 72 in. vertically above the ground or platform that is designed to serve as the operator's standing position.

Engine

The pump shall be driven by a 2 cylinder, gasoline engine powered, Kohler 20 horsepower engine. The engine shall be air cooled w/12 volt electric start and recoil back-up start.

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

Quiet Muffler

A quiet style muffler shall be installed on the pump engine.

Pump Controls

A control panel shall be supplied and installed on the pump. The controls shall consist of a start switch, 2.5" diameter discharge pressure gauge and a work light.

Water Tank Indicator

Fire Research TankVision model WLA200-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) easy to see super bright LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of aluminum, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, and a datalink to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall place on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

Location of water tank indicator shall be: Pump Panel Area

Class A Foam Tank Indicator

Fire Research TankVision model WLA260-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, a 10' sensor cable and a tank vent. The indicator shall show the volume of Class A foam concentrate in the tank on nine (9) easy to see super bright LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of aluminum, and have a distinctive green label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, and a datalink to connect remote indicators. Low foam warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the foam tank near the bottom. No probe shall place on the interior of the tank. The foam tank vent shall be installed on the foam fill tower. Wiring shall be weather resistant and have automotive type plug-in connectors.

Location of foam tank indicator shall be: Pump Panel Area

Scotty Foam System

There shall be a Scotty model 4171 around the pump foam eductor / mixer installed integral to the pump. The eductor shall be plumbed from the foam cell with ½" 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

All piping shall be schedule 40 steel piping, painted red. 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 2.0" Fire type swing-out valve. This valve shall remain open to pump from the tank.

For ease of operation, a push/pull control rod shall be installed with a cast brass "Tee" handle for the inlet located between the tank and the pump.

The pipe shall have a tee into the suction side of the pump, and shall continue to the rear of the truck for overboard suction.

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 2.0" fire type swing-out valve.

The overboard suction connection shall have a 2.5" NST male adapter and a 2.5" NSTF cap 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 schedule 40 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.

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.

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. Each valve shall be Fire type, quarter turn valve with 1.5" NST threads. Each valve shall be furnished with a 1.5" NST cap and chain.

Garden Hose Discharge

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 ¾" threads.

Discharge to Booster Reel

There shall be a 1" valve piped from the discharge manifold to the booster reel. The valve shall be an 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 150' 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 the rear of the truck.

150' of 1" fabric booster hose shall be supplied and installed on the reel.

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

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

CET warrants to the original purchaser that CET 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 CET 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 CET factory OR which has, within one (1) year after delivery to the purchaser, been pre-approved by CET for a third-party to perform the work. All problems shall be reported to CET in writing and damaged parts shall be returned to CET.

Exclusions from warranty

1. CET 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 CET will assign to the Purchaser whatever warranty rights are extended by the supplier of such part, accessory or component
2. CET 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. CET incurs no liability for alteration or repairs unless the Purchaser first receives CET / written consent or approval. CET will not be responsible for work or repairs made or done by others.
4. CET 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.

Interpretation

CET 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. CET 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.

CET Water Tank Warranty Limited Lifetime

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

CET will repair or, at its option, replace the tank with a new tank. CET 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. CET 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 CET Fire Pumps, Mfg.

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. CET Fire Pumps, Mfg. 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 CET Fire Pumps, Mfg. 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 CET Fire Pumps, Mfg. by notifying CET Fire Pumps, Mfg. within thirty (30) days of the vehicle transfer date. At that time, CET 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.