



Ford Cab & Chassis

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

- GVWR : 11,000 lbs
- Front Axle : 6,000 lbs
- Rear Axle : 7,050 lbs
- 4.10 Limited Slip Axle
- Transfer case skid plate
- Tow Command System
- Ambulance Package
- Rear and Front Stabilizer suspension bar
- Extra Heavy Service Suspension Package

The power train should consist of the following :

- Ford Power stroke V8, 6.4 L Turbo Diesel Motor
- 5 Speed TorqShift Automatic transmission
- Part-time four wheel drive
- Dual 130 Amp alternators
- Engine Block Heater

Interior requirements are as follows (XL package) :

- Black floor mats in place of carpeting
- Upfitter switches (4)
- 2-Heavy duty vinyl bucket seats instead of bench seats
- Air conditioning with high output fresh air heater
- Am/Fm Stereo with digital clock
- Power equipment - Driver window, door locks & windows w/backlit switches & accessory delay.



ACCEPT ONLY THE BEST™

75 Hector St., P.O. Box 90, Pierreville (Québec) Canada J0G 1J0

Telephone: 1-800-567-2719

Fax: 1-800-434-2613

www.fire-pump.com

*CET is a trademark of CET Fire Pumps Mfg Ltd.

A CENTURY OF ENGINEERING FOR THE BRAVEST

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. The body builder shall not repaint the chassis. Cab to be Ford Fire Red (F1)
- Chromed front bumper
- New design front lights
- Argent grill
- Dual front tow hooks
- Mirrors, manually telescoping trailer tow with manual glass and two-way fold
- The chassis exhaust system shall be extended to the rear of the right rear wheel.
- The tires should be LT245 BSW AS 17 All season tires front and rear.
- The wheel base should be 140.8" wheelbase with a 60" C.A.
- Wheels to be primed grey

Major Standard Features :

- Two (2) front tow hooks
- Axle – Front Monobeam with coil spring suspension
- Battery – 750 CCA 78-AH
- Brakes – Anti-lock System (ABS)
- Dual instruments panel mounted cupholders
- Engine hour meter
- Exterior cargo light – Back of cab
- Front and rear stabilizer bars
- Fuel tank – 40 gallon capacity
- Grab handles – Driver and front passenger
- Manual transfer case and hubs (4 x 4)
- Power steering
- Roof clearance lights
- Solar tinted glass
- Steering damper
- Windshield wipers – interval
- Molded black steps

Safety & Security :

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

Ford Warranty

- Bumper to bumper : 36 months / 36,000 miles
- Corrosion Perforation : 60 months / unlimited mileage
- Diesel engine : 60 months / 100,000 miles
- Powertrain : 36 months / 36,000 miles
- Roadside Assistance : 36 months / 36,000 miles

The Fire Apparatus shall meet all the requirements of the NFPA 1906 standard while stationary on a grade of 10 percent in any direction.

Seating Capacity Tag

A permanent plate in the driver's compartment shall be installed, specifying that seating for two (2) shall be provided.



ACCEPT ONLY THE BEST™

75 Hector St., P.O. Box 90, Pierreville (Québec) Canada J0G 1J0 | Telephone: 1-800-567-2719 | Fax: 1-800-434-2613 | www.fire-pump.com

*CET is a trademark of CET Fire Pumps Mfg Ltd.

A CENTURY OF ENGINEERING FOR THE BRAVEST

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.

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.

Console

One CET aluminum fire application custom consol 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 rocker style internally lighted and appropriately identified by panel mounted legends.

The first lighted rocker switch to 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 switch to have a green "On" indicator that is visible from the driver's position shall be provided.

The consol will have an area to accommodate department map books, clipboards etc.. Area to be at least 13" long x 12" wide x 9" high.

The console also 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 aluminum 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 to be painted black Herculiner scratch free finish.

Large Cab Dome Lights

The apparatus cab shall have sufficient lighting to provide an average minimum level of one foot candle light in the crew compartment in accordance with current NFPA requirements.

One (1) 5" clear dome light with 3-position switch shall be installed above the Officer's cab door. The dome light shall be wired through the master power switch to provide automatic illumination at the cab door when the corresponding cab door is opened.

Ground lights

Two (2) ground lights shall be installed at the entry of the cab, one (1) on each side.

These ground lights will be illuminated with the opening of the cab doors.

Lights to be white oval LED w/28 diodes ea. with bracket.



Stainless Steel Side Step Bars

One (1) set of 3" diameter stainless steel side step bars. Steps to be marine grade 304 prime stainless steel polished to a mirror finish with molded non-slip step pad.

Step area is compressed, rather than a cut out hole, to enhance strength and prevents interior corrosion.

Lifetime Limited Warranty.

Hitch & Brush Guard

There shall be a winch carrier, for future winch mount, with a Warn 2" front receiver mounted directly on cab & chassis frame without drilling. Dust Cover to be installed.

On Warn Trans4mer black coated grille/brush guards which wraps to the outside of the headlights shall be installed.

Rear Trailer Hitch

A rear mounted Class III trailer hitch shall be securely attached to the chassis frame and shall include the 7-pin wiring trailer harness. Dust Cover to be installed.

Flat Bed Body

One (1) heat treated aluminum flat bed body construction, 110" (9'2") long x 81" wide.

Body is made with heavy duty 6063-T60 extruded aluminum rails with .250" wall & .5 web and 45deg. corners with cast aluminum inserts.

Body floor shall be made with heavy duty 6063-T60 extruded aluminum floor with .125" wall and I-Beam style cross bracing on 3" center (Interlocking planks).

Body sub-frame shall be made with 7" 6063-T5 aluminum structural channel longills.

Aluminum headache rack (Rear Cab Protection) with light bar platform 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.

Stake pockets will be cut into the rub rail, and the front and back rail.

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

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.

Rear rubber mud flaps are provided.

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.



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.

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.

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

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 (2) of electric diagram will be remit upon delivery.

DOT Clearance Lights

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

Stop/Tail/Turn & Back-Up Lights

LED Signal, brake and reverse lights will be High Quality Grote Automotive lights or equivalent recessed mount into rear aluminum skirt area of body per FMVSS 108 and CMVSS 108 requirements. Light to be halogen style.

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.

License Plate Light

Two (2) licence plate lights shall be installed on the rear of the vehicle.



Back-Up Alarm

An electronic back-up alarm shall be supplied. The 87 db(A) alarm shall be wired into the chassis back-up lights to signal when the vehicle is in reverse.

Emergency lighting

One (1) NFPA Whelen Lightbar, Delta model D13S2N, 56" long with red/clear/red lens. Lightbar to be mounted on the front top body.

3 x Rotator with 2 Diamond Mirrors
2 x Alley Lights
2 x Front Take Down

Mounted on front Ford grill, Two (2) Whelen 400 series SUPER LED, red with clear lens, each with a chrome flange.

Mounted each side of the chassis, Two (2) Whelen 400 series SUPER LED, one (1) each side, red with clear lens, each with a chrome flange.

Mounted each side of the body, Two (2) Whelen 400 series SUPER LED, one (1) each side, red with clear lens, each with a chrome flange.

Mounted in the rear lower section of the body Two (2) Whelen 400 series SUPER LED, two (2) red with clear lens, each with a chrome flange.

A lighted rocker switch on the cab instrument panel, labelled lower level warning shall control the lights.

Siren & Speaker

One (1) Federal Signal model PA300M solid state electronic siren with attached noise cancelling microphone shall be installed. The unit shall be capable of driving high-power speaker up to 200 watts to achieve a sound output level that meets Class "A" requirements. Operating modes shall include hi-lo, yelp, wail, P.A., air horn, and radio re-broadcast. It shall include a Tap II feature.

One (1) Federal model MS100-MSBMT 100 watts speaker shall be mounted on top of the front bumper.

Chassis Paint Finish - Commercial

The chassis shall be painted by the chassis manufacturer according to the chassis manufacturer's factory standards. The body builder shall not repaint the chassis. Cab to be Ford Fire Red (F1) with clear coat.

Body Paint Finish

The body will be finished in natural aluminum.

Winch (9,500#) & Brush Guard

There shall be a 9500 lbs. WARN 9.5ti 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.

Feature of the winch will include a 3 stage planetary gear system for fast line speed, cam action clutch disengages planetary gear system for free spooling and automatic load holding brake for strength and reliability.

There shall be a winch carrier to mount the winch with a Warn 2" front receiver mounted directly on cab & chassis frame without drilling. A rear mounted Class III trailer hitch shall be securely attached to the chassis frame and shall include the 7-pin wiring trailer harness. Front and Rear Warn Quick Connectors and battery power leads to connect the winch shall be run to each of these locations for mounting of the winch. Dust Cover to be installed front and rear.

A remote with 25' (7.6m) of cable shall be supplied (NFPA 1906, 13.3.1.1 requirement).



CET Fire Pumps Mfg Drop-In-Unit

Tank

The water tank shall be constructed of 1/2" thick polypropylene sheet stock with PolymarCo-PP™ resin. Water tank shall be welded with Heavy Duty extruded joint. 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 water tank shall be of a standard configuration and shall be so designed to have complete modular slide in capability. The unit shall incorporate transverse partitions manufactured for 3/8" PT2E polypropylene which shall interlock with a series of longitudinal partitions constructed of 3/8" 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 3" 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 have a 8" x 8" x 8" square 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 1/2" extension past the front tank wall. The tank cover shall be constructed of 1/2" thick PT2E polypropylene, black in color, UV stabilized.

Tank will be baffles in accordance with NFPA bulletin 1901 requirements, latest version.

Tank Capacity

The tank shall have a capacity of 200 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. 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 3/8" 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 side of the tank with a brass 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 4" large 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.

Unit will be fastened to the floor of the cargo area to prevent movement.

Pump, PFP-18hpHND-MR

The pump shall be a CET PFP-18hpHND-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 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, mechanical type. The pump shall be equipped with a brass drain cock.

Electric primer capable of 15' – 20' lift for fast positive priming shall be supplied. 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 250 g.p.m. at 50 psi, and a maximum discharge pressure of 200 psi while pumping 25 g.p.m. In the center of the performance curve, the pump shall be capable of pumping 160 g.p.m. at 100 psi and 100 g.p.m. at 150 psi.

Engine

The pump shall be driven by a 2 cylinder, gasoline engine powered, HONDA 18 horsepower V-twin overhead valve engine. The engine shall be air cooled, 12 volt electric start and recoil rope starter as a back up system.

The pump engine shall be equipped with an quieter exhaust

An external fuel tank shall be provided for the pump motor. It will be large enough to run the pump motor for one (1) hour at its rated capacity and pressure as per NFPA 1906, 8.10.1. Tank will be mounted with ease of filling in mind.

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

Pump Controls

A control panel shall be supplied and installed on the pump. The controls shall consist of a start button, 2.5" diameter discharge pressure gauge and one work light. The Throttle lever, choke control and a low oil level shut down are part of the engine configuration.

The performances are base on a maximum altitude of 500ft and any higher elevation will lower the pump performance. The standard engine performance drop are 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.

Scotty Foam System

There shall be a Scotty model 4071 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 at variable percentage into a discharge manifold flowing 15, 30, 50 and 70 gal. per min. The eductor shall be capable of a discharge of a 1% foam solution at specified flows.

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.

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 2.5" industrial, quarter turn swing out valve with a handle. 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.

The overboard suction connection shall have a 2.5" industrial, quarter turn swing out valve with a handle and 2.5" NST male adapter w/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 1-1/2" valve piped from the discharge manifold as a means for refilling the tank. The valve shall be an industrial, quarter turn valve handle and 1-1/2" NPT threads, and shall be connected to the tank fill port by 1-1/2" high pressure flexible hose.

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.

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 Fire Type, quarter turn self-locking swing out valve with a handle and 1.5" NST threads. The valve shall be furnished with a 1.5" NST cap and chain.

1" Tank Drain

There shall be a 1" valve piped from the tank drain fitting to the rear of the truck bed. The valve shall be an industrial, quarter turn valve with a handle and 1" NPT female threads.

The Drop-In-Unit electricity and gas will be connected directly to the main battery and tank of the chassis.

Approximate weight of the Drop-In-Unit including hose reel(s) and full of water and other liquids is 2,400#.

Booster Reel

One (1) 12v Electric Rewind Low Profile Booster Reel. Brand to be Hannay 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. Reel to be installed on mounting blocks on top of the water tank.

100' of 1" Mercedes Forestry booster hose shall be supplied and installed.

Booster Reel Rollers

One high mounted roller and spool assemblies shall be furnished and installed facing each side of the truck.



Testing

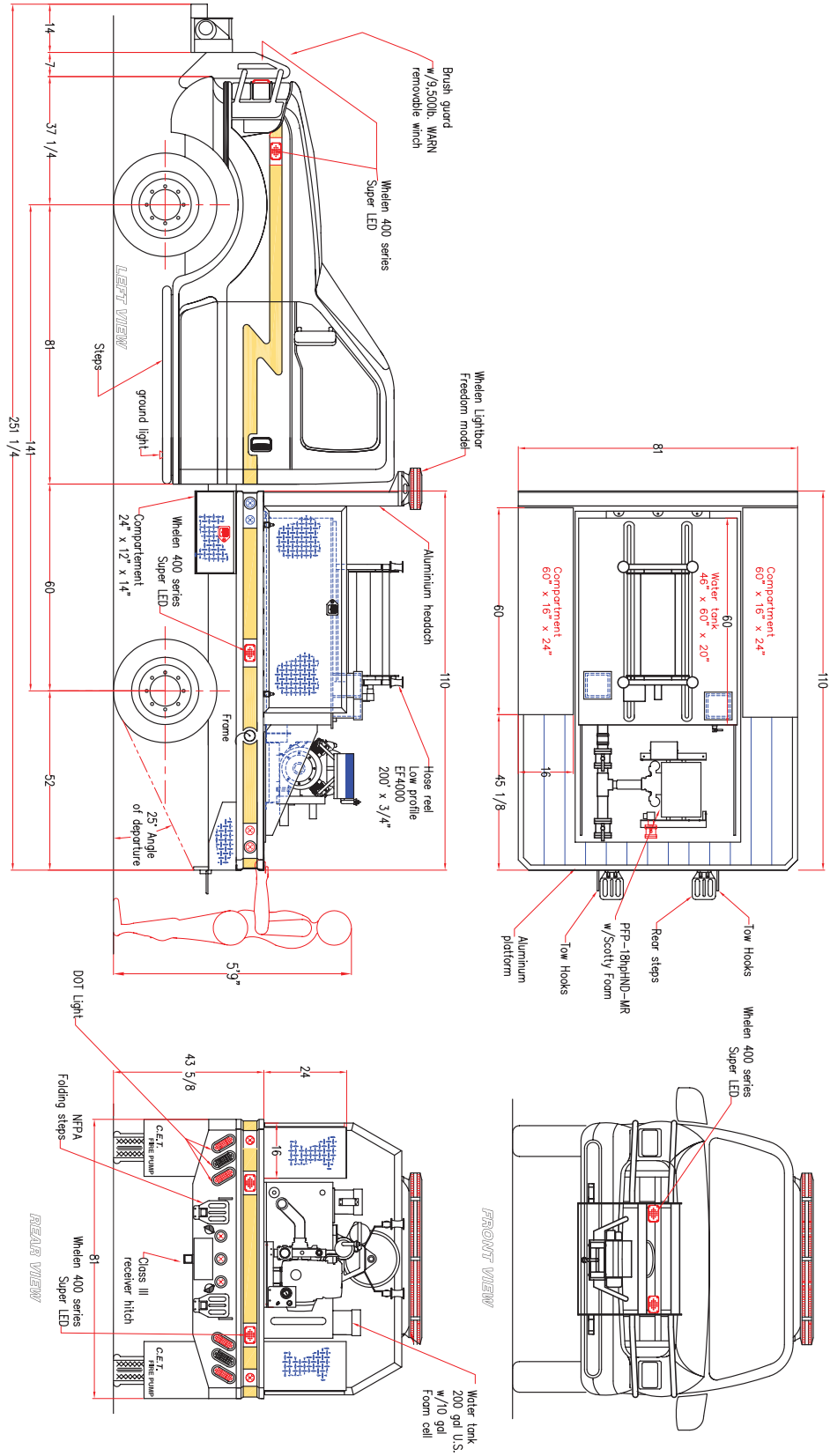
The pump shall be tested after the pump and all its associated piping and equipment have been installed on the fire apparatus. The tests shall be conducted at the manufacturer's approved facility.

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.

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.





ACCEPT ONLY THE BEST™

75 Hector St., P.O. Box 90, Pierreville (Québec) Canada J0G 1J0

Telephone: 1-800-567-2719

Fax: 1-800-434-2613

www.fire-pump.com

*CET is a trademark of CET Fire Pumps Mfg Ltd.

A CENTURY OF ENGINEERING FOR THE BRAVEST