



### Ford Cab & Chassis

Unit is to be installed on a Ford F550, Crew Cab, 4 x 4.

- Front Axle : 7,000 pounds
- Rear Axle : 13,500 pounds
- GVWR : 17,950 pounds
- Heavy Service Suspension Package
- Additional springs to rear main springs
- Heavy duty front springs
- Heavy duty, double acting front and rear shock absorbers

The power train should consist of the following :

- Ford Power stroke V8, 6.0 L Turbo Diesel Motor
- Automatic transmission
- Part-time four wheel drive
- Ambulance package (Includes: Dual 130 Amp alternators, full function auxiliary idle control kit, air conditioning.)

Interior requirements are as follows (XL package) :

- Black floor mats in place of carpeting
- Upfitter switches (4)
- Front & Rear Bench Seats
- Power equipment : driver window, door locks & windows w/backlit switches & accessory delay
- Air conditioning with high output fresh air heater
- Am/Fm Stereo with digital clock & single CD player



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

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Exterior requirements are as follows (XL Décor package):

- The cab will be painted Ford Fire Red
- Chromed front bumper
- New design front lights
- Argent grill
- Primed grey wheels.
- Dual front tow hooks
- Mirrors, manually telescoping trailer tow with power heated glass and two-way fold
- The tires should be a maximum traction mud / snow tire
- The wheel base should be 176" wheelbase / 60" cab to axle

Major Standard Features :

- Two (2) front tow hooks
- 7-pin wiring trailer harness
- 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
- Scuff plates
- 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
- Passenger airbag deactivation switch

### 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

### 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.



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### Grille Cover

The front Ford grille shall be dressed with a polished stainless steel upper grille cover. Brand to be Realwheels, Model RWG7000C.

### Winch & Brush Guard

There shall be a 9500 lbs. WARN Removable electric winch. As per NFPA 1906 (13.2.2), the winch shall have a minimum wire rope length of 125 ft (38m). The wire rope will be 5/16" in diameter and shall be constructed of aircraft wire rope and galvanized to help resist corrosion. There shall be a winch receiver installed at the front and rear of the Brush Truck.

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

In addition, this system includes a Warn chromed grille/brush guard which wraps to the outside of the headlights

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

### Reading, Classic II Service Body, Model U108-DW

#### Features

- Two sided, zinc coated A60 galvanized steel construction
- Acrylic E-Coat priming for complete rust protection
- A rugged and fully undercoated understructure
- Stainless steel bolt-on hinges with concealed hinge pins
- Adjustable galvanized steel shelving with removable dividers (Minimum 6)
- Seamless wheelhouse panels
- Thick, heavy double – paneled doors
- Slam action tailgate
- Smooth and secure rotary locks
- Dual-Pro seal system for compartment doors
- Light guards in rear compartments
- 10 gauge galvanized steel rear floor channel
- Stainless steel lock paddles
- Alumina-Fill gas fill receptacle
- Rear tail gate
- Rear bumper
- 6 year warranty

### Power Coating

Service body to be power coated to the chosen Fire Department colour (Interior of compartments to be painted red). High voltage state of the art spray equipment adheres fine polyester powder to every surface. High temperatures melt the powder to form a smooth and durable finish that exhibits high degrees of resistance to salt spray, corrosion, humidity, and scratching.

The benefits of Power Coating are the following :

- Able to protect against high levels of corrosion caused by salt, chemicals, humidity, scratching, and impact, far surpassing conventional paint top coats.
- Tolerant of UV exposure.
- Gleaming white coat in compartment interiors reduces need for auxiliary lighting.
- Very hard, chip-resistant surface



### Street side body module

|                                | Width | Depth | Height |
|--------------------------------|-------|-------|--------|
| Compartment ahead rear wheels  | 34"   | 21"   | 39"    |
| Compartment behind rear wheels | 25"   | 21"   | 39"    |
| Compartment over rear wheel    | 46"   | 21"   | 19"    |

### Curb side body module

|                                | Width | Depth | Height |
|--------------------------------|-------|-------|--------|
| Compartment ahead rear wheels  | 34"   | 21"   | 39"    |
| Compartment behind rear wheels | 25"   | 21"   | 39"    |
| Compartment over rear wheel    | 46"   | 21"   | 19"    |

### Side Compartment Doors

Closing of the doors will not require releasing, unlocking or unlatching any mechanism design type built by Reading Body.

Doors will be provided with a closed cell rubber gasket around the surface to ensure a weather resisting compartment.

### Compartment Lighting

A 6" diameter Truck-Lite, model 79384, light(s) will be provided in each enclosed compartment. Each light will have a number 1076 one filament, two wire bulb.

A switch for activating the light will be provided on the light lens.

### Scene lights

Two (2) 300W telescoping 12v scene lights mounted at the front of the Truck Bed. The light shall be single head design. One light mounted on each side will increase visibility around the apparatus during night or light operations. Model is to be Fire Research FCA512-D30. Option to be installed on each light : 1- On/Off lamphead switch FCAoption-ON, 2- Wire Guard FCAoption-G.

### LED DOT lighting

Lighting and reflectors shall be provided that comply with federal motor vehicle safety standard FMVSS-108. The street side module shall have a license plate light and mounting provisions for license plate under it. All wiring shall be in split convoluted loom to form a harness. Lights to be LED style.

### Emergency lighting package

One (1) 49" Whelen Lightbar, Liberty model # SL8RRRR

- 4 x Red LED Corner
- 4 x Red LED Front
- 2 x Front Facing Takedown lamps
- 2 x Side Alley lamps, one (1) each side

The light bar will be installed on the cab roof visible from the front and rear of the vehicle



Mounted on front Ford grill, Two (2) Whelen 400 series SUPER LED, red, each with a chrome flange. Lamp assembly to comply with NFPA 1901, section 9-8.

Mounted each side of the chassis, Two (2) Whelen 400 series SUPER LED, one (1) each side, red, each with a chrome flange. Lamp assembly to comply with NFPA 1901, section 9-8.

Mounted each side of the body, Two (2) Whelen 400 series SUPER LED, one (1) each side, red, each with a chrome flange. Lamp assembly to comply with NFPA 1901, section 9-8.

Mounted in the rear section of the body Two (2) Whelen 400 series SUPER LED, red, each with a chrome flange. Lamp assembly to comply with NFPA 1901, section 9-8.

## Siren & Speaker

One (1) Whelen, model # 295HFSA1, 100 watts electronic siren amplifier with PA and switch control center to be provided and installed.

One (1) Whelen, model # SA314P, 100 watt speaker, to be provided and mounted on the front bumper with SABKT1 universal mounting bracket.

## Console

One CET consol installed in the middle of the front bench seat with lighted rocker switch. All switches shall be appropriately identified by panel mounted legends.

The first lighted rocker switch to be a master switch. Master switch to be red to comply with the latest NFPA edition.

There shall be a warning light installed in the chassis cab to illuminate and flash when a compartment door has been opened.

The console also have an area for radio head installation.

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.

## 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 is lighted rocker type.

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

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.

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.

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.

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

### **Tank**

The water tank shall be constructed of 1/2" thick polypropylene sheet stock with AccTuf™ resin. 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. These dowels shall be tapered for 1/2" -13 threads to accommodate a lifting eye with a minimum security factor of 3 to 1. These dowel shall be welded into the transverse baffles, and will assist in minimizing cover flex during normal operation

### **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.

### **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) 3" female NPT tank to pump suction fitting and one (1) 1" female NPT tank fill fitting with flow deflector

### **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.



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### Five (5) inch poly under tank storage

The full area under the skid base of the tank will be utilized to incorporate a five (5) inch clear opening storage area made from poly material for suction hose storage, folding ladders or pike poles.

The poly frame will be black in color and the skid base will be incorporated to the compartment.

The storage compartment will be open at both ends to allow for the full amount of storage capacity. for suction hose storage and folding ladders or pike poles

### 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.

### CET Diesel Pump, PFP-21hpKBT-MR

The pump shall be a CET PFP-21hpKBT-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 balance. The shaft seal shall be self-adjusting, self lubricating, mechanical type. The pump shall be equipped with a brass drain cock.

The pump shall be equipped with an electric type primer capable of 15' lift for fast positive priming.

The pump shall be capable of a maximum discharge volume of 240 g.p.m. at 50 psi, and a maximum discharge pressure of 175 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 3 cylinder, DIESEL engine powered, 21 horsepower. The engine shall be water cooled, 12 volt electric start.

The engine shall be fuelled from the engine Diesel tank. 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 master switch, start button, 2.5" diameter discharge pressure gauge and one work light. The Throttle lever, choke control and a low oil pressure warning light are part of the engine configuration.

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.

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.

### Driver Side Hose Tray

At the top of the left compartments boxes , one (1) .100 aluminum diamond plate pre-connected hose tray, 108" long x 18" wide x 12" high with Turtle plastic tile and protective net at rear.

The Hose tray shall have a 1-3/4" 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.



There shall be a one (1) 1.5" valve piped from the discharge manifold to the hosetray. The valve shall be an Akron 8815, quarter turn self-locking swingout valve with a R1 handle and be connected to the hosetray by high pressure flexible plumbing.

### Driver Side Storage Tray

At the top of the right compartments boxes, one (1) .100" aluminum diamond plate storage tray, 108" long x 18" wide x 12" high with Turtle plastic tile and protective net at rear.

The compartment will be constructed for the storage of hoses, long hand tools or other long fire equipments.

The area shall be designed to prevent the accumulation of water and allow for ventilation to aid in drying hose in the storage area.

### Booster Reel

One (1) 12v Electric Rewind Booster Reel

One (1) Hannay 12v electric rewind booster reel capable of handling 200' 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 top of the water tank.

200' of 1" Neidner 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.

### Front Mounted Monitor

A Elkhart Sidewinder or equivalent monitor shall be supplied and installed at the front of the truck.

An electronic controlled monitor shall be installed on the front of the vehicle. It shall be installed off center on the passenger side of vehicle. Plumbing shall be 1.0" high pressure hose. Included in the monitor package shall be :

Ability to charge monitor from cab location with an electric valve. Joystick mounted on center console accessible by both driver and passenger side. Joystick shall control up/down, left/right and fog/straight stream operation. Water level, MC Product mini display, installed at the Cab & Chassis console.

Monitor to include one (1) electronic nozzle, model #5000-14 Constant flow straight stream to wide fog, 60 gpm.

### 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" swingout valve, with 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 2.0" Akron self-locking swingout valve, model # 8820 and a R1 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 stainless 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.

All valves larger than 1" shall be Akron self-locking swingout valves, with R1 style handles for ease of operation and maintenance. Any valve 1" or smaller shall be standard plumbing style valves.

### 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.

### 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" Discharges To Rear

There shall be two (2) 1.5" valves piped from the discharge manifold to the rear of the truck for connection of forestry hose. Each valve shall be an Akron 8815, quarter turn self-locking swingout valve with a R1 handle and 1.5" NST threads. Each valve shall be furnished with a 1.5" NST cap and chain.

### 2.5" Discharge to Rear

There shall be one 2.0" valve piped from the discharge manifold to the rear of the truck bed. The valve shall be an Akron 8820, self-locking swingout valves with a R1 handle and 2.5" NST threads. The valve shall be furnished with a 2-1/2" to 1-1/2" reducer with 1.5" 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.

### Garden Hose Discharge

There shall be a standard garden hose valve piped from the manifold of the pump Discharge

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

Approximate weight of the Drop-In-Unit including hose reel(s) and full of water and other liquids shall be given before production.



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### 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.



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