



**MIDWEST FIRE®**

**Quick-Attack/Brush Truck  
Specifications**

Prepared for:

**Stock**

Date: 11/19/2014

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Date: \_\_\_\_\_

# 400-Gallon Quick-Attack Specifications

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## **STANDARD**

### **Section 1:        Booster Tank**

1.03.2

The 400 gallon tank shall be a UPF Defender 2C Series 400 Gallon polypropylene baffled tank (Approximate tank dimensions: 38.5" H x 60" L x 46"W constructed of 1/2" thick high-impact, polypropylene sheet stock. The material shall be of a certified, high quality, non-corrosive, stress relieved thermoplastic, black in color, and UV stabilize for maximum protection.

#### **The Tank Shall Carry a Lifetime Warranty from Its Manufacturer**

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT2E polypropylene and shall have a standard dimension of 8" Round x 8" high with a molded cover. The tower shall be located on the curb side rear corner of the tank. Inside of the fill tower approximately 2" down from the top shall be fastened a combination vent/overflow pipe which shall be of standard schedule 40 polypropylene pipe with minimum ID of 3" designed to run vertically through the tank. The transverse swash partitions shall be manufactured of 3/8" PT2E polypropylene which shall interlock with a longitude partition constructed of 1/2" polypropylene.

There shall be one (1) 1/4" deep X 6 1/2" diameter recess in floor to act as sump.

There shall be a 1" FNPT female tank drain located on the rear tank wall with a 1" stainless steel plug.

One (1) liquid level gauge, 2" in width, natural in color, sight gauge shall be located at passenger's side rear wall of the tank.

1.05

Foam Tank, there shall be an 8 gallon foam tank built integral to the main booster tank to accommodate the use of the foam system.

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**Section 2:            Booster Tank Piping, Fills, & Gauges**

2.10

One (1) Innovative Controls, SL Series 14 LED light tank level gauge will monitor the water tank level and be located on the pump control panel. The tank level gauge shall indicate the water level on an easy to read LED display and show increments of 1/8 of a tank.

**Section 5:            Apparatus Body and Components**

5.00

The apparatus body shall be that of an aluminum flatbed consisting of .190 diamond plate flooring, 3" I-beam cross member tubing, 4" C-channel sills, and extruded tongue and groove flooring. The flat bed shall be 96" wide and 11' long. There shall be a headache rack with light bar provisions that is constructed of 2" x 2" aluminum tubing with alum mesh to protect the rear window of the chassis. The aluminum extrusion shall carry a 10 year warranty.

5.00.1

Man well, there shall be two (2) man wells that are 22"D x 24"W x 21"H. The man wells shall consist of hand rails, swing out diamond plate doors, and grip strut flooring. The doors shall have heavy duty door straps.

**Section 6:            Apparatus Body Compartments**

6.14

Storage compartment, there shall be two (2) storage compartments. One (1) compartment shall be located on the passenger side and one (1) on the driver side above the flatbed behind the man wells. The storage compartments shall run the full length of the tank. The compartments shall be 72" wide x 24" tall x 24" deep. The storage compartments shall have aluminum hinged doors, D-ring latches, and gas shocks to hold them in the open position. The compartments shall have LED lights, floor drains, and rubber floor tiles.

6.15

Storage compartment, there shall be two (2) storage compartments. One (1) compartment shall be located on the passenger side and one (1) on the driver side below the flatbed and in front of the rear wheels. The compartments shall be 24" wide, 16" tall, and 18" deep. The compartments shall have stainless steel D-ring latches,

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alum hinged doors, LED lights, floor drains, and rubber floor tiles.

6.16

Storage compartment, there shall be two (2) storage compartments. One (1) compartment shall be located on the passenger side and one (1) on the driver side below the flatbed and behind the rear wheels. The compartments shall be 16" wide, 16" tall, and 18" deep. The compartments shall have stainless steel D-ring latches, alum hinged doors, LED lights, floor drains, and rubber floor tiles.

6.99

Guard rails, there shall be guard rails installed on the apparatus flatbed. The guard rails shall be made of 2" aluminum tubing with a radius edge. The guards shall be attached to the rear of the upper storage boxes and the base of the aluminum flatbed, extending to the rear of the flatbed one each side of the apparatus. The tubing shall also wrap around the rear of the flatbed inward on both sides approximately two feet.

**Section 7: Running Boards, Catwalks, & Rear Step**

7.02

The apparatus shall have a smooth aluminum rear light skirt with a drop step rear bumper with NFPA compliant grip strut flooring.

**Section 9: Electrical Equipment**

9.00.1

The body and chassis shall be wired as independent modules and connected as a completed unit at the final assembly via electrical connectors located in the electrical compartment. Seals shall be provided on each individual wire and the assembly as a whole. All wiring for the apparatus body shall be within a temperature resistance harness. All wires in each harness shall be color-coded. Wiring shall be run along structural rails and tied in a neat and orderly manner.

9.00.2

The apparatus circuits requiring load protection shall utilize sealed relays and automatic reset circuit breakers.

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9.01.2

LED Clearance lights, there shall be a total of seven (7), five (5) red LED lights installed at the rear of the apparatus, and two (2) amber LED lights installed on the front left and right of the apparatus.

9.02

Reflectors shall be installed per Department Of Transportation specifications.

9.03.1.5

Two (2) LED stop/tail/turn and clear halogen backup lights.

9.08

Illuminated license plate bracket, there shall be one (1) illuminated license plate bracket installed at rear of the apparatus.

## **Section 10: Emergency Siren & Lighting Equipment**

10.00

Control Center, all accessory and emergency lighting shall be controlled at a master control center in the cab. The control center shall contain lighted rocker switches and shall be heavy duty rated to service the maximum imposed electrical load. The control center shall have lighted identification plates on a non-glare panel face that clearly identify each switch and its function. The control center shall control all warning lights.

10.01.3.1.1

Light bar, the upper level warning package shall be fully NFPA compliant and shall be certified by the lighting component manufacture to meet all requirements. The front and front side zones shall be covered by one (1) Whelen Freedom Series, FN 55" V LED Edge Ultra Freedom light bar. Activation of the light bar shall be via the control center located in the cab.

10.02.1.1

Siren, one (1) Whelen model 295SLSA1, 200 watt, six function Class A electronic siren shall be mounted in the chassis cab in a location convenient to the driver. The electronic siren shall include full function, 17 Scan-Lock siren tones, and hard wired microphone. The siren control head shall be lighted for easy night operation.

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10.03.1.1

Speaker, one (1) Cast Products 100-watt polished aluminum siren speaker shall be "flush" mounted through the chassis front bumper.

10.04.4.1

LED Flashing lights, the lower level warning package shall be fully NFPA compliant. Two (2) Whelen model 600 Series, flush mounted red LED flashers with black bezels shall cover each zone. These lights shall be 6" wide by 4" tall and be mounted at the front of the chassis. The front zone shall be covered by two (2) lights and rear zone shall be covered by two (2) lights.

10.06.4.2

LED Intersection lights, the lower level warning package shall be fully NFPA compliant and shall be certified by the lighting component manufacture to meet all requirements. There shall be two (2) Whelen model 600 Series, surface mounted red LED flashers with chrome bezels that cover each of the side zones. These lights shall have approximate dimensions of 6" wide by 4" tall. One of the lights shall be mounted at the rear of the body, and one shall be mounted on the front corner of the chassis for use as an intersection style light.

10.07.9.2

Deck lights, there shall be four (4) PTL5040 LED deck lights installed. There shall be one (1) on each side of headache rack mounted at the highest point and facing outward and there shall be two (2) facing the rear mounted on the outside corners of the rear guard rails. The lights shall be controlled switches in the cab.

10.08

Backup alarm, there shall be a backup alarm installed. Alarm shall be energized automatically when the chassis is placed into reverse.

**Section 11: Painting, Lettering, Striping, and Signs**

11.05

Gold leaf vinyl lettering with a black back shadow shall be provided on the chassis doors per customer instructions. Clear protective vinyl shall be installed on all gold leaf vinyl lettering.

11.05.2

Gold leaf vinyl lettering with a black back shadow shall be provided for the customer unit number on the left and right

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chassis fenders. Clear protective vinyl shall be installed on all gold leaf vinyl lettering.

11.06.1.3

Reflective striping, the body shall have 4" wide red reflective striping and chassis shall have a 4" wide and a 1" wide white reflective stripe on each side and front of the apparatus per NFPA standards.

11.06.2.1

Retro-reflective material, per NFPA 1901 standards any door of the apparatus designed to allow persons to enter or exit the apparatus shall have a minimum of 96 square inches of retro-reflective material affixed to the inside of the door.

11.07.5

Chevron, the rear of the apparatus shall include red and fluorescent yellow Chevron retro-reflective striping a minimum of 6" wide.

**Section 12: Corrosion Protection & Mud Flaps**

12.01

All fasteners used in securing components on or to the body shall be stainless steel.

12.02

Mud flaps, there shall be two (2) mud flaps installed on rear of apparatus behind the rear wheels.

**Section 13: Pump & Plumbing**

13.09.1

The pump shall be a Hale, model HP300X, engine driven pump. Pump features include a high-strength aluminum alloy casing, silicone bronze impeller and wear rings, stainless steel impeller shaft, and direct drive.

Pump Ratings: 400 GPM @ 20 PSI  
75 GPM @ 120 PSI

The engine shall be a four cycle air cooled 18 HP, V-Twin, Briggs and Stratton, model Vanguard gasoline engine, with integral fuel pump, 12- volt electric start, and manual start. The fuel will be

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connected to a 6-gallon marine style fuel tank located next to the pump.

13.09.2.1

The pump control panel shall include a throttle lever, priming lever, Master On/Off switch, start push button, and choke control, low oil pressure warning light, and pressure gauge. The pump primer shall be a combination vacuum type exhaust primer and a spark-arresting muffler.

13.09.4.1

Tank to pump line, there shall be a 2 1/2" tank to pump line provided from the water tank to the pump. The line shall have a 2 1/2" Elkhart Unibody swing out valve with galvanized piping and victaulic coupling. The flex connections installed between the pump and water tank shall give the plumbing system flex, thus minimizing stress on the line. A "tee" handle provided in the pump compartment shall control the valve.

13.09.5.1

Tank fill/pump re-circulating line, there shall be a 1.5" tank fill/pump re-circulating line provided from the pump to the water tank. The line shall have a 2" Elkhart Unibody swing out valve with 1.5" plumbing. The flex connections installed between the pump and water tank shall give the plumbing system flex, thus minimizing stress on the line. A "tee" handle provided in the pump compartment shall control the valve.

13.09.6.1

Pump drain, there shall be one (1) pump drain provided to drain the suction side of the pump.

13.09.7.1

Suction(s), there shall be one (1) 3" suction pipe provided at the pump for drafting or direct fill. The suction shall be equipped with a 3" NPT male X 2 1/2" NST female chrome plated swivel adapter with screen, and a 2 1/2" chrome plated plug and chain.

13.09.8.1

Discharge(s), there shall be one (1) 2 1/2" NST male discharge pipe provided at the pump. The discharge shall be equipped with a 2 1/2" chrome plated cap and chain

13.59

There shall be a Trident Foam Mate 1.0, around the pump, foam system plumbed to the discharge head of the water pump.

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13.70.1

Man well pre-connect, there shall be one (1) 1.5" NST male, gated pre-connect with a 1.5" swing out valve and 1.5" plumbing.

**Section 14: Hose Trays, Cross Lays, & Pre-connects**

14.00.01

Hose tray baskets, there shall be two (2) 24" wide X 10" high X 60" long basket made of aluminum tubing and mesh. The hose tray shall have rubber tiles and to be located above driver and passenger side catwalk.

14.00.6

Hose straps, there shall be two (2) Velcro straps mounted on the hose tray to secure the hose.

**Section 16: Hose Reel**

16.05

There shall be one (1) electric rewind hose reel with 100' of 1" booster hose and stainless steel hose rollers installed on the rear driver side of the flatbed. Hose reel shall be gated with a 1" stainless steel swing out valve.

**Section 17: Chassis Accessories**

17.31

There shall be a 2" receiver hitch tube installed on the rear of the apparatus.

17.32.9

There shall be one (1) Heavy Duty Luverne Truck front bumper installed. The front bumper shall include a 2" receiver tube for future use and shall incorporate a heavy duty Grille/Brush Guard to protect the front of the chassis. The bumper/grill/brush guard shall be powder coated black and fitted with two (2) 4" driving lights.

17.33

Super singles, the chassis shall be equipped with super single tires and rims. Tires shall be 36" x 13.5" x 19.5", 16 H-ply rating of 6400lbs per wheel and shall be mounted on a 19.5" x 9.75" Steel black powder coated wheel.

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17.34

Chassis lift, there shall be a 4" Suspension lift installed on the chassis to accommodate the super single tires and wheels.

17.36

Tire rack, there shall be one (1) tire rack supplied on the top of the tank for the spare tire.

17.40

Extended fender flares, there shall be extended fender flares added to the chassis factory fender flares to accommodate the debris from the oversized tires.

17.52

Chassis steps, there shall be one (1) set of Luverne Truck Equipment Baja steps installed on the chassis for ease of entry. The Baja Step features a 3" stainless steel accent tube. The step plates are constructed from 10 gauge stainless steel. The entire no-rust assembly is powder coated black.

#### **Section 18: Loose Equipment**

18.03.2

There shall be two (2) 1" x 6' whip lines supplied by the manufacturer. Whip lines shall have 1" NST connections.

18.04.6

There shall be three (3) TFT 1" twister pistol grip nozzles provided.

#### **Section 19: Chassis**

19.01

Midwest Fire Equipment furnished Ford F-550 per specification attached:

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