



# MAINTAINER CUSTOM BODIES

## PROPOSAL

**M348 Stock Spitfire Quick Attack  
Honda Pump, 425-Gallon Tank**

### BUILD SPECIFICATIONS

#### **NEW ALL-ALUMINUM NINE FOOT (9') SPITFIRE QUICK ATTACK BODY**

**The apparatus body shall be manufactured as per the following specifications:**

##### **BODY DESIGN:**

The body shall be modular in design, capable of being removed and remounted on a new chassis. Body integrity and strength to be independent of chassis mounting

##### **BODY MATERIALS:**

The following shall be the minimum acceptable materials, gauge, and finish used:

Aluminum Body - All construction panels shall be 5052-H32 aluminum of .125" thickness

Aluminum Diamond Plate - All diamond plate shall be 3003-H14 aluminum of .125" thickness

Body Mounting - All body mounting bolts to be minimum Grade 5

Exterior Fasteners - All exterior nuts, bolts, and screws shall be stainless steel

##### **BODY SUPER-STRUCTURE:**

Lateral floor structure built using 3.0" H x 2.0" W x .125" aluminum tubing welded to longitudinal, doubled 1.0" x 3.0" flatbar. Formed 5.0" channel ties floor structure at front with 3.0" H x 2.0" W x .125" aluminum tubing at rear. Structure is welded and gusseted to the side-wall structure for maximum strength and durability. A welded bulkhead panel above the floor structure secures the compartments at the front of the body.

**CORROSION PROTECTION:** Electrolysis Corrosion Kontrol (ECK) to prevent dissimilar metal corrosion

##### **UNDERCOATING:**

Underside of the vehicle floor and structure sprayed with Corashield automotive undercoating

##### **APPARATUS BODY PAINT FINISH:**

Fire apparatus standards, exhibiting excellent gloss and color retention properties. PPG-certified single-stage paint process

**STONE GUARDS:** Front body corners, .125" aluminum diamond plate protective guards, 24" high

##### **REAR BODY CHEVRON:**

"Diamond Grade" Chevron reflective striping, six inch (6") wide, minimum 50% of the entire rear body

**REFLECTIVE STRIPE:** A four-inch (4") white "Scotchlite" stripe will be provided full length of vehicle

##### **BODY COMPARTMENT COATING:**

Interior of body compartment to be fully coated to aid in abrasion resistance

##### **ADJUSTABLE SHELF CHANNEL:**

Vertically mounted Uni-Strut channel in all exterior compartments for adjustable shelving and trays



### BUILD SPECIFICATIONS

#### COMPARTMENT DOORS:

The compartments shall be equipped with flush mounted hinged doors constructed of 3/16" aluminum with 3/4" x 2.5" extruded interior bracing. Doors to have greaseable stainless steel hinges, isolated from body. Vertically hinged doors to be held open approximately 95-degrees via gas spring

Door Latch & Mechanism: D-Ring style door latch with keyed lock. Three-point latching via roller style rod ends and center striker

Weather Resistance: Each compartment opening protected by metal-backed clip-on bulb seal

NOTE: Key Lock: Compartment door latches with keyed cylinder lock assembly

#### EXTERIOR COMPARTMENT SPECIFICATIONS:

##### DRIVER'S SIDE:

**COMPARTMENT L1:** Measures 54 1/2" H x 35" W x 23" D

Three (3) adjustable shelves constructed of 3/16" aluminum with 1.5" lip

**COMPARTMENT L2:** Measures 30" H x 44" W x 23" D

One (1) adjustable shelf constructed of 3/16" aluminum with 1.5" lip

**COMPARTMENT L3:** Measures 54 1/2" H x 30" W x 23" D

Three (3) adjustable shelves constructed of 3/16" aluminum with 1.5" lip

##### OFFICER'S SIDE:

**COMPARTMENT R1:** Measures 54 1/2" H x 35" W x 23" D

Three (3) adjustable shelves constructed of 3/16" DA finished aluminum with 1.5" lip

**COMPARTMENT R2:** Measures 30" H x 44" W x 23" D

One (1) adjustable shelf constructed of 3/16" DA finished aluminum with 1.5" lip

**COMPARTMENT R3:** Measures 54 1/2" H x 30" W x 23" D

Three (3) adjustable shelves constructed of 3/16" DA finished aluminum with 1.5" lip

##### REAR BODY SKID/TANK AREA:

Completely open center deck area to measure approximately 107" long x 49" wide x 38" high. Body floor to be reinforced to accommodate the skid/water load intended. Center deck area to be painted job color

#### SKID MOUNTED C.E.T. HONDA 20-HP GASOLINE PUMP & 425 GALLON TANK:

**PUMP:** CET DI-PFP-20hpHND-MR single stage centrifugal pump, bolted directly engine, with a 2.5" NPT suction inlet, and a 1.5" NPT discharge outlet. The pump shall be capable of a maximum discharge volume of 290 GPM at 50 PSI, and a maximum discharge pressure of 190 PSI while pumping 100 GPM. In the center of the performance curve, the pump to be capable of pumping 60 GPM at 175 PSI

**ENGINE:** 4-stroke Honda gas powered, 20 horsepower V-twin overhead valve engine. Engine to be air cooled, 12 volt electric start via quick-disconnect with weather-proof style connection

**PUMP PRIMER:** A manual hand-pump primer to be installed at the pump location



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**FUEL:** Honda engine fuel to be supplied via a three (3) gallon plastic fuel tank at engine/pump location

**PUMP CONTROLS:** Control panel constructed of non-glare material to be installed at the engine/pump location. Controls include; a master switch, key start, a 2.5" discharge pressure gauge, mini water and foam tank level gauges

**FOAM SYSTEM:** Trident 'Foamate' Model #31.008.0 ATP-1.0 Class A around-the-pump foam system

**SUCTION PIPING:** Stainless steel (welded joints) schedule 40 suction piping tested to 400 PSI. Piping shall consist of a 2.5" tank to pump line with a 2.5" flexible rubber hump hose. Includes 2.5" Akron fire type grade valve with Trident chrome handle. Additional suction valve for overboard drafting or for utilizing pressurized supply. Includes 2.5" Akron fire type valve with a Trident chrome handle. Suction inlet terminated with a 2.5" NST female swivel fitting, debris screen, and tethered 2.5 NST polished aluminum male plug. All piping to be painted black.

**WORK LINE SIDE, MANIFOLD:** Two (2) 1" NPT and two (2) 1 1/2" NPT discharge outlets, chrome caps

**TANK FILL:** One inch (1") tank fill with Akron fire type ball valve on the work line side of the manifold

**DISCHARGE MANIFOLD:** Welded 2" x 2" square industrial stainless steel

**DISCHARGES TO REAR OF UNIT:**

One (1) 1.0 Akron fire type ball valve with a chrome Trident handle, for booster reel

One (1) 1.5 Akron fire type ball valve with a chrome Trident handle, NST thread, polished aluminum cap

One (1) 1.5 Akron fire type ball valve with a chrome Trident handle, for pre-connected 1 1/2" discharge

One (1) 2.5 Akron fire type ball valve with a chrome Trident handle, NST thread, polished aluminum cap

**POLY WATER TANK CONSTRUCTION:** Constructed of 1/2" thick polypropylene sheet stock, black in color and UV stabilized. Tank to incorporate transverse partitions interlocked with longitudinal partitions for high strength and to allow for maximum water and air flow. Sight gauge 2" in width, and 70% transparent

**FILL TOWER:** 8" round combination vent/overflow and manual fill tower.

**TANK CAPACITY:** The tank shall have a capacity of 425 US gallons of water. Limited Life Time Warranty

**TANK OUTLETS:** 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.

**TANK MOUNTING BLOCKS:** Three (3) parallel mounting blocks for the mounting of tank accessories

**SKID BASE:** Full width skid base, 45" wide x 103" long, manufactured of 3/4" polypropylene welded to the tank. Design provides direct mounting to floor of the apparatus

**SUMP:** Integral to the tank, recessed a minimum 3/4" from the floor

**FOAM CELL:** Drop-in type, capacity of 15 US gallons of foam, integral to the water tank. Tethered cover



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#### **BOOSTER HOSE REEL:**

One (1) Hannay Model EF 30-23-24 RT, 12-volt electric rewind steel booster reel with one-inch (1") 90-degree super swivel joint, one-inch (1") NST-M riser, horizontal gear crank rewind will be provided. Reel discs to be painted aluminum. Additionally, the reel to be installed with one (1) – FH-3 roller and spool assembly and 150' of one-inch (1") 800# red rubber booster hose with hard-coat aluminum couplings

**1.5" PRE-CONNECTED DISCHARGE & HOSE TRAY:** Tray constructed of aluminum diamond plate and mounted to top of water tank, configured for one (1) pre-connected hose line. Tray built to accommodate 150' of 1 1/2" double jacket fire hose and nozzle and plumbed directly from the discharge manifold. Mounting location to be determined.

**HYDRANT / SPANNER WRENCH SET:** Task Force Tips A3845 wrench set at rear

**REAR BODY STEPS:** Heavy duty folding steps with integral step light installed on the rear body face

**REAR BODY HANDRAIL:** Non-slip 1.25" extruded aluminum tubing with chrome plated stanchion ends

**ELECTRICAL SYSTEM BASE:** Per N.F.P.A. 1901, SAE, and FMVSS standards. Master warning device switch energizes all warning and optical warning devices with separate signaling modes for response and static operation. Minimum two (2) spare wires installed each body side loom.

Design provides a standardized platform for reliable and repeatable hard-wired or multiplexed electrical systems that can be documented and easily serviced and maintained.

#### **ELECTRICAL SYSTEM, OPERATING:**

Carling rocker type switches for all vehicle warning and scene lights. Function labels provided each switch

#### **BATTERY CONTROL SYSTEM, IGNITION SWITCH:**

Battery master control through the chassis ignition switch. Heavy-duty 200-Amp constant duty solenoid to provide 12-volt battery power to the vehicle.

**BATTERY CHARGER:** Kussmaul Auto Charge Low Profile LPC 20 Series

**120-VOLT SHORELINE AUTO EJECT:** Kussmaul 20-amp, automatic shoreline disconnect

**COMPARTMENT LIGHTING:** LED strip lighting

**PUMP COMPARTMENT LIGHTING:** LED strip lighting overhead of pump and control panel

**ELECTRONIC SIREN & SPEAKER:** MagForce Siren, SPK100 100-watt speaker

**FRONT LIGHT BAR:** Tomar 970L 58" Scorpion LED light bar

#### **FRONT LOWER WARNING LIGHTS:**

Tomar RECT-16LS series LED lights with chrome bezels, 6" x 1" grille mounted, red LED's with clear lenses

#### **SIDE UPPER WARNING LIGHTS:**

Tomar RECT-SDH-RW series LED lights with chrome bezel, two (2) each side, 5" x 2", red LED's with clear lenses



### BUILD SPECIFICATIONS

**SIDE LOWER WARNING LIGHTS:**

Tomar RECT-SDH-RW series LED lower warning lights with chrome bezels, 5' x 2", two (2) each side, red LED's with clear lenses

**SIDE UPPER SCENE LIGHTS:** Tomar 970-FR3NF-13F series tilt down LED lights with chrome bezels, 5" x 2", two (2) each side

**REAR UPPER WARNING/SCENE LIGHTS:**

Tomar R79LVD13-RAW combination warning/scene LED lights with chrome bezels, 9" x 7", one (1) each upper corner, red LED's with clear lenses

**REVERSE ACTIVATED REAR SCENE LIGHTS:** When apparatus transmission is placed in reverse

**REAR D.O.T. QUAD CLUSTER:**

Tomar R46LD-W-RW series LED three (3) light cluster, 6" x 4", red combination stop/tail light, amber turn signal, white back-up light

**DRIVING LIGHTS:** Tomar TRT-30W-DW2 Off Road 28" lightbar, white spot lights, red warning lights

**LED CLEARANCE LIGHTS:** Weldon 1500 Series LED marker lamps

**LED UNDERBODY LIGHTS:** TecNiq Series LED under body lights with SS brackets

**CHASSIS RELATED ACCESSORIES****CAB CONTROL CONSOLE:**

Protected environment for the electrical systems interface to the apparatus body. Accommodates siren and warning light controls, dual USB port, and mini water and foam tank level gauges, and two (2) cup holders. Console fabricated from .125" aluminum with removable top cover, Zolatone coating

**FRONT BUMPER:** Buckstop Classic front bumper & grille guard

**FRONT WINCH:** Warn 12,000# winch with synthetic rope

**RUNNING BOARDS:** Aluminum diamond plate

**REAR STEP AND BUMPER:** Aluminum diamond plate cover, full width of body, attached to chassis frame

**TRAILER HITCH/LIGHTS :** Class IV trailer hitch, combination 7-pin/flat blade trailer light plug connector

**CAB STEP LIGHTS:** Whelen 0S Series LED step lights provided, each cab door

**BACK-UP CAMERA:** OEM chassis back up camera system

**BACK-UP ALARM:** Federal Signal Evacuator electronic back-up alarm

**FUEL FILL DOOR:** Flush mounted fuel fill access

**TIRE PRESSURE MONITORING DEVICES:** Shipped loosed, calibration after vehicle is loaded



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### BUILD SPECIFICATIONS

**MUD FLAPS - REAR:** Black rubber mud flaps at rear wheels

**WARNING LABELS AND INFORMATION PLATES:** Labels by Innovative Controls

### VEHICLE ROAD AND SYSTEMS INTEGRITY TESTING:

Road test and systems integrity test including a full 12-volt electrical test conducted at the time of vehicle completion. All systems having a mechanical function to be tested

### CHASSIS SPECIFICATION

2019 FORD F550 4x4 DRW Regular Cab, 145" Wheelbase

6.7L Power Stroke V8 Turbo Diesel

TorqShift 6-Speed Automatic Transmission

4x4 Electronic Shift on the Fly

GVWR: 19,500lbs

Tires: 225/70Rx19.5G Max Traction

Dual Heavy-Duty Alternators, 377-amp Total

Dual Batteries

Operator Commanded Regeneration

Argent Painted Steel Wheels

Power Windows

Driver, Passenger Mirrors, Power, Heated, Folding

Remote Keyless Entry, Power Locks

Rear View Camera

Platform Running Boards

Steering Wheel Mounted Cruise Control

Race Red