DATA SHEET
#NME040

THE DOMINATOR
5000 GPM
PORTABLE PUMP PACKAGE

Description

The National Foam 5000 gpm Trailer Mounted Diesel Pump has a nominal performance rating of 5000 gpm at 150 psi when operating with a 6-foot suction lift. The pump and engine are mounted on a box frame base, which serves as a 300-gallon fuel tank. The pump skid has a stainless steel suction manifold with six 6" NH connections, and a stainless steel discharge manifold with one 2½" NH valved discharge and five 5" valved storz connections. The unit is equipped with an operator's panel containing engine controls and manifold pressure gauges. The pump electrical system is 24 VDC and the unit is furnished with two heavy-duty batteries. The pump priming system consists of two 24 VDC electric primers. The pumping skid is furnished with a custom designed 14,000 GVW trailer from which it is easily removed for non-mobile or permanent installations. The trailer is equipped with four storage compartments and hose troughs for storage of four 6 in. lightweight basket type strainers and four 10 ft lengths of hard suction hose.

Features

- May be used with either fresh or salt water.
- High capacity - 5000 gpm @ 150 psi.
- Allows water pump to be moved to location where it is required thus eliminating the need for pressurized water system.
- Suitable for use from draft or with portable pressurized water main.

Applications

The portable pump package can be used anywhere large volumes of water are required and a pressurized water source is not available or a water system is not capable of supplying adequate pressure.

Specification

The National Foam 5000 gpm Trailer Mounted Diesel Pump shall consist of a Peerless 10AE20, cast iron, bronze-fitted, horizontal split case pump with a 12-inch ASA Class 125 FF flanged suction connection and a 10-inch ASA Class 250 FF flanged discharge connection. The pump shall be designed for operation at a nominal capacity of 5000 gpm flow at 150 psi discharge pressure while operating at a 6-foot suction lift through six 6-inch internal diameter suction hoses and strainers. Two Hale Model ESP 24 VDC self-lubricating, rotary vane-type positive displacement electric primers shall be provided with controls located at the pump operator's panel. Pump shall be driven by a Caterpillar Turbocharge engine or equivalent. Power at flywheel is 600 bhp/447 kW @ 1900 rpm. All ratings shall be at SAE Standard J1995 Conditions, 29.31 in. (7521 mm) Hg barometric pressure, and 77ºF (25ºC) inlet air temperature. The cooling system shall consist of an engine mounted multi-row flat fin and tube radiator with pusher type fan. It shall have a single 6-inch (150 mm) exhaust with industrial grade silencer. Electrical system shall be 24 VDC and shall include a 115 amp alternator and two batteries.

The pump operator's panel shall be located on the left side of the pump skid well forward of the suction manifold at a height readily accessible from ground level, but well clear of any suction or discharge. The operator's panel shall contain all controls for starting and stopping the engine, monitoring engine functions, priming the pump, and monitoring pump suction/discharge pressures. Controls shall include OFF-ON-START switch, tachometer, engine oil pressure gauge, engine coolant temperature gauge, voltmeter, suction (compound) gauge (4½ in., 30 in. - 0 - 400 psi [114 mm, 762 mm - 0 - 2758 kPa]), discharge gauge (4½ in., 0 - 400 psi [114 mm, 0 - 2758 kPa]), vernier engine throttle control, priming pump valve/switch control, and left and right side work lights with switch.

The suction manifold shall be constructed from 12-inch (300 mm), schedule 10 stainless steel pipe and shall be complete with six 6-inch (150 mm) National Hose Thread (NH) male brass suction connection adapters with inlet screens and brass 6-inch (150 mm) NH caps. Each suction connection shall be angled down 15 degrees from horizontal to reduce stress on suction hoses. One ¾-inch (19 mm) valve shall be furnished for draining the manifold. The discharge manifold shall be constructed from 10-inch (250 mm), schedule 10 stainless steel pipe and shall be complete with one 2½-inch (63 mm) male NH discharge with valve and five 5-inch (125 mm) Storz discharges with valves. The 2½-inch and 5-inch discharges shall be angled down 10 degrees from horizontal to reduce stress on hoses. One ¾-inch (19 mm) valve shall be furnished for draining the manifold.

The pump and engine shall be directly mounted to a steel skid base, which also serves as a fuel tank. The tank shall have a usable capacity of approximately 300 gal. to allow for at least 10 hours of operation at full load without the need for refueling. The tank shall be furnished with a fuel fill connection at the back end of the tank and vented to allow for easy refueling while in use. The tank shall be furnished with ½" high base pads located under the tank to prevent the tank bottom from having direct contact with the ground if the skid is removed from the trailer. A tank drain shall be furnished at each end of the skid. The tank top shall have a drip pan with drain openings at each corner to catch any fuel spills that might occur during refueling. A forged steel "D-ring" shall be furnished at each corner of the tank frame for shackle attachment. Devices intended to provide for operator's access to the trailer shall be equipped with a slip resistant surface in the step area. Top of side compartments shall have hose troughs for storage of four hard suction hoses.

The pumping skid shall be furnished with a custom designed 14,000 GVW trailer from which it can be easily removed for non-mobile or permanent installations. The trailer shall have dual axles with single wheels and 24 VDC electric brakes (front and rear). The hitch shall be a Holland or equal, 2½-inch bolted adjustable draw bar coupler. Lighting shall consist of two 24 VDC work lights on each side, two 24 VDC rear lamps (brake and turn combination), 24 VDC marker lights in accordance with U.S. DOT Standard 108, one 24 VDC license plate light, and two rear 24 VDC backup lights. The trailer shall include a 7,000 lb rated top wind drop leg jack at the tongue and two storage compartments along each side.

The trailer assembly shall be prepared, primed and painted with black polyurethane enamel. A reflective stripe shall be applied to the perimeter of the trailer. All suction and discharge connections 6 in. and smaller shall have caps or plugs. Two wheel chocks shall be provided. The complete pump/driver will be tested and certified by National Foam, Inc. to meet the performance advertised for the assembly.

Technical Data

Pump: ..... Peerless 10AE20, cast iron, bronze-fitted, horizontal split case pump, 12" ASA Class 125 FF flanged suction x 10" ASA Class 250 FF flanged discharge, rated at a nominal capacity of 5000 gpm @ 150 psi while operating at a 6-foot suction lift. Pump shall have electric priming system.

Driver: ..... Caterpillar C-16 Turbocharged diesel engine or equivalent. Power at flywheel is 600 bhp/447 kW at 1900 rpm. All ratings are at SAE Standard J1995 Conditions, 29.61 in. (7521 mm) Hg barometric pressure, and 77ºF (25ºC) inlet air temperature.

Exhaust: ..... Single 6" with industrial grade silencer.

Fuel: ..... Approximately 29 gal/hr (110 liters)
Consumption at run out (6000 gpm @ 120 psi @1900 rpm).

Fuel tank: ..... 300 gal. (10 hour supply at rated flow).

Operators Panel: ..... All controls for starting and stopping the engine, monitoring engine functions, priming the pump, and monitoring pump suction/discharge pressures.

Trailer: ..... Custom designed.

GVWR: ..... 14,000 lb (6,364 kg).

Suspension: ..... Dual Axle with 9.50 x 16.5 tires, highway tread, load range E.

Brakes: ..... 24 VDC electric, front and rear.

Hitch: ..... Holland or equal, 2½-inch bolted adjustable draw bar coupler.

Lights: ..... Two 24 VDC work lights on each side, two rear lights (brake/turn combination), one license plate light, two backup lights, and markers in accordance with U.S. DOT Standard 108.

Connections:

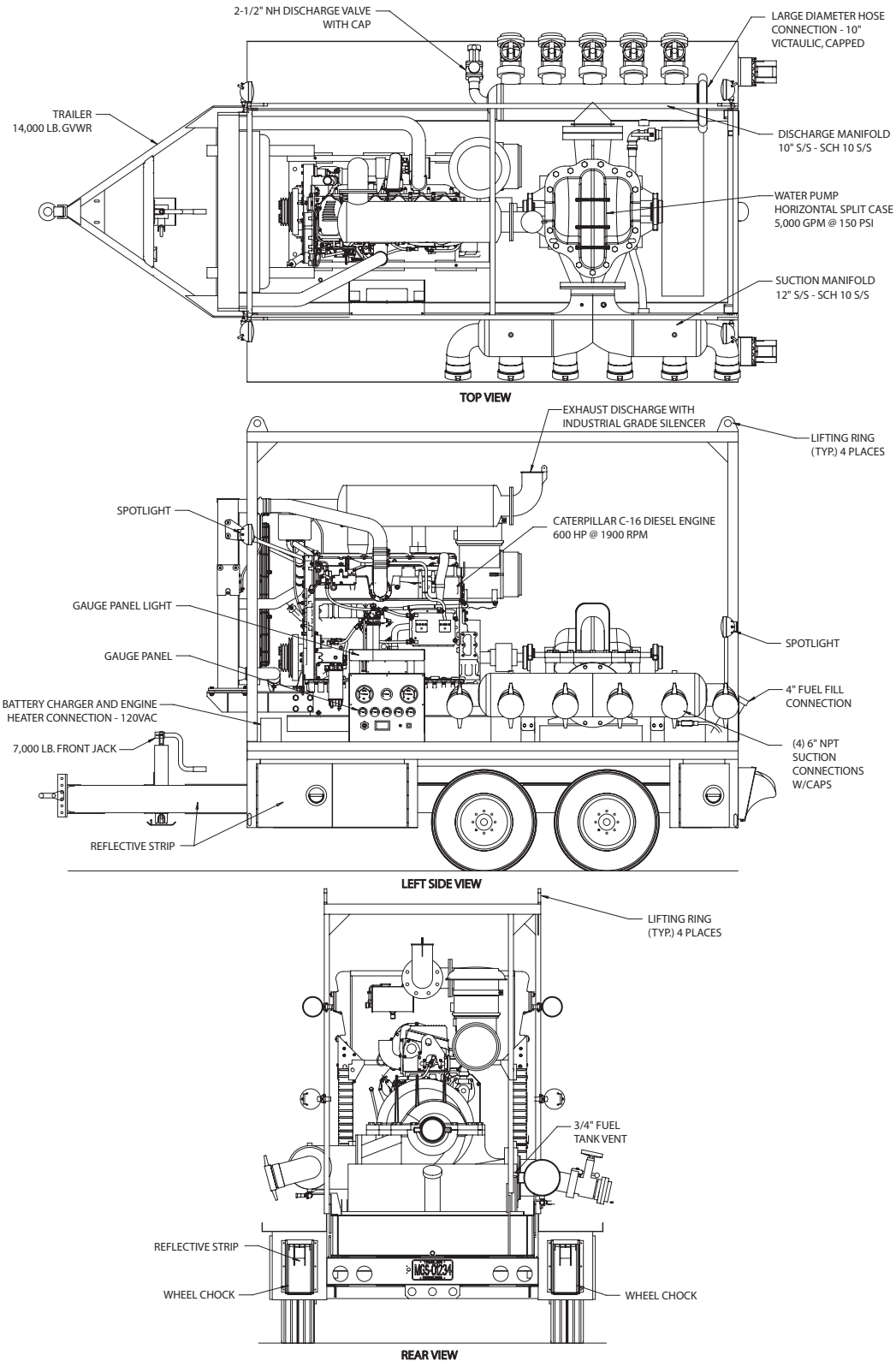
Suction: ..... Six 6-inch (150 mm) Male National Hose Thread (NH) suction connections with inlet screens.

Discharge: .....
- Five 5-inch (125 mm) Storz discharges with valves.
- One 2½-inch (63 mm) male NH discharge with valve.
- 10-inch Victaulic

Finish: ..... Polyurethane enamel. A reflective stripe shall be applied to the perimeter of the trailer. Standard color is red, other colors optional.

Options

- Colors other than red.
- Custom suction and discharge connections and configurations, including grooved connections for large diameter hose and special hose threads.
- Suction Hose Kit: Four 10-foot hose lengths of lightweight, black ridged PVC helix with smooth bore for unrestricted flow, and lightweight male and female couplings. Each hose shall have a lightweight 6 in. basket-type strainer.
- Manual Hand Primer System, consisting of two manual diaphragm primers for use as a backup to on-board electric priming system.



This information is only a general guideline, and each installation may require modifications to meet the applications or requirements of that situation. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

10/07 (Rev. D) Printed in U.S.A. (NME040.PMD)

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