



**PRODUCT DATA SHEET**

May, 2005

6" PA6E60-6081A  
GORMAN-RUPP PUMP

**GENERAL INFORMATION**

The compressor/ejector priming system uses a compressor to blow compressed air through a jet into a tapered tube to create a vacuum. The compressor is powered by a timing belt driven off the engine and receives lubrication from the engine's oiling system. A valve installed at the injector inlet slows down fluid entering the ejector. A screen installed at the inlet filters out debris from entering.

**PERFORMANCE DATA**

➤ <b>Minimum Speed:</b>	- 1000 rpm
➤ <b>Maximum Speed:</b>	- 1800 rpm
➤ <b>Minimum Shutoff Head:</b>	- 85 feet (37 psi) <sup>(1)</sup> @ 1000 rpm
➤ <b>Maximum Shutoff Head:</b>	- 285 feet (123 psi) <sup>(1)</sup> @ 1800 rpm
➤ <b>Maximum Suction Lift:</b>	- 25 feet <sup>(6)</sup> (@ 2750 gpm)
➤ <b>Minimum Flow:</b>	- 850 gpm @ 1200 RPM
➤ <b>Maximum Flow:</b>	- 4300 gpm
➤ <b>Maximum Casing Press:</b>	- 230 psi
➤ <b>Maximum Temperature:</b>	- 160°F
➤ <b>Maximum Solids Size:</b>	- 3.38" spherical diameter

**PUMP SPECIFICATIONS**

➤ <b>Impeller:</b>	- 16" diameter
➤ <b>Wear Ring Clearance:</b>	- 0.010" – 0.020"
➤ <b>Bearing Lubrication:</b>	- SAE No. 30 oil
➤ <b>Vacuum System:</b>	- Piston compressor, 20 cfm, with venturi eductor, or 50 cfm diaphragm pump
➤ <b>Mech. Seal Lubrication:</b>	- SAE No. 30 oil
➤ <b>Dead Head Pressure:</b>	-
@ 1200 RPM:	54 psi
@ 1400 RPM:	74 psi
@ 1600 RPM:	97 psi

**PHYSICAL SPECIFICATIONS**

➤ <b>Suction Size:</b>	- 10" FNPT female flange
➤ <b>Discharge Size:</b>	- 6" FNPT female flange
➤ <b>Total Weight:</b>	- 6,445 lbs. <sup>(2)</sup>
➤ <b>Overall Height:</b>	- 8'-10" (top of exhaust stack) 7'-7" (to top of lifting bail)
➤ <b>Overall Width:</b>	- 5'-2"
➤ <b>Overall Length:</b>	- 10'-11"

**MATERIAL SPECIFICATIONS**

➤ <b>Pump Casing:</b>	- Gray Iron No. 30
➤ <b>Shaft Sleeve:</b>	- Chrome plated 416 s.s.
➤ <b>Wear Ring:</b>	- Bronze No. C83600
➤ <b>Mechanical Seal Faces:</b>	- Silicon carb./ Tungsten carb.
➤ <b>Priming Chamber:</b>	- Gray Iron No. 30
➤ <b>Pump Shaft:</b>	- Stress proof stainless steel
➤ <b>O-rings:</b>	- Buna-N and viton
➤ <b>Impeller:</b>	- Gray Iron No. 30
➤ <b>Check Valve Body</b>	- Gray Iron No. 30
➤ <b>Check Valve Flapper:</b>	- Buna-N
➤ <b>Flanges:</b>	- Gray Iron No. 30

**ENGINE SPECIFICATIONS**

➤ <b>Engine Make/Model:</b>	- John Deere 6081A
➤ <b>Max. Continuous BHP:</b>	- 225 @ 2200 RPM <sup>(5)</sup>
➤ <b>Crankcase Oil:</b>	- 34 quarts of SAE 10W40 <sup>(3)</sup>
➤ <b>Oil Press @ Low Idle:</b>	- 30 psi min.
➤ <b>Safety Shutdowns:</b>	- High water temperature & low oil pressure
➤ <b>Fuel Capacity/Type:</b>	- 171 gallons of No. 2 diesel
➤ <b>Fuel Consumption:</b>	- 8.42 gal/hr @ 1800 RPM 4.63 gal/hr @ 1400 RPM
➤ <b>Run Time:</b>	- 20.3 hours @ 1800 RPM <sup>(4)</sup> 36.9 hours @ 1400 RPM
➤ <b>Coolant:</b>	- 60 qt. 50/50 water/antifreeze
➤ <b>Number of Cyinders:</b>	- Six
➤ <b>Bore x Stroke:</b>	- 4.56"x5.06"

**Notes:**

- <sup>(1)</sup> Based on 1.0 specific gravity
- <sup>(2)</sup> Includes weight of skid, pump and engine
- <sup>(3)</sup> Midrange compromise. See John Deere manual.
- <sup>(4)</sup> At 1800 RPM. Run time increases with reduced speed and decreases with higher speed.
- <sup>(5)</sup> **WARNING** – this is the rated speed for the ENGINE ONLY. The rated speed of the pump is only 1800 RPM.
- <sup>(6)</sup> Depends on flowrate and pump speed.

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