

CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

MEETING DATE February 7, 2016	AGENDA ITEM NUMBER
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TO: Mayor Benetti and City Councilors

FROM: Jennifer Wirsing, Wastewater Project Engineer

THROUGH: Rodger Craddock, City Manager *REC*
 Jim Hossley, Public Works Director *JH*

ISSUE: Approve Purchase of a Portable Pump

BACKGROUND:

Approximately three weeks ago, one of the pumps at Pump Station 3 (PS 3) failed. A new pump has been ordered but there is a minimum 9 week lead time. When pumps fail or undergo maintenance, the City's wastewater service provider rents a portable pump utilizing the repair budget. For the last three weeks at PS 3, the City has been renting a portable pump for \$1,340 per week. To date we have spent \$6,705 in rental fees. Provided that the pump manufacturer meets the 9 week lead time deadline and there is no difficulty during the installation, the City will spend a minimum of \$12,060 in additional rental fees.

The City has the ability to purchase the Godwin pump that is currently servicing PS 3. The pump has approximately 200 hours of run time. The City has been in need of a portable pump for some time as the City's existing pump is too small for many applications and is several decades old. Staff has obtained three quotes to purchase a portable pump:

PUMP MANUFACTURER/MODEL	QUOTE	LEAD TIME
Godwin CD150M (200 Hours)	\$29,100	None
Gorman Rupp 16D60-F3L (New)	\$29,749	4-6 Weeks
Godwin CD150M (New)	\$35,948	4-6 Weeks

ADVANTAGES:

Purchase of this pump will decrease future rental fees.

DISADVANTAGES:

Staff sees no disadvantages.

BUDGET IMPLICATIONS:

If approved, funding for the portable pump will be divided equally (\$9,700 each) from the Wastewater Improvement Fund for Plant 1 (29-810-530-3002), Plant 2 (29-810-530-3003), and

Wastewater Collections (29-810-530-3004).

ACTION REQUESTED:

If it pleases the Council, approve the purchase of the Godwin portable pump for the cost of \$29,100.

ATTACHMENTS:

Product information

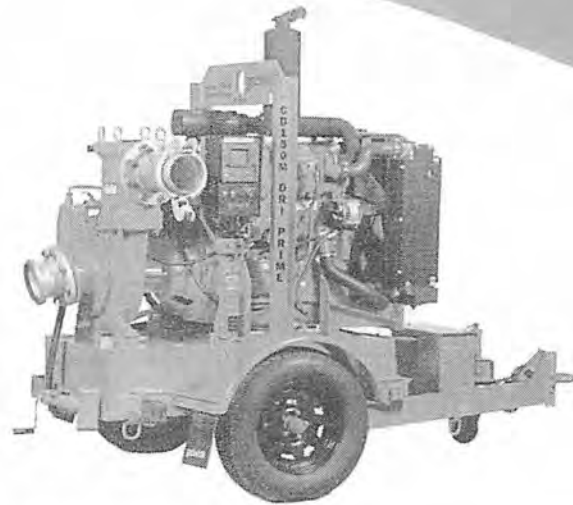
CD150M Dri-Prime® Pump

WITH FINAL TIER 4 (FT4) DIESEL ENGINE

The Godwin Dri-Prime CD150M pump offers flow rates to 2290 USGPM and has the capability of handling solids up to 3.0" in diameter.

The CD150M is able to automatically prime to 28' of suction lift from dry. Automatic or manual starting/stopping available through integral mounted control panel or optional wireless-remote access.

Indefinite dry-running is no problem due to the unique Godwin liquid bath mechanical seal design. Solids handling, dry-running, and portability make the CD150M the perfect choice for dewatering and bypass applications.



Features and Benefits

- Simple maintenance normally limited to checking fluid levels and filters.
- Dri-Prime (continuously operated Venturi air ejector priming device) requiring no periodic adjustment. Optional compressor clutch available.
- Extensive application flexibility handling sewage, slurries, and liquids with solids up to 3.0" in diameter.
- Dry-running high pressure liquid bath mechanical seal with high abrasion resistant solid silicon carbide faces.
- Close-coupled centrifugal pump with Dri-Prime system coupled to a diesel engine or electric motor.
- All cast iron construction (stainless steel construction option available) with cast steel impeller.
- Also available in a critically silenced unit which reduces noise levels to less than 70 dBA at 30'.
- Standard engine JCB TCAE-55 (FT4). Also available with John Deere 4045TFC03 (FT4).

Specifications

Suction connection	6" 150# ANSI B16.5
Delivery connection	6" 150# ANSI B16.5
Max capacity	2290 USGPM †
Max solids handling	3.0"
Max impeller diameter	11.0"
Max operating temp	176°F*
Max working pressure	70 psi
Max suction pressure	58 psi
Max casing pressure	104 psi
Max operating speed	2200 rpm

* Please contact our office for applications in excess of 176°F.

† Larger diameter pipes may be required for maximum flows.

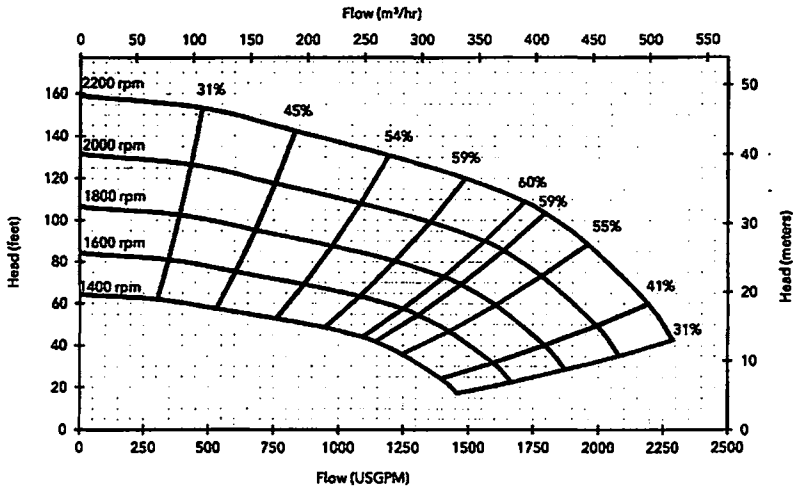
Please contact the factory or office for further details. A typical picture of the pump is shown. All information is approximate and for general guidance only.

godwin 

a xylem brand

Agenda Item #14

Performance Curve



Engine option 1

JCB TCAE-55 (FT4), 74 HP @ 2200 rpm

Impeller diameter 11.0"

Pump speed 2200 rpm

Suction Lift Table

Total Suction Head (feet)	Total Delivery Head (feet)				
	30	46	62	81	121
10	2179	2131	2083	1889	1356
15	2058	1937	1816	1574	1162
20	1453	1453	1453	1332	848
25	1259	1211	1114	969	484

Fuel capacity: 60 US Gal

Max fuel consumption @ 2200 rpm: 4.5 US Gal/hr

Max fuel consumption @ 1800 rpm: 2.4 US Gal/hr

Weight (Dry): 3,200 lbs

Weight (Wet): 3,630 lbs

Dim.: (L) 119" x (W) 66" x (H) 77"

Performance data provided in tables is based on water tests at sea level and 20°C ambient. All information is approximate and for general guidance only. Please contact the factory or office for further details.

Materials

Pump casing & suction cover	Cast iron BS EN 1561 - 1997
Wearplates	Cast iron BS EN 1561 - 1997
Pump Shaft	Carbon steel BS 970 - 1991 817M40T
Impeller	Cast Steel BS3100 A5 Hardness to 200 HB Brinell
Non-return valve body	Cast iron BS EN 1561 - 1997
Mechanical seal	Silicon carbide face; Viton elastomers; Stainless steel body

Engine option 2

John Deere 4045TFC03 (FT4), 74 HP @ 2200 rpm

Impeller diameter 11.0"

Pump speed 2200 rpm

Suction Lift Table

Total Suction Head (feet)	Total Delivery Head (feet)				
	30	46	62	81	121
10	2179	2131	2083	1889	1356
15	2058	1937	1816	1574	1162
20	1453	1453	1453	1332	848
25	1259	1211	1114	969	484

Fuel capacity: 60 US Gal

Max fuel consumption @ 2200 rpm: 5.2 US Gal/hr

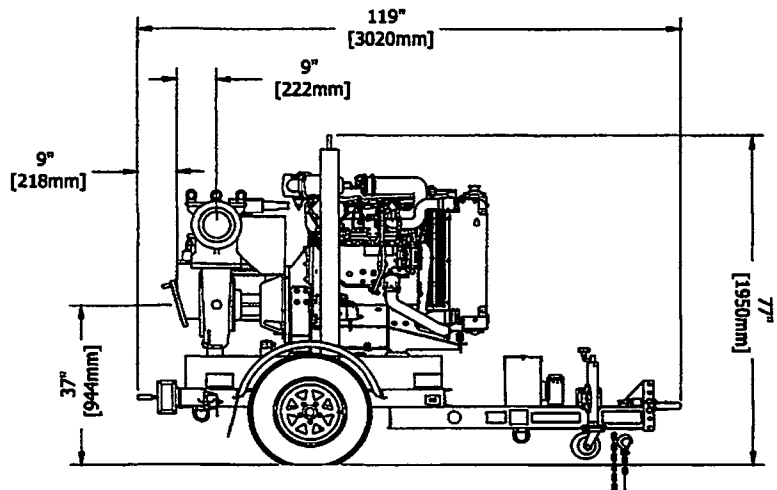
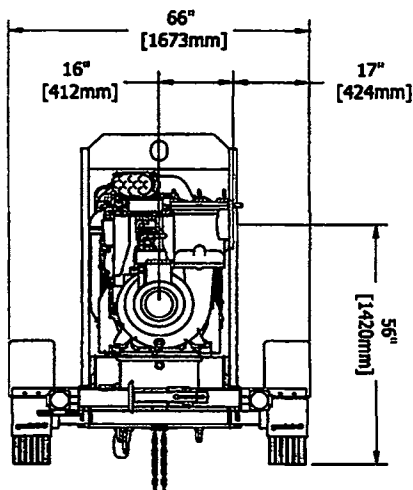
Max fuel consumption @ 1800 rpm: 2.6 US Gal/hr

Weight (Dry): 3,180 lbs

Weight (Wet): 3,610 lbs

Dim.: (L) 119" x (W) 66" x (H) 91"

Performance data provided in tables is based on water tests at sea level and 20°C ambient. All information is approximate and for general guidance only. Please contact the factory or office for further details.



xylem
Let's Solve Water

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Reference number : 200GPA0000980
Date of issue : November 2, 2015
Issue :

www.godwinpumps.com

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Agenda Item #14



Self Priming Centrifugal Pump

Model 16D60-F3L

Size 6" x 6"



Total Head		Capacity of Pump in U.S. Gallons per Minute (GPM) at Continuous Performance			
P.S.I.	Feet				
46.8	108	220	220	220	220
43.4	100	338	460	460	460
39.0	90	390	595	700	710
34.7	80	430	630	795	850
30.3	70	460	680	830	942
26.0	60	495	711	860	980
21.7	50	510	730	985	1005
17.3	40	535	748	910	1040
13.0	30	550	760	930	1060
Suction Lift		25'	20'	15'	10'



Shown w/Optional Wheel Kit

PUMP SPECIFICATIONS

Size: 6" x 6" (152 mm x 152 mm) NPT - Female.
 Casing: Gray Iron 30.
 Maximum Operating Pressure 78 psi (538 kPa) *.
 Semi-Open, Three Vane Impeller: Gray Iron 30.
 Handles 2 5/8" (66,5 mm) Diameter Spherical Solids.
 Impeller Shaft: Alloy Steel 4150.
 Replaceable Wear Plate: Carbon Steel C1015.
 Removable Cover Plate: Gray Iron 30. 22 lbs. (10 kg.).
 Intermediate: Gray Iron 30.
 Seal Plate: Gray Iron 30.
 Seal: Type 31, Mechanical, Self-Lubricated. Silicon Carbide Rotating and Stationary Faces. Fluorocarbon Elastomers (DuPont Viton[®] or Equivalent). Stainless Steel 316 Cage and Spring. Maximum Temperature of Liquid Pumped, 160°F (71°C). *
 Seal Sleeve: Alloy Steel 4130.
 Flap Valve: Buna-N w/Nylon Reinforcement and Steel.
 Radial Bearing: Open Single Row Ball.
 Thrust Bearing: Open Double Row Ball.
 Bearing Lubrication: SAE 30 Non-Detergent Oil.
 Suction Flange: Gray Iron 30.
 Gaskets: Cork, Vegetable Fiber and PTFE.
 Hardware: Standard Plated Steel.
Standard Equipment: Hoisting Bail. 90° Discharge Elbow. Combination Skid Base w/Fuel Tank. Strainer. Oil Level Sight Gauge.
Optional Equipment: Battery. High Speed (55 MPH/89 KM/H) Single Axle Pneumatic-Tired Wheel Kit w/wo DOT-Approved Lights and Electric Brakes. Tandem Axle Over-the-Road Trailer.

*Consult Factory for Applications Exceeding Maximum Pressure and/or Temperature Indicated.

WARNING!

Do not use in explosive atmosphere or for pumping volatile flammable liquids.

ENGINE SPECIFICATIONS

Model: Deutz D914L3.
 EPA Tier: Interim Tier 4.
 Type: Three Cylinder, Four Cycle, Air Cooled Diesel Engine.
 Displacement: 197.4 Cu. In. (3,24 Liters).
 Lubrication: Forced Circulation.
 Air Cleaner: Oil Bath.
 Fuel Tank: 61 U.S. Gallons (230,9 Liters).
 Full Load Operating Time: 31.1 Hours.
 Starter: 12 Volt Electric.

Standard Features: High Oil Temperature, Low Oil Pressure, V-Belt, Alternator and Start Failure Safety Shut Down Switches/Indicators. Fuel Level Gauge. Throttle Control. Instrument Panel Includes: Temperature Gauge, Oil Pressure Gauge, Ammeter, Hourmeter, Tachometer, Manual/Stop Key Switch, 15 Amp Fuse. Muffler w/Guard and Weather Cap.

DEUTZ PUBLISHED PERFORMANCE:
 Maximum Gross Continuous B.H.P.
 54.9 (41 kW) @ 2300 RPM



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

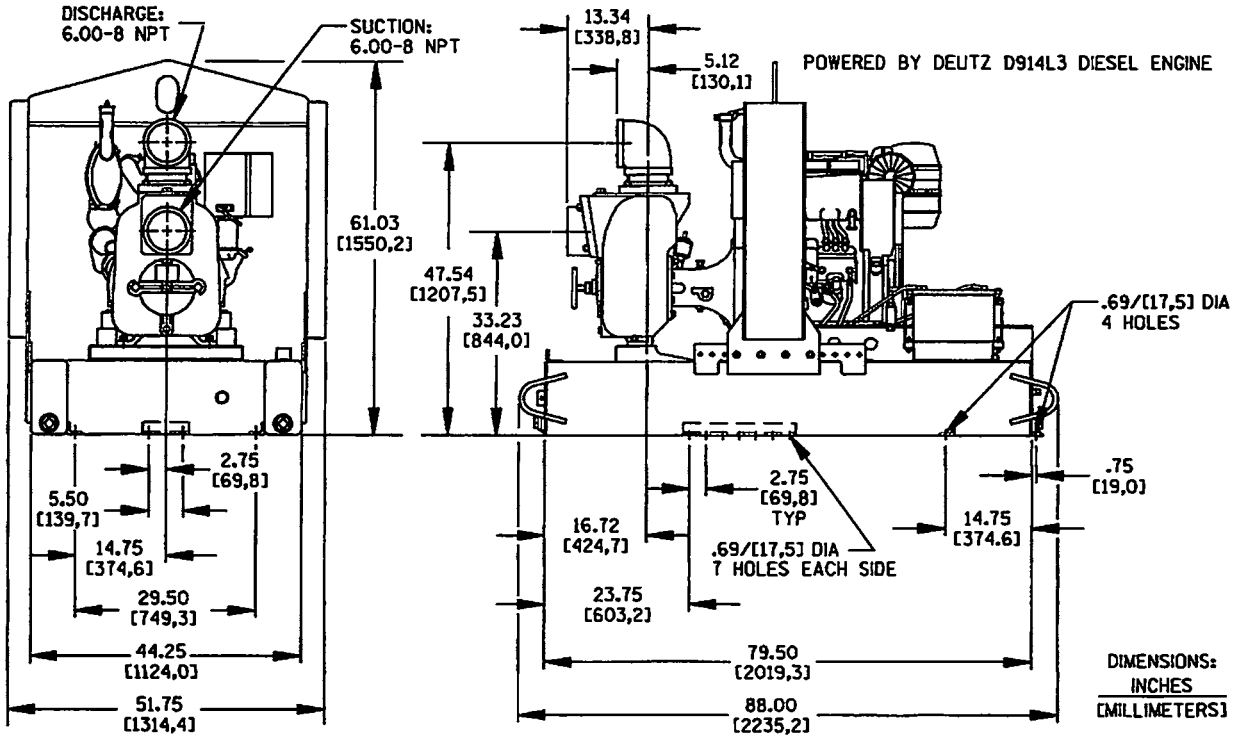
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Specification Data

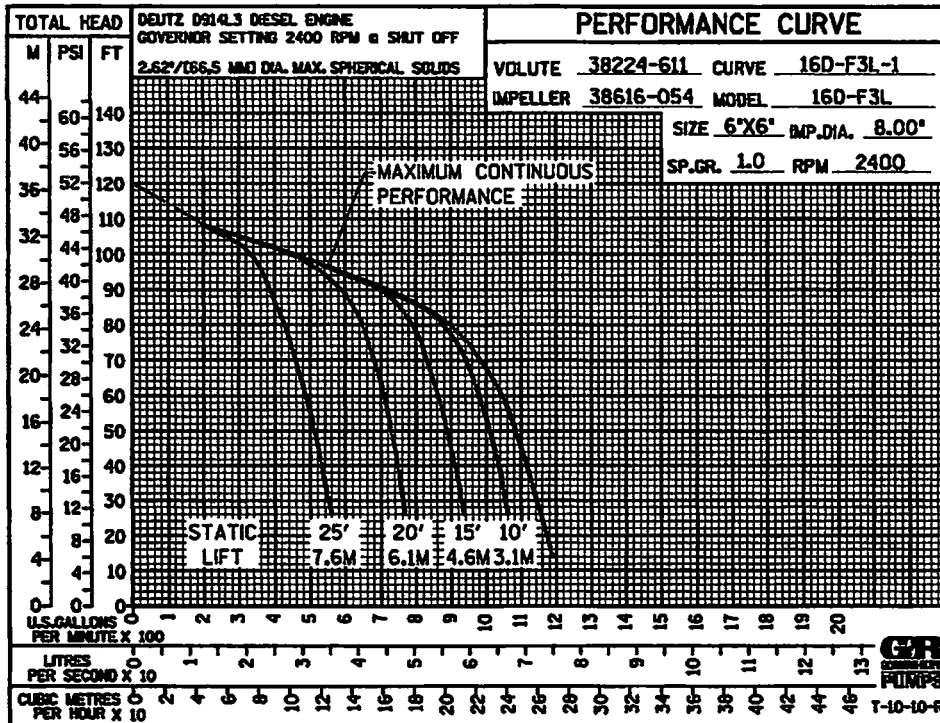
SECTION 45, PAGE 1251

APPROXIMATE
DIMENSIONS and
WEIGHTS

	SKID BASE	2-WHEEL
NET WEIGHT:	2340 LBS. [1061,4 KG.]	2700 LBS. [1224,7 KG.]
SHIPPING WEIGHTS:	2480 LBS. [1129,4 KG.]	2700 LBS. [1224,7 KG.]
EXPORT CRATE:	211 CU. FT. [6,0 CU. M.]	



DIMENSIONS:
INCHES
[MILLIMETERS]



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