

BID FORM
Bid #TF-2021-11
Purchase of Trailer Mounted Bypass Pump
DUE DATE: January 12, 2021 at 3:00 PM

Description	Total Cost
Trailer mounted bypass pump, as specified herein	\$ 56,245

Number of calendar days to delivery following receipt of Purchase Order: 28

***** ATTACH AN ITEMIZED SPECIFICATION SHEET FOR PROPOSED EQUIPMENT *****

Receipt is hereby acknowledged of the following Addenda to the Specifications:

ADDENDUM NO. 1 DATED 12/29/2020 ADDENDUM NO. 4 DATED 1/7/2021
ADDENDUM NO. 2 DATED 12/30/2020 ADDENDUM NO. 5 DATED _____
ADDENDUM NO. 3 DATED 1/5/2021 ADDENDUM NO. 6 DATED _____

The Undersigned affirms that it is duly authorized to submit this bid, that this bid has not been prepared in collusion with any other bidder, and that the content of this bid as to prices, terms, or conditions of said bid has not been communicated to any other bidder prior to the official opening of this bid.

PRIMA USA

Company Name

11000 AS COMMERCE Blvd

Address


Charlotte, NC 28273

City, State, Zip Code

704 587 3377

Phone No.

Email Address: doug.bartholomew@allightprmax-com



Authorized Signature

DOUGLAS BARTHOLOMEW

Printed Name

VICE PRESIDENT

Title

1/11/2021

Date

TECHNICAL SPECIFICATIONS

6" Dri Pump, trailer mounted

1. Diesel Engine (Final Tier 4 engine) DSB
2. Vacuum Assist DSB
3. Electric brakes & connectors DSB
4. Bumper pull 2-5/16 Ball DSB
5. Lights (Tx DOT Standards) DSB
6. Fuel Gauge DSB
7. Fuel Transfer Direct DSB
8. Tongue Jack (extra lifting jacks) DSB
9. Start and Stop Float level control DSB
10. Fuel fill tank & cap DSB
11. Engine Control Panel DSB
12. 2,000ft of Black lay flat hose, ball w/ lever connection DSB
13. 2- 6" 45 degree elbow –Ball w/ lever x socket DSB
14. 2- 6" 90 degree elbow – Ball w/lever x socket DSB
15. 2-20ft Suction hose with screen DSB
- 16.1 – Road Crossing 12 ft Span (6" 150 # flange connections 150 PSI rated) DSB
- 17.1- 8" flg x 6" FQD DSB
- 18.6" Female QD x 6" 150 # flange adapter DSB
19. 1 – 4" flg x 6" FQD DSB
20. 1 - 6" FQD x 6" FQD DSB

Primax USA, Inc
Division of Sykes Group Australia
11000 - A S. Commerce Blvd
Charlotte, NC 28273
Tel. 704-587-3377

BIDDER'S EXCEPTION FORM
Bid #TF-2021-11
Purchase of Trailer Mounted Bypass Pump

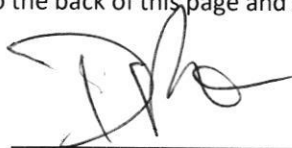
This form must be completed and signed by an authorized representative of the company. Failure to do so may cause total bid to be rejected. If no exceptions are proposed, indicate by stating "No Exceptions to Specifications" and sign in the appropriate space.

STATEMENT OF BIDDER: WE PROPOSE THE FOLLOWING EXCEPTIONS TO THE SPECIFICATIONS

<u>ITEM</u>	<u>PAGE/ PARAGRAPH #</u>	<u>EXCEPTION</u>
<u>1</u>	<u>4</u>	<u>Rev 2 TD 2.9 74 HP FT4 DIESEL, AS EQUAL</u>
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NOTE: If additional pages are needed, attach to the back of this page and note "See Page 2-Deviations" on this page.

Primax USA
Company Name


Authorized Signature

ALLIGHTPRIMAX

Quotation

QUO-15292-L7T7D7-0

allightsykes.com

CP150i, Deutz TD2.9, LOFA CP750, Open Trailer

Primax USA, Inc

Division of Sykes Group Australia

11000 - A S. Commerce Blvd

Charlotte, NC 28273

Tel. 704-587-3377

QUOTATION

Reference: QUO-15292-L7T7D7-0

Monday, January 11, 2021

Ms. Wood,

Thank you for your valued inquiry, we are pleased to enclose our specification, descriptive literature and pricing for the following scope of supply:

6" Trailer Mounted Bypass Pump and Accessories pump per the specifications for Bid TF-2021-11. Primax USA takes no exception and has offered this unit powered by a Deutz TD2.9 74 HP Final Tier 4 engine we offer AS EQUAL to John Deere addressed in addendum 3.

This quotation includes all items 1-20 listed on page 4, technical specifications, without exception. This quotation includes delivery to City of Seguin Utilities Operations Center as specified on page 1 item 6.

I trust this information covers all aspects of your requirement and is acceptable. We will be happy to amend or modify the proposal to suit additional requirements, and please do not hesitate to contact me if required.

I look forward to your further instructions.

Your Sincerely,

A handwritten signature in black ink, appearing to read 'Doug Bartholomew', is written over a small square icon containing an 'x'.

Doug Bartholomew
Sales Manager USA
Mobile: +17049544149
Office: +1 704 587 3377

AMERICAS

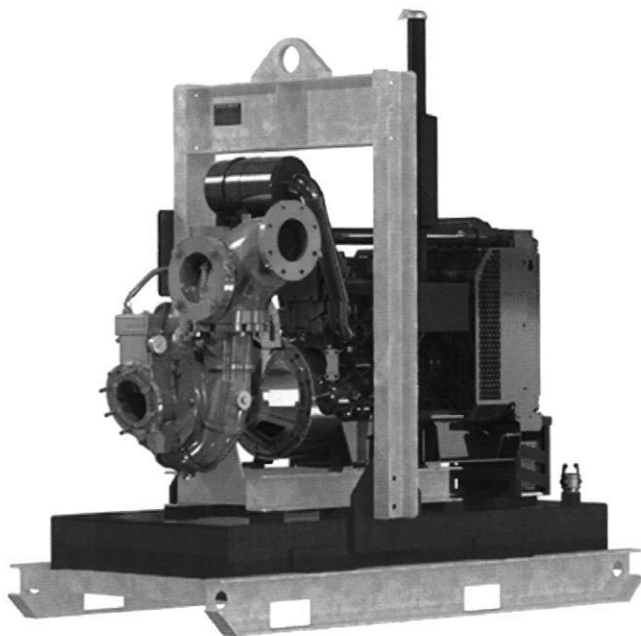
11000-A South Commerce Boulevard, Charlotte, North Carolina 28273 USA

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SPECIFICATION	UNIT PRICE	QTY	TOTAL PRICE
CP150i SR	56,245.00	1	56,245.00

AllightSykes CP150i 150mm / 6" Automatic Compressor Priming Solids Handling Low Head Pump set



** Image is for illustration purposes only.*

** Lead time is 12 weeks from date of order.*

- o 150mm / 6" Suction Flange
- o 150mm / 6" Discharge Flange
- o 77mm / 3" Solids
- o CP150i Automatic Compressor Priming Pump End
- o 285 mm Diameter Impeller
- o Mechanical Seal - Oil Lubricated Hard Faced Capable of Running Dry for Extended Periods
- o 150mm / 6" Ball or Flap Type NRV
- o 1104D-44TA Perkins Diesel Engine
- o S17 Control Panel c/w Engine Protection & E Stop
- o Variable Speed 1400-2200 rpm
- o 440 L Steel Fuel Tank
- o Galvanised Standard Duty Sled c/w Fork Tynes

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AUSTRALIA | NEW ZEALAND | NORTH AMERICA | SOUTH AMERICA | EUROPE | ASIA | AFRICA

- o Single Point Lift Frame
- o Suction & Discharge Pressure Gauge
- o Operating Range Sign
- o Lockable Fuel Cap
- o 12V Battery

FEATURES

AllightSykes CP150i 150mm / 6" Automatic Compressor Priming Solids Handling Low Head Pump set

REMARKS

- All pricing is in US Dollars.
- All pricing ex works.
- All finance is subject to finance approval.
- In some cases company financials may be required.
- All financing is offered by external financier recommended by AllightPrimax.
- Alternative residual values available.
- All finance offers are subject to final approval by AllightPrimax MD.
- Customised and bespoke orders (ETO – Engineering To Order) are indicative lead times and subject to scope finalisation. Variations may be applicable if changes to scope are requested post customer sign off.
- Lead times provided are current at time of quotation and may vary subject to production load.
- This quote is valid for 30 days; after this period AllightPrimax reserves the right to revise the quotation.

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ALLIGHTPRIMAX

PUMP SPECIFICATION SHEET

Primax CP150-285-SR Deutz TD 2.9, 74HP



Built Tough

CONTRACTOR PUMP SR

HEAVY DUTY

Automatic self-priming single stage end suction pump

SOLIDS HANDLING

Large solids capacity while maintaining hydraulic efficiencies

CORROSION RESISTANT

Stainless steel 316 (CF8M) internals as standard.



Construction Sewage &



Quarries



Rental



Agriculture



Marine

TECHNICAL DATA

DESIGN DETAILS

Venturi Auto self priming, run dry, centrifugal single stage, end suction, 2 vane semi open impeller

Suction Flange	150mm / 6"
Delivery Flange	150mm / 6"
Solids Handling	77mm / 3.03"
Maximum Head	60m / 197ft
Maximum Flow	173L/sec / 2,742 USgal/min
Engine Type	Deutz TD2.9 Final Tier 4
Engine Adaptor	SAE #4
Shaft Diameter	40mm / 1.57"
Fuel Rate @ BEP 2,000rpm	12.3L/hr / 0.05 USgal/min *
Fuel Rate @ BEP 1,600rpm	6.6L/hr / 0.03 USgal/min *
Fuel Tank Capacity	440L / 116 USgal

MATERIALS OF CONSTRUCTION

STANDARDS	MATERIAL	AUSTRALIA		AMERICAS	
		GRADE	AS	GRADE	ASTM
Tee Piece	SG Iron	400/12	1831	65-45-12	A536
Pump Casing (Volute)	SG Iron	400/12	1831	65-45-12	A536
Front Wear Plate	Stainless	316/H6B	2074	CF8M	A351
Impeller	Stainless	316/H6B	2074	CF8M	A351
Rear Wear Plate	Stainless	316/H6B	2074	CF8M	A351
Pump Shaft	Stainless	431	2074	98b-431	A276
Bearing Bracket	SG Iron	400/12	1831	65-45-12	A536
Bearing Covers	SG Iron	400/12	1831	65-45-12	A536

Mechanical Seal Multi spring balanced mechanical seal assembly with silicon carbide/silicon carbide mechanical seal faces in self-contained oil reservoir.

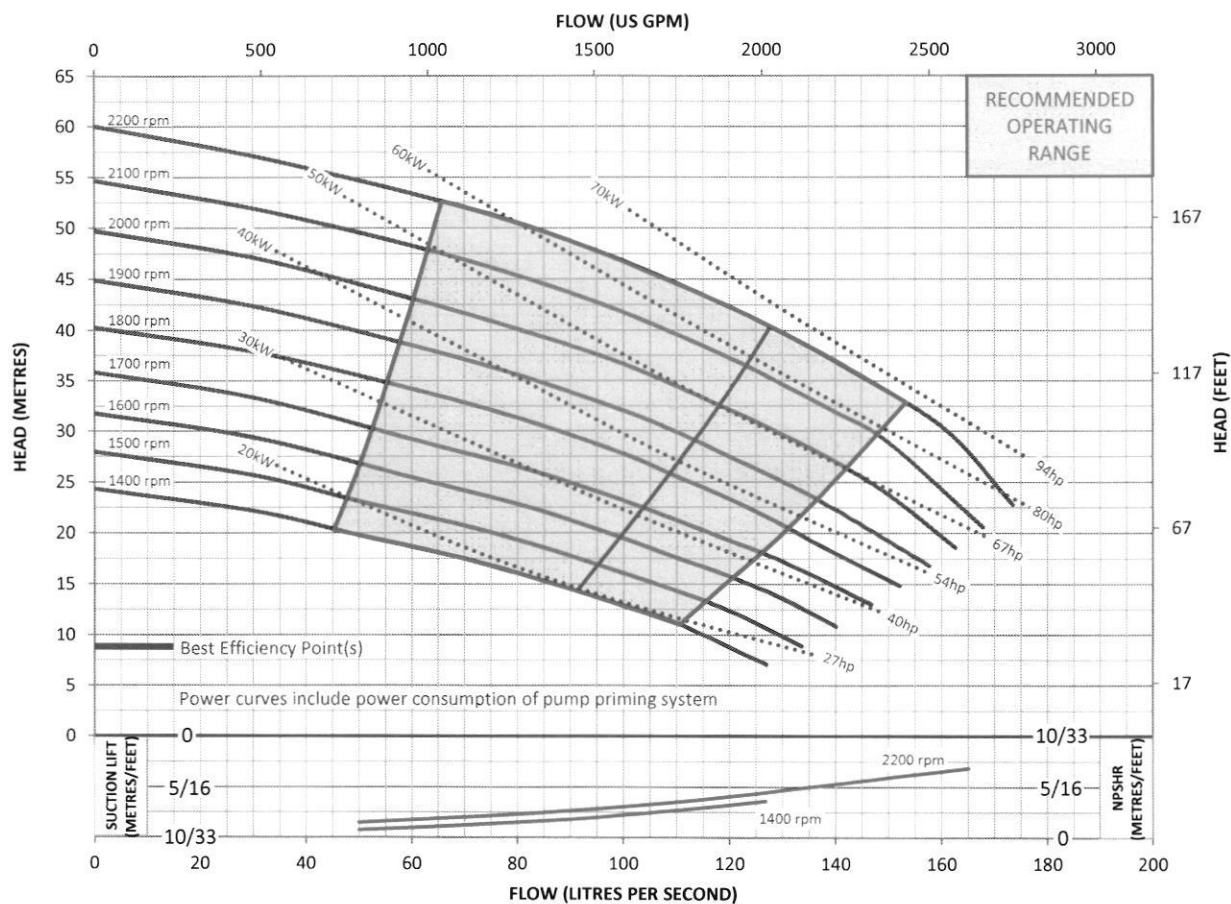
STANDARD RANGE (SR) INCLUSIONS

- Single point lifting frame.
- Manual diesel fuel fill (lockable).
- LOFA CP750 Auto control panel.
- Heavy duty battery, complete with battery box enclosure.
- Vacuum (suction inlet) and Pressure (discharge outlet) gauges.
- DOT Trailer for transportation.

OPTIONAL EXTRAS

Please contact us to discuss these options:

- Additional operational, mobility and safety extras such as: suction and discharge couplings, strainers, battery isolators, heavy duty sleds and trailers. These can all be selected and fitted to our Standard Range (SR) pump units.
- Our SR build configuration uses Deutz diesel engines, however, alternative engine brands are available upon request.
- Other pump materials of construction are also available upon request: full 316 stainless steel, CD4MCU, chromium steel, SAF 2205 and SAF 2507.

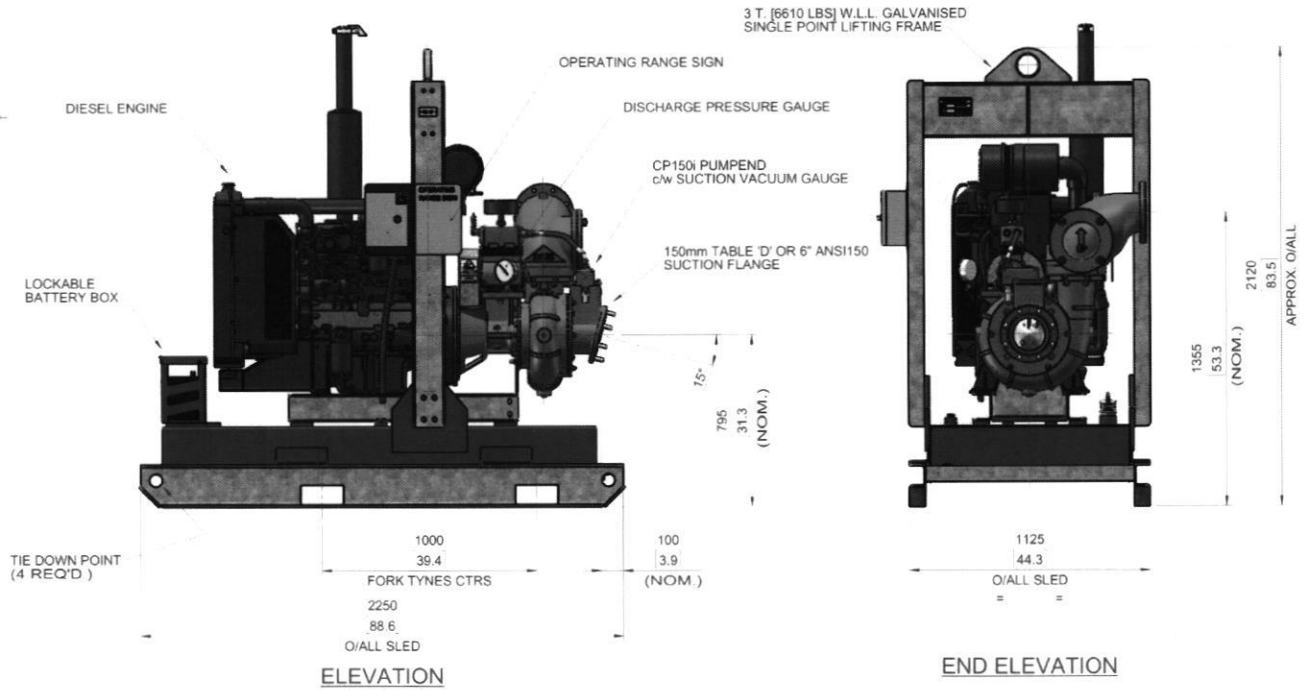


This pump and engine combination will produce up to 2,000 RPM of non-overload pump performance.

* Based on standard engine brake specific fuel consumption.

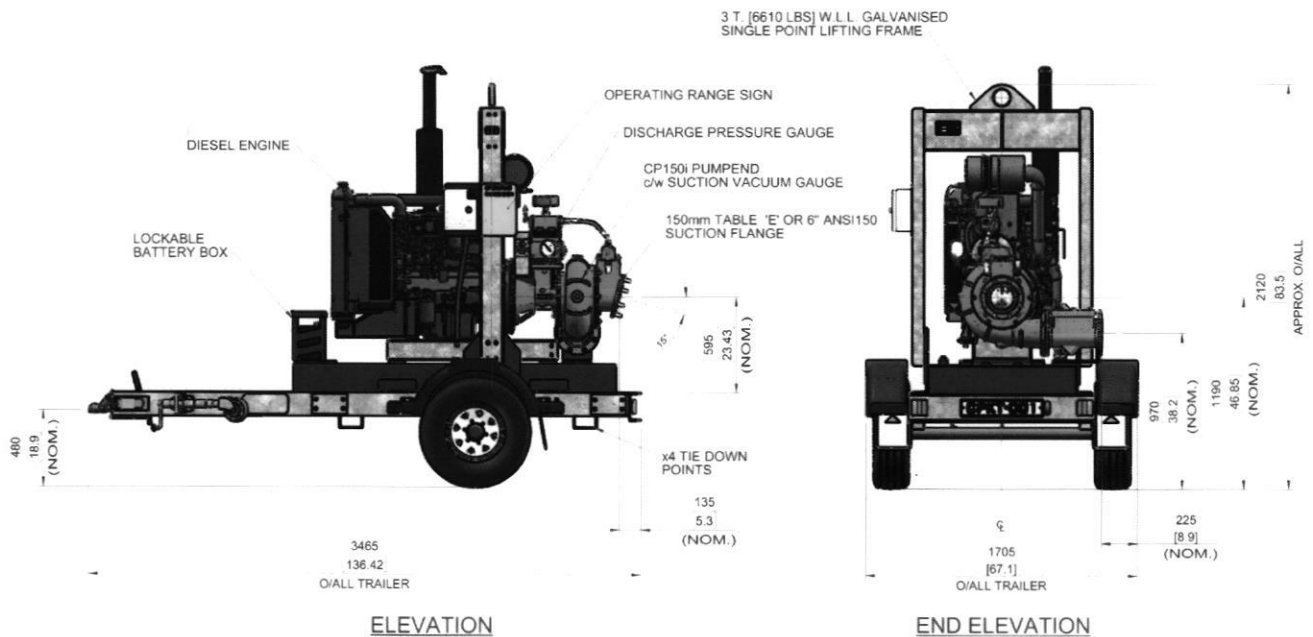
Final weight and dimensions will depend on completed specifications and options, subject to manufacturing

TECHNICAL DATA



DRY: 1,840 kg (4,055 lb)

WET: 2,205 kg (4,860 lb)



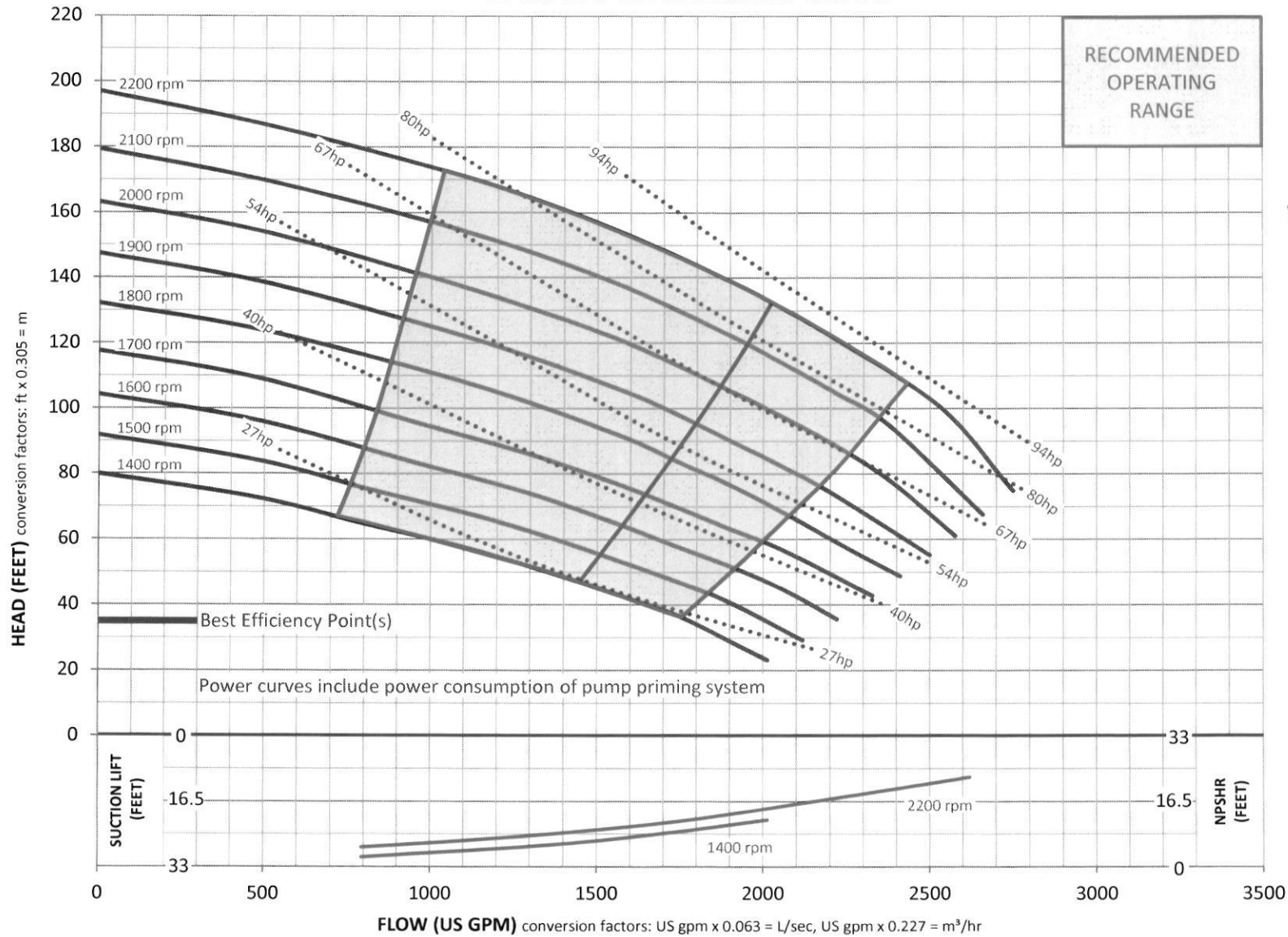
DRY: 1,900 kg (4,190 lb)

WET: 2,110 kg (4,650 lb)

* Based on standard engine brake specific fuel consumption.

Final weight and dimensions will depend on completed specifications and options, subject to manufacturing

CP150i Performance Curve



PUMPEND:

CP150i

IMPELLER DIA:

11.22"

SOLID HANDLING SIZE:

3.03"

SUCTION SIZE:

6"

DISCHARGE SIZE:

6"

Revision: 1 21-03-14

¹Performance to AS2417/ISO9906 Grade 2 for clear, cold (15°C) water at sea level. Other liquids may require performance adjustments.

²Performance curves do not include discharge check or non return valve losses.

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DEUTZ TCD 2.9

For mobile machinery ■ 30-75 kW / 40-100 hp at 2200-2600 min⁻¹/rpm ■ EU Stage IIIB and V / US EPA Tier 4

- Water-cooled 4-cylinder inline engine with cooled, external exhaust gas recirculation with and without turbocharging and optionally with and without charge air cooling.
- The powerful Common Rail injection system and highly-efficient combustion process with cooled external exhaust gas recirculation ensure optimum engine performance at low fuel consumption and exhaust emissions.
- The DVERT[®] oxidation catalyst for EU Stage IIIB and US EPA Tier 4 enables maintenance-free operation under all application and ambient conditions. A DVERT[®] particulate filter (DPF) is available as an option. With the introduction of EU Stage V, DPF will be available for all engine types. Through the use of the diesel particulate filter, the engines already comply with the EU Stage V emissions standard expected from 2019*.
- For ease of machine installation engine foot print and all major installation interfaces will stay unchanged for Stage V.
- Up to 1000 h oil change intervals and a maintenance-free valve train result in low maintenance costs and increased machine availability.
- The extremely compact engine design and customer friendly accessories reduce the installation costs and increase the number of applications.
- 100% power take-off at flywheel and front end and additional side PTO drive with up to 120 Nm for the mounting of up to two hydraulic pumps.
- A variant without EAT is optionally available for EU Stage III A, US EPA Tier 4i and for less regulated markets.
- New High Power engine version to extend the 2.9 platform to 100 hp.
- New High Torque engine version for extraordinary strong performance below 56 kW.



TECHNICAL DATA

Engine type		D 2.9 L4	TD 2.9 L4	TCD 2.9 L4	TCD 2.9 L4 HT ^{*)}	TCD 2.9 L4 HP ^{**)}
No. of cylinders		4	4	4	4	4
Bore/stroke	mm in	92/110 3,6/4,3	92/110 3,6/4,3	92/110 3,6/4,3	92/110 3,6/4,3	92/110 3,6/4,3
Displacement	l cu in	2,9 177	2,9 177	2,9 177	2,9 177	2,9 177
Max. nominal speed	min ⁻¹ rpm	2600	2600	2600	2600	2300

Engine type		D 2.9 L4	TD 2.9 L4	TCD 2.9 L4	TCD 2.9 L4 HT ^{*)}	TCD 2.9 L4 HP ^{**)}
Power output as per ISO 14396 ¹⁾	kW hp	36,4 50	55,4 75	55,4 75	55,4 75	75 100
at speed	min ⁻¹ rpm	2600	2600	2600	2600	2300
Max. torque	Nm lb/ft	147 108	260 192	300 221	375 277	400 295
at speed	min ⁻¹ rpm	1600	1600-1800	1600	1600	1600
Minimum idling speed	min ⁻¹ rpm	900	900	900	900	900
Specific fuel consumption ²⁾	g/kWh lb/hph	225 0,37	225 0,37	210 0,35	210 0,35	210 0,35
Weight as per DIN 70020 Part 7A ³⁾	kg lb	220 485	237 522	237 522	237 522	237 522

* Based on the proposal by the EU Commission COM (2014) 581 final from 25.09.2014

1) Power data without deduction of fan power

2) Best point consumption refers to diesel with a density of 0.835 kg/dm³ at 15°C.

3) Without starter/alternator, cooler and fluids but with flywheel and flywheel housing

^{*)} HT = High Torque
^{**)} HP = High Power

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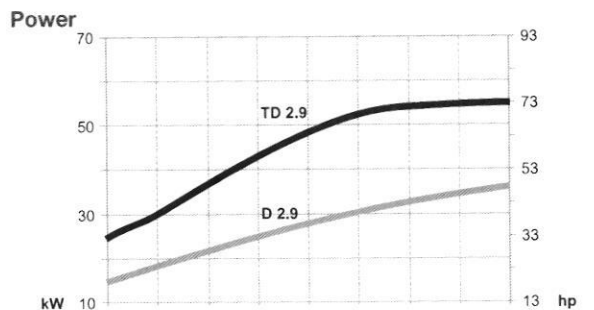
Tel. 704-587-3377

The engine company.

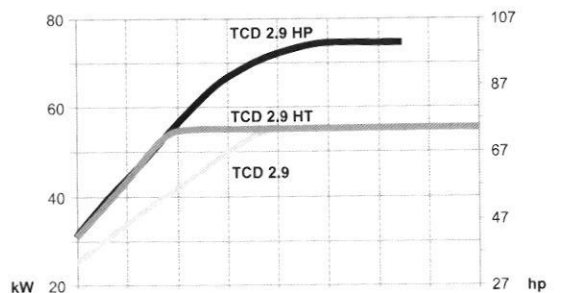


CHARACTERISTIC CURVES

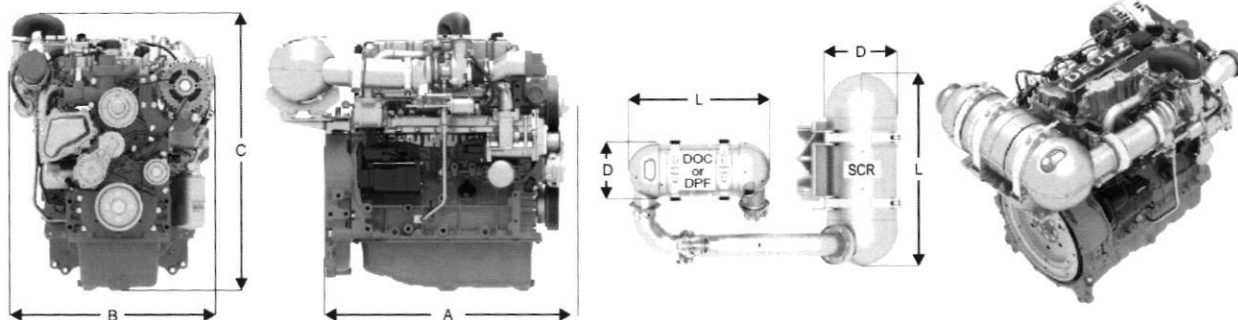
D 2.9 / TD 2.9 L4



TCD 2.9 L4 - Standard, HT and HP



DIMENSIONS



Engine type				DOC		SCR		DPF		DVERT® EAT		
	A	B	C	D	L	D	L	D	L	DOC	SCR	DPF
D 2.9	< 37 kW	mm in	678 26,7	483 19,0	685 27,8	199 7,8	380 15,0	-	-	■	-	●
TD 2.9	< 56 kW	mm in	678 26,7	560 22,0	685 27,8	199 7,8	523 20,6	-	-	■	-	●
TCD 2.9	< 56 kW	mm in	678 26,7	560 22,0	685 27,8	199 7,8	380 15,0	-	-	■	-	●
TCD 2.9 / HT	< 56 kW	mm in	678 26,7	560 22,0	685 27,8	199 7,8	380 15,0	199 7,8	613 24,1	■	-	●
TCD 2.9 / HP	> 56 kW	mm in	678 26,7	560 22,0	685 27,8	-	-	246 9,7	659 25,9	199 7,8	613 24,1	■

■ Standard for Stage IIIB / T4

● Optional for Stage IIIB / T4, but DPF and SCR standard for Stage V

For EU Step IV / EPA Tier 4 or standard for EU Step V. The DVERT® oxidation catalyst (DOC) does not satisfy the regulations of certain markets that have specified additional limit values for the number of particles (e.g. Switzerland). DEUTZ offers the DVERT® wallflow particulate filter as an option for these markets.

All connection variants are available either in 0° or 90° positions for inlet and outlet flanges. Note: The engine dimensions and weights vary depending on the scope of delivery.

For more information please contact the DEUTZ AG or the responsible sales partner.

DEUTZ AG

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Telefax: +49 (0) 221 822-3525
E-Mail: info@deutz.com
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www.deutz.com

The engine company.



CANplus™

CP750

AUTOSTART AND MANUAL OPERATIONS FOR ELECTRONICALLY AND MECHANICALLY GOVERNED ENGINES

FEATURES

- The panel (formerly LOFA CANplus Classic) can be field configurable for a wide range of applications
- Control panel models available for Tier IV Final/ Euro Stage IV and all previous emission standard levels
- Rugged weather-resistant Aluflex™ extruded aluminum and powder coated housing with heavy-duty mounting bracket system including isolation mounts
- Intuitive display Interface with user-friendly configuration menu
- Analog fuel level input
- Heavy-duty IP64 key switch with booted key
- Key switch features mechanical lock-out to prevent restart attempts when engine is running
- Ramp throttle adjustment via momentary rocker switch or digital rotary
- Solid-state design facilitates high current switching
- Two fault switch inputs with customizable diagnostic messages
- LED indication for standby, preheat, warning and stop
- Alarm output indicates prestart warning and fault condition
- Auxiliary output for engine running, autostart or engine-at-speed
- CE Listed (Aluflex only)
- Connections:
 - Sealed dual auto-start switch connector
 - Sealed M12 transducer connector
 - Industry standard 21-pin sealed connector

AUTOMATIC START/STOP

- Configurable warm-up, ramping and cool down throttle profile
- 4-20 mA transducer and two-switch inputs support multiple control scenarios such as single switch, dual switch, level transducer and pressure transducer
- Throttle maintain modes use transducer reading to adjust the engine speed to match a configurable set point (level or pressure)
- Transducer input supports simple start/stop operation with configurable high and low set points
- Transducer and switches mode provides backup of transducer function for added protection in critical applications

DISPLAY FEATURES

- Large 4.3" (diagonal) IP67 LCD displays SAE J1939 parameters and diagnostics
- High contrast display readable in bright sunlight
- Backlight allows reading display in total darkness
- PIN protection available for added security
- Ten language support
- Configurable display units (US/Metric)
- Active alarms displayed in clear language
- User selectable gauge layout; up to 16 gauges
- Five tactile function buttons
- Visual indication for switch states and transducer output
- 16 service timers
- Configuration via display:
 - Transducer start-stop
 - Transducer alarms
 - Engine run speed
 - Throttle profile
 - Automatic start/stop mode

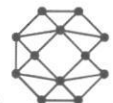
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CP750

SUITE CONFIGURATION

- Ability to create and save application specific configuration files
- Quickly create custom splash screens from graphics files
- Provides additional configuration parameters not available via display
- Facilitates convenient and efficient firmware updates
- Software feature updates are available

ELECTRONIC GOVERNED ENGINES

- Displays SAE J1939 parameters reported by the ECU
- Displays SAE J1939 CANbus diagnostic messages

MECHANICAL GOVERNED ENGINES

- Performs ECU function of monitoring oil pressure, temperature, tachometer, input, hourmeter
- Optional CANbus throttle actuator kit provides full electronic engine speed control including warm-up, cool down, and configurable speed presets

MODBus (Optional)

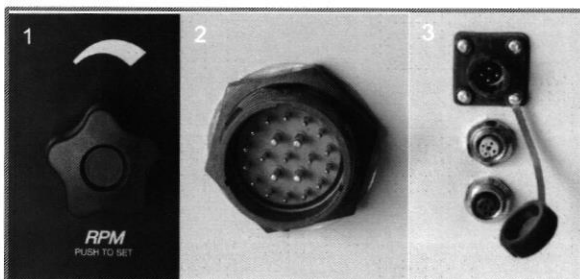
- Modbus slave via RS485 port
- Modbus ASCII or RTU serial transmission modes
- Allows monitoring of J1939 parameters via Modbus
- Start/stop available in automatic mode
- Set requested engine run speed
- Configure select parameters

EMISSIONS MANAGEMENT PROVISIONS

- Operator interface simplifies exhaust emission system management for DPF and SCR technologies
- Emissions management by J1939 CANbus (hardwire optional)
- Optional interlock rocker switch is available in both CANbus and hardwire configuration

OPTIONS

- Low temperature display
- NEMA 4X enclosure with lockable door and isolation mounting
- Plug-and-Play harnesses
- Aluflex security door
- M12 sealed RS485 connector
- Digital rotary throttle
- Two or three state throttle switch
- CANbus nodes to facilitate analog sensor inputs
- Keyless lever ignition switch
- Telemetry module



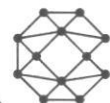
1) Digital rotary throttle with push-to-set speed selector allows for changes to engine speed presets.

2) 21-pin engine harness connector

3) Top: CPC sealed dual float switch connector with cap

Middle: M12 sealed transducer connector (cap not shown)

Bottom: M12 sealed RS485 serial connector (cap not shown)





CP750

TECHNICAL DATA AND SPECIFICATIONS

Nominal System Voltage	10 – 28 VDC
Standby Current	85 mA @ 13.5V; 43 mA @ 26V
Operating Temperature	-25°C to +70°C
Low Temperature Version	-40°C to 75°C
Reverse Polarity Protection	Yes
Starter Relay	Required
CANBus Standard	SAE J1939 (CANBUS 2.0B)
Solid-State I/O:	
ECU/Solenoid	10A @ system voltage
Starter	10A @ system voltage
AUX Output	750 mA
Alarm Output	750 mA
Transducer Input	4-20 mA
AUX Shutdown Input	2
Fuel Sender Input	1
Warranty	2-year limited warranty



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Asia: Sales.CN@Cattron.com

cattron.com

CANplus_CP750_Datasheet_Sept2020

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 **CATTRON**

**SPECIFICATIONS FOR A GORMAN-RUPP
PRIMING ASSISTED CENTRIFUGAL PUMP MODEL PA6D60-4045T FT4-ESP
With Auto- Start Control**

GENERAL:

Six-inch (6") priming assisted pump driven by a liquid-cooled diesel engine. Pump shall be capable of handling water with a high content of solids and running dry continuously without damage.

PUMP:

Pump to have 6-inch (6") suction and discharge. The casing is to be made of gray iron 30. Semi-Open type two-vane impeller made of ductile iron no. 65-45-12 and capable of handling 3" diameter spherical solids. Impeller shaft is to be made of stainless steel 17-4 PH. Pump to have a replaceable wear ring made of ductile iron 65-45-12.

The seal shall be mechanical oil-lubricated with double floating, self-aligning silicon carbide rotating and stationary faces. It shall have a stainless steel 316 stationary seat and DuPont viton or equivalent elastomers. Cage and spring to be stainless steel no. 18-8. Bearings shall be oil lubricated.

The priming chamber housing is to be gray iron #30 with stainless steel float and linkage that will insure automatic prime and reprime. Once pump is primed the valve will close and will not allow any of the product being pump to be bypassed onto the ground or into the atmosphere. Pump must also be capable of operating under a flooded suction condition without allowing product being pumped in to be bypassed onto the ground or into the atmosphere.

The pump shall have a clean-out port and spring-loaded discharge check valve that operates automatically. The pump shall be manufactured in the U.S.A. by an ISO 9001 approved company. Companies without ISO 9001 certification will not be allowed.

PERFORMANCE:

At an engine speed of 1950 rpm, the pump shall be capable of reaching a maximum head of 140 feet, and a maximum flow rate of 2300 GPM. Pump shall be capable of the following condition points:

- Duty Point #1 – 10' static suction lift – 2000 GPM @ 92' TDH
- Duty Point #2 – 15' static suction lift – 1700 GPM @ 104' TDH
- Duty Point #3 – 25' static suction lift – 1050 GPM @ 128' TDH

COMPRESSOR:

The compressor is to be gear-driven directly off the engine with a model Bindex 34 CFM air compressor including air intake plumbing, water-cooler plumbing, lube system plumbing. The priming system shall not incorporate a vacuum pump, belt-driven air compressor or diaphragm priming system.

Compressor shall create a vacuum on suction side of pump by forcing air through a venturi, which is mounted in a protected area of the pump frame.

ENCLOSURE:

The entire pump unit shall be enclosed by a soundproof lightweight aluminum, modular enclosure to reduce operating noise to an average 74 dbA level at 23 feet (7 meters) while pumping under full load. The entire enclosure shall be removable for maintenance of pump or engine. It will be equipped with padlockable access panels with an opening to facilitate pump and engine servicing, and incorporate a removable panel to allow access to the pump clean-out cover plate. The enclosure shall have a lockable access panel for the engine control and level control system. Integral drain ports will be included along with a weather tight positive engagement 4-pin socket for float switch connection. It shall be secured to an environmentally safe, spill containment type, combination skid base with integral fuel tank.

ENGINE:

The pump shall be coupled directly to the engine flywheel.

The engine shall be four cylinder, turbocharged, liquid cooled, final tier 4, diesel of not less than 276 cubic inch displacement having a manufacturer's continuous brake horsepower rating of 74 BHP at 2400 rpm. Engine shall be complete with a 88 gallon fuel tank that will allow unit to operate for 19.7 hours under full load. Engine will have an instrument panel with temperature gauge, oil pressure gauge, ammeter, hour meter, and tachometer. Shall be equipped with safety shut down switches for low oil pressure and high coolant temperature.



**Sound Attenuated
Diesel Engine Driven
Environmental Silent Pump
Priming Assisted Centrifugal Pump
w/Autostart
Model PA6D60-4045T FT4-ESP
Size 6" x 6"**



Total Head		Capacity of Pump in U.S. Gallons per Minute (GPM) at Continuous Performance				
P.S.I.	Feet					
61.5	142	555	555	555	555	555
60.7	140	600	600	600	600	600
52.0	120	995	1230	1230	1230	1230
43.4	100	1015	1435	1720	1820	1820
34.7	80	1030	1440	1760	2030	2260
26.0	60	1045	1455	1770	2040	2285
17.4	40	1060	1460	1780	2050	2320
Suction Lift		25'	20'	15'	10'	5'

PUMP SPECIFICATIONS

Size: 6 x 6" (152 mm x 152 mm) Flanged.

Casing: Gray Iron 30.

Maximum Operating Pressure 103 psi (710 kPa).*

Enclosed Type, Two Vane Impeller: Ductile Iron 65-45-12.

Handles 3" (76.2 mm) Diameter Spherical Solids.

Suction Spool: Gray Iron 30.

Impeller Shaft: Stainless Steel 17-4 PH.

Externally Adjustable Wear Plate: Carbon Steel C1015.

Bearing Housing: Gray Iron 30.

Seal Plate: Gray Iron 30.

Seal: Mechanical, Oil-Lubricated. Silicon Carbide Rotating Face. Silicon Carbide Stationary Seat. Fluorocarbon Elastomers (DuPont Viton® or Equivalent). Stainless Steel 18-8 Cage and Spring. Maximum Temperature of Liquid Pumped, 160°F (71°C).*

Shaft Sleeve: Stainless Steel 17-4 PH.

Priming Chamber: Gray Iron 30 Housing w/Stainless Steel Float and Linkage.

Discharge Check Valve: Ductile Iron Housing w/Buna-N Flapper.

Radial/Thrust Bearings: Open Double Ball.

Bearing and Seal Cavity Lubrication: SAE 30 Non-Detergent Oil.

Gaskets: Resistant Synthetic Rubber, Cork, PTFE, Vegetable Fiber, and Compressed Synthetic Fibers.

O-Rings: Buna-N.

Hardware: Standard Plated Steel.

Bearing and Seal Cavity Oil Level Sight Gauges.

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

Standard Equipment: Gear-Driven Air Compressor. Hoisting Bail. Strainer. Soundproof (EPA Average 74 dBA at 23 feet [7 meters] Under Load). Lightweight Aluminum Enclosure - Removable for Maintenance of Pump or Engine - w/Lockable Door Panels. Spill Containment Base w/Integral Drains. Single Ball Type Float Switch. ** Full Feature Control Panel For Use w/Submersible Transducer Liquid Level Sensor.**

Optional Equipment: Battery. GR Hard Iron Impeller and Seal Plate. Heated Priming Chamber Kit. NPT Suction and Discharge Flange Kits. 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 (Meets DOT Requirements).

**50 Ft. (15 m) Standard Length; Dual Switches and Alternate Cable Lengths Available From the Factory.

**WARNING!**

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

ENGINE SPECIFICATIONS

Model: John Deere 4045T.

EPA Tier: Final Tier 4.

Type: Four Cylinder, Four Cycle, Turbocharged, Liquid Cooled Diesel Engine.

Displacement: 276 Cu. In. (4.5 liters).

Lubrication: Forced Circulation.

Air Cleaner: Dry Type.

Fuel Tank: 88 U.S. Gals. (330 liters).

Full Load Operating Time: 23.5 Hrs.

Starter: 12V Electric.

Standard Features: Muffler w/Guard and Weather Cap, DOC/DPF Exhaust After-Treatment System.

Optional: Electronic Fuel Level Sensor.

Engine Control Features: Padlockable Box with Throttle Control, Tachometer, Coolant Temperature, Oil Pressure, Voltage and Overstart Indicators/Shut-downs. Manual/Stop/Auto Keyswitch. Audible Startup Warning Delay. Fuel Level Display/Alarm/Shutdown (For Use With Optional Fuel Level Sensor).

JOHN DEERE PUBLISHED PERFORMANCE:

Maximum Gross Continuous BHP
(Industrial Heavy Duty) 74 (55 kW) @ 2400 RPM

**GORMAN-RUPP PUMPS**

www.grpumps.com

Specifications Subject to Change Without Notice

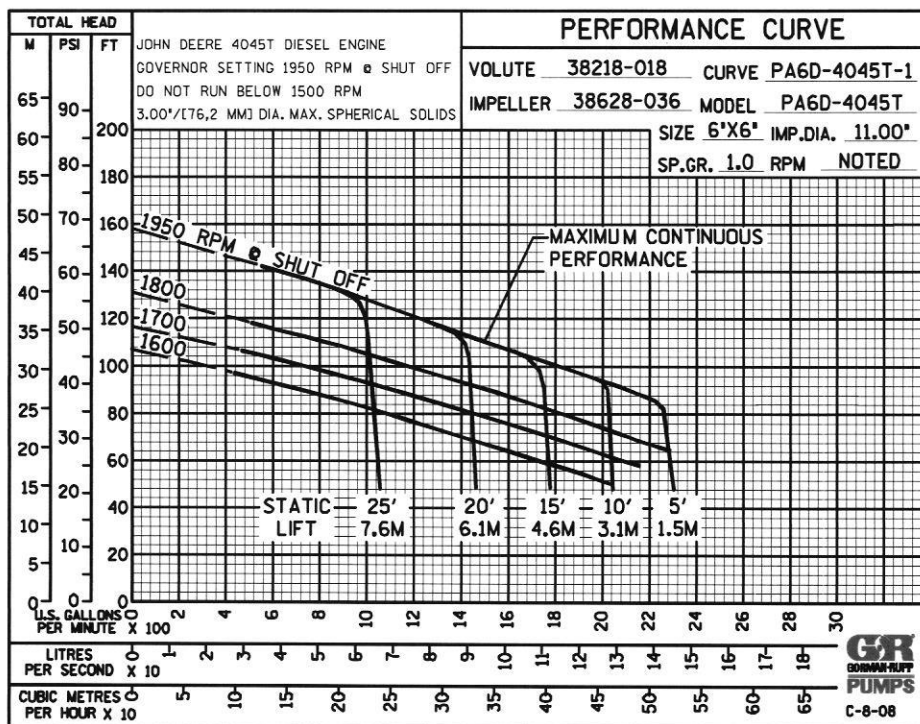
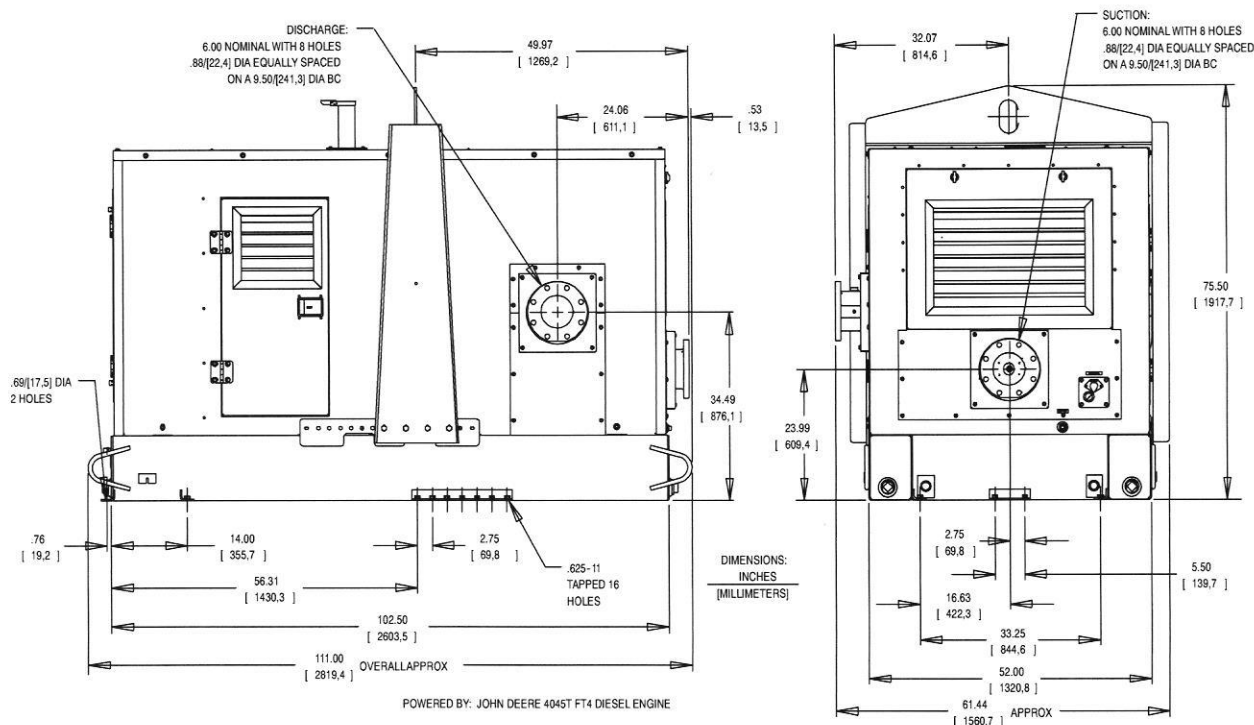
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Specification Data

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APPROXIMATE
DIMENSIONS and WEIGHTS

SKID BASE
NET WEIGHT: 4220 LBS. (1914,2 KG.)
SHIPPING WEIGHT: 4510 LBS. (2045,7 KG.)
EXPORT CRATE SIZE: 387 CU. FT. (10,9 CU. M.)



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