FIREPUMP DP4450T DIESEL POWER PACK

HEAT EXCHANGER COOLED

KEY FEATURES

SHORT MOTOR CONSTRUCTION

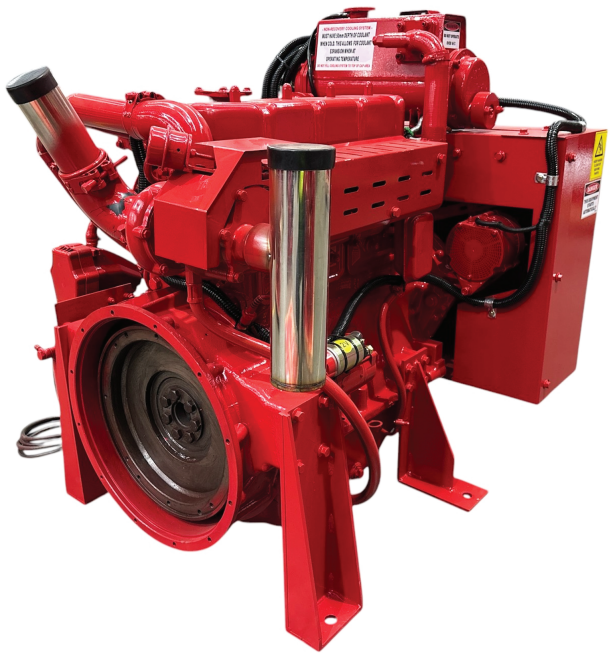
- Cast Iron Block
- Wet Liners
- Fully Floating Pistons
- Nodular Iron Crankshaft
- High Volume Oil Pump
- High Volume Oil Sump

CYLINDER HEAD

- Individual Cast Iron Cylinder Heads
- Adjustable Rocker Arms
- Rubber Valve Gasket

CONSTRUCTION

- Heavy Duty Design
- High Volume Cooling System
- Simple, Maintenance Free, High Pressure Fuel System
- Direct Injection Combustion Chamber
- P Type Injectors
- High Flow Fuel, Oil & Donaldson Air Filters



MAXIMUM POWER RATING - For 'HP' MULTIPLY x 1.34

Power Output Rated 83kW @ 2600rpm

Model	1500rpm	1800rpm	2200rpm	2600rpm
DP4450T	58kW	62kW	77kW	83kW

PRODUCT CHARACTERISTICS

DESIGN & QUALITY

BKB Group firepump engines offer industry leading value for money. Proven quality and Australian design, powering over thousands of firepumps nationwide. All engines come backed by a 2 year warranty and are constructed to last. When the job needs to be done, you can rely on BKB Engines to perform.

SERVICE KITS

All engines can be supplied with service kits. All parts used in service are readily available, high quality parts including Donaldson filters. Kits provide a complete ready package for servicing. Included in the kits are belt set, hose kit and all filters; oil, primary and secondary fuel and air cleaners.

CONTROLLER

The BKB Group diesel engine control system delivers simplicity and reliability. Proudly Australian designed and built to AS2941-2013 (Fixed Fire-Pumpset Systems). Available in 12V & 24V. Monitors, displays and records diesel engine information. The construction incorporates high quality industrial components and an advanced microprocessor controller.

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DESIGN SPECIFICATIONS

Model	DP4450T
Type	Inline 4 Cylinder - 2 Valve P/Cyl - OHV
Fuel	Mechanical Injection - Inline Pump - Electronic Governor
Bore/Stroke	105 x 130
Capacity	4.5Ltr
Compression	16:5:1
Intake	Turbocharged
Cooling	Water
Voltage	12V
Min Speed	850rpm
Max Speed	2600rpm

SERVICE INFORMATION

Fuel Filter	Donaldson P550127
Oil Filter	Donaldson P550965
Air Filter	Donaldson C085002
Oil Capacity	13 Ltrs
Recommended Battery - Min	700CCA / 120A/H
Bell Housing	SAE3
Cooling System Capacity	15ltrs
Drive	SAE 11.5"
Service Interval	First Service at 12month/ 150hrs then each 12month/250Hours
Coolant	Min 40% Glycol Mix
Oil Type	15W40 - SAE30

POWER PACK PRODUCED WITH:

- Compliance with AS2941-2013
- Oil Pressure Sender & Temp Sender
- SAE 11.5" Flywheel
- Mounting Feet
- Belt Guard
- Flexible Exhaust Coupling
- Condensation Trap & Muffler
- Pull to Stop Solenoid
- Oil & Coolant
- Jacket Heater

ELECTRICAL

Starter Motor	12V -3.6kW - Reduction Drive
Alternator	12V - 40Amp
Oil Pressure Sender	10 Bar (VDO Compatible)
Temp Sender	30 - 120°C
RPM Sensor	Magnetic Pulse Type - M18 x 1.5
Fuel STOP Solenoid	12V - Pull to Stop - Two Wire - Body Earth

ENGINE SPECIFICATIONS

Fuel Consumption @ 75% Load - 2200rpm	.240gr/kWhr
Approx Fuel Consumption at 100% load -2600rpm	21ltrs per/hour
Cooling Water Supply	1.3Ltrs/Sec @ 20°C
Intake Air Flow	111ltrs/sec
Exhaust Pipe Size	3"/75mm
Exhaust Flow	388 ltrs/sec
Exhaust Heat Rejection	59kW
Heat Rejection to Atmosphere	7kW
Cooling System Heat Rejection	53kW
Exhaust Temp Max	640°C
Max Exhaust Backpressure	7kPa
Max Coolant Temp	85°C

COOLING SYSTEM

Type	Heat Exchanger Cooled - Tube Type

ENGINE MOUNTING

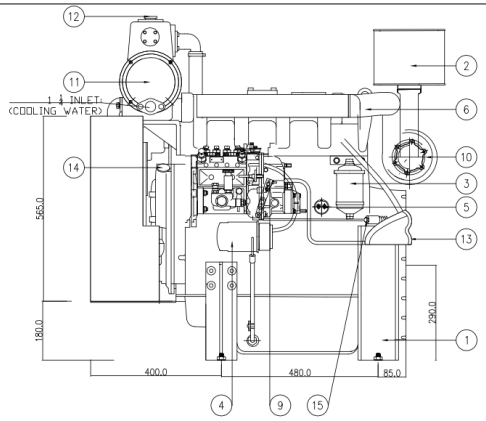
Mounting Bolts	M16

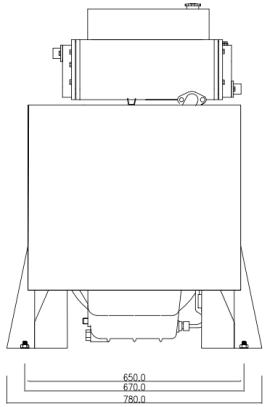
Note:

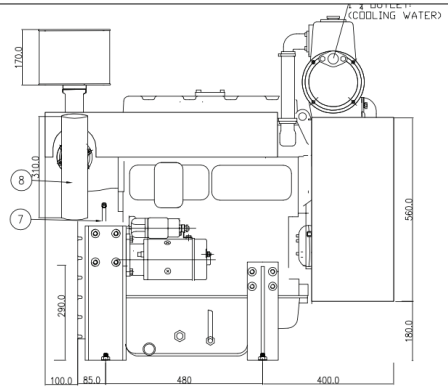
Variations to engines may be made without notice.

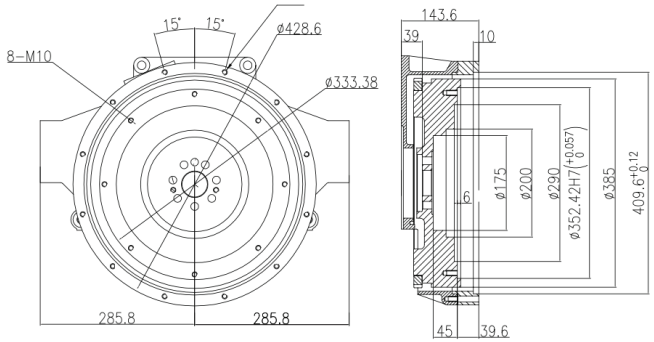
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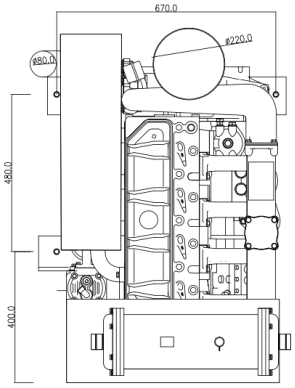








SAE 3 BELL HOUSING
SAE 11.5" FLYWHEEL



ITEM:	DESCRIPTION:	QTY:
15	STOP SOLENOID	1
14	OIL FILL	1
13	JACKET HEATER	1
12	PRESSURE CAP	1
11	HEAT EXCHANGER	1
10	TURBO	1
9	SPEED CONTROL	1
8	EXHAUST OUT	1
7	RPM SENSOR	1
6	TEMP SENSOR	1
5	OIL SENSOR	1
4	OIL FILTER	1
3	FUEL FILTER	1
2	AIR FILTER	1
1	MOUNT SUPPORT	4

DRAWING TITLE:
DP–4450T, Heat Exchanger: General Arrangement

REV:	DESCRIPTION:	DATE:	DRAWN BY:
2	REVISED ENGINE DRAWING	07/07/2017	M.O.Y.
1	REVISED ENGINE DRAWING	24/04/2017	M.O.Y.

NOTES:
- ALL DIMENSIONS SHOULD BE VERIFIED BEFORE INSTALLATION.
- NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR ALTERED WITHOUT WRITTEN PERMISSION FROM POWER INDUSTRIES AUSTRALIA.
- ALL DIMENSIONS ARE IN MM.

TOLERANCES:
ASSEMBLY DIMENSIONS ±3MM
FABRICATED DIMENSIONS ±2MM
MACHINING DIMENSIONS ±0.125MM
UNLESS SPECIFIED OTHERWISE

REVIEWED BY: SCOTT LACEY
DWG NO: DWG–4450T.HX–02
SCALE: Not to Scale
REV: 2

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DANDENONG SOUTH, 3175

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