

PU158TI P-DRIVE

◎ POWER RATING

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
397 (540) / 2100	2117 (216) / 1500	222 (163) / 2100

Note : 1. The engine performance corresponds to ISO 3046, DIN 6270B.
 2. Continuous duty at charge and constant speed consider on engine choice, a power derating of about 11%.
 3. Max. rpm of Continuous duty is 1,800rpm.



◎ MECHANICAL SYSTEM

- Engine Model PU158TI
- Engine Type V-type 4 cycle, water cooled
Turbo charged & intercooled
- Combustion type Direct injection
- Cylinder Type Replaceable wet liner
- Number of cylinders 8
- Bore x stroke 128(5.04) x 142(5.59) mm(in.)
- Displacement 14.618(892.0) lit.(in³)
- Compression ratio 15 : 1
- Firing order 1-5-7-2-6-3-4-8
- Injection timing 18° BTDC
- Dry weight Approx. 950 kg (2,094 lb)
- Dimension (LxWxH) 1,484 x 1,389 x 1,161.5 mm
(58.4 x 54.7 x 45.7 in.)
- Rotation Counter clockwise viewed from Flywheel

◎ MECHANISM

- Type Over head valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.25mm (0.0098 in.)
Exhaust 0.35mm (0.0138 in.)

◎ VALVE TIMING

- | | Opening | Close |
|-----------------|--------------|--------------|
| ○ Intake valve | 24 deg. BTDC | 36 deg. ABDC |
| ○ Exhaust valve | 63 deg. BBDC | 27 deg. ATDC |

◎ OPTION & ACCESSORY PARTS

- Engine parts Fly wheel & housing
Intake & exhaust manifold
- Accessory parts Raditor, silencer & air cleaner
- Electrical parts Gauge panel & stop solenoid

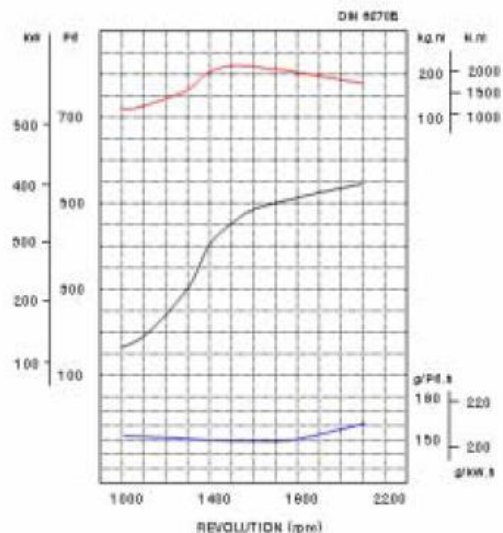
◎ FUEL SYSTEM

- Injection pump Bosch in-line "P" type
- Governor Mechanical type
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Fuel filter Full flow, cartridge type
- Used fuel Diesel fuel oil

◎ LUBRICATION SYSTEM

- Lub. Method Fully forced pressure feed type
- Oil pump Gear type driven by crankshaft
- Oil filter Full flow, cartridge type
- Oil pan capacity High level 28 liters (7.40 gal.)
Low level 26 liters (6.86 gal.)
- Angularity limit Front down 35 deg.
Front up 35 deg.
Side to side 35 deg.
- Lub. Oil Refer to Operation Manual

◎ PERFORMANCE CURVE

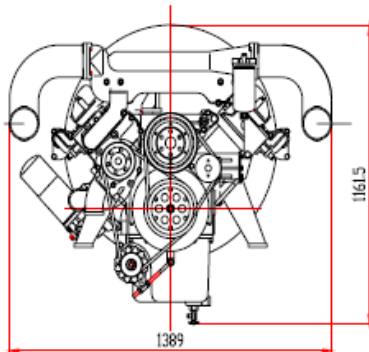


© COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 20 liters (5.28 gal.)
(engine only)
- Pressure system Max. 0.5 kg/cm² (7.1 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 454 liters (120 gal.)/min
at 2,100 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 79°C
Full open temp. 94°C
- Cooling fan Blower type, plastic
915 mm diameter, 7 blade

© ELECTRICAL SYSTEM

- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 7.0kW
- Battery Voltage 24V
- Battery Capacity 200 AH (recommended)
- Starting aid (Option) Block heater



© ENGINEERING DATA

- Water flow 454 liters/min @2,100 rpm
- Heat rejection to coolant 45.2 kcal/sec @2,100 rpm
- Heat rejection to CAC 18.8 kcal/sec @2,100 rpm
- Air flow 34.5 m³/min @2,100 rpm
- Exhaust gas flow 87.4 m³/min @2,100 rpm
- Exhaust gas temp. 600 °C @2,100 rpm
- Max. permissible restrictions
 - Intake system 220 mmH₂O initial
635 mmH₂O final
 - Exhaust system 600 mmH₂O max.

◆ CONVERSION TABLE

- in. = mm x 0.0394 lb/ft = N.m x 0.737
- PS = kW x 1.3596 U.S. gal = lit. x 0.264
- psi = kg/cm² x 14.2233 kW = 0.2388 kcal/s
- in³ = lit. x 61.02 lb/PS.h = g/kW.h x 0.00162
- hp = PS x 0.98635 cfm = m³/min x 35.336
- lb = kg x 2.20462

