

PU086TI 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
213 (290) / 2,200	1095 (111.7) / 1,600	219 (161) / 2,200

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 8%.
 3. Max. rpm of Continuous duty is 1,800rpm.



◎ MECHANICAL SYSTEM

○ Engine Model	PU086TI
○ Engine Type	In-line 4 cycle, water cooled Turbo charged & intercooled
○ Combustion type	Direct injection
○ Cylinder Type	Replaceable dry liner
○ Number of cylinders	6
○ Bore x stroke	111(4.37) x 139(5.47) mm(in.)
○ Displacement	8.071(492.49) lit.(in3)
○ Compression ratio	16.7 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	15° BTDC
○ Compression pressure	Above 28 kg/cm ² (398 psi) at 200rpm
○ Dry weight	Approx. 792 kg (1,746 lb)
○ Dimension (LxWxH)	1,242 x 918 x 1,100 mm (48.9 x 36.1 x 43.3 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 0.30 mm(0.0118 in) Exhaust 0.30 mm(0.0118 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	16 deg. BTDC	36 deg. ABDC
○ Exhaust valve	46 deg. BBDC	14 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

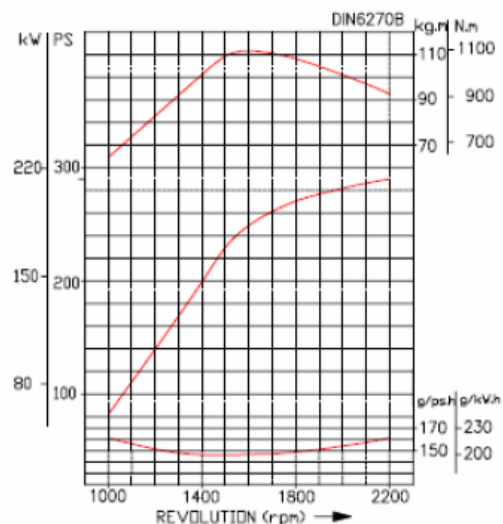
◎ FUEL SYSTEM

○ Injection pump	Zexel in-line "PE6P" type
○ Governor	RSV type(all speed control)
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	224 kg/cm ² (3,186 psi)
○ 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 15 liters (4.09 gal.) Low level 12 liters (3.17 gal.)
○ Angularity limit	Front down 25 deg. Front up 25 deg. Side to side 25 deg.
○ Lub. Oil	Refer to Operation Manual

◎ PERFORMANCE CURVE

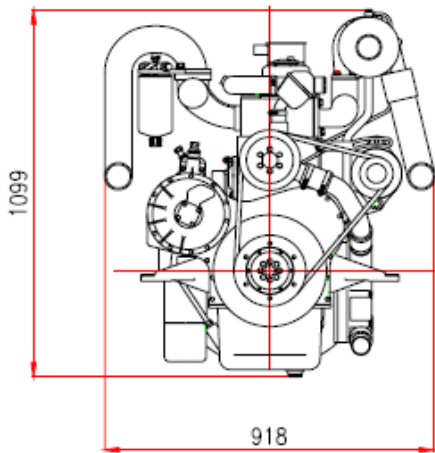


◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 14 liters (3.70 gal.)
(engine only)
- Pressure system Max. 0.9 kg/cm² (12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 250 liters (66.0 gal.)/min
at 2,200 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 71°C
Full open temp. 85°C
- Cooling fan Blower type, plastic
660 mm diameter, 7 blade

◎ ELECTRICAL SYSTEM

- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 4.5kW
- Battery Voltage 24V
- Battery Capacity 100 AH (recommended)
- Starting aid (Option) Block heater



◎ ENGINEERING DATA

- Water flow 250 liters/min @2,200 rpm
- Heat rejection to coolant 29.7 kcal/sec @2,200 rpm
- Air flow 25.1 m³/min @2,200 rpm
- Exhaust gas flow 40.1 m³/min @2,200 rpm
- Exhaust gas temp. 450 °C @2,200 rpm
- Max. permissible restrictions
 - Intake system 220 mmH₂O initial
635 mmH₂O final
 - Exhaust system 1,000 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

