

PU034 P-DRIVE

◎ Production tolerance : ±3%

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
50 (68) / 3,000	186 (19) / 2,000	238 (175) / 3,000

Note : -. The engine performance corresponds to ISO 3046.



◎ MECHANICAL SYSTEM

- Engine Model PU034
- Engine Type In-line 4 cycle, water cooled
Naturally aspirated
- Combustion type Direct injection
- Cylinder Type Replaceable dry liner
- Number of cylinders 4
- Bore x stroke 102(4.02) x 100(3.94) mm(in.)
- Displacement 3.268(199.43) lit.(in3)
- Compression ratio 17.5 : 1
- Firing order 1-3-4-2
- Injection timing 21° BTDC
- Compression pressure Above 28 kg/cm²(398 psi) at 200rpm
- Dry weight Approx. 310 kg (683 lb)
- Dimension 875 x 705 x 723 mm
(LxWxH) (34.4 x 27.8 x 28.5 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 0.40 mm(0.0157 in.)
Exhaust 0.40 mm(0.0157 in.)

◎ VALVE TIMING

- | | Opening | Close |
|-----------------|--------------|--------------|
| ○ Intake valve | 28 deg. BTDC | 62 deg. ABDC |
| ○ Exhaust valve | 70 deg. BBDC | 28 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

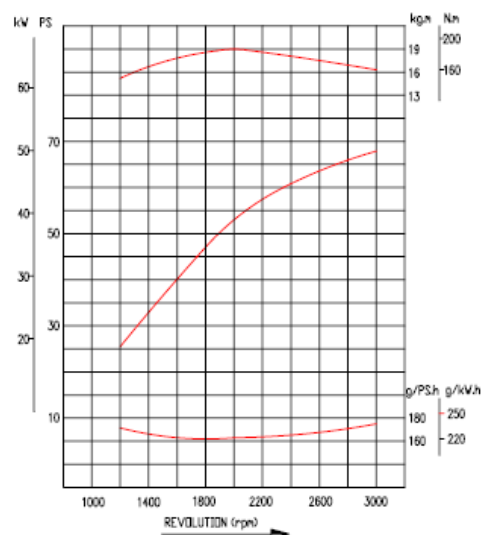
◎ FUEL SYSTEM

- Injection pump Zexel in-line "A" type
- Governor RSV type(all speed control)
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Opening pressure 220 kg/cm² (3,129 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 7.5 liters (1.98 gal.)
Low level 6.5 liters (1.72 gal.)
- Angularity limit Front down 25 deg.
Front up 25 deg.
Side to side 30 deg.
- Lub. Oil Refer to Operation Manual

◎ PERFORMANCE CURVE

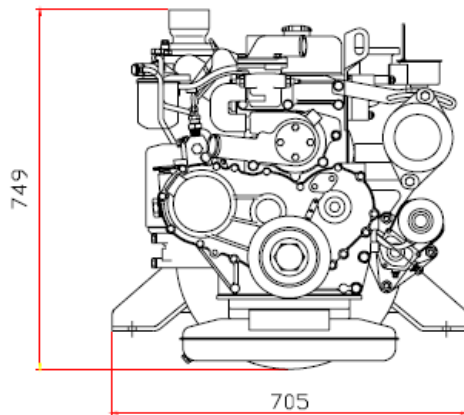


◎ **COOLING SYSTEM**

- Cooling method Fresh water forced circulation
- Water capacity 8.5 liters(2.24 gal.)
(engine only)
- Pressure system Max. 0.9 kg/cm² (12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 118 liters (31.2 gal.)/min
at 3,000 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 71°C
Full open temp. 85°C
- Cooling fan Blower type, steel
455 mm diameter, 6 blade

◎ **ELECTRICAL SYSTEM**

- Charging generator 24V x 45A [or 12V x 26A] alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 4.5kW [or 12V x 2.5kW]
- Battery Voltage 24V [or 12V]
- Battery Capacity 100 AH [or 150 AH](recommended)
- Starting aid (Option) Block heater



◎ **ENGINEERING DATA**

- Water flow 118 liters/min @3,000 rpm
- Heat rejection to coolant 8.9 kcal/sec @3,000 rpm
- Air flow 4.2 m³/min @3,000 rpm
- Exhaust gas flow 11.8 m³/min @3,000 rpm
- Exhaust gas temp. 510 °C @3,000 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

