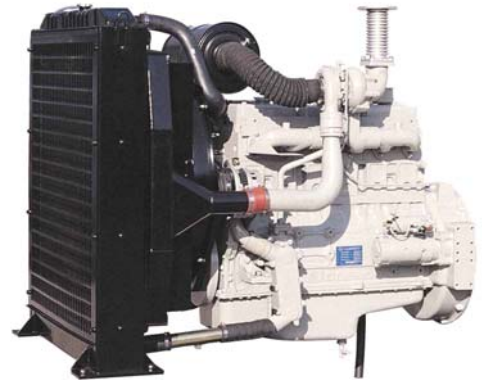


P086TI-1 G-DRIVE

◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1800	Continuous Power	158	214
	Prime Power	174	237
	Standby Power	191	260
1500	Continuous Power	135	183
	Prime Power	149	203
	Standby Power	164	223



Note : -. The engine performance corresponds to ISO 3046, BS 5514 and DIN 6271.

-. Ratings are based on ISO 8528.

→ **Prime power** available at variable load. The permissible average power out put (during 24h period) shall not exceed 70% of the prime power rating.

→ **Standby power** available in the event of a main power network failure. No overload is permitted.

◎ MECHANICAL SYSTEM

- Engine Model P086TI-1
- Engine Type In-line 4 cycle, water cooled
Turbo charged & intercooled (air to air)
- 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 16.4 : 1
- Firing order 1-5-3-6-2-4
- Injection timing 12° BTDC
- Compression pressure Above 28 kg/cm²(398 psi) at 200rpm
- Dry weight Approx. 790 kg (1,742 lb)
- Dimension (LxWxH) 1,242 x 918 x 1,099.5 mm
(48.9 x 36.1 x 43.3 in.)
- Rotation Counter clockwise viewed from Flywheel
- Fly wheel housing SAE NO.1
- Fly wheel Clutch NO.14

◎ MECHANISM

- Type Over head valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.30mm (0.0118 in.)
Exhaust 0.30mm (0.0118 in.)

◎ VALVE TIMING

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

◎ FUEL CONSUMPTION

- | | 1,500 rpm | 1,800 rpm |
|-------------------------|-----------|-----------|
| ○ Prime Power (lit/hr) | | |
| 25% | 10.1 | 12.2 |
| 50% | 18.7 | 22.1 |
| 75% | 26.7 | 31.6 |
| 100% | 35.4 | 42.4 |
| ○ Standby Power (lit/h) | | |
| 25% | 10.9 | 13.3 |
| 50% | 20.3 | 24 |
| 75% | 29.2 | 34.7 |
| 100% | 39.0 | 46.7 |

◎ FUEL SYSTEM

- Injection pump Zexel in-line "P" type
- Governor Electric type
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Opening pressure 224 kg/cm² (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 15.5 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

◎ 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 150 liters (39.6 gal.)/min
at 1,800 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 71°C
Full open temp. 85°C
- Cooling fan Blower type, plastic
660.4 mm diameter, 7 blade

◎ ELECTRICAL SYSTEM

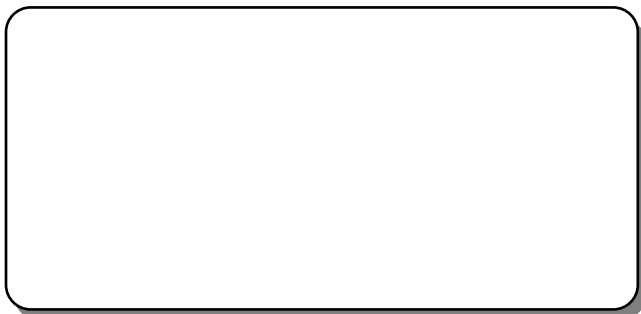
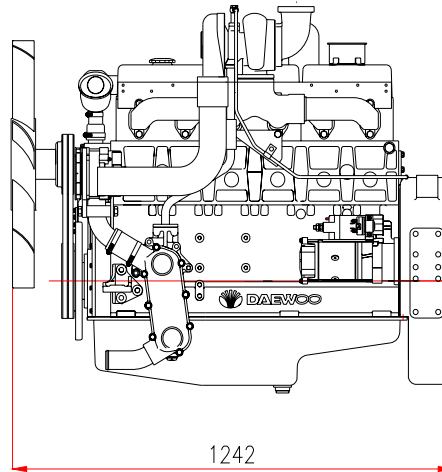
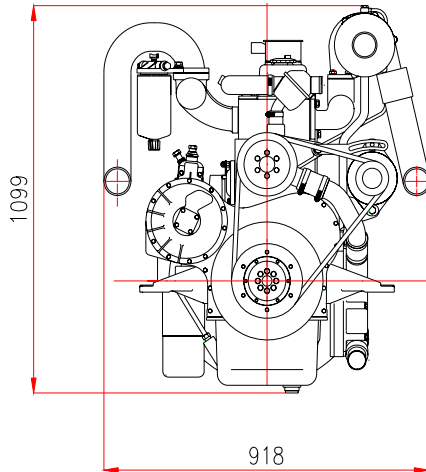
- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 6.0kW
- Battery Voltage 24V
- Battery Capacity 100 AH (recommended)
- Starting aid (Option) Block heater

◎ ENGINEERING DATA

- Water flow 130 liters/min @1,500 rpm
150 liters/min @1,800 rpm
- Heat rejection to coolant 20.3 kcal/sec @1,800 rpm
- Heat rejection to CAC 10.8 kcal/sec @1,800 rpm
- Air flow 13.9 m³/min @1,500 rpm
16.8 m³/min @1,800 rpm
- Exhaust gas flow 38.8 m³/min @1,800 rpm
- Exhaust gas temp. 530 °C @1,800 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/cm ² x 14.2233	kW = 0.2388 kcal/s
in ³ = lit. x 61.02	lb/PS.h = g/kW.h x 0.00162
hp = PS x 0.98635	cfm = m ³ /min x 35.336
lb = kg x 2.20462	



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※ Specifications are subject to change without prior notice