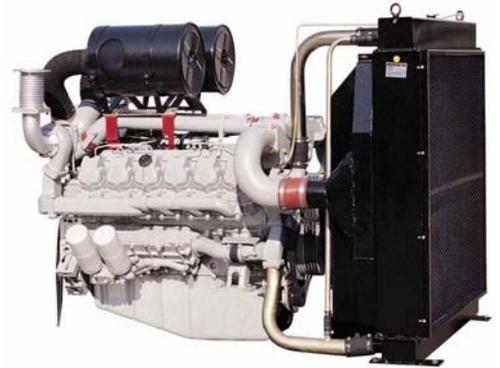


P222LE-S G-DRIVE

◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1800	Prime Power	625	850
	Standby Power	682	927
1500	Prime Power	552	750
	Standby Power	603	820



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** should be applied only to provide a basic support function to a building electrical supply in the event of a main power network failure. No overload is permitted.

◎ MECHANICAL SYSTEM

- Engine Model P222LE-S
- Engine Type V-type 4 cycle, water cooled
Turbo charged & intercooled (air to air)
- Combustion type Direct injection
- Cylinder Type Replaceable wet liner
- Number of cylinders 12
- Bore x stroke 128(5.04) x 142(5.59) mm(in.)
- Displacement 21.927 (1,338.0) lit.(in³)
- Compression ratio 14.6 : 1
- Firing order 1-12-5-8-3-10-6-7-2-11-4-9
- Injection timing 19° BTDC (60Hz) / 20° BTDC (50Hz)
- Compression pressure Above 28 kg/cm²(398 psi) at 200rpm
- Dry weight Approx. 1,591 kg (3,507 lb)
- Dimension (LxWxH) 1,717 x 1,389 x 1,288 mm
(67.6 x 54.7 x 50.7 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 0.3mm (0.0118 in.)
Exhaust 0.4mm (0.0157 in.)

◎ VALVE TIMING

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

◎ FUEL CONSUMPTION

- | | 1,500 rpm | 1,800 rpm |
|-------------------------|-----------|-----------|
| ○ Prime Power (lit/hr) | | |
| 25% | 38.0 | 42.1 |
| 50% | 68.3 | 76.0 |
| 75% | 99.8 | 112.3 |
| 100% | 130.0 | 151.6 |
| ○ Standby Power (lit/h) | | |
| 25% | 41.0 | 45.3 |
| 50% | 73.8 | 82.5 |
| 75% | 107.4 | 122.8 |
| 100% | 142.2 | 166.1 |

◎ FUEL SYSTEM

- Injection pump Bosch in-line "P" type
- Governor Electric type
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Opening pressure 285 kg/cm² (4,054 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 40 liters (10.6 gal.)
Low level 33 liters (8.7 gal.)
- Angularity limit Front down 20 deg.
Front up 20 deg.
Side to side 15 deg.
- Lub. Oil Refer to Operation Manual

P222LE-S G-DRIVE

◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 23 liters (6.07 gal.)
(engine only)
- Pressure system Max. 0.9 kg/cm² (12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 508 liters (134.2 GPM)/min
at 1,800 rpm (engine only)
- Thermostat Wax – pellet type
Opening temp. 71°C
Full open temp. 85°C
- Cooling fan Blower type, plastic
915 mm diameter, 7 blade

◎ ELECTRICAL SYSTEM

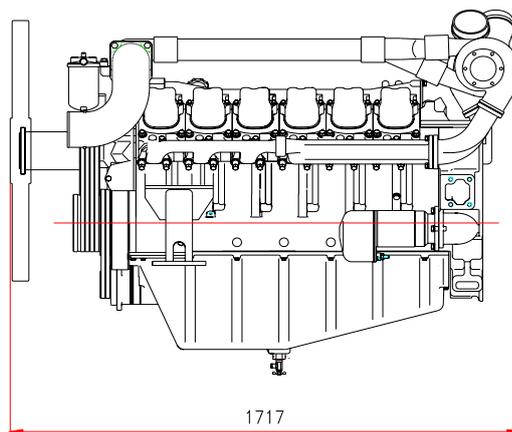
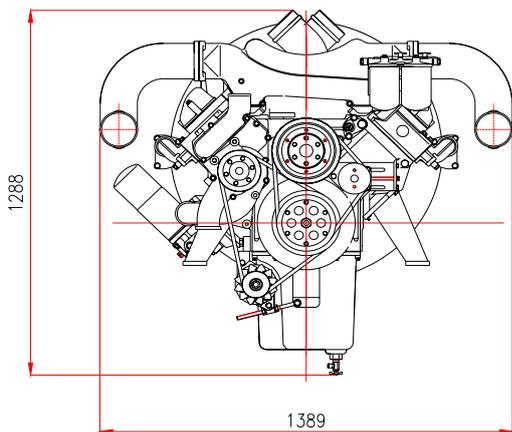
- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 7.0kW
- Battery Voltage 24V
- Battery Capacity 200 AH (recommended)
- Starting aid (Option) Block heater

◎ ENGINEERING DATA

- | | |
|---------------------------------|--|
| ○ Water flow | 433 liters/min @1,500 rpm |
| ○ Heat rejection to coolant | 56.6 kcal/sec @1,500 rpm |
| ○ Heat rejection to CAC | 15.1 kcal/sec @1,500 rpm |
| ○ Air flow | 31.8 m ³ /min @1,500 rpm |
| ○ Exhaust gas flow | 93.9 m ³ /min @1,500 rpm |
| ○ Exhaust gas temp. | 598 °C @1,500 rpm |
| <hr/> | |
| ○ Water flow | 508 liters/min @1,800 rpm |
| ○ Heat rejection to coolant | 55.7 kcal/sec @1,800 rpm |
| ○ Heat rejection to CAC | 26.5 kcal/sec @1,800 rpm |
| ○ Air flow | 47.1 m ³ /min @1,800 rpm |
| ○ Exhaust gas flow | 129.4 m ³ /min @1,800 rpm |
| ○ Exhaust gas temp. | 548 °C @1,800 rpm |
| <hr/> | |
| ○ Max. permissible restrictions | |
| - .Intake system | 220 mmH ₂ O initial
635 mmH ₂ O final |
| - .Exhaust system | 600 mmH ₂ O 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