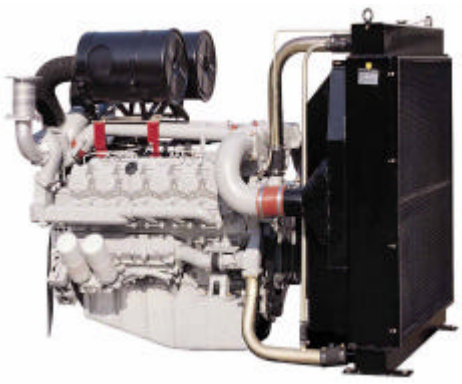
P222LE-II G-DRIVE

◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1500	Standby Power	652	886



-. The engine performance corresponds to ISO 3046, BS 5514 and DIN 6271.
-. This Engine should be applied only to provide a basic support function to a building electrical supply in the event of a main power network failure. This Engine should never be applied except in true emergency power outages.
-. This Engine should be sized for a maximum of 70% average load factor and 200hr of operation per year. This includes a maximum of 1 hour in a 12 hour period at the Standby Power rating.
-. No overload is permitted.

◎ MECHANICAL SYSTEM

o Engine Model	P222LE-S-II
o Engine Type	V-type 4 cycle, water cooled Turbo charged & intercooled (air to air)
o Combustion type	Direct injection
o Cylinder Type	Replaceable wet liner
o Number of cylinders	12
o Bore x stroke	128(5.04) x 142(5.59) mm(in.)
o Displacement	21.927 (1,338.0) lit.(in^3)
o Compression ratio	14.0 : 1
o Firing order	1-12-5-8-3-10-6-7-2-11-4-9
o Injection timing	13° BTDC (50Hz)
o Compression pressure	Above 28 kg/cm2(398 psi) at 200rpm
o Dry weight	Approx. 1,591 kg (3,507 lb)
o Dimension (LxWxH)	1,717 x 1,389 x 1,288 mm (67.6 x 54.7 x 50.7 in.)
o Rotation	Counter clockwise viewed from Flywheel
o Fly wheel housing	SAE NO.1
o Fly wheel	Clutch NO.14

◎ FUEL CONSUMPTION

o **Standby Power** (lit/h	**1,500 rpm**
25%	41.7
50%	79.5
75%	119.3
100%	162.6

◎ FUEL SYSTEM

o Injection pump	Bosch in-line “P” type
o Governor	Electric type
o Feed pump	Mechanical type
o Injection nozzle	Multi hole type
o Opening pressure	285 kg/cm^2 (4,054 psi)
o Fuel filter	Full flow, cartridge type
o Used fuel	Diesel fuel oil

◎ MECHANISM

o Type	Over head valve
o Number of valve	Intake 1, exhaust 1 per cylinder
o Valve lashes at cold	Intake 0.3mm (0.0118 in.) Exhaust 0.4mm (0.0157 in.)

◎ VALVE TIMING

	Opening	**Close**
o Intake valve	24 deg. BTDC	36 deg. ABDC
o Exhaust valve	63 deg. BBDC	27 deg. ATDC

◎ LUBRICATION SYSTEM

o Lub. Method	Fully forced pressure feed type
o Oil pump	Gear type driven by crankshaft
o Oil filter	Full flow, cartridge type
o Oil pan capacity	High level 40 liters (10.6 gal.) Low level 33 liters (8.7 gal.)
o Angularity limit	Front down 20 deg. Front up 20 deg. Side to side 15 deg.
o Lub. Oil	Refer to Operation Manual

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◎ COOLING SYSTEM

o Cooling method	Fresh water forced circulation
o Water capacity (engine only)	23 liters (6.07 gal.)
o Pressure system	Max. 0.9 kg/cm^2 (12.8 psi)
o Water pump	Centrifugal type driven by belt
o Water pump Capacity	508 liters (134.2 GPM)/min at 1,800 rpm (engine only)
o Thermostat	Wax – pellet type Opening temp. 71°C Full open temp. 85°C
o Cooling fan	Blower type, plastic 915 mm diameter, 7 blade

◎ ELECTRICAL SYSTEM

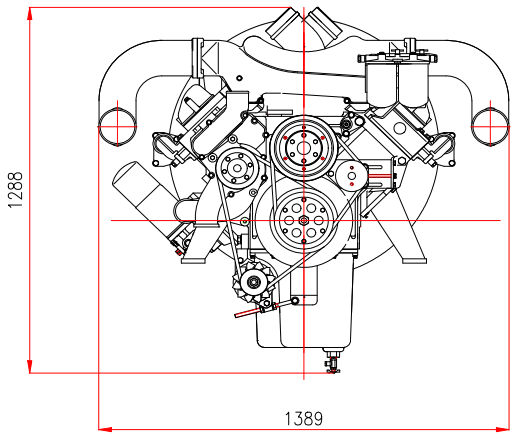
o Charging generator	24V x 45A alternator
o Voltage regulator	Built-in type IC regulator
o Starting motor	24V x 7.0kW
o Battery Voltage	24V
o Battery Capacity	200 AH (recommended)
o Starting aid (Option)	Air heater

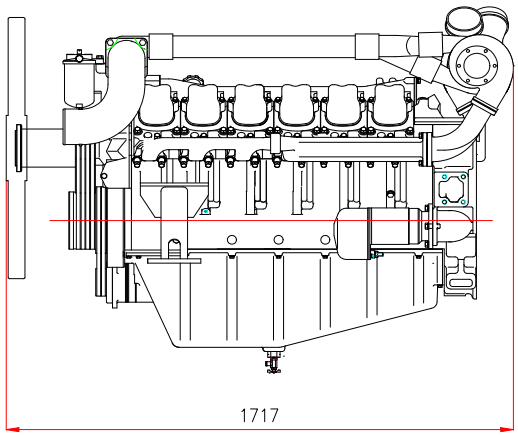
◎ ENGINEERING DATA

o Water flow	433 liters/min @1,500 rpm
o Heat rejection to coolant	59.4 kcal/sec @1,500 rpm
o Heat rejection to CAC	25.7 kcal/sec @1,500 rpm
o Air flow	40.3 m^3/min @1,500 rpm
o Exhaust gas flow	119.9 m^3/min @1,500 r`
o Exhaust gas temp.	635 °C @1,500 rpm
o Max. permissible restrictions	
-.Intake system	220 mmH_2O initial 635 mmH_2O final
-.Exhaust system	600 mmH_2O 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 = m^3/min x 35.336
lb = kg x 2.20462	





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※ Speccifications are subject to change without prior notice