

#### **O POWER RATING**

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
588 (800) / 2100	3205 (327) / 1500	223 (164) / 2100

1. The engine performance corresponds to ISO 3046, DIN 6270B.

2. If needs continuous duty, Engine power is restricted to 530kW(720ps) @1800rpm.

#### **© MECHANICAL SYSTEM**

○ Engine Model	PU222TI
○ Engine Type	V-type 4 cycle, water cooled
	Turbo charged & intercooled
• Combustion type	Direct injection
○Cylinder Type	Replaceable wet liner
$\circ$ Number of cylinders	12
○Bore x stroke	128(5.04) x 142(5.59) mm(in.)
<ul> <li>Displacement</li> </ul>	21.927 (1,338.0) lit.(in <sup>3</sup> )
• Compression ratio	15:1
○ Firing order	1-12-5-8-3-10-6-7-2-11-4-9
O Injection timing	18° BTDC
○ Dry weight	Approx. 1,575 kg (3,472 lb)
<ul> <li>Dimension</li> </ul>	1,717 x 1,389 x 1,288 mm
(LxWxH)	(67.6 x 54.7 x 50.7 in.)
• Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.1M
○ Fly wheel	Clutch NO.14M

# **© MECHANISM**

○ Type	Over head valve
○ Number of valve	Intake 1, exhaust 1 per cylinder
○ Valve lashes at cold	Intake 0.25mm (0.0098 in.)
	Exhaust 0.35mm (0.0138 in.)

# **© VALVE TIMING**

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

#### **© OPTION & ACCESSORY PARTS**

○ Engine parts	Fly wheel & housing
	Intake & exhaust manifold
<ul> <li>Accessory parts</li> </ul>	Raditor, silencer & air cleaner
• Electrical parts	Gauge panel & stop solenoid



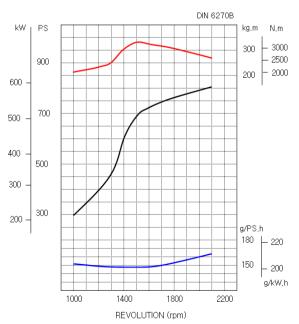
#### **© FUEL SYSTEM**

○ Injection pump	Bosch in-line "P" type
○ Governor	Mechanical type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

#### **© LUBRICATION SYSTEM**

○ Lub. Method	Fully forced pressure feed type
- Lub. Method	i uny toreed pressure reed 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

# **© PERFORMANCE CURVE**





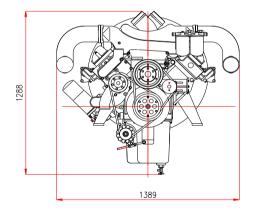
# **PU222TI P-DRIVE**

#### **© COOLING SYSTEM**

○ Cooling method	Fresh water forced circulation
○ Water capacity	23 liters ( 6.07 gal.)
(engine only)	
○ Pressure system	Max. 0.5 kg/cm <sup>2</sup> (7.1 psi)
○ Water pump	Centrifugal type driven by belt
○ Water pump Capacity	454 liters ( 120 gal.)/min
	at 2,100 rpm (engine)
○ 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

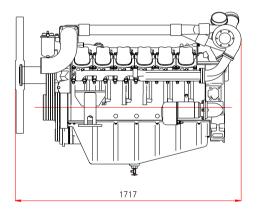


# **© ENGINEERING DATA**

• Water flow	454 liters/min @2,100 rpm
○ Heat rejection to coolant	67 kcal/sec @2,100 rpm
<sup>O</sup> Heat rejection to CAC	47 kcal/sec @2,100 rpm
○ Air flow	47 m <sup>3</sup> /min @2,100 rpm
○ Exhaust gas flow	132 m <sup>3</sup> /min @2,100 rpm
○ Exhaust gas temp.	600 °C @2,100 rpm
○ Max. permissible restrict	ions
Intake system	220 mmH <sub>2</sub> O initial
	$635 \text{ mmH}_2\text{O} \text{ final}$
Exhaust system	1000 mmH <sub>2</sub> O max.

# **♦ CONVERSION TABLE**

in. = mm x 0.0394	$lb/ft = N.m \ge 0.737$
$PS = kW \ge 1.3596$	U.S. gal = lit. x 0.264
psi = kg/cm2 x 14.2233	kW = 0.2388 kcal/s
in3 = lit. x 61.02	$lb/PS.h = g/kW.h \ge 0.00162$
$hp = PS \ge 0.98635$	$cfm = m^{3}/min \ x \ 35.336$
$lb = kg \ge 2.20462$	





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\* Speccifications are subject to change without prior notice