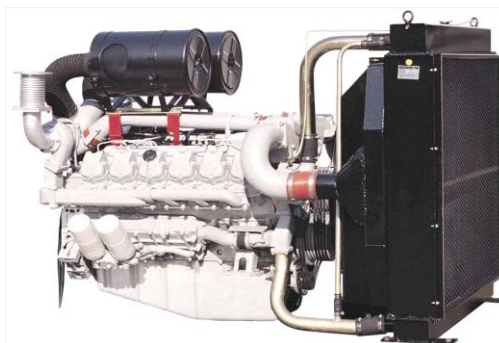


## ◎ POWER RATING

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
- Number of cylinders 12
- Bore x stroke 128(5.04) x 142(5.59) mm(in.)
- Displacement 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
- Injection timing 18° BTDC
- Dry weight Approx. 1,575 kg (3,472 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.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
- Accessory parts Raditor, silencer & air cleaner
- Electrical parts Gauge panel & stop solenoid

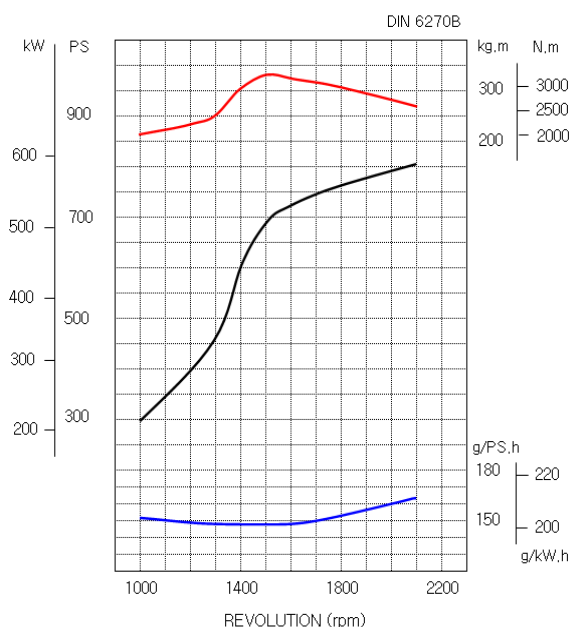
## ◎ FUEL SYSTEM

- 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
- 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



## ◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 23 liters ( 6.07 gal.)  
(engine only)
- Pressure system Max.  $0.5 \text{ kg/cm}^2$  ( 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.  $71^\circ\text{C}$   
Full open temp.  $85^\circ\text{C}$
- Cooling fan Blower type, plastic  
915 mm diameter, 7 blade

## ◎ ELECTRICAL SYSTEM

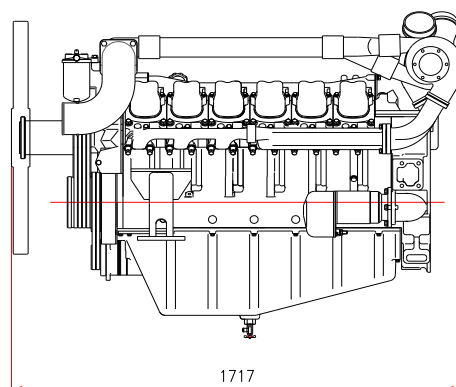
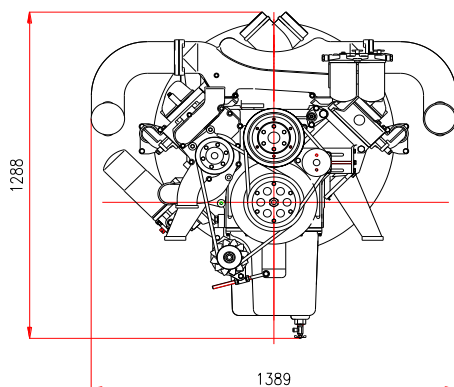
- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 7.0kW
- Battery Voltage 24V
- Battery Capacity 200 AH (recommended)
- Starting aid (Option) Block heater

## ◎ ENGINEERING DATA

- Water flow 454 liters/min @2,100 rpm
- Heat rejection to coolant 67 kcal/sec @2,100 rpm
- Heat rejection to CAC 47 kcal/sec @2,100 rpm
- Air flow  $47 \text{ m}^3/\text{min}$  @2,100 rpm
- Exhaust gas flow  $132 \text{ m}^3/\text{min}$  @2,100 rpm
- Exhaust gas temp.  $600^\circ\text{C}$  @2,100 rpm
- Max. permissible restrictions
  - Intake system 220 mmH<sub>2</sub>O initial  
635 mmH<sub>2</sub>O final
  - Exhaust system 1000 mmH<sub>2</sub>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 = $\text{kg/cm}^2$ x 14.2233	kW = 0.2388 kcal/s
in <sup>3</sup> = lit. x 61.02	lb/PS.h = g/kW.h x 0.00162
hp = PS x 0.98635	cfm = $\text{m}^3/\text{min}$ x 35.336
lb = kg x 2.20462	



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