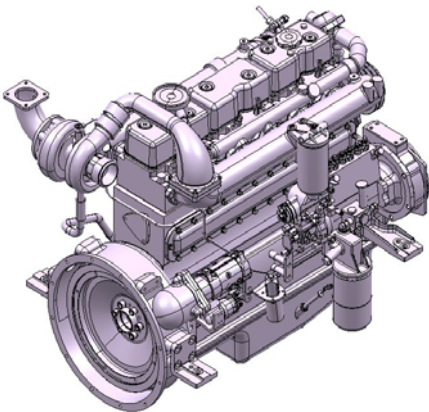


# PU086T FIRE PUMP ENGINE

## ◎ POWER RATING

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
<b>173 (235) / 2,450</b>	<b>902 (92) / 1,400</b>	<b>230 (169) / 2,450</b>

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



## ◎ MECHANICAL SYSTEM

- Engine Model                    PU086T
- Engine Type                    In-line 4 cycle, water cooled  
   Turbo charged
- 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              16.7 : 1
- Firing order                    1-5-3-6-2-4
- Injection timing                18° BTDC
- Compression pressure        Above 28 kg/cm<sup>2</sup>(398 psi) at 200rpm
- Dry weight                      Approx. 790 kg (1,741 lb)
- Dimension                      1,183 x 824 x 1,074 mm  
   (LxWxH)                            (46.5 x 32.4 x 42.2 in.)
- Rotation                         Counter clockwise viewed  
   from Flywheel

## ◎ MECHANISM

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

## ◎ VALVE TIMING

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

## ◎ OPTION & ACCESSORY PARTS

- Engine parts                    Fly wheel & housing  
   Intake & exhaust manifold
- Accessory parts                 -
- Electrical parts                 Gauge panel & stop solenoid

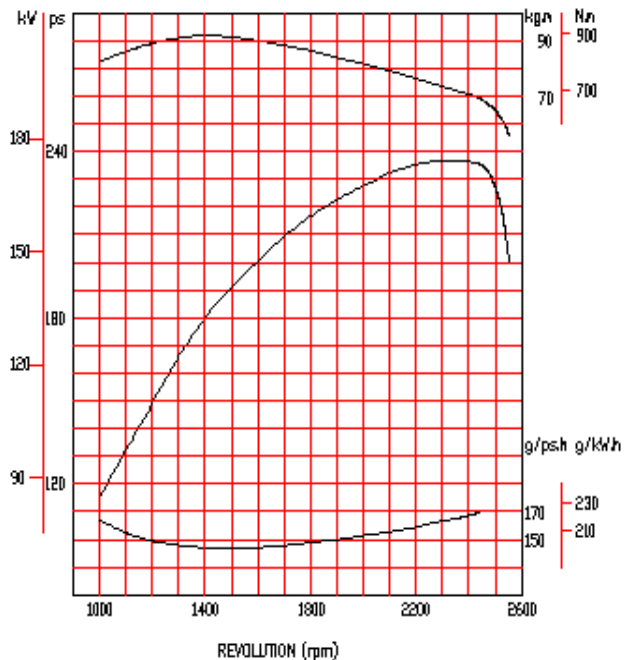
## ◎ FUEL SYSTEM

- Injection pump                 Zexel in-line "AD" type
- Governor                        RSV type(all speed control)
- Feed pump                        Mechanical type
- Injection nozzle                Multi hole type
- Opening pressure              214 kg/cm<sup>2</sup> (3,044 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 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

## ◎ PERFORMANCE CURVE



## ◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 14 liters ( 3.70 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 273 liters ( 60.1 gal.)/min  
at 2,450 rpm (engine)
- Thermostat Wax – pellet type  
Opening temp. 71°C  
Full open temp. 85°C

## ◎ ELECTRICAL SYSTEM

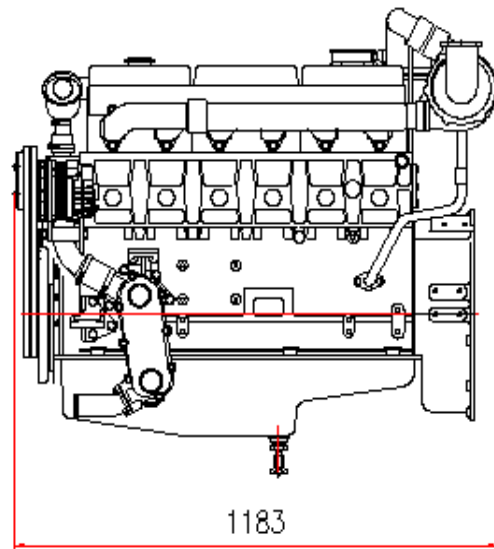
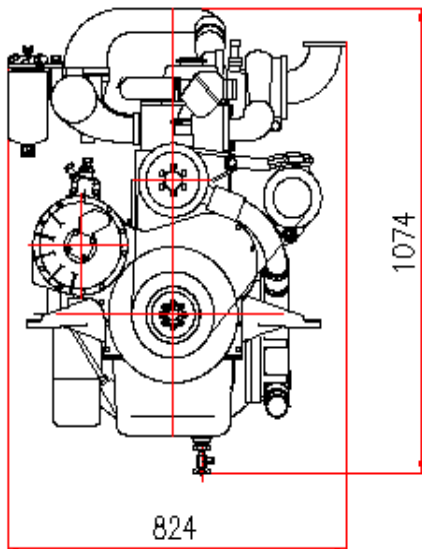
- Charging generator 24V x 45A alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 4.5kW
- Battery Voltage 24V
- Battery Capacity 100 AH [or 150 AH ](recommended)

## ◎ ENGINEERING DATA

- Water flow 273 liters/min @2,450 rpm
- Heat rejection to coolant 37.1 kcal/sec @2,450 rpm
- Air flow 9.0 m<sup>3</sup>/min @2,450 rpm
- Exhaust gas flow 10.3 m<sup>3</sup>/min @2,450 rpm
- Exhaust gas temp. 537 °C @2,450 rpm
- Max. permissible restrictions
  - Intake system 220 mmH<sub>2</sub>O initial  
635 mmH<sub>2</sub>O final
  - Exhaust system 1,000 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 = kg/cm <sup>2</sup> x 14.223	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 = m <sup>3</sup> /min x 35.336
lb = kg x 2.20462	



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※ Specifications are subject to change without prior notice