

# PU086 P-DRIVE

◎ Production tolerance : ±3%

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm	Fuel consumption g/kW.h(g/PS.h) / rpm
<b>118 (160) / 2,200</b>	<b>588 (60) / 1,600</b>	<b>228 (168) / 2,200</b>

Note : -. The engine performance corresponds to ISO 3046.



### ◎ MECHANICAL SYSTEM

- Engine Model            PU086
- Engine Type            In-line 4 cycle, water cooled  
                                 Naturally aspirated
- 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.(in<sup>3</sup>)
- Compression ratio      16.8 : 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. 780 kg (1,720 lb)
- Dimension              1,244 x 716 x 900 mm  
(LxWxH)                    (48.2 x 28.2 x 35.5 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        Raditor, silencer & air cleaner
- Electrical parts        Gauge panel & stop solenoid

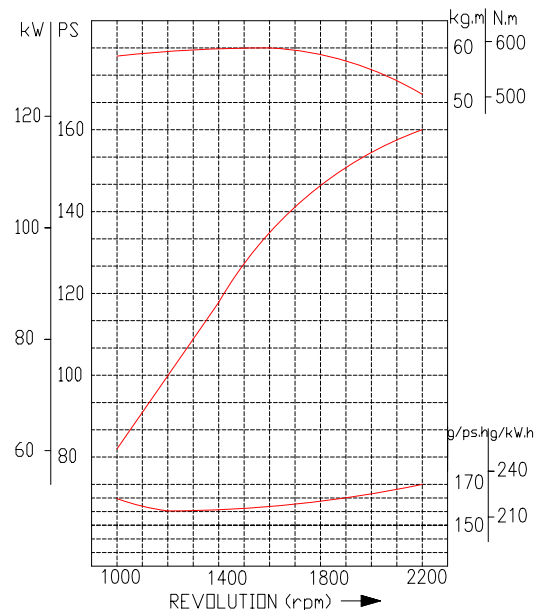
### ◎ FUEL SYSTEM

- 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. 0.9 kg/cm<sup>2</sup> ( 12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 190 liters ( 41.8 gal.)/min  
at 2,200 rpm (engine)
- Thermostat Wax – pellet type  
Opening temp. 71°C  
Full open temp. 85°C
- Cooling fan Blower type, steel  
590 mm diameter, 6 blade

## ◎ ELECTRICAL SYSTEM

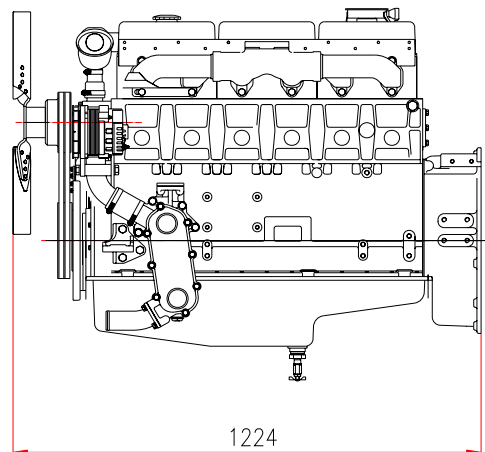
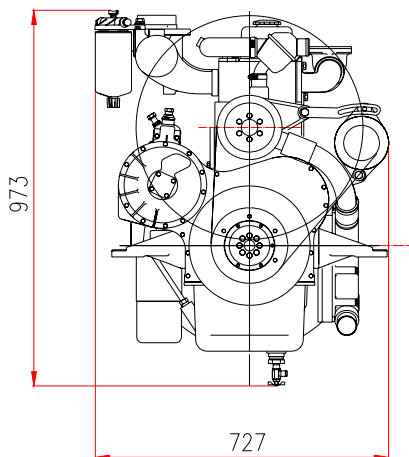
- Charging generator 24V x 45A [or 12V x 26A ] alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 4.5kW [or 12V x 2.5kW ]
- Battery Voltage 24V [or 12V ]
- Battery Capacity 100 AH [or 150 AH ](recommended)
- Starting aid (Option) Block heater

## ◎ ENGINEERING DATA

- Water flow 190 liters/min @2,200 rpm
- Heat rejection to coolant 20.2 kcal/sec @2,200 rpm
- Air flow 8.4 m<sup>3</sup>/min @2,200 rpm
- Exhaust gas flow 22.9 m<sup>3</sup>/min @2,200 rpm
- Exhaust gas temp. 480 °C @2,200 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 14.2233	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 = 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