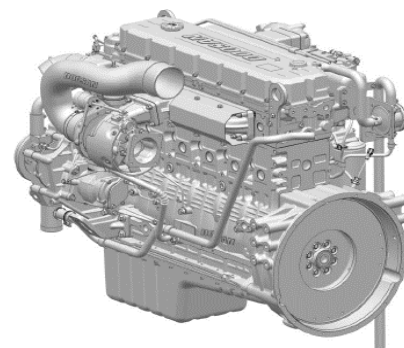


◎ Production tolerance : ±5%

Intermittent rating kW(PS) / rpm	Max. torque N.m(kg.m) / rpm
287 (390) / 1900	1569 (160) / 1200
309 (420) / 1900	1833 (187) / 1200



## ◎ MECHANICAL SYSTEM

○ Engine Model	DX12TIS
○ Engine Type	In-line Type 4 cycle, water cooled Turbocharged & Intercooled
○ Combustion Type	Direct injection
○ Cylinder Type	Replaceable dry liner
○ Number of cylinders	6
○ Bore x stroke	123 x 155 mm
○ Displacement	11.051(674.37) lit.(in <sup>3</sup> )
○ Compression ratio	17.0 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	BTDC 12degCA
○ Dry weight	1,000 kg
○ Dimension	1,318 x 973 x 1,116 mm
○ Rotation	Counter clockwise viewed from Flywheel
○ No Load Max Engine Speed	2,100 +/- 50 rpm
○ No Load Min Engine Speed	600 +/- 50 rpm
○ Air Comp. Capacity	354 cc/rev (Single)

## ◎ MECHANISM

○ Type	Over head valve
○ Number of valve	Intake 2, exhaust 2 per cylinder
○ Valve lashes at cold	Intake 0.4mm Exhaust 0.5mm

## ◎ COOLING SYSTEM

○ Cooling method	Fresh water forced circulation
○ Water capacity (Engine Only)	23 liters
○ Water pump	Centrifugal Type driven by Gear
○ Water pump Capacity	350 liters/min at 1,900 rpm
○ Thermostat	Wax – pellet Type Opening temp. 83°C or 71°C Full open temp. 95°C or 85°C

## ◎ FUEL SYSTEM

○ Injection pump	WEIFU P8500
○ Feed pump	Plunger Type
○ Injection nozzle	DLLA P Type
○ Fuel filter	Full flow, Catridge 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, Catridge Type
○ Oil pan capacity	High level 26 liters Low level 16 liters
○ Lub. Oil	Refer to Operation Manual

## ◎ VALVE TIMING

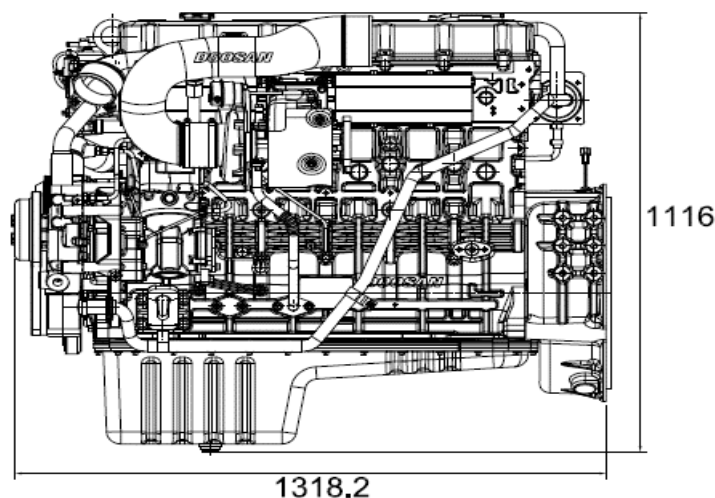
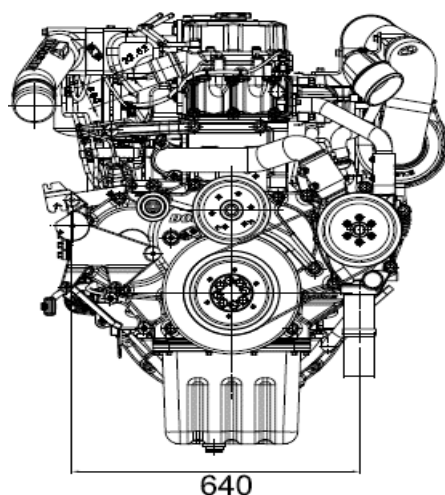
	Opening	Close
○ Intake valve	24 deg. BTDC	38 deg. ABDC
○ Exhaust valve	62 deg. BBDC	25 deg. ATDC

## ◎ ELECTRICAL SYSTEM

○ Starting motor	24V x 6kW
○ Battery Voltage	24V
○ Battery Capacity	150 AH x 2EA (Recommended)

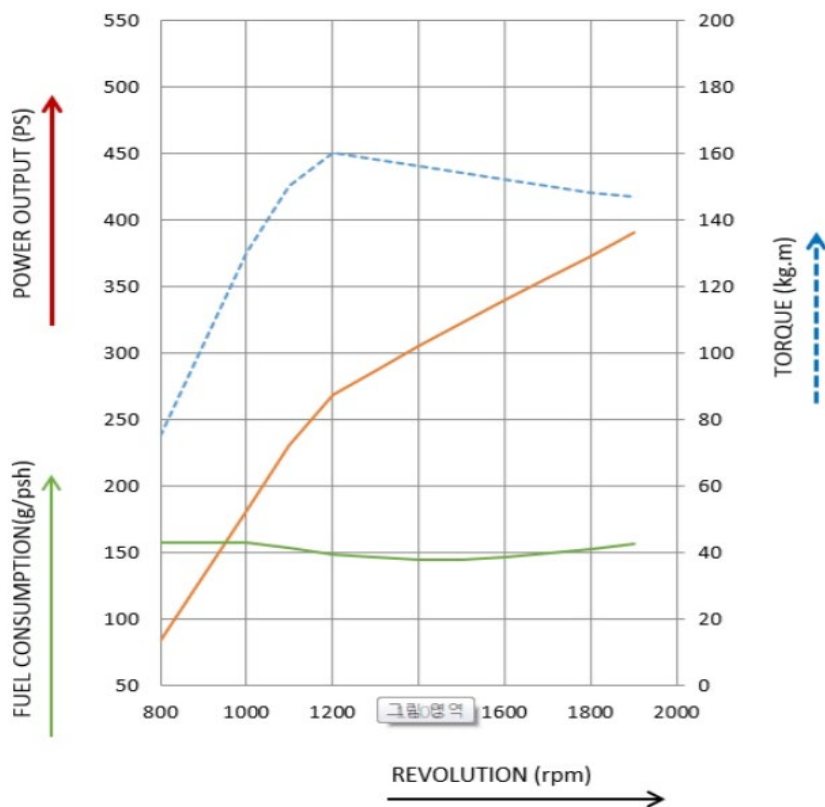
## ◆ CONVERSION TABLE

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	cfm = m <sup>3</sup> /min x 35.336
hp = PS x 0.98635	lb = kg x 2.20462

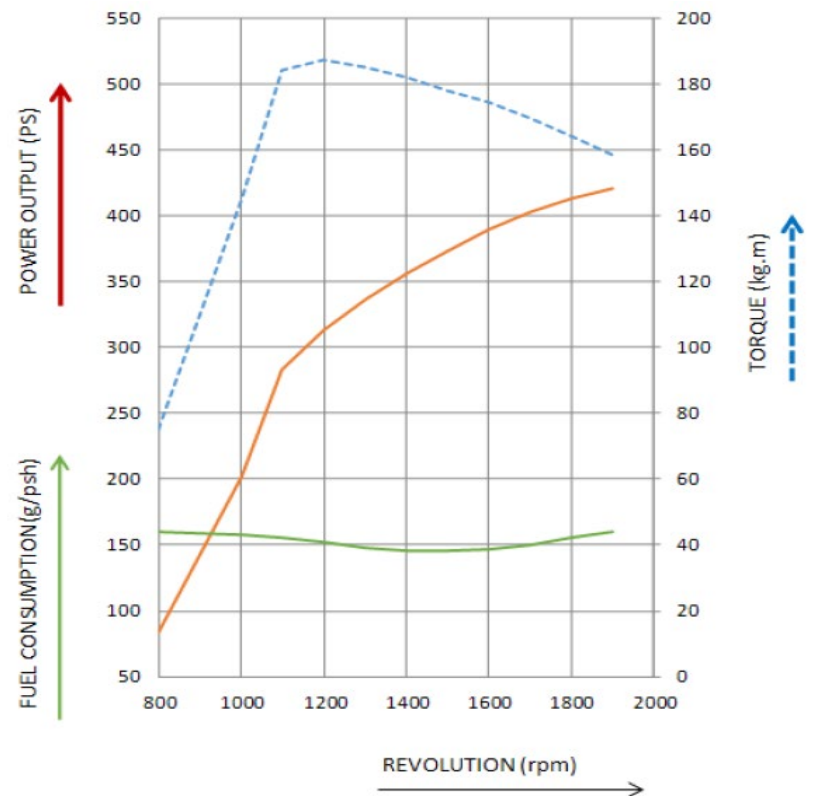


## ◎ PERFORMANCE CURVE

○ 287kW (390PS) / 160kg.m



○ 309kW (420PS) / 187kg.m



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※ Specifications are subject to change without prior notice