



# SC9D310D2

## ◎ POWER RATING

Engine Speed rpm	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	208	287
	Standby Power	228	310

-. The engine performance is as per GB/T2820.

-. Ratings are based on GB/T1147.1.

---Prime power is available for an unlimited number of hours per year in a variable load application. The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

---Standby power is available in the event of a utility power outage or under test conditions for up to 200 hours of operation per year.

The permissible average power output over 24 hours of operation shall not exceed 80% of the standby power rating.

## ◎ SPECIFICATIONS

- Engine Model SC9D310D2
- Engine Type In-line, 4 strokes, water-cooled  
Turbo charged  
air-to-air intercooled
- Combustion type Direct injection
- Cylinder Type Wet liner
- Number of cylinders 6
- Bore × stroke 114(4.49) × 144(5.67) mm(in.)
- Displacement 8.82(538.2) lit.(in<sup>3</sup>)
- Compression ratio 18 : 1
- Firing order 1-5-3-6-2-4
- Injection timing 6° BTDC
- Dry weight Approx. 740kg (1631b)
- Dimension (L×W×H) 1455×762×1273 mm  
(57.3×30.0×50.2 in.)
- Rotation Counter clockwise viewed from  
Flywheel
- Fly wheel housing SAE NO.2
- Fly wheel SAE NO.15

## ◎ MECHANISM

- Type Over head valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.30mm (0.0118 in.)  
Exhaust 0.50mm (0.0197 in.)

## ◎ VALVE TIMING

- |                 | Opening        | Close          |
|-----------------|----------------|----------------|
| ○ Intake valve  | 22.5 deg. BTDC | 34.5 deg. ABDC |
| ○ Exhaust valve | 67.5 deg. BBDC | 25.5 deg. ATDC |

## ◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 12 liters ( 3.17 gal.)

## ◎ FUEL CONSUMPTION

- | ○ Power | lit/hr |
|---------|--------|
| 25%     | 13.9   |
| 50%     | 26.3   |
| 75%     | 38.2   |
| 100%    | 50.6   |
| 110%    | 55.6   |

## ◎ FUEL SYSTEM

- Injection pump Longkou in-line “P” type
- Governor Electric type
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Opening pressure 250 kg/cm<sup>2</sup> (3556 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 19 liters ( 5.02 gal.)  
Low level 15 liters ( 3.96 gal.)
- Angularity limit Front down 25 deg.  
Front up 35 deg.  
Side to side 35 deg.
- Lub. Oil Refer to Operation Manual

## ◎ ENGINEERING DATA

- Water flow 200 liters/min @ 1,500 rpm
- Heat rejection to coolant 20.35 kcal/sec @ 1,500 rpm

- (engine only)
- Pressure system Max. 0.5 kg/cm<sup>2</sup> ( 7.11 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 200 liters ( 52.8 gal.)/min at 1,500 rpm (engine)
- Thermostat Wax-pellet type  
Opening temp. 82°C  
Full open temp. 93°C
- Cooling fan Blower type, plastic  
762 mm diameter, 10 blades

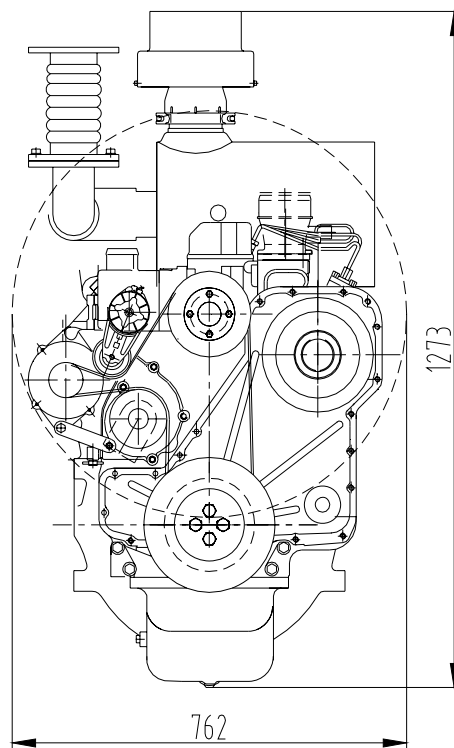
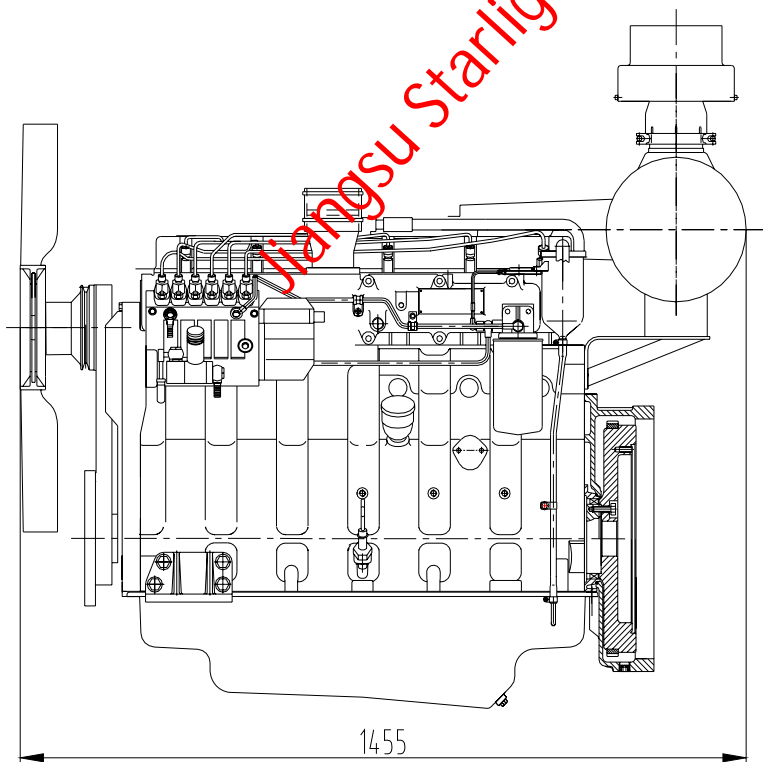
- Heat rejection to CAC 10.4 kcal/sec @1,500 rpm
- Air flow 16.4 m<sup>3</sup>/min @1,500 rpm
- Exhaust gas flow 35.9 m<sup>3</sup>/min @1,500 rpm
- Exhaust gas temp. 600°C @1,500 rpm
- Max. permissible restrictions  
Intake system 3 kPa initial  
6 kPa final  
Exhaust system 6 kPa max.
- Max. permissible altitude 2,000 m

◎ ELECTRICAL SYSTEM

- Charging generator 28V×55A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×7.5kW
- Battery Voltage 24V
- Battery Capacity 180 AH

◆ CONVERSION TABLE

- in. = mm × 0.0394
- PS = kW × 1.3596
- psi = kg/cm<sup>2</sup> × 14.2233
- in<sup>3</sup> = lit. × 61.02
- hp = PS × 0.98635
- lb = kg × 2.20462
- lb/ft = N.m × 0.737
- U.S. gal = lit. × 0.264
- kW = 0.2388 kcal/s
- lb/PS.h = g/kW.h × 0.00162
- cfm = m<sup>3</sup>/min × 35.336



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