SC9D310D2

◎ **POWER RATING**

Engine Speed	Type of	Engine Power	
rpm	Operation	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.(in3)

○ Compression ratio

18 : 1

○ Firing order

1-5-3-6-2-4

○ Injection timing

6°BTDC

○ Dry weight

Approx. 740kg (1631b)

○ Dimension

1455×762×1273 mm

(L×W×H)   (57.3×30.0×50.2 in.)

○ Rotation

Counter clockwise viewed from

Flywheel

◎ **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/cm2 (3556 psi)

○ Fuel filter

Full flow, cartridge type

- Fly wheel housing — SAE NO.2
- Fly wheel — SAE NO.11.5

- Used fuel — Diesel fuel oil

⊚ 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.)

  (engine only)
- Pressure system — Max. 0.5 kg/cm2 (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
- Cooling air flow — 6.23 m³ /s

⊚ 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
- Heat rejection to CAC — 10.4 kcal/sec @1,500 rpm
- Air flow — 16.4 m3/min @1,500 rpm
- Exhaust gas flow — 35.9 m3/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
- Fan power — 8 kW

◎ 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   lb/ft = N.m × 0.737

PS = kW × 1.3596   U.S. gal = lit. × 0.264

psi = kg/cm2 × 14.2233   kW = 0.2388 kcal/s

in^3 = lit. × 61.02   lb/PS.h = g/kW.h × 0.00162

hp = PS × 0.98635   cfm = m3/min × 35.336

lb = kg × 2.20462