



SC4H115D2

◎ POWER RATING

Engine Speed	Type of	Engine Power	
rpm	Operation	kW	Ps
1500	Prime Power	78	106
	Standby Power	86	117

-. 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	SC4H115D2
○ Engine Type	In-line, 4 strokes, water-cooled
	4 valves, Turbo charged
○ Combustion type	Direct injection
○ Cylinder Type	Dry liner
○ Number of cylinders	4
○ Bore × stroke	105(4.14) × 124(4.89) mm(in.)
○ Displacement	4.3(262.4) lit.(in ³)
○ Compression ratio	17.3 : 1
○ Firing order	1-3-4-2
○ Injection timing	13.5° BTDC
○ Dry weight	Approx. 450kg (992.1 lb)
○ Dimension	1012×723×1102 mm
(L×W×H)	(39.9×28.5×43.4in.)
○ Rotation	Counter clockwise viewed from
	Flywheel
○ Fly wheel housing	SAE NO.3
○ Fly wheel	SAE NO.11.5

◎ MECHANISM

○ Type	Over head valve
○ Number of valve	Intake 2, exhaust 2 per cylinder
○ Valve lashes at cold	Intake 0.25mm (0.0099 in.)
	Exhaust 0.50mm (0.0197 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	20.9° BTDC	44.9° ABDC
○ Exhaust valve	51.7° BBDC	11.7° ATDC

◎ COOLING SYSTEM

○ Cooling method	Fresh water forced circulation
○ Water capacity	6.8 liters (1.8 gal.)
(engine only)	

◎ FUEL CONSUMPTION

○ Power	lit/hr
25%	6.1
50%	10.3
75%	15.2
100%	20.2
110%	22.1

◎ FUEL SYSTEM

○ Injection pump	Beiyou in-line “AD” type
○ Governor	Electric type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm ² (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 13 liters (3.4 gal.)
	Low level 11 liters (2.9 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	117 liters/min @1,500 rpm
○ Heat rejection to coolant	13.6 kcal/sec @1,500 rpm

- Pressure system Max. 0.5 kg/cm2 (7.11 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 117 liters (30.9 gal.)/min
at 1,500 rpm (engine)
- Thermostat Wax–pellet type
Opening temp. 82°C
Full open temp. 95°C
- Cooling fan Blower type, plastic
550 mm diameter, 9 blades

- Air flow 6.2 m3/min @1,500 rpm
- Exhaust gas flow 14.1 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

◎ ELECTRICAL SYSTEM

- Charging generator 24V×55A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×4.5kW
- Battery Voltage 24V
- Battery Capacity 120 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
- in³ = lit. × 61.02 lb/PS.h = g/kW.h × 0.00162
- hp = PS × 0.98635 cfm = m3/min × 35.336
- lb = kg × 2.20462

