SC4H80D2

◎ POWER RATING

Engine Speed	Type of	Engine Power	
rpm	Operation	kW	Ps
1500	Prime Power	56	76
	Standby Power	62	85

-. 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	SC4H80D2
○ 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.(in3)
○ Compression ratio	17.3 : 1
○ Firing order	1-3-4-2
○ Injection timing	13.5°BTDC
○ Dry weight	Approx. 450kg (992.1 lb)
○ Dimension (L×W×H)	1012×723×1102 mm (39.9×28.5×43.4in.)
○ Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.3
○ Fly wheel	SAE NO.11.5

◎ FUEL CONSUMPTION

○ Power	lit/hr
25%	3.6
50%	6.9
75%	10.6
100%	13.9
110%	15.1

◎ FUEL SYSTEM

○ Injection pump	Beiyou in-line “AD” type
○ Governor	RSV
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm2 (3556 psi)
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

◎ 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.)

◎ 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

◎ 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 (engine only)	6.8 liters (1.8 gal.)

◎ ENGINEERING DATA

○ Water flow	117 liters/min @1,500 rpm
○ Heat rejection to coolant	9.8 kcal/sec @1,500 rpm

○ Pressure system	Max. 0.5 kg/cm2 (7.11 psi)	○ Air flow	4.8 m3/min @1,500 rpm
○ Water pump	Centrifugal type driven by belt	○ Exhaust gas flow	10.2 m3/min @1,500 rpm
○ Water pump Capacity	117 liters (30.9 gal.)/min at 1,500 rpm (engine)	○ Exhaust gas temp.	600 °C @1,500 rpm
		○ Max. permissible restrictions	
○ Thermostat	Wax–pellet type	Intake system	3 kPa initial
	Opening temp. 82°C		6 kPa final
	Full open temp. 95°C	Exhaust system	6 kPa max.
○ Cooling fan	Blower type, plastic	○ Max. permissible altitude	2,000 m
	550 mm diameter, 9 blades		

◎ 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
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	



