

## Model:SC33W1150D2

## POWER RATING

Engine Speed	Type of	<b>Gross Engine Output</b>	Net Engine Output	
rpm	Operation	kW	kW	
1500	Prime Power	782	754	
	Standby Power	860	832	

- -. 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**

## **© FUEL CONSUMPTION**

O Engine Model	SC33W1150D2	O Power	lit/hr		
O Engine Type	line, 4 strokes, water-cooled Turbo charged	25% 50%	53.3 100.1		
O Combustion type	air-to-air intercooled  Direct injection	75% 100%	146.3 193.5		
O Cylinder Type	Wet liner	110%	216.0		
O Number of cylinders	6				
O Bore × stroke	180(7.09) × 215(8.47) mm(in.)				
O Displacement	32.8(2001) lit.(in3)				
O Compression ratio	15:1				
O Firing order	1-5-3-6-2-4	<b>◎ FUEL SYSTEM</b>			
O Injection timing	22°BTDC	O Injection pump	Longkou in-line "P11" type		
O Dry weight	Approx. 3400kg (7495.7 lb)	O Governor	Electric type		
O Dimension	2307×1371×1983 mm	O Feed pump	Mechanical type		
$(L\times W\times H)$	(90.9×54.0×78.1 in.)	O Injection nozzle	Multi hole type		
O Rotation	Counter clockwise viewed from	O Opening pressure	290kg/cm2 (4125 psi)		
www.sdecie.com w	ww.sdec.com.cn service line 00862	160652315 engine@sdecie.com	sc_fw@sdec.com.cn		



	Flywheel	O Fuel filter	Full flow, cartridge type	
O Fly wheel housing	SAE NO.0	O Used fuel	Diesel fuel oil	
O Fly wheel	SAE NO.18			
<b> ⊚ MECHANISM</b>		<ul> <li>LUBRICATION SYSTI</li> </ul>	ЕМ	
О Туре	Over head valve	O Lub. Method	Fully forced pressure feed type	
O Number of valve	Intake 1, exhaust 1 per cylinder	O Oil pump	Gear type driven by crankshaft	
O Valve lashes at cold	Intake 0.4mm (0.0158 in.)	O Oil filter	Full flow, cartridge type	
	Exhaust 0.45mm (0.0177 in.)	Oil pan capacity	High level 75 L ( 19.8 gal.) Low level 50 L ( 13.2 gal.)	
• VALVE TIMING		O Angularity limit	Front down 25 deg.	
	Opening Close		Front up 35 deg.	
O Intake valve	58° BTDC 48° ABDC		Side to side 35 deg.	
O Exhaust valve	54° BBDC 48° ATDC	O Lub. Oil	Refer to Operation Manual	
◎ COOLING SYSTE	M	© ENGINEERING DATA		
O Cooling method	Fresh water forced circulation	O Water flow	1150L/min @1,500 rpm	
O Water capacity	56L ( 14.78 gal.)	O Heat rejection to coolant	78.6kcal/sec @1,500 rpm	
(engine only)		O Heat rejection to CAC	49.1kcal/sec @1,500 rpm	
O Pressure system	Max. 0.5 kg/cm2 ( 7.11 psi)	O Engine waste heat	24.6 kcal/sec @1,500 rpm	
O Water pump	Centrifugal type driven by belt	O Air flow	2×40.2m3/min @1,500 rpm	
O Water pump Capacity	1150L(303.6gal.)/min	O Exhaust gas flow	194.1m3/min @1,500 rpm	
	at 1,500 rpm (engine)	O Exhaust gas temp.	690 °C @1,500 rpm	
O Thermostat	Wax-pellet type Opening temp. 77°C Full open temp. 90°C	O Max. permissible restrictions Intake system	3 kPa initial	



O Cooling fan
Blower type,iron 6 kPa final

1371 mm diameter, 8 blades Exhaust system 11 kPa max.

 $\circ$  Cooling air flow  $20.82 \text{ m}^3/\text{s}$   $\circ$  Max. permissible altitude 2,000 m

© ELECTRICAL SYSTEM

O Charging generator in. =  $mm \times 0.0394$  lb/ft =  $N.m \times 0.737$ 

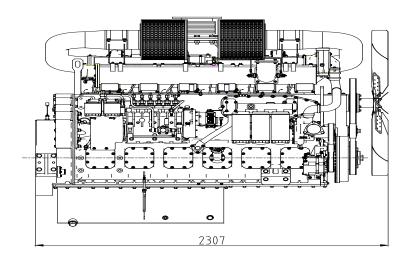
O Voltage regulator PS =  $kW \times 1.3596$  U.S. gal =  $lit. \times 0.264$ 

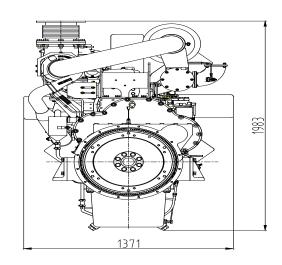
O Starting motor  $psi = kg/cm2 \times 14.2233 \qquad kW = 0.2388 \ kcal/s$ 

O Battery Voltage  $in^3 = lit. \times 61.02 \qquad lb/PS.h = g/kW.h \times 0.00162$ 

 $lb=kg\times 2.20462\,$ 

**CONVERSION TABLE** 





	Initial load acceptance			2nd load application				
	when engine reaches rated speed			Immediately after engine has recovered to rated speed				
	(15 seconds maximum after engine starts to crank)			(5 seconds after initial load application)				
Engine speed	Prime power %	Load kWm (kWe) Nett	Transient Frequency deviation %	Frequency recovery time seconds	Prime power %	Load kWm (kWe) Nett	Transient Frequency deviation %	Frequency recovery time seconds
1500 rev/min	45	252	€7	3	25	196	€7	3