



## Model:SC33W1150D2

### ◎ POWER RATING

| Engine Speed | Type of       | Gross Engine Output | 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

- Engine Model SC33W1150D2
- Engine Type 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 180(7.09) × 215(8.47) mm(in.)
- Displacement 32.8(2001) lit.(in3)
- Compression ratio 15 : 1
- Firing order 1-5-3-6-2-4
- Injection timing 22°BTDC
- Dry weight Approx. 3400kg (7495.7 lb)
- Dimension 2307×1371×1983 mm  
(L×W×H) (90.9×54.0×78.1 in.)
- Rotation Counter clockwise viewed from

### ◎ FUEL CONSUMPTION

- Power lit/hr
  - 25% 53.3
  - 50% 100.1
  - 75% 146.3
  - 100% 193.5
  - 110% 216.0
- ### ◎ FUEL SYSTEM
- Injection pump Longkou in-line “P11” type
  - Governor Electric type
  - Feed pump Mechanical type
  - Injection nozzle Multi hole type
  - Opening pressure 290kg/cm2 (4125 psi)



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



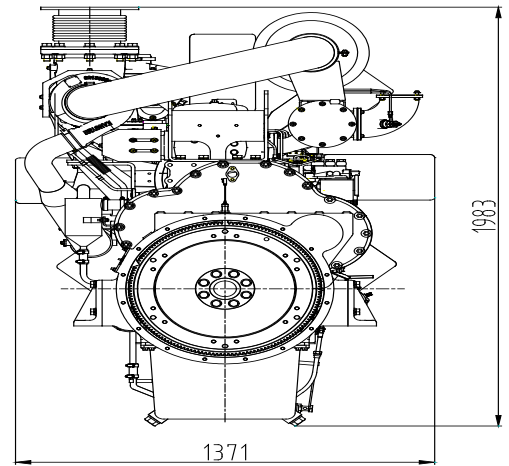
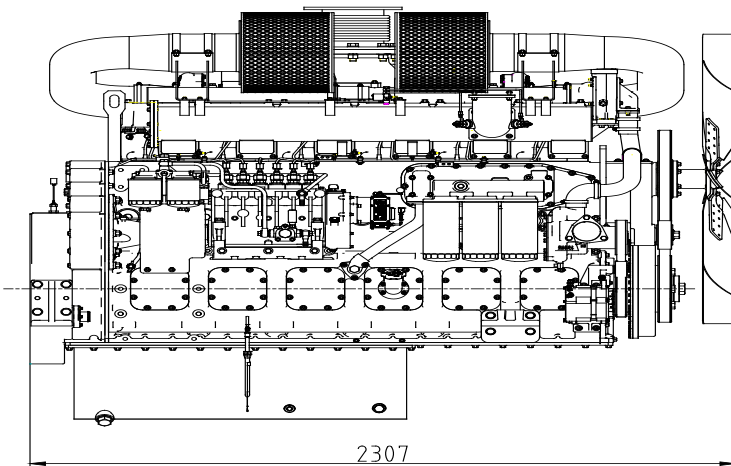
- Cooling fan
  - Blower type,iron
  - 1371 mm diameter, 8 blades
- Cooling air flow
  - 20.82 m<sup>3</sup> /s
- Noise
  - 119DB(A)
- Exhaust system
  - 6 kPa final
  - 11 kPa max.
- Max. permissible altitude
  - 2,000 m
- Fan power
  - 25 kW

◎ **ELECTRICAL SYSTEM**

- Charging generator
  - 28V×55A
- Voltage regulator
  - Built-in type IC regulator
- Starting motor
  - 24V×11kW
- Battery Voltage
  - 24V
- Battery Capacity
  - 200 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/cm<sup>2</sup> × 14.2233
- kW = 0.2388 kcal/s
- in<sup>3</sup> = lit. × 61.02
- lb/PS.h = g/kW.h × 0.00162
- hp = PS × 0.98635
- cfm = m<sup>3</sup>/min × 35.336
- lb = kg × 2.20462



|              | Initial load acceptance<br>when engine reaches rated speed<br>(15 seconds maximum after engine starts to crank) |               |                     |                                 | 2nd load application<br>Immediately after engine has recovered to rated speed<br>(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 % |
| 1500 rev/min | 45                                                                                                              | 252           | ≤7                  | 3                               | 25                                                                                                                          | 196           | ≤7                  | 3                               |