



Model:SC10E380D2

◎ POWER RATING

| Engine Speed rpm | Type of Operation | Engine Power | |
|---------------------|----------------------|--------------|-----|
| | | kW | Ps |
| 1500 | Prime Power | 255 | 347 |
| | Standby Power | 280 | 380 |

-. 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 | SC10E380D2 |
| ○ Engine Type | In-line,4 strokes, water-cooled 4 valves, Turbo charged air-to-air intercooled |
| ○ Combustion type | Direct injection |
| ○ Cylinder Type | Wet liner |
| ○ Number of cylinders | 6 |
| ○ Bore × stroke | 128(5.04) × 135(5.31) mm(in.) |
| ○ Displacement | 11.8(720) lit.(in3) |
| ○ Compression ratio | 17 : 1 |
| ○ Firing order | 1-5-3-6-2-4 |
| ○ Injection timing | 14°BTDC |
| ○ Dry weight | Approx.1070 kg (2,359 lb) |
| ○ Dimension (L×W×H) | 1787×918×1294 mm (70.4×36.2×51 in.) |
| ○ Rotation | Counter clockwise viewed from |

◎ FUEL CONSUMPTION

| | |
|----------------------|-----------------------------------|
| ○ Power | lit/hr |
| 25% | 15.8 |
| 50% | 32.1 |
| 75% | 49.4 |
| 100% | 60.8 |
| 110% | 67.5 |
| ◎ 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/cm ² (3556 psi) |



| | | | | |
|-----------------------------------|----------------------------------|-----------------------------|-----------------------------|--|
| | Flywheel | | ○ Fuel filter | Full flow, cartridge type |
| ○ Fly wheel housing | SAE NO.1 | | ○ Used fuel | Diesel fuel oil |
| ○ Fly wheel | SAE NO.14 | | | |
| ◎ MECHANISM | | ◎ LUBRICATION SYSTEM | | |
| ○ Type | Over head valve | | ○ Lub. Method | Fully forced pressure feed type |
| ○ Number of valve | Intake 2, exhaust 2 per cylinder | | ○ Oil pump | Gear type driven by crankshaft |
| ○ Valve lashes at cold | Intake 0.40mm (0.0158 in.) | | ○ Oil filter | Full flow, cartridge type |
| | Exhaust 0.65mm (0.0256 in.) | | ○ Oil pan capacity | High level 41 liters (10.82 gal.) Low level 33 liters (8.71 gal.) |
| ◎ VALVE TIMING | | | ○ Angularity limit | Front down 25 deg. Front up 35 deg. |
| | Opening | Close | | Side to side 35 deg. |
| ○ Intake valve | 15 deg. BTDC | 30 deg. ABDC | | |
| ○ Exhaust valve | 45 deg. BBDC | 13 deg. ATDC | ○ Lub. Oil | Refer to Operation Manual |
| ◎ COOLING SYSTEM | | ◎ ENGINEERING DATA | | |
| ○ Cooling method | Fresh water forced circulation | | ○ Water flow | 515 liters/min @1,500 rpm |
| ○ Water capacity (engine only) | 23.2 liters (6.12 gal.) | | ○ Heat rejection to coolant | 32.1 kcal/sec @1,500 rpm |
| | | | ○ Heat rejection to CAC | 11.2 kcal/sec @1,500 rpm |
| ○ Pressure system | Max. 0.5 kg/cm2 (7.11 psi) | | ○ Air flow | 17.3 m3/min @1,500 rpm |
| ○ Water pump | Centrifugal type driven by belt | | ○ Exhaust gas flow | 43.8 m3/min @1,500 rpm |
| ○ Water pump Capacity | 515 liters (136 gal.)/min | | ○ Exhaust gas temp. | 600 °C @1,500 rpm |
| | at 1,500 rpm (engine) | | ○ Max. permissible | |
| ○ Thermostat | Wax–pellet type | | restrictions | |
| | Opening temp. 85°C | | Intake system | 3 kPa initial |
| | Full open temp. 95°C | | | 6 kPa final |



○ Cooling fan

Blower type, plastic

Exhaust system

6 kPa max.

840 mm diameter, 8 blades

○ Max. permissible altitude

2,000 m

◎ ELECTRICAL SYSTEM

○ Charging generator

28V×70A

○ Voltage regulator

Built-in type IC regulator

○ Starting motor

24V×5.5kW

○ 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

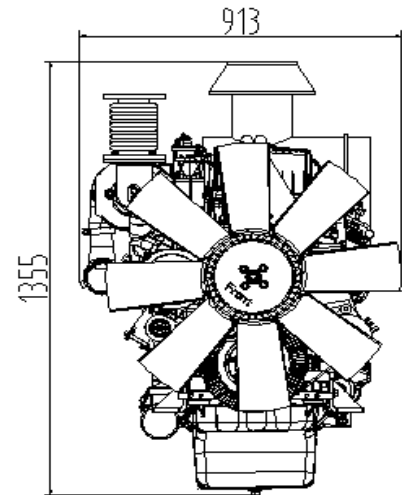
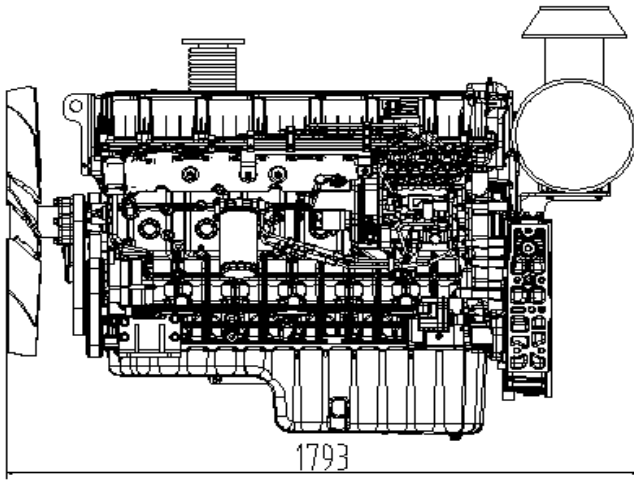
in³ = lit. × 61.02

lb/PS.h = g/kW.h × 0.00162

hp = PS × 0.98635

cfm = m³/min × 35.336

lb = kg × 2.20462



| | Initial load acceptance when engine reaches rated speed (15 seconds maximum after engine starts to crank) | | | | 2nd load application Immediately after engine has recovered to rated speed (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 | 40 | 123 | ≤7 | 3 | 25 | 77 | ≤7 | 3 |