Model:SC25G690D2

◎ **POWER RATING**

Engine Speed	Type of	Gross Engine Output	Net Engine Output
rpm	Operation	kW	kW
1500	Prime Power	459	437
	Standby Power	505	483

-. 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

SC25G690D2

○ Engine Type

V-type,4 strokes, water-cooled
Turbo charged
air-to-air intercooled

○ Combustion type

Direct injection

○ Cylinder Type

Wet liner

○ Number of cylinders

12

○ Bore × stroke

135(5.32) ×150(5.9) mm(in.)

○ Displacement

25.8(1574) lit.(in3)

○ Compression ratio

16 : 1

○ Firing order

1-12-5-8-3-10-6-7-2-11-4-9

○ Injection timing

13.5°BTDC

○ Dry weight

Approx. 2080kg (4585 lb)

○ Dimension

1930×1686×1872mm

(L×W×H)

(76×66.4×75.8 in.)

○ Rotation

Counter clockwise viewed from

◎ **FUEL CONSUMPTION**

○ Power	lit/hr
25%	35.0
50%	60.7
75%	85.9
100%	113.8
110%	127.9

◎ **FUEL SYSTEM**

○ Injection pump

Yijie in-line "P" type

○ Governor

Electric type

○ Feed pump

Mechanical type

○ Injection nozzle

Multi hole type

○ Opening pressure

240kg/cm2 (3414 psi)

Flywheel

○ Fly wheel housing   SAE NO. 0

○ Fly wheel   SAE NO.18

○ Fuel filter   Full flow, cartridge type

○ Used fuel   Diesel fuel oil

◎ **MECHANISM**

○ Type   Over head valve

○ Number of valve   Intake 1, exhaust 1 per cylinder

○ Valve lashes at cold   Intake   0.325mm (0.0128 in.)

Exhaust 0.375mm (0.0148 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 65 liters (17.16 gal.) Low level 55 liters (14.52 gal.)

◎ **VALVE TIMING**

	Opening	**Close**
○ Intake valve	20 deg. BTDC	48 deg. ABDC
○ Exhaust valve	48 deg. BBDC	20 deg. ATDC

○ Angularity limit   Front down 25 deg. Front up 35 deg.

Side to side 35 deg.

○ Lub. Oil   Refer to Operation Manual

◎ **COOLING SYSTEM**

○ Cooling method   Fresh water forced circulation

○ Water capacity   48 liters (12.7 gal.)

 (engine only)

○ Pressure system   Max. 0.5 kg/cm2 (7.11 psi)

○ Water pump   Centrifugal type driven by belt

○ Water pump Capacity   740 liters (195.36 gal.)/min

at 1,500 rpm (engine)

○ Thermostat   Wax–pellet type
Opening temp. 77°C
Full open temp. 90°C

◎ **ENGINEERING DATA**

○ Water flow   740 liters/min@1,500 rpm

○ Heat rejection to coolant   46.2kcal/sec @1500 rpm

○ Heat rejection to CAC   28.8kcal/sec@1500 rpm

○ Engine waste heat   14.4 kcal/sec @1,500 rpm

○ Air flow   2×18.8m3/min@1500 rpm

○ Exhaust gas flow   2×45.8m3/min @1500 rpm

○ Exhaust gas temp.   650 °C @1,500 rpm

○ Max. permissible

 restrictions
 Intake system   3 kPa initial

○ Cooling fan

Blower type,iron
1100 mm diameter, 6 blades

Exhaust system

6 kPa final
6 kPa max.

○ Cooling air flow

14.48 m³/s

○ Max. permissible altitude

2,000 m

○ Fan power

20 kW

◎ **ELECTRICAL SYSTEM**

◆ **CONVERSION TABLE**

○ Charging generator

28V×55A

in. = mm × 0.0394

lb/ft = N.m × 0.737

○ Voltage regulator

Built-in type IC regulator

PS = kW × 1.3596

U.S. gal = lit. × 0.264

○ Starting motor

24V×11kW

psi = kg/cm2 × 14.2233

kW = 0.2388 kcal/s

○ Battery Voltage

24V

in^3 = lit. × 61.02

lb/PS.h = g/kW.h × 0.00162

○ Battery Capacity

200 AH

hp = PS × 0.98635

cfm = m3/min × 35.336

lb = kg × 2.20462
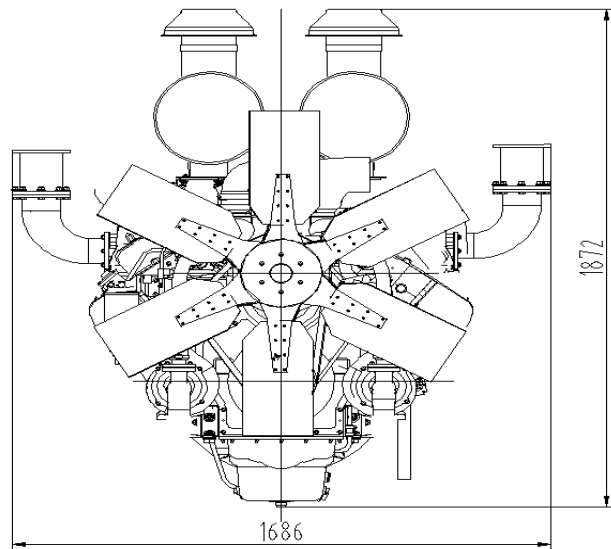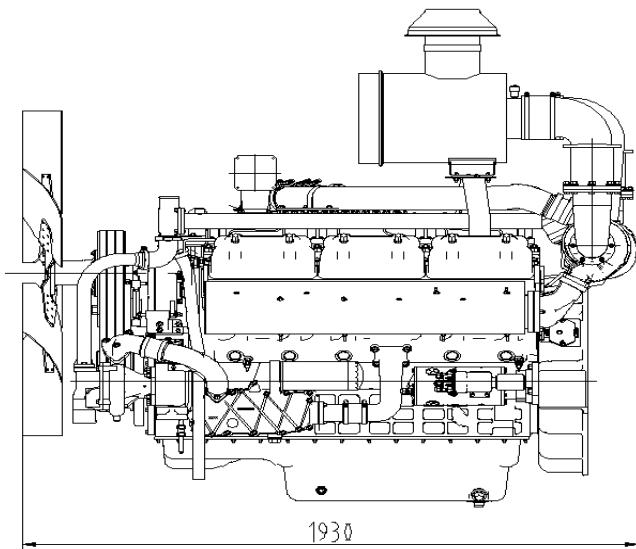
	Initial load acceptance when engine reaches rated speed (15 seconds maximum after engine starts to crank)				2nd load application Immediately after engine has recovered to rated speed (5 seconds after initial load application)			
Engine speed	Prime power %	Load kWm (kWe) Nett	Transient Frequency deviation %	Frequency recovery time seconds	Prime power %	Load kWm (kWe) Nett	Transient Frequency deviation %	Frequency recovery time seconds
1500 rev/min	55	252	≤7	3	40	184	≤7	3