GE08TIC

◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1800	Prime Power	150	204
	Standby Power	*	*
1500	Prime Power	128	174
	Standby Power	*	*

Note : -. The engine performance corresponds to ISO 3026, BS 5514 and DIN 6271.

-. Ratings are based on ISO 8528.

→ **Prime power** available at variable load. The permissible average power out put (during 24h period) shell not exceed 70% of the prime power rating.

◎ MECHANICAL SYSTEM

○ Engine Model	GE08TIC
○ Engine Type	In-line 4 cycle, water cooled
	Turbo charged & intercooled (water to air)
○ Combustion type	Stoichiometric, Premixed and spark ignited
○ Cylinder Type	Replaceable wet liner
○ Number of cylinders	6
○ Bore x stroke	111(4.37) x 139(5.47) mm(in.)
○ Displacement	8.071 (492.52) lit.(in^3)
○ Compression ratio	10.5 : 1
○ Firing order	1-5-3-6-2-4
○ Ignition timing	13° BTDC
○ Compression pressure	Above 16 kg/cm2(228 psi) at 200rpm
○ Dry weight	Approx. 750 kg (1,654 lb)
○ Dimension (LxWxH)	1,224 x 760 x 973 mm (48 x 30 x 38 in.)
○ Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.2
○ Fly wheel	Clutch NO.11 1/2

◎ MECHANISM

○ Type	Over head valve
○ Number of valve	Intake 1, exhaust 1 per cylinder
○ Valve lashes at cold	Intake 0.30mm (0.0118 in.)
	Exhaust 0.30mm (0.0118 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	16 deg. BTDC	34 deg. ABDC
○ Exhaust valve	46 deg. BBDC	14 deg. ATDC

◎ FUEL CONSUMPTION

○ Prime Power (Nm^3/h	1,500 rpm	1,800 rpm
25%	13.3	13.9
50%	17.8	21.8
75%	24.3	29.9
100%	31.8	38.5

◎ FUEL SYSTEM

○ Carburetor	Impco 200 Varifuel carburetor
○ Gas regulator	Maxitrol RV61
○ Max. inlet pressure	1.0 psi at the engine inlet

◎ 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 23 liters (6.08 gal.)
	Low level 17 liters (4.49 gal.)
○ Angularity limit	Front down 25 deg.
	Front up 25 deg.
	Side to side 25 deg.
○ Lub. Oil	Refer to Operation Manual
	Low ash type(0.5wt%) natural gas engine oil
	API service grade CD or higher
	SAE 15W-40

◎ COOLING SYSTEM

○ Cooling method	Fresh water forced circulation
○ Water capacity (engine only)	18 liters (4.76 gal.)
○ Pressure system	Max. 0.9 kg/cm^2 (12.8 psi)
○ Water pump	Centrifugal type driven by belt
○ Water pump Capacity	240 liters (63.4 gal.)/min at 1,800 rpm (engine)
○ Thermostat	none

◎ ELECTRICAL SYSTEM

○ Charging generator	24V x 45A alternator
○ Voltage regulator	Built-in type IC regulator
○ Starting motor	24V x 4.5kW
○ Battery Voltage	24V
○ Battery Capacity	150 AH (recommended)
○ Ignition controller	12 or 24V DC (min 8V DC at start, 32V DC max)

◎ IGNITION SYSTEM

○ Spark plug	NGK IFR7B-D, 0.4mm air gap Champion RC78PYP, 0.38mm air gap
○ Ignition controller	Altronic CD 1 unit (12 or 24V DC)
○ Ignition coil	Altronic 501 061 blue epoxy individual coil
○ Trigger system	Magnetic pick-up sensor and trigger wheel and Hall-effect (0.75 ~ -0.25mm air gap)

◎ ENGINEERING DATA

○ Water flow	200 liters/min @1,500 rpm
○ Heat rejection to coolant	29.4 kcal/sec @1,500 rpm
○ Heat rejection to CAC	1.2 kcal/sec @1,500 rpm
○ Air flow	10.3 m^3/min @1,500 rpm
○ Exhaust gas flow	16.5 m^3/min @1,500 rpm
○ Exhaust gas temp.	540 °C @1,500 rpm
○ Water flow	240 liters/min @1,800 rpm
○ Heat rejection to coolant	35.3 kcal/sec @1,800 rpm
○ Heat rejection to CAC	2.3 kcal/sec @1,800 rpm
○ Air flow	12.5 m^3/min @1,800 rpm
○ Exhaust gas flow	20.3 m^3/min @1,800 rpm
○ Exhaust gas temp.	560 °C @1,800 rpm
○ Max. permissible restrictions	
-.Intake system	220 mmH_2O initial
	635 mmH_2O final
-.Exhaust system	600 mmH_2O max.

◆ CONVERSION TABLE

in. = mm x 0.0394	lb/ft = N.m x 0.737
PS = kW x 1.3596	U.S. gal = lit. x 0.264
psi = kg/cm2 x 14.2233	kW = 0.2388 kcal/s
in3 = lit. x 61.02	lb/PS.h = g/kW.h x 0.00162
hp = PS x 0.98635	cfm = m^3/min x 35.336
lb = kg x 2.20462	Nm^3= SCF × 0.0283

Kg/hr = Nm^3/hr × 0.732 (natural gas)

Btu/ft^3= MJ/m^3 × 26.8392 (natural gas)