4HTAA4.3-G21

◎ **Power**

Engine Speed r/min	Type of Operation	Engine Power kW	Generator Power kW	Generator Power kVA
1500	Prime Power	95	84	100
	Standby Power	105	90	110
1800	Prime Power	105	90	110
	Standby Power	116	100	121

-. The engine performance is as per GB/T2820

-. Ratings are based on GB/T1147.1.

→**Prime Power：**--- There is no time limit in the case of variable load operation. In any 250hours of continuous operation period, the variable load of average work load less than 70%of the prime power. The operation time in the situation of 100% prime power no more than 500 hours. Permit 10%overload running1hours in any 12 hours of continuous operation period. The overload 10% power running time of every year no more than 25 hours..

→**Standby Power：** The annual total standby power load should be less than 80%and the average running time shall be less than200 hours. Among them the standby power point should be no more than 25 hours a year.。

◎ SPECIFICATIONS

○ Engine Model	4HTAA4.3-G21
○ Engine Type	In-line,4strokes,4valves,water-cooled, Turbo charged with aftercooler
○ Combustion type	Direct injection
○ Cylinder Type	Dry liner
○ Number of cylinders	4
○ Bore × stroke	105× 124mm
○ Displacement	4.3 L
○ Compression ratio	16 : 1
○ Firing order	1-3-4-2
○ Injection timing	10°BTDC
○ Dry weight	450kg
○ Dimension	1080×738×1078 mm

◎ FUEL CONSUMPTION

○ Power	L/h（1500r/min）	L/h（1800r/min）
25%	6.5	7.8
50%	11.8	13.5
75%	17.1	19.5
100%	23.0	25.6
110%	25.9	28.7

◎ FUEL SYSTEM

○ Injection pump	in-line “P” type
○ Governor	Electric type
○ Feed pump	Mechanical type

(L×W×H)	
○ Rotation	CCW viewed from flywheel
○ Fly wheel housing	SAE NO.3
○ Fly wheel	SAE NO.11.5(tooth number of gear:127)

◎ MECHANISM

○ Type	Overhead valve
○ Number of valve	Intake 2, exhaust 2 per cylinder
○ Valve lashes at cold	Intake 0.25mm
	Exhaust 0.50mm

◎ VALVE TIMING

	Opening	Close
○ Intake valve	20.9° BTDC	44.9° ABDC
○ Exhaust valve	51.7° BBDC	11.7° ATDC

◎ COOLING SYSTEM

○ Cooling method	Fresh water forced circulation
○ Water capacity	6.8 liters
(engine only)	
○ Lid Min. pressure	70kPa
○ Water pump	Centrifugal type driven by belt
○ Water pump Capacity	155L/min （1500r/min）
	186L/min （1800r/min）
○ The maximum temp. of coolant in prime/ Standby power	104/100

○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm2
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

◎ 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 13 liters Low level 11 liters
○ Angularity limit	Front down 25 deg. Front up 35 deg.
	Side to side 35 deg.
○ Lub. Oil	Refer to Operation Manual

◎ ENGINEERING DATA

○ Heat rejection to coolant	11.3kcal/sec（1500r/min）
	12.5kcal/sec（1800r/min）
○ Heat rejection to intercooler	6.0kcal/sec（1500r/min）
	6.6kcal/sec（1800r/min）
○ Air flow	6.8m3/min （1500r/min）
	9.4m3/min（1800r/min）
○ Exhaust gas flow	16.1m3/min（1500r/min）
	22.2m3/min（1800r/min）
○ Exhaust gas temp.	600 °C

○ Thermostat	Wax–pellet type Opening temp. 82°C Full open temp. 95°C	○ Max. permissible restrictions Intake system Exhaust system	3 kPa initial 6 kPa final (need charge filter element) 8 kPa max.
○ Cooling fan	Blower type, plastic 550 mm diameter, 9blades Power consumption 4kw	○ Intercooler resistance limit	5 kPa

◎ ELECTRICAL SYSTEM

○ Charging generator	14V×80A
○ Voltage regulator	Built-in type IC regulator
○ Starting motor	12V×4.2kW
○ Battery Voltage	12V
○ Battery Capacity	120 AH