

P034TI G-DRIVE

◎ POWER RATING

Engine Speed rev/min	Type of Operation	Engine Power	
		kWm	Ps
1800	Continuous Power	51	69
	Prime Power	55	75
	Standby Power	60	82
1500	Continuous Power	35	48
	Prime Power	42	57
	Standby Power	48	65



Note : -. The engine performance corresponds to ISO 3046, 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) shall not exceed 70% of the prime power rating.

→ Standby power available in the event of a main power network failure. No overload is permitted.

◎ MECHANICAL SYSTEM

○ Engine Model	P034TI
○ Engine Type	In-line 4 cycle, water cooled Turbo charged & intercooled (air to air)
○ Combustion type	Direct injection
○ Cylinder Type	Replaceable dry liner
○ Number of cylinders	4
○ Bore x stroke	102(4.02) x 100(3.94) mm(in.)
○ Displacement	3.268(199.43) lit.(in ³)
○ Compression ratio	17.2 : 1
○ Firing order	1-3-4-2
○ Injection timing	13° BTDC
○ Compression pressure	Above 28 kg/cm ² (398 psi) at 200rpm
○ Dry weight	Approx. 335 kg (739 lb)
○ Dimension (LxWxH)	869.5 x 728 x 841 mm (34.2 x 28.7 x 33.1 in.)
○ Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.3
○ Fly wheel	Clutch NO.11 1/2

◎ FUEL CONSUMPTION

○ Prime Power (lit/hr)	1,500 rpm	1,800 rpm
25%	3.7	4.7
50%	6.0	8.0
75%	8.7	11.1
100%	11.2	14.3
○ Standby Power (lit/h)	1,500 rpm	1,800 rpm
25%	3.9	4.9
50%	6.6	8.6
75%	9.4	11.8
100%	12.5	15.6

◎ FUEL SYSTEM

○ Injection pump	Zexel in-line "AS" type
○ Governor	RSV type (all speed control)
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	220 kg/cm ² (3,129 psi)
○ 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 0.40mm (0.0157 in.) Exhaust 0.40mm (0.0157 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	28 deg. BTDC	62 deg. ABDC
○ Exhaust valve	70 deg. BBDC	28 deg. ATDC

◎ 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 6.5 liters (1.72 gal.) Low level 5.5 liters (1.45 gal.)
○ Angularity limit	Front down 25 deg. Front up 25 deg. Side to side 25 deg.
○ Lub. Oil	Refer to Operation Manual

◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 8.5 liters (2.24 gal.)
(engine only)
- Pressure system Max. 0.9 kg/cm² (12.8 psi)
- Water pump Centrifugal type driven by belt
- Water pump Capacity 65 liters (17.2 gal.)/min
at 1,800 rpm (engine)
- Thermostat Wax – pellet type
Opening temp. 82°C
Full open temp. 95°C
- Cooling fan Blower type, steel
520 mm diameter, 6 blade

◎ ELECTRICAL SYSTEM

- Charging generator 24V x 45A [or 12V x 26A] alternator
- Voltage regulator Built-in type IC regulator
- Starting motor 24V x 4.5kW [or 12V x 2.5kW]
- Battery Voltage 24V [or 12V]
- Battery Capacity 100 AH [or 150 AH] (recommended)
- Starting aid (Option) Block heater

◎ ENGINEERING DATA

- Water flow 50 liters/min @1,500 rpm
65 liters/min @1,800 rpm
- Heat rejection to coolant 8.6 kcal/sec @1,800 rpm
- Heat rejection to CAC 1.2 kcal/sec @1,800 rpm
- Air flow 4.3 m³/min @1,800 rpm
- Exhaust gas flow 13.9 m³/min @1,800 rpm
- Exhaust gas temp. 490 °C @1,800 rpm
- Max. permissible restrictions
 - Intake system 220 mmH₂O initial
635 mmH₂O final
 - Exhaust system 600 mmH₂O 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/cm ² x 14.2233	kW = 0.2388 kcal/s
in ³ = 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	

