

GREEN POWER PERKINS DIESEL ENGINE

| | |
|----------|------------|
| 1500 RPM | Type GP45P |
|----------|------------|

The Engine with integrated water cooling

Engine: 1103A-33TG1

Technical description

- Optimized cast iron cylinder block with optimum distribution of forces
- Piston cooling for low piston temperature and reduced ring temperature
- Powerful but 3.3 litre naturally aspirated 3 cylinder compact Engine
- Crankshaft hardened bearing surfaces and fillets for moderate on main and big end bearings
- Keystone top compression rings for long service life
- Replaceable valve guides and valve seats
- Thermostatically controlled system with gear driven circulation pump
- Lift eyelets
- High inertia flywheel to SAE J620
- Flywheel for flexible coupling and friction clutch
- Front engine mounting brackets

Benefits

- Low noise emission, cost savings as no noise attenuation measures are required
- Long service intervals: 1000 hour oil change intervals and low fuel consumption bring savings in Operating costs
- Low installation costs
- Excellent load takeover characteristics ensure prompt power supply
- Combined oil cooling and lubrication prevents corrosion and cavitation
- High reliability and durability together with reduced maintenance requirement and wear parts

Fuel System

- Mechanically governed cassette type fuel injection pump
- Split element fuel filter

Oil System

- Spin-on full flow lub oil filter
- Wet steel sump with filler and dipstick

Control Panel

Manual or Automatic start control panel

- 12 volt Electronic shut Off Solenoid(ESOS) energised to run
- 12 volt starter motor and 12 volt 15 amp alternator with DC output
- Glow plug cold start aid and heater/starter switch
- Oil pressure and coolant temperature switches

Rating Table : The Genset 1103A-33TG1 Engine.

| | | | |
|----------------------------------|-----------------------|------|------|
| Engine type | 1103A-33TG1 | | |
| Speed | min ⁻¹ rpm | 1500 | |
| Frequency | Hz | 50 | |
| Engine Power | | | |
| Prime power (PRP) | kVA kW | 45 | 36 |
| Limited time running power (LTP) | kVA kW | 49.5 | 39.6 |
| Fuel consumption | | | |
| Standby power | g/KWh l/hr | 221 | 12.0 |
| Prime power | g/KWh l/hr | 215 | 10.7 |
| 75 % of prime power | g/KWh l/hr | 218 | 8.2 |
| 50 % of prime power | g/KWh l/hr | 227 | 5.7 |

PRP* kVA/KW :

Prime power is available for an unlimited number of annual hours in variable load application. A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

LTP** kVA/KW :

The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

Scope of supply :

The engine and alternator are mounted together forming a rigid monoblock, the shoulders are connected by inflexible disc connection. The mono-block is mounted on a steel base frame through silent blocks. The base frame is including a fuel tank. Starting is electric and it contains a battery. The generator monitoring system consists of a control module.

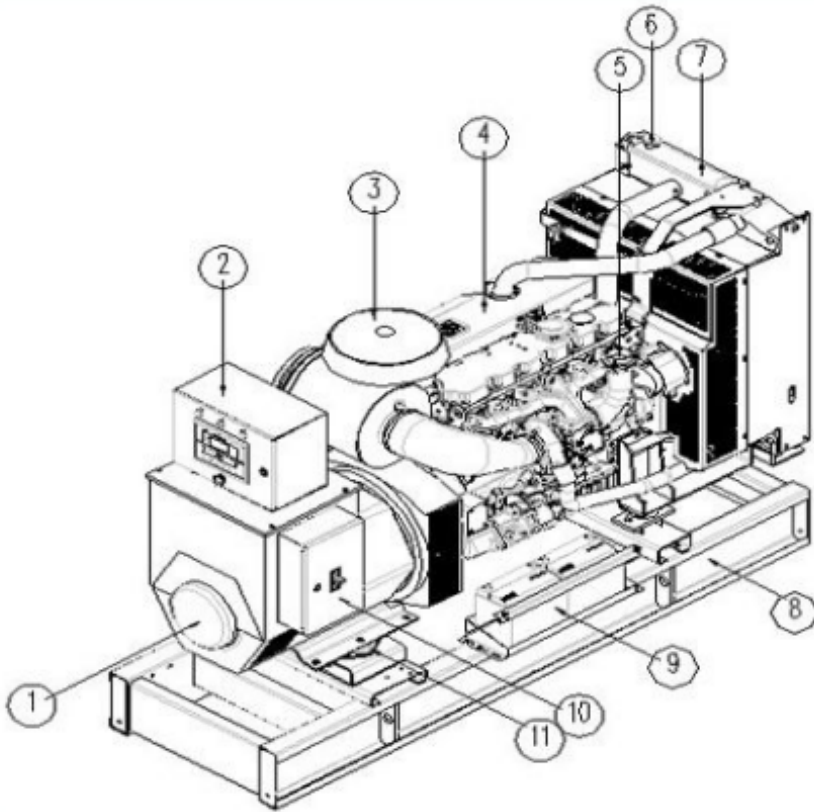
Technical Data

| | | | |
|--------------------------------|---------------------|-----------|--|
| Engine type | 1103A-33TG1 | | |
| Numer of cylinder | 3 | | |
| Bore x Stroke | mm | 105 x 127 | |
| Displacement | l | 3.3 | |
| Compression ratio | 17.25:1 | | |
| Engine Power PRP | KW | 36 | |
| Engine Power LTP | KW | 39.6 | |
| Cooling Type | water | | |
| Injection Type | Indirect | | |
| Dry weight | Kg | 420 | |
| Air Intake | m ³ /min | 3.7 | |
| Max standby power at rated RPM | KW/HP | 53.9/72.3 | |
| Coolant capacity | Litres | 10.2 | |
| Battery | Ah | 90 | |
| Oil Tank capacity | Litres | 8.3 | |
| Exhaust gas flow | m ³ /min | 8.8 | |
| Exhaust gas Temperature | °C | 537 | |

Dimensions

| Engine type | Length | Width | Height |
|-----------------------|--------|-------|--------|
| 1103A-33TG1 mm | 1049 | 634 | 951 |

Engine Illustration



- 1. Alternator
- 2. Control cabinet
- 3. Air filter
- 4. Engine
- 5. Mounting flange of vent-pipe
- 6. Water inlet
- 7. Radiator

- 8. Base frame
- 9. Battery
- 10. Switch cabinet
- 11. Vibration isolator
- 12. Lifting lug
- 13. Fuel level meter
- 14. Fuel inlet

