

## GREEN POWER PERKINS DIESEL ENGINE

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1500 RPM	Type GP20P
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The Engine with integrated water cooling

**Engine:** 404A-22G1

### Technical description

- Optimized cast iron cylinder block with optimum distribution of forces
- Piston cooling for low piston temperature and reduced ring temperature
- Powerful but 2.2 litre naturally aspirated 4 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 404A-22G1 Engine.

Engine type	404A-22G1		
Speed	min <sup>-1</sup>   rpm	1500	
Frequency	Hz	50	
<b>Engine Power</b>			
Prime power (PRP)	kVA   kW	20	16
Limited time running power (LTP)	kVA   kW	22	17.6
<b>Fuel consumption</b>			
Standby power	g/KWh   l/hr	244	6.1
Prime power	g/KWh   l/hr	237	5.3
75 % of prime power	g/KWh   l/hr	238	4.0
50 % of prime power	g/KWh   l/hr	258	2.9

### 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.

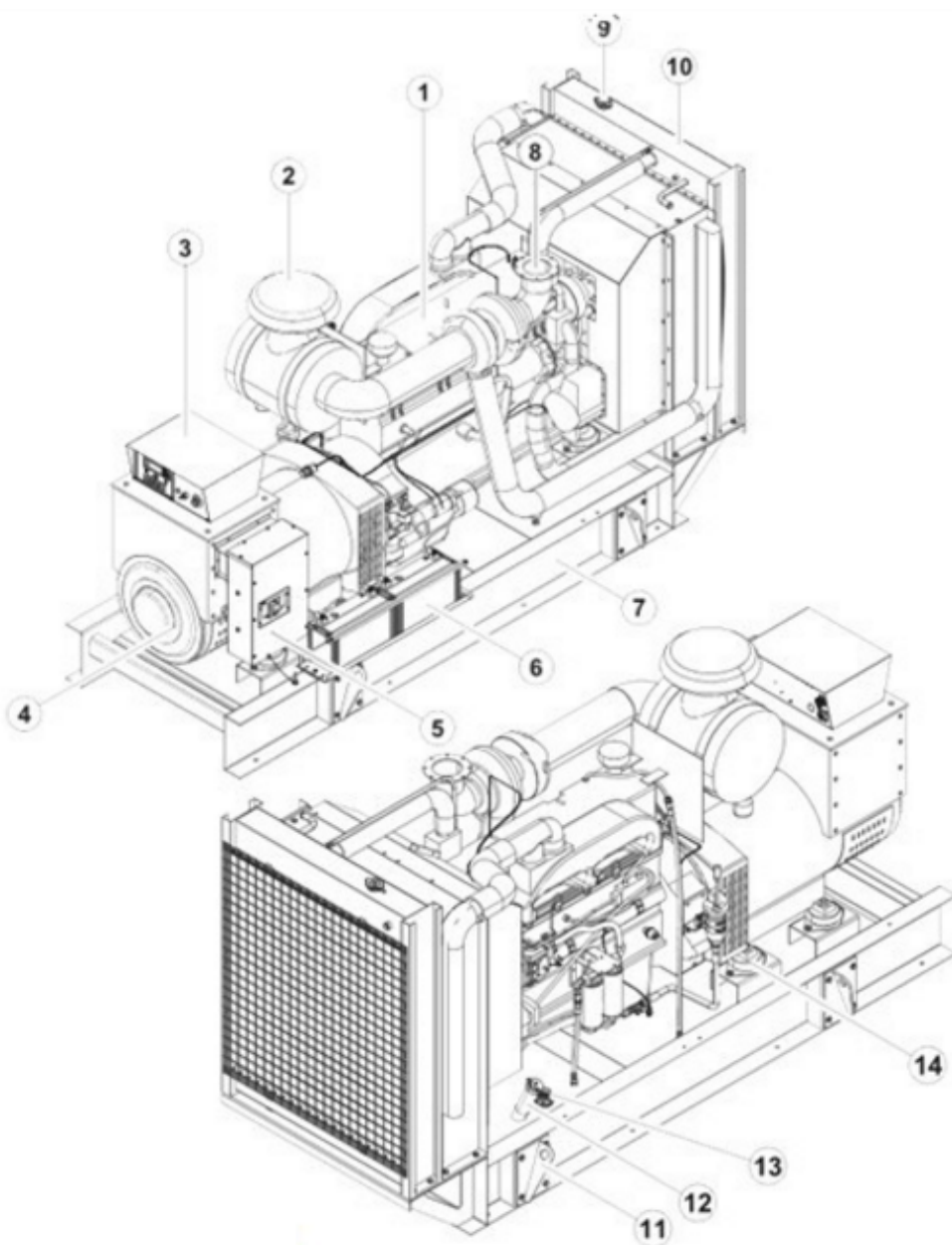
## Technical Data

Engine type	<b>404A-22G1</b>		
Numer of cylinder	4		
Bore x Stroke	mm	84 x 100	
Displacement	l	2.2	
Compression ratio	23.3:1		
Engine Power PRP	KW	16	
Engine Power LTP	KW	17.6	
Cooling Type	water		
Injection Type	Indirect		
Dry weight	Kg	242	
Air Intake	m <sup>3</sup> /min	1.45	
Max standby power at rated RPM	KW/HP	20.6/27.6	
Coolant capacity	Litres	7	
Battery	Ah	32	
Oil Tank capacity	Litres	10.6	
Exhaust gas flow	m <sup>3</sup> /min	3.9	
Exhaust gas Temperature	°C	505	

## Dimensions

Engine type		Length	Width	Height
<b>404A-22G1</b>	mm	946	497	841

## Engine Illustration



1. Engine
2. Air cleaner
3. Control cabinet
4. Alternator
5. Switch cabinet
6. Battery
7. Base frame
8. Mounting flange of vent-pipe
9. Water inlet
10. Radiator
11. Lifting lug
12. Fuel inlet
13. Fuel lever meter
14. Vibration isolator



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