

GREEN POWER VOLVO DIESEL ENGINE

| | |
|-----------------|---------------------|
| 1500 RPM | Type GP460VO |
|-----------------|---------------------|

The Engine with integrated water cooling

Engine: TAD1640GE

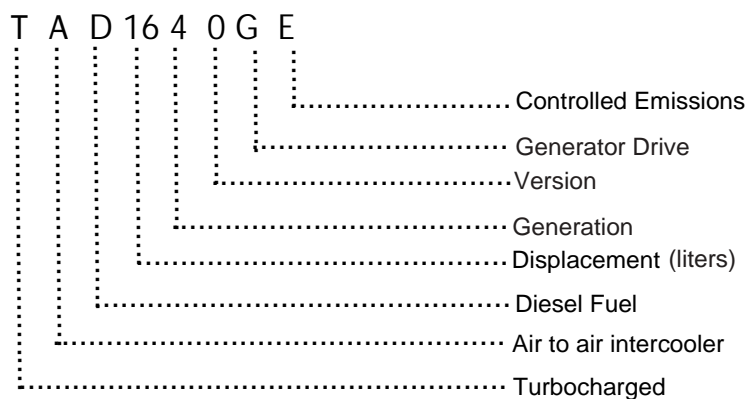
Technical description

- Cast iron cylinder block with optimum distribution of forces without the block being unnecessarily heavy
- Piston cooling for low piston temperature and reduced ring temperature
- Tapered connecting rods for increased piston lifetime
- Crankshaft induction hardened bearing surfaces and fillets with seven bearings for moderate load on main and big end bearings
- Replaceable valve guides and valve seats
- Keystone top compression rings for long service life
- Viscous type crankshaft vibration dampers to withstand single bearing alternator torsional vibrations
- Over head camshaft and four valves per cylinder
- Case hardened and Nitrocarburized transmission gears for heavy duty operation
- Wet and replaceable cylinder liners

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

Model Designation



Control Panel

Manual or Automatic start control panel

- Manual or automatic remote boot controller, selector switch for Off, Man and Auto with the key.
- Complete motor protection functions with alarms visualized via LEDs in the front.
- The control unit 6 is set via DIP switches in the rear part of the case.
- Standard circuit breaker and differential relay.

Rating Table : The Genset TAD1640GE Engine

| Engine type | | TAD1640GE | |
|----------------------------------|-------------------------|-----------|-------|
| Speed | min ⁻¹ rpm | 1500 | |
| Frequency | Hz | 50 | |
| Engine Power | | | |
| Prime power (PRP) | kVA kW | 460 | 368 |
| Limited time running power (LTP) | kVA kW | 506 | 405 |
| Spec. fuel consumption PRP (LTP) | | | |
| 100 % load | g/KWh lb/hph | 195 | 0.316 |
| 75 % load | g/KWh lb/hph | 194 | 0.314 |
| 50% load | g/KWh lb/hph | 200 | 0.324 |
| 25 % load | g/KWh lb/hph | 221 | 0.358 |

PRP* kVA/KW :

Available electrical power (at variable load) in a medium of 80% of the indicated maximum power.
A 10% overload capacity is available.

LTP** kVA/KW :

Available electrical power load (at variable load) for a maximum of 500 hours per year.
No overload capability available

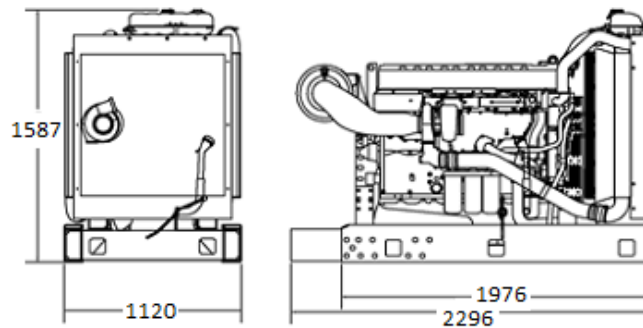
Scope of supply :

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

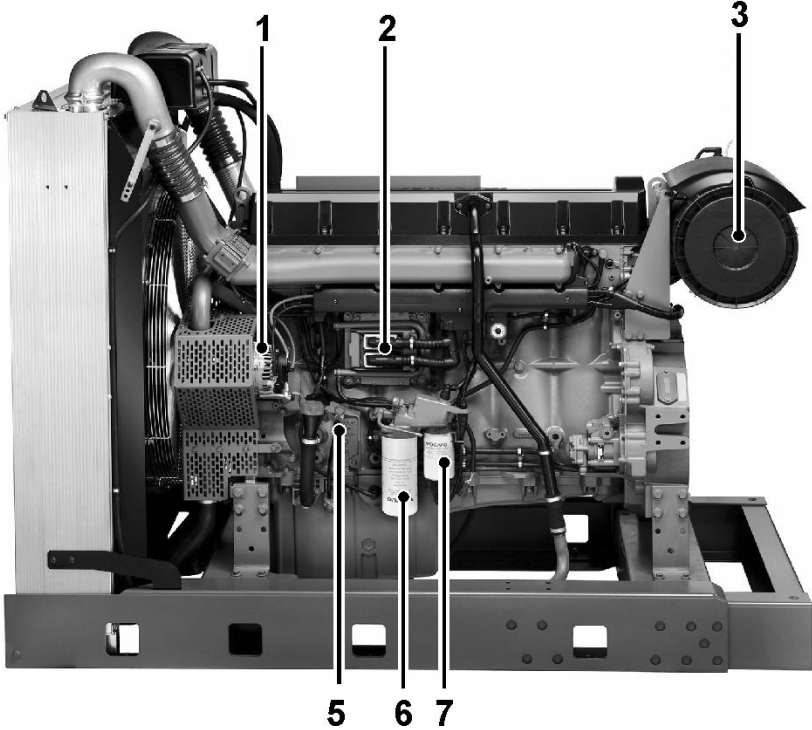
| | | |
|--------------------------------------|---------------------|-----------|
| Engine type | TAD1640GE | |
| Numer of cylinder | 6 | |
| Bore x Stroke | mm | 144 x 165 |
| Displacement | l | 16.12 |
| Compression ratio | 17.5:1 | |
| Engine Power PRP | KW | 368 |
| Engine Power LTP | KW | 405 |
| Cooling Type | water | |
| Injection Type | Electronic unit | |
| Max allowable Back pressure | Kpa | 10 |
| Max Permitted air Intake restriction | Kpa | 5 |
| Standard Governor | Electronic | |
| Oil system capacity | Litres | 48 |
| Battery | Ah | 60 |
| Starting engine | KW | 5.0 |
| Exhaust gas flow | m ³ /min | 78.0 |
| Exhaust gas Temperature | °C | 571 |

Dimensions

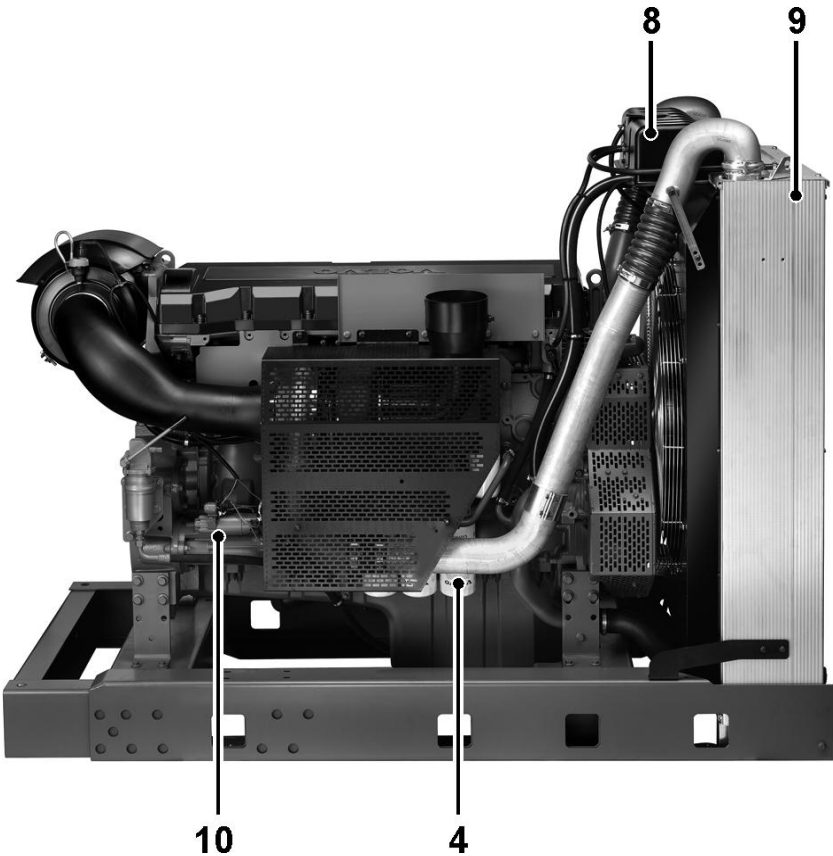


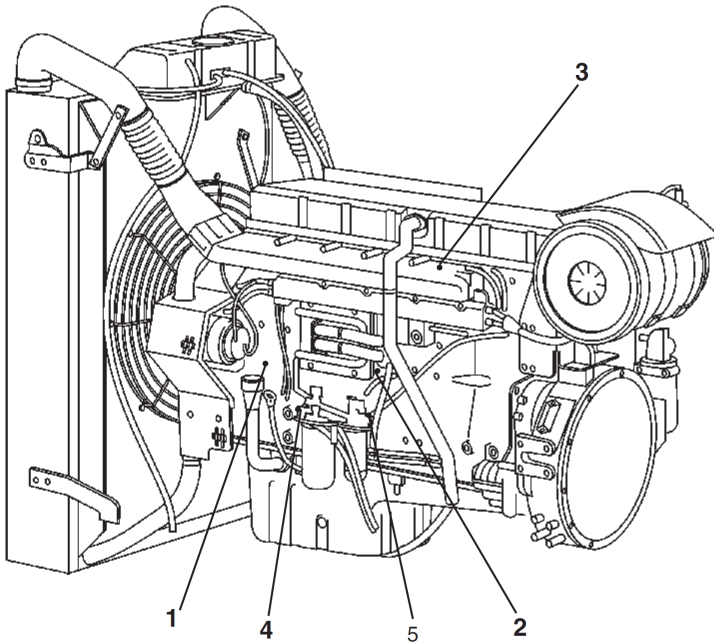
| Engine type | | Length | Width | Height |
|------------------|----|--------|-------|--------|
| TAD1640GE | mm | 2296 | 1120 | 1587 |

Engine Illustration



- Engine Description**
TAD1640GE
- 1 Alternator
 - 2 Control, EMS
 - 3 Air filters
 - 4 Oil filler
 - 5 Oil dipstick
 - 6 Fuel filter with fuel pressure
 - 7 Fuel pre-filter with water monitor
 - 8 Expansion tank
 - 9 Charge air coolers
 - 10 Starter

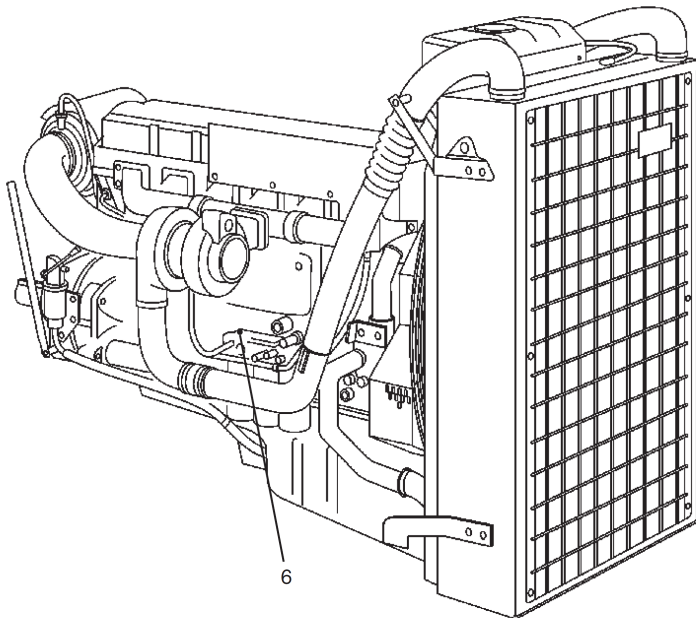




Engine Description

TAD1640GE

- 1 Crankcase pressure
- 2 Oil pressure
- 3 Charge air pressure and charge air temperature after the charge air cooler
- 4 Fuel feed pressure(pre-filter)
- 5 Fuel feed pressure(after the filter)
- 6 Piston cooling oil pressure



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