

GREEN POWER VOLVO DIESEL ENGINE

1500 RPM	Type GP100VO
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The Engine with integrated water cooling

Engine: TAD531GE

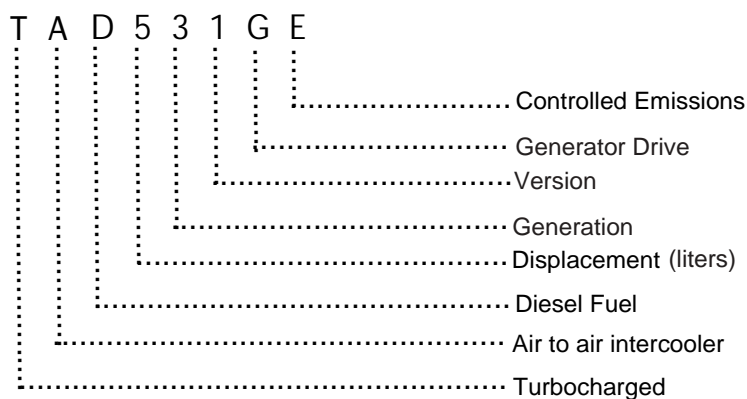
Technical description

- Optimized cast iron cylinder block with optimum distribution of forces
- Piston cooling for low piston temperature and reduced ring temperature
- Drop forged steel connecting rods
- 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
- Three PTO positions at flywheel
- Lift eyelets
- Flywheel housing with connection acc. to SAE 2 and SAE 3
- Flywheel for flexible coupling and friction clutch
- Transport 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

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 TAD531GE Engine.

Engine type		TAD531GE	
Speed	min ⁻¹ rpm	1500	
Frequency	Hz	50	
Engine Power			
Prime power (PRP)	kVA KW	100	80
Limited time running power (LTP)	kVA KW	110	88
Spec. fuel consumption PRP (LTP)			
100 % load	g/KWh lb/hp-hr	218	0.353
75 % load	g/KWh lb/hp-hr	218	0.353
50% load	g/KWh lb/hp-hr	225	0.365
25 % load	g/KWh lb/hp-hr	259	0.419

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

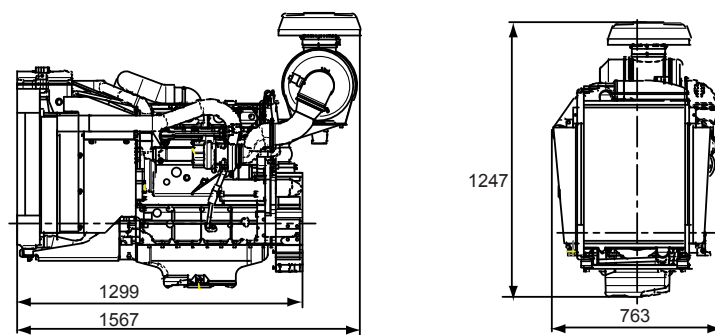
Scope of supply :

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

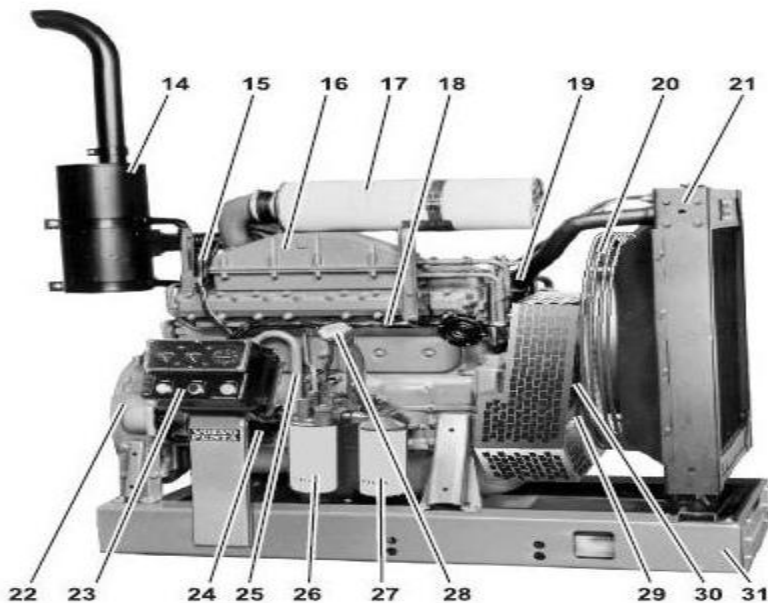
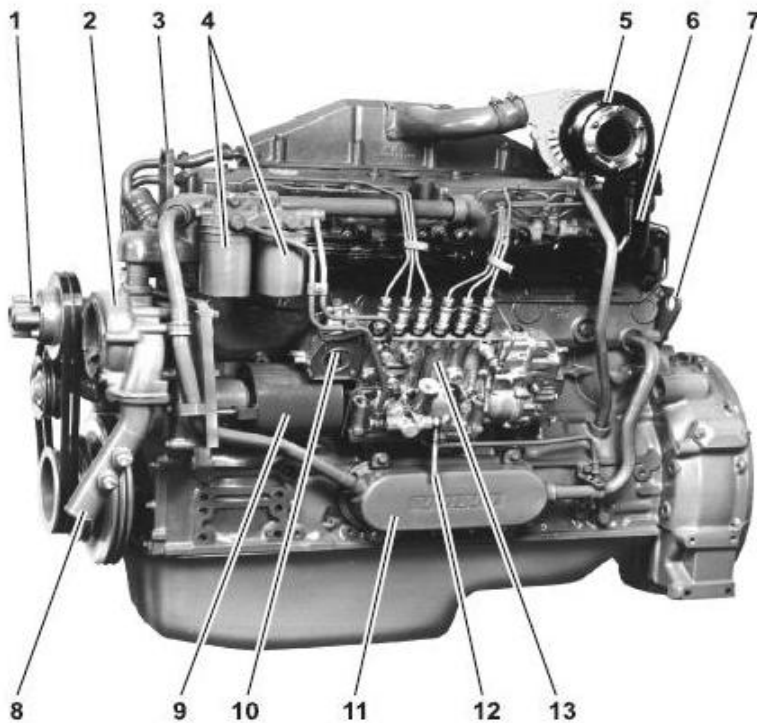
Engine type		TAD531GE
Nuner of cylinder		4
Bore x Stroke	mm	108 x 130
Displacement	l	4.76
Compression ratio		18:1
Engine Power PRP	KW	80
Engine Power LTP	KW	88
Cooling Type		water
Injection Type		Directly
Max allowable Back pressure	Kpa	5
Max Permitted air Intake restriction	Kpa	3.5
Standard Governor		Mechanical
Oil cap	Litres	13
Battery	Ah	55
Starting engine	KW	3.1
Exhaust gas flow	m ³ /min	18.4
Exhaust gas Temperature	°C	557

Dimensions



Engine type		Length	Width	Height
TAD531GE	mm	1567	763	1247

Engine Illustration



Engine Description

TAD531GE

1. Fan hub
2. Gear-driven coolant pump
3. Lifting lug
4. Double fuel filter
5. Turbocharger
6. Air-cooled exhaust manifold
7. Lifting lug
8. Coolant pipe, inlet
9. Pump coupling guard
10. Smoke limiter
11. Oil cooler
12. Fuel line for tank connection
13. Injection pump
14. Muffler
15. Relay for electrical starter
16. Electrical starter element
17. Air filter
18. Cable holder
19. Coolant pipe, outlet
20. Fan guard
21. Radiator
22. Flywheel cover
23. Instrument panel
24. Starter motor
25. Pipe for crankcase ventilation
26. Lubricating oil filter, full flow
27. Lubricating oil filter, part flow
28. Filler cap for lubricating oil
29. Vibration damper
30. Belt tensioner (automatic)
31. Frame



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