

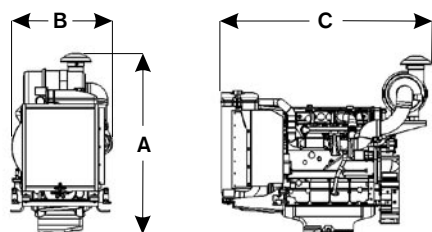
VOLVO PENTA GENSET ENGINE

TD520GE

1500 rpm, 85 kW (116 hp) – 1800 rpm 89 kW (121 hp)

TD520GE

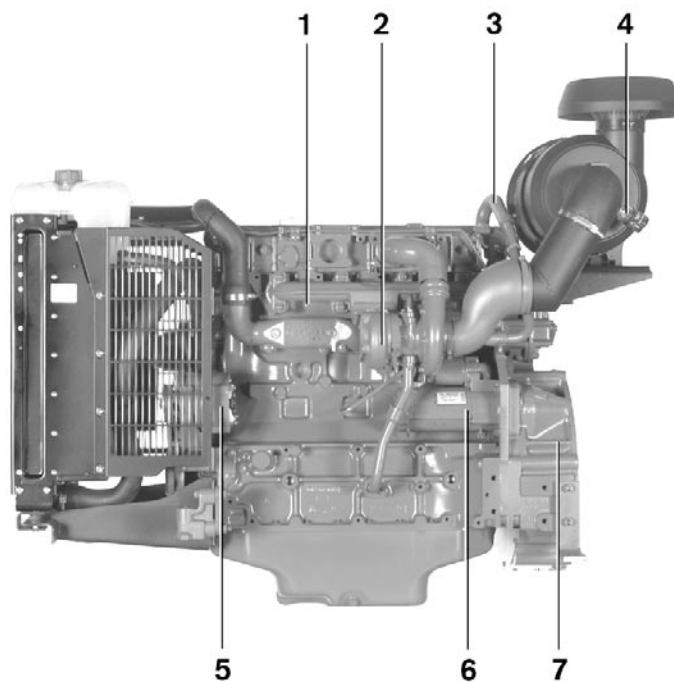
Turbocharged _____
 Diesel fuel _____
 Displacement indication (l) _____
 Generation _____
 Version _____
 Generator drive _____
 Emission controlled _____



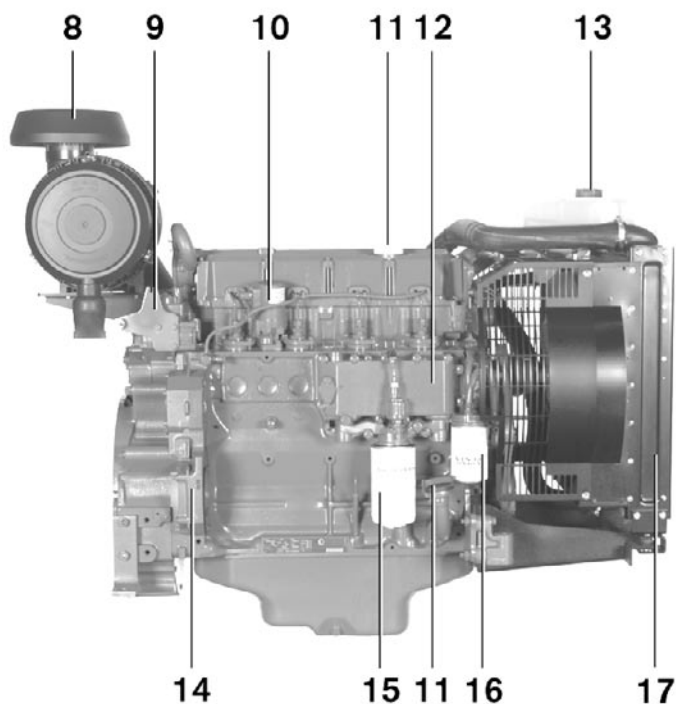
A = 1171 / 46.1

B = 664 / 26.1

C = 1392 / 54.8



1. Exhaust manifold
2. Turbocharger
3. Closed loop crank case breather system
4. Air restriction indicator
5. Alternator
6. Starter motor
7. Flywheel housing SAE 3
8. Air filter
9. Speed governor
10. Stop solenoid
11. Oil filling
12. Oil cooler
13. Exp. tank with filler cap
14. Engine transmission with PTO
15. Oil filter
16. Fuel filter
17. Radiator



**VOLVO
PENTA**

Technical Data

General

In-line four-stroke diesel engine with direct injection
Turbocharged and air to air intercooled
Rotation direction, anti-clockwise viewed towards flywheel

Number of cylinders 4
Displacement, total 4.76 liter / 290 in³
Firing order 1-3-4-2
Bore 108 mm / 4.25 in
Stroke 130 mm / 5.12 in
Compression ratio 17.5:1

Dry weight, kg / lb Engine incl. coolingsystem 550 / 1213
Wet weight, kg / lb Engine incl. coolingsystem 580 / 1279

TD520GE	Speed, rpm	1500	1800
Performance			
Prime Power without fan	kW / hp	77.5 / 105.4	81.5 / 110.8
Standby Power with fan	kW / hp	85.0 / 116.0	89.0 / 121.0
Fan power consumption			
Standard cooling system	kW / hp	2.5 / 3.4	4.3 / 5.8
Tropical cooling system	kW / hp	2.5 / 3.4	4.3 / 5.8
Mean piston speed	m/s / ft/sec	6.5 / 21.3	7.8 / 25.6
Effective mean pressure at Standby Power	MPa / psi	1.4 / 203	1.2 / 174
Max combustion pressure at Prime Power	MPa / psi	11.2 / 1624	11.3 / 1639
Total mass moment of inertia, J (mR ²)	kgm / lbft ²	1.43 / 33.8	

Lubrication system

Lubricating oil consumption
 at Prime Power liter/h / US gal/h 0.065 / 0.017
Oil system capacity including filters liter / US gal 13 / 3.4

Fuel system

Specific fuel consumption at
 50% of Prime Power g/kWh / lb/hph 213 / 0.345
 75% of Prime Power g/kWh / lb/hph 208 / 0.337
 100% of Prime Power g/kWh / lb/hph 213 / 0.345

Intake and exhaust system

Air consumption at Standby Power (at 25 °C) m³/h / cu.ft/h 285 / 10065
Max allowable air intake restriction kPa / In wc 3 / 12
Heat rejection to exhaust at Standby Power kW / BTU/min 71.1 / 4078
Exhaust gas temperature after turbine
 at Standby Power °C / °F 610 / 1130
Max allowable back-pressure in exhaust line kPa / In wc 3 / 12
Exhaust gas flow at Standby Power m³/min / cfm 15.4 / 544

Cooling system

Heat rejection radiation from engine
 at Standby Power kW / BTU/min 12.7 / 722
Heat rejection to coolant
 at Standby power kW / BTU/min 53.7 / 3020
Fan power consumption
 standard and tropical cooling system kW / hp 2.5 / 3.4

Power Standards

The engine performance corresponds to ISO 3046, BS 5514 and DIN 6271. The technical data applies to an engine without cooling fan and operating on a fuel with calorific value of 42.7 MJ/kg (18360 BTU/lb) and a density of 0.84 kg/liter (7.01 lb/US gal), also where this involves a deviation from the standards. Power output guaranteed within 0 to +2% att rated ambient conditions at delivery. Ratings are based on ISO 8528.
Engine speed governing in accordance with ISO 3046/IV, class A1 and ISO 8528-5 (G3 with electronic speed governor)

Rating Guidelines

PRIME POWER rating corresponds to ISO Standard Power for continuous operation. It is applicable for supplying electrical power at variable load for an unlimited number of hours instead of commercially purchased power. A10 % overload capability is available for this rating.
STANDBY POWER rating corresponds to ISO Standard Fuel Stop Power. It is applicable for supplying standby electrical power at variable load in areas with well established electrical networks in the event of normal utility power failure. No overload capability is available for this rating.

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Exhaust emissions.

The engine exhaust emissions complies with EPA, CARB and TA-luft regulations.

AB Volvo Penta
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