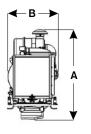
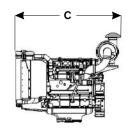
VOLVO PENTA GENSET ENGINE

rd520ge

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

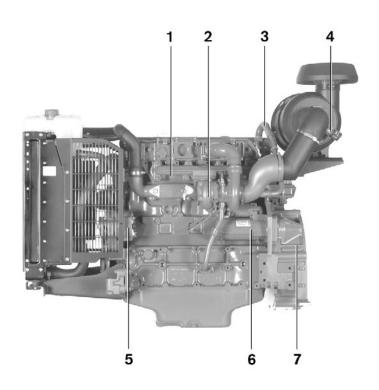


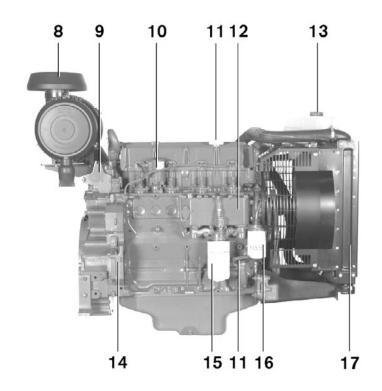




A = 1171 / 46.1B = 664 / 26.1C = 1392 / 54.8

- 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 filling12. Oil cooler
- 13. Exp. tank with filler cap
- 14. Engine transmission with PTO
- 15. Oil filter16. Fuel filter
- 17. Radiator







Volvo Penta reserves the right to make changes at any time, without notice, as to technical data, prices, materials, standard equipment, specifications and models, and to discontinue models. The engine illustrated may not be entirely identical to production standard engines.

Technical Data

General				
	esel engine with direct injection	Number of cylinders	4	
In-line four-stroke diesel engine with direct injection Turbocharged and air to air intercooled Rotation direction, anti-clockwise viewed towards flywheel			Displacement, total Firing order	4.76 liter / 290 in ³ 1-3-4-2
Dry weight, kg / lb	Engine incl. coolingsystem	550 / 1213	Stroke	130 mm / 5.12 in
Wet weight, kg / lb	Engine incl. coolingsystem	580 / 1279	Compression ratio	17.5:1
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 consump				
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 (mR²)		kgm / lbft²	1.43 / 33.8	
Lubrication system				
Lubricating oil consu	ımption			
at Prime Power		liter/h / US gal/h	0.065 /0.017	0.069 / 0.018
Oil system capacity including filters		liter / US gal	13 / 3.4	0.0007 0.010
Fuel system				
Specific fuel consumption at				
50% of Prime Power		g/kWh / lb/hph	213 / 0.345	223 / 0.361
75% of Prime Power		g/kWh / lb/hph	208 / 0.337	217 / 0.352
100% of Prime Power		g/kWh / lb/hph	213 / 0.345	215 / 0.348
Intake and exhaust		_		
Air consumption at Standby Power (at 25 °C)		m ³ /h / cu.ft/h	285 / 10065	346 / 12219
Max allowable air intake restriction		kPa / In wc	3 / 12	
Heat rejection to exhaust at Standby Power		kW / BTU/min	71.1 / 4078	77.0 / 4379
Exhaust gas tempera	ature after turbine			
at Standby Power		°C / °F	610 / 1130	530 / 986
Max allowable back-pressure in exhaust line		kPa / In wc	3 / 12	5 / 20
Exhaust gas flow at Standby Power		m ³ /min / cfm	15.4 / 544	17.5 / 618
Cooling system				
Heat rejection radiat	ion from engine			
at Standby Power		kW / BTU/min	12.7 / 722	13.7 / 779
Heat rejection to coo	plant		· , ·	. 3
at Standby power		kW / BTU/min	53.7 / 3020	55.7 / 3168
Fan power consumption		K. F / DTO/IIIII	33.7 7 3320	55.7 / 5100
	ical cooling system	kW / hp	2.5 / 3.4	4.3 / 5.8
standard and trop	Joan Jooning System	KTT / IIP	2.0 / 0.7	T.O / O.O

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

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.



Exhaust emissions. The engine exhaust emissions complies with

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

AB Volvo Penta SE-405 08 Göteborg, Sweden