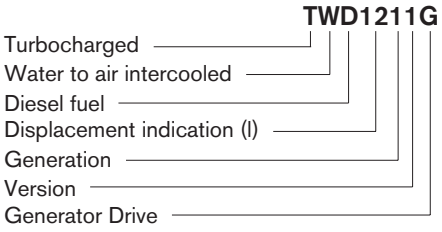
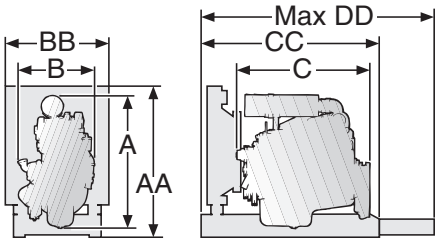
TWD1211G

Genset Engine – Gen Pac

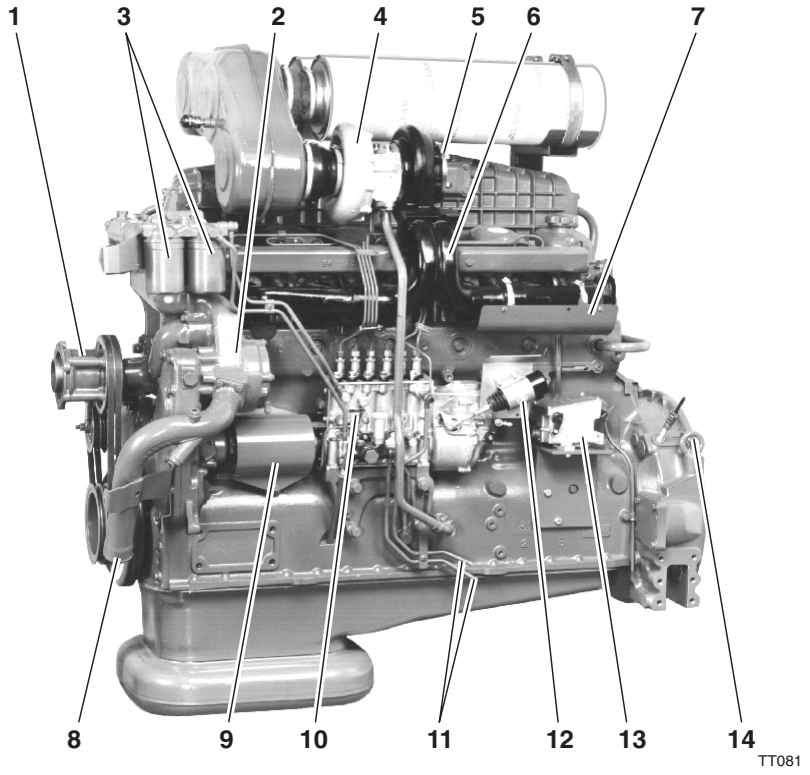


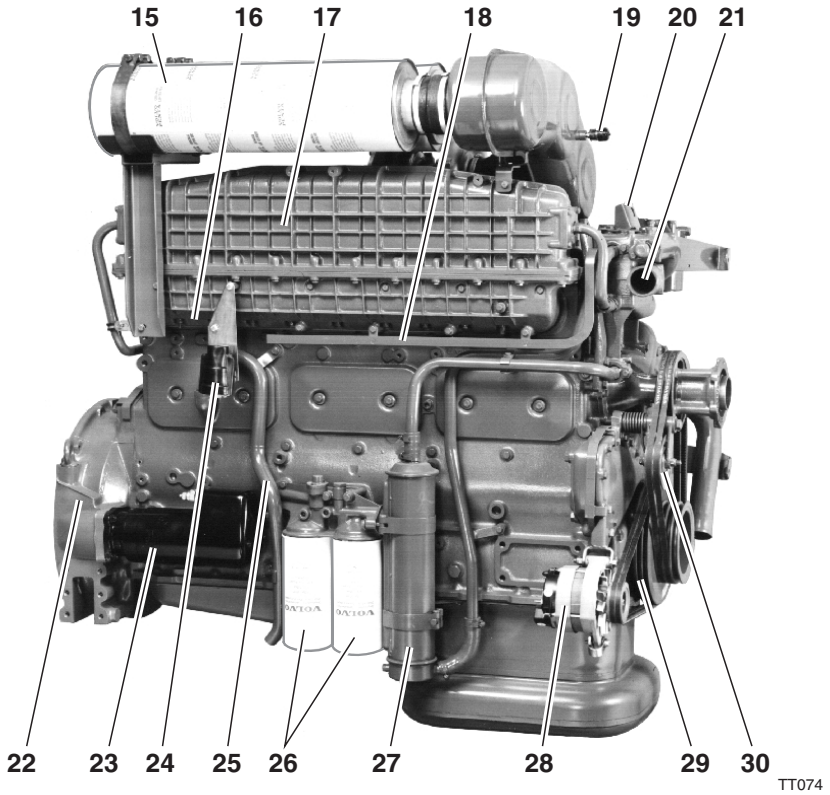


mm/in.
A = 1526 / 60.1
B = 895 / 35.2
C = 1504 / 59.2

AA = 1620 / 63.7
BB = 1173 / 46.2
CC = 2059 / 81.1
DD = 3049 / 120.0

Gen Pac – Genset engine mounted on an expandable base frame. Complete unit with engine, radiator, radiator core guard, fan, fan and belt guards providing reduced delivery time and installation cost and simplified transportation.





1. Fan hub
2. Gear-driven coolant pump
3. Twin fuel filters of disposable type
4. Turbocharger
5. Connecting flange, exhaust line
6. Air-cooled exhaust manifold
7. Heat radiation protection
8. Coolant pipe, inlet
9. Pump coupling guard
10. Injection pump
11. Fuel pipes for tank connection
12. Stop solenoid
13. Electrical actuator
14. Lift eyelet
15. Double air filters of disposable type
16. Inlet manifold heater
17. Intercooler
18. Cable iron
19. Air restriction indicator
20. Radiator support bracket
21. Coolant pipe, outlet
22. Flywheel housing SAE 1
23. Starter motor
24. Relay for inlet manifold heater
25. Crankcase ventilation
26. Twin full-flow oil filter of spin-on type
27. Oil cooler
28. Alternator
29. Vibration damper
30. Automatic belt tensioner

VOLVO PENTA

TWD1211G

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.

Technical data

General

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

Dry weight, kg / lb	Engine only 1140 / 2514	Gen Pac 1425 / 3142
Wet weight, kg / lb	Engine only 1200 / 2646	Gen Pac 1514 / 3338

Number of cylinders	6
Displacement, total	11.98 liter / 731 in^3
Firing order	1-5-3-6-2-4
Bore	130.17 mm / 5.12 in
Stroke	150 mm / 5.91 in
Compression ratio	13.3:1

TWD 1211 G	**Speed, rpm**	**1500**	**1800**
Performance	Test no.	20000045	20000044
Prime Power with fan	kW / hp	282 / 384	300 / 408
Continuous Standby Power with fan	kW / hp	282 / 384	300 / 408
Maximum Standby Power with fan	kW / hp	308 / 419	330 / 449
Mean piston speed	m/s / ft/sec	7.5 / 24.6	9.0 / 29.5
Effective mean pressure at Prime Power	MPa / psi	1.92 / 279	1.73 / 251
Max combustion pressure at Prime Power	MPa / psi	12.7 / 1840	12.1 / 1750
Total mass moment of inertia, J (mR2)	kgm^2 / $lbft^2$	2.80 /66.4	
Lubrication system			
Lubricating oil consumption at Prime Power	liter/h / US gal/h	0.42 / 0.111	0.46 / 0.122
Maximum Standby Power	liter/h / US gal/h	0.43 / 0.114	0.47 / 0.124
Oil system capacity including filters	liter / US gal	38 / 10	
Oil change interval / specifications VDS-2	h	600	
VDS, ACEA E3	h	200	
ACEA E2, API CD, CF, CF-4, CG-4	h	400	
Fuel system			
Specific fuel consumption at			
25% of Prime Power	g/kWh / lb/hph	241 / 0.388	252 / 0.405
50% of Prime Power	g/kWh / lb/hph	214 / 0.344	220 / 0.354
75% of Prime Power	g/kWh / lb/hph	209 / 0.339	215 / 0.348
100% of Prime Power	g/kWh / lb/hph	210 / 0.340	216 / 0.350
Specific fuel consumption at			
25% of Maximum Standby Power	g/kWh / lb/hph	239 / 0.387	248 / 0.402
50% of Maximum Standby Power	g/kWh / lb/hph	213 / 0.345	218 / 0.353
75% of Maximum Standby Power	g/kWh / lb/hph	209 / 0.339	216 / 0.350
100% of Maximum Standby Power	g/kWh / lb/hph	212 / 0.344	218 / 0.353
Intake and exhaust system			
Air consumption at Prime Power (at 27 °C)	m^3/min / cfm	20.5 / 723	24.9 / 880
Maximum Standby Power (at 27 °C)	m^3/min / cfm	21.8 / 772	26.7 /942
Max allowable air intake restriction	kPa / In wc	5 / 20	5 / 20
Heat rejection to exhaust at Prime Power	kW / BTU/min	251 / 14280	286 / 16270
Maximum Standby Power	kW / BTU/min	280 / 15920	321 / 18250
Exhaust gas temperature after turbine at Prime Power	°C / °F	585 / 1085	545 / 1010
Maximum Standby Power	°C / °F	595 / 1100	565 / 1050
Max allowable back-pressure in exhaust line	kPa / In wc	5 / 20	7 / 28
Exhaust gas flow at Prime Power	m^3/min / cfm	60.4 / 2130	67.8 / 2390
Maximum Standby Power	m^3/min / cfm	64.5 / 2278	74.2 / 2618
Cooling system			
Heat rejection radiation from engine at Prime Power	kW / BTU/min	21 / 1195	23 / 1310
Maximum Standby Power	kW / BTU/min	24 / 1365	26 / 1480
Heat rejection to coolant at Prime Power	kW / BTU/min	157 / 8935	176 / 10015
Maximum Standby Power	kW / BTU/min	172 / 9780	194 / 11030
Fan power consumption	kW / hp	6 / 8	11 / 15

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)

Exhaust emissions.

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

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.

CONTINUOUS STANDBY POWER rating corresponds to ISO Power. It is applicable for supplying standby electrical power at variable load for an unlimited number of hours in the event of normal utility power failure. A 10 % overload capability is available for this rating.

MAXIMUM 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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