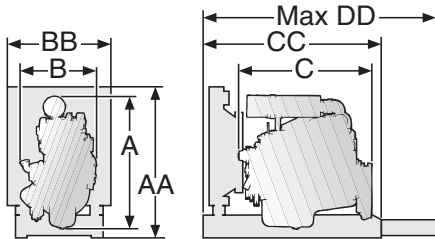


TWD1210G

Genset Engine – Gen Pac

TWD1210G

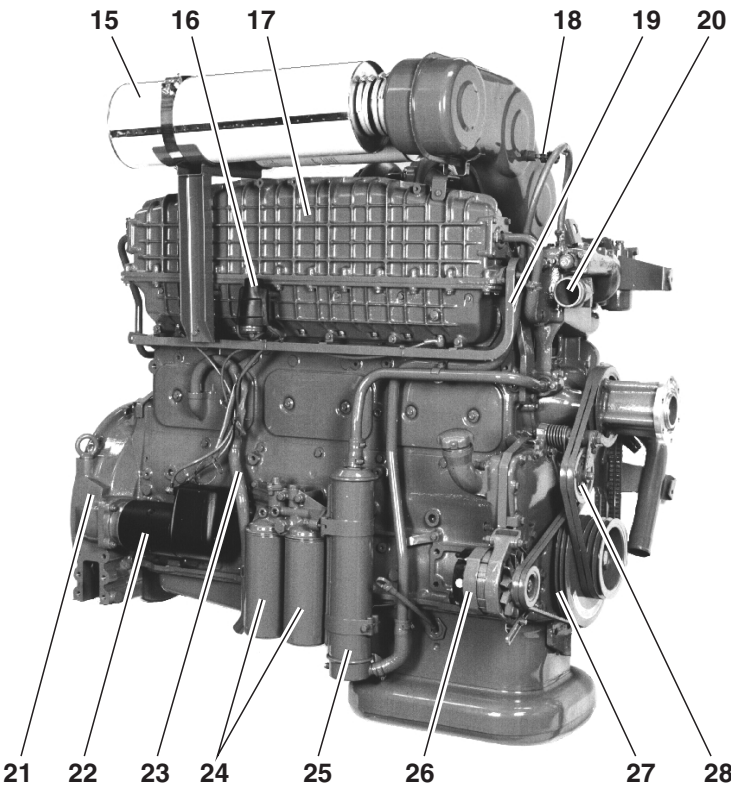
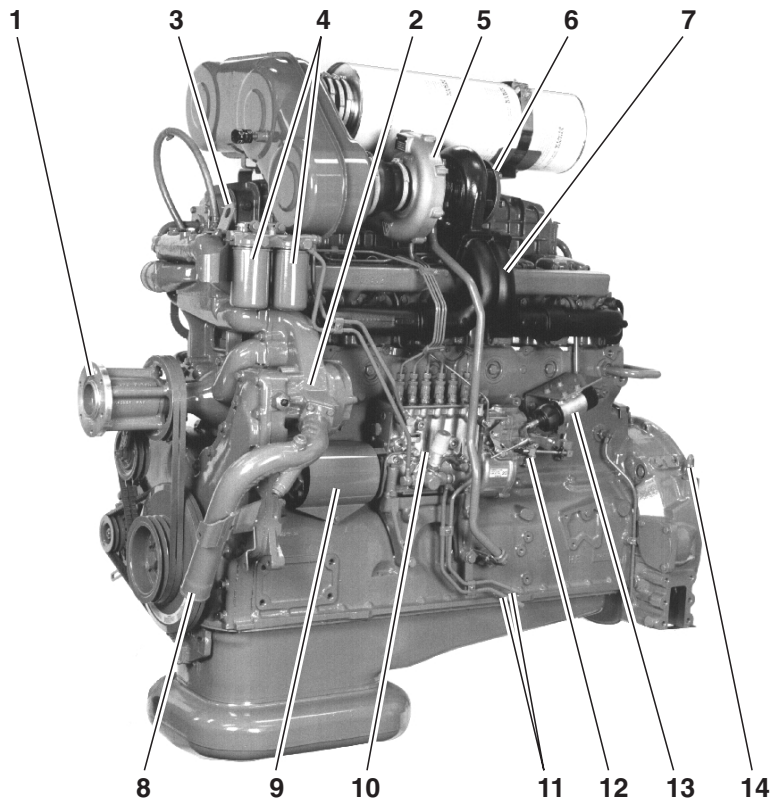
- Turbocharged
- Water to air intercooled
- Diesel fuel
- Displacement indication (l)
- Generation
- Version
- Generator Drive



mm/in.

A = 1526 / 60.1	AA = 1614 / 63.5
B = 895 / 35.2	BB = 1001 / 39.4
C = 1504 / 59.2	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. Radiator support bracket
4. Twin fuel filters of disposable type
5. Turbocharger
6. Connecting flange, exhaust line
7. Air-cooled exhaust manifold
8. Coolant pipe, inlet
9. Pump coupling guard
10. Injection pump
11. Fuel pipes for tank connection
12. Manual speed control
13. Stop solenoid
14. Lift eyelet
15. Double air filters of disposable type
16. Relay for inlet manifold heater
17. Intercooler
18. Air restriction indicator
19. Cable iron
20. Coolant pipe, outlet
21. Flywheel housing SAE 1
22. Starter motor
23. Crankcase ventilation
24. Twin full-flow oil filters of spin-on type
25. Oil cooler
26. Alternator
27. Vibration damper
28. Automatic belt tensioner

TT073

TWD1210G

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	Number of cylinders	6
Turbocharged and water to air intercooled	Displacement, total	11.98 liters / 731 in ³
Rotation direction, anti-clockwise viewed towards flywheel	Firing order	1-5-3-6-2-4
	Bore	130.17 mm / 5.12 in
Dry weight, kg / lb	Stroke	150 mm / 5.91 in
Engine only 1140 / 2511	Compression ratio	13.9:1
Gen Pac 1425 / 3139		
Wet weight, kg / lb		
Engine only 1200 / 2644		
Gen Pac 1507 / 3320		

TWD 1210 G	Speed, rpm	1500	1800
Performance	Test no.	99000087	99000088
Prime Power with fan	kW / hp	262 / 356	272 / 370
Continuous Standby Power with fan	kW / hp	262 / 356	275 / 374
Maximum Standby Power with fan	kW / hp	288 / 392	302 / 411
Mean piston speed	m/s / ft/sec	7.5 / 24.6	9.0 / 29.5
Effective mean pressure at Prime Power	MPa / psi	1.79 / 260	1.57 / 228
Max combustion pressure at Prime Power	MPa / psi	12.5 / 1810	12.3 / 1780
Total mass moment of inertia, J (mR2)	kgm ² / lbf ²	2.74 / 65.0	

Lubrication system

Lubricating oil consumption at Prime Power	liter/h / US gal/h	0.38 / 0.100	0.42 / 0.111
Maximum Standby Power	liter/h / US gal/h	0.43 / 0.114	0.46 / 0.121
Oil system capacity including filters	liter / US gal	38 / 10	
Oil change interval / specifications VDS-2	h	600	
VDS, ACEA E3	h	400	
ACEA E2, API CD, CF, CF-4, CG-4	h	200	

Fuel system

Specific fuel consumption at			
25% of Prime Power	g/kWh / lb/hph	238 / 0.383	255 / 0.410
50% of Prime Power	g/kWh / lb/hph	211 / 0.339	221 / 0.355
75% of Prime Power	g/kWh / lb/hph	205 / 0.330	215 / 0.346
100% of Prime Power	g/kWh / lb/hph	207 / 0.335	214 / 0.344
Specific fuel consumption at			
25% of Maximum Standby Power	g/kWh / lb/hph	234 / 0.379	252 / 0.408
50% of Maximum Standby Power	g/kWh / lb/hph	210 / 0.340	218 / 0.353
75% of Maximum Standby Power	g/kWh / lb/hph	206 / 0.334	214 / 0.347
100% of Maximum Standby Power	g/kWh / lb/hph	211 / 0.342	216 / 0.350

Intake and exhaust system

Air consumption at Prime Power (at 27 °C)	m ³ /min / cfm	20.9 / 739	25.5 / 898
Maximum Standby Power (at 27 °C)	m ³ /min / cfm	22.6 / 796	27.1 / 955
Max allowable air intake restriction	kPa / In wc	5 / 20.1	5 / 20.1
Heat rejection to exhaust at Prime Power	kW / BTU/min	225 / 12800	254 / 14450
Maximum Standby Power	kW / BTU/min	253 / 14400	284 / 16200
Exhaust gas temperature after turbine at Prime Power	°C / °F	530 / 985	490 / 915
Maximum Standby Power	°C / °F	545 / 1010	515 / 955
Max allowable back-pressure in exhaust line	kPa / In wc	5 / 20.1	7 / 28.1
Exhaust gas flow at Prime Power	m ³ /min / cfm	57.1 / 2015	64.8 / 2280
Maximum Standby Power	m ³ /min / cfm	62.5 / 2202	70.1 / 2470

Cooling system

Heat rejection radiation from engine at Prime Power	kW / BTU/min	19 / 1080	22 / 1250
Maximum Standby Power	kW / BTU/min	22 / 1250	24 / 1360
Heat rejection to coolant at Prime Power	kW / BTU/min	146 / 8300	159 / 9050
Maximum Standby Power	kW / BTU/min	161 / 9160	178 / 10100
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% at 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.

VOLVO PENTA

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