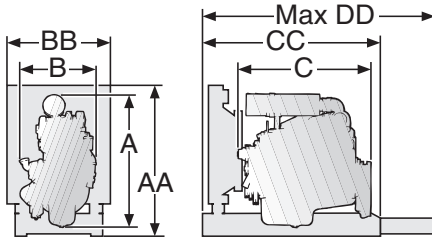


# TD1210G

## Gen Set Engine – Gen Pac

**TD1210G**

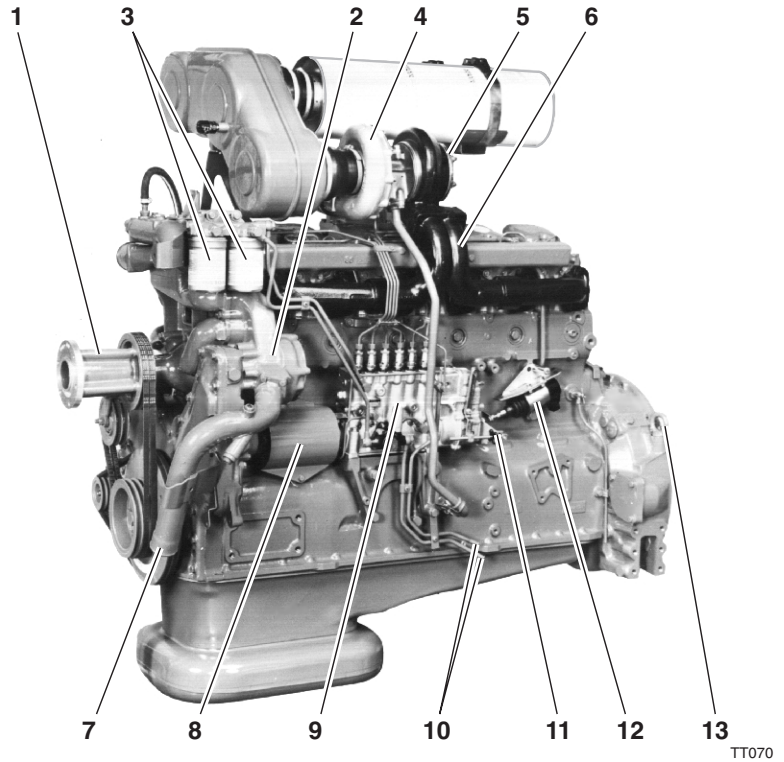
Turbocharged  
 Diesel fuel  
 Displacement indication (l)  
 Generation  
 Version  
 Generator Drive



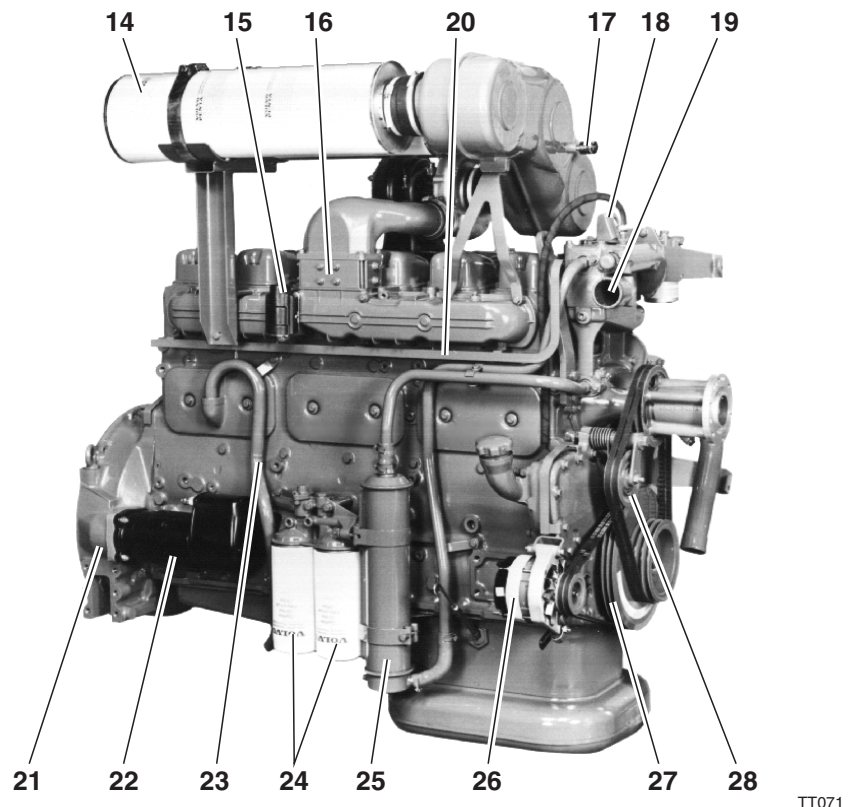
mm/in.

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

**Gen Pac** – Genset Engine mounted on an expandable base frame. Complete unit with engine, radiator, radiator core guard, fan, fan and belt guard 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. Coolant pipe, inlet
8. Pump coupling guard
9. Injection pump
10. Fuel pipes for tank connection
11. Manual speed control
12. Stop solenoid
13. Lift eyelet
14. Double air filters of disposable type
15. Relay for inlet manifold heater
16. Inlet manifold heater
17. Air restriction indicator
18. Radiator support bracket
19. Coolant pipe, outlet
20. Cable iron
21. Flywheel housing SAE 1
22. Starter motor
23. Crankcase ventilation
24. Twin full flow oil filter of spin-on type
25. Oil cooler
26. Alternator
27. Vibration damper
28. Automatic belt tensioner



# TD1210G

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	Displacement, total	11.98 liters / 731 in <sup>3</sup>	
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 1110 / 2445	Gen Pac 1395 / 3073	Compression ratio	14.2:1
Wet weight, kg / lb	Engine only 1165 / 2566	Gen Pac 1477 / 3254	

TD1210G	Speed, rpm	1500	1800
<b>Performance</b>	Test no.	21000676	21000677
Prime Power with fan	kW / hp	217 / 295	245 / 333
Continuous Standby Power with fan	kW / hp	239 / 325	250 / 340
Maximum Standby Power with fan	kW / hp	261 / 355	275 / 375
Mean piston speed	m/s / ft/sec	7.5 / 24.6	9.0 / 29.5
Effective mean pressure at Prime Power	MPa / psi	1.49 / 216	1.42 / 207
Max combustion pressure at Prime Power	MPa / psi	11.8 / 1710	12.1 / 1750
Total mass moment of inertia, J (mR2)	kgm <sup>2</sup> / lbft <sup>2</sup>	2.74 / 65.0	

### Lubrication system

Lubricating oil consumption at Prime Power	liter/h / US gal/h	0.35 / 0.092	0.39 / 0.103
Maximum Standby Power	liter/h / US gal/h	0.45 / 0.119	0.48 / 0.123
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	241 / 0.385	260 / 0.418
50% of Prime Power	g/kWh / lb/hph	213 / 0.343	224 / 0.360
75% of Prime Power	g/kWh / lb/hph	206 / 0.331	215 / 0.346
100% of Prime Power	g/kWh / lb/hph	206 / 0.331	213 / 0.345
Specific fuel consumption at			
25% of Maximum Standby Power	g/kWh / lb/hph	232 / 0.376	254 / 0.412
50% of Maximum Standby Power	g/kWh / lb/hph	209 / 0.339	221 / 0.358
75% of Maximum Standby Power	g/kWh / lb/hph	205 / 0.332	215 / 0.348
100% of Maximum Standby Power	g/kWh / lb/hph	209 / 0.339	216 / 0.350

### Intake and exhaust system

Air consumption at Prime Power (at 27 °C)	m <sup>3</sup> /min / cfm	16.1 / 568	21.1 / 745
Maximum Standby Power (at 27 °C)	m <sup>3</sup> /min / cfm	18.5 / 653	22.5 / 795
Max allowable air intake restriction	kPa / In wc	5 / 20.1	5 / 20.1
Heat rejection to exhaust at Prime Power	kW / BTU/min	183 / 10412	229 / 13030
Maximum Standby Power	kW / BTU/min	234 / 13300	260 / 14800
Exhaust gas temperature after turbine at Prime Power	°C / °F	560 / 1040	540 / 1000
Maximum Standby Power	°C / °F	605 / 1120	575 / 1067
Max allowable back-pressure in exhaust line	kPa / In wc	5 / 20.1	7 / 28.1
Exhaust gas flow at Prime Power	m <sup>3</sup> /min / cfm	46.7 / 1648	57.8 / 2040
Maximum Standby Power	m <sup>3</sup> /min / cfm	54.8 / 1936	63.1 / 2230

### Cooling system

Heat rejection radiation from engine at Prime Power	kW / BTU/min	17 / 967	19 / 1081
Maximum Standby Power	kW / BTU/min	20 / 1140	22 / 1250
Heat rejection to coolant at Prime Power	kW / BTU/min	122 / 6940	142 / 8080
Maximum Standby Power	kW / BTU/min	145 / 8250	157 / 8930
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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