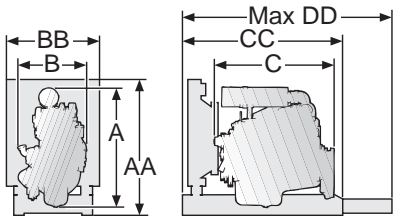


# TWD 1630 G

## Genset Engine – Gen Pac

TWD 1630 G

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

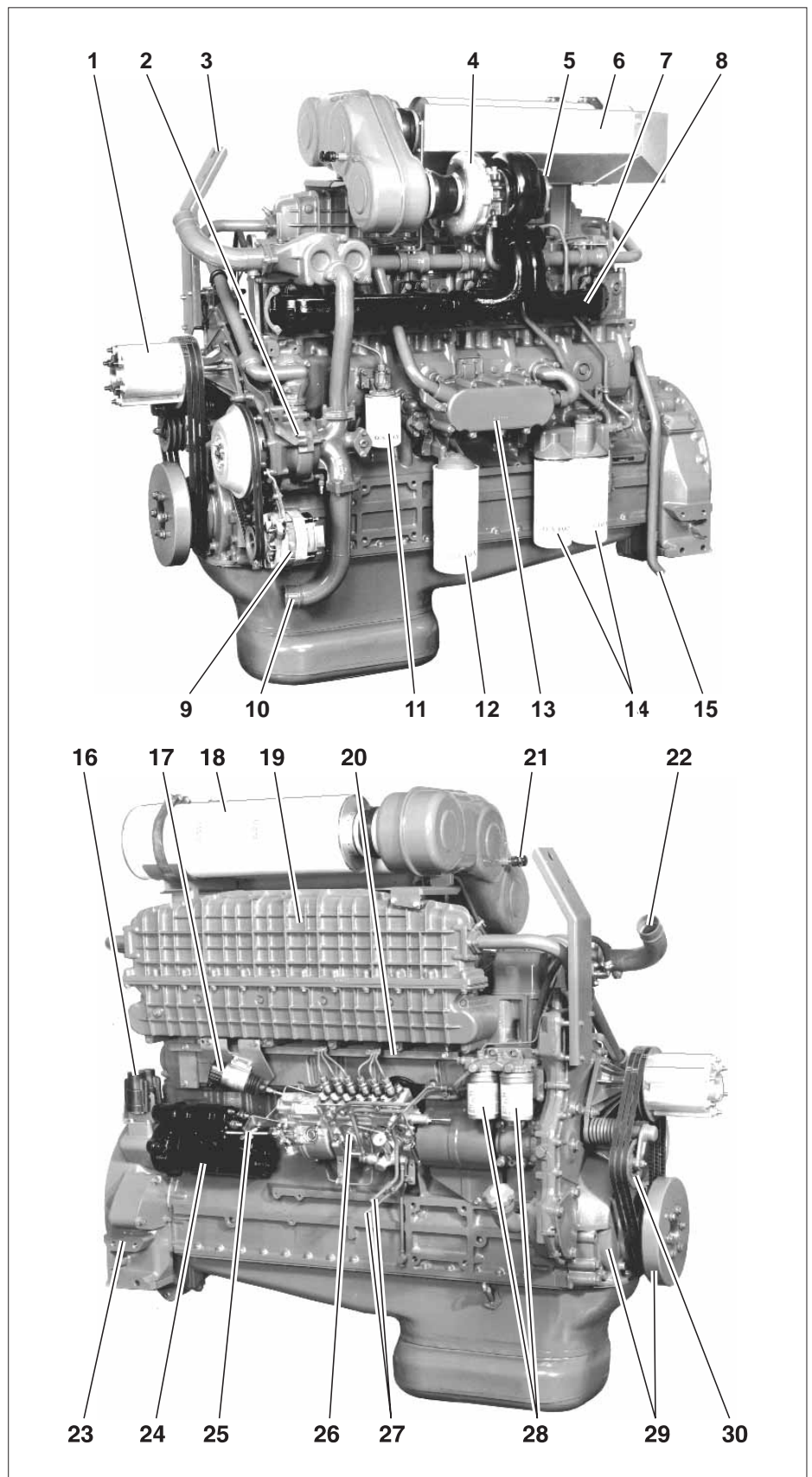


mm/i

n. AA = 1714/67.5  
 A = 1615/63.6 BB = 1173/46.2  
 B = 770/30.3 CC = 2292/90.2

**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. Radiator support
4. Turbocharger
5. Connecting flange, exhaust line
6. Heat radiation protection
7. Lift eyelet
8. Air cooled exhaust manifold
9. Alternator
10. Coolant pipe, inlet
11. Coolant filter
12. Bypass oil filters of spin-on type
13. Oil cooler
14. Twin full-flow oil filter of spin-on type
15. Crankcase ventilation
16. Relay for inlet manifold heater
17. Stop solenoid
18. Double air filters of throw-away type
19. Intercooler
20. Cable iron
21. Air restriction indicator
22. Coolant pipe, outlet
23. Flywheel housing SAE 1
24. Starter motor
25. Manual speed control
26. Injection pump
27. Fuel pipes for tank connection
28. Twin fuel filters of throw-away type
29. Double vibration damper
30. Automatic belt tensioner



# Technical data TWD 1630 G

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.

## General

In line four stroke diesel engine with direct injection  
Turbocharged and water to air intercooled  
Number of cylinders 6  
Displacement, total 16.12 litres / 984 in<sup>3</sup>  
Firing order 1-5-3-6-2-4  
Rotation direction, anti-clockwise viewed towards flywheel

Bore 144.00 mm / 5.67 in  
Stroke 165 mm / 6.50 in  
Compression ratio 15.0:1  
Dry weight, kg/lb Gen Pac 1780/3921 Engine only 1428/3146  
Wet weight, kg/lb Gen Pac 1900/4186 Engine only 1520/3349

TWD 1630 G	Speed, rpm	1500	1800
<b>Performance</b>	Test no.	2100584	2100585
Prime Power with fan	kW / hp	350 / 476	376 / 511
Continuous Standby Power with fan	kW / hp	353 / 480	391 / 532
Maximum Standby Power with fan	kW / hp	388 / 528	430 / 585
Mean piston speed	m/s / ft/sec	8.3 / 27.2	9.9 / 32.5
Effective mean pressure at Prime Power	MPa / psi	1.78 / 258	1.62 / 234
Max combustion pressure at Prime Power	MPa / psi	13.6 / 1970	12.5 / 1810
Total mass moment of inertia, J (mR2)	kgm <sup>2</sup> / lbf <sup>2</sup>	4.22 / 100.1	

## Lubrication system

Lubricating oil consumption at  
Prime Power litre/h / US gal/h 0.13 / 0.034 0.14 / 0.037  
Maximum Standby Power litre/h / US gal/h 0.15 / 0.040 0.16 / 0.042  
Oil system capacity including filters litres 64  
Oil change interval  
CD oil quality h 300  
VDS oil quality h 600

## Fuel system

Specific fuel consumption at  
25% of Prime Power g/kWh / lb/hph 241 / 0.391 261 / 0.423  
50% of Prime Power g/kWh / lb/hph 213 / 0.345 220 / 0.357  
75% of Prime Power g/kWh / lb/hph 206 / 0.334 211 / 0.342  
100% of Prime Power g/kWh / lb/hph 206 / 0.334 212 / 0.344  
Specific fuel consumption at  
25% of Maximum Standby Power g/kWh / lb/hph 235 / 0.381 251 / 0.407  
50% of Maximum Standby Power g/kWh / lb/hph 209 / 0.339 216 / 0.350  
75% of Maximum Standby Power g/kWh / lb/hph 205 / 0.332 210 / 0.341  
100% of Maximum Standby Power g/kWh / lb/hph 208 / 0.337 218 / 0.353

## Intake and exhaust system

Air consumption at  
Prime Power (at 27 °C) m<sup>3</sup>/min / cfm 27.2 / 961 32.4 / 1144  
Maximum Standby Power (at 27 °C) m<sup>3</sup>/min / cfm 30.0 / 1059 36.0 / 1271  
Max allowable air intake restriction kPa / In wc 5 / 20.1 5 / 20.1  
Heat rejection to exhaust at  
Prime Power kW / BTU/min 293 / 16700 332 / 18900  
Maximum Standby Power kW / BTU/min 336 / 19100 407 / 23100  
Exhaust gas temperature after turbine at  
Prime Power °C / °F 480 / 660 455 / 850  
Maximum Standby Power °C / °F 500 / 930 500 / 930  
Max allowable back-pressure in exhaust line kPa / In wc 5.0 / 20.1 7 / 28.1  
Exhaust gas flow at  
Prime Power m<sup>3</sup>/min / cfm 70.2 / 2479 79.3 / 2800  
Maximum Standby Power m<sup>3</sup>/min / cfm 79.2 / 2797 93.3 / 3294

## Cooling system

Heat rejection radiation from engine at  
Prime Power kW / BTU/min 22 / 1250 24 / 1360  
Maximum Standby Power kW / BTU/min 24 / 1360 27 / 1540  
Heat rejection to coolant at  
Prime Power kW / BTU/min 209 / 11900 236 / 13420  
Maximum Standby Power kW / BTU/min 234 / 13300 271 / 15400  
Fan power consumption kW / hp 9 / 12 15 / 20

## 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/litre (7.01 lb/US gal, 8.42 lb/Imp 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 G2 (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. A 10 % 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.