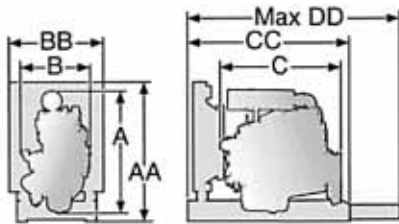


TD 710 G

Gen Set Engine - Gen Pac

TD 710 G

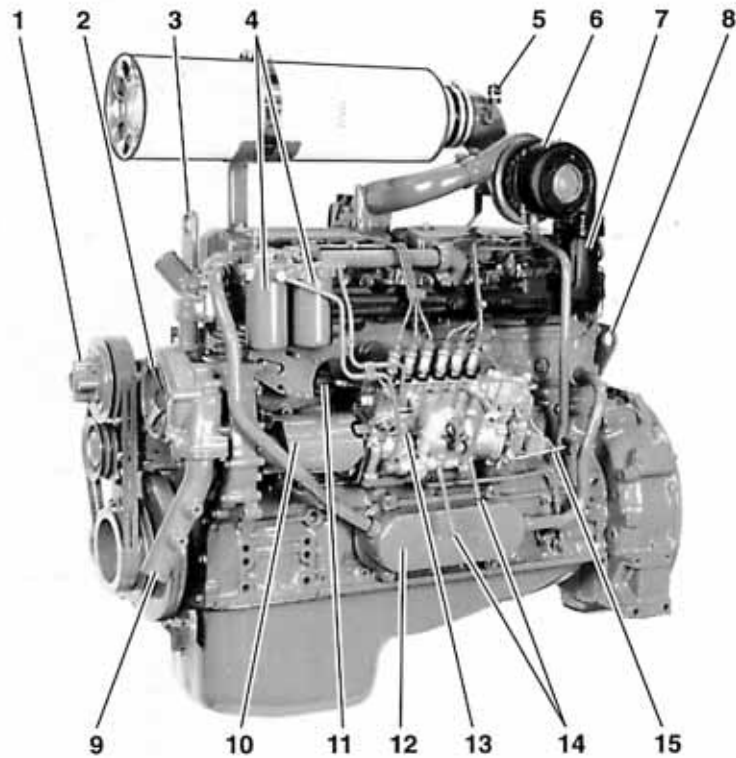
Turbocharged _____
 Diesel fuel _____
 Displacement indication (l) _____
 Generation _____
 Version _____
 Generator Drive _____



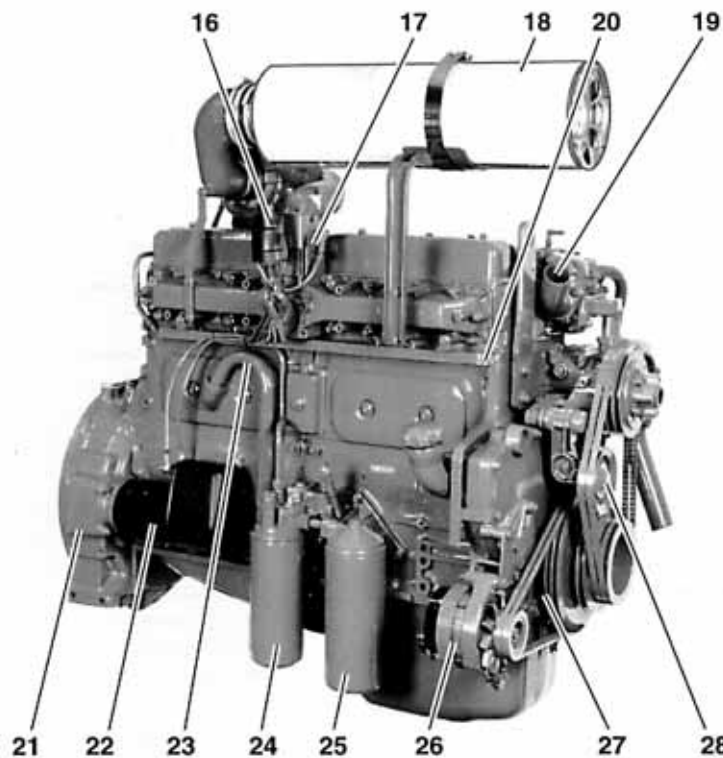
A = 1292 mm AA = 1410 mm
 B = 760 mm BB = 845 mm
 C = 1265 mm CC = 1632 mm
 DD = 2582 mm

Gen Pac - Generating Set Engine mounted on a 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. Lift eyelet
4. Twin fuel filters of throw-away type
5. Air restriction indicator
6. Turbo-charger
7. Air cooled exhaust manifold
8. Lift eyelet
9. Coolant pipe, inlet
10. Pump coupling guard
11. Stop solenoid
12. Oil cooler
13. Injection pump
14. Fuel pipes for tank connection
15. Manual speed control
16. Relay for inlet manifold heater
17. Inlet manifold heater
18. Air filters of throw-away type
19. Coolant pipe, outlet
20. Cable iron
21. Flywheel housing SAE 2.
22. Starter motor
23. Crankcase ventilation
24. Full flow oil filter of spin-on type
25. By-pass oil filter of spin-on type
26. Alternator
27. Vibration damper
28. Automatic belt tensioner



TT058



TT059

Technical data TD 710 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 | | Bore | 104.77 mm / 4.12 in |
| Number of cylinders | 6 | Stroke | 130 mm / 5.12 in |
| Displacement, total | 6.73 litres / 411 in ³ | Compression ratio | 14.5:1 |
| Firing order | 1-5-3-6-2-4 | Dry weight Gen Pac | 1085 kg |
| Rotation direction, anti-clockwise viewed towards flywheel | | Engine only | 785 kg |
| | | Wet weight Gen Pac | 1149 kg |
| | | Engine only | 827 kg |
| TD 710 G | | | |
| | Speed, rpm | 1500 | 1800 |
| Performance | | | |
| | Test no. | 21000763 | 21000764 |
| Prime Power with fan | kW / hp | 142 / 193 | 139 / 189 |
| Continuous Standby Power with fan | kW / hp | 142 / 193 | 152 / 207 |
| Maximum Standby Power with fan | kW / hp | 156 / 212 | 167 / 228 |
| Mean piston speed | m/s / ft/sec | 6.5 / 21.3 | 7.8 / 25.6 |
| Effective mean pressure at Prime Power | MPa / psi | 1.71 / 248 | 1.42 / 206 |
| Max combustion pressure at Prime Power | MPa / psi | 14.1 / 2044 | 12.7 / 1840 |
| Total mass moment of inertia, J (mR ²) | kgm ² / lbf ² | 1.63 / 38.7 | |
| Lubrication system | | | |
| Lubricating oil consumption at | | | |
| Prime Power | litre/h / US gal/h | 0.18 / 0.048 | 0.19 / 0.050 |
| Maximum Standby Power | litre/h / US gal/h | 0.21 / 0.055 | 0.23 / 0.061 |
| Oil system capacity including filters | litres | 29 | |
| Oil change interval | | | |
| CD oil quality | h | 200 | |
| VDS oil quality | h | 400 | |
| Fuel system | | | |
| Specific fuel consumption at | | | |
| 25% of Prime Power | g/kWh / lb/hph | 250 / 0.405 | 276 / 0.447 |
| 50% of Prime Power | g/kWh / lb/hph | 215 / 0.349 | 229 / 0.371 |
| 75% of Prime Power | g/kWh / lb/hph | 212 / 0.344 | 217 / 0.352 |
| 100% of Prime Power | g/kWh / lb/hph | 214 / 0.347 | 216 / 0.350 |
| Specific fuel consumption at | | | |
| 25% of Maximum Standby Power | g/kWh / lb/hph | 244 / 0.395 | 260 / 0.421 |
| 50% of Maximum Standby Power | g/kWh / lb/hph | 216 / 0.350 | 221 / 0.358 |
| 75% of Maximum Standby Power | g/kWh / lb/hph | 211 / 0.342 | 216 / 0.350 |
| 100% of Maximum Standby Power | g/kWh / lb/hph | 216 / 0.350 | 218 / 0.353 |
| Intake and exhaust system | | | |
| Air consumption at | | | |
| Prime Power (at 27 °C) | m ³ /min / cfm | 8.8 / 311 | 10.1 / 358 |
| Maximum Standby Power (at 27 °C) | m ³ /min / cfm | 9.3 / 330 | 11.3 / 400 |
| Max allowable air intake restriction | kPa / In wc | 5 / 20.1 | 5 / 20.1 |
| Heat rejection to exhaust at | | | |
| Prime Power | kW / BTU/min | 118 / 6710 | 120 / 6820 |
| Maximum Standby Power | kW / BTU/min | 140 / 7960 | 148 / 8420 |
| Exhaust gas temperature after turbine at | | | |
| Prime Power | °C / °F | 575 / 1065 | 525 / 975 |
| Maximum Standby Power | °C / °F | 605 / 1120 | 575 / 1070 |
| 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 | 26.1 / 722 | 27.5 / 971 |
| Maximum Standby Power | m ³ /min / cfm | 28.5 / 1006 | 32.5 / 1148 |
| Cooling system | | | |
| Heat rejection radiation from engine at | | | |
| Prime Power | kW / BTU/min | 10 / 569 | 11 / 626 |
| Maximum Standby Power | kW / BTU/min | 13 / 739 | 14 / 796 |
| Heat rejection to coolant at | | | |
| Prime Power | kW / BTU/min | 93 / 5290 | 95 / 5400 |
| Maximum Standby Power | kW / BTU/min | 106 / 6030 | 112 / 6370 |
| Fan power consumption | kW / hp | 2 / 3 | 4 / 5 |

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.