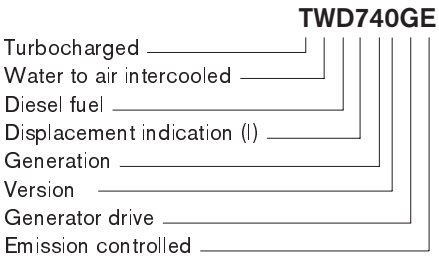
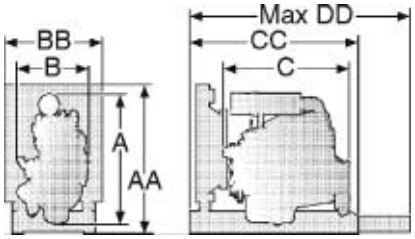
TWD740GE

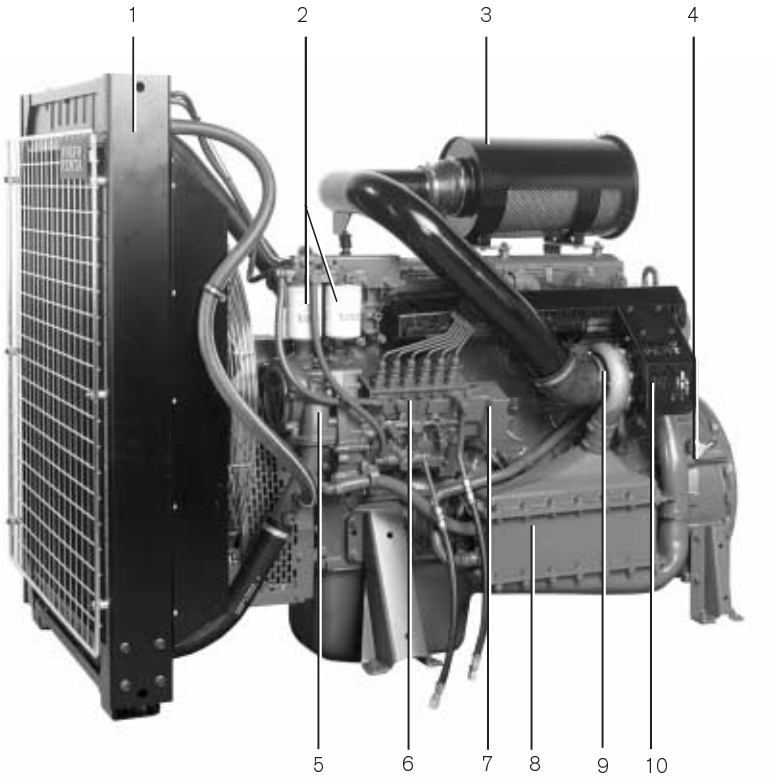
Gen Set Engine - Gen Pac

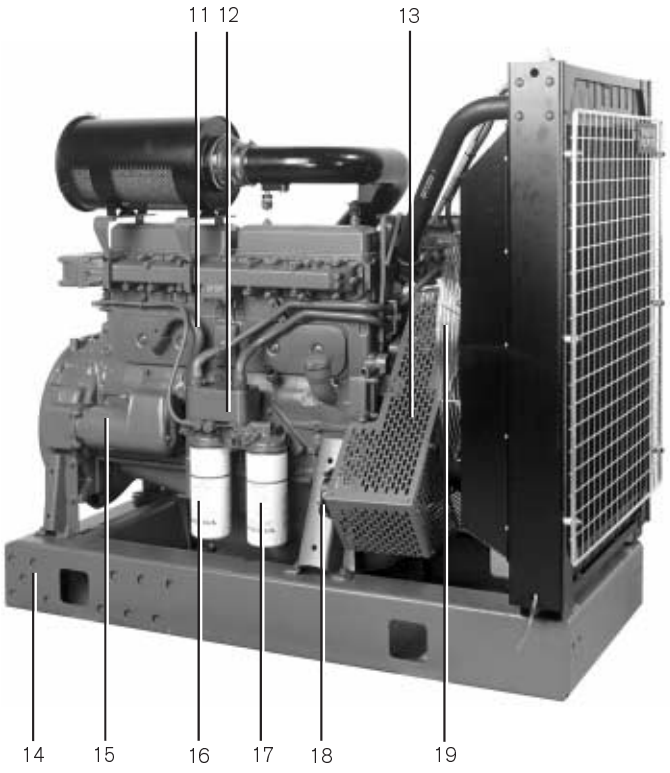




mm / in
A = 1274 / 50.2
B = 787 / 31.0
C = 1264.7 / 49.8
AA = 1490.5 / 58.7
BB = 880 / 34.6
CC = 1626 / 64.0
DD = 2616 / 103.0

Gen Pac - Gen Set 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 inatallation cost and simplified transportation.





1. Tropical radiator (optional)
2. Twin fuel filters of throwaway type
3. Air filter
4. Flywheel housing SAE 2
5. Gear driven coolant pump
6. Fuel injection pump
7. Electric speed governor
8. Water to air intercooler
9. Turbocharger
10. Heat guard
11. Crankcase ventilation
12. Oil cooler
13. Belt guard
14. Expandable base frame (optional)
15. Starter motor
16. Full-flow oil filter of spin-on type
17. By-pass oil filter of spin-on type
18. Alternator
19. Fan guard

VOLVO PENTA

TWD740GE

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 795 / 1753	Gen Pac 1095 / 2414
Wet weight, kg/lb	Engine only 835 / 1841	Gen Pac 1158 / 2553

Number of cylinders	6
Displacement, total	7.28 liter / 445 in^3
Firing order	1-5-3-6-2-4
Bore	107 mm / 4.21 in
Stroke	135 mm / 5.31in
Compression ratio	17.2:1

TWD740GE	Speed, rpm	1500	1800
Performance	Test no.	24001179	24001169
Prime Power with fan	kW / hp	178 / 242	201 / 273
Continuous Standby Power with fan	kW / hp	178 / 242	201 / 273
Maximum Standby Power with fan	kW / hp	196 / 267	222 / 302
Mean piston speed	m/s / ft/sec	6.5 / 21.6	7.8 / 25.6
Effective mean pressure at Prime Power	MPa / psi	2.0 / 290	
Max combustion pressure at Prime Power	MPa / psi	14.3 / 2084	14.2 / 2069
Lubrication system			
Lubricating oil consumption at Prime Power	liter/h / US gal/h	0.03 / 0.008	0.05 / 0.013
Maximum Standby Power	liter/h / US gal/h	0.04 / 0.011	0.06 / 0.016
Oil system capacity including filters	liter	29	
Oil change intervals / specifications, VDS-2	h	600	
VDS, ACEA E3	h	400	
ACEA E1, E2, API CD, CF, CF-4, CG-4	h	200	
Fuel system			
Specific fuel consumption at			
25% of Prime Power	g/kWh / lb/hph	237 / 0.384	247 / 0.400
50% of Prime Power	g/kWh / lb/hph	211 / 0.342	218 / 0.353
75% of Prime Power	g/kWh / lb/hph	205 / 0.332	207 / 0.335
100% of Prime Power	g/kWh / lb/hph	203 / 0.329	207 / 0.335
Specific fuel consumption at			
25% of Maximum Standby Power	g/kWh / lb/hph	234 / 0.379	246 / 0.399
50% of Maximum Standby Power	g/kWh / lb/hph	210 / 0.340	213 / 0.345
75% of Maximum Standby Power	g/kWh / lb/hph	203 / 0.329	207 / 0.335
100% of Maximum Standby Power	g/kWh / lb/hph	203 / 0.329	208 / 0.337
Intake and exhaust system			
Air consumption at Prime Power (at 27 °C)	m^3/min / cfm	11.6 / 410	16.1 / 569
Maximum Standby Power (at 27 °C)	m^3/min / cfm	12.5 / 441	17.2 / 607
Max allowable air intake restriction	kPa / In wc	5 / 20.1	
Heat rejection to exhaust at Prime Power	kW / BTU/min	141 / 7995	169 / 9582
Maximum Standby Power	kW / BTU/min	156 / 8845	190 / 10773
Exhaust gas temperature after turbine at Prime Power	°C / °F	525 / 977	528 / 982
Maximum Standby Power	°C / °F	540 / 1004	555 / 1031
Max allowable back-pressure in exhaust line	kPa / In wc	10 / 40	
Exhaust gas flow at Prime Power	m^3/min / cfm	31.0 / 1095	39.3 /1388
Maximum Standby Power	m^3/min / cfm	33.5 / 1183	42.8 / 1511
Cooling system			
Heat rejection radiation from engine at Prime Power	kW / BTU/min	11 / 624	13 / 737
Maximum Standby Power	kW / BTU/min	12 / 680	14 / 794
Heat rejection to coolant at Prime Power	kW / BTU/min	107 / 6085	123 / 6995
Maximum Standby Power	kW / BTU/min	118 / 6711	134 / 7621
Fan power consumption	kW / hp	8 / 11	14 / 19

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.

VOLVO PENTA

AB Volvo Penta
SE-405 08 Göteborg, Sweden