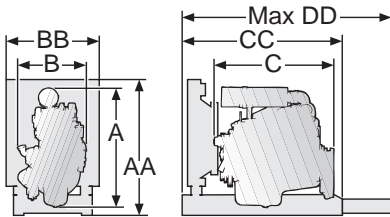


# TAD 1630 GE

## Genset Engine – Gen Pac

### TAD 1630 GE

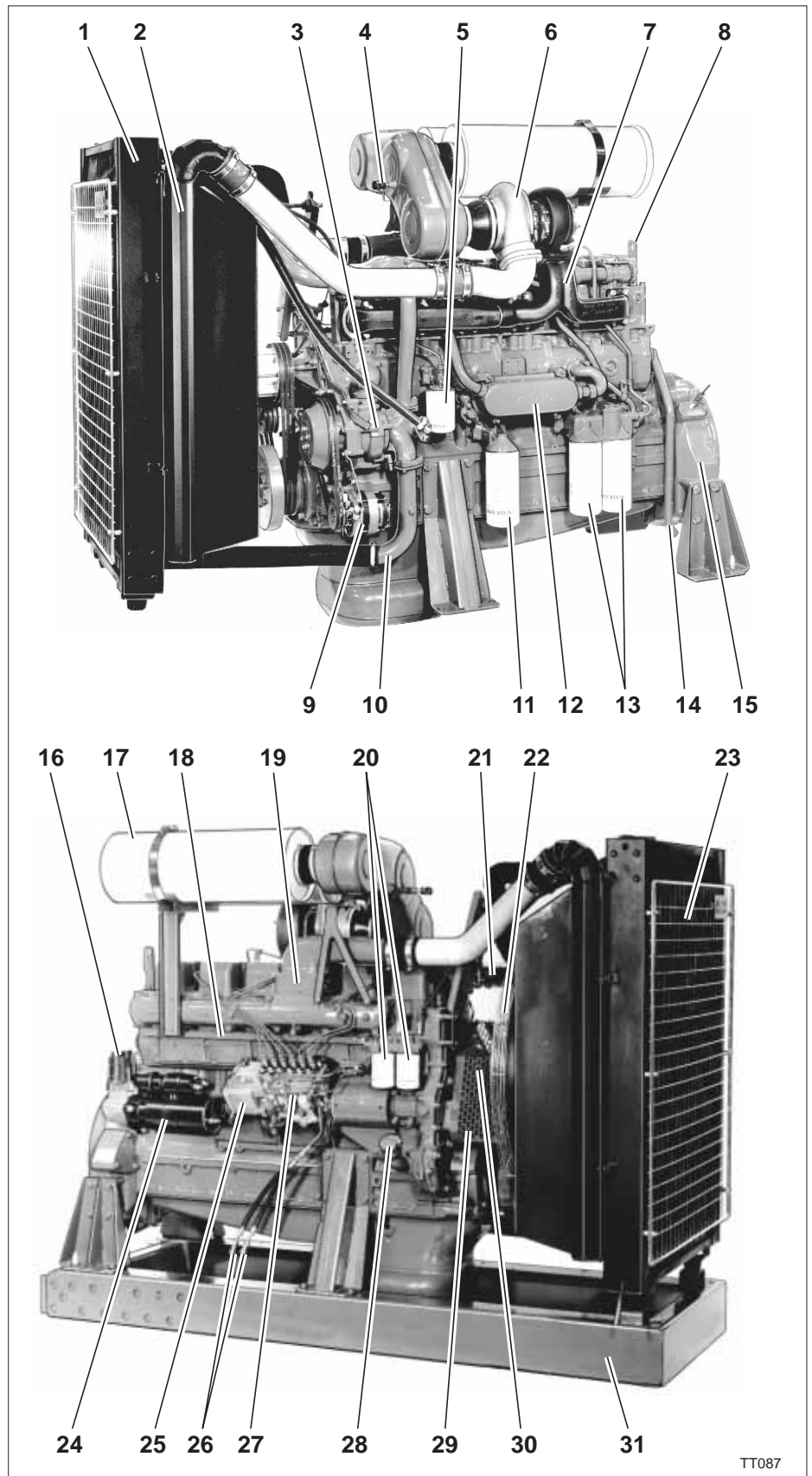
- Turbocharged \_\_\_\_\_
- Air to air intercooled \_\_\_\_\_
- Diesel fuel \_\_\_\_\_
- Displacement indication (l) \_\_\_\_\_
- Generation \_\_\_\_\_
- Version \_\_\_\_\_
- Generator Drive \_\_\_\_\_
- Emission controlled \_\_\_\_\_



mm/i

- n. AA = 1764/69.4  
 A = 1665/65.6 BB = 1089/42.9  
 B = 1089/42.9 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. Tropical radiator
  2. Intercooler
  3. Gear driven coolant pump
  4. Air restrictor indicator
  5. Coolant filter
  6. Turbocharger
  7. Air cooled exhaust manifold
  8. Lift eyelet
  9. Alternator
  10. Coolant pipe, inlet
  11. By-pass oil filter of spin-on type
  12. Oil cooler
  13. Full-flow oil filters of spin-on type
  14. Crankcase ventilation
  15. Flywheel housing SAE 1
  16. Relay for inlet manifold heater
  17. Air filter
  18. Cable iron
  19. Inlet manifold heater
  20. Twin fuel filters of throw-away type
  21. Coolant pipe, outlet
  22. Fan guard
  23. Radiator guard \*)
  24. Starter motor
  25. Electric speed governor
  26. Fuel pipes for tank connection
  27. Injection pump
  28. Oil filler
  29. Belt guard \*)
  30. Automatic belt tensioner
  31. Expandable base frame
- \*) Optional

TT087

# Technical data TAD 1630 GE

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 air 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 1795/3954 Engine only 1538/3388\*

Wet weight, kg/lb Gen Pac 1912/4212 Engine only 1650/3635\*

\*) Including radiator and intercooler

TAD 1630 GE	Speed, rpm	1500	1800
<b>Performance</b>	Test no.	B 3130	21000665/66
Prime Power with fan	kW / hp	395 / 537	430 / 585
Continuous Standby Power with fan	kW / hp	395 / 537	430 / 585
Maximum Standby Power with fan	kW / hp	435 / 592	474 / 645
Mean piston speed	m/s / ft/sec	8.3 / 27.2	9.9 / 32.5
Effective mean pressure at Prime Power	MPa / psi	2.02 / 293	1.86 / 270
Max combustion pressure at Prime Power	MPa / psi	15.0 / 2180	15.5 / 2250
Total mass moment of inertia, J (mR <sup>2</sup> )	kgm <sup>2</sup> / lbf <sup>2</sup>		4.22 / 100.1
<b>Lubrication system</b>			
Lubricating oil consumption at			
Prime Power	litre/h / US gal/h	0.11 / 0.029	0.17 / 0.045
Maximum Standby Power	litre/h / US gal/h	0.18 / 0.048	0.21 / 0.055
Oil system capacity including filters	litres		64
Oil change interval			
CD oil quality	h		300
VDS oil quality	h		600
<b>Fuel system</b>			
Specific fuel consumption at			
25% of Prime Power	g/kWh / lb/hph	238 / 0.386	251 / 0.407
50% of Prime Power	g/kWh / lb/hph	210 / 0.340	215 / 0.348
75% of Prime Power	g/kWh / lb/hph	202 / 0.327	208 / 0.337
100% of Prime Power	g/kWh / lb/hph	209 / 0.339	213 / 0.345
Specific fuel consumption at			
25% of Maximum Standby Power	g/kWh / lb/hph	235 / 0.381	244 / 0.395
50% of Maximum Standby Power	g/kWh / lb/hph	202 / 0.340	213 / 0.345
75% of Maximum Standby Power	g/kWh / lb/hph	204 / 0.330	210 / 0.340
100% of Maximum Standby Power	g/kWh / lb/hph	216 / 0.350	220 / 0.356
<b>Intake and exhaust system</b>			
Air consumption at			
Prime Power (at 27 °C)	m <sup>3</sup> /min / cfm	32.0 / 1130	39.1 / 1381
Maximum Standby Power (at 27 °C)	m <sup>3</sup> /min / cfm	34.8 / 1229	41.7 / 1473
Max allowable air intake restriction	kPa / In wc	5 / 20.1	5 / 20.1
Heat rejection to exhaust at			
Prime Power	kW / BTU/min	354 / 20132	399 / 22691
Maximum Standby Power	kW / BTU/min	405 / 23032	454 / 25819
Exhaust gas temperature after turbine at			
Prime Power	°C / °F	490 / 915	455 / 850
Maximum Standby Power	°C / °F	510 / 950	490 / 915
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	81.7 / 2885	91.5 / 3231
Maximum Standby Power	m <sup>3</sup> /min / cfm	90.3 / 3189	101.3 / 3577
<b>Cooling system</b>			
Heat rejection radiation from engine at			
Prime Power	kW / BTU/min	24 / 1370	27 / 1540
Maximum Standby Power	kW / BTU/min	27 / 1540	30 / 1710
Heat rejection to coolant at			
Prime Power	kW / BTU/min	179 / 10180	204 / 11602
Maximum Standby Power	kW / BTU/min	188 / 10692	224 / 12739
Fan power consumption	kW / hp	12 / 16	20 / 27

## 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).

## 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.