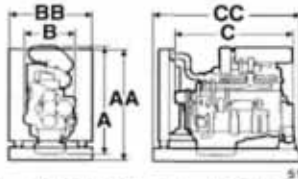


# TAD1030V

## Engine for industrial applications

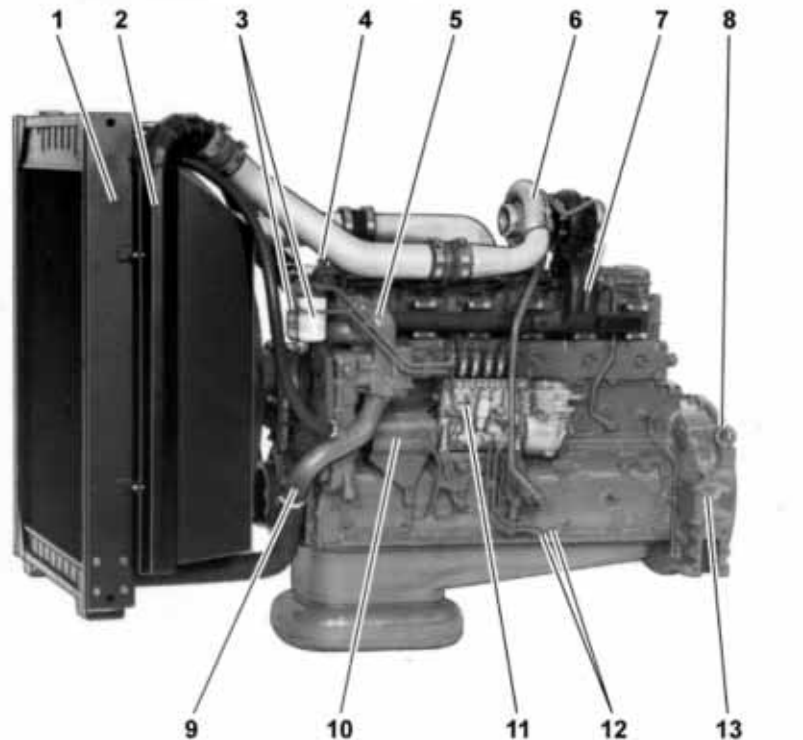
TAD 1030 V

Turbocharged  
Air to air intercooled  
Diesel fuel  
Displacement indication (l)  
Generation  
Version  
Versatility engine



A = 1332 / 52.4 AA = 1636 / 64.4 mm / in.  
B = 750 / 29.5 BB = 945 / 37.2 mm / in.  
C = 1440 / 56.7 CC = 2059 / 81.1 mm / in.

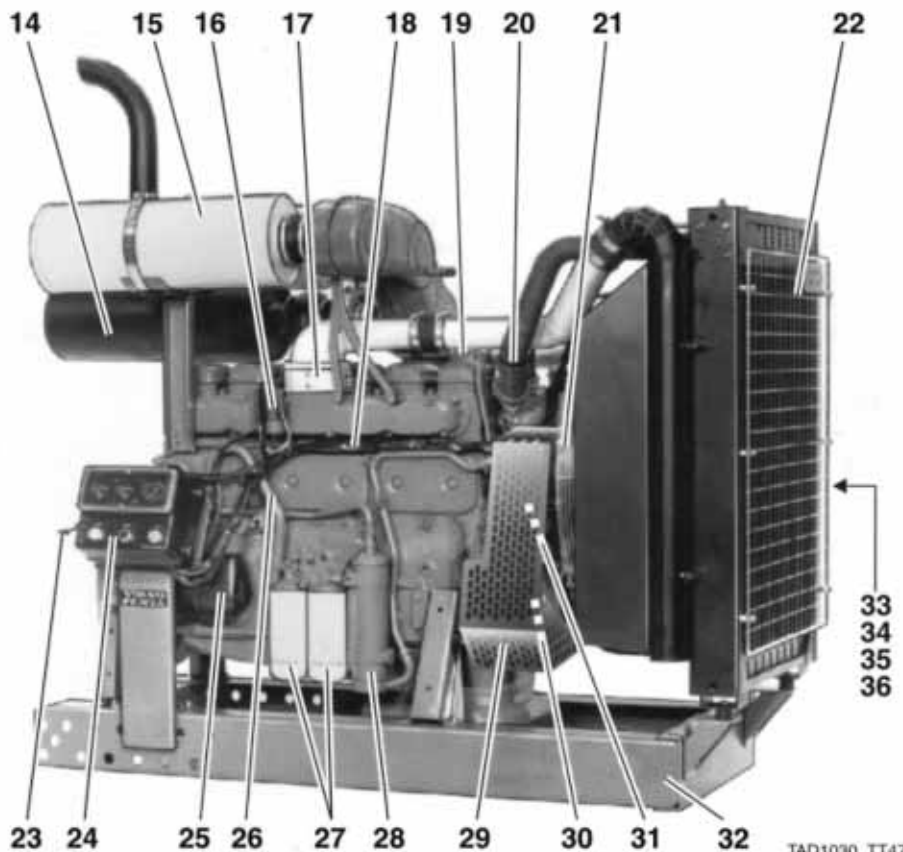
- Based on Volvo's well proven, dependable six-in-line turbocharged engine.
- Built with a high degree of precision to withstand high outputs and at the same time correspond to high demands on operational reliability and service life.
- Low fuel consumption and low noise level.



Power Pac with optional equipment

TAD1030 TT233

1. Tropical radiator
2. Intercooler
3. Twin fuel filters of throw-away type
4. Lift eyelet
5. Gear-driven coolant pump
6. Turbocharger
7. Air-cooled exhaust manifold
8. Lift eyelet
9. Coolant pipe, inlet
10. Pump coupling guard
11. Injection pump
12. Fuel pipes for tank connection
13. Flywheel housing SAE 1
14. Silencer
15. Air filter
16. Relay for inlet manifold heater
17. Inlet manifold heater
18. Cable iron
19. Oil filter
20. Coolant pipe, outlet
21. Fan guard
22. Radiator guard
23. Speed control
24. Instrument panel
25. Starter motor
26. Crankcase ventilation
27. Full-flow oil filters of spin-on type
28. Oil cooler
29. Belt guard
30. Vibration damper
31. Automatic belt tensioner
32. Base frame
33. Alternator, left hand side
34. Oil drain pump, left hand side
35. Stop solenoid, left hand side
36. Battery box, left hand side



Power Pac with optional equipment

TAD1030 TT479

**VOLVO  
PENTA**

# TAD1030V

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 air to air intercooled

Number of cylinders 6

Displacement, total 9.60 liter / 586 in<sup>3</sup>

Firing order 1-5-3-6-2-4

Rotation direction, anti-clockwise viewed towards flywheel

Bore 120.65 mm / 4.75 in

Stroke 140 mm / 5.51 in

Compression ratio 15.0:1

Dry weight kg/lb Power Pac 1230/2712 Engine only 1062/2341\*

Wet weight kg/lb Power Pac 1289/2842 Engine only 1118/2465\*

\*) Including radiator and intercooler

TAD 1030 V	Speed, rpm	1400	1500	1800	2000
<b>Performance</b>	Test no.	DP 92/9999			
ICFN Power without fan	kW / hp	202 / 275	214 / 291	235 / 320	240 / 326
with fan	kW / hp	198 / 269	209 / 284	226 / 307	228 / 310
Torque at ICFN Power	Nm / lbft	1378 / 1020	1362 / 1000	1246 / 919	1146 / 845
Mean piston speed	m/s / ft/sec	5.6 / 18.4	7.0 / 23.0	8.4 / 27.6	9.3 / 30.5
Effective mean pressure	MPa / psi	1.80 / 261	1.78 / 258	1.63 / 236	1.50 / 218
Max combustion pressure	MPa / psi	12.5 / 1810	12.7 / 1840	12.0 / 1740	11.3 / 1640
Total mass moment of inertia, J (mR <sup>2</sup> )	kgm <sup>2</sup> / lbft <sup>2</sup>	2.51 / 59.6			
Degree of irregularity		1:51	1:63	1:132	1:236
Residual speed droop					
at load increase from 0 to 100%	%	21	18	12	8
Friction Power	kW	13	22	31	38
<b>Lubrication system</b>					
Lubrication oil consumption at ICFN Power	liter/h / US gal/h	0.15 / 0.040 at 1800 rpm			
Oil system capacity including filters	liter / US gal	36 / 9.5			
Oil change intervalVDS-2 oil quality	h	600			
VDS oil quality	h	400			
CCMC D5 oil quality	h	200			
<b>Fuel system</b>					
Specific fuel consumption at					
25% of ICFN Power	g/kWh / lb/hph	230 / 0.373	227 / 0.368	248 / 0.402	270 / 0.438
50% of ICFN Power	g/kWh / lb/hph	206 / 0.334	205 / 0.332	217 / 0.352	226 / 0.366
75% of ICFN Power	g/kWh / lb/hph	200 / 0.324	201 / 0.326	207 / 0.336	215 / 0.349
100% of ICFN Power	g/kWh / lb/hph	197 / 0.319	200 / 0.324	205 / 0.332	216 / 0.350
<b>Intake and exhaust system</b>					
Air consumption	m <sup>3</sup> / min / cfm	14.6 / 520	16.8 / 590	21.9 / 770	24.3 / 858
Max allowable air intake restriction	kPa / In wc	5 / 20			
Heat rejection to exhaust	kW / BTU/min	176 / 10010	184 / 10460	215 / 12230	243 / 13820
Exhaust gas temperature after turbine	°C / °F	440 / 820	430 / 810	390 / 730	380 / 720
Max allowable back-pressure in exhaust line	kPa / In wc	5.9 / 23.7	6.8 / 27.3	9.7 / 39.0	12.0 / 48.2
Exhaust gas flow	m <sup>3</sup> /min / cfm	37.1 / 1310	41.5 / 1470	50.7 / 1790	55.0 / 1940
Exhaust gas smoke	Bosch units	0.4	0.4	0.3	0.3
<b>Cooling system</b>					
Heat rejection radiation from engine	kW / BTU/min	12 / 680	13 / 740	14 / 800	14 / 800
Heat rejection to coolant	kW / BTU/min	81 / 4610	86 / 4890	96 / 5460	102 / 5800

### 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, 8.42 lb/Imp gal), also where this involves a deviation from the standards.

### Rating Guideline

ICFN power rating corresponds to ISO Standard Fuel Stop Power for continuous operation at variable speed. It is intended for constant load applications with uninterrupted service at full

load for extended periods of time. No overload capability is available with this rating.

### Derating

The engine may be operated up to 1000 m altitude and 50 °C ambient air temperature without derating. For operation at higher altitudes and temperatures the power should be derated according to the following factors:

Altitude derating factor <3000 m. 4% / 500 m.

Altitude derating factor >3000 m. 6% / 500 m.

Ambient temperature derating factor 1.5% / 5 °C.

Humidity No derating

# VOLVO PENTA

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