

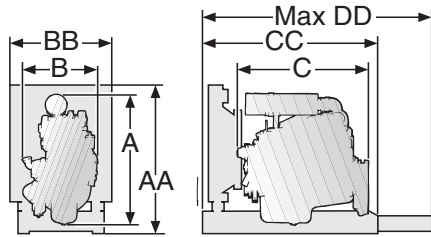
# VOLVO PENTA GENSET ENGINE

# TAD740GE

1500 rpm, 242 kW (328 hp) – 1800 rpm, 251 kW (341 hp)

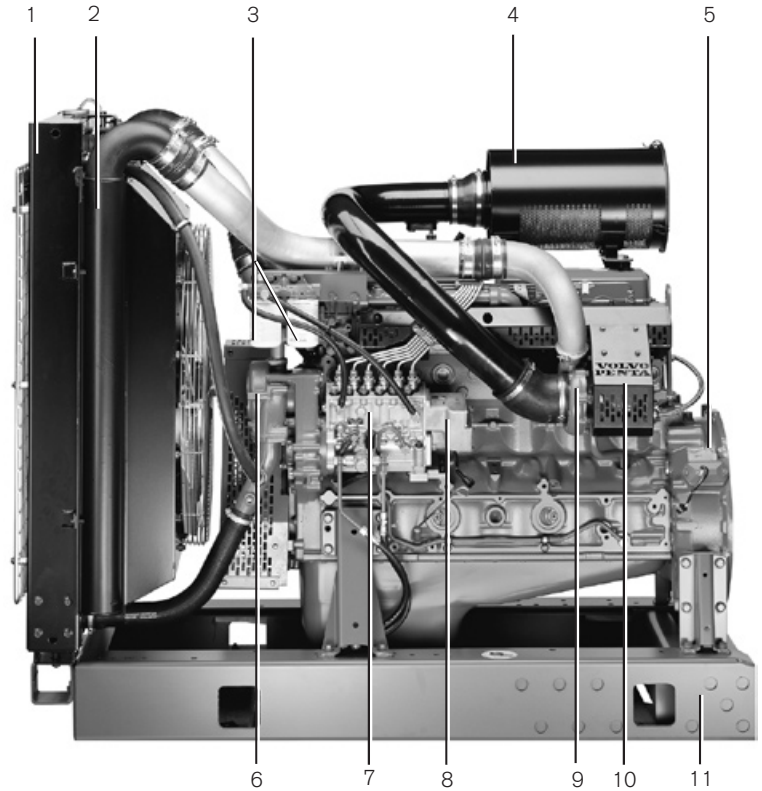
**TAD740GE**

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

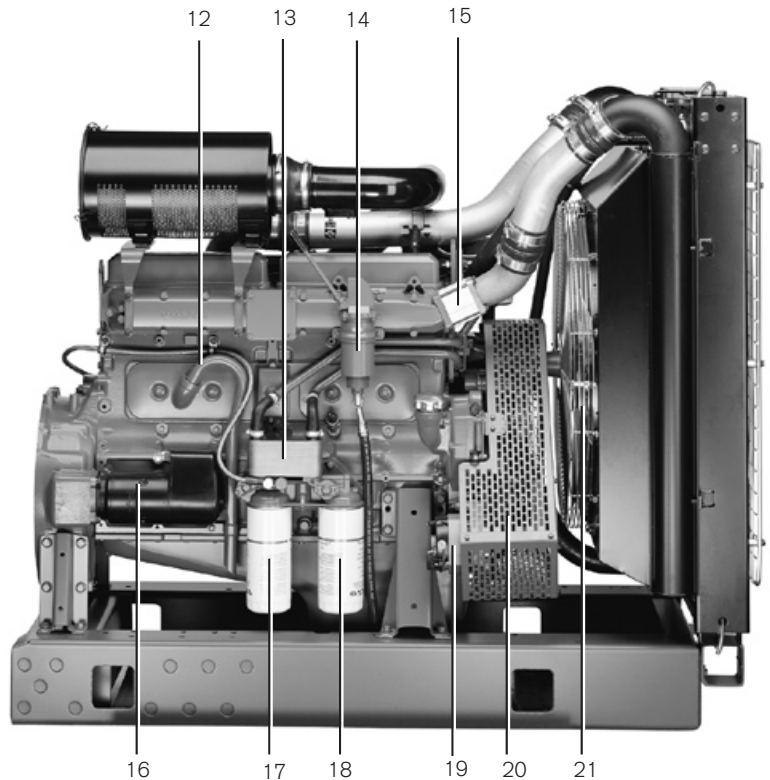


mm / in      AA = 1490.5 / 58.7  
 A\* = 1372 / 54.0      BB = 945 / 37.2  
 B\* = 945 / 37.2      CC = 1732 / 68.2  
 C\* = 1697 / 66.8      DD = 2722 / 107.2  
 \* Incl. radiator and intercooler

**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 installation cost and simplified transportation.



1. Tropical radiator
2. Air to air intercooler
3. Twin fuel filters of throwaway type
4. Air filter
5. Flywheel housing SAE2
6. Gear driven coolant pump
7. Fuel injection pump
8. Electric speed governor
9. Turbocharger
10. Heat guard
11. Expandable base frame (optional)
12. Crankcase ventilation
13. Oil cooler
14. Oil drain pump (optional)
15. Inlet manifold heater
16. Starter motor
17. Full-flow oil filter of spin-on type
18. By-pass oil filter of spin-on type
19. Alternator
20. Belt guard
21. Fan guard



# TAD740GE

## Technical Data

### General

Engine designation .....	TAD740GE	
No. of cylinders and configuration .....	in-line 6	
Method of operation .....	4-stroke	
Bore, mm (in.) .....	107 (4.21)	
Stroke, mm (in.) .....	135 (5.31)	
Displacement, l (in <sup>3</sup> ) .....	7.28 (445)	
Compression ratio .....	17.2:1	
Dry weight, kg (lb) .....	901 (1987)	
With Gen Pac, kg (lb) .....	1128 (2487)	
Wet weight, kg (lb) .....	964 (2126)	
With Gen Pac, kg (lb) .....	1196 (2637)	

### Performance

with fan, kW (hp)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	220 (299)	228 (310)
Max Standby Power	242 (329)	251 (341)

### Lubrication system

Oil consumption, liter/h (US gal/h)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	0.04 (0.011)	0.05 (0.013)
Max Standby Power	0.05 (0.013)	0.06 (0.016)
Oil system capacity incl filters, liter (US gal) .....	29 (7.7)	

### Fuel system

Spec. fuel consumption at		
Prime Power, g/kWh (lb/hph)	<b>1500 rpm</b>	<b>1800 rpm</b>
25 %	227 (0.368)	230 (0.373)
50 %	200 (0.324)	205 (0.330)
75 %	198 (0.321)	199 (0.323)
100 %	200 (0.324)	200 (0.324)
Max Standby Power, g/kWh (lb/hph)		
25 %	219 (0.355)	230 (0.373)
50 %	200 (0.324)	203 (0.329)
75 %	198 (0.321)	199 (0.323)
100 %	201 (0.326)	202 (0.328)

### Intake and exhaust system

Air consumption at 27°C, m <sup>3</sup> /min (cfm)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	14.7 (519)	17.6 (622)
Max Standby Power	15.6 (551)	18.6 (657)
Max allowable air intake restriction, kPa (In wc) .....	5 (20.1)	
Heat rejection to exhaust, kW (BTU/min)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	160 (9099)	164 (9327)
Max Standby Power	180 (10237)	184 (10464)
Exhaust gas temperature after turbine, °C (°F)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	525 (977)	470 (878)
Max Standby Power	540 (1004)	485 (905)
Max allowable back-pressure in exhaust line, kPa (In wc) .....	10 (40.2)	
Exhaust gas flow, m <sup>3</sup> /min (cfm)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime power	39.2 (1384)	43.0 (1519)
Max Standby Power	41.8 (1476)	46.3 (1635)

### Cooling system

Heat rejection radiation from engine, kW (BTU/min)	<b>1500 rpm</b>	<b>1800 rpm</b>
Prime Power	13 (737)	13 (737)
Max Standby Power	15 (850)	15 (850)
Heat rejection to coolant, kW (BTU/min)		
Prime Power	99 (5630)	99 (5630)
Max Standby Power	106 (6028)	110 (6256)
Fan power consumption, kW (hp)	5 (7)	8 (11)

Note! Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice. The engine illustrated may not be entirely identical to production standard engines.

### 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% 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 class G3

### Exhaust emissions

The engine complies with EPA / CARB - Tier 1 and TA-luft exhaust emission 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. A 10 % overload capability for governing purpose 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. 1 hp = 1 kW x 1.36

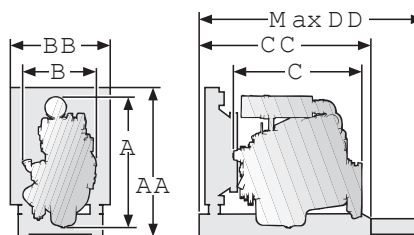
### Information

For more technical data and information, please look in the Generating Set Engines Sales Guide.

### Standard equipment

	Engine	Gen Pac
<b>Engine</b>		
Automatic belt tensioner	•	•
Lift eyelets	•	•
<b>Flywheel</b>		
Flywheel housing with conn. acc. to SAE 2	•	•
Flywheel for 11.5" flex. plate and flexible coupling	•	•
Vibration damper	•	•
<b>Engine suspension</b>		
Fixed front suspension	–	•
<b>Lubrication system</b>		
Oil dipstick	•	•
Full-flow oil filter of spin-on type	•	•
By-pass oil filter of spin-on type	•	•
Oil cooler, side mounted	•	•
<b>Fuel system</b>		
Twin fuel filters of disposable type	•	•
Flexible fuel lines	–	•
Fuel injection pump, Bosch, with electronic actuator	•	•
<b>Intake and exhaust system</b>		
Air filter with replaceable paper insert	•	•
Air restriction indicator	•	•
Air cooled exhaust manifold	•	•
Connecting flange for exhaust line	•	•
Turbo charger	•	•
Heat guard for exhaust pipe and turbo	•	•
Crankcase ventilation	•	•
<b>Cooling system</b>		
Tropical radiator including intercooler	• <sup>1)</sup>	•
Radiator guard	–	•
Gear driven coolant pump	•	•
Fan hub	•	•
Thrust fan	–	•
Fan guard	–	•
Belt guard	–	•
<b>Alternator</b>		
Alternator 60A / 24V low, right side	•	•
<b>Starting system</b>		
Starter motor, Bosch 5.4kW / 24V	•	•
Electrical wiring	•	•
Cable iron	•	•
<b>Instruments and senders</b>		
Temp. and oil pressure for automatic stop/alarm 103°C	–	•
<b>Other equipment</b>		
Expandable base frame	–	•
<b>Engine Packing</b>		
Plastic wrapping	•	•

<sup>1)</sup> must be ordered, see order specification - optional equipment  
 – optional equipment or not applicable  
 • included in standard specification



A\* = 1375 mm / 54.0 in  
 B\* = 945 mm / 37.2 in  
 C\* = 1697 mm / 66.8 in  
 \*Incl. radiator & intercooler

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**AB Volvo Penta**  
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 www.volvopenta.com