

NEW!

VOLVO PENTA GENSET ENGINE TAD741GE

1800 rpm, 228 kW (310 hp)

Reliable & powerful

The TAD741GE is a powerful, reliable and economical Generating Set diesel built on the dependable in-line six design.

Durability & low noise

Designed for easiest, fastest and most economical installation. Well-balanced to produce smooth and vibration-free operation with low noise level.

To maintain a controlled working temperature in cylinders and combustion chambers, the engine is equipped with piston cooling. The engine is also fitted with replaceable cylinder liners and valve seats/guides to ensure maximum durability and service life of the engine.

Low exhaust emission

The state of the art, high-tech injection and charging system with low internal losses contributes to excellent combustion and low fuel consumption. The TAD741GE complies with EPA/CARB Tier 2 and TA-Luft exhaust emission regulations.

Easy service & maintenance

Easily accessible service and maintenance points contribute to the ease of service of the engine.

Technical description:

Engine and block

- Optimized cast iron cylinder block with optimum distribution of forces without the block being unnecessarily heavy.
- Wet, replaceable cylinder liners with flame barrier that protects the cylinder head gaskets against high temperatures.
- Piston cooling for low piston temperature and reduced ring temperature
- Tapered connecting rods for reduce risk of piston cracking
- Nitrocarburized crankshaft with seven bearings for moderate load on main bearings
- Nitrocarburized transmission gears for heavy duty operation
- Keystone top compression rings for long service life
- Viscous type crankshaft vibration dampers to withstand single bearing alternator torsional vibrations
- Replaceable valve guides and valve seats

Lubrication system

- Full flow oil cooler
- Full flow disposable spin-on oil filter, for extra high filtration
- The lubricating oil level can be measured during operation
- Gear type lubricating oil pump, gear driven by the transmission

Fuel system

- Bosch fuel injection system including accurate electronic governor.
- Non-return fuel valve
- Twin fuel filters of disposable type.
- Gear type lubricating oil pump, gear driven by the transmission.
- Fine fuel filter with manual feed pump and fuel pressure switch

Turbo charger

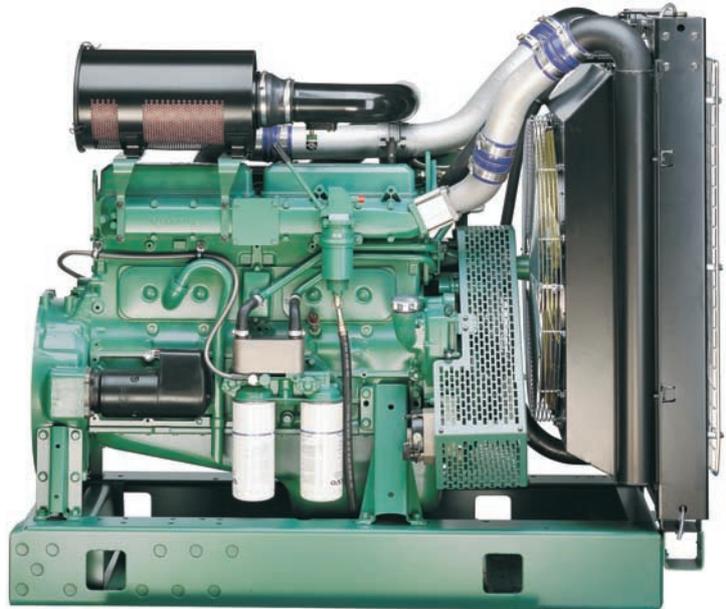
- Efficient and reliable turbo charger

Cooling system

- Air to air intercooler
- Gear driven, maintenance-free coolant pump with high degree of efficiency
- Efficient cooling with accurate coolant control through a water distribution duct in the cylinder block. Reliable sleeve thermostat with minimum pressure drop
- Automatic fan drive belt tensioner.

Electrical system

- Electronic speed governor system controls the engine speed in droop or isochronous mode. The system includes a control unit, speed sender and electro-magnetic actuator (ACD175)



Features

- Maintained performance, air temp 40°C, altitude 1000m
- Tropical cooling system (55°C)
- Guaranteed power output 0 to +2%
- El. Governing (GAC-ACD175)
- Low exhaust emissions
- Low noise levels
- Gen Pac configuration

**VOLVO
PENTA**

TAD741GE

Technical Data

General

Engine designation	TAD741GE
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 ³)	7.28 (444.2)
Compression ratio	17.5:1
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)	1800 rpm
Prime Power	207 (281)
Maximum Standby Power	228 (310)

Lubrication system

Oil consumption at liter/h (US gal/h)	1800 rpm
Prime Power	0.05 (0.013)
Maximum Standby Power	0.06 (0.016)
Oil system capacity incl filters, liter	29
Oil change intervals at specification	
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 Prime Power, g/kWh (lb/hph)	1800 rpm
25 %	249 (0.404)
50 %	218 (0.353)
75 %	209 (0.339)
100 %	210 (0.340)
Specific fuel consumption at Maximum Standby Power, g/kWh (lb/hph)	1800 rpm
25 %	242 (0.392)
50 %	213 (0.345)
75 %	208 (0.337)
100 %	211 (0.342)

Intake and exhaust system

Air consumption at 27°C, m ³ /min (cfm)	1800 rpm
Prime Power	17.1 (604)
Standby Power	18.4 (650)
Max allowable air intake restriction, kPa (In wc)	5 (20.1)
Heat rejection to exhaust, kW (BTU/min)	1800 rpm

Prime Power	182 (10350)
Max Standby power	201 (11431)
Exhaust gas temperature after turbine, °C (°F)	1800 rpm

Prime Power	480 (896)
Max Standby Power	489 (912)
Max allowable back-pressure in exhaust line, kPa (In wc)	10 (40.2)
Exhaust gas flow, m ³ /min (cfm)	1800 rpm

Prime power	42.0 (1483)
Max Standby Power	46.0 (1624)

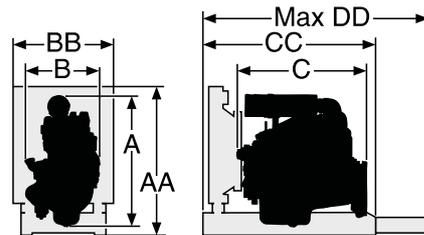
Cooling system

Heat rejection radiation from engine, kW (BTU/min)	1800 rpm
Prime Power	13 (739)
Max Standby Power	15 (853)
Heat rejection to coolant kW (BTU/min)	1800 rpm

Prime Power	99 (5630)
Maximum Standby Power	110 (6256)
Fan power consumption kW (hp) 1800 rpm	8 (11)

Standard equipment

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



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

AA = 1490.5 mm / 58.7 in
 BB = 945 mm / 37.2 in
 CC = 1732 mm / 68.2 in
 DD = 2722 mm / 107.2 in

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 (G3 with electronic speed governor)

Exhaust emissions.

The engine complies with EPA / CARB - Tier 2 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. A10 % 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.

VOLVO PENTA

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