

VOLVO PENTA INBOARD DIESEL TAMD122P

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine
with aftercooler – crankshaft power* 390–441 kW (530–600 hp)

* Power rating – see Technical Data

High performance combined with outstanding reliability and environmental care

The TAMD122P is a high-performance engine with a very long service life, designed for fast planing craft.

The engine is turbocharged and after-cooled, with a high power/fuel consumption ratio, thus offering excellent fuel economy. It has superior torque characteristics with excellent acceleration and load variation response.

Durability and low noise levels

The Volvo Penta in-line six cylinder engine is a traditional well-balanced unit with powerfully dimensioned crankshaft bearings. This ensures smooth, vibration-free operation and low noise levels, which, together, provide the highest level of on-board comfort.

The torsionally rigid cylinder block and crank mechanism are designed to withstand many hours of demanding operation.

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

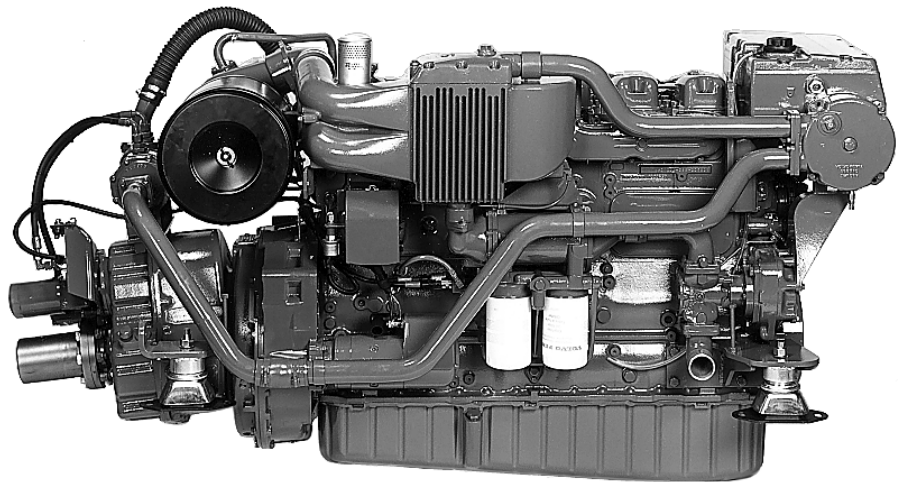
Low exhaust emission levels

High-pressure injection through five-hole injection nozzles optimizes fuel-air mixture. This greatly contributes to more efficient combustion with higher power and reduced noxious exhaust emissions. The engine complies with the IMO emission regulations.

Marine electrics

The two-pole electrical system is specifically adapted to demanding marine environments. Flex-mounted electrical box, with semi-automatic fuses and plug-in electrical connections.

TAMD122P with
IRM311A reverse gear



Ease of service and maintenance

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

Comprehensive service network

Volvo Penta has a well-established network of authorized service dealers in more than 100 countries throughout the world. These service centers offer Genuine Volvo Penta Parts as well as skilled personnel to ensure the best possible service.

Technical description:

Engine and block

- Cylinder block and separate cylinder heads made of cast iron alloy. A flame barrier protects the cylinder head gasket.
- Flywheel housing (aluminum) with connection acc. to SAE 1
- Replaceable cylinder liners and valve seats/guides
- Nitrocarburized crankshaft with seven main bearings
- Oil-cooled forged aluminum pistons
- Rigid camshaft with well designed cams. Large overlap between inlet and exhaust valves ensures excellent air flow, good cooling and low exhaust gas temperature.

Lubrication system

- Seawater-cooled oil cooler
- Gear pump pressurized lubricating system
- Twin full flow oil filters of spin-on type
- Shallow oil sump
- Oil filler in valve cover
- Oil separating filter incl. overpressure valve for crankcase ventilation

Fuel system

- Fuel injection pump with centrifugal governor, smoke limiter and fuel feed pump
- Fuel shut-off valve 24V, electrically operated
- Five-hole injectors
- Twin fine fuel filters of spin-on type

Turbocharger

- Freshwater-cooled turbocharger

Cooling system

- Engine-mounted tubular heat exchanger with integrated expansion tank or bulkhead-mounted heat exchanger for reduced installation dimensions. Alternatively adapted for 2-circuit keel cooling.
- Seawater-cooled aftercooler
- Belt-driven freshwater pump and front-mounted seawater pump with neoprene impeller

Electrical system

- 24V electrical system, 24V/60A alternator
- Rubber suspended electrical terminal box with semi-automatic fuses and plug-in electrical connections

VOLVO PENTA

TAMD122P

Technical Data

Engine designation **TAMD122P**
 No. of cylinders and configuration in-line 6
 Method of operation 4-stroke,
 direct-injected, turbocharged
 diesel engine with aftercooler
 Bore, mm (in.) 130.2 (5.1)
 Stroke, mm (in.) 150 (5.9)
 Displacement, l (in³) 11.98 (731)
 Compression ratio 15.1:1
 Dry weight, kg (lb) 1290 (2844)
 Dry weight with reverse gear IRM311A,
 kg (lb) 1500 (3305)
 Crankshaft power,
 Rating 5-4, kW (hp) 2250 rpm¹) 441 (600)
 Rating 5-4, kW (hp) 2250 rpm²) 426 (580)
 Rating 3, kW (hp) 2100 rpm²) 390 (530)
 Torque,
 Rating 5-4, Nm (ft.lb) 2250 rpm²) 1808 (1334)
 Rating 3, Nm (ft.lb) 2100 rpm²) 1773 (1308)
 Recommended fuel to
 conform to ASTM-D975 1-D & 2-D,
 EN 590 or JIS KK 2204
 Specific fuel consumption,
 Rating 5-4, g/kWh (lb/hph)
 2250 rpm²) 239 (0.39)
 Rating 3, g/kWh (lb/hph)
 2100 rpm²) 228 (0.37)

1) Fuel temperature 25°C (77°F)
 2) Fuel temperature 40°C (104°F)
 Technical data according to ISO 3046 Fuel Stop Power and ISO 8665. Fuel with a lower calorific value of 42700 kJ/kg and density of 840 g/litre at 15°C (60°F). Merchant fuel may differ from this specification which will influence engine power output and fuel consumption.
 N.B. The product can also be used in an application with a higher rating than stated, e.g. R3 can be used for R4 or R5.

Optional equipment:

Engine

- Flexible suspension for engine and reverse gear
- Cast iron flywheel housing

Lubrication system

- Deep oil sump with inspection covers
- Oil filling on starboard side
- Engine-mounted manual oil drain pump for shallow oil sump

Fuel system

- Single or twin fuel filter/water separator with shift valve

Exhaust system

- Exhaust elbow, dry or wet
- Silencer, dry
- Flexible compensator

Cooling system

- Seawater strainer
- Freshwater filter

Electrical system

- 24V/100A extra alternator
- Various instrument panels
- Cable harness in different lengths

Power transmission

- Auxiliary drive
- Extra pulley for crankshaft
- Hydraulic pump for steering and other duties

Reverse gear

- IRM311A and MG5114SC

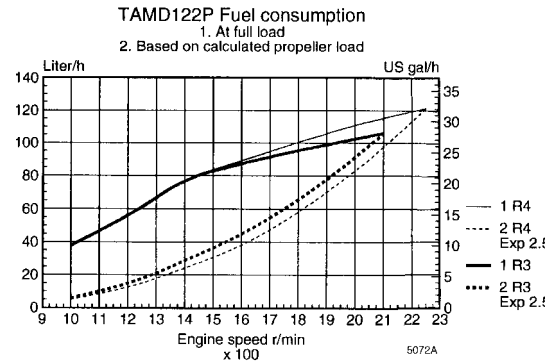
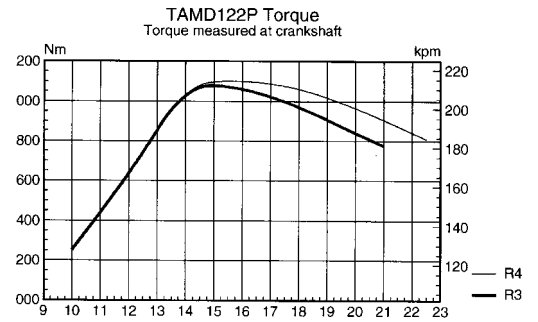
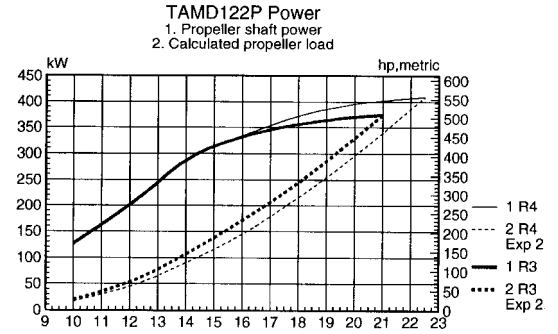
Other equipment

- 2" bilge/flush pump
- Belt guard
- White-painted engine and reverse gear

Contact your local Volvo Penta dealer for further information.

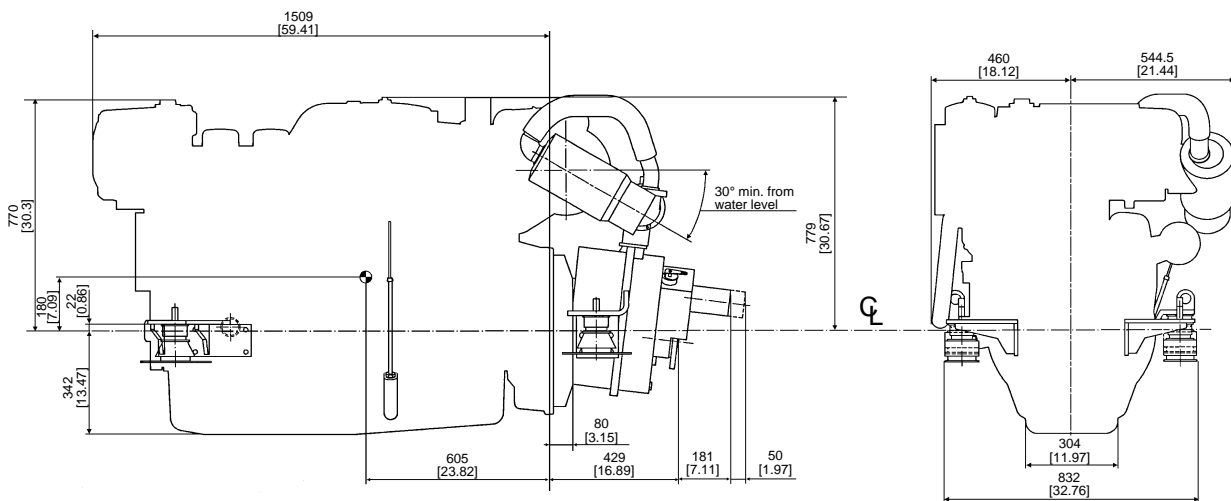
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The engine illustrated may not be entirely identical to production standard engines.



Dimensions TAMD122P with IRM311A

Not for installation



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