

VOLVO PENTA INBOARD DIESEL TAMD122P EDC

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine
with aftercooler – crankshaft power* 390–449 kW (530–610 hp)

* Power rating – see Technical Data

EDC – innovative technology in diesel control and monitoring, combined with high performance

The TAMD122P EDC is a high-performance engine designed for long service life in fast planing crafts.

Equipped with EDC (Electronic Diesel Control) – an electronically controlled processing system which optimizes engine performance. The system determines the precise quantity of fuel required at any given moment, taking full account of variation in operating temperatures, air pressure and other contributing factors.

The engine is turbocharged and after-cooled, with superior torque characteristics, low fuel consumption, excellent acceleration and load variation response.

Higher on-board comfort

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.

The EDC system gives improved engine response with lower and more stable idling. The electrical control levers are operated more smoothly and precisely, requiring much less force than mechanical ones. No engine or transmission or noise vibrations are transmitted through the engine cables.

Combined, these features provide the highest level of onboard comfort.

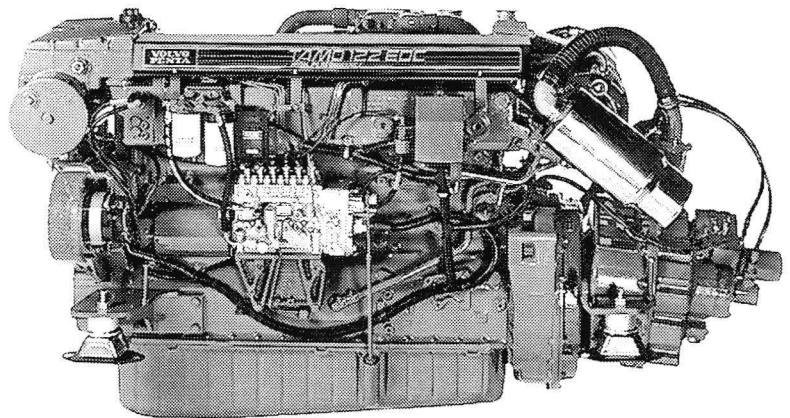
Low exhaust emission levels

High-pressure injection through five-hole injection nozzles in combination with the EDC system optimizes fuel-air mixture. This greatly contributes to more efficient combustion with higher power and reduced noxious exhaust emissions.

Easier installation

Plug-in electrical connectors instead of conventional cabling. The EDC system makes planning and performing multi-installations easy, allowing for three control stations or more.

TAMD122P EDC with
IRM311A reverse gear



Ease of service and maintenance

The EDC system includes a self-diagnostic facility. 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 cylinder heads made of cast iron alloy and separate cylinder heads
- Replaceable wet cylinder liners and valve seats/guides
- Nitrocarburized crankshaft with seven main bearings
- Gallery oil-cooled forged aluminum pistons

Lubrication system

- Seawater-cooled oil cooler
- Twin full flow oil filters of spin-on type
- Oil filling in valve cover
- Shallow oil sump

Fuel system

- Fuel injection pump incl. fuel feed pump and electronically controlled actuator
- Electronically controlled central processing system (EDC – Electronic Diesel Control) with integrated stop function
- Compensation to allow max output at fuel temperatures of 5–55°C (41–131°F)
- Five-hole injectors
- Twin fine fuel filters of spin-on type

Turbocharger

- Freshwater-cooled turbocharger
- Large air cleaner

Cooling system

- Seawater-cooled aftercooler
- Belt-driven freshwater pump and gear-driven seawater pump with neoprene impeller
- Tubular heat exchanger with integrated expansion tank alt. bulkhead-installed heat exchanger and expansion tank or 2-circuit keel cooling

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 EDC

Technical Data

Engine designation TAMD122P EDC
 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 (cu.in.) 11.98 (731)
 Compression ratio 15.1:1
 Dry weight, kg (lb) 1340 (2954)
 Dry weight with reverse gear IRM311A,
 kg (lb) 1500 (3305)
 Crankshaft power,
 R5-4, kW (hp) 2250 rpm 449 (610)
 R3, kW (hp) 2100 rpm 390 (530)
 Torque,
 R5-4, Nm (ft.lb) 2250 rpm 1906 (1406)
 R3, Nm (ft.lb) 2100 rpm 1773 (1308)
 Recommended fuel to
 conform to ASTM-D975 1-D & 2-D,
 EN 590 or JIS KK 2204
 Specific fuel consumption,
 R5-4, g/kWh (lb/hph) 2250 rpm 234 (0.379)
 R3, g/kWh (lb/hph) 2100 rpm 226 (0.366)

Fuel temperature 5–55°C (41–131°F)
 Technical data according to ISO 3046 Fuel Stop Power and ISO
 8665. Fuel with lower calorific value of 42700 kJ/kg and density of
 840 g/litre at 15 °C (60 °F). Merchant fuel may differ from this speci-
 fication which will influence engine power output and fuel consump-
 tion.

Rating: 5–3 (R5–R3)

N.B. The product can also be used in an application with a high-
 er rating than stated, e.g. R3 can be used for R4 or R5.

Optional equipment: Engine

- Flywheel housing in cast iron
- Flexible mountings for the engine and reverse gear

Lubrication system

- Deep oil sump with inspection covers

- Oil filling on starboard side
- Electrical alt. engine-mounted manual oil drain pump

Fuel system

- Single or twin fuel filter/water separator

Exhaust system

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

Cooling system

- Seawater strainer
- Freshwater filter

Electrical system

- 24V/100A extra alternator
- Various instrument panels
- Cable harness in different lengths
- EDC monitoring panels
- Multistation unit
- Electrical control lever

Power transmission

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

Reverse gear

- IRM311A and Twin Disc 5091SC, electrically shifted

Other equipment

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

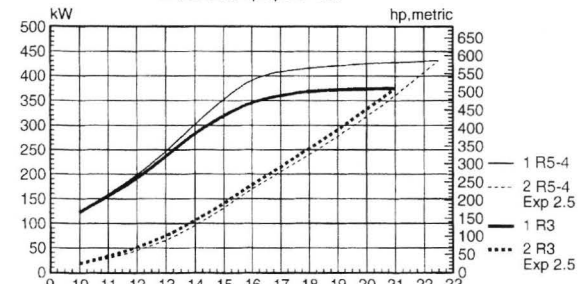
Contact your local Volvo Penta dealer for further information.

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.

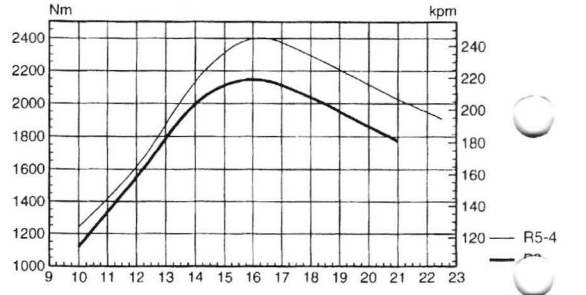
TAMD122P EDC Power

1. Propeller shaft power
2. Calculated propeller load



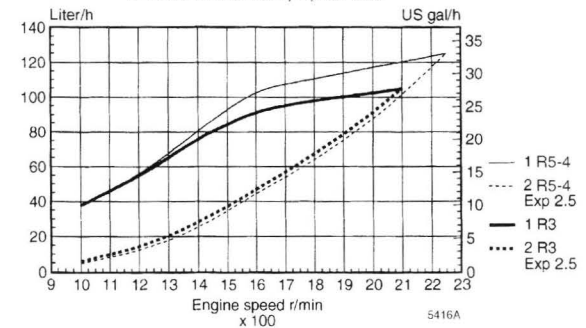
TAMD122P EDC Torque

Torque measured at crankshaft



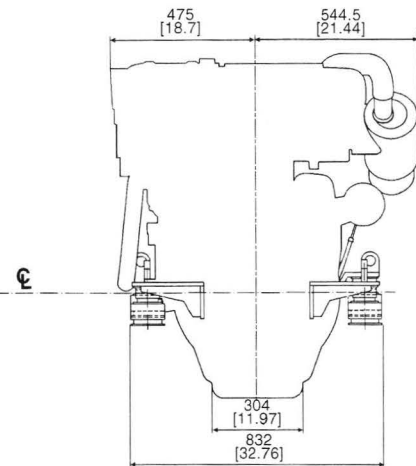
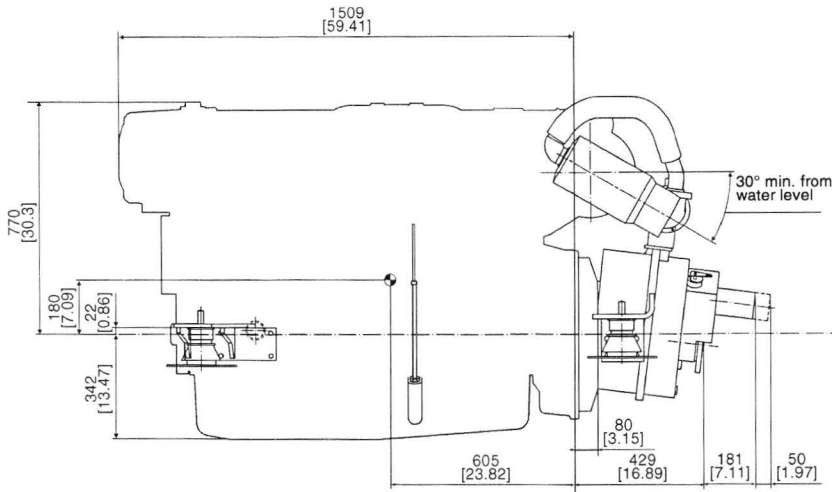
TAMD122P EDC Fuel consumption

1. At full load
2. Based on calculated propeller load



Dimensions TAMD122P EDC with IRM311A

Not for installation



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