

VOLVO PENTA

AB Volvo Penta

Press Information

Reliable. Strong. Fuel efficient. Technological shift with the new Volvo Penta D16

Volvo Penta's new 16-liter engine signifies a technological shift for many in commercial shipping. With the assistance of electronics and state-of-the-art technology, Volvo Penta now has a marine diesel engine with outstanding torque and more than 150 hp in output than its predecessor.

The new Volvo Penta D16 has all the necessary requirements to meet the toughest demands within commercial shipping. The new diesel engine is reliable, fuel efficient, fast – and has a torque that is difficult to surpass.

With a peak output of 750 hp in rating 2, it's a full 150 hp more than its predecessor, but with the equivalent installation dimensions and weight.

New turbo provides massive torque

The high-torque is a result of, among other features, a centrally mounted twin entry turbo that facilitates pulse charging, that is the power from each exhaust pulse is used to produce turbo pressure. Consequently, this generates high torque at low rpm – a full 50 to 90 percent higher than its predecessor.

Manoeuvrability, load pick-up and less load sensitivity – every aspect has been improved thanks to the torque in the new D16.

The new charge-air cooling system is designed for reduced charge-air temperatures, which gives higher torque, reliability and lower emissions.

High fuel efficiency with new electronic engine management

EMS 2 is an electronically controlled engine management system developed by Volvo Penta to meet future emission regulations. The system monitors and regulates a large number of components in the engine, the engine's fuel requirements are also analyzed with high precision up to 100 times a second. EMS 2 optimizes the performance and fuel efficiency, but also results in increased operational safety and improved engine protection.

The unit injectors that enable an injection pressure up to 2000 bar facilitate optimal fuel utilisation. This offers not only improved fuel consumption but also lower emission levels of, for example, nitrogen oxides and particles. The D16 complies with emission regulations for IMO, EPA 2, River Rhine level 2 and DNV's Clean Design.

New generation EVC

EVC is Volvo Penta's internally developed electronic platform for electronic control of shift and throttle, instruments and engine monitoring. The D16 is equipped with the latest generation which facilitates faster exchange of information and even greater safety. It is also possible to integrate EVC in the boat's electronic control system.

Approved for classified installation

All models of the new D16 are type approved by leading classification societies. All vital components, such as electrical systems, crankshafts and fuel systems are constructed and manufactured in accordance with the current classification regulations.

D9, D12 and D16 stand on common ground

"Volvo Penta's 9-, 12- and 16-liter engines have a great deal of technology and components in common and this means that service and maintenance is essentially performed in the same manner, regardless of the engine model. In addition, more filters and spare parts are common, which guarantees extensive access and easier parts stocking," says Anders Hård, Volvo Penta's Project Manager for the D16.

Designers and shipyards will also benefit from the fact that the installation of the different engines has much in common.

Easy service

The new D16 is compact but easily accessible for service and repairs. The daily inspection is easy to complete and the service interval has been lengthened by 500 hours. Just as with all of Volvo Penta's electronically controlled engines, the D16 can be connected to Volvo Penta's diagnostic tool Vodia. For tests, trouble-shooting and diagnostics, Vodia is a user-friendly service tool that fits in your pocket. Vodia can also be used to adjust a multitude of parameters in the engine.

Every engine is tested individually

The D16 is developed jointly for the entire Volvo Group, which results in major coordination advantages and the opportunity to employ the latest diesel engine technology. The engines are manufactured in Volvo's automated engine plant that has designed its assembly line to also perform the marine adjustments necessary, resulting in a high and steady quality.

Each marine engine delivered to a shipyard is first tested individually at Volvo Penta's plant in Göteborg, Sweden. During the tests the engine is equipped in the same way as it would be onboard the boat.

Technical Data

D16 for marine propulsion:

Engine designation:	D16-650MH	D16-750MH
Crankshaft power:	650 hp/478 kW	750 hp/551 kW
RPM:	1800 rpm	1900 rpm
Max torque:	3255 Nm	3263 Nm
Displacement:	16.12 litres	16.12 litres
Dry weight, excl. transmission:	1750 kg	1750 kg
Classification:	Rating 1	Rating 2

No. of cylinders and configuration: In-line 6 cylinder with turbocharger and electronically controlled unit injectors.
Emissions: Complies with regulations IMO, EPA2, Rhine River Step 2 and DNV's Clean Design

D16 for marine genset

Engine designation:	D16MG	D16MG
Crankshaft power:	450 kW	500 kW
Rpm:	1500 rpm	1800 rpm
Displacement:	16.12 litres	16.12 litres
Dry weight (bobtail):	1750 kg	1750 kg

No. of cylinders and configuration: In-line 6 cylinder with turbocharger and electronically controlled unit injectors.
Emissions: Complies with regulations IMO, EPA2, Rhine River Step 2 and DNV's Clean Design

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For further information, please contact Ann-Charlotte Emegård, AB Volvo Penta, phone: +46 31 66 84 18, E-mail: ann-charlotte.emegard@volvo.com

D16



[High resolution picture](#)

Volvo Penta, med fler än 5.000 återförsäljare i mer än 130 länder, är en världsledande tillverkare av motorer och kompletta drivsystem för marint och industriellt bruk. Motorprogrammet består av diesel- och bensinmotorer i effektområdet 10-2.000 hk. Volvo Penta ingår i Volvokoncernen, en av världens ledande tillverkare av lastbilar, bussar, anläggningsmaskiner, drivsystem för marina och industriella applikationer samt komponenter och tjänster för flygplan och flygmotorer. Volvokoncernen tillhandahåller också kompletta finansiella tjänster.