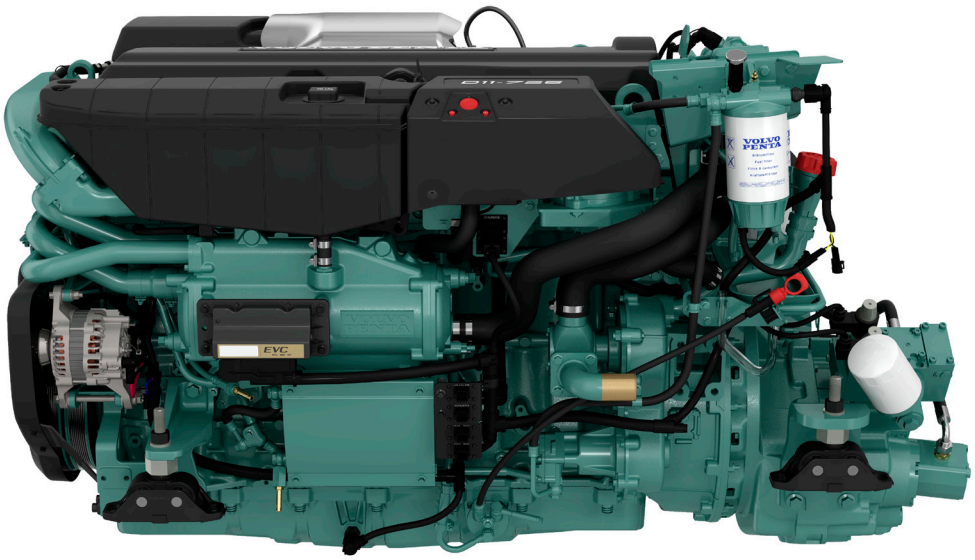
VOLVO PENTA

VOLVO PENTA **INBOARD DIESEL**

D11-510/625

10.8 liter, in-line 6 cylinder



Technical Data

Engine designation	D11-510	D11-625
No. of cylinders and configuration	in-line 6	in-line 6
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with charge air cooler	
Bore/stroke, mm (in.)	123/152 (4.84/5.98)	123/152 (4.84/5.98)
Displacement, l (in^3)	10.84 (661.3)	10.84 (661.3)
Compression ratio	16.5:1	16.5:1
Dry weight bobtail, kg (lb)	1172 (2584)	1172 (2584)
Crankshaft power, kW (hp)	374 (510) @2250 rpm	459 (625) @2400 rpm
Max. torque, Nm (lbf.ft)	1876 (1384) @1800 rpm	2178 (1607) @1600 rpm
Emission compliance	IMO NOx, EU RCD Stage II, US EPA Tier 3, China 2	
Rating	R3*	R4**
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204	
Specific fuel consumption, g/kWh (lb/hph)	214 (0.347) @2250 rpm	214 (0.347) @2400 rpm
Flywheel housing/SAE size	11.5”/SAE 2	11.5”/SAE 2

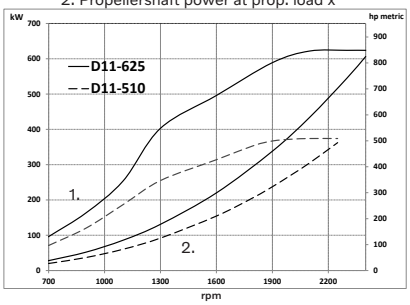
Technical data according to ISO 8665. With fuel having an LHV of 42700 kJ/kg and density of 840 g/liter at 15 °C (60 °F). Merchant fuel may differ from this specification which will influence engine power output and fuel consumption.

* RATING 3. For commercial vessels or craft with high demands on speed and acceleration, planing or semi-planing hulls in cyclical operation.

**RATING 4. For light planing craft in commercial operation.

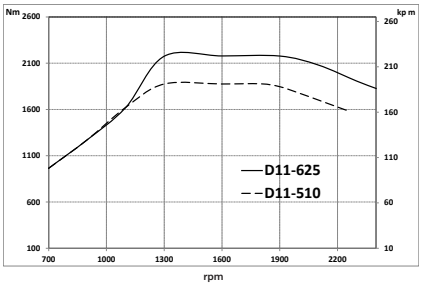
Power

1. Crankshaft power
2. Propellershaft power at prop. load x^{2,5}



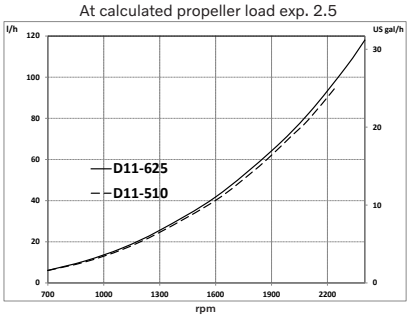
Torque

Torque measured at crankshaft



Fuel consumption

At calculated propeller load exp. 2.5



D11-510/625

10.8 liter, in-line 6 cylinder

Technical description

Engine and block
- Cylinder block made of cast iron
- One-piece cast-iron cylinder head
- Ladder frame fitted to engine block
- Replaceable wet cylinder liners and valve seats/guides
- Drop forged crankshaft with induction hardened bearing surfaces and fillets with seven main bearings
- Four-valve-per-cylinder layout with overhead camshaft and center position of unit injectors
- Each cylinder features cross-flow inlet and exhaust ducts
- Gallery oil-cooled cast aluminum alloy pistons with three piston rings
- Rear-end transmission

Engine mounting
- Flexible engine mounting (option)

Lubrication system
- Integrated oil cooler in cylinder block
- Symmetrically positioned twin full flow oil filter of spin-on type and by-pass filter

Fuel system
- Electronic high pressure unit injectors
- Gear-driven fuel pump and injection timing
- Electronically controlled central processing system (EMS – Engine Management System)
- Single fine fuel filter of spin-on type, with water separator and water alarm

Air inlet and exhaust system
- Mid-positioned twin entry turbocharger with aftercooler
- Air filter with replaceable inserts
- Wet exhaust elbow (option)
- Loss of sea water alarm

Cooling system
- Seawater-cooled tubular heat exchanger
- Coolant system prepared for hot water outlet
- Easily accessible seawater impeller pump in rear end

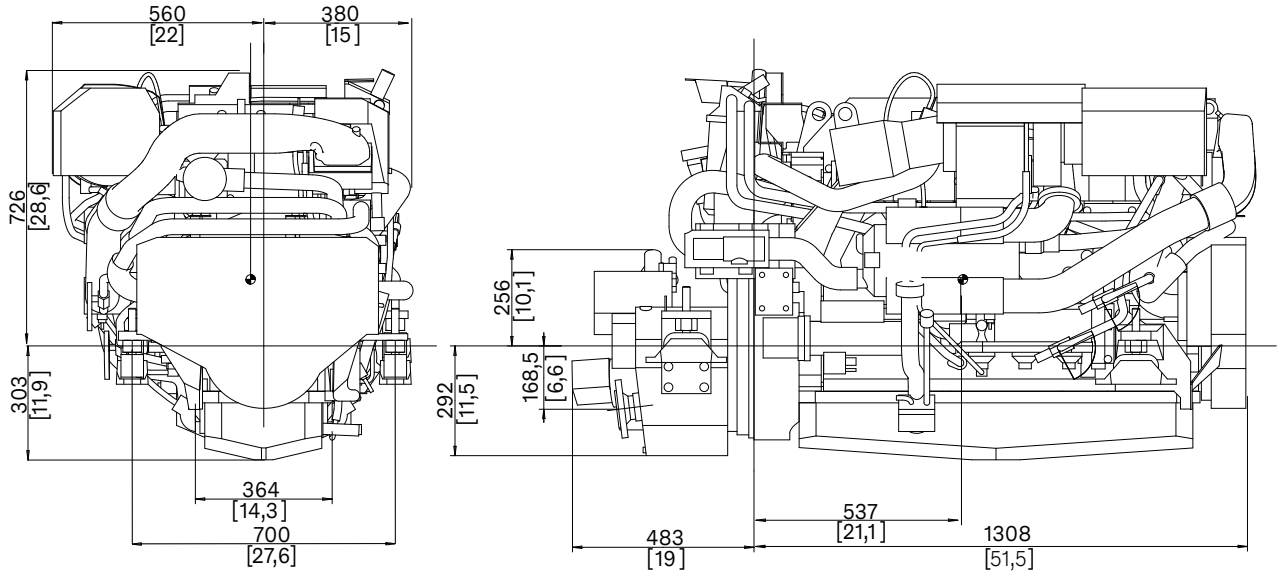
Electrical system
- 24V with extra 12V/115A or 24V/80A alternator

Instruments/controls
- Complete instrumentation/display packages, including e-key, the electronic key from Volvo Penta.
- Electronic remote control for throttle and shift
- Plug-in connectors

Gear box
- ZF305-3A-E, ZF325IV-E, electronically shifted
- Low speed available as option

Dimensions D11-625 with ZF305-3A-E

Not for installation



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.

Contact your local Volvo Penta dealer for more information regarding Volvo Penta engines and optional equipment/ accessories or go to www.volvopenta.com

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