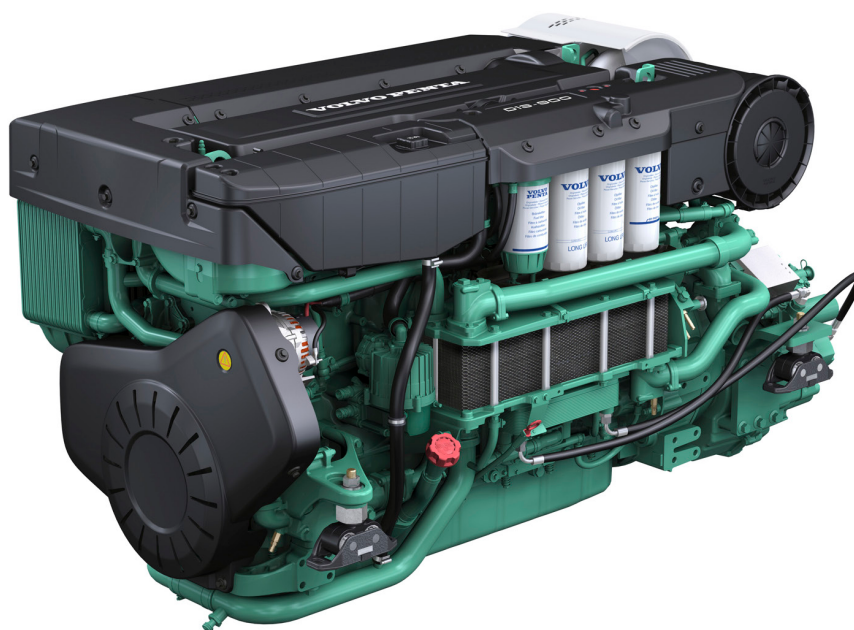


VOLVO PENTA INBOARD DIESEL

D13-700/800

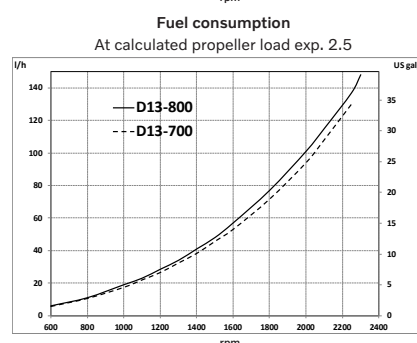
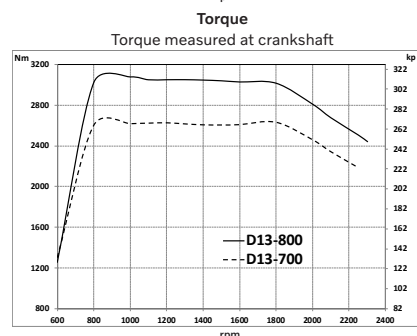
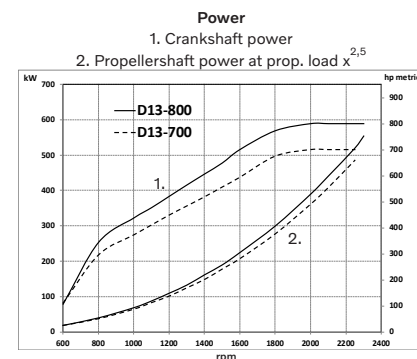
Emission compliance: IMO Tier III and US EPA Tier 3



Technical Data

Engine designation	D13-700	D13-800
Configuration	in-line 6	in-line 6
Bore/stroke, mm (in.)	131/158 (5.16/6.22)	131/158 (5.16/6.22)
Displacement, l (in ³)	12.78 (779.7)	12.78 (779.7)
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with charge air cooler	
Compression ratio	17.1:1	17.1:1
Dry weight bobtail, kg (lb)	1625 (3583)	1625 (3583)
Crankshaft power, kW (hp) @ rated speed	515 (700) @2250	588 (800) @2300
Max. torque, Nm (lbf.ft)	2631 (1941) @1800 rpm	3048 (2248) @1300 rpm
Emission compliance	IMO Tier III, US EPA Tier 3	IMO Tier III, US EPA Tier 3
Rating	R2*	R3*
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204. Max 1000PPM.	
Flywheel housing/SAE size	14"/SAE1	14"/SAE1

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. *Ratings R2 & R3, see explanation in Volvo Penta's Product Guide.



D13-700/800

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
- Monotherm steel pistons
- Rear-end transmission

Engine mounting

- Flexible engine mounting

Lubrication system

- Integrated oil cooler in cylinder block
- Rear 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

Air inlet and exhaust system

- Twin entry turbo technology with freshwater-cooled charge air cooler
- Air filter with replaceable inserts
- Wet exhaust elbow (option)
- Loss of sea water alarm

Cooling system

- Seawater-cooled plate heat exchanger
- Coolant system prepared for hot water outlet
- Easily accessible seawater pump in rear end of flywheel housing

Electrical system

- 24V/110A plus an optional extra 12V/115A alternator

Electronic Vessel Control

- A type-approved system with integrated controls and features

Reverse gear

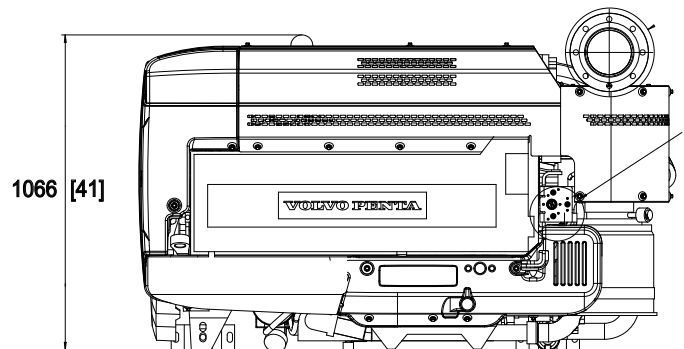
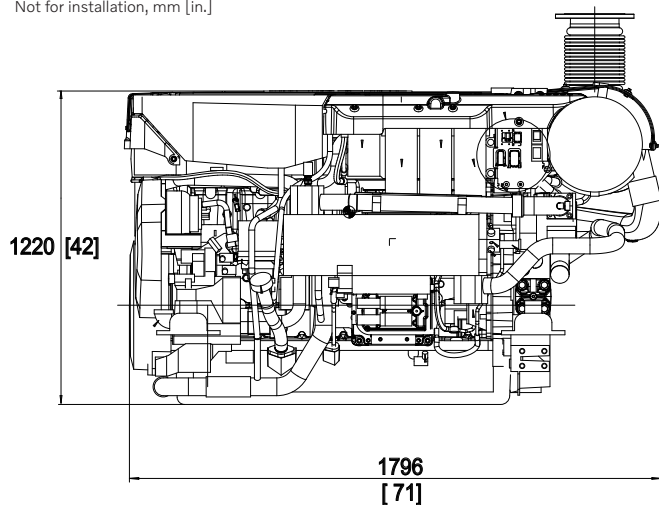
- ZF325-1AE, with low speed as option, electronically shifted
- MGX-5096A, with QuickShift® and low speed as standard, electronically shifted

Exhaust aftertreatment system

- SCR (Selective Catalytic Reduction)
- Aqueous UREA solution 32% or 40%
- Complete system – developed, certified, and serviced by one company
- Fully integrated capabilities
- Prop-to-helm system (IPS)
- SCR unit reduces noise by up to 35 dBA
- Wide range of installation options available

Dimensions

Not for installation, mm [in.]



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 visit
www.volvopenta.com



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