

## VOLVO PENTA INBOARD DIESEL

# D13-700/800

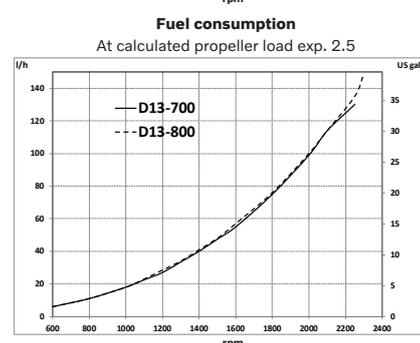
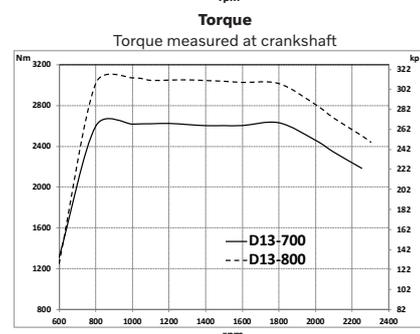
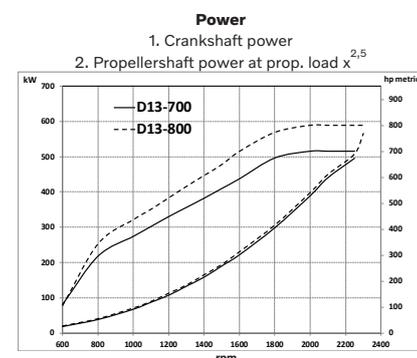
Emission compliance: IMO Tier III and US EPA Tier 3



### Technical Data

	D13-700	D13-800
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 <sup>3</sup> )	12.78 (779.7)	12.78 (779.7)
Compression ratio	16.5:1	16.5:1
Dry weight bobtail, kg (lb)	1450 (3197)	1450 (3197)
Crankshaft power, kW (hp) @ rated speed	515 (700) @ 2250	588 (800) @ 2300
Max. torque, Nm (lbf.ft) @ 1400 rpm	2604 (1921)	3040 (2242)
Emission compliance	IMO Tier III, US EPA Tier 3	IMO Tier III, US EPA Tier 3
Rating	R3*	R4*
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204. Max 1000PPM.	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204. Max 1000PPM.
Flywheel housing/SAE size	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 R3 & R4, 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
- Gallery oil-cooled cast aluminum alloy pistons with three piston rings
- 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 fresh-water-cooled charge air cooler
- Air filter with replaceable inserts
- Wet exhaust elbow/riser (option)

### 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 24V/110A alternator

### Electronic Vessel Control

- A type-approved system with integrated controls and features

### Reverse gear

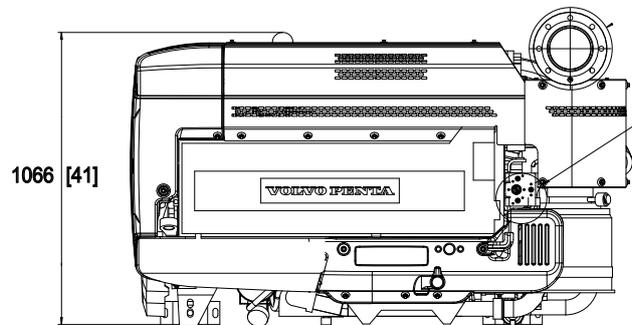
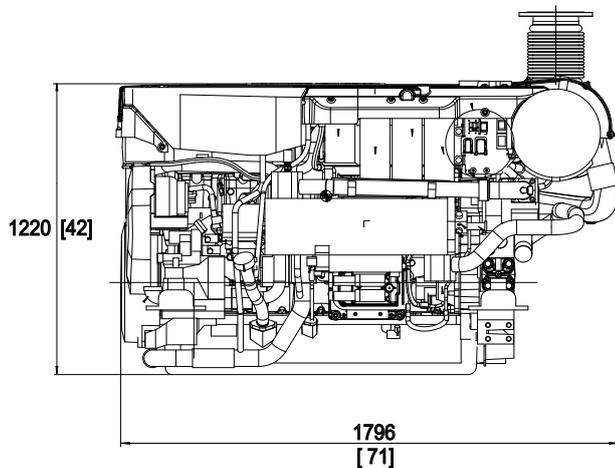
- ZF325-1AE, with low speed as option, electronically shifted
- MGX-5096A, with QuickShift® and low speed as standard, electronically shifted

### 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](http://www.volvopenta.com)

# VOLVO PENTA

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