

# D13-700



## Technical Data

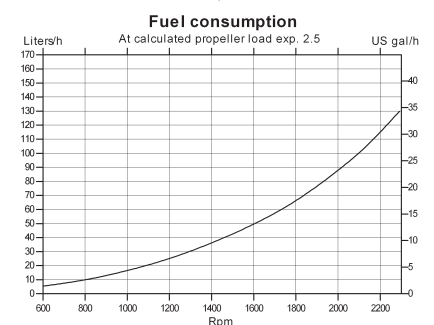
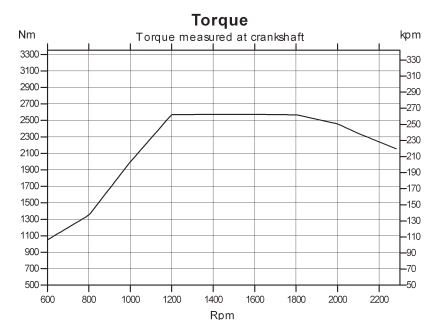
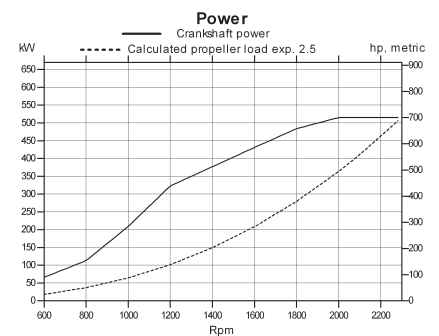
Engine designation	D13-700
No. of cylinders and configuration	in-line 6
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with charge air cooler
Bore/stroke, mm (in.)	131/158 (5.16/6.22)
Displacement, l (in <sup>3</sup> )	12.78 (779.7)
Compression ratio	16.5:1
Dry weight bobtail, kg (lb)	1450 (3197)
Crankshaft power, kW (hp) @ 2300 rpm	515 (700)
Max. torque, Nm (lbf.ft) @ 1200 rpm	2930 (2162)
Emission compliance	IMO NO <sub>x</sub> , EU RCD, US EPA Tier 3*
Rating	3**
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204
Specific fuel consumption, g/kWh (lb/hph) @ 2300 rpm	212 (0.343)
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.

\* Pending EPA approval

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



**VOLVO  
PENTA**

# D13-700

## 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 freshwater-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

### Instruments/controls (option)

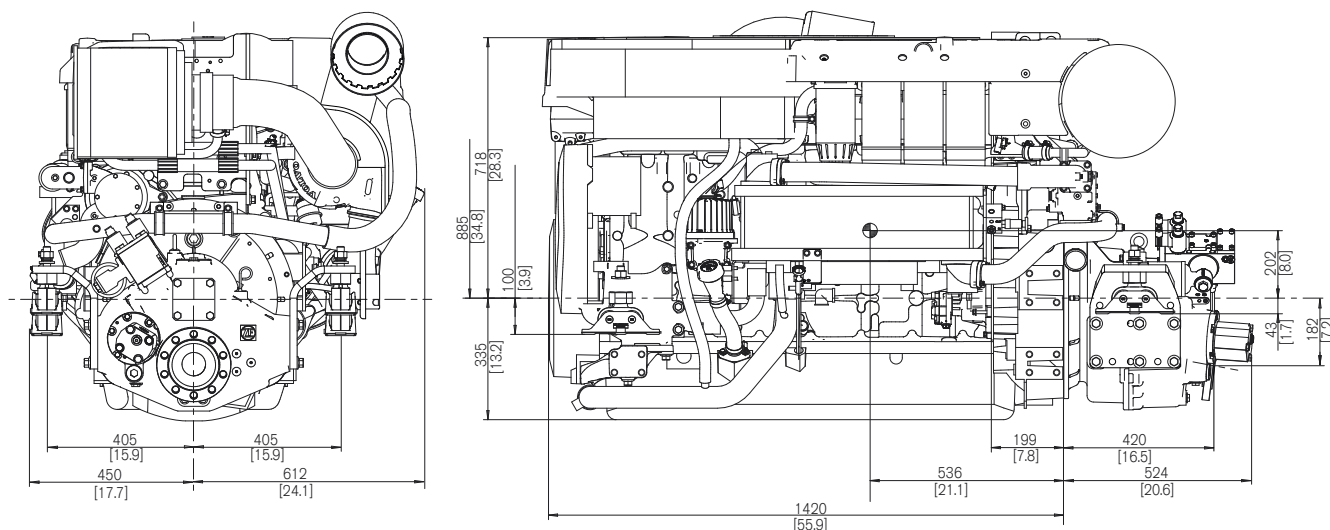
- Complete instrumentation including key switch and interlocked alarm
- EVC monitoring panels for single or twin installations
- Electronic shift and throttle
- Plug-in connectors
- EVC system color display

### Reverse gear

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

## Dimensions D13-700 with ZF325-1AE

Not for installation



## More information

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)



IOS



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# VOLVO PENTA

**AB Volvo Penta**

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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.