

# VOLVO PENTA INBOARD DIESEL

# TAMD165C

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine with aftercooler – crankshaft power\* 375 kW (510 hp)

\* Power rating – see Technical Data

## Top technology for extreme demands

Dimensioned for high outputs. Built on the dependable in-line six with four valves per cylinder.

Designed for workboat operation in demanding environments and displacement workboats in Heavy Duty operation (Rating 1).

Particularly suitable for workboat applications due to high torque across a wide speed range.

Fulfills high demands on operational reliability and service life.

Built for effective turbocharging with well matched injection system, thus having good cold starting ability and load acceptance. The engine is also designed for long periods of low load idling.

Extremely well-balanced engine design combined with latest construction technique result in steady and vibrationfree running for highest possible degree of boat comfort.

Comprehensive, well developed modular system for factory-fitted equipment gives perfect matching to specific customer requirements, e.g. reverse gears, PTO's, cooling systems, electrical systems.

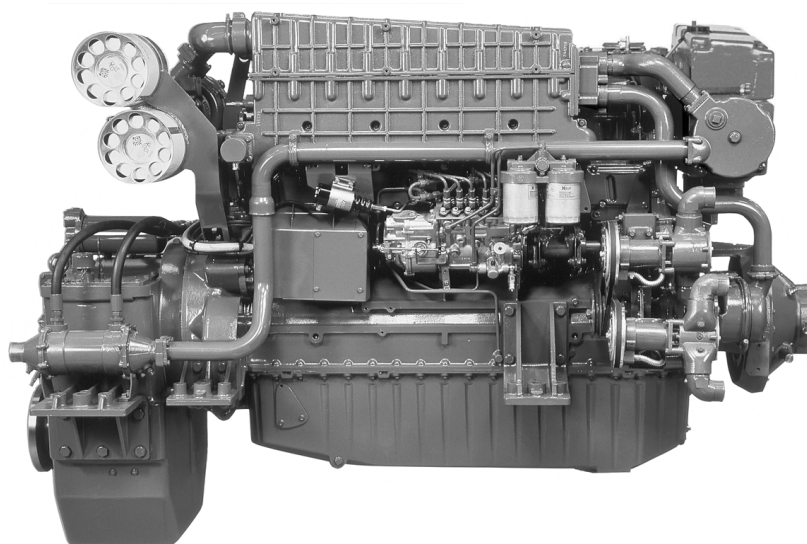
Easily adaptable to comply with the demands of the classification societies and marine authorities concerning operation in unmanned engine rooms.

The engine is certified according to River Rhine emission regulations and complies with MARPOL 73/78 Annex VI (IMO NO<sub>x</sub> Techn. code) and the US/EPA 2004 Marine Commercial regulation.

Large oil volume and easy to service construction for lowest service and maintenance costs.

Well-established service network in more than 100 countries using Genuine Volvo Penta Parts and skilled personnel minimizes non-operational time and costs.

TAMD165C with  
MG516 reverse gear



## Technical description:

### Engine and block

- Cylinder block and cylinder heads made of special cast iron alloy
- Flywheel housing with connection acc. to SAE 1
- Double vibration dampers
- Separate cylinder heads and gasketless sealing
- Replaceable cylinder liners and valve seats/guides. Four valves per cylinder and a centrally located injector provide effective combustion leading to lower fuel consumption.
- Seven-bearing nitrocarburized rigid crankshaft with generously dimensioned bearing surfaces
- Tough, high located, seven-bearing camshaft of special steel. Short stiff push rods, strong valve springs, and roller cam followers
- Piston cooling for minimum carbon deposits and increased piston and liner service life
- Piston rings of keystone type

### Lubrication system

- Deep oil sump with inspection covers
- Twin oil filters of spin-on type, plus by-pass oil filter

- Freshwater-cooled oil cooler
- Oil filler pipe in oil sump

### Fuel system

- Fuel injection pump with centrifugal governor, smoke limiter and fuel feed pump
- Fuel shut-off valve 24V, electrically operated
- Twin fine fuel filters of spin-on type

### Turbocharger

- Freshwater-cooled turbocharger and exhaust manifold

### Cooling system

- Seawater-cooled aftercooler
- Tubular heat exchanger or 1-circuit keel cooling
- Cooling pipes in copper/nickel give greater resistance to corrosion and longer service life
- Gear-driven freshwater pump
- Freshwater filter with anti-corrosive agent

### Electrical system

- 24V 2-pole electrical system incl. 60A alternator with integrated charging sensor
- Rubber-suspended electrical terminal box

# VOLVO PENTA

# TAMD165C

## Technical Data

Engine designation ..... **TAMD165C**  
 No. of cylinders and configuration ..... in-line 6  
 Method of operation ..... 4-stroke, direct-injected, turbocharged diesel engine with aftercooler  
 Bore, mm (in.) ..... 144 (5.67)  
 Stroke, mm (in.) ..... 165 (6.5)  
 Displacement, l (in<sup>3</sup>) ..... 16.12 (983.6)  
 Compression ratio ..... 17:1  
 Dry weight, kg (lb) ..... 1740 (3836)  
 Crankshaft power, kW (hp) 1800 rpm ..... 375 (510)  
 Torque, Nm (lbf.ft) 1800 rpm ..... 1989 (1467)  
 Specific fuel consumption, g/kWh (lb/hph) 1800 rpm ..... 213 (0.345)  
 Recommended fuel to conform to ..... ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204 Rating 1.

Fuel temperature 40°C (104°F).

Technical data according to ISO 3046 Fuel Stop Power and 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.

N.B. The product can also be used in an application with a higher rating than stated, e.g. R1 can be used for R2, R3, R4 or R5.

The engine is certified according to River Rhine emission regulations and complies with MARPOL 73/78 Annex VI (IMO NOx Techn. code) and the US/EPA 2004 Marine Commercial regulation.

## Optional equipment:

### Engine

- Adapter kit for flywheel and flywheel housing acc. to SAE 0
- Flexible suspension for engine and reverse gear

### Lubrication system

- Manual oil drain pump, engine-mounted
- Extra oil dipstick
- Shallow oil sump
- Twin oil filter with shift valve

### Fuel system

- Shift valve for fuel filter
- Twin fuel filter/water separator with shift valve
- Jacketed fuel pipes

### Exhaust system

- Exhaust elbow, dry or wet 8"
- Silencer, dry
- Flexible compensator, dry

### Cooling system

- Seawater strainer
- Adapter for connection of extra expansion tank

### Electrical system

- 24V/100A extra alternator
- Various instrument panels
- Cable harness in different lengths
- Classifiable electrical equipment acc. to IP44

### Power transmission

- Disengageable PTOs, 11.5" crankshaft front end, and 14" crankshaft rear end
- Auxiliary drive
- Extra pulley for crankshaft
- Hydraulic pump for steering and other duties

### Reverse gear

- MG516

### Other equipment

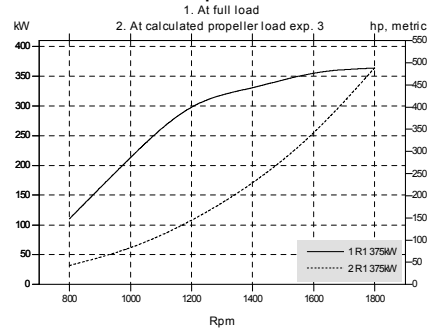
- 2" bilge/flush pump
- Belt guard
- White-painted engine and reverse gear
- Autostop equipment acc. to IP44
- Engine heater 2000 W, separately fitted

Contact your local Volvo Penta dealer for further information.

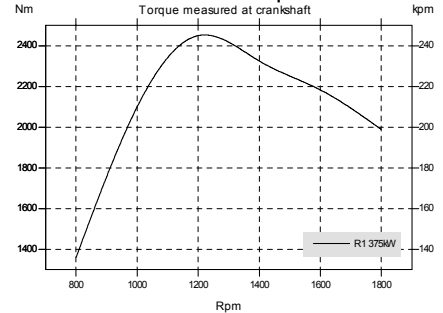
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The engine illustrated may not be entirely identical to production standard engines.

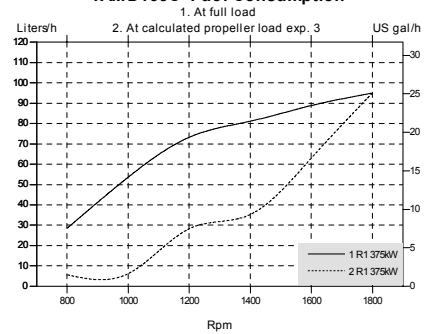
**TAMD165C Propeller Shaft Power**



**TAMD165C Torque**



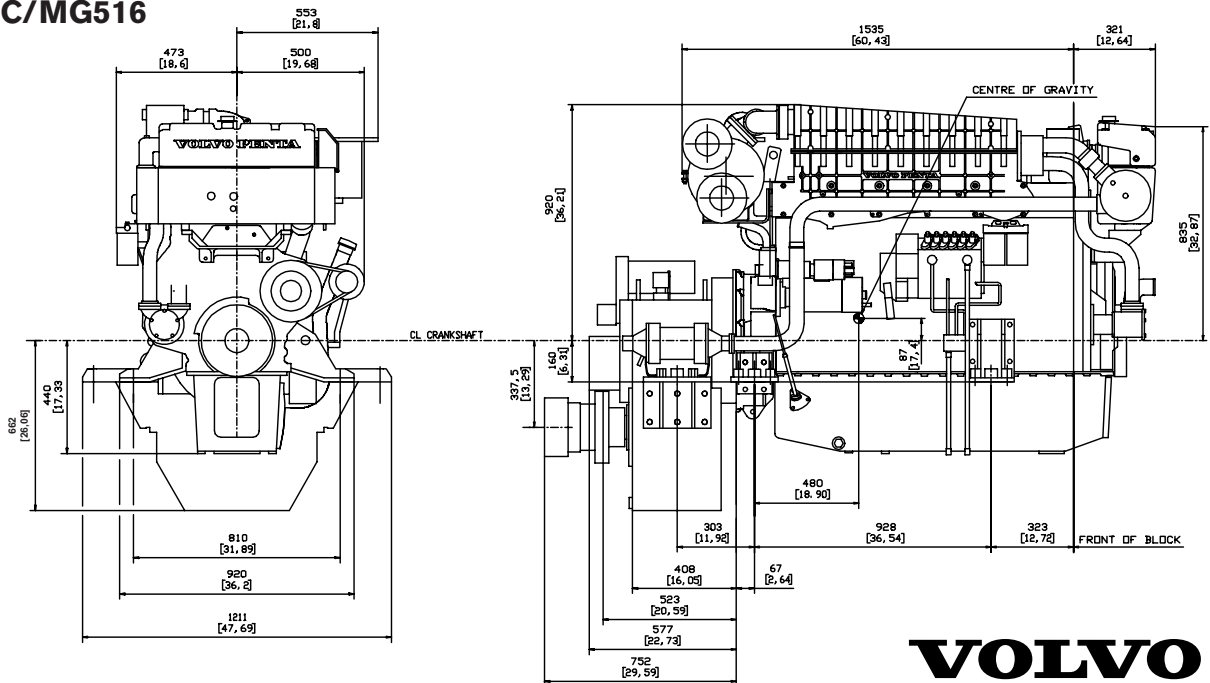
**TAMD165C Fuel Consumption**



## Dimensions

### TAMD165C/MG516

Not for installation.



# VOLVO PENTA

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