

Volvo Penta 740 Series

A new "Big Block" 4-stroke V8 gasoline marine engine with the unique DUOPROP outdrive

Volvo Penta's new 740 marine engine – a 7.4 litre, V8 unit equipped with the unique DUOPROP drive or, as an alternative, with the MS5 gearbox for inboard installation – is a propulsion system which combines high top speed, first class driving comfort and excellent acceleration with fuel economy for a gasoline engine in the big block power class.

This new marine propulsion system boasts a range of practical features designed to help enhance both engine life and boating pleasure. Like all earlier Volvo Penta marine engines the 740 is characterized by particularly "clean" styling which is not only aesthetically appealing but also offers ease of service and even greater reliability.

Located at the front of the engine, the water pump is driven directly by the five bearing crankshaft, while the elevated position of the oil filter simplifies its replacement. The oil filler cap is located on top of the engine, to help decrease the chance of oil spillage. A specially coated oil pan is fitted for increased corrosion protection. The main electrical unit (incorporating an miniature circuit breaker) is located in a conveniently high position on the engine while a practical and well-designed molded "rainhat" helps to protect the carburetor and ignition system.

The cylinder block and head are of a special cast iron which helps minimize the risk of corrosion, while the self-adjusting hydraulic valve lifters help ensure accurate valve clearance and eliminate the need for adjustment. The exhaust system features fully waterjacketed manifolds to help reduce the engine compartment temperature and the breakerless ignition system is of the electronic type to help provide more reliable

starting. With a capacity of 14 V/50A, the alternator is designed especially for marine applications. The system also incorporates a charge regulator sensor.

The engine can also be available with a new and unique **silencer system** which will meet stringent noise requirements. The exhaust system



Volvo Penta 740/DP

provides low back-pressure and thereby minimal performance losses. The system is delivered in complete kits and is very easy to install. Two different designs are offered: One for direct connection to the stern and another where the outgoing exhaust gases are either led out through the stern or hull.

The unique qualities of the DUOPROP outdrive are utilized to maximum advantage in today's performance cruisers for single or twin installations. The drive is designed especially to match the high torque developed by the 740 engine with its 1.78:1 ratio and for this reason stainless steel propellers, are used as standard.

The Volvo Penta DUOPROP is a unique system featuring dual counter rotating propellers one behind the other – a configuration which produces a combination of low steering force, low noise levels, reduced planing threshold, excellent acceleration and low fuel consumption. Computer display instrument is standard, monitoring the trim and beach angle and with a digital display indicating the exact position of the outdrive under all running conditions.

The engine is also available with the Volvo Penta MS5 reversing gearbox for inboard installations. With ratios of 1.5:1, 1.9:1 and 2.4:1, this gear has been designed especially for the 740 Series. In addition to its high efficiency, the gearbox may be operated continuously in either direction. The unit has an output shaft with a down angle of 8° to minimize installation height. Standard equipment includes oil pressure and cooling water temperatures sensors, while a new type of reversible exhaust gas risers have been developed for improved flexibility of installation.

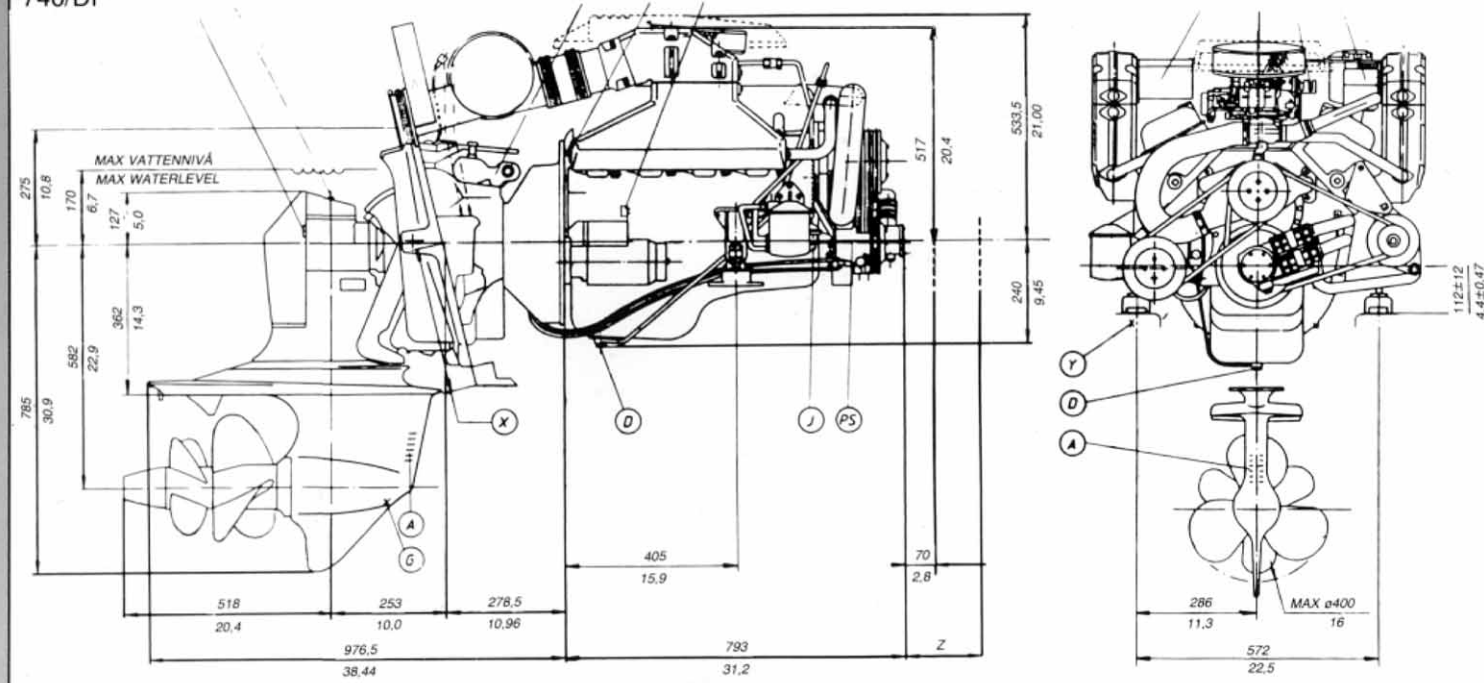
The 740 – Volvo Penta's new V8 powerplant – leaves nothing to be desired in terms of top speed, acceleration or fuel economy. This "Big Block" engine is an exciting new development for all boating enthusiasts who demand the ultimate in performance.



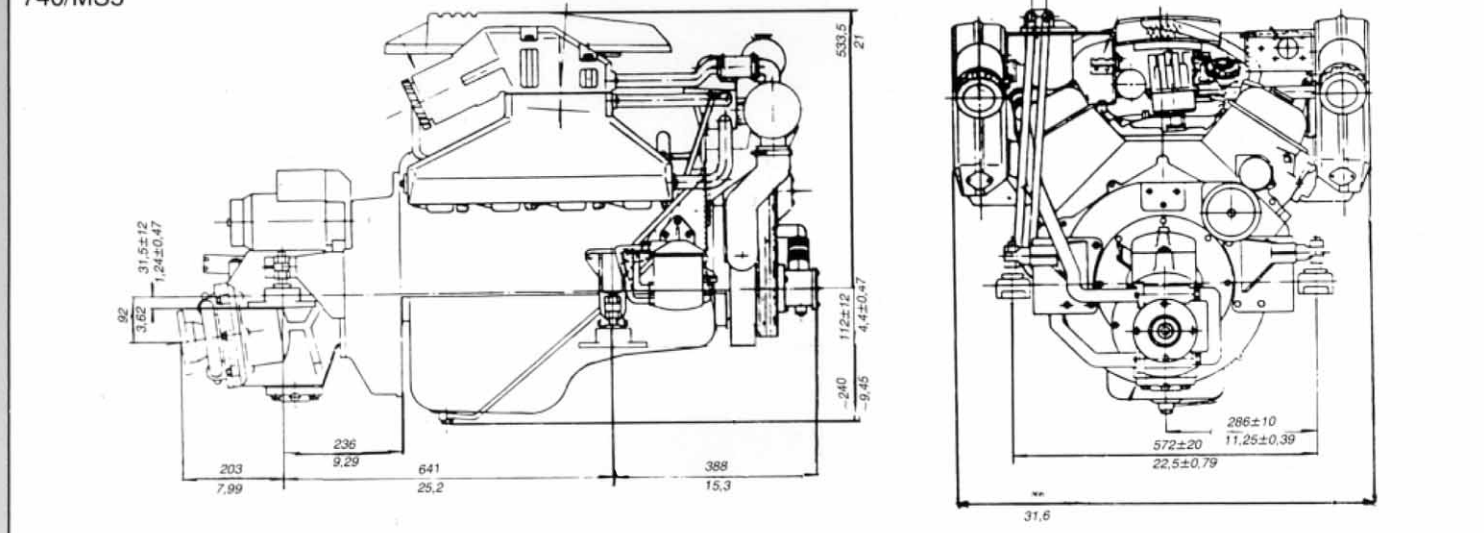
Volvo Penta 740/MS 5

DIMENSION DRAWINGS (mm/inch.)

740/DP



740/MS5



ENGINE DATA

Engine Designation: Sterndrive:	740/DP
Inboard:	740/MS5
Type/Number of Cylinders:	V8
Bore/Stroke:	108×101.6 mm (4.25/4.00)
Displacement:	7.4 Litres (454 cu.in.)
Compression Ratio:	8.0:1
Idling speed:	750 r/min
Crankshaft power	243 kW (330 h.p.)*
Propeller shaft power	220 kW (300 hp)*
Max. Speed Range:	4000–4400 r/min
Fuel Grade:	91 octane RON, RON + MON/2 = min. 87 octane
Outdrive, Type/Ratio:	DUOPROP, 1.78:1
Gear Box/Ratios:	MS5, 1.5:1, 1.9:1, 2.4:1
Dry Weight, Engine + DUOPROP:	522 kg (1150 lbs.)
Dry Weight, Engine + MS5:	456 kg (1005 lbs.)

*Prop. shaft power acc. to ISO 8665 or acc. to the technically identical standards SAE J1228 and ICOMIA 28-83.
Crankshaft power acc. to SAE J607.
Crankshaft power acc. to ISO 8665.
Usable power will be reduced by transmission or gearbox losses.

Power rated in accordance with NMMA procedure.
The power will be different for other optional configurations.
The Duoprop drive enables utilization of about 10% higher propeller thrust at full throttle when compared with a Singleprop drive.
Prop. shaft power indicated at mid of recommended speed range (gasoline models).

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