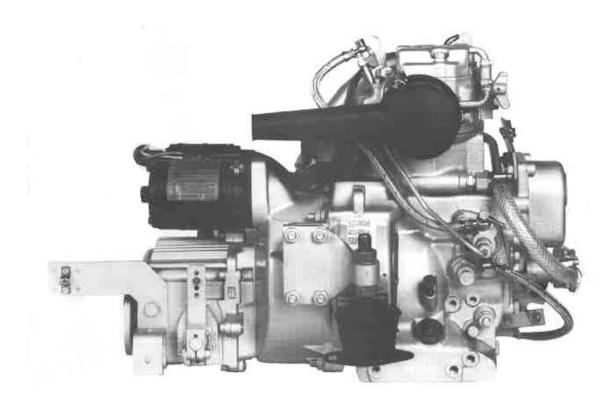
Workshop Manual BMW D7





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BMW D7 Marine Engine

A four-stroke diesel engine with direct injection and open-circuit cooling system. The Neoprene impeller of the coolant pump is driven directly from the crankshaft. Electric starter and flywheel alternator are standard equipment. The injection system is fitted with automatic bleeding.

Notes on Use

This workshop manual describes complete procedures for dismantling, overhaul and assembly of the BMW D7 marine engine.

If only part of the procedure is to be carried out (e.g. small repairs or replacement of gaskets, oilseals) the remainder can be ignored.

The relevant technical data is provided with each section. General specifications are found on page iii.

Assembly is generally a reversal of removal procedure. Special attention, however, should be paid to "notes on assembly".

Checking and adjustment procedures, where applicable, are to be found at the end of the relevant section.

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General

Technical data

Capacity
Bore x stroke
Max. power
Compression ratio
Dry weight with gearbox
Gearbox reduction
Max. installation angle

forward 2.7:1, reverse 1.9:1

22:1

Specifications

Fuel
Lubricating oil, engine
gearbox
Oil capacity, engine
gearbox
Fuel filter
Air filter
Injector

Injection pressure Injection pump Starter motor Generator Battery Gearbox

Adjustment data

Injection ends Valve clearances, cold

Torque settings

Cylinder head nuts M 8	40
Connecting rod screws	40
Counter weight screws	22
M 6 hex nut for the mounting of the injector Flywheel bolts M 10 Injection pump delivery valve M 6 hex head screw for fastening bearing cover retaining yoke on the flywheel side	10 70 40 10
Nozzle nut	85

Diesel oil, DIN 51601/USA #2

73 mm x 67 mm / 2.87 in x 2.64 in 4.5 kw / 6 bhp @ 3600 rpm

HD-API CC/CD

68 kg / 150 lbs

280cc / 17.1 cu.in.

Hurth ATF Dexron - ZF SAE 20 W 20 2 litres / 3.5 pints UK / 4.4 pints US 0.4 litres / 0.7 pints UK / 0.85 pints US

BMW 13 32 1 328 270 BMW 13 71 1 329 269

Bosch 135 + 8 bar

Bosch PFR 1 K 70 A 343/II

Bosch 0.8 kw 14V 350W 25A 12V 60 Ah

Hurth HBW5 - ZF Bw 3

11.5° - 12.5° BTDC 0.15 mm / .006 in.

kpm

4.0

4.0

2.2

1.0 7.0 4.0 1.0

8 - 9

Remarks

in the oil space!

insert lightly

insert lightly

Use permanently elastic sealing compound (e.g. Atmosit) on the stud screws

Oil threads and screw head

Oil threads and screw head

Nm

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