

**The BMW D50-1/D50-2
Marine Engine:
33 kW (45 bhp).
Particularly suitable for
sailing yachts and
motor sailers
up to approx
12 metres (40') and
12 tons –
and for displacement
motor boats up to
approx 4 tons.**

With its numerous merits, this marine diesel is virtually beyond comparison: Three cylinders and an additional compensation shaft give a standard of running smoothness similar to that of a 6-cylinder power unit. Designed from the very beginning for marine applications, this engine saves space and weight and may be operated at a permanent angle of heel of up to 30°. The special combustion chamber design combined with direct fuel injection gives an optimum combustion process and minimum consumption (only 9.5 ltr/2.1 Imp gals per hour at maximum output). The special mounts developed for sailing boats in particular incorporate extra-large silent blocks and allow installation of the engine with a low centre of gravity. Also available with twin-circuit cooling (D50-2).

Special features:

- Exceptional smooth running due to compensation shaft
- Low power-to-weight ratio
- Thermostat-controlled salt water cooling of the D50-1 to provide a constant operating temperature
- New compact twin-circuit cooling system of the D50-2 with integrated header tank and heat exchanger to provide optimum corrosion-proofing. Warm water supply capability
- Low fuel consumption: 9.5 ltr/2.1 Imp gals per operating hour at maximum output
- Salt water impeller pump driven directly by engine, no V-belt required
- Bosch single-element fuel injection pump with mechanical control and self bleeding, inexpensive maintenance

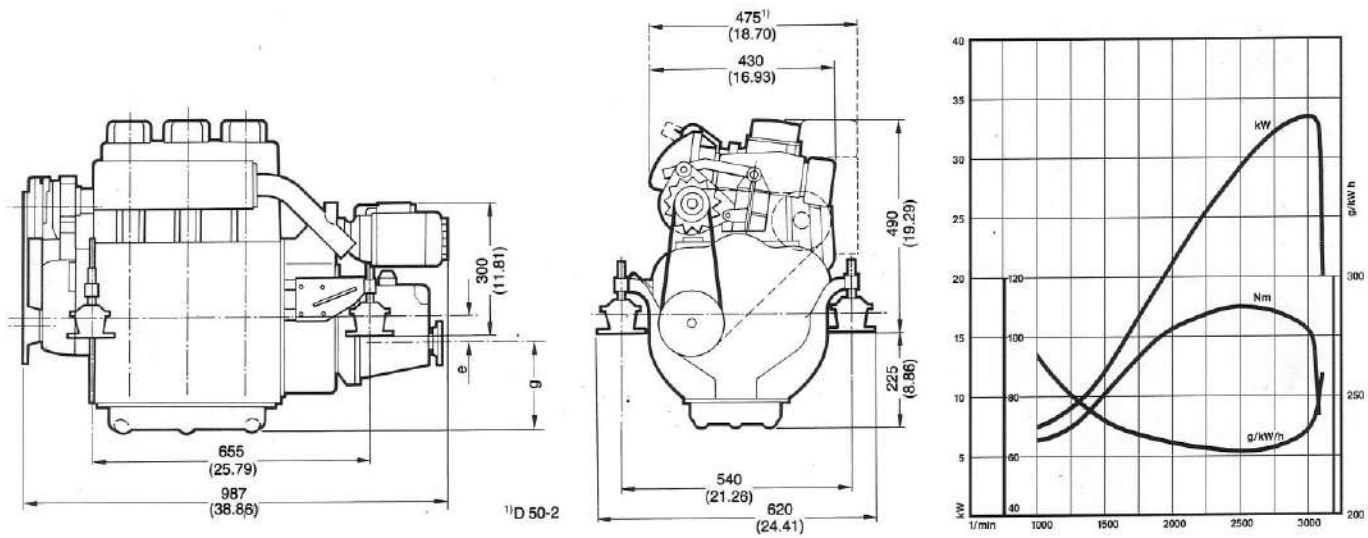
- Engine runs perfectly even with heel angle of 30°
- High-output alternator and starter
- Optimum corrosion-proofing through three zinc anodes and two-component paintwork
- Electrical wiring complying with the strict US Coast Guard regulations, resettable fuses to provide extra safety against overload
- Wide range of instruments
- Reversing-type gearbox with various reduction-ratio gears for all applications
- Engine and gear box prepared by the factory for single-lever remote control of throttle and gear shift
- Fuel filter with water separator
- Electrical engine cut-off switch fitted as standard

Conclusion:

The D 50 has a wide range of exceptional advantages. This applies not only to the D 50 but to all marine engines that bear the symbol of progressive engineering. BMW's complete range of marine engines for sailing boats and motor yachts offers all kinds of options and a wide choice of diesel and petrol units. You can choose from a wide range of optional extras and accessories to meet your personal requirements. And to make sure that you enjoy sheer boating pleasure for a long time to come, BMW Marine's international dealer organization has trained marine technicians at your service as well as a reliable and quick supply of parts.

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Specifications D 50-1 (single-circuit cooling) D 50-2 (twin-circuit cooling)

Displacement and output (DIN 6270 B)	Displacement 2124 cc (129.6 cu in) Stroke 100 mm (3.94"), bore 95 mm (3.74") Max continuous output 33 kW (45 bhp) at 3000 rpm Max torque 110 Nm (81 ft/lb) at 2500 rpm Compression ratio 19:1 Wide-open throttle neutral 3200 rpm
Design and installation	Four-stroke diesel engine with direct fuel injection 3-cylinder inline engine in upright position, forged-steel crankshaft. Additional compensation shaft to prevent engine vibrations Max installation angle 15° Engine supported by four flexible mounts
Weight	Dry weight of the complete engine (including reversing-type gearbox) D 50-1 292 kg (642 lb) D 50-2 313 kg (689 lb)
Valve drive	Camshaft, tappets, tappet rods and rocker arms located next to engine block; inclined valves in vertical, parallel arrangement
Lubrication	Forced-feed lubrication via gear-type pump, replaceable filters and oil cooler
Fuel supply system	Bosch fuel injection, automatic self bleeding system Ultra-fine filters with water separator, fuel supply pump with additional manual control Air filter with air intake silencer
Engine cooling	D 50-1 Impeller water pump connected directly to the crankshaft D 50-2 Water pump for freshwater circuit and connection for warm water supply through calorifier, if desired
Electrical system	14 V, 74 A alternator 1.9 kW, 12 V starter Complete wiring and multi-pin plug
Power transmission	Torsion damper between engine and gearbox
Reversing-type gearbox	Reversing-type gearbox with neutral position, forward and reverse, right hand rotation Gear ratios: Standard forwards 1.9:1; reverse 1.9:1 optional gear ratios HBW 150, 2.6:1, HBW 250, 1.9:1 and 2.7:1 V-drive HBW 150 V, 2.1:1 and 3:1
Standard fittings	Fuel system with automatic self bleeding; zinc anodes; wiring harness; Instrument panel with starter switch, voltmeter, rev counter with hour meter, indicator lights for water temperature, oil pressure and battery charge; rheostat for instrument panel illumination; electrical engine cut-off switch; instrument fuses; toolkit Additional fittings on D 50-2: Water temperature gauge; blank holes for additional instruments; warning buzzer for water temperature and oil pressure
Optional fittings	Single-lever gear shift and throttle control with cables complete stern gear and exhaust system; various additional instruments Subject to change in design and technical features

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