

**The BMW B 220 Z Marine Engine with stern drive: 140 kW (190 bhp). Particularly suitable for fast planing cruisers up to approx 2.2 tons. In both single and twin installations.**

The ultimate 6-cylinder inline marine engine. An engine that sets a new standard in terms of displacement relative to power and performance and provides unparalleled turbine-like running smoothness. The BMW 220 is extremely light for its class. It excels by its compact dimensions, real fuel economy, twin-

circuit cooling system and a wide range of standard equipment – not to mention the genuine value this engine offers for your money.

**Special features:**

- Superior, modern engine design
- Above-average fuel economy
- Minimum power losses thanks to optimized fuel/air mixture flow
- Maximum Performance due to BMW design cross-flow and valve arrangement
- Triple hemispherical swirl-action combustion chamber
- Modern, compact twin-circuit cooling for excellent corrosion-proofing, stable running temperature to provide optimum combustion and, as a result, a considerable reduction in exhaust emissions, simpler service in winter
- Raw water pump with rubber impeller driven directly by the camshaft – no need for the additional V-belt otherwise required
- Fuel pump with steel pipes and connections: safety advantage
- The BMW flame-arrestor ensures safety and an efficient air intake silencer
- The entire electrical system complies with US Coast Guard regulations – the strictest regulations in the world
- Excellent running characteristics and outstanding smoothness thanks to the careful balancing of the crankshaft
- Engine fitted on three rubber mounts adjustable for height at the front
- High-output alternator

- Complete range of standard fittings, such as: stern drive with power trim including display (allows efficient boat trimming and, as a result, maximum fuel economy). Wide range of instruments (including, hour meter, voltmeter and warning buzzer for oil temperature, coolant temperature and trim control, all fitted as standard)
- Patented multiple-disc clutch for smooth gear shifting characteristics (allows in cases of emergency direct shift from forwards to reverse even at higher engine speeds)
- Helical bevel gears at top and bottom: smooth running and a long service life
- Full-circulation lubrication by built-in oil pump both in forward and reverse. No lubrication points on the stern drive

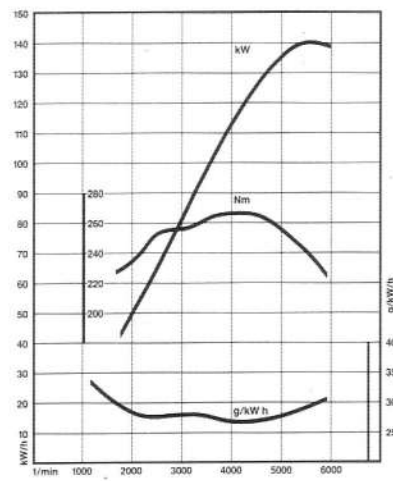
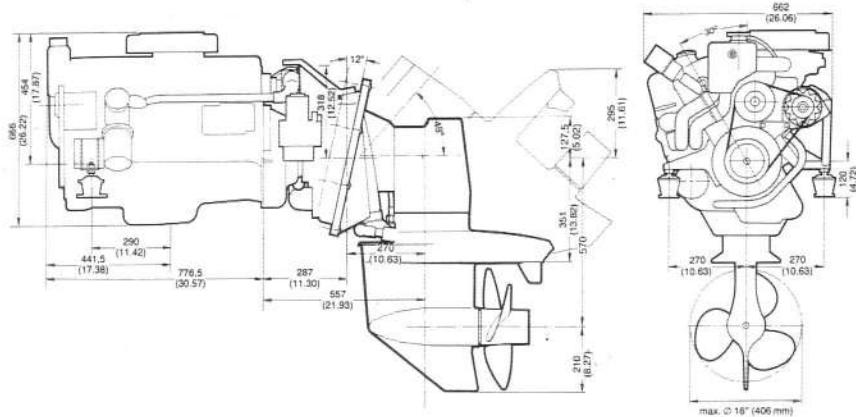
**Conclusion:**

The B 220 has a wide range of exceptional advantages. This applies not only to the B 220, but to all marine engines that bear the symbol of progressive engineering. BMW's complete range of marine engines for motor yachts and sailing boats 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.

**V12 Engineering**

Box 50, Ontario, Canada P0X 1C0

[www.bmwmarine.net](http://www.bmwmarine.net)



## Specifications B 220 Z

Displacement and output (DIN 6270 B)	Displacement 3205 cc (195.5 cu in)
	Stroke 86 mm (3.38"), bore 89 mm (3.50")
	Max output 140 kW (190 bhp) (220 SAE hp) at 5500 rpm
	Max torque 280 Nm (195 ft/lb) at 4000 rpm
	Compression ratio 8.4 : 1
Design and installation	6-cylinder 4-stroke inline engine with overhead camshaft, inclined valves in V-arrangement, forged and heat-treated steel crankshaft
	12 balance weights and 7 main bearings with two oil supply holes each
	Engine inclined at an angle of 30°
	Three-point suspension; adjustable at the front, ring-shaped engine mount at the rear
Weight	Dry weight of engine only 253 kg (556 lb)
	Weight of stern drive including transom plate 74 kg (163 lb)
	Weight of complete, engine and stern drive unit 327 kg (719 lb)
Valve drive	Valve drive via rocker arms and overhead camshaft. Chain drive system with automatic, oil-damped chain tensioner and backlash guard
Lubrication	Forced-feed lubrication with full-flow filter and pressure control valve in filtered oil circuit, rotor oil pump driven by chain from crankshaft
	Full-flow filter with paper insert and check valve
Fuel supply system	Solex 4 A 1 dual register carburettor
	Fuel supply by mechanical fuel pump
	Air filter with flame-arrestor and air intake silencer
	Fuel: standard-grade, minimum rating 93 octane
Engine cooling	Twin-circuit cooling system with independent circuits
Electrical system	770 W, 14 V, 55 A alternator
	All electrical equipment protected against salt water
Power transmission	Torsion damper and universal joint; drive power transmission through multiple-disc clutch
Outboard drive system/ stern drive	Gear ratio: 1.95 : 1 right and left hand propeller rotation capability
	Max propeller dia 16" (406 mm)
	Max steering angle ± 30°
	Elevation angle for transport position 48°
	Electro-hydraulic elevation and trim system, trimmable up to an engine speed of 5500 rpm
Standard fittings	Engine with complete wiring and multiple-plug connections, 6-m wiring harness. Instrument panel with rev counter, hour meter, water and oil temperature gauge, voltmeter, warning lamps for oil pressure and battery charge, blank hole; warning buzzer for oil temperature and trim control, 3-stage position/ignition switch, additional instrument panel with trim rocker switch (protected from water) and trim gauge; toolkit
Optional fittings	Single-lever gear shift and throttle control; propeller; various additional instruments
	Subject to change in design and technical features

## V12 Engineering

Box 50, Ontario, Canada P0X 1C0

[www.bmwmarine.net](http://www.bmwmarine.net)

Your BMW Marine Dealer:



BMW Marine GmbH München  
01802128289 10/82  
Printed in West Germany