



Yanmar type 6BY220Z

The Powerful Gem



Configuration	In line, 4-stroke cycle, water cooled diesel engine
Maximum output at crankshaft *	162 kW (220 mhp) / 4000 rpm
Continuous rating output at crankshaft	124 kW (167 mhp) 3600 rpm
Displacement	2.993 L (183 cu in)
Bore x stroke	84 mm x 90 mm (3.31 in x 3.54 in)
Cylinders	6, Common Rail with vertical injectors
Combustion system	Direct injection
Aspiration	Wastegated, turbocharged with intercooler
Starting system	Electric starting 12 V - 2 kW
Alternator	12 V - 150 A
Cooling system	Fresh water cooling with heat exchanger, and sea water cooled charge air cooler
Lubrication system	Totally enclosed, forced lubricating system with pump
Can Bus	According to NMEA 2000 protocol
Direction of rotation (crankshaft)	Counter clockwise viewed from stern
Dry weight without sterndrive	310 kg (683 lbs)
Environmental	EPA Tier 2, RCD, SAV, BSO. Meets the EU comprehensive emissions regulation 2006
Engine mounting	Rubber type antivibration mounts

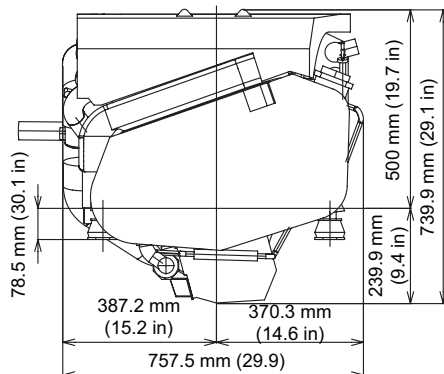
NOTE: Fuel condition: Density at 15°C = 0.84 g/cm³; 1kW = 1.3596 mhp = 1.3410 HP

* Fuel temperature 40°C at the inlet of the fuel injection pump (ISO 8665)

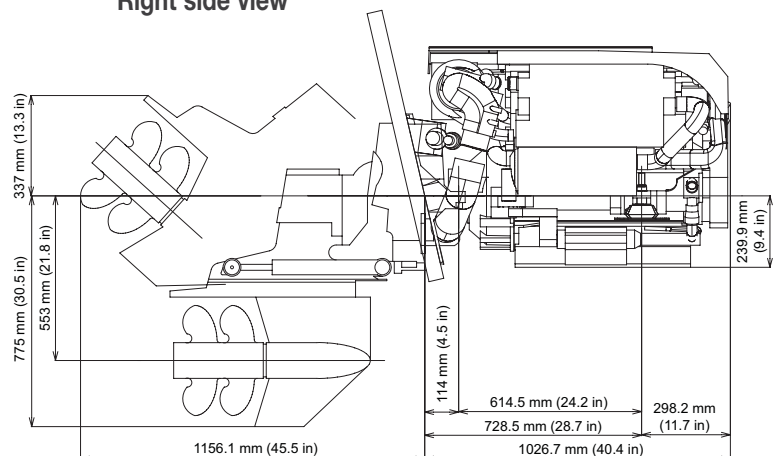
Technical data is according to ISO 8665 / 3046

Dimensions (For detailed line-drawings, please refer to our web-site: www.yanmarmarine.com or contact your supplier)

Front view

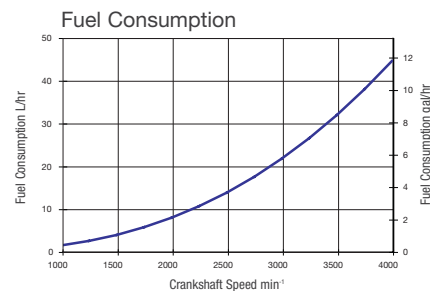
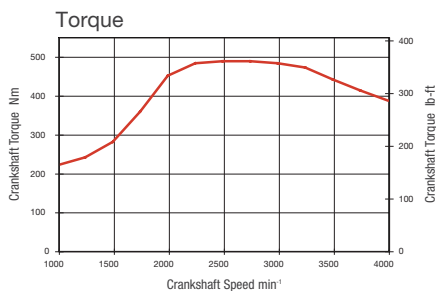
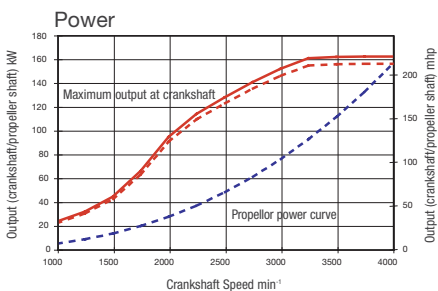


Right side view



6BY220Z w/ BravoX-3 Sterndrive

Performance Curves (Output is according ISO 8665)



Yanmar & Mercruiser sterndrive set Engine

Model	"Mercruiser" Bravo Sterndrive series					
Type	Bravo X-3					
Dry weight	98 kg (216 lbs)					
Reduction ratio (fwd/asn)	1,36/1,36	1,50/1,50	1,65/1,65	1,81/1,81	2,00/2,00	2,20/2,20
Propeller speed (fwd/asn)	2941/2941	2667/2667	2424/2424	2210/2210	2000/2000	1818/1818
Direction of rotation (propeller shaft - fwd)	Clockwise & counter clockwise viewed from stern					
Dry weight engine with sterndrive	408 kg (899 lbs)					
Length engine without sterndrive	1027 mm (40 in)					

1, Inner and outer transom surface must be parallel within 3mm in area covered by transom plates and remain within transom thickness limits.

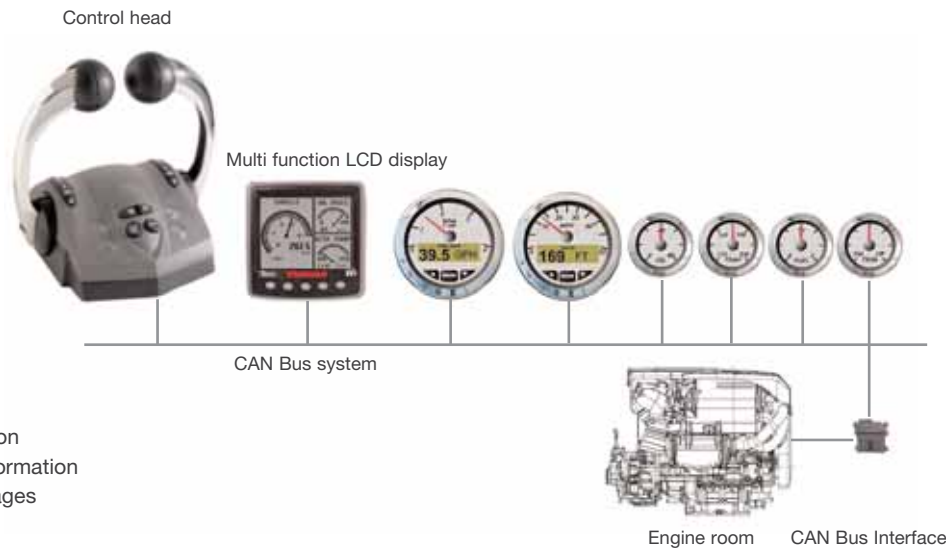
2, Area covered by gimbal housing assembly must be flat to within 1.6mm.

3, Area covered by inner transom plate must be flat to within 3.2mm

4, Transom angle: 13° to 16°

5, Also available with: BravoX-1 and BravoX-2. Contact your local supplier for available configurations

Instrument Panels



Multi function LCD display:

- engine information
- maintenance information
- diagnosis messages

Accessories

Standard Package

- Set of flexible mounts
- Alternator 12 V - 150 A single pole (24V is not available)
- Engine top and belt cover

- Exhaust mixing elbow (L-type)

Optional

- High riser mixing elbow
- Exhaust side dipstick
- Glow plug controller and related parts

- Dual top mount Teleflex control head (throttle position sensor included)
- Teleflex CAN single and double top mount control heads
- Teleflex interface module for analogue sensors (engine oil pressure, fuel tank level, etc)
- Various gauges