

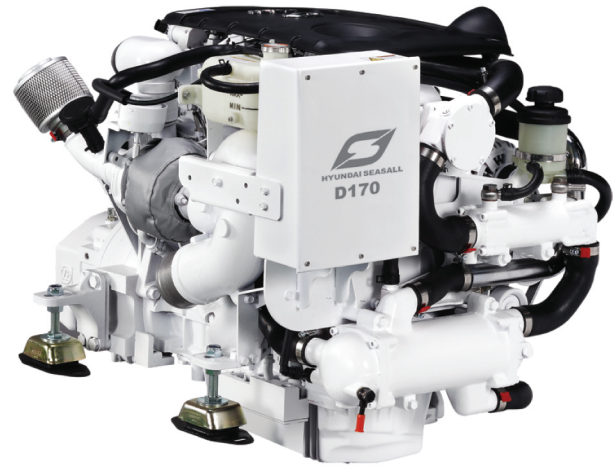
New Power for Marine Diesel Engines

D170

170ps [125kW] acc. to ISO 8665

Solenoid controlled common rail injection system delivers 170ps and 36kg·m torque from the 2.2liter I4 CRDI engine.

The common rail multiple injection features improve I4 D-series on environmental aspect by minimizing the emissions of particulates and NOx. Designs for optimizing fuel injection and intake port, and combustion performance improved low-temperature combustion stability through lean air-fuel rationing. This satisfies the world's strictest exhaust emission standards.



Technical Description

Material

- Cast iron engine cylinder block
- Aluminum head
- Oil cooled piston
- I4 4 valve SOHC
- Hydraulic lash adjusters
- Integrated water jacket
- Balance shaft
- Timing/drive belt auto tensioner

Engine mounting

- Adjustable engine mount

Lubrication system

- Easily exchangeable oil filter cartridge
- Electric oil extraction pump
- Crankcase gases vented into the air inlet

Fuel system

- Common rail direct injection (Solenoid injector)
- Fuel filter with sensor detecting water in fuel
- Electric fuel pump
- Dual pressure control valve
- Low and high pressure fuel pump

Electrical system

- 12 volt system and 120A alternator
- Auxiliary stop button
- Glow plugs for a trouble-free cold start

Cooling system

- Camshaft directly connected water pump
- Water cooled after-cooler, heat exchanger
- Auxiliary connector for heating aids
- Connector prepared for cabin heater

Engine Operating Indicator



- Engine self protection and diagnosis
- Display CAN information
- Display engine diagnostic error code
- Audible alarm and control lamps

Air inlet system

- Oil-wetted air cleaner
- Crankcase gases vented into the air inlet

Exhaust system

- Engine coolant cooled exhaust manifold
- Water cooled exhaust elbow

Turbocharger

- Variable geometry turbine (VGT)

Engine Coupler

- Rubber roller coupler type of reliable, no bonding for sterndrive
- Torsion spring type for gearbox

Emissions

- EPA Tier 2, IMO and RCD compliant

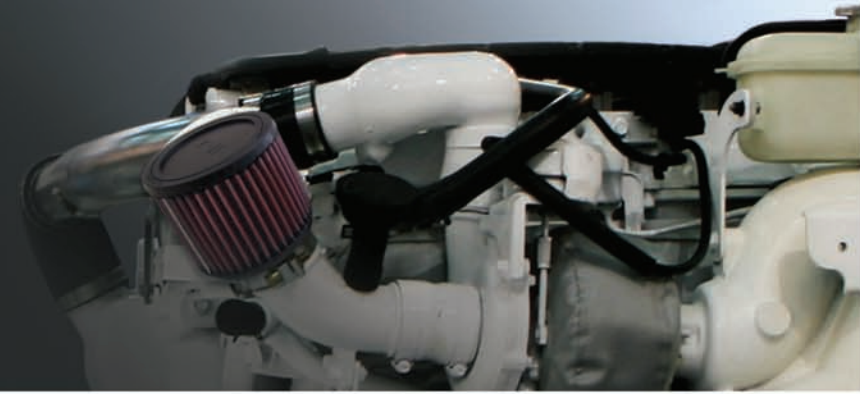
Noise Level

- 69dB (RCD Standard 75dB)

D170 Specification

Engine type	D170S	D170P	D170J
Engine duty rating	Pleasure & Light commercial		
	4-Stroke, 4-Valve		
	VGT with intercooler, fresh water cooling		
Output [ps(kW)] acc. to ISO 8665	170(125)		
rpm @ full load	3800		
Cylinders	14		
Displacement [cc]	2188		
Bore [mm]	87		
Stroke [mm]	92		
Compression ratio	17.3:1		
Max. torque [kgm]	36		34
at speed [rpm]	2000		3500
Injection system	Common Rail Direct Injection (Solenoid Injector)		
Alternator [A]	120		
Electronic engine diagnostic	YES		
MAX. Fuel consumption [l/h]	36.0		
Weight [kg]	261		
Propulsion system	Sterndrive	Shaftdrive	Waterjet

D170



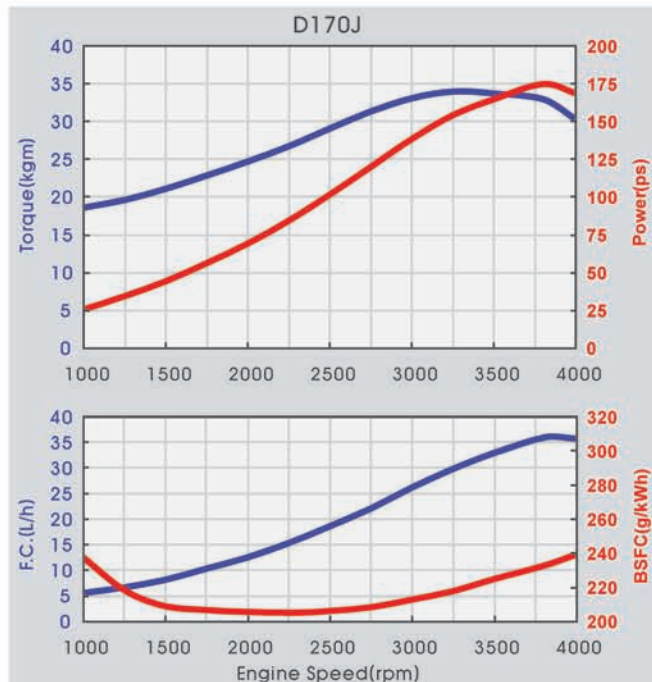
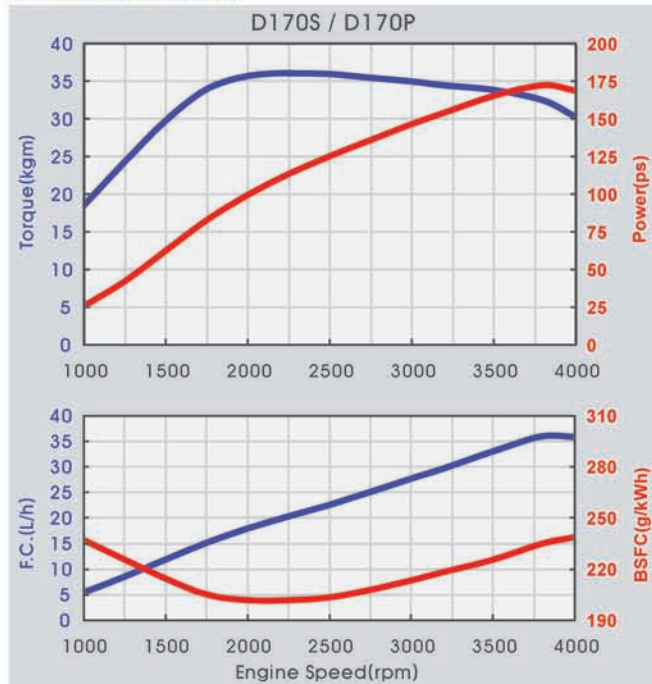
Sterndrive for D170S

Model	Bravo One X Diesel	Bravo Two X Diesel	Bravo Three X Diesel
Gear ratio	1.36/1.50/1.65	1.65/1.81/2.0/2.2	1.50/1.65/1.81/2.0/2.2
Weight[kg]	59	64	68

Marine Gear

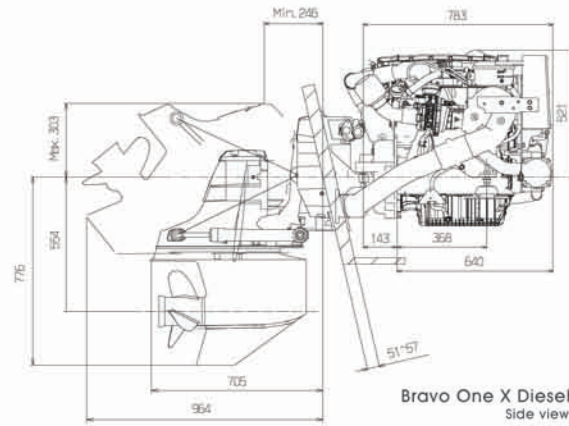
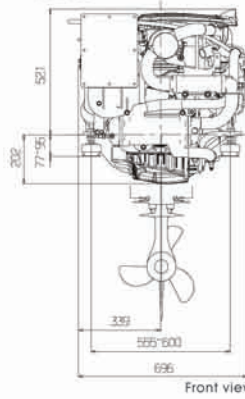
Model	ZF 45 A for D170P	ZF 45 C for D170J
Gear Ratio	1.26 / 1.51 / 2.03 / 2.43	1:1
Weight [kg]	32	31

Performance Curve



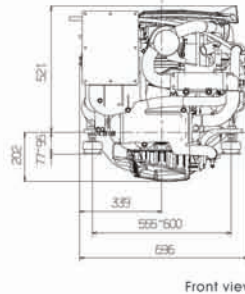
Dimensions

D170S

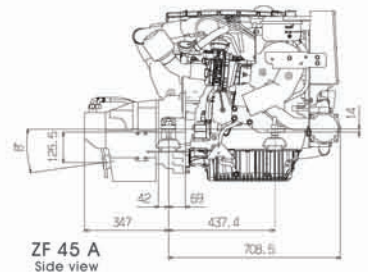


Bravo One X Diesel
Side view

D170P

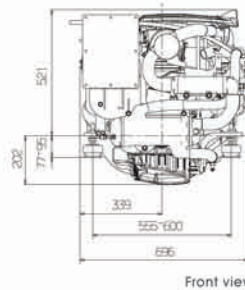


Front view

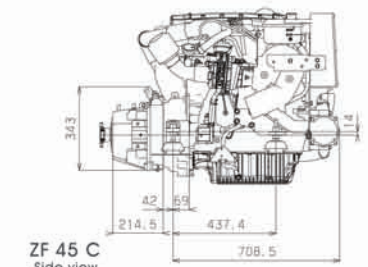


ZF 45 A
Side view

D170J



Front view



ZF 45 C
Side view

* This data is subject to continual updates without notice.

Local Representative