



powering **marine** safety

D170

BUKH SEASALL SOLAS MARINE ENGINE

170ps [125kW] acc. to ISO 8665

Solenoid controlled common rail injection system delivers 170ps and 36kg · m torque from the 2.2 liter i4 CRDI engine.

The common rail multiple injection features improve i4 D-series on environmental aspects by minimizing the emissions of particulates and NOx.

Designs for optimizing fuel injection and intake port, and combustion performance improved lowtemperature combustion stability through lean air-fuel rationing. This satisfies the world's strictest exhaust emission standards.

Technical Description:

Material

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

Engine Mounting

- Adjustable engine mount

Lubrication System

- Electric oil extraction pump
- Crankcase gases vented into 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 engine stop button
- Glow plugs for a trouble-free cold start

Cooling System

- Camshaft directly connected to seawaterpump
- Seawater cooled intercooler, heat exchanger
- 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

- Thermal insulated exhaust manifold
- Seawater cooled exhaust elbow

Turbocharger

- Variable Geometry Turbine (VGT)

Engine Coupler

- Life-long and rattle free rubber roller coupler for sterndrive
- Orsion spring type for gearbox

Emissions

- EPA Tier 2, IMO and RCD compliant

Pass-by Noise Level

- 69.0dB (RCD Standard 75dB)

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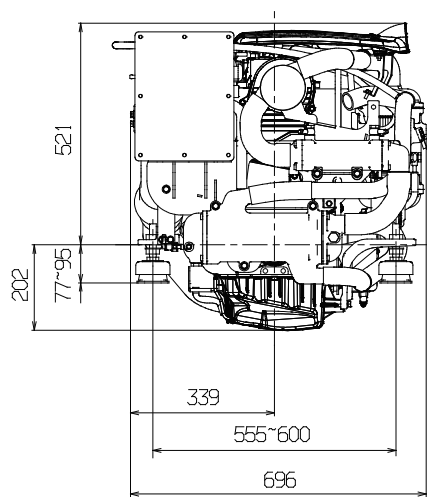
D170 Specifications

| | |
|----------------------------------|---|
| Engine type | 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] | 34 |
| At speed [rpm] | 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 | Shaftdrive / Waterjet |

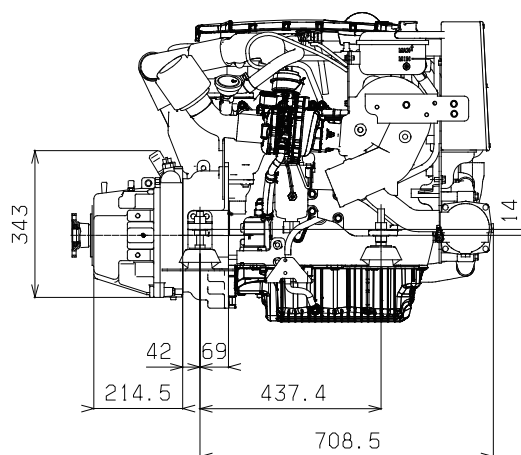
As BUKH is always endeavouring to improve the engines, specifications mentioned are subject to alterations without previous notice.

D170J Dimensions

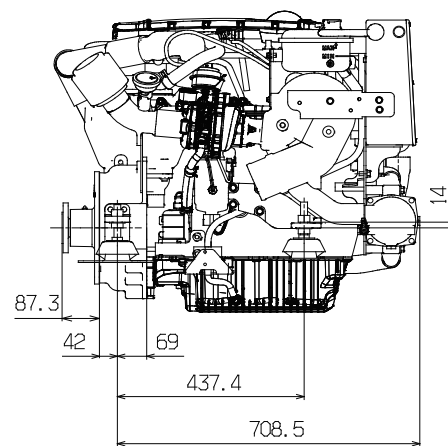
ZF 45 C + Jet Adapter (without transmission)



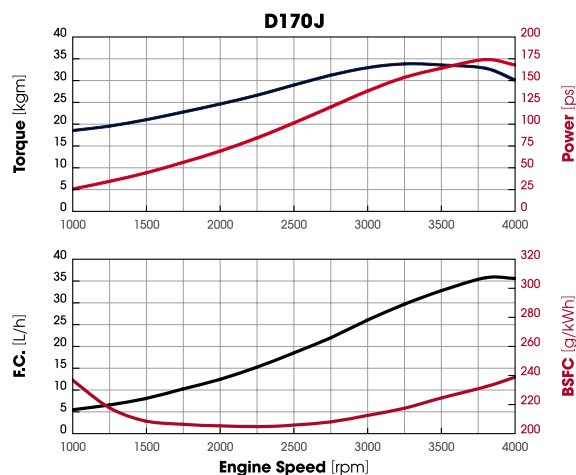
Front view



Side view



Side view (Jet Adapter)



Marine Gear

Model ZF 45 C for D170J:

Gear Ratio: 1 : 1
Weight (kg): 31



SOLAS approved by Det Norske Veritas
Notified Body: No. 0575