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 improved 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 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
- 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 trouble-free cold start

Cooling System
- Camshaft directly connected to seawater pump
- 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 stemdrive
- Torsion spring type for gearbox

Emissions
- EPA Tier 2, IMO and RCD compliant

Pass-by Noise Level
- 69.0dB (RCD Standard 75dB)
**D170 Specifications**

- **Engine type**: D170J
- **Engine duty rating**: Pleasure & Light Commercial
- **Configuration**: 4-Stroke, 4-Valve
  - VGT with intercooler, fresh water cooling
- **Output [ps(kW)] acc. to ISO 8665**: 170 (125)
- **Rpm@full load**: 3800
- **Cylinders**: In-line 4
- **Displacement [cc]**: 2188
- **Bore [mm]**: 87
- **Stroke [mm]**: 92
- **Compression ratio**: 17.3:1
- **Max. torque [kgm]**: 34
- **Max. speed [rpm]**: 3600
- **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)*

**Marine Gear**

*Model ZF 45 C for D170J:*
- **Gear Ratio**: 1 : 1
- **Weight [kg]**: 31