

# Durability and Reliability

Advantageous is the use of Compacted Graphite Iron (CGI) for the cylinder block. The CGI block is lighter and quieter than conventional grey cast iron and demonstrates at least 80 percent higher tensile strength, 45 percent higher stiffness and approximately double the fatigue strength of iron and aluminium. It lasts longer than anyone of us ever expected. It is the source of innovation and improvement in the marine engine industry.

### **Technical Description:**

### Material

- Compacted Graphite Iron (CGI) cylinder block
- · Aluminium head
- · Nine balance weight crank shaft
- · Oil cooled piston
- V6 4 valve DOHC
- · Hydraulic lash adjusters
- Integrated water jacket
- · Low noise duplex timing chain
- Hydraulic timing chain tensioner
- One-serpentine belt system
- · Drive belt auto tensioner

### **Engine Mounting**

Adjustable engine mount

### **Lubrication System**

- Easily exchangeable oil filter cartridge
- · Electric oil extraction pump
- · Seawater cooled oil cooler
- · Chain drive engine oil pump

### **Fuel System**

- Common rail direct injection (Piezo injector)
- · Fuel filter with sensor detecting water in fuel
- Electric low pressure pump
- Dual pressure control valve
- High pressure fuel pump

### **Electrical System**

- 12 volt system and 150A alternator
- Auxiliary engine stop button
- Glow plugs for a trouble-free cold start



Camshaft directly connected to seawater pump

3.0 VG/

- · Seawater cooled intercooler, heat exchanger
- · Auxiliary connector for cabin heater
- Anti-corrosion materials for seawater path

### **Engine Operating Indicator**

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

### Air inlet System

Reusable airfilter

### **Exhaust System**

- · Engine coolant cooled exhaust manifold
- Thermal insulated exhaust system
- · Seawater cooled exhaust elbow

### Turbocharger

• Electric Variable Geometry Turbine (E-VGT)

### **Engine Coupler**

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

### **Emissions**

• EPA Tier 2, IMO and RCD compliant

### Pass-by Noise Level

• 69,3dB (RCD Standard 75dB)



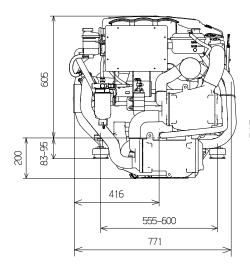
# S250 Specifications

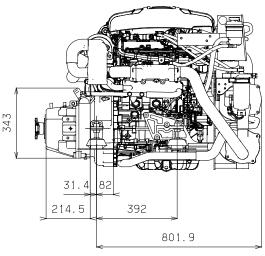
Engine type	S250J
Engine duty rating	Pleasure & Light Commercial 4-Stroke, 4-Valve E-VGT with intercooler, fresh water cooling
Output [ps(kW)] acc. to ISO 8665	250 (184)
rpm@full load	3800
Cylinders	v6
Displacement [cc]	2959
Bore [mm]	84
Stroke [mm]	89
Compression ratio	17.5:1
Max. torque [kgm]	48
At speed [rpm]	3500
Injection system	Common Rall Direct Injection (Piezo injector)
Alternator [A]	150
Electronic engine diagnostic	YES
Max. Fuel consumption [L/h]	50.1
Weight [kg]	334
Propulsion system	Shaftdrive / Waterjet

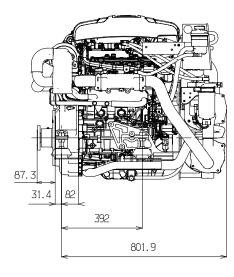
As BUKH is always endeavouring to improve the engines, specifications mentioned are subject to alterations without previous notice.

# S250J Dimensions

ZF 45 C + Jet Adapter (without transmission)



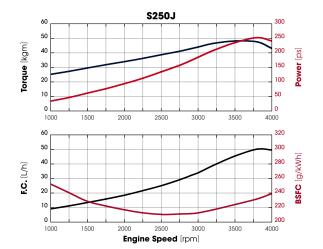




Front view

Side view

Side view (Jet Adapter)



# **Marine Gear** Model ZF 45 C for S250J:

Gear Ratio: 1:1 Weight (kg):

