Market Update Note

16 October 2017

Improved SFOC with S50ME-C9.6 and G50ME-C9.6

We have decided to introduce new S50ME-C9.6 and G50ME-C9.6 type engines with optimised performance.

These upgraded versions have been included in the second edition of the Marine Engine Programme 2017, which was released in September.

**S50ME-C9.6**

- **Measures:**
  - updated performance strategy
  - efficiency optimised three-piston ring pack.

- **Results for diesel and dual fuel engines:**
  - 2 g/kWh SFOC reduction at 100% load for HL tuning
  - 3.5 g/kWh SFOC reduction at 85% load for LL-EGB tuning
  - optimised heat load.

The preliminary list of design changes compared to the S50ME-C9.5 is as follows:

- cermet-coated three-piston ring pack
- new piston crown with improved cooling
- new cylinder liner
- possible change of T/C configuration
- new fuel injection nozzle.

**G50ME-C9.6**

- **Measures:**
  - updated performance strategy
  - efficiency-optimised three-piston ring pack
  - updated combustion chamber.

- **Results for diesel and dual fuel engines:**
  - 1 g/kWh SFOC reduction at 100% load for HL tuning
  - 2.5 g/kWh SFOC reduction at 85% load for LL-EGB tuning
  - optimised heat load.

The preliminary list of design changes compared to the S50ME-C9.5 is as follows:

- cermet-coated three-piston ring pack
- new piston crown with improved cooling
- new cylinder liner
- new cylinder cover
- possible change of T/C configuration
- new fuel injection nozzle.

For your further reference we have included the actual engine data pages from the new Marine Engine Programme 2017 – 2nd edition.
# Market Update Note

**MAN B&W S50ME-C9.6**

<table>
<thead>
<tr>
<th>Cyl.</th>
<th>( L_4 ) kW</th>
<th>Tier II Stroke: 2,214 mm</th>
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<td>6</td>
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</tbody>
</table>

**Fuel Oil**

**MAN B&W S50ME-C9.6**

- **L₄ SFOC (g/kWh)**
  - SFDC-optimized load range: Tuning 50% 75% 100%
  - High load: \( 163.5 \) 162.5 167.0
  - Part load: \( 161.5 \) 161.0 163.5
  - Low load: \( 159.5 \) 162.0 169.5

**Dual Fuel Mode for GI (Methane)**

- **L₄ SFOC equivalent gas + pilot fuel (42,700 kJ/kg) (g/kWh)**
  - SFDC-optimized load range: Tuning 50% 75% 100%
  - High load: \( 159.5 \) 161.5 163.5
  - Part load: \( 159.5 \) 161.5 163.5
  - Low load: \( 159.5 \) 161.5 163.5

- **L₄ SGC 50,000 kJ/kg (SFOC pilot fuel 42,700 kJ/kg) (g/kWh)**
  - SFDC-optimized load range: Tuning 50% 75% 100%
  - High load: \( 129.5 \) (7.9) 130.3 (6.0) 137.5 (6.0)
  - Part load: \( 131.0 \) (6.1) 132.3 (6.2) 140.4 (5.1)
  - Low load: \( 129.3 \) (6.1) 132.3 (6.2) 140.4 (5.1)

* Gas fuel LCV (50,000 kJ/kg) is converted to fuel of LCV (42,700 kJ/kg) for comparison with a fuel oil operated engine.

**MAN B&W G50ME-C9.6**

- **L₄ SFOC (g/kWh)**
  - SFDC-optimized load range: Tuning 50% 75% 100%
  - High load: \( 163.5 \) 162.5 167.0
  - Part load: \( 161.5 \) 161.0 163.5
  - Low load: \( 159.5 \) 162.0 169.5

**Dual Fuel Mode for GI (Methane)**

- **L₄ SFOC equivalent gas + pilot fuel (42,700 kJ/kg) (g/kWh)**
  - SFDC-optimized load range: Tuning 50% 75% 100%
  - High load: \( 159.5 \) 161.5 163.5
  - Part load: \( 159.5 \) 161.5 163.5
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* Gas fuel LCV (50,000 kJ/kg) is converted to fuel of LCV (42,700 kJ/kg) for comparison with a fuel oil operated engine.

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