MAN Diesel & Turbo is continuously pursuing further design optimisations that may benefit our customers and the environment.

This dedicated effort has recently resulted in our decision to introduce a new G70ME-C(-GI)10.5 type engine with optimised performance.

The new G70 type engine has been developed on the basis of the profile of the orders received over the last couple of years. The result is a new and optimised G70ME-C(-GI)10.5 engine in 5- and 6-cylinder versions with a power output covering large-sized LNG tankers, and most Suezmax tankers and Capesize bulkers of today. The new G70ME-C(-GI)10.5 has upgraded performance parameters and design compared to the 9.5 version of the engine, resulting in lower fuel oil (SFOC) and gas (SGC) consumption and significantly reduced mass.

Table 1 below shows the main figures.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>G70ME-C9.5</td>
<td>700</td>
<td>3256</td>
<td>21</td>
<td>3640</td>
<td>62</td>
<td>83</td>
<td>1260</td>
</tr>
<tr>
<td>G70ME-C10.5</td>
<td>700</td>
<td>3256</td>
<td>19</td>
<td>3060</td>
<td>66</td>
<td>77</td>
<td>1100</td>
</tr>
</tbody>
</table>

Table 1

Results for diesel and dual fuel engines:
- 1.2 g/kWh SFOC (1g/kWh SGC) reduction at 100% load for HL tuning
- 2.7 g/kWh SFOC (2.3 g/kWh SGC) reduction at 85% load for LL-EGB tuning

Possibilities for further optimisation of the cylinder distance and mass are currently being investigated.

The announcement of the new G70 type has been made in two steps. In first step the L1 rpm was selected to 74 rpm and corresponding data was included in the printed version of our 2017 Engine programme 2nd edition.

Based on feedback from shipyards we decided to increase L1 rpm to 77 rpm and today data available in our website and in the CEAS performance calculation program are based on L1 = 77 rpm.
Fig. 1 below illustrates the difference between the engines in the layout diagram. Fig. 2 shows the engine data page from the new Marine Engine Programme 2017, 2nd edition.

For more details:
MAN Diesel & Turbo
Tegholmsgade 41
2450 Copenhagen SV, Denmark
Phone  +45 33 85 11 00
Fax     +45 33 85 10 30
lss@mandieselturbo.com
www.marine.man.eu/