Market Update Note



28 April 2023

New 45- and 60-bore engines for methanol are available

MAN Energy Solutions introduces G45ME-C9.7-LGIM, S60ME-C10.5-LGIM, and G60ME-C10.5-LGIM

At the end of 2022, MAN Energy Solutions announced the future methanol engine portfolio consisting of G95-, G80-, G70-, G60-, G60-, G50-, S50- and G45ME-LGIM engines with propulsion power spanning from 4 MW to 82 MW. Read the Market Update Note here: MUN2022-11-14.

As part of our introduction of the latest updates and products, we are now pleased to share information about the latest additions to the engine programme:

- G45ME-C9.7-LGIM
- \$60ME-C10.5-LGIM
- G60ME-C10.5-LGIM

All engines are available in five- to eight-cylinder versions. The new ME-LGIM variants are based on the well-known 50-bore ME-LGIM engine design. Today, 20 engines of this design are in service on methanol carriers.

Currently, 109 LGIM engines in total are on order for different application segments: container vessels, bulk carriers, tankers, and general cargo vessels. The interest in using methanol in ocean-going vessels is very high, and the project list is still growing. The market shows that methanol is expected to be one of the dominating future fuels for ocean-going vessels.

Layout areas

With the availability of the new LGIM engines, more ships built today can start their net-zero journey and be one step closer to operation on net-zero-carbon methanol. Fig. 1 shows the layout flexibility with our updated LGIM engine portfolio.

A portfolio offering owners and operators large layout flexibility when preparing marine vessels with a low carbon footprint.

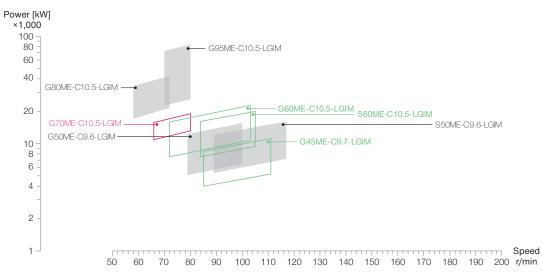


Fig. 1: Layout possibilities with the methanol engine portfolio of MAN Energy Solutions

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The layout areas of the new dual-fuelled engines are kept identical to current G45ME-C9.7, S60ME-C10.5 and G60ME-C10.5 engine layout areas.

Tier III NO_x compliance can be obtained by means of the well proven MAN EGR design.

Performance values

Figs. 2 to 4 show performance values for the three new engines with the EGRBP option as an example. SFOC (L1) values are shown for Tier III and Tier II mode, note that each of these two graphs represents SFOC in both dual-fuel mode and fuel oil mode, because the equivalent consumption of methanol and pilot oil is identical to diesel consumption.

The new engines for methanol operation are now ready for order and can be found in the updated engine programme here and in our online engine tool CEAS here.

Direct your questions regarding this Market Update Note to our Two-Stroke Promotion & Customer Support department, at rasmus.bidstrup@man-es.com.

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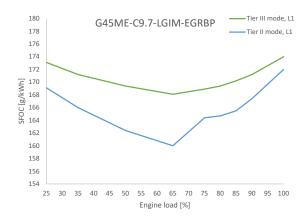


Fig. 2: SFOC for G45ME-C9.7-LGIM-EGRBP



Fig. 3: SFOC for S60ME-C10.5-LGIM-EGRBP

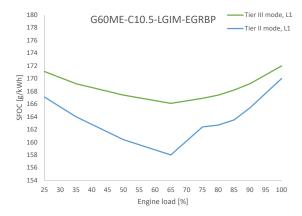


Fig. 4: SFOC for G60ME-C10.5-LGIM-EGRBP