

# Market Update Note



16 September 2019

## The first MAN B&W ME-GA engine

### MAN Energy Solutions releases performance data for the new dual fuel gas engine

At MAN Energy Solutions we are continuously pursuing to deliver what our customers are requesting.

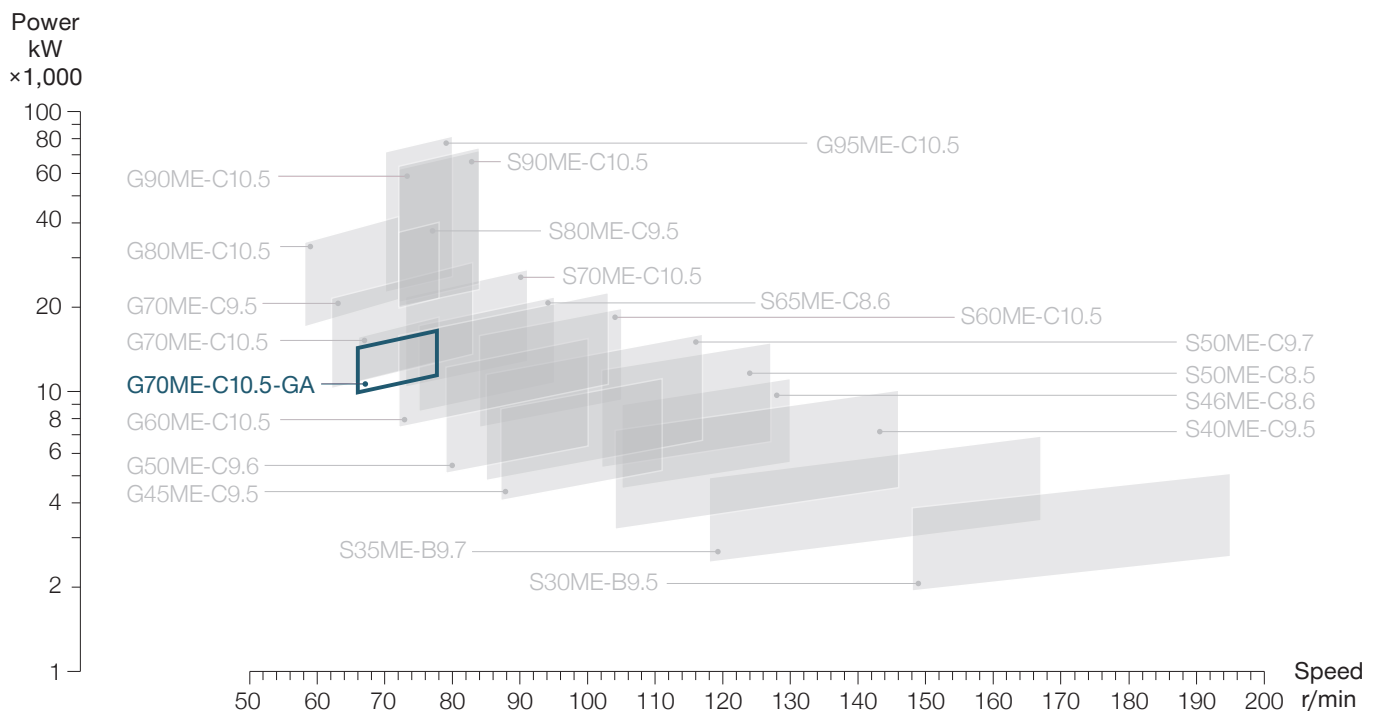
Therefore, we are pleased to reveal main data for the new engine type in our portfolio, the two-stroke MAN B&W G70ME-C10.5-GA dual fuel engine tailored to LNG carriers. You can find the main data on the next page. The ME-GA engine will be available in 5 and 6 cylinder versions.

The engine has been designed as a supplement to our existing, successful dual fuel ME-GI engines, and it covers a market segment with preference for ship system designs optimised for low gas supply pressure.

The ME-GA engine is IMO Tier III compliant in dual fuel mode without additional systems. If Tier III compliance is required in fuel oil mode, a cost-effective solution with EGR or SCR systems can be applied with the same features as the other engine types in our engine programme.

The ME-GA engine will have the same outline and footprint as known from the G70ME-C10.5 engine.

Specification and performance data for a specific project will be available upon request. The first ME-GA engine can be installed in an LNG carrier at the end of 2021.

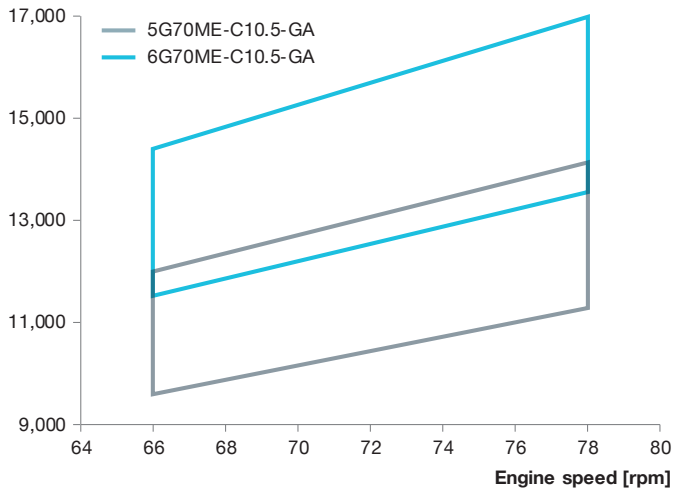


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## MAN B&W G70ME-C10.5-GA

### Engine power [kW]



### Layout diagram data

| Layout point | kW    | rpm |
|--------------|-------|-----|
| L1           | 2,830 | 78  |
| L2           | 2,260 | 78  |
| L3           | 2,400 | 66  |
| L4           | 1,920 | 66  |

### Typical LNGC application

\*SFOC 5G70ME-C10.5-GA (SMCR: 12 MW @ 69 rpm)

| Load | Dual fuel mode |
|------|----------------|
| 100% | 168.2 g/kWh    |

\*SFOC equivalent gas + pilot fuel. Gas fuel LCV (50,000 kJ/kg) is converted to fuel oil LCV (42,700 kJ/kg) for comparison with an engine operated on fuel oil.

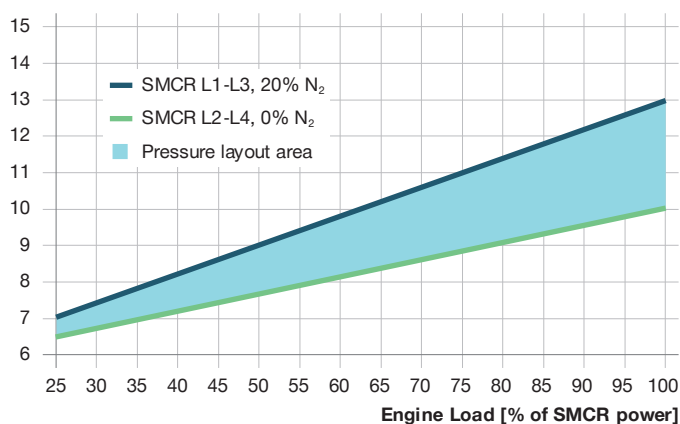
## General data G70ME-C10.5-GA

| Engine type    | $V_{pist}$ | S     | B   | S/B  | MEP <sub>L1</sub> | P <sub>cyl L1</sub> | Speed <sub>L1</sub> | Speed <sub>L3</sub> |
|----------------|------------|-------|-----|------|-------------------|---------------------|---------------------|---------------------|
|                | m/s        | mm    | mm  | -    | bar               | kW                  | rpm                 | rpm                 |
| G70ME-C10.5-GA | 8.47       | 3,256 | 700 | 4.65 | 17.4              | 2,830               | 78                  | 66                  |

## Typical gas pressure layout area

- depending on engine SMCR and nitrogen content

### Minimum gas pressure at engine inlet [barg]



Questions regarding this Market Update Note should be directed to our Two-Stroke Sales & Promotion department at [kjeld.aabo@man-es.com](mailto:kjeld.aabo@man-es.com)

[See previously released MUN of 7 June 2019 regarding the ME-GA engine.](#)

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