Market Update Note



30 January 2020

Methane slip levels ME-GI engines

MAN Energy Solutions introduces guaranteed levels in CEAS

The International Maritime Organization (IMO) has made a clear commitment to reduce greenhouse gas (GHG) emissions from the maritime world by 50% by 2050.

As a measure to reach this target, IMO is currently developing the regulation method for GHG emission, including the impact of methane slip from international shipping. The methane slip is highly dependent on the type of engine process, performance, and load, which must therefore be reflected in the regulations.

The focus on methane slip means that there is an increased pressure from the maritime industry to make methane slip a part of the performance predictions and guarantee values for two-stroke gas burning ME-GI engines.

As a consequence, we will introduce methane slip values for the total load range of our ME-GI engines, see Fig. 1, and accept methane slip guarantees in line with heat rate and gas consumption guarantees. Besides, it is expected that continuous optimisation of the injection system will lead to further reductions of the methane slip

In CEAS, we have introduced methane slip levels for all load points, and we are prepared to accept the methane slip as guarantee figures in newbuilding contracts.

The methane slip figures are based on detailed evaluation of methane slip measurements on a number of ME-C-GI engines.

It should be noted that methane slip and total hydrocarbon slip is not the same. In general, methane slip is significantly lower than total hydrocarbon slip.

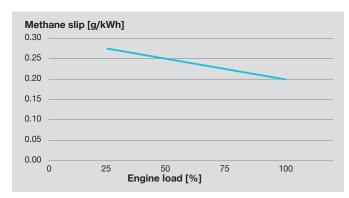


Fig. 1: Methane slip at different engine loads (the figures are given with a tolerance of \pm 0.1 g/kWh)

Please do not hesitate to contact our Two-Stroke Sales & Promotion department at <u>kjeld.aabo@man-es.com</u> for further information regarding this Market Update Note.

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