

Dear Sir or Madam

Based on the latest service experience and engine development, we are pleased to inform you that we have revised our guiding overhaul interval table for engines operated on methane and ethane (ME-C-GI and ME-C-GIE).

For engines operating the vast majority (above 70%) of the running hours on methane or ethane in dual-fuel mode with a limited pilot fuel amount, we have the possibility to extend the guiding overhaul intervals for piston rings and stuffing box.

The revised guiding overhaul intervals, which depend on the bore size, are extended as follows:

- Bore size 95-80: from 24,000 to 32,000 running hours (+33%)
- Bore size 70-50: from 16,000 to 24,000 running hours (+50%)
- Bore size 45-30: from 12,000 to 16,000 running hours (+33%)

The extended overhaul intervals (hours) are listed on the following page together with associated remarks.

Please direct any inquiries and questions regarding the overhaul tables and condition-based overhaul to the:

Operation Department: <u>Operation2S@man-es.com</u>, or PrimeServ Service Department: <u>dt-cph@man-es.com</u>.

Yours faithfully

Mikael C Jensen Vice President, Engineering

Michael Jense

Stig B Jakobsen Senior Manager, Operation

Action code: WHEN CONVENIENT

Extended guiding overhaul intervals

for ME-GI and ME-GIE engines
 Appendix to SL2019-681/SRJ

SL2019-689/KAMO December 2019

Concerns

Owners and operators of MAN B&W two-stroke marine diesel engines. Type: ME-C-GI/-GIE

Summary

The guiding overhaul intervals in the previous Service Letter SL2019-681/ SRJ are extended for GI and GIE type engines.

Other relevant Service Letters are: SL2019-671/JAP SL2019-685/KAMO



Head office (& po. address) MAN Energy Solutions

Teglholmsgade 41 2450 Copenhagen SV Denmark

Phone: +45 33 85 11 00 Fax: +45 33 85 10 30 info-cph@man-es.com www.man-es.com PrimeServ

Teglholmsgade 41 2450 Copenhagen SV Denmark

Phone: +45 33 85 11 00 Fax: +45 33 85 10 49 PrimeServ-cph@man-es.com Production

Teglholmsgade 35 2450 Copenhagen SV Denmark

Phone: +45 33 85 11 00 Fax: +45 33 85 10 17 manufacturing-dk@man-es.com Forwarding & Receiving

Teglholmsgade 35 2450 Copenhagen SV Denmark

Denmark
Phone: +45 33 85 11 00
Fax: +45 33 85 10 16
shipping-cph@man-es.com

MAN Energy Solutions

Branch of MAN Energy Solutions SE, Germany CVR No.: 31611792 Head office: Teglholmsgade 41 2450 Copenhagen SV, Denmark German Reg.No.: HRB 22056 Amtsgericht Augsburg



It must be noted that the application of, for example, WHR, EGB, EGR and SCR will affect the heat load on the combustion chamber components. Similarly, frequent heavy propeller running due to the energy efficiency design index (EEDI) and the adverse weather condition (AWC) software can have an influence.

The above factors as well as fuel qualities and slow steaming may have an impact on the overhaul intervals of especially, but not limited to, components affected by the cylinder condition and combustion chamber parts.

Recommendations in relevant Service Letters such as 2019-671/JAP and 2019-685/KAMO must be followed.

ME-C methane (GI) and ethane (GIE) engines Guiding overhaul intervals and expected service life					
Component	Overhaul interval (hours)		Expected service life (h	ours)	Remarks
Cylinder liner	Bore sizes 95-80 70-50 45-30	32,000 24,000 16,000	Bore sizes 95-90 80-65 60-50 45-30	80,000 70,000 60,000 50,000	Port inspection monthly. Wear rate according to fuel type and treatment, cylinder oil type/feed rate and engine operation.
Piston rings	Bore sizes 95-80 70-50 45-30	32,000 24,000 16,000	Bore sizes 95-80 70-50 45-30	32,000 24,000 16,000	Piston rings to be renewed at each piston overhaul. Wear rate according to fuel type and treatment, cylinder oil type/feed rate and engine operation. Cermet-coated piston rings are to be replaced according to SL2019-685 covering cermet coating overhaul criteria.
Piston crown	Bore sizes 95-80 70-50 45-30	32,000 24,000 16,000	Bore sizes 95-90 80-65 60-50 45-30	80,000 70,000 60,000 50,000	Pressure test at every second piston overhaul. Recondition/rechrome as required (typically every 1-2 piston ring overhaul). Piston crown can be reconditioned by welding-up twice.
Stuffing box	Bore sizes 95-80 70-50 45-30 Check gab of lamellas and s rings.	32,000 24,000 16,000 ealing	Bore sizes 95-80 70-50 45-30 Renew lamellas and seali	64,000 48,000 32,000 ng rings.	Overhaul follows the piston rings overhaul but can be extended based on observations.