

Action code: AT FIRST OPPORTUNITY

Approved Methods and Revision

S50MC, S60MC and S70MC

SL11-548/SVH
August 2011

Concerns

Owners and operators of MAN B&W two-stroke engines built during 1990-2000. Type: MC.

Summary

MAN Diesel & Turbo has developed Approved Methods for S50MC and S60MC and revised the Approved Method for S70MC.

Dear Sirs

This service letter is a follow-up to our service letter from September 2010 (SL10-534/MFP) informing about a new web page and giving a status on the Approved Methods (AMs) for MAN B&W two-stroke 'existing' engines, and the service letter from November 2009 (SL09-520/KEA,) which introduced AMs for 'existing' engines based on the revised MARPOL Annex VI and the NO_x Technical Code 2008.

New AMs are introduced for the S50MC and S60MC engine types, assuming notification of the IMO Secretariat within a short period. Furthermore, as the introduced AM for the S70MC engine has caused some confusion for certain classification societies, a revised AM for the S70MC engine type has been forwarded for notification specifying the complete layout area (power-speed area) covered by the AM.

The proposed information for the new IMO Circular now includes certain performance parameters in the selection criteria additional to the engine type, the originally delivered fuel nozzle and the included power-speed range.

The MAN Diesel & Turbo home page on AMs (www.mandieselturbo.com/AM) will be updated similarly when IMO has been notified.

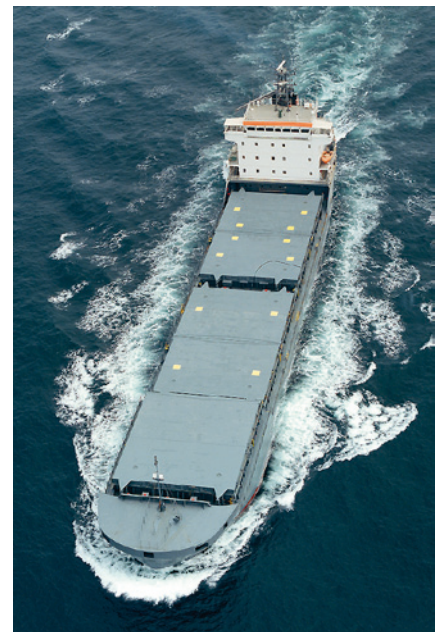
Yours faithfully



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Approved Methods

MAN Diesel & Turbo has developed Approved Methods for two new engine types, the S50MC and the S60MC within certain limitations, as specified in detail in the attachment.

Furthermore, due to an expressed uncertainty for the covered S70MC engines in the already notified AM, a modification of the existing circular (MEPC.1/Circ.738 of 19 Oct. 2010) has been made, see also attachment.

Action

It is the shipowner's obligation (when a vessel renewal survey is coming up following 1 July 2010) to verify whether an AM has been released for his engine type.

If an AM is available, the shipowner shall introduce the AM on-board before the next renewal survey. If no AM is available, the engine is in compliance, but the Class must amend the new IAPP informing that no AM exists.

The home page is reached at: www.mandieselturbo.com/AM

For further advice or clarification, you may contact the engine manufacturer or our PrimeServ department in Copenhagen on email: PrimeServ-cph@mandieselturbo.com

Approved Method(s) for MAN B&W S50MC

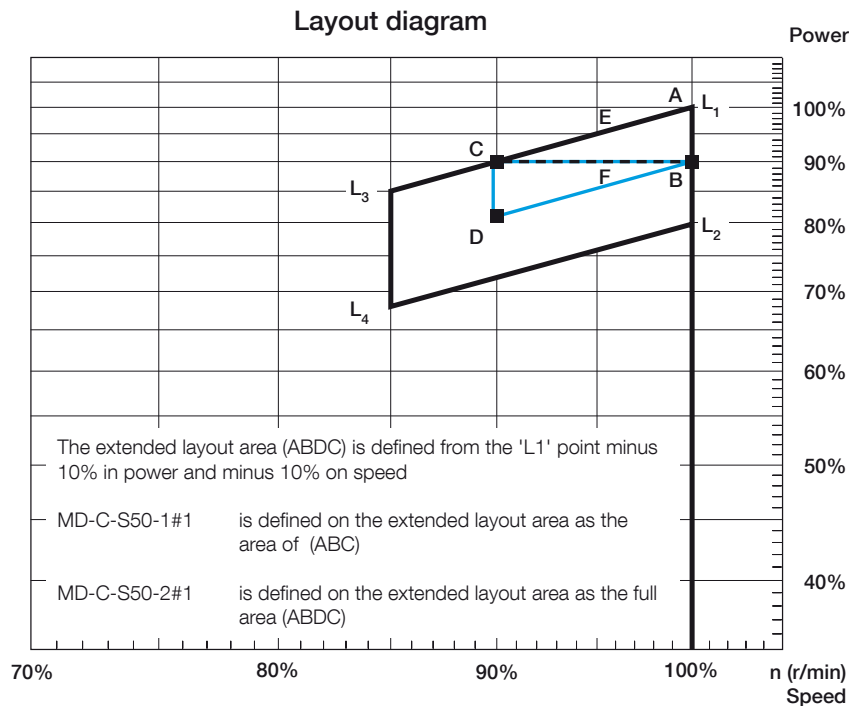
Date of notification: xx July 2011

The AMs comply with the following requirements: Reg. 13.7.5.1 and Reg. 13.7.5.2

AM	Specification of engine type ^{iv}			Specification of performance ^{iv}			
	'Existing' fuel nozzles drawing number/ IMO ID number ⁱ	MCR per cylinder (kW/cyl) ⁱⁱ	Rated speed (rpm) ⁱⁱ	P _{max} at max. tolerance (barabs) ⁱⁱⁱ		P _{max} -Pcomp at max. tolerance (bar) ⁱⁱⁱ	
				100%	75%	100%	75%
MD-C-S50-1#1 3062404-6 (AM-1)	1743792-9 or M5-1 1743793-0 or M5-2	1,290-1,430	114-127	144	133	18	36
MD-C-S50-2#1 3062408-3 (AM-2)	as AM-1	1,160-1,430	114-127	144	133	21	39

- i not all fuel nozzles are marked, but if drawings are referenced to original MAN B&W (drilling) drawings (i.e. identical nozzles) these engines are also included in the AM
- ii within the range bounded by MCR per cylinder and rated speed as defined in attached layout graph (a +/- 25 kW tolerance shall be allowed on the power limits, respectively, to allow for minor conversion errors)
- iii at ISO ambient conditions based on original testbed data at 75 & 100% loads (or interpolated from adjacent loads, if not available)
- iv exemptions may be introduced on approval by the Administration

Layout area graph (with AM-#'s indicated, if appropriate)



For S50MC L1: 1,430 kW/cyl and 127 r/min

Comment: To avoid errors with unit conversions a +/-25 kW/cyl. power allowance is observed for upper and lower power limits, respectively.

Approved Method(s) for MAN B&W S60MC

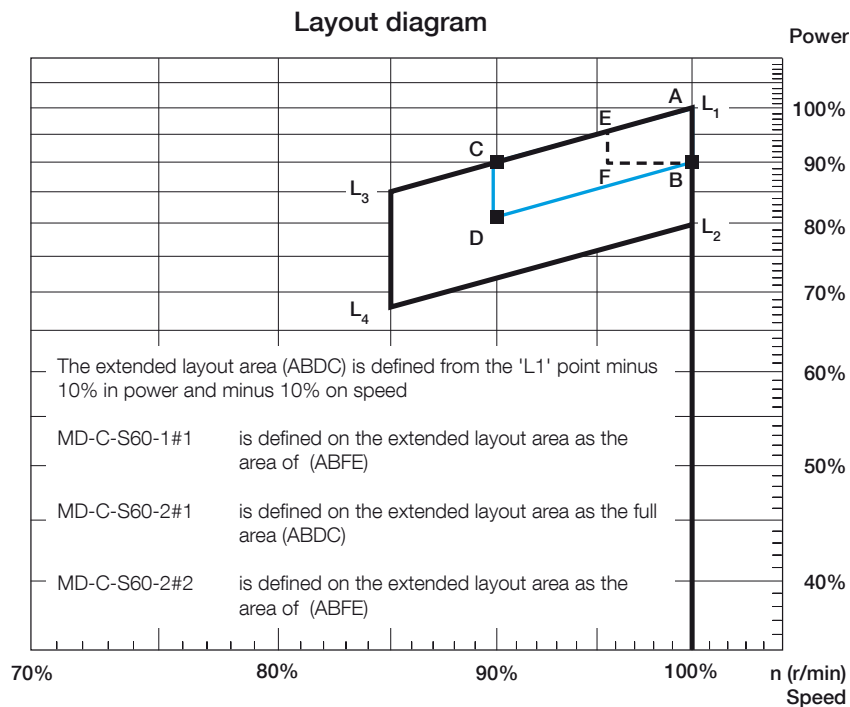
Date of notification: xx July 2011

The AMs comply with the following requirements: Reg. 13.7.5.1 and Reg. 13.7.5.2

AM	Specification of engine type ^{iv}			Specification of performance ^{iv}			
	'Existing' fuel nozzles drawing number/ IMO ID number ⁱ	MCR per cylinder (kW/cyl) ⁱⁱ	Rated speed (rpm) ⁱⁱ	P _{max} at max. tolerance (barabs) ⁱⁱⁱ		P _{max} -P _{comp} at max. tolerance (bar) ⁱⁱⁱ	
				100%	75%	100%	75%
MD-C-S60-1#1 5116821-1 (AM-1)	1756126-6 or M5-1 1268760-2, 3187610-9 or M6-7 1268787-8 or M6-8	1,840-2,040	100-105	143	132	16	31
MD-C-S60-2#1 5116799-5 (AM-2)	as AM-1	1,650-2,040	94-105	143	132	19	33
MD-C-S60-2#2 5116799-5 (AM-2)	as AM-1	1,840-2,040	100-105	143	132	18	33

- i not all fuel nozzles are marked, but if drawings are referenced to original MAN B&W (drilling) drawings (i.e. identical nozzles) these engines are also included in the AM
- ii within the range bounded by MCR per cylinder and rated speed as defined in attached layout graph (a +/- 25 kW tolerance shall be allowed on the power limits, respectively, to allow for minor conversion errors)
- iii at ISO ambient conditions based on original testbed data at 75 & 100% loads (or interpolated from adjacent loads, if not available)
- iv exemptions may be introduced on approval by the Administration

Layout area graph (with AM-#'s indicated, if appropriate)



For S60MC L1: 2,040 kW/cyl and 105 r/min

Comment: To avoid errors with unit conversions a +/-25 kW/cyl. power allowance is observed for upper and lower power limits, respectively.

Approved Method(s) for MAN B&W S70MC

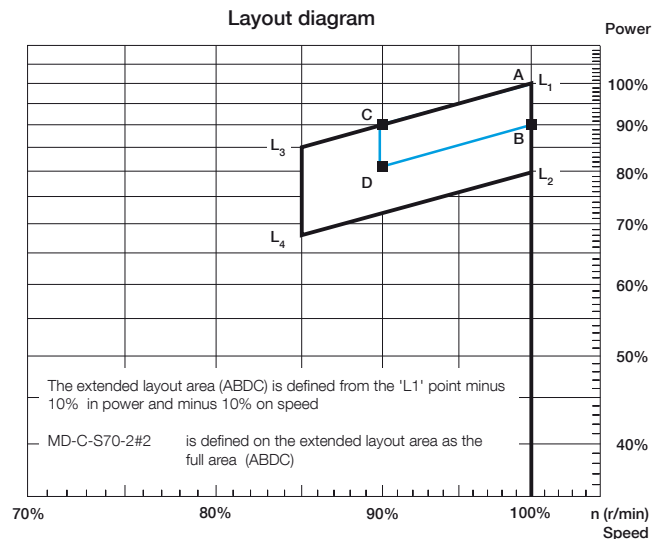
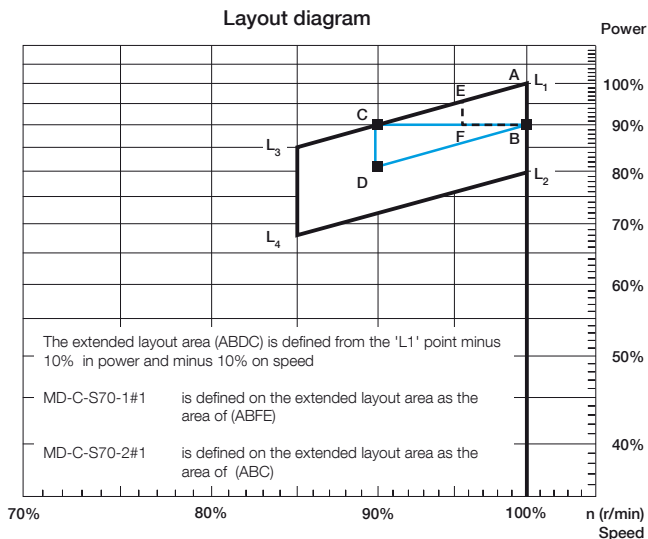
Date of notification: 5 October 2010 for MD-C-S70-1#1 & MD-C-S70-2#1 and xx July for MD-C-S70-2#2

The AMs comply with the following requirements: Reg. 13.7.5.1 and Reg. 13.7.5.2

AM	Specification of engine type ^{iv}			Specification of performance ^{iv}			
	'Existing' fuel nozzles drawing number/ IMO ID number ⁱ	MCR per cylinder (kW/cyl) ⁱⁱ	Rated speed (rpm) ⁱⁱ	P _{max} at max. tolerance (barabs) ⁱⁱⁱ		P _{max} -Pcomp at max. tolerance (bar) ⁱⁱⁱ	
				100%	75%	100%	75%
MD-C-S70-1#1 3062363-7 (AM-1)	1767711-1 or M5-1 1767766-2 1248498-2 or M5-14B	2,530-2,810	81-91	143	135	8	29
MD-C-S70-2#1 3062364-9 (AM-2)	as AM-1	2,530-2,810	81-91	144	135	12	32
MD-C-S70-2#2 3062364-9 (AM-2)	as AM-1	2,250-2,810	81-91	144	135	12	32

- i not all fuel nozzles are marked, but if drawings are referenced to original MAN B&W (drilling) drawings (i.e. identical nozzles) these engines are also included in the AM
- ii within the range bounded by MCR per cylinder and rated speed as defined in attached layout graph (a +/- 25 kW tolerance shall be allowed on the power limits, respectively, to allow for minor conversion errors)
- iii at ISO ambient conditions based on original testbed data at 75 & 100% loads (or interpolated from adjacent loads, if not available)
- iv exemptions may be introduced on approval by the Administration

Layout area graph (with AM-#'s indicated, if appropriate)



For S70MC L1: 2,810 kW/cyl and 91 r/min

Comment: To avoid errors with unit conversions a +/-25 kW/cyl power allowance is observed for upper and lower power limits, respectively.