MITSUI E&S

Mitsui E&S Machinery Co., Ltd.

TECHNO NEWS

for MITSUI－MAN B&W engines,		No. 103	
Usable limit for spindle guide of slide type fuel valve		**APPROVED**	H. Sakamoto
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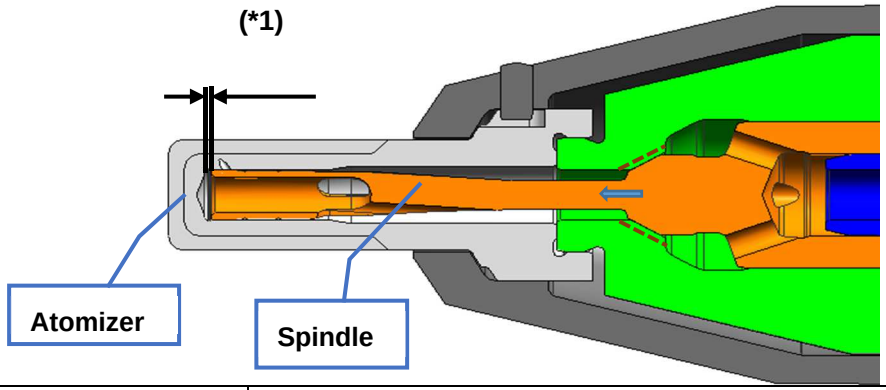
ENGINE TYPE	All engine types (which Slide type fuel valve is applied)	**DATE**	Sep. 17th, 2019

In order to maintain good condition of the spindle guide of Slide type fuel valves (SFV), it is noted in Service Note No.160, as well as in the operation manual, that it should be scrapped and renewed every 16,000 running hours. However, if poor quality and/or improperly purified/filtered fuel oils are used, various troubles/problems may occur, such as a rise in exhaust temperature, due to poor injection performance, even if the running hours are less than 16,000 hours.

For conventional fuel valves, we issued Techno News No.011, and we recommended that the lift amount should be measured during maintenance. If it is over the maximum allowable lift, the spindle guide should be scrapped and renewed, even if running hours are 10,000 hours or less.

In connection to the above, we recommend planning and carrying out proper maintenance, including measurement of the spindle guide at one of our cooperative repair shops. For SFV, the maximum permissible lift amount is set as shown in the table on the next page

If the lift amount increases due to wear down at the seat part of the spindle inside spindle guide, there is a possibility that the top end of the spindle can be damaged by contact with bottom part of atomizer**(*1)**. Therefore, special attention is required with respect to the condition of SFV compared to conventional type fuel valves.



PRIORITY							
IMMEDIATELY	☐	AT FIRST OPPORTUNITY	■	WHEN CONVENIENT	☐	OTHERS	☐

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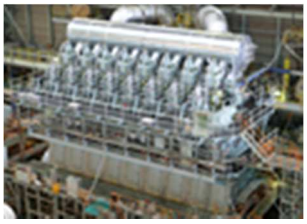
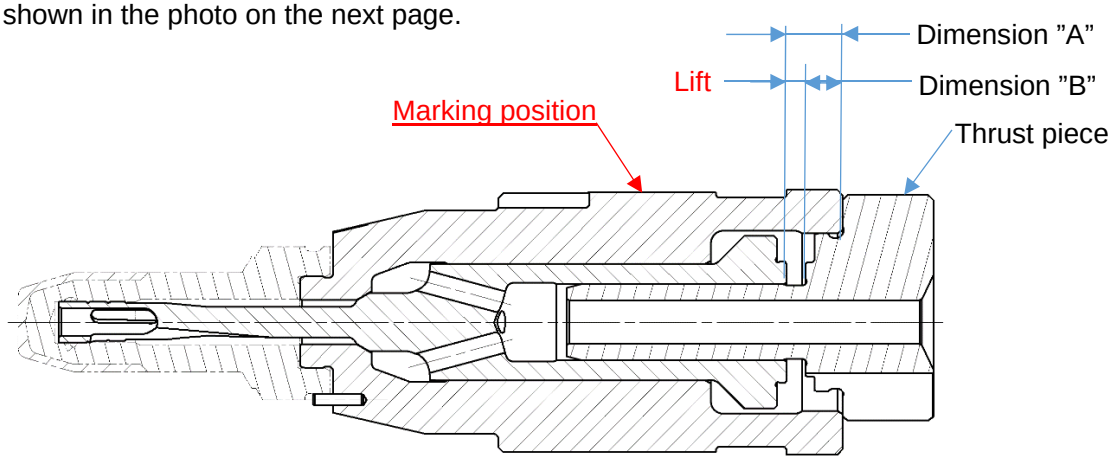


As a final note, spindle guides with different specifications may be applied even on the same engine type, so the valve lift amount should be confirmed by consulting the instruction manual or the stamp No. on the actual spindle guide.

Engine type	Marking	Lift Amount (mm) [new]	Max. Limit (mm)
S26MC, L/S35MC, L/S42MC, S46MC-C, S46ME-B, K/L/S50MC, S50MC-C, S50ME-C, S50ME-B, K50MC-S, L/S60MC, L/S70MC	MC-12, MC-15, MC-21, MC-22, MC-26	2.7	2.97
S/G50ME-C, S/G50ME-B, S/G60ME-C, S65ME-C, S/G70ME-C	MC-27, MC-28, MC-30	2.8	3.08
S60MC-C, S60ME-C, S65ME-C, S70MC/MC-C, S80MC, L80MC, K80MC/MC-C, K80MC-S, K80ME-C K90MC/MC-C, K90MC-S, L90MC, K98MC/MC-C, K98ME	MC-5, MC-6, MC-7, MC-14, MC-18, MC-20, MC-23, MC-24	3.7	4.07
S80MC-C, G80ME-C, S90MC-C, S90ME-C, S90ME-C, G95ME-C, K98ME	MC-8, MC-25, MC-29, MC-31	4.0	4.40

As shown in the sketch below, after removing the thrust piece and cleaning each part, measure the dimensions “A” and “B” using a depth micrometer and/or digital depth gauge, and subtract the dimension ”B” from the dimension “A” to calculate the lift amount.

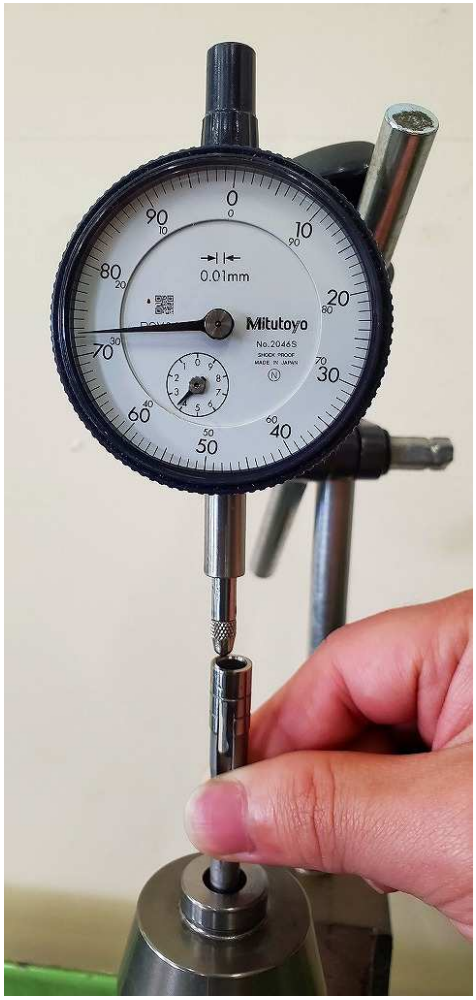
In addition, although it is possible to obtain an accurate lift amount by measuring with the above method, it is also possible to grasp the lift amount as a guidance value by measuring with a dial gauge as shown in the photo on the next page.



Lift measurement procedure using dial gauge

After setting the dial gauge to 0, grasp the spindle with your fingers and pull it up to read the dial gauge reading.

In case of stamp MC-24, Lift: 3.7mm



To contact your local sales representative, please refer to Mitsui Service Note No.111 for contact details.

Rev.1　2019/10/18: Added the lift measurement procedure