

## General Information

MAN Diesel & Turbo engines are subject to a steady and continuous development for a safe and efficient operation. It is our intention to inform our customers about our technical improvements, findings or safety relevant issues.

## Background

During regular routine inspections and maintenance work, it is required to open and close the rocker arm casing covers. The covers are being kept open by a gas spring. Each time the gas pressure buffered inside the gas spring gets expanded when opening and compressed when closing the cover.

When a cover is closed, as it is most of the time, the gas spring remains under pressure. During engine operation it is furthermore exposed to permanent engine vibrations, whereas the frequency and amplitudes might change depending on the load situation. In general the gas spring has to withstand varying periods of opening, holding and closing procedures, as well as stress caused by engine vibrations. Due to this combination of stresses the gas spring is subject to normal wear and tear. Therefore the lifetime is considered as limited and can vary from one application to another.

Recently we introduced a countermeasure to further improve the reliability of the gas spring. It affects the nut which is mounted at one end of the gas spring connecting it with the rocker arm casing. In future this nut will be additionally fixed adhesively on the gas spring piston to avoid turning off by itself.

**Action Code:**  
At first opportunity

## Gas spring mounted at rocker arm casing and cover

**PrimeServ Customer Information**  
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### Concerns

All versions of the engine families  
L+V48/60, L+V51/60, L58/64, L+V40/54B

### Filing Advice

Assembly group 111: Attachment of  
rocker arm with support



## Precautionary Measures

In order to ensure a safe working environment when personnel is carrying out works and inspections inside of the rocker arm casing, we recommend the following prior to starting work.

- For safety reasons we suggest to wear a helmet.
- Check the gas spring visually for any abnormalities. Make sure that the pins connecting the gas spring with the cover and the rocker arm casing are in place, not damaged and fixed with splints. Ensure the existence and proper fixation of the aforementioned nut.
- Check whether the gas spring can move the cover upwards easily and is keeping it in that position safely. The cover must under no circumstances fall down by itself.
- In case of damaged components we recommend to replace them immediately.
- If the aforementioned nut comes loose please proceed as follows: Degrease and clean threads than allow drying. Clean threads with Activator 7471 and screw the nut in with Loctite 620.

## Attention:

Please consider above described checks before entering the working area inside of the rocker arm casing. Our recommendation is to check the conditions of all gas springs every 1,000 – 2,000 running hours.

We kindly ask you to provide this document to all involved personnel at your site.

## Contact

Should you have any queries, our Technical Service will be pleased to be of assistance:

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Please forward this information to your technical operating personnel and remember to inform us of the current operating hours of your MAN Diesel & Turbo engines.