

# MaK™ On-Site Machining Solutions

## In-Situ Machining of Cylinder Liner Fits and Landing Surfaces

### What is On-Site In-Situ Machining of Cylinder Liner Fits and Landing Surfaces?

Fretting on cylinder liner contact surfaces can lead to increased liner wear or breakage. MaK™ on-site machining allows the contact surfaces to be reworked to OEM dimensions in a time and cost-effective manner.

On-site and in-situ machining offers significant savings by avoiding the costs and additional downtime associated with engine block disassembly, removal, logistics, transportation and reinstallation.

### What are the key benefits of In-Situ Machining?

- On-site rework to minimize downtime
- Classification Society approved
- Reduced total costs of service
- Workshop-quality on site
- OEM certified

### Which engine models are covered?

- All M 32 / GCM34 and M 43 / M 46 DF models



### What does the machining process look like?

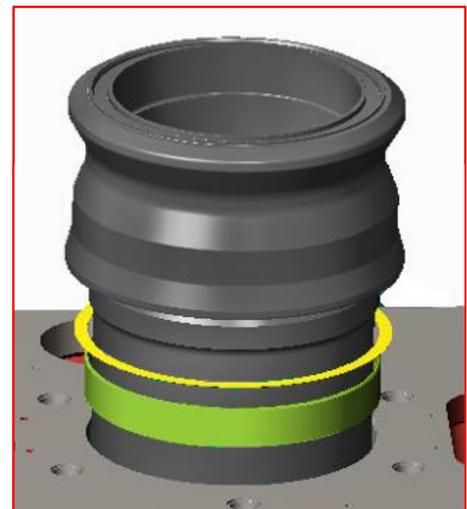
1. Machining of the affected cylinder liner contact surfaces
2. Freeze fit of bushes to regain normal dimensions
3. Restore OEM tolerances
4. Adding a shim on the liner landing surface to use standard cylinder liner



Cylinder liner contact surface in the engine block

### Frequently Asked Questions

- Q Are all contact points machined?  
A Rework is done on affected areas only to preserve as much of the original material as possible.
- Q What is Caterpillar's experience?  
A More than a thousand cylinder units have been remanufactured by Caterpillar.
- Q Why Caterpillar?  
A The MaK In-Situ Block Machining process is based on OEM calculation principles, using genuine parts and is OEM certified.



Cylinder liner with shim and bushing



## Are you interested in MaK™ On-site Machining Solutions or need further information?

Please contact your dealer, local representative or the MaK REParts Center directly at:  
[REParts\\_Center@cat.com](mailto:REParts_Center@cat.com)

**Caterpillar Motoren GmbH & Co. KG**  
Falckensteiner Str. 2  
24159 Kiel / Germany

Phone: +49 431 3995 01  
Telefax: +49 431 3995 2193

For more information, please visit our website:  
[cat.com/marine](http://cat.com/marine)

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The MaK logo, consisting of the letters 'MaK' in a bold, black, sans-serif font. The 'M' and 'K' are larger and more prominent than the 'a'.

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