PRODUCT INFORMATION

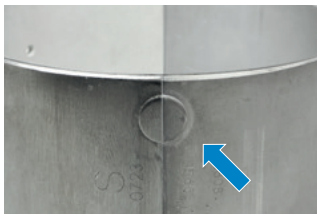
ENGINE BEARING SHELLS FROM KOLBENSCHMIDT FOR MAN

DESIGN DIFFERENCES IN LOCKING LUGS

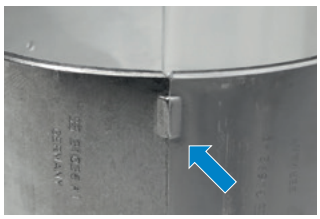
Engine manufacturer	Engines	Product
MAN	D2066... (various) D2676... (various) D2868... (various)	Engine bearing shells (e.g. conrod bearing shells)

Situation

MAN uses conrod bearing shells with round locking lugs for newer engines. The locking lugs of the relevant conrod bearing shells from Kolbenschmidt have a rectangular shape due to reasons of patent law.



Locking lugs of the OE engine bearing shells: this shape is also called a "moon version" and is protected by patent law



Rectangular locking lugs on engine bearing shells from Kolbenschmidt

The engine bearing shells from Kolbenschmidt with rectangular locking lugs are specially produced for these applications and can be used without any restrictions.

Background information

During mounting, locking lugs make correct axial positioning of the engine bearing shells easier. During engine operation, the function of locking lugs is no longer necessary.

It is often assumed that locking lugs are to prevent the engine bearing shells from twisting. This assumption is incorrect. Engine bearing shells have a press fitting in the housing bore once mounted. The press fit is achieved in that the engine bearing shells are produced with a diameter of a few 1/100 mm larger than the housing bore. When tightening the bearing cap, the engine bearing shells are held securely in the bore by surface pressure from all sides.

In the event of operational problems, e.g. due to insufficient lubrication, seizure, overheating or if the bore is damaged or too large, the locking lugs are not able to prevent the engine bearing shells from twisting. In this case, the locking lugs are bent back or sheared off.