



## SERVICE BULLETIN

IT IS NECESSARY TO CARRY OUT !

M 137 A/8

M-137 AZ/3

M 337/73

Č. M 337 A/2

**CONCERNS:** Split-pin-locking of connecting rod bolt castellated nuts of the new M 137 A, M 137 AZ, M 337 and M 337 A aeroengines as follow here below:

M 137 A from Serial No. 684011 up to 762415

M 137 AZ from Serial No. 143001 up to 164109

M 337 from Serial No. 683367 up to 753520

M 337 A from Serial No. 733397 up to 764546

**CAUSE :** During the air service of several aeroengines stated above has been found some spontaneously loosened or hurted or even lost locking split pins of connecting rod bolt nuts.

**MEASURES:** After receiving this Bulletin is to be verified due split-pin-locking of connecting rod bolt castellated nuts. The mounting procedure is described in detail hereinafter in this Bulletin. The locking split pins are to be replaced by new ones in the way as instructed in Fig. 1.

For this procedure are to be used the simultaneously delivered specified locking split pins 2.5x20 ČSN-Standard 02 1781.05 of minimum thickness 1.9 mm.

If a locking split pin or a part of it has fallen out, it would be necessary to look for it and find it out either in the engine crankcase or in the return oil duct as far as to the oil collector by using a magnet for this purpose. It is necessary to recheck the due number of locking split pins, incl. the lost and found split pins or parts of them. If the lost split pins are not found at all or if the fallen-out split pins or some parts of them are deformed by passing through a gearing of the engine, such an event has to be announced to the Air Service Dept. of the Engine Manufacturers' Works.

If even the Engine Manufacturers' Works service mechanic is not able to find out the lost locking split pin or if he reveals that a piece of the lost split pin passed through a gearing of the engine, it would be necessary to dispatch the engine to the Engine Manufacturers' Works for professional repair.

**TO BE CARRIED OUT:** By the Commercial User of the engine referred to or, in special cases mentioned above the Air Service Dept. of the Engine Manufacturers' Works. These checking and mounting operations are then to be entered in the "Engine Log Book", incl. stating the date of entry and referring to this Bulletin.

MATERIAL: The needed material is to be supplied by the Engine Manufacturers - free of charge (15 pcs. of locking split pins 2.5x20 ČSN 02 1781.05).

COSTS : No costs arise and to be settled in connection with this matter.

VALIDITY OF THE PRESENT BULLETIN: Immediately after receiving it.

Praha 28. 3. 1977.

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Manufacturers' Representative

Ing. B. Homola m.p.

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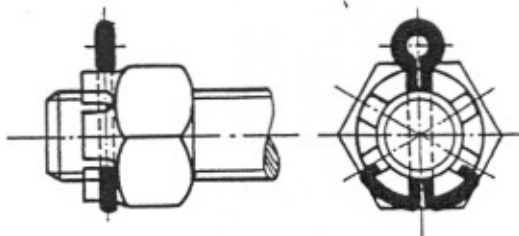
## Procedure

### of Checking and Replacing the Connecting Rod Bolt Nut Locking Split Pins

1. Unscrew the two screw plugs, Part No. Sc 4009, from the engine crankcase front cover, Part No. Sh 0404 and, instead of them screw in two forcing-off screws M8 for forcing off the engine crankcase front cover.
2. Then loosen and unscrew successively the 10 pcs. of nuts M8 and the two bolts M 8x22, fixing the engine crankcase front cover. By screwing in the two forcing-off screws and, if necessary, also by slight knocking on the crankshaft, force the engine crankcase off by about 2 to 4 mm.

**Caution:** While forcing off the engine crankcase front cover, separate carefully the gasket, Part No. Sh 4001, from the cover, so that to avoid any possible damage of the gasket.

3. Unscrew successively the 44 pcs. of nuts M6 and 2 pcs. of nuts M 8 from the engine crankcase top cover, Part No. Sh 0131, then remove the crankcase top cover carefully so that not to damage the cover gasket, Part No. Sh 1305.
4. Then turn through slowly the engine crankshaft and examine successively the connecting rod nut locking split pins if they are faultless, unbroken.
5. Now remove carefully and successively the split pins so that no of the split pins nor any fragments of them drop down into the engine crankcase.
6. Then replace successively the split pins by new ones conformably to the following Fig. 1:



**Caution:** The new locking split pins have to be of minimum dia. 1,9mm. The split-pin-locking of the castellated nuts referred to has to be carried out carefully, the split pin eye must not be deformed by hammer strokes and the split pin after having locked must not be loose in the castellated nut. If the split pin length is not adequate to the required length as illustrated in Fig. 1 it has to be adapted conformably to the sketch.

7. Clean thoroughly the bearing surface of engine crankcase for mounting on the top cover, then put on the slightly oiled cover gasket, Part No. Sh 1305, fit on the top cover, Part No. Sh 0131, and screw in the 44 pcs. of fixing nuts M6 and the two nuts M8.
8. At last unscrew the two auxiliary forcing-off screws M8 from the engine crankcase front cover, Part No. Sh 0404, slightly oil the cover gasket, Part No. Sh 4001, then press the front cover tightly onto the engine crankcase and screw in the ten nuts M8 and the two screws M 8x22. At last screw in the cover the two screw plugs, Part No. Sc 4009.

Caution: The transition (radial) bearing surface as well as the cover gasket between the engine crankcase front and top covers are to be coated with the HILOMAR caulking compound or with some other similar sealing paste.