



Gearbox fixation on UL-engines type 377, 447, 462, 503 and 532

1) INTRODUCTION

The adapter flange connecting the engine crankcase with the gearbox is fixed by

4 x 841 940 Allen screw M10x50 on type 532

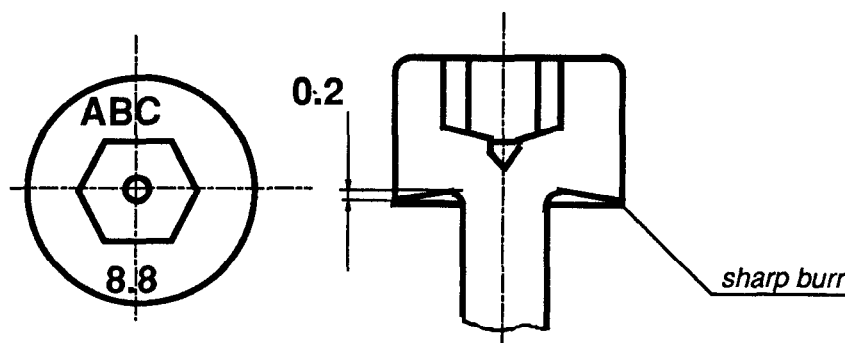
4 x 841 820 Allen screw M10x45 on types 377 / 447 / 462 / 503.

2) PROBLEM

In isolated cases, where heavy propellers were used, screw heads forced into the adapter flange and loosened it.

Screw type involved:

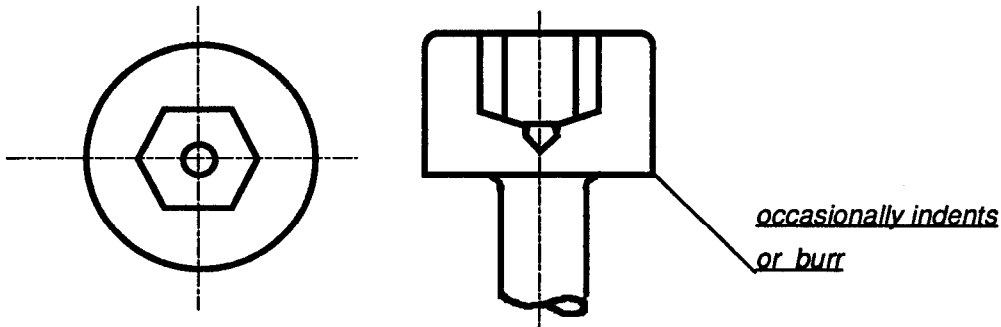
- a) Screw head contact surface is tapered by 0,2 mm.
Only the outer edge of the screw head is contacting the flange, slackening the screw fit by vibrations.





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b) If the plane surface has been damaged (knock marks, grooves), screws may slacken.



3) RECOMMENDED INSPECTION

Before and after every flight check for loosening by visual inspection for any fretting or black aluminium dust at the contact surfaces. If necessary remove gear-box.

4) CORRECTION

If inspection revealed loose adapter plate, then proceed as follows:

- A: Depending on screws mounted:
- Scrap "ABC" screws and order new screws (part no. : see item 1)
 - Rework screws showing indents and or burrs, or order new screws.
- B: Clean all contact surfaces and the bosses on crankcase carefully.



C: The adapter flange has to fit absolutely evenly on the crankcase flange.

D: Coat the contact surfaces between adapter flange and crankcase and the screw threads with LOCTITE 221 (ROTAX part no.899 785).

Coat the contact surface of the screw heads with LOCTITE 648 (ROTAX part no. 899 788)

E: Tighten the screws at 50 to 55 Nm.

