

LAA/AWA/16/07
4th November 2016

EuroFOX Tail Wheel Aircraft

Replacement of Undercarriage Guide Bracket Bolts

On a EuroFOX heavy use tail wheel glider tug aircraft with tundra tyres, the forward bolt failed on the undercarriage clamp bracket (containing 2 bolts M8 hex head 8.8 strength). The clamp bracket then swung away from the undercarriage leg just after take-off and the leg itself, being unrestrained, pivoted about its central fixing point in the middle and underside of the fuselage. A successful landing was made on one leg and the tail wheel, with minimal damage to the rest of the airframe (see Fig. 1.).



Fig. 1. The pilot of this Eurofox did a good job of getting the aircraft down without further damage after the undercarriage attachment bolt failed.



Fig. 2. Clear signs of fatigue in the failed bolts suggestive of looseness in service.

On the subsequent inspection, it became apparent that the bolt had failed in fatigue just under the bolt head (see Fig. 2.). The fatigue crack had been present for a while, but is not easy to find during normal inspections.

The earlier SB on this subject (SB2 2015) did not prevent this failure, therefore to minimise risk, it is required to change the assembly method and "life" of this bolt.

The new fixing method, which includes spacing washers, will improve the load transfer within the assembly (see Fig. 3.).

In March 2015 the Eurofox's UK distributor issued a Service Bulletin (SB/02/2015) describing how this attachment should be assembled; the LAA alerted members about this via an Airworthiness Alert (LAA/AWA/15/03), this 2015 Alert has now been superseded by this Alert.

The latest Eurofox SB (SB03/2016) may be downloaded [HERE](#).



Fig. 3. The arrow marks the positions of spacing washers required so that the attachment bolt can be tightened more firmly.