

AIRWORTHINESS ALERT 2023-1

Horizontal Tail Elevator U-Bracket - Inspection

OVERVIEW

A defect report has been received detailing a failed horizontal tail elevator U-Bracket on an Arcus M powered sailplane. The powered sailplane had logged 946 hours and 287 landings. The maintenance release had an entry to perform EASA AD 2022-0242_E at 1,000 hrs as per the AD requirement.

EASA AD 2022-0242_E dated 7 Dec 2022 is applicable to the Nimbus-4, Duo-Discus, and Arcus sailplanes and powered sailplanes which addresses the horizontal tail elevator U-Bracket potential defect.

INVESTIGATION / RECTIFICATION

AD 2022-0242_E requires an inspection before next flight and corrective action in accordance with instructions of the Schempp-Hirth Technical Note and working instruction on the above aircraft with a U-Bracket assy with 1,000 hrs in service or more.



Figure 1: The affected sailplane on the daily inspection showed excessive lateral play. With the failed component installed, the crack looked like only the surface finish was cracked. The crack is therefore very insidious and requires a thorough inspection. Any surface finish defects around the holes in the torque tube should be treated with suspicion and investigated further.

RECOMMENDATION / ACTION

This AWA is issued to raise awareness of the potential early failure of the Horizontal Tail Elevator U-Bracket on all affected types before 1,000 hrs. The Airworthiness Panel recommends that sailplanes with less than 1,000 hrs should have the U-Bracket inspected prior to next flight using the “Working Instructions for Technical Note No. 396-22, 380-3, 868-24, 890-18, A532-10” as guidance. The tailplane should be removed to carry out the inspection.

Technical Note No. 396-22, 380-3, 868-24, 890-18, A532-10 amends the Flight Manual with additional information for the daily inspection and after hard landings. Technical Note No. 396-22, 380-3, 868-24, 890-18, A532-10 also amends the Maintenance Manual with improved information on annual inspections. This improved guidance should be carried out each daily and annual inspection and after hard landings accordingly.

REPORTING

Notify the EMA by submitting a defect report if you have information relating to any similar or related occurrence.



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