

Continuing Airworthiness Notice – 27-007

Stabiliser Hinge Assembly Fasteners – Inspection/Replacement

19 September 2013



Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91.

The contents of this notice are ADVISORY ONLY and are NOT MANDATORY.

CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability:

Beechcraft models 23, A23, A23A, B23, C23, S/N M-1 through to M-2392,
Beechcraft models A23-24, A24, S/N MA-1 through to MA-368, and
Beechcraft models A24R, B24R, C24R S/N MC-2 through to MC-795.

Purpose:

This Continuing Airworthiness Notice (CAN) is issued to provide additional information to operators and maintainers about the stabiliser hinge assembly inspections mandated by Airworthiness Directive DCA/B23,24/17 (FAA AD 87-02-08 refers).

This AD requires a visual inspection of the fasteners securing the stabiliser hinge assemblies to the aircraft fuselage for looseness or failure. If any fasteners are found loose or failed, the AD requires the replacement of all the fasteners securing both the left and right assemblies to the fuselage.

Background:

This CAN is prompted by an overseas report of finding failed stabiliser hinge bracket attach fasteners (rivets) in a condition not anticipated by the aircraft manufacturer. An aircraft was inadvertently released to service with defective stabiliser hinge rivets after the stabiliser hinge assemblies were inspected in accordance with the requirements of FAA AD 87-02-08 and Beechcraft SB 2182. Apparently none of the defects mentioned in SB 2182 were detected.

An inspection of the failed hinge attachment revealed there were no rivet heads missing. All the rivet heads were found in place. Further investigation revealed the shanks of the aluminium rivets had failed due to undetected corrosion in the rivet shanks. The corrosion was found in a narrow area between the steel plate of the stabiliser hinge block and the fuselage support structure which compromised the strength of the rivets.

Recommendation:

The CAA strongly recommends that operators and maintainers of affected aircraft accomplish the following additional requirements to Airworthiness Directive DCA/B23,24/17 (FAA AD 87-02-08 refers):

- For stabiliser hinge assembly fasteners (rivets) which have been in service for 15 years or longer, replace all the fasteners securing both the left and right assemblies to the fuselage. All the fasteners should be replaced even though none of the defects mentioned in SB 2182 are evident.
- After a nose wheel shimmy event, or a heavy landing, or a flight through turbulence, inspect the stabiliser hinge attachment and the fuselage support structure for cracks, working rivets and any defects. Inspect the stabiliser hinge assemblies for security of attachment. There should be no movement or looseness between the stabiliser hinge assemblies and the attachment to the aircraft fuselage.
- In any defects are found report findings to the CAA by completing a CA005 Defect Report form. The form can be obtained from http://www.caa.govt.nz/Forms/CA005D_Form.pdf
Please email the completed form to the CAA at CA005@caa.govt.nz

For further information refer to CASA AWB 27-017 issue 1, dated 5 September 2013 which can be obtained from the CASA web site at <http://casa.gov.au/wcmsw/ assets/main/airworth/awb/27/017.pdf>

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