

Continuing Airworthiness Notice – 27-001



Cessna 172, 180 and 185 Primary Flight Control Yoke Inspection

04 April 2008

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:

Cessna and Reims Aviation 172, 180 and 185 series aircraft with S/N listed in Cessna Service Bulletin (SB) No. SEB01-3.

Purpose:

This Continuing Airworthiness Notice (CAN) alerts operators of the possibility of control yoke assembly failure due to internal corrosion. This failure could result in loss of elevator control and loss of aileron control if the control yoke assembly fails above the pivot point. The Cessna Aircraft Company has issued SB No. SEB01-3 with a corrosion inspection instruction to establish whether the yoke assembly is serviceable.

Background:

This CAN is prompted by a report of a control yoke assembly failure on a Cessna 172M manufactured in 1974 due to corrosion. The failure occurred under normal pilot loads while taxiing. The corroded yoke failed below the pivot point at the lower elevator control lug. The design of the yoke leaves a closed tube section below the pivot point in which moisture can collect. In certain circumstances this moisture could lead to corrosion and failure of the control yoke assembly which could result in loss of primary pitch control. Furthermore, failure of the yoke above the pivot point could result in loss of aileron control. The control yoke assembly has been redesigned in production to eliminate the potential for moisture collection.

As a result of defect reports received by the manufacturer and the FAA, Cessna have issued SB No. SEB01-3 which requires an in situ ultrasonic inspection of the lower section of the yoke assembly. The yoke assembly should be replaced if the tube wall thickness is less than 0.037 inches. The SB contains a detailed list of affected aircraft, instructions for performing corrosion treatment and recommends an annual external visual inspection of the yoke assembly.

Recommendation:

The CAA strongly recommends that aircraft operators/maintainers accomplishment the instructions in SB No. SEB01-3. The control yoke should be treated with corrosion preventative at the earliest opportunity. AD action is not considered necessary at this time. However, we highly recommend compliance with the instructions specified in SB SEB01-3.

Report all findings to the CAA by completing a defect report form CAA005D. Describe the findings in as much detail as possible and retain the defective part for further investigation.

Enquiries:

This CAN is based on FAA Special Airworthiness Information Bulletin (SAIB) No. CE-04-03 dated 08 October 2003 and CASA Airworthiness Bulletin No. AWB 27-4 issue 1 dated 5 December 2003.

Enquiries with regard to the content of this Continued Airworthiness Notice should be sent to:

Owen Olls
Airworthiness Specialist
Email: ollso@caa.govt.nz
Phone: 04 560 9569