



SUBJ: Flight Controls

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) informs owners, operators, and maintenance technicians of Cessna 150, 172, P172, 175, 180, 182, 185, 205, 206, 210, 336, and 337 series airplanes of the possibility of cracks in plastic or non-metallic control wheels. The airplanes originally produced with plastic or non-metallic control wheels were manufactured between 1960 and 1964. Approximately 12,500 airplanes were built. These control wheels were the subject of Cessna Service Letter (SL) No. 64-8, dated February 14, 1964. This service letter specified a visual inspection and a proof load test to assure structural integrity. Control wheel cracks continue to be reported in FAA service difficulty reports. No accidents have been reported although one incident was reported in 2004.

Background

Since 1998, several safety recommendations have been submitted that recommend airworthiness directive (AD) action to mandate inspections and proof tests to determine if a control wheel was defective and to replace the control wheel if it was defective. These recommendations prompted issuance of a notice of proposed rulemaking (NPRM), on January 22, 2001, which proposed annual proof tests of each control wheel in accordance with the original 1964 Cessna service letter. The control wheel was to be replaced if the proof test was unsuccessful. This NPRM prompted several responders to object to the proposed rule primarily because the risk is minimal, and the number of reported cracks has been low in recent years. Since the proof test requires the removal of the control wheel from the airplane, one responder noted that removing and re-installing the control wheel once a year may cause additional problems. As an example, the hazard of flying an airplane with the control wheel installed incorrectly could potentially be more serious than flying the airplane with a defective control wheel. Reconsidering the nature of the reported cracks, the redundancy provided by two control wheel grips, and the availability of the co-pilot's control wheel, the risk associated with a cracked control wheel was determined to be minimal. Furthermore, visual inspections of the wheels should already be a part of each periodic 100- hour or annual inspection as indicated in the various Cessna Maintenance/Service Manuals, in Title 14 of the Code of Federal Aviation Regulations (14 CFR) part 43, Appendix D, and in 14 CFR part 91.

At this time, this airworthiness concern is not an unsafe condition that would warrant AD action under 14 CFR part 39.

Recommendation

The FAA recommends that owners, operators and maintenance technicians place special emphasis on the periodic 100-hour and annual inspections on plastic control wheels installed in these airplane models until they are replaced with metallic control wheels. We recommend that you inspect these control wheels following Cessna SL No. 64-8, dated February 14, 1964. During this inspection, particular attention should be paid to the inside upper corners of the control wheels. Any control

wheel that has a crack or fails when pull-tested should be replaced with a metallic control wheel before further flight. See Cessna SL 64-8 for airplane model and serial numbers.

If the indication of cracking is unclear, we recommend that you proof test the wheel in accordance with Cessna SL No. 64-8. However, the pull force may be reduced to 30 pounds rather than the 50 pounds as stated in the service letter. If replacement is required because of the failure of the control wheel due to this pull force, then you should replace it with a metallic control wheel as specified in the service letter.

For Further Information Contact

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For Related Service Information Contact

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