



FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-14-19

Date: May 30, 2014

SUBJ: Landing Gear; Main Landing Gear (MLG) Torque Link

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin is to alert owners, operators, and maintenance technicians of **Cessna 300 and 400 Models and Series** of an airworthiness concern, specifically the need to inspect the main landing gear (MLG) torque link assembly to ensure the correct thickness washers are installed and to ensure the washers are installed in the correct position.

Airplanes affected are all series of Cessna Models 310P, 310Q, 310R, 401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, and 421C.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

In May 2013, a Cessna Model 310R airplane landed and began pulling to the right. Application of left brake and rudder were insufficient to correct the direction of travel. The right landing gear collapsed and separated from the airplane. The airplane veered off the runway and came to a stop in dirt. Investigation determined that the right wheel and lower strut had separated from the upper strut. The torque links became separated at the mid-hinge attachment allowing the lower strut including the wheel assembly to rotate and then separate from the upper strut and the airplane.

Cessna Service Bulletin MEB02-12 specifies replacement of the original washers at each end of hinge point attachment stack-up. These washers, which are approximately 0.5625 inch, outside diameter, should be replaced with washers with an outside diameter of 0.750 inch. The larger washer would have prevented the separation of the mid-hinge attachment and would have prevented the wheel assembly from rotating 90 degrees to the direction of travel. Non-compliance with the service bulletin allowed the retaining bolt and bushing to pull through the torque link assembly on the incident airplane. This resulted in failure of the torque link to hold the main landing gear wheel in proper alignment to the direction of travel, and caused the incident.

Investigation results and the risk analysis show that infrequent failure of the torque link assembly on these airplanes could result in damage to the airplane. The service difficulty reports (SDRs) reflect that adequate service information is available and being used by owners and operators to properly maintain their airplanes. However, we feel issuance of this SAIB will serve as notice to those owners, operators, and maintenance technicians who may not be aware of the Cessna service information.

Recommendations

We recommend that owners, operators and maintenance personnel of the affected airplanes do the following:

- For Cessna Models 310P, 310Q, and 310R airplanes: Comply with Cessna Service Bulletin MEB02-12, “Main Landing Gear Torque Link Inspection”, dated November 4, 2002; or latest revision.
- For Cessna Models 401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, and 421C airplanes: Comply with Cessna Service Bulletin ME83-37 “Main Landing Gear Scissor Washer Replacement”, dated November 23, 1983; or latest revision.

For Further Information Contact

David Enns, Aerospace Engineer, ACE-116W phone: [REDACTED]; fax: [REDACTED]; e-mail: [REDACTED]

For Related Service Information Contact

Cessna Aircraft Company, Customer Support Service, [REDACTED], Wichita, Kansas; telephone: [REDACTED] fax: [REDACTED]