



**SUBJ:** WING SPAR – Inspection for Cracks and Corrosion on Wing Lower  
Main Spar Cap

**SAIB:** CE-16-11  
**Date:** December 2, 2015

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*This is information only. Recommendations aren't mandatory.*

## **Introduction**

This Special Airworthiness Information Bulletin is to alert owners, operators, maintenance technicians, and inspectors of an airworthiness concern, specifically the potential for cracks in the wing lower spar caps near the wing root on **Textron Aviation Inc. (Cessna) Models 177, 177A, 177B, 177RG, and F177RG** airplanes.

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**

During a recent inspection of a Cessna Model F177RG airplane, two cracks were found visually in the wing spar cap; one was 1.22 inches in length and the other was 1.10 inches in length. Using eddy current inspections, three more cracks were found nearby, all at fastener holes. These three cracks were smaller measuring 0.167, 0.078, and 0.104 inches in length. The airplane is used for pipeline patrol and had 8,892 flight hours when the cracks were discovered.

Textron Aviation has issued Cessna Service Letter SEL-57-03 on November 19, 2015, addressing this concern with inspections for cracks and corrosion since corrosion may be a contributing factor in crack development.

In 2012, the FAA received eight reports of cracks in Cessna 210 wing spars. As a result of these reports, the FAA issued Airworthiness Directive (AD) 2012-10-04, which became effective June 5, 2012. This AD requires a one-time inspection for cracks of the wing spar on Cessna Model 210 airplanes.

Although the wing design of the Cessna Model 177 airplanes is similar to the wing design of the Cessna Model 210 airplanes, the airplane experiences lower aerodynamic loads and, therefore the FAA did not include the Cessna Model 177 airplanes in the AD since we had no reports of cracks on these airplanes.

Cessna manufactured over 4,000 of the Model 177 airplanes since 1968 and to date we have only received the above mentioned report of a wing spar crack on Model 177 airplanes. The FAA continues to monitor service difficulty information on the fleet.

## **Recommendations**

We recommend visual inspections of the wing lower spar caps for cracks and corrosion using procedures and inspection intervals documented in Cessna SEL-57-03. Give special emphasis to airplanes operating in extended low altitude operations (i.e., pipe line survey, surface spotting, sight-seeing, etc.) and those that have been approved for gross weight increase as well as airplanes with wing modifications.

If corrosion is found, you may obtain wing spar repair information from Textron Aviation, as specified in Cessna SEL-57-03. If cracks are found, the wing spar should be replaced.

### **For Further Information Contact**

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### **For Related Service Information Contact**

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