



FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-11-41
Date: June 29, 2011

SUBJ: Fuselage, Wing Attach Fittings

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) informs registered owners/operators of all **Air Tractor, Inc. AT-300, AT-301, AT-302, AT-400, AT-400A, AT-401, AT-401A, AT-401B, AT-402, AT-402A, AT-402B, AT-501, AT-502, AT-502A, AT-502B, AT-503, AT-503A, and AT-504** model series aircraft (under Type Certificate Data Sheets **A9SW** and **A17SW**) of an airworthiness concern. Specifically, this SAIB provides general and detailed inspection for fatigue cracking of the fuselage frame wing attach tube.

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

Background

The Federal Aviation Administration (FAA) received reports of a fatigue crack at the upper bushing location in the fuselage frame wing attach tube on two Air Tractor, Inc. AT-502B model airplanes. Both airplanes had factory installed gussets around the upper bushing area and earlier production thinner walled tubing. Originally, reports of fatigue cracks at the upper bushing on AT-300/400 series airplanes were addressed by Snow Engineering Co. Service Letter #69. Cracks were also reported on early AT-501/502 series airplanes at the two middle bushing locations. Inspection and repair of early production AT-501/502 model series airplanes was addressed by Snow Engineering Co. Service Letter #92. These early airplanes lacked the reinforcing gussets at these locations. Later AT-502 series airplanes received gussets at all four bushing locations starting at serial number -0129, and were produced with a thicker walled tube starting at serial number -615.

Left unaddressed, cracks can continue around the perimeter of the wing attach tube and result in loss of connection of the fuselage wing attach tube with the remainder of the fuselage frame. The wing attach angles that bolt to the fuselage wing attach tube are also known to crack in the radius of the attach angle. Inspection for cracks in the wing attach angles was originally addressed by Snow Engineering Co. Service Letters #89 and #89A.

In response to these concerns, Air Tractor, Inc. recently issued Snow Engineering Co. Service Letter #296 to conduct directed visual inspections of the right and left hand fuselage wing attach tubes and wing attach angles. The service letter specifies recurring directed visual inspections every 100 hours using a borescope with a more thorough inspection at each annual inspection with the attach angles removed. If cracks are indicated, confirm by removing the paint and performing a dye penetrant inspection and contact the Air Tractor Service Department if any cracks are found to obtain a repair method.

Recommendations

The FAA recommends you inspect your Air Tractor, Inc. airplane fuselage frame wing attach tubes and wing attach angles at the time intervals and using the inspection procedures directed in Snow Engineering Co. Service Letter #296. Repair or replace any cracked structure found during any inspection in accordance with Air Tractor Service Department instructions.

For Further Information Contact

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For Related Service Information Contact

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