FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-11-35
SUBJ: Flight Controls: Rudder **Date:** May 25, 2011

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) informs owners, operators, and maintenance personnel of Ag-Cat G-164 airplanes about potential cracking in the rudder.

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

FAA Flight Standards District Office, FSDO-21 Fargo, ND reported cracks being found on the rudder of the Allied Ag Cat G-164 airplanes. Cracking was located in the rudder main spar tube in the area above the upper hinge attach point. Typically the cracks are discovered during aircraft inspection and/or when recovering the rudder. Cracks are also detectable by grabbing the top of the rudder firmly and applying moderate hand pressure in a lateral direction.

The root cause of cracking has not been determined, but some contributing factors may be: high rudder operational loads, no gust lock during tie-down, "Tall Tail Conversions" (STC tail extensions), or various field repair scenarios.

Recommendations

Review of the Ag-Cat Maintenance Manual identifies 100-hour and annual inspection for breaks and damage in steel structure, but does not identify a detailed inspection that would identify the rudder cracking issue. This bulletin is being created to inform maintenance personnel of an inspection procedure that has been demonstrated successful in identifying cracks.

The FAA recommends that you apply hand pressure in both left and right lateral directions as shown in the Figure 1, Figure 2 and Figure 3.

For Further Information Contact

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Figure 1

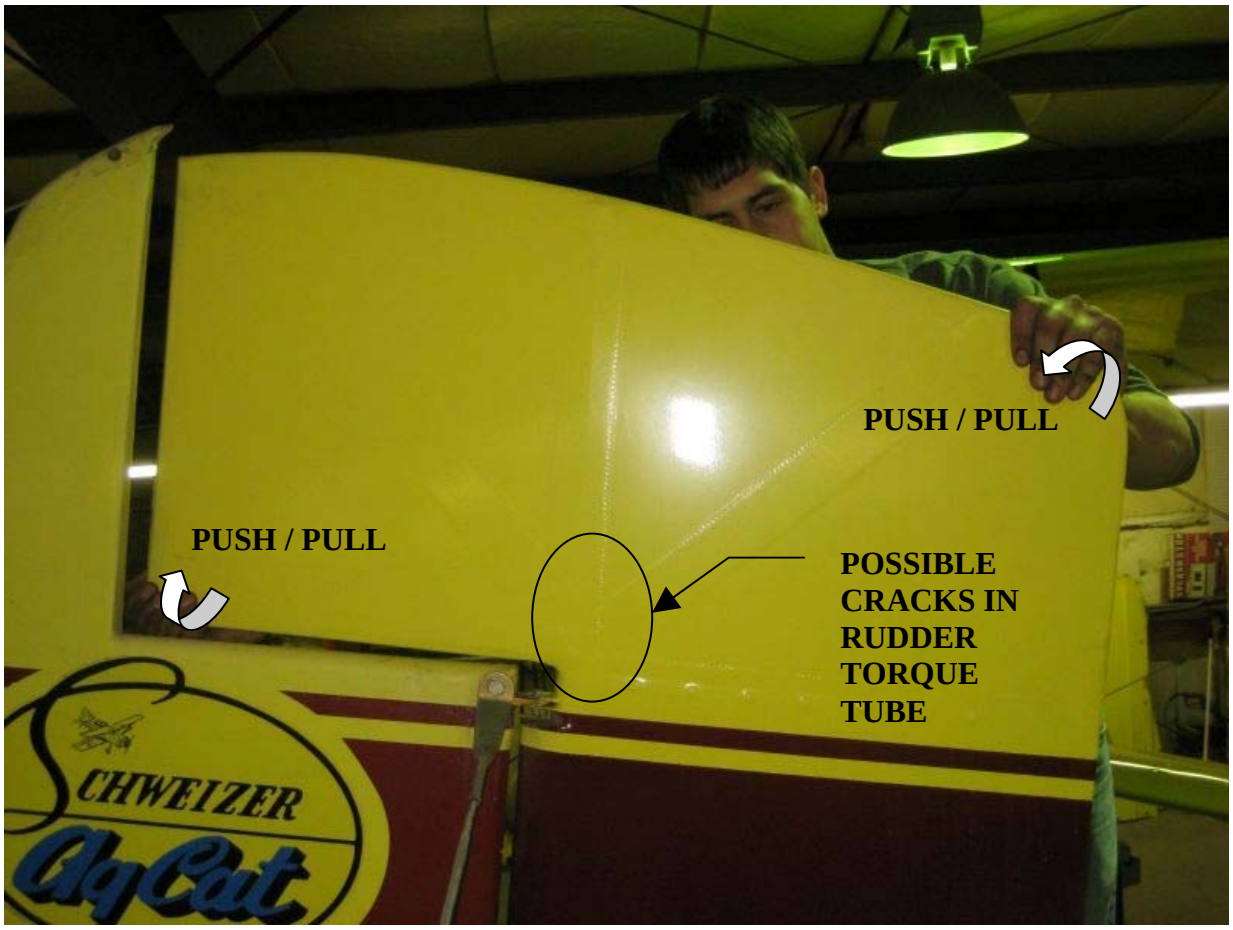
PUSH / PULL
PUSH / PULL
POSSIBLE CRACKS IN RUDDER TORQUE TUBE
CHWEIZER
AgCat

Figure 2

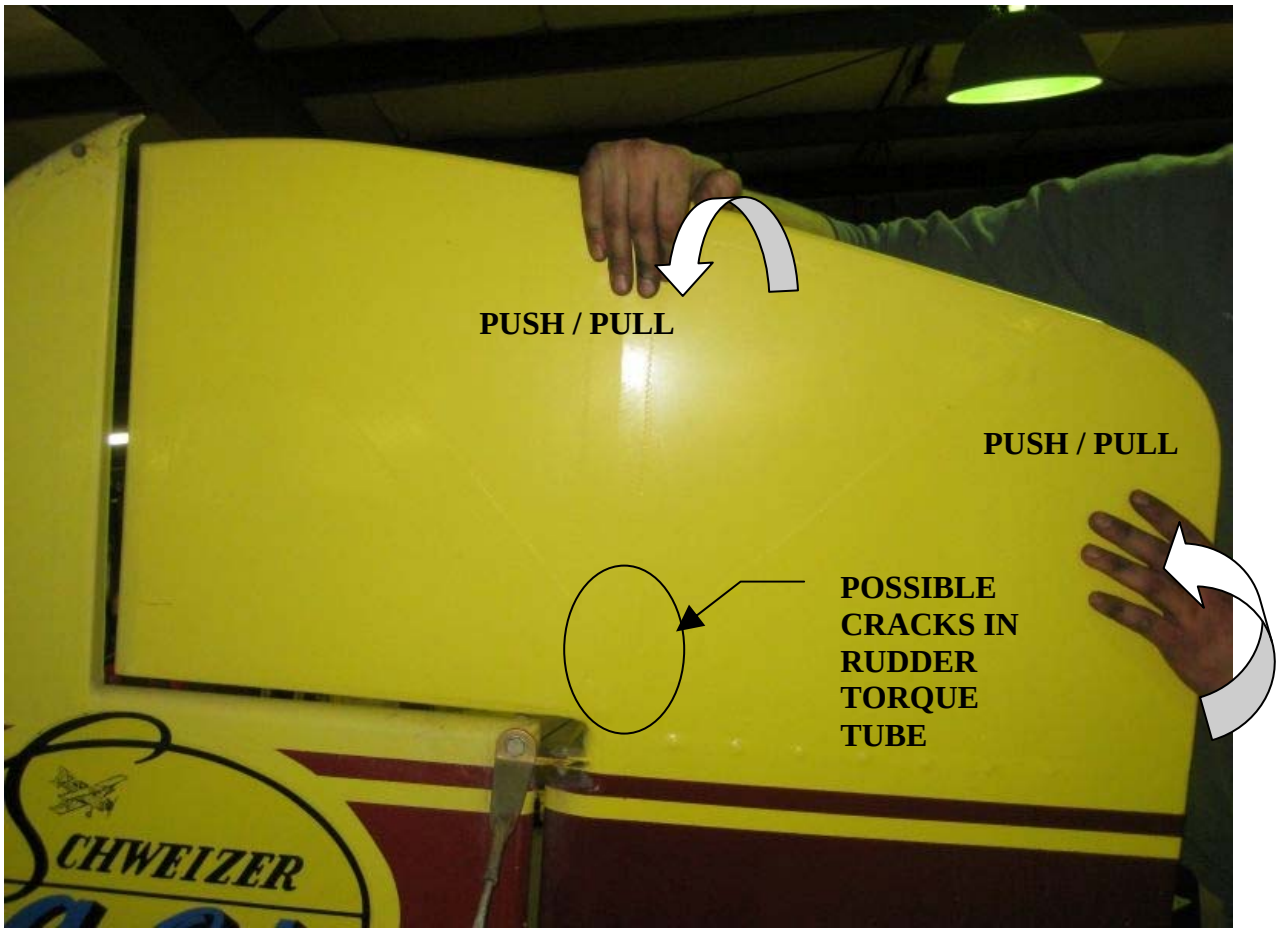
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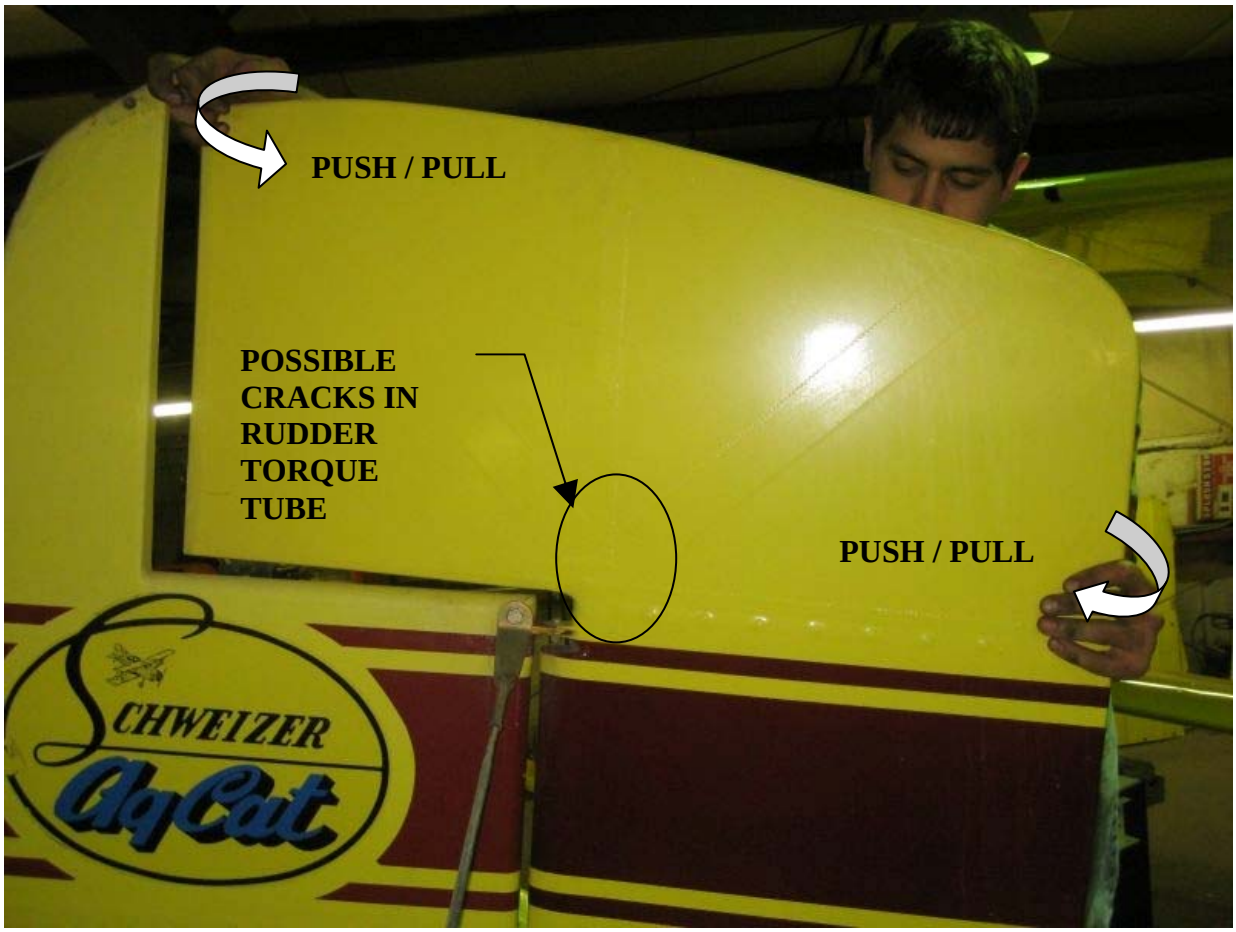
Figure 3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