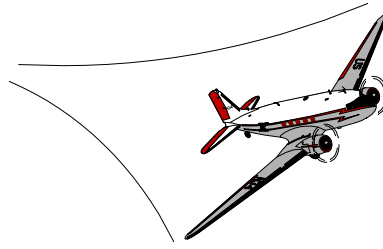


# SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

No. CE-04-34  
December 11, 2003

Aircraft Certification Service  
Washington, DC

[www.faa.gov](http://www.faa.gov) - Search "SAIBs"

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

## Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners and operators of **Tiger Aircraft LLC (American General) Model AA-5A, AA-5B, and AG-5B airplanes**, of a safety concern with the horizontal stabilizer forward spar carry-through support structure.

## Background

During a routine inspection, maintenance personnel found *a cracked and deformed* horizontal stabilizer forward spar carry-through support structure. The cracking was in all four corners of the structure and also at a point adjacent to the right side attachment hole in the same support structure.

We've received similar reports on other airplanes after they had experienced a dynamic event such as a hard landing, tail strike, crash, or during other notable impact with stationary objects.

## Recommendation

We highly encourage owners and maintenance personnel to perform detailed visual inspections of the horizontal stabilizer forward spar carry-through structure at the following times:

- At every annual/100 hour inspection
- After hard landings, tail strikes, or any other notable impact with stationary objects.

We've included inspection instructions for your convenience. Comparable instructions appear in the latest release of the AG-5B maintenance manual and will also appear in the AA-5A and AA-5B maintenance manuals as well.

## Report Your Findings

If you find cracks or deformation, it is important that you report your findings to both **Tiger Aircraft LLC** as well as your **Flight Standards District Office** for inclusion in the Service Difficulty Reporting Database. Tiger Aircraft LLC Contact Information: John Rock, Chief Engineer, 226 Pilot Way, Martinsburg WV 25401, (304) 260-4513.

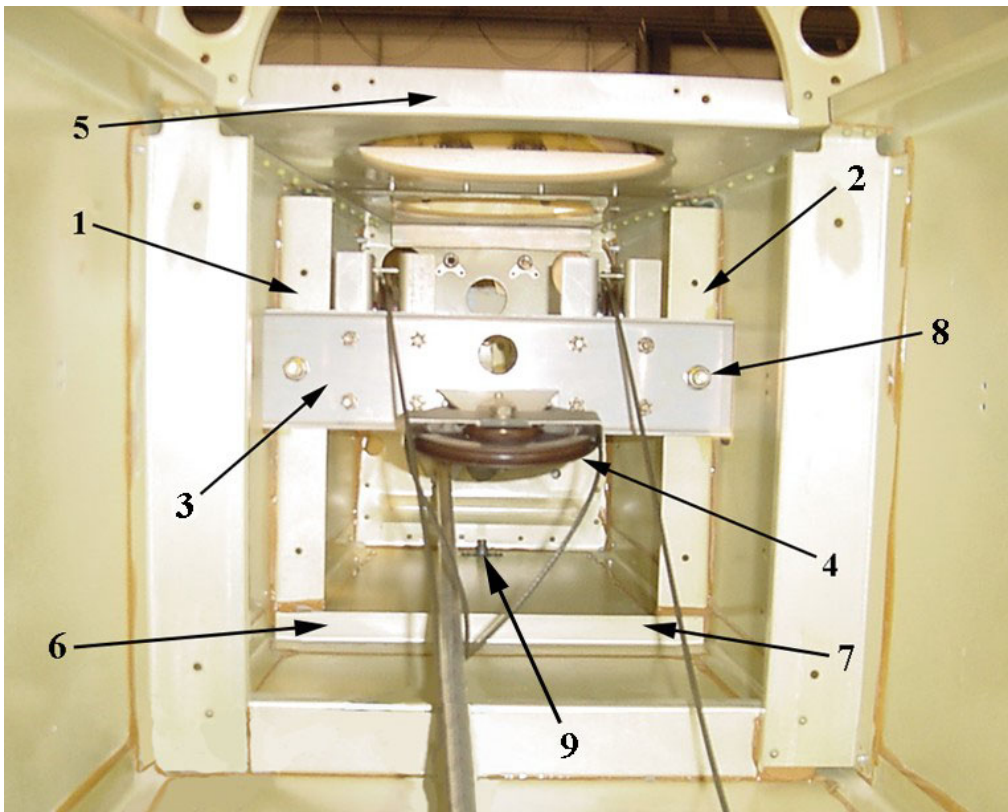
We aren't issuing an Airworthiness Directive (AD) at this time. We will continue monitoring this situation, including any reports received as a result of this SAIB, and may take AD action if the situation warrants.

**For Further Information Contact**

Richard Beckwith, Aerospace Engineer, New York Aircraft Certification Office, 10 Fifth Street, Valley Stream, NY 11581, (516) 228-7302, e-mail [richard.beckwith@faa.gov](mailto:richard.beckwith@faa.gov)

## Recommended Horizontal Stabilizer Forward Spar Attach Point Inspection

- (1) Remove the aft fuselage inspection covers below the vertical fin.  
(Refer to Chapter 53 of the maintenance manual)
- (2) Remove the flashing beacon power supply. (Refer to Chapter 33 of the maintenance manual)
- (3) Through the large lighting hole in horizontal bulkhead (5) use a suitable light and mirror to perform the following inspections: (Refer to the figure below)
  - (a) Inspect spar support angles (1 and 2) for delamination, cracks and buckling above and below stabilizer spar (3). Also inspect the upper flanges of the angles for cracks in or near the bend radii.
  - (b) Inspect the angles for cracks or buckling around spar attach bolts (8).
  - (c) Inspect the lower stiffener in areas (6 and 7) for cracks and/or delamination.
  - (d) Inspect the exterior skins on either side of angles (1 and 2) for cracks.
- (4) If any damage is found, remove stabilizer spar (3) and repair or replace damaged angles (1 and 2) and stiffeners (6/7) and any other damage in accordance with Chapter 20 of the maintenance manual, Service Kit 125A and/or AC43-13.
- (5) Reinstall the flashing beacon power supply. (Refer to Chapter 33 of the maintenance manual)
- (6) Reinstall the aft fuselage inspection covers below the vertical fin.  
(Refer to Chapter 53 of the maintenance manual)



Forward Horizontal Support Angles

- |   |                               |
|---|-------------------------------|
| 1. RH Spar Support Angle                    | 6. Lower Stiffener, RH side   |
| 2. LH Spar Support Angle                    | 7. Lower Stiffener, LH side   |
| 3. Horizontal Stabilizer Forward Spar       | 8. Attach Bolt                |
| 4. Aileron Balance Cable Pulley (reference) | 9. Tail Tie-Down Attach Point |
| 5. Horizontal Bulkhead                      |                               |