

14CFR part 141

Safety Summit

“Maintenance”

Presented to: “14CFR part 141 Pilot Schools”

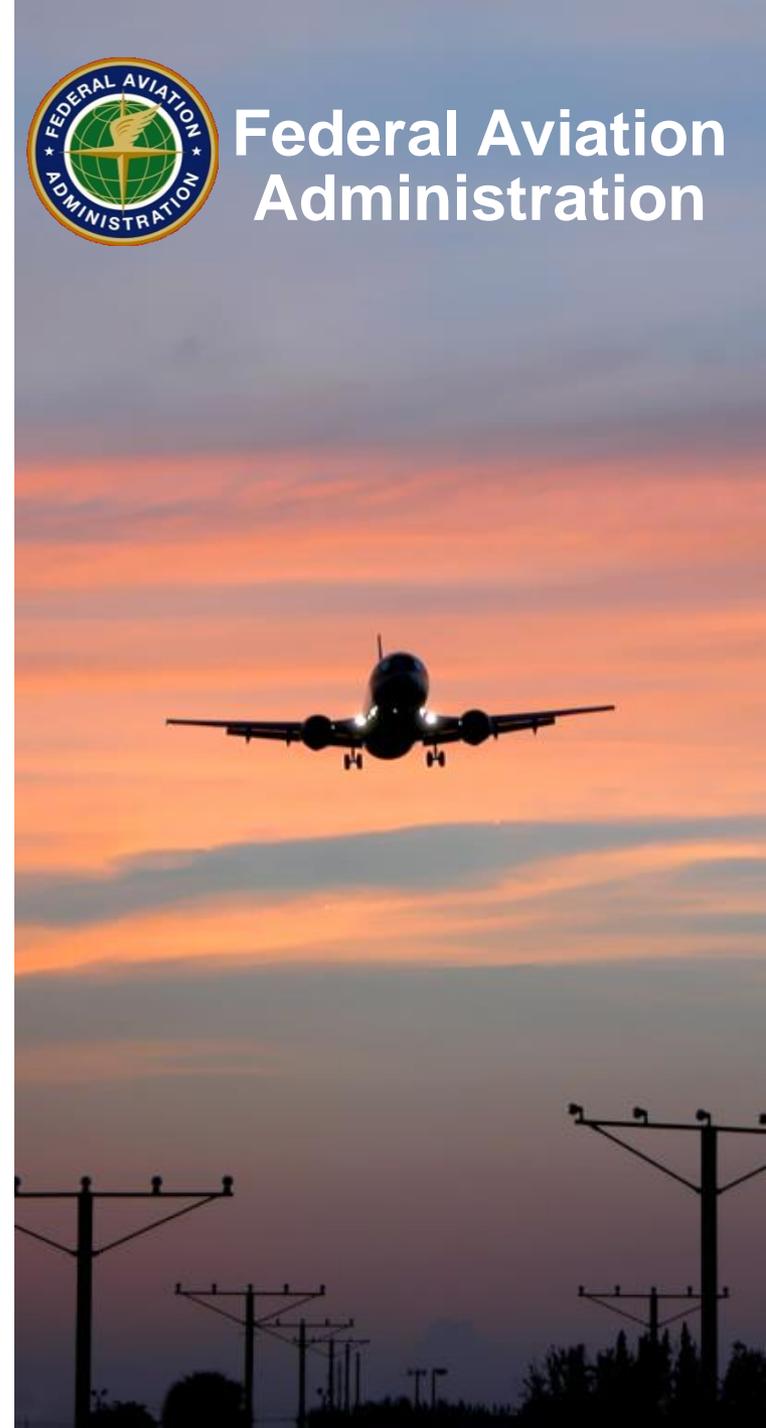
By: Tony Alfaya, Program Manager

Orlando FSDO FAAS Team

Date: May 10, 2018



**Federal Aviation
Administration**





FLYING

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NEWS

NTSB Releases Details of Daytona Beach Accident

Piper wing failure points to metal fatigue.

By Rob Mark Yesterday at 12:42pm

April 14, 2018



NTSB Releases Details of Daytona Beach Accident

Piper wing failure points to metal fatigue.

By Rob Mark Yesterday at 12:42pm

The left wing of the aircraft separated from the airplane shortly after the pilot completed a touch and go landing on runway 25 Left at Daytona Beach International airport (DAB)...

A preliminary report released by the NTSB this week said the left wing main spar of the 2007 Arrow “revealed that more than 80 percent of the lower spar cap and portions of the forward and aft spar web doublers exhibited fracture features consistent with metal fatigue.”

NTSB Releases Details of Daytona Beach Accident

Piper wing failure points to metal fatigue.

By Rob Mark Yesterday at 12:42pm

Radar data indicated the Piper had climbed to approximately 900 feet heading southwest before radar contact was lost. A number of eye witnesses within a half mile of the aircraft all reported the aircraft operating normally until the left wing separated from the fuselage and landed in a field a few hundred feet from where the main fuselage came to rest...



Figure 1 - Left wing main spar lower cap fracture surface.

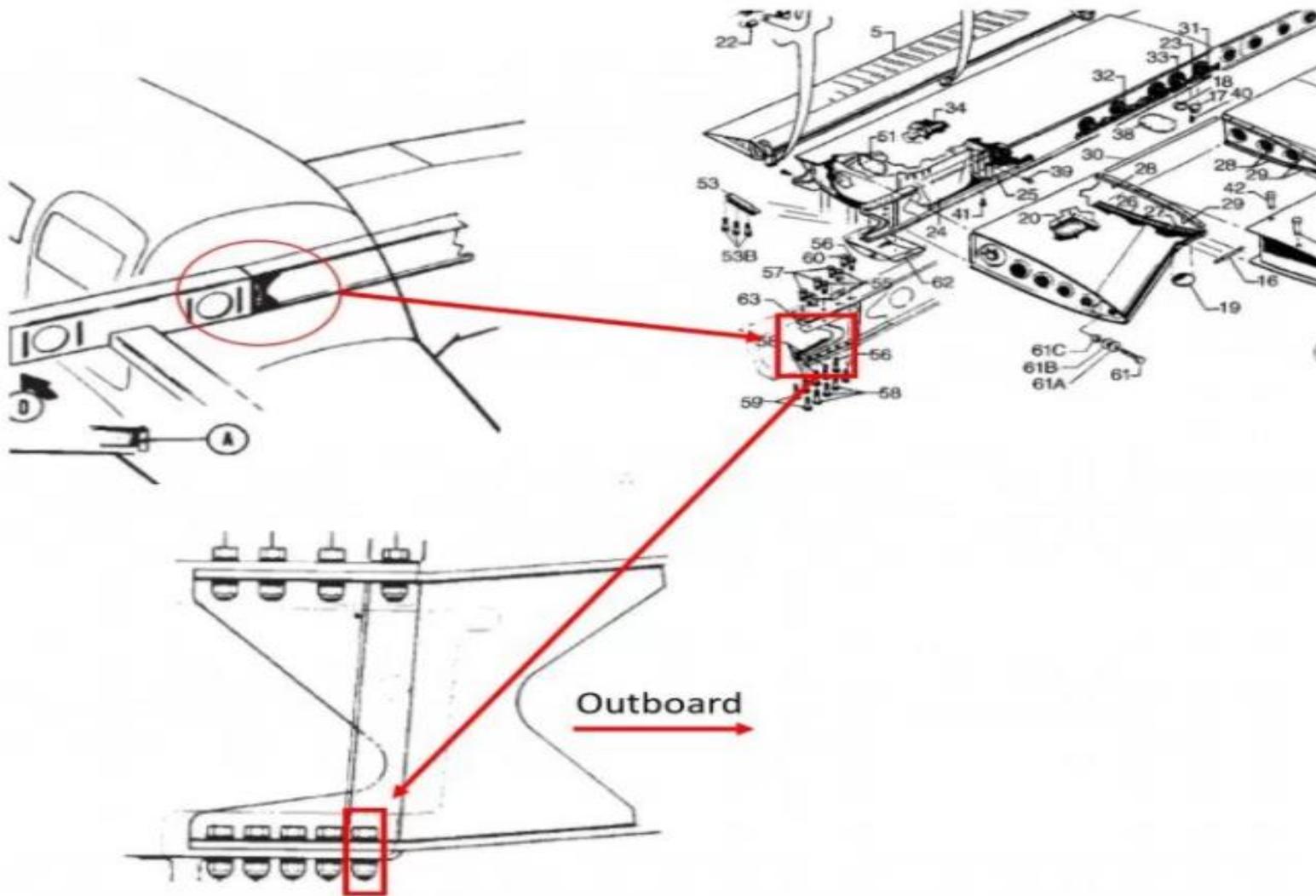


Figure 2 – Exploded view of left wing spar assembly and attachment bolts.

(Photos courtesy NTSB)

Orlando District Part 141 Findings

- **Piper PA-28RT-201 (Arrow)**
- **Airworthiness Date: 06/05/1979**
- **TTAF: +7000**
- **Currently at the St. Lucie County International Airport (FPR)**















Wing Inspections

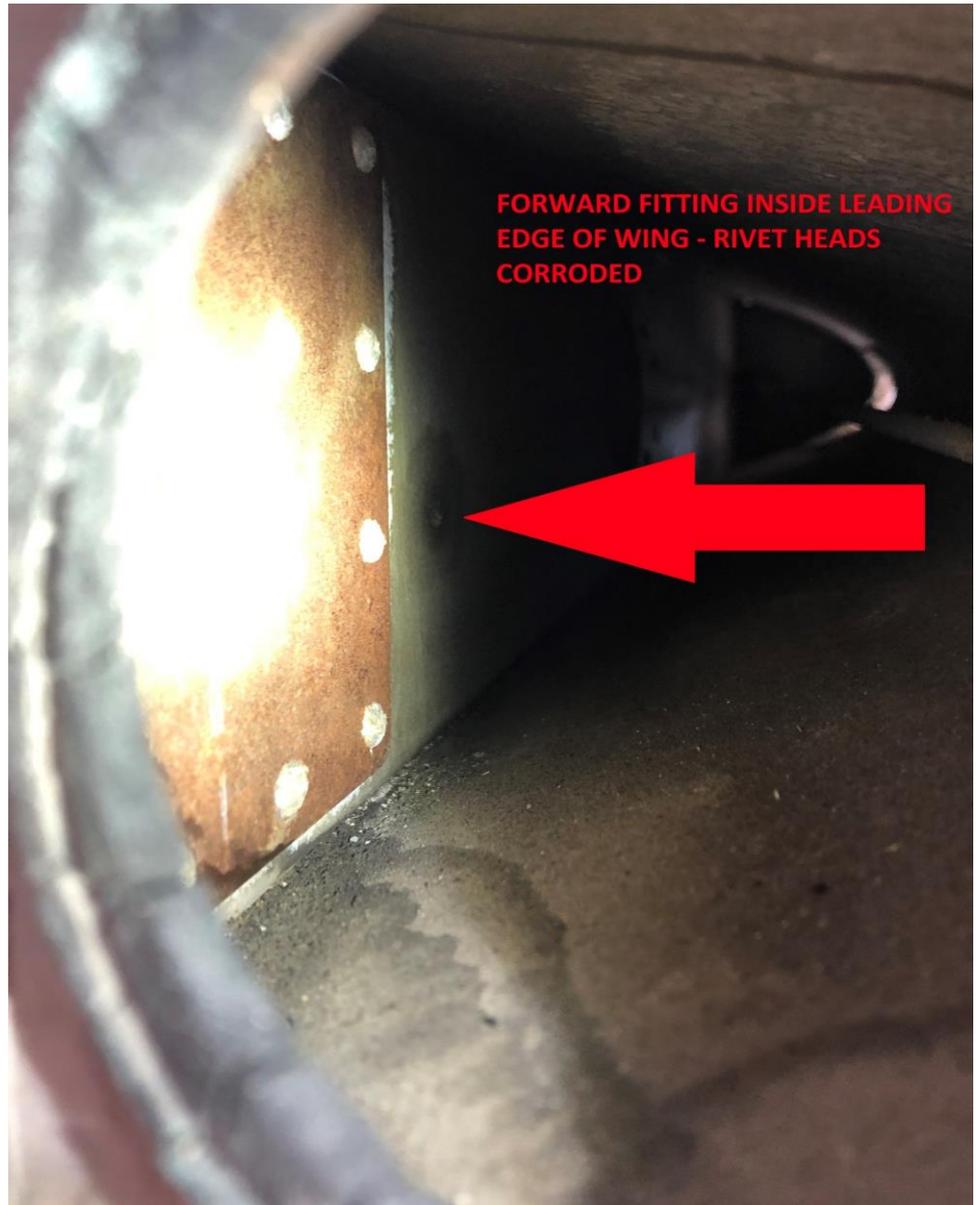


PA-28RT-201 “Arrow”
TTIS: 12186.3



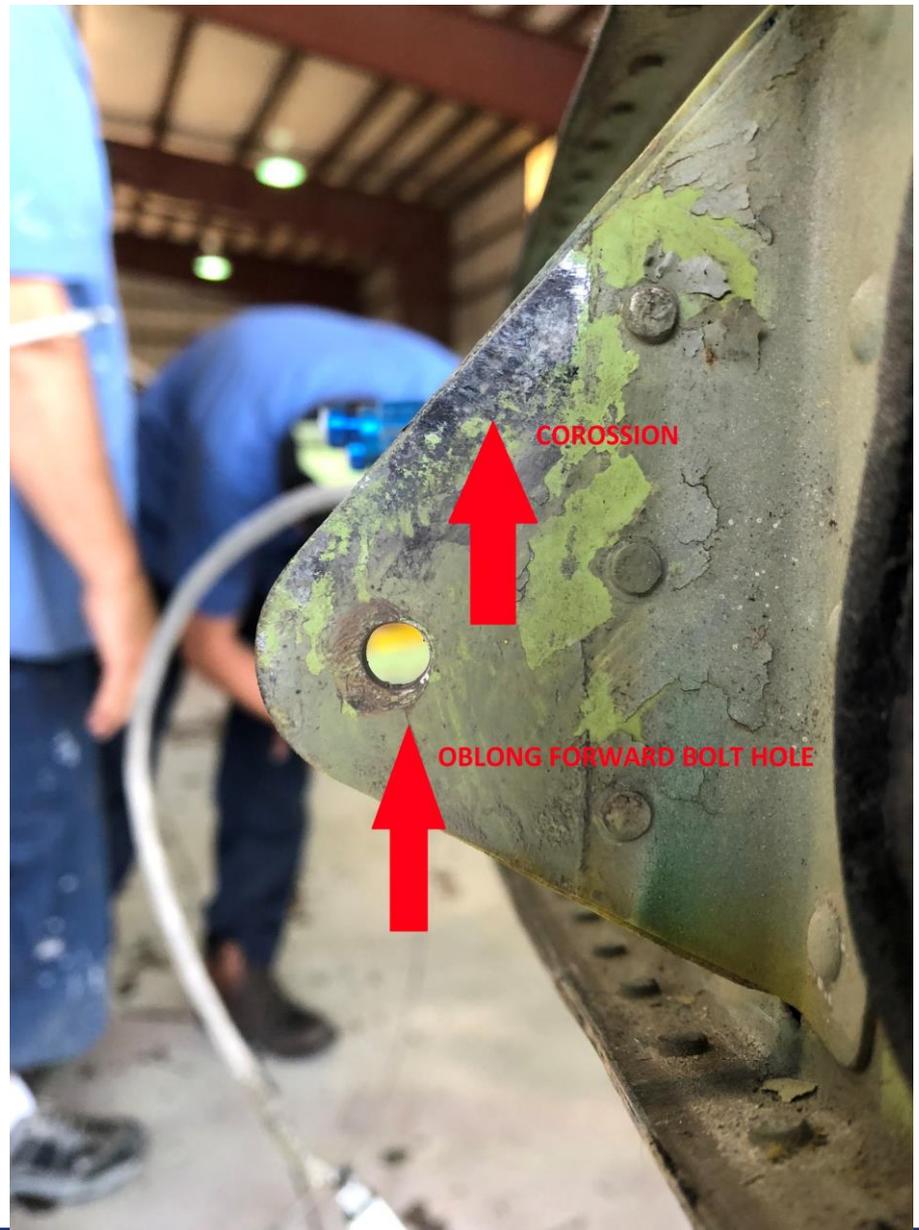
CORROSION AROUND BOLT HOLE AND WASHER WEARING INTO SPAR

PA-28RT-201 "Arrow"
TTIS: 12186.3

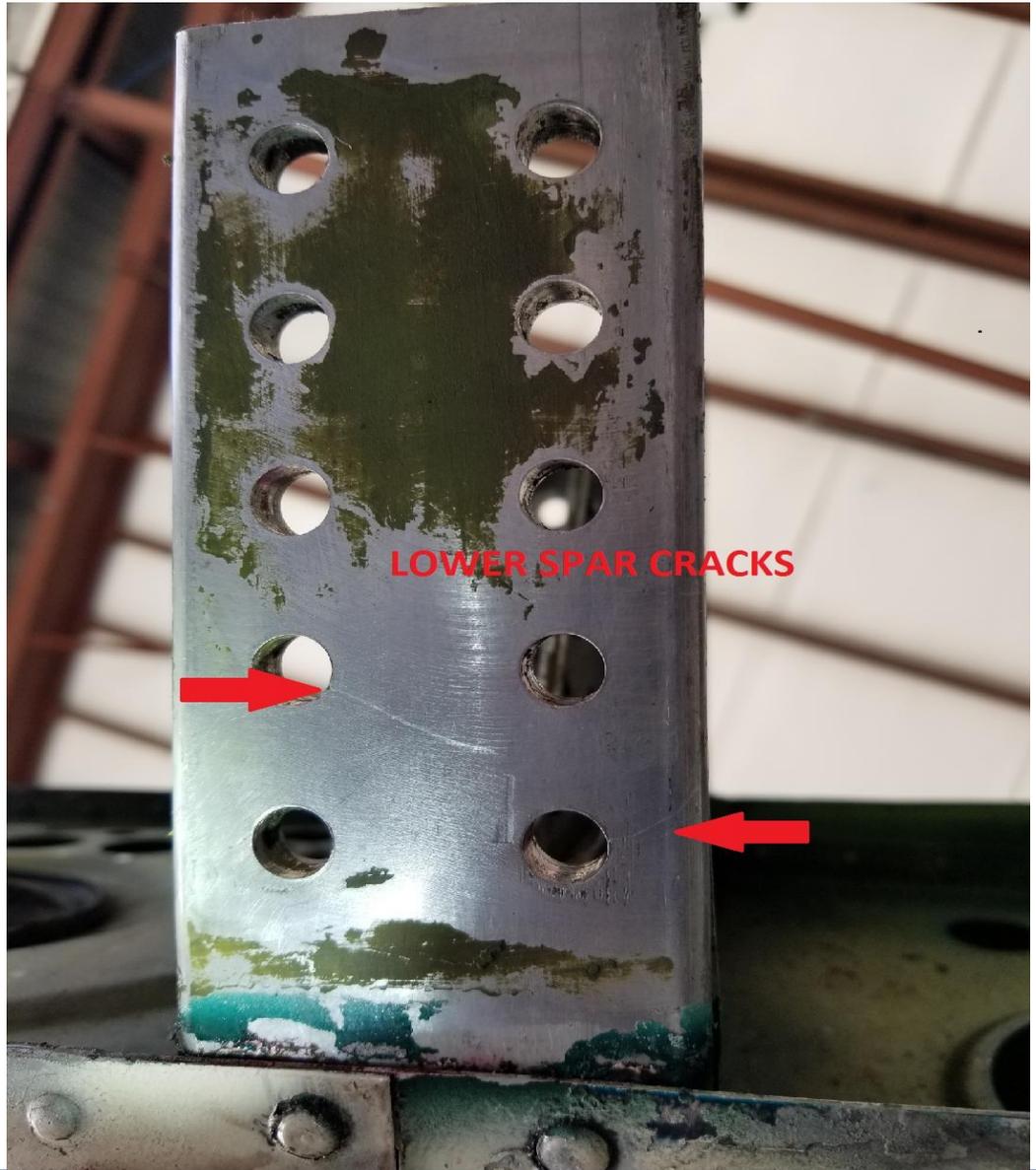


PA-28-161 “Warrior”

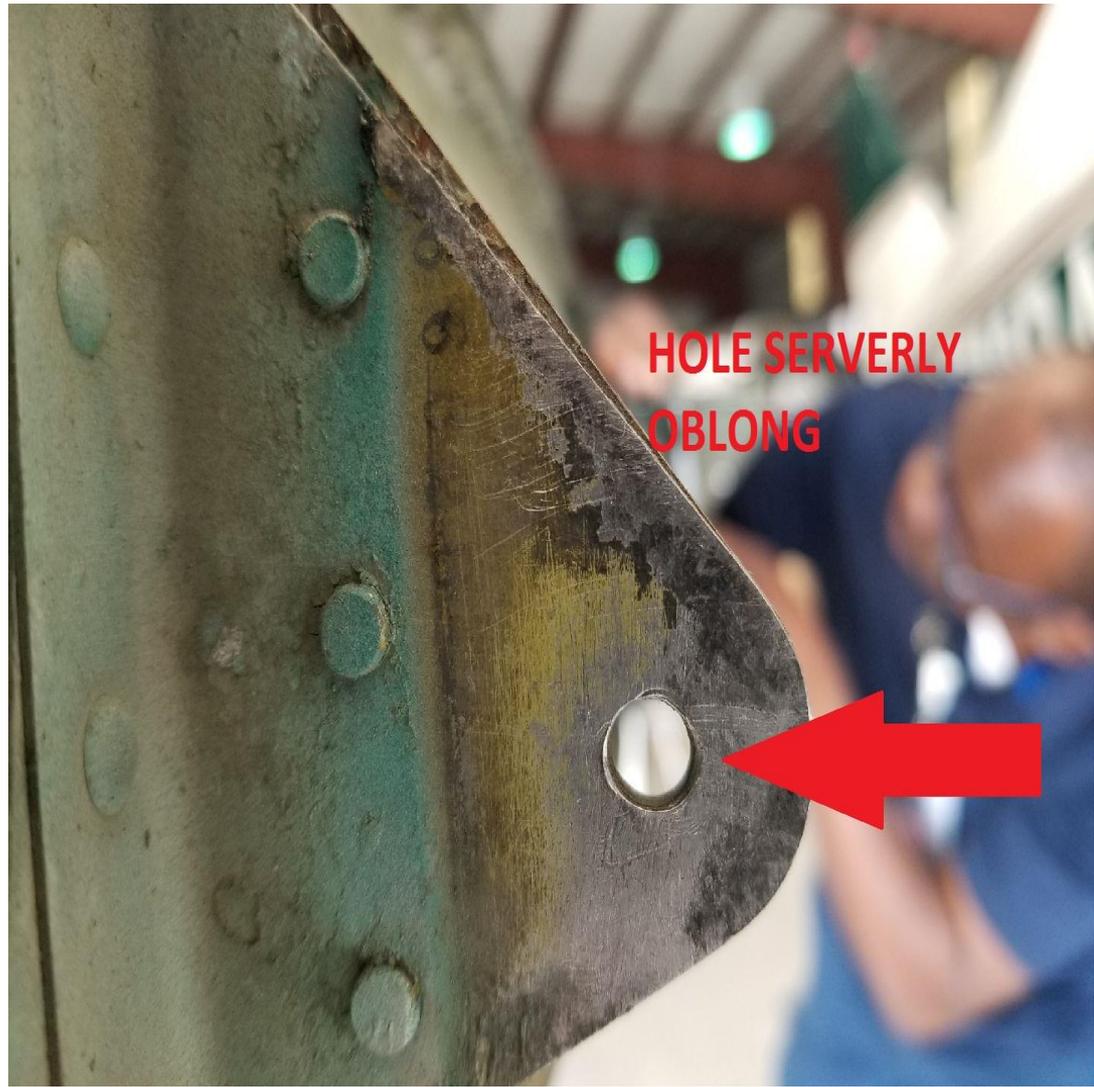
TTIS: 12383.4



PA-28-161 “Warrior”
TTIS: 21916.5



PA-28-161 “Warrior”
TTIS: 21916.5







PA-28R-201 "Arrow" TTIS: 8570.2



PA-28R-201 “Arrow” TTIS: 8570.2 – Wing movement noted. No wing damage noted in logbook.

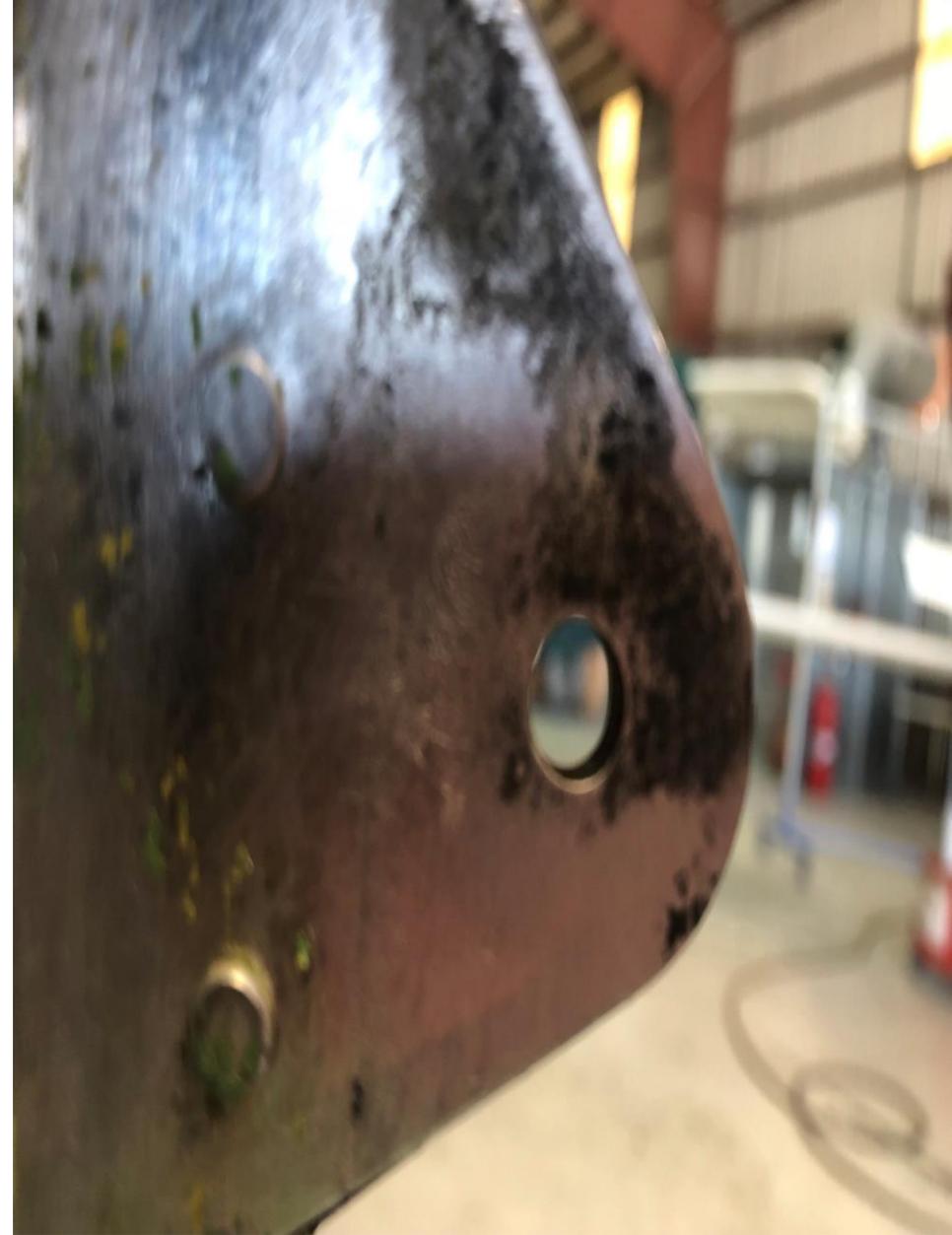
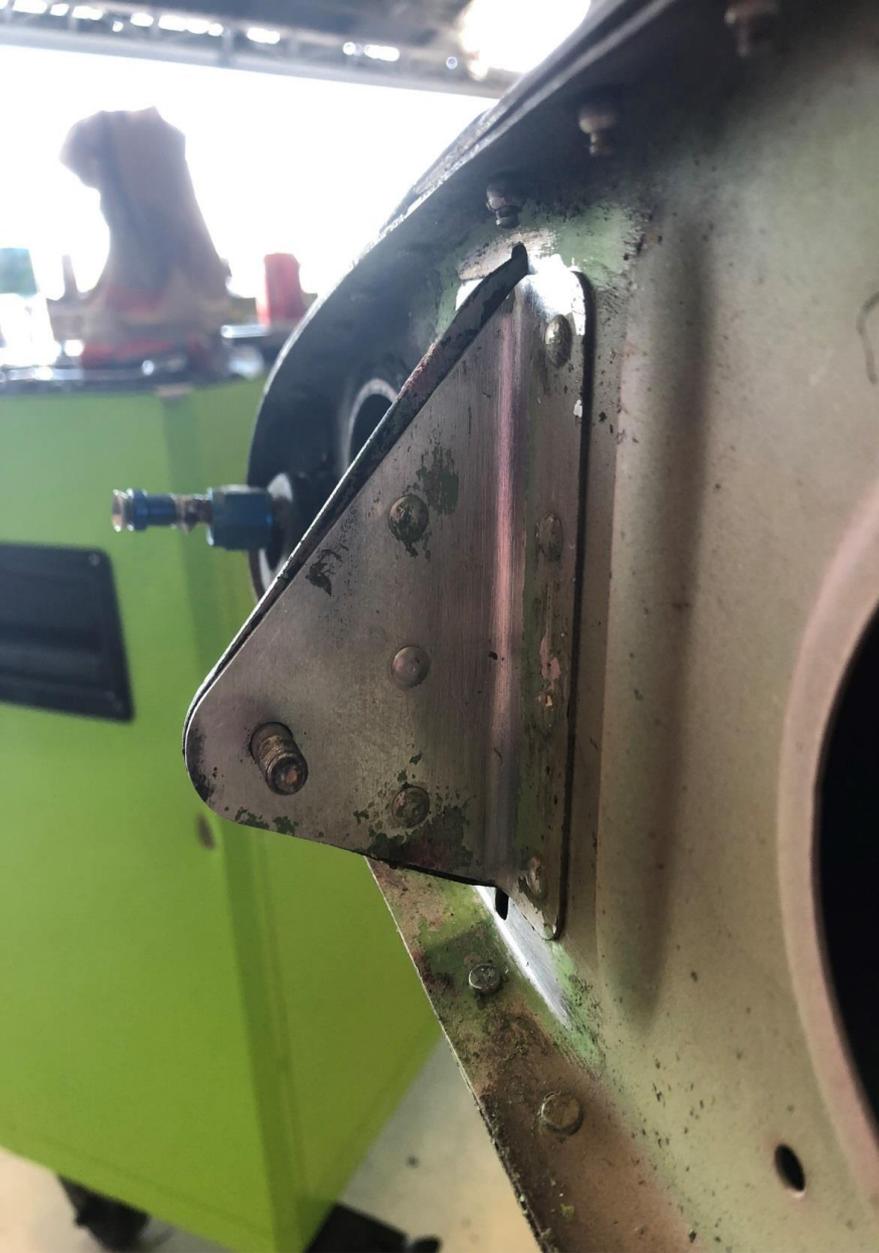






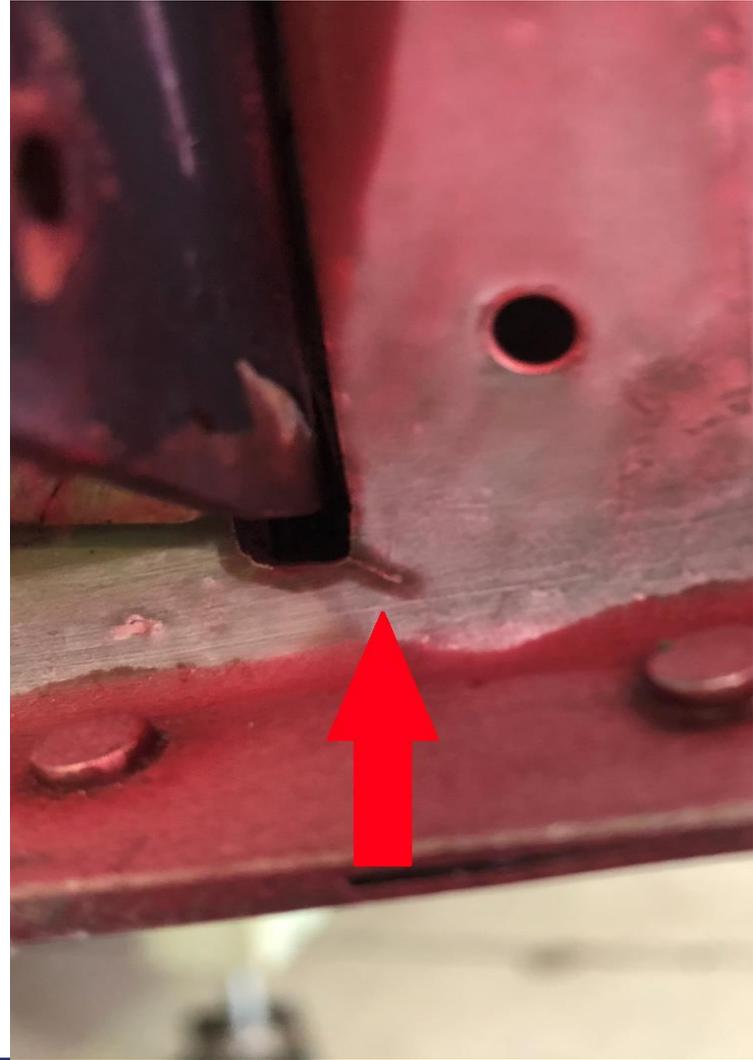








Small crack on forward leading edge top and bottom of bracket.



Wrinkle in spar.



TTIS: 6672.4 – Wing movement noted. No wing damage noted in logbook.













TTIS: 9041.1 – Wing movement noted. No wing damage noted in logbook.



TTIS: 12383.4 – Wing movement noted. No wing damage noted in logbook.





TTIS: 12913.9 – Wing movement noted. No wing damage noted in logbook.

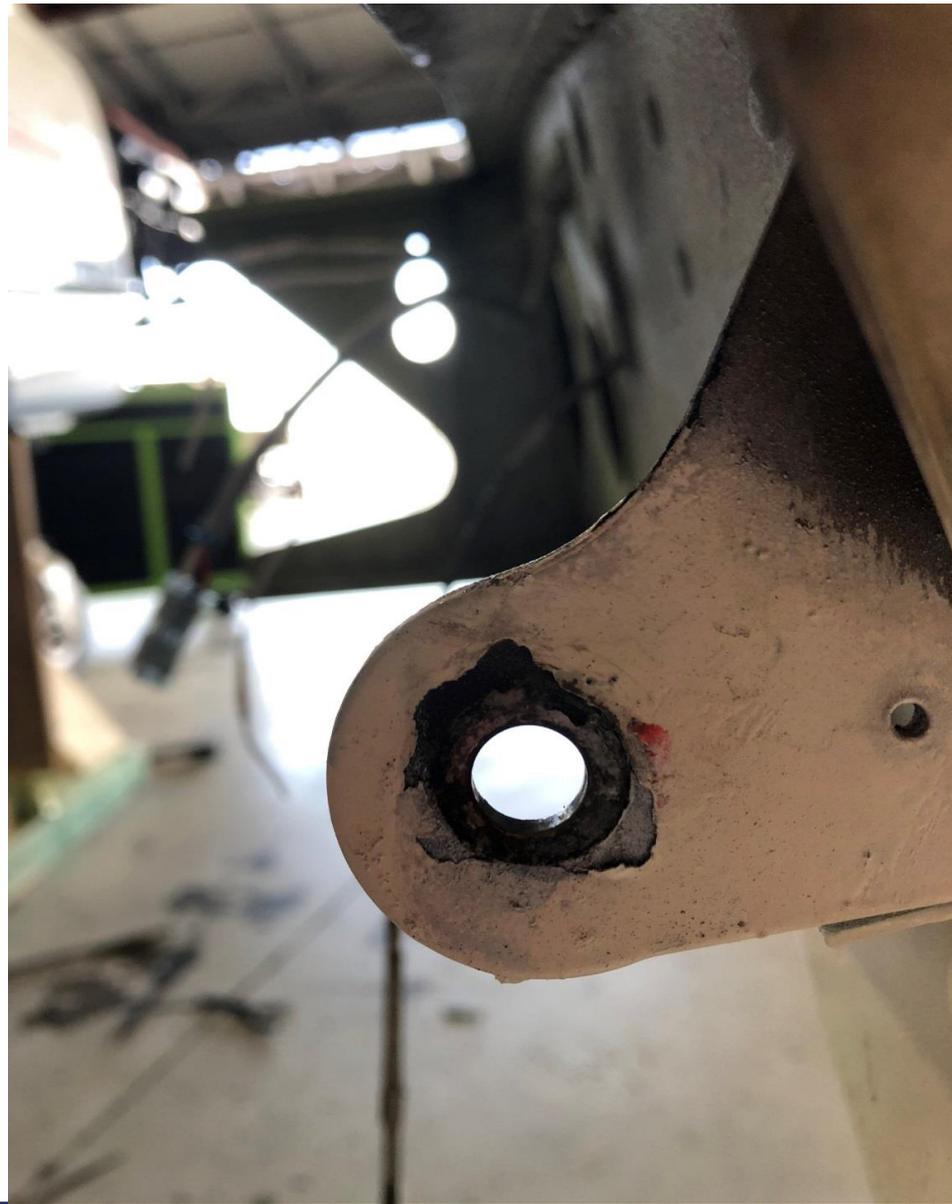






TTIS: 11697.7 – Wing movement noted. No wing damage noted in logbook.





Orlando FSDO I.A.'s,

It has been brought to our attention that recent aircraft wing inspections, at one of our local flight schools, has identified that some models of Piper Arrows, Warriors, and Archers may have the following:

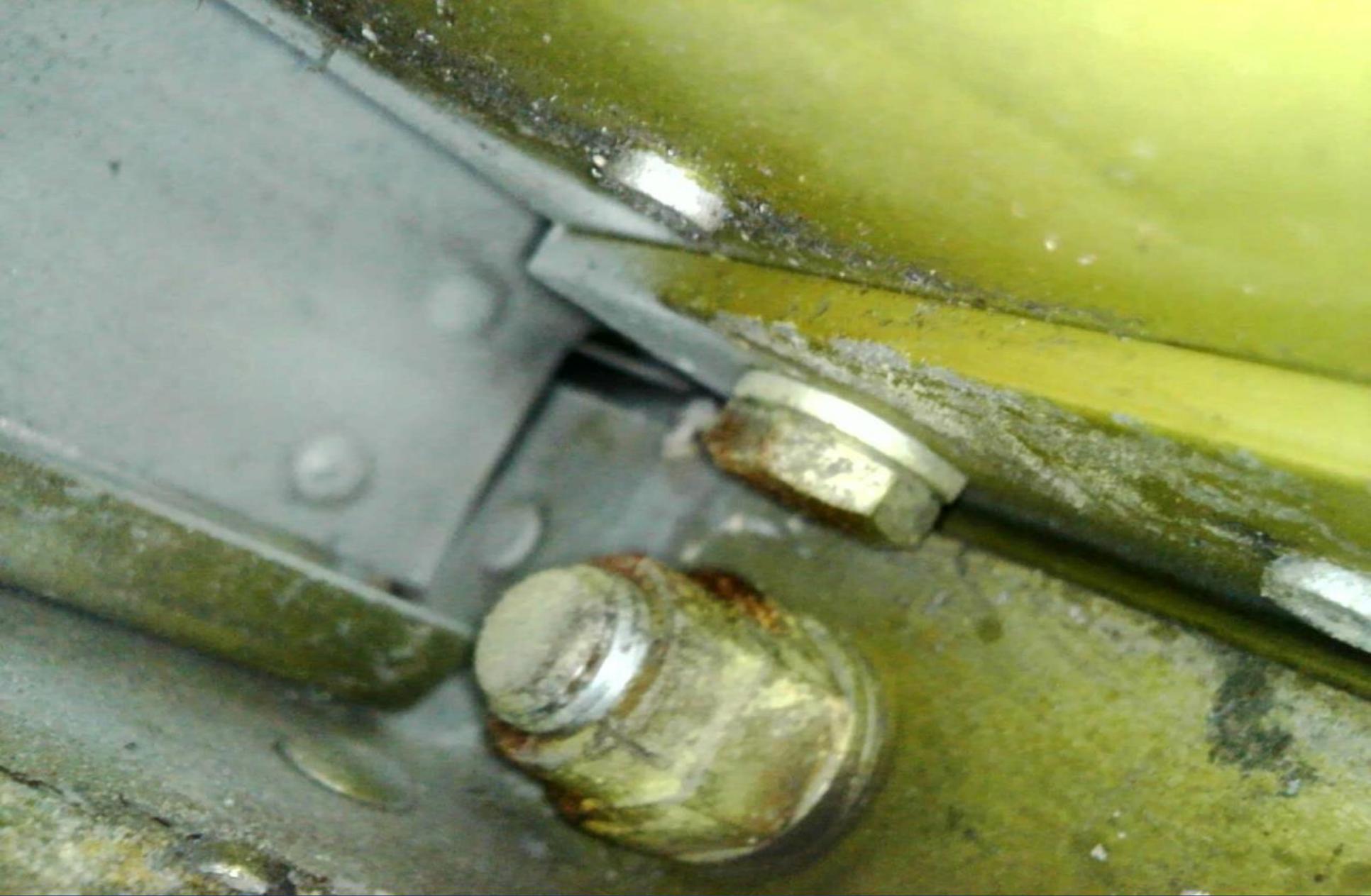
- Wing movement at front attachment point.**
- Cracked spar at the bottom of the spar.**
- Evidence of corrosion on the bolt holes of the spar. The forward fitting also has corrosion and rust.**
- Oblong bolts holes on spar and wing box attach point, including bolt damage.**

This information is being sent out as a precautionary safety concern and has not been verified and/or confirmed.

Orlando District IA's Findings

- **Piper PA-28-140 (Cherokee)**
- **Airworthiness Date: 08/19/1967**
- **Tach: 1175.3 TTAF: 5293.0**
- **Last annual signed off 03/15/2017**
- **Currently at the Plant City Airport (PCM)**











14 CFR Part 141

Orlando FSDO Surveillance Results

“A picture is worth a thousand words...”



1. Approving Civil Aviation Authority's Country

2. Identification
Name and Address: THE FLORIDA SERVICE CENTER, 224 West 1st Street, North Miami Beach, FL 33162

3. Item Marking Details
4. Part Marking Details
5. Model Certificate Identification Number

6. Item 7. Description: BSN-AV AIR 8. Part Number: 000216-1 9. Country: LA 10. Serial Number: 010180

11. Declaration as required for items listed in Attachment A and not used, installed, or tested. Initials, date, and name. (Required for items listed in Attachment A and not used, installed, or tested.)

12. Certify the items identified above were manufactured in accordance with:
 Approved design data and are in a condition for safe operation.
 Non-approved design data specified in Block 10.

13. Approval Authority No. 13a. Date (dd/mm/yyyy)

14. 14 CFR 43.9 Status in Service Other registration specified in Block 12

15. Authorized Signature: [Signature] 15a. Name (Typed or Printed): MIKE KEEFE, INSPECTOR

16. Approved Authority No. 16a. Date (dd/mm/yyyy): 08/20/2017

17. Signature of Manufacturer/Repairman/Inspection Station Representative

18. Signature of Approving Authority

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FAA Form 8130-3 (10/13)













Orlando FSDO
Safety Team



Federal Aviation
Administration





Orlando FSDO
Safety Team



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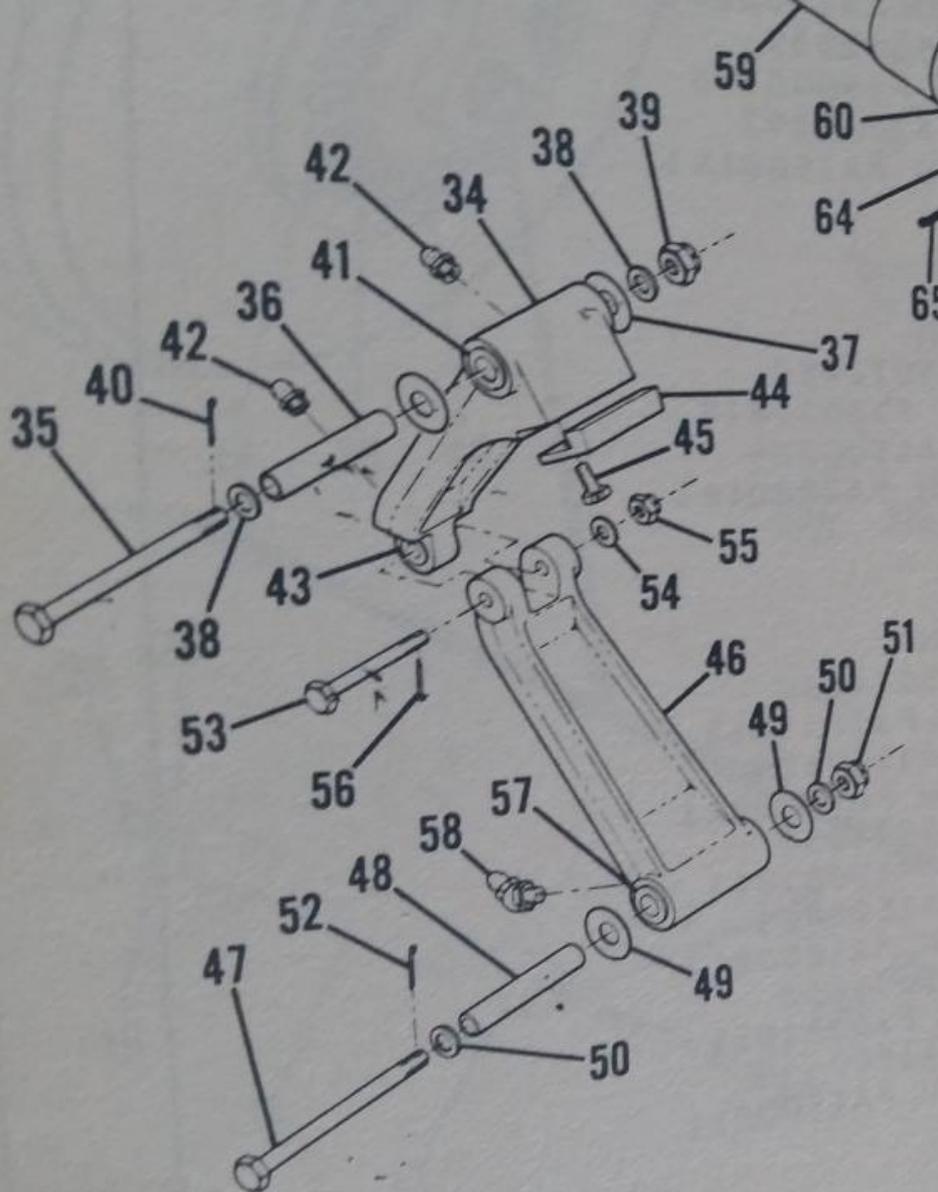


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Torque Links







Orlando FSDO
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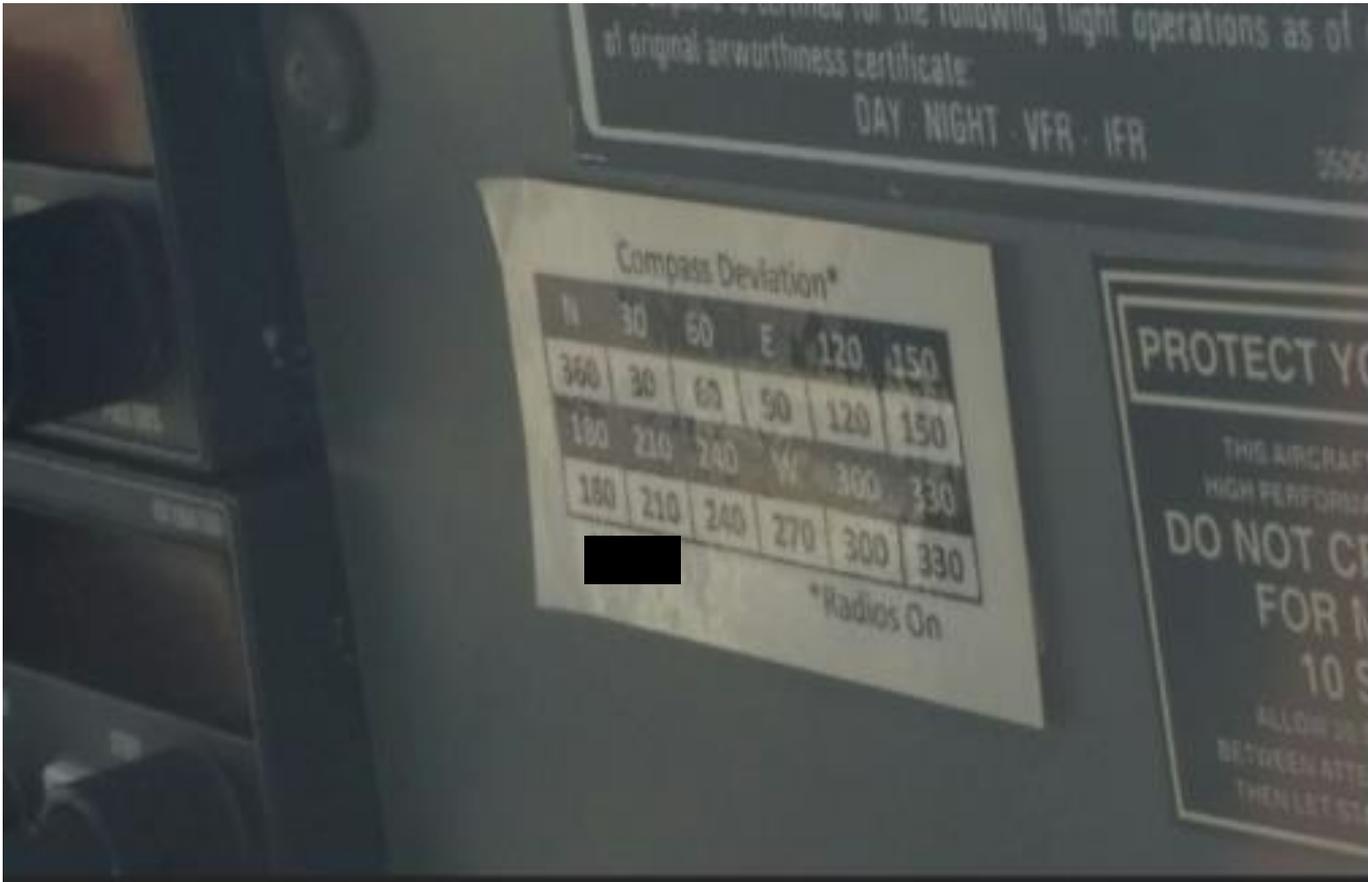




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Tony Alfaya
tony.alfaya@faa.gov
407-487-7028



[Safety \(2:08\)](#)