

Maintenance Records Excerpts

NTSB Investigation: ERA23FA340

N9855S
MAINTENANCE ACTIONS - 100 HOUR INSPECTION - AIRFRAME
6/29/2023 TTIS: 16756.9 MX HOBBS: 298.5

- Complied with A.D. 76-07-12RI (a)(b)(c) Bendix Ignition Switch
- Complied with A.D. 20-26-16 Wing Spar Integrity section Hardware and factored hours at this time are 1199.1
- No further action is required until factored hours are 5000. Section H is next due at the next 100 hour TT 16856.9
- Door stay lower loose. Installed Rivnut All work done in accordance with AC 43.13.1B.

NAME George Kelso SIGNATURE [REDACTED]

CERT# [REDACTED]

N 9855 S	MAINTENANCE ACTION	AIRFRAME
Date: 7/6/2023		MX HOBBS: 305.8
Pilot reports Airframe structure cracked behind and below the spinner. Maintenance temporarily repaired until next 100 hr. All work done in accordance with AC 43.13-1B.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
Frederick Spence	[REDACTED]	[REDACTED]

N 9855 S	MAINTENANCE ACTION	AIRFRAME
DATE: 7/15/2023		MX HOBBS: 323.6
Pilot reports right Main Tire bald. Maintenance removed and replaced right hand Main Wheel Assembly with serviceable Main Wheel Assembly of same Part # 40-86B Serial # on 92332031, Serial # off 83532264. All work done in accordance with Piper Maintenance Manual.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
Frederick Spence	[REDACTED]	[REDACTED]

N 9855 S	MAINTENANCE ACTION	AIRFRAME
Date: 08/02/2023		MX HOBBS: 349.1
Pilot reports vacuum suction gauge is in red line. Altitude indicator and heading Indicators are not lined up. Need to adjust every 5 minutes. Maintenance Removed and replaced instrument fresh air filter with Part # RA-D9-18-1. Removed and replaced vacuum regulator filter with new Part # ARB3-5-1. Adjusted vacuum regulator. Operation check good. All work done in accordance with PA 28-161. Approved Maintenance Manual.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
George Kelso	[REDACTED]	[REDACTED]

N 9855 S	MAINTENANCE ACTION	AIRFRAME
Date: 08/02/2023		MX HOBBS: 349.1
Pilot reports 2 screws missing. 1 screw behind the Propeller hub is missing and Cowling is cracked, as well as below the Propeller. Crack is spreading. Maintenance upon inspection found cracks stop drilled and cowling serviceable at this time. Installed screws to cowling behind propeller. All work done in accordance with PA 28-161 approved Maintenance Manual.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
George Kelso	[REDACTED]	3290488AP

N 9855 S	MAINTENANCE ACTION	AIRFRAME
DATE: 07/19/2023		MX HOBBS: 333.3
Pilot reports Exhaust Manifold bolt and stud found in belly pan on post flight inspection. Maintenance removed and replaced #2 Cylinder I/B Stud. All work done in accordance with Lycoming Overhaul Maintenance Manual Section 3-33.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
Rafael Salverredy	[REDACTED]	[REDACTED]

N 9855 S MAINTENANCE ACTION AIRFRAME
DATE: 05/09/2023 MX HOBBS: 226.4

Pilot reports right main tire bald spot. Maintenance removed and replaced main wheel assembly with same Part # 40-86B Serial # on 83532264 Serial # off 13970291. All work done in accordance with Piper Maintenance Manual.

NAME SIGNATURE CERT#
Sean Tillett

N 9855 S MAINTENANCE ACTION AIRFRAME
Date: 05/26/2023 MX HOBBS: 261.8

Pilot reports plan won't start. Maintenance test battery inoperable Part # off 7243-14 Serial # G03160602. Replaced with new Battery Part # 7243-14 Serial G01379332 Operation check good.

Aircraft deemed serviceable and returned for service.
NAME SIGNATURE CERT#
Frederick Spence

N 9855 S MAINTENANCE ACTION AIRFRAME
DATE: 06/09/2023 MX HOBBS: 264.6

Pilot reports when we were cranking, the Propeller didn't move to start. Maintenance removed and replaced Battery all work done in accordance with Piper Maintenance Manual 1pc. Performed ground run and found no discrepancy.

NAME SIGNATURE CERT#
George Kelso

N 9855 S MAINTENANCE ACTION AIRFRAME
DATE: 05/10/2023 MX HOBBS: 233.3

Pilot reports fuel cap missing after post flight. Maintenance replaced fuel cap with serviceable all work done in accordance with Piper Maintenance Manual.

Aircraft deemed serviceable and returned for service.
NAME SIGNATURE CERT#
Sean Tillett

N 9855 S MAINTENANCE ACTION AIRFRAME
Date: 06/07/2023 MX HOBBS: 264.6

Pilot reports battery died- Propeller did not turn. Maintenance charged battery reinstalled performed ground run no discrepancy. All work done in accordance with Gill Maintenance Manual.

Aircraft deemed serviceable and returned for service.
NAME SIGNATURE CERT#
George Kelso

N 9855 S MAINTENANCE ACTIONS AIRFRAME
Date: 06/21/2023 MX HOBBS: 295.8

Pilot reports left tire has a bald spot. Maintenance removed and replaced left hand Main Wheel Assembly with serviceable of same Part # on 40-86B Serial # on 41373634, Serial # off 41337634. All work done in accordance with Piper Maintenance Manual.

Aircraft deemed serviceable and returned for service.
NAME SIGNATURE CERT#
George Kelso

N9855S 100 HOUR INSPECTION AIRFRAME
DATE: 6/29/2023 TTIS 16756.9 MX HOBBS 298.5

C/W the A.D. 76-07-12R1 (a) (b) (c) Bendix Ignition Switch with an Operational Check and found no defects. This AD is due again in 100 hours.

NAME SIGNATURE CERT#
George Kelso

N9855S 100 HOUR INSPECTION AIRFRAME
DATE: 6/29/23 TTIS 16756.9 MX HOBBS 298.5

I certify this Airframe s/n 2842151 has been inspected in accordance with the Piper M.M. and current FAR's for a 100 Hour Inspection and is in an Airworthy Condition at this time. Checked the current A.D. list, but found no new applicable A.D.'s at this time. Inspection forms have been added to the maintenance records. Airframe is Returned to Service.

NAME SIGNATURE CERT#
George Kelso

N 9855S MAINTENANCE ACTION AIRFRAME
Date 03/27/2023 MX HOBBS: 146.6

Pilot reports ELT started going off. Maintenance removed ELT with inoperable G switch. Changed registration to "out-of-service" with NOAA. Replaced ELT with new unit Part # off E-04 Serial # 020741, Part # on E-04 Serial # 042215. Operation check normal. Registered new ELT with NOAA. All work done in accordance with ACK Maintenance Manual. New ELT Battery Expiration date November 11, 2027

Aircraft deemed serviceable and returned for service.

NAME SIGNATURE CERT#
Sean Tillett [REDACTED] [REDACTED]

N 9855S MAINTENANCE ACTION AIRFRAME
DATE: 04/19/2023 MX HOBBS: 190.1

Maintenance observed Co-Pilot brake master Cylinder right hand leaking oil. Maintenance removed and replaced orings for Co-Pilot brake Master Cylinder right hand side all work done in accordance with Piper 1pc. Maintenance Manual. Also bled brakes right and left side. Part # 199-512

Aircraft deemed serviceable and returned for service.

NAME SIGNATURE CERT#
Sean Tillett [REDACTED] [REDACTED]

N9855S 100 HOUR INSPECTION AIRFRAME
DATE 4/28/23 TTIS 16657.7 MX HOBBS 199.3

C/W the A.D. 76-07-12R1 (a) (b) (c) Bendix Ignition Switch with an Operational Check and found no defects. This AD is due again in 100 hours.

NAME SIGNATURE CERT#
George Kelso [REDACTED] [REDACTED]

N9855S 100 HOUR INSPECTION AIRFRAME
DATE 4/28/23 TTIS 16657.7 MX HOBBS 199.3

I certify this Airframe s/n 2842151 has been inspected in accordance with the Piper M.M. and current FAR's for a 100 Hour Inspection and is in an Airworthy Condition at this time. Checked the current A.D. list, but found no new applicable A.D.'s at this time. Inspection forms have been added to the maintenance records. Airframe is Returned to Service.

NAME SIGNATURE CERT#
George Kelso [REDACTED] [REDACTED]

N9855S
MAINTENANCE ACTIONS - 100 HOUR INSPECTION - AIRFRAME
4/28/2023 TTIS: 16657.7 MX HOBBS: 199.3

- Complied with A.D. 20-26-16 Wing Spar Integrity section Hardware and factored hours at this time are 1099.1
- No further action is required until factored hours are 5000. Section H is next due at the next 100 hour TT 16757.7.
- Complied with A.D. 76-07-12R1 (a)(b)(c) Bendix Ignition Switch.
- Left hand aft Cowling latch. Reinstalled Latch and saftied.
- Left hand aft navigation light. Removed and replaced bulb of the same Part # 11-03208
- Left hand wing Aileron Bell Crank Hardware corrosion. Removed and replaced hardware of the same Part # 404-887.
- Left and right bond straps broken on Ailerons. Installed FAB Bonding Strap
- Oil filler neck loose. Reinstalled new Gasket saftied Part # 5L72059.
- Throttle Quadrant Cracked. Installed new Quadrant Assembly.
- Left hand tire worn. Replaced tire with same Part # 600-6 installed. All work done in accordance with Piper Maintenance Manual.

NAME George Kelso SIGNATURE [REDACTED]

CERT# [REDACTED]

N9855S
MAINTENANCE ACTIONS – ANNUAL INSPECTION – AIRFRAME
09/16/2022 TTIS: 16258.4 MX HOBBS: 6933

- Pilot side interior unglued and deteriorating. Glued fabric back in place.
- Co-pilot armrest pad unglued. removal and replacement-glued upholstery to armrest.
- Redo right hand aileron cotter pins at bellcrank. Installed new cotter pin to right hand aileron bell crank in accordance with the Piper maintenance manual and Illustrated Parts Catalog.
- Rudder counterweights cover missing screws. Installed missing screws in accordance with the Piper maintenance manual and Illustrated Parts Catalog.
- Clean corrosion on struts. Cleaned corrosion on struts.
- Clean and greased landing gear. Cleaned and greased landing gear.
- Belly vent under back seat clogged. Cleaned out the vent.
- **Complied with A.D. 70-26-16 Wing Spar Integrity section Hardware and factored hours at this time are 793.3. No further action is required until factored hours are 5000. Section H is next due at 7032.8 or the next 100 hour.**
- Upper cabin door latch missing screws. Replaced missing screws with new in accordance with the Piper maintenance manual.
- Left hand fuel cap loose. Torqued loose fuel cap screws and the operations check was good.
- Right hand fuel cap loose. Complied with removal and replaced of fuel cap gasket with new PN 66815-000A.
- Right hand tire bald. Complied with removal and replacement of right hand main landing gear wheel and tire with serviceable wheel and a new tire PN 40-86B SN 20082026 in accordance with the Piper maintenance manual and Illustrated Parts Catalog.
- Ants all over cockpit. Cleaned ants out of aircraft.
- Corrosion on left and right main landing gear struts. Serviced corrosion on left and right main landing gear struts in accordance with the Piper maintenance manual.
- The forward wing walk cracked. Complied with removal and replacement of forwarding wing walk with new PN 62001-002. Installed all new hardware and painted all in accordance with the Piper maintenance manual and Illustrated Parts Catalog.
- Aft wing walk cracked. Complied with removal and replacement of forward wing walk with new PN 62001-004. Installed all new hardware and painted. All was done in accordance with the Piper maintenance manual and Illustrated Parts Catalog.
- Ailerons bind when moving. Complied with removal and replacement of pilot yoke bearings at sprocket PN 452-389.
- Ailerons are not rigged correctly. Complied with removal and replacement-rigging of ailerons per piper maintenance manual and operations check was good.
- The cable tunnel in the cockpit needs to be cleaned. Cleaned cable tunnel in the cockpit.
- Cabin door hinges have play. Complied with removal and replacement of hinge clevis pins and l-bolts with new.
- Missing cabin air vent. Replaced right hand aft cabin air vent with serviceable one.
- U-brackets for rudder torque tube need to be adjusted. Adjusted u-brackets for rudder torque tube in accordance with the Piper maintenance manual.
- Left hand and right hand aft navigation lights are inoperative. Complied with removal and replacement of both aft navigation lights PN WL-1999ESG.
- **ELT battery expires September 28th, 2022. Installed new ELT Battery PN ACK-E-040, New Expiration date is July 25th, 2027.**
- Rudder missing static wick. Complied with the installation of missing static wick PN DGSW10-96.

NAME Cody Haynes

SIGNATURE _____

CERT# _____

- Elevator trim drum bushing is worn. Removed and replaced elevator trim drum bushings with new of same PN.

NAME David Lichtenberger

SIGNATURE _____

CERT# _____

N9855 S	MAINTENANCE ACTION	ENGINE
DATE: 10/04/2022		MX HOBBS: 6945.6
Pilot reported right magneto drop 200 RPM difference between both 110 RPM. Maintenance performed magneto drop, left hand magneto was 110 and right hand magneto was 130 RPM. No issues found and all was done in accordance with the Lycoming maintenance manual.		
Aircraft deemed serviceable and returned to service.		
NAME	SIGNATURE	CERT#
Cody Haynes		

N9855 S	MAINTENANCE ACTION	ENGINE
DATE: 10/14/2022		MX HOBBS: 6987.5
Maintenance noticed that the rear muffler and Left/Right risers were damaged. Maintenance removed the leaking left and right rear risers and the rear muffler. Maintenance then replaced them with a serviceable right rear riser, left rear riser and rear muffler. PNs 35301-000, 62232-000 and 66894-003. Operational check was performed and no leaks were detected. All work done in accordance with the Piper PA 28-161 Aircraft Maintenance Manual and Lycoming Maintenance Manual.		
Aircraft deemed serviceable and returned for service.		
NAME	SIGNATURE	CERT#
AG Cody Haynes		

← TOTAL CARRY FORWARD TO NEXT PAGE

SERVICE
TIME
TOTAL

TACH TIME

◀ TOTAL from p

N9855S ANNUAL INSPECTION AIRFRAME
DATE 9-16-2022 TTIS 16258.4 MX HOBBS 6933

I certify this Airframe s/n 2842151 has been inspected in accordance with the Piper M.M. and current FAR's for an ANNUAL INSPECTION and is in an Airworthy Condition at this time. All A.D.'s have been checked, and found to be current with the most up to date Tdata / IApproach software as of this date. Inspection forms have been added to the maintenance records. Airframe is Returned to Service.

NAME SIGNATURE CERT #
Sean Tillet [REDACTED]

N9855S ANNUAL INSPECTION AIRFRAME
DATE 9-16-2022 TTIS 16258.4 MX HOBBS 6933

The ELT has been Inspected I.A.W. FAR 91.207(D). No defects noted at this time. Inspection is due again in 12 months. The ELT Battery Expiration is Jul -15-2027

NAME SIGNATURE CERT #
Sean Tillet [REDACTED]

INSPECTION CONTINUED NEXT PAGE

SERVICE
TIME
TOTAL

N9855S

AD 2020-26-16 - MAINTENANCE ACTIONS - AIRFRAME
03/22/2021 TTIS: 15572.9 MX HOBBS 6247.5

Performed total time calculation in accordance with paragraph "H" of AD 2020-26-16 and found this aircraft to be affected by the AD.
Removed rear seat and spar cover to gain access to the affected area. Removed the two outboard lower wing spar bolts.

NDT inspection performed on wing main spar bolt holes in accordance with SB 1345. NDT inspection performed by S.E.A.L. Aviation LLC. F.A.A Approved Repair Station No. 9JBR401B, WO 2021-0292. No defects were found during the NDT inspection.

Installed new wing spar bolts and nuts in accordance with AD 2020-26-16 and SB 1345. Replaced wing spar bolts with new bolts and nuts. Reinstalled back seat and wing spar cover in accordance with Piper maintenance manual and Piper parts manual.

In accordance with AD 2020-26-16, Docket # FAA-2018-1046 was completed and emailed to 9-ASO-ATLCOS-Reporting@faa.gov and customer.service@piper.com
See AD section of logbook for NDT entry and copy of FAA-2018-1046 form.

This AD is recurring, next due in 5000.0 hours or 20572.9 total time in service.

NAME Sean Tillett

SIGNATURE

CERT#

N 9855 S MAINTENANCE ACTION AIRFRAME
DATE: 03/24/2021 MX HOBBS: 6249.9

Pilot reported right hand main tire had a bald spot. Apprentice Triston Stone removed and replaced the right hand main wheel with a serviceable wheel assembly and a new tire in accordance with Piper maintenance manual.

Aircraft deemed serviceable and returned for service.

NAME
Sean Tillett

SIGNATURE

CERT#

N9855S

100 HOUR INSPECTION

AIRFRAME

DATE 4/22/21 TTIS 15584.8 MX HOBBS 6259.4

I certify this Airframe s/n 2842151 has been inspected in accordance with the Piper M.M. and current FAR's for a 100 Hour Inspection and is in an Airworthy Condition at this time. Checked the current A.D. list, but found no new applicable A.D.'s at this time. Inspection forms have been added to the maintenance records.
Airframe is Returned to Service.

NAME

SIGNATURE

Patrick Slaughter

N9855S

100 HOUR INSPECTION

AIRFRAME

DATE 4/22/21 TTIS 15584.8 MX HOBBS 6259.4

C/W the A.D. 76-07-12R1 (a) (b) (c) Bendix Ignition Switch with an Operational Check and found no defects. This AD is due again in 100 hours.

NAME

SIGNATURE

CERT#

David Monzon

◀ SUB-TOTAL THIS PAGE

◀ TOTAL CARRY FORWARD TO NEXT PAGE

next PAGE

Appendix 1 to AD 2020-26-16

Inspection Results Form

Email completed form to:
9-ASO-ATLCOS-Reporting@faa.gov
and
customer.service@piper.com

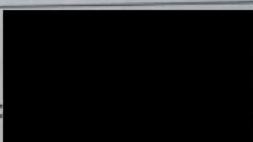
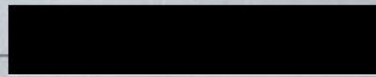
Or mail to: Federal Aviation Administration
Atlanta ACO Branch, AIR-7A1
1701 Columbia Avenue
College Park, GA 30337
and
Piper Certification Office
2926 Piper Drive
Vero Beach, FL 32960

SUBJECT line: Docket No. FAA-2018-1046

Include photos if applicable

Aircraft Model No.: PA-28-161	Serial Number: 28-42151
Aircraft Total Hours Time-In-Service (TIS): 15572.9	Registration Number: N9855S
Factored Service Hours Left-Hand (LH) Wing: 15405.02 Right-Hand (RH) Wing: 15405.02	
(If both wings are factory installed original, these numbers should be the same)	
Inspection Results	
LH Wing Spar Fwd Accepted ☒ Rejected ☐	RH Wing Spar Fwd Accepted ☒ Rejected ☐
LH Wing Spar Aft Accepted ☒ Rejected ☐	RH Wing Spar Aft Accepted ☒ Rejected ☐
Inspector Comments (observed damage, condition of hole, etc)	
Eddy Current Inspection conducted by S.E.A.L. Aviation, LLC	
F.A.A. Repair Station No 9JBR401B	
Work Order 2021-0292	

Inspector Information

Name (print): Sean Tillett Signature: 
Certificate No.:  Date: 03/22/2021

Issued on December 30, 2020.
Gaetano A. Sciortino,
Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft
Certification Service.
[FR Doc. 2021-00044 Filed 1-14-21; 8:45 am]

N9855S

AD 2020-26-16 – MAINTENANCE ACTIONS – AIRFRAME
03/22/2021 TTIS: 15572.9 MX HOBBS 6247.5

Performed total time calculation in accordance with paragraph "H" of AD 2020-26-16 and found this aircraft to be affected by the AD.

Removed rear seat and spar cover to gain access to the affected area. Removed the two outboard lower wing spar bolts.

NDT inspection performed on wing main spar bolt holes in accordance with SB 1345. **NDT inspection performed by S.E.A.L. Aviation LLC. F.A.A Approved Repair Station No. 9JBR401B, WO 2021-0292. No defects were found during the NDT inspection.**

Installed new wing spar bolts and nuts in accordance with AD 2020-26-16 and SB 1345.

Replaced wing spar bolts with new bolts and nuts. Reinstalled back seat and wing spar cover in accordance with Piper maintenance manual and Piper parts manual.

In accordance with AD 2020-26-16, Docket # FAA-2018-1046 was completed and emailed to 9-ASO-ATLCOS-Reporting@faa.gov and customer.service@piper.com

See AD section of logbook for NDT entry and copy of FAA-2018-1046 form.

This AD is recurring, next due in 5000.0 hours or 20572.9 total time in service.

NAME Sean Tillett

SIGNATURE

CERT#

Obtain the Federal Register Online via the Government Publishing Office (www.gpo.gov) or the Department of Transportation.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Block No. FAA-2018-1046; Project Identifier 2018-CE-049-AD; Amendment 39-21371; AD 2020-26-10

REV 2120-AA64

Make: Piper Model: PA-28-161 S/N: 2842151 Registration: N9855S Airframe Time: 15,572.9 Landings: N/A

1. Performed NDT only Eddy Current Inspection of the wing main spar in accordance with Piper S.B. 1345. No indications found.

The above items and / or components were inspected in accordance with current Federal Aviation Regulations and were found airworthy for return to service. Pertinent details of the repair are on file at this agency under work order 2021-0292.

AGENCY: Federal Aviation Administration

ACTION: Final rule.

Authorized Signature

Dated: 23 March 2021

SEAL Aviation, LLC

F.A.A. Approved Repair Station

Tach
6247.5

(TAS) This AD is effective February 16, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of February 16, 2021.

For more information about this AD, contact Piper Aircraft, Inc., 1920
N. Dixie, Fort Worth, Texas 76101; phone: (817) 467-4361; website: <http://www.piper.com>.
You may view this service information in the FAA's Airworthiness Products Section, Operations
Branch, 901 Locust, Kansas City, Missouri 64106. For information on how to submit comments on this
AD, go to the FAA's website at <http://www.regulations.gov>.

PIPER AIRCRAFT, INC.
PA-28-161, WARRIOR III
MAINTENANCE MANUAL

LEFT WING REMOVAL

NOTE: The major subassemblies of the wing may be removed individually or the wing may be removed as a unit. To remove the wing, a fuselage supporting cradle is required.

REMOVAL

(Refer to figure 1)

NOTE: Piper Kit No. 88473 provides detailed instructions for disconnecting and reconnecting the wing wiring, as well as parts to add a quick disconnect to the strobe light wiring.

Disconnect the battery

Close the fuel valve and drain the fuel from the wing to be removed. (See fuel system, draining entirely, 12-10-00)

Drain the brake lines and reservoir. (See brake system, draining brake system, 12-10-00)

Remove the seal at the wing root and adjacent access plates and inspection panels. (See figure 3, 6-00-00)

Remove the front and back seats from the airplane.

Expose the spar box and remove the cockpit side trim panel assembly that corresponds with the wing being removed.

Place the airplane on jacks (Refer to jacking, 7-10-00)

Disconnect the aileron balance and control cables at the turnbuckles that are located within the fuselage aft of the spar.

NOTE: To facilitate reinstallation of control cables, fuel and brake lines. Mark cable and line ends in some identifying marker and attach a line where applicable to cables before drawing them through the fuselage or wing.

If the left wing is being removed, remove the cotter pin from the pulley bracket assembly to allow the left aileron balance cable end to pass between the pulley and bracket.

Disconnect the flap from the torque tube by extending the flap to its fullest down position and removing the bolt and bushing from the bearing at the aft end of the control rod.

CAUTION: TO PREVENT DAMAGE OR CONTAMINATION OF FUEL, HYDRAULIC AND MISCELLANEOUS LINES, PLACE PROTECTIVE COVER OVER THE LINE FITTINGS AND ENDS.

INSTALLATION

NOTE: Whenever a wing is removed and reinstalled, conduct Wing Spar Inspection, 57-10-00 and make an appropriate aircraft logbook entry documenting the inspection for that wing.

NOTE: When installing a "replacement" wing, perform Stall Warning Flight Test Procedure, 27-30-00 upon completion of wing installation.

NOTE: If a factory replacement wing is being installed, the wing aft spar fitting must have a .3745 / .3765 diameter hole installed in line with the existing hole in the fuselage fitting using suitable tooling to ensure alignment of the holes.

NOTE: Piper Kit No 88473 provides detailed instructions for disconnecting and reconnecting the wing wiring, as well as parts to add a quick disconnect to the strobe light wiring.

- ☐ Ascertain that the fuselage is positioned solidly on a support cradle.
- ☐ Place the wing in position for installation with the spar end a few inches from the side of the fuselage and set on supports.
- ☐ Prepare the various lines, control cables, etc. for inserting into the wing or fuselage when the wing is slid into place. Insure that the busing is in place in the fuselage forward wing attach fitting (See view A-A, Sketch A)
- ☐ Slide the wing into position in the fuselage. Ensure that the lines, cable and electrical leads are carefully fed into place.

WARNING: DO NOT DRIVE SPAR TO FUSELAGE ATTACH BOLTS IN. TAKE EXTREME CARE NOT TO DAMAGE BOLTS OR BOLT HOLES. IF REUSING BOLTS, ENSURE THE SAME BOLTS ARE REINSTALLED IN THE SAME HOLES.

- ☐ Install the eighteen (18) main spar-to-fuselage (i.e. - spar carrythrough) attachment bolts in accordance with the bolt legend in Figure 1. Use eighteen (18) new nuts (see bolt legend Figure 1)
- ☐ Install the bolt, washers and nut that secures the front wing spar to fuselage attach fittings. A minimum of one washer is required under the nut and head of bolt, then add washers as needed to leave a maximum of one and one-half threads visible or a minimum of the bolt chamfer exposed.
- ☐ Insert the number of washers required at the rear wing spar between the forward face of the wing fitting and aft face of the fuselage fitting as specified in Sketch B, Figure 1 to fill the gap. A true "no-gap" condition with the faces of the fittings against each other is also acceptable. After the required washers are inserted between the plates, install the bolt and check to insure that no threads are bearing on the forward plate prior to installing the nut. Add washers, as specified in sketch B, Figure 1 as required (minimum of one) to leave a maximum of one and one-half usable threads exposed.

CAUTION: BE CERTAIN THAT ALL BOLTS, NUTS AND WASHERS ARE INSTALLED IN ACCORDANCE WITH FIGURE 1 (I.E. - THE BOLT LEGEND AND SKETCHES A, B, C AND D)

- ☐ Torque the bolt heads on the upper main spar cap and the nuts on the lower main spar cap as specified in Figure 1 bolt legend. Torque the forward wing spar to fuselage attach nut as specified in Figure 1, Sketch A. Torque the rear wing spar to fuselage attach nut as specified in Figure 1, Sketch B.
- ☐ Install the wing jacks and tail support to the tail skid with approximately 250 pounds of ballast on the base of the tail support. Remove the fuselage cradle and wing supports.
- ☐ If the left wing was removed, it is necessary that the pitot and static tubes be reconnected at the elbows located within the cockpit at the wing butt line. One tube may be painted red, denoting the pitot tube. In the event that a heated pitot is installed, the electrical plus lead must be connected at the fuselage.
- ☐ Connect the hydraulic brake line onto the fitting located within the cockpit at the leading edge of the wing.
- ☐ Connect the electrical leads to the appropriate posts on the terminal strip and install the washers and nuts. (For assistance in connecting the electrical lead, refer to the Electrical Schematics in Chapter 91). Place the clamps along the electrical harness to secure it in position and install the terminal strip dust cover.
- ☐ Remove the cap from the fuel line and connect it at the fitting located aft of the spar at the wing butt line.
- ☐ Connect the aileron balance and control cables at the turnbuckles that are located within the fuselage aft of the spar. After the left balance cable has been inserted through the bracket assembly and connected, install a cotter pin cable guard into the hole that is provided in the bracket assembly.
- ☐ Connect the flap by placing the flap handle in the full flap down position; place the bushing on the outside of the rod end bearing and insert and tighten the bolt.
- ☐ Check the rigging and control cable tension of the ailerons and flaps. (Refer to Rigging and Adjustment 27-10-00 and Flap Controls - Rigging and Adjustment 27-50-00).
- ☐ Service and refill the brake system with hydraulic fluid. (Refer to Brake System 12-10-00). Bleed the system per Brakes - Bleeding Brakes 32-40-00 and check the system for leaks.
- ☐ Service and fill the fuel system. (Refer to Fuel System 12-10-00). Open the fuel valve and check for leaks and fuel flow.
- ☐ Check the operation of electrical equipment and pitot / static system.

Remove the airplane from the jacks.

Install the cockpit trim panel assembly, spar box carpet and the front and back seats. Check operation of pilot and co-pilot seats.

Replace all the wing root seal and all access plates and panels on the wing(s) involved.

Connect battery.

Ground run the airplane to verify proper operation of fuel and brake systems.

WING AFT SPAR-TO-FUSELAGE ATTACHMENT HARDWARE 100 HOUR INSPECTION

Each 100 hours time-in-service, inspect the aft wing spar-to-fuselage attachment hardware

for both the right and left wings as follows:

NOTE: Perform the following with weight on wheels (i.e. - not on jacks).

- ☐ Remove the lower wing-to-fuselage fairing in the area of the wing aft spar.
- ☐ Lower the flaps to gain access to the head of the wing-to-fuselage attachment bolt.
- ☐ Check the bolt for tightness in the fittings.

NA

If bolt is tight: Ensure that the washer(s) are in place on the bolt and ensure the bolts are torqued as specified in Figure 1, Sketch B.

Reinstall the fairings and make a log book entry indicating completion of this inspection.

If bolt is loose: Remove the bolt and check the holes in the fittings for size and make sure no out-of-round condition exists outside of allowable limits. The specified hole size for each fitting is 0.3745 - 0.3765 inch diameter. If the holes meet the requirements specified above, check gap between fittings. If gap is below 0.032 inches, it is acceptable to install a replacement nut P/N 404-532 (MS21042-6), bot P/N 402-915 (NAS464P6LA6) and washers P/N's 690-629 (NAS1149F0663P) and P/N 690-620 (NAS1149F0632P) and torque as specified in Figure 1, Sketch B. Ensure that 1 and one-half threads of the bolt protrude from the nut.

If the gap is above 0.032 inches, install a thick or thin washer (or any combination) as necessary to fill the gap as described in Figure 1, Sketch B prior to installation of the nut/bolt combination above.

NOTE: If the gap (before shimming with washers) exceeds 0.15 inches, contact Piper factory Technical Support through your Piper Dealer for further instructions.

NA

If the holes do not meet the requirements specified above, install Piper Kit No. 767-383.

Reinstall the fairings and make a log book endtry documenting completion of this inspection.

WING AFT ATTACH FITTING INSPECTION

NOTE: This inspection incorporates the requirements of Piper Service Bulletin No. 1244A

NOTE: See also FAA Advisory Circular (AC) 43-4A Corrosion Control for Aircraft. Available from <http://www.airweb.faa.gov>

Inspection: Each two thousand (2,000) hours or seven (7) calendar years time-in-service, whichever occurs first, inspect the aft wing attach fittings and adjacent structure for both the right and left wings as follows:

- ☐ Remove wing inspection plates and fairings as required to gain visual access to the aft wing attach fittings. See Access and Inspection Provisions in 6-00-00.
- ☐ Identify the aft wing attach fittings which are riveted to the aft wing spars. See Figure 2. Using a solvent-based degreaser spray that conforms to SAE AMS 1525 (such as LPS Presolve Orange Degreaser) and/or an alkaline cleaner that complies with SAE AMS 1526 (such as Chemetall Ardrex 6333A) thoroughly clean the aft wing attach fittings and the adjacent wing spar structure (fore and aft sides of each wing spar) removing surface oil, grease, loose paint and soil followed by a clean water rinse and dry.
- ☐ Carefully inspect for evidence of corrosion. The initial stages of corrosion are often masked by paint coatings and hidden under faying surfaces such as riveted lap joints. Since corrosion products occupy more volume than the original metal, carefully inspect these areas for irregularities such as blister, flakes, chips, lumps, bulging skins and missing rivets.
- ☐ If not corrosion is present - Proceed to Corrosion Protection below.
- ☒ If superficial corrosion is detected - Remove per FAA Advisory Circular AC 43.13-1B Chapter 6, Section 7 and treat corrosion in affected areas using guidance from FAA Advisory Circular AC 43.13-1B Chapter 6, Section 8 or 10. Upon completion of procedure, verify that all affected areas meet or exceed the minimum thicknesses shown in Chart 1. Paint affected areas using a good quality aircraft primer that complies with MIL-PRF-2337 (such as Akzo-Nobel 10P30-5). Proceed to Corrosion Protection below.
- ☒ If corrosion is detected and removal of corrosion in the affected areas will result in a part thickness in any location that is less than the minimum values shown in Chart 1, structural repair is required. Proceed to Structural Repair below.

CHART 1
CORROSION LIMITS

Part Description	Minimum Thickness
Aft wing spar (aluminum)	0.060 inches
Aft wing attach fitting (steel)	0.117 inches

NOTE: Measure thickness using a nondestructive inspection method such as ultrasound, eddy current or equivalent with a measurement accuracy of + or - 0.005 inches or better.

Structural Repair: Order and install Kit Corrosion - Aft Spar Rework Piper P/N 764-998. This kit provides parts and instructions to replace (via a splicing operation) the aft spar fitting as well as the inboard 10.80 inches of the aft wing spar on both left and right hand sides. Corrosion damage beyond these areas may require additional and/or different repairs. If that is the case, contact Piper Aircraft at (772)229-2141. Piper normal business hours are 7:30AM to 4:30PM EST, Monday through Friday.

NOTE: Kit 764-998 as originally offered did not include the PA-28R-201. When ordering specify the kit must be revision B or higher to be effective for the PA-28R-201. The kit instructions will be marked drawing number 87584, revision B or higher.

Upon completion of structural repair, make a log book entry documenting installation of Piper Kit No. 764-998 and proceed to Corrosion Protection below.

Corrosion Protection: Treat the area identified in Figure 2, View A-A with Ardrex (Dinitrol) AV8 or other MIL-PRF-16173 Class I or II, Grade I or 4 compliant Corrosion Preventive Compound (procure locally or order Piper P/N 89500-800). The treatment may be brushed or sprayed.

NOTE: After applying Corrosion Preventive Compound verify that all drain holes and drain passages are clear before proceeding.

Reinstall inspection plates and fairings. Perform a functional test of any system or component that may have been disconnected or removed.

Make a log book entry documenting compliance with this inspection.