



The New Piper Aircraft, Inc.

2926 Piper Drive

Vero Beach, Florida, U.S.A. 32960

# S E R V I C E *No. 1045*

## BULLETIN

### PIPER CONSIDERS COMPLIANCE MANDATORY

Date: September 18, 2000

(M)

**SUBJECT:**

*Inspection of the Forward Wing Spar Attach Bracket*

**MODELS AFFECTED:**

PA-31, PA-31 -300 Navajo

**SERIAL NUMBERS AFFECTED:**

31-1 through 31-809

**COMPLIANCE TIME:** To coincide with the next regularly scheduled maintenance event, but not to exceed the next one hundred (100) hours time in service.

**PURPOSE:** It has been reported that cracks have been found in the left and right forward wing attach brackets on several of the affected aircraft. If left uncorrected, these cracks could propagate and cause a loss of structural integrity of the forward wing spar attach joint.

This Service Bulletin provides instructions for inspecting the affected areas of the left and right forward wing attach brackets for cracks and requires replacement of cracked parts with new, more durable replacement assemblies.

**APPROVAL:** The installation of replacement parts as specified in the instructions has been shown to comply with the applicable Federal Aviation Regulations and is FAA approved.

**INSTRUCTIONS:**

*Refer to Figure 1.*

1. On all affected aircraft, review maintenance records and logbook entries to determine if the Forward Wing Spar Attach Brackets have been repaired in accordance with the instructions listed in the Piper Navajo Service Manual (p/n 753-704), Section IV, Structures, Paragraph 4-I 15, Wing Front Spar Attachment Bulkhead Repair.
2. If satisfactory evidence is found that the above referenced repair has been accomplished on BOTH the Left and Right Forward Wing Spar Attach Brackets, no further action is required. Make a logbook entry indicating compliance with this Service Bulletin. If evidence is found that the above referenced repair has not been accomplished on BOTH the left and right forward wing spar attach brackets, proceed with instruction 3.
3. Gain access to the Left and Right Forward Wing Spar Attach Fittings by removing the forward left and right fiberglass wing fillets.
4. Inspect the left and right fuselage skins in the vicinity of the wing attach fittings for cracks. Remove and replace or repair any cracked skins in accordance with the guidance provided in FAA Advisory Circular (AC) 43.13-I B, or latest revision.

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**INSTRUCTIONS: (Continued)**

5. Remove the pilot and copilot seats.
6. Remove the interior side panels adjacent to the pilot and copilot seats (FS 100 to FS 135) to gain access to the Front Spar Attaching Bulkhead (FS 104.50). (It may be necessary to remove cabinetry in order to remove the side panels.)
7. Using a light and a 10 power magnifying glass, carefully examine the forward and aft faces of the Left and Right Front Spar Attachment Bulkhead Assembly for cracks, particularly in the outboard flange radius and along the edge of the rivets attaching the flange to the skin.

*Note:*

*The forward face of the bulkhead can be examined through the elliptical hole in the fuselage reinforcement plate, located at approximately FS 102, and the aft face can be examined through the round hole in the fuselage reinforcement plate located at FS 108.*

8. If cracks are found, it will be necessary to remove and replace the complete Left (p/n 41658-00) and/or Right (p/n 41658-01) Front Spar Attachment Bulkhead with a Left (p/n 52694-00) and/or Right (p/n 52694-01) Front Spar Attachment Bulkhead. This will also require replacement of the Left (p/n 40603-00) and/or Right (p/n 40603-01) Front Spar Attach Channel with a Left (p/n 40603-02) and/or Right (p/n 40603-03) Front Spar Attach Channel.

Also if cracks are found, it will be necessary to remove and replace the Left (p/n 41029-00) and/or Right (p/n 41029-01) Reinforcement Plate, the Left (p/n 41030-00) and/or Right (p/n 41030-01) Angle, or the Left (p/n 41032-00) and/or Right (p/n 41032-01) Angle.

*Note:*

*Refer to the Piper Navajo Service Manual (p/n 753-704), Section IV, Structures, Paragraph 4-115, Wing Front Spar Attachment Bulkhead Repair, for details of replacement parts installation.*

9. If cracks are not found, continue to perform the inspections annually, or until the repair is accomplished.
10. Make an appropriate logbook entry of compliance with this Service Bulletin.

**MATERIAL REQUIRED:**

As required by inspection, one (1) each, Front Spar Attachment Bulkhead Assembly, Left, Piper Part Number 52694-00, one (1) each, Front Spar Attachment Bulkhead Assembly, Right, Piper Part Number 52694-01, one (1) each, Front Spar Attachment Channel, Left, Piper Part Number 40603-02, one (1) each, Front Spar Attachment Channel, Right, Piper Part Number 40603-03, one (1) each, Reinforcement Plate, Left, Piper Part Number 41029-00, one (1) each, Reinforcement Plate, Right, Piper Part Number 41029-01, one (1) each, Angle, Left, Piper Part Number 41030-00, one (1) each Angle, Right, Piper Part Number 41030-01, one (1) each, Angle, Left, Piper Part Number 41032-00, and one (1) each, Angle, Right, Piper Part Number 41032-01.

**AVAILABILITY OF PARTS:**

Your Piper Field Service Facility.

**EFFECTIVE DATE:**

This Service Bulletin is effective upon receipt.

**SUMMARY:**

There is no applicable factory participation for this Service Bulletin.

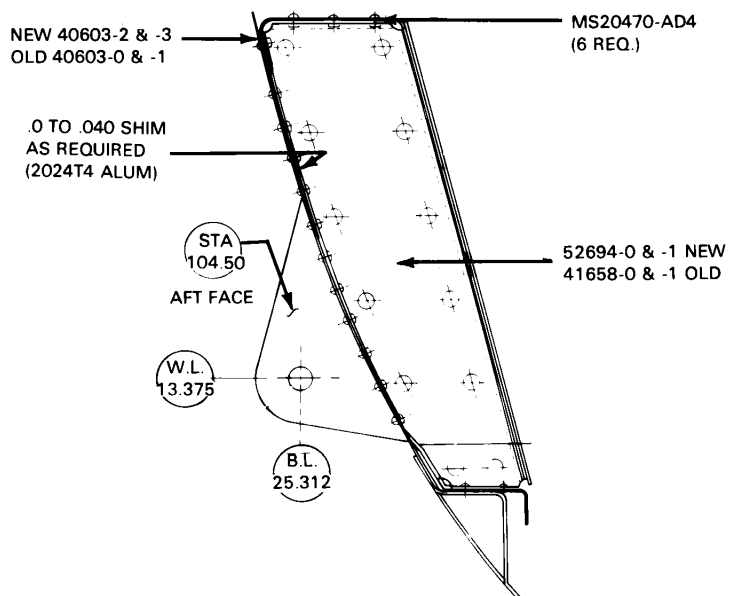
Please contact your Factory Authorized Piper Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the compliance time indicated.

**NOTE:**

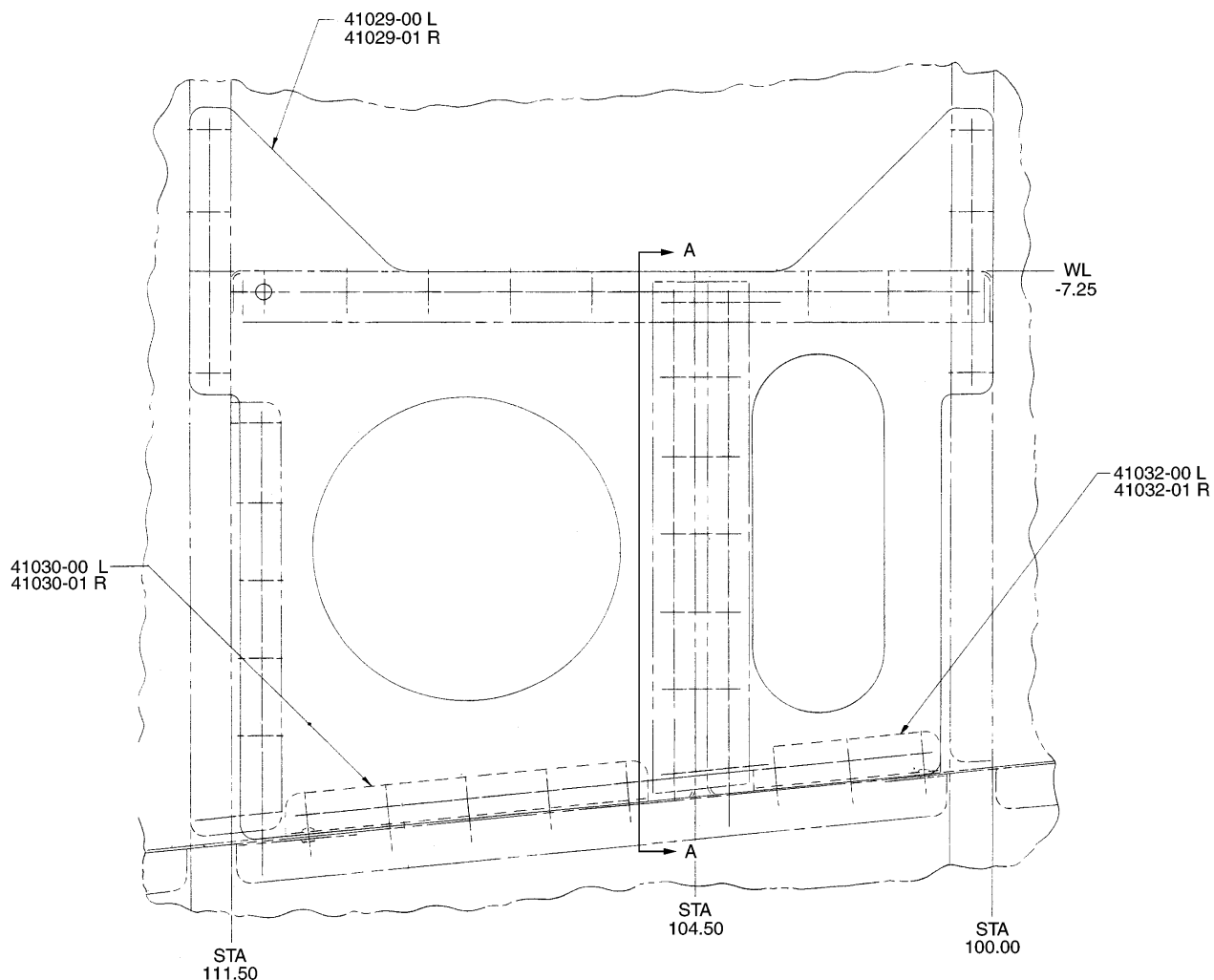
If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, current owner's name and address.

Corrections/changes should be directed to:

THE NEW PIPER AIRCRAFT, INC.  
Attn: Customer Services  
2926 Piper Drive  
Vero Beach, FL 32960



VIEW A-A



Inspection of the Forward Wing Spar Attach Bracket  
Figure 1