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SERVICE NO. 1244C BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: December 3, 2018

(S) (M)

Service Bulletin (SB) 1244C supersedes SB 1244B in its entirety. Aircraft that were previously made compliant with SB 1244B must also be made compliant with SB 1244C.

SUBJECT:

**AFT WING ATTACH FITTING INSPECTION
REQUIREMENTS**

REASON FOR REVISION:

SB 1244C adds provisions for aircraft that may have aft wing attach fitting bolts installed with an incorrect torque.

MODELS AFFECTED:

PA-28-140 Cherokee Cruiser
PA-28-150 Cherokee
PA-28-160 Cherokee
PA-28-180 Cherokee

PA-28S-160 Cherokee
PA-28S-180 Cherokee
PA-28-235 Cherokee Pathfinder

PA-28-236 Dakota
PA-28-151 Warrior
PA-28-161 Cadet
PA-28-161 Warrior II

PA-28-161 Warrior III
PA-28-180 Archer
PA-28-181 Archer II

PA-28-181 Archer III

PA-28-201T Turbo Dakota
PA-28R-180 Arrow

PA-28R-200 Arrow

SERIAL NUMBERS AFFECTED:

28-20001 thru 28-26946; 28-7125001 thru 28-7725290
28-03; 28-1 thru 28-4377 and 28-1760A
28-03; 28-1 thru 28-4377 and 28-1760A
28-03; 28-671 thru 28-5859;
28-7105001 thru 28-7205318
28-1 thru 28-1760 and 28-1760A
28-671 thru 28-5859; 28-7105001 thru 28-7105234
28-10001 thru 28-11378; 28-7110001 thru 28-7210023;
28E-11; 28-7310001 thru 28-7710089
28-7911001 thru 28-8611008; 2811001 thru 2811050
28-7415001 thru 28-7715314
2841001 thru 2841365
28-7716001 thru 28-8216300;
28-8316001 thru 28-8616057; 2816001 thru 2816109
2816110 thru 2816119; 2842001 and up
28-E13; 28-7305001 thru 28-7505260
28-7690001 thru 28-8690056; 28-8690061;
28-8690062; 2890001 thru 2890205
2890206 thru 2890231; 2843001 through 2843999;
2881001 and up
28-7921001 thru 28-7921095
28R-30002 thru 28R-31270;
28R-7130001 thru 28R-7130013
28R-35001 thru 28R-35820;
28R-7135001 thru 28R-7135229

ATA/JASC: 5740

(OVER)

PA-28R-200 Arrow II	28R-7235001 thru 28R-7635545
PA-28R-201 Arrow III	28R-7737002 thru 28R-7837317; 2837001 thru 2837061; 2844001 and up
PA-28R-201T Turbo Arrow III	28R-7703001 thru 28R-7803373; 2803001 thru 2803012
PA-28RT-201 Arrow IV	28R-7918001 thru 28R-7918267, 28R-8018001 thru 28R-8218026
PA-28RT-201T Turbo Arrow IV	28R-7931001 thru 28R-8631005; 2831001 thru 2831038
PA-32-260 Cherokee Six	32-03; 32-04; 32-1 thru 32-1297; 32-7100001 thru 32-7800008
PA-32-300 Cherokee Six	32-15; 32-21; 32-40000 thru 32-40974; 32-7140001 thru 32-7940290
PA-32S-300 Cherokee Six Seaplane	32S-15; 32S-40000 thru 32S-40974; 32S-7140001 thru 32S-7240137
PA-32R-300 Lance	32R-7680001 thru 32R-7880068
PA-32RT-300 Lance II	32R-7885002 thru 32R-7985106
PA-32RT-300T Turbo Lance II	32R-7787001; 32R-7887002 thru 32R-7987126
PA-32R-301 Saratoga SP	32R-8013001 thru 32R-8613006; 3213001 thru 3213028; 3213030 thru 3213041
PA-32R-301 Saratoga II HP	3213029; 3213042 thru 3213103; 3246001 and up
PA-32R-301T Turbo Saratoga SP	32R-8029001 thru 32R-8629008; 3229001 thru 3229003
PA-32-301 Saratoga	32-8006002 thru 32-8606023; 3206001 thru 3206019; 3206042 thru 3206044; 3206047; 3206050 thru 3206055; 3206060
PA-32-301T Turbo Saratoga	32-8024001 thru 32-8424002
PA-32R-301T Saratoga II TC	3257001 and up
PA-32-301FT Piper 6X	3232001 and up
PA-32-301XTC Piper 6XT	3255001 and up
PA-34-200 Seneca	34-E4; 34-7250001 thru 34-7450220
PA-34-200T Seneca II	34-7570001 thru 34-8170092
PA-34-220T Seneca III	34-8133001 thru 34-8633031; 3433001 thru 3433172; 3448001 thru 3448037
PA-34-220T Seneca IV	3448038 thru 3448079; 3447001 thru 3447029
PA-34-220T Seneca V	3449001 and up
PA-44-180 Seminole	44-7995001 thru 44-8195026; 4495001 thru 4495013; 4496001 and up
PA-44-180T Seminole Turbo	44-8107001 thru 44-8207020

COMPLIANCE TIME:

Upon reaching 2,000 operating hours or seven (7) calendar years time-in-service, whichever occurs first, the initial inspection is to coincide with the next regularly scheduled maintenance event.

Thereafter, compliance is to be accomplished on a recurring basis, at an interval not to exceed 2,000 operating hours or seven (7) calendar years time-in-service, whichever occurs first.

APPROVAL:

The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

PURPOSE:

This service bulletin provides specific instructions for the recurring inspection of the aft wing attach fittings and adjacent structure for corrosion. Additionally, this service bulletin announces the availability of a kit which provides parts and instructions to repair any corrosion discovered during these inspections.

For some of the affected aircraft, this service bulletin also announces the availability of a kit that provides parts and instructions for installing access panels on the lower wing skin, to facilitate the recurring inspection mandated by this service bulletin.

INSTRUCTIONS:

NOTE: For model specific details, refer to the applicable Piper Service Manual or Piper Airplane Maintenance Manual.

NOTE: Instructions that follow apply to both left and right wings.

NOTE: Refer to Federal Aviation Administration (FAA) Advisory Circular AC 43-4A, "Corrosion Control for Aircraft," for additional information. This free document is available for download from the FAA at <http://www.airweb.faa.gov>.

Part I. Aft Wing Spar/Attach Fitting Inspection

NOTE: The installation of Kit, Corrosion – Aft Spar Rework, Piper part number (P/N) 764-998, may be required for compliance with this service bulletin. Instructions for this kit are provided in engineering drawing number (DWG) 87584, a copy of which is supplied with the kit.

Revision C of DWG 87584 (DWG 87584 Rev. C), dated July 17, 2013, added Table 1, which defines the hole size and installation torque for the aft spar-fuselage attach hardware. **In DWG 87584 Rev. C and D**, the torque unit of measure was incorrect in Table 1. **DWG 87584 Rev. E, or later**, provides the correct torque unit of measure in Table 1.

The **correct unit of measure is inch-pounds (in-lb)**, not foot-pounds (ft-lb):

- For 5/16 inch diameter bolts, the correct torque is 160 to 200 in-lb.
- For 3/8 inch diameter bolts, the correct torque is 360 to 390 in-lb.

1. Examine the aircraft maintenance records and/or logbook entries to determine if Kit P/N 764-998 (instructions labeled DWG 87584) has been installed on either wing of the aircraft.
 - If **Kit P/N 764-998 has not been installed**, then continue the inspection. Proceed to Step 2.
 - If **Kit P/N 764-998 has been installed**, determine the revision level of the kit instructions used prior to continuing the inspection.
 - If one of the following are true, then proceed to Step 2:
 - The kit instructions used were **DWG 87584 Rev. E or later**.
 - The kit instructions used were **DWG 87584 Rev. New, A or B**.
 - The kit was **installed on or before July 16, 2013**.
 - If the kit instructions used were **DWG 87584 Rev. C or D, or the revision cannot be determined**, then:
 - a) Remove the aft spar attach bolt. Discard the nut. Examine all of the hardware and the adjacent structure for any damage.
 - b) Replace the nut and any damaged hardware; repair or replace any damaged mating surfaces.
 - c) Reinstall the hardware (existing and/or replacements) using the correct torque values:
 - 5/16 inch diameter bolts – 160 to 200 in-lb
 - 3/8 inch diameter bolts – 360 to 390 in-lb
 - d) Proceed to Step 2.

2. Remove wing inspection plates and fairings, as required, to gain visual access to the aft wing attach fittings.

NOTE: The access and inspection provisions for the airplane are typically shown in the applicable maintenance/service manual. In maintenance manuals, see Chapter 6. In service manuals, see Section II. All access plates and panels are secured by either metal fasteners or screws. "Access plates and panels" includes all forms of covers, cowlings, fairings, plates, panels, tips, etc., which may be removed for access to any component or space.

For the affected aircraft listed in Table 1 below, examine the lower wing skin, in the area aft of the main wing spar, and inboard of the main landing gear, for the presence of an access panel. See Figure 1.

- If an access panel already exists in the area identified in Figure 1, proceed to Step 3.
- If no access panel exists in the area identified in Figure 1, order and install Piper kit, Inspection Access Hole, P/N 765-106. Proceed to Step 3.

NOTE: Some of the aircraft listed in Table 1 may not have an access panel that provides direct access to the inspection area. This access panel, if installed, will be located on the lower wing skin, between the main wing spar and the aft wing spar, and inboard of the main landing gear. This region is depicted by the shaded area shown in Figure 1. This access panel will be oval shaped, roughly eight (8) inches long and 5.50 inches wide. If no access panel is installed at this location, then access panels may be installed by ordering and installing Piper Kit – Inspection Access Hole, P/N 765-106. Each kit provides parts and instructions to install one access panel under both left and right wings, at a location that provides direct visual access to the inspection area.

**TABLE 1
MODELS THAT MAY NOT HAVE SUBJECT ACCESS PANEL**

PA-28-140 Cherokee Cruiser
PA-28-150 Cherokee
PA-28-160 Cherokee
PA-28-180 Cherokee
PA-28S-160 Cherokee
PA-28S-180 Cherokee
PA-28-235 Cherokee Pathfinder
PA-28-180 Archer
PA-32-260 Cherokee Six
PA-32-300 Cherokee Six
PA-32S-300 Cherokee Six Seaplane

3. 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.
4. 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 blisters, flakes, chips, lumps, bulging skins and missing rivets.
 - If no corrosion is present, proceed to Part III.
 - If superficial corrosion is detected, remove per FAA Advisory Circular AC 43.12-1B, Chapter 6, Section 7. After removal of the corrosion, verify that all the affected areas meet or exceed the minimum thicknesses in Table 2. If the affected areas meet the minimums, then treat the corrosion with guidance from AC 43.13-1B, Chapter 6, Section 8 or 10. Then, paint the affected areas using a good quality aircraft primer that complies with MIL-PRF-23377 (such as Akzo-Nobel 10P30-5). Proceed to Part III.

- 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 Table 2, structural repair is required. Proceed to Part II.

TABLE 2

PART DESCRIPTION	MINIMUM THICKNESS
Aft wing spar (aluminum)	0.060 inches
Aft wing attach fitting (steel)	0.117 inches

NOTE: Thickness measurements shall be accomplished using a nondestructive inspection method, such as ultrasound, eddy current, or equivalent, provided that such method achieves a measurement accuracy of +/- 0.005 inches or better.

Part II. Structural Repair

1. Order and install Kit, Corrosion – Aft Spar Rework, Piper P/N 764-998. Verify that the kit instructions are marked 87584, revision F or later. 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.
Contact Piper Customer Service for guidance at (+1) 772-299-2141 or CustomerService@piper.com. Piper’s normal business hours are Monday through Friday, 7:30 a.m. to 4:30 p.m. (Eastern).
2. Proceed to Part III.

Part III. Corrosion Protection

1. Treat the area identified in Figure 2, View A–A, with Ardrox (Dinitrol) AV8, or other MIL-PRF-16173 Class I or II, Grade 1 or 4 compliant Corrosion Preventive Compound (procure locally, or order Piper P/N 89500-800). The treatment may be brushed or sprayed.
NOTE: Verify that all drain holes and drain passages are clear before proceeding.
2. Reinstall inspection plates and fairings. Perform a functional test of any system or component that may have been disconnected or removed.
3. Proceed to Part IV.

Part IV.

Make a logbook entry documenting compliance with this service bulletin.

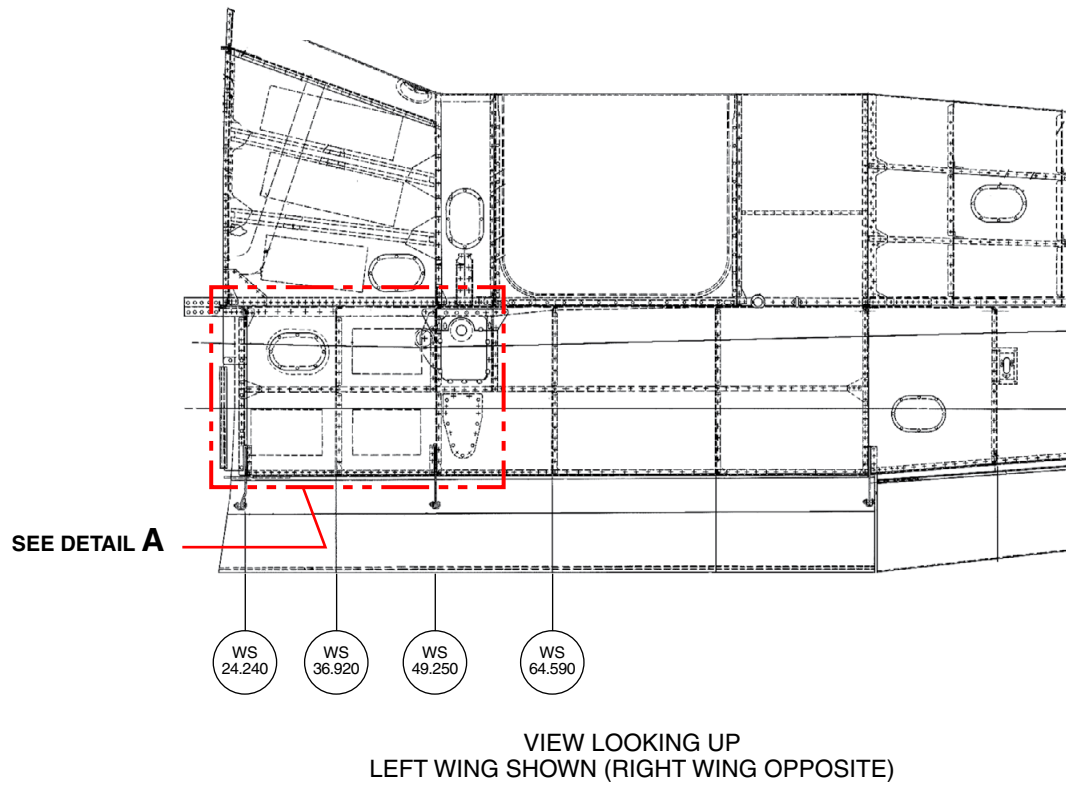
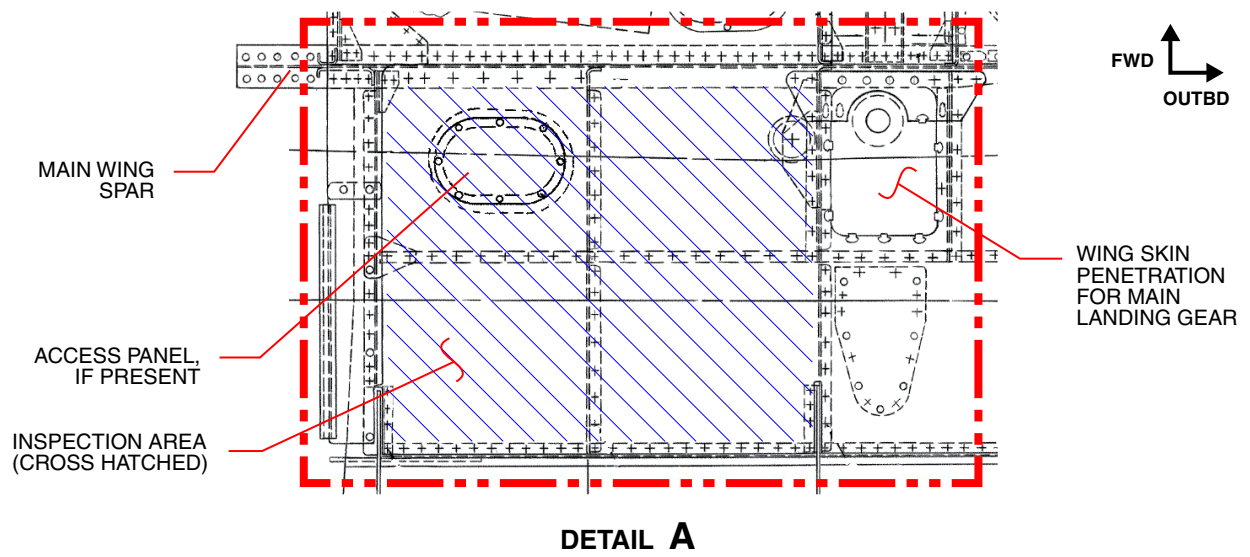
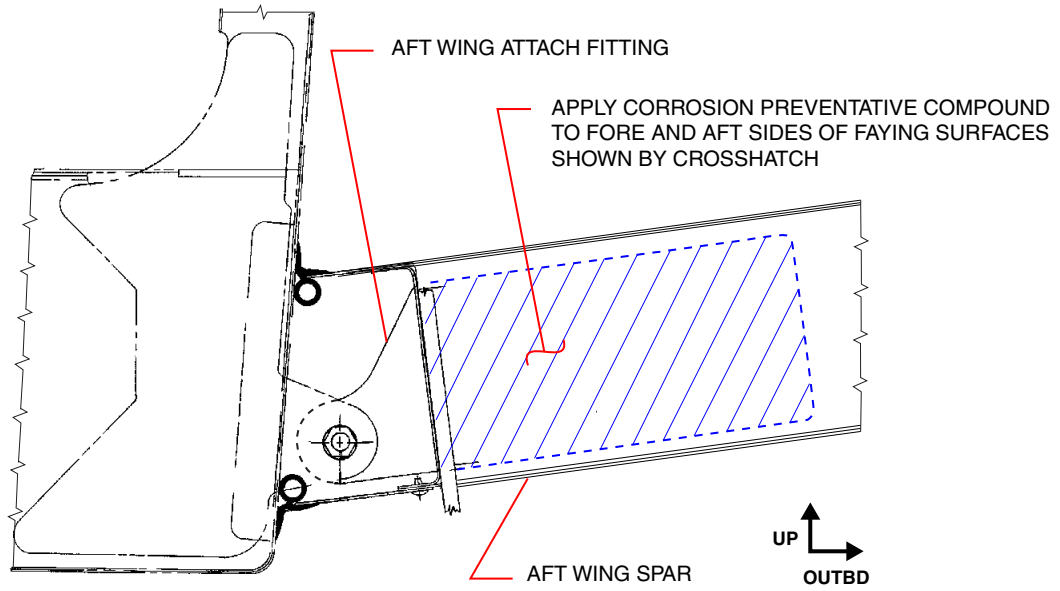
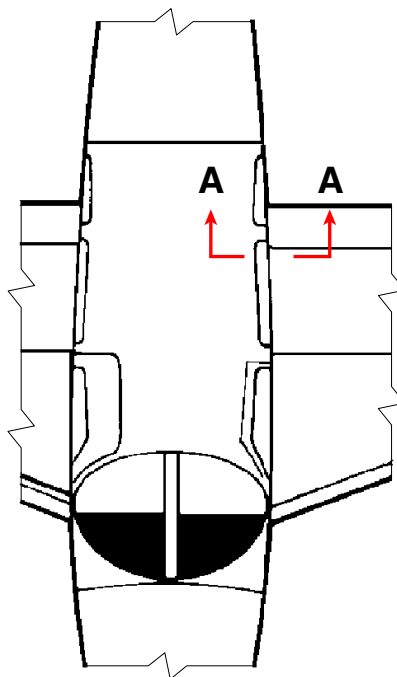


Figure 1
Access Panel Location



VIEW A-A

LOOKING AFT AT LEFT HAND SIDE



WING ATTACH FITTING LOCATION

Figure 2
Aft Wing Attach Fitting

MATERIAL REQUIRED:

Per aircraft:

Quantity	Piper P/N	Nomenclature
A/R *	89500-800	Ardrox (Dinitrol) AV 8 Corrosion Preventative Compound
1 †	764-998 (See note)	Kit, Corrosion – Aft Spar Rework
1 ‡	765-106	Kit, Inspection Access Hole

- * Quantity is as required
- † On condition, if required
- ‡ On condition, at the operator’s discretion

- LPS Presolve Orange Degreaser (SAE AMS 1525) or equivalent
- Chemetall Ardrox 6333A (SAE AMS 1526) or equivalent
- Akzo-Nobel 10P30-5 (MIL-PRF-23377) or equivalent

NOTE: Verify that the instructions for Kit P/N 764-998 are marked DWG 87584, revision F or later.

AVAILABILITY OF PARTS:

Your Piper Approved Service Center (in table); procure locally (bullet list)

EFFECTIVITY DATE:

This service bulletin is effective upon receipt.

SUMMARY:

Please contact your Piper Approved Service Center to make arrangements for compliance with this service bulletin in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner’s name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.
 Att’n: Customer Service
 2926 Piper Drive
 Vero Beach, FL 32960
 or:
 CustomerService@piper.com
 Please include in subject line: “Aircraft ownership update”