



Piper Aircraft, Inc.  
2926 Piper Drive  
Vero Beach, FL, U.S.A. 32960

# SERVICE NO. 1304 BULLETIN

## PIPER CONSIDERS COMPLIANCE MANDATORY

Date: August 23, 2017

(S)

**SUBJECT:**

**MAIN WING SPAR INSPECTION**

**MODELS AFFECTED:**

PA-28-150/160 Cherokee

PA-28-140 Cherokee

PA-28-180 Cherokee

PA-28-180 Challenger/Archer

PA-28-235 Cherokee

PA-32-260 Cherokee Six

PA-32-300 Cherokee Six

**SERIAL NUMBERS AFFECTED:**

28-1 through 28-4377; 28-1760A

28-20001 through 28-26946;

28-7125001 through 28-7725290

28-671 thru 28-5859; 28-7105001 thru 28-7205318

28-7305001 through 28-7505261

28-10001 through 28-11378;

28-7110001 through 28-7710089; 28E-11

32-04; 32-1 through 32-1297;

32-7100001 through 32-7800008

32-15, 32-21; 32-40000 through 32-40974;

32-7140001 through 32-7840222

**COMPLIANCE TIME:**

To coincide with the next regularly scheduled maintenance event, but not to exceed the next 100 hours time in service.

**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 mandates a thorough one-time inspection of the wing root area for corrosion.

**SAFETY INTENT:**

The safety intent of this service bulletin is to identify and treat any corrosion of the main wing spar. Left untreated, corrosion of the main wing spar could reach a level that compromises the aircraft's airworthiness.

**CONFIGURATION  
DESCRIPTION:**

This service bulletin mandates installation of a kit that provides parts and instructions for installing access panels on the lower wing skin, to facilitate the inspection mandated by this service bulletin, as well as the recurring inspection that is already part of normal maintenance.

Some of the affected aircraft may already have this kit installed as part of some previous service action.

ATA/JASC: 5740

(OVER)

**INSTRUCTIONS:**

**NOTE:** Some steps in these instructions are identified as “required for compliance” (RC). If this service bulletin is mandated by an airworthiness directive (AD), the steps identified as RC must be done to comply with the AD. Steps not identified as RC are recommended and may be deviated from, done as a part of other actions, or done with accepted methods different from those given in this service bulletin, if the RC steps can be done and the airplane can be put back in a serviceable condition.

**NOTE:** Perform the inspections described in this service bulletin using a 10X magnifier, a mirror and a suitable light source or other equipment capable of providing equal or better resolution.

**NOTE:** Refer to the applicable Piper Airplane Maintenance Manual for model specific details.

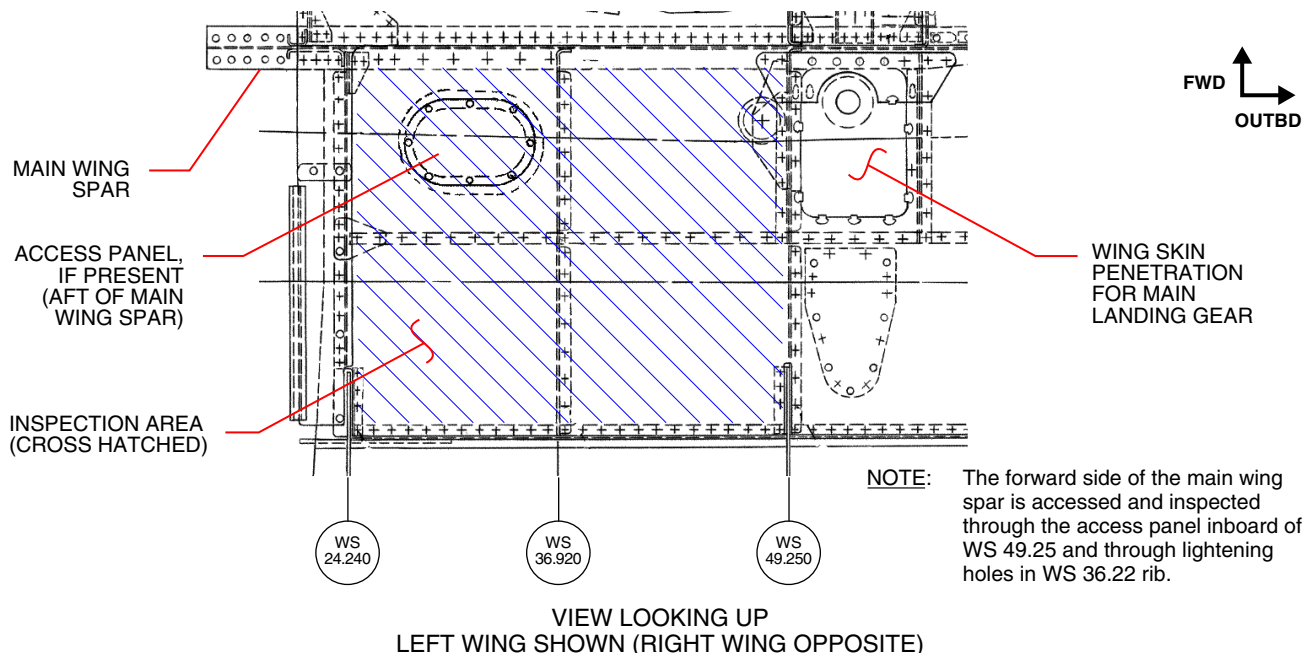
**NOTE:** Instructions that follow apply to both left and right wings.

**NOTE:** Although the inspection mandated by this service bulletin is applicable specifically to the main wing spar, it is recommended that all areas made accessible by the removal of an inspection panel receive a visual inspection for damage and corrosion.

**NOTE:** Refer to FAA Advisory Circular AC 43-4A, “Corrosion Control for Aircraft” (which is available at <http://www.airweb.faa.gov>), for additional information.

**Part I. Wing Spar Inspection**

1. RC – Examine the lower wing skin in the area shown in Figure 1 for the presence of an access panel, which is in the area aft of the main wing spar and inboard of the main landing gear. This access panel, if present, will be oval shaped, roughly eight (8) inches long and 5.50 inches wide.
  - If an access panel already exists in the area identified in Figure 1, proceed to Step 2.
  - If no access panel exists in the area identified in Figure 1, order and install Inspection Access Hole Kit, Piper Part Number (P/N) 765-106V. Each kit provides parts to install one access panel on the lower surface of both the left and right wings, at a location that provides direct visual access to the inspection area. Proceed to Step 2.



**Figure 1**  
Access Panel Location

2. RC – Remove wing inspection panels and fairings, as required, to gain visual access to the aft side of the main wing spar.

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.

NOTE:

3. RC – Prepare surfaces for examination. 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 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. RC – Compare the aircraft model and serial number against Tables 1 and 2 and Figure 2, to identify the applicable wing spar configuration and corresponding minimum permissible component part thicknesses before proceeding.

Carefully inspect spar components 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.

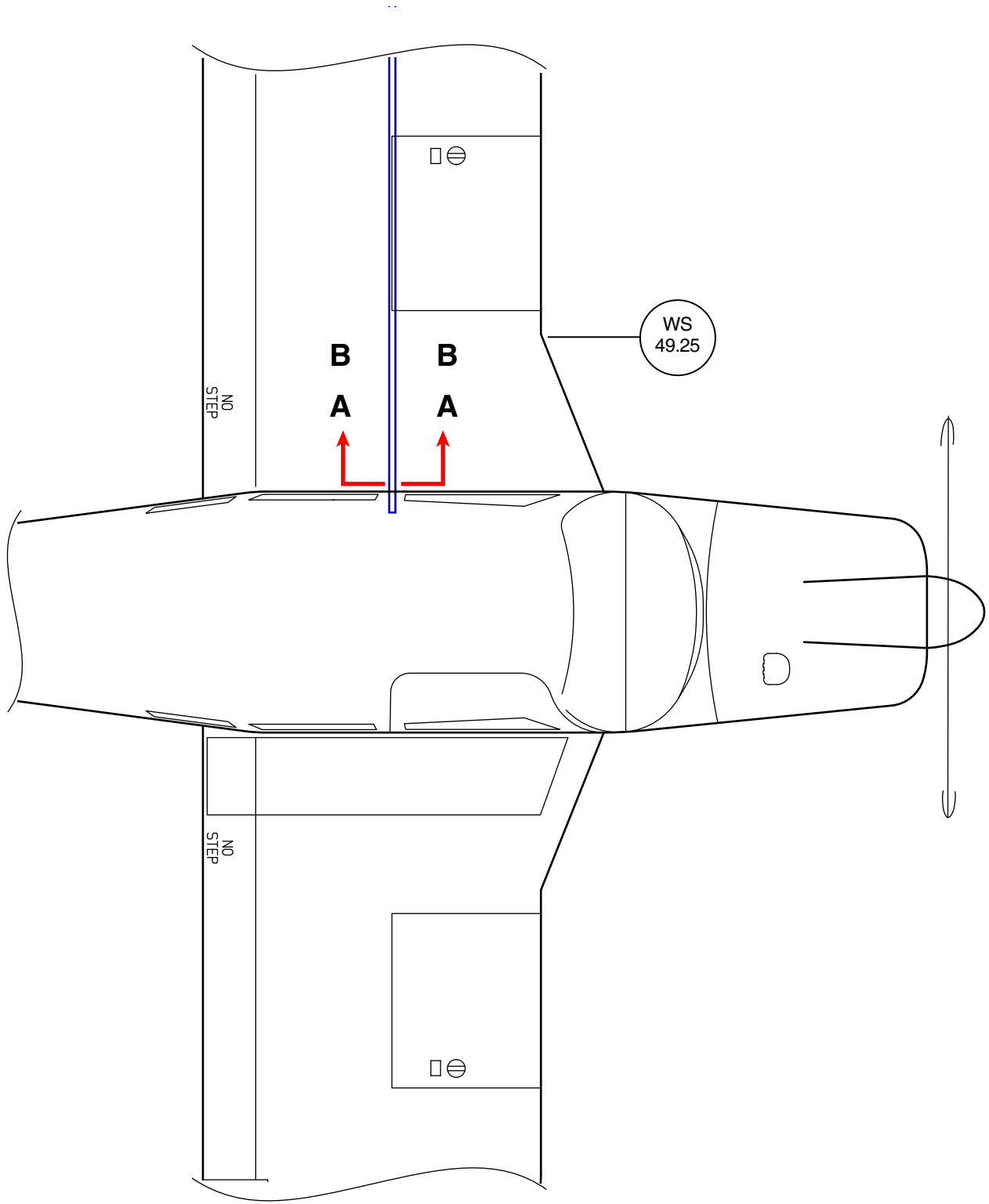
- If no corrosion is present, proceed to Part III.
  - If corrosion is detected, remove per FAA Advisory Circular AC 43.13-1B, Chapter 6. Proceed to Step 5.
5. RC – After removal of the corrosion, verify that all affected areas meet or exceed the minimum thicknesses stated within this service bulletin. At locations where direct measurement is not possible, 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.
    - If the part thickness at all locations meets or exceeds the minimum thicknesses stated within this service bulletin, proceed as follows: Apply primer to the areas where paint was removed using MIL-PRF-85582D Type I Class C2 primer, or any primer conforming to MIL-P-23377 and apply per manufacturer's instructions. Alternately, any of the primers listed in Table 3 may be used. Proceed to Part III.
    - If corrosion is detected, and removal of corrosion in the affected areas results in a part thickness at any location that is less than the minimum values stated within this service bulletin, further assessment and/or structural repair is required. Proceed to Part II.

**TABLE 1**  
**WING SPAR CONFIGURATION**

<b>Piper Model</b>	<b>Serial Numbers</b>	<b>Applicable Section</b>
PA-28-140/150/160/180/235 Cherokee Series	All	A-A
PA-28-180 Archer	All	
PA-32-260 Cherokee Six	All	
PA-32-300 Cherokee Six	32-15; 32-21; 32-40000 through 32-40974; 32-7140001 through 32-7840222	
PA-32-300 Cherokee Six	32-7940001 through 32-7940290	B-B

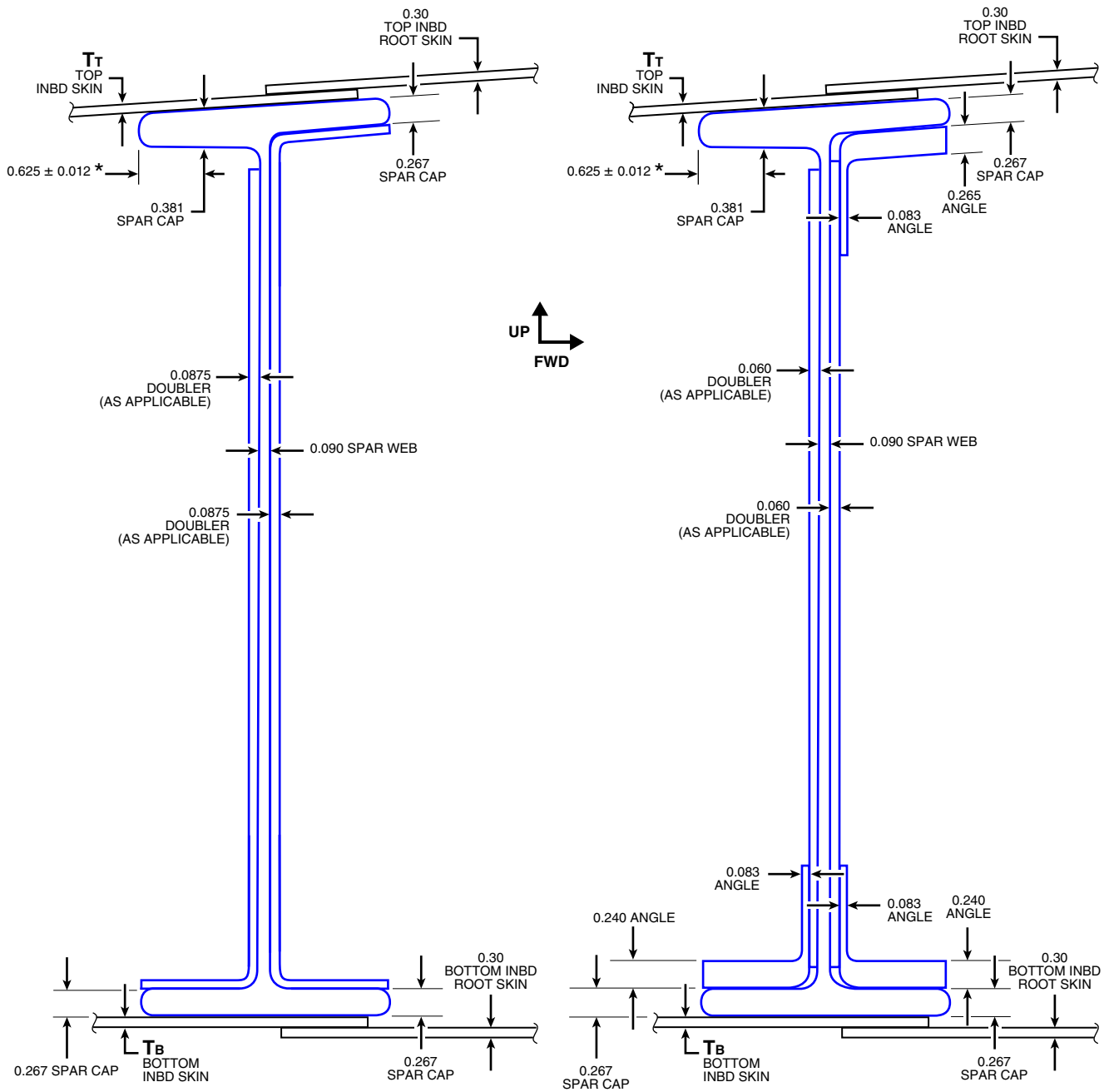
**TABLE 2**  
**MINIMUM BOTTOM WING SKIN THICKNESS – T<sub>B</sub>**

<b>Piper Model</b>	<b>Serial Numbers</b>	<b>Minimum Thickness</b>
PA-28-140/150/160/180 Cherokee Series	All	0.0175
PA-28-180 Challenger/Archer	All	
PA-28-235 Cherokee Series	All	0.0225
PA-32-260/300 Cherokee Six	All	



**PLAN VIEW**

**Figure 2, Sheet 1 of 2**  
Wing Spar Configurations



**NOTE:** The minimum allowable dimensions are shown in View A-A and B-B, except as denoted by \*.

**NOTE:** Dimensions shown are NOT the nominal thicknesses.

**NOTE:** All measurements are in inches.

\* The dimension 0.625 +/- 0.012 is not a measure of material thickness. Rather, this dimension defines the location to measure for the minimum allowable thickness of 0.381 in the spar cap.

**VIEW A-A**

LOOKING OUTBOARD  
LEFT SIDE SHOWN (RIGHT SIDE OPPOSITE)

**VIEW B-B**

LOOKING OUTBOARD  
LEFT SIDE SHOWN (RIGHT SIDE OPPOSITE)

**Figure 2, Sheet 2 of 2**  
Wing Spar Configurations

**TABLE 3**  
**ACCEPTABLE EPOXY PRIMERS**

Piper Part Number	Vendor Product Name	Vendor Product Number
170-748 (was 279-179)	PPG Aerospace PRC-DeSoto	EWDE072A/B
279-506	AkzoNobel Aerospace Coatings	10P8-10NF / EC-283
279-108	AkzoNobel Aerospace Coatings	10P30-5 / EC-275
N/A	Deft, Inc.	44GN036
279-240	Axalta (formerly DuPont)	Axalta Epoxy 13550S

**Part II. Structural Repair**

1. RC – Corrosion damage that exceeds the limitations described in Part I will require additional and/or different FAA approved repairs. At the operator's discretion, contact Piper Customer Service for guidance: call (+1) 772-299-2141 or write customer.service@piper.com. Piper's normal business hours are Monday through Friday, 7:30 am to 4:30 pm (Eastern).
2. RC – Proceed to Part III.

**Part III. Return to Service**

1. RC – Reinstall access panels and fairings. Perform a functional test of any system or component that may have been disconnected, removed or otherwise disturbed.
2. RC – Make a logbook entry documenting compliance with this service bulletin.

**MATERIAL REQUIRED:** On condition, one each, Inspection Access Hole Kit, P/N 765-106V, per aircraft  
Procure locally:

- LPS Presolve Orange Degreaser or equivalent, conforming to SAE AMS 1525
- Epoxy primer conforming to MIL-PRF-23377 or as listed in Table 3

**AVAILABILITY OF PARTS:** Your Piper Approved Service Center; locally, as identified under Material Required

**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.  
Attn: Customer Service  
2926 Piper Drive  
Vero Beach, FL 32960