



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

SERVICE NO. 1399 BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: March 16, 2023

(S)

SUBJECT:

WING RIB MODIFICATION

MODELS AFFECTED:

SERIAL NUMBERS AFFECTED:

Group A:

- PA-28-151 Cherokee Warrior
- PA-28-161 Cherokee Warrior II
- PA-28-161 Cadet
- PA-28-161 Warrior III
- PA-28-181 Archer II
- PA-28-181 Archer III
- PA-28-181 Piper Pilot 100i
- PA-28-201T Turbo Dakota
- PA-28-236 Dakota
- PA-28R-201 Arrow III / Arrow
- PA-28R-201T Turbo Arrow III
- PA-28RT-201 Arrow IV
- PA-28RT-201T Turbo Arrow IV

- 28-7415001 through 28-7715314,
less 28-7415050 and 28-7515302
- 28-7716001 through 28-8616057,
2816001 through 2816105
- 2841001 through 2841365
- 2816110 through 2842420
- 28-7690001 through 28-8690056,
2890001 through 2890205, less 28-7690126
- 2890206 through 2890231,
2881001 through 2881232,
2881234 through 2881464
- 28020001 through 28020018
- 28-7921001 through 28-7921095
- 28-7911002 through 28-8611009,
2811001 through 2811050
- 28R-7737001 through 28R-7837317,
2837001 through 2837061,
2844001 through 2844185
- 28R-7703001 through 28R-7803373,
2803001 through 2803012
- 28R-7918002 through 28R-8218026
- 28R-7931002 through 28R-8631004,
2831001 through 2831038

Group B:

- PA-28-151 Cherokee Warrior
- PA-28-181 Archer II
- PA-28-181 Archer III
- PA-28-181 Piper Pilot 100i

- 28-7415050
- 28-7690126
- 2881233, 2881465 through 2881618
- 28020019 through 28020110

COMPLIANCE TIME:

To coincide with the next regularly scheduled maintenance event, but not to exceed the next 25 hours time in service.

ATA/JASC: 5700

(OVER)

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

PURPOSE: Some of the affected aircraft may have a Wing Station (WS) 206.70 Nose Rib that does not conform to type design, applicable to the right wing only. These ribs may not provide adequate structural stability to maintain the local wing contour for the outboard bay.

This service bulletin provides instructions for a one-time inspection of this nose rib, and on condition, instructions to restore the nose rib to original type design strength.

INSTRUCTIONS:

NOTES:

- The temporary removal of fairings and/or access panels may be required in order to accomplish the instructions in this service bulletin. Refer to the applicable Piper Airplane Maintenance Manual (AMM) for removal and installation procedures.
- These instructions apply only to the right side of the aircraft.
- Unless otherwise specified, installed rivets shall conform to the requirements stated in Chapter 4, Section 4, of FAA Advisory Circular AC 43.13-1B.
- Treat all bare metal surfaces with primer conforming to MIL-PRF-85582 Type 1 Class C2 or any one of the primers listed in Table 1.

1. For airplanes in **Group A**, check the airplane logbook for the installation of RH Nose Rib, Sta. 206.70, Piper part number (P/N) 35615-003 or RH Nose Rib Assembly, Sta. 206.70, Piper P/N 35615-001, between the dates of May 1st, 2021 through March 9th, 2023.
 - If either P/N was not installed within this date range, proceed to step 6.
 - If either P/N was installed within this date range, proceed to step 2.For airplanes in **Group B**, proceed to step 2.
2. Gain visual access to the right wing WS 206.70 Nose Rib, Piper P/N 35615-003, as shown in Figure 1.
3. Examine the Nose Rib for the presence of a stiffening bead at the location identified in View A-A.
 - If the WS 206.70 Nose Rib has the stiffening bead feature, no modification is required. Proceed to step 6.
 - If the WS 206.70 Nose Rib does not have the stiffening bead feature, modification of the Nose Rib is required. Proceed to step 4.
4. Fabricate a Stiffener Angle, quantity one (1) each per aircraft, as defined in Figure 2. This Stiffener Angle shall conform to the following specifications:
 - Material: 0.040 thick 2024-T3 aluminum sheet conforming to AMS-QQ-A-250 and AMS-QQ-A-250/5. Procure locally.
 - Finish: Apply primer that conforms to MIL-PRF-85582D Type 1 Class C2, or, any one of the primers listed in Table 1. Procure locally.
 - All dimensions shown are in inches. Tolerance on linear dimensions is ± 0.050 inches. Tolerance on bend radius is ± 0.030 inches.
 - After the primer has cured, mark the Stiffener Angle with P/N "SB 1399-1" using a permanent felt tip marker, with minimum text height 0.25 inches. Locate the part number on a surface that will be visible after installation on the aircraft.

5. Install the SB 1399-1 Stiffener Angle as shown in Figure 3.
 - a. Adjust the vertical position the SB 1399-1 Stiffener Angle so that the clearance from the upper and lower flanges of the WS 206.70 Nose Rib is the same, ± 0.05 inches.
 - b. Install four (4) MS20470AD3 series rivets (aka "BJ 3") to secure the SB 1399-1 Stiffener Angle to the outboard side of the 35615-003 WS 206.70 Nose Rib. Procure rivets locally.

Alternatively, protruding Cherry-max type blind rivets may be used, -4 size only, provided the shank is aluminum, the stem is corrosion resistant steel, and the manufacturers recommended rivet puller and rivet puller head are used.

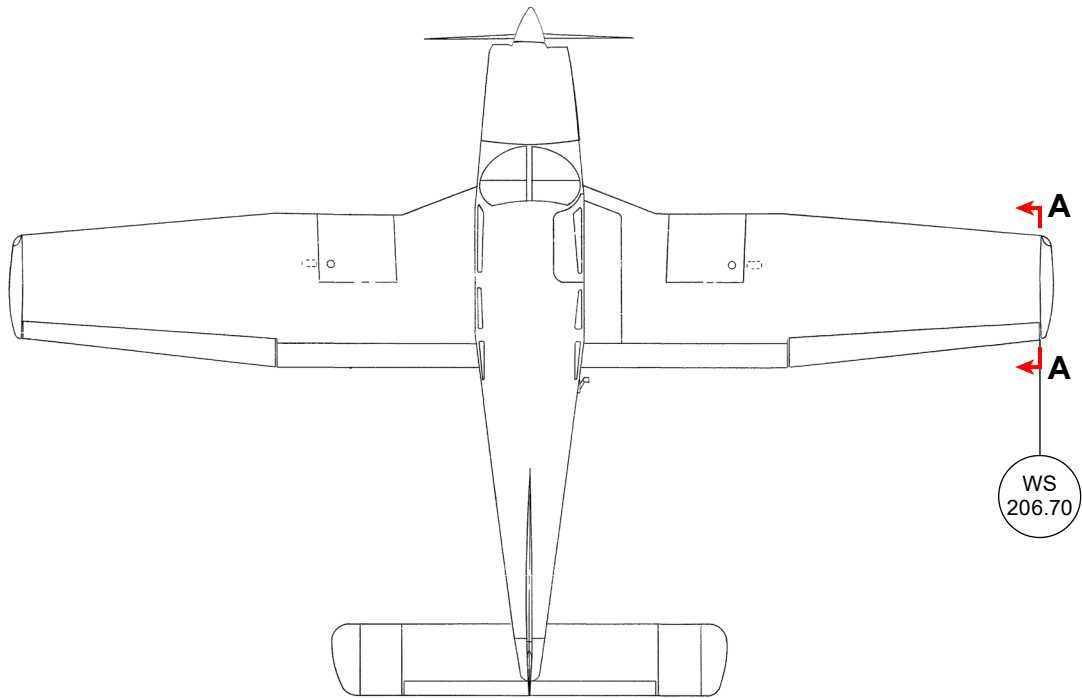
NOTES:

- All rivets shall be installed per AC 43.13-1B.
- Poor installation of any rivets will require a repair that is outside the scope of this service bulletin.

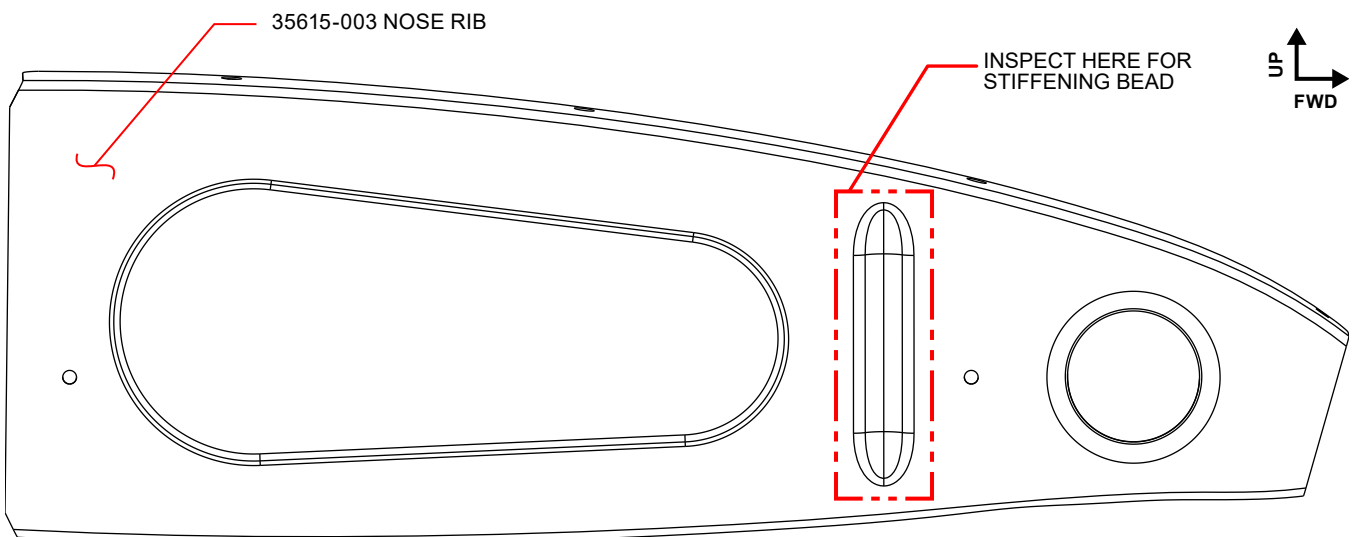
6. Make a logbook entry documenting compliance with this service bulletin.

**TABLE 1
ACCEPTABLE EPOXY PRIMERS**

Vendor Product Name	Vendor Product Number
PPG Aerospace PRC-DeSoto	EWDE072A/B
AkzoNobel Aerospace Coatings	10P8-10NF / EC-283
AkzoNobel Aerospace Coatings	10P30-5 / EC-275
Deft, Inc.	44GN036



**PA-28-181
ARCHER & PIPER PILOT**
LOOKING DOWN



VIEW A-A
LOOKING INBOARD AT RH WING AT W.S. 206.70
VIEW ROTATED CW 90°

Figure 1
Nose Rib Inspection

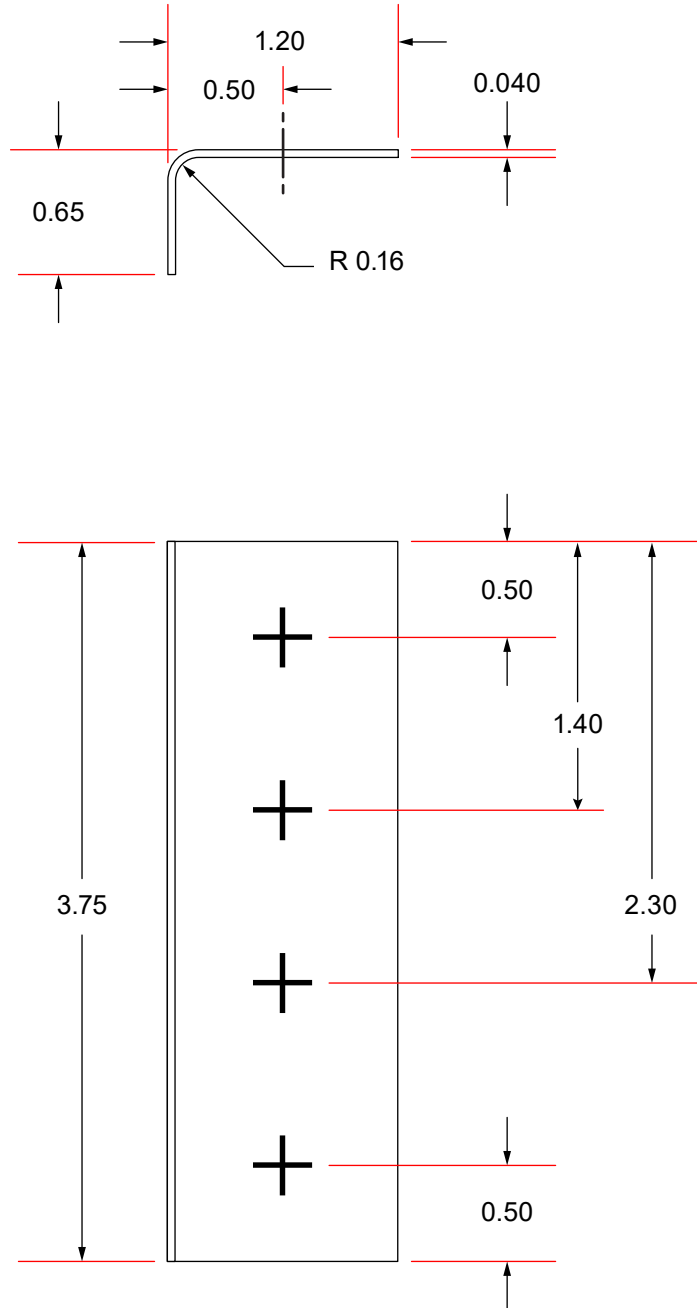


Figure 2
Stiffener Angle (P/N SB1399-1) Fabrication

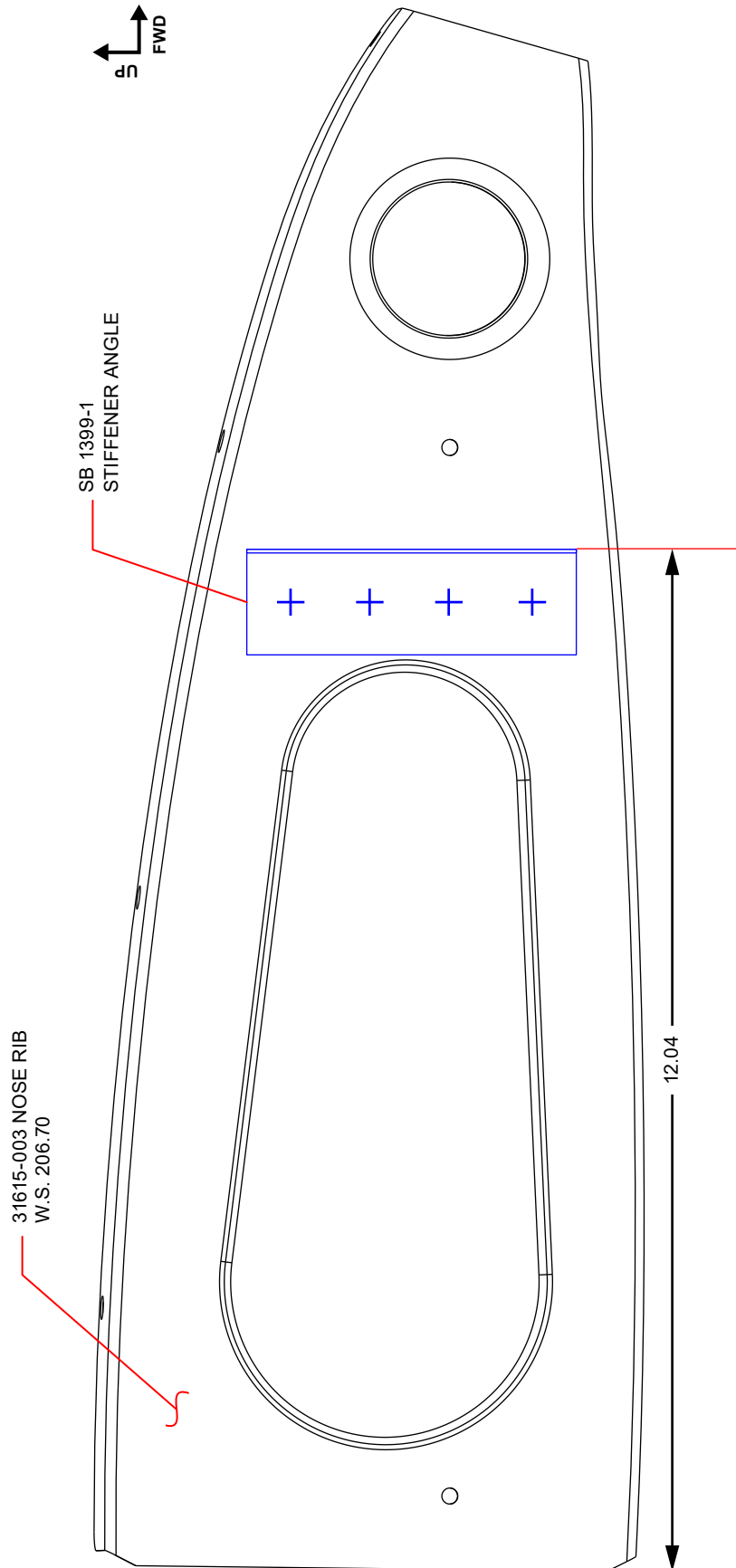


Figure 3
Stiffener Angle Installation

- MATERIAL REQUIRED:** Per aircraft:
- As Required (A/R), 0.040 thick 2024-T3 aluminum sheet conforming to AMS-QQ-A-250 and AMS-QQ-A-250/5, procure locally
 - A/R, Primer conforming to MIL-PRF-85582D Type 1 Class C2, or any primer listed in Table 1, procure locally
 - Four (4) each, MS20470AD3 series rivets or Cherry-max type blind rivets, as described in step 5.b., procure locally

AVAILABILITY OF PARTS: Procure locally.

EFFECTIVITY DATE: This service bulletin is effective on March 16, 2023.

SUMMARY: Applicable factory participation is limited to new aircraft in warranty at the time of compliance. Factory participation will remain in effect for a period of time not to exceed 180 days from the effectivity date of this service bulletin.

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
or:
CustomerService@piper.com
Please include in subject line: "Aircraft ownership update"