



# SERVICE BULLETIN

No. 751

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

Modification FAA Approved

May 24, 1983 S/M

Subject: Spar Cap Chafing Inspection

Models Affected: Serial Numbers Affected:

PA-24-400 Comanche	26-2 and up
PA-24-180/250/260 Comanche	24-1 and up
PA-30 Twin Comanche	30-2 to 30-2000 Inclusive
PA-39 Twin Comanche C/R	39-1 to 39-155 Inclusive

Compliance Time: Within the next 100 hours of operation or the next scheduled inspection whichever occurs first.

Purpose:

Several cases have been reported of chafing of the wing main spar lower cap where the spar enters the fuselage. This is caused either by deterioration of the rubber baffle material attached to the front and rear seal plates or by improper re-installation of the subject plates. Either situation may allow the seal plates to contact and chafe the lower spar cap.

If this chafing is left undetected, structural integrity of the spar cap could be affected.

This Service Bulletin provides instructions for removal of the lower portion of the front and rear seal plates, Piper nos. 21919-00, -01, -08, -09 and 21918-00, -01 from the affected area. Also provided are depth limits if chafing has occurred and instructions for reworking the area to remove the effects of possible chafing.

Instructions:

1. Obtain access to the affected area of the lower spar cap by removing the lower wing root fairing.
2. With reference to the attached sketch, trim off the lower portion of each seal plate using a pair of aviation sheet metal shears.
3. Visually inspect both the upper and lower surfaces of the bottom spar cap where it passes through the seal plates. A mirror and flashlight will be necessary to properly inspect the upper surface. If no chafing is found, no further action is required.
4. If chafing is evident, perform a dye penetrant check of the chafed area. Provided no cracks are found, the chafed area should be polished to a smooth contour with progressively finer grades of "wet or dry type" emery paper. Final polishing should be accomplished with a 400 or 600 grade paper. The depth of the contoured area after smoothing and polishing

should not exceed the values in the Table of Limits, below. If the depth exceeds those in the Table of Limits, the affected parts must be replaced.

5. Following the contouring of the chafed area, clean and degrease using Acetone or MEK. Then prime with zinc chromate or equivalent primer and reinstall the lower wing root fairing.

NOTE:

If dye-penetrant check was accomplished, it need only be done at this time. No further inspections are necessary if Instruction 3 or 4 and 5, above, are accomplished.

6. Make log book entry of compliance with this Service Release

<u>TABLE OF LIMITS</u>		
<u>Model</u>	<u>Gross Wt. (lbs.)</u>	<u>Removal Limits of Cap Outer Face (in.)</u>
PA-24	2550	.040
PA-24-250	2800	.035
	2900	.035
PA-24-260 (6-place)	2900	.035
	3100	.030
	3200	.030
(Turbo)	3200	.025
PA-24-400	3600	.030
PA-30	3600	.035
PA-39	3600	.035

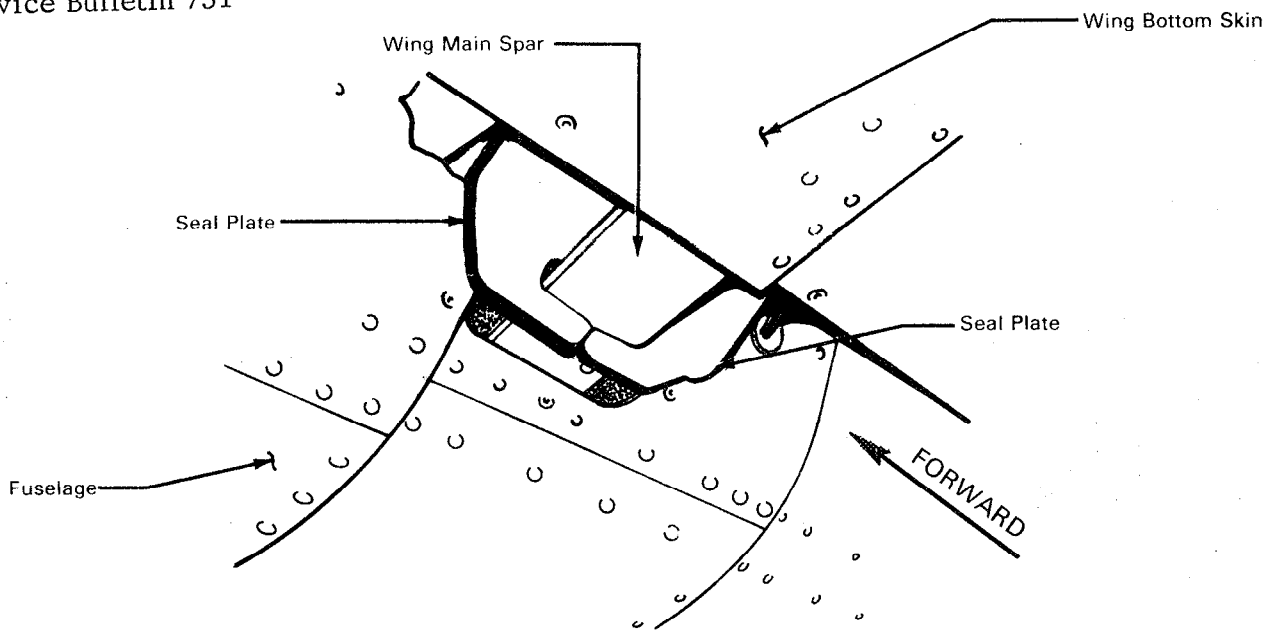
Material Required: If required Instruction 4, refer to appropriate Parts Catalog.

Availability of Parts: Your Piper Field Service Facility.

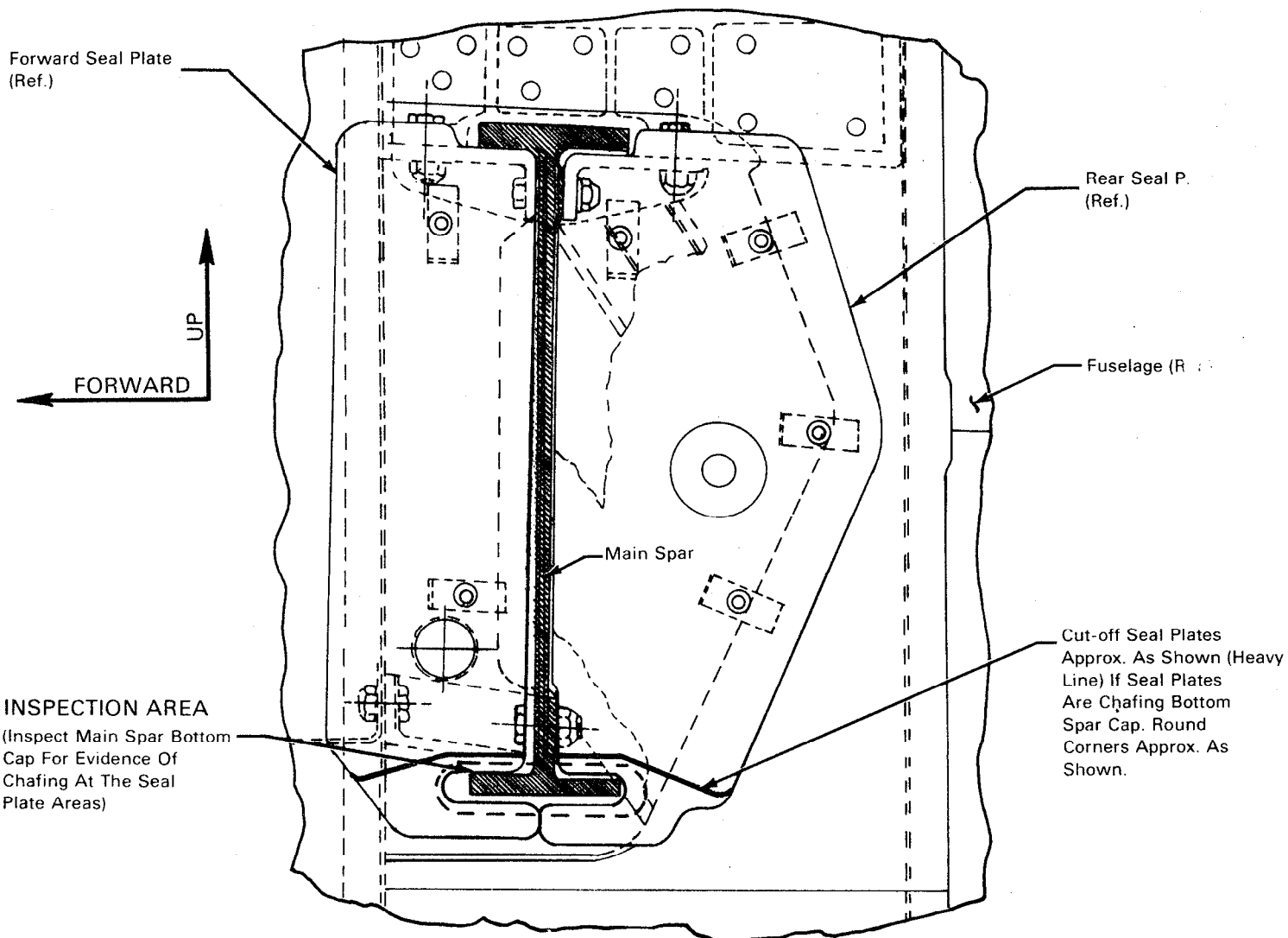
Effectivity Date: This Service Release is effective upon receipt.

Summary: Please contact your Piper Field Service Facility to arrange for compliance with the provisions of this Service Release in accordance with Compliance Time, Above.

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LEFT SIDE SHOWN



**INSPECTION AREA**  
(Inspect Main Spar Bottom Cap For Evidence Of Chafing At The Seal Plate Areas)

LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE