

FIN ATTACHMENT BRACKET INSTALLATION

PA-24-180, PA-24-250, PA-24-260 and PA-24-400
PA-30 and PA-39

<u>PART NO.</u>	<u>QUANTITY</u>	<u>NOMENCLATURE</u>
	1	Kit List
	1	Installation Instructions (730820)
	1	Sketch "A" (730820)
	1	Sketch "B" (730820)
27323-00	1	Bracket Assembly - Fin attachment
27561-00	1	Shim
401 266	4	Bolt - AN3-5A
404 887	2	Nut - MS20365-1032C
404 888	4	Nut - MS20365-428C
404 910	4	Nut - MS20365-832C
407 564	4	Washer - AN960-10
407 565	8	Washer - AN960-416
407 610	4	Washer - AN960-C8
407 674	2	Washer - AN960-C10
411 230	4	Screw - NAS222-11
411 532	1	Screw - MS35207-263
411 533	1	Screw - MS35207-264
414 518	4	Screw - MS24693-S51

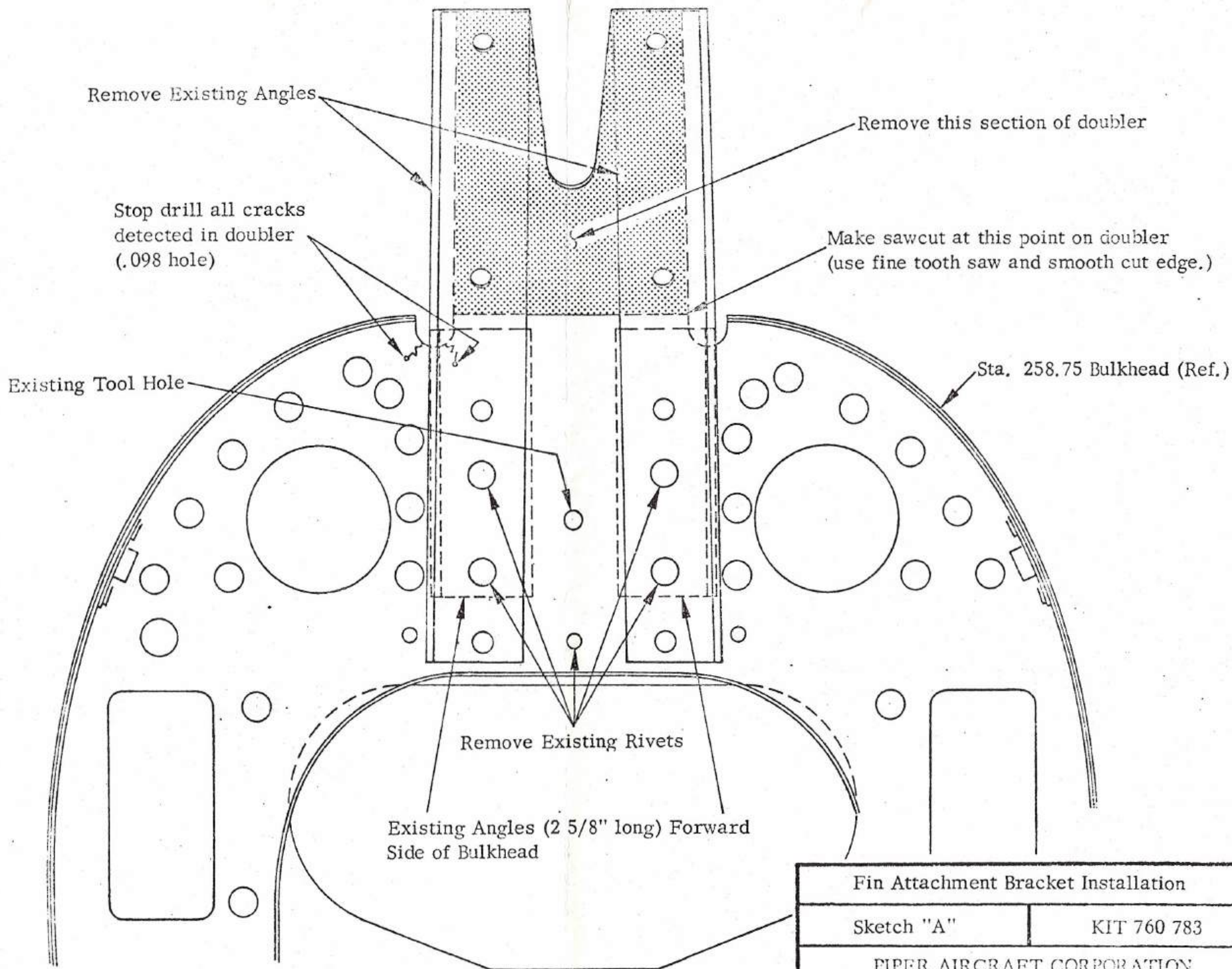
INSTALLATION INSTRUCTIONS

A. PREPARATION FOR INSTALLATION

1. To gain access to the area where this installation will be accomplished, remove the fuselage to fin fairing, the rear fuselage access panel, the upper half of the tail cone fairing, and if applicable, the reinforcement channel connecting the stabilator torque tube bearing blocks.
2. Disconnect the rudder cables from the rudder horn. If necessary, gain sufficient slack at the turnbuckles.
3. Remove the bolt from the rudder horn hinge, noting the position of the washer. Retain the hardware.
4. Disconnect the tail light wire.
5. Note the positions of the washers for correct reassembly and remove the hardware from the top and center rudder hinges. Retain the hardware.
6. Note the position of shims for reassembly and remove the rudder horn hinge bracket and shims from the bulkhead. Retain the shims and hardware.
7. Remove the fin attaching hardware at the rear spar.
8. Remove the rear fin attaching angles and discard. Remove the four flush rivets, through the bulkhead and doubler, on a vertical line with the top and bottom rudder horn hinge bracket attaching holes. Refer to Sketch "A".
9. Remove the existing rivet midway between and on a level with the bottom rudder horn hinge bracket attachment holes. Refer to Sketch "A".
10. Remove the section of the bulkhead doubler which extends into the fin area. This can be accomplished by tipping the fin forward sufficiently to allow a fine tooth saw to be used. Make the cut on a line with or below the fuselage skin if possible and smooth the cut edge of the doubler. Refer to Sketch "A".
11. If cracks are detected in the doubler after removal of the attachment angles, stop drill (.098 hole) to prevent progression of the crack. If the crack has already progressed to the nearest rivet hole, no further stop drilling action is required. Refer to Sketch "A".

B. KIT INSTALLATION - Refer to Sketch "B".

1. Fasten Bracket Assembly Part No. 27323-00 and Shim Part No. 27561-00 (between bracket and spar) to the rear fin spar with AN960-10 Washers (under bolt heads) and AN3-5A bolts into the existing anchor nuts.
2. Temporarily attach bracket Part No. 27323-00 and the 2 5/8 inch long angles (forward side of bulkhead) to the bulkhead with bolts thru the rudder horn hinge bracket attachment holes. Use cleco's as necessary in the existing rivet holes to maintain the alignment of the angles.
3. Using the countersunk holes in the bracket as locators, center and drill four .166 holes thru the bulkhead and angles.
4. Fasten the bracket assembly and angles to the bulkhead with MS24693-S51 screws, MS20365-832C Nuts and AN960-C8 Washers under the nuts. The screw heads must be flush with the bracket to allow for the next assembly.
5. Drill two $\frac{.189}{.191}$ holes thru the bulkhead midway between the top and bottom rudder horn hinge bracket attachment holes. Use a MS35207-263 screw in the top hole and a MS35207-264 screw in the bottom hole with MS20365-1032C nuts and AN960-C10 washers under the nuts on both screws.



AFT VIEW OF BULKHEAD AT STA 258.75

Fin Attachment Bracket Installation	
Sketch "A"	KIT 760 783
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Bolt - AN3-5A
 Washer - AN960-10
 4 Req.

27323-00 Bracket Assy.

27561-00 Shim

Trim this Edge of Shim if necessary

Existing Angles (2 5/8" long)
 Forward Side of Sta. 258.75
 Bulkhead

Use rudder horn hinge bracket
 holes to align bracket to
 bulkhead and 2-5/8" long angles.

Drill $\frac{.249}{.251}$ holes in this area (both sides)
 to match mating part of fin
 Screw - NAS222-11
 Washer - AN960-416 (two under nut)
 Nuts - MS20365-428C
 4 Req.
 (See Step B-6 in Kit Installation Instructions)

Drill .166 hole (thru)
 Screw - MS24693-S51
 Washer - AN960-C8
 Nut - MS20365-832C
 4 Req. (heads of screws must
 be flush with surface)

Existing Tool Hole

Drill $\frac{.189}{.191}$ Hole (thru) (2 Req.)
 Screw - MS35207-263 (Top)
 Screw - MS35207-264 (Bot.)
 Washer - AN960-C10 (2 Req.)
 Nut - MS20365-1032C (2 Req.)

Fin Attachment Bracket Installation

Sketch "B"

KIT 760 783

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AFT VIEW OF BULKHEAD AT STA. 258.75