

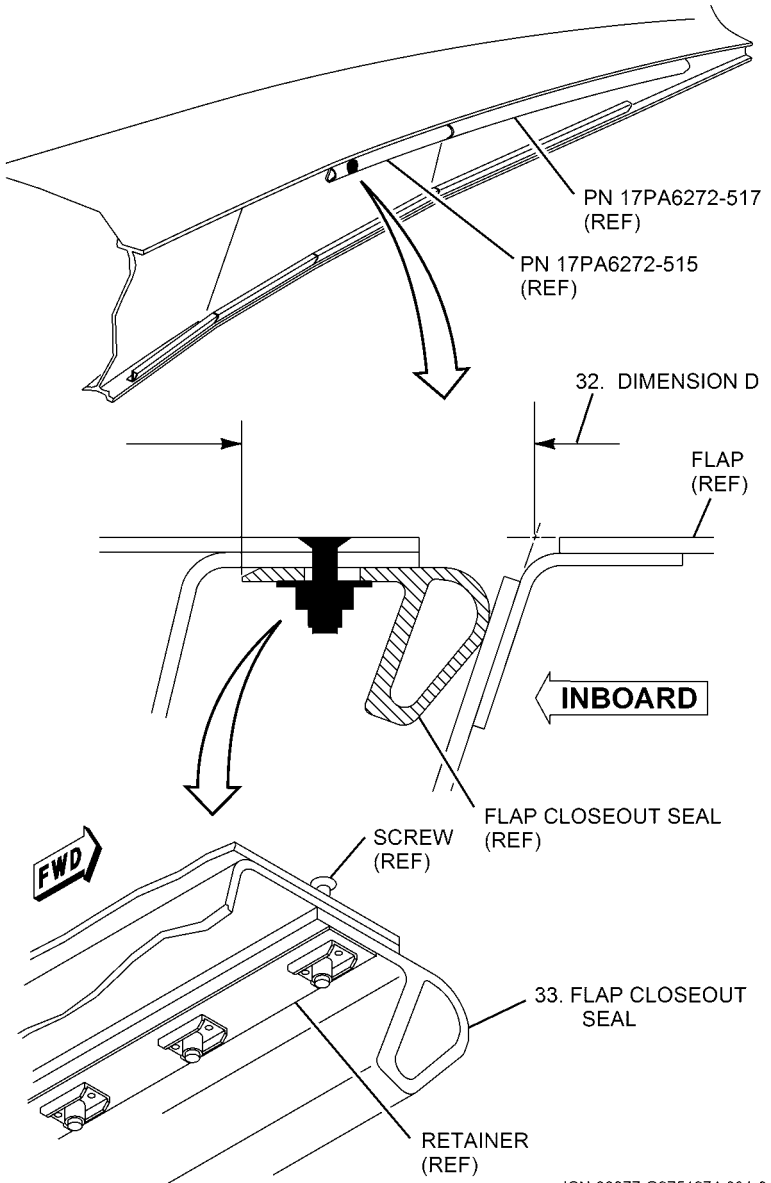
ICN-88277-G2751273-001-01

NOTE

- Flaps shall be fully retracted when taking measurements.
 - For each seal, three measurements should be taken, one within approximately an inch of either end of the seal, and one approximately in the middle.
32. (A,B) Measure dimension D, along the upper edge of the flap and the edge of the flap closeout seal, as follows:

LH SEAL PN	RH SEAL PN	DIMENSION D
17P2A6272-515	17P2A6272-515	2.26 - 2.32
17P2A6272-517	17P2A6272-518	2.26 - 2.32

33. (A,B) Position flap closeout seal (by loosening screws from retainers as required, and floating the seal within the slotted holes) to obtain dimension D; retighten screws.
34. Perform flaps system operation (27-50-03, task 03-3).
35. Trim edge of fairing/fairing closeout panels, as required (TO 1300i-3-1, 51-80-00).
- Fastener edge distance shall be a minimum of 0.48 inch.
36. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
37. Perform flaps system operation (27-50-03, task 03-4).
38. Exit fuselage and wing (00-00-01, task 01-5).



ICN-88277-G2751274-001-01

**FLAP AND VANE STRUCTURAL ASSEMBLY
REPAIR
(27-51-10-4)**

FUNCTIONAL INPUT CONDITIONS:

Applicability:	Task
All	All

Additional information:

This procedure consists of the following tasks:

- 4-1. Repair flap and vane structural assembly by replacing flap vane assembly.
- 4-2. Repair flap and vane structural assembly by replacing flap trailing edge support assembly.
- 4-3. Preparation for replacing flap or vane seal.
- 4-4. Repair flap and vane structural assembly by replacing inboard/outboard flap vane seal.
- 4-5. Repair flap and vane structural assembly by replacing inboard flap outboard foam seal.
- 4-6. Repair flap and vane structural assembly by replacing outboard flap inboard foam seal.
- 4-7. Repair flap and vane structural assembly by replacing outboard flap outboard foam seal.
- 4-8. Follow-on for replacing flap or vane seal.

NOTE	Task
These are typical repair tasks for all flap and vane structural assemblies.	All

Additional data:	Task
TO 1300i-2-05JG-10-1	4-1
TO 1300i-2-27JG-50-1	4-3, 4-8

	Task
TO 1300i-23	4-1, 4-2, 4-4, 4-5, 4-6, 4-7

Personnel recommended:

	Task
One	4-3, 4-4, 4-5, 4-6, 4-7, 4-8
Two	4-2
Three	4-1
Person (A) performs task.	
Person (B) assists person A.	
Person (C) assists person A.	

Safety conditions:

	Task
<div>WARNING</div> <p>Do not remove flap vane assembly with winds over 15 knots. Failure to comply may cause injury to personnel and damage to equipment.</p>	All

Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Crane, Wheel Mounted	LRT 100	--	1	4-1
Lock, Flap Control Handle, Aircraft Ground Safety	17G140025-1	--	1	4-2, 4-3
Semitrailer, Stake	26608SSPB	--	1	4-1
Sling, Multiple Leg	17G110012-1	--	1	4-1
Wrench, Torque	--	(0-150 in-lb)	1	4-2
Wrench, Torque	--	(700-1600 in-lb)	1	4-2

Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Pin, Cotter	MS24665-151	--	AR	4-2

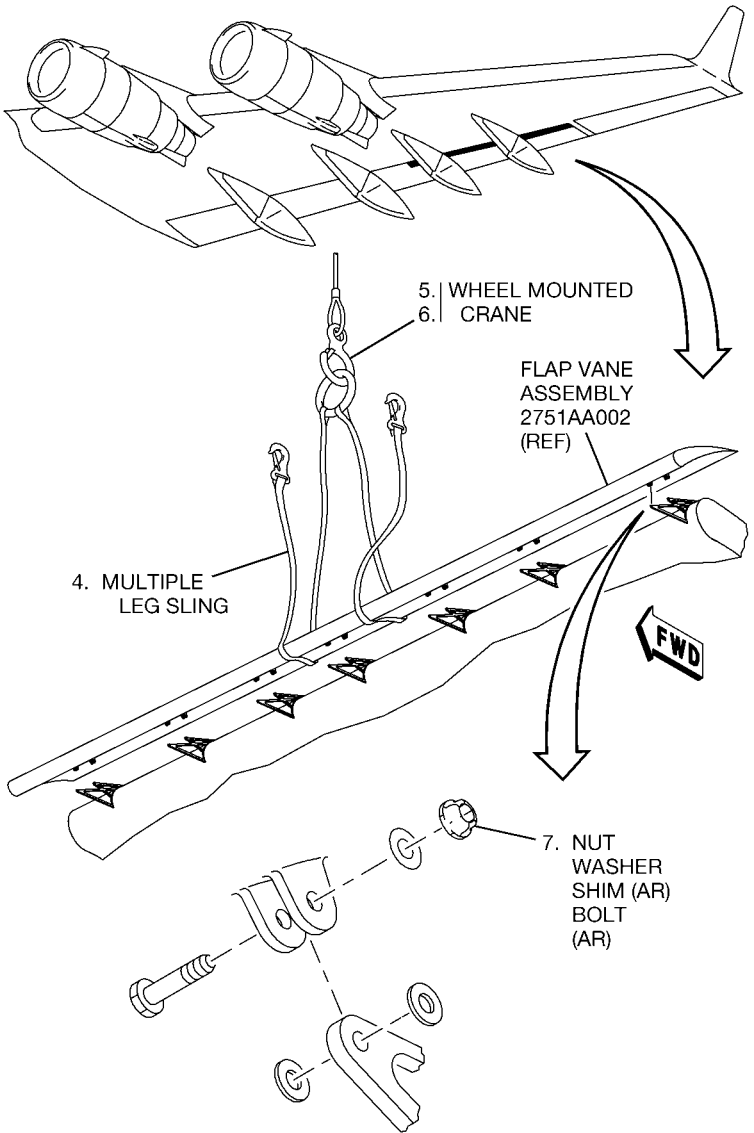
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Sealant	PR-1775 B-2	AMS 3265	AR	4-1, 4-2, 4-4, 4-5, 4-6, 4-7
Shim	17P6P4401-5	--	AR	4-2
Shim	17P6P4402-5	--	AR	4-2
Shim	17P6P4403-5	--	AR	4-2
Shim	17P6P4404-5	--	AR	4-2
Tag, Warning	--	--	1	4-2, 4-3
Washer	4D0009C5	--	1	4-2
Washer	NAS1149C0532R	--	AR	4-2

4-1. REPAIR FLAP AND VANE STRUCTURAL ASSEMBLY BY REPLACING FLAP VANE ASSEMBLY.

1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Install spoiler positioning support assembly (05-10-04) as follows:

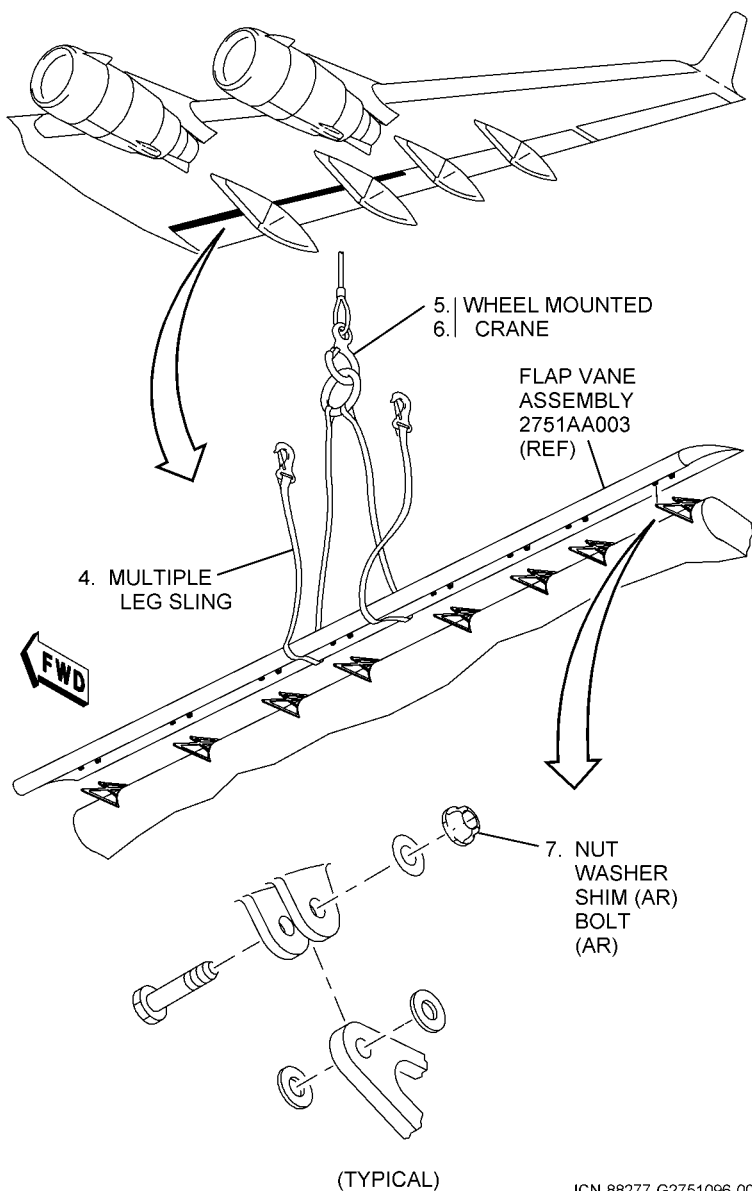
FLAP ASSEMBLY REF DES	SPOILER ASSEMBLY REF DES	SPOILER POSITION	TASK
2751AA002	2761AA001 AND 2761AA002	OUTBOARD	04-1 AND 04-3
2751AA003	2761AA003 AND 2761AA004	INBOARD	04-1 AND 04-2
2751AA004	2761AA005 AND 2761AA006	INBOARD	04-1 AND 04-2
2751AA005	2761AA007 AND 2761AA008	OUTBOARD	04-1 AND 04-3

4. (A) Attach multiple leg sling to wheel mounted crane.
5. (A,B,C) Position wheel mounted crane over flap vane assembly and wrap legs of sling around center of vane in choker configuration.
6. (C) Operate crane and remove slack from sling.
7. (A) Identify and remove nuts, washers, shims, and bolts.



(TYPICAL)

ICN-88277-G2751181-001-01



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TO 1300i-2-27JG-50-2

8. (A,B) Remove flap vane assembly and secure on stake semitrailer.
9. (A,B) Remove sling from flap vane assembly.
10. (A,B,C) Position crane over flap vane assembly and wrap legs of sling around center of vane in choker configuration.
11. (C) Operate crane and remove slack from sling.

NOTE

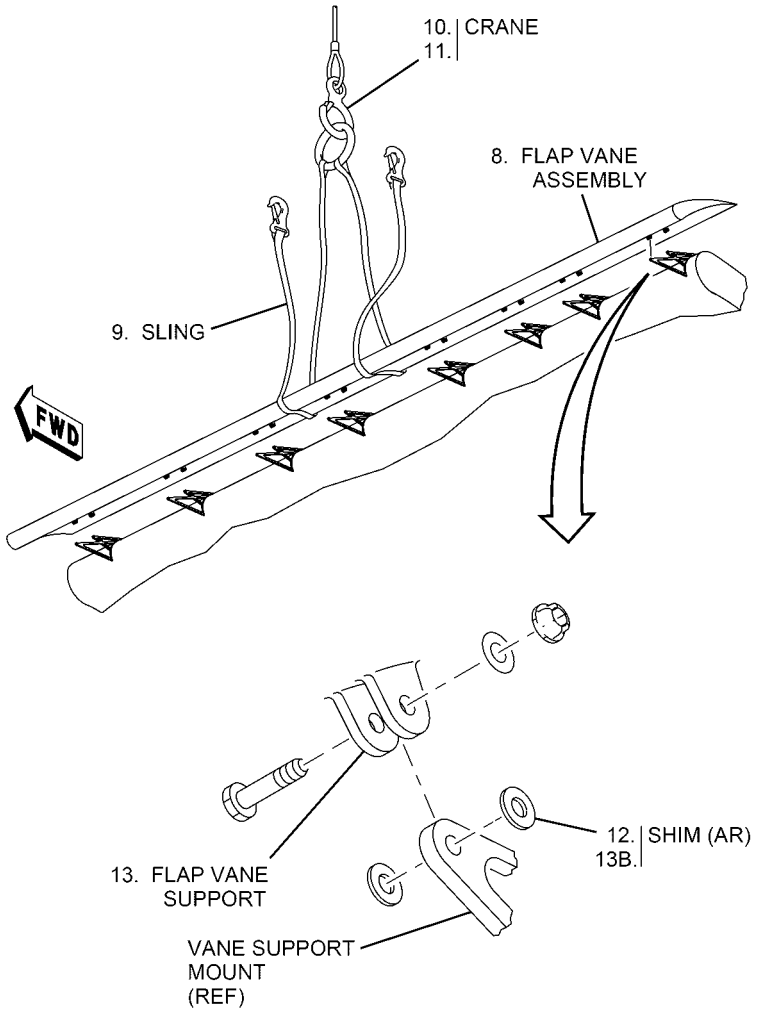
There shall be a maximum of three shims on each side to maintain symmetry during installation.

12. (A) Install shims as identified.

NOTE

Ensure that the combined gap for both sides after shimming is 0.006.

13. (A) Measure gap between flap vane support and vane support mount.
 - 0.000 to 0.006 inch maximum gap.
- 13A. After maximum shim gap is met, apply faying surface seal (TO 1300i-23, Chapter 1, Section III) to both sides of shims.
- 13B. Perform final installation of shims prior to the curing of the faying surface seal.
14. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).



(TYPICAL)

ICN-88277-G2751097-008-01

TO 1300i-2-27JG-50-2

15. (A) Install bolts, washers, and nuts as identified; torque bolts as follows:

BOLT TYPE	TORQUE (in-lb)
NAS6804	50-70
NAS6805	100-140
NAS6806	160-190

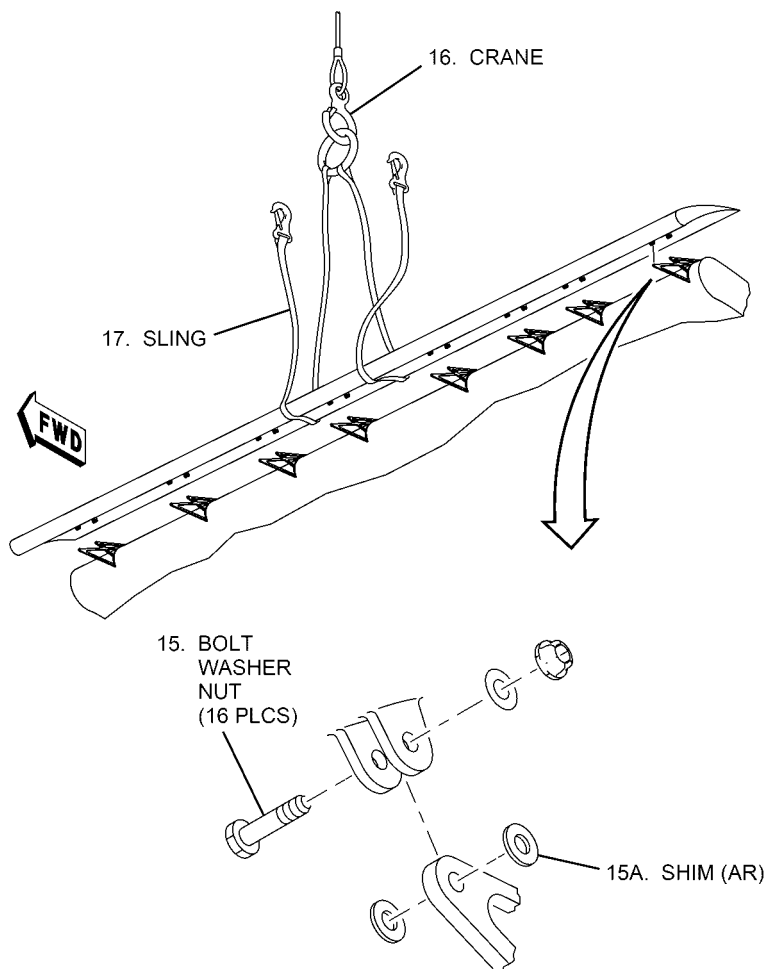
15A. Perform edge seal on shims (TO 1300i-23, Chapter 1, Section III).

16. (A,C) Operate crane to relieve tension; remove sling from vane.

17. (A,B) Remove sling from crane.

18. Remove spoiler positioning support assembly (05-10-04) as follows:

FLAP ASSEMBLY REF DES	SPOILER ASSEMBLY REF DES	SPOILER POSITION	TASK
2751AA002	2761AA001, 2761AA002	OUTBOARD	04-5, 04-6
2751AA003	2761AA003, 2761AA004	INBOARD	04-4, 04-6
2751AA004	2761AA005, 2761AA006	INBOARD	04-4, 04-6
2751AA005	2761AA007, 2761AA008	OUTBOARD	04-5, 04-6

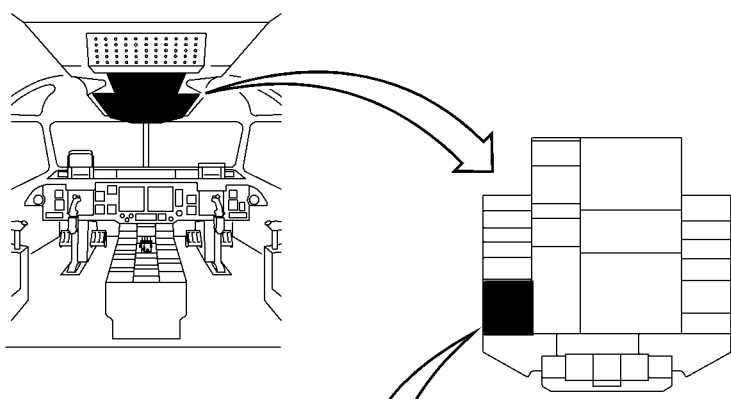


(TYPICAL)

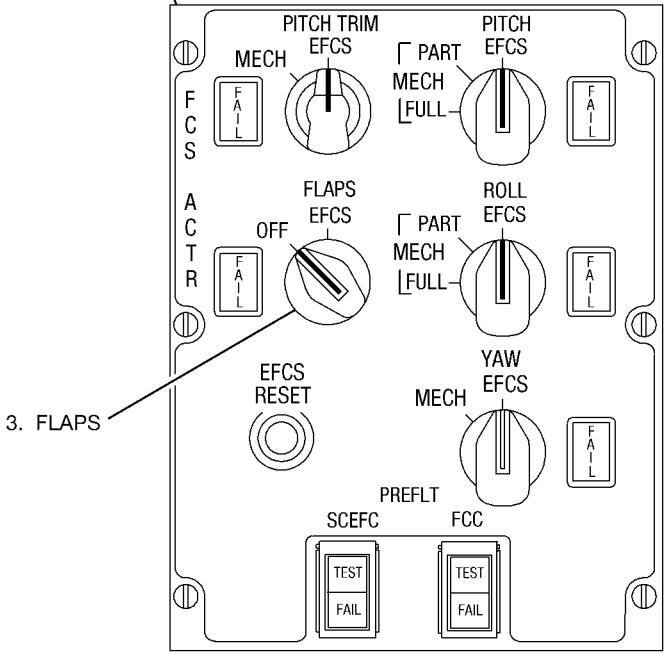
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4-2. REPAIR FLAP AND VANE STRUCTURAL ASSEMBLY BY REPLACING FLAP TRAILING EDGE SUPPORT ASSEMBLY.

1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. (A) Ensure **FLAPS** switch on **FCS ACTR** panel is set to **OFF** and attach warning tag.



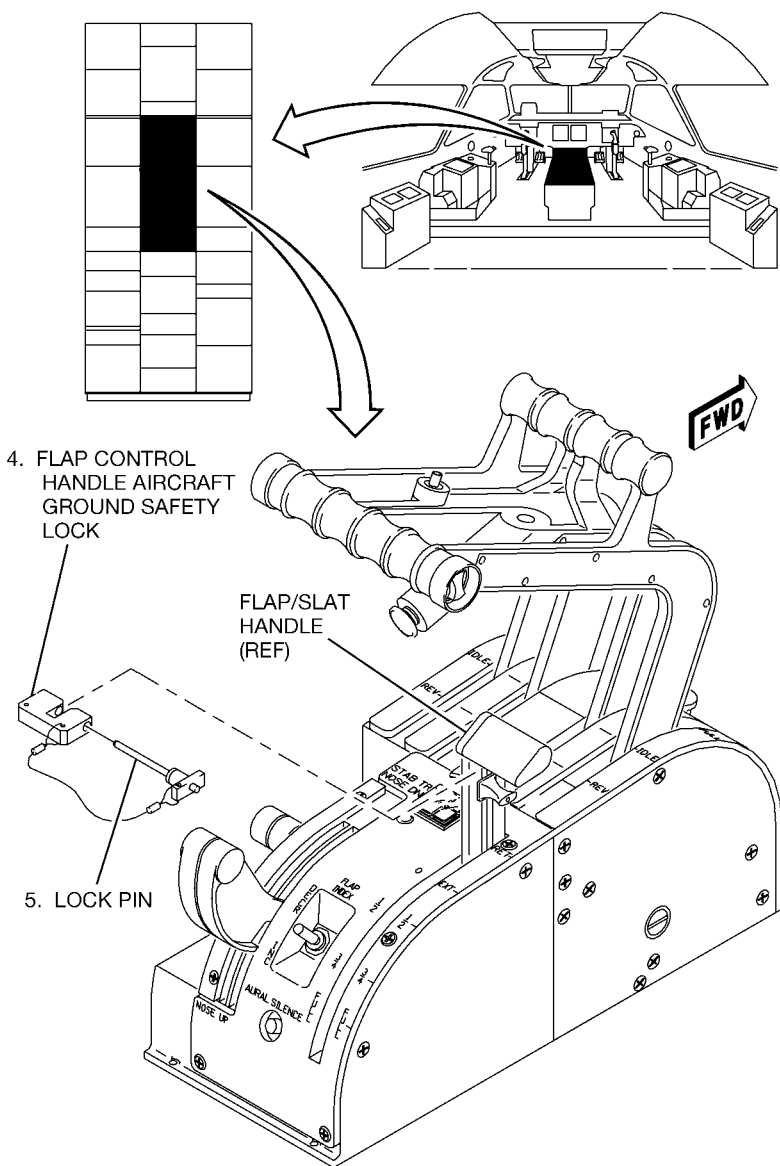
FCS ACTR PANEL
(REF)



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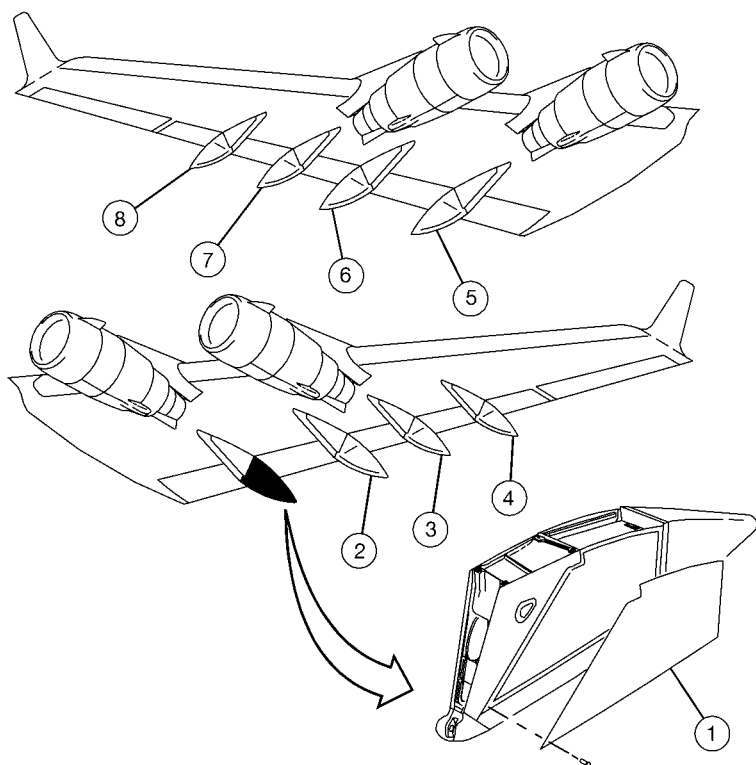
TO 1300i-2-27JG-50-2

4. (A) Install flap control handle aircraft ground safety lock on flap/slat handle.
5. (A) Install lock pin.



ICN-88277-G2751163-002-01

6. (A,B) Remove screws, and fairing hinge outboard panel.

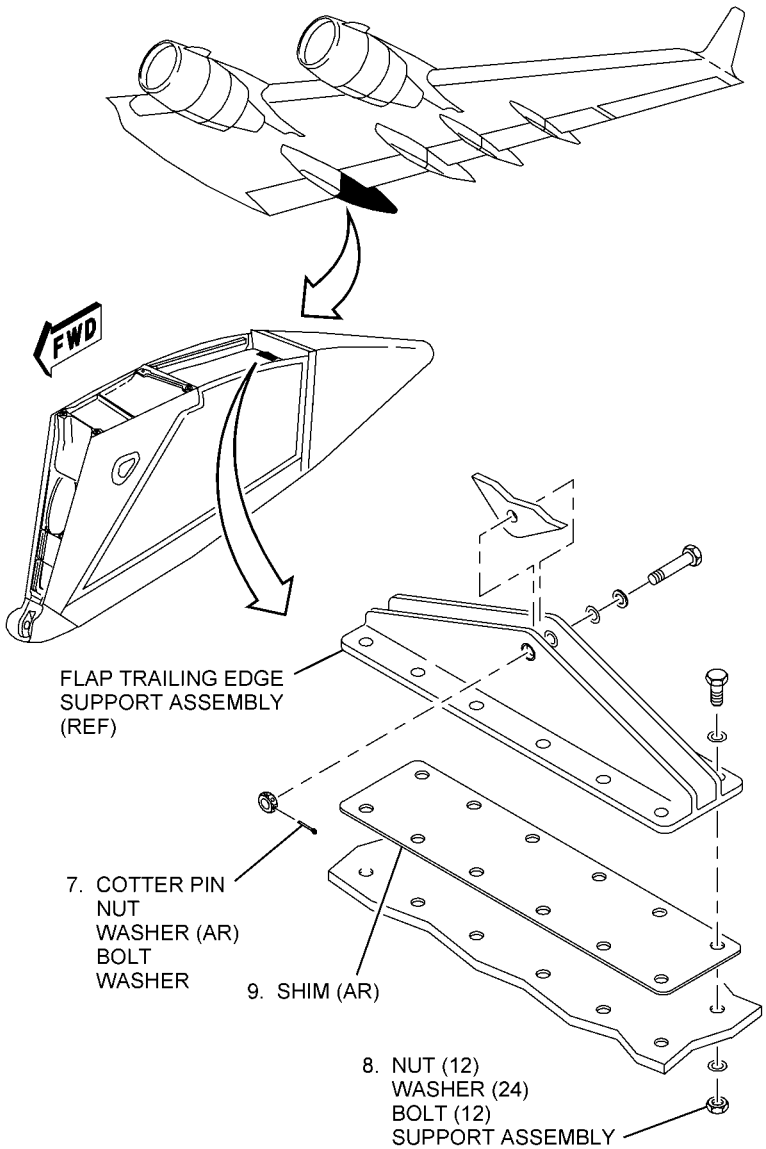


6. —	SUPPORT ASSEMBLY REF DES	INDEX NO.	FAIRING HINGE OUTBD PANEL REF DES	SCREW QTY
	2756AA033	1	2756FA027	94
	2756AA035	2	2756FA019	74
	2756AA037	3	2756FA011	64
	2756AA039	4	2756FA003	54
	2756AA034	5	2756FA028	94
	2756AA036	6	2756FA020	74
	2756AA038	7	2756FA012	64
	2756AA040	8	2756FA004	54

ICN-88277-G2751164-002-01

TO 1300i-2-27JG-50-2

7. (A) Remove cotter pin; identify and remove nut, washer, washer as required, and bolt from flap trailing edge support assembly.
8. (A) Remove nuts, washers, bolts, and support assembly.
9. (A) Remove shims.



ICN-88277-G2751165-005-01

TO 1300i-2-27JG-50-2

10. (A) Install shims as required to align support assembly and hinge bolt holes.
11. Perform faying surface sealing (TO 1300i-23, Chapter 1, Section III).
12. (A) Position support assembly on shims.
13. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).

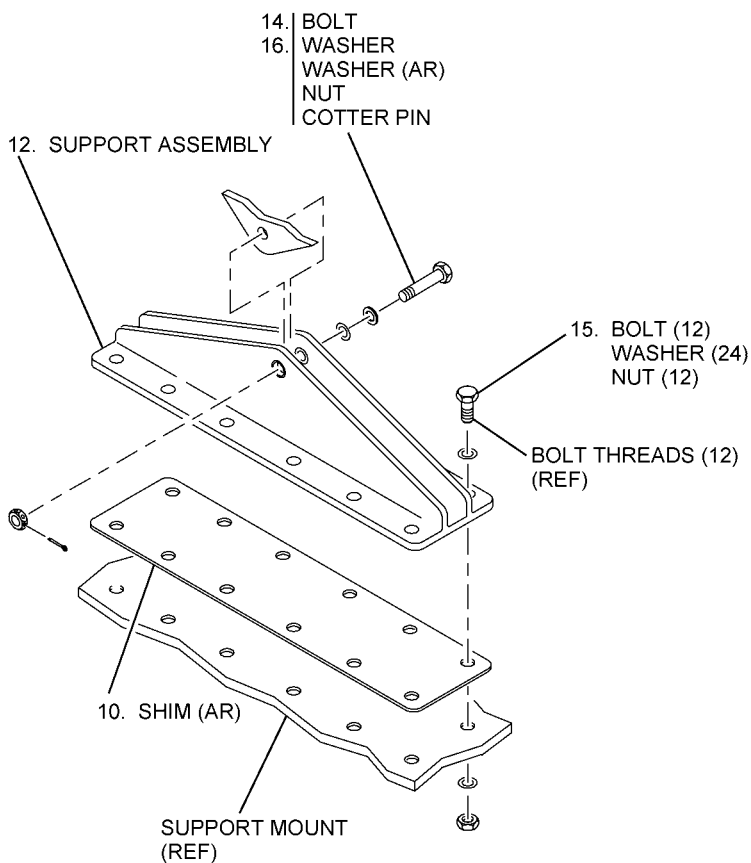
NOTE

- Washer (PN 4D0009C5), and washer (PN NAS1149C0532R) as required, shall be installed under bolt head.
- There shall be no gap between support assembly and nut.

14. (A) Install bolt, washer, washer as required, and nut as identified.

SPECIAL INSTRUCTION. When installing upper and lower support assembly connecting hardware, bolt shall be installed with head facing aft.

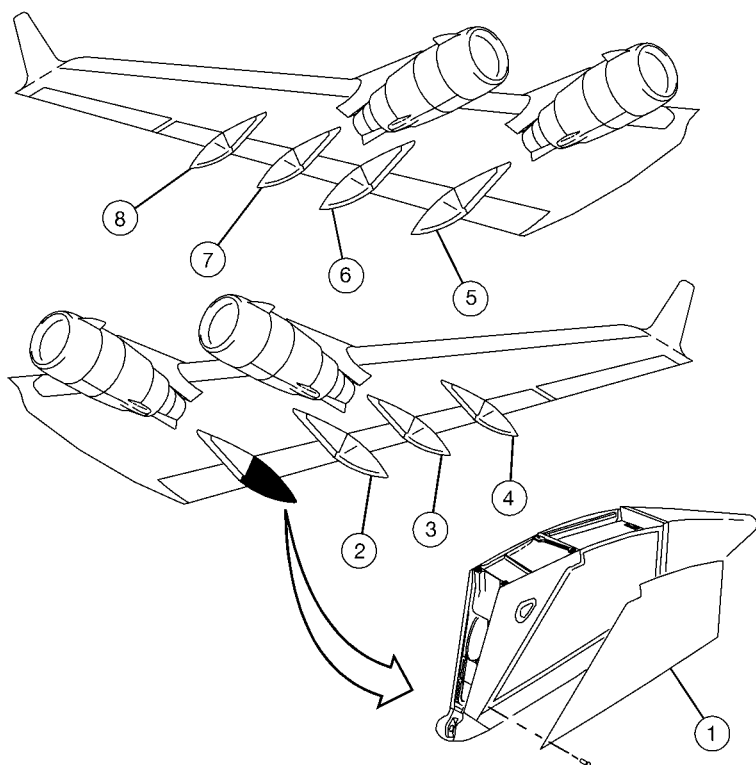
15. (A) Install bolts, washers, and nuts.
16. Flap hinges 1 and 2 torque nut **700-1000 in-lb**; install cotter pin.
16. Flap hinges 3 and 4 torque nut **65-85 in-lb**; install cotter pin.



ICN-88277-G2751166-005-01

TO 1300i-2-27JG-50-2

17. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
18. (A,B) Position fairing hinge outboard panel; install screws.
19. Perform butt gap sealing (TO 1300i-23, Chapter 1, Section III).



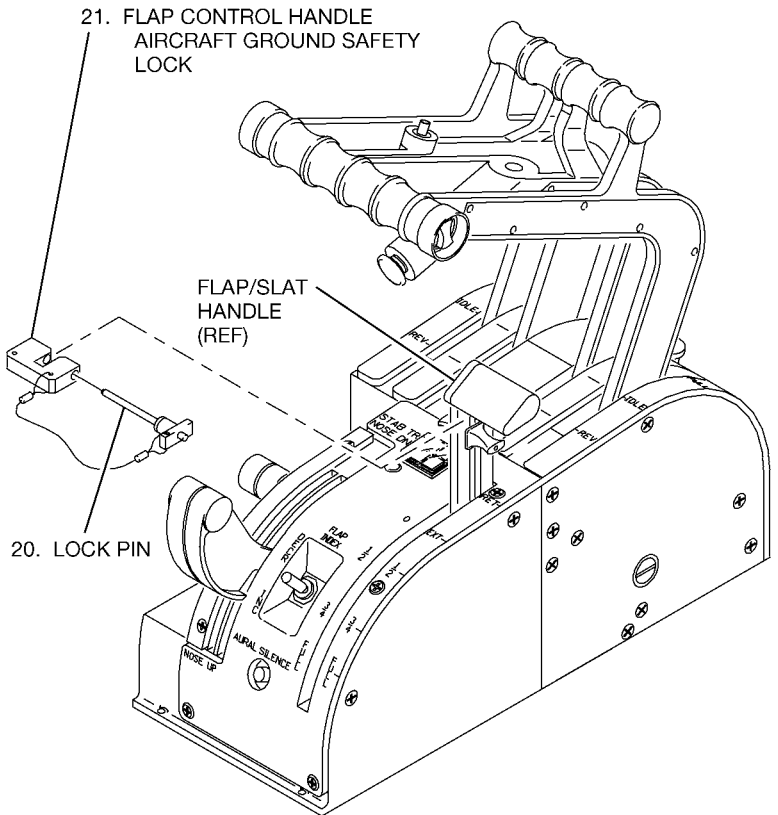
18.—

SUPPORT ASSEMBLY REF DES	INDEX NO.	FAIRING HINGE OUTBD PANEL REF DES	SCREW QTY
2756AA033	1	2756FA027	94
2756AA035	2	2756FA019	74
2756AA037	3	2756FA011	64
2756AA039	4	2756FA003	54
2756AA034	5	2756FA028	94
2756AA036	6	2756FA020	74
2756AA038	7	2756FA012	64
2756AA040	8	2756FA004	54

ICN-88277-G2751167-002-01

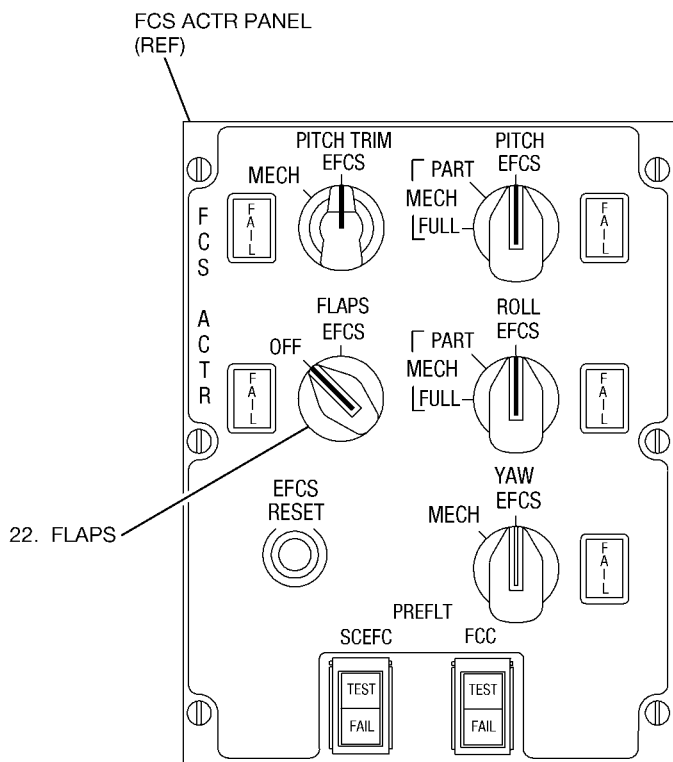
TO 1300i-2-27JG-50-2

20. (A) Remove lock pin from ground safety lock.
21. (A) Remove ground safety lock from flap/slat handle.



ICN-88277-G2751168-002-01

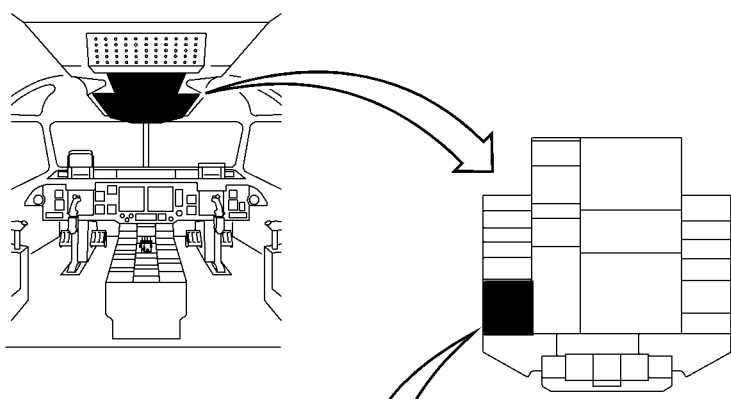
22. (A) Remove warning tag from **FLAPS** switch on **FCS ACTR** panel.



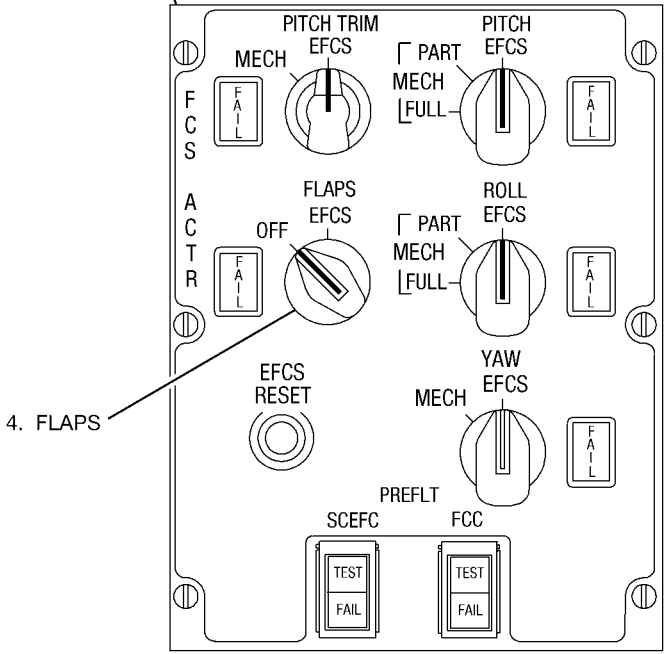
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4-3. PREPARATION FOR REPLACING FLAP OR VANE SEAL.

1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Perform flaps system operation (27-50-03), task 03-3.
4. Ensure **FLAPS** switch on **FCS ACTR** panel is **OFF** and attach warning tag.



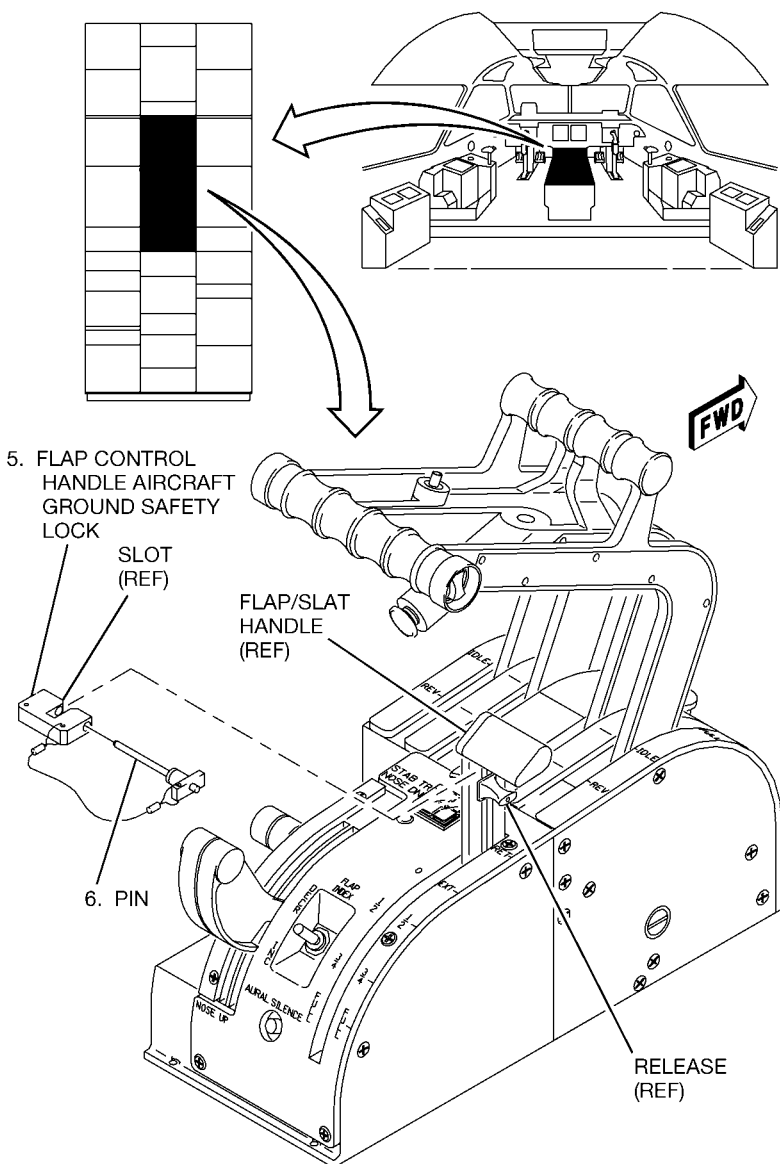
FCS ACTR PANEL
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TO 1300i-2-27JG-50-2

5. Install flap control handle aircraft ground safety lock over flap/slat handle above release.
6. Align holes in flap control handle aircraft ground safety lock with slot in handle and install pin.



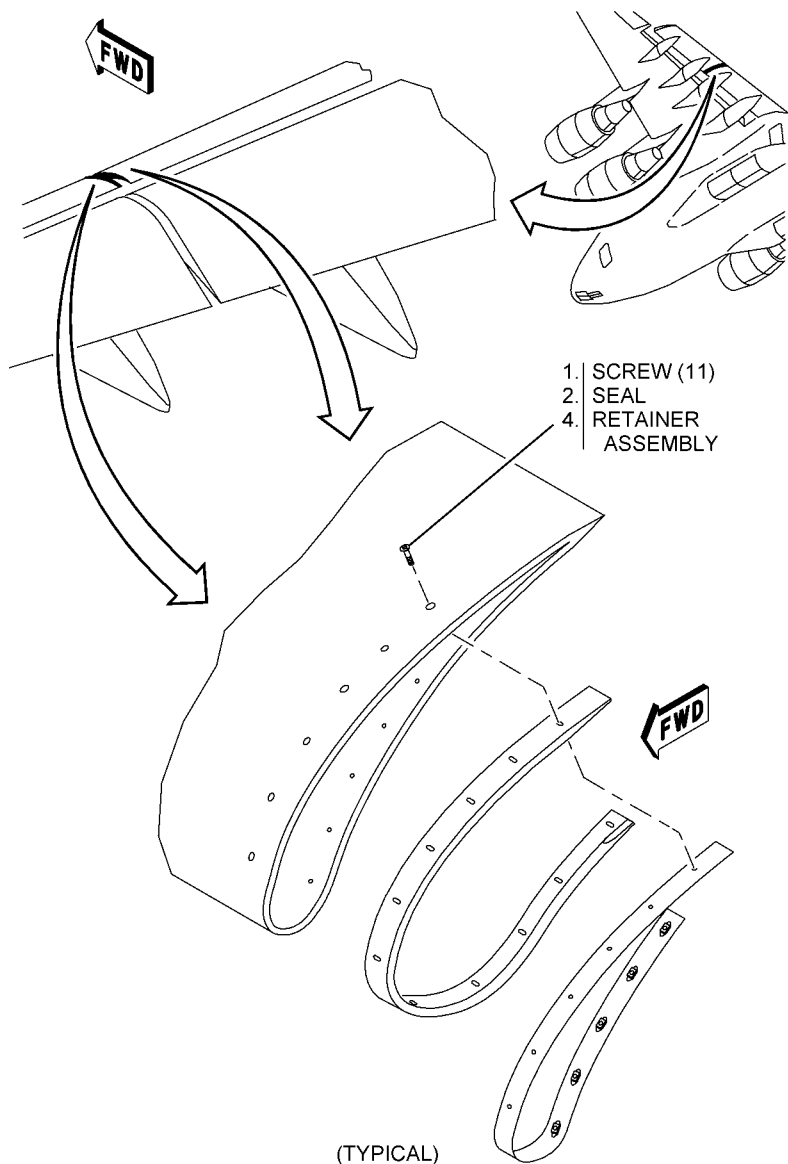
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4-4. REPAIR FLAP AND VANE STRUCTURAL ASSEMBLY BY REPLACING INBOARD/ OUTBOARD FLAP VANE SEAL.

NOTE

These seals are located at the outboard end of the inboard vane and the inboard end of the outboard vane.

1. Remove screws, seal, and retainer assembly.
2. Position retainer assembly and seal.
3. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
4. Install screws.



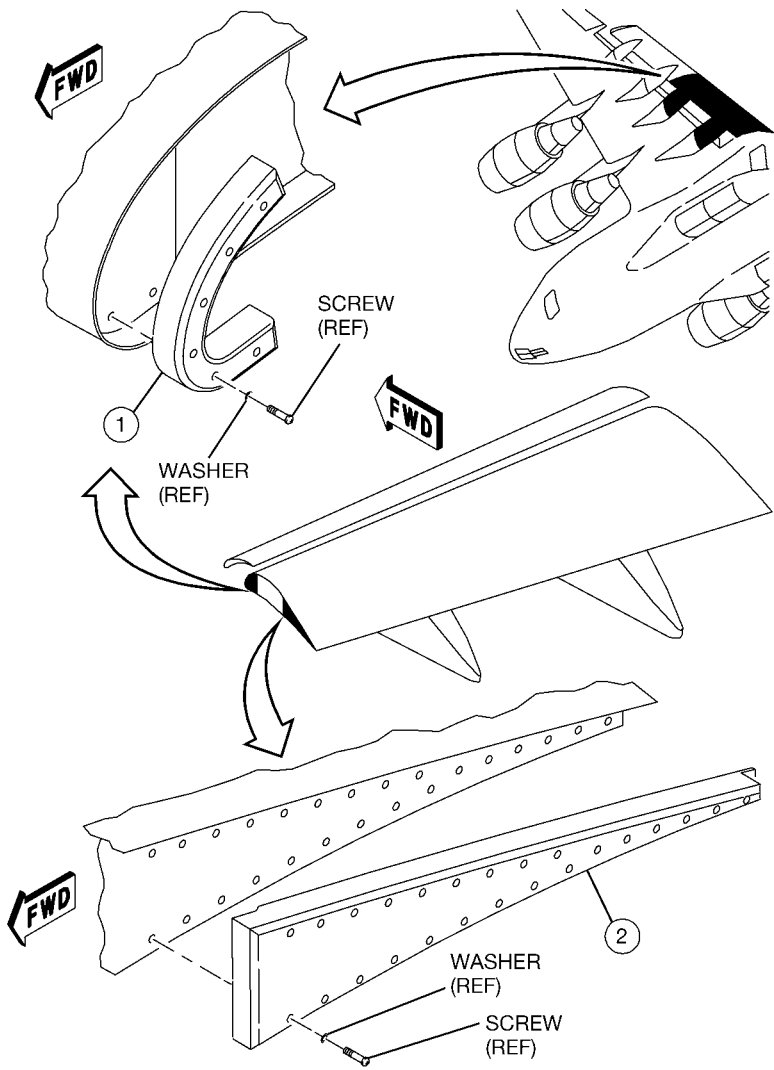
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4-5. REPAIR FLAP AND VANE STRUCTURAL ASSEMBLY BY REPLACING INBOARD FLAP OUTBOARD FOAM SEAL.

NOTE

Only the damaged seal needs to be replaced. It is not necessary to replace both forward and aft seals unless both are damaged.

1. Remove screws, washers, and foam seal.
2. Position foam seal.
3. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
4. Install washers and screws.



1.	INDEX	FOAM	SCREW/WASHER
2.	NO.	SEAL	QTY.
4.	1	FORWARD	6
	2	AFT	24

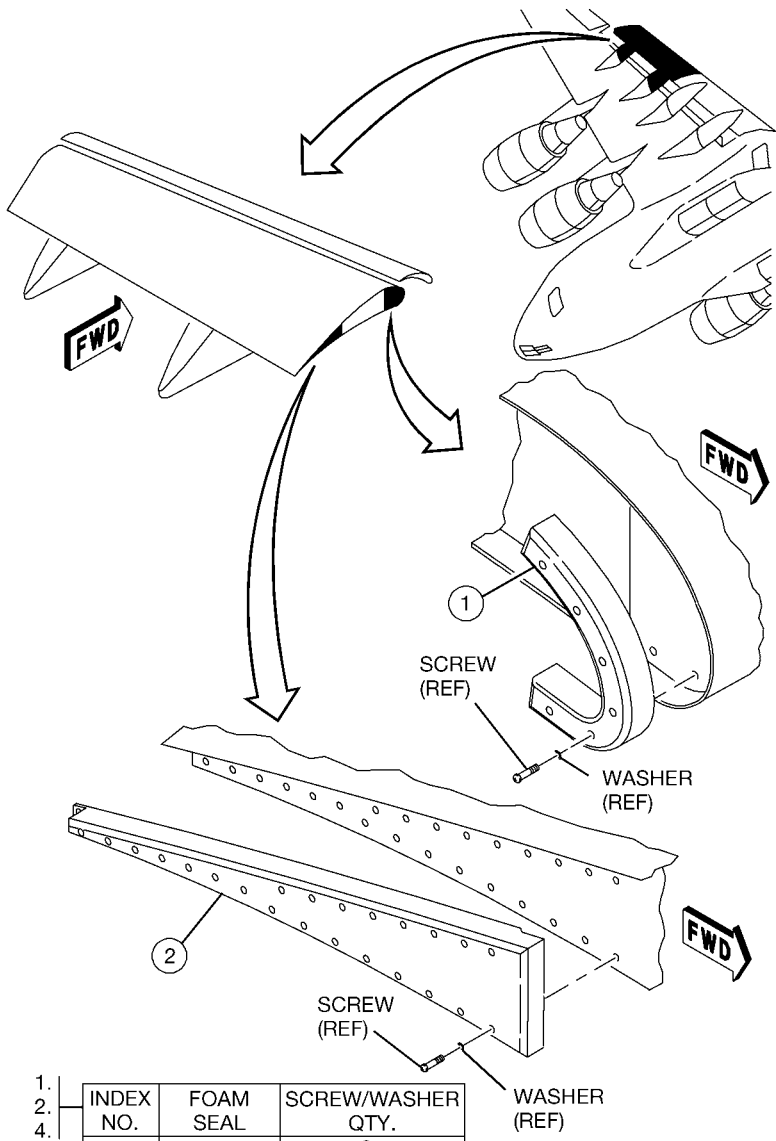
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4-6. REPAIR FLAP AND VANE STRUCTURAL ASSEMBLY BY REPLACING OUTBOARD FLAP INBOARD FOAM SEAL.

NOTE

Only the damaged seal needs to be replaced. It is not necessary to replace both forward and aft seals unless both are damaged.

1. Remove screws, washers, and foam seal.
2. Position foam seal.
3. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
4. Install washers and screws.



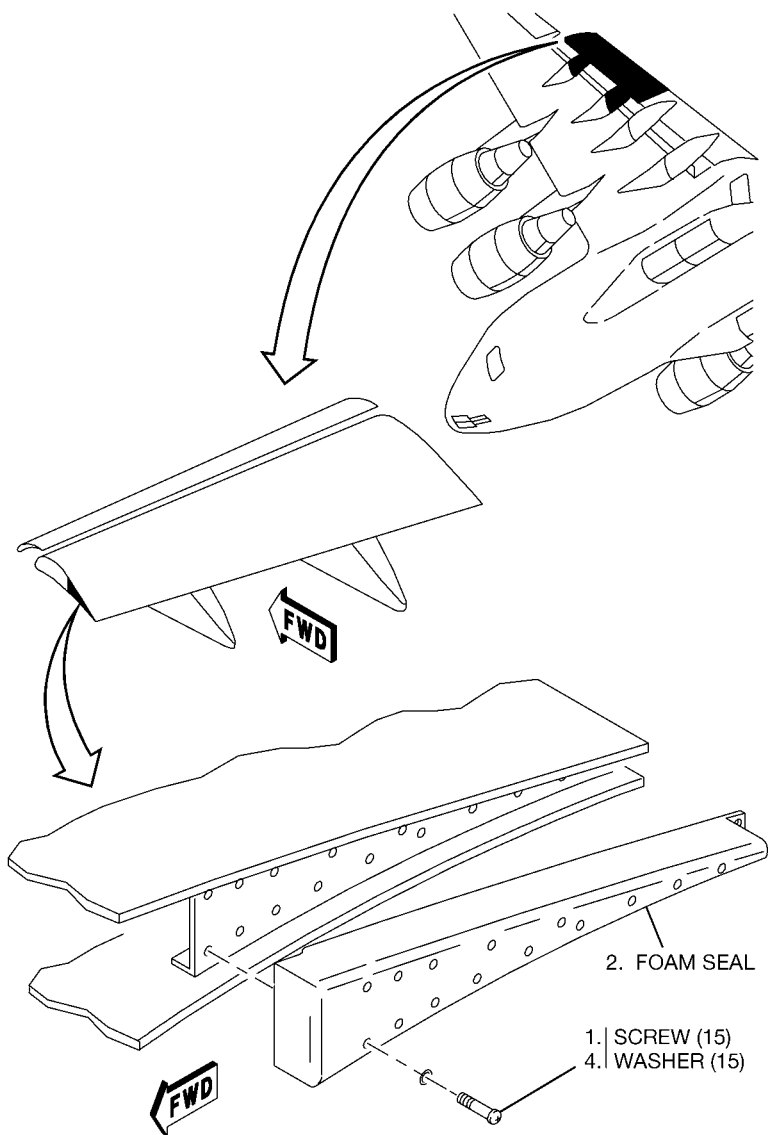
1.
2.
4.

INDEX NO.	FOAM SEAL	SCREW/WASHER QTY.
1	FORWARD	6
2	AFT	24

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**4-7. REPAIR FLAP AND VANE STRUCTURAL
ASSEMBLY BY REPLACING OUTBOARD
FLAP OUTBOARD FOAM SEAL.**

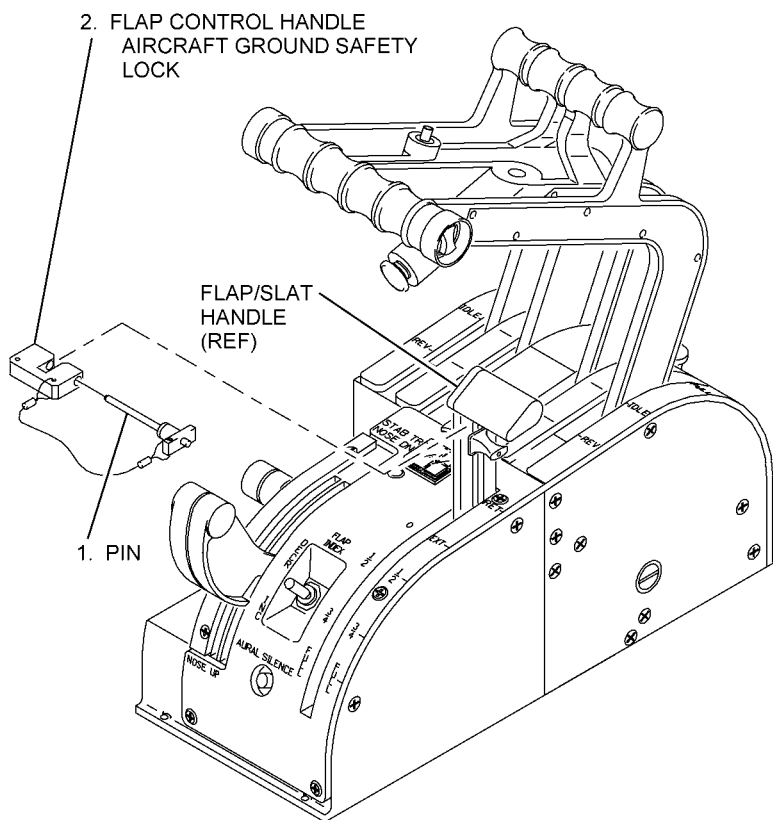
1. Remove screws, washers, and foam seal.
2. Position foam seal.
3. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
4. Install washers and screws.



ICN-88277-G2751191-001-01

**4-8. FOLLOW-ON FOR REPLACING FLAP OR
VANE SEAL.**

1. Remove pin from flap control handle aircraft ground safety lock.
2. Remove flap control handle aircraft ground safety lock from flap/
slat handle.

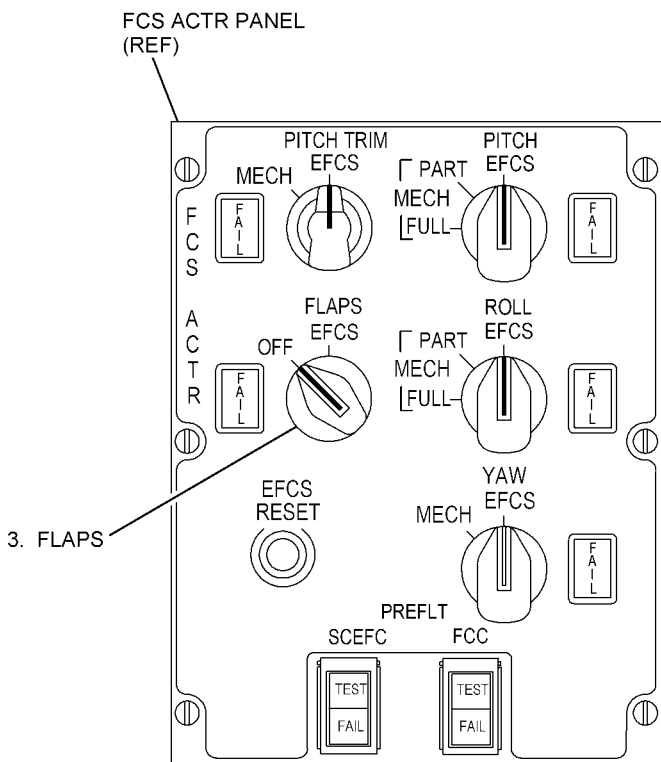


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TO 1300i-2-27JG-50-2

3. Remove warning tag from **FLAPS** switch on **FCS ACTR** panel.
4. Perform flaps system operation (27-50-03, task 03-4).



ICN-88277-G2751180-004-01

