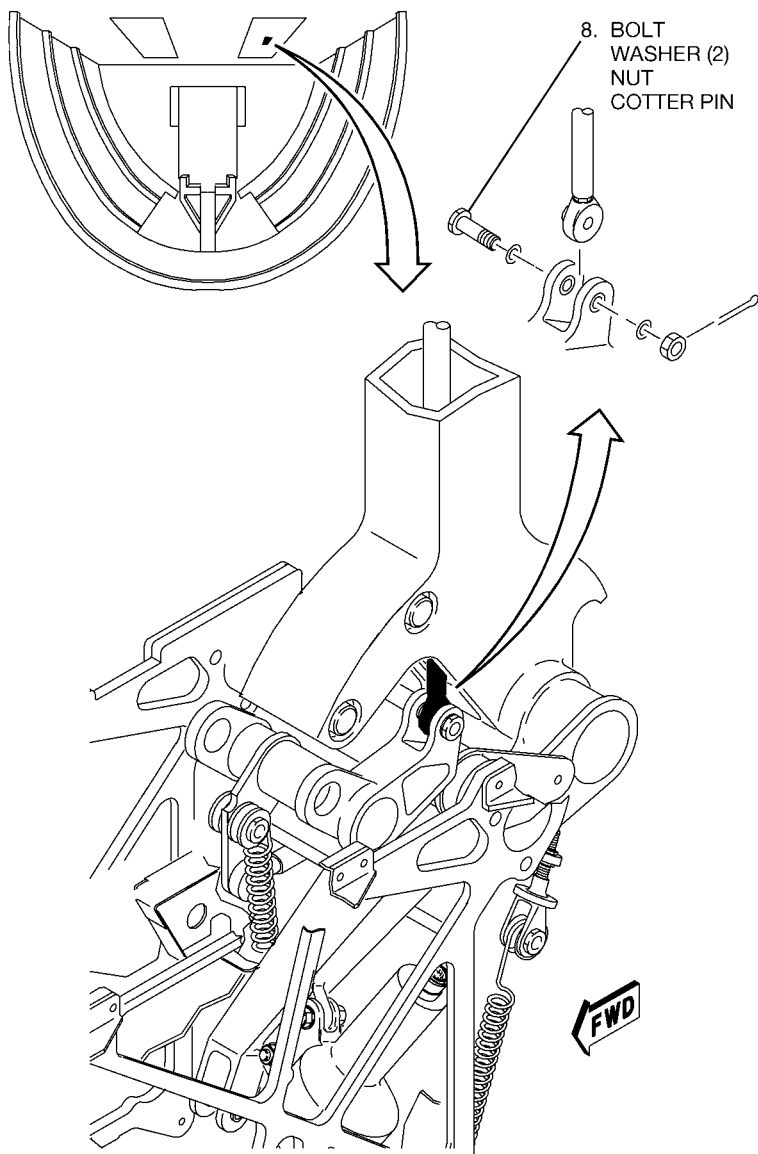


(TYPICAL)

ICN-88277-G2711302-003-01

8. Install bolt, washers, nut, and cotter pin.



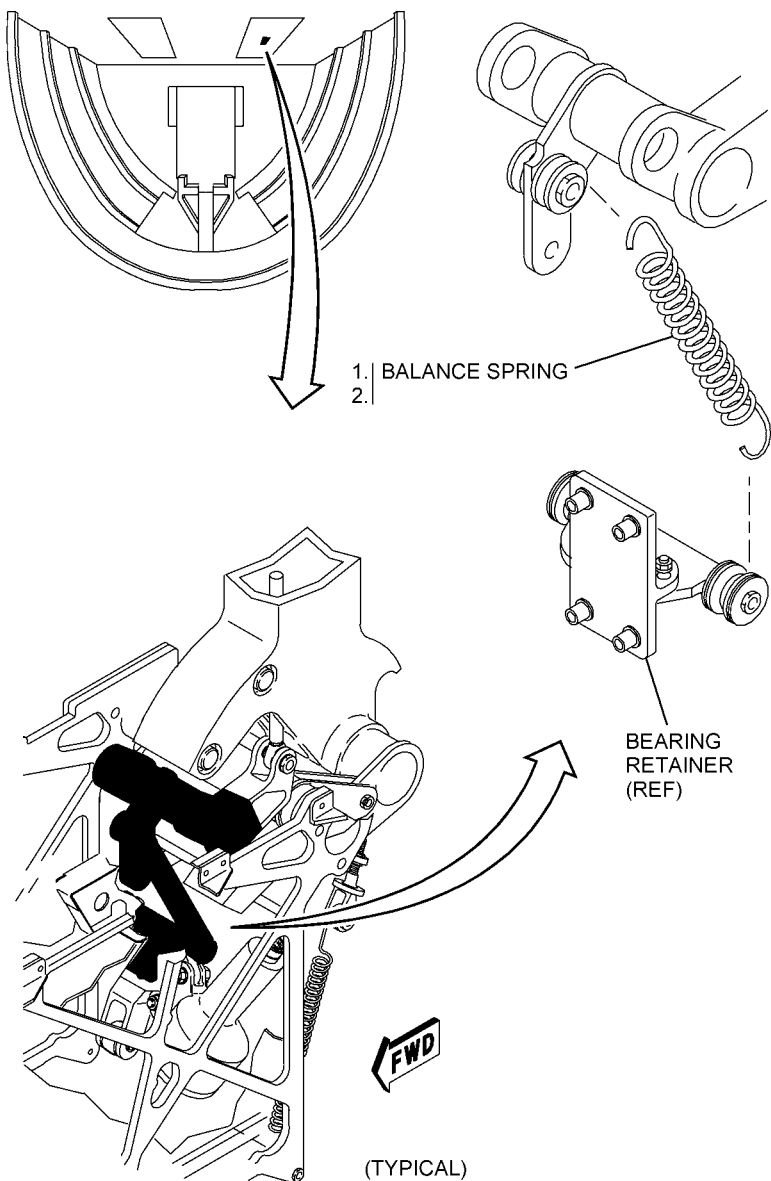
ICN-88277-G2711303-003-01

4-3. REPAIR CONTROL STICK ASSEMBLY BY REPLACING BALANCE SPRING.

NOTE

This is a typical repair task for all control stick balance springs.

1. Remove balance spring from bearing retainer.
2. Install balance spring on bearing retainer.
3. Adjust control stick assembly (task 5-1).



ICN-88277-G2711304-004-01

4-4. REPAIR CONTROL STICK ASSEMBLY BY REPLACING ROLL DAMPER.

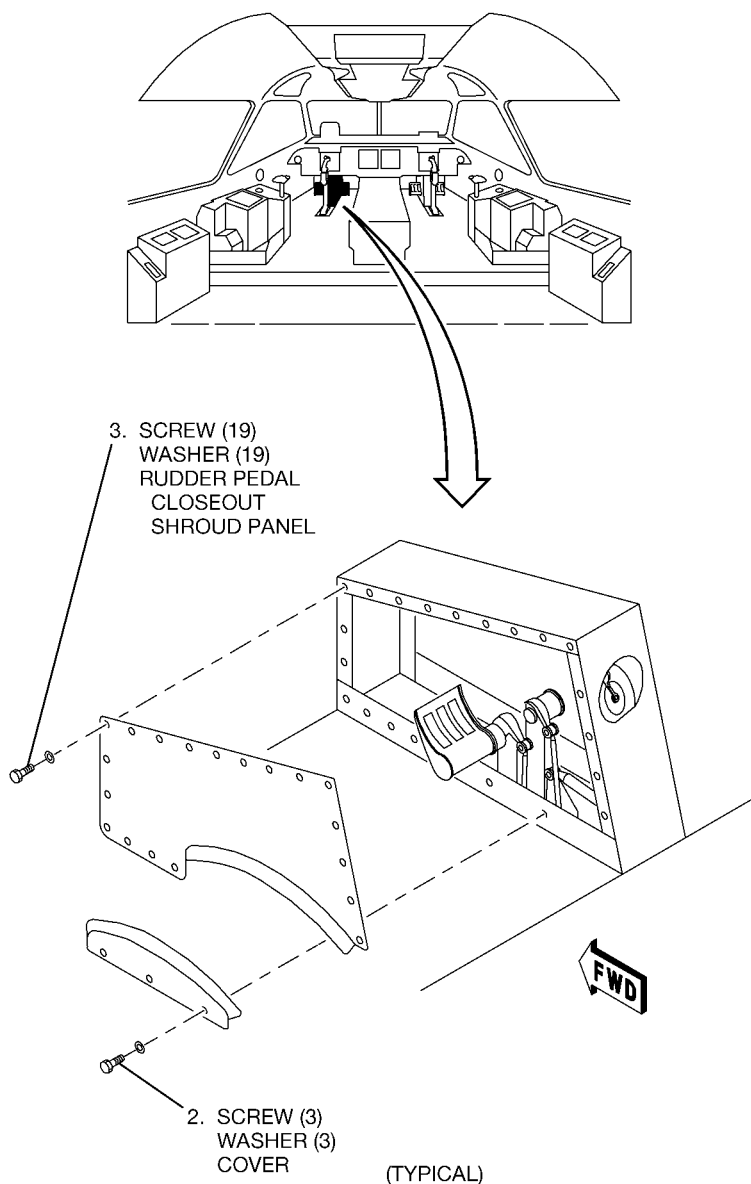
NOTE

This is a typical repair task for all control stick roll damper.

1. Remove pilot/copilot aircraft seat (25-11-10) as follows:

STICK REF DES	SEAT REF DES
2711AA001	2511AA001
2711AA002	2511AA002

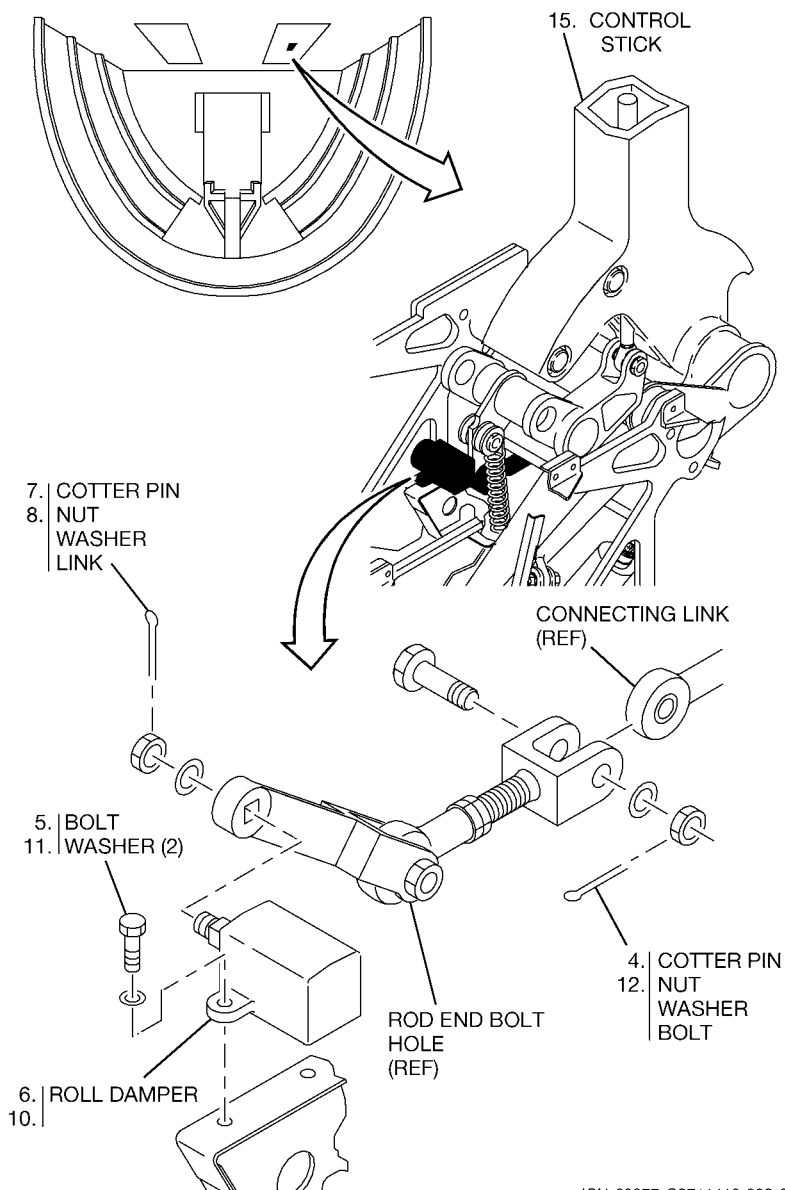
2. (A) Remove screws, washers, and cover.
3. (A) Remove screws, washers, and rudder pedal closeout shroud panel (211FZM).



ICN-88277-G2711417-002-01

TO 1300i-2-27JG-10-3

4. (A,B) Remove cotter pin, nut, washer, and bolt.
5. (A,B) Remove bolts and washers.
6. (A,B) Remove roll damper.
7. (A) Remove cotter pin, nut, washer, and link.
8. (A) Install link, washer, nut, and cotter pin.
9. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
10. (A) Position roll damper.
11. (A) Install washers and bolts.
12. (A) Position connecting link; install bolt, washer, nut, and cotter pin.
13. Remove aileron aircraft ground safety lock (05-10-01, task 01-4).
14. Remove elevator aircraft ground safety lock (05-10-01, task 01-6).
15. (A,B) Cycle control stick, left wing down, right wing down, and neutral position.
 - Verify damper and linkage for freedom of movement and smooth operation (27-11-AD-00, 27-11-AS-00).

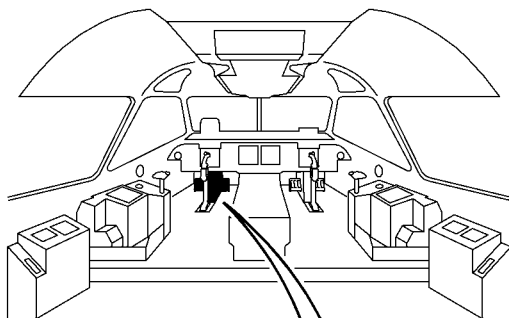


ICN-88277-G2711418-003-01

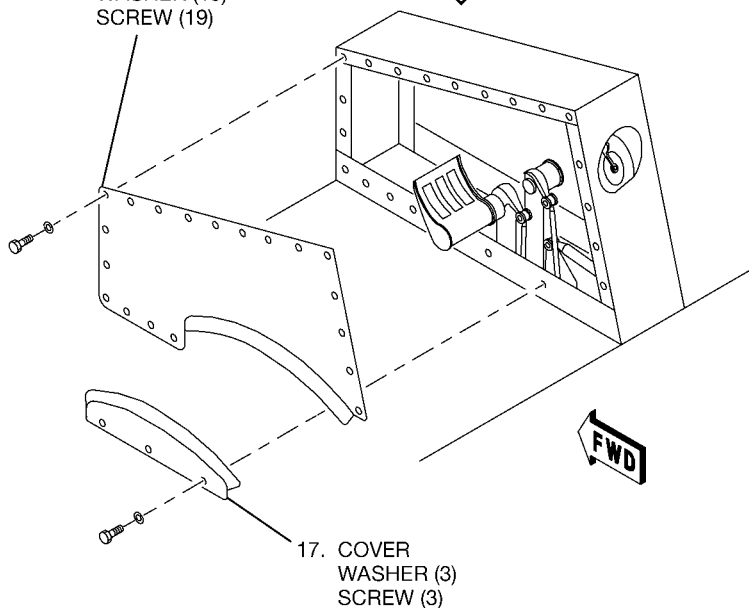
TO 1300i-2-27JG-10-3

- 16. (A) Install rudder pedal closeout shroud panel (211FZM), washers, and screws.
- 17. (A) Install cover, washers, and screws.
- 18. Install pilot/copilot aircraft seat (25-11-10) as follows:

STICK REF DES	SEAT REF DES
2711AA001	2511AA001
2711AA002	2511AA002



16. RUDDER PEDAL
CLOSEOUT
SHROUD PANEL
WASHER (19)
SCREW (19)



(TYPICAL)

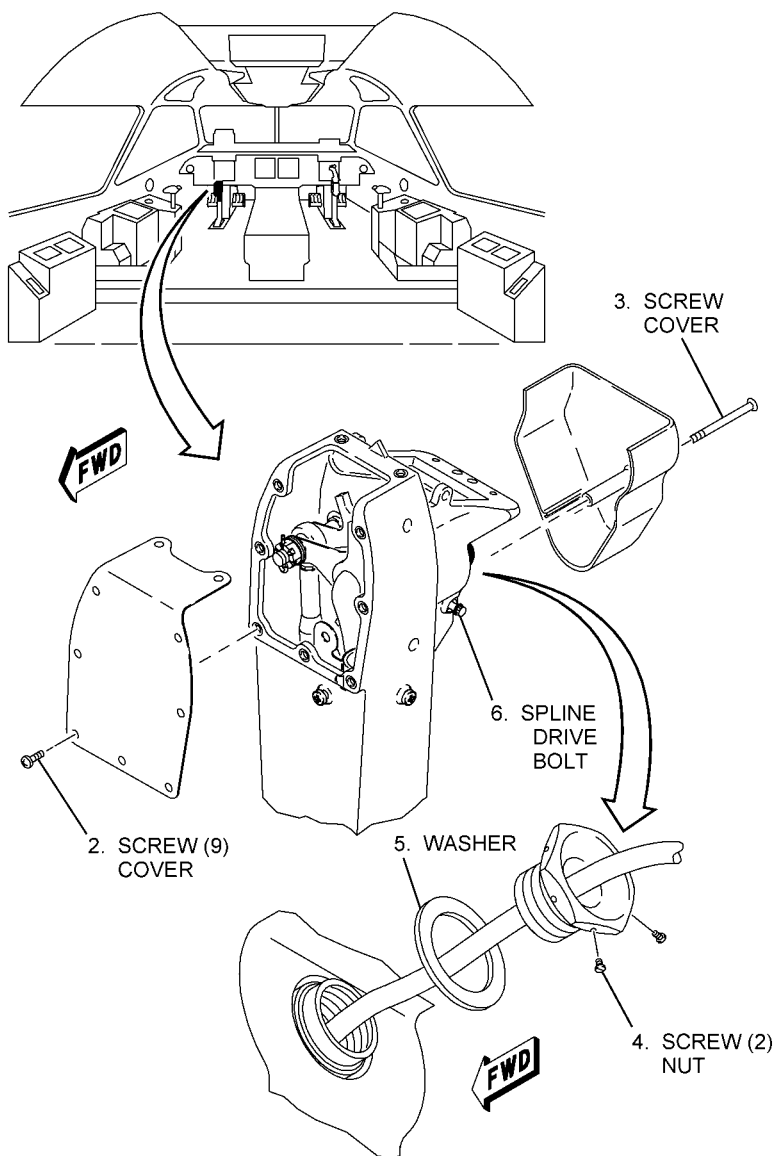
ICN-88277-G2711419-003-01

4-5. REPAIR OF CONTROL STICK BY LUBRICATING BEARING.

NOTE

This is a typical repair task for all control sticks by lubricating bearing.

1. Remove control stick sensor assembly (22-15-13, task 2-2).
2. Remove screws and cover.
3. Remove screw and cover.
4. Remove safety wire, screws, and nut.
5. Remove washer.
6. Loosen tension spline drive bolt.

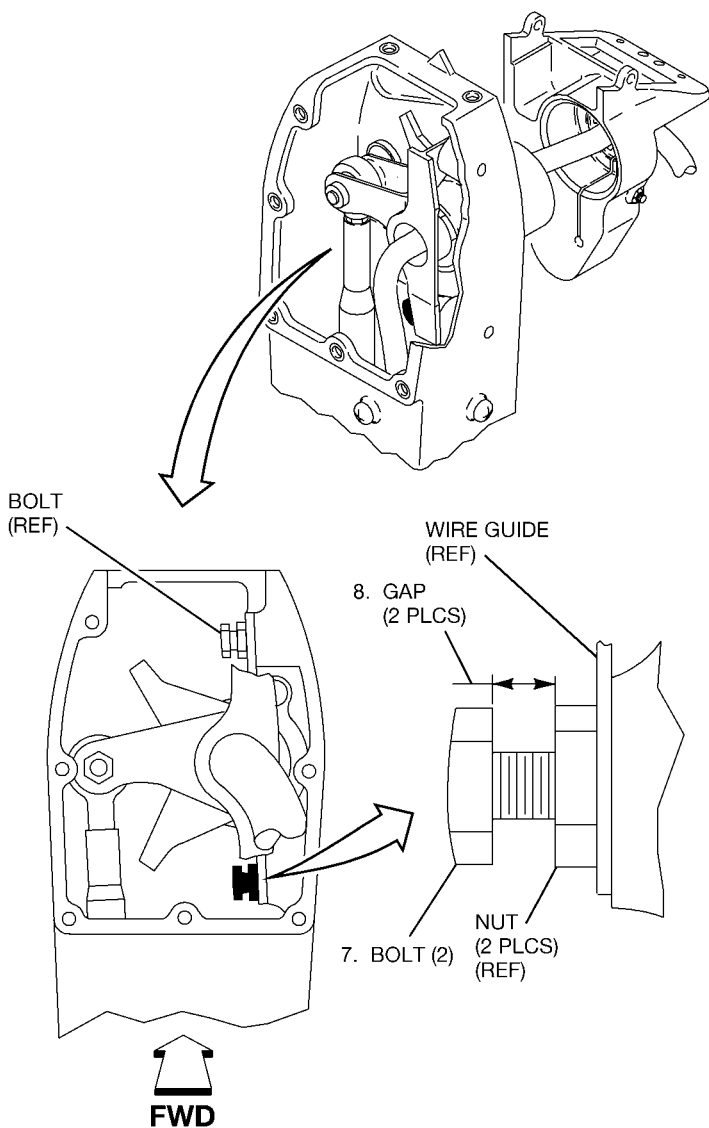


ICN-88277-G2711558-002-01



The hub assembly wire guide is secured with two attaching bolts that contain locking nuts. These bolts and locking nuts have been pre-set at the factory. Bolts and nuts are to be removed as an assembly and installed as an assembly in the same locations (top bolt to top location and bottom bolt to bottom location). Bolt to nut gap (top of the nut to bottom of the bolt head) shall be measured and/or nut to bolt orientation shall be marked before removal. Failure to comply may cause damage to aircraft.

7. Identify location of each bolt, top and bottom.
8. Measure top of the nut to bottom of the bolt head and/or mark bolt to nut orientation.



ICN-88277-G2711562-001-01

9. Remove bolts and nuts from the hub assembly wire guide.



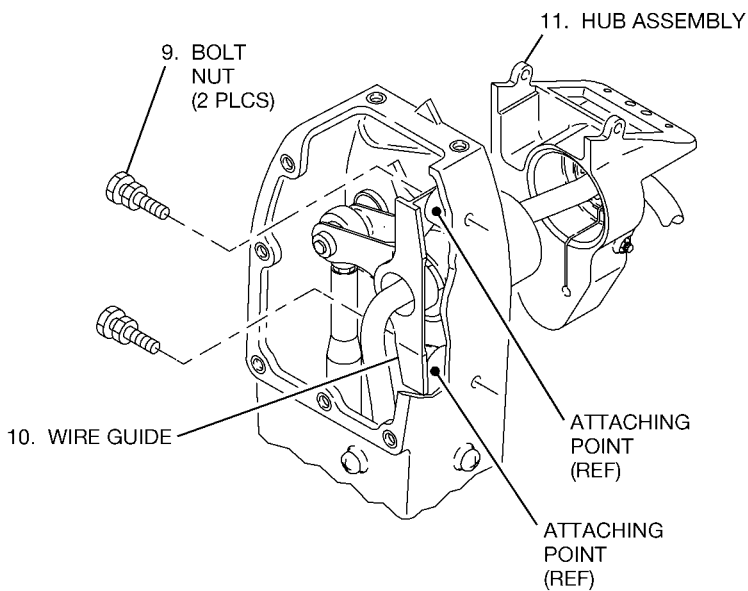
Be sure to carefully remove the control stick sensor assembly wire harness. Failure to comply may result in wire harness being damaged.

10. Loosen the wire guide from the attaching point.



Carefully remove hub assembly as wire harness will allow and support as required. Failure to comply may result in wire harness being damaged.

11. Remove hub assembly.



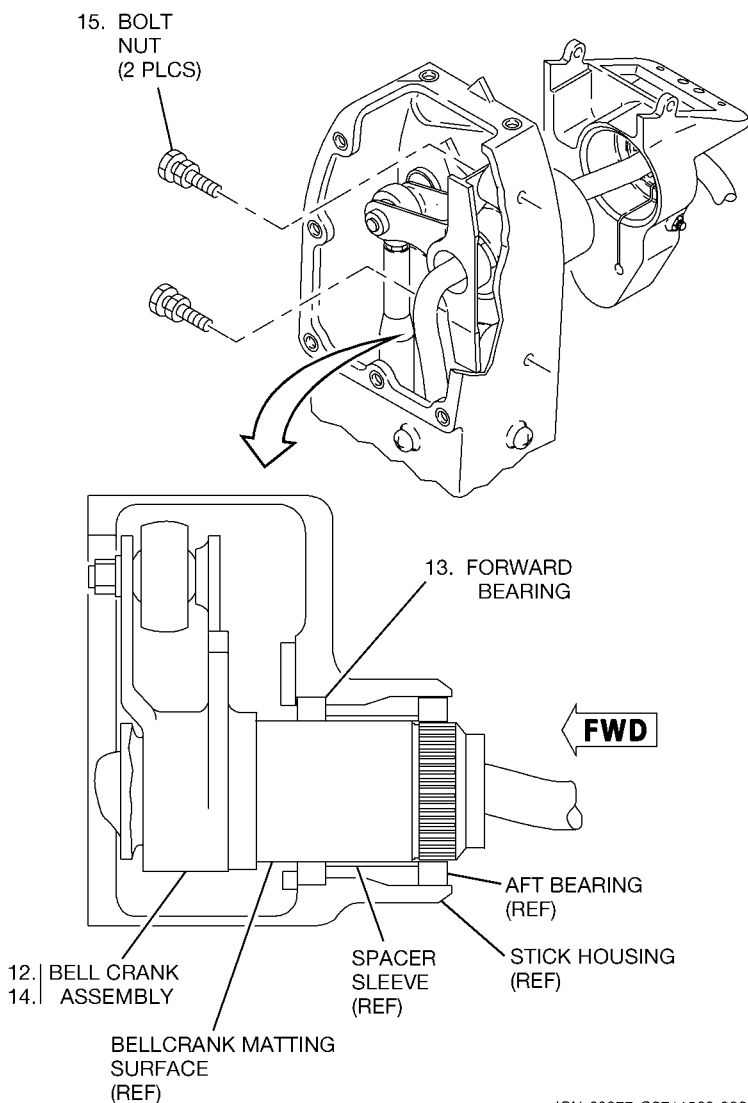
ICN-88277-G2711559-002-01

12. Push bellcrank assembly forward to allow it to unseat from the bearings, approximately $\frac{1}{4}$ inch.
13. Apply a small amount of lubricant to forward and aft bearings exposed surfaces and the bellcrank bearing matting surfaces.

NOTE

Due to the close tolerance between the bellcrank and the forward bearing, the bearing may pop out of position requiring it to be placed back onto the bellcrank. Ensure bearing is completely flush and on the bellcrank.

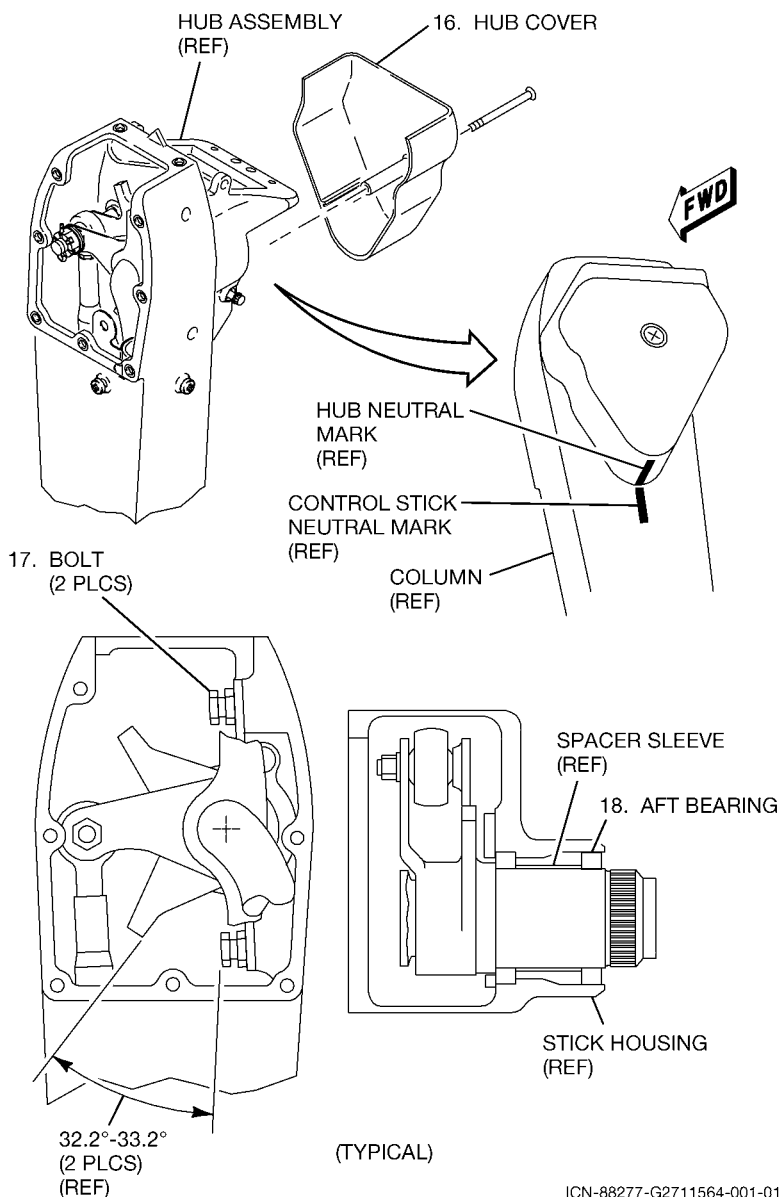
14. Push bellcrank back into its original position.
15. Install wire guide and two bolts and nuts as identified and hand tighten.



ICN-88277-G2711563-002-01

TO 1300i-2-27JG-10-3

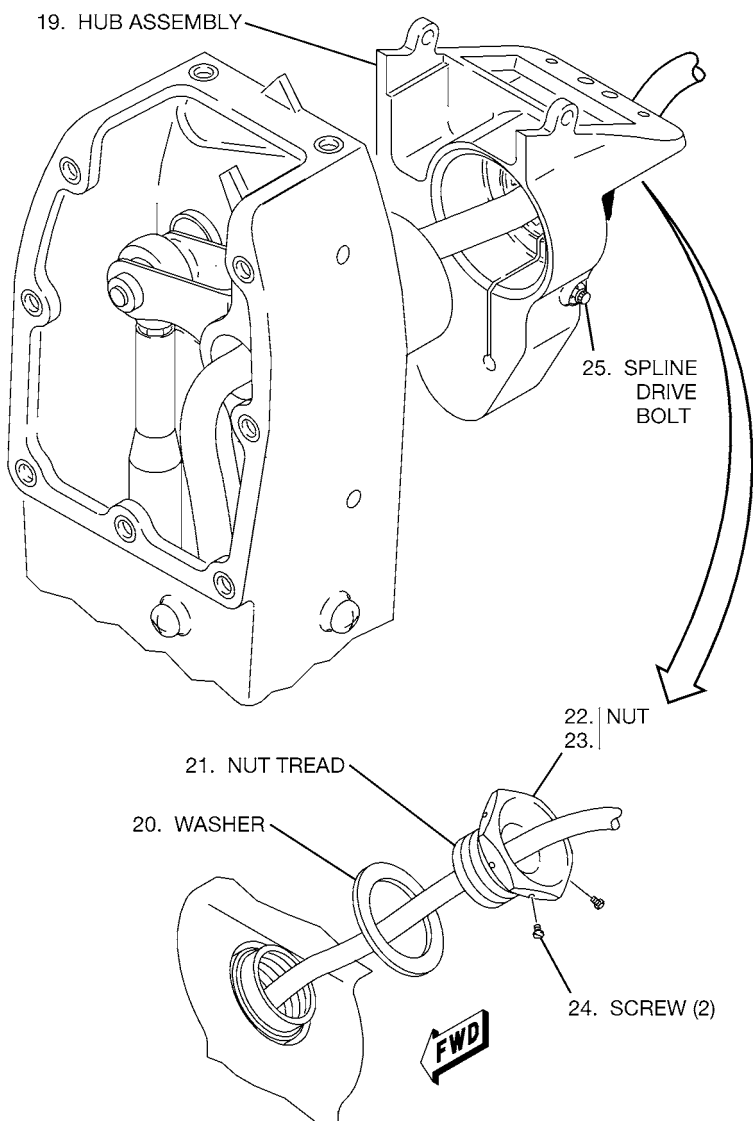
16. Temporarily install hub cover onto hub assembly to align neutral mark on hub with neutral mark on column.
17. Ensure that bolt gap measurement of bolt to nut orientation is correct.
 - Use protractor to measure 32.2° to 33.2° of stick travel on each side of stick neutral.
18. Ensure that the aft bearing is seated on the bellcrank matting surface.
 - The bearing outer surface should be firmly against the spacer sleeve underneath and stick housing.



NOTE

Hub assembly splines are only keyed one way.

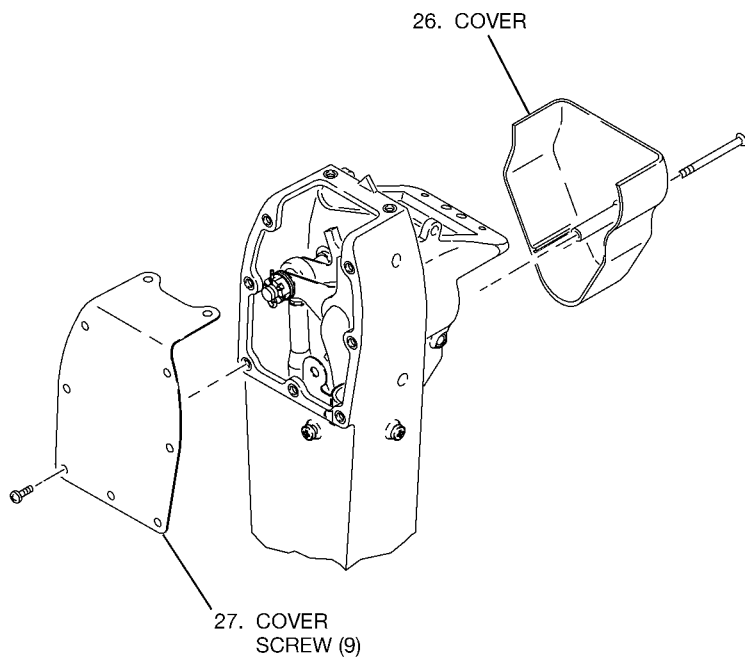
19. Install hub assembly.
20. Install washer.
21. Apply antiseize compound to nut thread.
22. Install nut.
23. Torque hub nut assembly to **360-440 in-lb.**
24. Install screws and safety wire.
25. Tighten tension spline drive bolt.



ICN-88277-G2711560-002-01

TO 1300i-2-27JG-10-3

26. Install hub assembly cover and screws.
27. Install control stick back cover and screws.
28. Install control stick sensor assembly (22-15-13, task 3-1).



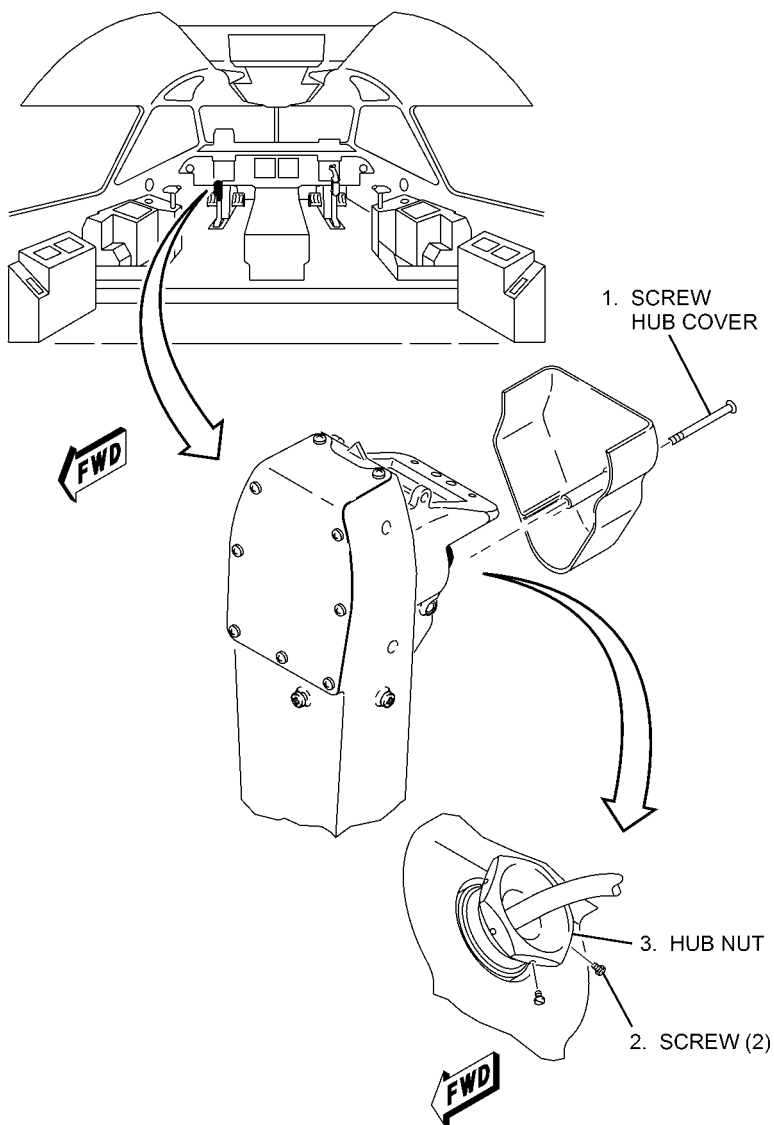
ICN-88277-G2711561-001-01

4-5A. REPAIR OF CONTROL STICK BY TIGHTENING HUB NUT.

NOTE

This is a typical repair task for all control sticks by tightening hub nut.

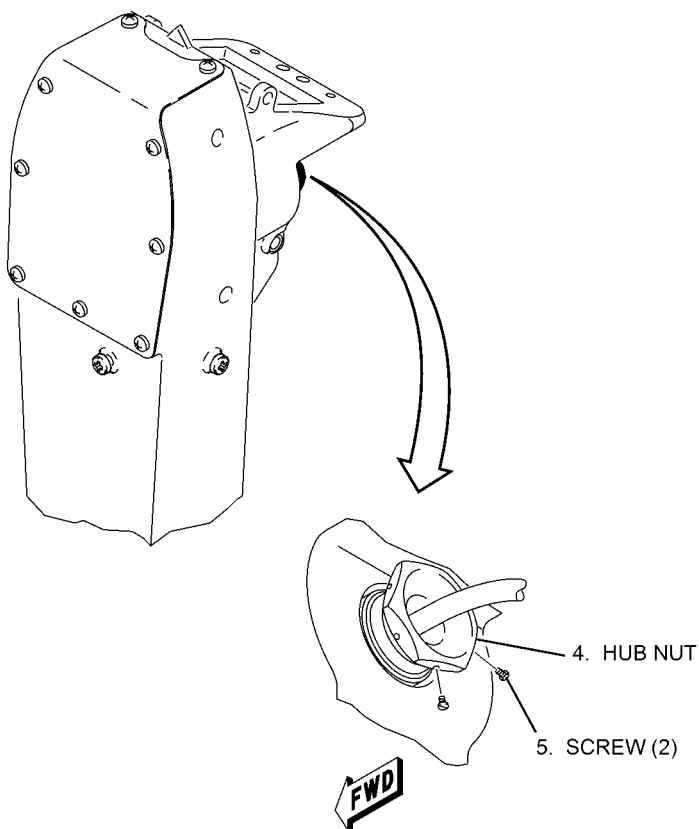
1. Remove screw and hub cover.
2. Remove safety wire and screws from hub nut.
3. Loosen hub nut to **0** torque.



ICN-88277-G2711576-002-01

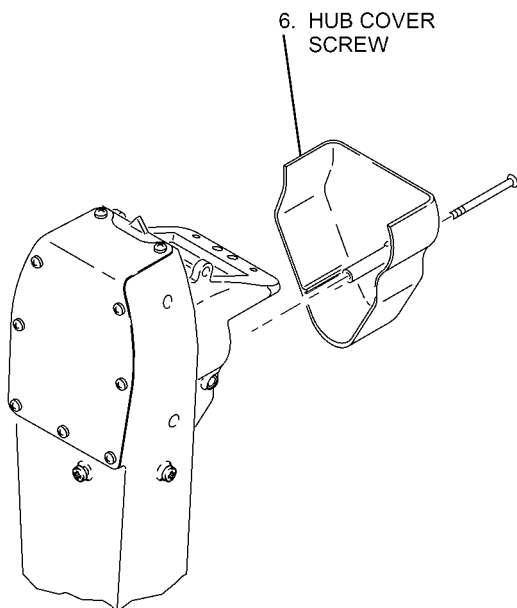
TO 1300i-2-27JG-10-3

4. Tighten hub nut and torque; **360-440 in-lb.**
5. Install screws and safety wire.



ICN-88277-G2711577-002-01

6. Install hub cover and screw.



ICN-88277-G2711578-002-01

4-6. FOLLOW-ON MAINTENANCE.

- 1. Install horizontal pressure panel access cover assembly (53-12-10).

STICK REF DES	PANEL NO.	PANEL REF DES
2711AA001	112AZP	5312CA001
2711AA002	112BZP	5312CA002

- 2. Remove aileron aircraft ground safety lock (05-10-01, task 01-4).
- 3. Remove elevator aircraft ground safety lock (05-10-01, task 01-6).

CONTROL STICK ASSEMBLY ADJUSTMENT (27-11-10-5)

FUNCTIONAL INPUT CONDITIONS:

Applicability:

All

Task

All

Additional information:

This procedure consists of the following tasks:

- 5-1. Preparation for 2711AA001.
- 5-2. Preparation for 2711AA002.
- 5-3. Roll adjustment.
- 5-4. Pitch adjustment.
- 5-5. Follow-on maintenance for 2711AA001.
- 5-6. Follow-on maintenance for 2711AA002.

Additional data:

TO 1300i-2-05JG-10-1

Task

5-1,
5-2,
5-5,
5-6

TO 1300i-2-23JG-40-1

5-4

TO 1300i-2-53JG-10-1

5-1,
5-2,
5-5,
5-6

Personnel recommended:

One

Task

All

Safety conditions:

Task

WARNING

The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All

Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Pin, Cotter	MS24665-151	--	2	5-5, 5-6
Weight	17P1F6261-1	--	AR	5-4

5-1. PREPARATION FOR 2711AA001.

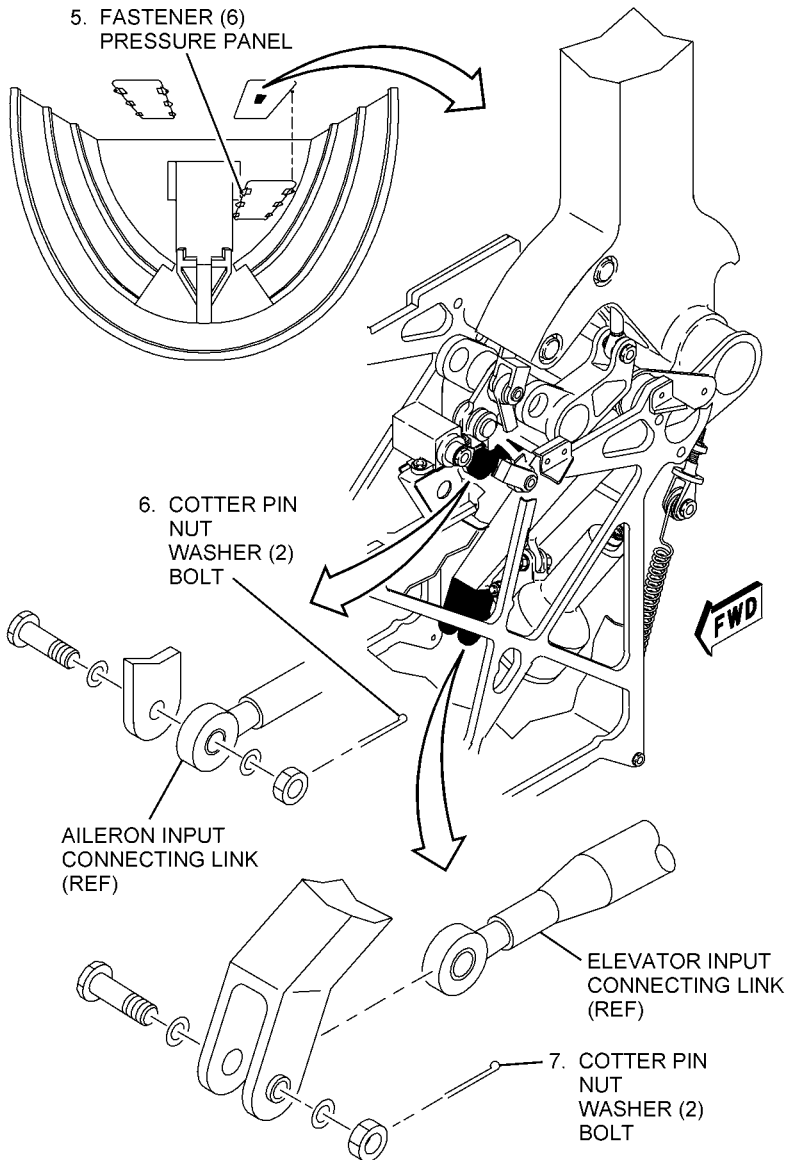
1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Install aileron aircraft ground safety lock (05-10-01, task 01-3).
4. Install elevator aircraft ground safety lock (05-10-01, task 01-5).

TO 1300i-2-27JG-10-3

- 5. Remove horizontal pressure panel access cover assembly (53-12-10).

STICK REF DES	PANEL NO.	PANEL REF DES
2711AA001	112AZP	5312CA001

- 6. Remove cotter pin, nut, washer, and bolt from aileron input connecting link.
- 7. Remove cotter pin, nut, washer, and bolt from elevator input connecting link.



ICN-88277-G2711312-004-01

5-2. PREPARATION FOR 2711AA002.

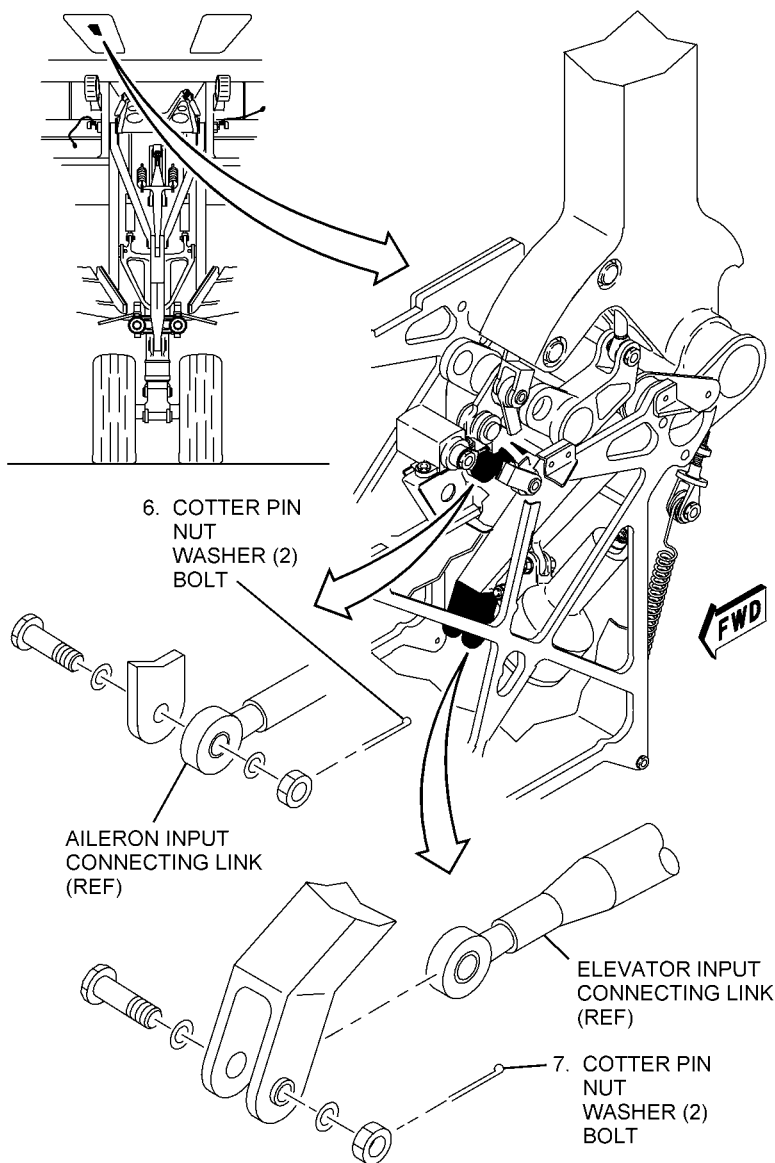
1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Install aileron aircraft ground safety lock (05-10-01, task 01-3).
4. Install elevator aircraft ground safety lock (05-10-01, task 01-5).

TO 1300i-2-27JG-10-3

- 5. Remove horizontal pressure panel access cover assembly (53-12-10).

STICK REF DES	PANEL NO.	PANEL REF DES
2711AA002	112BZP	5312CA002

- 6. Remove cotter pin, nut, washer, and bolt from aileron input connecting link.
- 7. Remove cotter pin, nut, washer, and bolt from elevator input connecting link.



ICN-88277-G2711315-004-01

5-3. ROLL ADJUSTMENT.

NOTE

This is a typical roll adjustment task for all control stick assemblies.

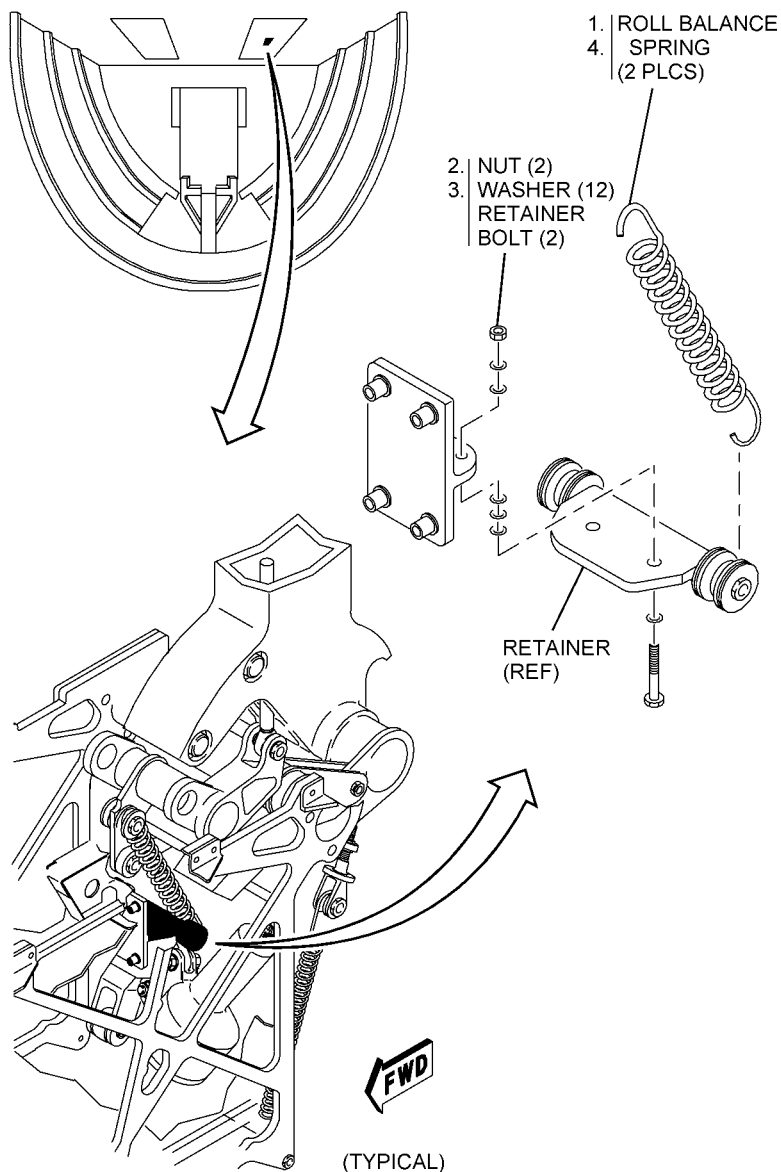
1. Remove roll balance springs from retainer.
2. Remove nuts, washers, retainer and bolts.

SPECIAL INSTRUCTION. Retainer may be inverted when control stick balance cannot be obtained.

NOTE

Washers may vary to compensate for control stick assembly discrepancies.

3. Install bolts, washers, retainer, and nuts.
4. Install roll balance springs.



ICN-88277-G2711317-004-01

5. Perform control stick assembly operational checkout (task 1-1).

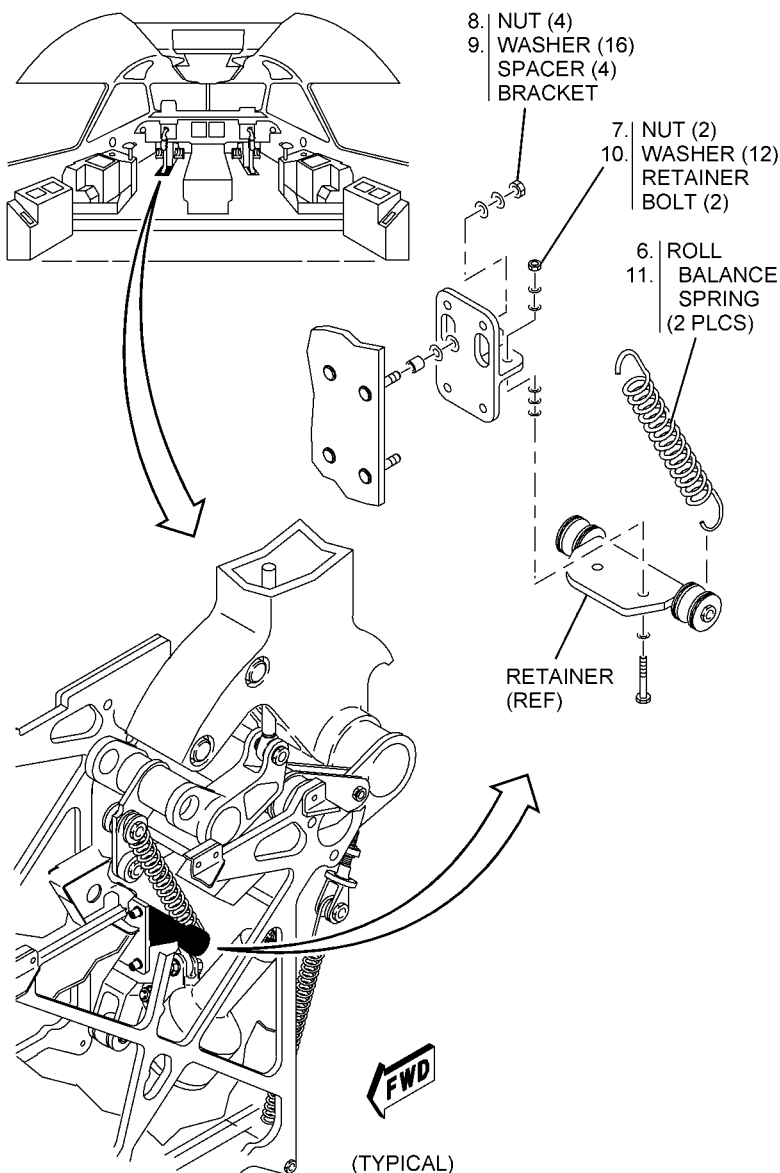
SPECIAL INSTRUCTION. When step 5 does not check properly, the following steps 6 through 12 must be accomplished.

6. Remove roll balance springs from retainer.
7. Remove nuts, washers, retainer, and bolts.
8. Remove nuts, washers, spacers, and bracket.

NOTE

Washers may vary to compensate for control stick assembly discrepancies.

9. Install spacers, washers, bracket, and nuts.
10. Install bolts, washers, retainer, and nuts.
11. Install roll balance springs.
12. Perform control stick assembly operational checkout (task 1-1).



ICN-88277-G2711318-005-01

5-4. PITCH ADJUSTMENT.



Do not perform pitch adjustment until roll adjustment has been completed. Failure to comply may cause damage to aircraft.

NOTE

This is a typical pitch adjustment task for all control stick assemblies.

1. Perform maintenance interphone operation (23-41-02, task 02-3).

NOTE

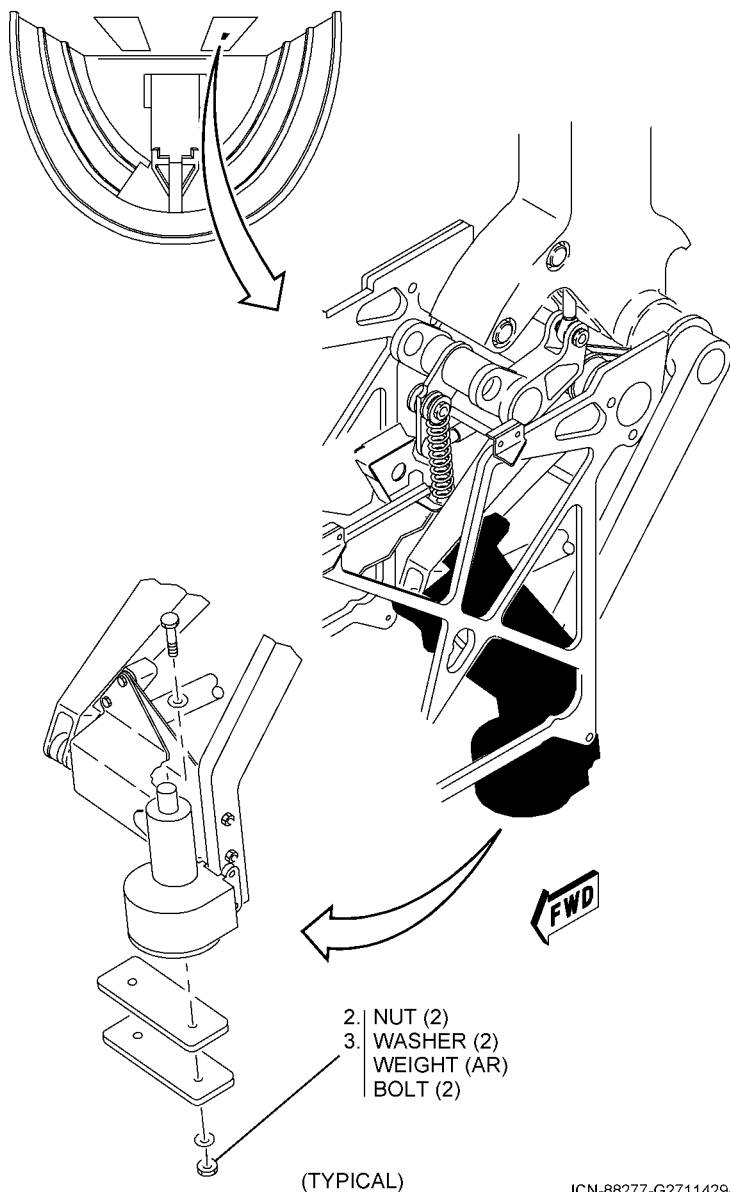
Each weight is approximately 2.2 pounds.

2. Remove nuts, washers, weights, and bolts.

NOTE

- Initial adjustment for pitch balance requires approximately 14 weights.
- Weights may be varied to achieve desired results.

3. Position weights; install bolts, washers, and nuts.
4. Perform control stick assembly operational checkout (task 1-2).
5. Perform maintenance interphone shutdown (23-41-02, task 02-4).



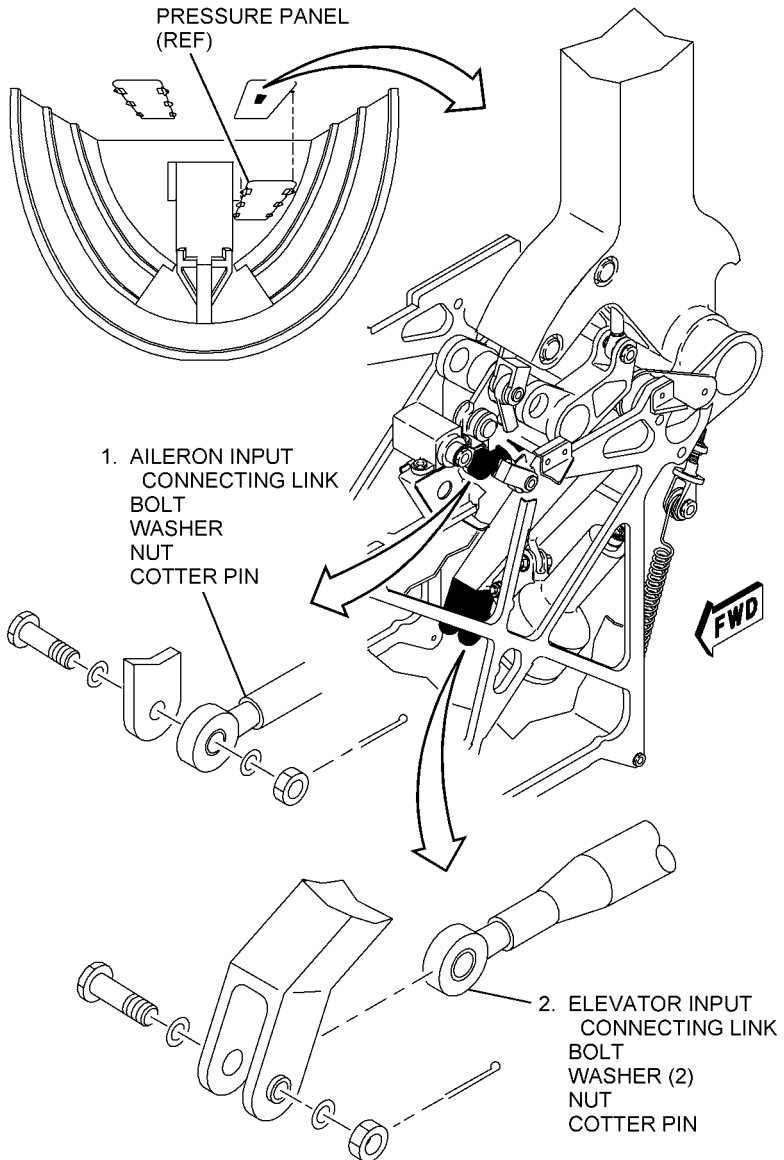
ICN-88277-G2711429-003-01

5-5. FOLLOW-ON MAINTENANCE FOR
2711AA001.

- 1. Position aileron input connecting link; install bolt, washer, nut, and cotter pin.
- 2. Position elevator input connecting link; install bolt, washer, nut, and cotter pin.
- 3. Install horizontal pressure panel access cover assembly (53-12-10).

STICK REF DES	PANEL NO.	PANEL REF DES
2711AA001	112AZP	5312CA001

- 4. Remove aileron aircraft ground safety lock (05-10-01, task 01-4).
- 5. Remove elevator aircraft ground safety lock (05-10-01, task 01-6).



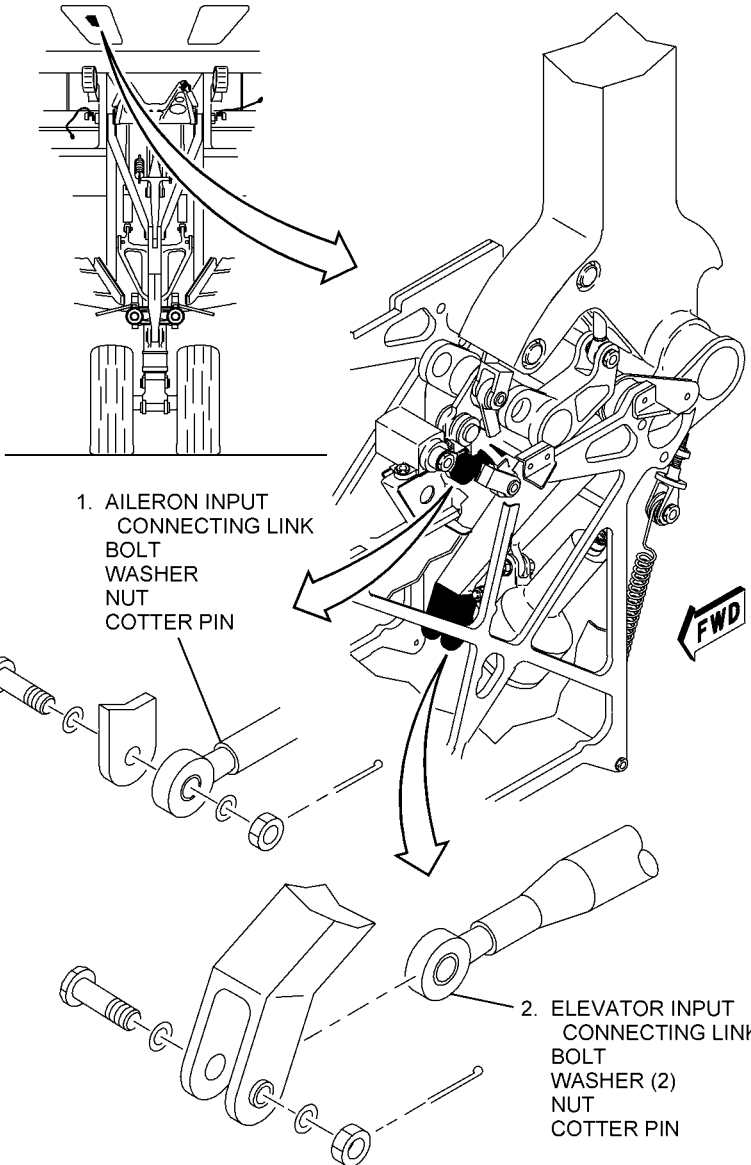
ICN-88277-G2711321-005-01

5-6. FOLLOW-ON MAINTENANCE FOR
2711AA002.

- 1. Position aileron input connecting link; install bolt, washer, nut, and cotter pin.
- 2. Position elevator input connecting link; install bolt, washer, nut, and cotter pin.
- 3. Install horizontal pressure panel access cover assembly (53-12-10).

STICK REF DES	PANEL NO.	PANEL REF DES
2711AA002	112BZP	5312CA002

- 4. Remove aileron aircraft ground safety lock (05-10-01, task 01-4).
- 5. Remove elevator aircraft ground safety lock (05-10-01, task 01-6).



ICN-88277-G2711324-005-01

