



SERVICE LETTER NO. SL-1

DATE: April 30, 1973

EFFECTIVITY: Rockwell Commander 112 S/N 3 through 79

SUBJECT: Rudder Assembly

RECOMMENDED
COMPLIANCE:

No later than the next 100 hour inspection or 90 days, whichever occurs first, unless rudder is cracked then compliance will be required prior to next flight.

APPROVAL: FAA-DER Approved

PURPOSE: Service investigation has revealed that the skin on the aft portion of the rudder assembly may need to be stiffened in order to prevent cracks from forming on the skin.

As a solution, the following instructions are recommended:

INSTRUCTIONS:

1. Inspect exterior of rudder. If cracks are found, replace the rudder assembly with a new rudder assembly (P/N 44006-1).

"NOTE"

All of the rudder assemblies ordered from the factory after March 29, 1973 will have already been modified.

2. Remove rudder.
3. Drill top and bottom rivet holes on both sides of rudder.
4. Mark rivet center line on channel then mark locating line for one of the rivets.
5. Insert channel through lightening hole on the leading edge of rudder and position channel so that center line for one end rivet is visible through rivet hole. Drill and cleco.

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6. Position channel so that rivet line is centered in the remaining hole. Drill and cleco.
7. Drill remaining holes through rudder skin and channel, then rivet.
8. Paint rivet heads with minimum amount of touch up paint.
9. Check balance of rudder and rebalance if necessary.
10. Replace rudder adding AN960-416L washer under head of lower hinge bolt.
11. Make the following entry in the Airframe Logbook:

Channel, P/N 44315-3 installed in rudder in compliance with Rockwell Commander 112, Service Letter No. 1.

or

Rudder Assembly, P/N 44006-1, replaced in compliance with Rockwell Commander 112, Service Letter No. 1.

12. Mail compliance card and accompanying warranty labor adjustment request (Form CSA-2) to the Albany Aircraft Division.

"NOTE"

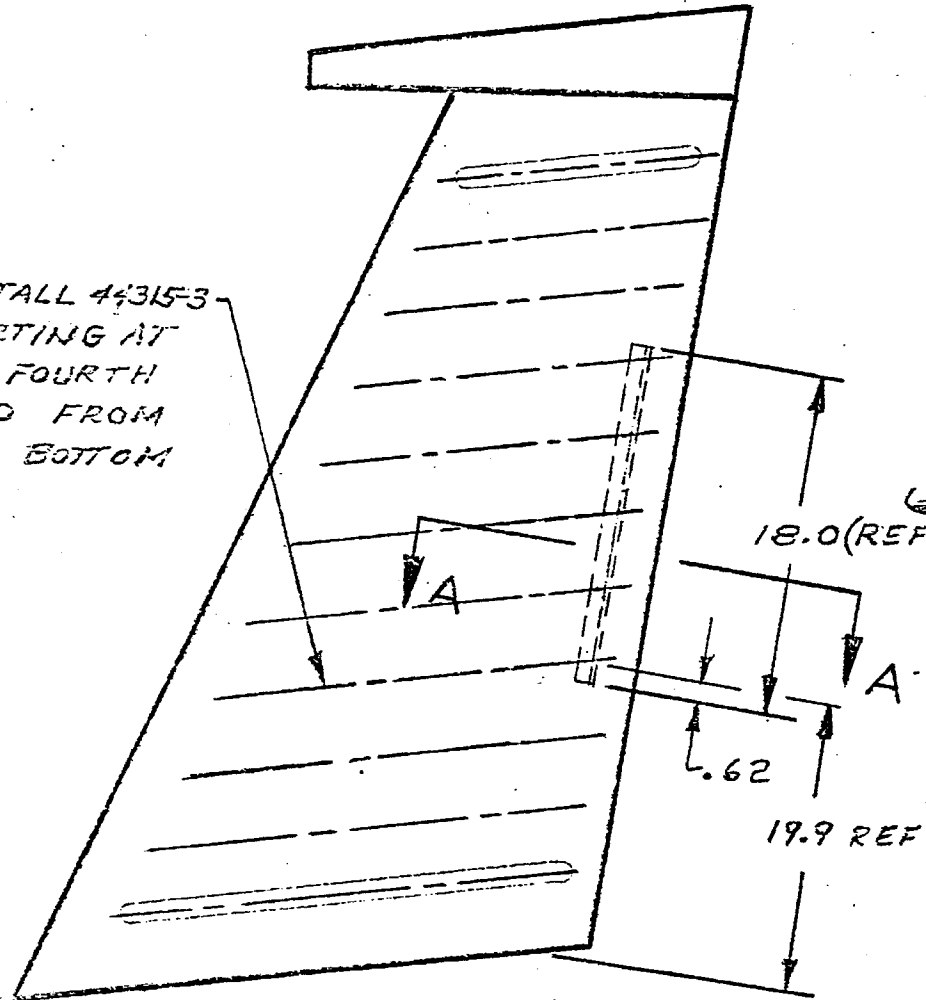
The channel (P/N 44315-3) and all necessary rivets have been enclosed with this Service Letter. If a new rudder is needed, it can be ordered, free of charge, directly from:

SPARES SALES DEPARTMENT
ROCKWELL INTERNATIONAL
ALBANY AIRCRAFT DIVISION
P. O. Box 1748
Albany, Georgia 31702

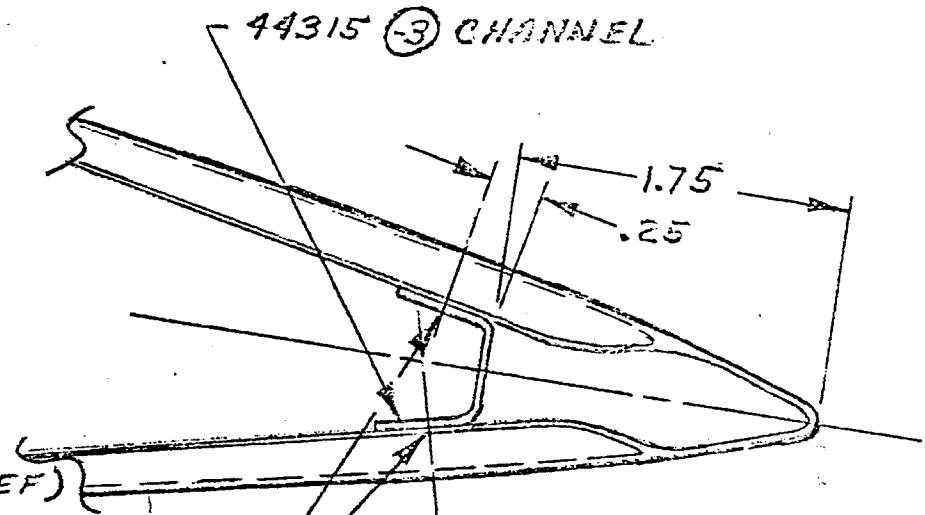
912/435-6161

The Albany Aircraft Division will warranty labor for compliance with this Service Letter up to a maximum of one hour for rudder replacement or 2 hours for installation of the channel (P/N 44315-3).

INSTALL 44315-3
STARTING AT
THE FOURTH
BEAD FROM
THE BOTTOM



(Page 3 of 3)



SECT A-A

CR 2249-4-1 CHERRY RIVET
10 REQ

OR

CKL-P4A HUCK RIVETS

OR

RV1100-4-1 OLYMPIC RIVETS

service letter



Rockwell Aircraft Division
Rockwell International

SERVICE LETTER NO. SL-2

Date: April 25, 1973

SUBJECT: Inspection of Spar Attach Points on Horizontal Stabilizer.

EFFECTIVITY: Rockwell Commander 112 Serial Number 3 through Serial Number 63.

COMPLIANCE: Within next 10 hours of flight.

APPROVAL: FAA-DER approved

PURPOSE: Service investigation has disclosed that bolts of the incorrect length may have been used in attaching the spar of the horizontal stabilizer to the lower fin on the vertical stabilizer. This may result in possible elongation of the bolt holes.

- INSTRUCTIONS:**
1. Inspect the 8 aft attach bolts on the horizontal stabilizer by sighting upwards along each side of the vertical stabilizer. Each bolt should have at least one but not more than 3 threads protruding through the nut. In addition, each of the nuts should be checked for possible movement by inspecting the torque seal cement for cracks.
 2. Remove the fiberglass dorsal assembly fairing and remove the four 1/4" bolts that hold the spar on the horizontal stabilizer to the lower fin of the vertical stabilizer. When removing these bolts, count the number of complete turns required to remove each bolt. If more than 12 complete turns are required, this indicates that the bolts are too long. If 12 or fewer turns are required, reinstall the original bolts, torquing each to 50-70 inch-lbs. plus shank friction. Reinstall the fiberglass dorsal assembly fairing then proceed to steps 8 and 9.
 3. If excessively long bolts are noted in Step 1 and/or Step 2; or if any looseness is noted in the horizontal stabilizer spar attachment points, proceed with Steps 4 through 9.
 4. Remove the rudder, elevator and upper fin on the vertical stabilizer.

5. Remove the 2 forward and 8 aft horizontal stabilizer attach bolts. Visually inspect the holes in the horizontal stabilizer and the lower vertical fin assembly for signs of bolthole elongation, if none appears re-install the horizontal stabilizer (per Step 6). If elongation has occurred in any of the boltholes, repair per ESK 112-334 and proceed to Step 6.
6. RE-ASSEMBLY: The (8) rear attach bolts should be installed first, with a minimum of (2) washers per bolt (AN960-416 or AN960-516 if 5/16 bolts have been used).

Since it will be necessary to torque the bolt head, increase the maximum torque value by an amount equal to the shank friction. The shank friction shall be measured with a torque wrench. The torque value for 1/4 inch bolts is 50-70 inch-lbs., for 5/16 inch bolts is 100-140 inch-lbs.

After the bolts have been properly torqued, visually inspect the bolts to determine that at least one and not more than three threads extend through the nut. If more than three threads show, add an additional washer.

The forward attach bolts require a minimum of (2) washers (one AN960-416L and one AN960-416 washer) and shall be torqued per the above procedure.

7. Re-install items removed in the previous steps.
Note: See Maintenance Manual for rigging procedures.
8. Make the following entry in the airframe logbook:

Rockwell Aircraft Service Letter
Number SL-2 complied with. Over-
size bolts used. Oversized bolts
not used. (Indicate Which)
9. Complete and mail the enclosed compliance card.

REAM TO .3125/.3120 IN LINE
WITH MATING PARTS
INSTALL NAS1105-3 OR NAS1305-3 BOLTS
AND AN960-516 OR AN960-516L WASHERS
IN LINE OF THREE
TORQUE TO 100-140 IN-LBS
2 PLACES

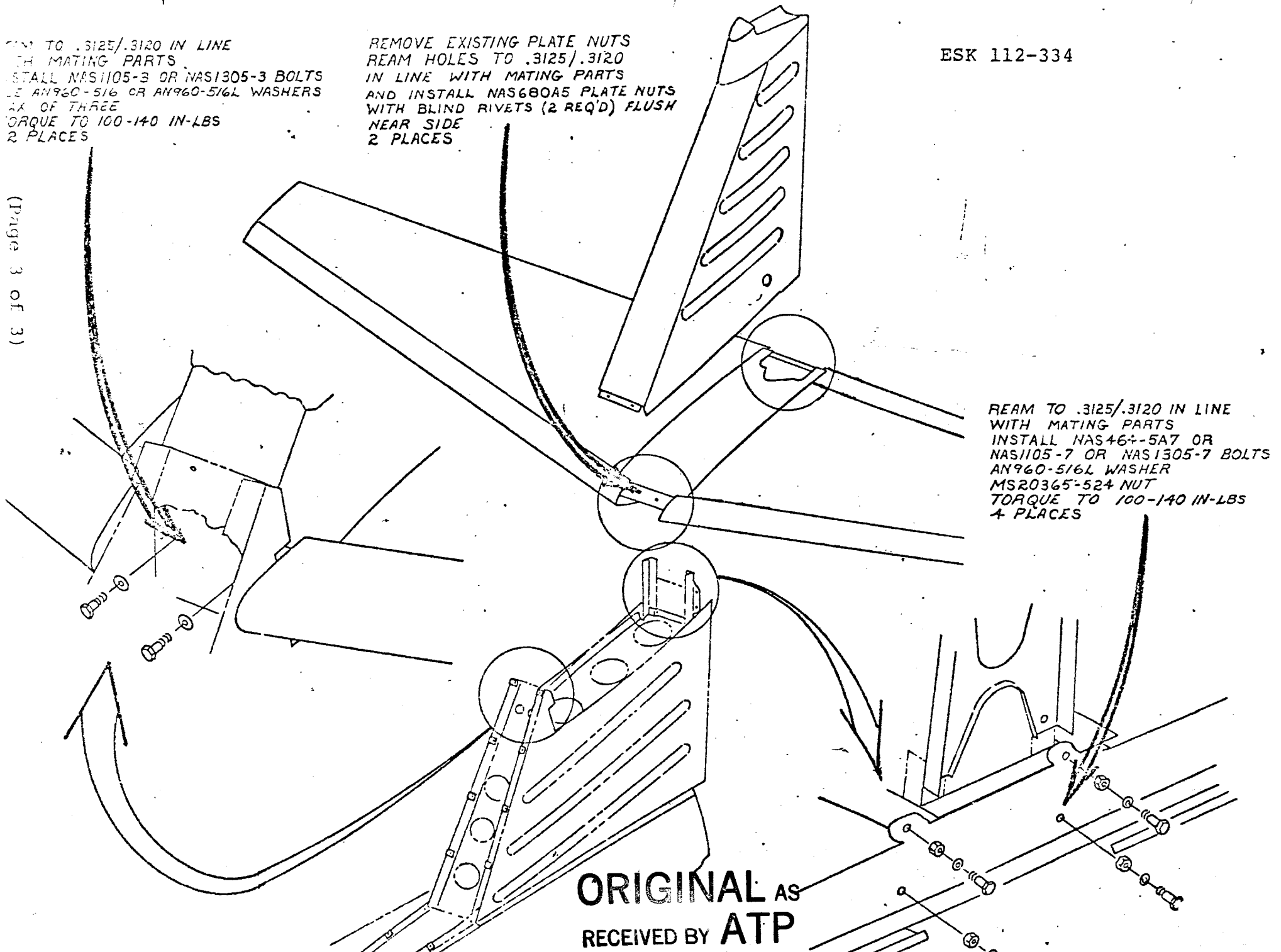
REMOVE EXISTING PLATE NUTS
REAM HOLES TO .3125/.3120
IN LINE WITH MATING PARTS
AND INSTALL NAS680A5 PLATE NUTS
WITH BLIND RIVETS (2 REQ'D) FLUSH
NEAR SIDE
2 PLACES

ESK 112-334

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REAM TO .3125/.3120 IN LINE
WITH MATING PARTS
INSTALL NAS464-5A7 OR
NAS1105-7 OR NAS1305-7 BOLTS
AN960-516L WASHER
MS20365-524 NUT
TORQUE TO 100-140 IN-LBS
4 PLACES

ORIGINAL AS
RECEIVED BY ATP



service letter



Commander Aircraft Division
Rockwell International

SERVICE LETTER NO. SL-112-3

DATE: July 2, 1973

EFFECTIVITY: Rockwell Commander 112 S/N 3 through 93

SUBJECT: Engine exhaust system retaining nut torque.

RECOMMENDED COMPLIANCE: At next 100 hour inspection.

APPROVAL: FAA

PURPOSE: Recent information supplied by Lycoming indicates that the current 100-140 in. -lb. torque for the engine exhaust system should be increased.

INSTRUCTIONS:

1. With upper and lower cowling removed, torque nuts attaching exhaust pipes to engine to 160-180 in. -lb.
2. Make the following entry in engine logbook: Service Letter SL-112-3 complied with this date _____.
3. Mail compliance card to Albany Aircraft Division.

service letter



Commander Aircraft Division
Rockwell International

SERVICE LETTER NO. SL-112-4 R1

DATE: December 17, 1973

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 111 AND 113 THRU 125.

SUBJECT: GROSS WEIGHT INCREASE.

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION.

APPROVAL: FAA Approved.

PURPOSE: To raise maximum allowable takeoff gross weight from 2550 pounds to 2650 pounds.

INSTRUCTIONS:

- a. Place aircraft on jacks.
- b. Remove and discard existing main landing gear tires as outlined in applicable airplane Maintenance Manual.
- c. Install 600 x 6, 6 ply tires on left and right main landing gears using existing tubes.
- d. Remove aircraft from jacks.
- e. If maximum indication of flap position indicator is 35 degrees, it does not need to be reworked.
- f. If maximum indication of flap position indicator is 40 degrees, remove from aircraft.
- g. Remove existing airspeed indicator from aircraft.
- h. Send existing airspeed indicator, 65B197-002 dial (indicated airspeed) or 65B198-002 dial (true airspeed) and existing flap position indicator (if necessary) with 48013-RE3 decal and SW-407370-3 bezel to an approved FAA instrument repair station to be reworked as follows:
 1. On Edo-Aire indicator, remove existing dial and install 65B197-002 dial (indicated airspeed) or 65B198-002 dial (indicated airspeed).
 2. On Aero Marine indicator, remark existing dial to agree with markings on enclosed part No. 65B197-002 dial (indicated airspeed).

NOTE

The enclosed dial will not fit Aero Marine indicator; therefore it is necessary to remark existing Aero Marine indicator.

3. Recalibrate and recertify airspeed indicator.
4. Reidentify Aero Marine indicator to 541B-2.
5. Reidentify Edo-Aire indicated airspeed indicator to EA-51752-02-ACM and true airspeed indicator to EA-51752-02T-ACM.
6. On flap position indicator, remove existing bezel and install 48013-RE3 decal over existing dial by aligning 0 degree reference mark on decal with 0 degree mark on existing dial and trim decal as necessary.

CAUTION

Use extreme caution so as not to damage indicator hand.

7. Install SW-407370-3 bezel on flap position indicator.
8. Reidentify reworked flap position indicator to 304AA-35.
- i. Reinstall reworked airspeed indicator and flap position indicator (if removed) in aircraft.
- j. Remove seats, carpet and floor panels as necessary to gain access to flap actuator switches located beneath floor between fuselage Sta. 127.25 and Sta. 144.26.

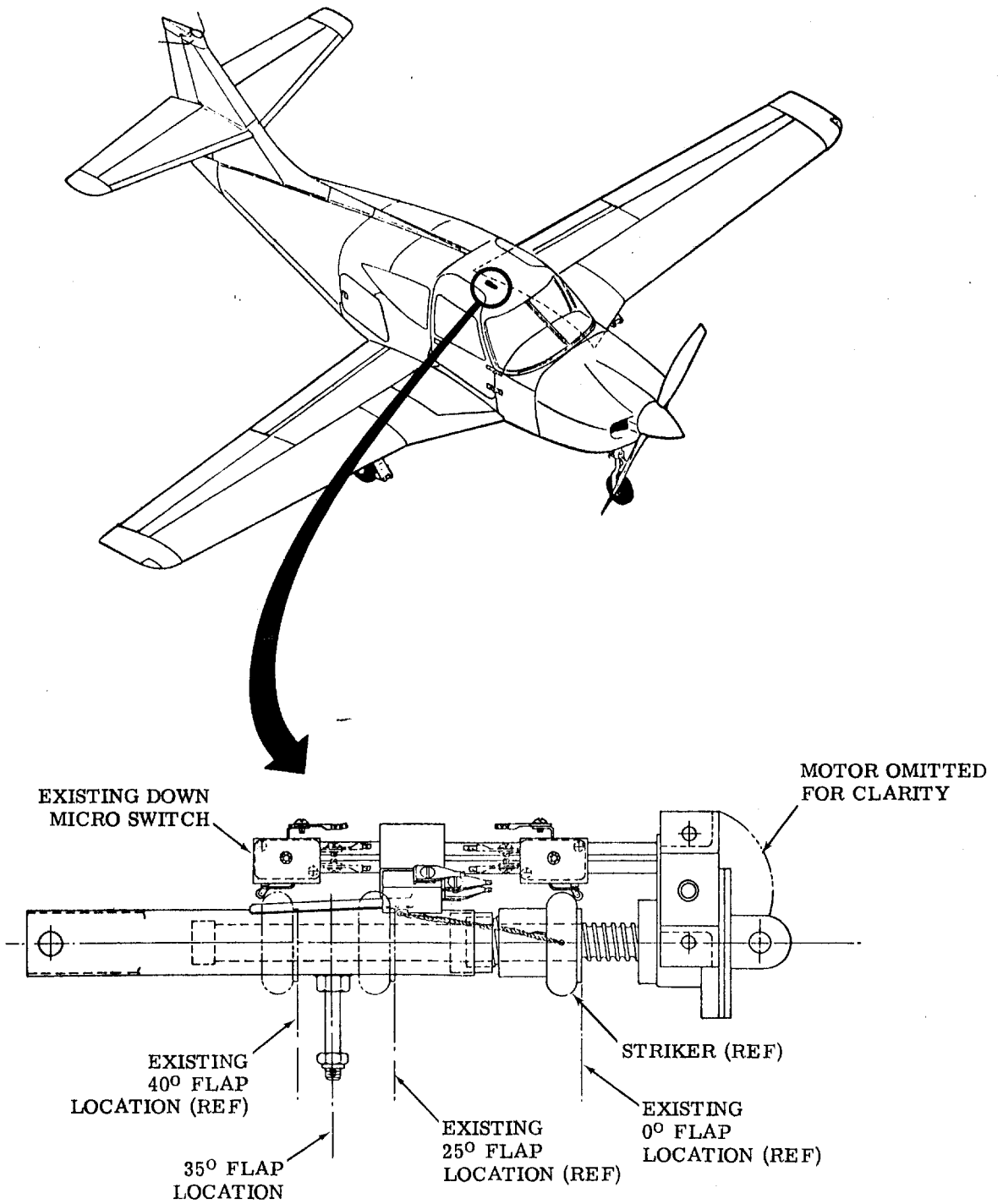


Figure 1.

service letter



Commander Aircraft Division
Rockwell International
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-5

DATE: January 15, 1974

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 125.

SUBJECT: FLOORBOARD VIBRATION

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION.

APPROVAL: FAA Approved

PURPOSE: To reduce vibration on right forward floorboard.

INSTRUCTIONS:

- a. Remove existing scuff plate from right forward cabin carpet.
- b. Remove existing carpet from right forward cabin floorboard.
- c. Remove any remaining glue from floorboard.
- d. Locate and install 43645-2 stiffener on right forward cabin floorboard using #1300-3M Scotch Grip Adhesive (see Figure 1.).
- e. Remove foam rubber pad from carpet in area shown in Figure 1.
- f. Reinstall existing right forward cabin carpet using 3642A Tuf-Grip Adhesive.
- g. Reinstall existing scuff plate on right forward cabin carpet.

SUPPLY DATA: The following parts required to comply with this Service Letter are furnished, at no charge, by Spare Sales Department, Commander Aircraft Division, Rockwell International, Bethany, Oklahoma 73008..

QTY	PART NO.	DESCRIPTION
1 ea.	43645-2	Stiffener

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows:
Service Letter No. SL-112-5, dated January 15, 1974, entitled "Floorboard Vibration", accomplished (date).

A maximum of two (2) hours will be allowed for labor provided that a properly executed Warranty Labor Request is sent in with Compliance Card.

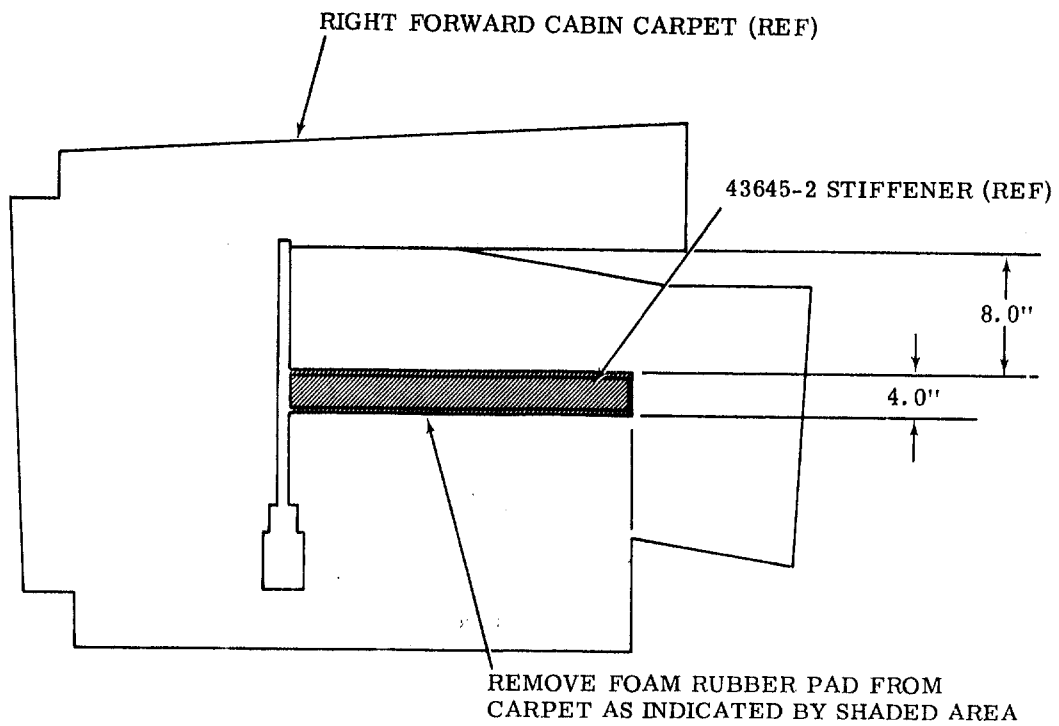
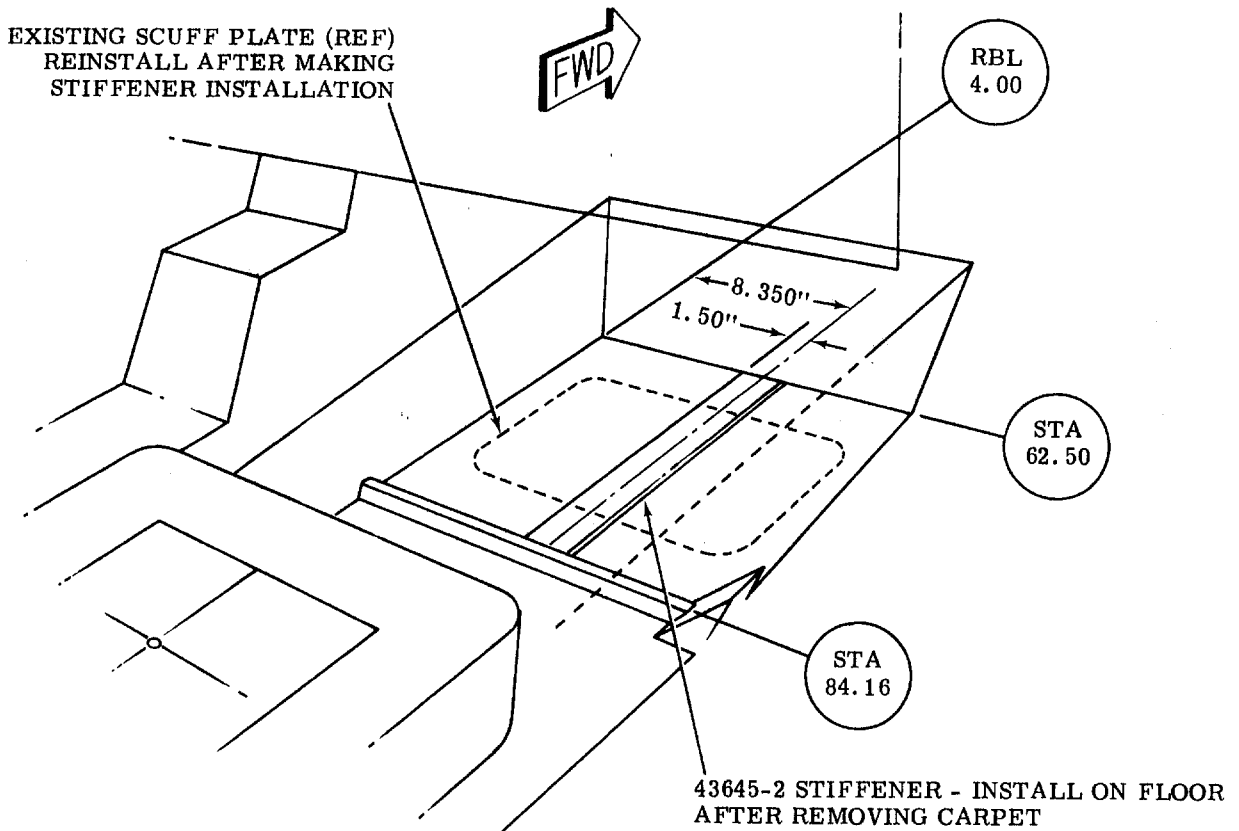


Figure 1.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-6A

DATE: August 9, 1974

(This Service Letter replaces Service Letter No. SL-112-6, dated January 15, 1974, in its entirety.)

EFFECTIVITY: Model 112, SERIAL NO'S 3 THRU 111 AND 113 THRU 125.

SUBJECT: IMPROVED CABIN VENTILATION.

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION. (THIS SERVICE LETTER NO. SL-112-6A IS BEING ISSUED ONLY TO CORRECT THE SUPPLY DATA AND INSTALLATION INSTRUCTIONS OF SERVICE LETTER NO. SL-112-6. IF BASIC SERVICE LETTER NO. SL-112-6 HAS BEEN COMPLIED WITH, DISREGARD THIS SERVICE LETTER.)

APPROVAL: FAA DER Approved.

PURPOSE: To provide a means to increase cooling air flow through overhead vents.

PART I - FOR AIRCRAFT WITHOUT RADIO ANTENNA INSTALLED IN DORSAL ASSEMBLY.

INSTRUCTIONS:

- a. Remove existing vertical fin tip.
- b. Remove and discard existing upper vertical fin leading edge skin and dorsal assembly.
- c. Locate, drill and install 44217-3 leading edge skin and existing leading edge clip on aircraft (see Figure 1.).
- d. Locate 43650-1 dorsal assembly on aircraft and trim to fit.
- e. Using a hole finder, drill twenty-six (26) 0.252 (\pm 0.002) inch diameter holes in dorsal assembly to match holes in aircraft skin (see Figure 1.).
- f. Install MS21047-L08 nutplate (4 places) on dorsal assembly (see Figure 1.).
- g. Install 43650-1 dorsal assembly on aircraft using existing screws, washers and four (4) C8104-832-4 U-nuts (see Figure 1.).
- h. Reinstall existing vertical fin tip.

PART II - FOR AIRCRAFT WITH RADIO ANTENNA INSTALLED IN DORSAL ASSEMBLY.

INSTRUCTIONS:

- a. Remove existing vertical fin tip.
- b. Remove and discard existing upper vertical fin leading edge skin.
- c. Disconnect radio antenna leads from dorsal assembly and remove and discard existing dorsal assembly.
- d. Locate and drill a 0.128-inch diameter hole in 44217-3 leading edge skin and drill and install 48732-1 stiffener (see Figure 1.).
- e. Locate, drill and install 44217-3 leading edge skin and existing leading edge clip on aircraft (see Figure 1.).
- f. Locate 43650-1 dorsal assembly on aircraft and trim to fit.
- g. Using a hole finder, drill twenty-six (26) 0.252 (\pm 0.002) inch diameter holes in dorsal assembly to match holes in aircraft skin (see Figure 1.).
- h. Install MS21047-L08 nutplate (4 places) on dorsal assembly (see Figure 1.).

SERVICE LETTER NO. SL-112-6A

- i. Remove interior overhead paneling as necessary to gain access to radio antenna cable.
- j. Remove and discard existing overhead radio antenna cable.
- k. Install 43650-1 dorsal assembly on aircraft using existing screws, washers and four (4) C8104-832-4 U-nuts (see Figure 1.).
- l. Reinstall existing vertical fin tip.
- m. Locate and drill two (2) 0.187-inch diameter holes and one (1) 0.437-inch diameter hole in top of fuselage skin at Sta. 130.00 (see Figure 2.).
- n. Install 071-1007-00 radio antenna kit (see Figure 2.).
- o. Install 155-2010-00 antenna cable (see Figure 3.).
- p. Reinstall interior overhead paneling.

SUPPLY DATA: The following parts required to comply with this Service Letter are furnished at no charge, by Spares Sales Department, General Aviation Division, Rockwell International, Bethany, Oklahoma 73008.

PART I QTY	PART II QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	1 ea.	43650-1	Dorsal Assy	
1 ea.	1 ea.	44217-3	Leading Edge Skin	
-	1 ea.	48732-1	Stiffener	
-	1 ea.	071-1007-00	Radio Antenna Kit	0060203
-	1 ea.	155-2010-00	Radio Antenna Cable	0082245
4 ea.	4 ea.	C8104-832-4	U-Nut	0059485
4 ea.	4 ea.	MS21047-L08	Nutplate	2719248

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows: Service Letter No. SL-112-6A, dated August 9, 1974, entitled "Improved Cabin Ventilation", Part I accomplished _____ (date) _____; Part II accomplished _____ (date) _____.

Fill in completely the enclosed self-addressed compliance card and mail. General Aviation Division will allow credit for a maximum of seven (7) hours labor for performance of Part I and a maximum of eight (8) hours labor for performance of Part II of this Service Letter. No credit will be issued without receipt of both Compliance Card and properly executed Warranty Labor Request Form.

SERVICE LETTER NO. SL-112-6A

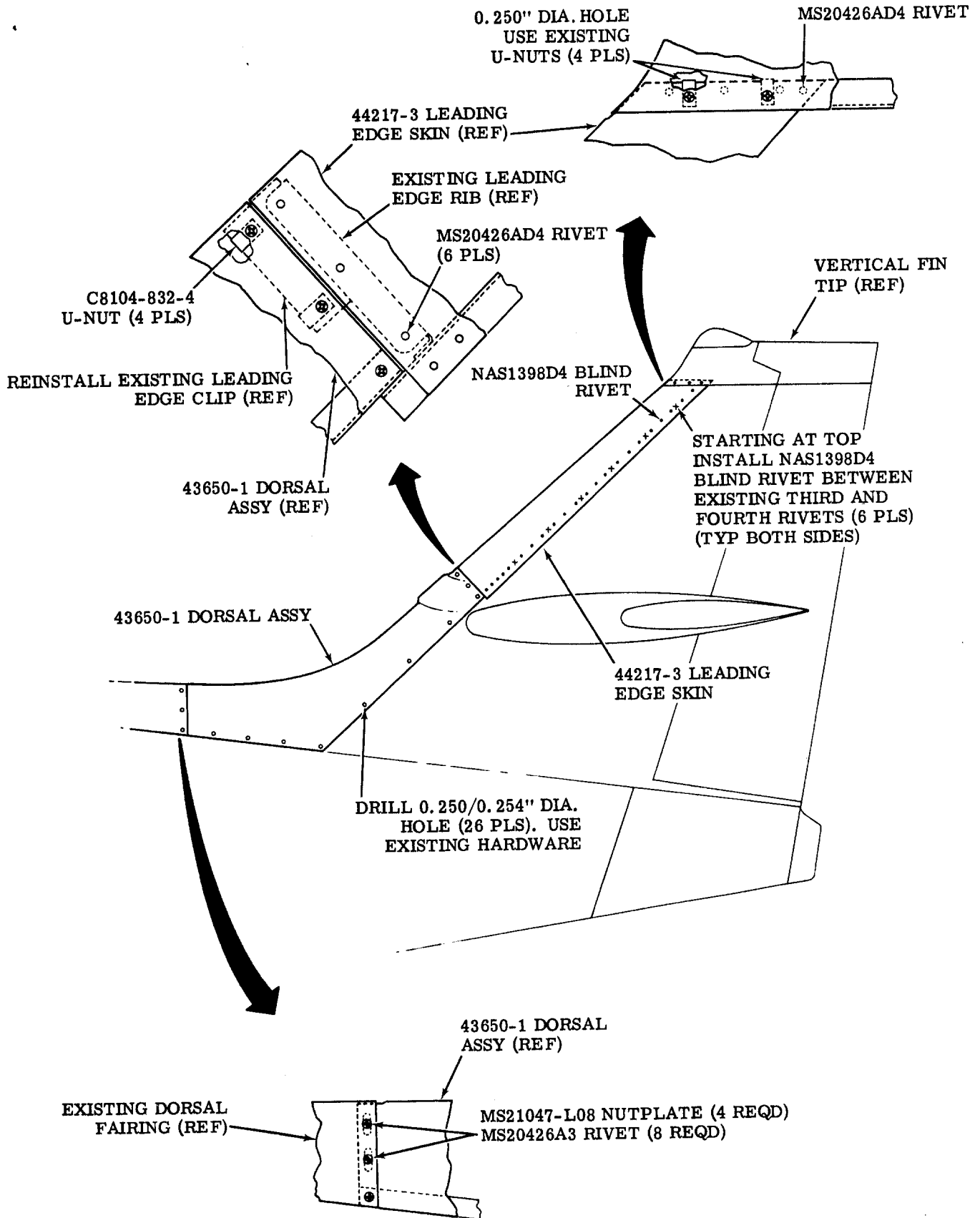
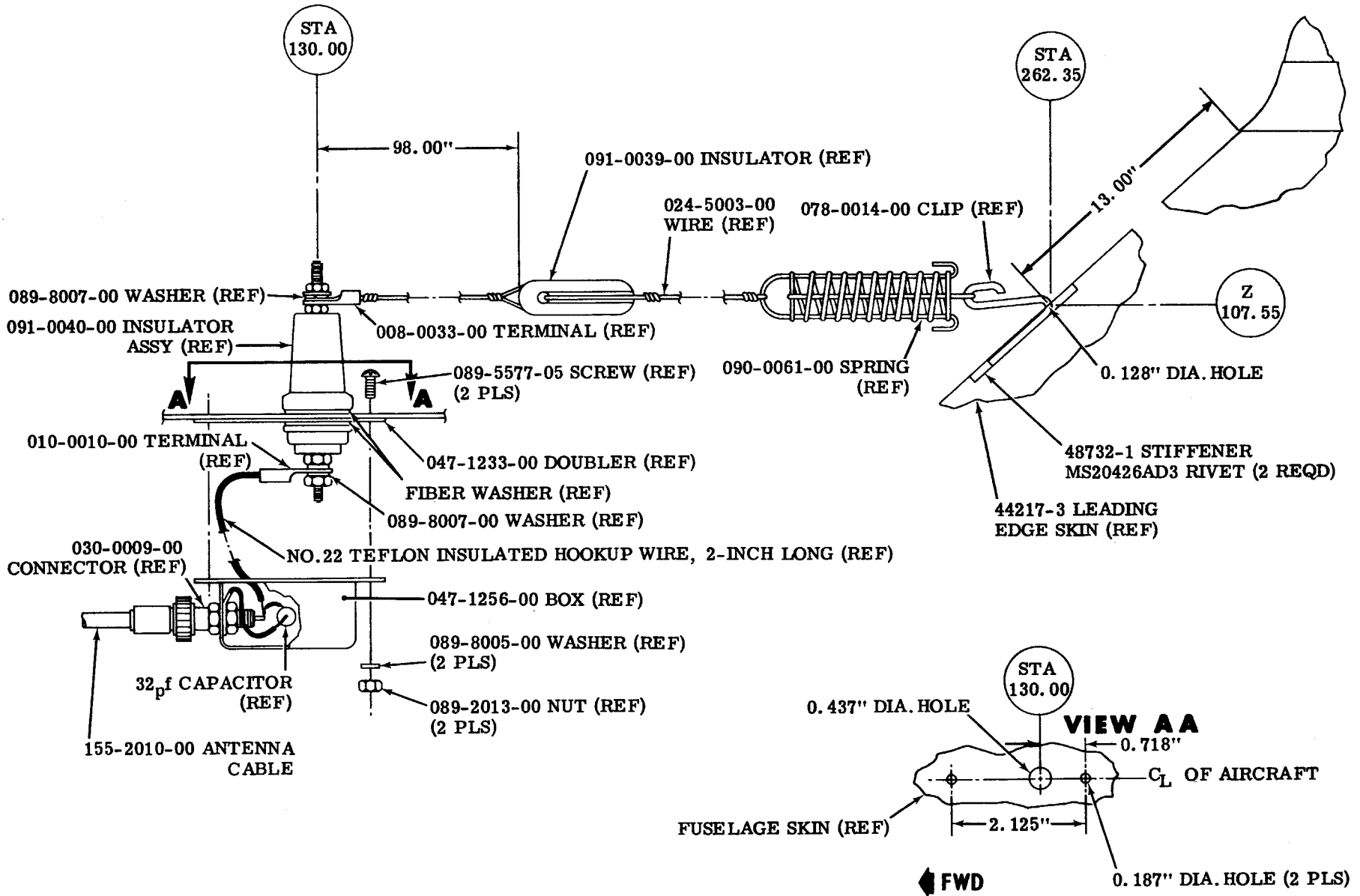


Figure 1.



SERVICE LETTER NO. SL-112-6A

Figure 2.

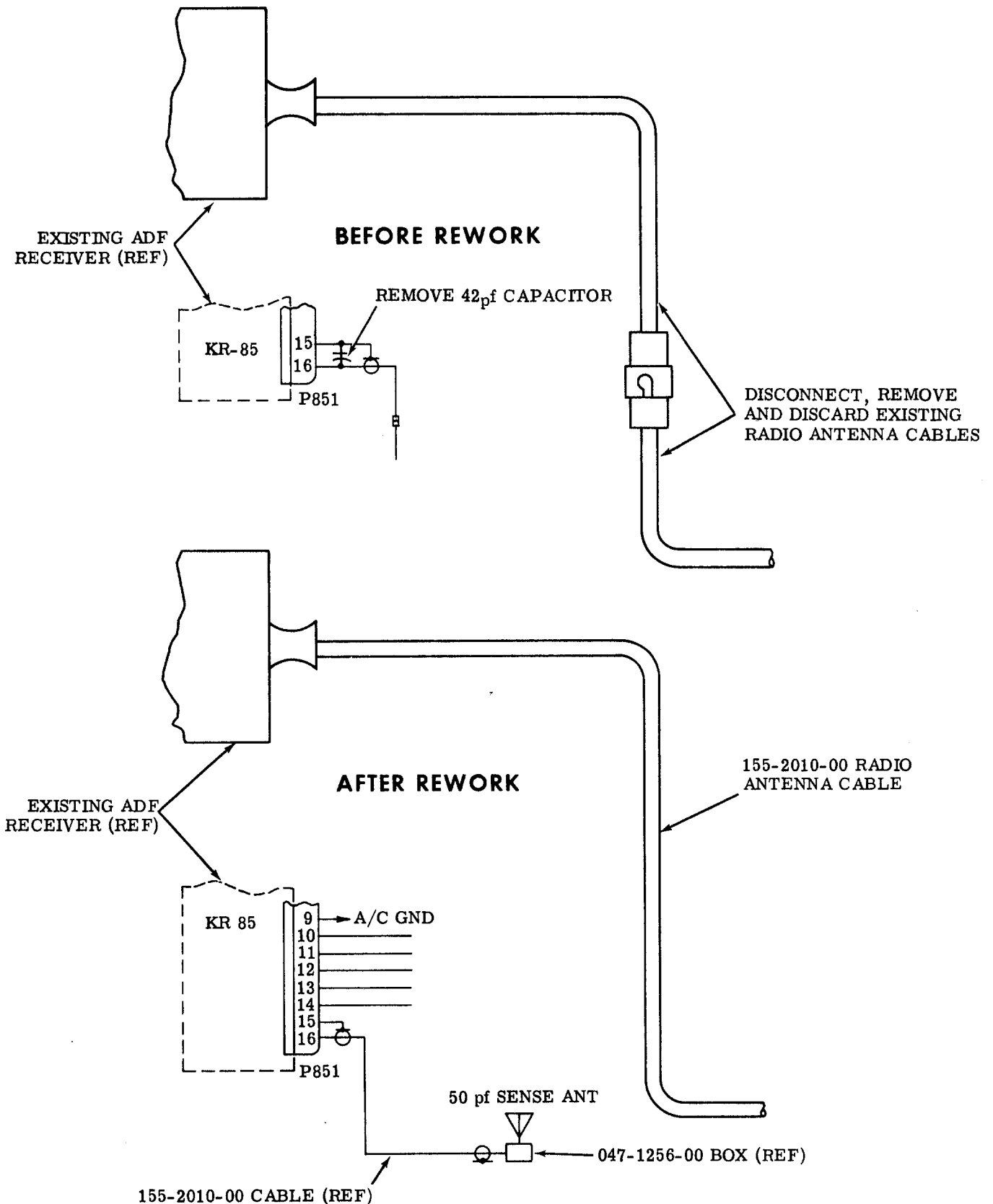


Figure 3.

service letter



Commander Aircraft Division
Rockwell International
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-7

DATE: December 3, 1973

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 106 AND 108 THRU 111.

SUBJECT: INSTALLATION OF AILERON TRIM TAB.

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION.

APPROVAL: FAA

PURPOSE: To provide a simplified means of adjusting lateral trim during rigging.

INSTRUCTIONS:

- a. Using 42346-1 aileron trim tab as template, locate, drill and install aileron trim tab on lower outboard surface of aileron (see Figure 1.)

CAUTION

Precautions should be taken so as not to drill through upper aileron skin.

- b. Recheck balance of aileron assembly.

NOTE

Balance to be 0 to 4.0 inch-pounds trailing edge heavy.

- c. Fill in and mail enclosed compliance card.

SUPPLY DATA: Parts required to comply with this Service Letter may be purchased from Spare Sales Department, Commander Aircraft Division, Rockwell International, Bethany, Oklahoma 73008. Reference this Service Letter, and aircraft model and factory serial number when ordering the following parts:

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	42346-1	Aileron Trim Tab	
8 ea.	CR2249-4-1	Blind Rivet	1953300

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows: Service Letter No. SL-112-7, dated December 3, 1973, entitled "Installation of Aileron Trim Tab", accomplished _____ (date).

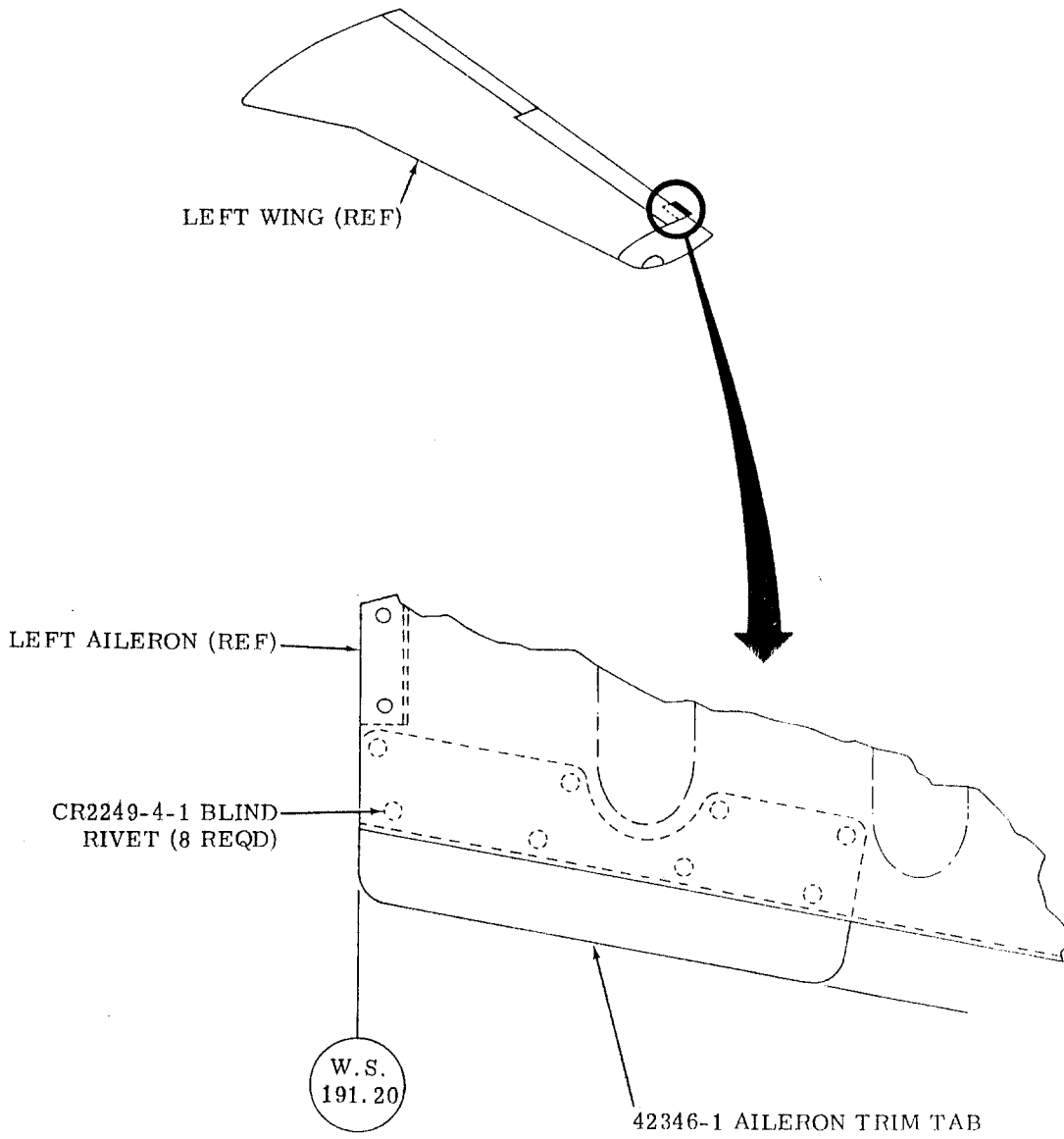


Figure 1.

Service Letter



General Aviation Division
Rockwell International
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-8

DATE: September 27, 1974

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 187.

SUBJECT: ENGINE FRONT BAFFLE ASSEMBLY IMPROVEMENT.

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION.

APPROVAL: FAA Approved.

PURPOSE: To prevent engine front baffle assembly from cracking.

PART I - MODEL 112, SERIAL NO'S 3 THRU 155.

INSTRUCTIONS:

- a. Remove top engine cowling assembly.
- b. Remove and discard existing bracket from center of engine front baffle assembly (see Figure 1.).
- c. Stop drill any cracks in engine front baffle assembly using a No. 40 drill.
- d. Locate, drill and install 46241-1 doubler on engine front baffle assembly (see Figure 1.).
- e. Cut slots in engine front baffle assembly to match slots in 46241-1 doubler (see Figure 1.).
- f. Install 46240-1 bracket on engine case using existing hardware (see Figure 1.).
- g. Attach reworked engine front baffle assembly to 46240-1 bracket (see Figure 1.).
- h. Reinstall top engine cowling assembly.
- i. Proceed to AIRCRAFT RECORDS.

PART II - MODEL 112, SERIAL NO'S 156 THRU 187.

INSTRUCTIONS:

- a. Remove top engine cowling assembly.
- b. Remove hardware attaching existing bracket to center of engine front baffle assembly (see Figure 1.).
- c. Locate, drill and install 46241-1 doubler on engine front baffle assembly (see Figure 1.).
- d. Cut slots in engine front baffle assembly to match slots in 46241-1 doubler (see Figure 1.).
- e. Reattach engine front baffle assembly to existing bracket (see Figure 1.).

NOTE

Discard existing screw and use AN526-1032-7 screw (2 places).

- f. Reinstall top engine cowling assembly.

SERVICE LETTER NO. SL-112-8

SUPPLY DATA: Parts required to comply with this Service Letter may be procured from your nearest Rockwell Commander Distributor. Reference this Service Letter, aircraft model and factory serial number when ordering the following parts:

PART I QTY	PART II QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	-	46240-1	Bracket	
1 ea.	1 ea.	46241-1	Doubler	
2 ea.	2 ea.	AN526-1032-7	Screw	0056847
4 ea.	-	AN960-10L	Washer	1519000
2 ea.	-	MS20364-1032C	Nuts	0065075

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows: Service Letter No. SL-112-8, dated September 27, 1974, entitled "Engine Front Baffle Assembly Improvement", Part I accomplished _____ (date); Part II accomplished _____ (date).

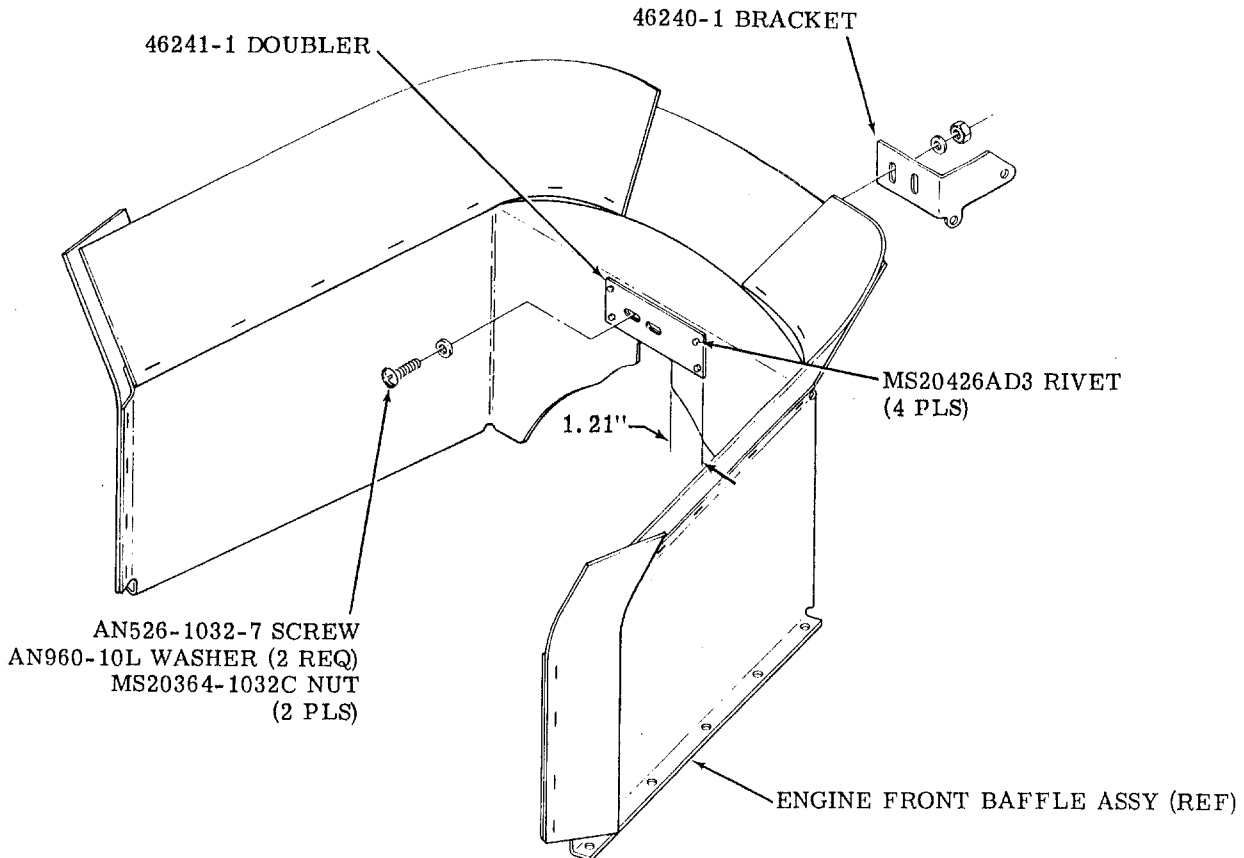


Figure 1.

Service Letter



General Aviation Division
Rockwell International
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-10

DATE: October 25, 1974

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 220.

SUBJECT: INSPECTION OF BRAKE SYSTEM CLAMPS.

RECOMMENDED COMPLIANCE: WITHIN NEXT 100-HOURS OR NEXT ANNUAL INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER CONTACT GENERAL AVIATION DIVISION, ROCKWELL INTERNATIONAL, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

APPROVAL: FAA DER Approved.

PURPOSE: To assure proper clearance between clamp assembly and tire.

INSTRUCTIONS:

- Inspect and assure that clamp assemblies, located on main landing gear assembly, are properly installed as shown in Figure 1.
- If necessary, relocate clamps as shown in Figure 1.

SUPPLY DATA: Not Applicable.

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows: Service Letter No. SL-112-10, dated October 25, 1974, entitled "Inspection of Brake System Clamps", accomplished _____ (date) _____.

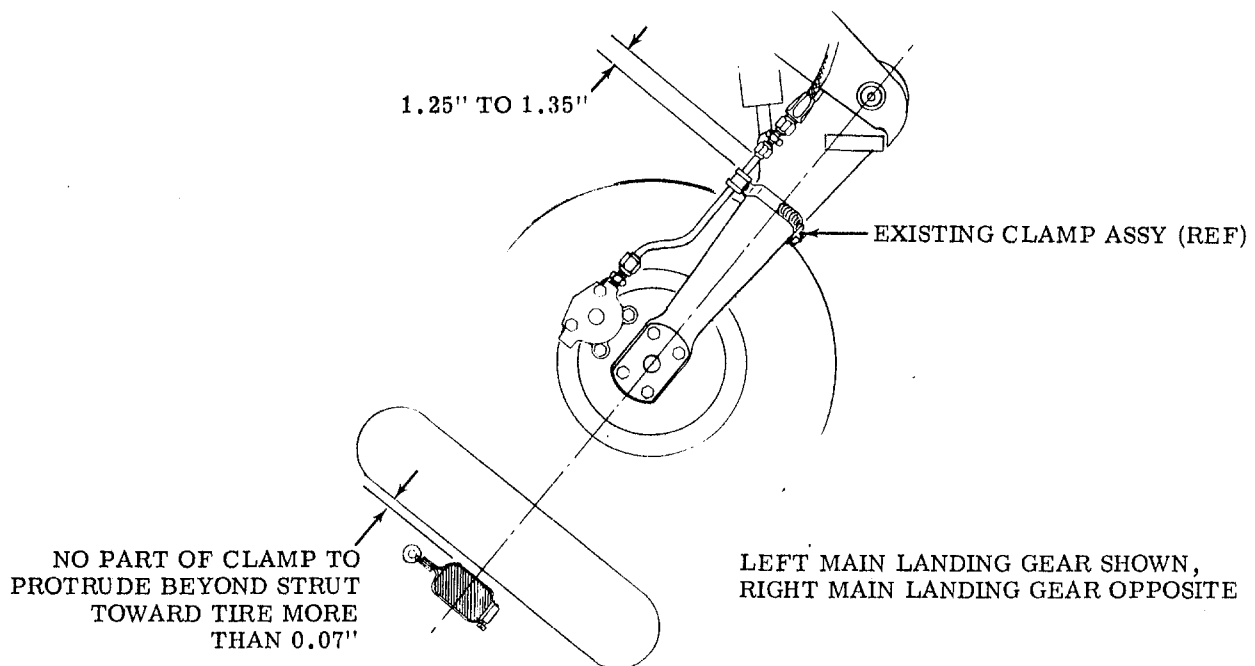


Figure 1.

Service Letter



General Aviation Division
Rockwell International

Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-11 R1

DATE: November 25, 1974

EFFECTIVITY: MODEL 112, SERIAL NO'S 3 THRU 187.

SUBJECT: LANDING GEAR SQUAT SWITCH INSTALLATION.

RECOMMENDED COMPLIANCE: DURING NEXT 100-HOUR INSPECTION OR WITHIN 60 DAYS AFTER RECEIPT OF THIS SERVICE LETTER.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER CONTACT GENERAL AVIATION DIVISION, ROCKWELL INTERNATIONAL, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

APPROVAL: FAA DER Approved.

PURPOSE: To provide an improved landing gear squat switch to prevent rain, slush and snow from causing squat switch to freeze.

INSTRUCTIONS:

- a. Jack aircraft as outlined in applicable Maintenance Manual.
- b. Disconnect, remove and discard existing landing gear squat switch, bracket and attaching hardware from right main landing gear.
- c. Locate and drill two (2) 0.160 (\pm 0.001) inch diameter holes in right main landing gear yoke (see Figure 1.).
- d. Locate and drill a 0.218 (\pm 0.002) inch diameter hole 0.50-inch deep in right main landing gear trunnion (see Figure 1.).
- e. Tap hole drilled in step d. to 1/4-28 threads (see Figure 1.).
- f. Install and crimp 60620-1 pin (3 places) on lead wires of 1EN1-6B switch, wrap wires with SWP-1/4 spiral wrap and cover wire bundle with No.5 vinyl tubing (see Figure 1.).
- g. Press 60620-1 pins in 1-480305-0 connector (see Figure 1.).
- h. Install 45028-7 bracket and 1EN1-6B switch on right main landing gear yoke (see Figure 1.).
- i. Plug connector of 1EN1-6B switch into existing mating connector on aircraft.

NOTE

Dead-end, coil and stow three unused wires near connector.

- j. Install AN4-5A bolt and AN316-4R check nut on right main landing gear trunnion (see Figure 1.).
- k. Adjust squat switch as follows:
 1. Place jack under right wheel.
 2. Adjust switch, by raising or lowering gear with jack, so that switch actuates within 1/4-inch of full extension of gear.

NOTE

Measurement is taken at base of oleo strut.

3. Remove jack from under wheel.

SERVICE LETTER NO. SL-112-11

- l. Functional test landing gear system to assure proper operation of squat switch.
- m. Remove jacks from aircraft.

SUPPLY DATA: Parts required to comply with this Service Letter may be purchased through your nearest Rockwell Commander Distributor. Reference this Service Letter, aircraft model and factory serial number when ordering the following parts:

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	45028-7	Bracket	
1 ea.	1EN1-6B	Switch	4023500
1 ea.	1-480305-0	Connector	0062301
3 ea.	60620-1	Pin	0062342
1 ea.	AN316-4R	Nut	0355000
1 ea.	AN4-5A	Bolt	0505000
2 ea.	AN526-632-14	Screw	0056710
2 ea.	AN960-6	Washer	1539000
2 ea.	MS21083N06	Nut	2718684
4 ft.	No. 5	Vinyl Tubing	3796960
4 ft.	SWP-1/4	Spiral Wrap	3690054
1 ea.	No. SL-112-11	Service Letter	

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows:
 Service Letter No. SL-112-11, dated November 25, 1974, entitled "Landing Gear Squat Switch Installation",
 accomplished (date).

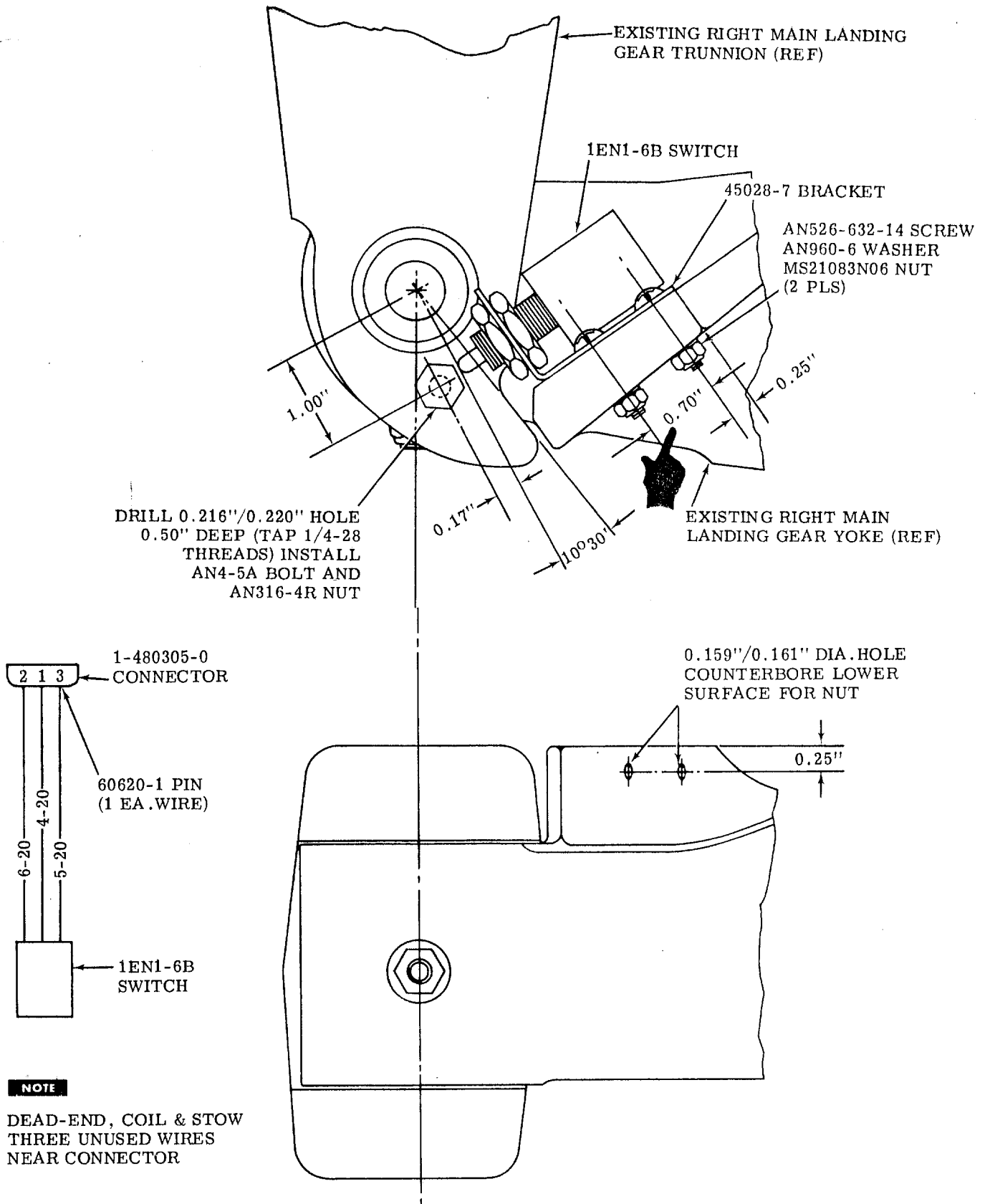


Figure 1.

Service Letter



General Aviation Division
Rockwell International

Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-12

DATE: January 17, 1975

EFFECTIVITY: MODEL 112, SERIAL NO'S 3, 8, AND 10 THRU 225.

SUBJECT: RIVET REPLACEMENT.

RECOMMENDED COMPLIANCE: DURING NEXT 100 HOUR INSPECTION OR NEXT ANNUAL INSPECTION, WHICHEVER OCCURS FIRST.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT GENERAL AVIATION DIVISION, ROCKWELL INTERNATIONAL, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

APPROVAL: FAA DER Approved.

PURPOSE: To prevent fuselage skins from cracking.

INSTRUCTIONS:

- a. Remove four (4) existing left outboard rivets from lower fuselage skin in area shown in Figure 1.
- b. Install CR2249-5-2 rivet, CR2249-5-3 rivet (2 places) and CR2249-5-4 rivet (see Figure 1.).
- c. Locate, drill and install one (1) CR2249-5-2 rivet midspaced between fourth and fifth rivet (see Figure 1.).
- d. Locate, drill and install CR2249-4-2 rivet (2 places) midspaced between fifth and sixth rivet and sixth and seventh rivet (see Figure 1.).
- e. Fill out and mail Compliance Card.

SUPPLY DATA:

NOTE

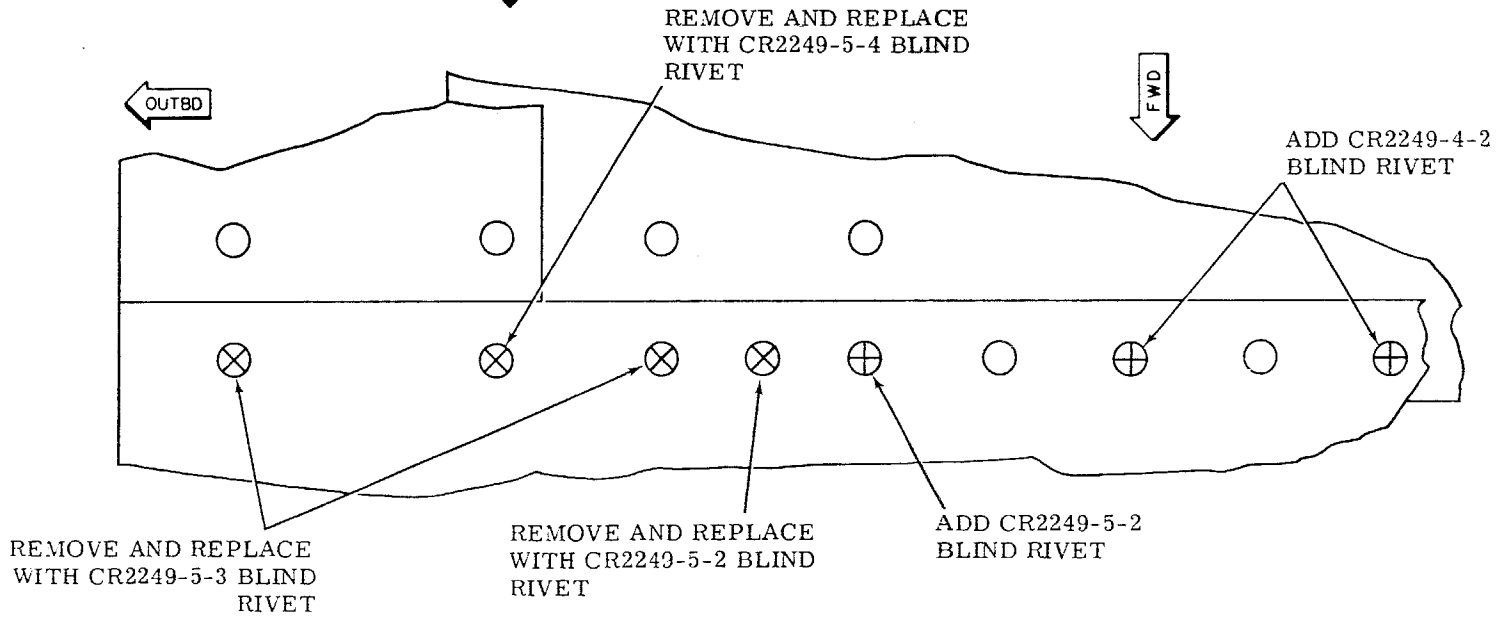
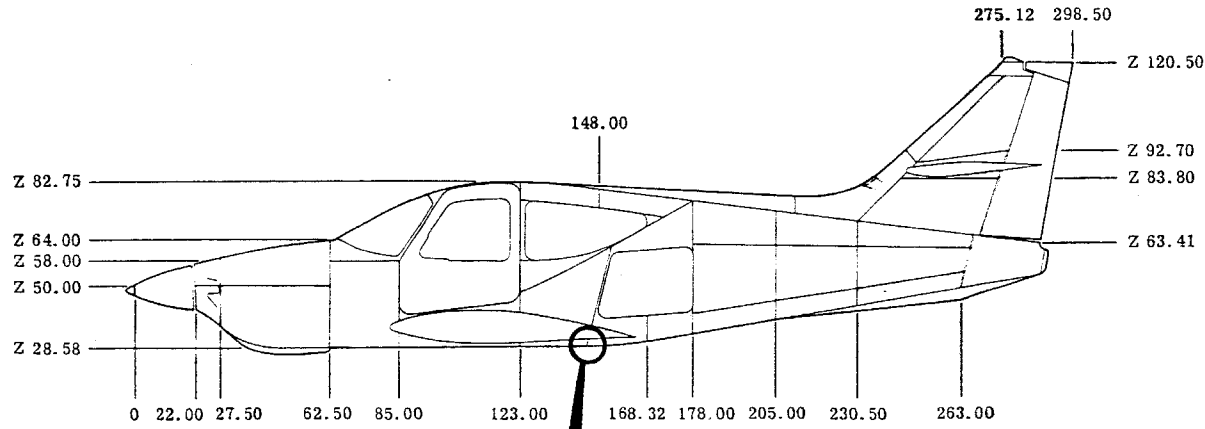
Blind rivets may be purchased locally.

1 ea.	No. SL-112-12	Service Letter
1 ea.		Compliance Card

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft permanent maintenance records as follows:
Service Letter No. SL-112-12, dated January 17, 1975, entitled "Rivet Replacement", accomplished (date) .



VIEW LOOKING UP AT BOTTOM OF AIRCRAFT

Figure 1.

Service Letter



General Aviation Division
Rockwell International
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-13
Revision No. 1

DATE: JUNE 17, 1975

EFFECTIVITY: MODEL 112, SERIAL NO'S. 6 THRU 220.

SUBJECT: NOISE IN ADF AUDIO.

RECOMMENDED COMPLIANCE: AT OWNER'S DISCRETION

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT GENERAL AVIATION DIVISION, ROCKWELL INTERNATIONAL, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

APPROVAL: FAA DER Approved.

PURPOSE: To provide a capacitor to reduce noise in ADF audio.

INSTRUCTIONS:

- a. Cut slots in 43025-1 bracket (see Figure 1.).
- b. Install CGS292U 050BD1 capacitor on 43025-1 bracket with two (2) MS21919DG22 clamps (see Figure 1.).
- c. Install wire leads and MS25171-1S nipple (2 pls) on CGS292U 050BD1 capacitor (see Figure 1.).
- d. Loosen nuts on left and right cabin heat control cables and right defroster control cable and install items assembled in step b. and c. and retighten nuts (see Figure 1.).
- e. Connect capacitor to aircraft electrical system as shown in Figure 1.

SUPPLY DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter SL-112-13 kit consisting of the following parts:

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	43025-1	Bracket	
2 ea.	AN960D10	Washer	1555000
1 ea.	CGS292U 050BD1	Capacitor	1859016
3 ft.	M5086/1-18-9	Wire	3844850
2 ea.	MS21044N3	Nut	2719213
2 ea.	MS21919DG22	Clamp	2734000
1 ea.	MS25036-102	Terminal	2748902
3 ea.	MS25036-103	Terminal	2748903
2 ea.	MS25171-1S	Nipple	2758000
2 ea.	MS27039-1-10	Screw	2759267
1 ea.	No. SL-112-13	Service Letter	

ELECTRICAL LOAD: Not Applicable.

WEIGHT AND BALANCE DATA: Not Applicable.

AIRCRAFT RECORDS: Make appropriate entry in aircraft maintenance records as follows: Service Letter No. SL-112-13, dated May 19, 1975, entitled "Noise in ADF Audio", accomplished _____ (date) _____.

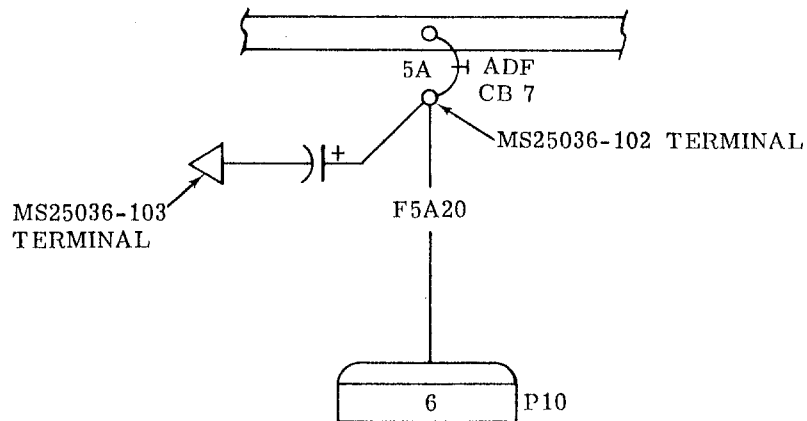
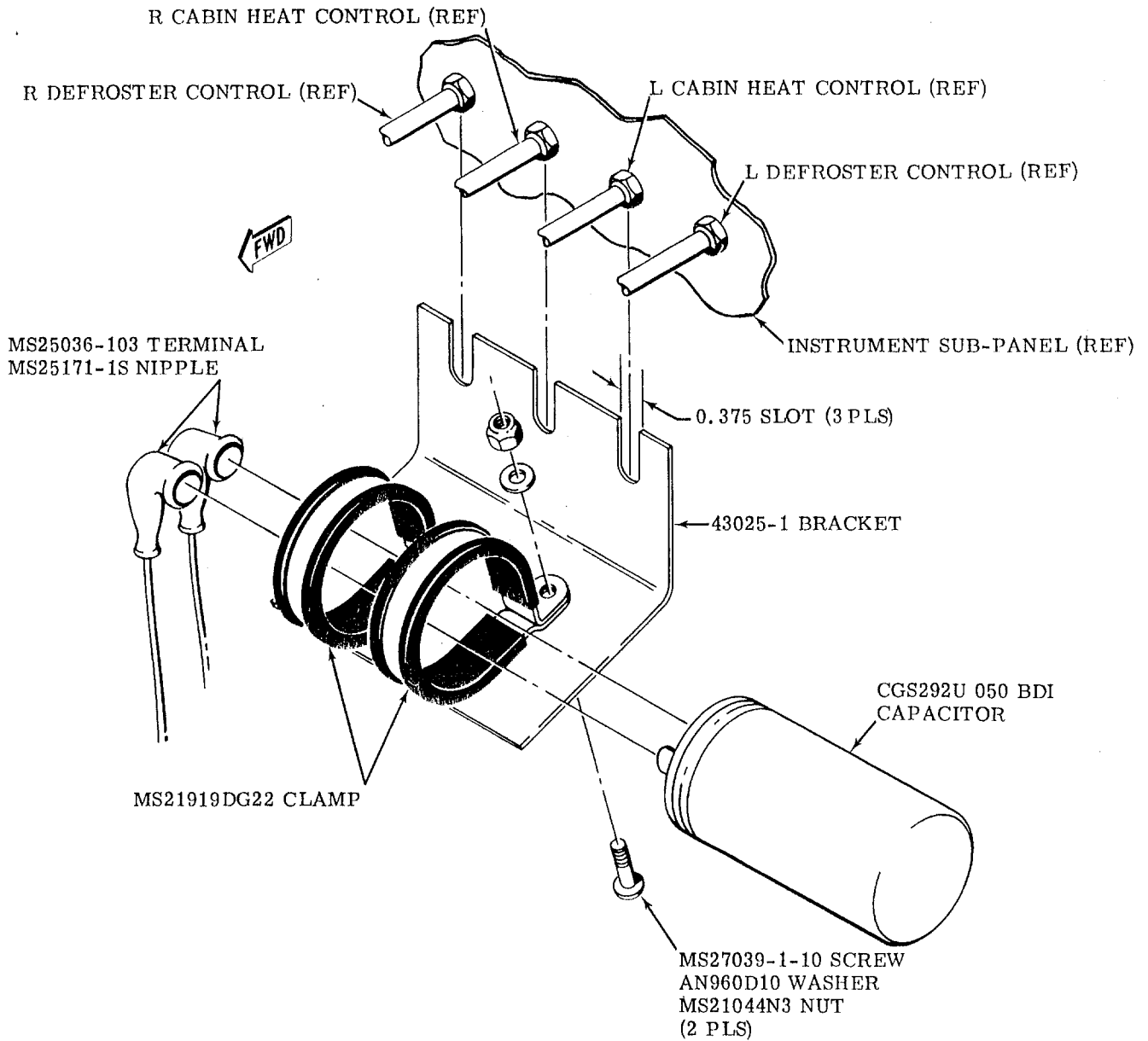


Figure 1.



SERVICE LETTER NO. SL-112-14
11 September 1975

DOOR POST DOUBLER MODIFICATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 226 THRU 303.

REASON FOR PUBLICATION: TO REINFORCE DOOR POST DOUBLER.

COMPLIANCE: DURING NEXT ANNUAL INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DER Approved.

ESTIMATED MAN HOURS: THREE (3) HOURS.

PARTS DATA: FABRICATE LOCALLY.

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove left and right sunvisors and door post upholstery to gain access to sunvisor brackets (see Figure 1.).
2. Fabricate two (2) strap doublers, 0.70-inch wide, from 0.040 2024-T3 aluminum.

NOTE

Length is shown in Figure 1. Doubler to extend two (2) rivets above and below trimmed area (around sunvisor bracket) on door post doubler picking up two (2) rivets through upholstery clip on door post.

3. Drill out existing rivets in area shown in Figure 1., and install fabricated doublers on existing left and right door post doublers using MS20470AD4 rivets.
4. Reinstall door post upholstery and sunvisors.

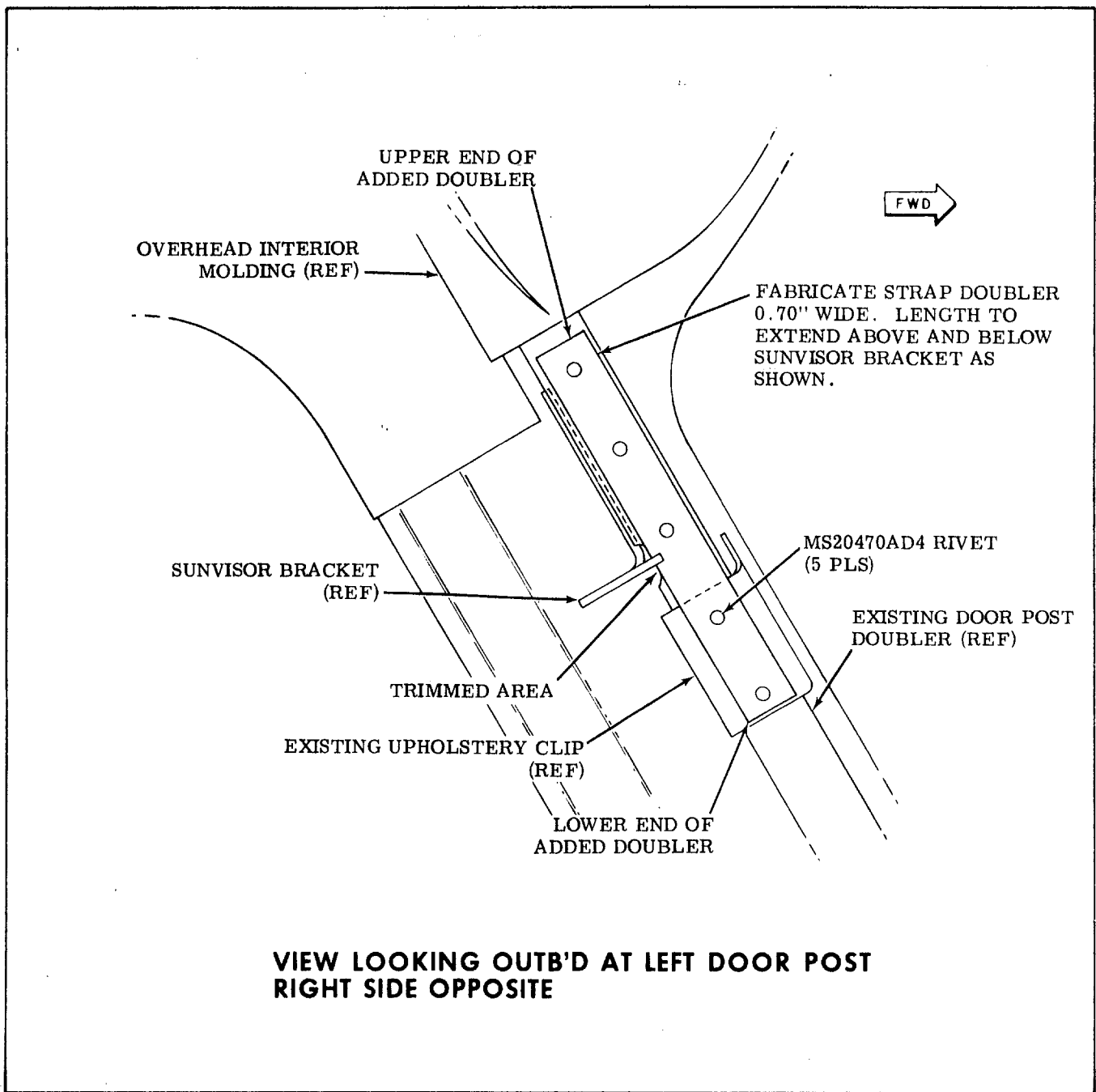


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-14, dated 11 September 1975, entitled "Door Post Doubler Modification", accomplished _____ (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-15
11 September 1975

PITOT HEAD ASSEMBLY MODIFICATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 350.

REASON FOR PUBLICATION: TO REPLACE AIRSPEED PLASTIC HOSE WITH ALUMINUM TUBING ON PITOT HEAD ASSEMBLY TO PREVENT OVERHEATING.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DER Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for \$ 5.84. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-15 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	48611-5	Tube	--
1 ea.	262-P-1/4	Union	5274590
1 ea.	68F 1/4 X 1/8	Connector	7205990
1 ea.	Service Letter No. SL-112-15	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove screws attaching pitot head assembly access cover to wing and pull down on pitot head assembly.
2. Disconnect plastic hose from pitot head assembly.
3. Remove and discard existing connector from pitot head assembly.
4. Cut off seven (7) inches from end of existing plastic hose.
5. Install 48611-5 tube on pitot head assembly using 68F 1/4 X 1/8 connector (see Figure 1.).
6. Connect 48611-5 tube to existing plastic hose using 262-P-1/4 union (see Figure 1.).
7. Reinstall pitot head assembly and access cover on wing.
8. Perform leakage test as outlined in the Model 112 Airplane Maintenance Manual, Section VIII.

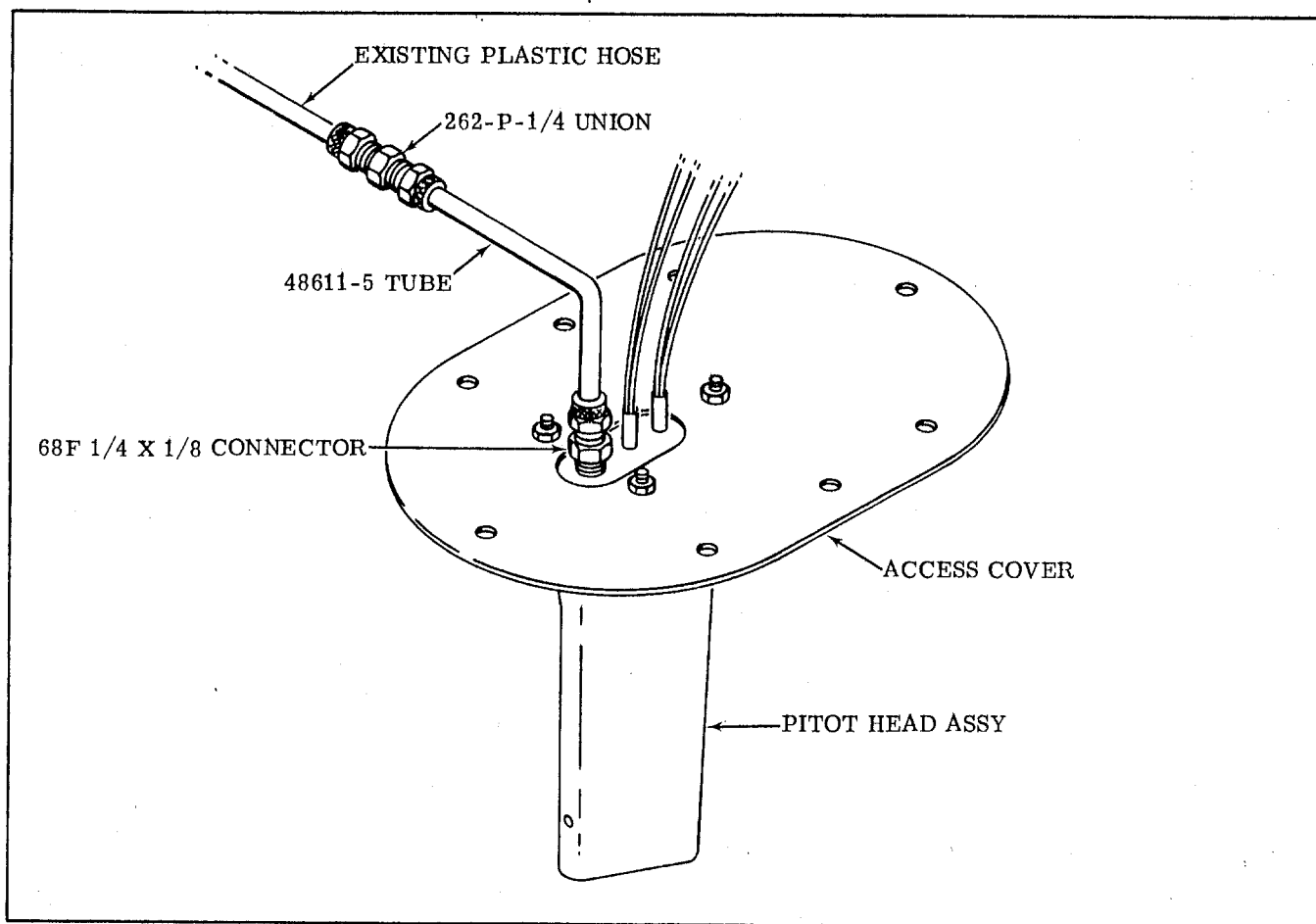


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-15, dated 11 September 1975, entitled "Pitot Head Assembly Modification", accomplished (date).

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-16A
(Supersedes Service Letter No. SL-112-16)
10 March 1977

IMPROVED FUEL DRAIN VALVE INSTALLATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 380.

NOTE

If basic Service Letter No. SL-112-16 has been complied with, disregard this Service Letter.

REASON FOR PUBLICATION: PROVIDE A FULLY SEALED DRAIN VALVE TO LESSEN THE POSSIBILITY OF FUEL LEAKAGE.

COMPLIANCE: AT OWNER'S DISCRETION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: FOUR (4) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit for \$40.37 from your nearest Rockwell Commander Distributor. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-16A kit consisting of the following:

Price subject to change without notice

QTY	PART NO.	DESCRIPTION	CODE NO.
2 ea.	971DK	Drain Valve Kit	7903060
	EACH KIT CONSISTS OF:		
	1 856B	Nut	
	1 971D	Drain Valve	
	1 1006C	Retainer	
	1 MS29513-020	O-Ring	
1 pt.	PRC-1321, Class B	Sealant	0045692
1 ea.	PRC-1422, Class A	Sealant (1/2 pt.)	0045694
1 ea.	F391	Sampler Drain Cup	2289150
1 ea.	Service Letter No. SL-112-16A	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Defuel aircraft as follows:

WARNING

Gasoline fumes are present during defueling operation; therefore, extreme caution must be exercised to prevent fire hazards. Smoking on or around the aircraft is not permitted during defueling procedure. Fire protection equipment must be immediately available.

SERVICE LETTER NO. SL-112-16A

- a. Place aircraft on level surface.
 - b. Ground aircraft and ground any defueling equipment to aircraft.
 - c. Remove engine cowling.
 - d. Disconnect fuel inlet supply line to engine-driven fuel pump.
 - e. Connect defueling hose to fuel inlet supply line and place end of hose in fuel container. Size of container is determined by amount of fuel to be drained.
 - f. Remove fuel tanks filler caps.
 - g. Place fuel selector valve to BOTH.
 - h. Place master battery switch to ON, or attach an auxiliary power unit to the aircraft.
 - i. Place auxiliary fuel pump switch to FUEL PUMP.
 - j. Place auxiliary fuel pump switch to OFF when fuel stops pumping.
 - k. Drain residual fuel from all drains.
 1. Remove drain hose, reconnect fuel inlet supply line to engine-driven fuel pump and torque "B" nuts to 100 inch-pounds.
2. Remove lower wing access covers as necessary to facilitate removal of lower wing fuel drains located at WS 83.34.
 3. Remove and discard existing left and right lower wing fuel drains, located at WS 83.34.
 4. Using 1006C valve retainer as a template, locate and drill two (2) No. 30 holes in left and right lower wing skins for installation of drain valve kit (see Figure 1.).
 5. Thoroughly clean all surfaces, to which sealing compound is to be applied, around fuel valve retainer with methyl ethyl ketone (MEK) using clean paper towels or small paint brush and wipe clean.

NOTE

Clean an area longer and wider than the width of the finally applied sealant to provide maximum bonding.

6. Install 1006C valve retainer. Apply 1422, Class A sealant to rivets upon installation.

NOTE

Sealant must extrude evenly around the rivets.

7. Brush rivets with 1422, Class A sealant to form a fillet after installation.
8. Install 971D drain valve, MS29513-020 O-ring and 856B nut. Torque nut 480 to 690 inch-pounds (see Figure 1.).
9. Reinstall and reseal lower wing access cover(s) using PRC-1321 Class B sealant, as outlined in the Model 112 Airplane Maintenance Manual, Section V.
10. Inspect and pressure check the tanks after sealing compound has cured (approximately 8 to 10 hours) and check for possible leaks.

CAUTION

Do not attempt to apply pressure to the tanks without first sealing off all lines and vents, and without an adequate regulator to control pressure. Do not pressurize the tank in excess of 1/2 psi (13.8 inches of water-manometer) or damage may occur.

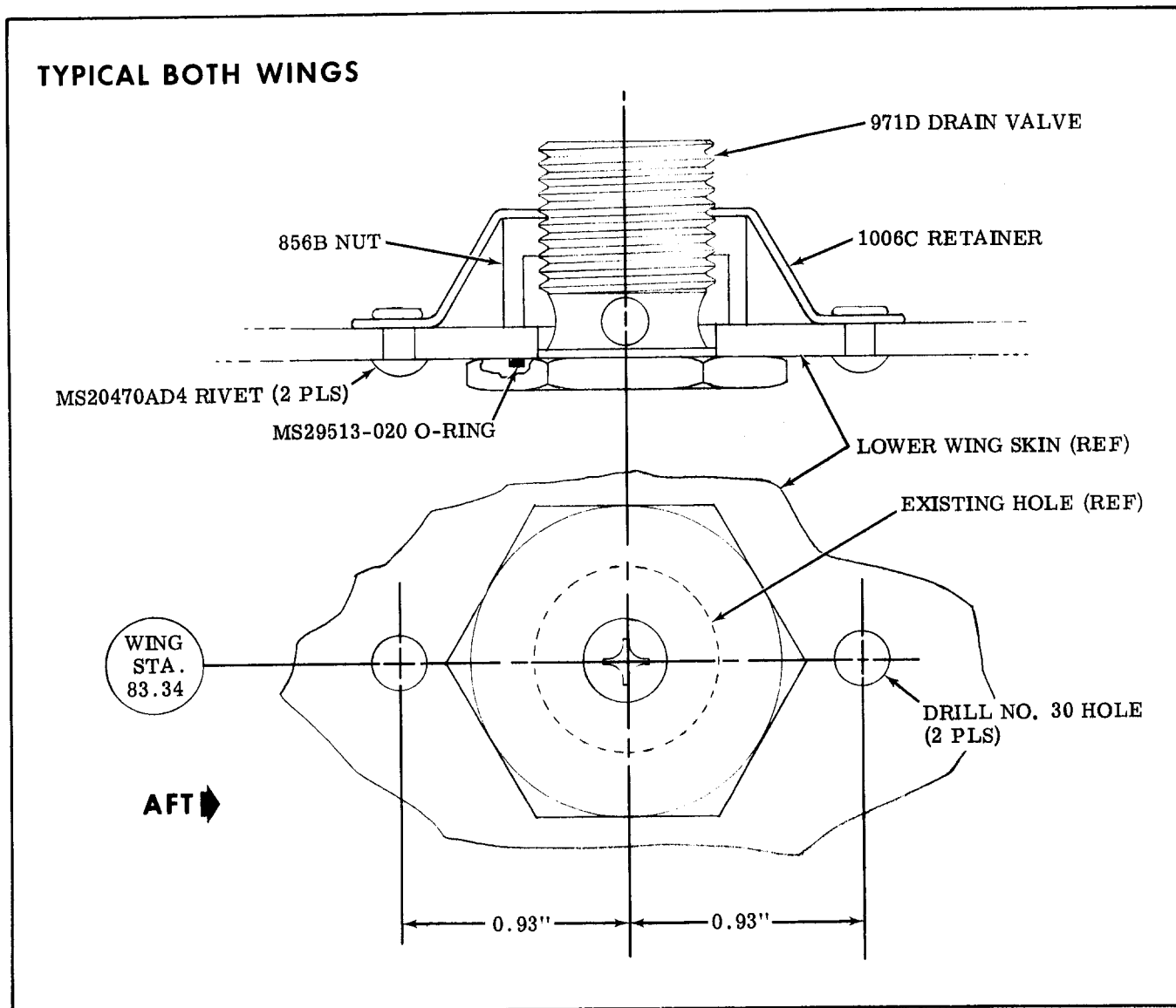


Figure 1.

11. Refuel airplane as outlined in the Model 112 Airplane Maintenance Manual, Section II.
12. Functional test fuel drain valves to assure proper operation.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The changes required by this document have been incorporated in the Illustrated Parts Catalog.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-16A, dated 10 March 1977, entitled "Improved Fuel Drain Valve Installation", accomplished (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-17
9 October 1975

FUEL PUMP WIRING SUPPORT

MODELS AFFECTED: MODEL 112, SERIAL NO'S 4 THRU 354.

REASON FOR PUBLICATION: SECURE FUEL PUMP ELECTRICAL LEAD TO PRECLUDE DAMAGE TO LEAD DUE TO EXCESSIVE MOVEMENT.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DER Approved.

ESTIMATED MAN HOURS: THIRTY (30) MINUTES.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for: Kit No. 1 \$.46, Kit No. 2 \$.35 . Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-17, kit consisting of the following:

NOTE

Price subject to change without notice.

KIT NO.		AIRPLANE EFFECTIVITY		
	1	Serial No's. 4 thru 187.		
	2	Serial No's. 188 thru 354.		
Kit 1 QTY	Kit 2 QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	1 ea.	MS21919DG2	Clamp	2731500
4 ea.	4 ea.	MS3367-1-9	Ty-rap	2894125
1 ea.	-	MS27039-1-08	Screw	2759266
1 ea.	-	MS20365-1032C	Nut	2705090
2 ft.	2 ft.	#5 (MIL-I-7444B)	Vinyl Sleeving	3797000
1 ea.	1 ea.	Service Letter No. SL-112-17 Instructions		

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Assure that master switch is OFF.
2. Remove upper engine cowl.
3. Remove plug from fuel pump wire lead and install #5 vinyl sleeving on wire and reinstall plug.
4. On airplane serial numbers 4 thru 187, drill a 0.199"/0.204" diameter hole in firewall and clamp fuel pump wire to firewall using MS21919DG2 clamp, MS27039-1-08 screw and MS20365-1032C nut and secure wiring using MS3367-1-9 ty-raps as required.

NOTE

Hole location optional

5. On airplane serial numbers 188 thru 354, clamp fuel pump wire to firewall with MS21919DG2 clamp using existing hardware and secure wiring using MS3367-1-9 ty-raps as required (see Figure 1.).
6. Reinstall upper engine cowl.

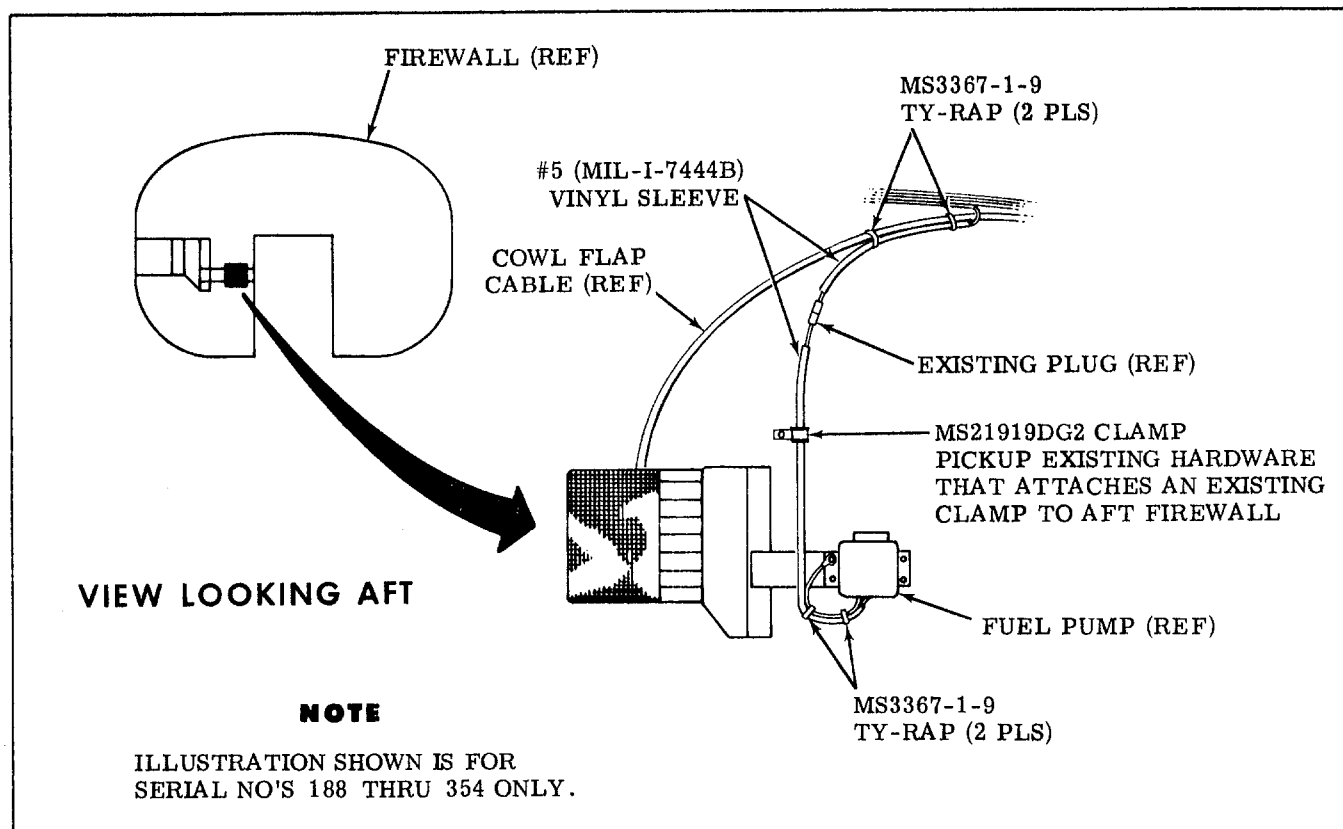


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-17, dated 9 October 1975, entitled "Fuel Pump Wiring Support", accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-18
28 October 1975

ENGINE MANIFOLD PRESSURE TUBE MODIFICATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 380.

REASON FOR PUBLICATION: ADD BEAD TO END OF ENGINE MANIFOLD PRESSURE TUBE FOR IMPROVED HOSE RETENTION.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DER Approved.

ESTIMATED MAN HOURS: ONE (1) HOUR.

PARTS DATA: NONE.

SPECIAL TOOLS: TUBE BEADING TOOL.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove upper engine cowling.
2. Disconnect manifold pressure gage hose from tube assembly mounted on engine.
3. Remove manifold pressure tube from engine.
4. Bead end of manifold pressure tube (see Figure 1.).
5. Reinstall modified manifold pressure tube on engine and reconnect manifold pressure gage hose using existing clamp.
6. Reinstall upper engine cowling.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NO CHANGE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows:
Service Letter No. SL-112-18, dated 28 October 1975, entitled "Engine Manifold Pressure Tube Modification",
accomplished _____ (date)

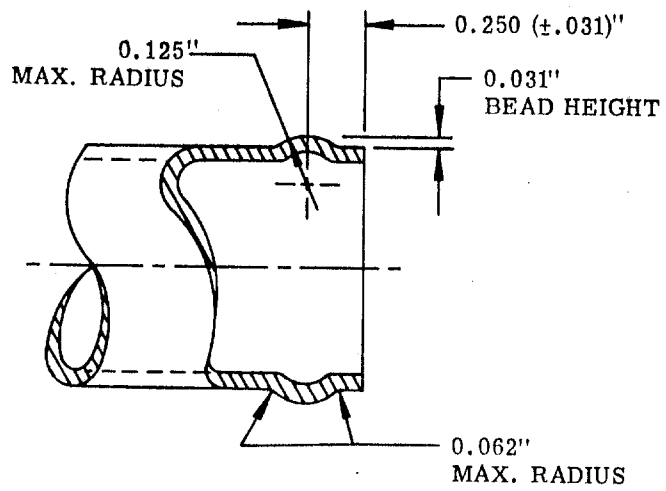
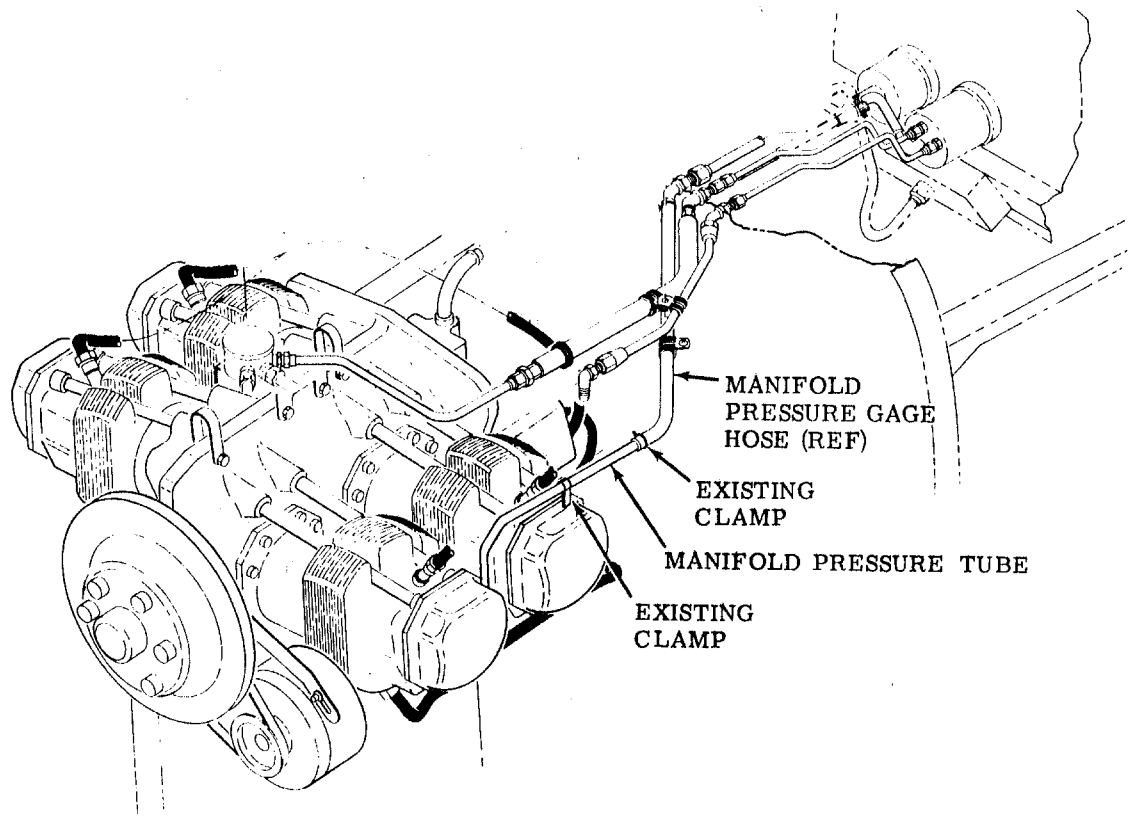


Figure 1.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-19
Revision No. 1
19 December 1975

STATIC SUMP DRAIN

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 437

REASON FOR PUBLICATION: PROVIDE A SUMP DRAIN FOR PITOT STATIC SYSTEM.

COMPLIANCE: WITHIN NEXT 50-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DER Approved.

ESTIMATED MAN HOURS: THREE (3) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for \$4.08 (J). Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-19 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	48601-7	Tube	
1 ea.	264N 1/4	Tee	0059444
1 ea.	Service Letter No. SL-112-19	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove interior console cover.
2. Remove knobs from control levers.
3. Remove quadrant plate to gain access to static source selector valve.
4. Remove and discard existing elbow from static source selector valve (see Figure 1.).
5. Install 264N 1/4 tee and 48601-7 tube on static source selector valve and reconnect existing tube (see Figure 1.).

6. Perform leakage test as outlined in the Model 112 Airplane Maintenance Manual, Section VIII.
7. Reinstall quadrant plate, control lever knobs and interior console cover.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Flight Manual, Maintenance Manual and Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change revision.

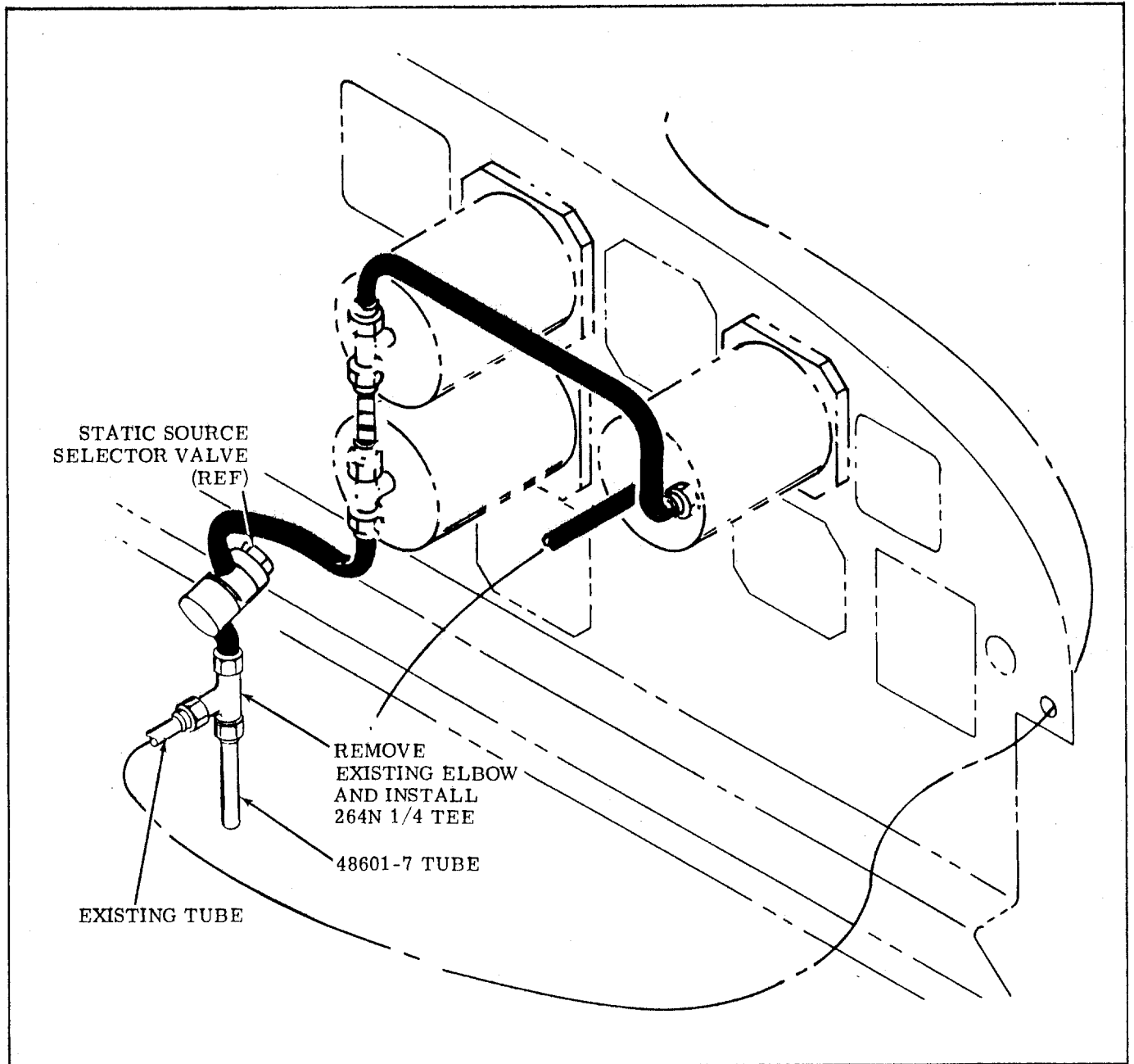


Figure 1.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-19, dated 3 December 1975, entitled "Static Sump Drain", accomplished _____ (date)

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-21
7 January 1976

MAIN LANDING GEAR TRUNNION LUG MODIFICATION AND/OR RETRACT CYLINDER ATTACH BOLT REPLACEMENT

MODELS AFFECTED: PART I - MODEL 112, SERIAL NO'S 3 THRU 294.
PART II - MODEL 112, SERIAL NO'S 295 THRU 380.

REASON FOR PUBLICATION: PROVIDE FLAT SURFACE TO ALLOW CONE SPACER TO SEAT PROPERLY ON TRUNNION LUG AND/OR REPLACE RETRACT CYLINDER ATTACH BOLT.

COMPLIANCE: DURING NEXT ANNUAL INSPECTION OR WITHIN NEXT 100-HOURS TIME IN SERVICE, WHICHEVER OCCURS FIRST.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT ROCKWELL INTERNATIONAL, GENERAL AVIATION DIVISION, CUSTOMER SERVICE DEPARTMENT, BETHANY, OKLAHOMA 73008.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: SPOTFACE TRUNNION LUG AND REPLACE RETRACT CYLINDER ATTACH BOLT - EIGHT (8) HOURS.
REPLACE RETRACT CYLINDER ATTACH BOLT ONLY - TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for \$ 3.66 (H). Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-21 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
2 ea.	MS20002C6	Washer	2706340
2 ea.	MS21250-06026	Bolt	2719681
1 ea.	Service Letter No. SL-112-21	Instructions	

SPECIAL TOOLS: AIRPLANE JACKS (3) AND 1.187"/1.250" DIAMETER SPOTFACE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I -

1. Jack airplane as outlined in the Model 112 Airplane Maintenance Manual, Section II.

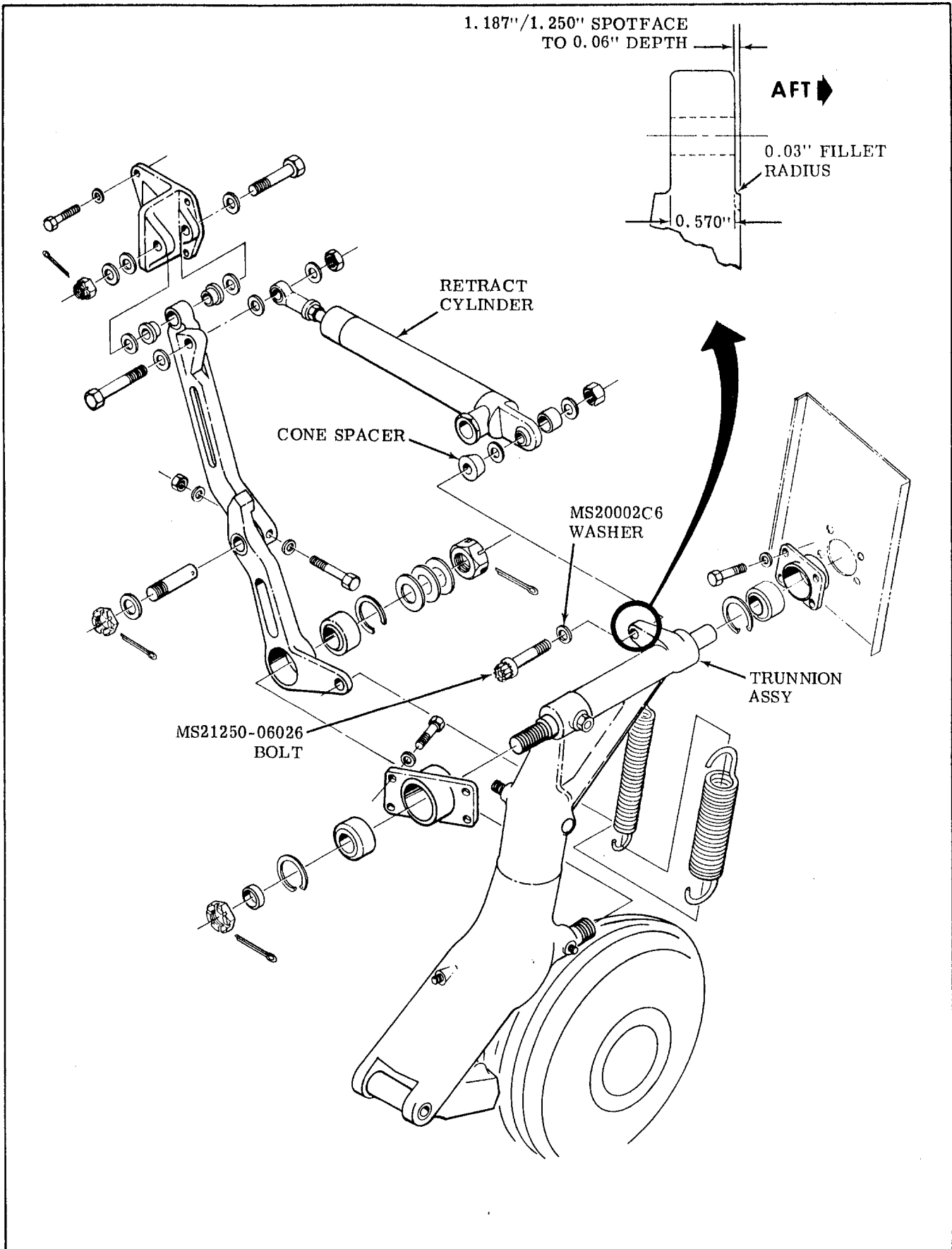


Figure 1.

SERVICE LETTER NO. SL-112-21

2. Remove and discard existing bolt and washer (under bolt head) that attaches outboard end of retract cylinder to lug on trunnion.
3. Spotface lug on left and right main landing gear trunnions to dimensions shown in Figure 1.

NOTE

Spotface must be perpendicular to hole. It may be necessary to remove landing gear assemblies from airplane to spotface lug.

4. Attach retract cylinder to lug on trunnion using MS21250-06026 bolt and MS20002C6 washer (under bolt head) (see Figure 1.).
5. Check operation of landing gear system as outlined in the Model 112 Airplane Maintenance Manual, Section VI.
6. Remove jacks from airplane.
7. Proceed to RECORD COMPLIANCE.

PART II -

1. Jack airplane as outlined in the Model 112 Airplane Maintenance Manual, Section II.
2. Remove and discard existing bolt and washer (under bolt head) that attaches outboard end of main landing gear retract cylinder to lug on main landing gear trunnion and install MS21250-06026 bolt and MS20002C6 washer (under bolt head) (see Figure 1.).
3. Remove jacks from airplane.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-21, dated 7 January 1976, entitled "Main Landing Gear Trunnion Lug Modification and/or Retract Cylinder Attach Bolt Replacement", accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-22
26 January 1976

NOSE LANDING GEAR STRUT MODIFICATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 4 THRU 380, 383, 384, 386 THRU 434.

REASON FOR PUBLICATION: ELIMINATE NOISE IN NOSE LANDING GEAR STRUT ASSEMBLY.

COMPLIANCE: AT OWNER'S DISCRETION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER. REFERENCE SERVICE INFORMATION NO. SI-123.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: FOUR (4) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-22 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION
AR *	45032-1 (\$7.34 (H) each)	Washer (Matl thickness is 0.032-inch)
AR *	45032-3 (\$6.71 (H) each)	Washer (Matl thickness is 0.016-inch)
1 ea.	Service Letter No. SL-112-22	Instructions

*Specify quantity when ordering parts.

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Jack airplane as outlined in Model 112 Airplane Maintenance Manual, Section IV.
2. With torque tube firmly against lower collar, check gap dimension between nose landing gear trunnion and torque tube. Gap should not be more than 0.020-inch or less than 0.005-inch (see Figure 1.).
3. If gap between nose gear trunnion and torque tube is less than 0.020-inch, proceed to step 14.

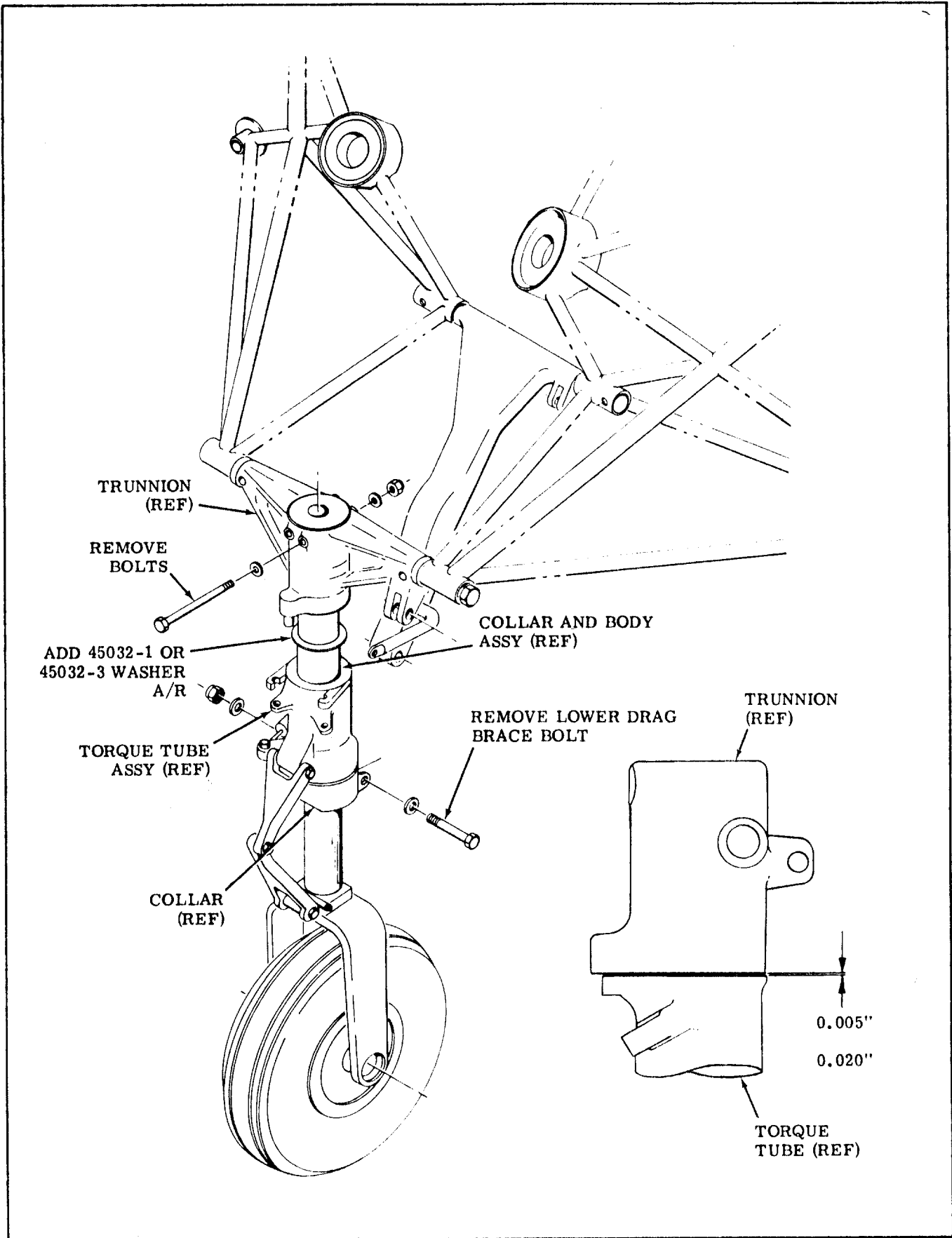


Figure 1.

SERVICE LETTER NO. SL-112-22

4. If gap between nose gear trunnion and torque tube is more than 0.020-inch proceed to step 5.
5. Disconnect nose gear steering cables and down springs.
6. Remove lower drag brace bolt at strut attach point.
7. Remove bolts attaching trunnion to body and collar assembly (see Figure 1.).
8. Remove nose gear strut assembly from trunnion assembly (see Figure 1.).

NOTE

It may be necessary to partially retract nose landing gear to remove strut assembly.

9. Install 45032-1 and/or 45032-3 washer as required to obtain clearance not less than 0.005-inch or more than 0.020-inch (see Figure 1.).
10. Reinstall strut assembly in trunnion assembly.
11. Reconnect drag brace to strut assembly.
12. Reconnect down springs and steering cables.
13. Functional test landing gear system to assure proper operation as outlined in the Model 112 Airplane Maintenance Manual, Section VI.
14. Remove airplane from jacks.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-22, dated 26 January 1976, entitled "Nose Landing Gear Strut Modification", accomplished (date).

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-23
25 February 1976

INTERNAL CORROSION PROTECTION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 126 THRU 378.

REASON FOR PUBLICATION: PROVIDE INTERNAL CORROSION PROTECTION FOR FLAP TORQUE TUBE, ELEVATOR HORN ASSEMBLY, ELEVATOR PUSH-ROD ASSEMBLY AND RUDDER HORN ASSEMBLY.

COMPLIANCE: DURING NEXT ANNUAL INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER. REFERENCE SERVICE INFORMATION NO. SI-123.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: THIRTEEN (13) HOURS.

PARTS DATA: The following material required to comply with this Service Letter may be purchased locally:

QTY	PART NO.	DESCRIPTION
1 ea.	Sprayon Products, Inc. Sprayon No. 710	Rust Preventative (15 oz. can with nozzle extension)

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove screws attaching fiberglass stinger to aft fuselage, disconnect tail navigation light wiring and remove stinger from airplane.
2. Remove aft baggage curtain from baggage compartment.
3. Relieve tension on rudder cables and disconnect cables from rudder.
4. Remove bolts from rudder hinges and remove rudder from airplane.
5. Disconnect elevator actuator rod.
6. Remove six (6) screws and two (2) bolts at the inboard end of elevator.
7. Remove elevator hinge bolts and remove elevators from airplane.
8. Remove bolt attaching elevator push-rod assembly to elevator horn assembly.
9. Remove bolts attaching elevator horn assembly to horizontal stabilizer and remove elevator horn assembly from airplane.
10. Spray interior of elevator push-rod assembly, elevator horn assembly and rudder horn assembly with Sprayon No. 710 (see Figure 1.).

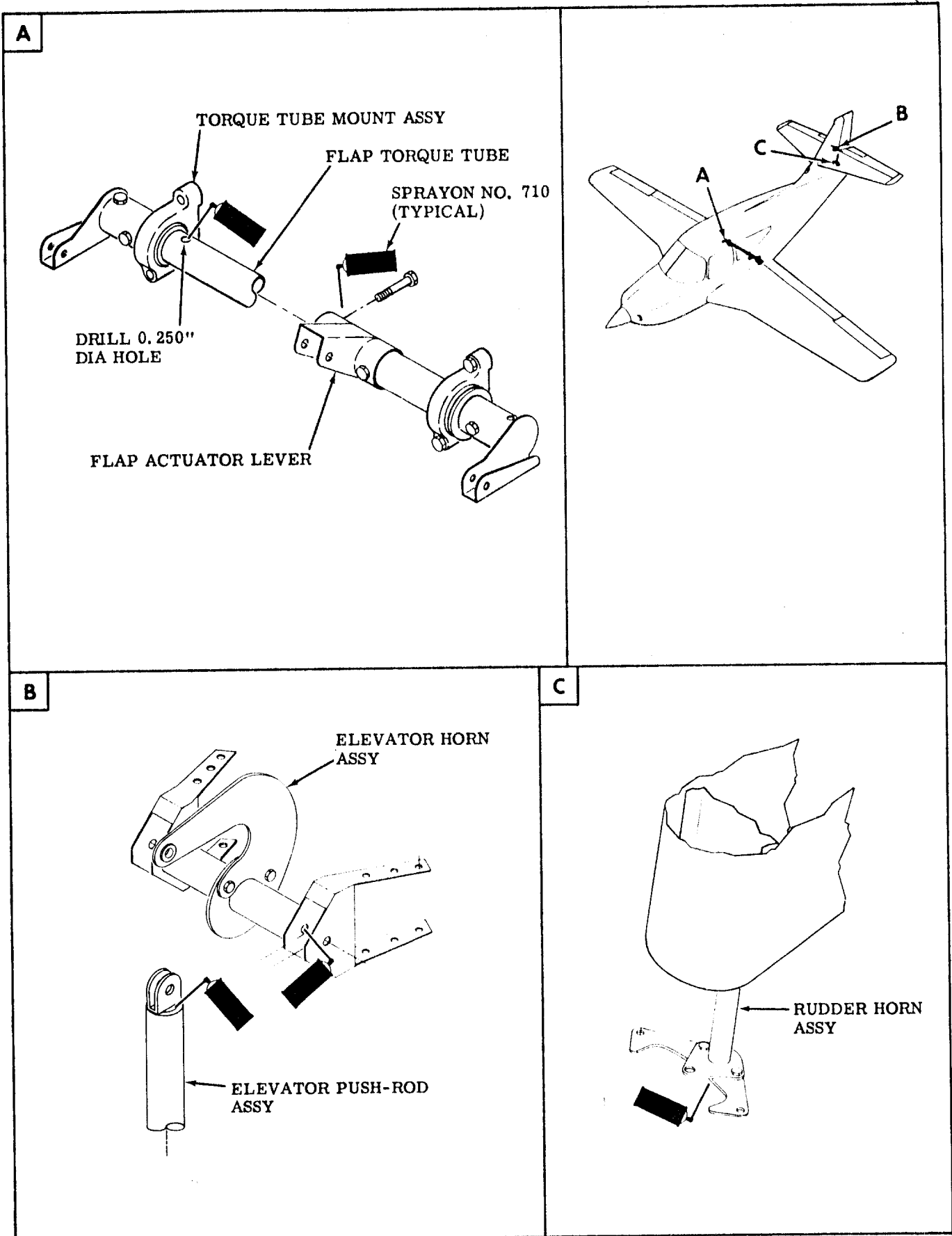


Figure 1.

SERVICE LETTER NO. SL-112-23

11. Reinstall elevator horn assembly on horizontal stabilizer and reconnect to elevator push-rod assembly using existing hardware.
12. Reinstall elevators on airplane and reconnect elevator actuator rod using existing hardware.
13. Reinstall rudder on airplane and reconnect cables using existing hardware.
14. Rig elevator and rudder control system as outlined in the Airplane Maintenance Manual, Section VII.
15. Reconnect tail navigation light wiring and reinstall stinger on airplane.
16. Remove rear seats and floorboard assembly as necessary to gain access to flap torque tube assembly.
17. Drill a 0.250-inch diameter hole in the top of the flap torque tube. Hole to be located just inboard of right torque tube mount assembly (see Figure 1.).
18. Remove inboard bolt from flap actuator lever (see Figure 1.).
19. Spray interior of flap torque tube with Sprayon No. 710 (see Figure 1.).
20. Reinstall bolt, removed in step 18., in flap actuator lever.
21. Reinstall floorboard assembly and rear seats.
22. Reinstall baggage curtain in baggage compartment.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-23, dated 25 February 1976, entitled "Internal Corrosion Protection", accomplished (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-24
23 April 1976

BAGGAGE RESTRAINT REPLACEMENT

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 380.

REASON FOR PUBLICATION: AN UNKNOWN NUMBER OF BAGGAGE RESTRAINTS WERE SEWN WITH IMPROPER THREAD. THIS SERVICE LETTER IS BEING ISSUED TO CORRECT THIS SITUATION.

COMPLIANCE: UPON RECEIPT OF THIS SERVICE LETTER AND REPLACEMENT BAGGAGE RESTRAINT.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: THIRTY (30) MINUTES.

PARTS DATA: Parts required to comply with this Service Letter may be purchased through your nearest Rockwell Commander Distributor for \$40.00 (H). Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-24 kit consisting of the following:

QTY	PART NO.	DESCRIPTION
1 ea.	49010-3	Baggage Restraint
1 ea.	Service Letter No. SL-112-24	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Gain access to baggage restraint, located in baggage compartment, through baggage compartment door.
2. Remove existing baggage restraint from airplane.
3. Install 49010-3 baggage restraint in airplane.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-24, dated 23 April 1976, entitled "Baggage Restraint Replacement", accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-25
13 April 1976

ALTERNATE STATIC SOURCE CORRECTION PLACARD REPLACEMENT

MODELS AFFECTED: MODEL 112, SERIAL NO'S 3 THRU 471.

REASON FOR PUBLICATION: PROVIDE AN ALTERNATE STATIC SOURCE CORRECTION PLACARD WITH COMPLETE INFORMATION. ADDITION OF MINUS SIGNS TO ALTITUDE CORRECTION COLUMN TO INDICATE THAT CORRECTION REDUCES INDICATED ALTITUDE.

COMPLIANCE: UPON RECEIPT OF PLACARD AND/OR THIS SERVICE LETTER.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: OWNER/OPERATOR.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: FIFTEEN (15) MINUTES.

PARTS DATA: Parts required to comply with this Service Letter for aircraft Serial Numbers 381 thru 471 only, may be ordered as a kit through your nearest Rockwell Commander Distributor on a no charge basis. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-25 kit consisting of the following:

QTY	PART NO.	DESCRIPTION
1 ea.	49307-181	Placard
1 ea.	Service Letter No. SL-112-25	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. On aircraft Serial Numbers 3 thru 380, proceed as follows:
 - a. Inspect the existing alternate static source correction card for minus signs in the Altitude Correction column. If there are no minus signs in the Altitude Correction column, add minus signs to indicate that the Altitude Correction is a reduction from the Indicated Altitude.
2. On Aircraft Serial Numbers 381 through 471, proceed as follows:
 - a. Remove and discard existing alternate static source correction placard located on the upper left side of instrument panel.

NOTE

It is acceptable to install new placard over existing placard.

- b. Install 49307-181 placard on instrument panel in area where existing alternate static source correction placard was installed.

SERVICE LETTER NO. SL-112-25

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows:
Service Letter No. SL-112-25, dated 13 April 1976, entitled "Alternate Static Source Correction Placard
Replacement" accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-28
2 September 1976

ELEVATOR TRIM TAB ACTUATOR SEAL INSTALLATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 381 THRU 475, AND MODEL 112TC, SERIAL NO'S 13000 THRU 13016.

REASON FOR PUBLICATION: PREVENT MOISTURE FROM ENTERING ELEVATOR TRIM TAB ACTUATOR.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION OR ANNUAL INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for \$19.37 (K). Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-28 kit consisting of the following:

QTY	PART NO.	DESCRIPTION	CODE NO.
2 ea.	565003-1	Bracket	
2 ea.	565004-1	Seal Retainer	
4 ea.	AN960PD10L	Washer	1584000
2 ea.	MS21044N3	Nut	2719213
2 ea.	MS27039-1-09	Screw	2759381
2 ea.	S-0310-910R	O-Ring	3707940
1 ea.	Service Letter No. SL-112-28	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Disconnect elevator trim tab push rod assembly from elevator trim tab actuator rod.
2. Remove elevator trim tab actuator access cover from elevator assembly.

NOTE

It may be necessary to remove elevator assembly to perform the following installation.

3. To assure that all moisture is removed from elevator trim tab actuator, apply heat to actuator with a heat gun.

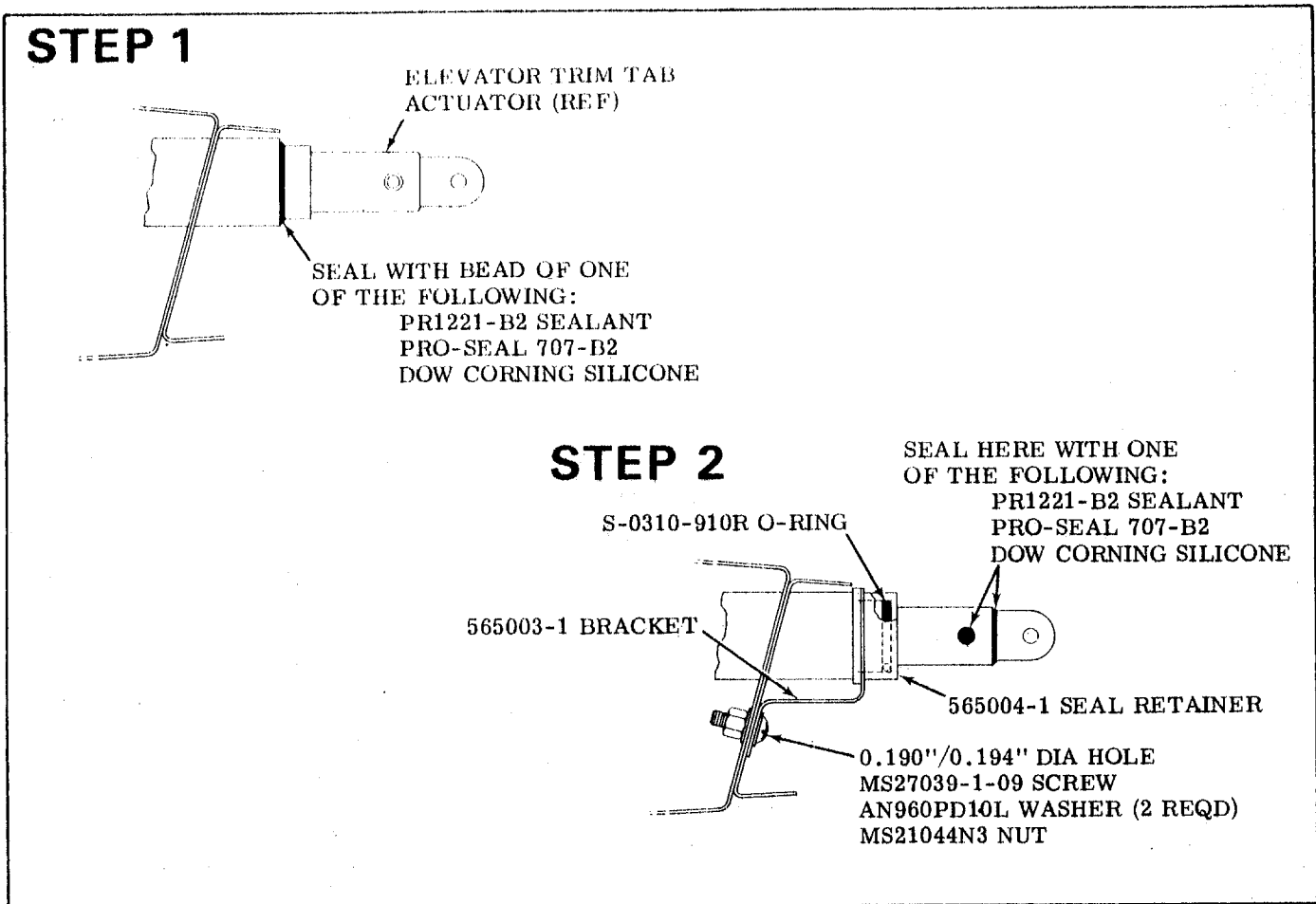


Figure 1.

4. Add a bead of PR1221-B2 sealant, or Pro-Seal 707-B2, or Dow Corning Silicone around elevator trim tab actuator as shown in Figure 1.
5. Install S-0310-910R O-ring, 565004-1 seal retainer and 565003-1 bracket on elevator trim tab actuator, drill a 0.192 (\pm 0.002) inch diameter hole through bracket and elevator spar and install MS27039-1-09 screw, AN960PD10L washer (2 places) and MS21044N3 nut (see Figure 1.).
6. Cover clevis joint and both ends of roll pin with either PR1221-B2 sealant, Pro-Seal 707-B2 or Dow Corning Silicone (see Figure 1.).

NOTE

Sealant must not come in contact with seal retainer when actuator is fully retracted.

7. Reconnect elevator trim tab push rod assembly to elevator trim tab actuator rod.
8. Reinstall elevator trim tab actuator access cover on elevator assembly.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-28, dated 2 September 1976, entitled "Elevator Trim Tab Actuator Seal Installation", accomplished _____ (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-29A
(Supersedes Service Letter No. SL-112-29, dated 3 September 1976, in its entirety.)
4 April 1980

EXHAUST STACK SUPPORT INSTALLATION

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S 13001 THRU 13108 AND MODEL 112TCA, SERIAL NO'S 13150 THRU 13195, 13250 THRU 13276 AND 13300 THRU 13309.

NOTE

IF BASIC SERVICE LETTER NO. SL-112-29 HAS NOT BEEN COMPLIED WITH, COMPLY WITH PART I OF THIS SERVICE LETTER.

IF THE EXHAUST STACK STRUT CLAMP IS THE TYPE OF CLAMP AS SHOWN IN DETAIL "A" OF FIGURE 1., COMPLY WITH PART I ONLY OF THIS SERVICE LETTER.

IF THE EXHAUST STACK STRUT CLAMP IS THE TYPE OF CLAMP AS SHOWN IN DETAIL "B" OF FIGURE 1., COMPLY WITH PART II ONLY OF THIS SERVICE LETTER.

REASON FOR PUBLICATION: IMPROVE EXHAUST STACK SUPPORT INSTALLATION.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER AUTHORIZED SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be procured through your nearest Rockwell Commander Authorized Service Facility for: Kit No. 1 - \$83.28 or Kit No. 2 - \$39.39. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-29A kit consisting of the following:

Price subject to change without notice

Kit No. 1 - Part I
Kit No. 2 - Part II

SERVICE LETTER NO. SL-112-29A

Kit No.1 QTY	Kit No.2 QTY	PART NO.	DESCRIPTION	CODE NO.
2 ea.	-	MS27975-4	Clevis	2759600
1 ea.	-	645006-43	Strut Assy	
1 ea.	-	645006-47	Strut Assy	
1 ea.	1 ea.	645006-59	Clamp Assy	
2 ea.	-	AN3C6A	Bolt	0300601
1 ea.	-	AN3C7A	Bolt	0050078
2 ea.	-	AN316-4R	Jam Nut	0355000
1 ea.	-	AN960C10	Washer	1518000
3 ea.	-	MS20500-1032	Nut	2709400
1 ea.	-	MS35333-40	Lockwasher	2894468
1 ea.	1 ea.		Compliance Card	
1 ea.	1 ea.	Service Letter No. SL-112-29A	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I - STRUT ASSEMBLY AND CLAMP ASSEMBLY REPLACEMENT.

1. Remove upper cowling from engine.
2. Remove and discard existing strut assemblies (645006-9, 645006-11 and 645006-51), existing clamp assembly (645006-3), existing clevises and attaching hardware.
3. Install 645006-59 clamp assembly on exhaust stack (see Figure 2.).
4. Install AN316-4R jam nut and MS27975-4 clevis on 645006-43 and 645006-47 strut assemblies.

NOTE

Do not tighten nut on strut assemblies.

5. Install 645006-43 strut assembly, 645006-47 strut assembly and MS35333-40 lockwasher (under nut on upper end of -47 strut assembly) on engine and temporarily connect to clamp assembly installed in step 3. (see Figure 2.).
6. Loosen exhaust stack clamp, position exhaust stack to center of cutout in engine cowling and adjust strut assemblies to secure exhaust outlet in the centered position in cutout with a minimum clearance of 0.50-inch and tighten exhaust stack clamp assembly and all nuts as required to relieve all possible installation pre-load.
7. Install upper cowling on engine.
8. Fill out and mail Compliance Card and specify that Part I has been accomplished.
9. Proceed to RECORD COMPLIANCE.

PART II - CLAMP ASSEMBLY REPLACEMENT.

1. Remove upper cowling from engine.
2. Remove and discard existing upper strut assembly from engine and retorque nuts on engine 50 to 70 inch-pounds (see Figure 2.).
3. Remove and discard existing clamp assembly from exhaust stack (see Figure 2.).
4. Install 645006-59 clamp assembly on exhaust stack and existing strut assemblies using existing hardware (see Figure 2.).

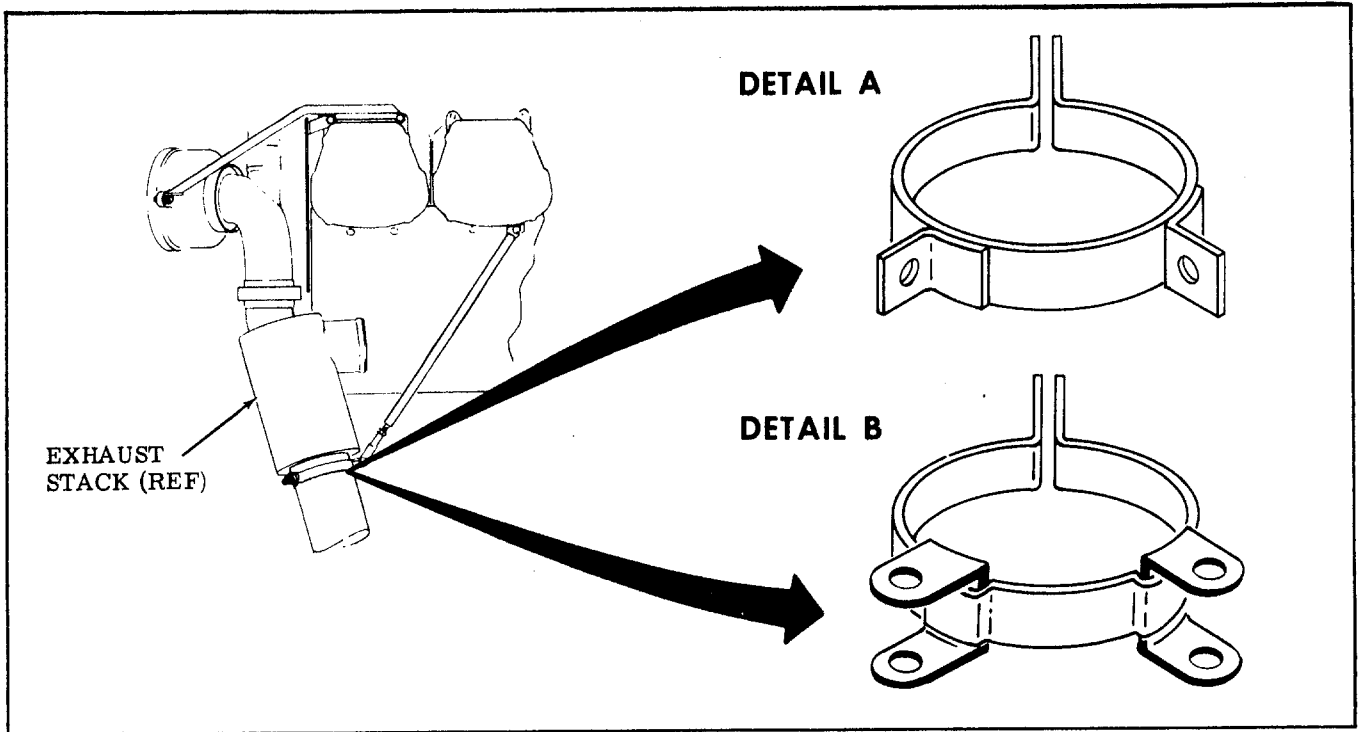


Figure 1.

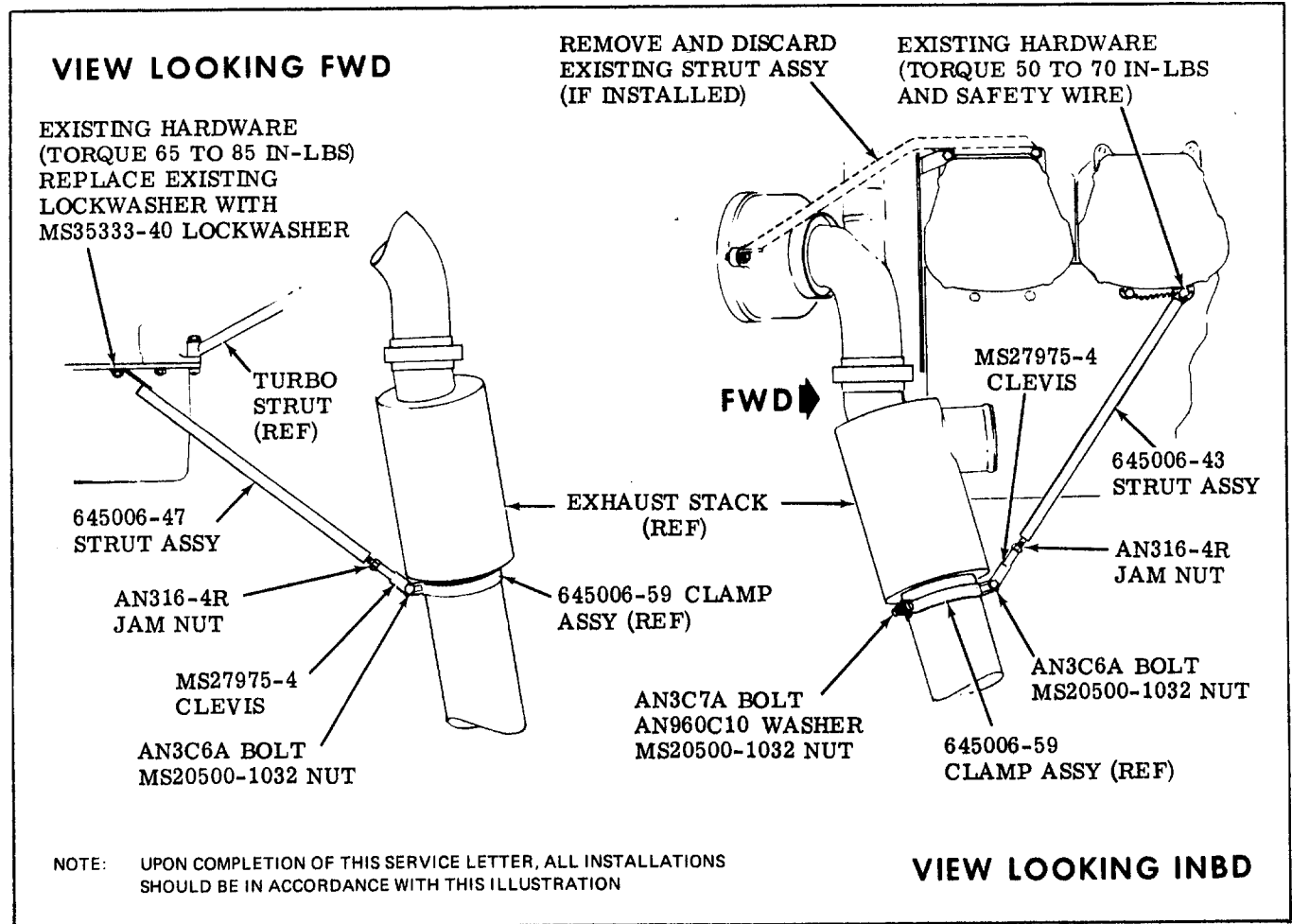


Figure 2.

SERVICE LETTER NO. SL-112-29A

5. Position exhaust stack to center of cutout in engine cowling and adjust strut assemblies, as necessary, to secure exhaust stack outlet in the centered position in cutout with a minimum clearance of 0.50-inch and tighten exhaust stack clamp assembly and all nuts as required to relieve all possible installation pre-load.
6. Install upper cowling on engine.
7. Fill out and mail Compliance Card and specify that Part II has been accomplished.
8. Proceed to RECORD COMPLIANCE.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-29A, dated 4 April 1980, entitled "Exhaust Stack Support Installation", Part I accomplished _____ (date), Part II accomplished _____ (date).

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-30
3 September 1976

FUEL PRESSURE SNUBBER INSTALLATION

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S. 13000 THRU 13091.
REASON FOR PUBLICATION: PREVENT FLUCTUATION OF FUEL PRESSURE GAGE.
COMPLIANCE: DURING NEXT 100-HOUR INSPECTION OR ANNUAL INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be obtained as a kit through your nearest Rockwell Commander Distributor at no charge. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-30 kit consisting of the following:

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea	12AHXX	Pressure Snubber	
1 ea.	615049-55	Tube Assy	
1 ea.	Service Letter No. SL-112-30	Instructions	4282990
1 ea.		Compliance Card	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove and discard existing fuel pressure line from engine firewall to manifold pressure/fuel pressure gage.
2. Remove existing elbow from pressure port of manifold pressure/fuel pressure gage.
3. Apply teflon tape to threads of 12AHXX pressure snubber and install snubber in pressure port of manifold pressure/fuel pressure gage (see Figure 1.).
4. Apply teflon tape to threads of existing elbow, removed in step 2., and install elbow and 615049-55 tube assembly (see Figure 1.).
5. Fill out and mail Compliance Card.

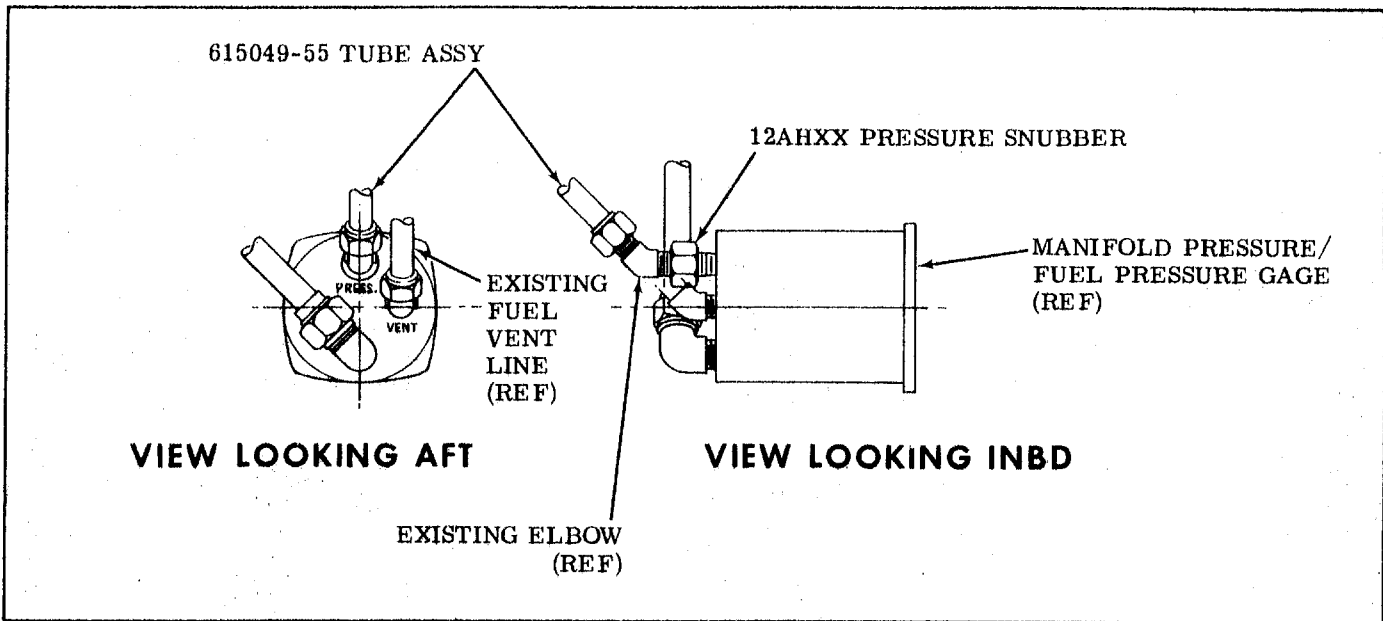


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-30, dated 3 September 1976, entitled "Fuel Pressure Snubber Installation", accomplished
(date)

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-31
24 September 1976

DEFROSTER VALVE COVER REPLACEMENT

MODELS AFFECTED: MODEL 112, SERIAL NO'S 381, 383, 384 AND 386 THRU 474.

REASON FOR PUBLICATION: DEFROSTER VALVE COVER ASSEMBLY MAY HAVE A DEFECTIVE WELD. THIS SERVICE LETTER IS BEING ISSUED TO CORRECT THIS SITUATION.

COMPLIANCE: WITHIN NEXT 25-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: ONE (1) HOUR.

PARTS DATA: Parts required to comply with this Service Letter may be purchased as a kit through your nearest Rockwell Commander Distributor for \$32.52 (A). Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-31 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	48072-501	Cover Assy	
1 ea.	700 (MIL-S-38249, Type I)	Sealant (1/2 pt can)	0045658
1 ea.	Service Letter No. SL-112-31	Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove upper engine cowling.
2. Disconnect flex ducts from defroster valve cover.
3. Remove and discard existing defroster valve cover assembly (see Figure 1.).
4. Install 48072-501 defroster valve cover assembly using existing hardware and seal around outer perimeter of cover assembly with Coast Pro-Seal 700, MIL-S-38249, Type I (see Figure 1.).
5. Reconnect existing flex ducts to new defroster valve cover assembly using existing clamps.
6. Reinstall upper engine cowling.

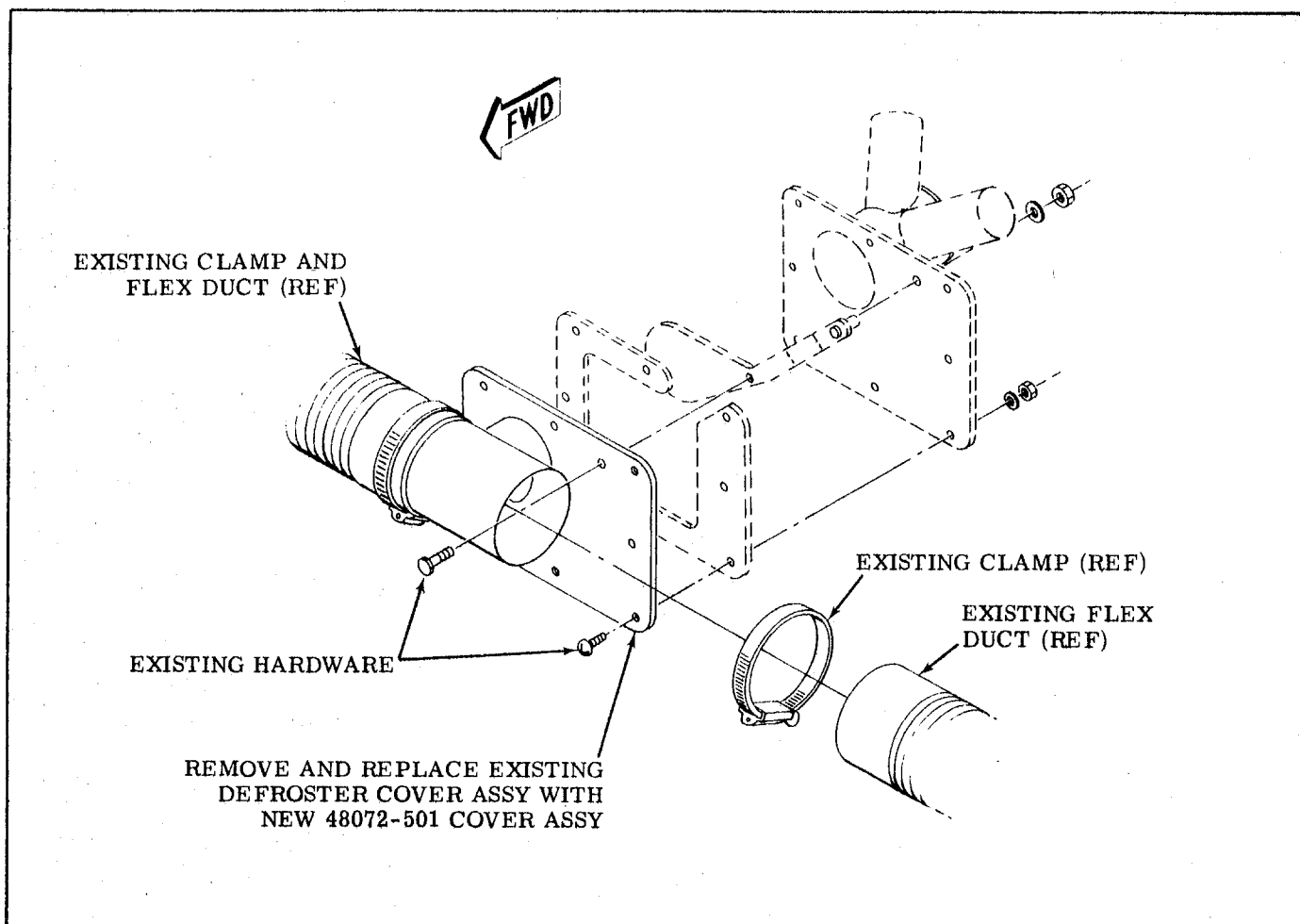


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-31, dated 24 September, 1976, entitled "Defroster Valve Cover Replacement", accomplished (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-32
21 October 1976

TAKEOFF AND LANDING CHECKLIST PLACARD INSTALLATION

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S 13000 THRU 13076 AND 13078 THRU 13149.

REASON FOR PUBLICATION: TO PROVIDE PLACARDS AS DEFINED IN THE MODEL 112TC PILOT'S OPERATING HANDBOOK.

COMPLIANCE: WITHIN 25-HOURS AFTER RECEIPT OF THIS SERVICE LETTER AND PLACARDS.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: OWNER/OPERATOR

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: FIVE (5) MINUTES.

PARTS DATA: Parts required to comply with this Service Letter are furnished at no charge by Rockwell International, General Aviation Division and consist of the following:

QTY	PART NO.	DESCRIPTION
1 ea.	49307-245	Placard
1 ea.	49307-247	Placard
1 ea.	Service Letter No. SL-112-32	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove and discard existing Takeoff and Landing Checklist placards installed below engine gage clusters.

NOTE

If removal of existing placards is difficult, place new placards over existing placards.

2. Install 49307-247 placard on instrument sub-panel below left engine gage cluster (voltmeter, ammeter and fuel quantity indicators).
3. Install 49307-245 placard on instrument sub-panel below right engine gage cluster (oil pressure, oil temperature, cylinder head temperature and rudder trim indicator).

SERVICE LETTER NO. SL-112-32

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-32, dated 21 October 1976, entitled "Takeoff and Landing Checklist Placard Installation", accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-34
4 November 1976

ANTI-COLLISION LIGHT RESISTOR INSTALLATION

MODELS AFFECTED: MODEL 112, SERIAL NO'S 381 THRU 484, AND MODEL 112TC, SERIAL NO'S 13000 THRU 13067.

NOTE

If airplane has optional lower flashing beacon installed, disregard this Service Letter.

REASON FOR PUBLICATION: POSSIBLE CONTINUOUS ILLUMINATION OF FLASHING BEACON WHEN AIRPLANE IS EQUIPPED WITH ONLY THE VERTICAL STABILIZER BEACON.

COMPLIANCE: DURING NEXT 25-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: ONE (1) HOUR.

PARTS DATA: Parts required to comply with this Service Letter may be purchased locally or may be purchased as a kit through your nearest Rockwell Commander Distributor for \$12.17. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-34 kit consisting of the following:

Price subject to change without notice

QTY	PART NO.	DESCRIPTION
2 ea.	0600E	Ohmite Resistor (100 Watt, 3 Ohm)
2 ea.	AN960D10	Washer
5 ft.	M5086/1-18-9	Wire
2 ea.	MS21044N3	Nut
1 ea.	MS25036-103	Terminal
2 ea.	MS35207-263	Screw
1 ea.	Service Letter No. SL-112-34	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Gain access to fuselage frame at Station 205.00 through baggage compartment door.

SERVICE LETTER NO. SL-112-34

2. Remove upper and lower center aft bulkhead panels from baggage compartment.
3. Disconnect battery from airplane electrical system.
4. Locate, drill and install 0600E Ohmite resistor (or equivalent 3 Ohm, 100 Watt resistor) on fuselage frame (see Figure 1.).
5. Connect resistors installed in Step 4. to airplane electrical system (see Figure 1.).
6. Reconnect battery to airplane electrical system.
7. Reinstall upper and lower center aft bulkhead panels in baggage compartment.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog and Airplane Maintenance Manual changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-34, dated 4 November 1976, entitled "Anti-collision Light Resistor Installation", accomplished _____ (date) _____.

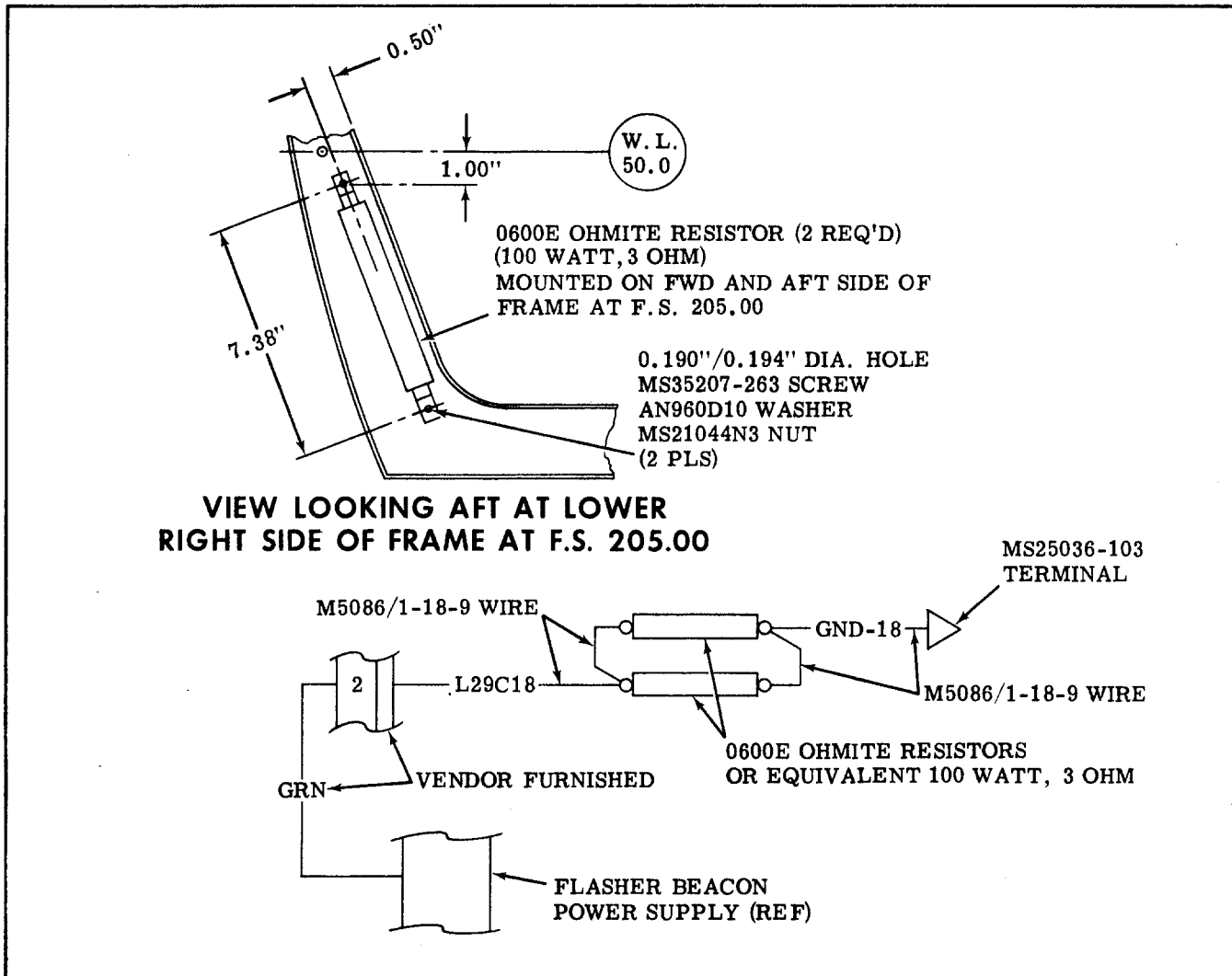


Figure 1.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-35
7 January 1977

CARBURETOR REPLACEMENT

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S 13000 THRU 13149.
REASON FOR PUBLICATION: PROVIDE AN IMPROVED CARBURETOR.
COMPLIANCE: AT OWNER'S DISCRETION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be ordered as a kit through your nearest Rockwell Commander Distributor for \$687.70 A. Carburetor P/N LW-15504 will be supplied on an exchange basis. A credit of \$687.70 A will be issued upon receipt of old carburetor P/N LW-14689, a properly executed Warranty Material/Labor Adjustment Request Form and a Compliance Card. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-35 kit consisting of the following:

NOTE

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	49307-99	Placard	
1 ea.	49307-103	Placard	
1 ea.	LW-15504	Carburetor	2564573
1 ea.	Service Letter No. SL-112-35	Compliance Card Instructions	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove existing carburetor from airplane as outlined in the Airplane Maintenance Manual, Section IV.
2. Install LW-15504 carburetor as outlined in the Airplane Maintenance Manual, Section IV.
3. Remove and discard existing Takeoff and Landing Checklist placards installed below engine gage clusters.
4. Install 49307-103 placard on instrument sub-panel below left engine gage cluster (voltmeter, ammeter and fuel quantity indicators).

SERVICE LETTER NO. SL-112-35

5. Install 49307-99 placard on instrument sub-panel below right engine gage cluster (oil pressure, oil temperature, cylinder head temperature and rudder trim indicator).
6. Verify Pilot's Operating Handbook Revision dated 7 January 1977 is inserted in Manual.
7. Verify proper operation of engine per Pilot's Operating Handbook as stated in Sections IV and X.
8. A Rockwell Distributor/Dealer must fill out a Warranty Material/Labor Request Form and the Compliance Card and return the old carburetor to Rockwell International, Bethany, Oklahoma, using the standard parts return procedure.

NOTE

A maximum of two (2) hours labor will be allowed provided that step 8. is accomplished.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-35, dated 7 January 1977, entitled "Carburetor Replacement", accomplished _____ (date) _____.

NOTE

When this Service Letter has been complied with, it is no longer necessary to comply with Rockwell International Service Letter No. SL-112-32.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-36
25 February 1977

IGNITION SWITCH BUS BAR REMOVAL

MODELS AFFECTED: MODELS 112TC and 112TCA, SERIAL NO'S 13000 THRU 13189.

REASON FOR PUBLICATION: TO PROVIDE EASIER ENGINE STARTING AND HELP PROLONG SERVICE LIFE OF STARTER.

COMPLIANCE: AT OWNER'S DISCRETION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER (REFERENCE SERVICE INFORMATION NO. SI-123).

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

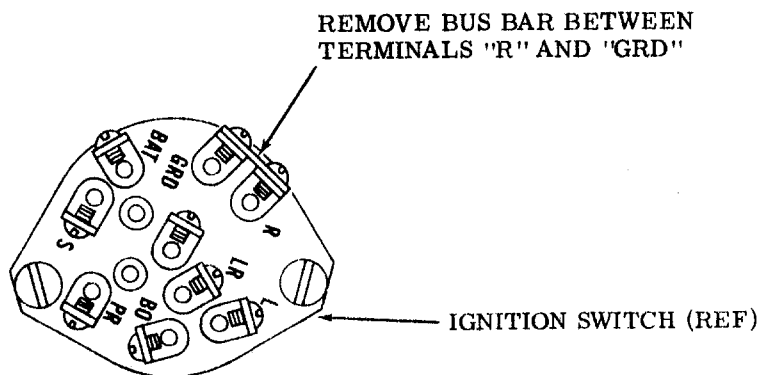
ESTIMATED MAN HOURS: ONE (1) HOUR.

PARTS DATA: NONE.

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Assure that the master switch is in the OFF position.
2. Remove ignition switch bus bar located on ignition switch between terminals R and GRD (see Figure 1.).



VIEW LOOKING AFT

Figure 1.

SERVICE LETTER NO. SL-112-36

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Airplane Maintenance Manual Change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-36, dated 25 February 1977, entitled "Ignition Switch Bus Bar Removal", accomplished (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-37
29 April 1977

ENGINE TO AIRFRAME GROUND CABLE INSTALLATION

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S 13000 THRU 13149.

REASON FOR PUBLICATION: TO PREVENT MAGNETIC COMPASS INTERFERENCE DUE TO IMPROPER/INSUFFICIENT BONDING OF ENGINE TO AIRFRAME GROUND. THIS HAS BEEN NOTED ON CERTAIN AIRCRAFT BY BEING UNABLE TO ACHIEVE PROPER COMPASS HEADINGS.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE IF STANDBY COMPASS ERROR CANNOT BE COMPENSATED WITHIN TEN (10) DEGREES.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: FOUR (4) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be purchased through your nearest Rockwell Commander Distributor for \$22.09. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-37 kit consisting of the following:

Price subject to change without notice

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	43780-5	Clip	
1 ea.	43780-17	Clip	
1 ea.	48030-450	Ground Cable	
	CONSISTING OF:		
	90 in. M5086/2-6-9	Cable	
	1 ea. MS25036-120	Terminal	
	1 ea. MS25036-121	Terminal	
	90 in. 1151HA1	Sleeving	
2 ea.	AN3-12A	Bolt	0267000
1 ea.	AN4-5A	Bolt	0505000
3 ea.	AN960D10	Washer	1555000
2 ea.	AN960D416	Washer	1567000
2 ea.	AN960-516	Washer	1537000
2 ea.	MS20074-05-04	Bolt	2706629
3 ea.	MS21044N3	Nut	2719213
1 ea.	MS21044N4	Nut	2719214
3 ea.	MS21919DG4	Clamp	2740000
1 ea.	MS21919H5	Clamp	2747113
1 ea.	MS21919H6	Clamp	2747160
2 ea.	MS21919H7	Clamp	2747120
3 ea.	MS21919H12	Clamp	2747210
1 ea.	MS27039-1-08	Screw	2759266
2 ea.	MS35338-45	Lockwasher	2894242
1 ea.	MS35489-20S	Grommet	2895151
1 ea.	NAS43DD3-45	Spacer	3095000
1 ea.	Service Letter No. SL-112-37	Instructions	

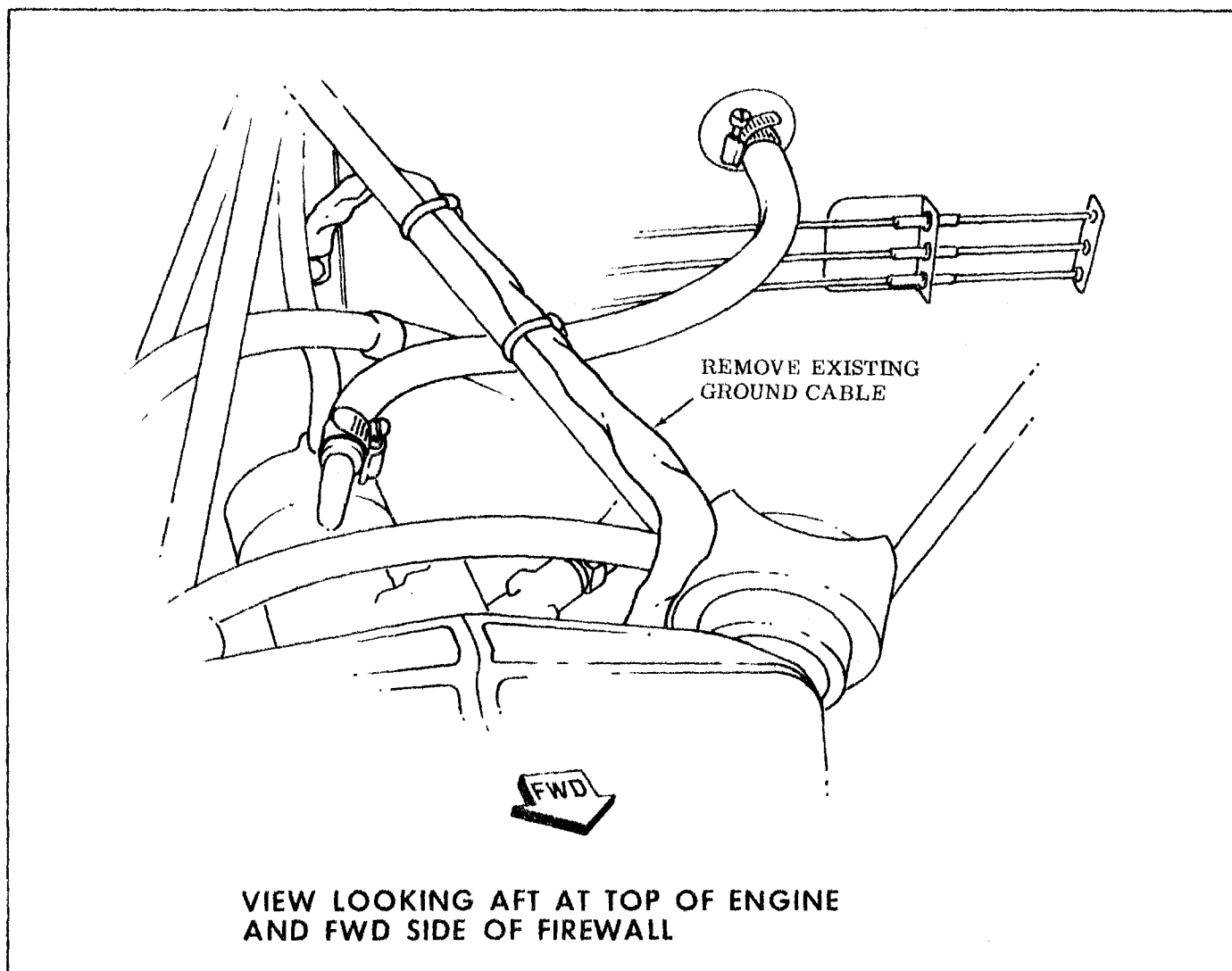


Figure 1.

SPECIAL TOOLS:

DEGAUSSING RING.

ACCOMPLISHMENT INSTRUCTIONS:

1. Assure that airplane master switch is in the OFF position.
2. Remove upper engine cowling.
3. Remove lower engine cowling as outlined in the Airplane Maintenance Manual, Section IV.
4. Remove left door scuff plate and door jamb moulding as necessary to facilitate removal of left forward interior side panel.
5. Remove left forward interior side panel.
6. Remove and discard existing engine ground strap (see Figure 1.).
7. Remove and discard existing grommet from left aft baffle assembly and install MS35489-20S grommet (see Figure 2.).

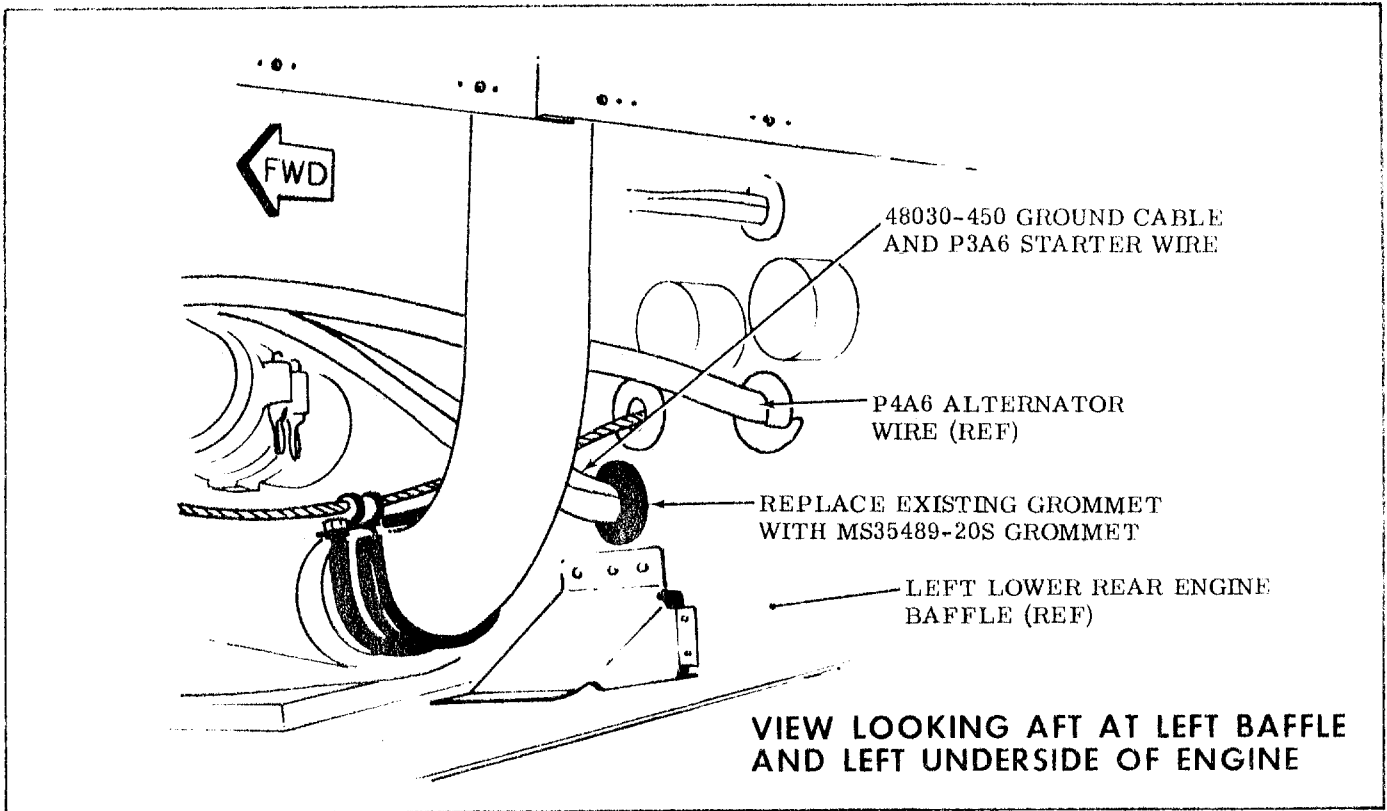


Figure 2.

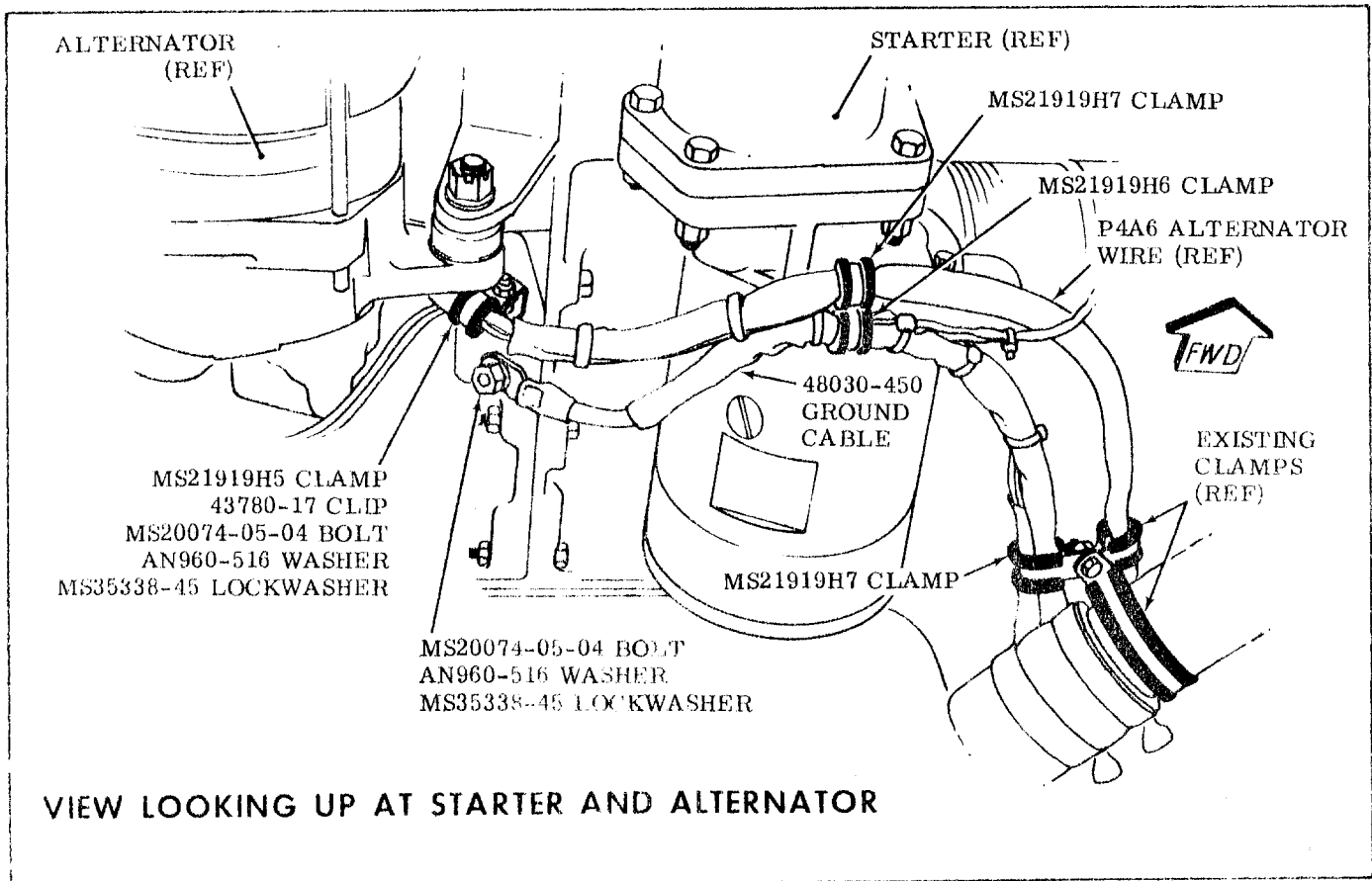


Figure 3.

SERVICE LETTER NO. SL-112-37

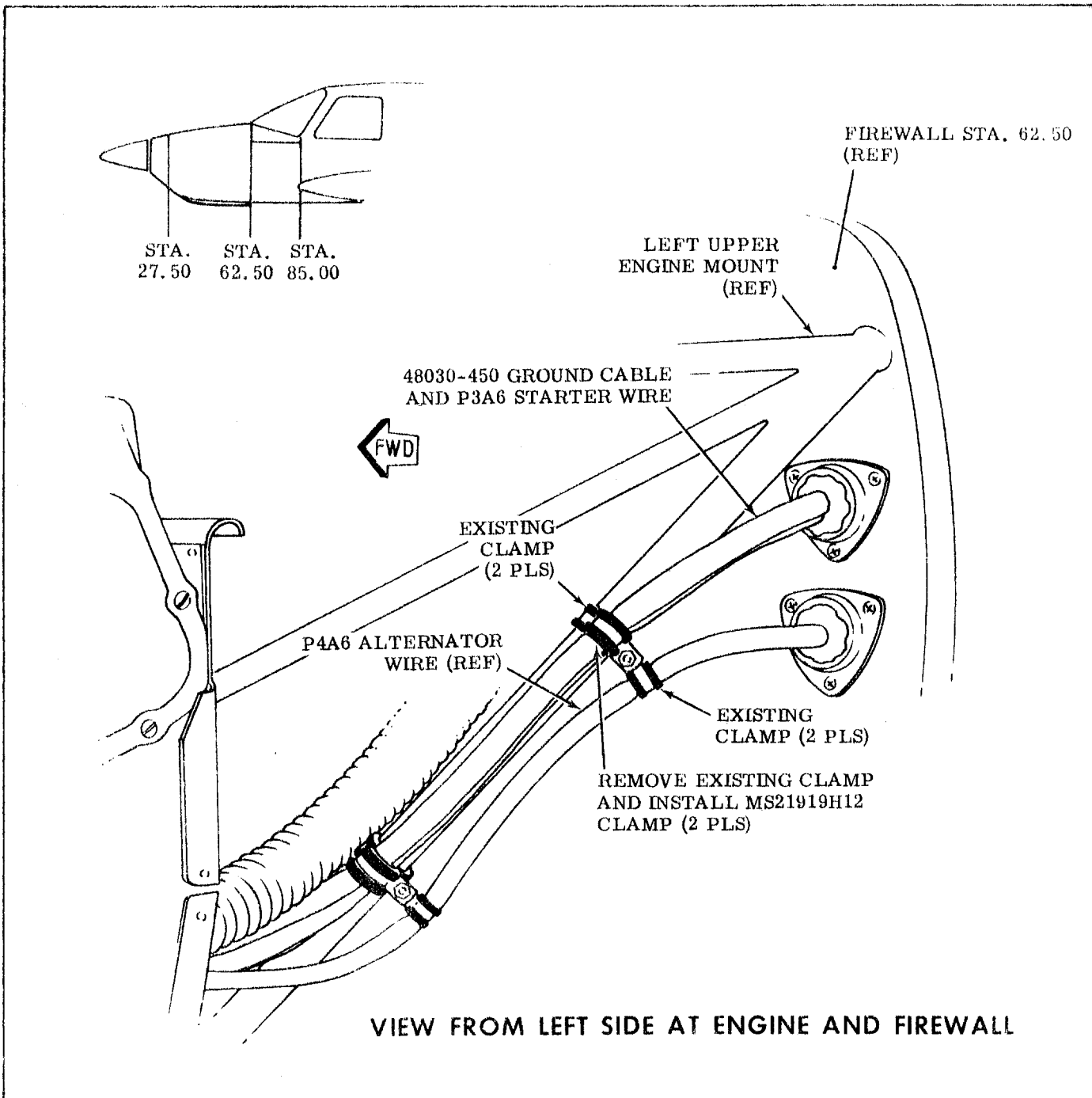


Figure 4.

8. Install 43780-17 clip on engine with MS20074-05-04 bolt, AN960-516 washer and MS35338-45 lockwasher (see Figure 3.).
9. Install 48030-450 ground cable on engine with MS20074-05-04 bolt, AN960-516 washer and MS35338-45 lockwasher and route ground cable aft to firewall with existing P3A6 starter wire, but maintain separation with alternator wire P4A6 in the engine area.
10. Locate, drill and install 43780-5 clip with MS20470AD3 rivet (see Figure 5.).

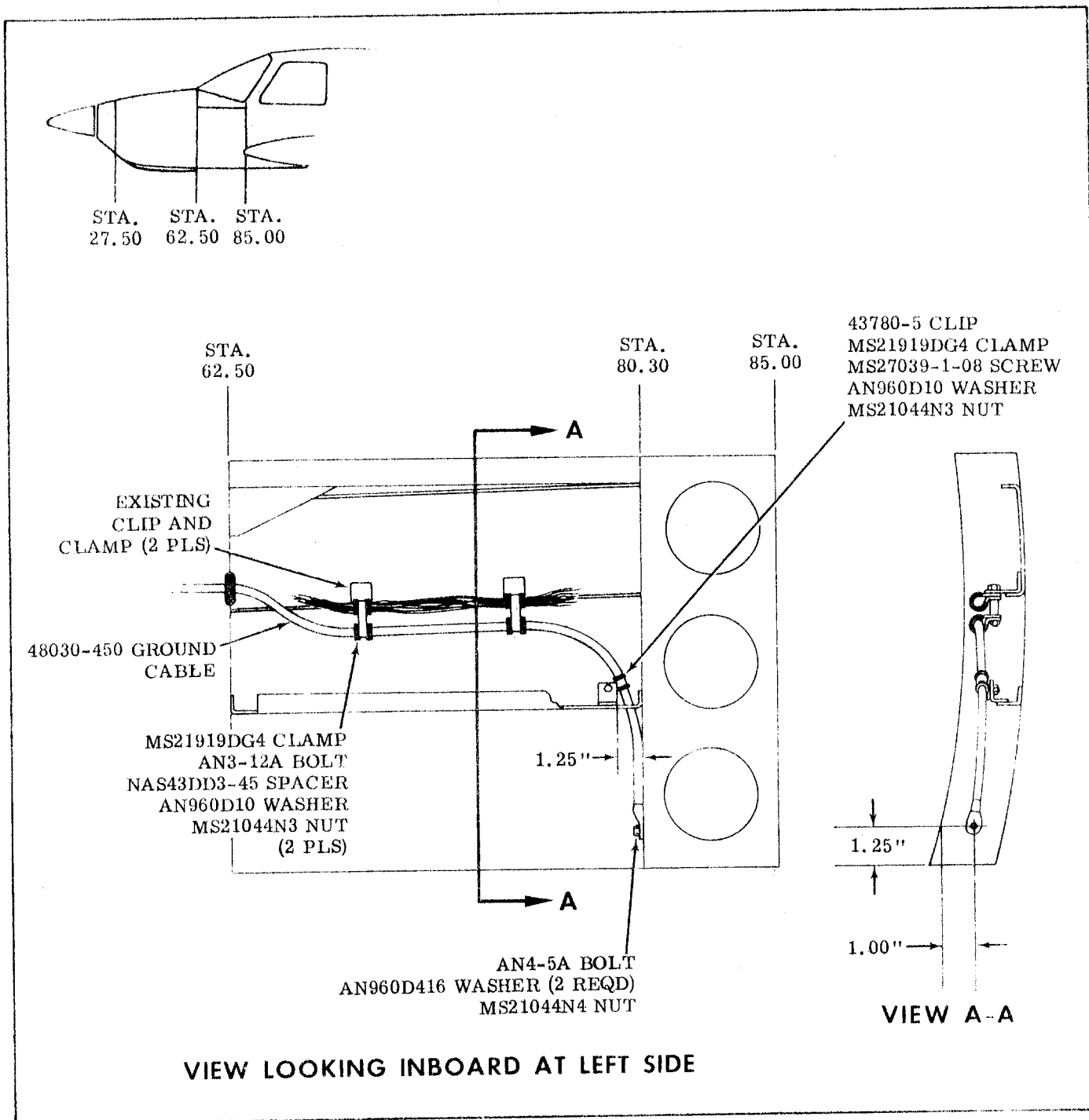


Figure 5.

11. Route 48030-450 ground cable through engine firewall and attach to fuselage frame, at Sta. 80.30, with AN4-5A bolt, AN960D416 washer (2 places) and MS21044N4 nut (see Figure 4. and 5.).

NOTE

Maintain separation between 48030-450 ground cable and P2B6 starter wire in cabin area.

12. Install MS21919DG4 clamp (3 places) between fuselage Sta. 62.50 and Sta. 80.30 to support ground cable (see Figure 5.).

SERVICE LETTER NO. SL-112-37

13. Remove existing clamps in engine compartment and install new MS21919H clamps as shown in Figures 3 and 4.
14. Seal around wires routed through firewall grommet with Proseal 700, MIL-S-38249, Type 1 (or equivalent).
15. Reinstall left forward interior side panel, door jamb moulding and left door scuff plate.
16. Reinstall upper and lower engine cowling as outlined in the Airplane Maintenance Manual, Section IV.
17. Swing the compass, with airplane on a compass rose, as outlined in the Airplane Maintenance Manual, Section VIII, under Magnetic Compass Compensation.

NOTE

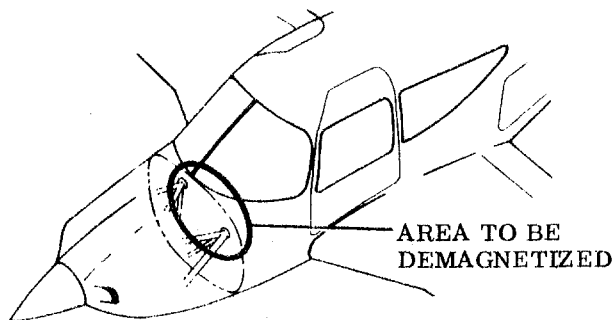
Any error less than ± 10 degrees is acceptable.

18. If compass error is more than ± 10 degrees, demagnetize engine firewall with a degaussing ring as follows:

CAUTION

All degaussing must be done by a repair station thoroughly experienced in performing such work.

- a. Remove magnetic compass from airplane.
- b. Remove upper engine cowling.
- c. Place degaussing ring over area shown below. Turn degaussing ring ON, move over area in slow circular motions approximately four (4) times, and then move degaussing ring away from airplane structure.



NOTE

Do not turn degaussing ring OFF until well away from airplane structure.

- d. Reinstall magnetic compass and upper engine cowling.
- e. Repeat step 17. to assure that no compass interference exists.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-37, dated 29 April 1977, entitled "Engine to Airframe Ground Cable Installation", accomplished (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-39
9 August 1977

LANDING GEAR RETRACT CYLINDER RETAINER AND/OR LOCKWASHER INSTALLATION

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 3 THRU 544 AND MODELS 112TC AND 112TCA, SERIAL NO'S 13000 THRU 13195.

REASON FOR PUBLICATION: THE RETAINER IS TO PREVENT LOSS OF ATTACHMENT OF THE MAIN LANDING GEAR RETRACT CYLINDER IF BEARING BECOMES LOOSE IN CYLINDER END. THE LOCKWASHER IS TO PREVENT ROTATING OF ROD END NUT ON NOSE LANDING GEAR AND MAIN LANDING GEAR RETRACT CYLINDERS.

COMPLIANCE: WITHIN NEXT TWENTY-FIVE (25) HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DEALER/DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be ordered through your nearest Rockwell Commander Dealer/Distributor at no cost. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-39 kit consisting of the following:

- Kit No. 1 - Models 112 and 112B, Serial No's 3 thru 544 and Models 112TC and 112TCA, Serial No's 13000 thru 13185.
- Kit No. 2 - Model 112TCA, Serial No's 13186 thru 13195.

Kit No. 1	Kit No. 2	PART NO.	DESCRIPTION
QTY	QTY		
2 ea.	-	795003-1	Retainer Washer
1 ea.	1 ea.	MS35333-41	Lockwasher
2 ea.	2 ea.	MS35333-42	Lockwasher
1 ea.	1 ea.		Compliance Card
1 ea.	1 ea.	Service Letter No. SL-112-39	Instructions

SPECIAL TOOLS: AIRPLANE JACKS AND A STAKING TOOL.

ACCOMPLISHMENT INSTRUCTIONS:

1. Jack airplane as outlined in the Airplane Maintenance Manual, Section II.
2. Disconnect nose landing gear retract cylinder at landing gear trunnion.
3. Loosen rod end nut and remove rod end.
4. Install MS35333-41 lockwasher and existing rod end on nose landing gear retract cylinder and run nut and rod end all the way down on threads of retract cylinder (see Figure 1.).
5. Check drag brace assembly at knuckle area to assure that drag brace is resting on stop.

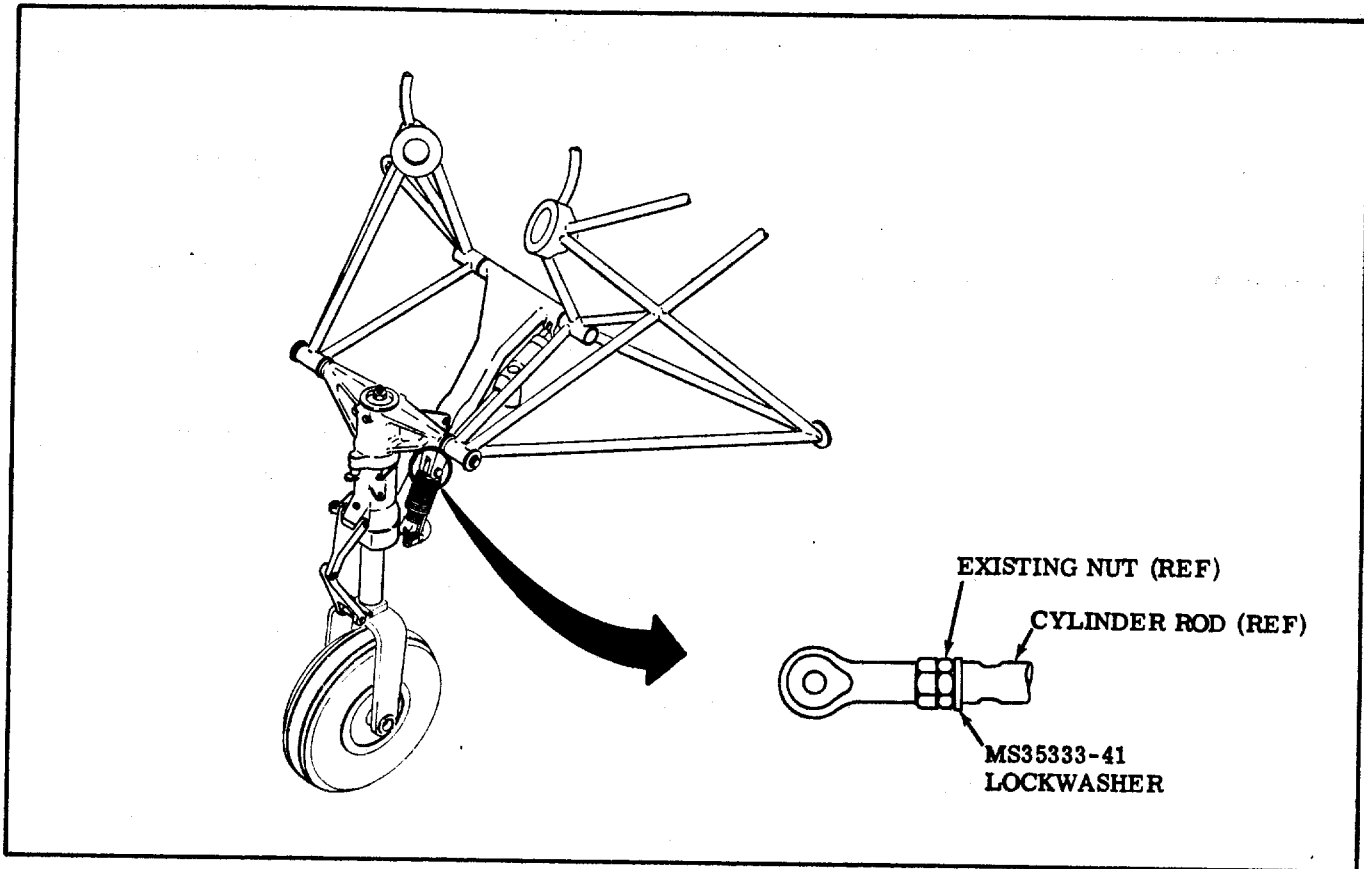


Figure 1.

6. Extend cylinder piston to maximum length and adjust rod end hole to 0.250 (\pm 0.03) inch past hole in trunnion for cushion. Finger tighten nut against cylinder rod.
7. Realign hole in rod end with hole in trunnion and install existing hardware.

NOTE

The drag stay of the drag brace assembly should be resting on the stop.

8. Collapse nose landing gear as necessary to gain access to rod end nut and torque nut 60 to 85 inch-pounds against cylinder rod and lockwasher while holding cylinder rod securely.
9. Remove bolts attaching the inboard end of the left and right main landing gear retract cylinder to the side brace assemblies.
10. Loosen rod end nut and remove rod end.
11. Install MS35333-42 lockwasher and existing rod end on left and right main landing gear retract cylinder (see Figure 2.).

NOTE

On Models 112TC and 112TCA with Serial No's 13186 thru 13185, proceed to Step 13.

12. On Models 112 and 112B with Serial No's 3 thru 544 and Models 112TC and 112TCA with Serial No's 13000 thru 13185, proceed as follows:
 - a. Remove bolts attaching outboard end of left and right main landing gear retract cylinders to lug on the landing gear trunnion and remove cylinders.

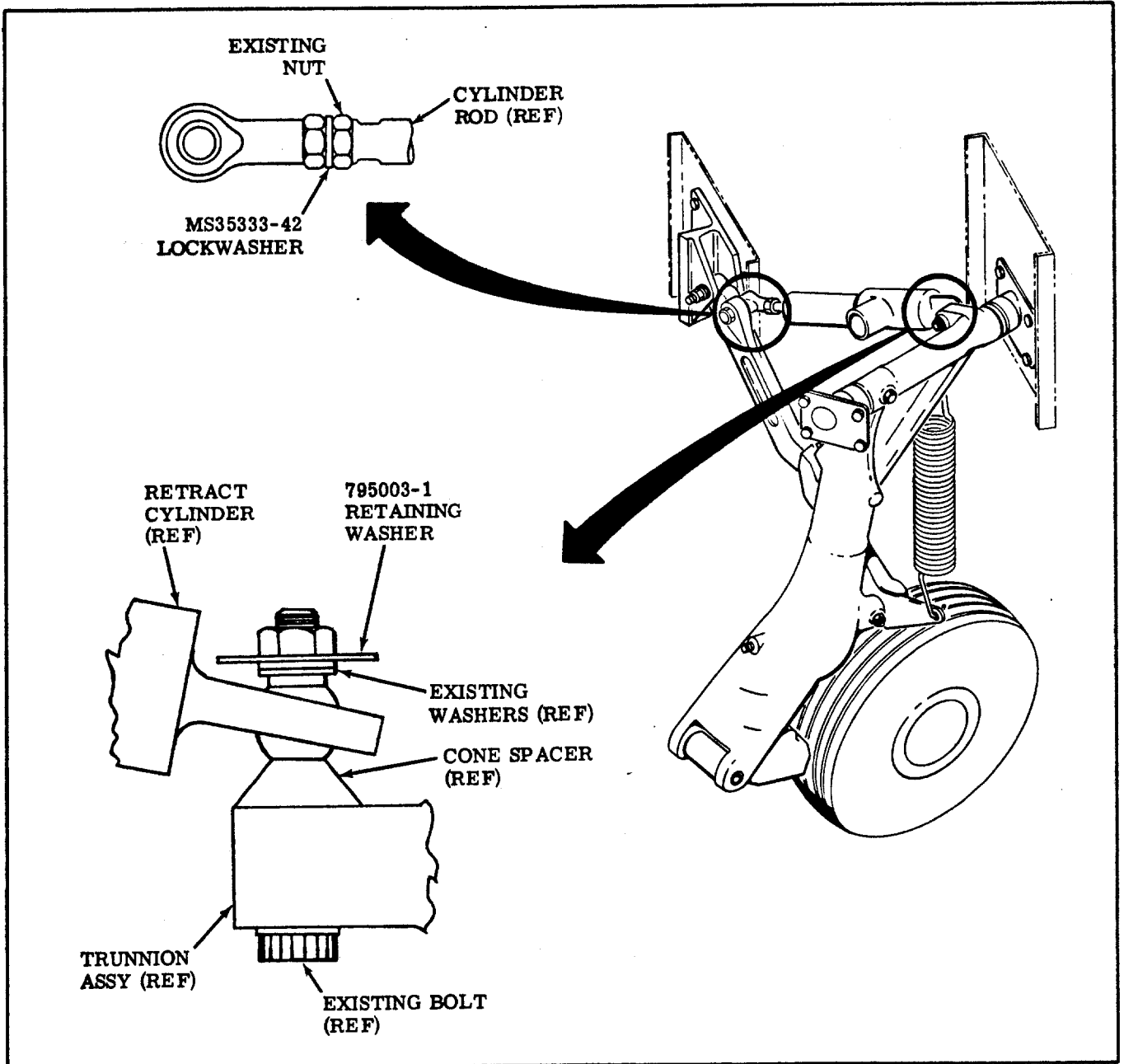


Figure 2.

- b. Inspect cylinder end plug bearings to assure that the bearings are properly staked as shown in Figure 3.

NOTE

There should be six (6) stake marks equally spaced on each side of bearing. Staking should deform the metal next to the bearing.

- c. If bearings are properly staked, proceed to step 12.e.
- d. If bearings are not properly staked, hand stake bearings six (6) equal spaces around bearing (see Figure 3.) using a staking tool that conforms to dimensions shown in Figure 3.

NOTE

Fabricate a block from 1/2-inch phenolic material for backing up bearing when staking (see Figure 3.).

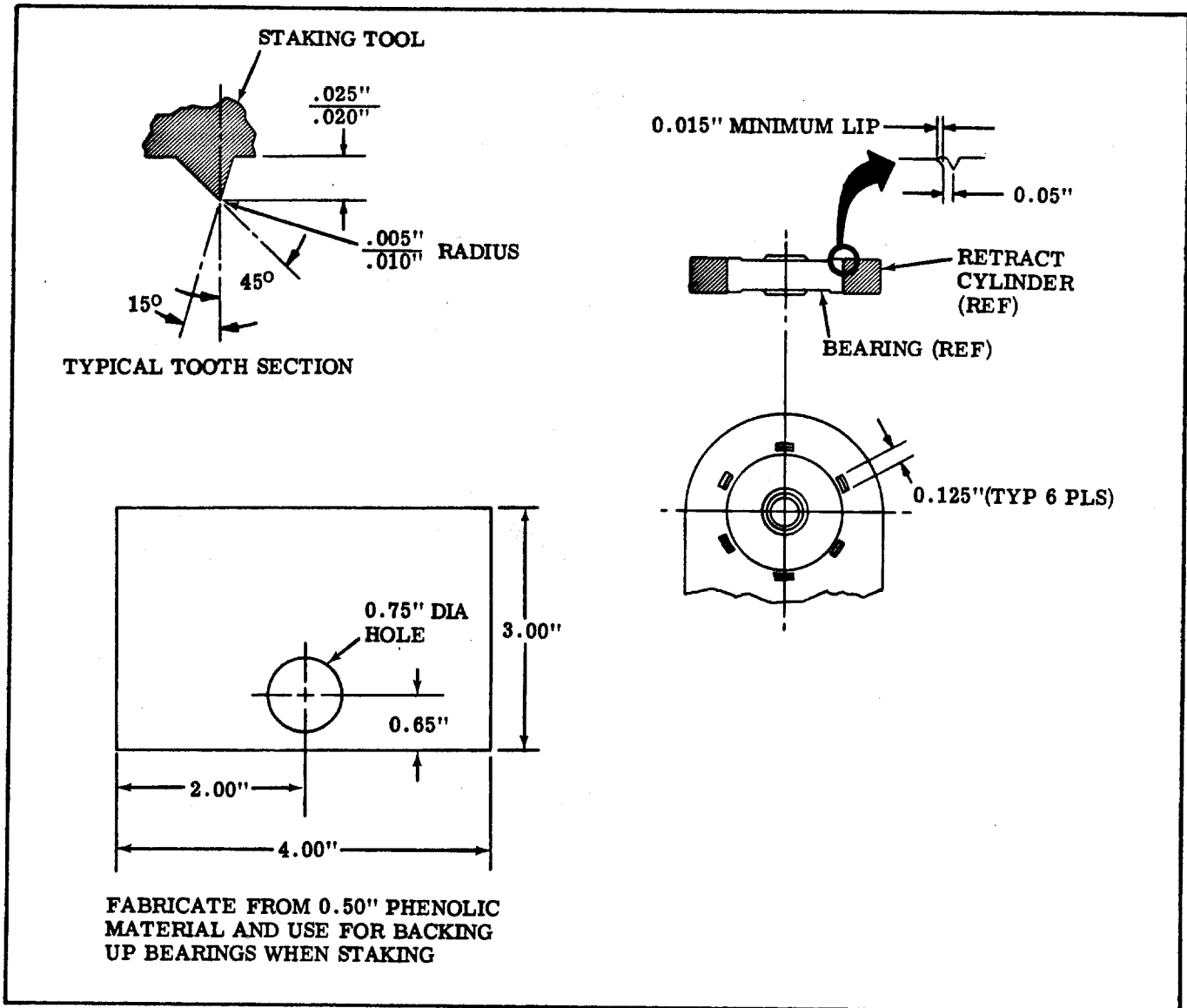


Figure 3.

- e. Reconnect the left and right main landing gear retract cylinders to lug on the landing gear trunnions with existing hardware and add 795003-1 retainer washer (see Figure 2.).
- f. Proceed to step 13.
13. Run rod end and nut all the way on threads of the main landing gear retract cylinder.
14. Check the main landing gear side brace assembly at knuckle area to assure that the side brace is resting on the stop.
15. Push retract cylinder piston all the way in the cylinder body and adjust rod end hole to 0.30 (\pm 0.03) inch short of hole in drag brace assembly for cushion. Finger tighten nut against cylinder rod end.
16. Align hole in rod end with hole in drag brace assembly and install existing hardware.

SERVICE LETTER NO. SL-112-39

NOTE

The side stay of the side brace assembly should be resting on the stop.

17. Torque rod end nut 95 to 110 inch-pounds against rod end and lockwasher while holding cylinder rod securely.
18. Perform an operational check of the landing gear system as outlined in the Airplane Maintenance Manual, Section VI.
19. Remove jacks from airplane and fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: YES

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in the airplane maintenance records as follows: Service Letter No. SL-112-39, dated 9 August 1977, entitled "Landing Gear Retract Cylinder Retainer and/or Lockwasher Installation", accomplished _____ (date) _____.



SERVICE LETTER NO. SL-112-40
25 July 1977

FLIGHT CONTROL COLUMN SHAFT & SHAFT COLLAR INSPECTION AND MODIFICATION

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 221 THRU 544 AND MODELS 112TC AND 112TCA, SERIAL NO'S 13000 THRU 13192.

REASON FOR PUBLICATION: DURING EXTREME COLD WEATHER THE CONTROL COLUMN SHAFT COLLAR P/N 47355-1 MAY SHRINK IN SIZE. THIS SHRINKAGE CAN INCREASE ELEVATOR CONTROL FORCES BEYOND ACCEPTABLE LIMITS. SLOTTING THE COLLAR WILL ELIMINATE THIS POSSIBILITY.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DEALER/DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: INSPECTION ONLY - ONE (1) HOUR.

INSPECTION AND REWORK - THREE (3) HOURS.

PARTS DATA: NOT APPLICABLE.

SPECIAL TOOLS: 0.010" FEELER GAUGE, 0.005" STEEL SHIMS AND A HACKSAW.

ACCOMPLISHMENT INSTRUCTIONS:

1. Check left and right control columns for clearance between control column shaft and collar using a feeler gauge. Minimum clearance should be 0.010 inch.

NOTE

Collar is 1.00-inch long.

2. If clearance between control column shaft and collar is 0.010-inch or greater, proceed to RECORD COMPLIANCE.
3. If clearance between control column shaft and collar is less than 0.010-inch, proceed as follows:
 - a. Remove retaining ring from control column shaft (see Figure 1.).
 - b. Move control column full aft.
 - c. Slide control column shaft collar aft away from control column mount.

SERVICE LETTER NO. SL-112-40

- d. Cut a slit in collar with a hacksaw blade or equivalent cutting tool. Maximum width of cut to be 0.050-inch (see Figure 1.).

CAUTION

Insert a steel shim between collar and control column shaft to protect shaft while collar is being cut.

- e. After cut through collar is completed, remove all rough edges from collar and remove shim used to protect control column shaft.
- f. Reinstall collar and retainer ring into control column shaft mount.

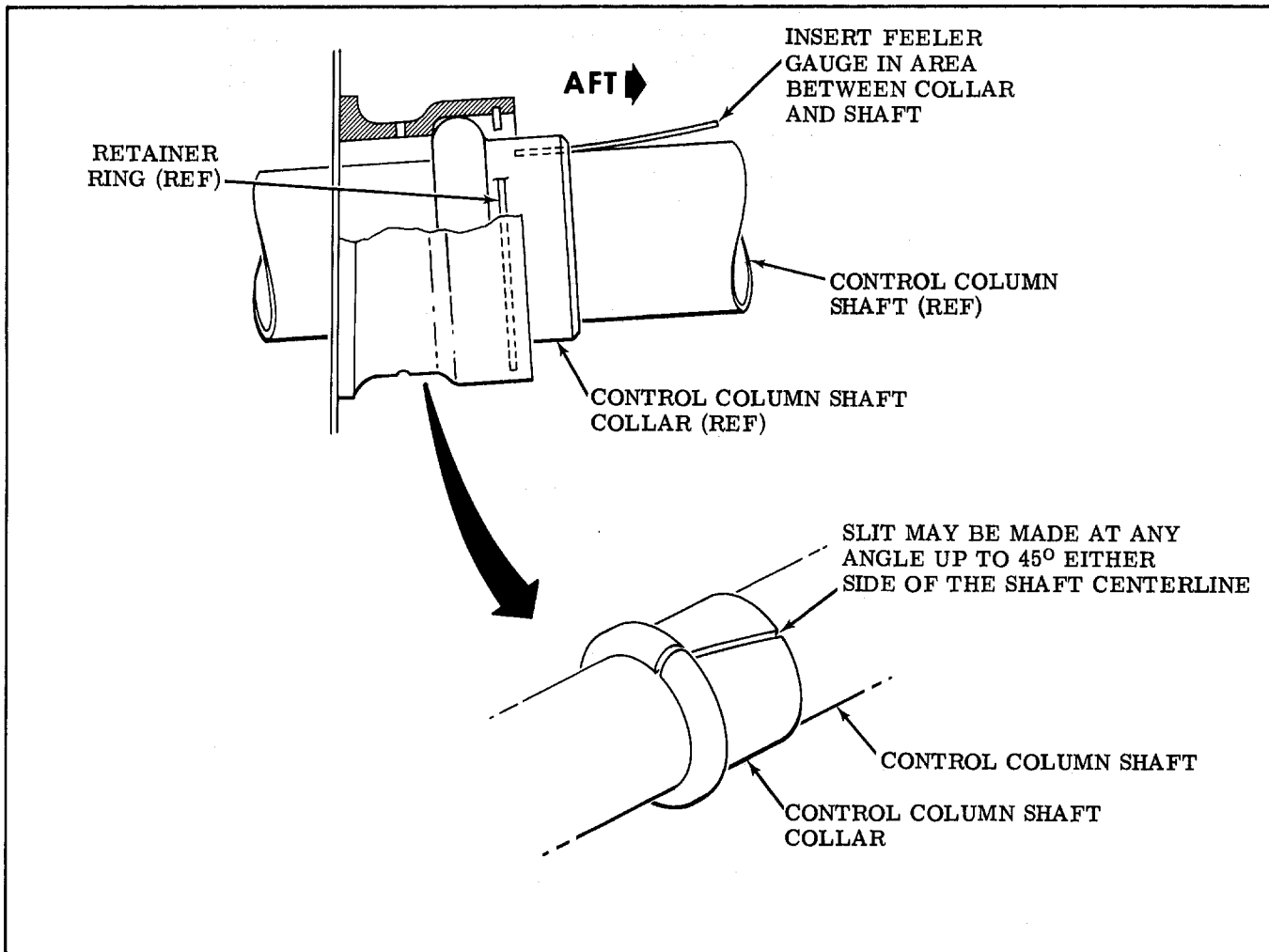


Figure 1.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

PUBLICATIONS AFFECTED: NOT APPLICABLE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-40, dated 25 July 1977, entitled "Flight Control Column Shaft and Shaft Collar Inspection and Modification" accomplished _____ (date) .

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-41
30 September 1977

RUDDER TRIM CONTROL ASSEMBLY INSPECTION AND MODIFICATION

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 381 THRU 544 AND MODELS 112TC AND 112TCA, SERIAL NO'S 13002 THRU 13108 AND 13151 THRU 13195.

REASON FOR PUBLICATION: TO IMPROVE RUDDER TRIM AND PREVENT THE POSSIBLE BOTTOMING OF RUDDER TRIM SPRING AT EXTREME TRIM CONDITION.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DEALER/DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: PART I - TWO (2) HOURS.
PART II - THREE (3) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be ordered through your nearest Rockwell Commander Dealer/Distributor for: Part I, \$5.86, Part II, \$17.79. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-41 kit consisting of the following:

Price subject to change without notice

PART I QTY	PART II QTY	PART NO.	DESCRIPTION
-	1 ea.	47482-RE1	Fitting
1 ea.	1 ea.	565006-1	Outer Spring
1 ea.	1 ea.	565007-1	Inner Spring
1 ea.	1 ea.	Service Letter No. SL-112-41	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I

1. Remove cotter pin from existing nut on rudder trim control assembly shaft and back nut off threads (see Figure 1.).
2. Turn rudder trim control assembly knob counterclockwise until stop is contacted and then turn control knob clockwise exactly six (6) complete turns and clamp a stiff straight edge to pilot's rudder pedals.

NOTE

With a straight edge clamped to the rudder pedals, the rudder trim will be in the neutral position.

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3. Check for 0.50 (\pm 0.03) inch dimension between rudder trim control assembly fitting and side plate (see Figure 1.).
4. If dimension between rudder trim control assembly fitting and side plate exceeds 0.53-inch, remove straight edge from pilot's rudder pedals and proceed to Part II.
5. If dimension between rudder trim control assembly fitting and side plate is 0.50 (\pm 0.03) inch, remove straight edge from pilot's rudder pedals.
6. Remove rudder trim control assembly knob and nut, loosened in step 1., from shaft.
7. Disconnect forward shaft of rudder trim control assembly from top of pilot's right rudder pedal support assembly.
8. Disconnect rudder trim indicator cable from rudder trim control assembly and remove rudder trim control assembly from airplane.
9. Disassemble rudder trim control assembly and discard existing springs.

CAUTION

When removing roll pin from end fitting, care should be taken because springs are compressed.

10. Install new 565006-1 inner spring and 565007-1 outer spring and reassemble rudder trim control assembly (see Figure 2.).
11. Reinstall rudder trim control assembly in airplane using existing hardware.
12. Reinstall existing washers, nut and cotter pin, removed in step 1., and rudder trim control assembly knob (see Figure 2.).
13. Reconnect rudder trim indicator cable to rudder trim control assembly.
14. Check rudder trim indicator rigging as outlined in the Airplane Maintenance Manual, Section VII.
15. Proceed to RECORD COMPLIANCE.

PART II

1. Remove rudder trim control assembly knob and nut from shaft.
2. Disconnect forward shaft of rudder trim control assembly from top of pilot's right rudder pedal support assembly.
3. Disconnect rudder trim indicator cable from rudder trim control assembly and remove rudder trim control assembly from airplane.
4. Disassemble rudder trim control assembly and discard existing springs.

CAUTION

When removing roll pin from end fitting, care should be taken because springs are compressed.

5. Install new 565006-1 inner spring and 565007-1 outer spring and reassemble rudder trim control assembly (see Figure 2.).
6. Remove and discard existing fitting from rudder trim control assembly bracket (see Figure 2.).

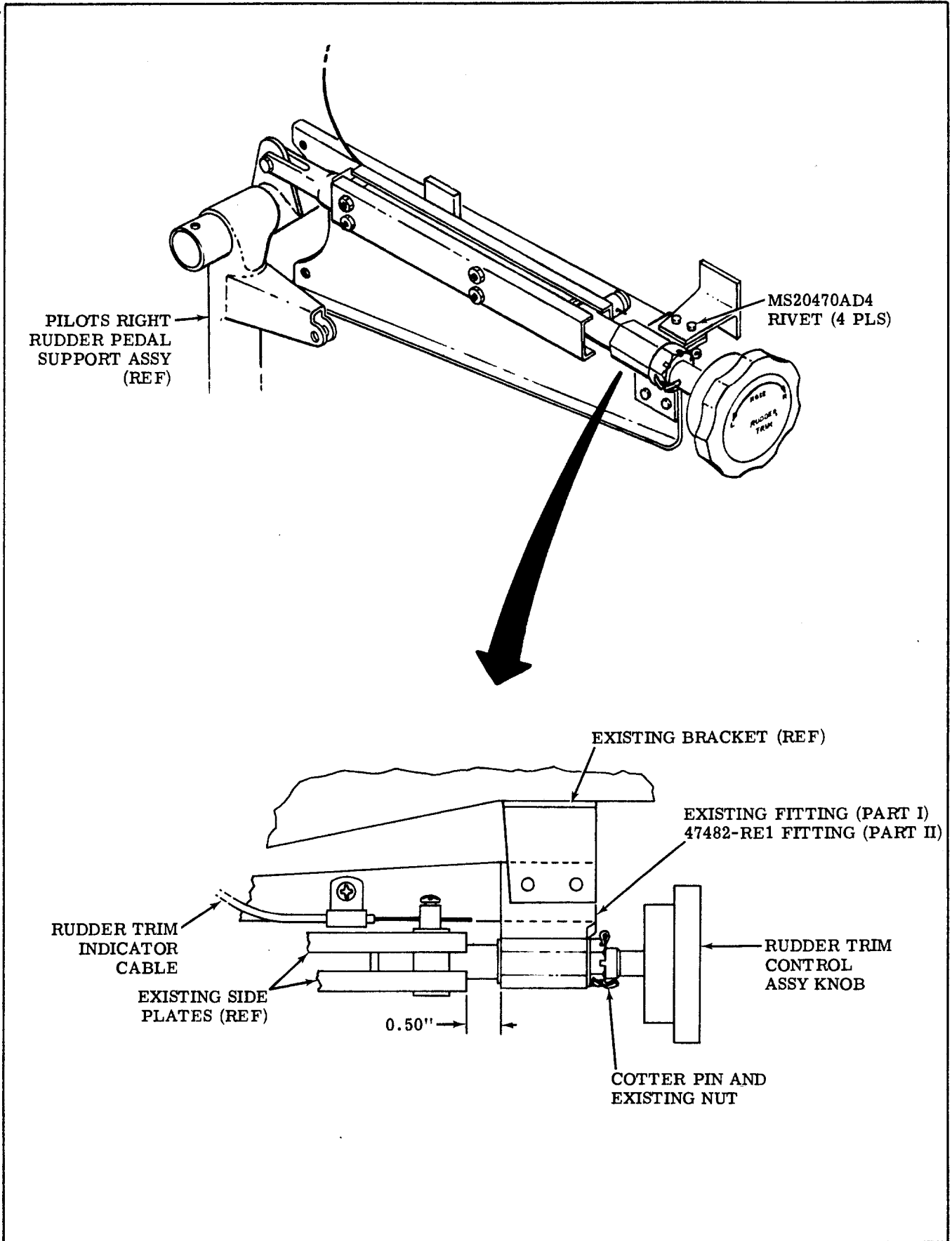


Figure 1.

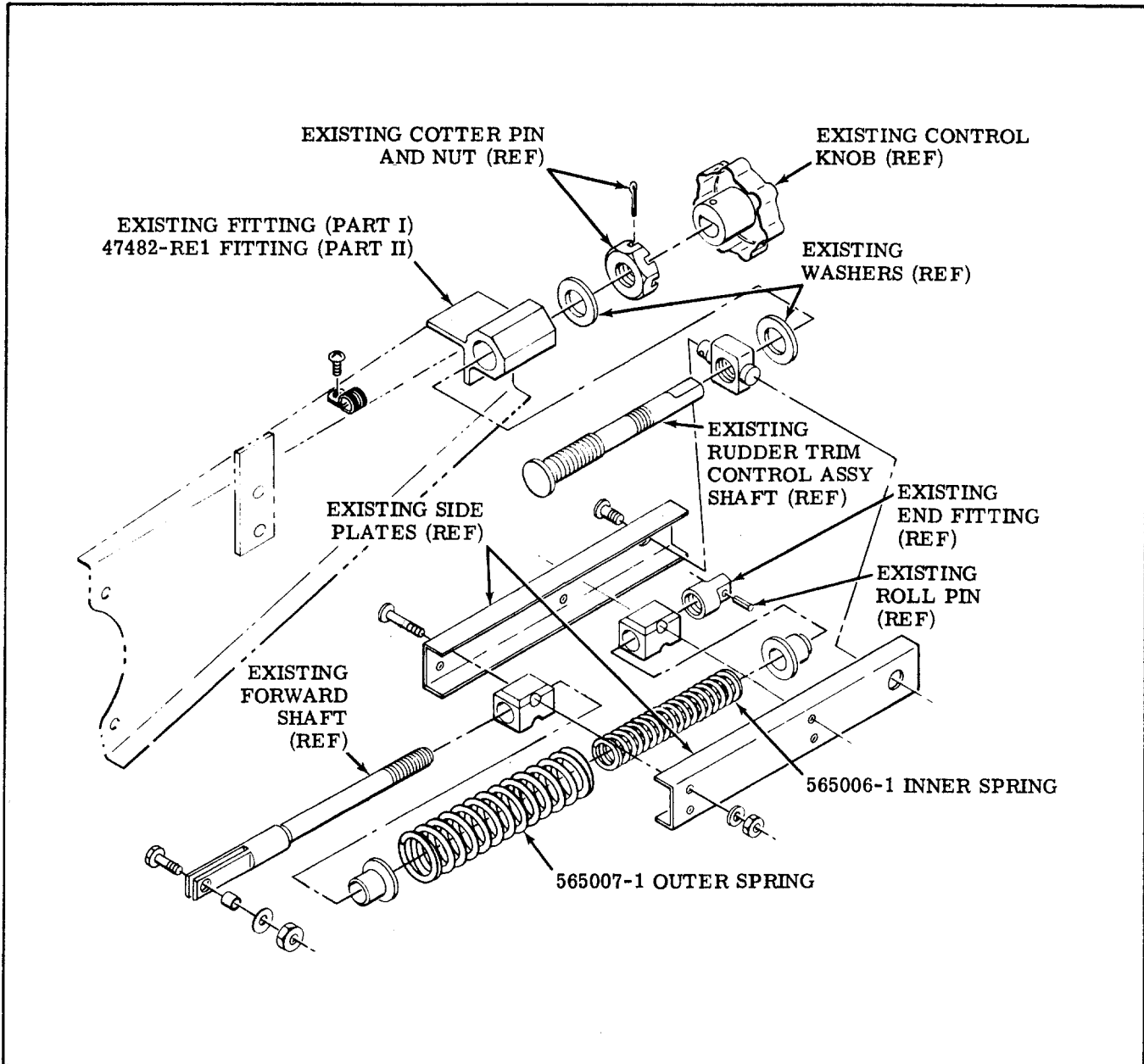


Figure 2.

7. Reconnect rudder trim control assembly forward shaft to top of pilot's right rudder pedal support assembly.
8. Place existing washers and 47482-RE1 fitting on rudder trim control assembly shaft (see Figure 2.).
9. Install existing nut and knob on rudder trim control assembly shaft.

NOTE

Do not run nut on threads until fitting is located and riveted to bracket.

10. Turn rudder trim control assembly knob counterclockwise until stop is contacted and then turn control knob clockwise exactly six (6) complete turns and clamp a stiff straight edge to pilot's rudder pedals.
11. Position 47482-RE1 fitting on rudder trim control assembly shaft to 0.50 (\pm 0.03) inch dimension shown in Figure 1. and clamp fitting to rudder trim control assembly bracket.

SERVICE LETTER NO. SL-112-41

12. Drill and install 47482-RE1 fitting on rudder trim control assembly bracket with MS20470AD4 rivets (4 places) (see Figure 1.).
13. Reinstall existing nut and cotter pin on rudder trim control assembly shaft.
14. Reconnect rudder trim indicator cable to rudder trim control assembly.
15. Check rudder trim indicator rigging as outlined in the Airplane Maintenance Manual, Section VII.
16. Proceed to RECORD COMPLIANCE.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-41, dated 30 September 1977, entitled "Rudder Trim Control Assembly Inspection and Modification", Part I accomplished _____ (date) _____, Part II accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-42
7 October 1977

MANIFOLD PRESSURE GAUGE MODIFICATION

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 3 THRU 544 AND MODELS 112TC AND 112TCA, SERIAL NO'S 13000 THRU 13195.

REASON FOR PUBLICATION: TO PROLONG GAUGE LIFE AND PREVENT GAUGE FROM STICKING AND BECOMING SLUGGISH.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DEALER/DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: ONE (1) HOUR.

PARTS DATA: Parts required to comply with Part I of this Service Letter may be purchased through your nearest Rockwell Commander Dealer/Distributor for \$10.32. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-42 kit consisting of the following:

Price subject to change without notice

QTY	PART NO.	DESCRIPTION
1 ea.	MS20822-4D-HXX	Pressure Snubber
1 ea.		Compliance Card
1 ea.	Service Letter No. SL-112-42	Instructions

NOTE

No parts are required for Part II.

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I - Models 112 and 112B, Serial No's 3 thru 540 and Models 112TC and 112TCA, Serial No's 13000 thru 13169.

1. Disconnect manifold pressure tube assembly from existing fitting in manifold pressure gauge port (see Figure 1.).
2. Remove and disconnect existing manifold pressure gauge fitting.
3. Remove and discard Phillips head dampening screw located inside manifold pressure port of manifold pressure gauge.

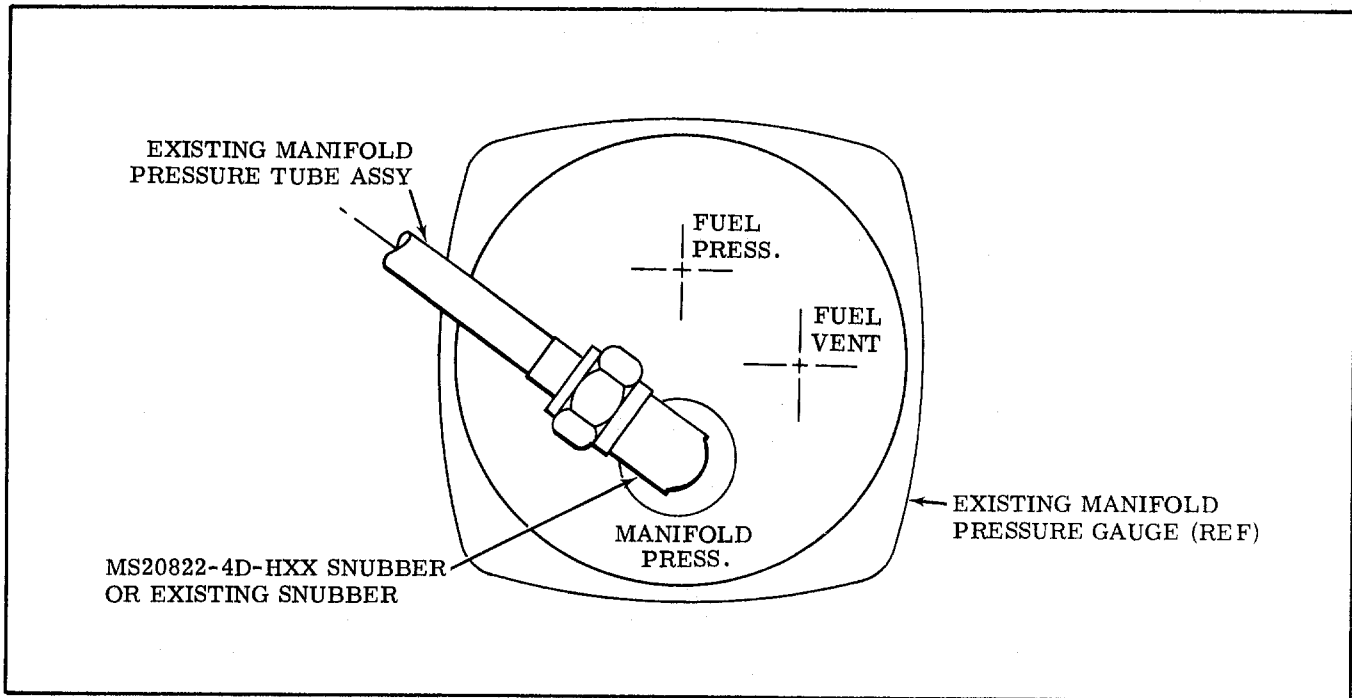


Figure 1.

4. Apply teflon tape (3M No. 547 or equivalent) to threads of MS20822-4D-HXX pressure snubber as follows:
 - a. Place end of teflon tape two (2) threads in from end of male pipe threads and hold tape firmly with thumb.
 - b. Stretch tape against threads and wind clockwise one (1) lap. Continue to hold tightly against threads until tape has been broken.

NOTE

Do not attempt to tear tape sideways. Snap tape off in same direction used for winding.

5. Install MS20822-4D-HXX pressure snubber in manifold pressure gauge (see Figure 1.).
6. Connect existing manifold pressure tube assembly to pressure snubber (see Figure 1.).
7. Fill out and mail Compliance Card and proceed to RECORD COMPLIANCE.

PART II - Model 112B, Serial No's 541 thru 544 and Model 112TCA, Serial No's 13170 thru 13195.

1. Disconnect manifold pressure tube assembly from existing pressure snubber in manifold pressure gauge port (see Figure 1.).
2. Remove existing pressure snubber from manifold pressure gauge.
3. Remove and discard Phillips head dampening screw (if installed) located inside manifold pressure port of manifold pressure gauge.

SERVICE LETTER NO. SL-112-42

4. Apply teflon tape (3M No. 547 or equivalent) to threads of existing pressure snubber, removed in Step 2., as follows:
 - a. Place end of teflon tape two (2) threads in from end of male pipe threads and hold tape firmly with thumb.
 - b. Stretch tape against threads and wind clockwise one (1) lap. Continue to hold tightly against threads until tape has been broken.

NOTE

Do not attempt to tear tape sideways. Snap tape off in same direction used for winding.

5. Install existing pressure snubber in manifold pressure gauge (see Figure 1.).
6. Reconnect existing manifold pressure tube assembly to existing pressure snubber (see Figure 1.).
7. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: YES.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog and Airplane Maintenance Manual changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-42, dated 7 October 1977, entitled "Manifold Pressure Gauge Modification", Part I accomplished _____ (date) _____, Part II accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-43
26 October 1977

OIL PRESSURE INDICATOR AND/OR OIL PLACARD REPLACEMENT

MODELS AFFECTED: PART I - MODELS 112TC AND 112TCA, SERIAL NO'S 13000 THRU 13178.
PART II - MODEL 112TCA, SERIAL NO'S 13179 THRU 13195.

REASON FOR PUBLICATION: RELOCATE THE OIL PRESSURE INDICATOR RED LINE TO PROVIDE MORE MARGIN AND PROVIDE A PLACARD WITH NEW OIL GRADE REQUIREMENTS.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER DEALER/DISTRIBUTOR OR YOUR ROCKWELL COMMANDER REGIONAL SERVICE MANAGER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: PART I - REPLACE OIL PLACARD AND OIL PRESSURE INDICATOR - TWO (2) HOURS.
PART II - REPLACE OIL PLACARD - THIRTY (30) MINUTES.

PARTS DATA: Parts required to comply with this Service Letter may be ordered through your nearest Rockwell Commander Dealer/Distributor at no charge. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-43 kit consisting of the following:

Part I - Models 112TC and 112TCA, Serial No's 13000 thru 13178.
Part II - Model 112TCA, Serial No's 13179 thru 13195.

Part I QTY	Part II QTY	PART NO.	DESCRIPTION
1 ea.	1 ea.	40132-503	Oil Placard
1 ea.	—	855000-5	Oil Pressure Indicator
1 ea.	1 ea.	Service Letter No. SL-112-43	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I - REPLACE OIL PLACARD AND OIL PRESSURE INDICATOR.

1. Remove and discard existing oil placard located on underside of oil filler door.
2. Install 40132-503 oil placard on oil filler door.
3. Disconnect and remove right instrument cluster (cylinder head temperature, oil pressure, oil temperature and rudder trim) from lower instrument panel.
4. Remove oil pressure indicator from instrument cluster.
5. Install new 855000-5 oil pressure indicator in existing right instrument cluster.

SERVICE LETTER NO. SL-112-43

6. Reidentify right instrument cluster to P/N 855000-513 by ink stamping.
7. Reinstall right instrument cluster in lower instrument panel using existing hardware.
8. Reconnect oil pressure tube assembly to oil pressure indicator.
9. Reconnect the electrical wiring to the right instrument cluster as shown in the Airplane Maintenance Manual, Section X.

PART II - REPLACE OIL PLACARD ONLY.

1. Remove and discard existing oil placard located on underside of oil filler door.
2. Install 40132-503 oil placard on oil filler door.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: YES.

PUBLICATIONS AFFECTED: The Pilot's Operating Handbook, the Airplane Maintenance Manual and the Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-43, dated 26 October 1977, entitled "Oil Pressure Indicator and/or Oil Placard Replacement", Part I accomplished _____ (date) _____, Part II accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-44
30 August 1978

SECURING PITOT HEATER WIRES

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 13000 AND 3 THRU 544,
MODELS 112TC AND 112TCA, SERIAL NO'S 13001 THRU 13271.

REASON FOR PUBLICATION: TO PREVENT POSSIBLE FRAYING OF PITOT HEATER WIRE INSULATION.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER AUTHORIZED SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: SECURE HEATER WIRES - THIRTY (30) MINUTES.
MODIFY PITOT HEAD ASSEMBLY - ONE & ONE-HALF (1.5) HOURS.

PARTS DATA: The following material required to comply with this Service Letter may be procured locally:

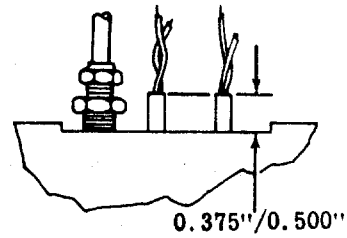
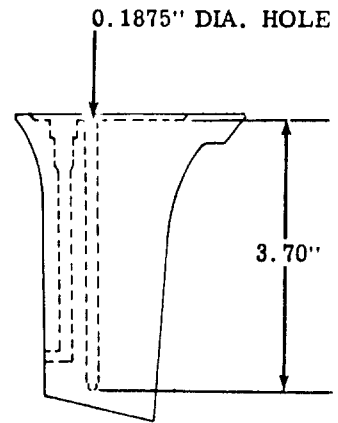
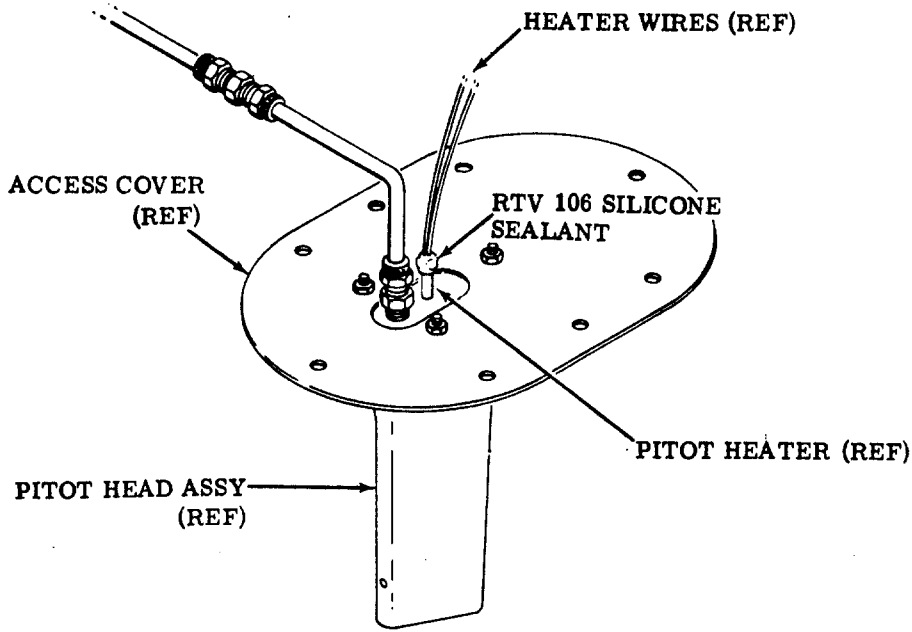
QTY	PART NO.	DESCRIPTION
1 ea.	RTV-106	Silicone Sealer (6 oz. tube)

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove screws attaching pitot head assembly access cover to wing and pull down on pitot head assembly.
2. Check dimension from top of pitot heater(s) to top of pitot head assembly to assure that pitot heater(s) is installed properly in pitot head assembly. Dimension should be 0.375-inch to 0.50-inch (see Figure 1.)
3. If dimension from top of pitot heater(s) to top of pitot head assembly is less than 0.50-inch, proceed to step 5.
4. If dimension from top of pitot heater(s) to top of pitot head assembly is greater than 0.50-inch, remove pitot head assembly from wing and proceed as follows:
 - a. Remove pitot heater(s) from pitot head assembly.
 - b. Ream 0.1875-inch diameter hole(s) to depth specified in Figure 1.
 - c. Inspect pitot heater wires for possible fraying of insulation or bare wires.
 - d. If no evidence of frayed insulation or no bare wires exist, proceed to step f.
 - e. If evidence of frayed insulation or bare wires exist, repair as necessary and proceed to step f.
 - f. Reinstall pitot heater(s) on pitot head assembly, reconnect pitot tube assembly to pitot head assembly and proceed to step 8.

SINGLE HEATER PITOT HEAD



DUAL HEATER PITOT HEAD

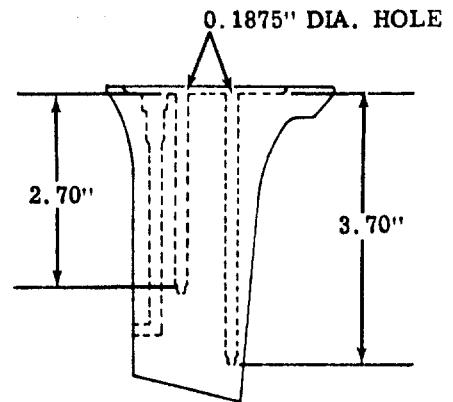
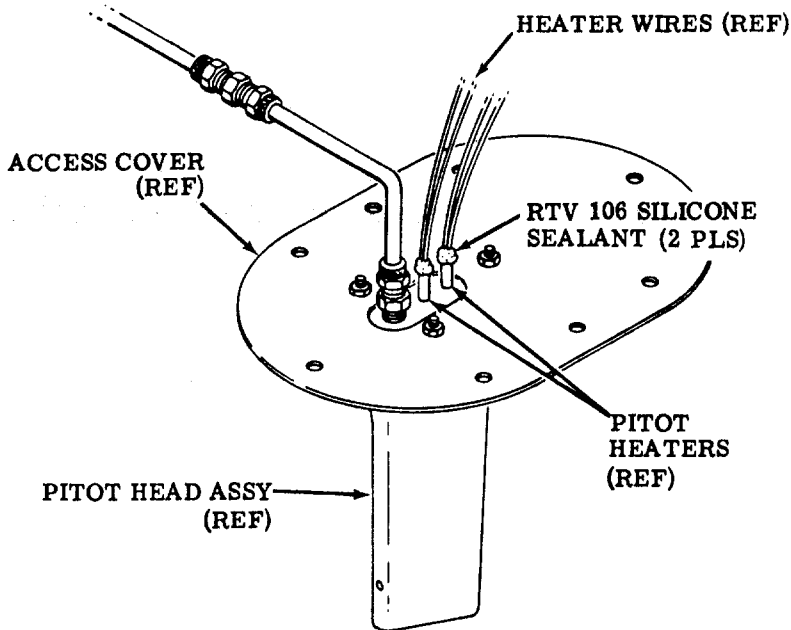


Figure 1.

SERVICE LETTER NO. SL-112-44

5. Inspect pitot heater wires for possible fraying of insulation and bare wires.
6. If no evidence of frayed insulation or no bare wires exist, proceed to step 8.
7. If evidence of frayed insulation or bare wires exist, repair as necessary and proceed to step 8.
8. Apply RTV-106 silicone sealer on pitot heater wires and on top of pitot heater(s) (see Figure 1.).
9. Reinstall pitot head assembly and access cover on wing.
10. Perform leakage test as outlined in the Airplane Maintenance Manual, Section VIII.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: YES.

PUBLICATIONS AFFECTED: The Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-44, dated 30 August 1978, entitled "Securing Pitot Heater Wires", accomplished _____ (date) _____.

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-45
14 September 1979

NOSE GEAR DOWN SPRINGS INSPECTION AND/OR REPLACEMENT

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S. 13000 AND 3 THRU 544, MODEL 112TC, SERIAL NO'S 13001 THRU 13108, AND MODEL 112TCA, SERIAL NO'S. 13150 THRU 13299.

REASON FOR PUBLICATION: TO ASSURE PROPER TENSION OF NOSE GEAR DOWN SPRINGS.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER AUTHORIZED SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: Replacement gear down springs, part numbers P227-27 inner spring and P227-28 outer spring, may be procured through your nearest Rockwell Commander Authorized Service Facility.

SPECIAL TOOLS: CALIBRATED SCALE FOR PULL TESTING SPRING TENSION.

ACCOMPLISHMENT INSTRUCTIONS:

1. Jack airplane as outlined in the Airplane Maintenance Manual, Section II.
2. Disconnect lower end of inner and outer gear down springs from the nose landing gear.
3. Using a calibrated scale, check pull tension of nose gear down springs. Tensions should be as follows:

	EXTENDED LENGTH	LOAD
Inner Spring	7.69 inches	24 to 30 pounds
Outer Spring	7.63 inches	23 to 28 pounds

4. If either spring tension load is not within load limits listed in step 3., remove and replace both springs as necessary.
5. If spring tension loads are within load limits listed in step 3., reconnect lower ends of nose gear down springs to nose landing gear.
6. With the nose landing gear extended, assure that nose gear drag brace is overcenter (see Figure 1.) as follows:

Model 112, Serial No's. 1 thru 380:

- a. With the cylinder lock engaged on the nose gear actuating cylinder and the drag brace in a relaxed position, the drag brace must be resting on the overcenter stop at the knuckle area.
- b. Push up on the drag brace pivot point and check for a clearance of 0.040 to 0.125-inch.

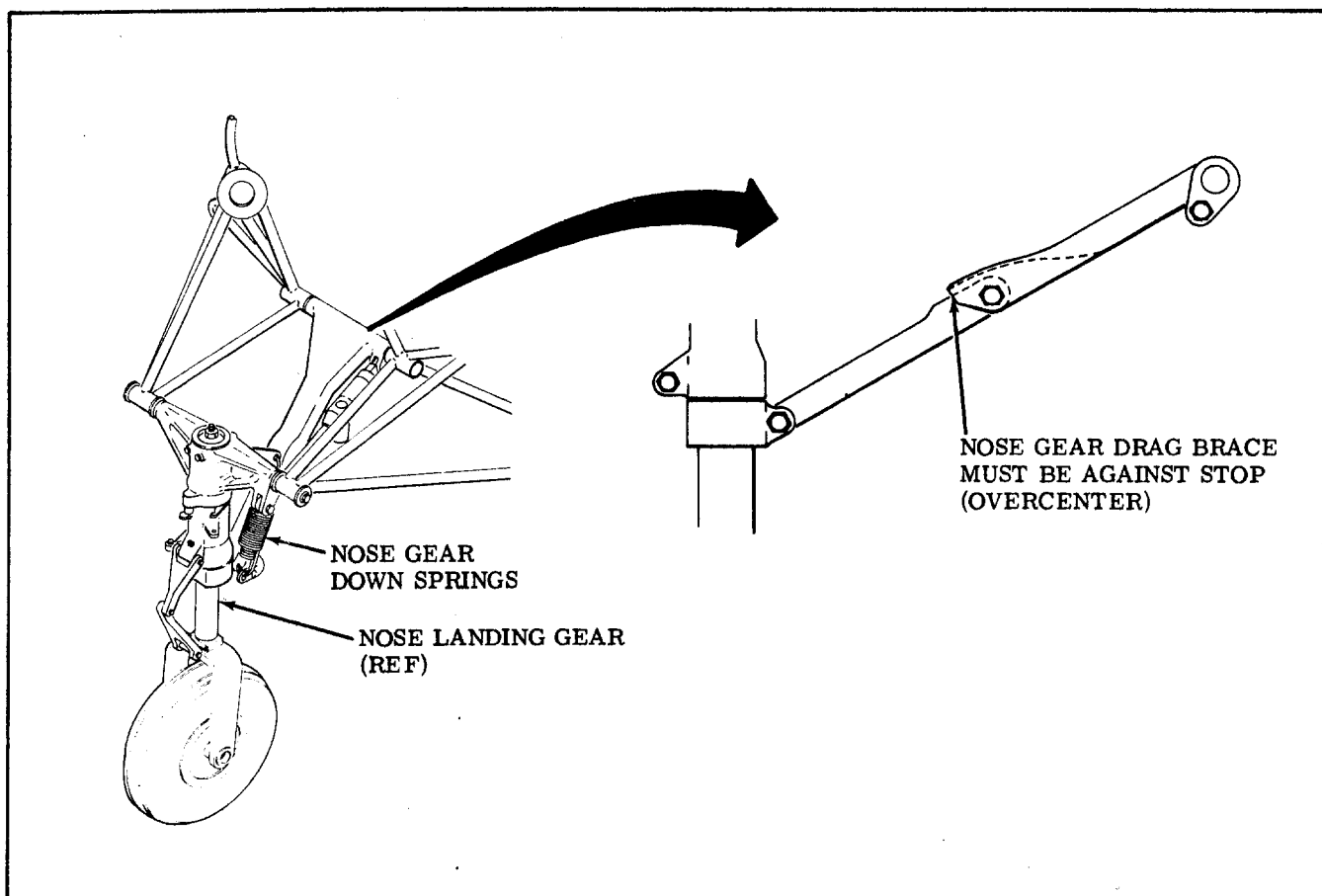


Figure 1.

- c. If clearance is not correct, readjust nose gear actuating cylinder as outlined in the Airplane Maintenance Manual, Section VI.

Models 112 and 112B, Serial No's. 13000 and 381 thru 544, Model 112TC, Serial No's 13001 thru 13108 and Model 112TCA, Serial No's. 13150 thru 13299.

- a. Check drag brace assembly at knuckle area to assure that drag brace is resting on the stop.
 - b. If the drag brace is not resting on the stop, readjust nose gear actuating cylinder as outlined in the Airplane Maintenance Manual, Section VI.
7. Check operation of landing gear system as outlined in the Airplane Maintenance Manual, Section VI.
 8. Remove airplane from jacks.
 9. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: The Airplane Maintenance Manual change required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make an appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-45, dated 14 September 1979, entitled "Nose Gear Down Springs Inspection and/or Replacement", accomplished _____ (date) _____.

SERVICE PUBLICATIONS

revision notice



Commander Division
5001 North Rockwell Avenue,
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-46
Revision No. 1
27 October 1981

ELEVATOR AND RUDDER HINGE FITTING INSPECTION AND/OR REPLACEMENT

APPROVAL: FAA DOA SW-2 Approved.

Page 1 of 5 - PARTS DATA:

		Kit No. 1	Kit No. 2		
		QTY	QTY	PART NO.	DESCRIPTION
CHANGE:	WAS:	-	1 ea.	44285-1	Elevator Fitting
	NOW:	-	2 ea.	44285-1	Elevator Fitting

Service Letter



Rockwell International

General Aviation Division
5001 North Rockwell Avenue
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112-46
14 November 1979

ELEVATOR AND RUDDER HINGE FITTING INSPECTION AND/OR REPLACEMENT

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NO'S 13000 AND 3 THRU 544 AND MODELS 112TC AND 112TCA, SERIAL NO'S 13001 THRU 13309.

REASON FOR PUBLICATION: POSSIBLE ELONGATION OF HOLES IN HINGE FITTINGS AND CRACKS IN RUDDER SPAR.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE OR NEXT ANNUAL INSPECTION, WHICHEVER OCCURS FIRST.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST ROCKWELL COMMANDER AUTHORIZED SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 Approved.

ESTIMATED MAN HOURS: REPLACE BUSHINGS AND BEARINGS - FOUR (4) HOURS.
INSTALL DOUBLERS - EIGHT (8) HOURS.
REPLACE FITTINGS - FOUR (4) HOURS.

PARTS DATA: Parts required to comply with this Service Letter may be procured through your nearest Rockwell Commander Authorized Facility for: Kit No. 1 - \$65.38; Kit No. 2 - \$91.10. Reference this Service Letter, aircraft model and factory serial number when ordering Service Letter No. SL-112-46 kit consisting of the following:

Price subject to change without notice

Kit No. 1 QTY	Kit No. 2 QTY	PART NO.	DESCRIPTION
2 ea.	2 ea.	44006-RE3	Angle Doubler
2 ea.	2 ea.	40113-3	Shim
2 ea.	2 ea.	44006-RE5	Shim
2 ea.	2 ea.	40111-107	Bushing
3 ea.	3 ea.	40111-105	Bushing
1 ea.	1 ea.	FF-411-1	Bearing
4 ea.	4 ea.	F316G x .3125	Bearing
-	1 ea.	44254-501	Rudder Fitting
-	1 ea.	44285-1	Elevator Fitting
1 ea.	1 ea.		Compliance Card
1 ea.	1 ea.	Service Letter No. SL-112-46	Instructions

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove cotter pin and loosen nut on upper rudder hinge fitting.
2. Take hold of upper portion of rudder and attempt to move rudder tip forward-to-aft and left-to-right to check for play at upper hinge fitting.

SERVICE LETTER NO. SL-112-46

3. Remove rudder assembly as outlined in the Airplane Maintenance Manual, Section VII, and discard existing oilite bushing. Retain other hardware for reinstallation of rudder assembly.
4. Remove tip assembly from rudder.
5. If play is evident in upper rudder hinge fitting, per step 2., remove and discard existing upper hinge fitting. Retain existing shims and hardware for installation of new hinge fitting.

NOTE

If no play is detected, do not remove upper hinge fitting.

6. Dye penetrant inspect the bend radius of rudder spar, in area of upper hinge fitting, for cracks.
7. If no cracks are found in bend radius of rudder, in area of upper hinge fitting, proceed to step 9.
8. If cracks are found in bend radius of rudder spar, in area of upper hinge fitting, proceed as follows:
 - a. Remove upper four (4) rivets, attaching skin to spar, from left and right side of rudder assembly (total of eight (8) rivets).
 - b. Remove upper six (6) rivets from rudder assembly leading edge skin lap.
 - c. Stop drill all cracks with a No. 40 (0.098) diameter drill.
 - d. Locate, drill and install 44006-RE3 angle doubler (2 places) on rudder assembly (see Figure 1.).
 - e. If existing hinge fitting is to be used, trim 0.06-inch to 0.07-inch from each end of existing hinge fitting.
 - f. Install existing or new 44254-501 hinge fitting, 44006-RE5 shim (2 places) and 40113-3 shim (2 places) using existing hardware (see Figure 1.).

NOTE

44006-RE5 shims to be installed butted against skins.

- g. Install MS20470AD3 rivet (6 places) in rudder leading edge skin lap.
 - h. Repaint rudder assembly surfaces as necessary.
 - i. Proceed to step 10.
9. Install new 44254-501 hinge fitting (if discarded per step 5.) and existing shims using existing hardware.
 10. Reinstall tip on rudder assembly.
 11. Remove and discard existing oilite bearing from upper vertical fin hinge.
 12. Install FF-411-1 bearing in upper vertical fin hinge and ream hole in new bearing to 0.317/0.318-inch (see Figure 1.).
 13. Remove cotter pin and loosen nut on left and right elevator outboard hinge fittings.
 14. Take hold of elevator tip and attempt to move outboard end of elevator forward-to-aft and up-and-down to check for play at outboard hinge fitting.
 15. Remove left and right elevators as outlined in the Airplane Maintenance Manual, Section VII, and discard existing oilite bushings. Retain other hardware for reinstallation of elevators.
 16. If no play is evident in outboard hinge fitting, per step 14., proceed to step 18.
 17. If play is evident in outboard hinge fitting, per step 14., proceed as follows:

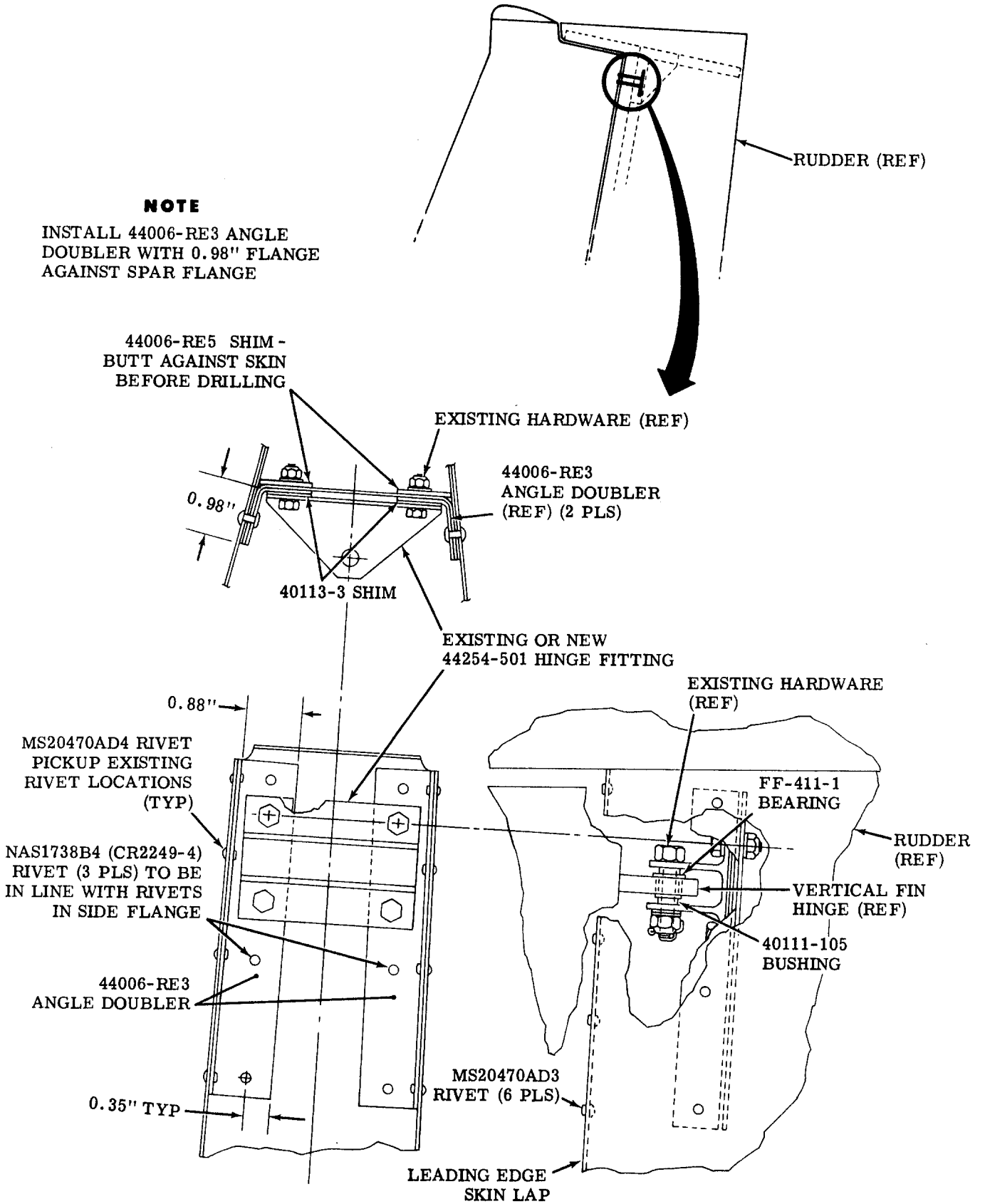


Figure 1.

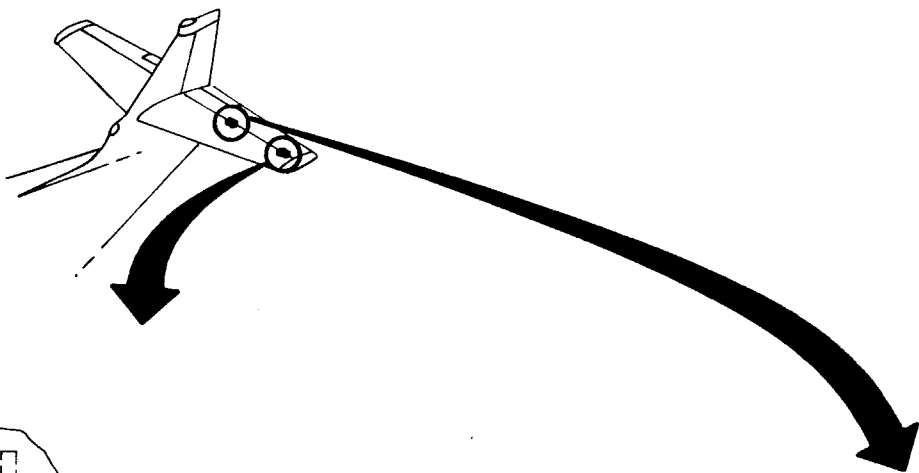
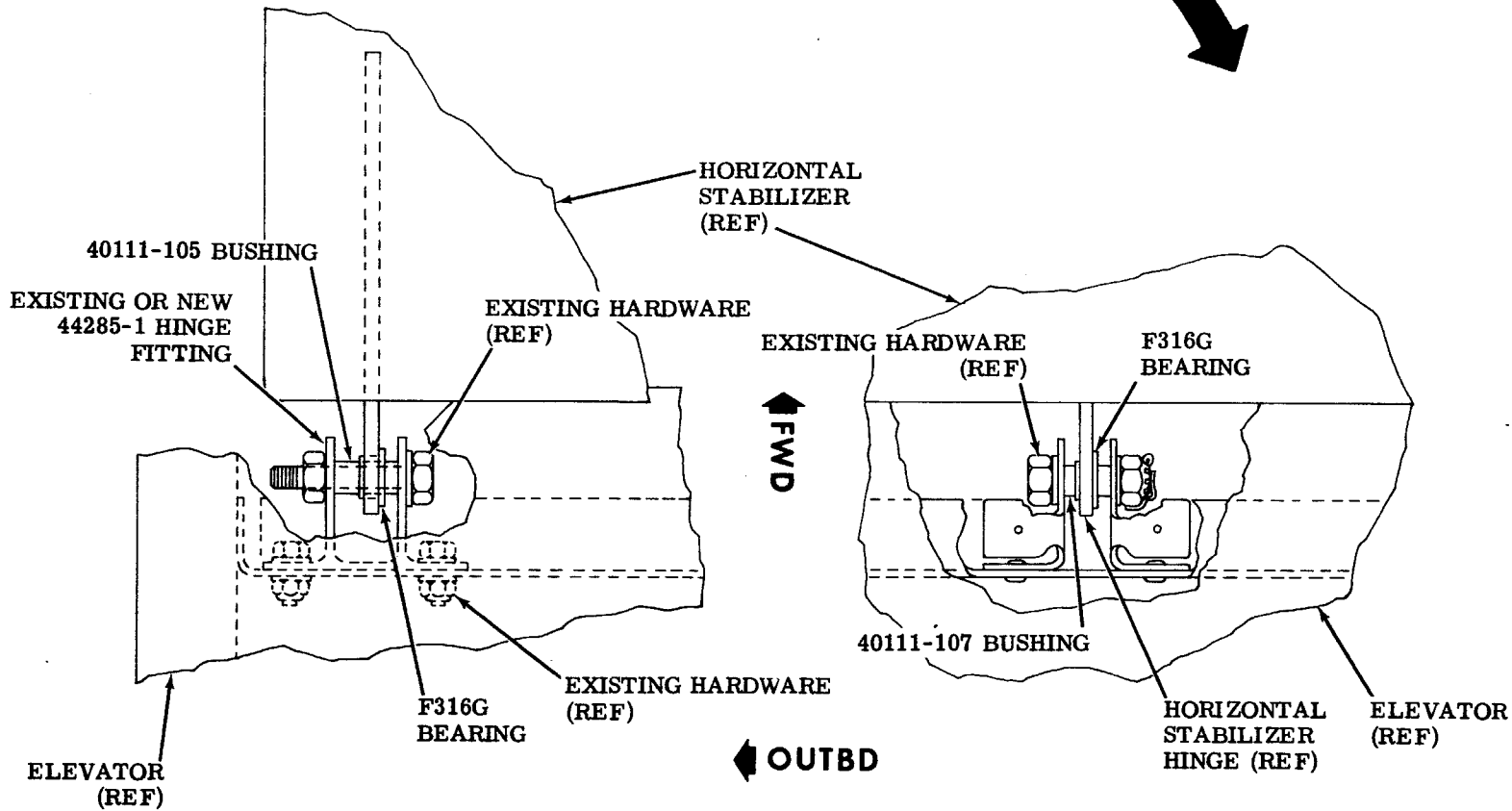


Figure 2.



SERVICE LETTER NO. SL-112-46

- a. Remove tip from elevator.
- b. Remove existing blind rivets and MS20426AD rivets in area of hinge fitting to gain access to hinge fitting attaching nuts.
- c. Remove and discard existing hinge fitting.

NOTE

Replace center hinges if holes are elongated.

- d. Install new 44285-1 hinge fitting on elevator using existing hardware (see Figure 2.).
 - e. Attach skin to elevator structure using MS20426AD4 rivets and NAS1738B4 blind rivets.
 - f. Repaint elevator surfaces as necessary.
 - g. Reinstall tip on elevator.
18. Remove and discard existing oilite bearings from horizontal stabilizer center and outboard hinges.
 19. Install F316G bearing (4 places) on horizontal stabilizer center and outboard hinges and ream hole in bearings to 0.317/0.318-inch (see Figure 2.).
 20. Reinstall rudder assembly on airplane as outlined in the Airplane Maintenance Manual, Section VII, using existing hardware and 40111-105 bushing (see Figure 1.).

NOTE

Tighten nuts until hinge fitting contacts bushing and then tighten nut one (1) full slot to align with cotter pin hole in bolt and then install cotter pin.

21. Reinstall left and right elevator assemblies on airplane as outlined in the Airplane Maintenance Manual, Section VII, using existing hardware, 40111-107 bushing (center hinge) and 40111-105 bushing (outboard hinge) (see Figure 2.).

NOTE

Tighten nuts until hinge fitting contacts bushing and then tighten nut one (1) full slot to align with cotter pin hole in bolt and then install cotter pin.

22. Check rigging of elevators and rudder as outlined in the Airplane Maintenance Manual, Section VII.
23. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: The Airplane Maintenance Manual and Illustrated Parts Catalog changes required by this document will be incorporated at the next scheduled change/revision.

RECORD COMPLIANCE: Make an appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-46, dated 14 November 1979, entitled "Elevator and Rudder Hinge Fitting Inspection and/or Replacement", accomplished _____ (date) _____.

Service Letter



SERVICE LETTER NO. SL-112-47
19 June 1981

INSPECTION OF TURBOCHARGER HEAT SHIELD

MODELS AFFECTED: MODELS 112TC AND 112TCA, SERIAL NOS. 13001 THRU 13309.

REASON FOR PUBLICATION: POSSIBLE ENGINE MOUNT STRUCTURAL DAMAGE DUE TO RUBBING OF TURBOCHARGER HEAT SHIELD.

COMPLIANCE: DURING NEXT 100-HOUR INSPECTION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST GULFSTREAM COMMANDER AUTHORIZED SERVICENTER.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 APPROVED.

ESTIMATED MAN HOURS: TWO (2) HOURS.

PARTS DATA: 1 EACH COMPLIANCE CARD.

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove upper cowling from engine.
2. Inspect engine mount, adjacent to turbocharger heat shield, for possible damage to engine mount (refer to Figure 1).
3. If no damage is evident and clearance between turbocharger heat shield and engine mount is 0.50-inch or more, proceed to step 7.
4. If contact between turbocharger heat shield and engine mount is evident but no major damage has occurred (see step 6), remove heat shield and trim to provide a clearance of 0.50-inch between heat shield and engine mount (refer to Figure 1).
5. Reinstall heat shield, assuring that 0.50-inch clearance is maintained.
6. If extensive damage to engine mount is evident (any penetration of the tube), contact Gulfstream American Corporation Customer Service Department for further instructions.
7. Reinstall upper cowling on engine.
8. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

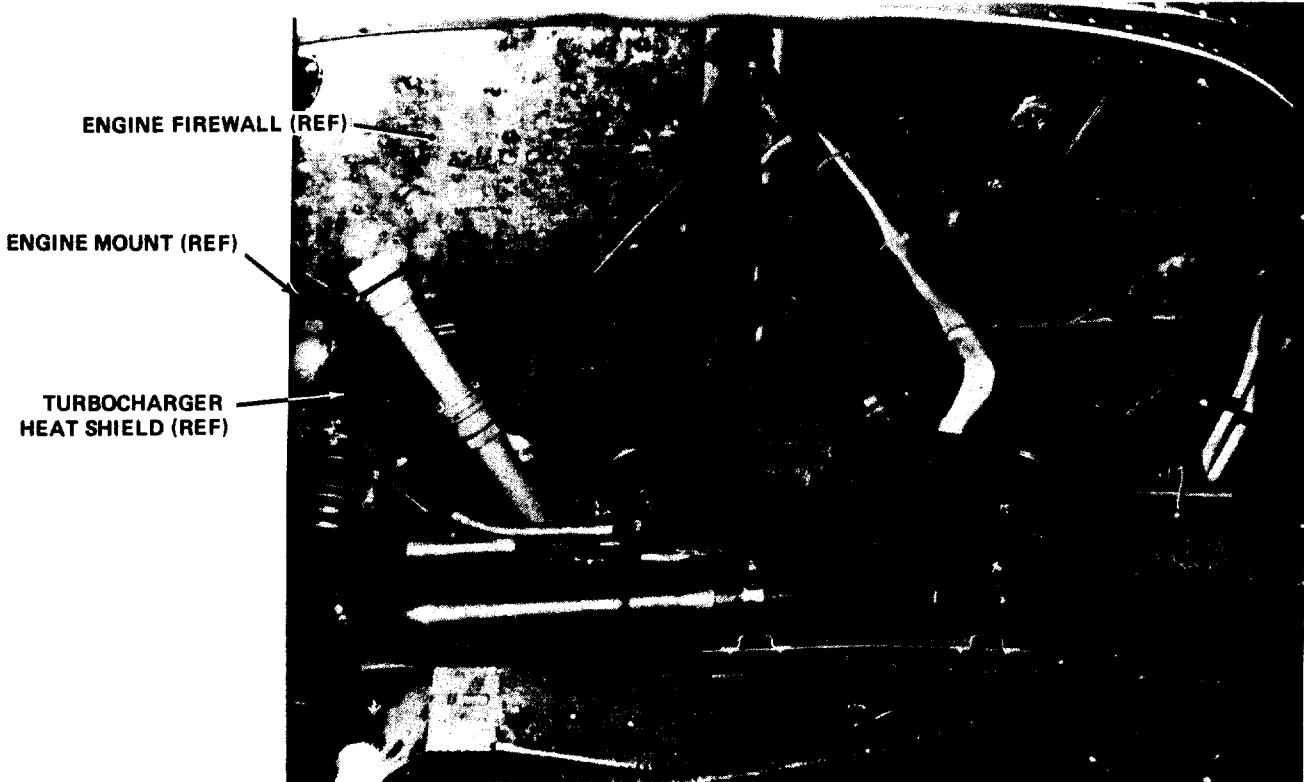
WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make an appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-47, dated 19 June 1981, entitled "Inspection of Turbocharger Heat Shield", accomplished _____ (date) _____.

VIEW LOOKING DOWN AND AFT AT ENGINE



NOTE
TRIM HEAT SHIELD ONLY
IN AREA OF ENGINE MOUNT
IF NECESSARY.

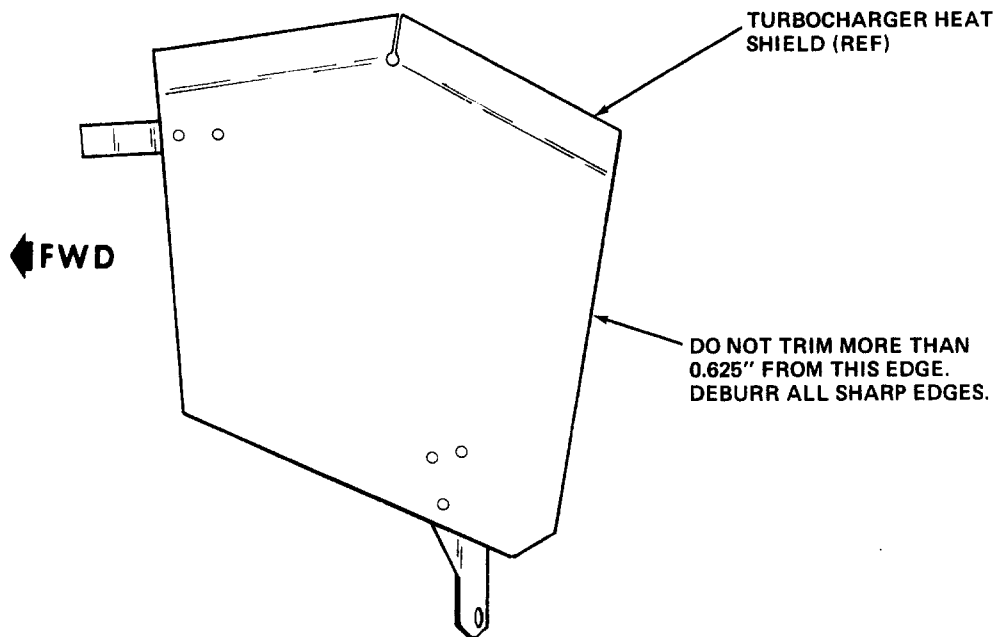


Figure 1.

Service Letter



SERVICE LETTER NO. SL-112-48
26 July 1982

WIRE BUNDLE CLAMP REPLACEMENT

MODELS AFFECTED: MODELS 112 AND 112B, SERIAL NOS. 1 THRU 544 AND 13000.
MODELS 112TC AND 112TCA, SERIAL NOS. 13001 THRU 13265

REASON FOR PUBLICATION: TO PREVENT POSSIBLE LOSS OF WIRE BUNDLE CLAMPS RESULTING IN POSSIBLE HANGING UP OF LANDING GEAR.

COMPLIANCE: WITHIN NEXT 100-HOURS TIME IN SERVICE.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE COMPLYING WITH THIS SERVICE LETTER, CONTACT YOUR NEAREST GULFSTREAM COMMANDER SINGLE ENGINE SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 APPROVED.

ESTIMATED MAN HOURS: SIX AND ONE-HALF (6.5) HOURS.

PARTS DATA: PARTS REQUIRED TO COMPLY WITH THIS SERVICE LETTER MAY BE PROCURED THROUGH YOUR NEAREST GULFSTREAM COMMANDER SINGLE ENGINE SERVICE FACILITY FOR \$39.39. REFERENCE THIS SERVICE LETTER, AIRCRAFT MODEL AND FACTORY SERIAL NUMBER WHEN ORDERING SERVICE LETTER NO. SL-112-48 KIT CONSISTING OF THE FOLLOWING:

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

QTY	PART NO.	DESCRIPTION
3 ea.	43780-3	Clip
3 ea.	43780-4	Clip
1 ea.	AN3H3A	Bolt
10 ea.	AN3-4A	Bolt
25 ea.	AN960D10	Washer
10 ea.	MS21044N3	Nut
2 ea.	MS21919DG4	Clamp
16 ea.	MS21919DG5	Clamp
2 ea.	MS21919DG6	Clamp
14 ea.	MS27039-1-11	Screw
14 ea.	MS27130-A25	Rivnut
16 ea.	MS3367-1-9	Tiedown Strap
4 ea.	MS3367-2-9	Tiedown Strap
50 ea.	MS3367-4-9	Tiedown Strap
16 ea.	MS35338-43	Lockwasher
30 ft.	500004-2	Spiral Wrap
1 ea.		Compliance Card
1 ea.	Service Letter No. SL-112-48	Instructions

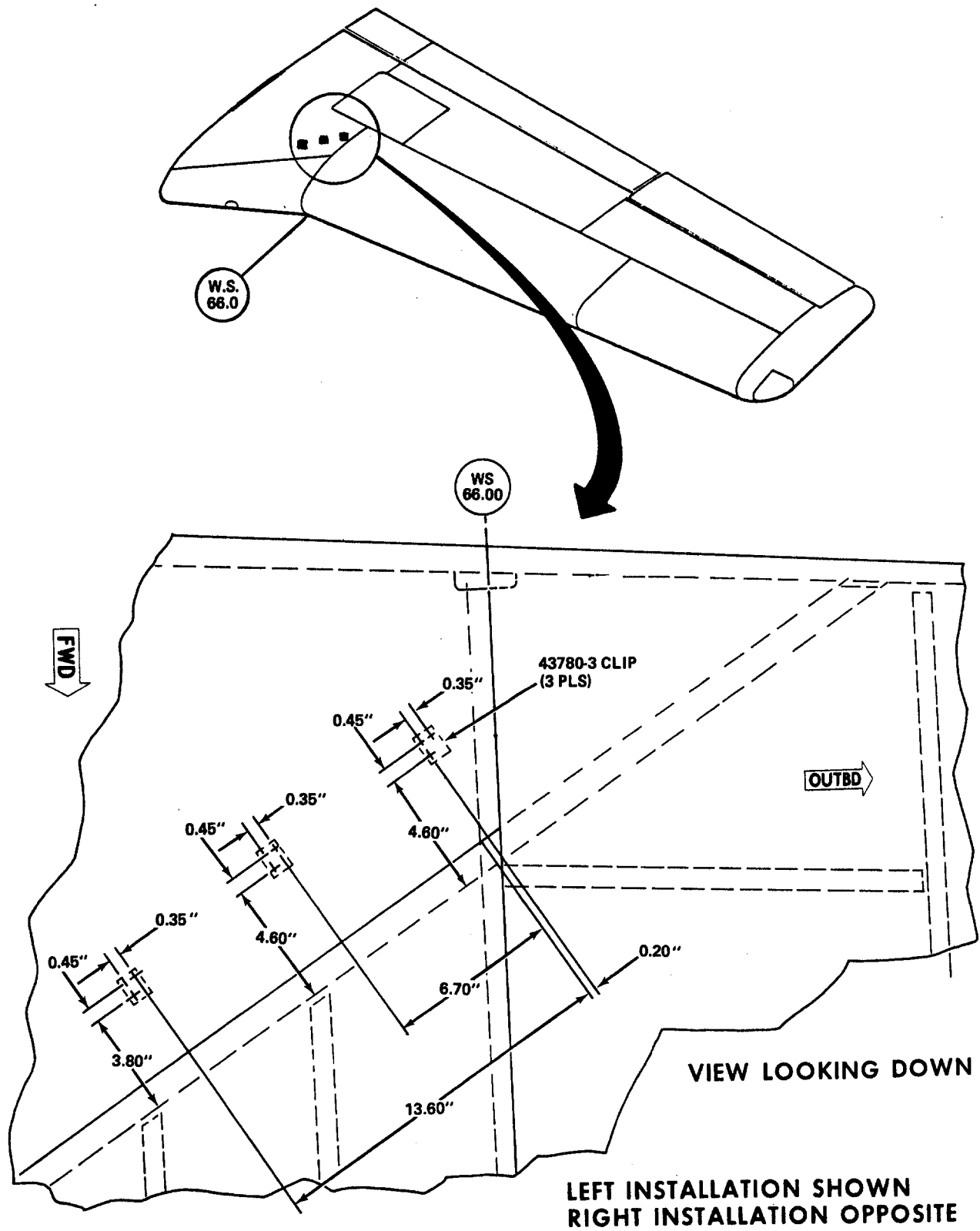


Figure 1

SPECIAL TOOLS: RIVNUT PULLER AND NO. 10-32 UNF-2B TAP.

ACCOMPLISHMENT INSTRUCTIONS:

CAUTION

Care should be taken to prevent damage to electrical wiring while performing this modification.

1. Remove and discard all stick-on type wire bundle clamps from left and right main landing gear wheel wells. Clean and remove all adhesive and foam residue carefully.
2. Remove and discard all tiedown straps securing electrical wiring in main landing gear wheel wells.
3. Remove any existing spiral wrap from electrical wiring in main landing gear wheel well area. Check wiring for cut or damaged wires and repair or replace as necessary.
4. Locate, drill and install 43780-3 clip (3 places) on lower side of wing skin in left wheel well using MS20426AD3 rivets. Rivet heads are to be on top of wing skin (refer to Figure 1).
5. Locate, drill and install 43780-4 clip (3 places) on lower side of wing skin in right wheel well using MS20426AD3 rivets. Rivet heads are to be on top of wing skin (refer to Figure 1).
6. Locate and drill 0.252 (± 0.002) inch diameter hole (7 places) in left and right wheel well area for installation of MS27130-A25 rivnuts (refer to Figure 2).
7. Deburr all holes, prime area around holes with zinc chromate primer and install MS27130-A25 rivnuts (refer to Figure 2).
8. Locate and drill a 0.159-inch (No. 21) diameter hole, 0.63-inch deep, in right main landing gear trunnion. Tap 10-32 UNF-2B threads in hole by 0.50-inch deep (refer to Figure 3).
9. Check left and right main gears for location of down lock switch.
10. If down lock switch is located on upper end of drag brace assembly, proceed to step 12. (refer to Figure 4).
11. If down lock switch is located midway down on drag brace assembly, proceed as follows (refer to Figure 5):
 - a. Locate and drill a 0.194-inch diameter hole in wing station 47.30 rib (if necessary).
 - b. Separate down lock switch cable from other cables at wing station 47.30.
 - c. Assure that down lock switch cable is clean and then wrap cable with 500004-2 spiral wrap.
 - d. Reroute down lock switch cable aft along rib at wing station 47.30 to landing gear cylinder hose. Secure cable to station 47.30 rib using MS21919DG5 clamp (2 places), AN3-4A bolt (2 places), AN960D10 washer (2 places) and MS21044N3 nut (2 places).
 - e. Secure downlock switch cable to landing gear cylinder hose using MS3367-1-9 tiedown strap and then continue routing cable down along top of drag brace assembly to down lock switch. Secure cable to top of drag brace assembly using MS3367-1-9 tiedown strap (2 places).

NOTE

Allow sufficient slack in cable, at down lock switch, to assure proper movement of gear.

- f. Proceed to step 12.

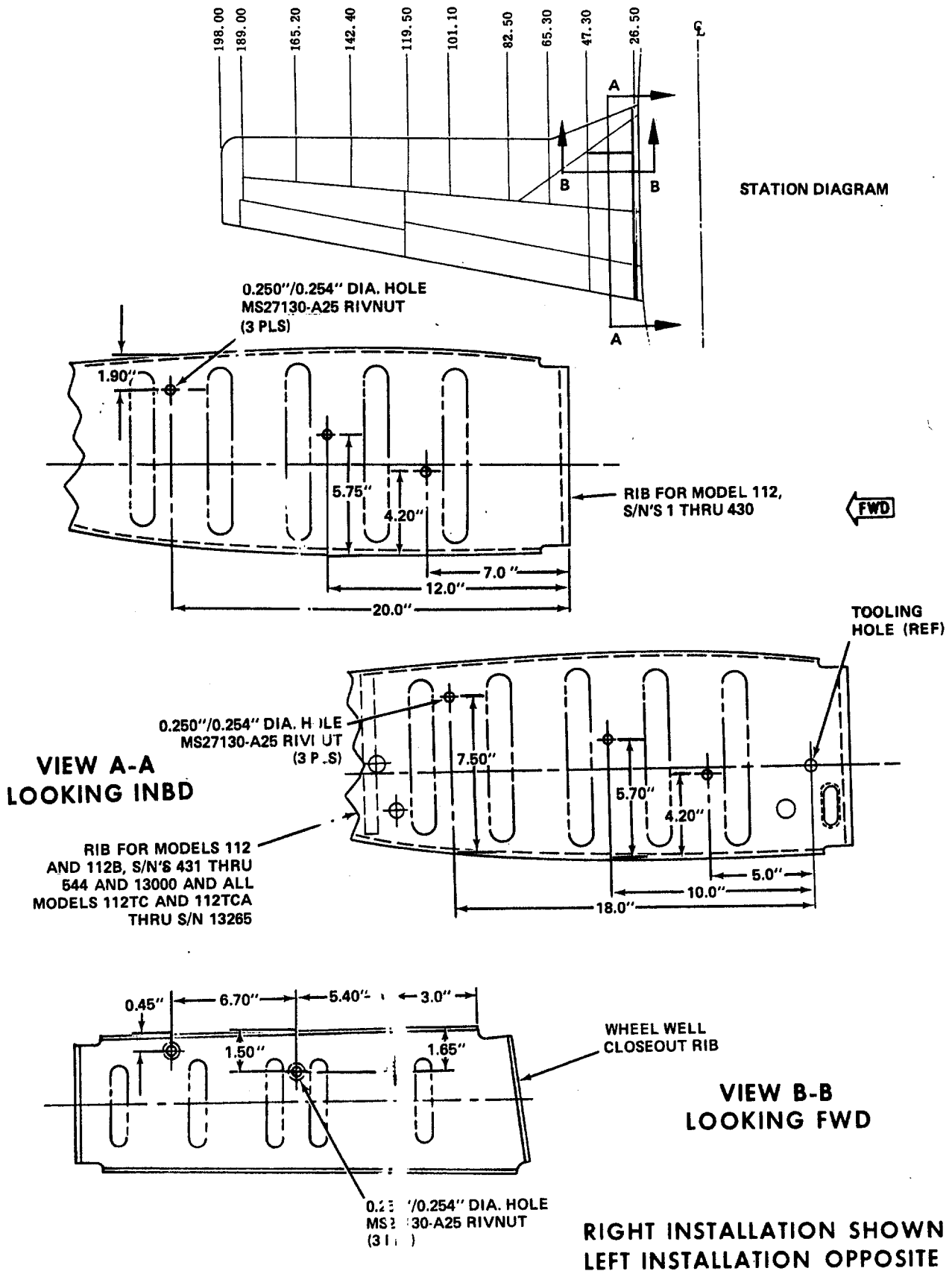
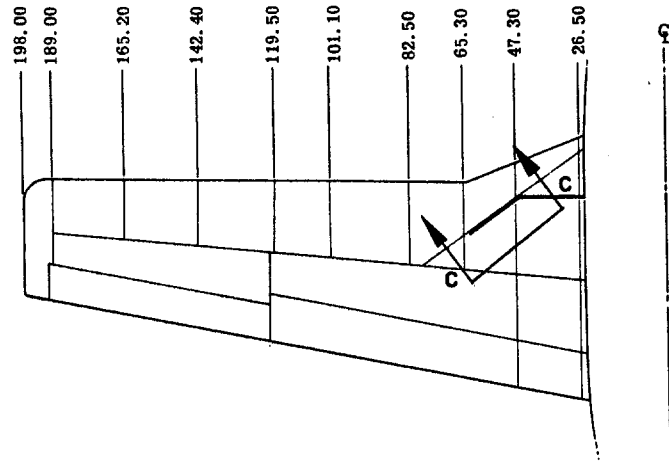
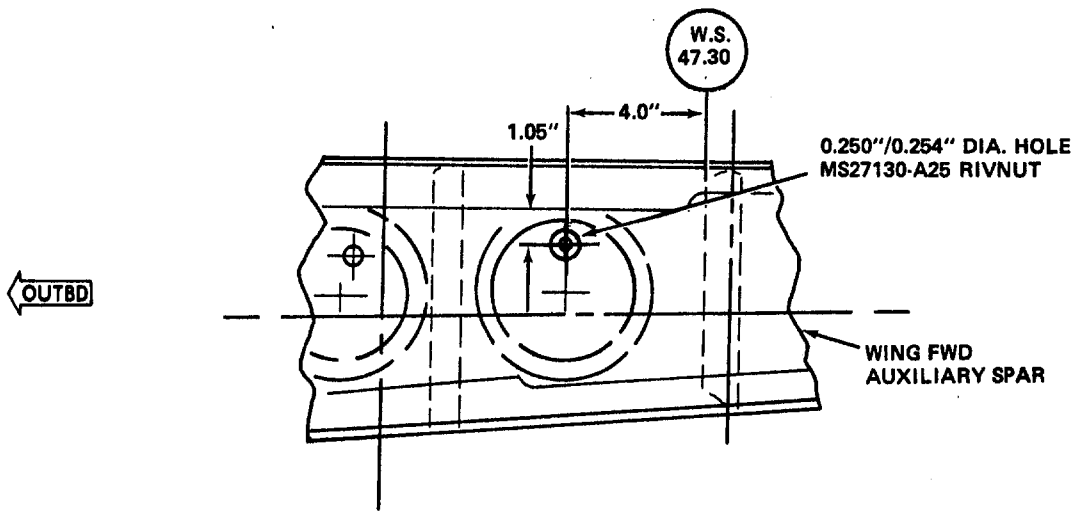


Figure 2. (Sheet 1 of 2)



STATION DIAGRAM



VIEW C-C
LOOKING FWD

LEFT INSTALLATION SHOWN
RIGHT INSTALLATION OPPOSITE

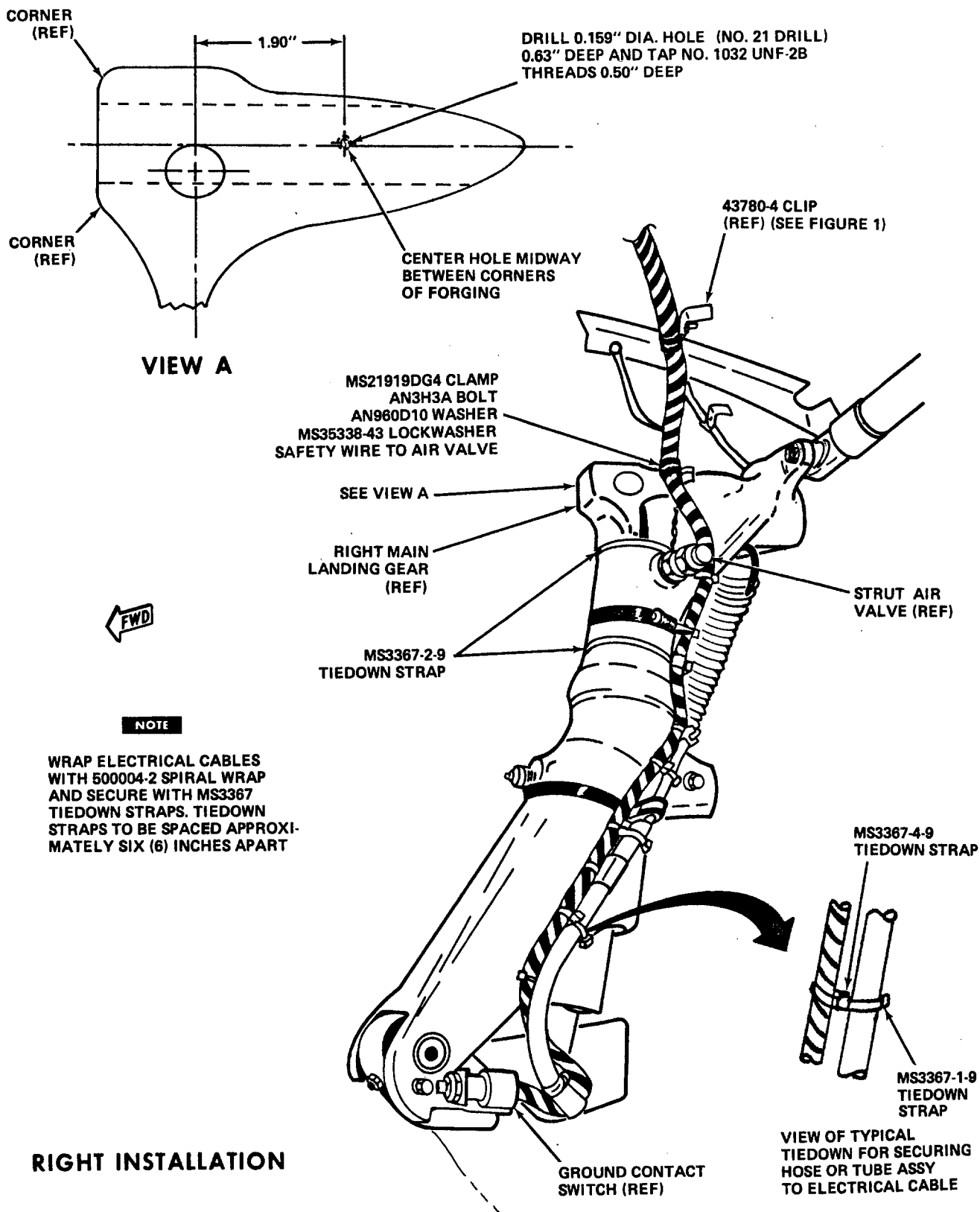


Figure 3. (Sheet 1 of 2)

NOTE

WRAP ELECTRICAL CABLES WITH
500004-2 SPIRAL WRAP AND SECURE
WITH MS3367 TIEDOWN STRAPS.
TIEDOWN STRAPS TO BE SPACED
APPROXIMATELY SIX (6) INCHES
APART.

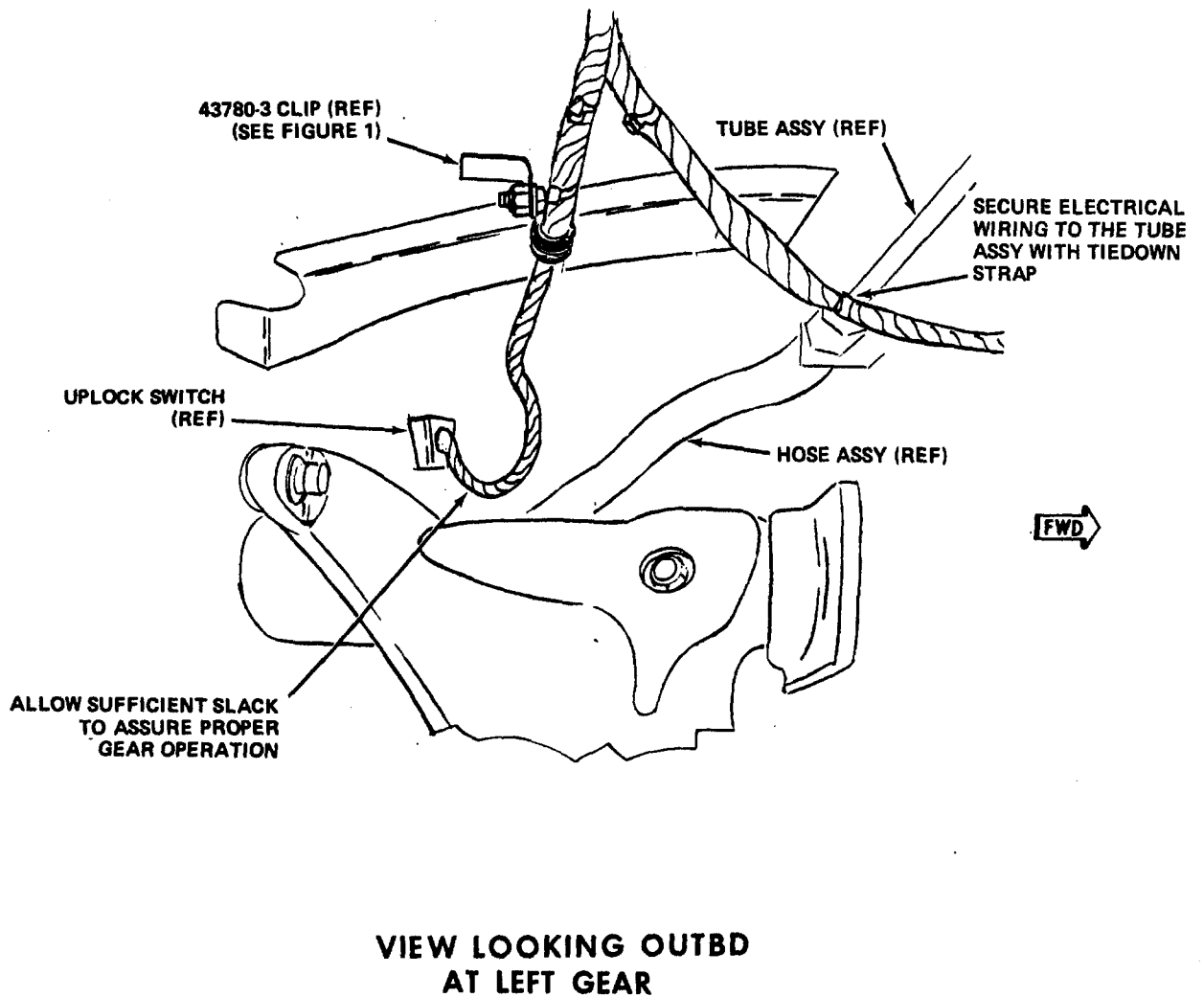
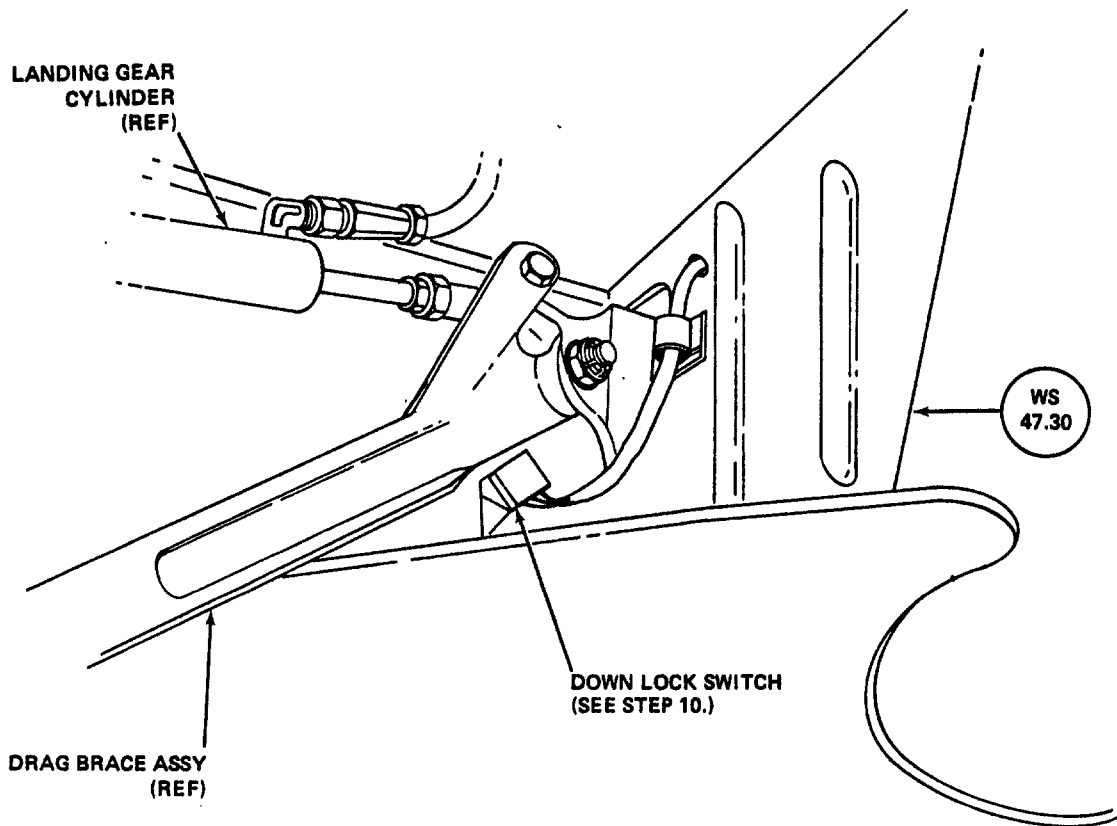


Figure 3. (Sheet 2 of 2)

**RIGHT INSTALLATION SHOWN
LEFT INSTALLATION OPPOSITE**



**VIEW LOOKING UP AND AFT
AT RIGHT WHEEL WELL**

Figure 4.

LEFT INSTALLATION SHOWN
RIGHT INSTALLATION OPPOSITE

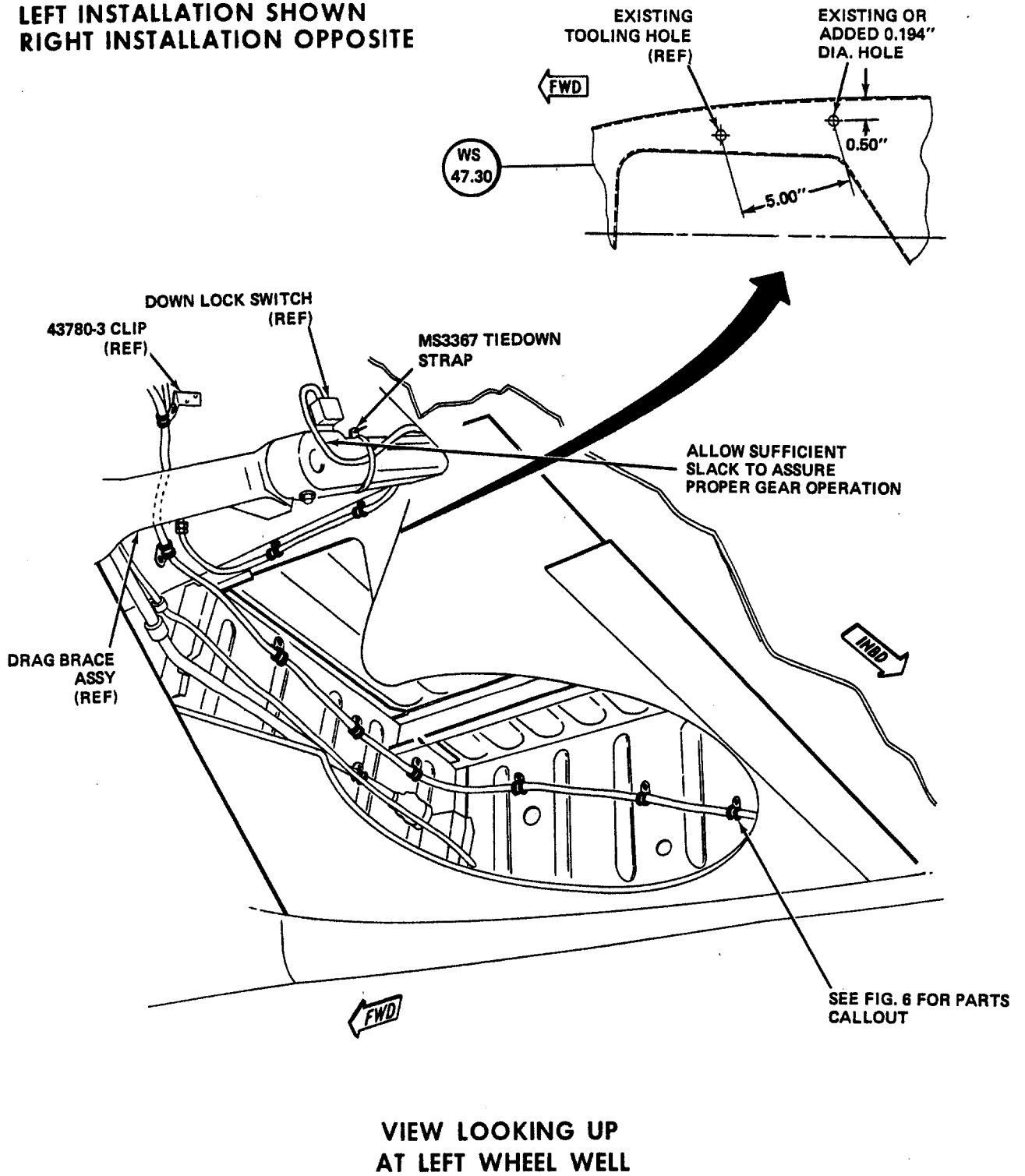
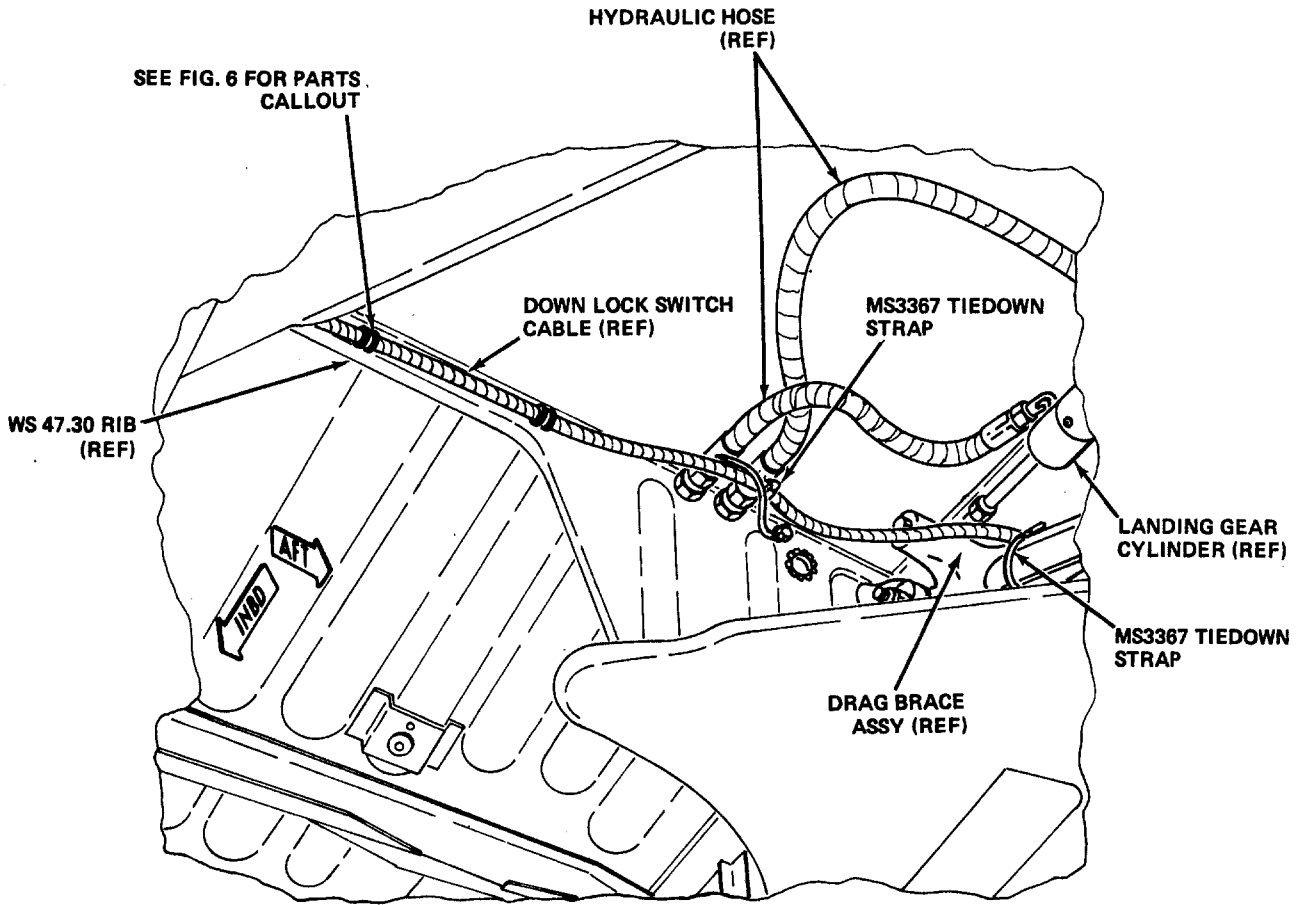


Figure 5. (Sheet 1 of 2)



VIEW LOOKING UP
AT LEFT WHEEL WELL

Figure 5. (Sheet 2 of 2)

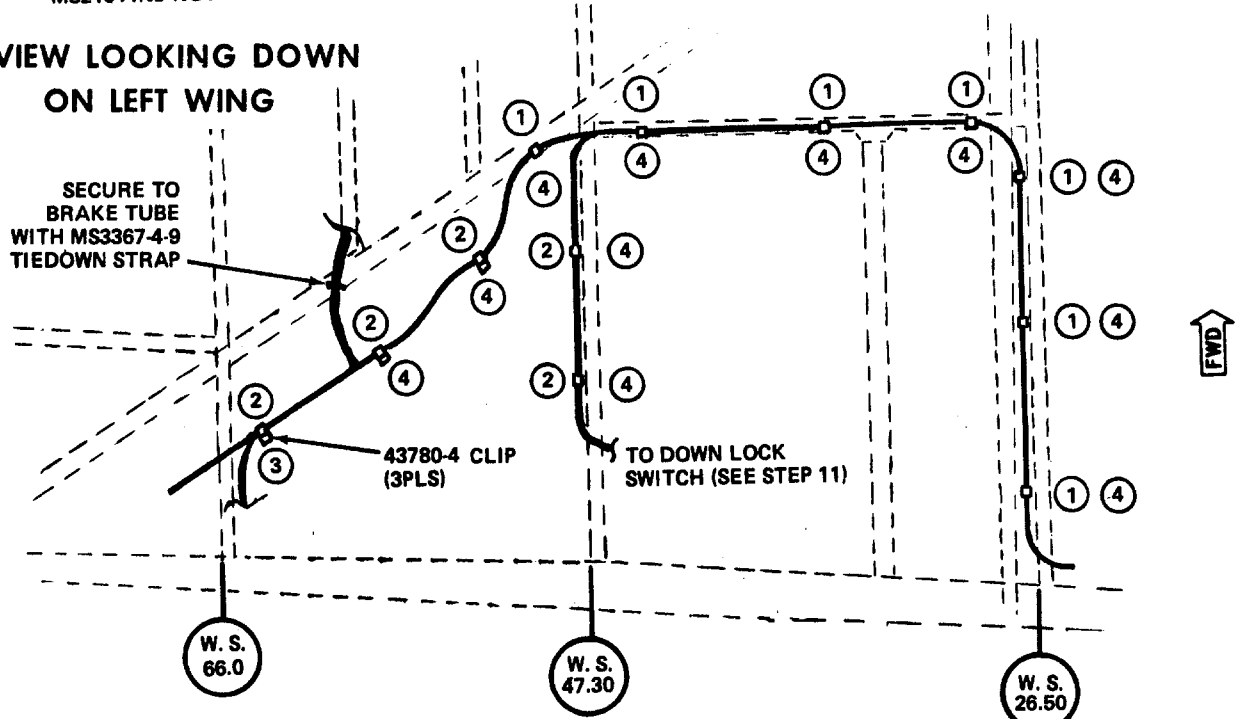
- ① MS27039-1-11 SCREW
AN960D10 WASHER
MS35338-43 LOCKWASHER
- ② AN3-4A BOLT
AN960D10 WASHER
MS21044N3 NUT

- ③ MS21919DG4 CLAMP
- ④ MS21919DG5 CLAMP
- ⑤ MS21919DG6 CLAMP

NOTE

SIZE OF CLAMPS MAY BE CHANGED TO FIT WIRE BUNDLES. WRAP ALL ELECTRICAL WIRING IN WHEEL WELL WITH 500004-2 SPIRAL WRAP AND SECURE WITH MS3367-4-9 TIEDOWNS.

VIEW LOOKING DOWN ON LEFT WING



VIEW LOOKING DOWN ON RIGHT WING

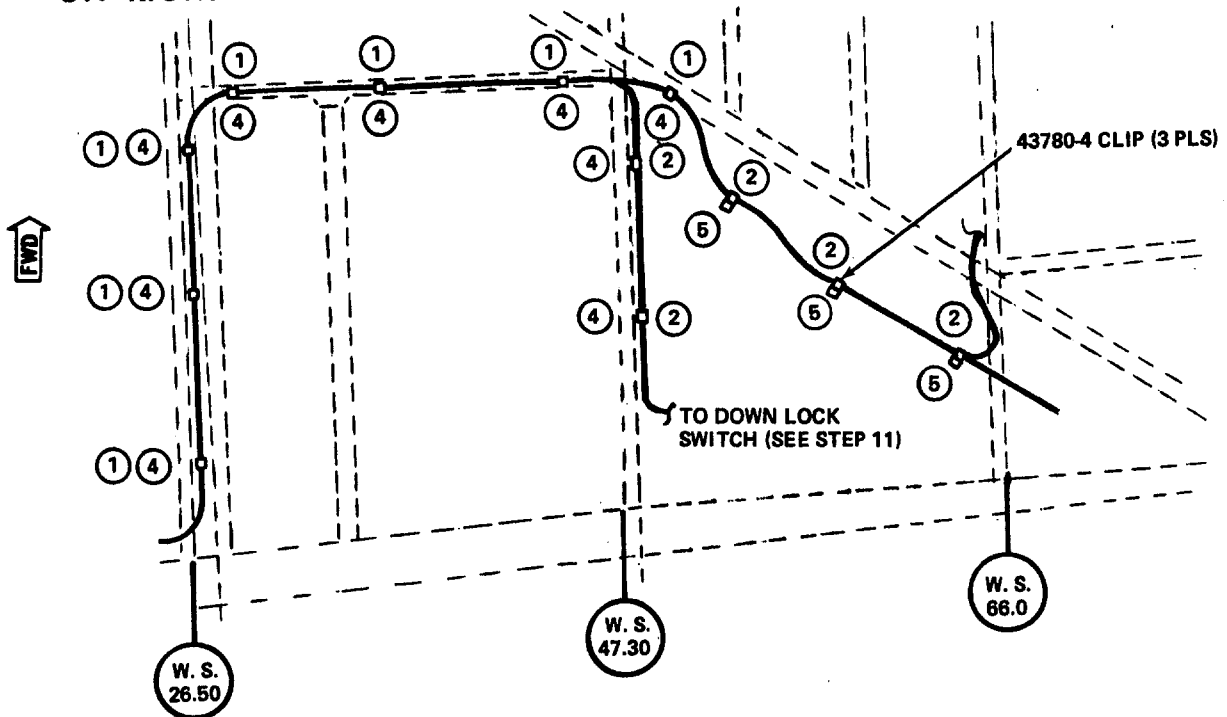


Figure 6

SERVICE LETTER NO SL-112-48

12. Assure that electrical cables in main landing gear wheel well are cleaned prior to wrapping with spiral wrap.
13. Wrap electrical cables with 500004-2 spiral wrap and secure cables using MS21919DG clamps and MS3367 tiedown straps. Tiedown straps should be spaced approximately six (6) inches apart (refer to Figure 6).
14. Jack airplane as outlined in Section II of the Airplane Maintenance Manual.
15. Retract and extend main landing gear to assure that no interference exists between electrical cables and landing gear.
16. Touchup paint as necessary.
17. Remove jacks from airplane.
18. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: NO CHANGE.

SPARES AFFECTED: NO.

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make an appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-48, dated 26 July 1982, entitled "Wire Bundle Clamp Replacement", accomplished _____ (date) _____.

Service Letter

Commander
AIRCRAFT COMPANY

Wiley Post Airport
7200 N.W. 63rd
Bethany, OK 73008

SERVICE LETTER NO. SL-112-50

Date July 1, 1999

EMERGENCY GEAR EXTENSION VALVE COVER PLATE ORIENTATION INSPECTION AND ATTACHMENT IMPROVEMENT, AND INSPECTION AND/OR REPLACEMENT OF FUEL LINE

MODELS AFFECTED: Model 112 and 112B, S/N 3 thru 544 and 13000, Model 112TC and 112TCA,
S/N 13001 thru 13309

REASON FOR PUBLICATION: To reduce the possibility of improper installation of the Emergency Gear
Extension Valve Cover Plate by field maintenance personnel.

COMPLIANCE: Commander Aircraft Company strongly recommends that the procedures found in the
accomplishment instructions section of this service letter be followed.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P Mechanic or equivalent

APPROVAL: Engineering design aspects are FAA approved.

ESTIMATED MAN HOURS: Part I: .25 hours
 Part II: 1.0 hours
 Part III: 6.0 hours
 Part IV: 2.0 hours

PARTS DATA:

QTY	PART NUMBER	DESCRIPTION
1	SL-112-50	Service Letter
Part I: NA		
Part II: NA		

Part III: QTY	PART NUMBER	DESCRIPTION
1	46099-171 *	Fuel Line

* The 46099-171 Fuel Line is used as a replacement in aircraft equipped with a 635019-3 Fuel Line

Part may be ordered from: Commander Aircraft Company
7200 N.W. 63rd Street
Bethany, OK 73008
USA
Phone (405) 495-8080
Fax (405) 495-8383

SERVICE LETTER NO. SL-112-50

PARTS DATA: (con't)

Part IV:	QTY	PART NUMBER	DESCRIPTION
	3	MS27131-2K	Blind Rivnut
	3	NAS391-B4P	Washer
	3	MS24693-C4	Screw

SPECIAL TOOLS REQUIRED: Part IV: Rivnut puller

ACCOMPLISHMENT INSTRUCTIONS:

Part I: Removal of the Emergency Gear Extension Valve Cover Plate and Attachment Hole Inspection

1. Remove the three screws attaching the Emergency Gear Extension Valve Cover to the center console and discard the screws. Set the cover aside for later use.
2. Carefully peel the carpet away from the center console so that the area around the Emergency Gear Extension Valve is exposed.
3. Refer to Figure 1. Examine the area around the Emergency Gear Extension Valve. Verify that the location holes for the three screws attaching the Emergency Gear Extension Valve Cover to the center console match the correct hole locations A, B, and C.
4. If there is an attachment screw hole at location D indicating that the Emergency Gear Extension Valve Cover was installed upside down at some point, proceed to Part II.
5. If the cover was installed correctly and there is no additional attachment screw hole at location D, proceed to Part IV.

Part II: Inspection of the Fuel Line - Refer to Figures 1 and 2

1. Remove the friction control knob (S/N 3 thru 499) or two friction control knobs (S/N 500 thru 544 and S/N 13000 thru 13309).

NOTE
Place the fuel selector knob in the OFF position.

2. Remove the fuel selector knob and the selector plate from the center console.
3. Remove the screws attaching the console cover to the center console.
4. Remove the screws attaching the quadrant cover plate to the center console.
5. Remove the console cover from the center console.
6. Remove the screws attaching the slotted forward console cover to the center console.
7. Move the throttle lever forward until it clears the throttle warning microswitch. Raise the quadrant cover plate and the forward console cover to permit inspection of the fuel line for nicks or scratches in the area where the bottom screw of the improperly attached Emergency Gear Extension Valve Cover attached to the center console.
 - a. If no damage to the fuel line is found, reattach the center console parts (Part II, steps 1 thru 6 in reverse order), proceed to Part IV.
 - b. If a nick or scratch is found in the area being inspected, or any other damage to the fuel is found, proceed to Part III.

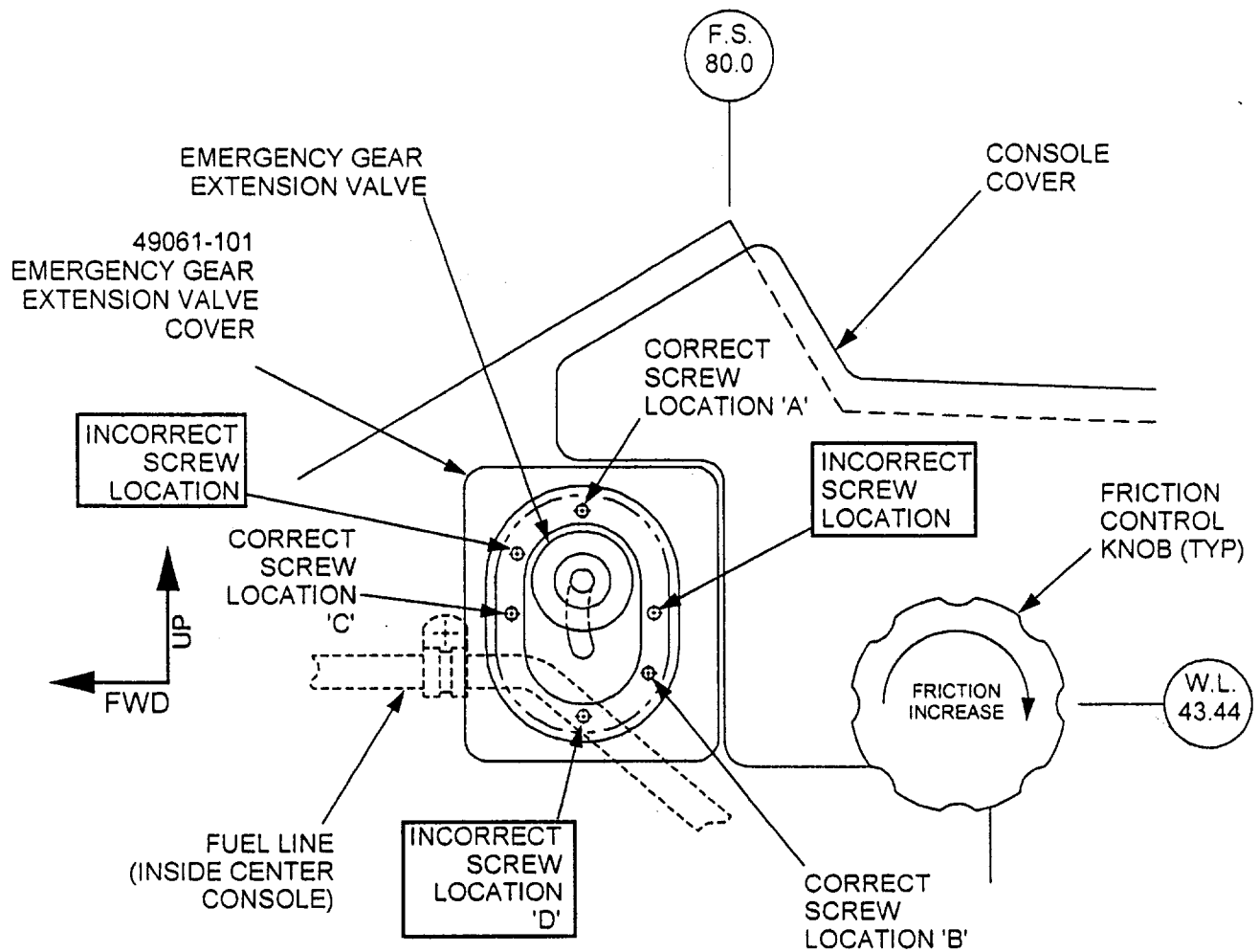


Figure 1.

PART III: Replacement of the Fuel Line

1. Remove the screw attaching the forward and aft center console covers to the center console and remove the covers from the center console. Refer to Figure 2.
2. Remove the two clamps securing the Fuel Line to the side of the center console.
3. Disconnect any bindings tying the static line to the Fuel Line.
4. Loosen the fitting connecting the Fuel Line to the fuel selector valve.

NOTE

Place shop rags inside the center console under each end of the Fuel Line to capture any fuel still present in the fuel line.

5. Loosen the fitting connecting the Fuel Line to the firewall union.

CAUTION

Do not permit the firewall union to turn while loosening the fitting.

SERVICE LETTER NO. SL-112-50

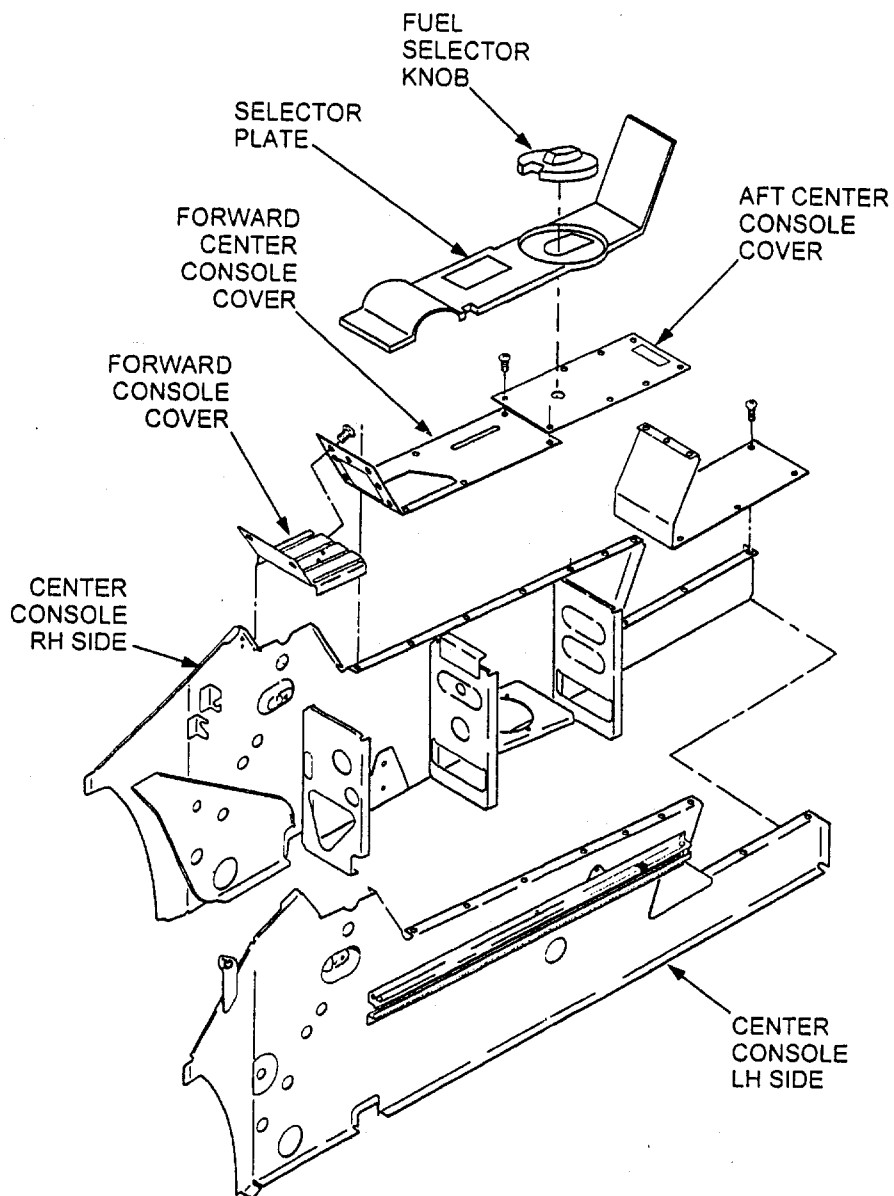


Figure 2.

6. As gently a possible, pull the aft fitting of the Fuel Line away from the fuel selector valve.
7. Pull the forward fitting of the Fuel Line away from the firewall union.
8. Pull the yoke fully aft.
9. Remove the Fuel Line from the aircraft by working it through the center console tunnel forward and to the right behind the instrument panel. It may be necessary to disconnect the right hand defroster ducting to accomplish this step.
10. Install the replacement Fuel Line. Once the line has been reinstalled, check both fittings for leaks.
11. Reinstall the center console parts. Reinstallation steps are the opposite of the removal steps.
11. Proceed to Part IV.

Part IV: Emergency Dump Valve Cover Plate Attachment Improvement

1. Refer to Figure 3. Plug the existing upper hole of the Emergency Gear Extension Valve Cover Plate with Duramix #4040 or equivalent.
2. Enlarge the two remaining holes to .125 diameter.
3. Drill an additional .125 diameter hole in the location shown in Figure 3.
4. Paint the cover plate to match the interior of the aircraft.
5. When the paint is dry, draw an arrow and write the word 'UP' on the back side of the plate in a contrasting color as shown in Figure 4.
6. Using a drill stop set to .125 or other form of marking, enlarge the forward and lower attachment holes in the center console LH side panel to $.155 +.002/-.000$ dia. Using the cover as a template, drill a $.155 +.002/-.000$ dia. hole for the cover upper aft attachment.
7. Cut the keyway notches in the three attachment holes as shown in Figure 5. Install three MS27131-2K Rivnuts.
8. Plug the old upper attachment hole and any improperly drilled attachment holes with any of the following:
 - a. CR2673-3-01 Rivet
 - b. CR2249-4-01 Rivet
 - c. Driven BJ-3 or BJ-4 Rivets.
9. Reattach the carpet to the center console.
10. Reattach the cover plate using three MS24693-C4 Screws and three NAS391-B4P Washers as shown in Figure 6.

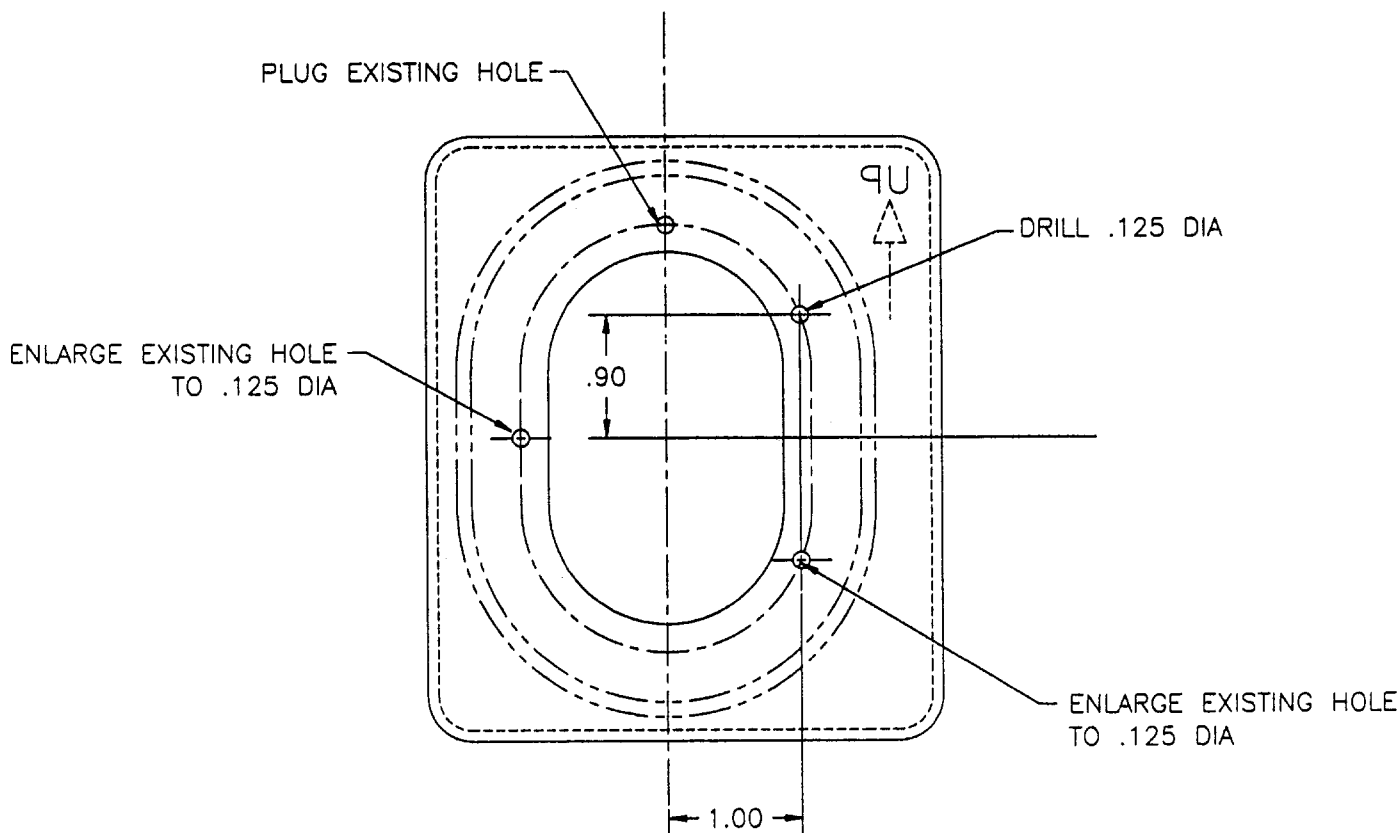


Figure 3. Cover Plate Modifications

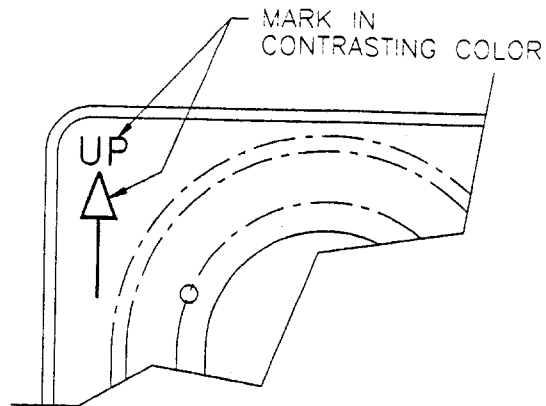


Figure 4.
View from Back Side of Part

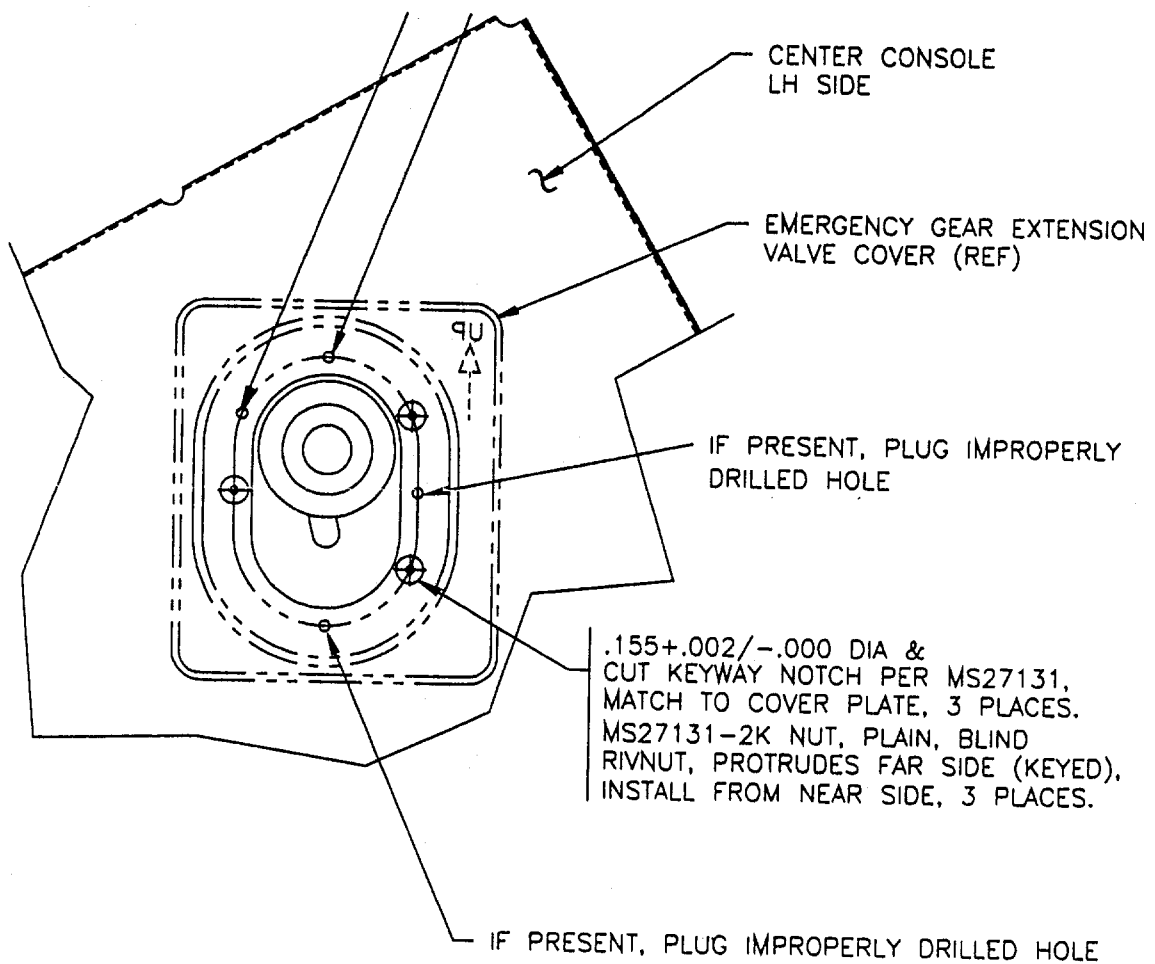


Figure 5.

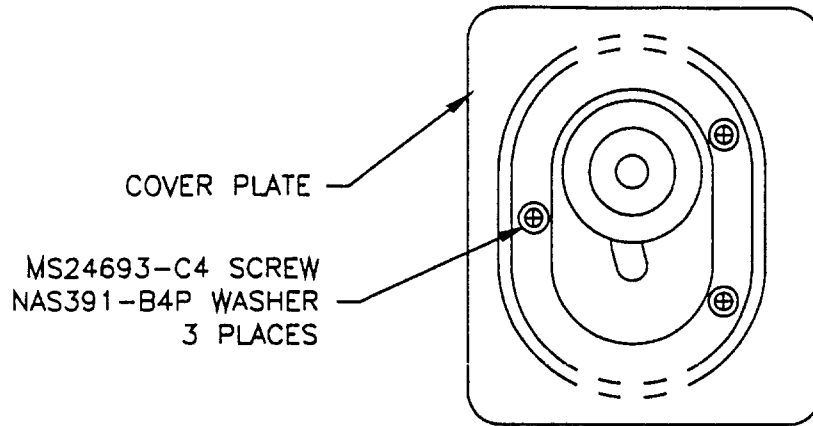


Figure 6.

ELECTRICAL LOAD: No Change

WEIGHT AND BALANCE: No Change

SPARES AFFECTED: No Change

PUBLICATIONS AFFECTED: The appropriate Maintenance Manuals will be amended as necessary by normal revision action at a future date.

COMPLIANCE SECTION: Make an appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112-50, dated July 1, 1999, entitled "Emergency Gear Extension Valve Cover Orientation Inspection and Attachment Improvement, and Inspection and/or Replacement of Fuel Line", accomplished date . Retain this Service Letter with the airplane maintenance records.

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Service Letter



Wiley Post Airport
7200 N.W. 63rd
Bethany, OK 73008

SERVICE LETTER NO. SL-112-51

Date July 31, 2001

INSPECTION OF CONTROL CABLE TERMINALS

MODELS AFFECTED: Models 112, 112B, 112TC, and 112TCA

REASON FOR PUBLICATION: To inform operators of the possibility of primary flight control cable terminals cracking, initiated by surface corrosion, on cables that have 15 years time in service.

COMPLIANCE: Commander Aircraft Company strongly recommends that the procedures found in the Accomplishment Instructions section of this service letter be followed within the next 100 hours time in service or at the next annual inspection, whichever occurs first, and at every annual inspection thereafter on any primary flight control cable that has 15 years time in service or longer.

If a primary flight control cable is replaced, the inspection procedure described in Part I of the Accomplishment Instructions of this Service Letter is not required on that cable until it has 15 years time in service.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P Mechanic or equivalent

APPROVAL: Engineering design aspects are FAA approved.

ESTIMATED MAN HOURS: Part I - 4 hours
Part II - 3 hours for each cable

PARTS DATA: Replacement cables for Part II can be purchased from Commander Aircraft Company.

SPECIAL TOOLS REQUIRED: 10X Magnifier

ACCOMPLISHMENT INSTRUCTIONS:

Part I - Inspect all MS21260 Terminals installed on primary flight control cables for corrosion or cracking

1. Remove safety wire or lockpin clips prior to inspection.
2. Using a 10X magnifier, visually inspect the shaft area of the threaded end of the terminal, close to the wrench flats and the swaged end of the terminal for evidence of stress corrosion pits or cracking.
3. If no evidence of stress corrosion pits or cracking is found, verify cable tension is correct and safety the terminal/turnbuckle barrel per the appropriate maintenance manual. Proceed to the Compliance Section of this Service Letter.
4. If evidence of stress corrosion pits or cracking is found, Proceed to Part II of the Accomplishment Instructions of this Service Letter.

SERVICE LETTER NO. SL-112-51

ACCOMPLISHMENT INSTRUCTIONS (con't):

Part II - Replacement of cable assembly

1. Remove and replace, per the appropriate maintenance manual, any cable assembly found to have evidence of stress corrosion pits or cracking.
2. Once a cable assembly has been replaced, the inspection procedure described in Part I of this Service Letter is not required on that cable until it has 15 years time in service.
3. Proceed to the Compliance Section of this Service Letter.

ELECTRICAL LOAD: No Change

WEIGHT AND BALANCE: No Change

SPARES AFFECTED: No Change

PUBLICATIONS AFFECTED: The appropriate Maintenance Manuals will be amended as necessary by normal revision action at a future date.

COMPLIANCE SECTION: Make an appropriate entry in airplane maintenance records as follows:
Service Letter No. SL-112-51, dated July 31, 2001, entitled "Inspection of Control Cable Terminals", accomplished date . Retain this Service Letter with the airplane maintenance records.

Service Letter



Commander Division
5001 North Rockwell Avenue,
Bethany, Oklahoma 73008

SERVICE LETTER NO. SL-112TC-27A
(Supersedes Service Letter No. SL-112TC-27, dated 4 June 1976, in its entirety)
18 January 1982

CABIN NOISE REDUCTION

MODELS AFFECTED: MODEL 112TC, SERIAL NO'S 13001 THRU 13063.

NOTE

IF BASIC SERVICE LETTER NO. SL-112TC-27 HAS BEEN
COMPLIED WITH, DISREGARD THIS SERVICE LETTER.

REASON FOR PUBLICATION: REDUCE NOISE LEVEL WITHIN CABIN AREA.

COMPLIANCE: AT OWNER'S DISCRETION.

NOTE

IF ANY PROBLEMS ARE ENCOUNTERED WHILE
COMPLYING WITH THIS SERVICE LETTER, CONTACT
YOUR NEAREST GULFSTREAM COMMANDER SINGLE
ENGINE SERVICE FACILITY.

BY WHOM WORK WILL BE ACCOMPLISHED: A & P MECHANIC OR EQUIVALENT.

APPROVAL: FAA DOA SW-2 APPROVED.

ESTIMATED MAN HOURS: SEVEN (7) HOURS.

PARTS DATA: PARTS REQUIRED TO COMPLY WITH THIS SERVICE LETTER MAY BE PROCURED THROUGH
YOUR NEAREST GULFSTREAM COMMANDER SINGLE ENGINE SERVICE FACILITY FOR \$189.13.
REFERENCE THIS SERVICE LETTER, AIRCRAFT MODEL AND FACTORY SERIAL NUMBER WHEN ORDERING
SERVICE LETTER NO. SL-112TC-27A KIT CONSISTING OF THE FOLLOWING:

Price subject to change without notice.

QTY	PART NO.	DESCRIPTION	CODE NO.
1 ea.	315007-3	Stiffener	
1 ea.	315007-4	Stiffener	
1 ea.	315007-5	Clip	
1 ea.	315007-6	Clip	
2 ea.	315008-3	Panel	
2 ea.	315008-5	Panel	
2 ea.	315008-7	Panel	
1 ea.	49083-9	Blanket	
1 ea.	49083-11	Blanket	
1 ea.	49083-13	Blanket	
1 ea.	49083-15	Blanket	
1 ea.	49083-17	Blanket	
1 ea.	49083-19	Blanket	
2 ea.	49083-33	Blanket	
2 ea.	49310-25	Blanket	
2 ea.	49310-27	Blanket	
2 ea.	49310-29	Blanket	
1 pt.	EC2216 A/B	Epoxy	2299801
1 ea.		Compliance Card	
1 ea.	Service Letter No. SL-112TC-27A	Instruction	

SPECIAL TOOLS: NONE.

ACCOMPLISHMENT INSTRUCTIONS:

PART I

1. Remove pilot and copilot seats.
2. Remove left and right scuff plates.
3. Remove left and right lower plastic frames.
4. Remove left and right door jamb moulding as necessary to facilitate removal of forward side panels.
5. Remove ash trays from left and right forward side panels.
6. Remove left and right forward side panels.
7. Remove carpet from forward cabin area.

PART II

1. Sand all areas where noise reduction panels are to be installed with 400 grit sandpaper (see Figures 1 and 2.).
2. Wipe sanded area clean with Stoddard solvent or equivalent.
3. Install 315007-3 and -4 stiffeners and 315007-5 and -6 clips as shown in Figure 2.

NOTE

Bond stiffener to fuselage skin by applying EC2216 A/B epoxy to stiffener before installation.

4. Cut and trim 49083 blankets as required to clear equipment installed on aft side of engine firewall (see Figure 2.).
5. Apply EC1403 adhesive to rubber side of trimmed blankets and attach to firewall.
6. Cut and trim 49310-25 and -27 blankets as required to install above and below stiffeners installed in step 3. above.
7. Apply EC1403 adhesive to trimmed blankets and attach to fuselage skin (see Figure 2.).
8. Install 49310-29 blankets by inserting blanket through airframe lightening holes.
9. Reclean floor area with Stoddard solvent or equivalent.
10. Immediately after cleaning floor area apply 2-part EC2216 A/B Epoxy to cleaned area.
11. Press 315008 panels in place and utilize weights to hold panels against floor surface until epoxy has cured.

NOTE

Allow epoxy to cure for a minimum of 8 hours before installing carpet.

12. Install equipment removed in Part I.
13. Fill out and mail Compliance Card.

ELECTRICAL LOAD: NO CHANGE.

WEIGHT AND BALANCE: The weight and balance change resulting from this Service Letter installation is as follows:

WEIGHT (LBS)	H-ARM (INCHES)	H-MOMENT (INCH-LBS)
16	76.1	1247

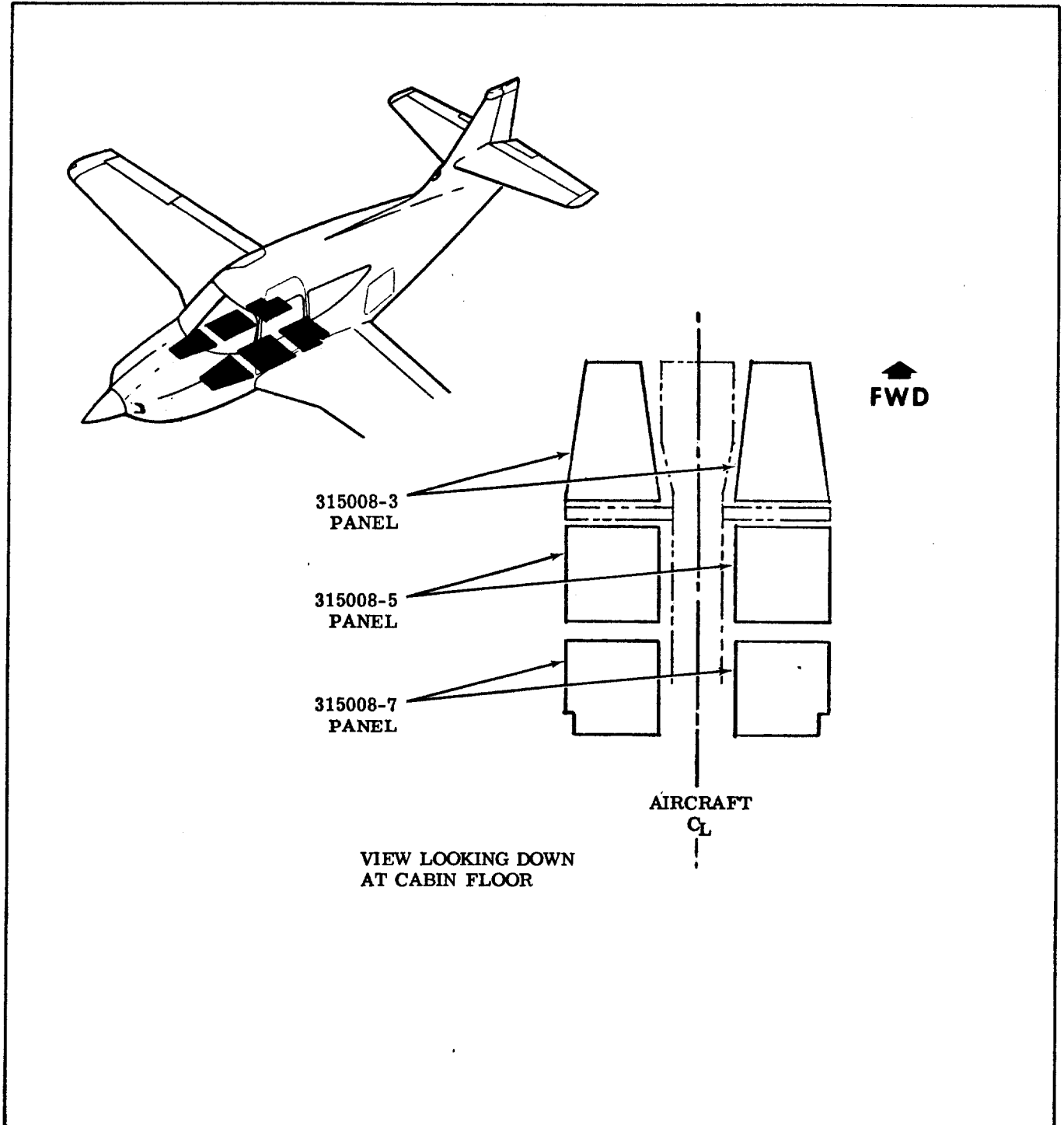


Figure 1.

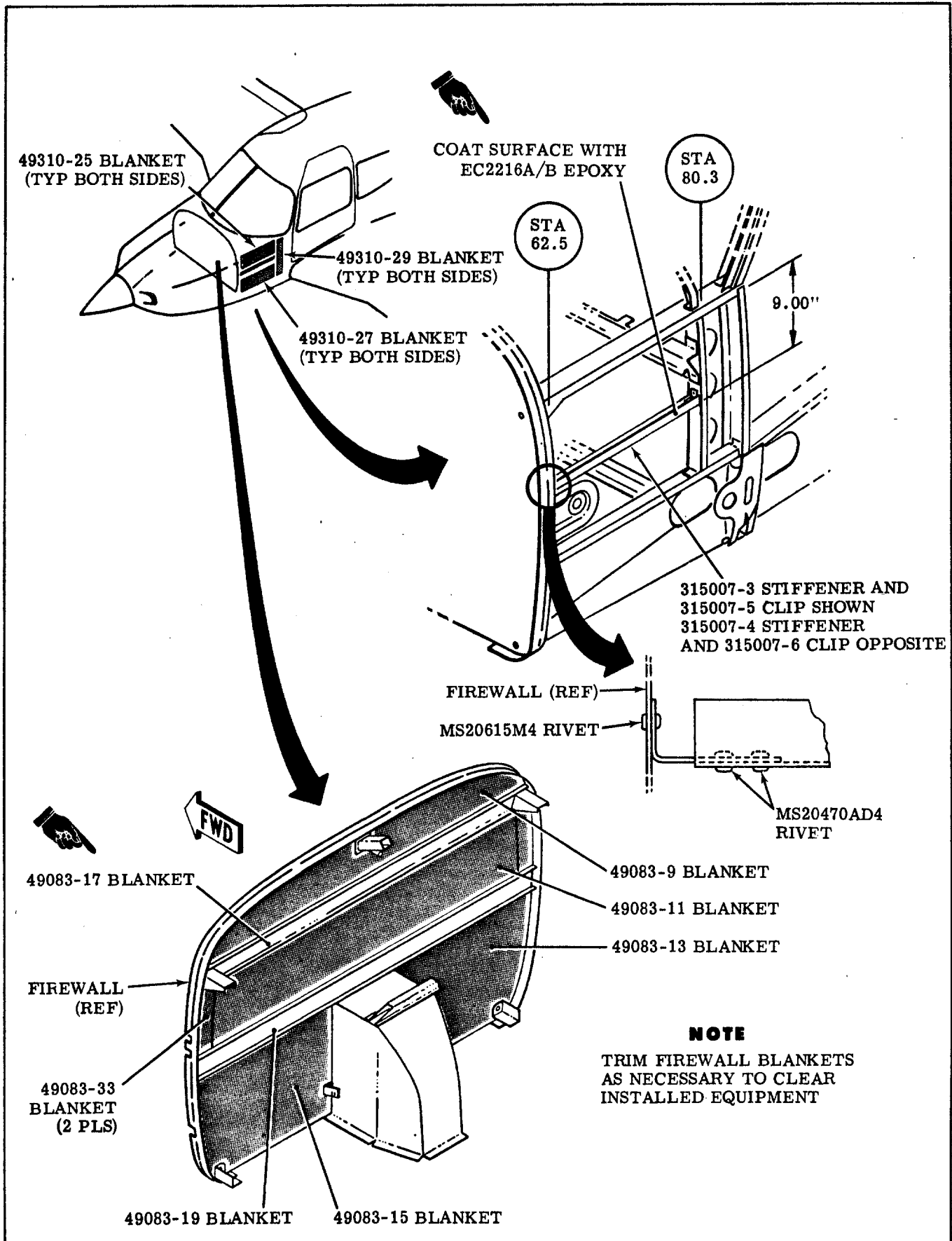


Figure 2.

SERVICE LETTER NO. SL-112TC-27A

PUBLICATIONS AFFECTED: NONE.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Service Letter No. SL-112TC-27A, dated 18 January 1982, entitled "Cabin Noise Reduction", accomplished _____ (date) _____.