

**MU-2**

# SERVICE RECOMMENDATION

MITSUBISHI HEAVY INDUSTRIES, LTD.  
NAGOYA AEROSPACE SYSTEMS WORKS  
10, OYE-CHO, MINATO-KU, NAGOYA, JAPAN

No.046/32-004                      DATE: February 28, 2017

Subject:                              Nose Landing Gear System Inspection

Effectivity:                        MU-2B-25/-26/-26A/-40: S/N 313SA,321SA,348SA through 459SA

Purpose:                              In order to maintain the continued airworthiness of aircraft, inspect, replace and/or adjust Nose Landing Gear system and associated parts.

Compliance:                        Optional

Responsible Agency of  
Compliance :                      MU-2 Owners/Operators

Disposition of Removed Parts:    Scrap

Spare Parts Affected:              Yes

Required Man Hours:              See Table 1.

Special Tools Required:            None

Weight and Balance  
Change:                              None

Flight Manual Revision:            None

Note:                                  This Service Recommendation is ONE-TIME inspection. All Owner/Operators must conduct periodic inspection of the Nose Landing Gear in accordance with the applicable MU-2 Maintenance Requirements Manual.

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## **DEFINITIONS**

MHIA: Mitsubishi Heavy Industries America, Inc.

APD: Aircraft Product Support Division

NLG: Nose Landing Gear

SB: Service Bulletin

SR: Service Recommendation

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**Table 1 Required Man-Hour**

|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| <b>1. Preparation</b>                                           |                             |
| Preparation:                                                    | 6 Man-Hours                 |
| <b>2. NLG Drag Strut to Fuselage Bracket, Inspection of</b>     |                             |
| Inspection:                                                     | 0.5 Man-Hours               |
| Replacement of Bracket (LH/RH):                                 | 12 Man-Hours / 12 Man-Hours |
| Repair of Skin (LH/RH):                                         | 10 Man-Hours / 10 Man-Hours |
| Replacement of Channel:                                         | 32 Man-Hours (per each)     |
| <b>3. NLG Door Bracket, Inspection of</b>                       |                             |
| Inspection:                                                     | 0.5 Man-Hours               |
| Replacement of Bracket:                                         | 8 Man-Hours                 |
| <b>4. NLG Drag Strut Link, Inspection of</b>                    |                             |
| Inspection:                                                     | 0.5 Man-Hours               |
| Removal/Modification of Drag Strut Link:                        | 6 Man-Hours                 |
| <b>5. NLG Drag Strut Pin, Inspection of</b>                     |                             |
| Inspection:                                                     | 1 Man-Hours                 |
| Replacement of Drag Strut Pin:                                  | 5 Man-Hours (per each)      |
| <b>6. NLG Eccentric Bolt, Inspection of</b>                     |                             |
| Inspection:                                                     | 1 Man-Hours                 |
| <b>7. NLG Reinstallation</b>                                    |                             |
| Reinstallation:                                                 | 16 Man-Hours                |
| <b>8. NLG Down Lock Mechanism, Inspection and Adjustment of</b> |                             |
| Inspection:                                                     | 1 Man-Hours                 |
| Replacement of Down Lock Assy:                                  | 3 Man-Hours                 |
| Adjustment of Drag Strut Assy:                                  | 2 Man-Hours                 |
| <b>9. Restoration</b>                                           |                             |
| Restoration:                                                    | 2 Man-Hours                 |

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## ACCOMPLISHMENT INSTRUCTIONS

Refer to the applicable MU-2 Maintenance Manual, Parts Catalog and Structural Repair Manual for compliance with this Service Recommendation.

If SB045/32-004 has not been carried out, comply with SB045/32-004 before accomplishing this Service Recommendation.

### 1. Preparation

#### CAUTION

Anytime anyone is working on Landing Gear Systems, pull out the "LG MOTOR", "LG DOOR MOTOR" and "LG CONT." circuit breakers and place a sign in the cockpit.

- (1) Place the aircraft on jacks.
- (2) Remove LH and RH NLG Access Panels from Forward Fuselage. (Figure 3)
- (3) Remove Traveling Nut Panel (Cabin).
- (4) Connect Torque Links.
- (5) Perform operational check of Landing Gear System.
  - (a) While applying 44 to 55 lbs (20 to 25 kg) to NLG Axle in the direction of retraction, retract Nose Landing Gear with no inertia and ensure that no abnormal popping sound is heard from Down Locks when disengagement occurs.
  - (b) Check and record Traveling Nut clearances with the gear in the UP and DOWN position.
  - (c) Check and record NLG Down Lock engagement.

#### NOTE

Step (a) through (c) should be completed at least three (3) times; the repetition is to ensure that the landing gear motor brake is working properly. Cooling of the Landing Gear Motor and Landing Gear Door Motor should be accomplished after continuous operations.

- (d) Note discrepancies found to be corrected during reinstallation.
- (6) Remove NLG Wheel Assemblies.
- (7) Retract Nose Landing Gear slightly from the full extended position until LH and RH Down Locks are disengaged.

#### NOTE

At the position where the Lock is displaced from the Lock Groove of Drag Strut Link, NLG Aft Doors are not yet fully open and door open mechanism is under tension..

- (8) Remove NLG Fwd Door Rod End connecting bolt. (Figure 2 ③)
- (9) Carefully remove NLG Aft Doors connecting Rod bolts and Door Mechanism connecting bolt which are under tension. (Figure 2 ①, ④)

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- (10) While holding NLG Strut, remove NLG Actuator (Screw Jack) connecting bolt from Down Lock Assembly. (Figure 1 ①) Extend Nose Landing Gear Strut to the down position.

## CAUTION

Nose Landing Gear will move down, forward and lock (extended) after the connecting bolt is removed.

- (11) With the NLG in the down position and locked, check/mark/secure position of:
- (a) Actuator extension length (to prevent rotation).
  - (b) Eccentric Bolt position with relation to Bolt Retainer. (S/N 366SA and up only)(Figure 1 ②)
  - (c) Trunnion RH Pin 030A-39611 and NLG UP Position Switch with relation to the airframe.
  - (d) Trunnion LH Pin 016A-39271 and Door Actuating Arm mating Splines markings (cotter pin and attaching nut must be removed). (Figure 2 ②)
  - (e) Scissor Switch supporting Clamps in the NLG strut.
- (12) Remove Drag Strut attaching bolts and/or Eccentric Bolt (S/N 366SA and up only) from Drag Strut to Fuselage Brackets. (Figure 1 ②)
- (13) Push Down Lock Assembly upward to move Drag Struts out of Drag Strut to Fuselage Brackets.
- (14) Remove NLG Scissor Switch/Wiring and secure it away from NLG Strut as needed.
- (15) Disconnect and secure NLG UP Position Switch. (Figure 1 ⑦)
- (16) Remove Trunnion Pin attaching bolts from Trunnion. (Figure 1 ⑤)
- (17) Remove Trunnion Pins and slowly move NLG Strut away from aircraft while paying attention to NLG Down Position Switch and wiring. (Figure 1 ⑥)
- (18) Identify/mark the value of NLG Trunnion Shims including location and save it for restoration.
- (19) Remove Drag Strut Pin attaching bolts and Drag Strut Pins. (Figure 1 ③, ④)
- (20) Separate Drag Strut and Down Lock Assembly from NLG Strut.

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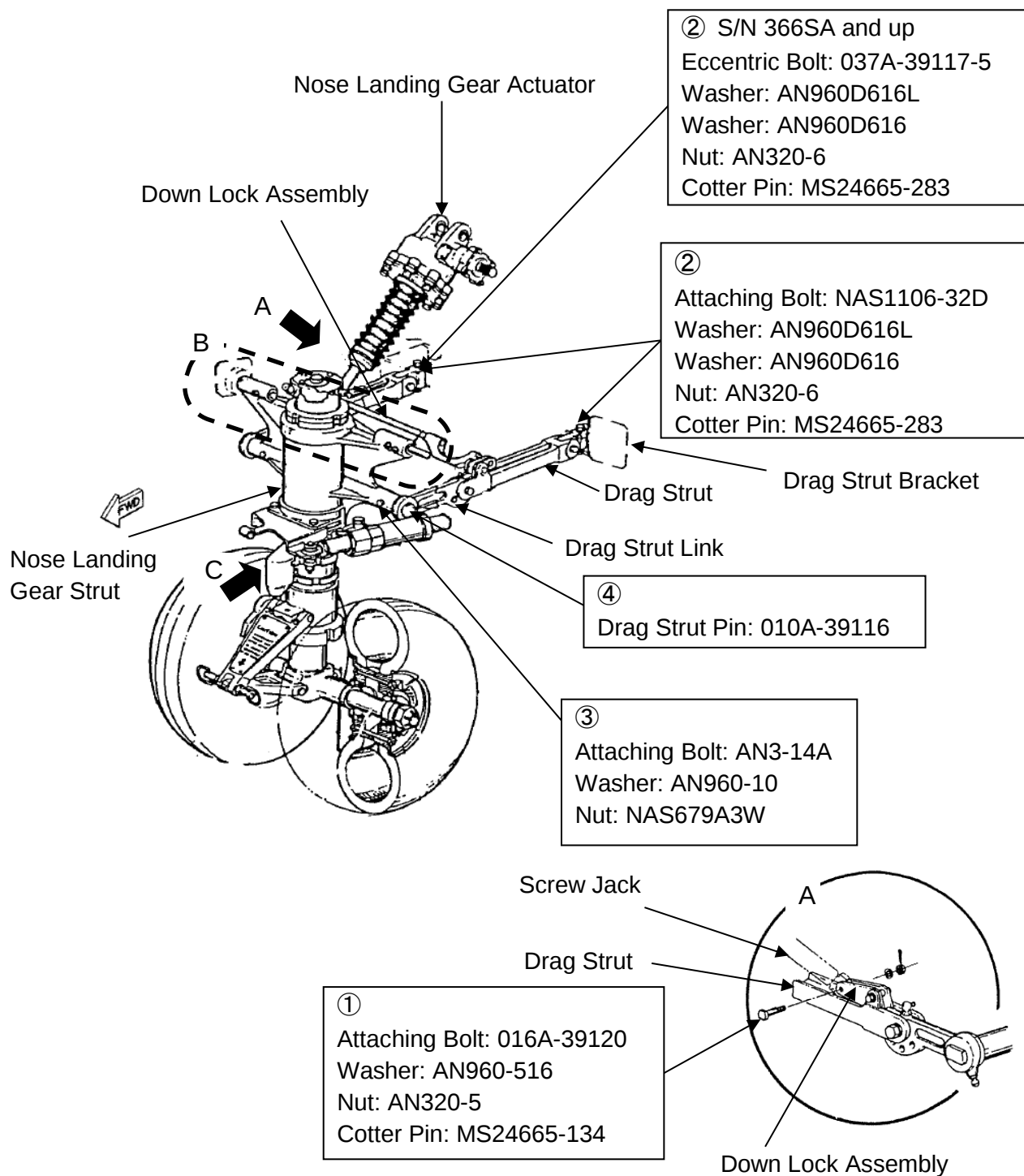


Figure 1: Nose Landing Gear System Components (1/2)

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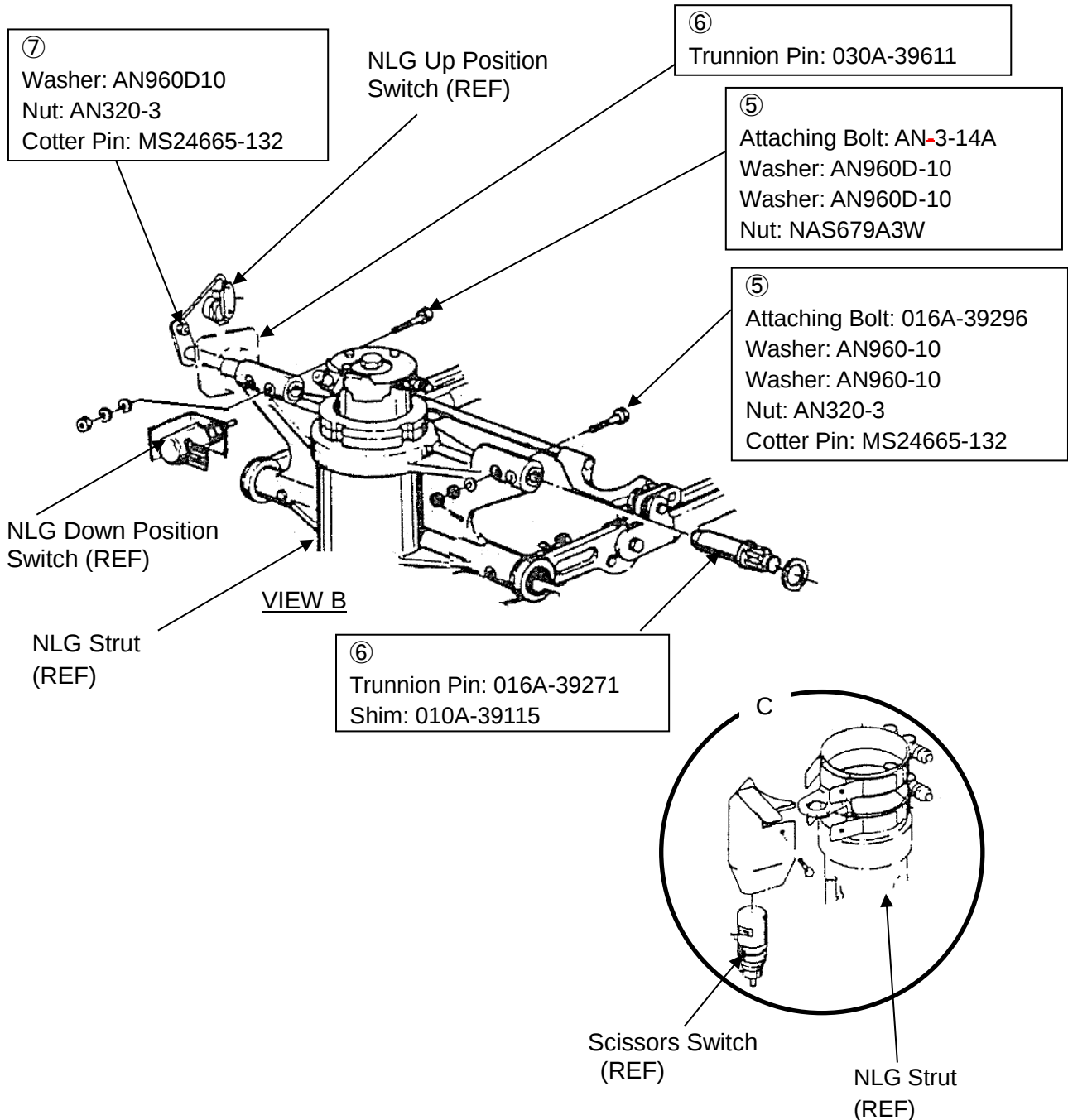


Figure 1: Nose Landing Gear System Components (2/2)

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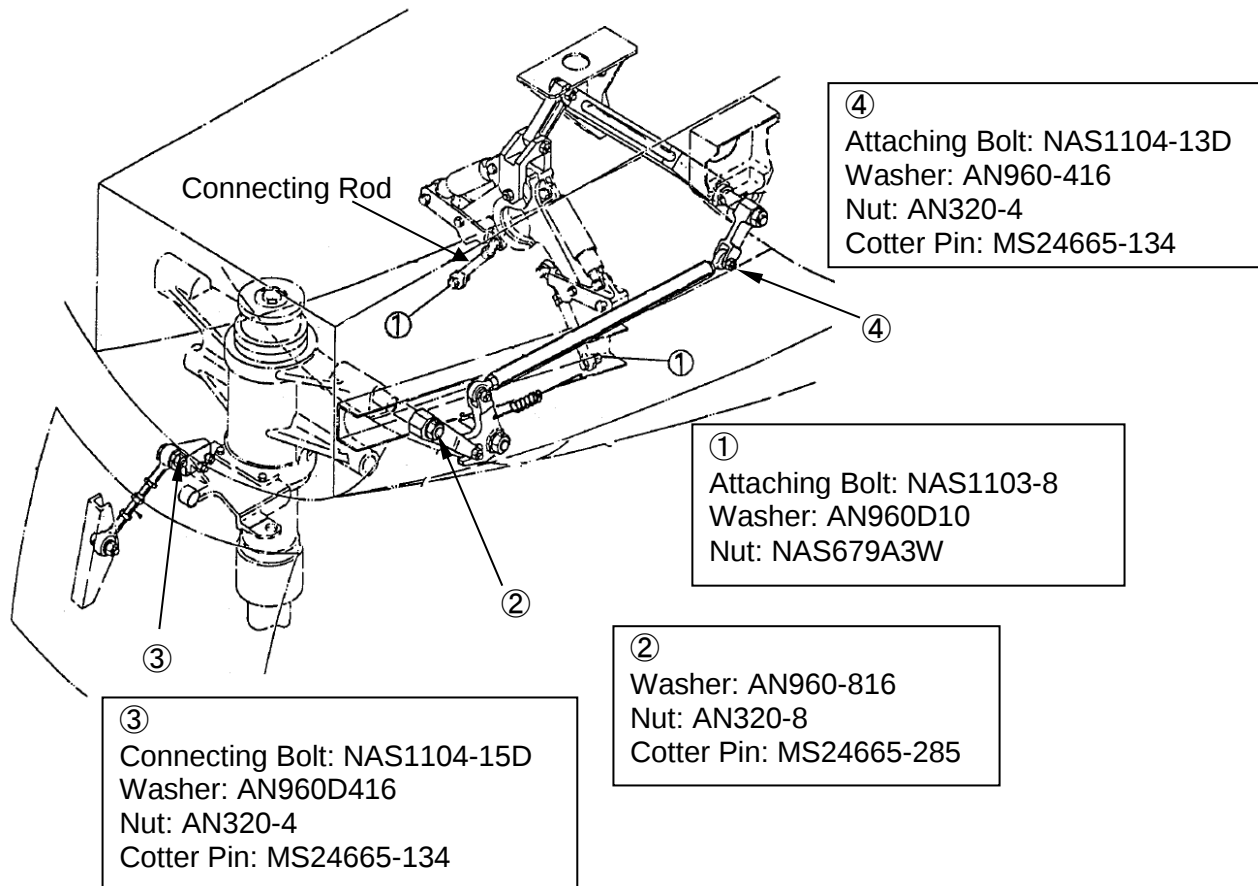


Figure 2: Nose Landing Gear Door Disconnect

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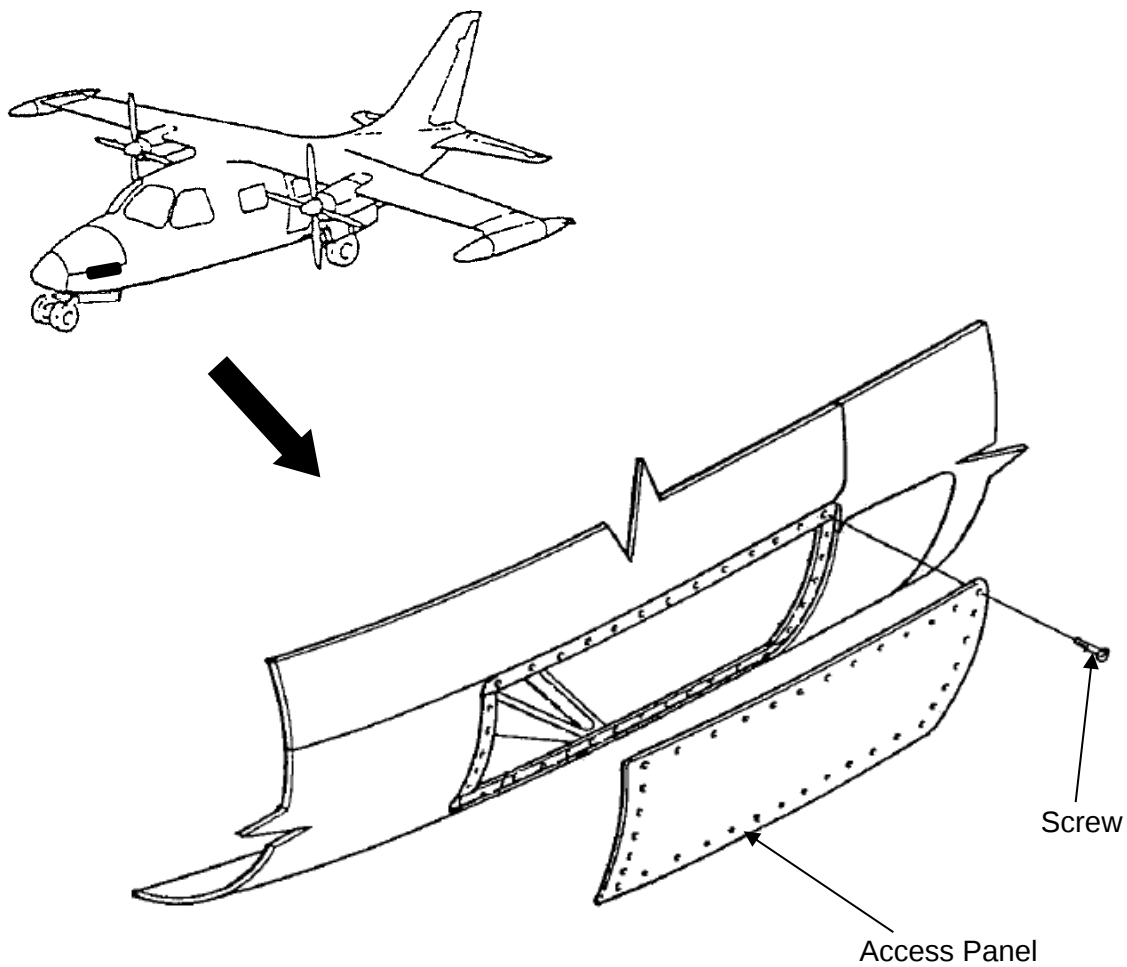


Figure 3: Access Panel Removal (LH/RH)

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## 2. NLG Drag Strut to Fuselage Bracket, Inspection of

### 2.1 Inspection

- (1) Visually inspect NLG Drag Strut to Fuselage Brackets (010A-31445-11, 010A-31446-11 (up to S/N 365SA) and 010A-31446-21 (S/N 366SA and up)) for crack in the area shown in Figure 4 and 5.
  - (a) If any crack is found, replace the bracket with new one.

#### NOTE

To have an easy access, Brackets (010A-31445-11 and 010A-31446-11/-21) and Beams (010A-31442-3 and 010A-31443-3) may be temporary removed.

- (2) Visually inspect Outer Skins around fasteners which are installed common to Outer Skin, Channel and Beam for crack and loosening fasteners in the area shown in Figure 5.
  - (a) If any crack is found, repair the skin in accordance with the MU-2 Structural Repair Manual.
  - (b) If any loosening fastener is found, replace the fasteners in accordance with the MU-2 Structural Repair Manual.
- (3) Visually inspect Channels (010A-31466-5/-6) between Outer Skin and Beam, and Channels (010A-31416-19 (S/N 313SA and 321SA only), 010A-31416-113/-43) attaching to outboard lugs of Brackets for crack and deformation shown in Figure 5.
  - (a) If any crack or deformation is found, replace the channel with new one.

#### NOTE

If any inconclusive damage is found, remove the suspicious part and perform Non-Destructive Testing (NDT) to the parts in accordance with the applicable MU-2 Maintenance Manual.

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## **2.2 Parts and Material Required for Chapter 2**

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part Number    | Qty | Part Name    | Remarks                                    |
|----------------|-----|--------------|--------------------------------------------|
| 010A-31445-11  | 1   | Bracket (LH) | Procure from MHIA                          |
| 010A-31446-11  | 1   | Bracket (RH) | Procure from MHIA                          |
| 010A-31446-21  | 1   | Bracket (RH) | For S/N up to 365SA<br>Procure from MHIA   |
| HL21PB6-5      | 6   | Pin          | For S/N 366SA and up<br>Hi-Shear Corp.     |
| HL86PB-6       | 6   | Collar       | Hi-Shear Corp.                             |
| 010A-31466-5   | 1   | Channel (LH) | Procure from MHIA                          |
| 010A-31466-6   | 1   | Channel (RH) | Procure from MHIA                          |
| 010A-31416-19  | 1   | Channel (LH) | Procure from MHIA                          |
| 010A-31416-113 | 1   | Channel (LH) | For S/N 313SA & 321SA<br>Procure from MHIA |
| 010A-31416-43  | 1   | Channel (RH) | Procure from MHIA                          |

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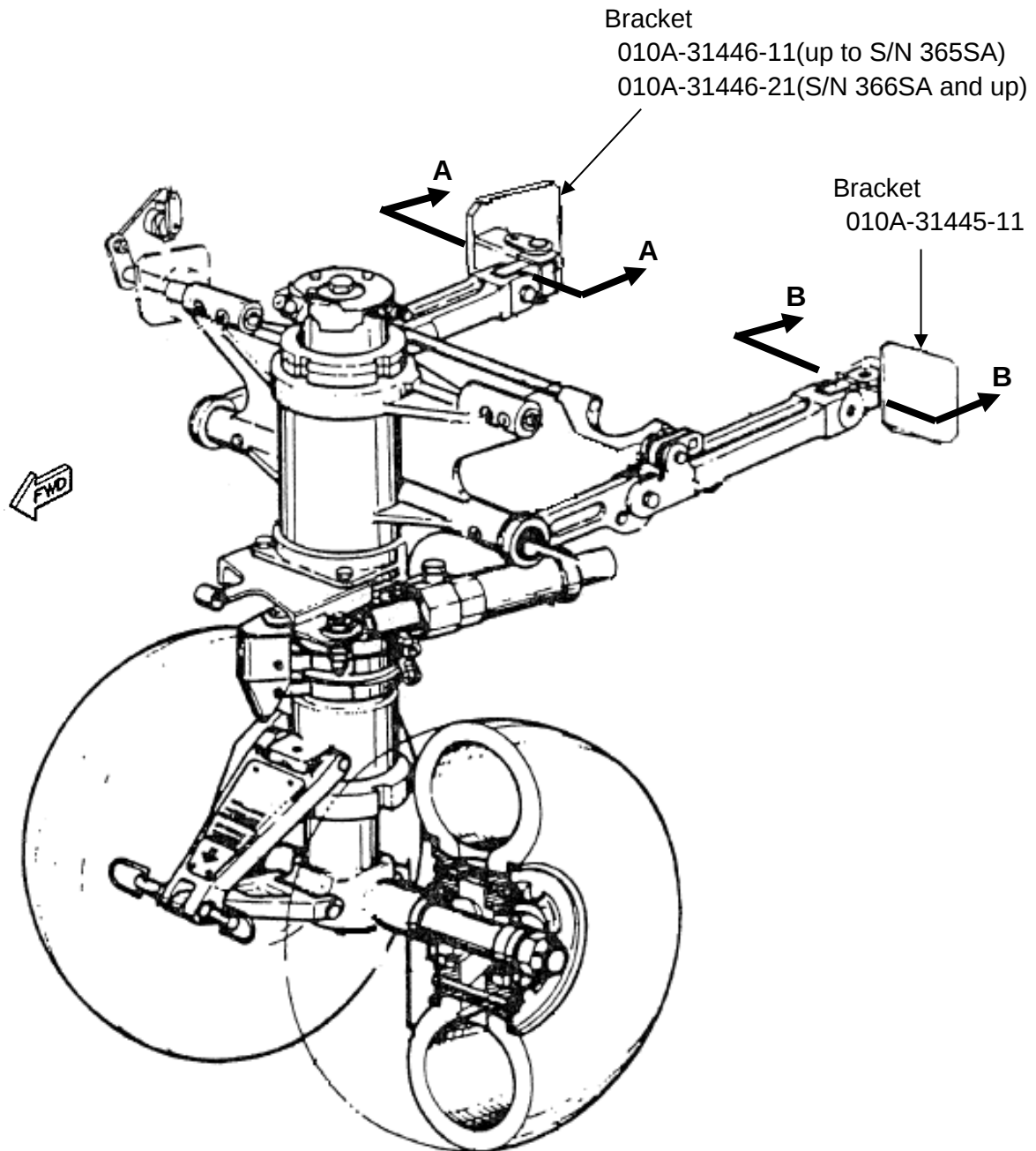


Figure 4: Drag Strut to Fuselage Bracket Location

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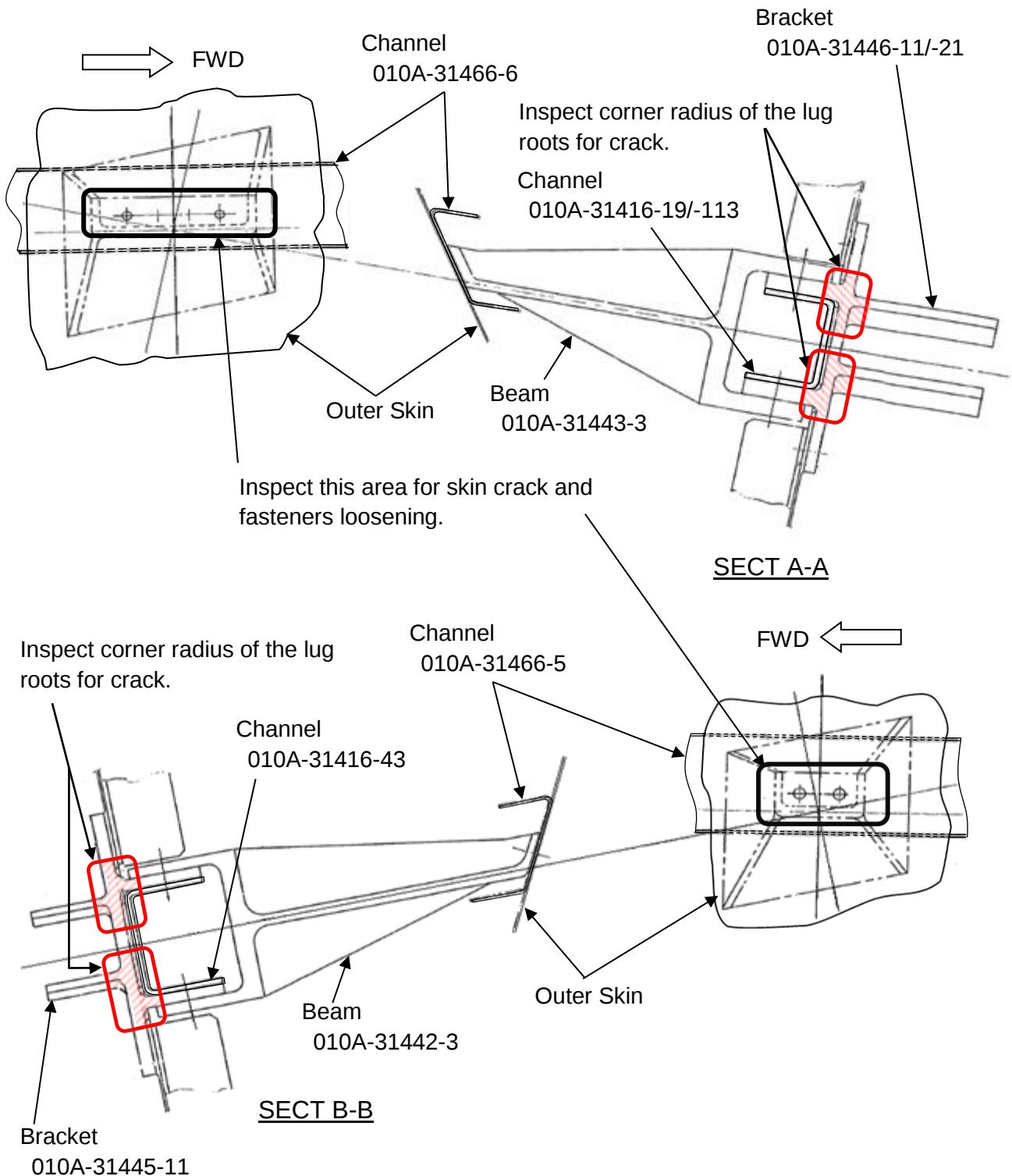


Figure 5: Drag Strut to Fuselage Bracket

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## 3. NLG Door Bracket, Inspection of

### 3.1 Inspection

- (1) Visually inspect NLG Door Bracket (016A-39275) for cracks. (Figure 6)
  - (a) If any crack is found, replace the bracket with new one and check/adjust the door in accordance with the applicable MU-2 Maintenance Manual.

#### NOTE

If any inconclusive damage is found, remove the suspicious part and perform Non-Destructive Testing (NDT) to the parts in accordance with the applicable MU-2 Maintenance Manual.

### 3.2 Parts and Material Required for Chapter 3

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part Number | Qty | Part Name | Remarks           |
|-------------|-----|-----------|-------------------|
| 016A-39275  | 1   | Bracket   | Procure from MHIA |

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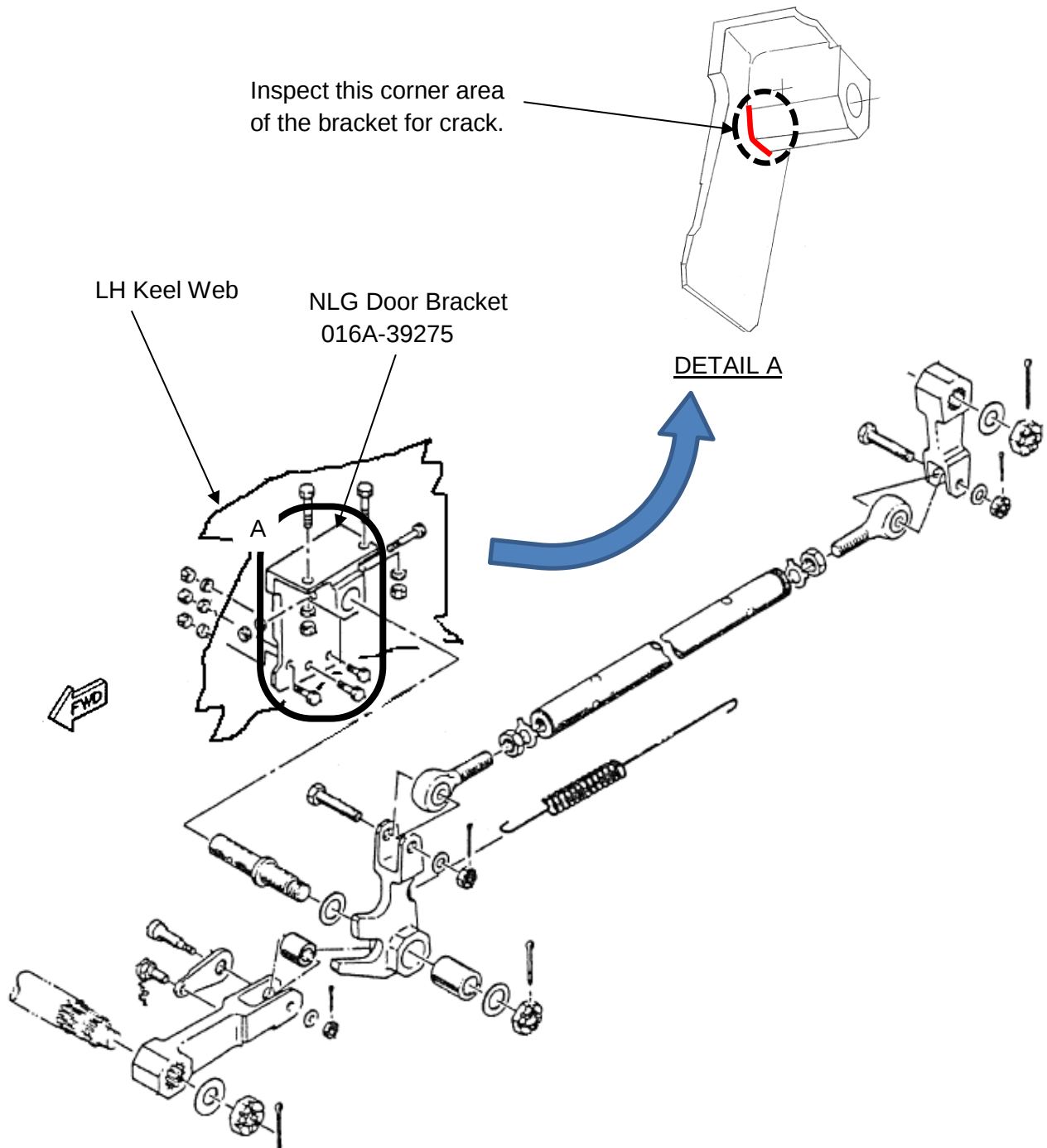


Figure 6: NLG Door Bracket

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## 4. NLG Drag Strut Link, Inspection of

### 4.1 Inspection

- (1) Visually inspect LH and RH Drag Strut Links for crack, deformation, nick, gouge, rust, wear of the groove and corrosion.
  - (a) If any of these conditions are found, replace the Drag Strut Links with new 010A-39117-21/-22 Links; staking marks shall be on outboard side when installed.

#### NOTE

If any inconclusive damage is found, remove the suspicious part and perform Non-Destructive Testing (NDT) to the parts in accordance with the applicable MU-2 Maintenance Manual.

- (2) Visually inspect the existence of staking marks on the outboard side of Drag Strut Link for correct installation. (Figure 7 and 8)
  - (a) If the Drag Strut Link installation is incorrect (abnormal condition), install the correct Drag Strut Link identified in Figure 8.

#### NOTE

If the replacement of Drag Strut Links is necessary, remove Drag Strut Links from Drag Strut Assembly. Install Drag Strut Links to the correct side of Drag Strut Assembly. Staking marks shall be on outboard side. Grease the NLG system per the applicable MU-2 Maintenance Manual.

- (3) Visually inspect Grease Fitting above Down Lock area of Drag Strut Link for Grease Fitting. (Figure 9)
  - (a) If there is a threaded hole and no Grease Fitting is installed, the condition is abnormal. Proceed to 4.1 (4).
  - (b) If the Grease Fitting (MS15001-4) is installed or there is no threaded hole for a Grease Fitting, the condition is normal. Proceed to 4.1 (5).
- (4) Inspect the inner surface of Drag Strut attaching hole for nicks, scratches, rust, or corrosion.
  - (a) If any of these conditions are found, replace the Drag Strut Links with new 010A-39117-21/-22 Links; staking marks shall be on outboard side when installed.
  - (b) If none of these conditions are found, install a Grease Fitting (MS15001-4) and proceed to 4.1 (5).
  - (c) If the Link is 010A-39117-21/-22, install the plug (MS51996-60). Stake the plug four places and apply sealant (PR-1221) over the threaded hole and plug. (Figure 10)(SN 366SA thru 374SA)

#### NOTE

If the part number is not legible, check the Drag Strut Down Lock Sleeve Bearing for a Teflon Liner (P/N 035A-39302). If a Teflon Liner is found, the part is 010A-39117-21/-22 Drag Strut Link. (Figure 8)

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- (5) Inspect Drag Strut Links for free play between the link body and outer bearing race. There should be no free play. (Figure 9)
- (a) If any free play is found, replace the Drag Strut Links with new 010A-39117-21/-22 Links; staking marks shall be on outboard side when installed.

## 4.2 Parts and Material Required for Chapter 4

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part number   | Qty | Part name          | Remarks              |
|---------------|-----|--------------------|----------------------|
| 010A-39117-21 | 1   | LH Drag Strut Link | Procure from MHIA    |
| 010A-39117-22 | 1   | RH Drag Strut Link | Procure from MHIA    |
| MS15001-4     | 2   | Grease Fitting     | 1 per Link           |
| MS51996-60    | 2   | Plug               | 1 per Link           |
|               |     |                    | S/N 366SA thru 374SA |
| PR-1221       | AR  | Sealant            | S/N 366SA thru 374SA |

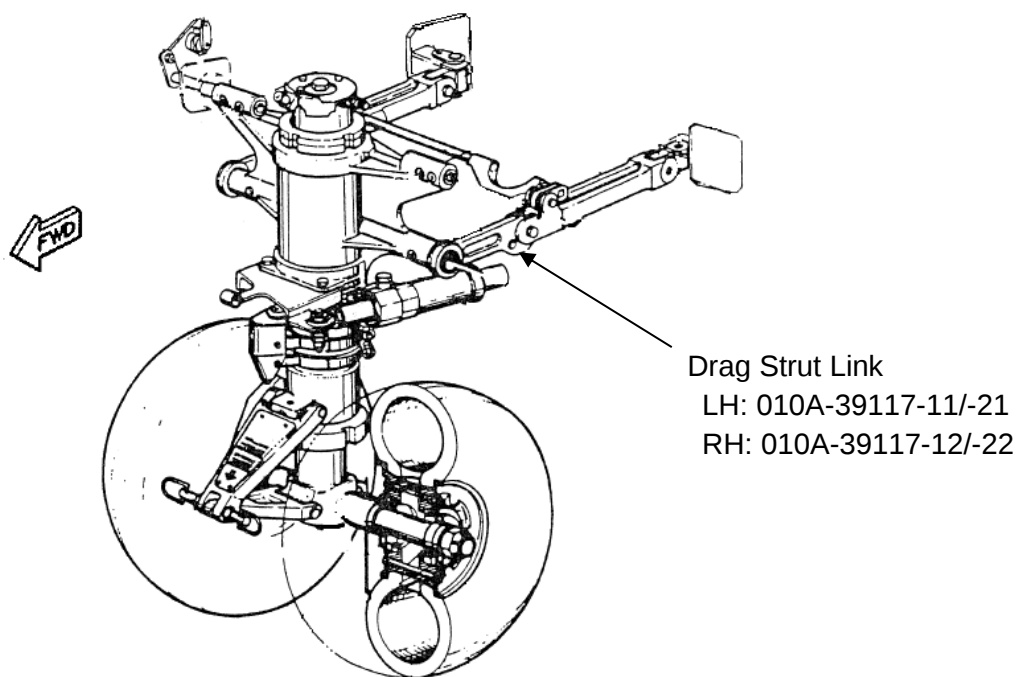


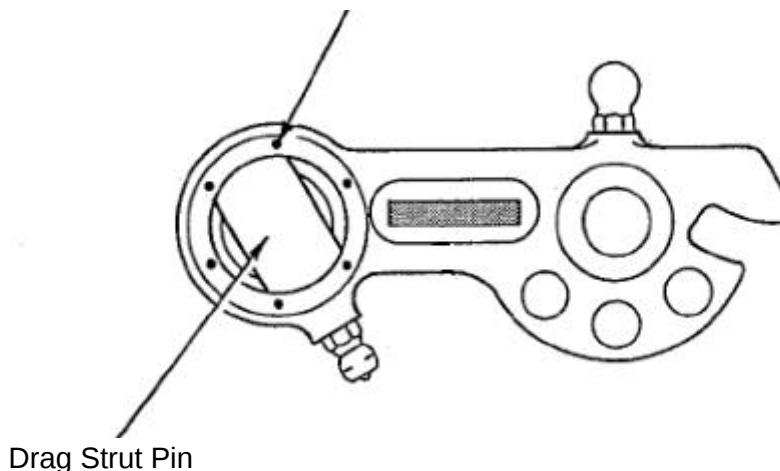
Figure 7: Drag Strut Link Location

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Bearing staking marks to be seen from outboard sides  
(marks may be a line type mark).



Drag Strut Link (010A-39117-11 typical shown)

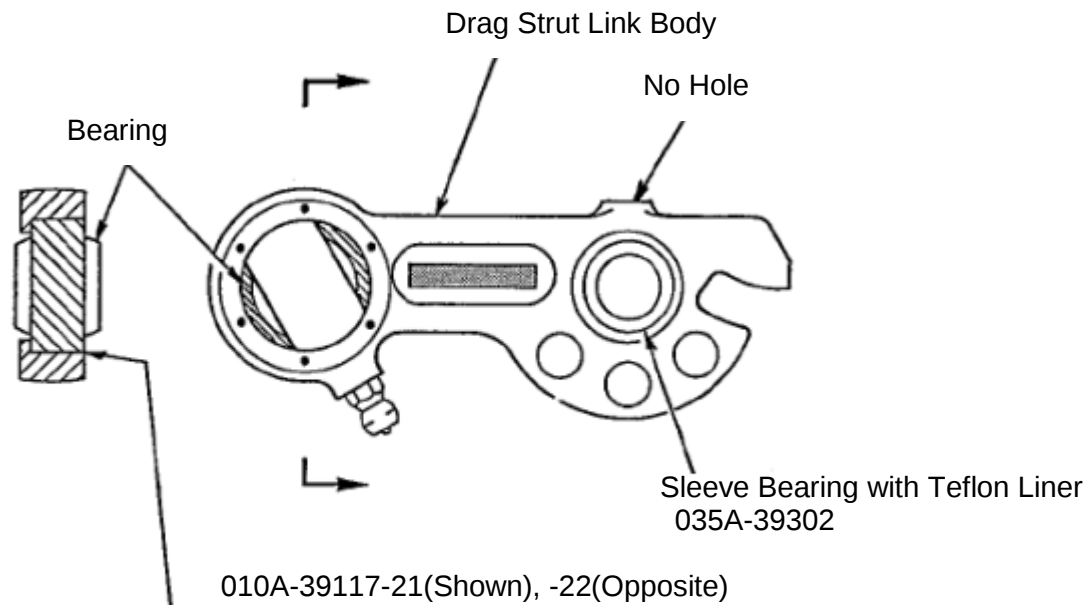
| Part number   | Correct Location | Remarks                                  |
|---------------|------------------|------------------------------------------|
| 010A-39117-11 | LH Drag Strut    | With grease fitting                      |
| 010A-39117-21 | LH Drag Strut    | With Teflon liner<br>For new procurement |
| 010A-39117-12 | RH Drag Strut    | With grease fitting                      |
| 010A-39117-22 | RH Drag Strut    | With Teflon liner<br>For new procurement |

Figure 8: Drag Strut Link Identification

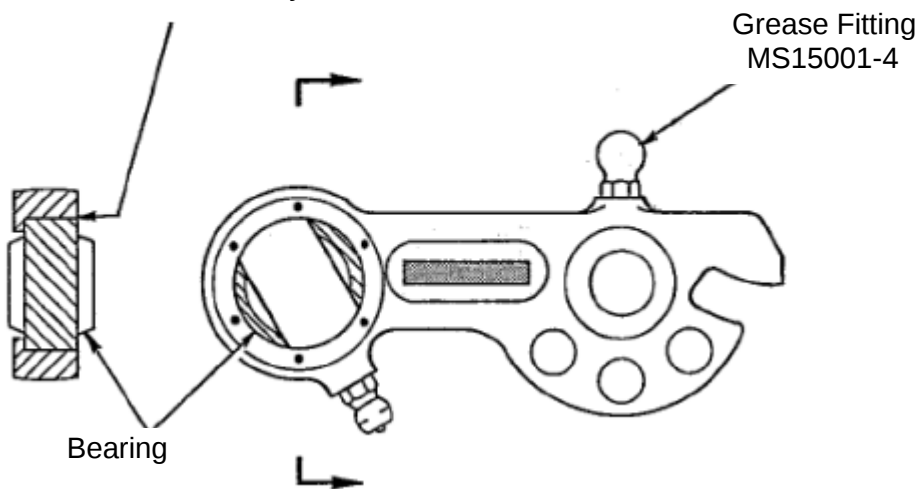
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There should be no free play between the outer bearing race and the link body.



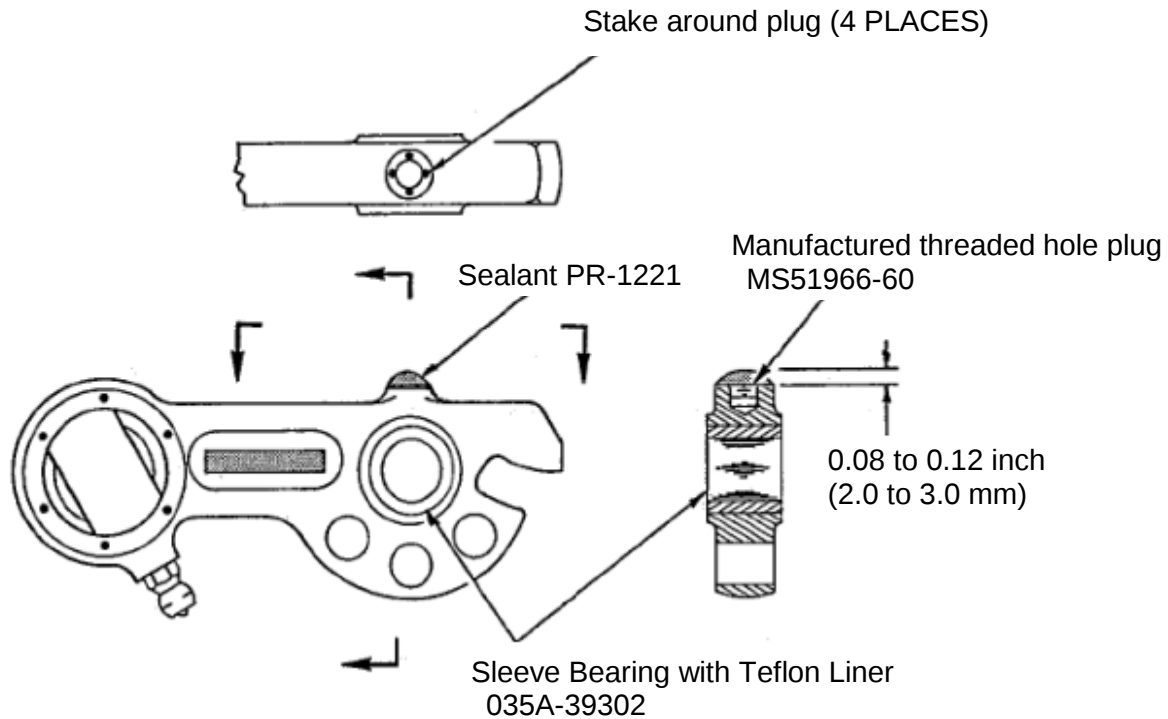
010A-39117-11(Shown), -12(Opposite)

Figure 9: Drag Strut Link Free Play

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Note: Plug (MS51966-60) is necessary only for P/N 010A-39117-21/-22 Links with manufactured threaded hole and must be secured by staking and sealant (PR-1221).

Figure 10: Drag Strut Link (S/N 366SA thru 374SA only)

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## 5. NLG Drag Strut Pin, Inspection of

### 5.1 Inspection

- (1) Clean LH and RH Drag Strut Pins and visually inspect for wear, crack, deformation or corrosion. (Figure 11)
  - (a) If any of these conditions are found, replace the Drag Strut Pin with new one.

#### NOTE

If any inconclusive damage is found, remove the suspicious part and perform Non-Destructive Testing (NDT) to the parts in accordance with the applicable MU-2 Maintenance Manual.

- (b) If none of these conditions are found, the pins may be reused.

### 5.2 Parts and Material Required for Chapter 5

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part Number | Qty | Part Name       | Remarks                 |
|-------------|-----|-----------------|-------------------------|
| 010A-39116  | 2   | Drag Strut Pin  | Procure from MHIA       |
| PR-1221     | AR  | Sealant         |                         |
| MIL-T-5544  | AR  | Thread Compound | Or Grease (MIL-G-23827) |

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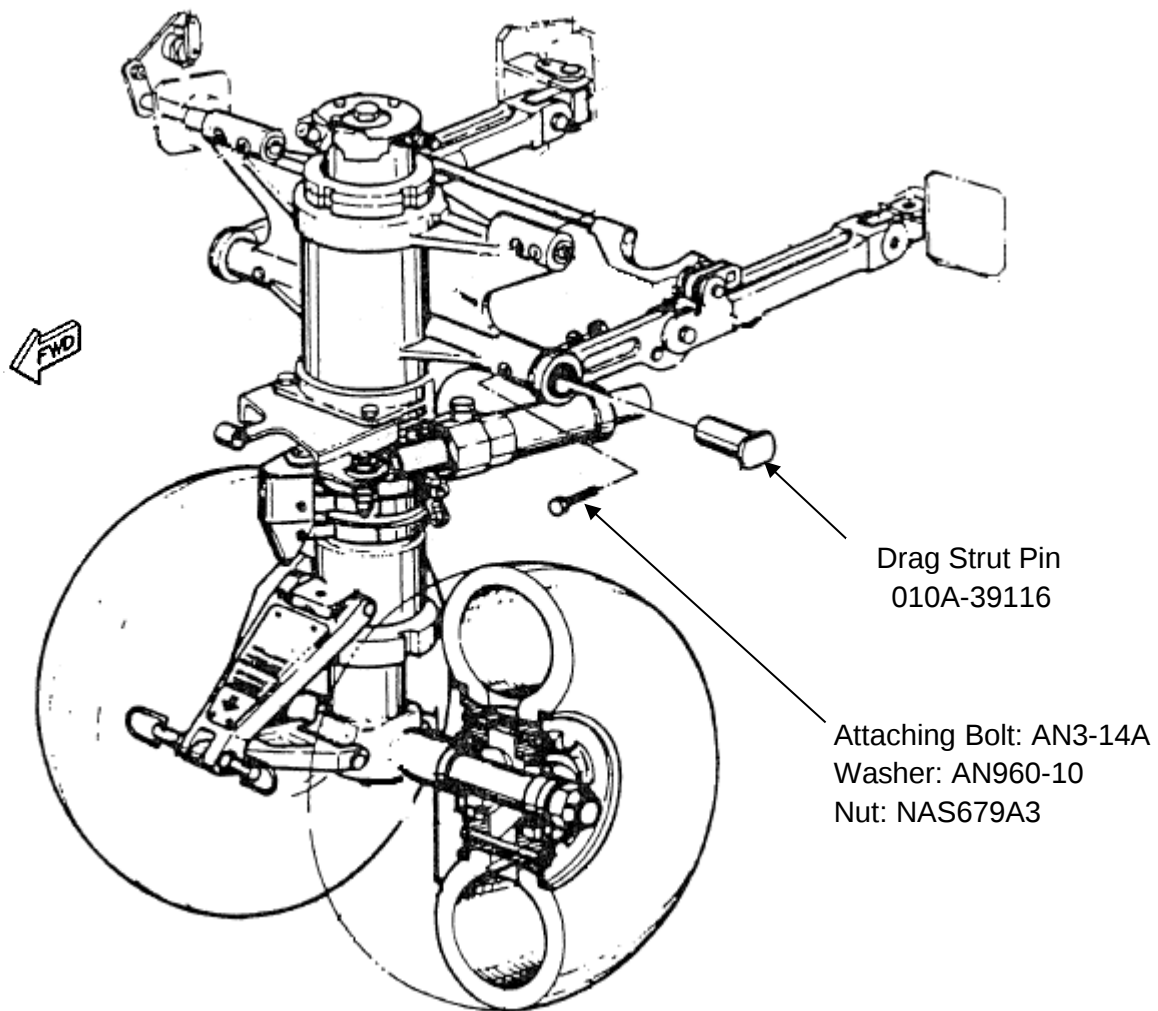


Figure 11: Drag Strut Pins and Attaching Bolts

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## 6. NLG Eccentric Bolt (S/N 366SA and UP), Inspection of

### 6.1 Inspection

- (1) Check aircraft Log Books for compliance of SB 072/32-011 Rev. "A".
  - (a) If not previously complied with the SB, install a new Eccentric Bolt in accordance with SB 072/32-011 Rev. "A".
- (2) Confirm the part number of Eccentric Bolt. The part number should be 037A-39117-5. Correct bolt has identification hole on the bottom of the bolt shank. (Figure 13)
  - (a) If the part number is 037A-39107 or 037A-39117-3, replace the Eccentric bolt with a new 037A-39117-5 bolt.
  - (b) If the part number is 037A-39117-5 and the bolt has more than 4,000 hours in service, replace the Eccentric bolt with a new 037A-39117-5 bolt.

#### NOTE

Prior to installation of a new bolt, apply alignment mark on the same place as the bolt being replaced.

- (3) Visually inspect Eccentric Bolt for crack, deformation or corrosion.
  - (a) If any of these conditions are found, replace the Eccentric Bolt with new one.

#### NOTE

If any inconclusive damage is found, remove the suspicious part and perform Non-Destructive Testing (NDT) to the parts in accordance with the applicable MU-2 Maintenance Manual.

- (b) If none of these conditions are found, the Eccentric Bolt may be reused.

### 6.2 Parts and Material Required for Chapter 6.

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part Number  | Qty | Part Name      | Remarks           |
|--------------|-----|----------------|-------------------|
| 037A-39117-5 | 1   | Eccentric Bolt | Procure from MHIA |
| MS24665-283  | 1   | Cotter Pin     |                   |
| MIL-G-23827  | AR  | Grease         |                   |

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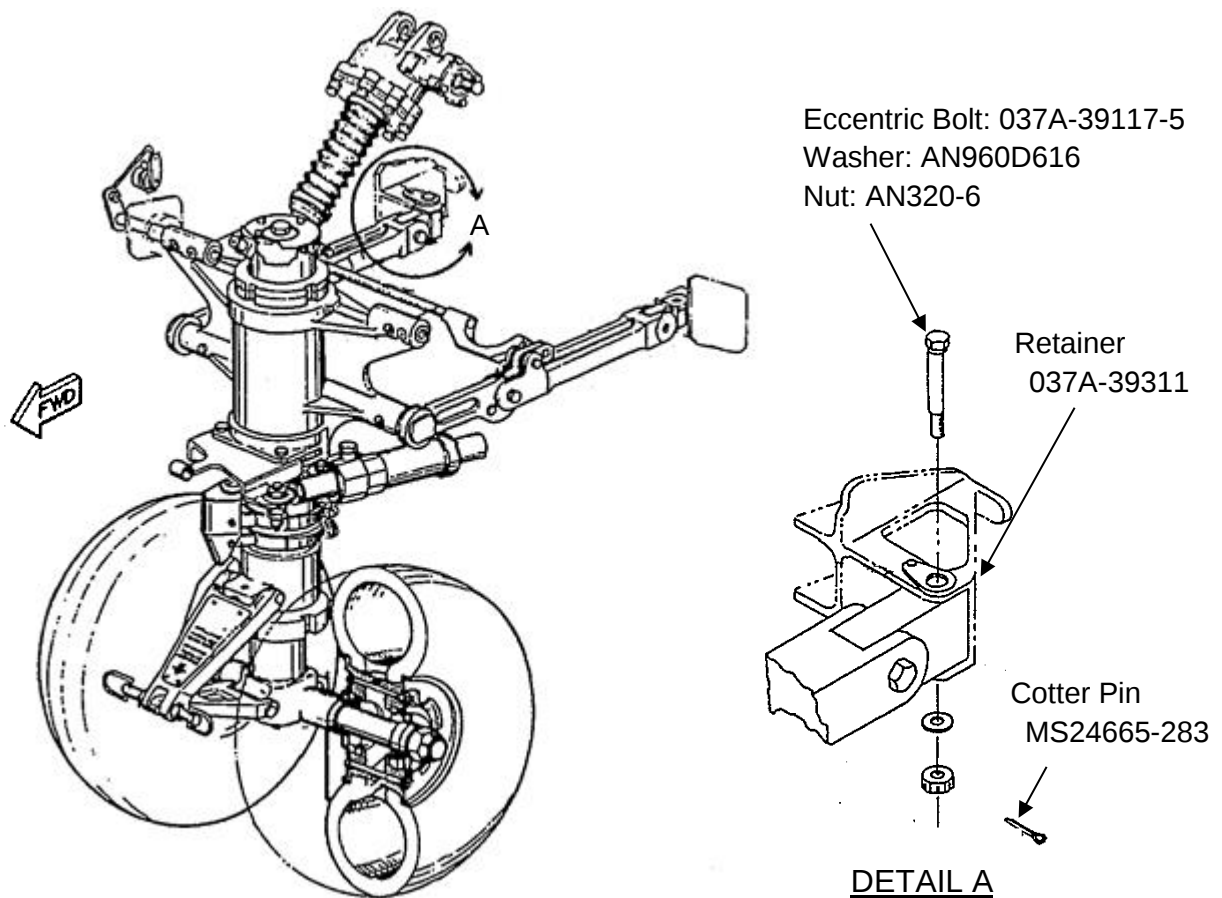


Figure 12: Eccentric Bolt

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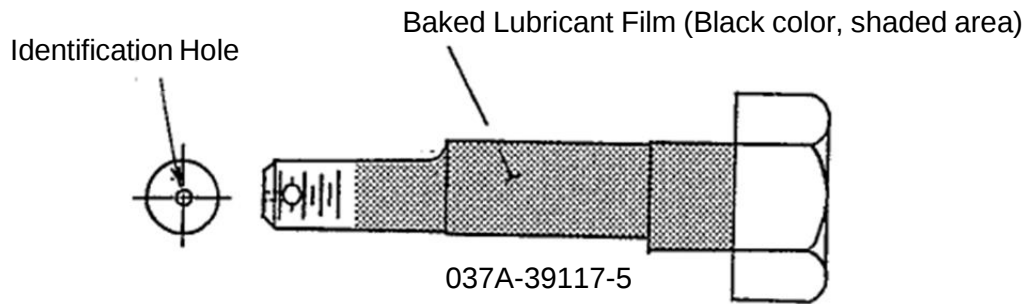


Figure 13: Eccentric Bolt Identification

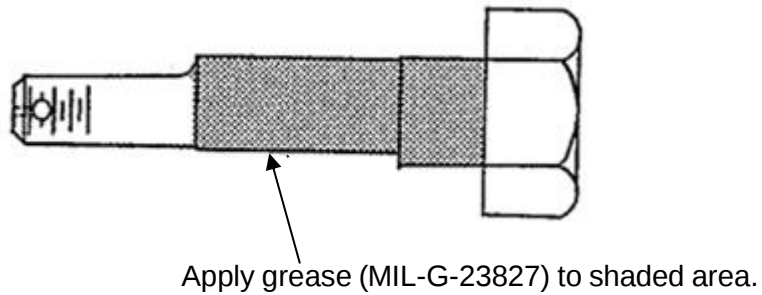


Figure 14: Application of Grease to Shank

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## 7. NLG Reinstallation

- (1) Reinstall NLG Assembly using Chapter 1- Preparation sequential procedures in reverse, up to step (6) except step (8) and (9);

At step (19) of reinstalling Drag Strut Pins, the following applies (Figure 10):

### NOTE

If Drag Strut Pins are replaced, take into consideration the clearance between LH and RH Drag Struts and Trunnion [0.002" to 0.012"] (0.05 mm to 0.30 mm) before drilling in accordance with the applicable MU-2 Maintenance Manual; the Pin shanks are drilled #11 [4.85 mm (+0.07/-0.02 mm)] in diameter at the position to match the hole in Trunnion for installation of Drag Strut Pin attaching bolt (AN3-14A, Figure 1 ③).

- (a) Apply thread compound (MIL-T-5544) or grease (MIL-G-23827) to Drag Strut Pins.
- (b) Apply sealant (PR-1221) to the attaching bolt axis surface, and install the bolts, washers and nuts to Trunnion.
- (c) Apply sealant (PR-1221) on and around the bolt heads and nuts.

For S/N 366SA and up, at step (12) of reinstalling Eccentric Bolt and up, the following applies:

- (a) Apply grease (MIL-G-23827) to the shank of Eccentric Bolt. (Figure 14)
- (b) Install Eccentric Bolt taking into consideration the aligning mating marks on the bolt head and the bolt retainer. (Figure 12 "A")
- (c) Ensure that Down Locks disengage and engage smoothly by partially retracting and extending the nose gear by hand.

### NOTE

Cotter pin for Eccentric Bolt attaching nut and NLG Doors shall be installed after adjustment of Down Lock mechanism in Chapter 8.

- (2) Inspect all NLG restored components for security BEFORE proceeding to Chapter 8.

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## 8. NLG Down Lock Mechanism, Inspection and Adjustment of

### 8.1 Inspection and Adjustment

#### NOTE

Write down the following result in the Appendix A – Inspection Compliance Form.

- (1) Turn electrical power on.
- (2) Retract Nose Landing Gear until Down Locks are disengaged.
  - (a) Measure LH and RH Down Lock width “C” and groove depth “D”. (Figures 15 and 16)

#### NOTE

For easy access, it may be measured before reinstallation of Drag Strut Assembly instead of 8.1(2)(a).

- (3) Continue retracting Nose Landing Gear to the up position.
- (4) Extend Nose Landing Gear with no load and no inertia until LH Down Lock touches Drag Strut Link.
  - (a) Measure dimension “B” of RH Down Lock unengaged portion. (Figure 15 and 16)
  - (b) Determine the RH Down Lock engagement dimension “A” as follows:
$$A = C - B$$
  - (c) The RH engagement dimension “A” must be less than 0.12 inch (3.0 mm). Replace the Down Lock Assembly if the dimension “A” is not within the specified value.
- (5) Extend Nose Landing Gear with no load and no inertia until stopped by Down Limit Switch, and verify that Traveling Nut clearance is in accordance with the applicable MU-2 Maintenance Manual.
  - (a) Calculate the LH and RH Down Lock engagement dimension “A” same as step (4) (a) and (b).
  - (b) The LH engagement dimension “A” must be 0.28 to 0.32 inch (7.0 to 8.0 mm). Readjust the system as necessary to be within the specified values.
  - (c) Check the difference between LH and RH Down Lock engagement dimension “A”. The RH engagement dimension must be greater than the LH by 0.00 to 0.06 inch (0.0 to 1.5 mm). Replace the Down Lock Assembly if not within the specified value.
- (6) Manually operate and extend Nose Landing Gear until the clearance of the stop mechanism is zero (0.0).
  - (a) Calculate the RH Down Lock engagement dimension “A” same as step (4) (a) and (b).
  - (b) Calculate the remaining distance “E” of the RH Down Lock as follows:
$$E = D - A$$
  - (c) The distance “E” should be 0.04 inch (1.0 mm) or more. If the distance is less than the specified value, readjust the system.

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## 8.2 Abnormal Sound Check

- (1) Extend Nose Landing Gear to down position.
- (2) Apply 44 to 55 lbs (20 to 25 kg) to NLG Axle in the direction of retraction.
- (3) Retract Nose Landing Gear with no inertia.
- (4) Ensure that no abnormal popping sound is heard from Down Locks during Landing Gear operation.
  - (a) If abnormal popping sound is heard from Down Locks on aircraft up to S/N 365SA, replace and adjust the RH Joint Link (010A-39108-XXX) in accordance with the applicable MU-2 maintenance manual. (Figures 15 and 17, Table 2) Restart the abnormal popping sound check from 8.2(1).
  - (b) If the abnormal popping sound cannot be eliminated after the adjustment, replace the Down Lock Assembly with new one and adjust the RH Joint Link (010A-39108-XXX). Restart the abnormal popping sound check from 8.2(1).

### NOTE

The abnormal popping sound is usually eliminated by installing a longer Joint Link on the RH side after it has been determined the correct Joint Link length needed. New Joint Link may be fabricated from the no-hole Joint Links P/N 010A-39108-111 and -121. Adjustment block checking tools "Dummy Joints" are available at MU-2 Authorized Service Centers and MHIA APD.

- (c) If abnormal popping sound is heard from the Down Locks on aircraft S/N 366SA and up, adjust the Eccentric Bolt in accordance with the applicable MU-2 Maintenance Manual and reapply mark. Tighten the nut attaching to Eccentric Bolt by the torque of maximum 20 in-lbs, install a new cotter pin (MS24665-283).(Figure12 "A")
- (d) If the abnormal popping sound cannot be eliminated after the adjustment, replace the Down Lock Assembly with new one. Restart the abnormal popping sound check from 8.2(1).

## 8.3 Parts and Material Required for Chapter 8

Should defective or missing parts be found, the following parts and material are required when complying with this Service Recommendation.

| Part Number    | Qty | Part Name      | Remarks                                  |
|----------------|-----|----------------|------------------------------------------|
| 010A-39871-71  | 1   | Down Lock Assy | Procure from MHIA                        |
| 010A-39108-111 | 1   | RH Joint Link  | Procure from MHIA<br>For up to S/N 365SA |
| 010A-39108-121 | 1   | RH Joint Link  | Procure from MHIA<br>For up to S/N 365SA |

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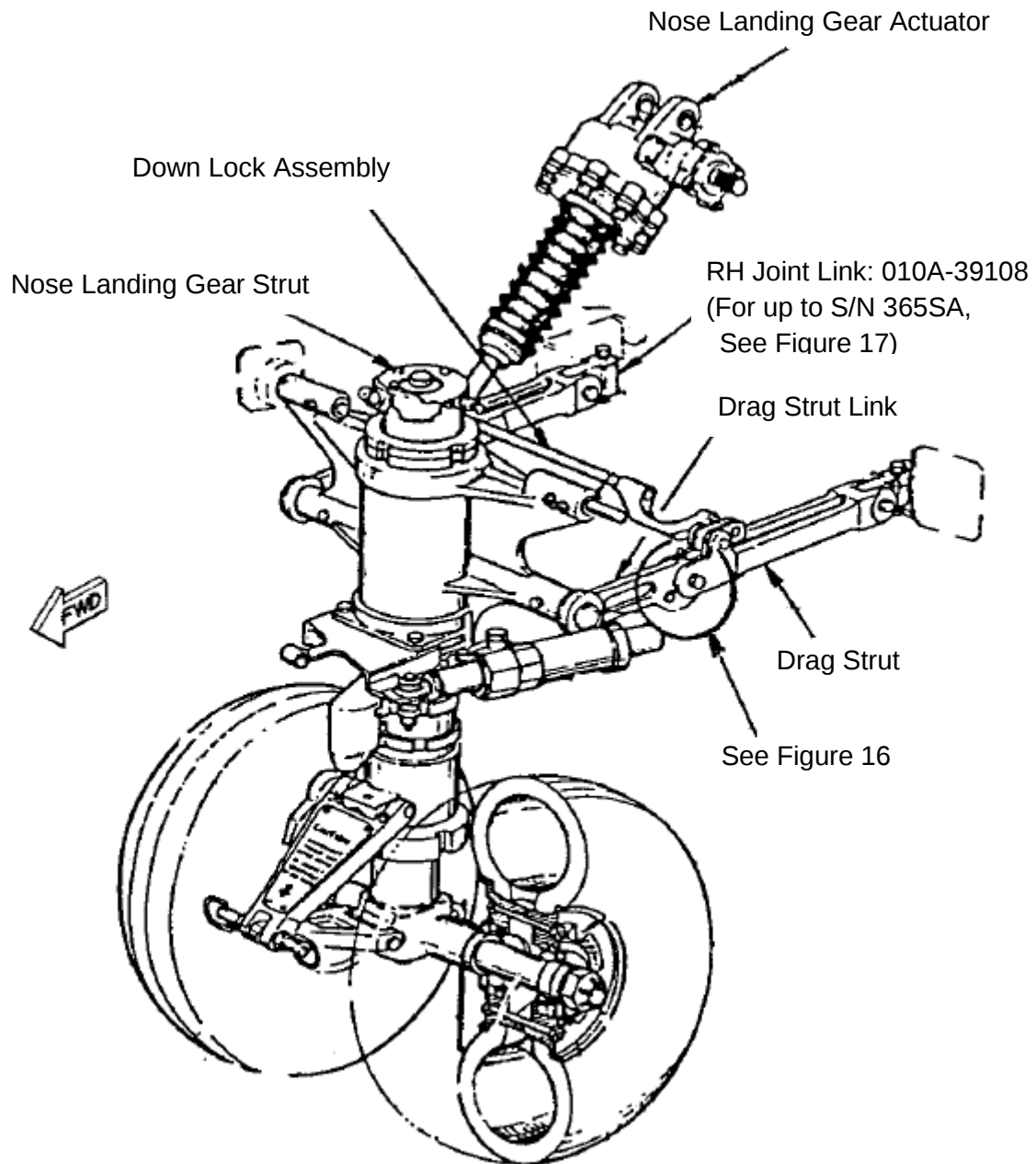
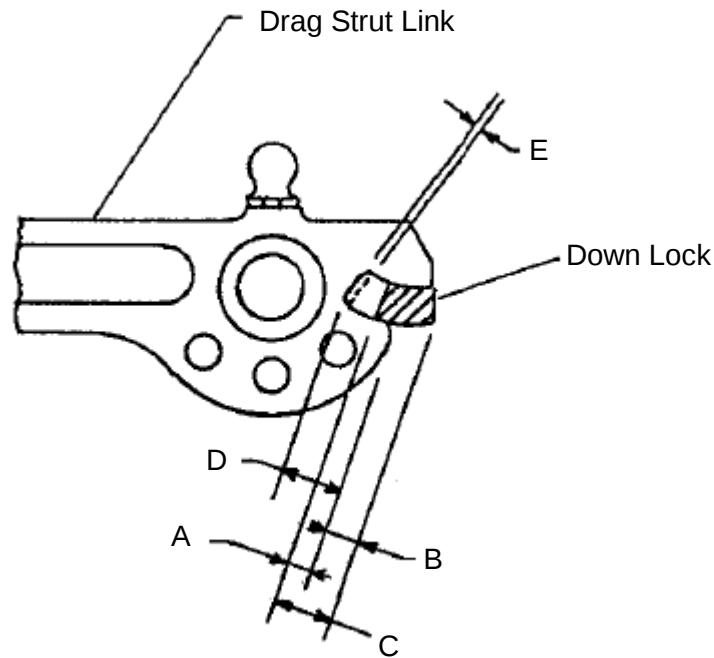


Figure 15: NLG Down Lock Mechanism

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- A : Down Lock Engagement ( $A=C-B$ , when Landing Gear is stopped by Down Limit Switch)
- B : Unengaged Portion
- C : Down Lock Width
- D : Down Lock Groove
- E : Remaining Distance ( $E=D-A$ ) at mechanical stop clearance zero (0)

Figure 16: Drag Strut Link and Down Lock

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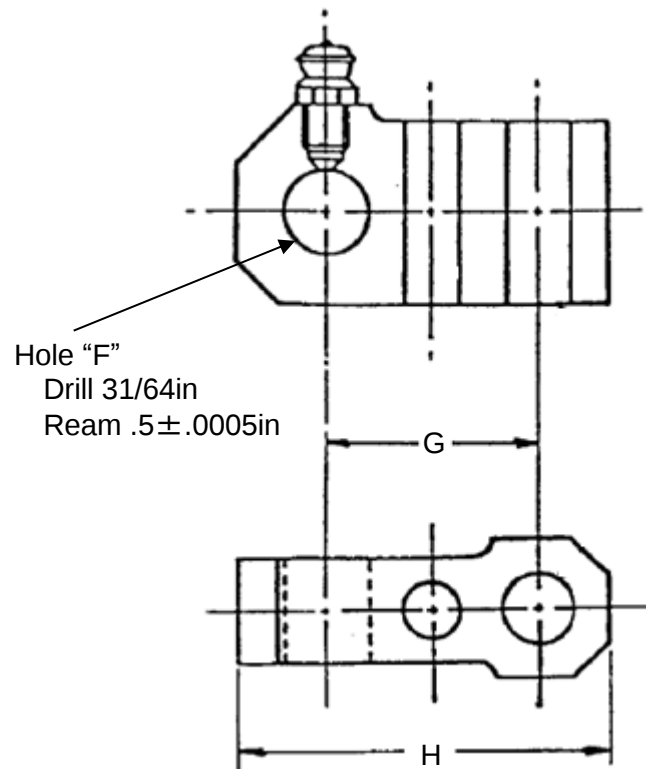


Figure 17: RH Joint Link 010A-39108-XXX

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**Table 2 RH Joint Link**

| Dash No.<br>(-XXX) | Dimension "G"<br>(± 0.05 mm) | Dimension "H" | Dash No.<br>(-XXX) | Dimension "G"<br>(± 0.05 mm) | Dimension "H" |
|--------------------|------------------------------|---------------|--------------------|------------------------------|---------------|
| -1                 | 30.0 mm                      | 53.00 mm      | -123               | 31.2 mm                      | 54.00 mm      |
| -11                | 30.1                         |               | -125               | 31.4                         |               |
| -21                | 30.2                         |               | -127               | 31.6                         |               |
| -31                | 30.3                         |               | -129               | 31.8                         |               |
| -41                | 30.4                         |               |                    |                              |               |
| -51                | 30.5                         |               |                    |                              |               |
| -61                | 30.6                         |               |                    |                              |               |
| -71                | 30.7                         |               |                    |                              |               |
| -81                | 30.8                         |               |                    |                              |               |
| -91                | 30.9                         |               |                    |                              |               |
| -101               | 31.0                         |               |                    |                              |               |
| *111               | ---                          |               | *121               | ---                          |               |

Note \* 1. 010A-39108-111/-112 do not have Hole "F".

2. -1 thru -101 are made from -111 and -123 thru -129 are made from -121.

3. Drill and ream Hole "F" to match each Aircraft.

## 9. Restoration

- (1) Inspect all Landing Gear System components for security and proper safeties.
- (2) Reconnect NLG Door (Figure 2 ①②③④).
- (3) Perform full operational check of the Landing Gear System and NLG Door System per applicable MU-2 Maintenance Manual, including any adjustments needed.
- (4) Reinstall all previously remove access panels.
- (5) Lower the aircraft from jacks.

## 10. Log Book Entry

- (1) Complete the attached compliance form and return to MHIA APD. (Ref to Appendix)
- (2) Upon completion of this Service Recommendation, make an appropriate maintenance entry in the logbook similar to "Service Recommendation No. 046/32-004 complied with on (date) by (name)".

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---

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## **COMPLETION**

Complete the enclosed compliance card and mail back to Mitsubishi Heavy Industries America, Inc.  
Aircraft Product Support Division.

Mitsubishi Heavy Industries America, Inc.  
Aircraft Product Support Division  
4951 Airport Parkway Suite 530  
Addison, Texas 75001

Phone: (972) 934-5480  
Fax; (972) 934-5488

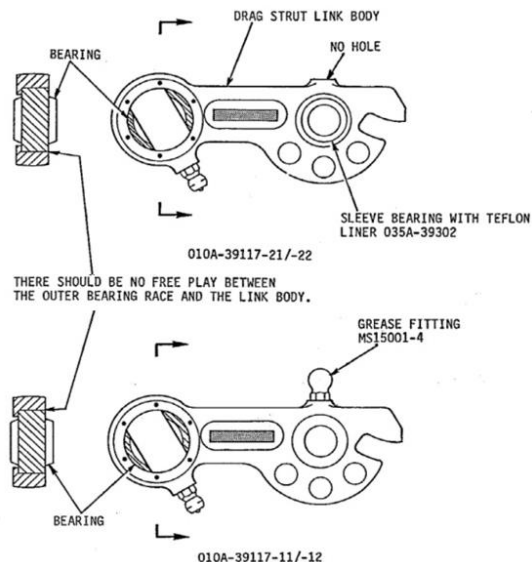
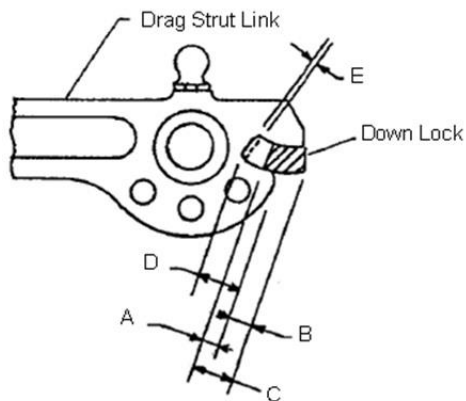
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## Appendix A – Inspection Compliance Form

### SR046/32-004 Nose Landing Gear System Inspection



Aircraft  
S/N:

#### Measurement of Dimension

|                          | RH                                                  | LH    |                 |
|--------------------------|-----------------------------------------------------|-------|-----------------|
| D (Act.)                 | _____                                               | _____ |                 |
| C (Act.)                 | _____                                               | _____ |                 |
| B (step 4, Act.)         | _____                                               | _____ |                 |
| A (= C – B)              | _____                                               | _____ |                 |
| (Requirement) $A_{RH}$ : | less than 0.12 inch (3.0 mm)                        |       |                 |
| B (step 5, Act.)         | _____                                               | _____ | $A_{RH}-A_{LH}$ |
| A (= C – B)              | _____                                               | _____ | _____           |
| (Requirement) $A_{LH}$ : | 0.28 to 0.32 inch (7.0 to 8.0 mm)                   |       |                 |
|                          | $A_{RH}-A_{LH}$ : 0.00 to 0.06 inch (0.0 to 1.5 mm) |       |                 |
| B (step 6, Act.)         | _____                                               | _____ |                 |
| A (= C – B)              | _____                                               | _____ |                 |
| E (= D – A)              | _____                                               | _____ |                 |
| (Requirement) E:         | 0.04 inch (1.0 mm) or more                          |       |                 |

#### Check Staking Mark on Which Surface (Put a circle)

LH (Inboard, Outboard)

RH (Inboard, Outboard)

Findings, replaced parts, information