AILERON TRIM SYSTEM - INSPECTION/CHECK

1. General

A. This section has the inspections and checks necessary to keep the aileron trim system in a serviceable condition.

TASK 27-10-02-720

2. Aileron Trim Tab (Free Play) Functional Check

A. General

(1) This task gives the procedures to do an aileron trim tab (free play) functional check.

B. Special Tools

(1) None

C. Access

(1) None

D. Do the Aileron Trim Tab (Free Play) Functional Check (Refer to Figure 601).

(1) Put the ailerons and the trim tab in the neutral position and secure them from movement.

(2) Determine maximum allowable free play, measuring chord length at the extreme inboard end of the trim tab then multiply chord length by 0.025 to get the maximum allowable free play.

(3) Use fingertip pressure and move the trim tab trailing edge up and down to examine free play.

NOTE: Measure free play at the same point on the trim tab that the chord length was measured. Total free play must not exceed the maximum allowable.

(4) If the trim tab free play is less than the maximum allowable, no additional inspection is required.

(5) If the trim tab free play is more than the maximum allowable, the following items must be examined:

(a) Look for loose fasteners on the trim tab doubler.

(b) Examine the hinge, hinge pin, and fasteners on the trim tab doubler.

(c) Examine both ends of the push-pull rods and fasteners for wear and loose component parts.

(d) If corrosion, worn parts, or loose fasteners are found, replace the fasteners and install new parts in system.

(e) Do a second free play inspection.

1 If the free play is still excessive, remove the aileron trim tab actuator from the airplane and set it on a bench. Refer to Aileron Trim System - Maintenance Practices.

2 Disassemble the actuator and examine the detail parts for corrosion and excessive wear. Refer to Aileron Trim System - Maintenance Practices.

3 If corrosion or worn parts are found, replace the parts and reassemble the actuator.

(f) Install the actuator in the airplane . Refer to Aileron Trim System - Maintenance Practices.

(g) Do the free play inspection again.

E. Restore Access

(1) None

END OF TASK

TASK 27-10-02-640

3. Aileron Trim System Lubrication

A. General

(1) This task gives the procedures to do the aileron trim system lubrication.

B. Special Tools

(1) Dow Corning Molykote DC 321R Bonded Lubrication Spray

C. Access

(1) Remove the applicable wing panels to get to the aileron trim control cables. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

D. Do the Aileron Trim System Lubrication (Refer to Figure 201 found in Aileron Trim System - Maintenance Practices).

(1) Move the aileron trim cables to the right until they stop.

(2) Apply Dow Corning Molykote DC 321R lubrication spray on a clean dry cloth until it is damp.

NOTE: This cloth is used to lubricate the aileron trim cables and to help keep the lubrication mist from a spray bottle off of the wing.

(a) Rub the cloth with the lubrication along the exposed aileron trim cables between the cable ends and the cable housing.

1 Make sure that all exposed sides of the cables are coated with the lubrication.

(b) Make sure that you apply the Dow Corning Molykote DC 321R lubrication where the cable enters the cable housing opening.

(3) Move the aileron trim cables to the left until they stop and rub the cloth with the lubrication along the areas that were not initially lubricated.

E. Restore Access

(1) Install the wing access panels. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

END OF TASK

TASK 27-10-02-641

4. Aileron Trim Tab Actuator (2660044-1) Lubrication

A. General

(1) This task gives the procedures to do the aileron trim tab actuator (2660044-1) lubrication.

B. Special Tools

(1) Grease

C. Access

(1) None

D. Do the Aileron Trim Tab Actuator (2660044-1) Lubrication (Refer to Figure 202 found in Aileron Trim System - Maintenance Practices).

(1) Remove the aileron trim tab actuator from the airplane and put it on a bench. Refer to Aileron Trim System - Maintenance Practices.

(2) Disassemble the aileron trim tab actuator. Refer to Aileron Trim System - Maintenance Practices.

(3) Do the Inspection and Repair of Aileron Trim Tab Actuator. Refer to Aileron Trim System - Maintenance Practices.

(4) Do the lubrication and the assembly steps found in Lubrication and Assembly of Aileron Trim Tab Actuator (Airplanes with 2660044-1 Trim Tab Actuator Installed). Refer to Aileron Trim System - Maintenance Practices.

(5) Install the aileron trim tab actuator in the airplane. Refer to Aileron Trim System - Maintenance Practices.

E. Restore Access

(1) None

END OF TASK

TASK 27-10-02-642

5. Aileron Trim Tab Actuator (2661615-1, 2661615- 9, or 2661615-10) Lubrication

A. General

(1) This task gives the procedures to do the aileron trim tab actuator (2661615-1, 2661615- 9, or 2661615-10) lubrication.

B. Special Tools

(1) Grease

C. Access

(1) None

D. Do the Aileron Trim Tab Actuator (2661615-1, 2661615- 9, or 2661615-10) Lubrication (Refer to Figure 202 found in Aileron Trim System - Maintenance Practices).

(1) Remove the aileron trim tab actuator from the airplane and put it on a bench. Refer to Aileron Trim System - Maintenance Practices.

(2) Disassemble the aileron trim tab actuator. Refer to Aileron Trim System - Maintenance Practices.

(3) Do the Inspection and Repair of Aileron Trim Tab Actuator. Refer to Aileron Trim System - Maintenance Practices.

(4) For aileron trim tab actuator (2661615-1), do the lubrication and the assembly steps found in Lubrication and Assembly of Aileron Trim Tab Actuator (Airplanes with 2661615-1 Trim Tab Actuator Installed). Refer to Aileron Trim System - Maintenance Practices.

(5) For aileron trim tab actuators (2661615- 9 or 2661615-10), do the lubrication and the assembly steps found in Lubrication and Assembly of Aileron Trim Tab Actuator (Airplanes with 2661615- 9 or 2661615-10 Trim Tab Actuator Installed). Refer to Aileron Trim System - Maintenance Practices.

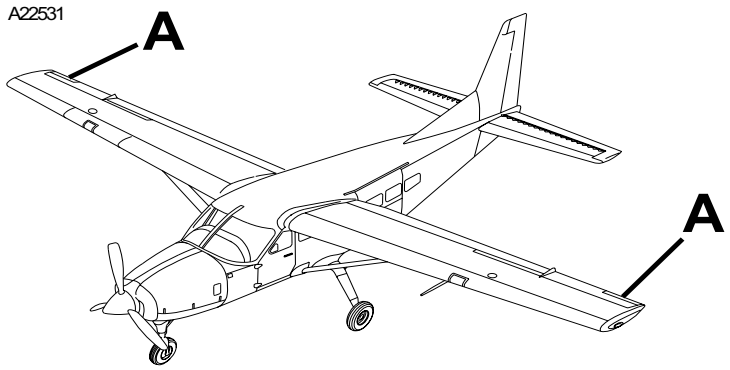
(6) Install the aileron trim tab actuator in the airplane. Refer to Aileron Trim System - Maintenance Practices.

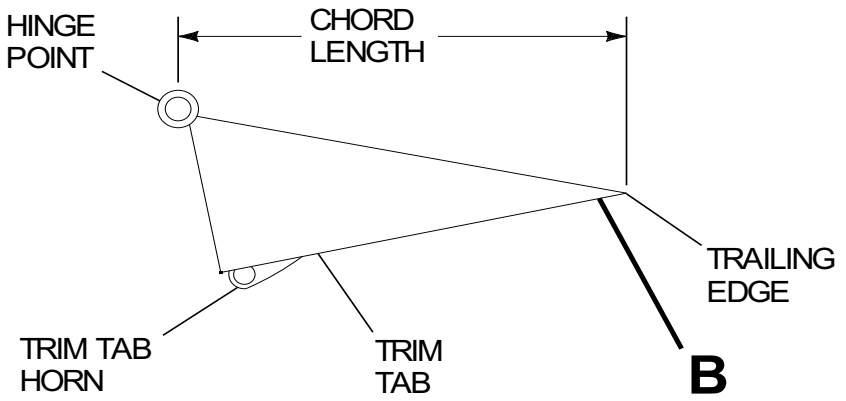
E. Restore Access

(1) None

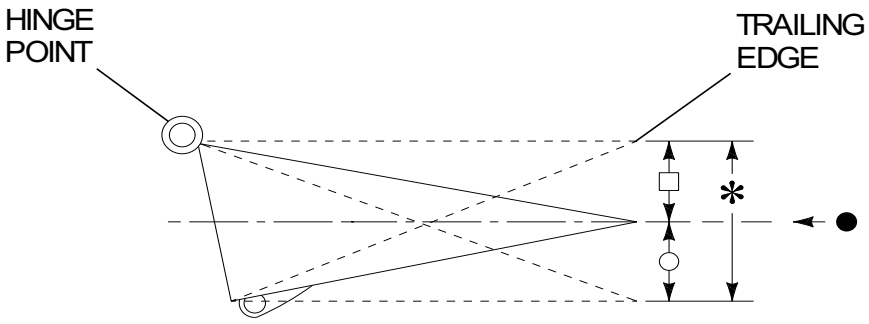
END OF TASK

Figure 601 : Sheet 1 : Aileron Trim Tab (Free Play) Functional Check





DETAIL A



DETAIL B

□ FREE PLAY UP

● NEUTRAL POSITION

○ FREE PLAY DOWN

* TOTAL FREE PLAY

1. MEASURE CHORD LENGTH AT EXTREME INBOARD END OF TRIM TAB AS SHOWN IN DETAIL A.
2. MULTIPLY CHORD LENGTH BY 0.025 TO OBTAIN MAXIMUM ALLOWABLE FREE-PLAY.
3. MEASURE FREE-PLAY AT SAME POINT ON TRIM TAB THAT CHORD LENGTH WAS MEASURED.
4. TOTAL FREE-PLAY MUST NOT EXCEED MAXIMUM ALLOWABLE. REFER TO DETAIL B.

2610T7002
A2661T1033
B2661T1033

Figure 201 : Sheet 1 : Aileron Trim Installation

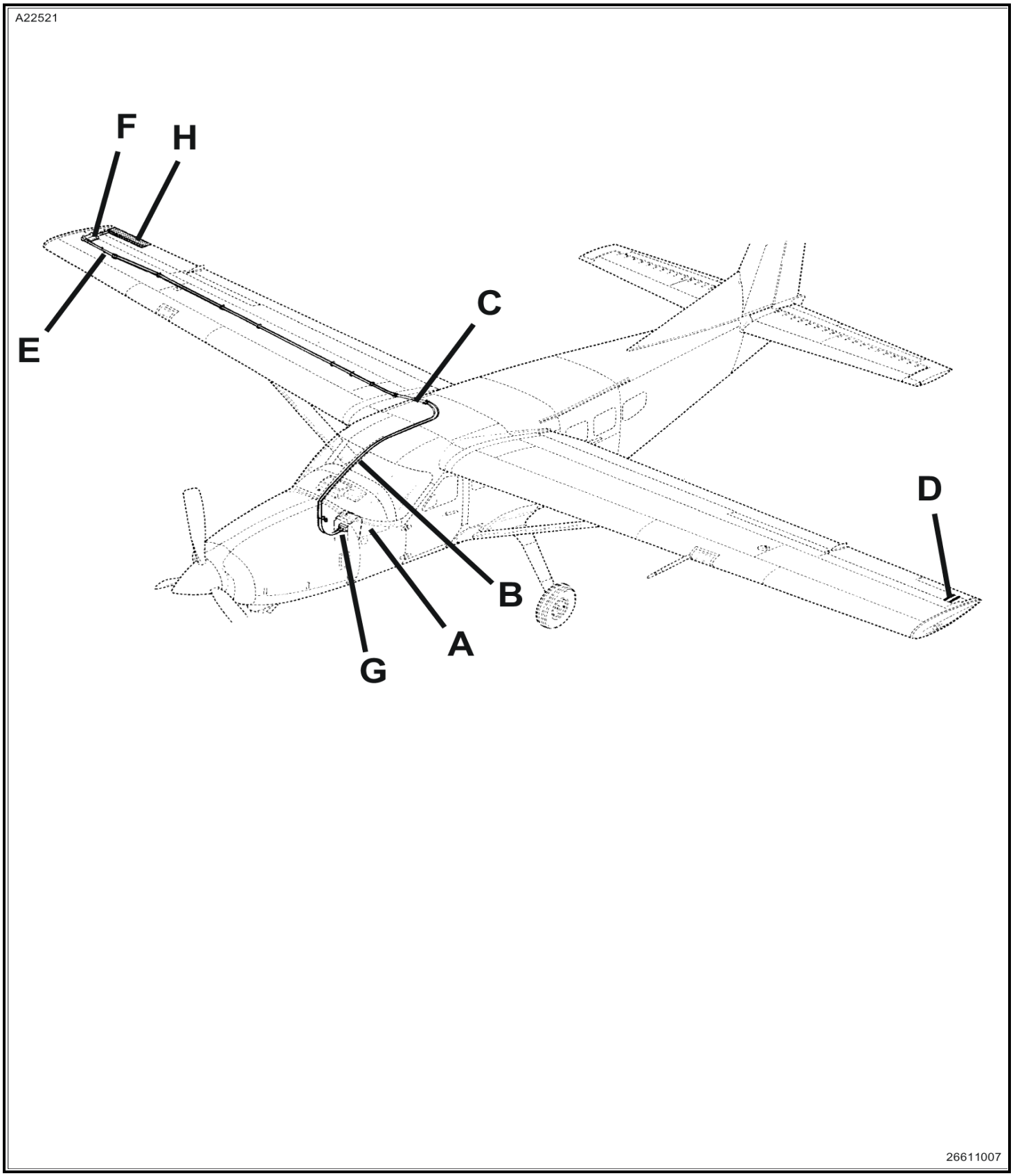


Figure 201 : Sheet 2 : Aileron Trim Installation

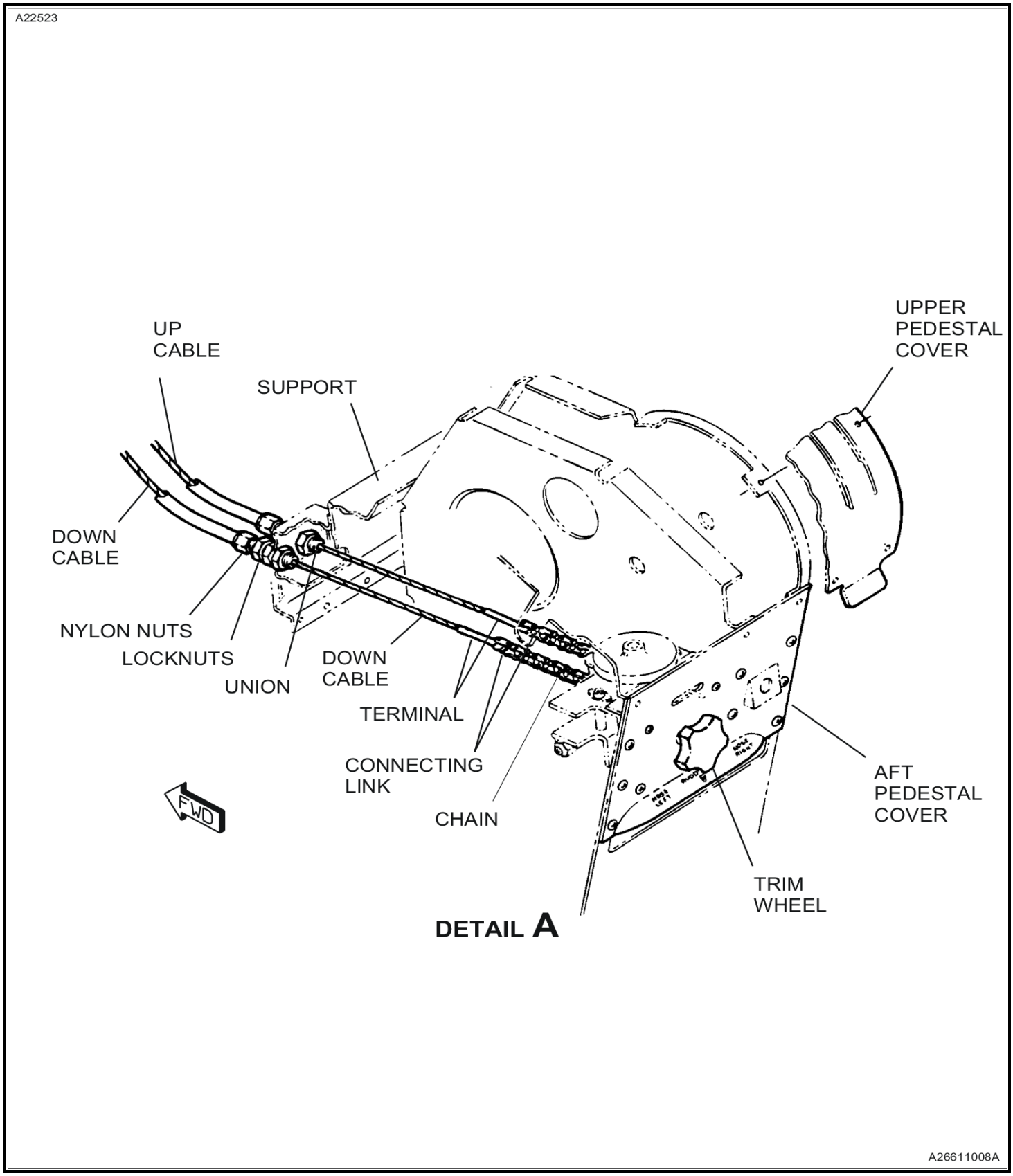
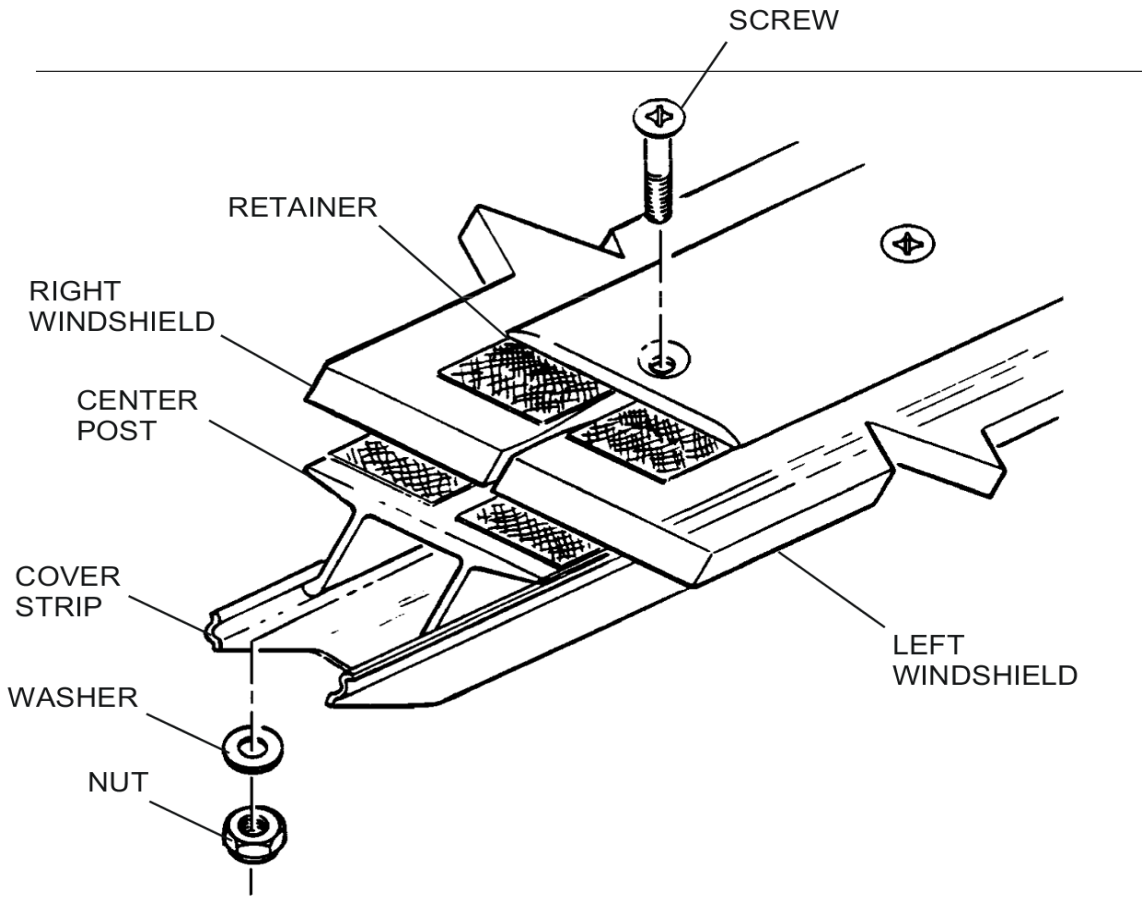


Figure 201 : Sheet 3 : Aileron Trim Installation

A22524



DETAIL B

B2661X1032

Figure 201 : Sheet 4 : Aileron Trim Installation

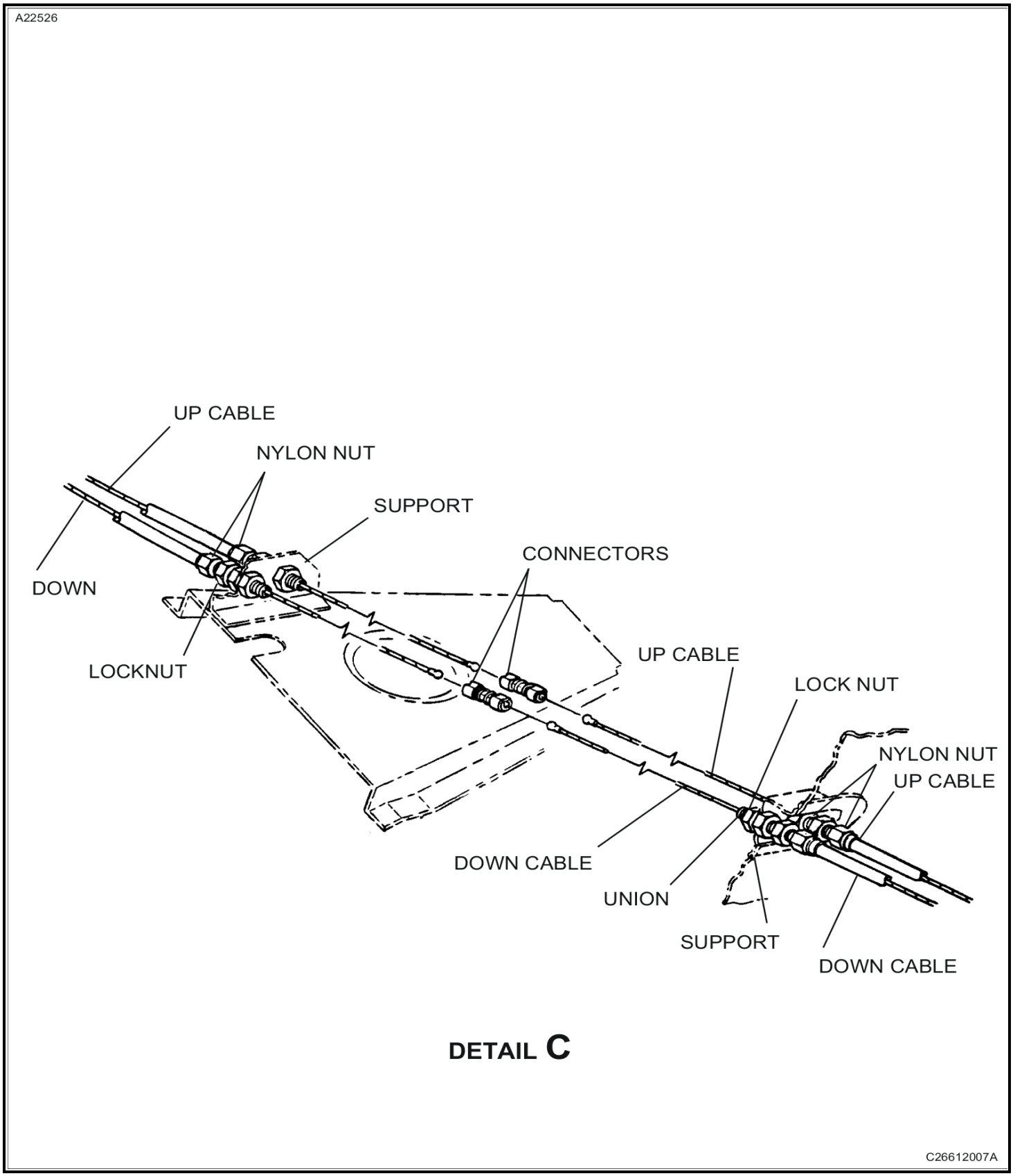


Figure 201 : Sheet 5 : Aileron Trim Installation

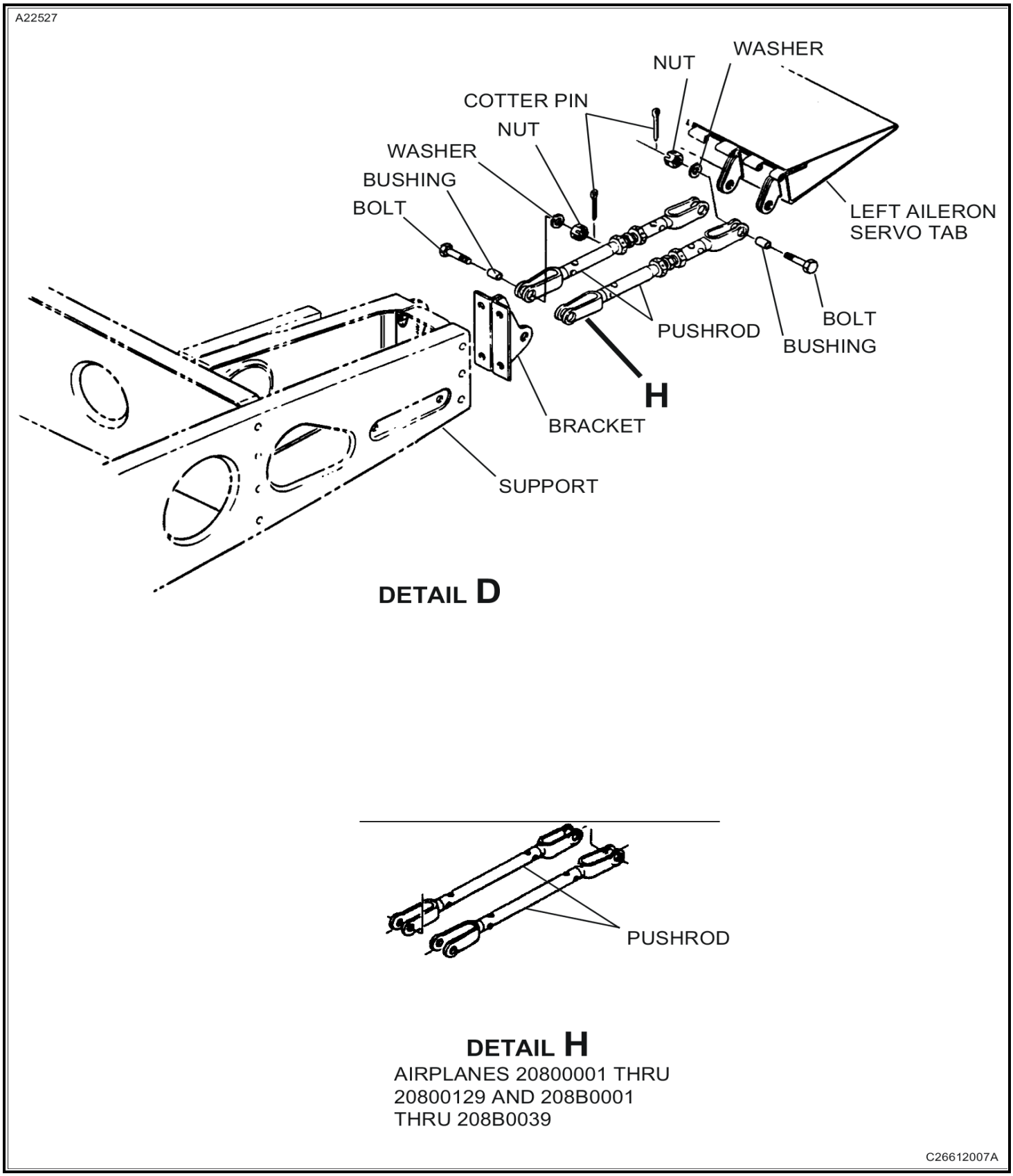


Figure 201 : Sheet 6 : Aileron Trim Installation

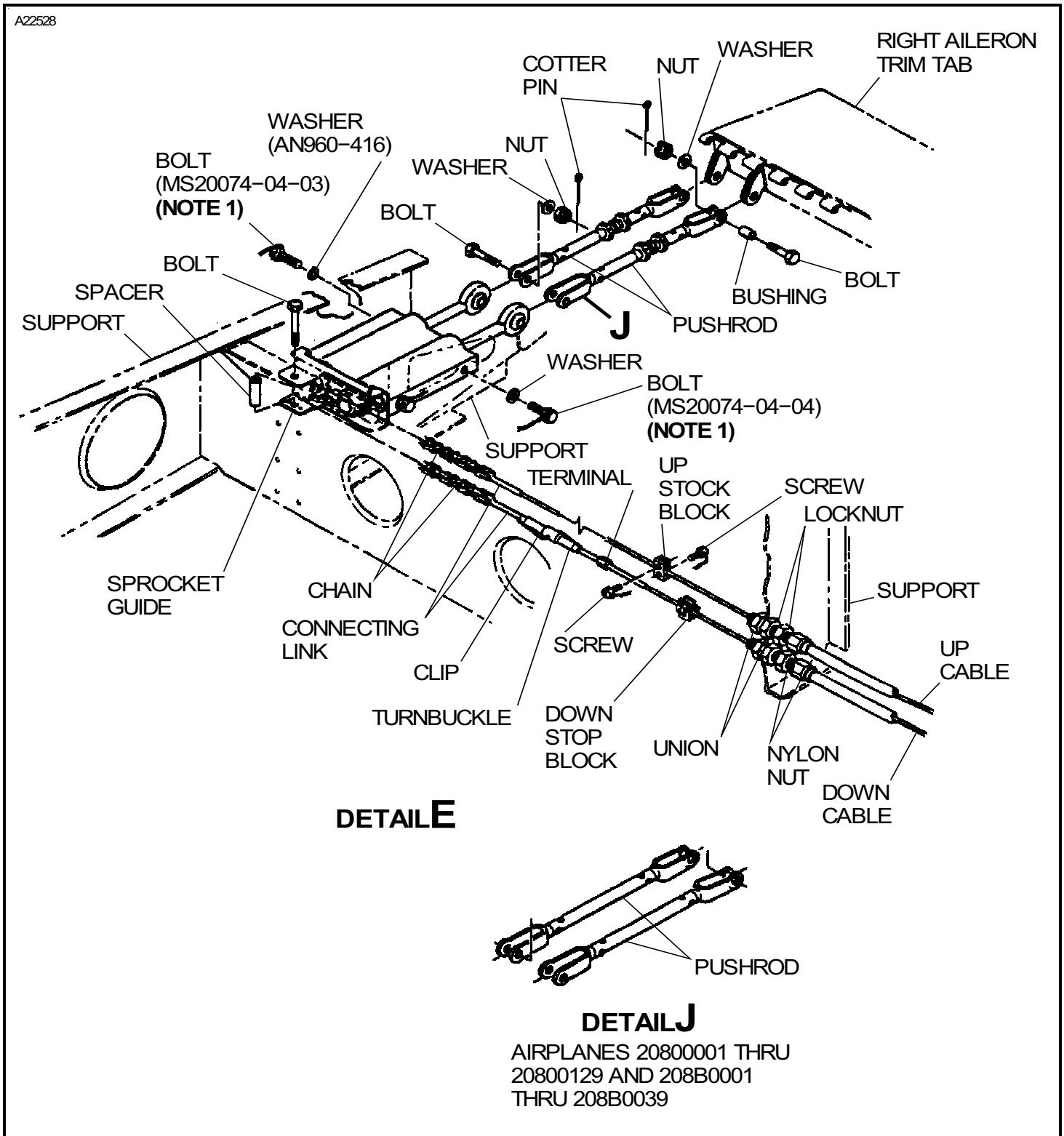
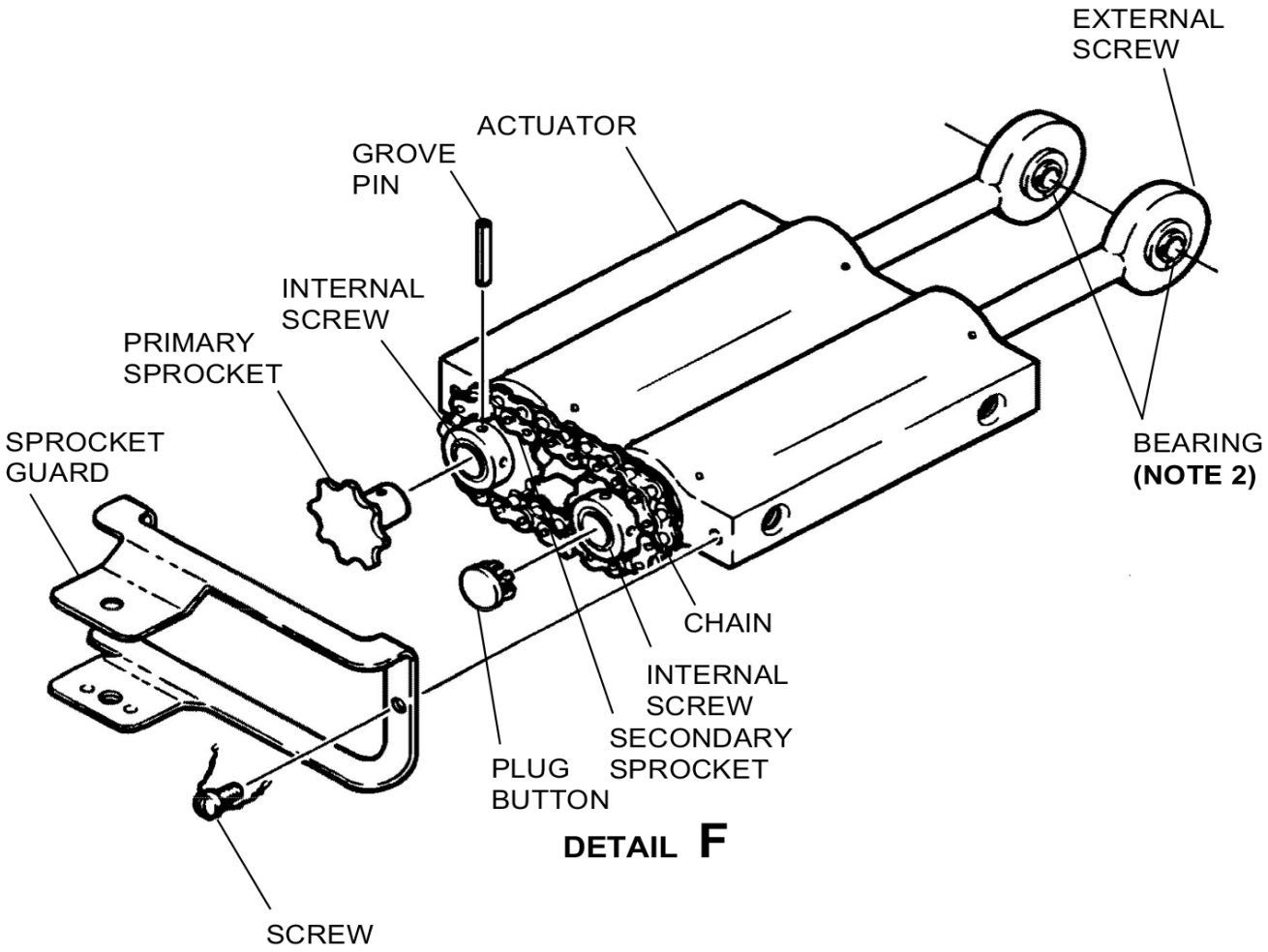


Figure 201 : Sheet 7 : Aileron Trim Installation

A22529



DETAIL F

NOTE 2: THE BEARINGS IN THE EXTERNAL SCREWS MUST BE ALIGNED WITHIN 0.010 INCH TOTAL INDICATOR READING BEFORE INSTALLING THE ACTUATOR IN THE SYSTEM. INSTALL THE NUMBER 11 PIN THROUGH THE BEARINGS AND TAKE THE INDICATOR READINGS OVER THE TOP OF THE PIN.

F26612017

Figure 201 : Sheet 8 : Aileron Trim Installation

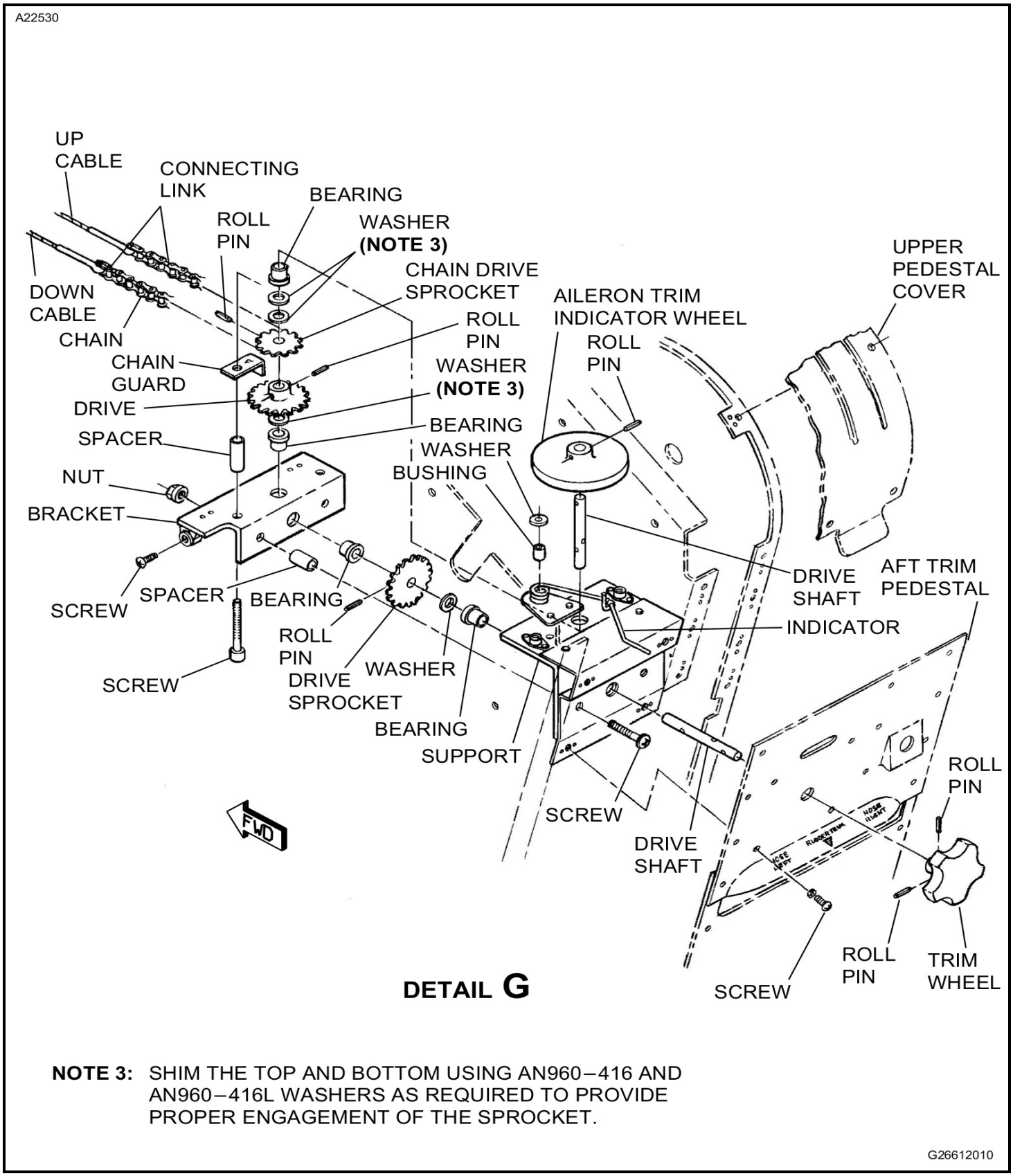


Figure 202 : Sheet 1 : Aileron Trim Tab Actuator Disassembly/Assembly

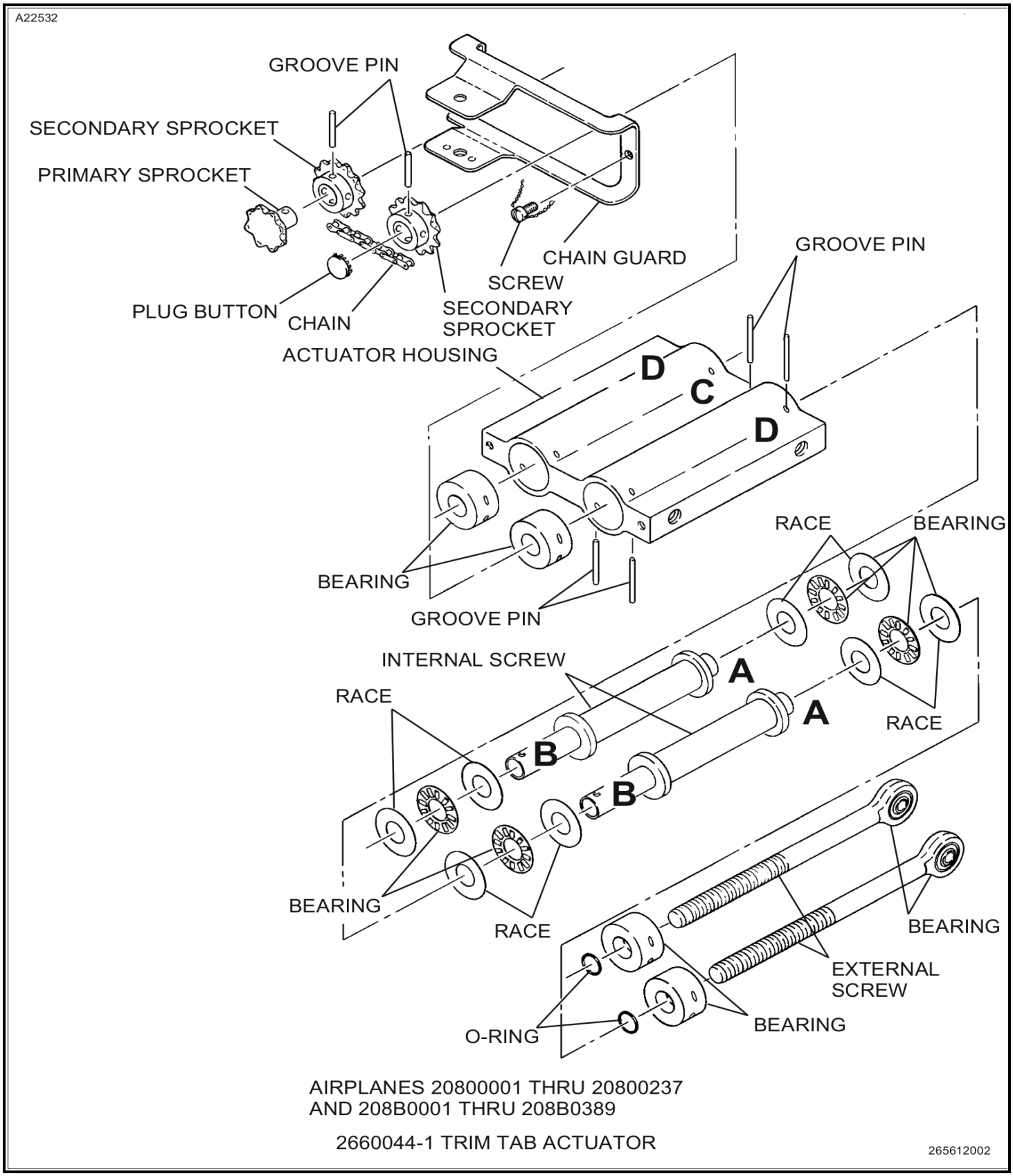
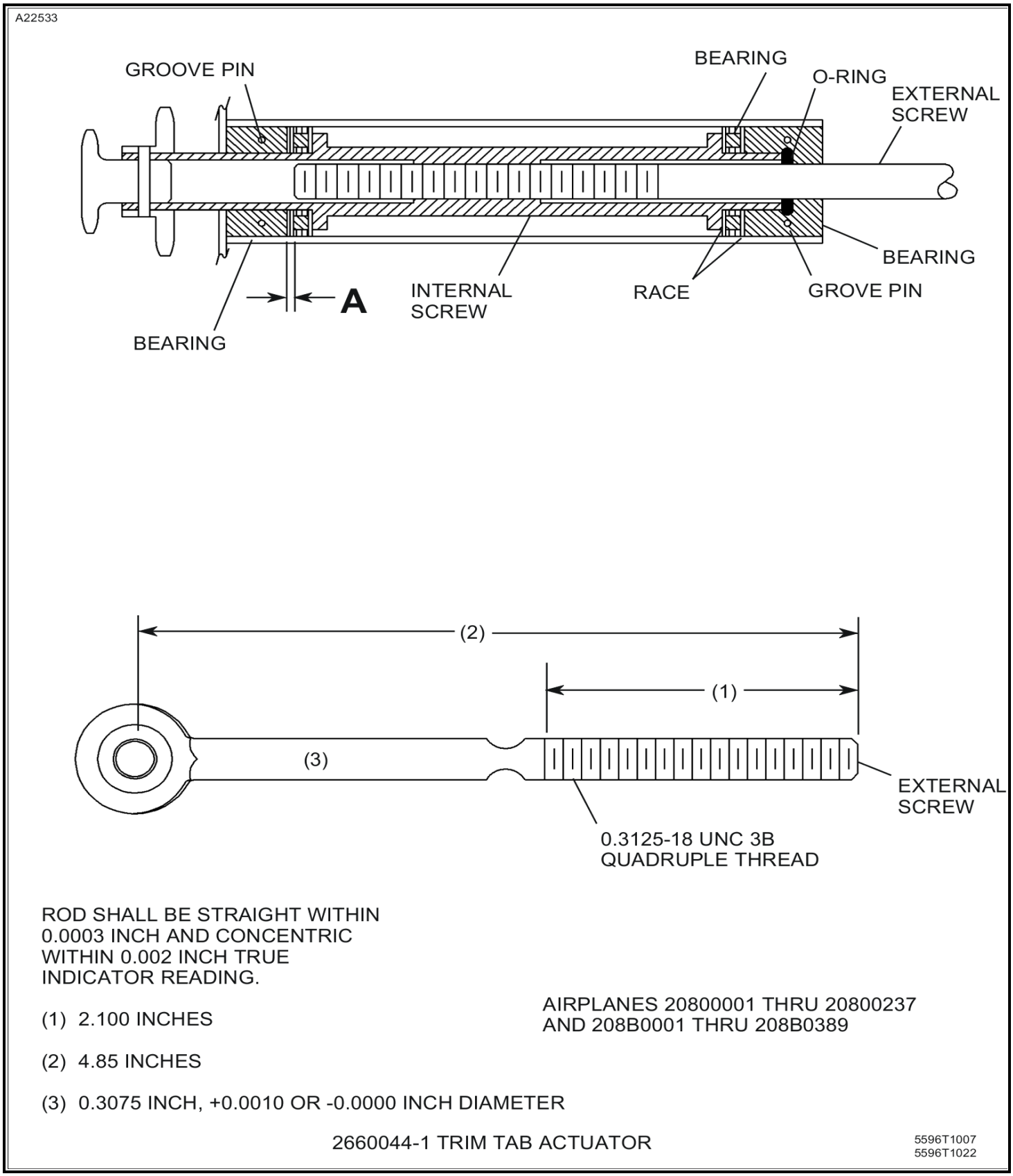


Figure 202 : Sheet 2 : Aileron Trim Tab Actuator Disassembly/Assembly



ROD SHALL BE STRAIGHT WITHIN 0.0003 INCH AND CONCENTRIC WITHIN 0.002 INCH TRUE INDICATOR READING.

AIRPLANES 20800001 THRU 20800237
AND 208B0001 THRU 208B0389

(1) 2.100 INCHES

(2) 4.85 INCHES

(3) 0.3075 INCH, +0.0010 OR -0.0000 INCH DIAMETER

2660044-1 TRIM TAB ACTUATOR

5596T1007
5596T1022

Figure 202 : Sheet 3 : Aileron Trim Tab Actuator Disassembly/Assembly

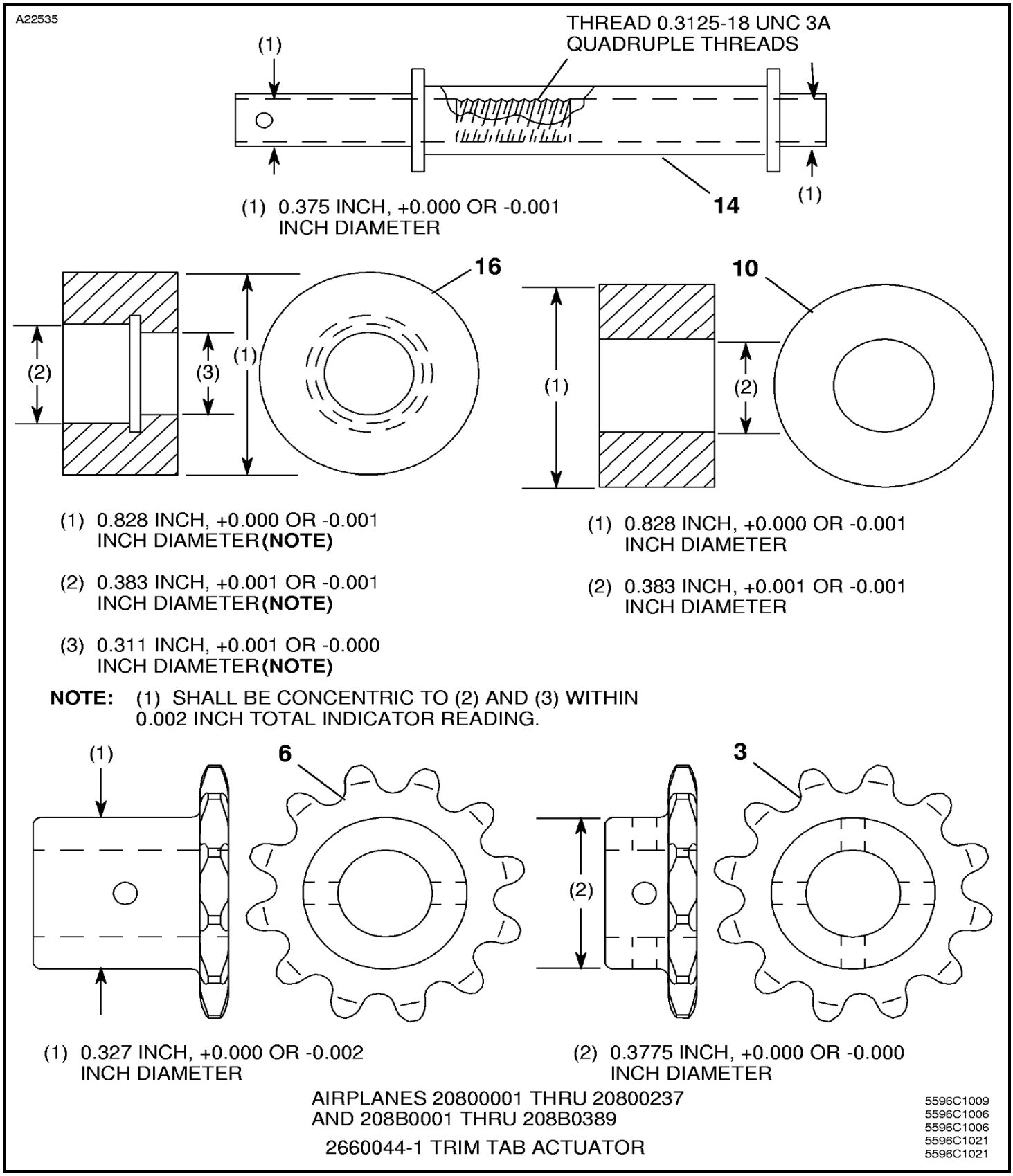


Figure 202 : Sheet 4 : Aileron Trim Tab Actuator Disassembly/Assembly

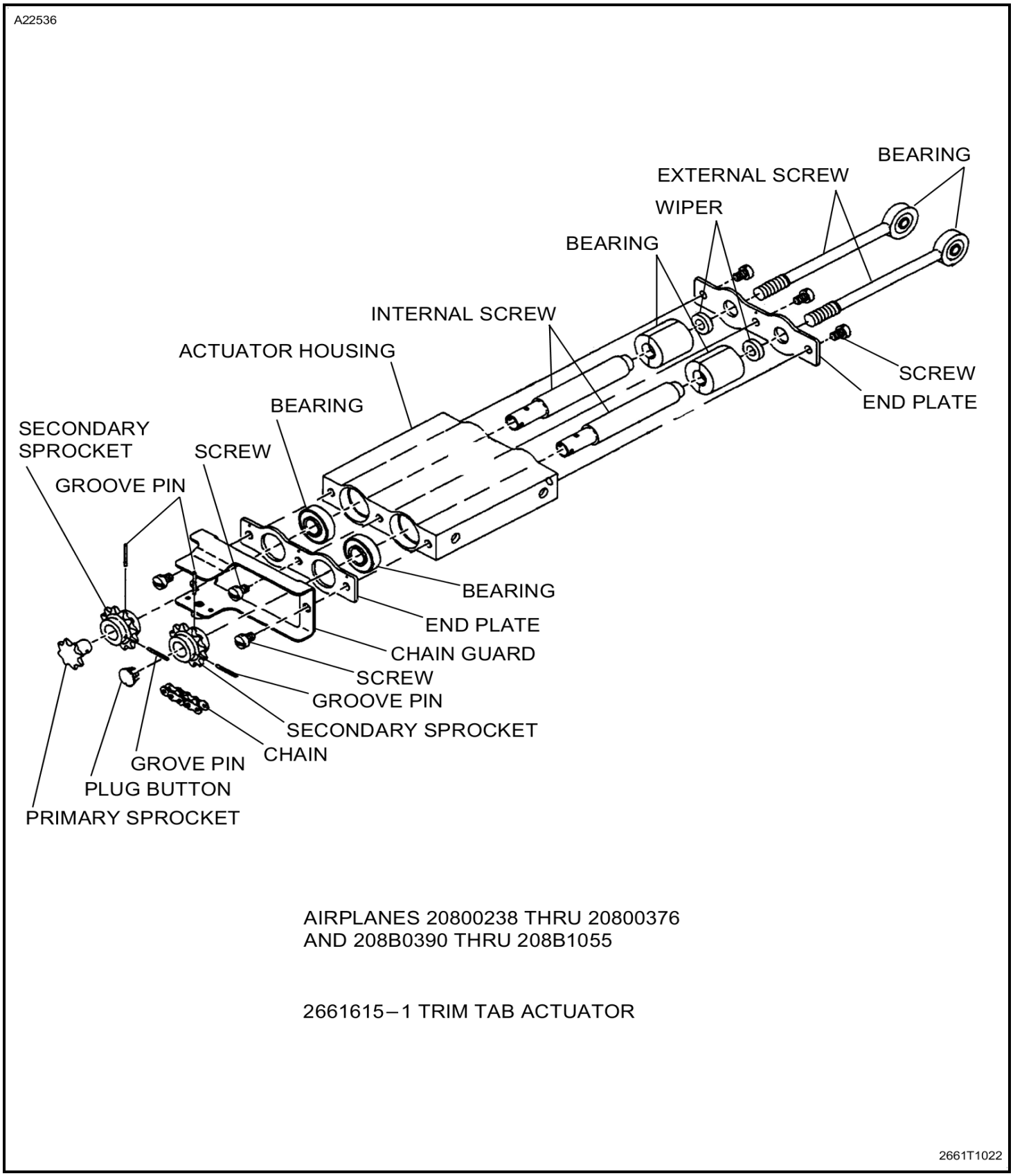


Figure 202 : Sheet 5 : Aileron Trim Tab Actuator Disassembly/Assembly

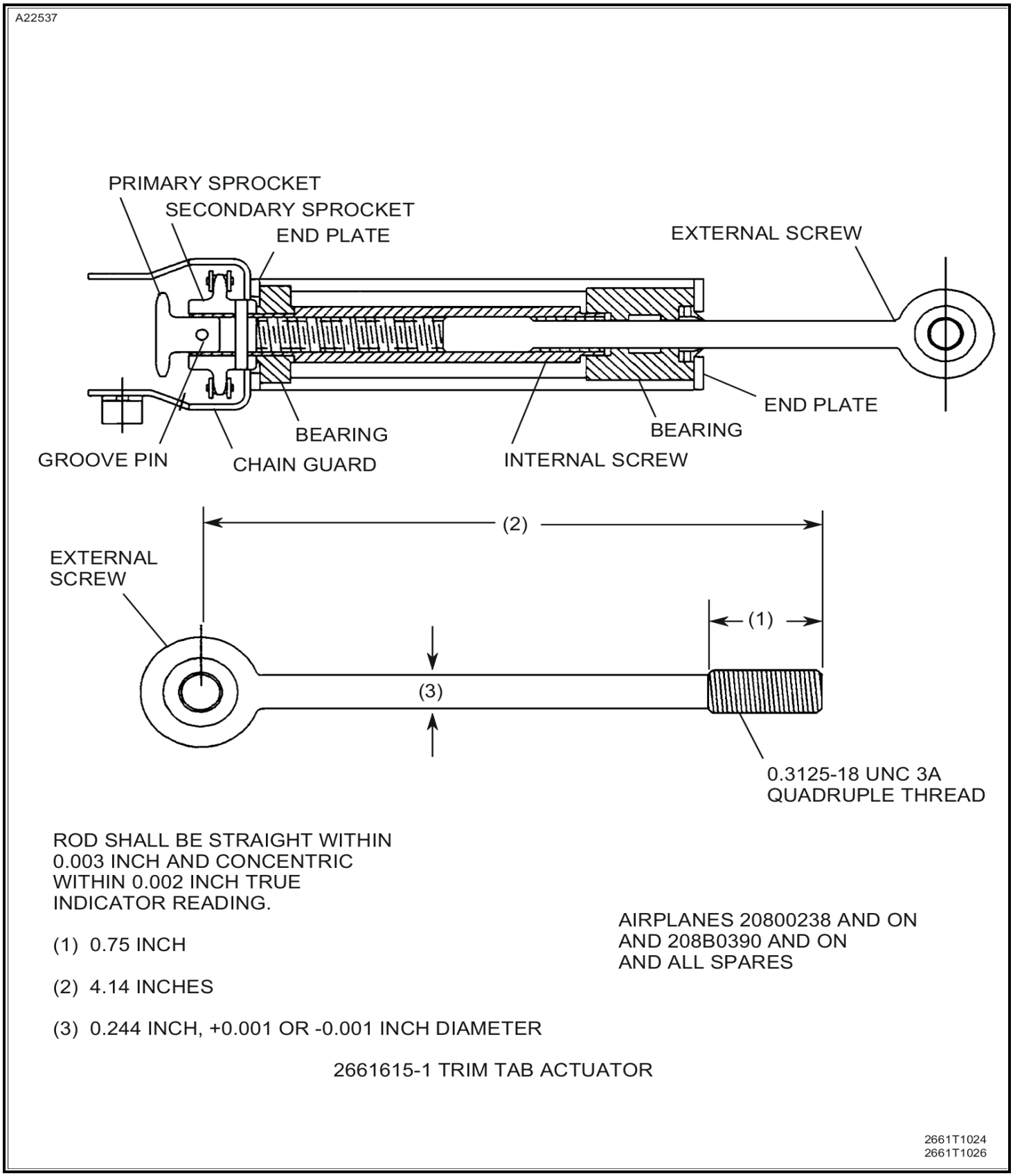
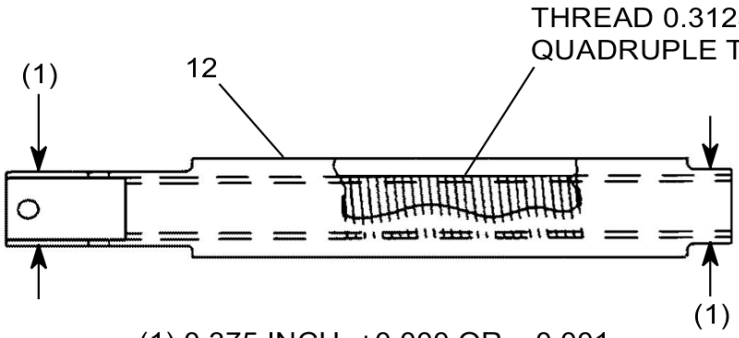
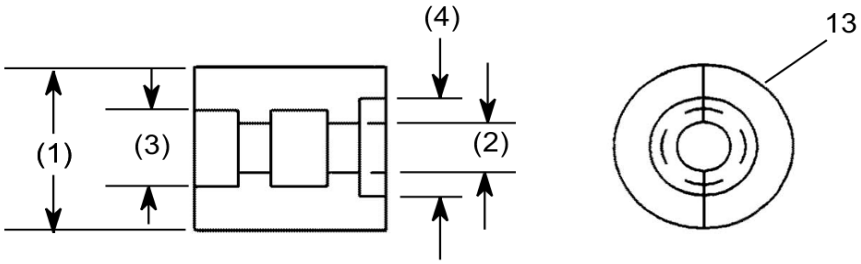


Figure 202 : Sheet 6 : Aileron Trim Tab Actuator Disassembly/Assembly

A22534



(1) 0.375 INCH, +0.000 OR –0.001 INCH DIAMETER

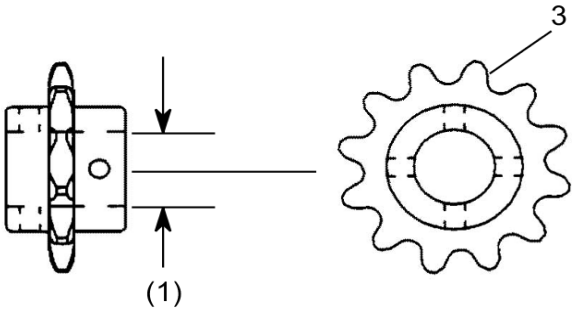


(1) 0.828 INCH, +0.000 OR –0.001 INCH DIAMETER

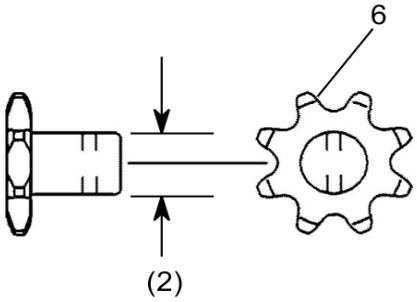
(2) 0.250 INCH, +0.001 OR –0.001 INCH DIAMETER

(3) 0.385 INCH, +0.000 OR –0.000 INCH DIAMETER

(4) 0.497 INCH, +0.000 OR –0.000 INCH DIAMETER



(1) 0.376 INCH, +0.001 OR –0.001 INCH DIAMETER



(2) 0.3115 INCH, +0.001 OR –0.001 INCH DIAMETER

AIRPLANES 20800238 THRU 20800376 AND
AIRPLANES 208B0390 THRU 208B1054

2661615–1 TRIM TAB ACTUATOR

2661R1025
2661R1027
2661R1028
2661R1029

Figure 202 : Sheet 7 : Aileron Trim Tab Actuator Disassembly/Assembly

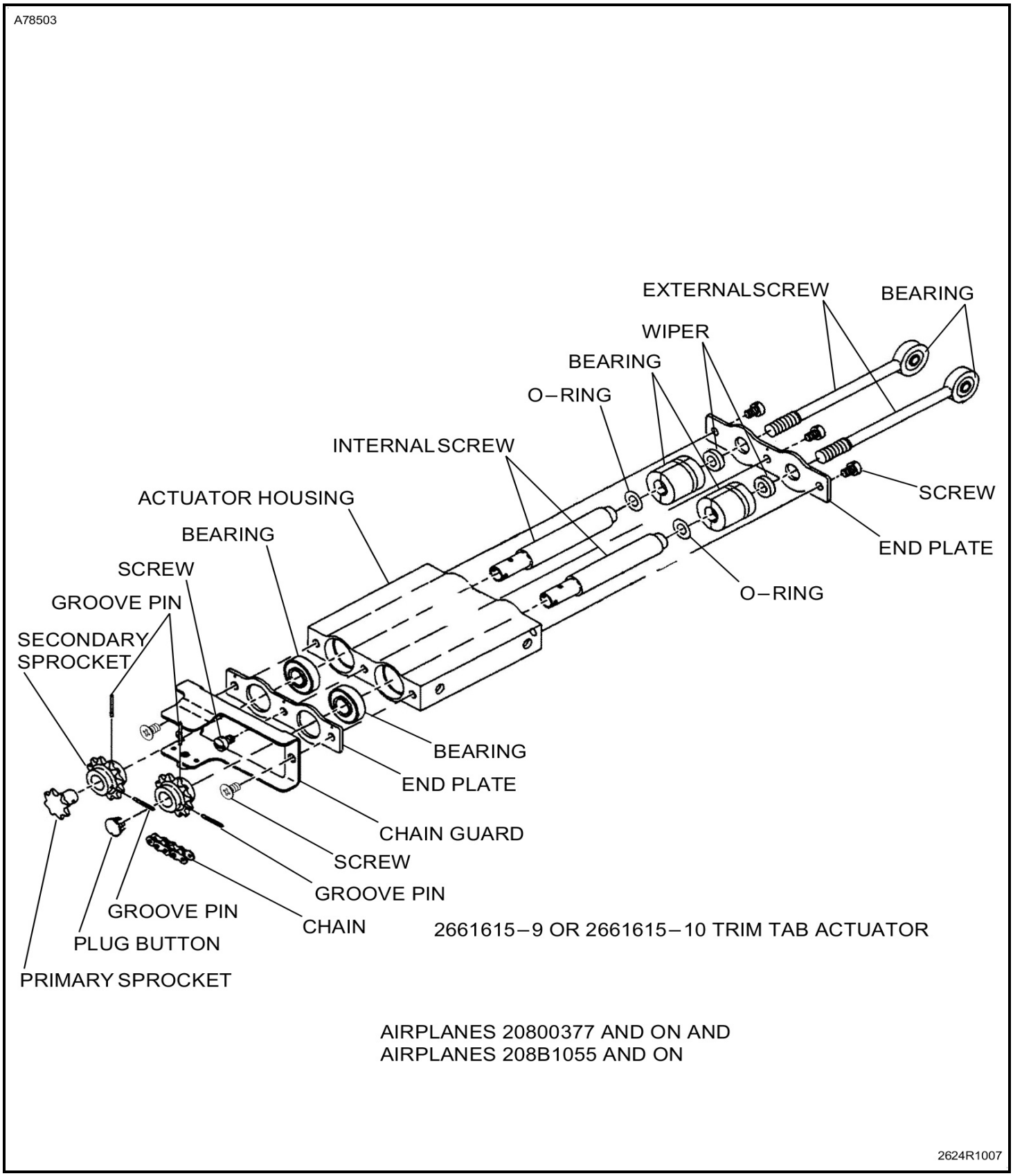
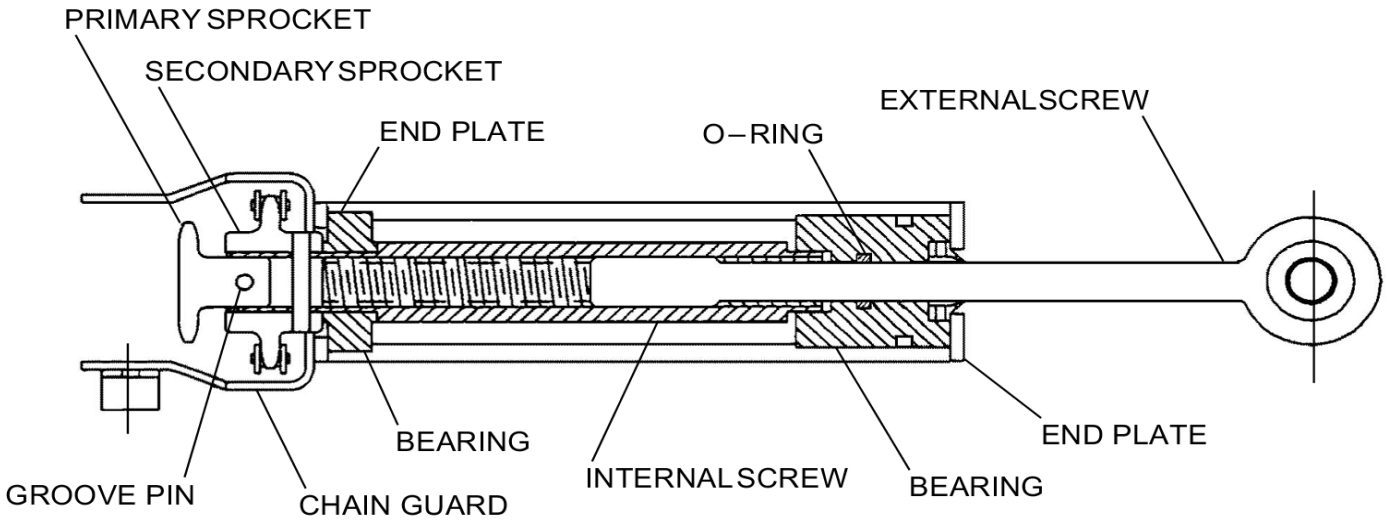
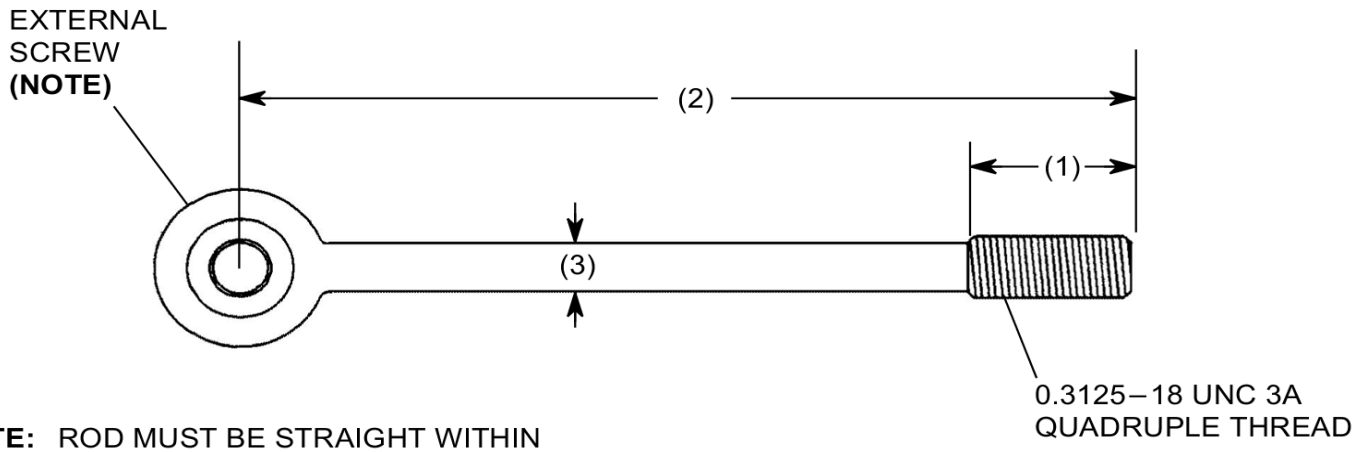


Figure 202 : Sheet 8 : Aileron Trim Tab Actuator Disassembly/Assembly

A78504





NOTE: ROD MUST BE STRAIGHT WITHIN 0.003 INCH (0.076 mm) AND CONCENTRIC WITHIN 0.002 INCH (0.051 mm) TRUE INDICATOR READING.

(1) 0.75 INCH (19.05 mm)

(2) 4.14 INCHES (105.16 mm)

(3) 0.244 INCH, +0.001 OR –0.001 INCH (6.20 mm, +0.025 OR –0.025 mm) DIAMETER

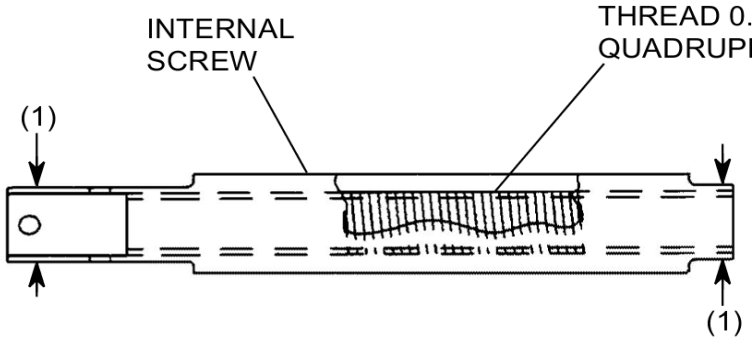
AIRPLANES 20800377 AND ON AND
AIRPLANES 208B1055 AND ON

2661615–9 OR 2661615–10 TRIM TAB ACTUATOR

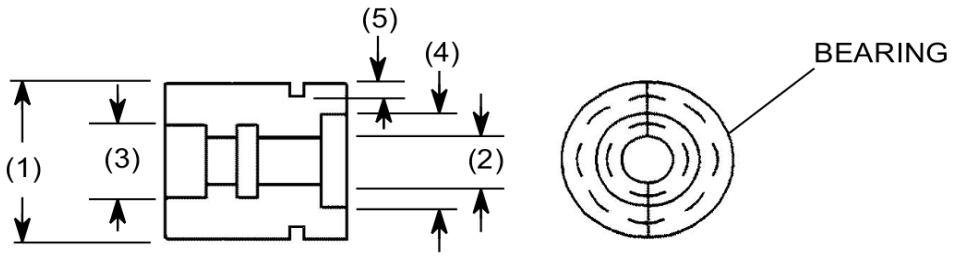
2624R1008
2661R1026

Figure 202 : Sheet 9 : Aileron Trim Tab Actuator Disassembly/Assembly

A78505



(1) 0.375 INCH, +0.000 OR –0.001 INCH (9.525 mm, +0.000 OR –0.025 mm) DIAMETER



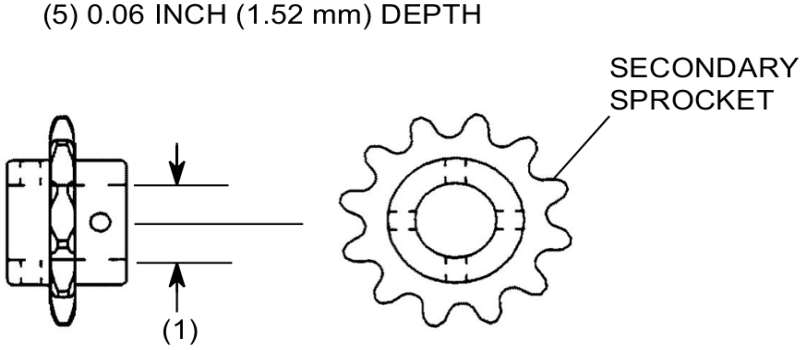
(1) 0.828 INCH, +0.000 OR –0.001 INCH (21.03 mm, +0.000 OR –0.025 mm) DIAMETER

(2) 0.250 INCH, +0.001 OR –0.001 INCH (6.35 mm, +0.025 OR –0.025 mm) DIAMETER

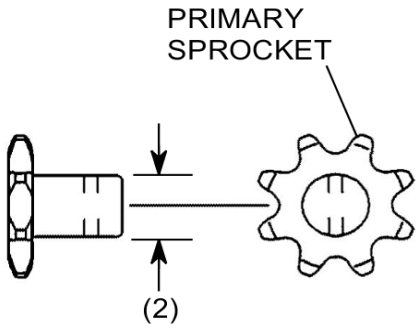
(3) 0.380 INCH, +0.001 OR –0.000 INCH (9.65 mm, +0.025 OR –0.000 mm) DIAMETER

(4) 0.497 INCH, +0.000 OR –0.000 INCH (12.62 mm, +0.000 OR –0.000 mm) DIAMETER

(5) 0.06 INCH (1.52 mm) DEPTH



(1) 0.376 INCH, +0.001 OR –0.001INCH
(9.550 mm, +0.025 OR –0.025 mm) DIAMETER



(2) 0.3115 INCH, +0.001 OR –0.001 INCH
(7.912 mm, +0.025 OR –0.025 mm) DIAMETER

AIRPLANES 20800377 AND ON AND
AIRPLANES 208B1055 AND ON

2661615–9 OR 2661615–10 TRIM TAB ACTUATOR

2661R1025
2624R1009
2661R1028
2661R1029