

2. MAINTENANCE PRACTICES

A. Aileron Assembly - *Serials 1005 thru 1885* (See Figure 57-501)

(1) Removal - Aileron Assembly

- (a) Remove wing tip. (Refer to 57-20)

CAUTION: When removing aileron hinge bolts, exercise caution to prevent aileron from falling and becoming damaged.

Prevent the aileron from being supported by only one bolt, as this could damage the bolt, hinge, and aileron.

Note: Note washer stackup to facilitate aileron re-installation.

- (b) Cut safety wire and remove bolt and washer(s) securing aileron to outboard aileron hinge.
- (c) Cut safety wire and remove bolt, washer(s), and spacer securing aileron to inboard aileron hinge. Remove aileron from airplane.

(2) Disassembly - Aileron Assembly

- (a) To disassemble aileron trim tab, perform the following steps:

- 1 Acquire necessary parts, tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Drill bit 0.098 inch (2.489 mm)	#40	Any Source	Drill out rivets.

- 2 Drill out rivets securing trim tab to RH aileron.

(3) Assembly - Aileron Assembly

- (a) To assemble aileron trim tab, perform the following steps:

- 1 Acquire necessary parts, tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Alodine Pen	-	Any Source	Corrosion protection.
Blind Rivet	NAS9301B4-1	Cirrus Design Duluth, MN 55811 218-727-2737	Fastener.
White Hobby Paint	Testers (or equivalent)	Any Source	Paint rivet heads.

- 2 Using an Alodine pen, apply corrosion protection to edge of each rivet hole.

- 3 Install rivets securing trim tab to RH aileron.

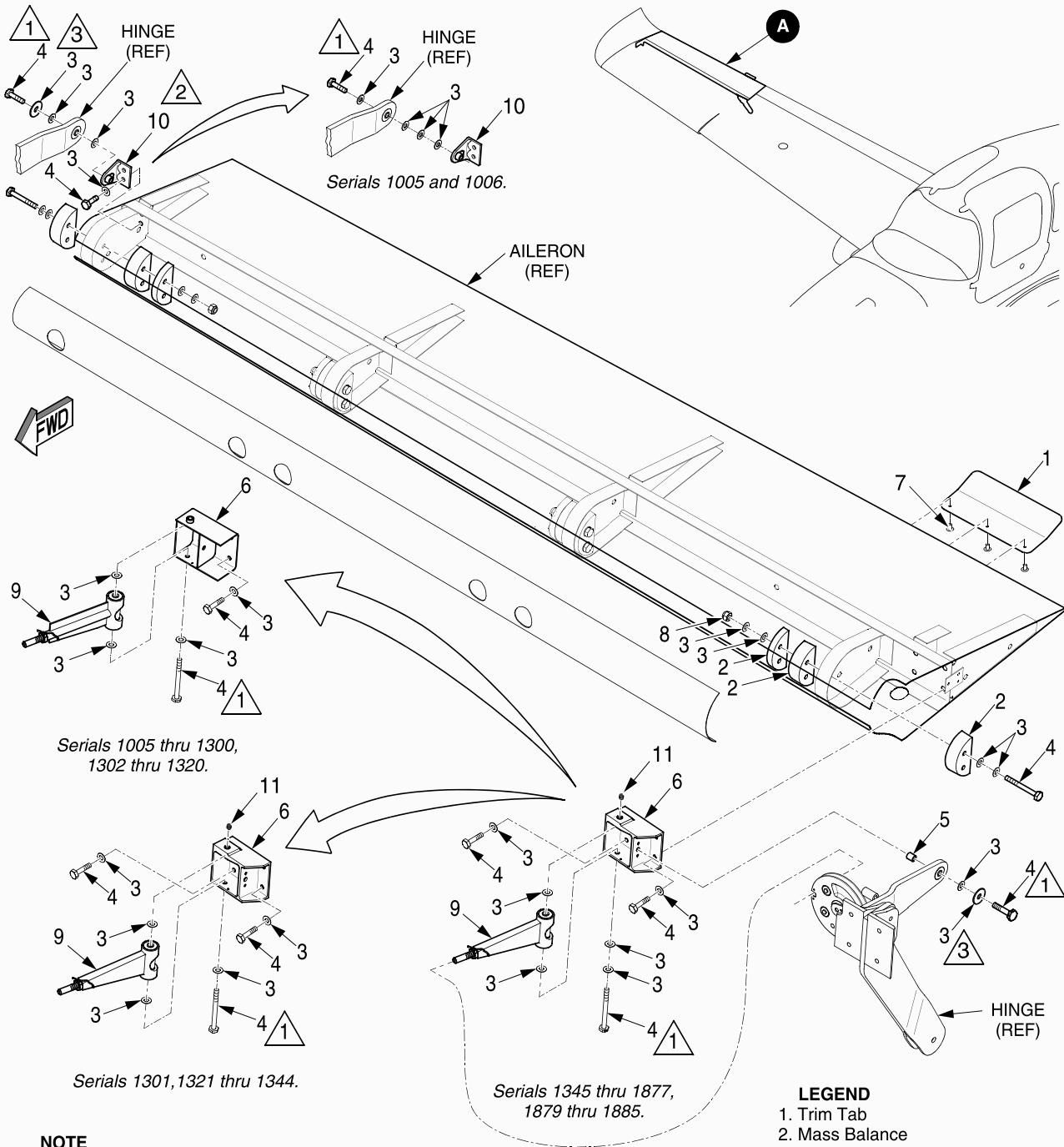
- 4 Apply thin coat of paint to each rivet head.

- 5 Perform Adjustment/Test - Aileron Balancing. (Refer to 57-50)

(4) Installation - Aileron Assembly

- (a) Insert pin portion of aileron actuation arm assembly into spherical rod end on actuation pulley.
- (b) Install bolt, washer(s), and spacer securing aileron to inboard aileron hinge.
- (c) Finger tighten bolt and washer(s) securing aileron to outboard aileron hinge.

- (d) *Serials 1007 thru 1885:* Perform Inspection/Check - Aileron Gap and Overlap. (Refer to 57-50)
- (e) Tighten both aileron hinge bolts to 20 - 25 in-lb (2.3 - 2.8 Nm).
- (f) Safety wire aileron hinge bolts to safety wire clips. (Refer to 20-50)
- (g) Perform Inspection/Check - Aileron Assembly. (Refer to 57-50)
- (h) Install wing tip. (Refer to 57-20)
- (i) If aileron trim tab was replaced, perform Adjustment/Test - Aileron Trim Tab. (Refer to 57-50)
- (5) *Serials 1005 thru 1885:* Removal - Actuation Arm Assembly
 - (a) Remove aileron assembly. (Refer to 57-50)
 - (b) Cut and remove safety wire from bolt securing actuation arm assembly to inboard hinge attach bracket.
 - (c) *Serials 1301, 1321 thru 1885:* Disengage bolt, from locking threaded insert in inboard attach bracket.
 - (d) Remove bolt, washers, and actuation arm assembly from inboard attach bracket.
 - (e) Remove bolt and washers securing inboard hinge attach bracket to aileron.
 - (f) Remove inboard hinge attach bracket from aileron.
- (6) *Serials 1005 thru 1885:* Installation - Actuation Arm Assembly
 - (a) Install bolts and washers securing inboard hinge attach bracket to aileron.
 - (b) Secure actuation arm assembly to inboard hinge attach bracket with bolt and washers.
 - 1 *Serials 1005 thru 1300, 1302 thru 1320:* Torque bolt to 20 - 25 in-lb (2.26 - 2.82 nm).
 - 2 *Serials 1301, 1321 thru 1885:* Torque bolt to 20 - 25 in-lb (2.26 - 2.82 nm), and fully engage bolt in locking threaded insert of inboard hinge attach bracket.
 - 3 Safety wire bolt to inboard hinge attach bracket. (Refer to 20-50)
 - (c) Install aileron assembly. (Refer to 57-50)
- (7) Inspection/Check - Aileron Assembly
 - (a) Verify hinge bolts for proper torque and installation. (Refer to 57-50)
 - (b) Verify proper installation of safety wire on all fasteners.
 - (c) Ensure aileron skin is smooth and free of any defects or irregularities.
 - (d) Inspect rivets and aileron skin for tightness.
 - (e) Operate aileron controls and inspect for any abnormal resistance.



NOTE

- ① Secure with safety wire.
- ② *Serials 1007 thru 1877, 1879 thru 1885:*
No more than 0.03 inch (0.76 mm) allowed in combined washer and endplay gap. On some airplanes, there may be more than one washer installed between attach bracket and hinge. Upon removal of aileron, note stackup and replace upon installation. Washers are installed to ensure hinge does not contact aileron.
- ③ *Serials 1485 thru 1877, 1879 thru 1885.*

LEGEND

- 1. Trim Tab
- 2. Mass Balance
- 3. Washer
- 4. Bolt
- 5. Spacer
- 6. Inboard Hinge Attach Bracket
- 7. Rivet
- 8. Nut
- 9. Actuation Arm Assembly
- 10. Outboard Hinge Attach Bracket
- 11. Locking Threaded Insert

DETAIL A

SR20_MM57_1600G

Figure 57-501

Aileron Installation - Serials 1005 thru 1885

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EFFECTIVITY:
Serials 1005 thru 1885