

C023 Tailcone with GMU 44 Magnetometer Installation Kit Instructions

KI-277-1 transfers existing GMU 44 Magnetometer & F951-2 Harness Assembly (optionally installed on R66 S/N 1068 & prior, R44 S/N 2658 & prior, R44II 14473 & prior, and Cadet 30077 & prior) to new C023 Tailcone, Revision AV & subsequent. Some R66 helicopters were originally configured with magnetometer in forward bay; Use KI-277-2 to relocate Magnetometer to current production configuration in second bay.

NOTE

Visit www.robinsonheli.com to verify kit instructions are current revision. Review instructions before installation; contact RHC Technical Support with questions. Verify kit contents match list; contact RHC Customer Service if parts are missing or damaged.

NOTE

Proper rivet length is determined by installer during installation. Rivets included in kit contents are provided as a courtesy.

| ITEM | PART NUMBER | KIT CONTENTS | QTY PER KI-277-1 | QTY PER KI-277-2 |
|------|-----------------|---|---------------------|---------------------|
| 1 | KI-277Instr. | Kit Instructions | 1 | 1 |
| 2 | D843-1 | Adapter | 1 | 1 |
| 3 | D843-2 | Doubler | 1 | 1 |
| 4 | F951-2 | Harness Assembly | 0 | 1 |
| 5 | MS20470AD3-3.5+ | Rivet (Note: "+" in part number indicates 50-qty pack) | 1 | 1 |
| 6 | MS21042L04 | Nut | 1 | 1 |
| 7 | MS21042L08 | Nut | 2 | 2 |
| 8 | MS21919WDG3 | Clamp | 2 | 2 |
| 9 | MS21919WDG12 | Clamp | 1 | 1 |
| 10 | MS27039C0806 | Screw | 1 | 1 |
| 11 | MS27039C0808 | Screw | 1 | 1 |
| 12 | MS35206-215 | Screw | 1 | 1 |
| 13 | NAS1149FN416P+ | Washer (Note: "+" in part number indicates 20-qty pack) | 1 | 1 |
| 14 | NAS1149FN816P+ | Washer (Note: "+" in part number indicates 20-qty pack) | 1 | 1 |
| 15 | NAS1352C06-6 | Screw | 3 | 3 |
| 16 | NAS1352C08-6 | Screw | 3 | 3 |
| 17 | NAS1352C08-12 | Screw | 1 | 1 |

Special Tools

- Cleco® (sheet metal fastener) in sizes #30 (copper), and #40 (silver)
- Manual squeeze-type rivet installation tool with minimum 1-1/2" throat depth
- Step drill, 1/2 inch–1 inch size range
- Drilling, deburring, and countersinking tools

Kit Instructions

1. Refer to Figure 1, Detail A. On D070-1 bulkhead of new tailcone, enlarge existing .688 inch diameter hole to .879-.890 inch using step drill.
2. Refer to Figure 1, Detail B. Remove material between enlarged hole and four existing holes. Deburr hole, smooth edges, and clean up debris. At installer's discretion, alodine and prime as described in NOTE below.

NOTE

After trimming or filing aluminum, finish edges as follows: Deburr trimmed edges with 220-grit or finer wet-or-dry aluminum oxide abrasive paper. Solvent-clean deburred edge and apply Bonderite M-CR 1132, or Bonderite M-CR 1201 Aero in accordance with manufacturer's instructions. Apply epoxy primer to dry edge. Touch up with helicopter paint color, where applicable, is optional.

3. Refer to Figure 2. Center D843-2 doubler on enlarged hole, rotate as required to ensure specified gap is not exceeded, and clamp doubler to bulkhead. Using doubler as drill guide, progressively drill specified holes and install clecos. Remove doubler. Deburr holes and clean up debris.
4. Cleco D843-2 doubler in position and install using (2) MS20470AD3-3.5 rivets through (2) .097-.102 inch diameter holes.

CAUTION

Magnetometer is very sensitive to magnetic flux. Ensure all tools used for installation are de-magnetized.

5. Refer to Figure 3. Install D843-1 adapter onto F950-20 bracket assembly using (3) NAS1352C06-6 screws. Position magnetometer on adapter so marked arrow on top points to front of tailcone. Secure GMU 44 magnetometer to adapter using (3) NAS1352C08-6 screws.
6. Drill out existing rivet as shown. Drill (1) .169-.175 inch diameter hole in newly vacated rivet hole. Deburr hole and clean up debris.
7. Connect GMU 44 harness to F951-2 harness and secure connector to adapter using MS21919WDG12 clamp and NAS1352C08-12 screw.
8. Position (2) MS21919WDG3 clamps around cable harness and route harness forward. Secure clamps to tailcone, and harness connector to D070 bulkhead at newly installed doubler, using hardware as shown.
9. Make appropriate maintenance record entries.

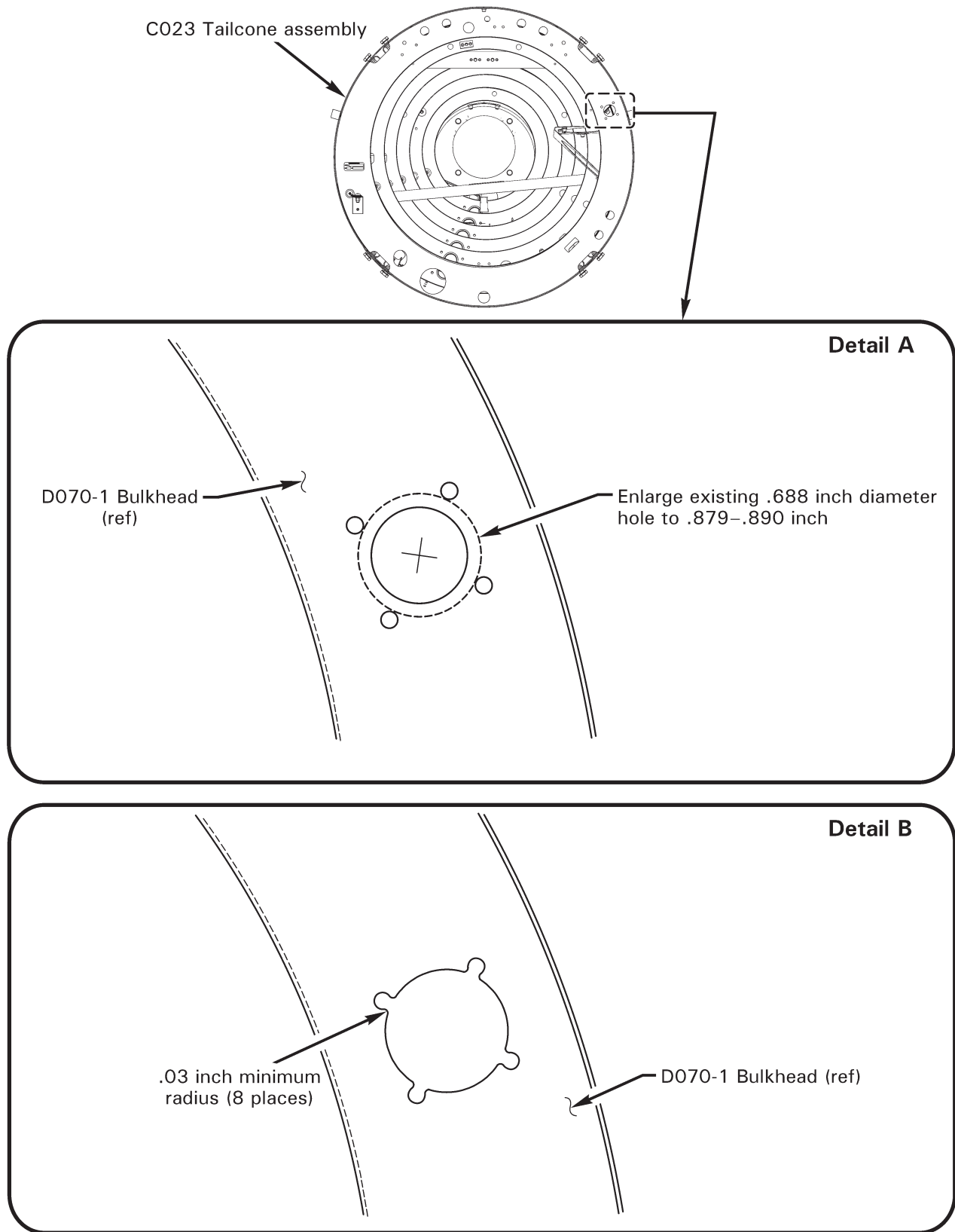


FIGURE 1
(view looking aft)

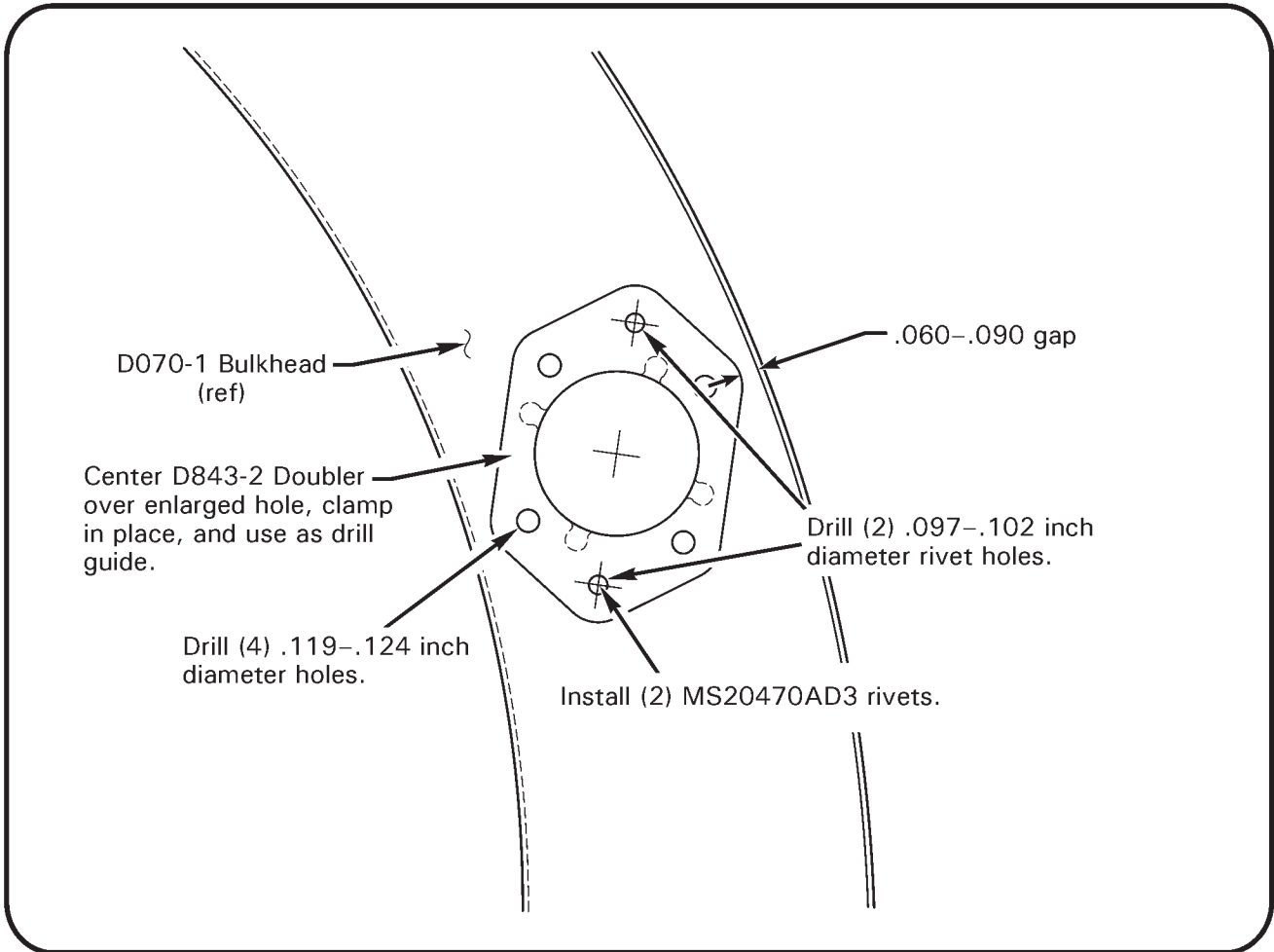


FIGURE 2 D843-2 Doubler orientation
(view looking aft)

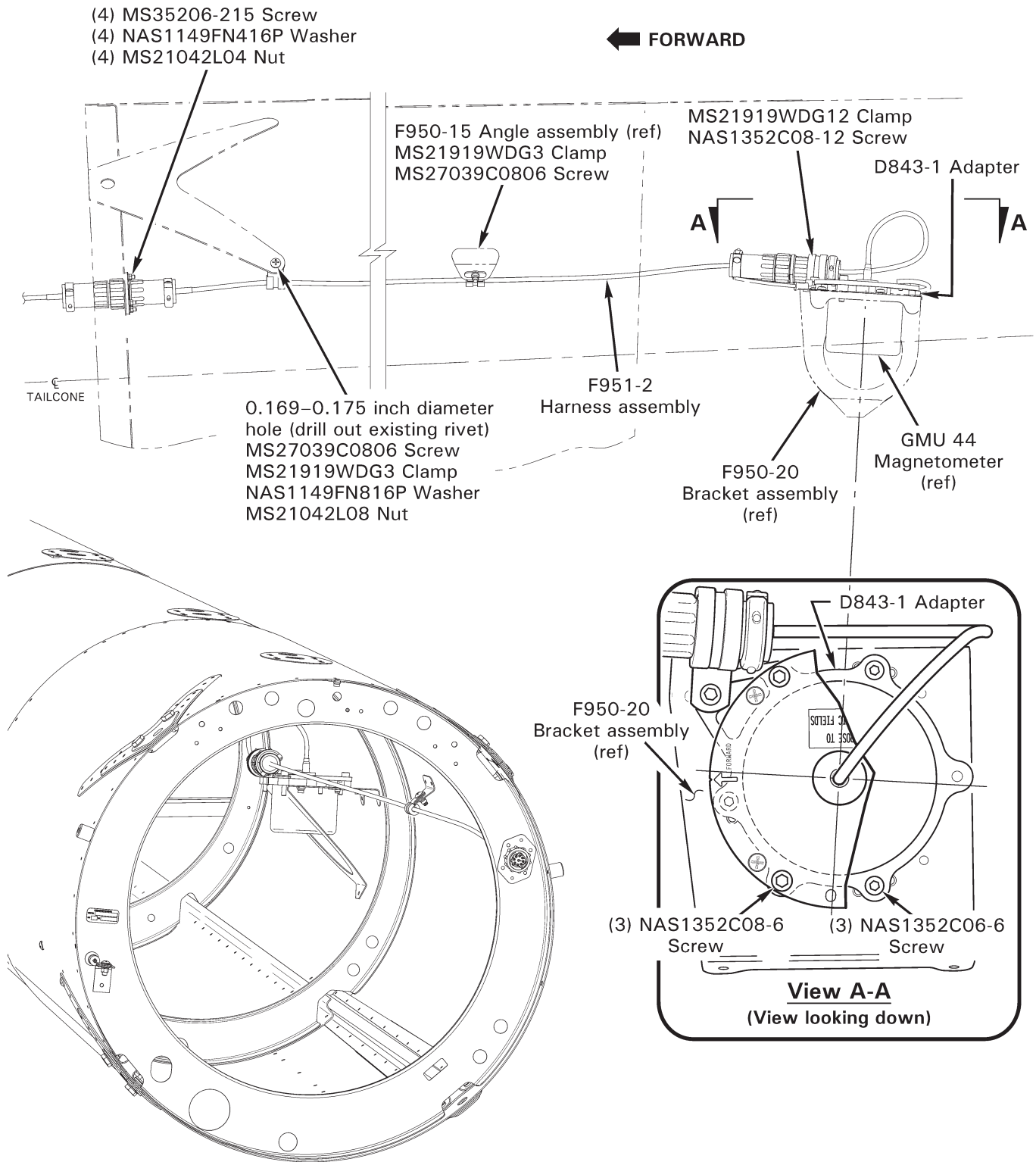


FIGURE 3 D843-1 Adapter and magnetometer installation