

KI-233-1 R44-series Chin Access Cover Installation Kit Instructions
KI-233-2 R66 Turbine Chin Access Cover Installation Kit Instructions
To comply with R44 Service Bulletin SB-102 or R66 Service Bulletin SB-35.

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

Rivets included in kit are provided as a courtesy and at lengths most commonly used on production helicopters. Proper rivet length is determined by installer during installation.

ITEM	PART NUMBER	KIT CONTENTS	(R44) QTY PER KI-233-1	(R66) QTY PER KI-233-2
1	KI-233Instr.	Kit Instructions	1	1
2	B526-6	Screw	6	6
3	C795-1	Cover	1	1
4	C795-2	Shingle	1	1
5	MS20426AD3-4+	Rivet (Note: "+" in part number indicates 50-qty pack)	1	1
6	MS20470AD3-4.5+	Rivet (Note: "+" in part number indicates 50-qty pack)	1	1
7	MS20605R3W3	Rivet, blind	6	0
8	MS21069L08	Nutplate	4	6
9	NAS1149FN232P+	Washer (Note: "+" in part number indicates 20-qty pack)	1	1
10	NAS1474A08	Nutplate	2	0

Consumables

Refer to R44 Maintenance Manual (MM) § 1.400 or R66 MM § 20-70 approved materials list.

- One pint of paint; C795-1 cover & C795-2 shingle are supplied primered only. Refer to the inside cover of factory-supplied maintenance record (logbook) for paint code(s) of specific helicopter serial number.

NOTE

C795-1 cover and C795-2 shingle may be painted before or after installation on helicopter.

Special Tools

- Blind rivet installation tool
- Manual squeeze-type rivet installation tool
- Thin-Kerf (or equivalent) cutting disc for fiberglass
- Drum (cylindrical) sander, 1-inch (or smaller) diameter
- Clecos (sheet metal fastener) size #40 (silver) and #18 (black)

Kit Instructions**CAUTION**

To minimize risk of electrical discharge: When disconnecting battery, disconnect negative (ground) cable from the battery first, then disconnect positive cable. When connecting battery, connect positive cable first, then connect negative (ground) cable.

1. Turn battery switch off. If nose battery installed, refer to R44 Illustrated Parts Catalog (IPC) Figures 96-19, 96-23, or 96-27 and R44 MM § 37-10. Using standard maintenance procedures, remove battery and battery box assembly & box drain.
2. Refer to Figures 1A, 1B, or 1C, as applicable. Lay out dimensions for access hole on chin as shown. Inspect proposed hole area for fasteners and note location(s).

WARNING

Refer to appropriate Safety Data Sheet (SDS) and take necessary safety precautions when working in proximity to hazardous materials.

3. Open upper console. Remove avionics as required and inspect proposed hole area for impediments such as, but not limited to: wiring, heater control cable & clamp(s), heater hose(s) & clamps, radar altimeter components, and antenna(e). Temporarily reposition or remove impediments as required.
4. Using cutting disc, create small hole within marked boundaries sufficient to allow passage of an inspection mirror. Simultaneous use of vacuum cleaner is recommended to minimize debris accumulation.
5. Using inspection mirror, inspect chin interior for impediments. Temporarily reposition or remove impediments as required.
6. Using cutting disc and drum sander, cut out hole to specified 4.00 inches by 8.00 inches dimensions with 0.5-inch radius corners. Simultaneous use of vacuum cleaner is recommended to minimize debris accumulation.
7. Refer to Figures 1A, 1B, or 1C, as applicable. Using C795-1 cover as template and a drill stop, lay out and drill (6) 0.169–0.175 inch diameter holes around access hole as shown.

Kit Instructions (continued)

8. Layout C795-2 shingle installation rivet holes as shown in Figures 1A, 1B, or 1C. Position shingle on chin at planned rivet holes and verify shingle will be centered on, and overlap cover. Using a drill stop, drill (3) 0.097–0.102 inch diameter holes.

NOTE

Ensure all nutplates are installed parallel with centerline of helicopter.

- a. **For R44-series:** Refer to Figure 2. Temporarily hold (2) NAS1474A08 nutplates in aft positions on exterior using screws. Using nutplates as template, drill (4) 0.097–0.102 inch diameter rivet holes. Remove nutplates and create 0.170–0.190 inch diameter, 100° countersinks on outside of chin. Install nutplates using (4) MS20426AD3-4 rivets, or MS20605R3W3 blind rivets, at installer's discretion.

Position (4) MS21069L08 nutplates in place on exterior with screws temporarily inside chin. Using nutplates as template, drill (8) 0.097–0.102 inch diameter rivet holes. Remove nutplates & screws and create 0.170–0.190 inch diameter, 100° countersinks on outside of chin. Install nutplates using (8) MS20426AD3-4 rivets.

On R44 s/n 0357 and prior, the clamp securing the heater control cable may require minor repositioning and a new screw hole. If required:

- i. Remove and retain AN742-3 clamp (and hardware) securing cabin heat cable to belly of helicopter.
- ii. Locate and drill (1) 0.169–0.175 inch diameter hole as shown in Figure 1A.
- iii. Reposition cable and secure to new location using retained AN742-3 clamp and hardware.
- iv. fill/plug old hole with sealant or hardware.

- b. **For R66-series:** Refer to Figure 3. Position (6) MS21069L08 nutplates in place on exterior with screws temporarily inside chin. Using nutplates as template, drill (12) 0.097–0.102 inch diameter rivet holes. Remove nutplates & screws and create 0.170–0.190 inch diameter, 100° countersinks on outside of chin. Install (6) MS21069L08 nutplates using (12) MS20426AD3-4 rivets.

9. Ensuring raised flange is aft, install C795-2 shingle using (3) MS20470AD3-4.5 rivets, with (3) NAS1149FN232P washers under bucked end (inside chin). Clean up debris.
10. Via newly created hole, clean & inspect accessible portions of tail rotor flight controls and structure. Verify operating clearance throughout full range of tail rotor control travel. Repair as required.
11. Install C795-1 cover using (6) B526-6 screws, with forward edge underneath shingle flange.
12. Install removed avionics, if applicable. Install battery and battery box assembly & box drain, if removed. Close & secure upper console.
13. Make appropriate maintenance record entries. Weight and Balance change is negligible.

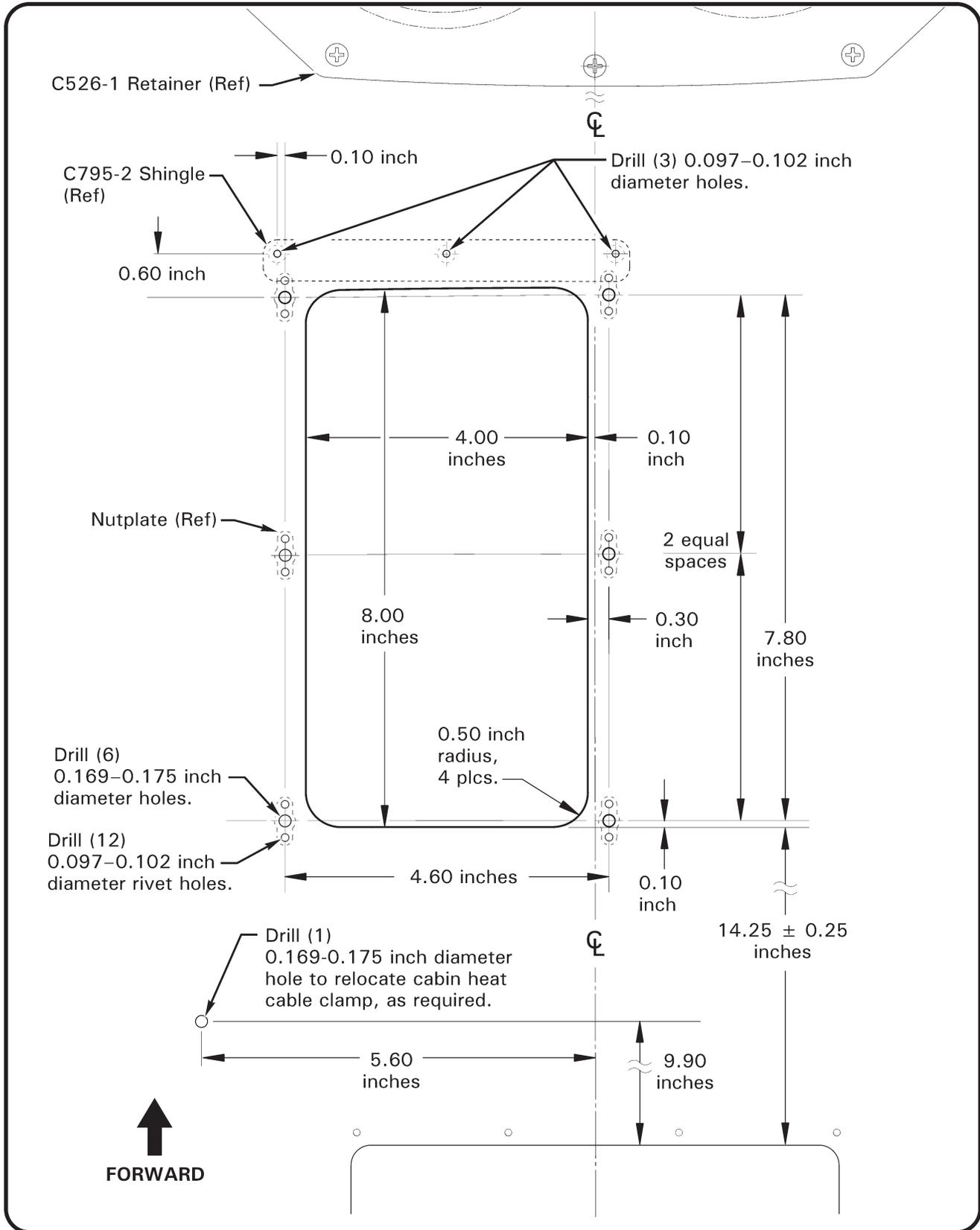


FIGURE 1A R44-series (with aft battery) dimensions for access hole & nutplate locations (view looking up from underneath helicopter)

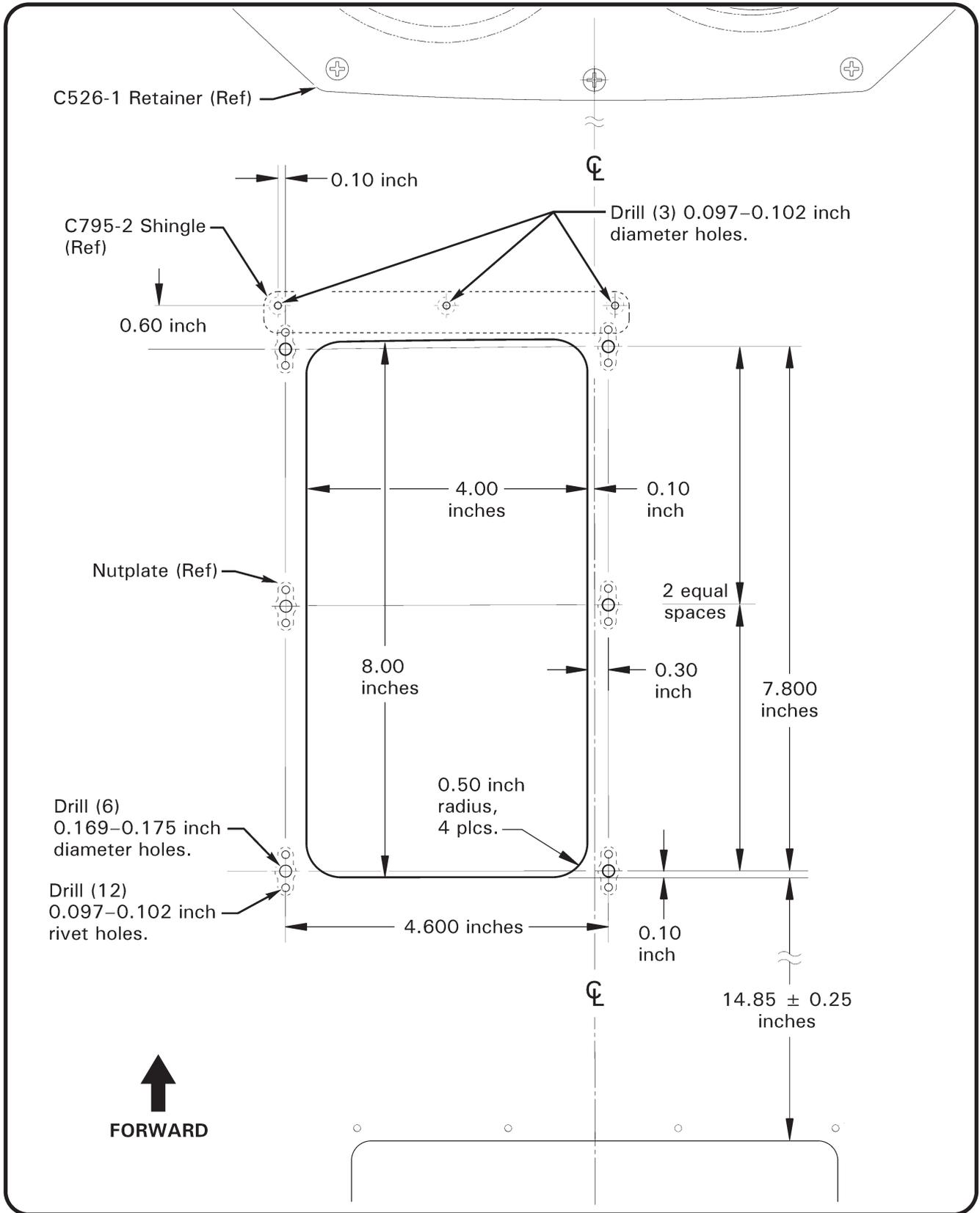


FIGURE 1B R66-series dimensions for access hole & nutplate locations
(view looking up from underneath helicopter)

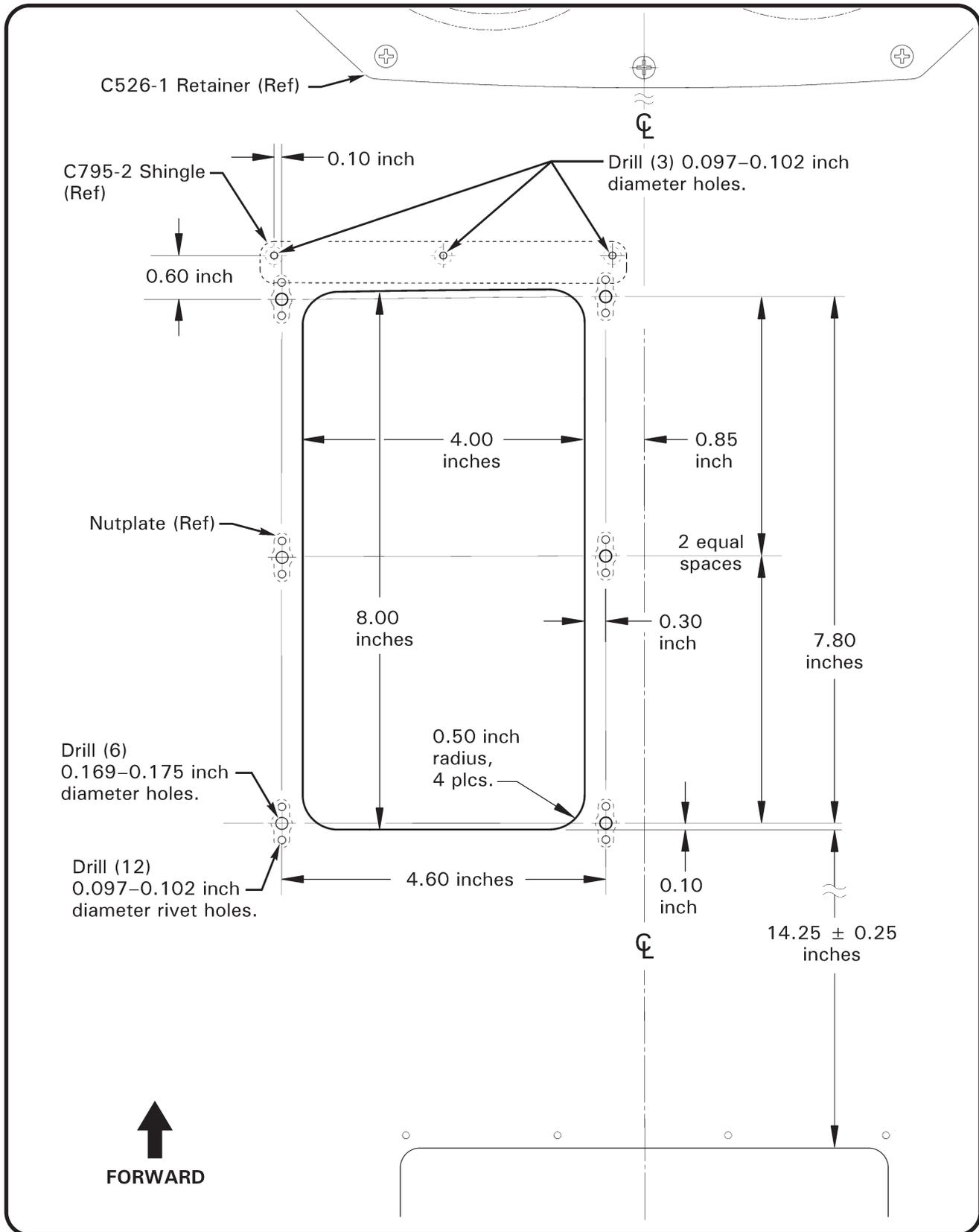


FIGURE 1C R44-series (with nose battery) dimensions for access hole & nutplate locations (view looking up from underneath helicopter)

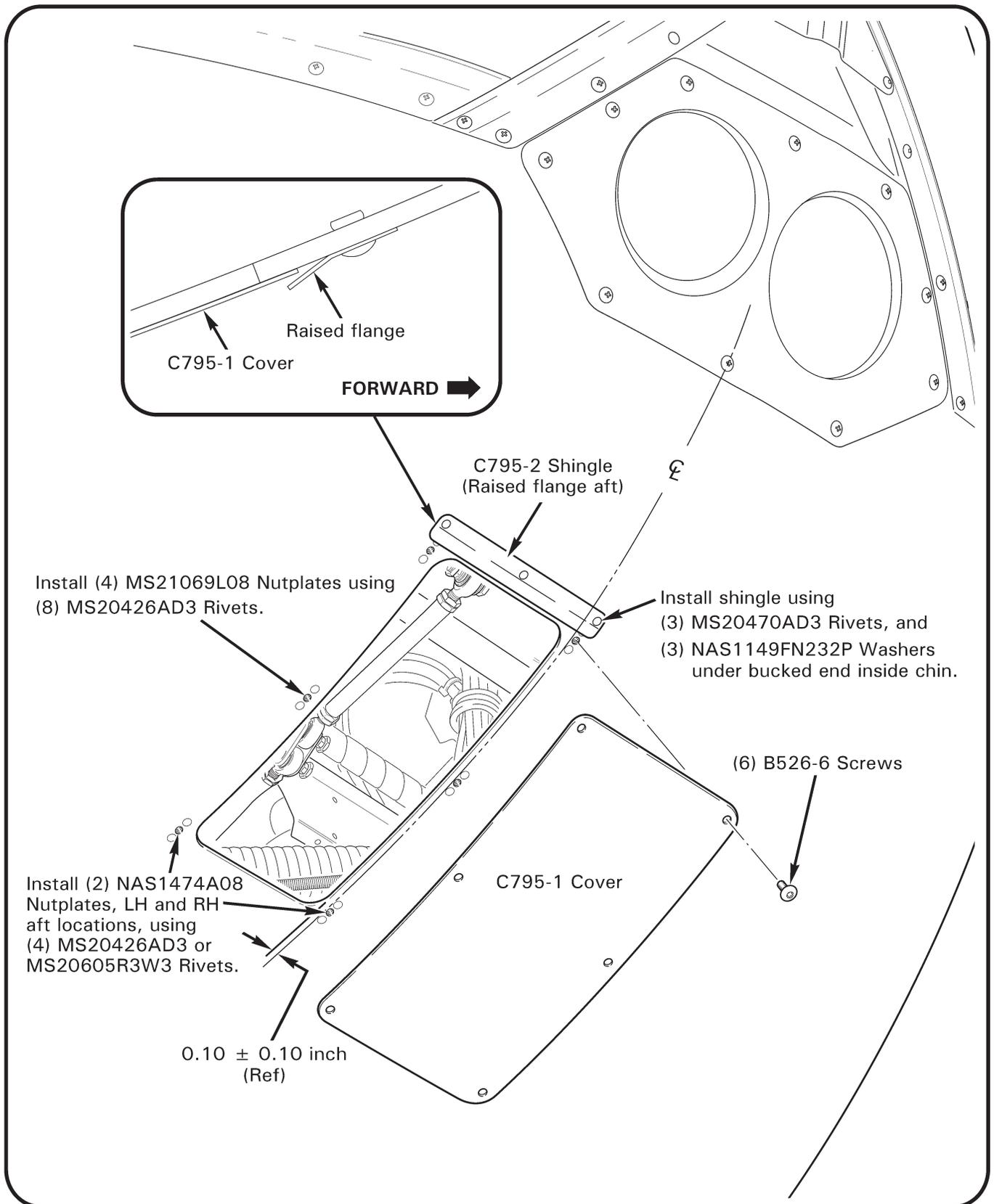


FIGURE 2 R44-series installation
(view looking up from underneath helicopter)

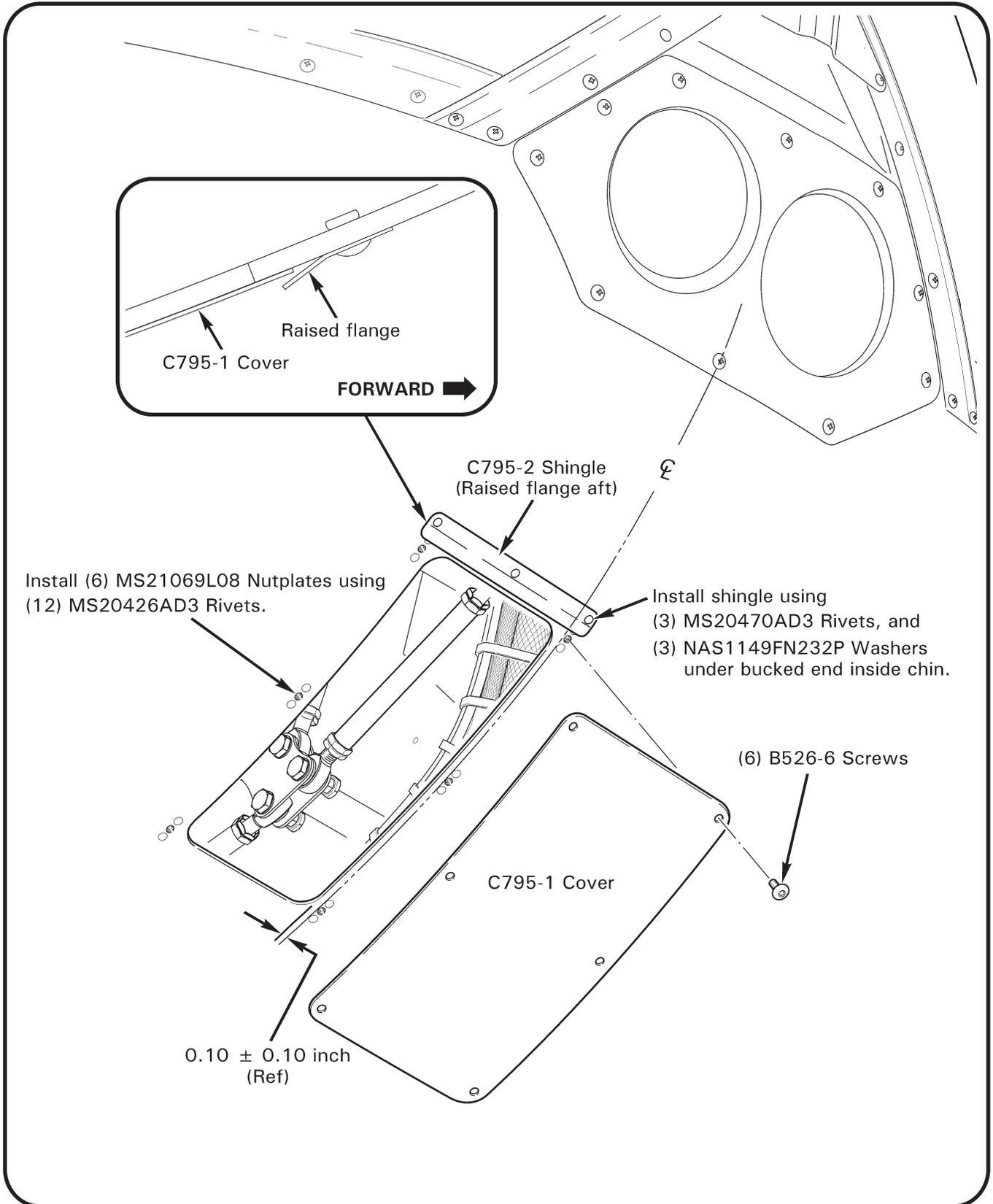


FIGURE 3 R66-series installation
(view looking up from underneath helicopter)