

2901 Airport Drive, Torrance, California 90505

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KI-64A

## KIT INSTALLATION INSTRUCTIONS KI-64A Page 1 of 3

Revised: 28 February 1992

TITLE: Tail Rotor Guard Field Installation Kit (Satisfies compliance requirements of SL-40, SB-67 and SB-68).

## Kit Contents:

1. 2 ea. A654-80 Decal

2. 2 ea. A738-27 Gang Channel

3. 1 ea. B312-1 T.R. Guard

4. 1 ea. B805-1 Doubler

5. 1 ea. KI-64A Instructions

6. 2 ea. MS27039C1-06 Screw

7. 2 ea. MS27039C1-07 Screw

8. 8 ea. NAS1919B04S02 Rivet

9. 2 ea. AN960-10L Washer

READ THROUGH ALL INSTRUCTIONS CAREFULLY PRIOR TO INSTALLING NOTE: THE TAIL ROTOR GUARD AND DOUBLER.

Loosen the A121-17 P/P tube's forward rod end jam nut by no more than 1/4 turn. Prevent the jam nut from further turning by securing it in place with the adjacent palnut. Torque stripe the jam nut, palnut and rod end. Mark the A121-17 P/P tube aft rod end to indicate which side faces up. Do NOT loosen the aft rod end. Disconnect the A121-17 P/P tube at the aft A120-1 bellcrank.

Unscrew the P/P tube from the forward rod end and record the number of turns necessary to disengage the P/P tube from the forward end. Remove the P/P tube from the tail cone.

- Drill out the first rivet forward of the tail cone skin lap joint nearest the tail rotor (see figure 1). Use caution and a drill stop attachment to avoid damaging the tail rotor drive shaft when drilling.
- Place the B312-1 Guard and B805-1 Doubler against the tail cone with the large clearance hole centered on the rivet hole per Figure 1. Using the guard as a template, drill one screw hole on each side of the rivet hole using a .191 inch diameter drill with drill stop attachment. Put a loose screw in the first hole before drilling the second hole to hold the guard in place.
- Drop an A738-27 gang channel inside the tail cone through STEP 4) the inspection hole on the right side. Move the gang channel into place over the holes using a long screwdriver or piece of wire, and install two MS27039C1-06 screws to hold it in place.
- Drill thru the gang channel at the open rivet hole using a .128 inch diameter drill with drill stop attachment. Remove and

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deburr the gang channel. Remove drill chips from inside the tail cone. Re-install the gang channel per Step 4. (R22 Mariners: coat gang channel with zinc chromate or epoxy primer prior to re-installation.) Install one NAS1919B04S02 or equivalent blind rivet and remove the screws.

- STEP 6) Install the Guard and Doubler with two screws and drill the remaining two screw holes. Mark the second rivet hole location at the center of the remaining large clearance hole in the T.R. Guard. Remove the Guard and Doubler.
- STEP 7) Install the second gang channel using the same procedure as Step 4, then drill and install second rivet using procedure in Step 5.
- STEP 8) Install B805-1 Doubler and B312-1 T.R. Guard using two MS27039C1-07 screws and AN960-10L washers on the tailcone seam and two MS27039C1-06 screws at remaining two holes. (ref Fig. 1)
- STEP 9) Using a .128 inch diameter (#30) drill with drill stop attachment and clecos, drill six holes thru doubler and tailcone. Use caution and a drill stop attachment to avoid damaging the tail rotor drive shaft when drilling. Remove drill chips from inside tailcone. Remove the T.R. Guard and the Doubler. Deburr the Doubler. Reinstall the Doubler and the T.R. Guard. (R22 Mariners: seal around the base of the T.R. Guard, the Doubler, and the blind rivet clearance holes with RHC B270-2 sealant or equivalent.)
- STEP 10) Install six NAS1919B04S02 rivets. Using clecos make sure there is no gap between doubler and tailcone when riveting. (Loosening screws slightly may be required.)
- STEP 11) Re-install the inspection hole cover and the A121-17 P/P tube. Screw the P/P tube onto the forward rod end and the same number of turns recorded in Step 1. Ensure the mark applied in Step 1 is at its original position. The forward rod end jam nut must require no more than 1/4 turn prior to locking against P/P tube. If more than 1/4 turn is necessary the tail rotor rigging must be checked per section 10.140 of the R22 Maintenance Manual.
- STEP 12) Revise aircraft Weight & Balance record to include an additional .39 lb at Fuselage Sta 250.00.
- STEP 13) Apply the Danger decals to each side of the lower vertical stabilizer per Figure 2.
- STEP 14) Touch-up paint (ref R22 Maintenance Manual Section 1.400).
- STEP 15) Enter SL-40 and SB-68 completed in aircraft logbook/maintenance record.



Phone (310) 539-0508 Fax (310) 539-5198 2901 Airport Drive, Torrance, California 90505 .191 INCH DIA. DRILL (#11) (4 PL'CS.) .128 INCH DIA. DRILL (#30) THRU TAIL CONE (6 PL'CS.) A738-27 GANG CHANNEL (2 REQ'D.) DRILL OUT EXISTING RIVET NAS1919604S02 RIVET (2 PL'CS.) B805-1 - DOUBLER -FIGURE 1 B312-1 GUARD ASSY. INST'L. (LOOKING UP AT BOTTOM OF LARGE CLEARANCE TAIL CONE) HOLE (2 PL'CS.) NAS1919B04S02 RIVET (6 PL'CS.) MS27039C1-06 SCREW (2 REQ'D.) AN960-10L WASHER (2 REQ'D.) B312-1 GUARD ASSY (Ref.) (Must be Rev B or later MS27039C1-07 SCREW (2 REQ'D.) ie., 3 red stripes) DANGER A654-3 DECAL (Ref.) DANGER 9 INCH FIGURE 2 A654-80 DECAL INSTALLATION A654-80 DECAL (One each side) INSTALL BETWEEN RIVETS AS SHOWN. ALIGN PARALLEL TO A654-3 DECAL.