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TECHNICAL BULLETIN

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SUBJECT: INSTALLATION OF FUSELAGE ACCESS PANELS FOR CYCLIC TRIM ACTUATOR ASSEMBLIES

MODELS AFFECTED: 500D Model 369D Helicopter Serial No. 0004D thru 0454D

TIME OF COMPLIANCE: At owners and operators discretion

PREFACE: The information given in this Service Information Notice lists instructions for rework of the helicopter lower fuselage section and installation of two access panels to facilitate removal, inspection, maintenance, etc of the cyclic trim actuator assemblies.

REFERENCE PUBLICATIONS:

500D Basic HMI—Vol I, Issued 15 September 1976; Revision No. 3,
15 March 1979

Transponder Installation Instructions (KT—76),
Publication No. CSP—012

Automatic Direction Finder Installation Instructions, (KR—85),
Publication No. CSP—015

Automatic Direction Finder Installation Instructions, (KR—86),
Publication No. CSP—019.

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Parts List

* Door Assembly (LH)	369D22501-11	1	HH
Door Assembly (RH)	369D22501-21	1	HH
Doubler	369H2500-41	1	HH
Doubler	369H2500-43	1	HH
*Washer	AN960C416L	2	Commercial
**Washer	AN960C8	8	Commercial
Rivet	MS20470AD3	A/R	Commercial
Nutplate	MS21076L4	2	Commercial
**Screw	NAS602-7P	8	Commercial
*Screw	NAS604-6P	2	Commercial
Nutplace	NAS697C08M	8	Commercial

*Not required if ADF loop antenna installed.

**4 required if ADF loop antenna installed.

TOOLS AND EQUIPMENT

Shears, metal cutting

Gun, rivet

Drill motor, portable

Drill bit - No. 41 (0.096 inch dia)

Drill bit - No. 5/16 (0.311/0.318 inch dia)

Drill bit - No. 11/64 (0.169/0.175 inch dia)

**Flycutter or hole punch (0.75 inch dia)

***Required if transponder antenna installed.

MATERIALS

Sealing Compound	MIL-S-7502	PR1221	Product Research Burbank, CA
Sealant	MIL-S-8802	Pro Seal 890	Coast Pro Seal Compton, CA



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PROCEDURE

- a. Gain access to pilots underfloor compartment (Section 2, HMI-Vol I.)
- b. Jack up helicopter to provide access to work area at underside of fuselage structure. (Section 2, HMI-Vol I.)

NOTE

If ADF or transponder antenna is installed, remove antenna per referenced instructions (page 1.)

- c. Drill out rivets securing 369A2500-163 stiffener and 369A2500-169 doubler (see Figure 1). Drill out rivets securing 369A2500-164 stiffener and 369A2500-169 doubler. Drill out rivets securing 369A2500-165 doubler. Remove doublers and stiffeners; remove any sealing compound residue.
- d. Drill out rivets securing 369A2500-9 stiffeners, 369A2500-10 stiffener, and 369A2524 center beam assembly to fuselage skin between Station 60.73 and Station 74.287 as shown in Figure 2. Remove any sealing compound residue.

NOTE

Read step 1 below (criteria for reinstalling rivets in existing holes) completely, before drilling or riveting per steps e through k, since the number and placement of rivets to be installed may have to be altered accordingly.

- e. Insert 369D22501-43 doubler (RH) in position between -10 stiffener and 369H2524 center beam assembly, and fuselage skin. Mark rivet hole centers on doubler; remove doubler and drill rivet holes.
- f. Insert 369D22501-41 doubler (LH) in position between -9 stiffener and 369H2524 center beam assembly, and fuselage skin. Mark rivet hole centers on doubler; also mark hole centers on doubler for two existing 0.311/0.318 inch diameter holes in fuselage skin. Remove -41 doubler; drill rivet holes and two 0.311/0.318 inch diameter holes in doubler.

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g. Position 369D22501-2l door on -43 doubler; mark and drill four 0.169/0.175 inch diameter holes and eight 0.096 inch diameter rivet holes in doubler for nutplates. Install four NAS697G08M nutplates on upper side of doubler as shown. Drill fourteen 0.096 inch diameter rivet holes in doubler around circumference of cutout as shown.

h. Position 369D22501-11 door on -41 doubler; mark and drill four 0.169/0.175 inch diameter, and 0.096 inch diameter rivet holes for six nutplates. Install four NAS697G08M nutplates and two MS21076L4 nutplates on upper side of doubler as shown. Drill sixteen 0.096 inch diameter rivet holes in doubler around circumference of cutout as shown.

i. Using doublers as templates, mark and make cutouts in fuselage skin to match doublets as shown. Drill four 0.169/0.175 inch diameter holes in skin to match nutplate holes in doublers, as applicable. Also, cut or drill 0.75 inch diameter hole thru skin to match -41 doubler if transponder antenna is to be installed. Drill 0.096 inch diameter rivet holes in skin to match rivet around circumference of each cutout as shown.

j. Insert -43 doubler in place between -10 stiffener and center beam assembly, and fuselage skin; secure with rivets 34 places as shown; install additional rivets 14 places around circumference of cutout.

k. Insert -41 doubler in place between -9 stiffener and center beam assembly, and fuselage skin; secure with rivets 39 places as shown; install additional rivets 16 places around circumference of cutout.

l. Where removed in step d above, replace rivets as required to secure stiffeners and center beam assembly to fuselage skin between Station 60.73 and Station 74.287. Also, install rivets (through both skin and doubler) to plug any open rivet holes that exist in skin due to step c above, following criteria specified below:

1. Rivets reinstalled in existing holes must NOT be closer than 1.5 x diameter (edge distance) minimum from edge of applicable parts involved. If this criteria cannot be met, leave rivet hole in skin blank and fill in with ProSeal 890 sealant.

2. Rivets reinstalled in existing holes must NOT be closer than 3.0 x diameter (rivet spacing) minimum from location of any new rivet added per this installation. If this criteria cannot be met, install ONLY the rivet through the existing hole in the structure and eliminate the new rivet intended for this location.



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m. Apply a 0.06 inch bead of PR1221 sealant on inside skin surface at stiffeners, and center beam assembly; apply a 0.03 inch bead of sealant at doubler attachments.

NOTE

Perform step n below if ADF antenna is not to be installed.

n. Install two NAS604-6P screws and AN960C416L washers as plugs MS21076L4 nutplates on LH side installation as shown.

o. Install access door(s) using NAS602-7P screws and AN960C8 washers. The PN 369D22501-11 door (LH) and its attaching hardware to be eliminated if antenna is to be installed.

p. Check installation of doublers and access doors for discrepancies.

NOTE

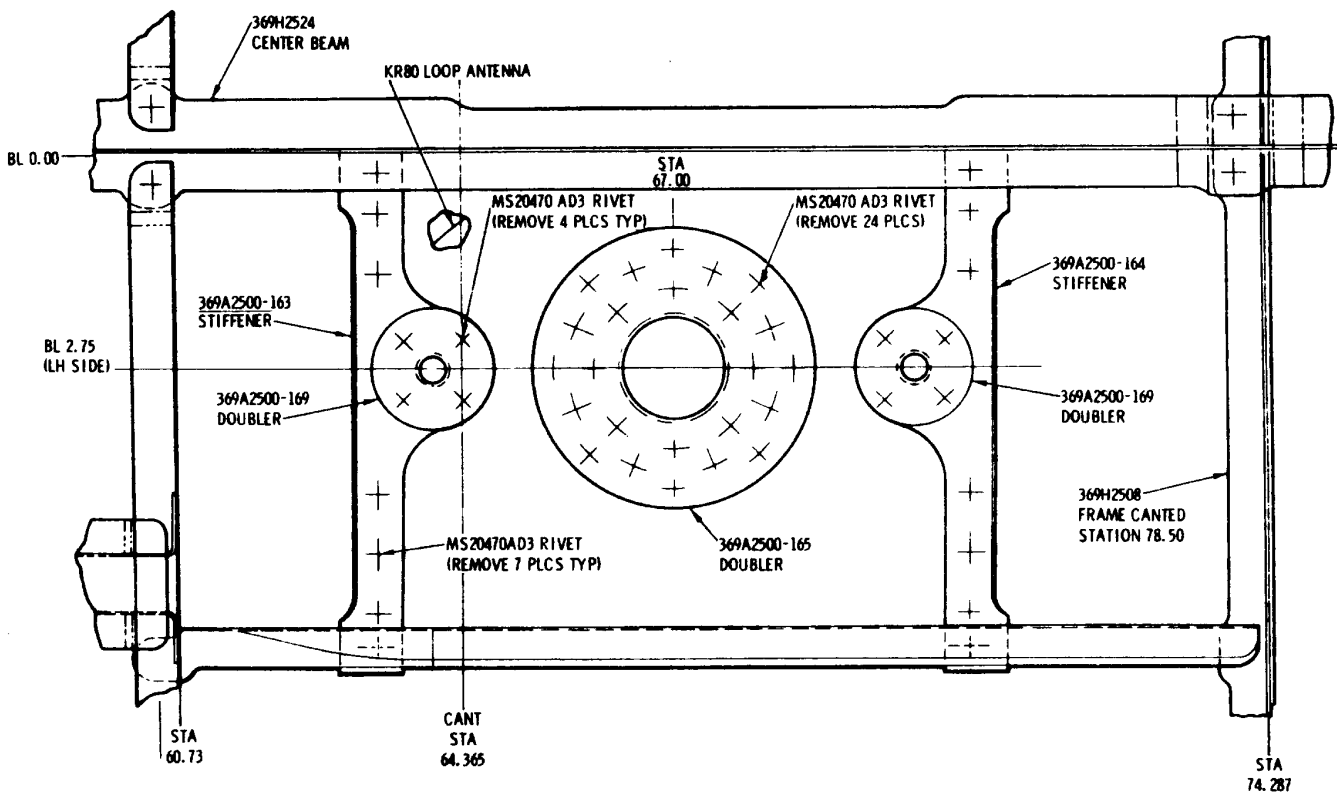
Paint access door(s) to match exterior finish of helicopter, if desired.

q. As applicable, install ADF or transponder antenna, per referenced instructions.

WEIGHT AND BALANCE: Weight and balance change negligible.

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Figure 1. Removal of Stiffeners and Doublers

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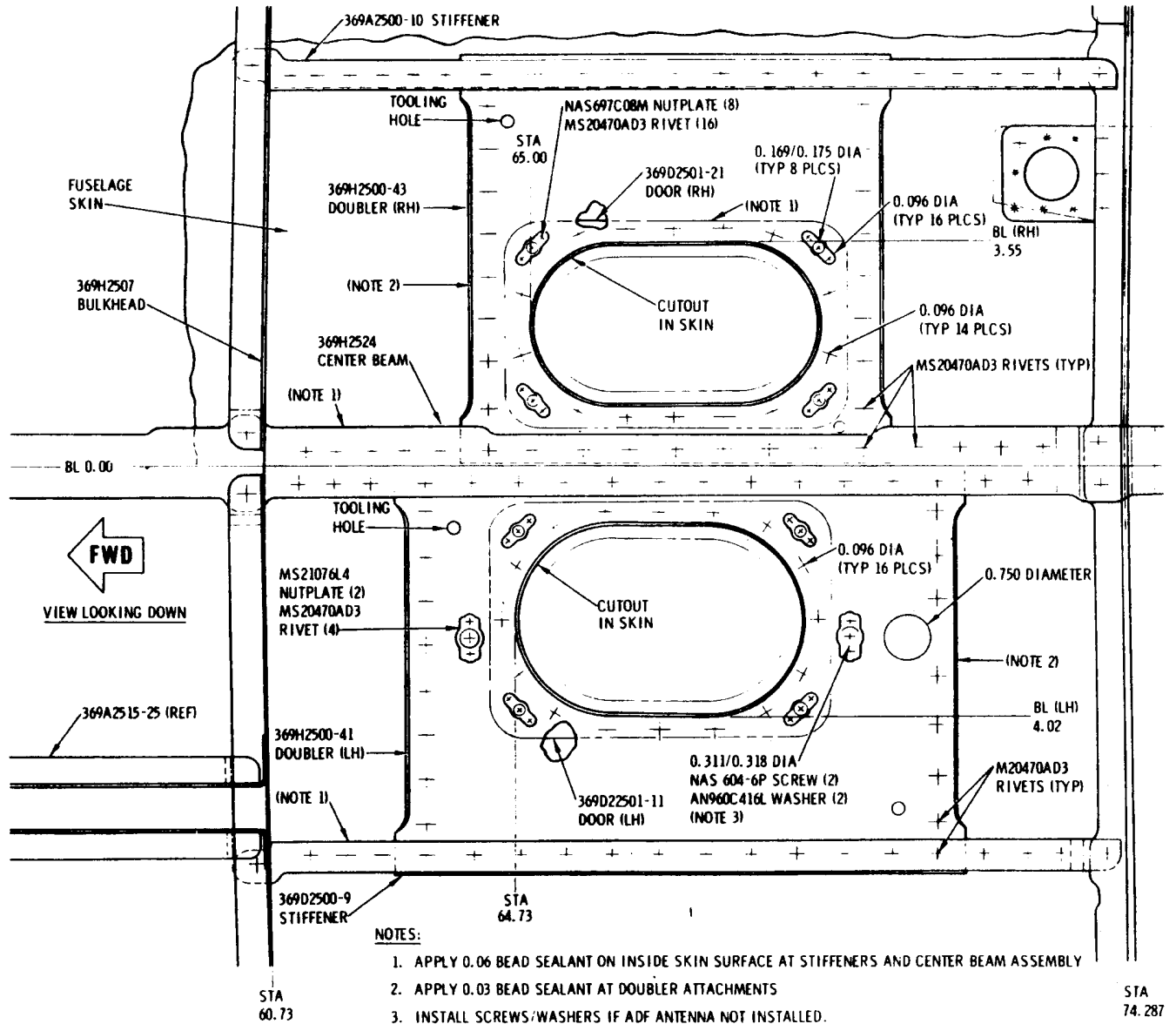


Figure 2. Installation of Trim Actuator Assembly Access Panels