HUGHES SERVICE INFORMATION NOTICE

MANDATORY MANDATORY MANDATORY

SUBJECT: INSPECTION AND REPAIR – STATION 142 TAIL ROTOR CONTROL BELLCRANK SUPPORTS, PN 369A3035-11 AND 369A3035-15

MODELS AFFECTED: All 500 Model 369 Series Helicopters

TIME OF COMPLIANCE: Part I Inspection – Shall be accomplished within next 25 hours of helicopter operation; and at each subsequent 100-Hour Inspection Interval until compliance with Part II of this Notice is accomplished.

Part II Repair – Shall be accomplished prior to next flight if cracking of support is noted.

PREFACE: Part I of this Notice lists a procedure for a periodic inspection of the subject Station 142 tail rotor control bellcrank supports for evidence of cracking at the bellcrank attach area.

Part II of this Notice provides instructions for field repair of the supports if cracking is noted, by installing larger doublers on the supports to provide additional reinforcement at the bellcrank attach area. Rework per Part II of this Notice lifts the requirement for periodic inspection of the bellcrank supports.

It is to be noted that, if no damage to bellcrank supports is noted, rework of the supports per Part II of this Notice may be performed at owner or operator discretion to lift the periodic inspection requirement.

Reference

500 Series – Basic HMI, Issued 1 October 1972; Revision No. 7, 15 December 1976
500 Series - HMI Appendix B, Issued 1 October 1972; Revision No. 6, 1 August 1976

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PART I – 100-HOUR PERIODIC INSPECTION

NOTE

Periodic inspection not required if bellcrank supports have been reworked per Part II of this Notice.

a. Remove Station 142 tail rotor control bellcrank assembly, per Section 8 of HMI.

b. Using bright light and mirror, visually inspect PN 369A3035-9 doublers on bellcrank supports for cracking or damage. (See Figure 1.) Pay particular attention to the four spot weld spots attaching doublers to bellcrank supports.

NOTE

Perform Part II of this Notice prior to next flight, if cracking or damage to doublers at bellcrank attach area is noted.

c. Reinstall Station 142 bellcrank per Basic HMI.

d. Record compliance with Part I of this Notice in Compliance Record of helicopter Log Book.

PART II – REPAIR OF STATION 142 BELLCRANK SUPPORTS

PARTS LIST

Nomenclature	Part No.	Qty	Mfr
Doubler*	M50455-7	1	Hughes Helicopters
Doubler*	M50455-5	1	Hughes Helicopters
Spacer*	M50455-3	2	Hughes Helicopters

*May be field fabricated per Figure 2.

TOOLS AND EQUIPMENT

Drill motor, portable

Drill bit - No. 30 through No. E as required

Pin, alignment - NAS1304 bolt or equivalent, 0.25-inch diameter pin

MATERIALS

Adhesive	EA9314 or EC9309	Hysol Div of Dexter Corp
Primer, adhesive	EA9210	Hysol Div
Solvent	M-114M or Trichloroethane O-T-620	Commercial Commercial
Paper, abrasive	180 grit	Commercial
Paper, waxed		Commercial
Bond releasing agent		Commercial
Wood block	0.83 x 4.50 x 2.00 inches	

REPAIR PROCEDURE

a. As required, remove Station 142 Station tail rotor control bellcrank assembly, per Section 8 of HMI.

b. Remove existing 369A3035-9 doubler from outboard 369A3035-11 bellcrank support, by drilling out doubler spotwelds, 4 places, as shown in Figure 1.

NOTE

1. Removal of 369A3035-9 doubler from inboard side of 369A3035-15 bellcrank support is not required.
2. Stop drill any crack or cracks found in 369A3035-11 and -15 bellcrank supports.

c. Lightly abrade faying surfaces of 369A3035-11 and -15 bellcrank supports; it is not necessary to abrade through paint to secure good bonding. If abrading removes paint and primer from supports, doublers and spacers must be bonded immediately after abrading.

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NOTE

Required doublers and spacers may be field fabricated and adhesive primed per Figure 2.

d. Wipe faying surfaces of M50455-3 spacers, and M50455-5 and M50455-7 doublers, with solvent; apply adhesive to faying surfaces.

NOTE

M50455-3 spacers and M50455-7 doubler may be bonded on bench beforehand to facilitate handling.

e. Install spacers and doublers as shown in Figure 1. Use NAS1304 bolt or equivalent as alignment pin to align holes while bonding. Coat bolt or pin with bond releasing agent to prevent possible adhesion to structure.

f. Insert wood block, and metal shims as required, between bellcrank supports to press doublers against structure and prevent excessive adhesive build up. Slot wood block to provide relief for alignment pin. Wrap wood block and shims in waxed paper to prevent possible adhesion to structure.

g. Cure adhesive for 24 hours; remove wood block and shims from supports.

h. Reinstall Station 142 bellcrank per HMI.

i. Record compliance with Part II of this Notice in Compliance Record of helicopter Log Book.

NOTE

Compliance with Part II of this Notice lifts periodic inspection requirements per Part I of this Notice.

WEIGHT AND BALANCE DATA

Weight and balance not affected.

FAA APPROVED

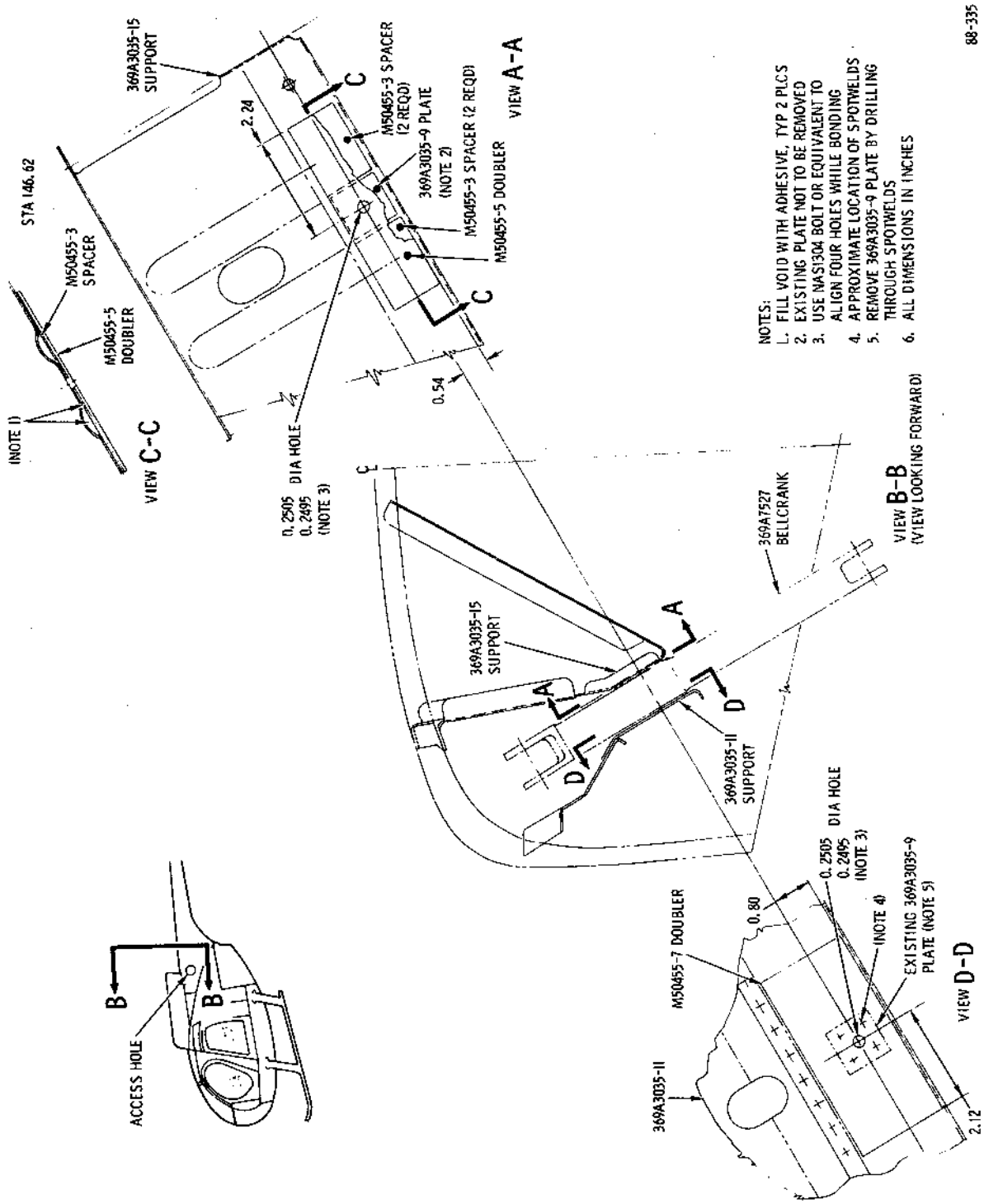

Figure 1. Installation of doublers — tail rotor control bellcrank supports

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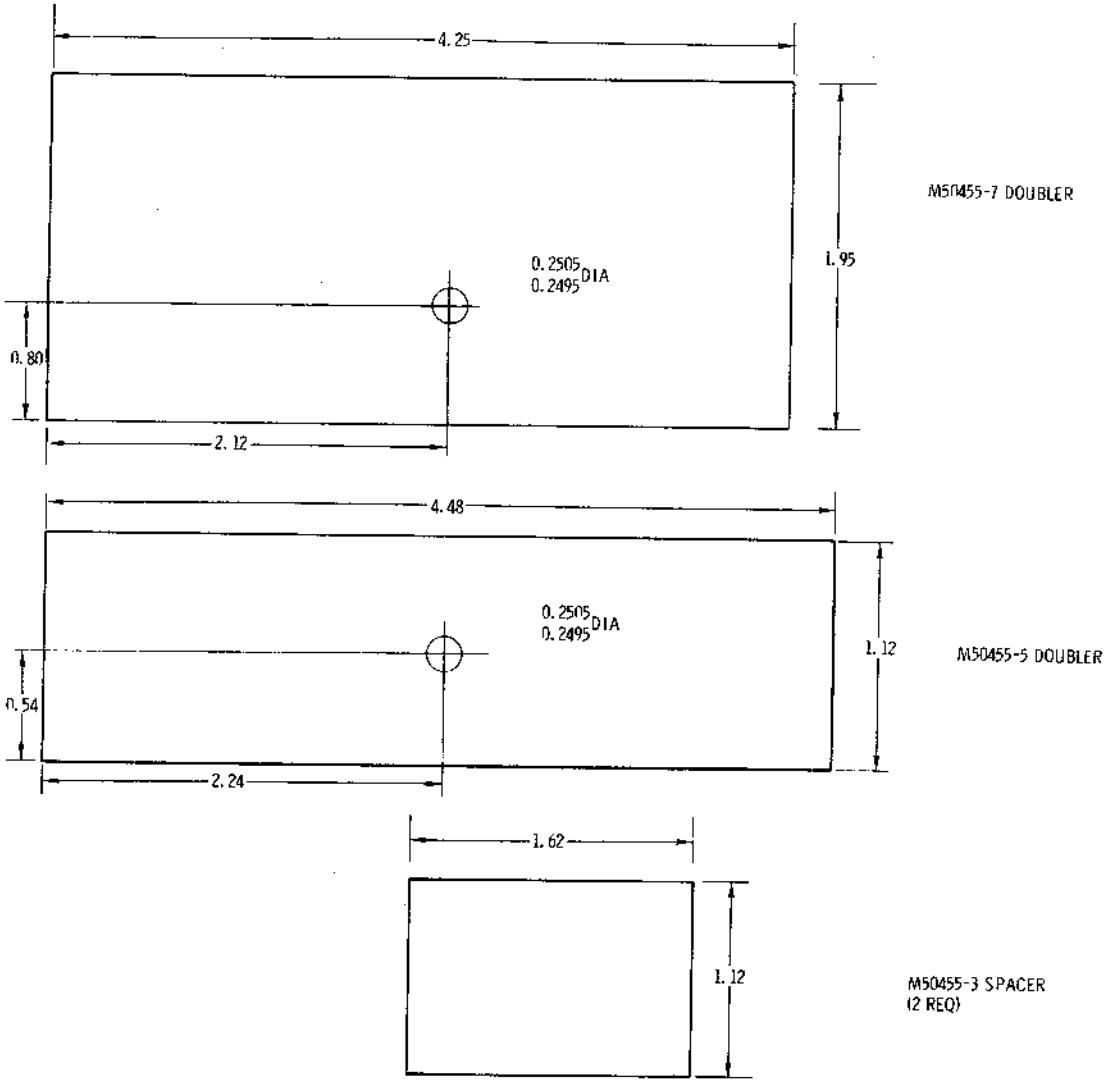

NOTES:

1. FABRICATE FROM ALALY SH 2024-T3, QQ-A-250/5 TEMP T3.
2. ALL DIMENSIONS IN INCHES.
3. COAT AND PRIME FAYING SURFACES AS FOLLOWS:
   LIGHTLY ABRADE FAYING SURFACES WITH 180 GRIT PAPER AND WIPE CLEAN WITH M-114M SOLVENT. IMMEDIATELY APPLY CHEMICAL CONVERSION COATING (CHROMICOAT L-25 OR MIL-C-5541, CLASS 2) TO PRECLUDE OXIDE BUILD UP ON ABRADED SURFACES. BRUSH COAT LIQUID PRIMER (HYSOL EA9210) ON FAYING SURFACES ONE OR TWO HOURS AFTER CONVERSION COATING; AIR DRY FOR 30 MINUTES AT ROOM TEMPERATURE; OVEN CURE PRIMER FOR 60-65 MINUTES AT 250°F to 260°F.

Figure 2. Field fabrication of bellcrank support doublers and spacers

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REFERENCE SHEET

SERVICE INFORMATION NOTICES AND LETTERS

Action Reference: When performing 100-hour periodic inspection, refer to Service Information Notice No. HN-139, for conditional inspection of Station 142 tail rotor control bellcrank supports.

HMI Reference: Insert this sheet in 500 Series HMI Appendix B, Section 2, Table B-3, page 2-19.

This reference sheet shall be kept as a part of the manual until the data is incorporated at the next revision of the HMI Appendix B. (Refer to Service Information Summary, HMI Appendix B, page i.)