



DN-46.1*

TECHNICAL BULLETIN

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* Supersedes Service Information Notice No. DN-46, Dated 16 April 1979

SUBJECT: FIELD MODIFICATION OF PN 369D21002 SCISSORS CRANK ASSEMBLY, MAIN ROTOR HUB - UPGRADE TO PN 369D21002-21 CONFIGURATION

MODELS AFFECTED: 500D Model 369D Helicopter Serial No. 0003D thru 0209D

TIME OF COMPLIANCE: At owners and operators discretion.

PREFACE: The information given in this Service Information Notice lists a procedure for modification of the subject PN 369D21002 main rotor hub scissors crank assembly to the current PN 369D21002-21 configuration, to preclude shimming problems experienced with the early crank configuration. Field rework consists primarily of relocating existing bushings in the crank outboard attach lugs to the inboard lugs, and installing new flanged type bushings in the outboard lugs. The wall thickness of the crank outboard attach lugs must be reduced to accommodate installation of the flanged bushings.

Instructions are also provided for replacement of existing attach hardware for the crank assembly. Field reports indicate that existing attach bolts may have insufficient thread length which in some cases caused loosening of the bolts in service.

It is to be noted that the field modification and installation of the PN 369D21002-21 crank assembly with new attach hardware per this Notice also upgrades the PN 369D21001 scissors assembly to the new PN 369D21001-501 configuration.

REFERENCE PUBLICATIONS:

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

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PARTS LIST

Nomenclature	Part No.	Qty
Bushing	NAS77-4-23	2
Bolt	NAS6204-18D	2
Bolt	NAS6204-38D	1
Washer	AN960PD416L	4
*Washer	AN960C416	2
Nut	MS17826-4	3
Pin, cotter	MS24665-153	3

*AN960PD416L may be used as alternate

TOOLS AND EQUIPMENT

Drill motor, portable

Drill bit - 0.3750 inch diameter

Ream bit - 0.3750 - 0.3755 inch diameter

■ Grinder, portable or file

MATERIALS

Primer, zinc chromate

Chemical film treatment	MIL-C-5541, Class 2	Iridite 14-2 Al - Coat	Richardson Co. Allied-Kelite Products
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PROCEDURE

- a. Disconnect scissors crank from hub lower shoe and scissors link. (Refer to Basic HMI-Vol I)
- b. Remove existing HS626-S-4-500 bushings from outboard lugs of scissors crank. (See Figure 1.)
- c. Using grinder or file, remove minimum 0.063 inch material from inner side of both outboard attach lugs, to obtain distance of 9.736 inches between lugs (See Figure 1). After removal of material, wall thickness of lug should not be less than 0.230 inch. Coat reworked area of lugs with iridite or equivalent corrosion protection chemical film.



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NOTE

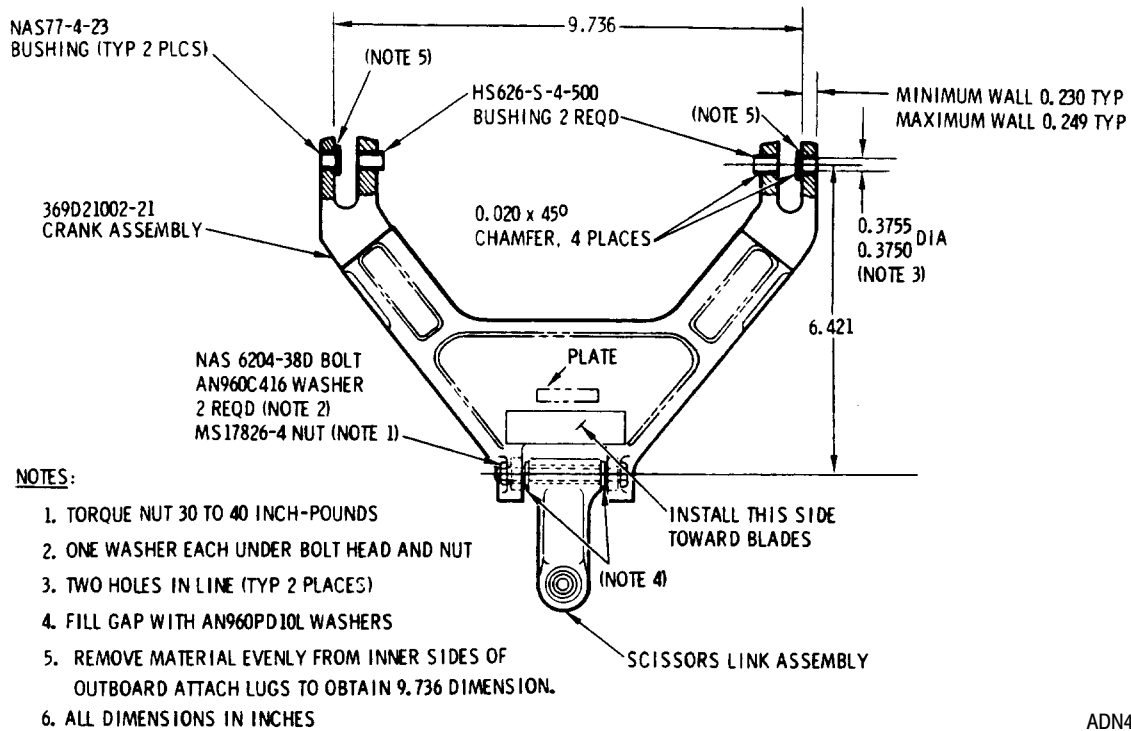
Remove material from inner side only of existing crank outboard attach lugs.

- d. Using existing hole in outboard lugs as guide, drill and ream 0.252 inch diameter hole in inboard lugs to 0.3750 - 0.3755 inch diameter for press fit of HS626-S-4-500 bushings.
- e. Install HS626-S-4-500 bushings in inboard lugs of scissors crank with zinc chromate primer.
- f. Install new NAS77-4-23 flanged bushings with zinc chromate primer in outboard lugs as shown.
- g. Reidentify crank assembly as PN 369D21002-21 on ID plate.
- h. Reinstall scissors crank assembly using new attach hardware as follows:
 - 1. Install scissors crank to hub lower shoe with NAS6204-18D bolts, AN960PD416L washers, MS178 26-4 nuts and cotter pins as shown in Figure 2. Torque nuts to 30 to 60 inch-pounds.
 - a. Install scissors link to scissors crank assembly with NAS6204-38D bolt, AN960C416 washers, MS178 26-4 nut and cotter pins, as shown in Figure 1. Torque nut to 30 to 40 inch-pounds.
- i. Record upgrade of PN 369D21002 main rotor hub scissors crank assembly to PN 369A21002-21 configuration per this Notice in Component Record of helicopter Log Book.
- j. Record upgrade of PN 369D21001 main rotor hub scissors assembly to PN 369D21001-501 configuration per this Notice in Component Record of helicopter Log Book.

WEIGHT AND BALANCE: Weight and balance not affected.

FAA APPROVED

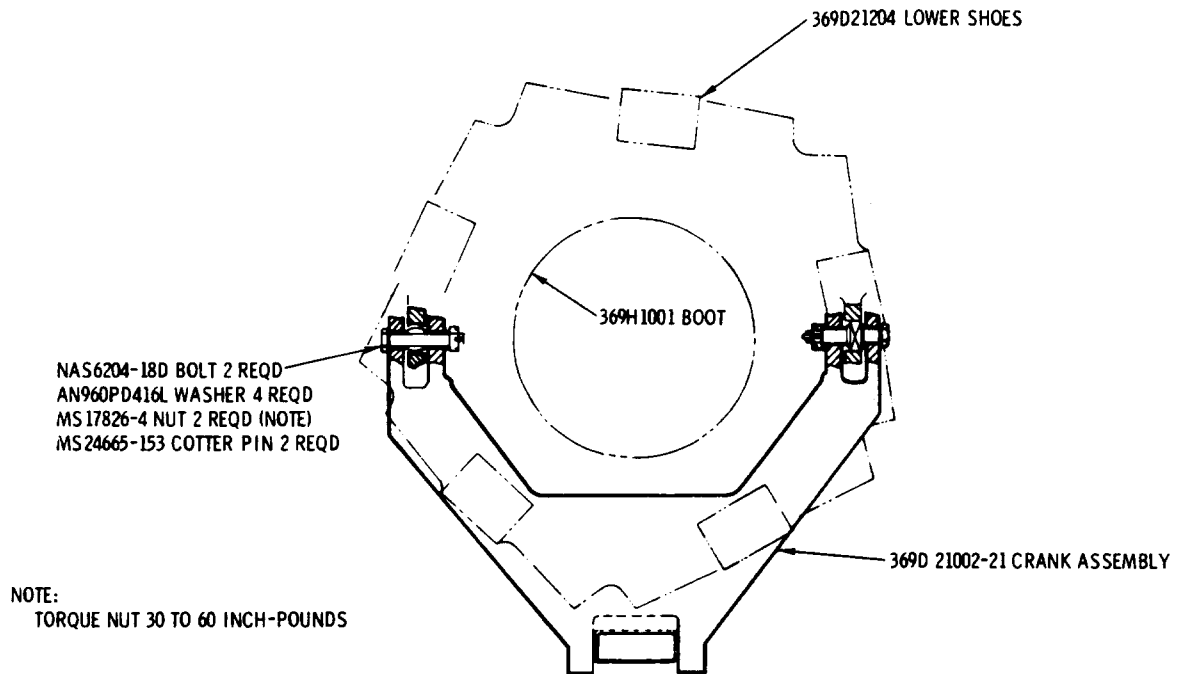
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Figure 1. Field Modification - 369D21002-11 Crank Assembly to 369D21002-21 Configuration

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Figure 2. Installation of 369D21002-21 Crank to Hub Lower Shoes