



DN-59

# TECHNICAL BULLETIN

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**SUBJECT:** INSTALLATION OF CABIN HEAT DUCT (FIBERGLASS) ASSEMBLIES,  
PN 369D22009-101 AND PN 369D22009-103

**MODELS AFFECTED:** 500D Model 369D Helicopter Serial No. 0003D through 0660D  
equipped with PN 369H90020-517 Heating System

**TIME OF COMPLIANCE:** At owners and operators discretion, when duct replacement is  
required

**PREFACE:** The information given in this Service Information Notice lists instructions  
for replacement of the existing Lexan-type cabin heat duct, PN  
369H92475-83 or -107, with a new fiberglass-type cabin heat duct, PN  
379D22009-101. The fiberglass duct configuration is designed to provide  
greater resistance against heat, deformation and wear.

It is to be noted that the PN 369H4535-7 and 369H4535-9 control cable as-  
semblies utilized with the existing PN 369H92475-107 duct are also to be  
used with the new, 369D22009-101 fiberglass duct assembly. For 369D heli-  
copter Serial No. 0003D through 0330D with 369H92475-83 duct installed,  
the existing 369H4535-3 and 5 control cable assemblies must be replaced, or  
reworked per this Notice to the 369H4535-7 and -9 configurations, to be  
compatible with the new fiberglass duct installation. Instructions are also  
provided for replacement of PN 369H92475-31 or -101 lexan cabin heat  
lower duct with a new Fiberglass duct assembly, PN 369D22009-103.

**REFERENCE PUBLICATIONS:**

500D Basic HMI-Volume I, Issued 15 September 1975; Revision No. 3,  
15 March 1979

Illustrated Parts List and Maintenance Instructions for PN 369H90020-517,  
Publication No. CSP-013, Issued 15 August 1976

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## PARTS LIST

<u>Nomenclature</u>	<u>Part No.</u>	<u>Qty</u>	<u>Mfr</u>
Duct, cabin heat	369D22009-101	1	HH
Duct, cabin heat	369D22009-103	1	HH
Control Assembly - Cabin Heat	369H4535-7*	1	HH
Control Assembly - Engine Anti-Ice	369H4535-9*	1	HH

\*369H4535-3 and 369H4535-5 control assemblies used with 369H92475-83 cabin heat duct assembly may be reworked to 369H4535-7 and -9 configurations required for use with new 369D22009-101 heating duct assembly. See Figure 1 for rework dimensions.

## PROCEDURE

- a. Remove outer box from PN 369H92475-83 or -107 cabin heat duct and canopy frame. (Refer to referenced CSP-013. )
- b. Remove hardware securing heating and anti-ice control cable assemblies to heat duct; remove heat duct assembly. Remove existing PN 369H92475-31 or -101 cabin heat (lower) duct assembly. (See Figure 1. )

### NOTE

1. If PN 369H92475-83 heat duct was installed, rework existing PN 369H4535-3 and -5 control cable assemblies to new 369H4535-7 and -9 configurations per step c below.
  2. If PN 369H92475-107 heat duct was installed, rework of existing 369H4535-7 and -9 control cable assemblies is not required.
- c. Using file or equivalent, rework control handle shafts to provide detents, per dimensions shown in Figure 1.
  - d. Install new PN 369D22009-103 and 369D22009-101 fiberglass heat duct assemblies.



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- e. Install control cable assemblies to new -101 duct assembly; secure clamps and position retainers with hardware as shown.
- f. Adjust spring plunger in position retainers so that 5 to 8 pounds of force is required to pull 369H4535-7 and -9 controls out of locked position in detents.
- g. Remove aft bulkhead access cover; open plenum chamber access door. (Refer to Section 2 of Basic HMI - Volume I.)

### NOTE

Performance of step h below required only if PN 369H4535-3 and -5 control assemblies were originally installed.

- h. Adjust preload of new PN 369H4535-7 and -9 control assemblies as follows: (See Figure 1.)
  - 1. Remove clevis from lever of applicable valve and loosen jam nut above clevis.
  - 2. With handle of 369H4535-7 or -9 control assembly in CLOSED position, adjust control cable clevis to initially align holes in clevis and valve lever.
  - 3. After initial adjustment has been made, turn clevis 1 to 2 turns, in extension, to achieve offset as shown.
  - 4. Tighten jam nut and install clevis pin.
- i. Perform operational check of heating system, per referenced CSP-013. Reinstall aft bulkhead access cover and interior trim.
- j. Perform operational check of anti-icing system, per Section 11 of Basic HMI-Volume I. Close plenum chamber access door.
- k. Install new PN 369D22009-45 cover with hardware as shown.

**WEIGHT AND BALANCE:** Weight and balance not affected.

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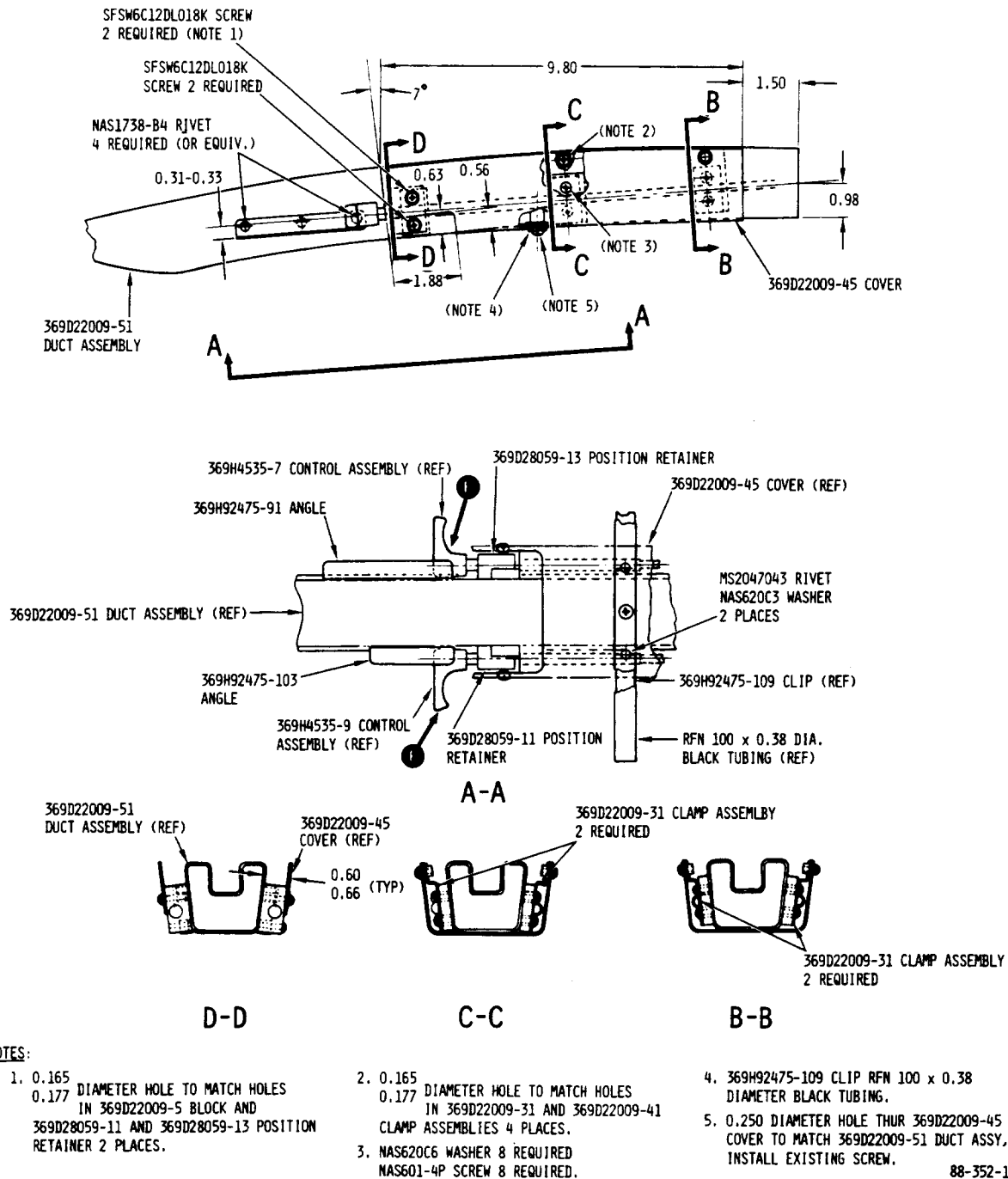
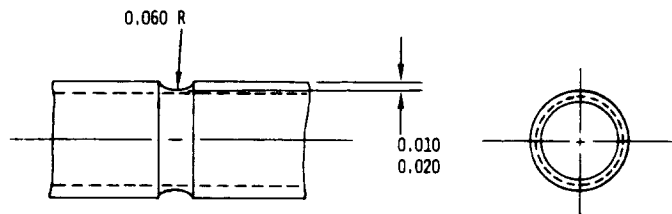
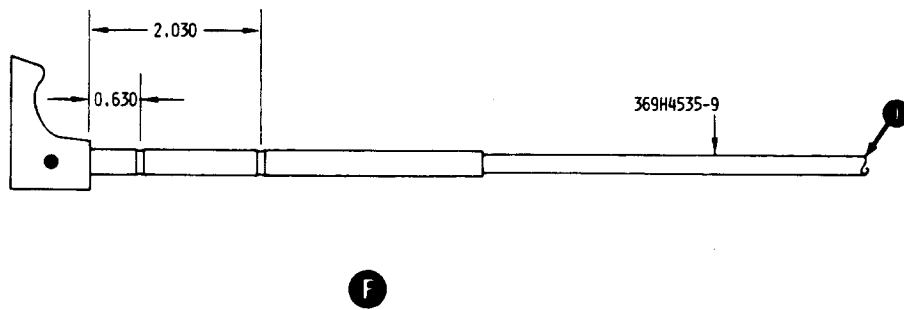
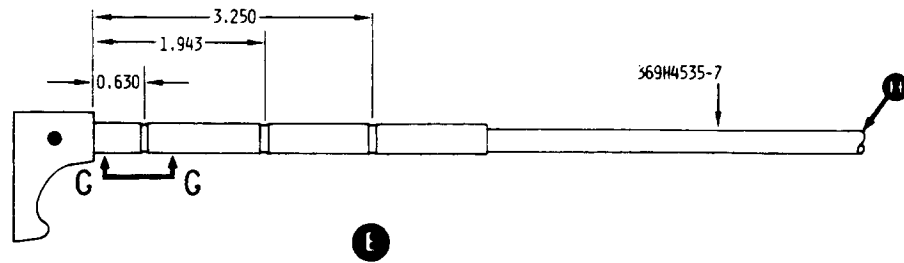


Figure 1. Installation of Fiberglass Cabin Heat Ducts, PN 369D22009-101 and -103 (Sheet 1 of 2)

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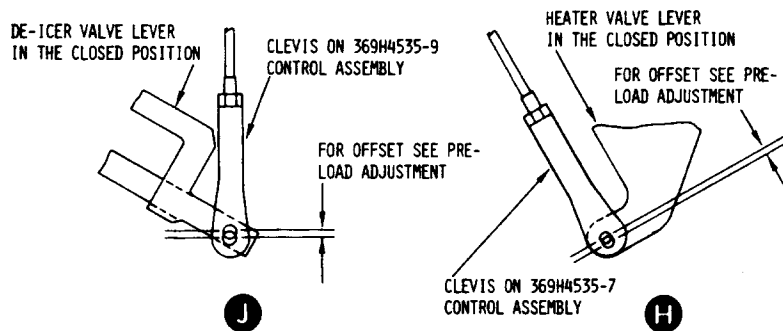
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**G-G**  
TYPICAL FOR DETENTS ON  
369H4535-7 AND -9

**PRE-LOAD ADJUSTMENT**

WITH THE HANDLE OF THE 369H4535-7 OR -9 CONTROL ASSEMBLY IN THE CLOSED POSITION DETENT, ADJUST THE CONTROL CABLE CLEVIS TO INITIALLY ALIGN HOLES IN THE CONTROL CABLE CLEVIS AND THE VALVE LEVER OF APPLICABLE VALVE. AFTER INITIAL ADJUSTMENT HAS BEEN MADE, TURN CLEVIS 1/2 FULL TURNS, IN EXTENSION, TO ACHIEVE OFFSET AS SHOWN. TIGHTEN JAM NUT AND INSTALL MS20392-2C11 CLEVIS PIN.



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Figure 1. Installation of Fiberglass Cabin Heat Ducts, PN 369D22009-101 and -103 (Sheet 2 of 2)