



# SERVICE BULLETIN

DATE: 31 MAY 1972

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## INSPECTION AND SHIMMING – CABIN HEATER CONTROL VALVE ASSEMBLY

### 1. PLANNING INFORMATION

#### A. MODELS AFFECTED:

The following helicopters with 369H90020 Series Cabin Heating System Kit installed:

- 369HE Helicopter Serial No. 0101E thru 0215E
- 369HS Helicopter Serial No. 0001S thru 0328S  
0330S thru 0353S; 0355S;  
0357S thru 0360S
- 369HM Helicopter Serial No. 0001 thru 0004;  
0005M thru 0213M

#### B. PREFACE:

The information given in this Service Information Notice lists a procedure, for a one-time inspection of the heater control valve assembly to ensure that proper torque is maintained on the ball valve coupling shaft, and the ball valve operates freely without binding.

Instructions are provided for shimming as required between the valve housing inlet body and the 90-degree inlet elbow. if inspection reveals an excessive actuation load on the coupling shaft.

It is noted that referenced Service Notice No. HN-30 defines a procedure for modifying and shimming the heater control valve assembly to prevent binding within the mechanism, due to tolerance accumulation between the ball valve, valve housing and inlet elbow.

#### C. TIME OF COMPLIANCE:

Shall be accomplished at next scheduled 100-Hour Periodic Inspection

#### D. FAA APPROVAL:

FAA Approved

#### E. WEIGHT AND BALANCE:

Weight and balance not affected

#### F. REFERENCE:

- 500 Series - Basic HMI, Issued 1 Dec 71; Revision No. 1, 10 May 72
- 500 Series - HMI Appendix A, Issued 1 Dec 71; Revision No. 1, 10 May 72
- Hughes Service Information Notice No. HN-30, dated Dec 21, 1970

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**G. TOOLS AND EQUIPMENT:**

TOOLS AND EQUIPMENT Nut	
Nomenclature	Source
Spring scale	Commercial

**H. PARTS LIST:**

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Shim (0.015 inch)	369H8007-7	1	HTC -AD
Shim (0.010 inch)	369H8007-5	1	HTC -AD
Shim (0.005 inch)	369H8007-3	1	HTC -AD

**2. PROCEDURE**

- a. Check that all electrical power is OFF; as applicable, check that CABIN HEAT switch is in OFF position.
- b. Remove crew compartment left bulkhead trim panel, and left aft bulkhead access cover.
- c. Remove heat control valve Assembly, per HMI Appendix A, Group 6.
- d. With timing belt installed on both valve pulleys, rotate drive pulley on ball valve coupling shaft to position ball valve in full open position.
- e. Wrap length of twine five or six times around drive pulley; attach spring scale to twine and pull until ball valve is in full closed position. Repeat procedure with ball valve from the full closed to full open position.

**NOTE:**

Apply torque at ball valve drive pulley only. Hold heat control valve assembly in vertical position on workbench when performing torque check.

If pull required to operate ball valve from full open and full closed positions measures between 9.5 and 17.5 ounces (6 and 11 inch-ounces) on the spring scale, no shimming per step f. is required.

f. Shim between heater valve inlet housing and inlet elbow is follows:

- (1) With valve housing placed upside down on workbench, remove hardware securing elbow to valve housing. Insert 0.005-inch shim and reinstall elbow to housing.
- (2) Perform step e. above; add or subtract increments of shims until actuation load (torque) on coupling shaft is between 9.5 and 17.5 ounces (6 and 11 inch-ounces) on the spring scale.

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- g. Reinstall heat control valve assembly, per HMI Appendix A.
- h. Perform operational check of heat control valve assembly, per HMI Appendix A.
- i. Reinstall left aft bulkhead cover and interior trim.
- j. Record compliance with this Service Information Notice in Compliance Record of helicopter Log Book.

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