



SERVICE BULLETIN

DATE: 19 NOVEMBER 1999

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FORWARD AND CENTER THRUSTER CONTROL CABLES, CONDUIT CAP AT TELESCOPIC SWIVEL END, INSPECTION

1. PLANNING INFORMATION

A. Aircraft Affected:

500N helicopters, LN001 thru LN099 and 600N helicopters, RN003 thru RN074.

B. Assembly/Components Affected By This Bulletin:

All 500N7201-5, -7, -37, -45 and -51 thruster control cables installed in the helicopters listed above and in spares inventory.

C. Reason:

Stress corrosion cracks have been discovered in the thruster control cable conduit cap at the telescopic swivel ends. Cracks have been found on the conduit cap of both the forward cable at Sta. 123.30 (500N/600N) and the center thruster cable at Sta. 264.00 (500N) or Sta. 292.00 (600N).

Failure to comply with this Service Bulletin may result in a fixed thruster and loss of normal anti-torque directional control of the helicopter.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to visually inspecting the thruster cable conduit cap at the telescopic swivel end for cracks, corrosion and obvious damage.

E. FAA Approval:

The design engineering aspects of this bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

F. Time of Compliance:

Shall be accomplished within the next five (5) flight hours or by 31 December 1999, whichever occurs first.

Continue to inspect per this Bulletin every one hundred (100) flight hours or three (3) months, whichever occurs first, until the new cables (500N7201-55 and -57 or -59) are installed.

The forward and center thruster cables must be replaced no later than 1 December 2000.

G. Manpower:

Three (3) man-hours for inspection requirements and maximum of eight (8) man-hours for replacement.

H. Weight and Balance Data:

Weight and balance not affected.

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I. Material/Part Availability:

Contact MDHI Warranty and Repair Dept.

PARTS			
Nomenclature	Part No.	Qty.	Source
Forward cable (500N/600N)	500N7201-37 or -55	A/R	MDHI
Center cable (500N)	500N7201-45 or -57	A/R	MDHI
Center cable (600N)	500N7201-51 or -59	A/R	MDHI

J. Warranty:

MDHI Warranty Department will provide acceptable replacement components at no cost to the operator if parts are replaced prior to 1 December 2000. The replacement parts will be covered by the MDHI new part warranty. MDHI will also credit those affected operators with three (3) hours of labor warranty (spares credit) for the inspection requirements and maximum of eight (8) hours of labor warranty (spares credit) for replacement. Operators must return affected components to MDHI Warranty Department within five (5) days of removal in order to receive credit for replacement and labor allowance credit.

K. Reference:

369D/E/FF - 500/600N HMI (CSP-HMI-2) Revised 1 June 1999, or latest revision

2. ACCOMPLISHMENT INSTRUCTIONS

A. Forward Cable Inspection:

(Ref. Figure 1)

CAUTION Any time maintenance work is to be performed near engine air inlet, use care to prevent entry of foreign objects that might later be sucked into the compressor. Cover engine inlet with suitable material.

- (1). Remove left side engine inlet fairing to access splitter assembly area.
- (2). Locate forward thruster cable on left side of plenum area.
- (3). Inspect for any evidence of swivel ball separation from conduit cap.

CAUTION If an unacceptable crack or ball separation from conduit cap is found, the cable must be removed from service and a serviceable cable installed ***before further flight***.

- (4). Using a bright light and 10x magnifying glass, inspect the general area of the conduit cap and at the telescopic swivel end for cracks, corrosion and obvious damage.
- (5). Damage criteria requiring cable removal:
 - (a). Any missing piece in the end of the conduit cap at the telescopic end is not allowed.
 - (b). Any one crack larger than 0.15 inch is not allowed.
 - (c). The total length of all cracks can not exceed a combined total of 0.30 inch.

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- (6). If an unacceptable crack is found, remove the cable and mark as scrap for return to MDHI. Replace with a serviceable cable which has been inspected per the requirements of this Bulletin.
- (7). Install a secondary safety using 0.032 inch stainless steel safety wire as follows:
 - (a). Safety wire starts at the top of the jamnut, goes to the end of the conduit cap, is tightly wrapped around the shaft in front of the swivel ball joint a minimum of 3 times and a maximum of 5, and returns to the bottom side of the jamnut (Ref. Figure 1, Sheet 2)
- (8). Reinstall left side engine inlet fairing.

B. Center Cable Inspection:

(Ref. Figure 1)

- (1). Remove stationary and rotating thruster cones (Ref. CSP-HMI-2).
- (2). Inspect for any evidence of swivel ball separation from conduit cap.
- (3). Using a bright light and 10x magnifying glass, inspect the general area of the conduit cap and at the telescopic swivel end for cracks, corrosion and obvious damage.



If an unacceptable crack or ball separation from conduit cap is found, the cable must be removed from service and a serviceable cable installed ***before further flight.***

- (4). Damage criteria requiring cable removal:
 - (a). Any missing piece in the end of the conduit cap at the telescopic end is not allowed.
 - (b). Any one crack larger than 0.15 inch is not allowed.
 - (c). The total length of all cracks can not exceed a combined total of 0.30 inch.
- (5). If an unacceptable crack is found, remove the cable and mark as scrap for return to MDHI. Replace with a serviceable cable which has been inspected per the requirements of this Bulletin.
- (6). Install a secondary safety using 0.032 inch stainless steel safety wire as follows:
 - (a). Safety wire starts at the top of the jamnut, goes to the end of the conduit cap, is tightly wrapped around the shaft in front of the swivel ball joint a minimum of 3 times and a maximum of 5, and returns to the bottom side of the jamnut (Ref. Figure 1, Sheet 2)
- (7). Reinstall stationary and rotating thruster cones (Ref. CSP-HMI-2).
- (8). Re-rig rotating thruster cone (Ref. CSP-HMI-2).

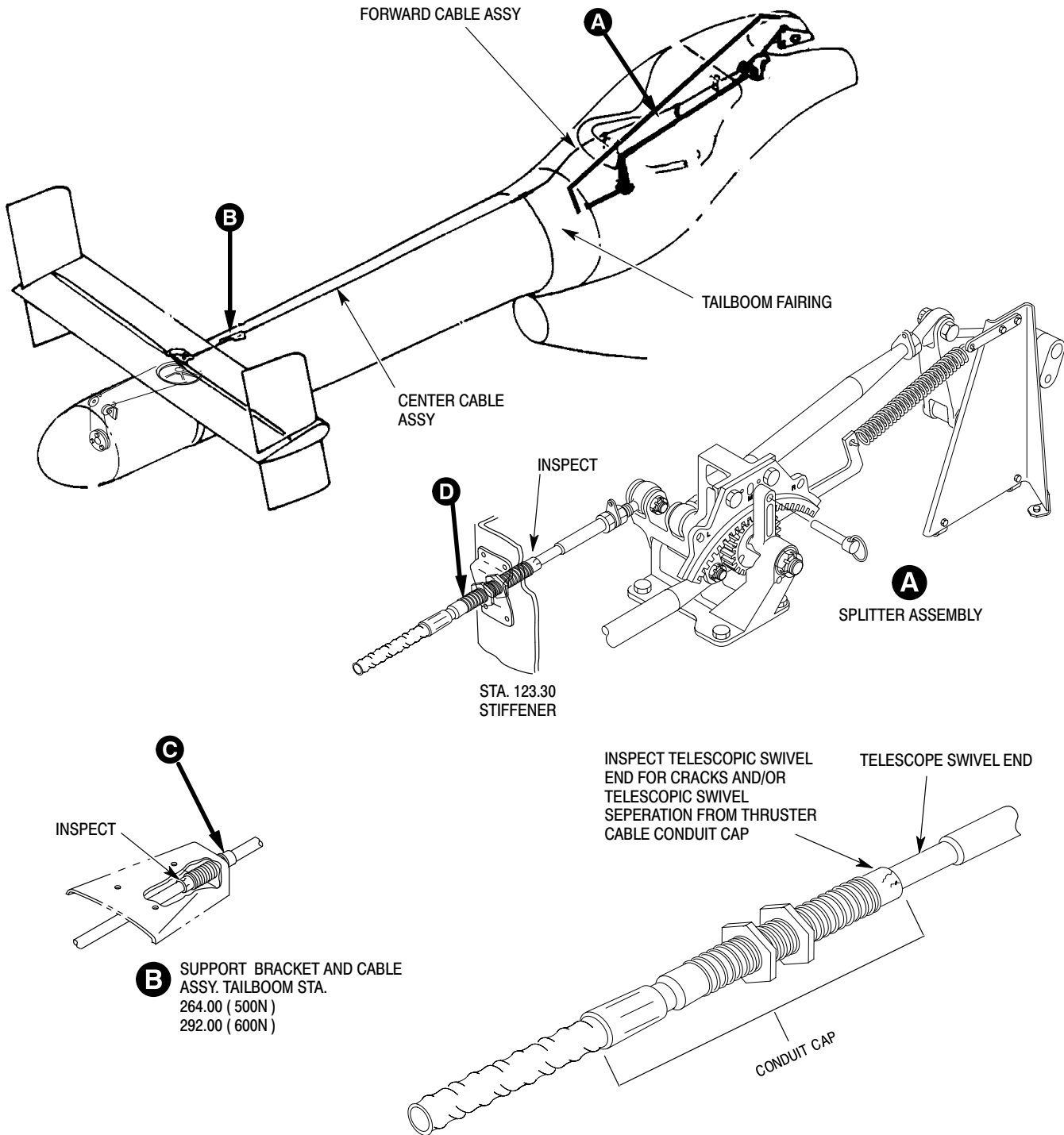
3. POINTS OF CONTACT

For further information, contact your local MDHI Field Service Representative (refer to the latest revision of the Product Support handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone: 1-800-388-6342 or (480) 891-6342.

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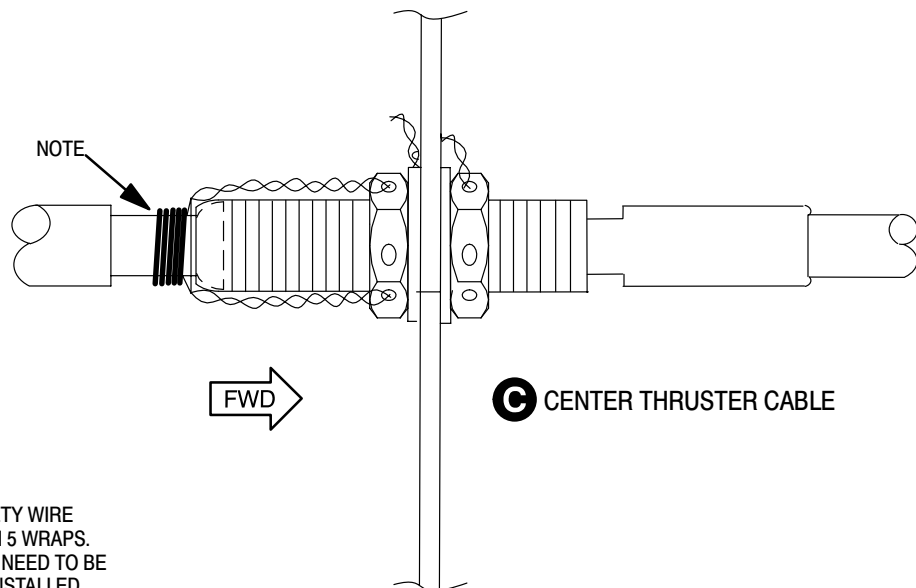
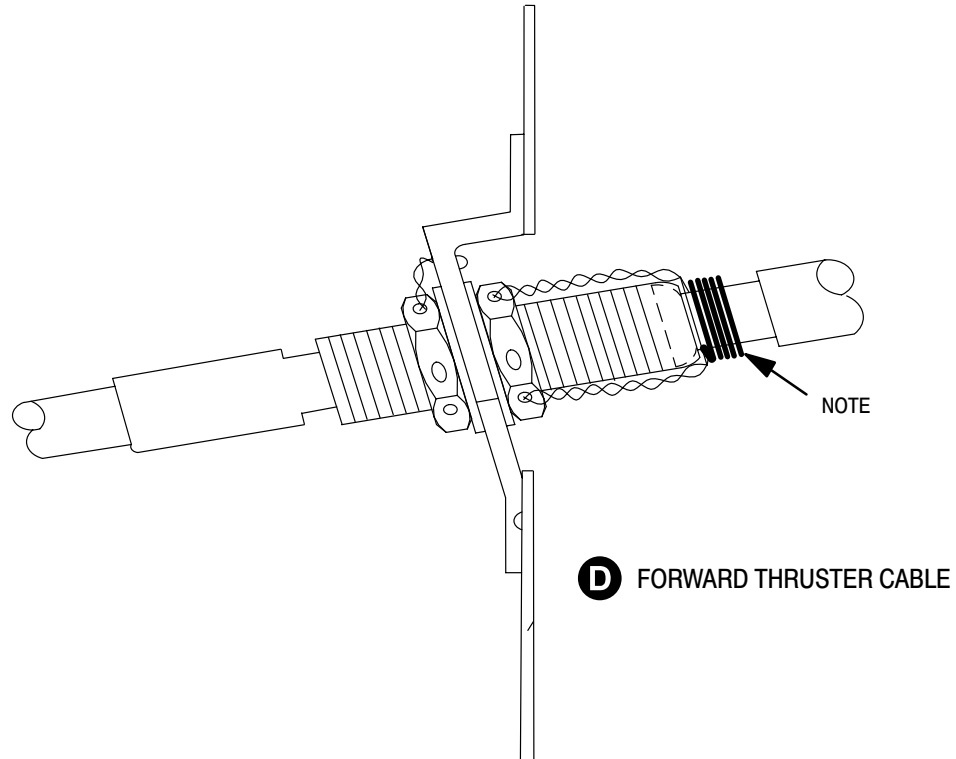
Figure 1. Forward and Center Cable Relief Area Inspection (Sheet 1 of 2)

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NOTE:
0.032 STAINLESS STEEL SAFETY WIRE
MINIMUM 3 WRAPS, MAXIMUM 5 WRAPS.
CURRENT SAFETY WIRE MAY NEED TO BE
REMOVED BUT MUST BE REINSTALLED.

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Figure 1. Forward and Center Cable Relief Area Inspection (Sheet 2 of 2)

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Compliance Recording Form

Customer/Operator Name:

Aircraft Serial No. :

Helicopter Total Time:

Center Thruster Cable Total Time:

Forward Thruster Cable Total Time:

Date of Compliance for Inspection:

Results of Inspection: _____ Cracks _____ No Cracks

Signature of Person Confirming Compliance:

**Please Return to MDHI Field Service Immediately
Following Inspection**

FAX this form to MDHI (480) 891-6782

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