



# SERVICE BULLETIN

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## ONE-TIME INSPECTION OF FUEL PUMP HARNESS ROUTING AND DECAL INSTALLATION

\* Supersedes Service Bulletin SB369HN-210, SB369DN-150, SB369EN-38, and SB369FN-27, dated 15 September 1987. Revised to the latest MD Helicopters, Inc. (MDHI) style and format.

### 1. PLANNING INFORMATION

#### A. Aircraft Affected:

All MD Helicopters, Inc. (MDHI) Model 369A (OH-6A), 369H, 369HE, 369HS, 369HM, AND 369D helicopters.

MDHI Model 369E helicopters, SN's 0001E thru 0620E.

MDHI Model 369F/FF helicopters, SN's 0001FF thru 0212FF, 0600FF thru 0602FF and 0700FF thru 0711FF with a PN 369A8143-3 auxiliary fuel pump installed.

MDHI Model 500N helicopters, SN's LN001 thru LN0111.

#### B. Assembly/Components Affected By This Notice:

369A8143 or 369A8143-3 Auxiliary Fuel Pump Assemblies

369A8113 LH Fuel Cell Fuel Inlet Hose Assembly

#### C. Reason:

Recent field incidents have occurred where maintenance personnel have not followed the procedures in CSP-H-2 or CSP-HMI-2 regarding the installation of the auxiliary fuel (start) pump. An incorrectly positioned auxiliary fuel (start) pump wire can interfere with the fuel quantity sensor float. This interference can result in erroneous fuel quantity indications. To prevent this situation, the fuel pump wire must be wrapped around the fuel inlet hose as shown in the applicable maintenance manual.

#### D. Description:

Procedures in this bulletin give owners and operators information to do a one-time inspection of the auxiliary fuel pump assembly wire routing in the left hand fuel cell, and corrective action, if necessary. A decal is also installed on the LH fuel cell access cover that refers personnel to the procedures contained in the appropriate maintenance manual.

#### E. Time of Compliance:

The requirements of this bulletin must be completed no later than the next 100 hour inspection.

#### F. FAA Approval:

The technical design aspects of this bulletin are FAA Approved.

#### G. Manpower:

Compliance with this bulletin will be approximately three (3) man-hours to complete the inspection and test and approximately one (1) man-hour to re-route the auxiliary fuel pump wire if required.

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**H. Interchangeability:**

None.

**I. Points of Contact:**

For further assistance, contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or 480-346-6387. DATAFAX: 480-346-6813.

**J. Material/Part Availability:**

Contact MDHI Spare Parts Sales Department for parts availability. Telephone: 1-800-388-3378 Option 2 or 480-346-6540. DATAFAX: 480-346-6821.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Gasket, Fuel Quantity Transmitter	369A4518	1	MDHI
Decal, Warning – Start Pump	MHS5861-66	1	MDHI
Adhesive, Fast Setting	MDM16-1068, Class 8B Epibond 1217 A/B (RM011959)	1 (1 oz (28G))	MDHI or Commercial

**K. Warranty Policy:**

Contact the MDHI Warranty Department for prices, orders, and availability. Telephone: 1-800-388-3378 or 480-346-6403. DATAFAX: 480-346-6814.

MDHI Warranty Department will give authorized Service Centers not more than 4 hours of labor credit (spares credit) to complete this modification.

Standard warranty policy applies.

**L. Disposition of Parts Removed:**

N/A

**M. Tooling:**

N/A

**N. Weight and Balance:**

N/A

**O. Electrical Load Data:**

N/A

**P. Other Publications Affected:**

N/A

**Q. Reference Publications:**

CSP-H-2 Basic Handbook of Maintenance Instructions

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CSP-H-7 Illustrated Parts Catalog

CSP-HMI-2 Basic Handbook of Maintenance Instructions - Servicing and Maintenance

CSP-IPC-4 Illustrated Parts Catalog

## 2. ACCOMPLISHMENT INSTRUCTIONS

### A. Get Access to the LH Fuel Cell Cover Assembly

- (1). Make sure all electrical power is off.
- (2). Get access to the LH fuel cell cover assembly. Refer to CSP-H-2, Section 12 or CSP-HMI-2, Section 28-00-00, as applicable.

### B. Remove the Fuel Quantity Sensor

#### WARNING

Use all necessary precautions consistent with safe practice when working in or around fuel cells.

#### CAUTION

Care shall be taken not to damage fuel float arm or low fuel level warning contact spring while accomplishing this bulletin.

- (1). Disconnect the wire harness from the fuel quantity sensor (1, Figure 1).
- (2). Cut and remove the lockwire (3) from the five bolts (4) that attach the fuel quantity sensor (1) to the support assembly (6).
- (3). Remove the five bolts (4) and five washers (5) from the fuel quantity sensor (1).
- (4). Carefully lift the fuel quantity sensor (1) up and out of the support assembly (6). Remove and discard the fuel quantity sensor gasket (2).

### C. Inspect Auxiliary Fuel Pump Assembly Wire Routing

- (1). Use a shop mirror and flashlight to inspect the auxiliary fuel pump wire routing. Refer to Figure 2. The auxiliary fuel pump wire must be wrapped around the LH fuel cell fuel inlet hose assembly a minimum of one revolution.
- (2). If the auxiliary fuel pump wire is wrapped around the LH fuel cell fuel inlet hose, re-install the fuel quantity sensor (Ref. Step 2.D.), then go to Step 2.F.
- (3). If the auxiliary fuel pump wire is not wrapped around the LH fuel cell fuel inlet hose, re-install the fuel quantity sensor (Ref. Step 2.D.), then go to Step 2.E.

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## **D. Install the Fuel Quantity Sensor**

- (1). Install a new fuel quantity sensor gasket (2, Figure 1) on the fuel quantity sensor (1).
- (2). Install the fuel quantity sensor in the support assembly and secure with five bolts (4) and five washers (5). Lockwire (3) the five bolts.
- (3). Connect the wiring harness connector to the fuel quantity sensor (1).
- (4). Go to Step 2.F.

## **E. Route the Auxiliary Fuel Pump Wire Around the LH Fuel Cell Fuel Inlet Hose**

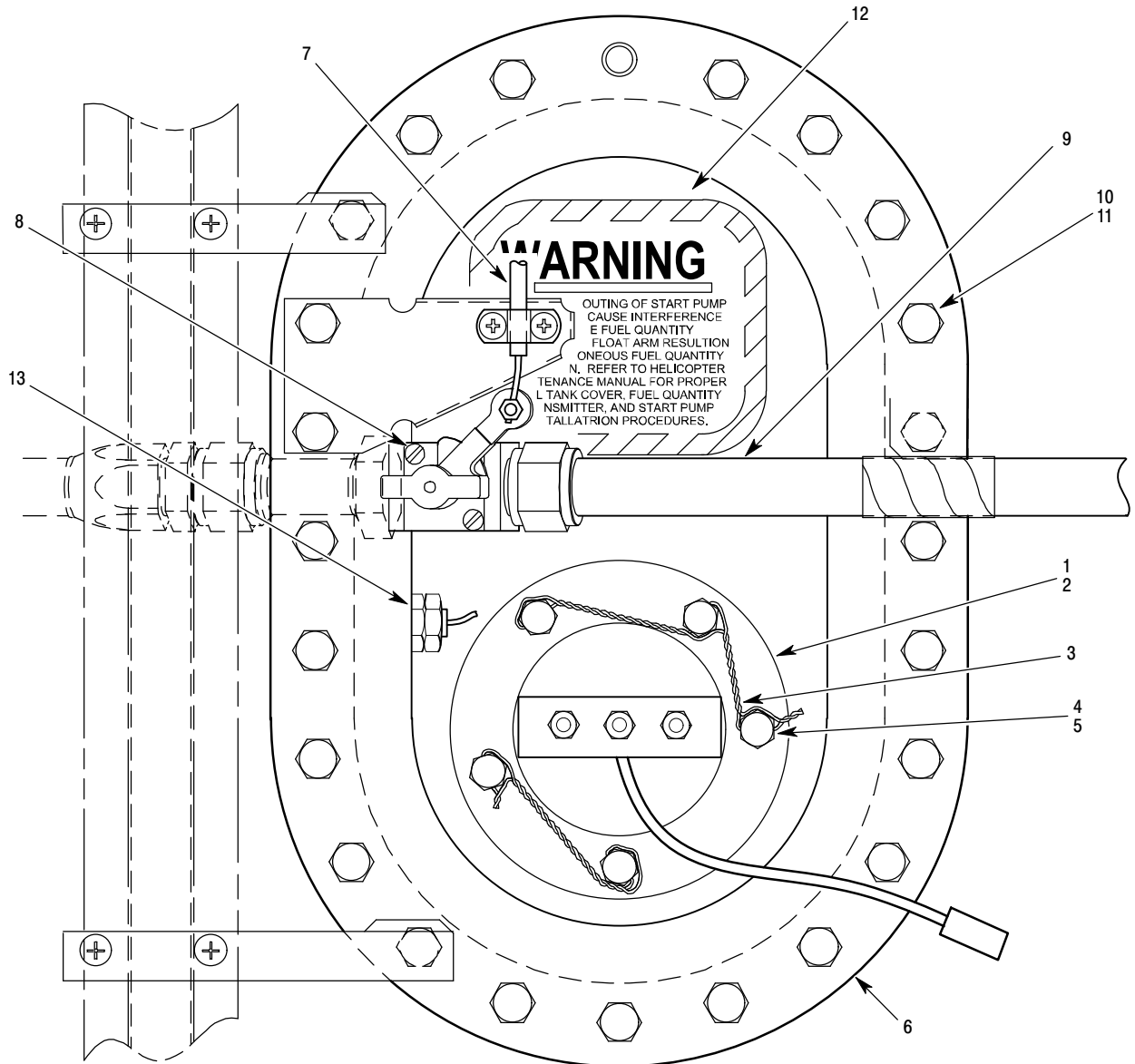
- (1). Loosen the nut on the cable clamp and disconnect control cable (7, Figure 1) from fuel shutoff valve (8).
- (2). Disconnect the LH fuel cell fuel inlet hose assembly (9) from the LH fuel cell fuel shutoff valve (8) assembly.
- (3). Disconnect the wiring harness connector from the auxiliary fuel pump wire (13) connector at the LH fuel cell cover (6).
- (4). Remove the bolts (13) and washers (14) securing the LH fuel cell cover (6) to the LH fuel cell. Carefully pry up the edge of the fuel cell cover (6) to break loose from the LH fuel cell.
- (5). Remove the auxiliary fuel pump connector jam nut (13) and remove the connector from the LH fuel cell cover.
- (6). Wrap the auxiliary fuel pump wire around the LH fuel cell fuel inlet hose, a minimum of one revolution, in such a way that it cannot interfere with the operation of the fuel quantity sensor float. Refer to Figure 2.
- (7). Install the auxiliary fuel pump wire thru the LH fuel cell cover (6, Figure 1) and secure with hex nut (13).
- (8). Re-seat the LH fuel cell cover (6) on the LH fuel cell and secure with washers (14) and bolts (13).
- (9). Go to Step 2.F.

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**Figure 1. Fuel Cell Cover and Components**

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## Legend (Ref. Figure 1)

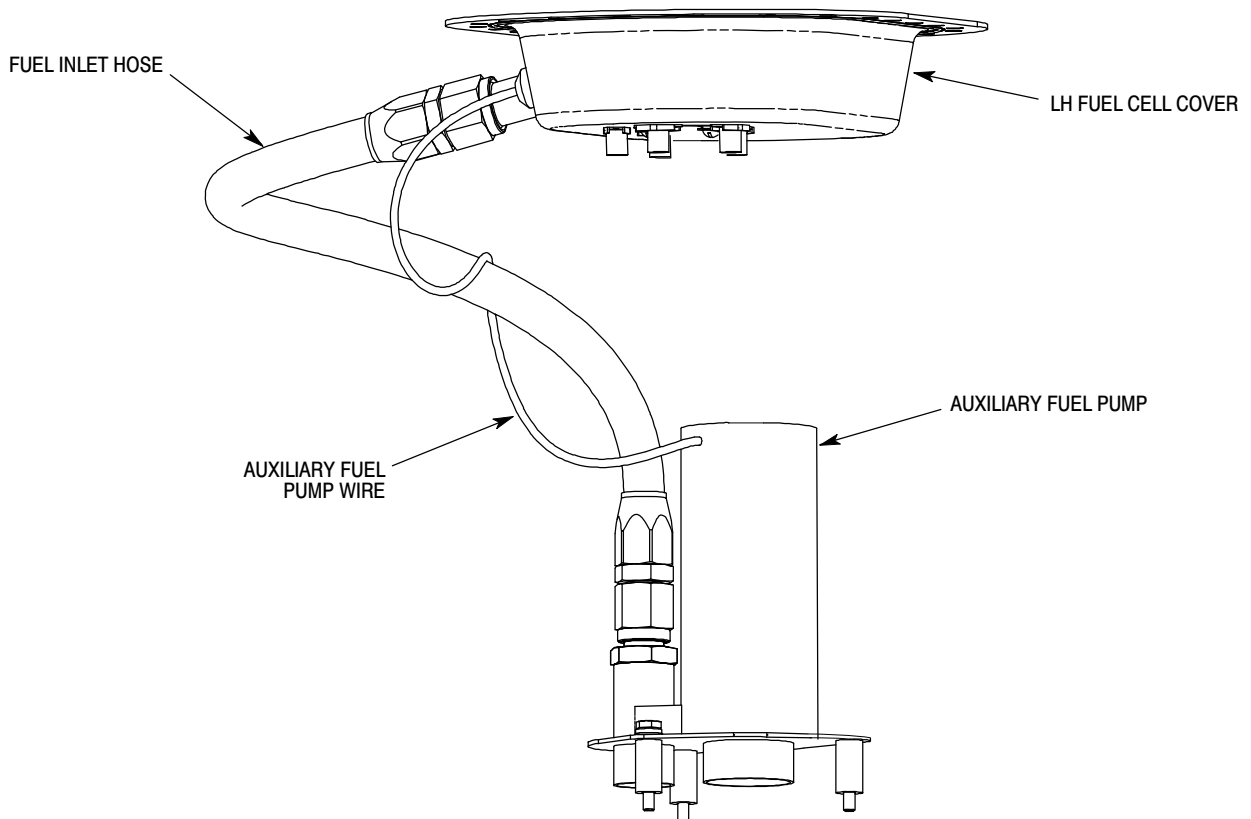
Item	Nomenclature	Item	Nomenclature
1.	Fuel Quantity Sensor	8.	Fuel Shut-off Valve
2.	Fuel Quantity Sensor Gasket	9.	LH Fuel Cell Fuel Inlet Hose Assembly
3.	Lockwire	10.	Bolt
4.	Bolt	11.	Washer
5.	Washer	12.	Start Pump Warning Decal
6.	LH Fuel Cell Cover	13.	Auxiliary Fuel Pump Wire
7.	Control Cable		

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**Figure 2. Auxiliary Fuel Pump Wire Routing**

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## **F. Perform a Fuel Quantity Sensor (Transmitter) Functional Check**

**NOTE:** This functional check is not for fuel quantity indicating system accuracy, but to check proper fuel float arm function.

- (1). Do a fuel quantity sensor functional check. Refer to CSP-H-2, Section 12 or CSP-HMI-2, Chapter 28-00-00.

## **G. Install the Warning Decal**

- (1). Clean the top of the LH fuel cell cover (6, Figure 2) using isopropyl alcohol and a clean cloth.
- (2). Install the warning decal (12) on the LH fuel cell cover (6).
- (3). Edge seal (fillet) the decal (12) using MDM16-1068D, Class 8B, fast cure adhesive. The fillet shall be 0.03 inch (0.8 mm) minimum and 0.13 inch (3.2 mm) maximum.

## **H. Service the Fuel System**

- (1). Make sure fuel system is properly serviced per SB369HN-185 and CSP-H-2 for 369H Series helicopters and CSP-HMI-2 for 369D, 369E, 369F/FF, and 500N Series helicopters.

## **I. Job Close-Up**

- (1). Clean any fuel spillage using a clean cloth.
- (2). Install the LH fuel access door assembly. Refer to CSP-H-2 for 369H Series helicopters and CSP-HMI-2 for 369D, 369E, 369F/FF, and 500N Series helicopters.

## **J. Compliance Record**

- (1). Record compliance to this Service Bulletin in the Compliance Record section of the Rotorcraft Log Book.
- (2). Complete Bulletin Completed Record form (attached) and FAX or e-mail to MDHI Field Service Department.

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## Bulletin Completed Record

### ONE-TIME INSPECTION OF FUEL PUMP HARNESS ROUTING AND DECAL INSTALLATION

MD Helicopters, Inc.  
Field Service Department  
4555 E. McDowell Road  
Mesa, AZ 85215-9734

800-388-3378 Phone (U.S. and Canada)  
480-346-6387 Phone (International)  
480-346-6813 Fax

FAX this form to MDHI (480) 346-6813 or E-mail to ServiceEngineering@mdhelicopters.com

<b>Owner /Operator:</b> _____	<b>Helicopter Serial No:</b> _____
<b>Address:</b> _____	<b>Helicopter Total Time:</b> _____
_____	<b>Date Complete:</b> _____
_____	<b>Location:</b> _____
<b>Phone:</b> _____	
<b>E-mail:</b> _____	

This bulletin is complete: \_\_\_\_\_  
 (Signature)

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Comments: \_\_\_\_\_

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