



TECHNICAL BULLETIN

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INSTALLATION – ENGINE COMPRESSOR WATER WASH KIT, PN 369H92537

1. PLANNING INFORMATION:

A. Models Affected:

500D Model 369D Series Helicopter Serial No. 0003D thru 0089D

B. Preface:

The information given in this Service Information Notice lists procedures for optional installation of an engine compressor water wash kit on the above affected 369D Series helicopters. The kit is designed to provide a quick, convenient method for removing any contaminants or corrosive air particles (smoke, fumes, salt water air, etc.) from compressor components, and to help ensure optimum performance and service life of the engine.

Detailed information to cover operating procedures, equipment, water availability and flow requirements are provided in the attached below referenced Detroit Diesel Allison Commercial Service Letter and subsequent revisions. The DDA Service Letter, reprinted as part of this Notice, also provides an abbreviated check list for performing the engine water wash.

C. Time of Compliance:

At Owners and Operators discretion.

D. Reference Publications:

369D - Basic HMI, Issued 15 September 1976; Revision No. 1, 15 November 1977 Detroit Diesel Allison Commercial Service Letter 250-C18 CSL-69; 250-C20 CSL-1020, dated 25 June 1973; Revision No. 1, 17 January 1975 or subsequent revisions. FORM 9578A (REV 11/87)

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Hose	369H3048-5	1	HH
Hose	369H3048-3	1	HH
Support	369H3047	1	HH
Cap and lanyard assy	369H3046	1	HH
Spray assy	369H3042	1	HH
Washer	AN960PD716L	2	Commercial
Washer	AN960PD10L	3	Commercial
Nut	AN924-4D	2	Commercial

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REPLACEMENT PARTS/SUPPLIES (Cont.)			
Nomenclature	Part No.	Qty.	Source
Hose elbow	AN848-4D	1	Commercial
Hose adapter	AN807-4D	1	Commercial
Clamp	AN737TW22	4	Commercial
Grommet	MS35489-11	1	Commercial
Clamp	MS25281-4	1	Commercial
Nut	MS21042-3	1	Commercial
Rivet	NAS1398B4-2 (alternate: MS20615-3M5)	6	Commercial
Rivet	NAS1738M4-2	8	Commercial
Screw	NAS632-3-3	2	Commercial

TOOLS AND EQUIPMENT	
Nomenclature	Source
Drill motor – portable	Commercial
Drill bit – No. 29/64 (0.4531 in. dia.)	Commercial
Drill bit – No. 8	Commercial
Drill bit – No. 30	Commercial
Flycutter or equivalent	Commercial
Gun, rivet	Commercial

MATERIAL	
Nomenclature	Source
Silicone adhesive/sealant (RTV732 or equivalent)	Dow Corning or Commercial
Zinc chromate primer	Commercial

2. INSTALLATION INSTRUCTIONS – WATER WASH KIT

- (1). Perform the following, per HMI, to gain access to work area:
 - (a). In aft compartment, remove seat assemblies, LH bulkhead trim, access cover and insulation; gearbox access cover.
 - (b). Remove engine air inlet forward fairings; open plenum chamber access door.

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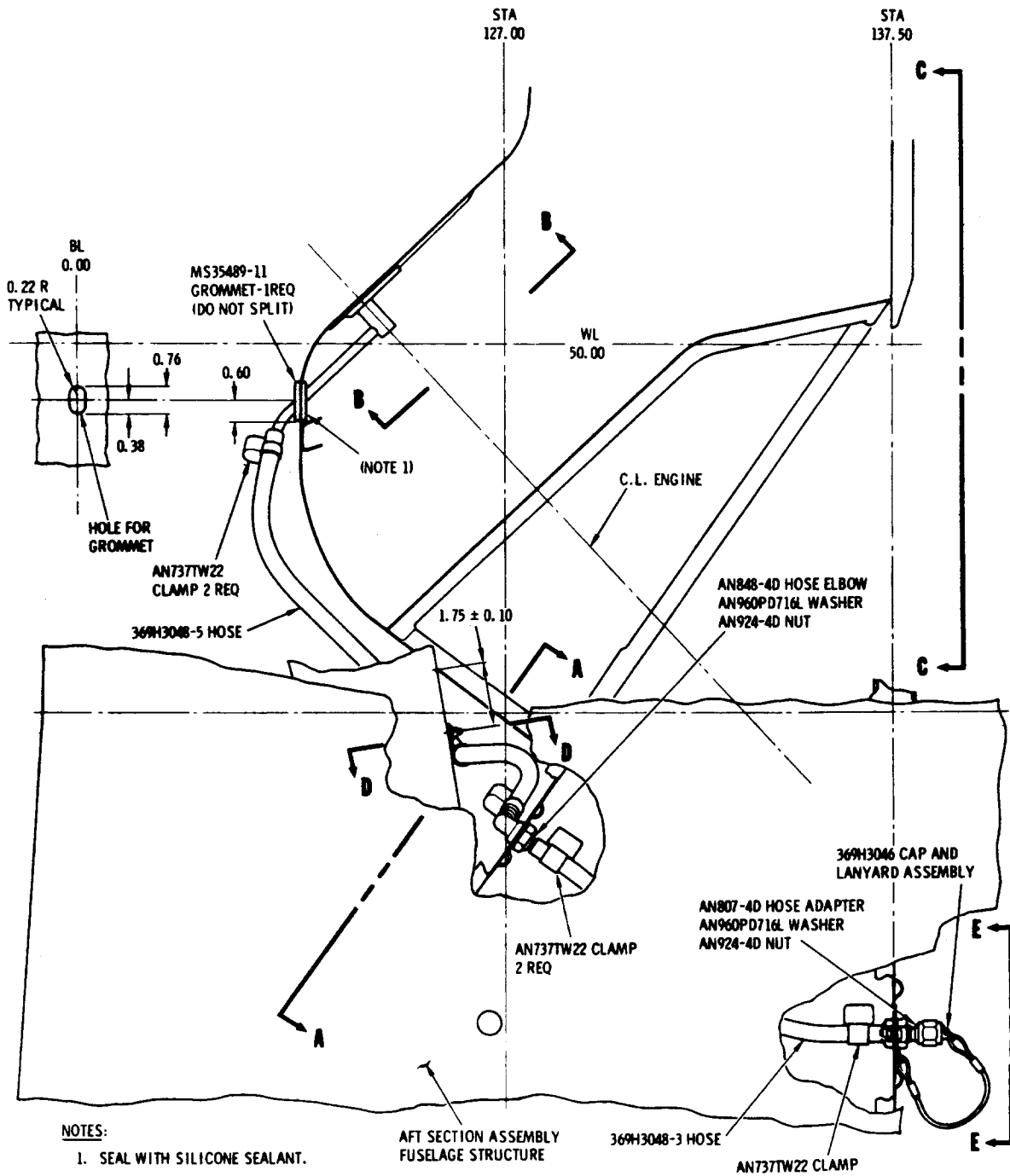
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Install temporary cover of cardboard or suitable material over engine air intake.

- (c). Remove engine air shield screen or engine air inlet screen, as applicable; remove access cover from mast support structure panel.
 - (d). Open LH engine compartment access door.
 - (2). Position 369H3047 support on Station 137.50 lower section ring at dimensions shown in Figure 1, view E-E. Mark and drill rivet holes and install support with six NAS1398B4-2 rivets. Install rivets with zinc chromate primer.
 - (3). Drill No. 8 hole in ring assembly as shown; locate from existing hole in support.
 - (4). Install AN807-4D hose adapter in support with hardware as shown; install lanyard clip in No. 8 hole with hardware as shown. Install 369H3046 cap on hose adapter.
 - (5). Drill or cut 29/64 (0.4531 inch diameter) hole in firewall assembly at dimensions shown in view A-A. Position and install AN848-4D hose elbow in firewall with hardware as shown.
 - (6). Cut hole for MS35489-11 grommet in forward wall of plenum chamber per dimensions shown; install grommet with silicone sealant.
 - (7). Position 369H3042 spray assembly on inner side of plenum chamber forward wall as shown in Figure 1, view B-B, with tube inserted forward through grommet. Mark and drill rivet holes and install spray assembly with eight NAS1738M4-2 rivets. Install rivets with zinc chromate primer.
 - (8). Install 369H3048-5 hose on spray assembly tube and on hose elbow at firewall; secure hose at each end with AN737TW22 clamps.
 - (9). Mark and drill No. 8 hole in 369H3024 channel and install MS25281-4 clamp with hardware as shown. Secure -5 hose with clamp.
 - (10). Install 369H3048-3 hose on hose elbow at aft side of firewall, and on hose adapter at forward side of lower section ring. Secure hose at each end with AN737TW22 clamps.
 - (11). Check installation of water wash kit for discrepancies.
 - (12). Carefully check and/or vacuum the plenum chamber for any foreign objects or debris. Remove protective cover from engine air intake.
- NOTE:** Spray kit using 369H3042 nozzle requires 60 pounds PSI to establish water flow rate of one quart in 9 to 10 seconds. A bypass valve or equivalent installed at source hose connection is recommended, in order to relieve pressure and facilitate disconnection at hose adapter.
- (13). Perform operational check of water wash kit installation; refer to attachment Detroit Diesel Allison Commercial Service Letter for operating procedures and check list.
 - (14). Reinstall removed components and assemblies; install and secure access covers and doors.
 - (15). Record installation of 369H92537 engine compressor water wash kit in Components Record of helicopter Log Book.

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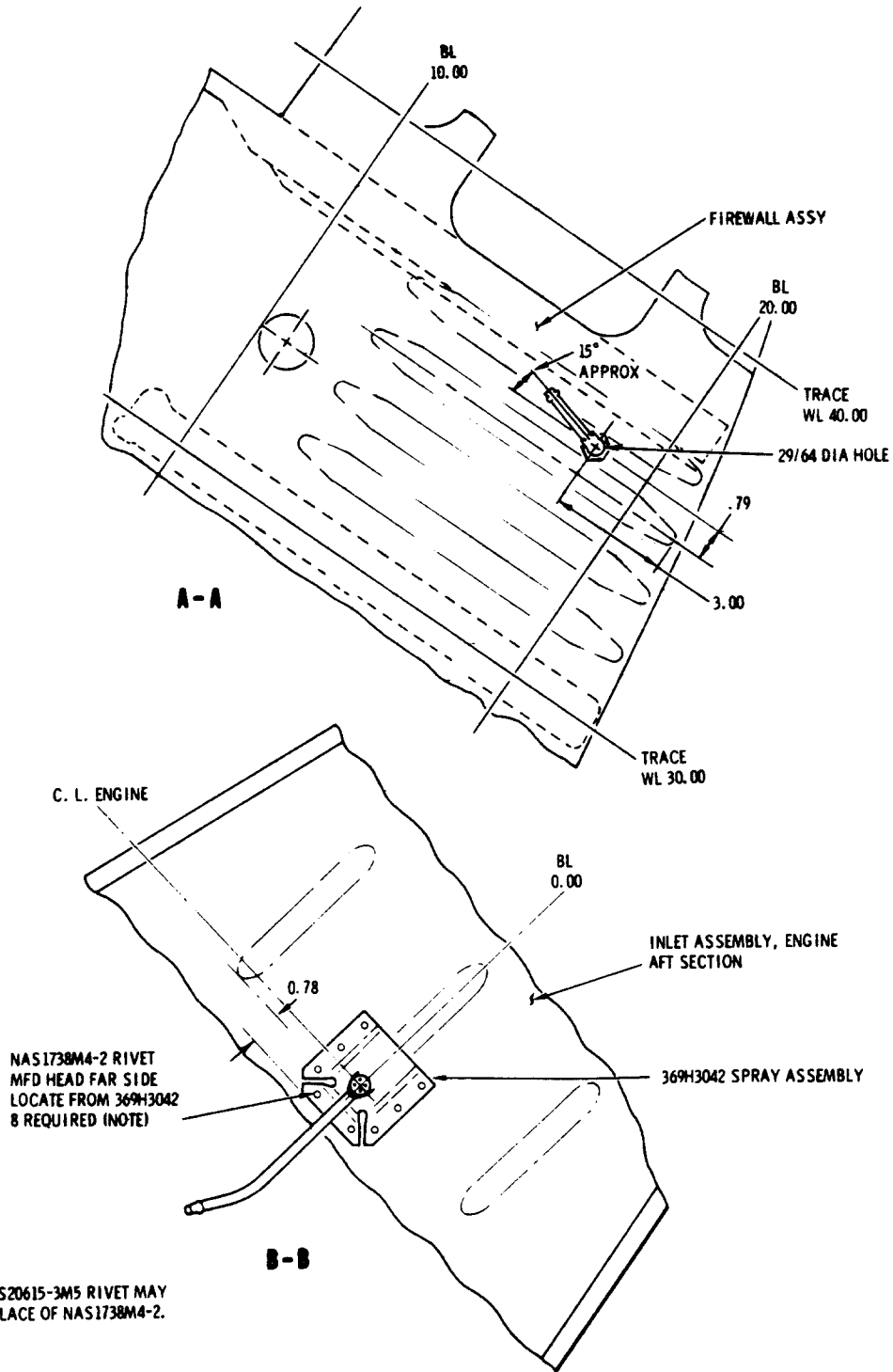
- NOTES:
1. SEAL WITH SILICONE SEALANT.
 2. ALL DIMENSIONS IN INCHES.

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Figure 1. Installation - Engine Compressor Water Wash Kit, PN 369H92537 (sheet 1 of 3)

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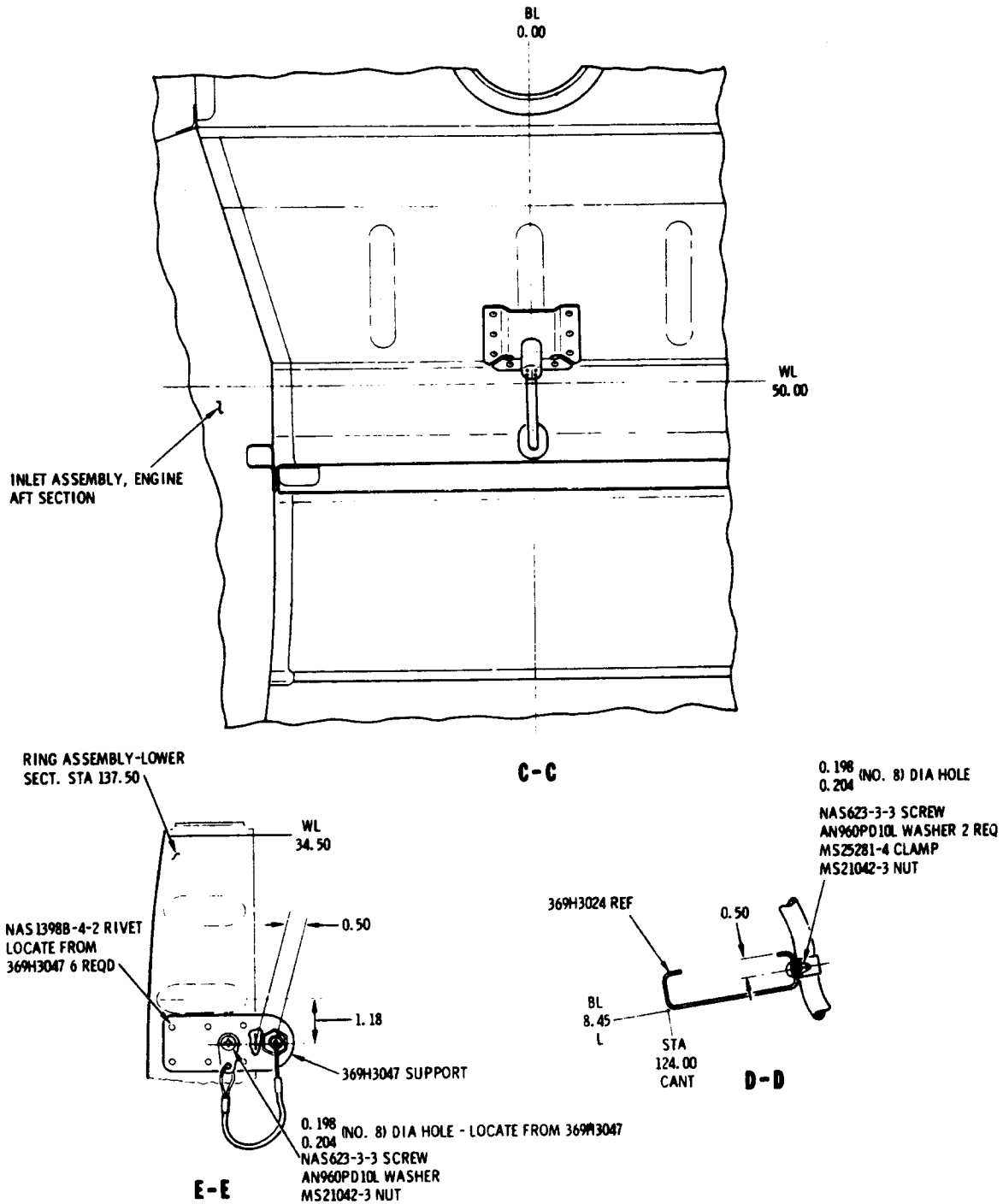
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**Figure 1. Installation- Engine Compressor Water Wash Kit, PN 369H92537
(sheet 2 of 3)**

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Figure 1. Installation- Engine Compressor Water Wash Kit, PN 369H92537 (sheet 3 of 3)