



NACELLE - EXHAUST - THRUST REVERSER OPENING ACTUATOR, COOLING HOSE - REPLACEMENT OF -
CATEGORY CODE 4 - MOD.NAC-78-0018

NOTE IAE Service Bulletin V2500-NAC-78-0017 must be incorporated before this Service Bulletin.

1. Planning Information

A. Effectivity

(1) Airplane: Airbus A320

(2) Nacelle: V2500-A1 Nacelles

- (a) The intent of this Service Bulletin was incorporates at the manufacturer on Thrust Reverser Serial Numbers 6 thru 8, 15 thru 32, 34 thru 41, 44, 45, 48, and 51 and on.

The following Thrust Reverser Serial Numbers were not changes at the manufacturer. They can be modified by incorporating this Service Bulletin using Kit V2578018-551.

T/R
Serial Number

9 thru 14, 33, 42
43, 46, 47, and 50

B. Reason

(4) Condition

Coking of hydraulic fluid in the hose which feeds the thrust reverser door opening actuator may occur.

(2) Background

Several reports of hydraulic fluid coking have been received.

(3) Objective

Provide improved cooling of the thrust reverser door opening actuator hydraulic supply hose.

(4) Substantiation

The replacement hose assembly has been shown to improve the cooling capacity of the thrust reverser opening actuator tube on flight test units.

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(5) Impact of Bulletin on Workshop Procedures:

Removal/Installation	Not Affected
Disassembly/Assembly	Not Affected
Cleaning	Not Affected
Inspection/Repair	Not Affected
Repair	Not Affected
Testing	Not Affected

(6) Supplemental Information

None.

C. Description

(1) The change introduced by this Bulletin is as follows:

Remove and replace the existing cooling hoses from the left and right thrust reverser opening actuator with improved airflow cooling hoses.

D. Approval

The part number changes and/or part modifications described in Paragraphs 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved for the equipment model(s) listed.

E. Compliance

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accomplish at the first visit of the Nacelle or Nacelle Component to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action for the Nacelle or Nacelle Component.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

VENUE	ESTIMATED MANHOURS
(1) In Service	
(a) To gain access	0.2 M/Hrs
(b) To embody	1.25 M/Hrs
(c) To return Nacelle to service	0.2 M/Hrs
Total	1.65 M/Hrs

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**SERVICE BULLETIN****G. Material Cost and Availability**

The parts to accomplish this Service Bulletin are available from the supplier as Kit V2578018-551 at no cost to the operator.

Operators with units listed in Paragraph 1.A should submit a no charge purchase order for the applicable quantity of Kits. The purchase order must specify this service bulletin number and only the parts listed herein. Delivery schedules will be furnished to operators upon receipt of their written request.

Direct purchase order to:

Rohr Inc.
660 Bay Blvd.
Chula Vista, CA 91912 USA
Attn: Customer Support Manager, Bldg. 850A
(Service Bulletin No. V2500-NAC-78-0018)

H. Tooling Cost and Availability

None required.

I. Weight and Balance

- (1) Weight change None
- (2) Moment arm No effect
- (3) Datum Engine Front Mount Centerline
..... (Powerplant Station PPS 100.00)

J. Electrical Load Data

Not affected.

K. References

- (1) Internal Reference No.

88VN173

- (2) Other References

IAE Service Bulletin V2500-NAC-78-0017

A320 Aircraft Maintenance Manual 71-00-00
78-32-00

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International Aero Engines

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L. Other Publications Affected

A320 Power Plant Illustrated Parts Catalog 78-36-49

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2. Accomplishment Instructions

A. Prerequisite Instructions

- (1) Open the thrust reverser halves as specified in the A320 Aircraft Maintenance Manual, Task 78-32-00-010-010.
- (2) Find 713658-101 or -501 hose assembly on the thrust reverser inner barrel (Refer to Figure 1.)

B. Rework or Modification Instructions

- (1) Remove existing screw and washer that attach 713658-101 or -501 hose assembly end cover to the thrust reverser inner barrel. Keep screw and washer.

WARNING: HYDRAULIC FLUID MAY CAUSE EYE, NOSE, AND SKIN IRRITATION. AVOID PROLONGED BREATHING OF MIST OR VAPOR AND PROLONGED OR REPEATED CONTACT WITH SKIN. IF THERE IS A POSSIBILITY OF SPLASH, WEAR CHEMICAL GOGGLES. PROTECTIVE GLOVES SHOULD BE WORN DURING USE TO PREVENT DRYING OF THE SKIN DUE TO CONTACT WITH HYDRAULIC FLUID. CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

CAUTION: PLACE A DRIP PAN UNDER HYDRAULIC CONNECTIONS TO CATCH HYDRAULIC FLUID WHEN CONNECTIONS ARE OPENED. REMOVE HYDRAULIC FLUID LEAKAGE RIGHT AWAY WITH A DRY CLOTH AND WASH AREA OF CONTAMINATION. HYDRAULIC FLUID USED IN THE SYSTEM WILL CAUSE DAMAGE TO AIRPLANE SURFACES.

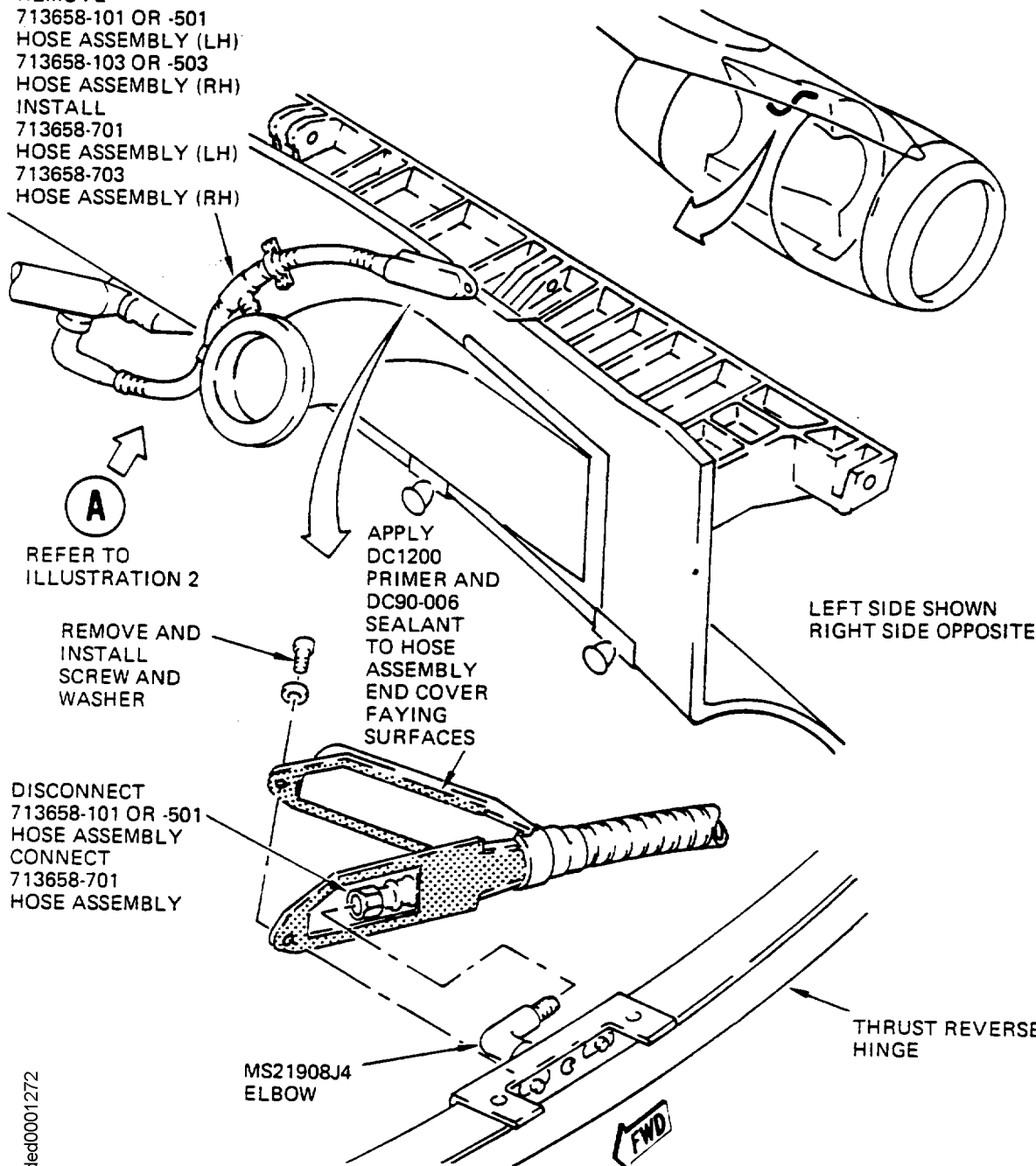
- (2) Pull back 713658-101 or -501 hose assembly end cover and disconnect coupling nut from MS21908J4 elbow.

REMOVE

713658-101 OR -501
HOSE ASSEMBLY (LH)
713658-103 OR -503
HOSE ASSEMBLY (RH)

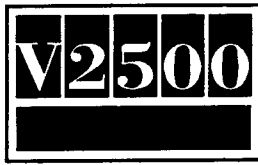
INSTALL

713658-701
HOSE ASSEMBLY (LH)
713658-703
HOSE ASSEMBLY (RH)



Replacement of Cooling Hose Assembly
Fig.1

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- (3) Remove MS35842-10 clamp that attaches hose assembly boss on precooler duct port. Keep clamp. (Refer to Figure 2.)
- (4) Remove NAS6303-1 bolt, AN960C10L washer, and MS21043-3 nut that attaches TA02800-6PH12WC clamp on hose assembly to support clip. Keep bolt, washer, nut, and clamp.
- (5) Remove MS35842-12 clamp that attaches hose assembly end cover onto 3282983-2 actuator. Keep clamp.
- (6) Remove NAS604-8 screws and AN960C416L washers that attach TA06111C216WC clamp on hose assembly to thrust reverser inner panel. Keep screws, washers, and clamp.
- (7) Pull open hose end cover halves and disconnect hose coupling nut from 3282983-2 actuator. Remove hose assembly and return to supplier. See Section 3, Material information, for address.

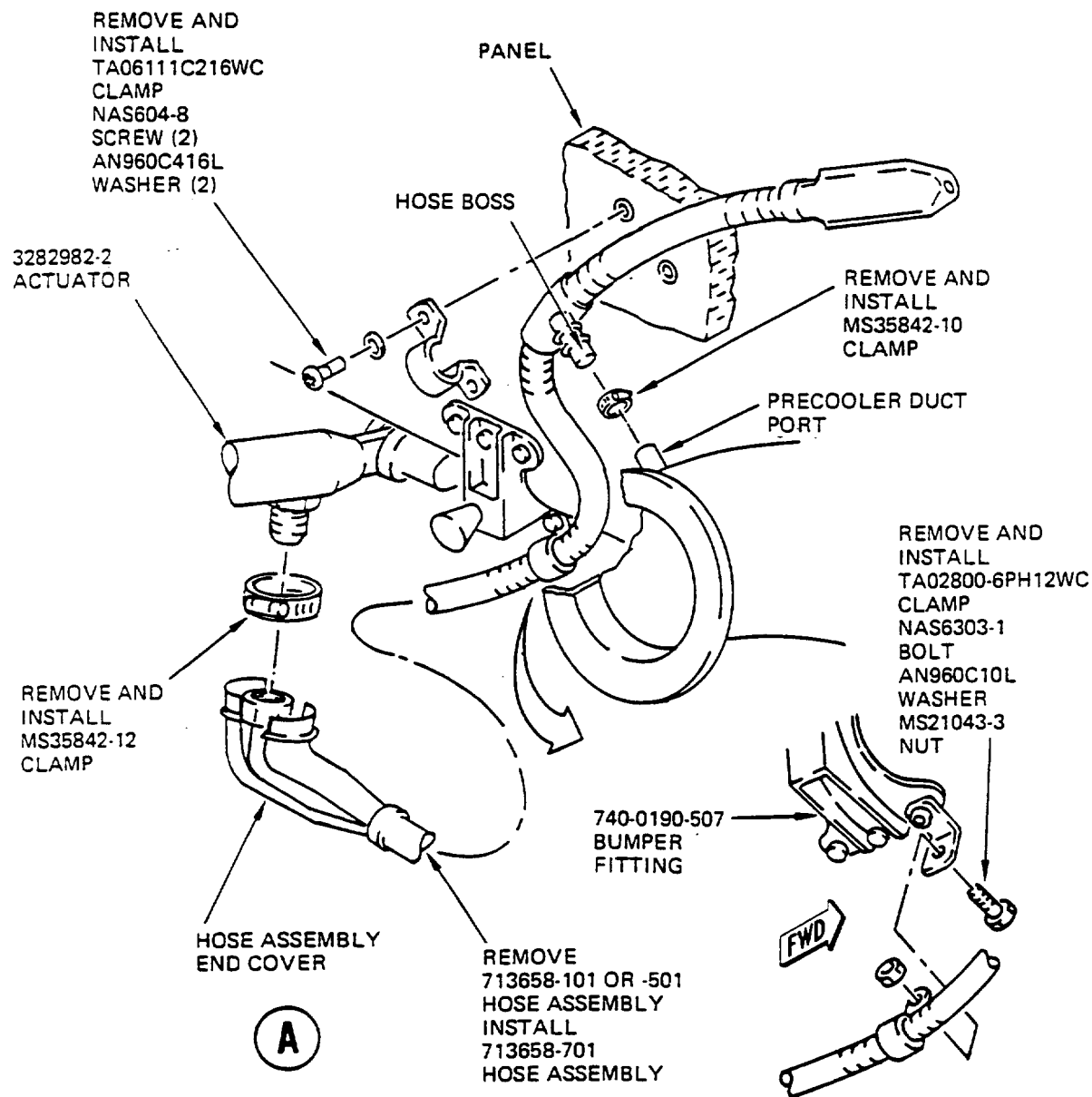
WARNING (SKYDROL ASSEMBLY LUBRICANT) MCS352b HYDRAULIC ASSEMBLY LUBRICANT MAY CAUSE IRRITATION TO EYES, SKIN, AND RESPIRATORY TRACT. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID BREATHING VAPOR OR MIST. IF THERE IS A POSSIBILITY OF SPLASH, WEAR CHEMICAL GOGGLES. PROTECTIVE GLOVES AND CLOTHING SHOULD BE WORN DURING USE TO PREVENT SKIN CONTACT. WASH CONTAMINATED SKIN PROMPTLY. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (8) Attach 713658-701 hose assembly to 3282982-2 actuator port using Skydrol MCS352B hydraulic assembly lubricant on coupling threads and sealing surfaces. Torque nut to 50-70 lb-in. (5.6-7.9 N.m).
- (9) Attach hose assembly boss onto precooler duct port with MS35842-10 clamp. Torque nut to 20-25 lb-in. (2.3-2.8 N.m).
- (10) Install hose assembly on thrust reverser inner panel using TA06111C216WC clamp, two NAS604-8 screws, and two AN960C416L washers. Torque screws to 50-70 lb-in. (5.7-7.9 N.m).

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Replacement of Cooling Hose Assembly Fig.2

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- (11) Install TA028000-6PH12WC clamp on hose assembly and attach to support clip with NAS6303-1 bolt, AN960C10L washer, and MS21043-3 nut. Torque nut to 20-25 lb-in. (2.3-2.8 N.m).
- (12) Install hose assembly onto MS21908J4 elbow using Skydrol MCS352 assembly lubricant on the coupling threads and sealing surfaces. Torque 713658-701 hose assembly coupling nut to 50-70 lb-in. (5.7-7.9 N.m).
- (13) Connect IAEIN20009 hand pump to actuator manifold. Open and close thrust reverser door until all air is removed from the system.
- (14) Do a leak test as specified in the V2500 Aircraft Maintenance Manual, Task 71-00-00-700-012.

WARNING: METHYL ISOBUTYL KETONE (MIBK) IS FLAMMABLE AND VAPOR IS HARMFUL USE IN A WELL-VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOR OR PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION OF EYES, NOSE, THROAT, AND SKIN. HIGH CONCENTRATIONS MAY CAUSE WEAKNESS, HEADACHE, NAUSEA, DIZZINESS, AND IMPAIRED JUDGEMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (15) Clean the hose assembly end cover faying surfaces using a cloth wet with MIBK. Wipe surfaces dry before solvent dries. (Refer to Figure 1.)

WARNING: DOW CORNING 1200 PRIMER IS FLAMMABLE AND VAPOR IS HARMFUL. USE IN A WELL-VENTILATED AREA. WORK PERFORMED IN CONFINED AREAS REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID BREATHING OF VAPOR OR OR PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION TO SKIN, EYES, NOSE, AND THROAT. HIGH CONCENTRATIONS MAY CAUSE IMPAIRED JUDGEMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (16) Attach hose assembly end cover halves over coupling nut (actuator side) with MS35842-12 clamp. Torque nut to 20-25 lb-in. (2.3-2.8 N.m).
- (17) Brush apply one coat of Dow Corning 1200 primer onto the end cover faying surfaces. Allow a minimum of 30 minutes drying time.

WARNING: USE DOW CORNING 90-006 SEALANT IN WELL-VENTILATED AREAS. WORK PERFORMED IN CONFINED AREAS REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION OF EYES AND SKIN. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

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(18) Mix Dow Corning 90-006 sealant with the supplier's instructions. Apply a thin even coat of sealant onto the end cover faying surfaces. Secure end cover with screw and washer. Torque screw to 50-70 lb-in. (5.6-7.9 N.m).

(19) Remove the right side 713658-103 or -503 hose assembly and install 713658-703 hose assembly with the instructions in paragraphs 2.B.(1) through 2.B.(18).

C. Post-requisite Instructions

(1) Close the thrust reverser halves as specified in the A320 Aircraft Maintenance Manual. Task 78-32-00-410-010.

D. Recording Instructions

(1) A record of accomplishment is necessary.



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3. Material Information

NEW PART NO. (ATA NO.)	QTY	EST'D UNIT PRICE (\$)	KEYWORD	OLD PART NO. (IPC NO.)	INSTR/ DISPOS
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Applicability: For each V2500 Nacelle to incorporate this Bulletin

A. Kits associated with this Bulletin:

V2578018-551	1		Kit		(A)
Consisting of:					
713658-701	1		Hose		
713658-703	1		Hose		

B. Parts affected by this Bulletin:

7136558-701	1		Hose	713658-101	(B)(C)(E)
(78-36-49)				-or-	(S2)(1D)
				713658-501	
				(01-200)	
713658-703	1		Hose	713658-103	(B)(C)(E)
(78-36-49)				-or-	(S2)(1D)
				713658-503	
				(02-200)	

C. Instruction/Disposition Code Statements:

(A) Kit is available.
(B) New part currently available.
(C) Old part no longer available for sale.
(E) New part supplied as detail of the Kit.
(S2) New part may be used in place of old part, but not vice versa.
(1D) Return old hose assembly to:

Rohr Inc.
630 Bay Blvd.
Chula Vista, CA 91912 USA
Attn: Rework Crib
Bldg. 851, Door No. 1
Ref. S/B V2500-NAC-78-0018

D. These materials are to be procured by the Operator or obtained from his stock.

Part Number	Keyword	Qty	Source	Code
Methyl Isobutyl Ketone (MIBK)	Solvent	AN	Commercially Available	--

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DC90-006 DC1200	Sealant Primer	AN	Dow Corning Corp. 3901 S. Saginaw Road Midland, MI 48640 USA	71984
Skydrol Assy Lubricant MC352	Lubricant	AN	Aviation Fluids Dept. Monsanto Chemical Co. 8001 N. Lindbergh Blvd St. Louis, MO 63166	76541

E. Special Support Equipment/Tools Reuired.

Tool No.	Qty	Description
IAE1N20009	1	Pump

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