INTERNATIONAL AERO ENGINES AG

SERVICE BULLETIN

NACELLE - POWER PLANT - EEC COOLING - REMOVAL OF

MODEL APPLICATION

V2500-A1

BULLETIN INDEX LOCATOR

71-13-16
75-28-00

Compliance Category Code

3

Internal Reference No.

SR/SM 89VN130

December 4, 1989
Revision No. 1 - March 6, 1990

NOTE

This Service Bulletin must be incorporated concurrently with IAE Service Bulletin V2500-ENG-71-0070.

1. Planning Information

A. Effectivity

(1) Airplane: Airbus A320

(2) Nacelle: V2500-A1 Nacelles

(a) Engine Buildup Units

The intent of this Service Bulletin was incorporated at the manufacturer on Engine Buildup Units Cum Unit No. 120 and on.

The following EBU Cum Units were not changed at the manufacturer. They can be modified by incorporating this Service Bulletin using Kit V2571069-551.

EBU Cum Unit Number	Qty of Kits V2571069-551
1-119, with exception of 29, 38, 39, 40, 47, 62, 68, 83, 100, 109, 110, and 115	107

(b) Fan Cowl Units

The intent of this Service Bulletin was incorporated at the manufacturer on Fan Cowl Unit Cum Unit No. 239 and on.

The following Fan Cowl Units were not changed at the manufacturer. They can be modified by incorporating this Service Bulletin using Kit V2571069-553.

Fan Cowl Cum Unit Number	Qty of Kits V2571069-553
5-238, with exception of 73, 74, 91, 92, 93, 94, 127, 128, 181, 182, 191 and 192	104

(c) Quick Engine Change (QEC) Kits

This Service Bulletin is also applicable to the following QEC Kits and requires the use of Kit V2571069-551.

QEC Cum Unit Number	Qty of Kits V2571069-551
29, 38 thru 40, 47 62, 68, 83, 100, 109, 110, and 115	12

(d) Spares

This Service Bulletin is also applicable to the following Spare Fan Cowl Doors and requires the use of Kit V2571069-553.

Spare Cum Unit Number	Qty of Kits V2571069-553
73, 74, 91 thru 94, 127, 128, 181, 182, 191, and 192	12

B. Reason

(1) Condition

Possible freezing of Pb sensing system under certain conditions.

(2) Background

This condition has been experienced in service.

(3) Objective

To eliminate a possible adverse effect of the EEC cooling system.

(4) Substantiation

Evaluation and subsequent engine testing without the EEC cooling system concluded the system was unnecessary.

(5) Impact of Bulletin on:

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

(6) Supplemental Information

The Post Service Bulletin configuration requires instructions for the deletion of the EEC cooling.

C. Description

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

The EEC cooling inlet assembly and outlet assembly with associated pipes, clips, bolts, nuts, washers, and support bracket are removed from the engine fancase/fan cowl door. Blanks are bolted to the inlet and outlet holes on the fan cowl door and a blank is installed to the anti-icing duct. (Refer to Figure 2.)

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

Category 3

Accomplish within 350 hours from receipt of Service Bulletin.

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	0.8 M/HRS.
	(c) To return nacelle to service	0.2 M/HRS.
	TOTAL	1.2 M/HRS.

G. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the supplier as Kits V2571069-551 and V2571069-553 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 International Sales Corporation
P.O. Box 878
Chula Vista, CA 92012-0878 USA
Attn: Manager, Spares Operations - Warranty
(Service Bulletin No. V2500-NAC-71-0069)

H. Tooling Cost and Availability

None required.

I. Weight and Balance

(1) Weight Change ..... -5.00 pounds (2.27 kg.)

(2) Moment Arm ..... 36.77 inches (933.95 mm) Forward

(3) Datum ..... Engine Front Mount Centerline
..... (Powerplant Station
..... PPS 100.00

J. Electrical Load Data

Not affected.

K. References

V2500 Aircraft Maintenance Manual

L. Other Publications Affected

V2500 Power Plant Illustrated Parts Catalog	75-28-48
V2500 Aircraft Maintenance Manual	75-28-48 75-28-49 71-00-00 71-13-00
V2500 Power Plant Buildup Manual	

2. Accomplishment Instructions

A. Prerequisite Instructions

(1) Open the right fan cowl door as specified in the V2500 Aircraft Maintenance Manual, Task 71-13-00-410-010.

B. Rework or Modification Instructions

(1) Remove the EEC cooling ejector duct with instructions in V2500 Aircraft Maintenance Manual, Task 75-25-49-000-010. Discard all parts removed by this task.

(2) Remove the EEC cooling flexible hoses with instructions in V2500 Aircraft Maintenance Manual, Task 75-28-48-000-010. Discard all parts removed by this task.

(3) Remove the EEC cooling inlet duct with instructions in the V2500 Aircraft Maintenance Manual, Task 75-28-49-000-011. Discard all parts removed by this task except 17 (Bolt), 18 (Washer), and 19 (Nut). Install these items back to the engine flange. Torque to 100 lb-in. (11.3 N.m).

(4) Remove the MS21902-55 union from the anti-icing duct and install a 740-5141-501 blank with a 12100AA5 seal in its place. Torque to 135-145 lb-in. (15.25-16.38 N.m).

NOTE: Install an MS21914-5 blanking cap to the MS21902-55 union as an alternate to the above. Refer to Section 3, Paragraph C. (E).

(5) Remove 22 rivets to release the 740-4066 inlet duct assembly from the 740-4002 R.H. fan cowl door. Remove four rivets to release the inlet duct assembly from the support ducts. (Refer to Figure 3.) Discard the inlet duct assembly.

(6) Hold the 740-4120-501 blank to the inner face of the 740-4002 R.H. fan cowl door at the EEC outlet (the center front of the blank to fill the outlet hole). Drill four holes 0.165 inches (4.20 mm) diameter into the fan cowl door from the blank. Remove any burrs from the holes.

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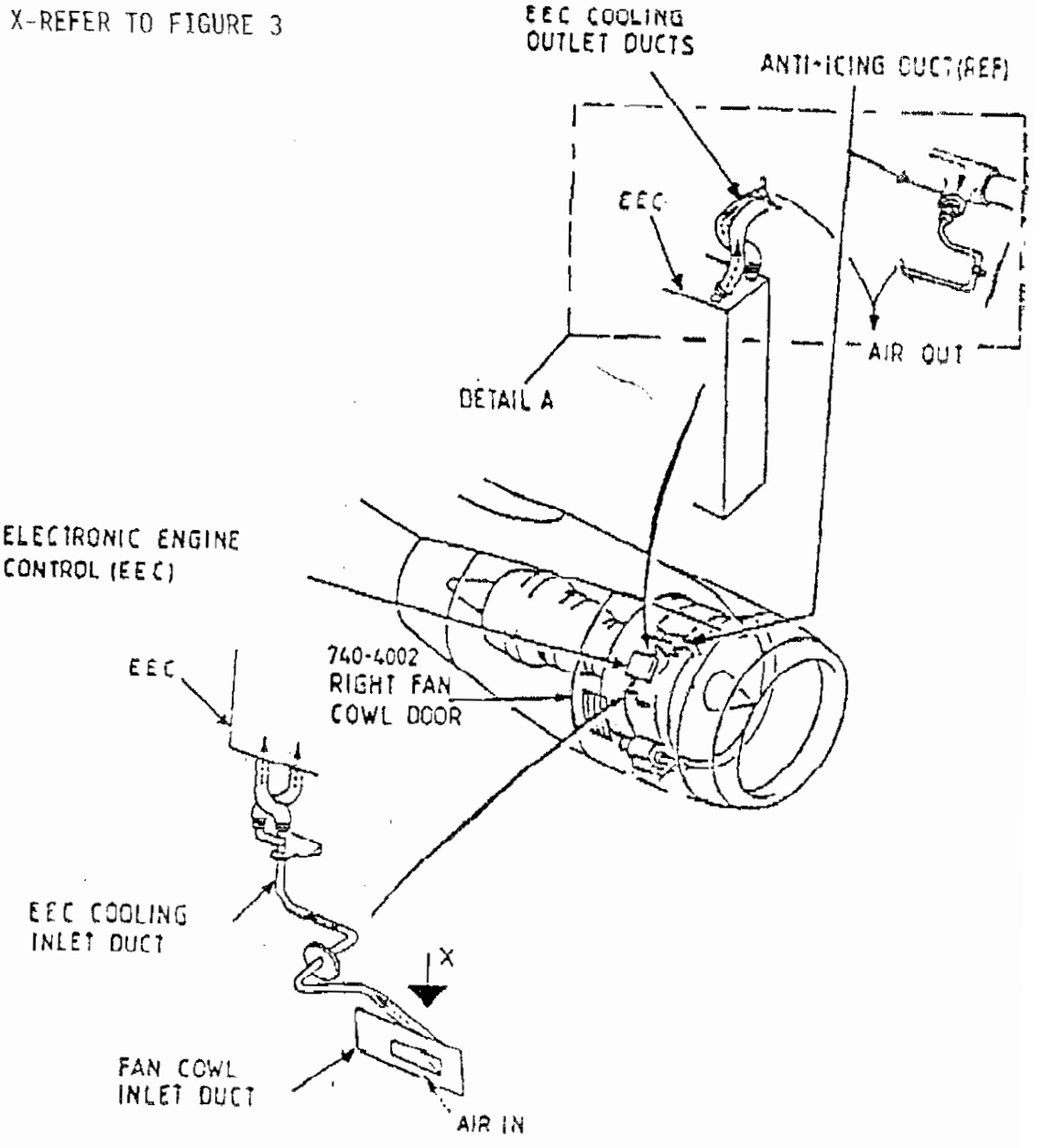
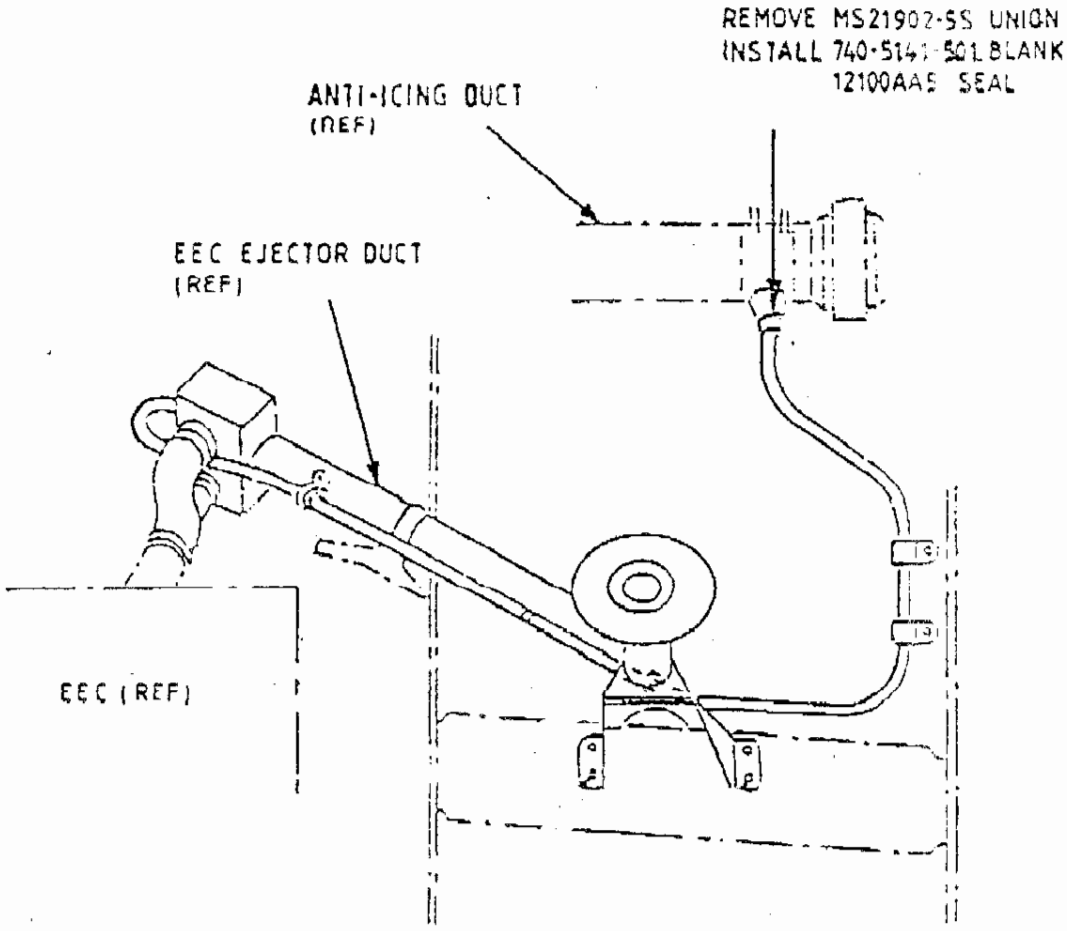
DETAIL A-REFER TO FIGURE 2
ARROW X-REFER TO FIGURE 3



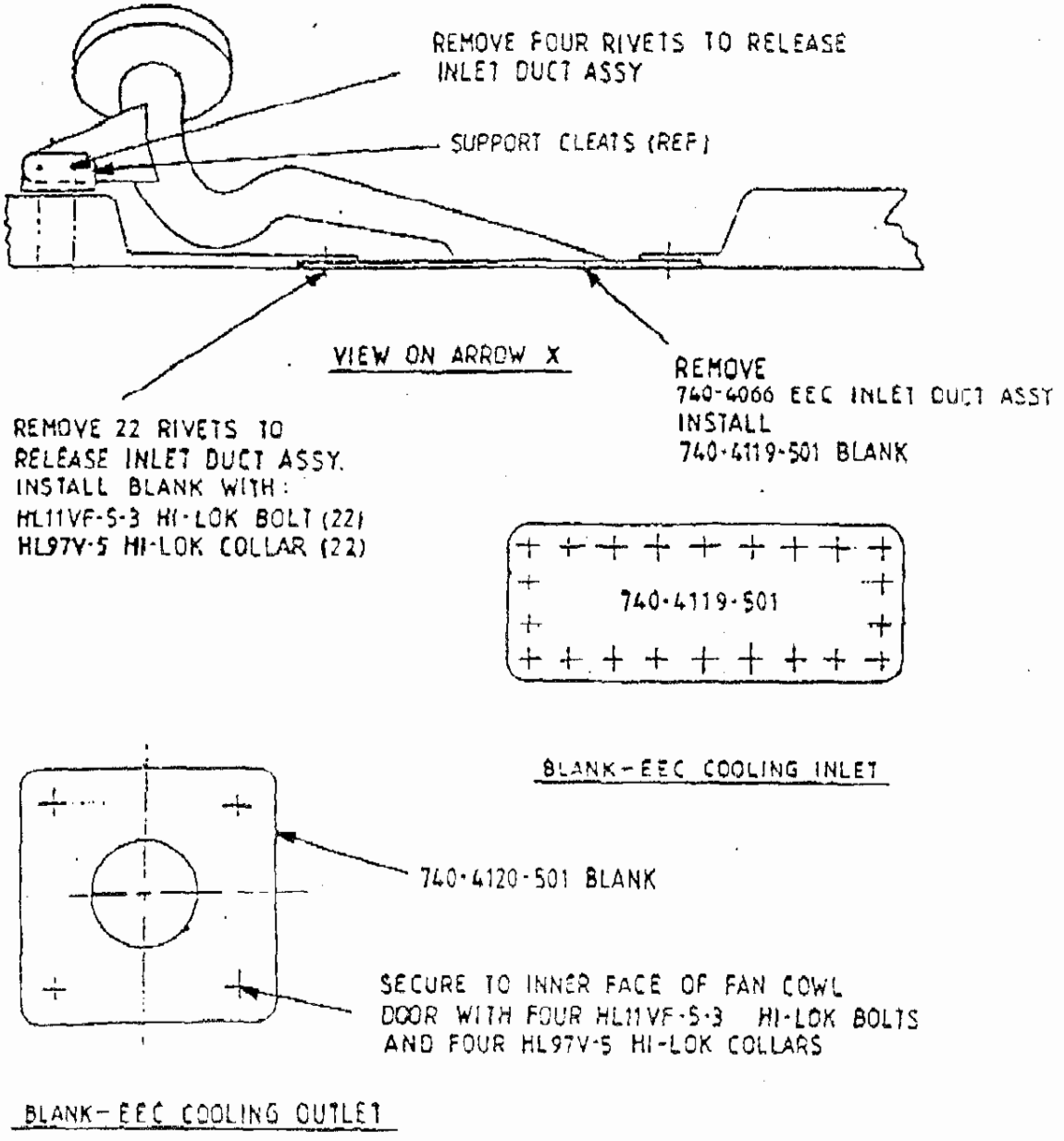
EEC Cooling
Figure 1

NOTE: REFER TO THE V2500 AIRCRAFT MAINTENANCE MANUAL SECTION 75-28-49 FOR REMOVAL OF THE EEC EJECTOR DUCT.



DETAIL A

Removal of EEC Outlet Assembly
Figure 2



Installation of Blanks-Fan Cowl Door
Figure 3

(7) Countersink the external face of the fan cowl door 100° to a depth of between 0.045 to 0.047 inches (1.14 to 1.19 mm).

WARNING: 1,1,1 TRICHLOROETHANE VAPORS ARE HARMFUL. USE IN A WELL-VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOR AND PROLONGED OR REPEATED CONTACT WITH SKIN. OVER-EXPOSURE MAY CAUSE HEADACHE, DIZZINESS OR DROWSINESS. VAPOR IS HEAVIER THAN AIR AND MAY REPLACE OXYGEN IN A CONFINED AREA. SMOKING AND ARC WELDING SHOULD BE AVOIDED WHEN USING THIS SOLVENT; VAPORS OF DECOMPOSITION MAY CAUSE SERIOUS BODILY HARM. 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.

(8) Clean the mating faces of the 740-4119-501 and 740-4120-501 blanks with 1,1,1, trichloroethane.

(9) Apply PL32 Hylomar to the face of the 740-4120-501 blank and install to the 740-4002 fan cowl door with four HL11VF-5-3 Hi-Lok bolts and four HL97V-5 Hi-Lok collars. Remove any excess Hylomar.

WARNING: USE DOW CORNING 93-006 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.

(10) Seal any gaps on the outer face with 93-006 filler.

(11) Apply PL32 Hylomar to the face of the 740-4119-501 blank and install to the 740-4002 fan cowl door with 22 HL11VF-5-3 Hi-Lok bolts and 22 HL97V-5 Hi-Lok collars. Remove any excess Hylomar with a clean rag.

R (12) Paint the outer surface of the fan cowl door as follows:

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.

(a) Clean surface with cloth dampened in MIBK. Wipe dry before solvent dries.

(b) Mask area to be painted.

WARNING: 463-7-26 BASE, X-369 CONVERTER, AND TL-102 THINNER ARE FLAMMABLE AND VAPOR IS HARMFUL. INHALATION OF SPRAY MIST MAY CAUSE SERIOUS BODILY HARM. AVOID SOURCES OF IGNITION. USE ONLY IN AREAS WITH ADEQUATE VENTILATION. WORK PERFORMED IN CONFINED AREAS REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID BREATHING OF VAPOR AND CONTACT WITH SKIN AND EYES. MAY CAUSE IRRITATION TO SKIN AND EYES. SEVERE OVEREXPOSURE MAY CAUSE FATIGUE, WEAKNESS, CONFUSION, HEADACHE, DIZZINESS, DROWSINESS, AND IMPAIRED JUDGEMENT. USE REGULATORY AGENCY APPROVED RESPIRATORY PROTECTION FOR SPRAY APPLICATION. THIS PRODUCT CONTAINS LEAD, A CUMULATIVE POISON. WASH HANDS WELL BEFORE EATING, DRINKING, OR SMOKING. PROTECTIVE GLOVES SHOULD BE WORN DURING MIXING AND APPLICATION. PROLONGED OR REPEATED CONTACT WITH THIS EPOXY PRIMER MAY RESULT IN A PERMANENT SKIN ALLERGY TO 463-6-27 BASE AND X337 CONVERTER. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

(c) Primer sanded surface with 463-7-26 base, X-369 converter, and TL-102 thinner. Mix and apply with supplier's R instructions. Let primer cure for 45 minutes.

R (d) Paint the outer surface of the fan cowl door with aircraft
R polyurethane paint.

R (e) Let paint cure 4-8 hours and remove masking material

(13) Do a leak test of the anti-ice system with instructions in V2500 Aircraft Maintenance Manual, Task 71-00-00-790-010.

C. Post-requisite Instructions

(1) Close the right fan cowl door as specified in the V2500 Aircraft Maintenance Manual, Task 71-13-00-410-010.

D. Recording Instructions

(1) A record of accomplishment is necessary.

3. Material Information

NEW PN (ATA NO.)	QTY	EST'D UNIT PRICE ($)	KEYWORD	OLD PN (IPC NO.)	INSTR/ DISPOS

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits Associated with this Service Bulletin:

V2571069-551 consisting of:	1	Kit		(A)
12100AA5	1	Seal		
V2571069-553 consisting of:	1	Kit		(A)
HL11VF-5-3	26	Hi-Lok Pin		
HL97V-5	26	Hi-Lok Collar		
740-4119-501	1	Blank		
740-4120-501	1	Blank		
740-5141-501	1	Blank		

B. Parts Affected by this Service Bulletin:

-- (75-28-49)	1	EEC Outlet Duct	740-5221-505 (02-500)	(1D)
-- (75-28-49)	1	Flexible Hose Assy.	556-1-15410-000 (01-140)	(1D)
-- (75-28-49)	1	Tube Assy.	740-5222-501 (01-100)	(1D)
-- (75-28-49)	1	Seal	740-4073-501 (02-540)	(1D)
-- (75-28-49)	2	Flexible Hose Assy.	BA6409 (01-100)	(1D)
-- (75-28-49)	1	EEC Inlet Assy.	740-5212-507 (02-100)	(1D)

B. Parts Affected by this Service Bulletin: (Continued)

NEW PN (ATA NO.)	QTY	EST'D UNIT PRICE ($)	KEYWORD	OLD PN (IPC NO.)	INSTR/ DISPOS
-- (75-28-48)	2		Flexible Hose Assy.	BA6410 (01-500)	(1D)
-- (75-28-48)	8		Clamp	BAS-242-MH-0 (01-125) (01-525)	(1D)
-- (75-28-49)	1		Union	MS21902-5S (01-102)	(E)
-- (75-28-49)	1		'P' Clip	400WSS19 (02-530)	(1D)
-- (75-28-49)	2		Bolt	AS21508 (02-535)	(1D)
-- (75-28-49)	1		Nut	AS20624 (01-129)	(1D)
-- (75-28-49)	2		Nut	AS20625 (02-135)	(1D)
-- (75-28-49)	4		Washer	SP154-D (01-127)	(1D)
-- (75-28-49)	2		Washer	SP155-E (02-130)	(1D)
740-4119-501 (71-13-16)	1		Blank	-- (01-800)	(B)
740-4120-501 (71-13-16)	1		Blank	-- (01-810)	(B)
740-5141-501 (75-28-49)	1		Blank	-- (01-103)	(B)(E)
12100AA5 (75-28-49)	1		Seal	-- (01-104)	(B)
HL11VF-5-3 (71-13-16) --	26		Hi-Lok Pin	-- (01-801) (01-811)	(B)
HL97V-5 (71-13-16) --	26		Hi-Lok Collar	HL97V-5 (01-802) (01-812)	(B)

B. Parts Affected by this Service Bulletin: (Continued)

NEW PN (ATA NO.)	QTY	EST'D UNIT PRICE ($)	KEYWORD	OLD PN (IPC NO.)	INSTR/ DISPOS
--- (75-28-49)	1		Bolt	AS21412 (01-125)	(1D)
--- (75-28-49)	4		Clip	TA02109PH05FT (01-132)	(1D)
---				(01-136)	
---				(01-142)	
---				(01-150)	
--- (75-28-49)	2		Bolt	AS21413 (01-133)	(1D)
---				(02-525)	
--- (75-28-49)	2		Bolt	AS21514 (02-125)	(1D)

C. Instruction/Disposition Code Statements:

(A) Kits will be available November 1989.

(B) New part supplied as detail of the Kits.

(E) AS27905 and MS21913-5S are alternatives to the 740-5141-501 union blank. If using MS21914-5 blanking cap as an alternate, retain MS21902-5S union. Refer to Paragraph 2.A.(4).

(1D) Discard the old part.

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

	Part Number	Keyword	Qty	Source	Vendor Code
	1,1,1 Trichloroethane	Solvent	AN	Commercially Available	----
	PL32	Hylomar	AN	Commercially Available	----
R R R R R	Polyurethane Paint 643-3-9 X-310A TL-59	 Primer Converter Thinner	 AN AN AN	Akzo Coatings America Inc. Sikkens Aerospace Finishes Division 20846 S. Normandie Ave. Torrance, CA 90502-1601	98502
	93-006	Sealant	AN	Dow Corning Corp. 3901 S. Saginaw Rd. P.O. Box 997 Midland, MI 48640 USA	71984
R R	Methyl Isobutyl Ketone (MIBK)	Solvent	AN	Commercially Available	----
R R R	463-7-26 X-369 TL-102	Primer Converter Thinner	AN AN AN	Akzo Coatings America Inc. Sikkens Aerospace Finishes Division 20846 S. Normandie Ave. Torrance, CA 90502-1601	98502