CF-105 SERVICE DATA Engine Intake and Ramp De-icing CONFIDENTIAL ROSS

Classification cancelled / Changed to CVCCASS

AVRS By authority of ...

ENGINE INTAKE AND RAMP DE ICING SYSTEM

275.pt96

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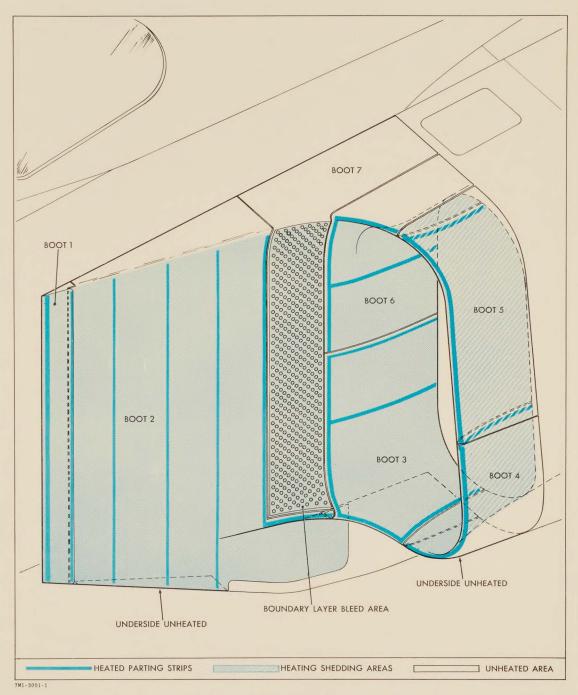


FIG. 1 ENGINE INTAKE AND RAMP DE-ICING - INSTALLATION

SYSTEM DATA SHEET

SYSTEM	SUB-SYSTEM	AIRCRAFT EFF'TY	REF. NO.
DE-ICING	ENGINE INTAKE AND RAMP DE-ICING	25201	20-2

DESCRIPTION

General

- 1. The engine air intake ducts and ramps are de-iced by an electro-thermal de-icing boot system. The area protected extends from the ramp leading edge to a point approximately 12 inches inside the air intake duct.
- 2. Seven neoprene rubber boots with moulded in elements for shedding areas and parting strips are fitted, three covering the ramp and four covering the intake duct. The boots are attached to the aircraft skin by an adhesive and can be replaced individually. The ramp leading edge and the boundary layer bleed area are covered by thin stainless steel sheet for protection, and to assist distribution of heat in the boundary layer bleed area.
- 3. Thermo-switches are fitted behind the boots in each shedding area and at critical points in the parting strips to prevent overheating of the elements. The wiring for the heating and parting strip elements and for the thermo-switches is led through the aircraft skin from a short grommet moulded to each boot.
- 4. Each engine supplies the electrical power to de-ice its own intake so that in case of an engine failure, the intake of the operating engine is maintained free of ice.
- 5. The electrical operation of the system is described under Electrical System Engine Intake De-icing.

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SYSTEM	SYSTEM SUB-SYSTEM COMPONENT					
DE-ICING	ENGINE INTAKE AND F DE-ICING				20-2-1	
AVRO PART NO.	MANUFACTURER	MAN'F	'R'S PART NO.	AIRCRAFT E	FFECTIVITY	
7-2055-91 LH 7-2055-92 RH	7-2055-91 LH 7-2055-92 RH B.F. Goodrich Co. G-11901-11 LH G-11901-12 RH					
OVERHAUL LIFE: KNOV	VN-	ES	TIMATED- 500 E	ours		
FUNCTION	Fitted to air int	cake ramp	to remove ice.			
LOCATION	Engine air intake left and right.	ramp le	ading edge -	4 1		
ACCESS				ME	N X MINUTES	
	Accessible on lear ramp - left and r	eding edg	e of air intake			
REPLACEMENT PROCEDUR	E			ME	N X MINUTES	
(M1-3433-2-5						

INSPECTI	ION							MEN :	K MINUTES
			Check damage	boots for and lift	signs of ing.	overheati	ng,		
FUNCTIO	NAL CHECK	(S						MEN 3	MINUTES
GROUND	HANDLING	AND GRO	UND TEST	EQUIPMEN	IT				
			Elect: B5 ac	volt D.C. rical grou cess stand it access		oply. upply.			
SPECIAL	TOOLS TO	REMOVE C	R SERVICE						
REMARKS	5							***************************************	
ISSUE	1								

SYSTEM	SUB-SYSTEM		COMPON	IENT	REF. NO
DE-ICING	ENGINE INTAKE AND DE-ICING	RAMP	Boot No	. 2	20-2-
AVRO PART NO.	MANUFACTURER	MANUFACTURER MAN'F'R'S PART NO. AIRCRA			FFECTIVIT
7-2055-93 LH 7-2055-94 RH	B.F. Goodrich Co.		902-13 LH 902-14 RH	25	201
OVERHAUL LIFE: KN	OWN-	ES	TIMATED- 500	hours	
FUNCTION	Fitted to air int	ake ramp	to remove ice.		
LOCATION	Engine air intake	ramp -	left and right.		
ACCESS				мі	EN X MINUTE
	Accessible on air	· intake	ramp - left and	right.	
REPLACEMENT PROCEDU	JRE			ME	EN X MINUTE
Ÿ	·				

INSPECT	ION							MEN	X MINUTES
			Check damag	boots for e and lift	signs of ing.	overheati	ng,		
			-						
FUNCTIO	NAL CHECK	(S						MEN	X MINUTES
GROUND	HANDLING	AND GRO	OUND TEST	EQUIPMEN	IT				
			Elect: B5 ac	volt D.C. rical grou cess stand it access	nd power u	oply. unit.			
SPECIAL	TOOLS TO	REMOVE C	R SERVICE	Ξ.					
REMARK	5								
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SYSTEM	SUB-SYSTEM		СОМРО	NENT	REF. NO
DE-ICI NG	ENGINE INTAKE ANI DE-ICING	RAMP	Boot No	. 3	20-2-3
AVRO PART NO.	MANUFACTURER	MAN'F	'R'S PART NO.	AIRCRAFT E	FFECTIVIT
7-2055-95 LH 7-2055-96 RH	B.F. Goodrich Co.		3-17 LH 3-18 RH	252	:01
OVERHAUL LIFE: KNO	OWN-	ES	TIMATED- 500	hours	
FUNCTION					
	Fitted to air int	take to r	emove ice.		
			7741-04		
LOCATION					
	Engine air intake section right and	e - lower	inboard		
	-3"	-		· · · · · · · · · · · · · · · · · · ·	
ACCESS				МЕ	EN X MINUTE
	Accessible on the	e lower i	nboard section		
	of air intake.				
REPLACEMENT PROCEDU	IRE			МЕ	EN X MINUTE
					,
					·

INSPECTION	MEN X MINUTES
Check boots for signs of overheating, damage, and lifting.	
FUNCTIONAL CHECKS	MEN X MINUTES
GROUND HANDLING AND GROUND TEST EQUIPMENT	
35-40 volt D.C. power supply. Electrical ground power unit. B5 access stand. Cockpit access stand.	
SPECIAL TOOLS TO REMOVE OR SERVICE	
*	
REMARKS	
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SYSTEM	SUB-SYSTEM		COMPO	NENT	R	EF. NO.
DE-IC ING	ENGINE INTAKE AND DE-ICING	RAMP	Boot No.	4.	2	0-2-4
AVRO PART NO.	MANUFACTURER	MAN'F	R'S PART NO.	AIRCRAFT	EFFE	CTIVITY
7-2055-97 IH 7-2055-98 RH	B.F. Goodrich Co.	G-1190 G-1190	04-21 LH 04-22 RH	252	201	
OVERHAUL LIFE: KN	IOWN-	ES.	TIMATED- 500 ho	urs		
FUNCTION						
	Fitted to air intake	to remov	ve ice.			
LOCATION				* :		
LOCATION						
	Engine air intake - section left and rig	lower out	tboard			
ACCESS					MEN X	MINUTES
	Accessible on lower	outboard	edge of			
	Accessible on lower air intake - left an	outboard d right.	edge of			
	Accessible on lower air intake - left an	outboard d right.	edge of			
	Accessible on lower air intake - left an	outboard d right.	edge of			
REPLACEMENT PROCED	air intake - left an	outboard d right.	edge of	1	MEN X	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	,	MEN X	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MEN X	MINUTE
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	,	MEN X	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MEN X	MINUTE:
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	,	MEN X	MINUTE:
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MEN X	MINUTE:
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MEN X	MINUTE:
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	,	MENX	MINUTE
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MENX	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	7	MEN X	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MENX	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of		MEN X	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard d right.	edge of	,	MENX	MINUTES
REPLACEMENT PROCEDI	air intake - left an	outboard dright.	edge of		MEN X	MINUTES

INSPECT	ON					MEN	X MINUTES
		Check boots for damage and lift	signs of ing.	overheatin	g,		
FUNCTIO	NAL CHECKS					MEN	X MINUTES
GROUND	HANDLING AND GROUNE						
		35-40 volt D.C. Electrical grou B5 access stand Cockpit access	nd power u				
SPECIAL	TOOLS TO REMOVE OR SI	ERVICE					
REMARK	5						
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SYSTEM	SUB-SYSTEM		СОМРО	NENT	REF	. NO
DE-ICING	ENGINE INTAKE AND DE-ICING	RAMP	Boot N	o. 5	20-2	2-5
AVRO PART NO.	MANUFACTURER	MAN'F'R'	S PART NO.	AIRCRAF	T EFFECT	TIVIT
7-2055-101 LH 7-2055-102 RH	B.F. Goodrich Go.		5-23 LH 5-24 RH	2	:5201	
OVERHAUL LIFE: KNOW	VN-	ESTIM	1ATED- 500 1	nours		
FUNCTION	Fitted to air int	ake to rem	ove ice.			
LOCATION	Engine air intake section left and		utboard			
ACCESS					MEN X MII	NUTE
	Accessible on upp air intake - left	eer outboard and right	d edge of			
REPLACEMENT PROCEDUR	E				MEN X MIN	NUTE
				1		

INSPECTION	MEN X MINUTES
Check boots for signs of over damage and lifting.	heating,
FUNCTIONAL CHECKS	MEN X MINUTES
GROUND HANDLING AND GROUND TEST EQUIPMENT 35-40 volt D.C. power supply. Electrical ground power supply B5 access stand. Cockpit access stand.	y.
SPECIAL TOOLS TO REMOVE OR SERVICE	
REMARKS	
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SYSTEM	SUB-SYSTEM		COMPON	NENT	REF. NO.
DE-ICING	ENGINE INTAKE AND I	RAMP	Boot No	. 6	20-2-6
AVRO PART NO.	MANUFACTURER	MAN'F	'R'S PART NO.	AIRCRAFT I	EFFECTIVITY
7-2055-103 LH 7-2055-104 RH	B.F. Goodrich Co.		906-25 LH 906-26 RH	2520)1
OVERHAUL LIFE: KNOW	N-	ES	TIMATED- 500	hours	
FUNCTION		***********			
	Fitted to air in	take to r	emove ice.		
LOCATION		- N			
	Engine air intake left and right.	e - upr	per section		
ACCESS				М	EN X MINUTES
	Accessible on upleft and right.	per edge	of air intake -		
					}
REPLACEMENT PROCEDURE				МЕ	EN X MINUTES
					-

INSPECT	ION							MEI	N X MINUTES
			Check damage	boots for and lift	signs of	overheatin	ng,		
FUNCTIO	NAL CHEC	<s< td=""><td></td><td></td><td></td><td></td><td></td><td>MEI</td><td>N X MINUTES</td></s<>						MEI	N X MINUTES
GROUND	HANDLING	G AND GRO	OUND TEST	EQUIPMEN	IT.				
			Electi B5 acc	volt D.C. rical ground cess stand it access		ply. mit.			
SPECIAL	TOOLS TO	REMOVE O	R SERVICE						
REMARKS	3								
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SYSTEM					I
	SUB-SYSTEM		COMPON	NENT	REF. NO
DE-ICING	ENGINE INTAKE AND R	AMP	Boot No.	. 7	20-2-7
AVRO PART NO.	MANUFACTURER	MAN'F	R'S PART NO.	AIRCRAFT E	FFECTIVIT
7-2055-117 LH 7-2055-118 RH	B.F. Goodrich Co.			25201	- 25205
OVERHAUL LIFE: KN	IOWN-	ES.	TIMATED- 500 ho	ours	
FUNCTION	Fitted to air int	ake ramp	to remove ice.		
LOCATION	Between ramp and	engine ir	ntake -		
	left and right.	···-			
ACCESS			,	ME	N X MINUTE
	Accessible on rampleft and right.	p and eng	gine intake -		
REPLACEMENT PROCED	URE			ME	N X MINUTE
REPLACEMENT PROCED	URE			ME	N X MINUTE
REPLACEMENT PROCED	URE			ME	N X MINUTE
REPLACEMENT PROCED	URE			ME	N X MINUTE
REPLACEMENT PROCED	URE			ME	N X MINUTE

INSPECT	ION							MEN	X MINUTES
			Check damag	boots for e and lift	signs of	overheati	ng,		
FUNCTIO	NAL CHECKS	5						MEN	X MINUTES
GROUND	HANDLING	AND GRO							
			Cockp Elect	it access	ind power i		ly.		
SPECIAL	TOOLS TO R	REMOVE O	R SERVICE						
REMARK	5								
ISSUE	1								
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