AIRBUS INDUSTRIE CUSTOMER SERVICES DIRECTORATE 1 Rond Point Maurice Bellonte 31707 BLAGNAC CEDEX FRANCE

SERVICE BULLETIN

Tel : (33) 5 61 93 33 33

Telex : AIRBU 530526F

REVISION TRANSMITTAL SHEET

FAX : (33) 5 61 30 01 25

T I T L E : AIR CONDITIONING - AIR COOLING SYSTEM - INSPECT RAM AIR OUTLET

MODIFICATION No.: INSPECTION

ATA SYSTEM: 21

Herewith Revision No. 2 of Service Bulletin A320-21-1057.

No additional work is required by this Revision.

### **REASON**

This Revision is issued to delete the repair instructions of this Service Bulletin and to add the reference to Service Bulletin A320-21-1098.

#### Service Bulletin Summary

Page 1 of 3 Page 2 of 3 Page 3 of 3	Para. REASON and Para. EFFECTIVITY Para. MANPOWER Para. MATERIAL INFORMATION	<ul><li>Updated and reference to SB A320-21-1098 added</li><li>Data for repair deleted</li><li>Changed to None</li></ul>
Service Bulletin		
Pages 1 of 15 thru 3	Para. 1.A.(2)	<ul> <li>Kit deleted and Para. EFFECTIVITY updated</li> </ul>
Page 4	Para. 1.A.(2)	- Text amended and informa- tion added
D	Para. 1.B.(2)	- Text amended
Page 5	Para. 1.C.(6) Para. 1.E.	<ul><li>Text amended</li><li>Timescale amended</li></ul>
	Para. 1.F.	<ul> <li>Changed to None</li> </ul>
Page 6	Para. 1.G. thru I.	<ul> <li>Reference added</li> </ul>
Page 7	Para. 2.A.(1)(a)	<ul><li>Text shifted</li></ul>
•	Para. 2.A.(2)(a)	- Text amended
Page 8	Para. 2.B.	<ul> <li>Text of NOTE amended</li> </ul>
J	Para. 2.B.(1)(a)	- Text amended
	Para. 2.B.(2)	<ul> <li>NOTE deleted and</li> </ul>
		text amended
	Para. 2.B.(3)(c)	- NOTE deleted and
		text amended
	Para, 2.B.(4)(a)	- Text amended
Page 9	Para. 2.B.(4)(b)	- Text shifted
<b>5</b> -	Para. 2.B.(4)(d) and (f)	- Text amended
	Para. 2.B. (5)	- Text amended

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### REVISION TRANSMITTAL SHEET

Para. 2.B.(6)

Page 10 Para. 2.C.

Page 11/12 Figures 1

Figures 1 and 2 Pages 13 thru 14 Page 15

Para. 3.A.

Figures 3 and 4 - Figures deleted

- Text changed to NONE

- Para. REPAIR deleted,

- Flow Chart amended

- Figures shifted

Para. TESTS, text amended.

- Text amended

### FILING INSTRUCTIONS:

Replace this Service Bulletin completely.

File this Revision Transmittal Sheet in front of this Service Bulletin.

### REVISION SEQUENCE

Original: Oct 14/93

Revision No.: 1-Aug 19/94 Revision No.: 2- Sep 05/97

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# SERVICE BULLETIN SUMMARY

AIRBUS INDUSTRIE CUSTOMER SERVICES DIRECTORATE 1 Rond Point Maurice Bellonte 31707 BLAGNAC CEDEX FRANCE

Tel : (33) 5 61 93 33 33

Telex : AIRBU 530526F

FAX : (33) 5 61 30 01 25

This summary is for information only and is not approved for modification of the aircraft

TITLE: AIR CONDITIONING - AIR COOLING SYSTEM - INSPECT RAM AIR OUTLET

MODIFICATION No.: INSPECTION

### REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

Several operators have reported damage of the ram air outlet flaps due to over-travel of the guides and excessive mechanism backlash.

This Inspection Service Bulletin introduces a general visual inspection of the ram air outlet for deformation and for security of fastening parts of the flap mechanism and the outlet assembly as well as a check of the backlash of the ram air outlet flap.

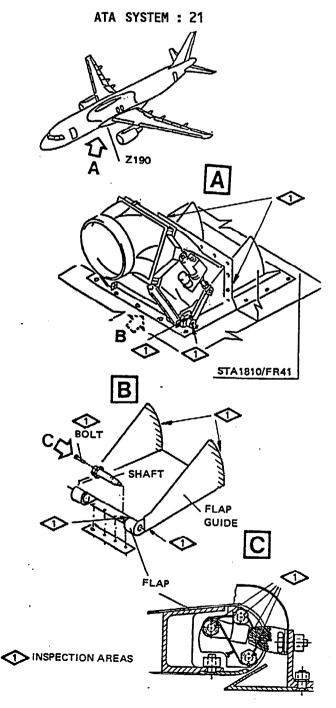
In case of no findings, this inspection has to be repeated at every C-check or Service Bulletin A320-21-1051 or A320-21-1098 can be accomplished.

It is recommended to accomplish this Inspection Service Bulletin at the first C-check. For aircraft which have exceeded the first C-check, the inspection should be accomplished at the next C-check.

### **EFFECTIVITY**

This Service Bulletin is applicable to the following operators: AAA, ACA, ADR, AFR, AIB, ALK, AMC, ANA, BAW, BV, CDN, CYP, DLH, FHA, GFA, HP, IAC, IBE, KAC, MON, MSR, MXA, NWA, OYC, RJA, SAA, SHK, TAR, XF, XP, XR, XW and XZ.

The accomplishment of Service Bulletin A320-21-1051 (Mod. 22995K2883) or A320-21-1098 (Mod. 25459K4419 supersedes this Inspection Service Bulletin.



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The modification 22995K2883 is embodied prior to delivery on aircraft MSN 364, 385, 412 and subsequent.

### SERVICE BULLETIN(S)/MODIFICATION TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTANEOUSLY

None

REFERENCES/REPERCUSSIONS

TFU 21.61.52.02

TFU 21.61.52.03 LIFE LIMIT

None

0EB None LINE MAINTENANCE AFFECTED

NO

AOT None

SIL None

OTHERS None

NATURE OF THE MODIFICATION

AIRCRAFT

YES

**EQUIPMENT** 

NO

HARD

NO

SOFT

NO

**OBRM** 

NO

COMPLIANCE

Recommended

MANPOWER

**Manhours** 

3.5

Elapsed Time (hours)

3.5

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### MATERIAL INFORMATION

AIRCRAFT DATA

None

**EQUIPMENT DATA** 

None

**APPENDICES** 

None

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1 Rond Point Maurice Bellonte

31707 BLAGNAC CEDEX FRANCE Tel : (33) 5 61 93 33 33

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T I T L E : AIR CONDITIONING - AIR COOLING SYSTEM - INSPECT RAM AIR OUTLET

MODIFICATION No.: NONE ATA SYSTEM: 21

### 1. PLANNING INFORMATION

### A. EFFECTIVITY

(1) Aircraft Models: A320-111, -211, -212 and -231

### (2) Aircraft

Customer and Fleet No.	MSN	Kit No. NONE	Qty of Kits
AAA 001-012	022, 023, 024, 025, 026, 027, 029, 030, 140, 142, 157, 229		
ACA 201-233	059, 068, 073, 084, 122, 126, 127, 141, 149, 150, 154, 159, 183, 233, 242, 248, 253, 254, 255, 265, 277, 290, 310, 311, 324, 330, 333, 341, 342, 350, 359, 378, 384		
ADR 001-003	043, 113, 114		
AFR 001,002,	005, 007		
004 <b>-</b> 013, 015	014, 019, 020, 021, 002, 004, 003, 010, 012, 013, 016		
031-048	061, 062, 063, 100, 101, 102, 128, 129, 133, 186, 187, 188, 226, 227, 228, 285, 286, 287		
066-068	033, 036, 044		
071-078	108, 115, 130, 155, 156, 184, 214, 239		
080-085	278, 337, 352, 236, 237, 377		
201,202	144, 145		
226,227	131, 132		
231,232	203, 220		
301,302	204, 211		
305	085		
401-403	215, 244, 270		

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Customer and Fleet No.	MSN	Kit No. NONE	Qty of Kits
AIB 001	258		
401,402	376, 386		•
ALK 001,002	374, 406		
AMC 001,002	112, 293		
ANA 001-014	138, 139, 148, 151, 167, 170, 196, 212, 219, 245, 300, 328, 365, 383		
BAW 001-010	006, 008, 011, 017, 018, 039, 042, 103, 109, 120		
BV 051-052	185, 191		
CDN 401-405, 407-411, 415,416	174, 175, 210, 231, 232, 283, 284, 302, 305, 309, 403, 404		
CYP 001-008	028, 035, 037, 038, 180, 256, 295, 316		
DLH 001-010, 012-034	069, 070, 071, 072, 078, 083, 086, 093, 094, 104, 110, 111, 116, 117, 135, 137, 147, 161, 162, 172, 200, 201, 202, 209, 216, 217, 218, 267, 268, 269, 346, 382, 401		
FHA 001-002	332, 369		
GFA 801-804	313, 325, 345, 375		
HP 620-622, 624-629, 631-637	052, 053, 054, 055, 064, 065, 066, 067, 076, 077, 081, 082, 091, 092, 098, 099		
IAC 001-012, 014-021	045, 046, 047, 048, 049, 050, 051, 056, 057, 058, 074, 075, 080, 089, 090, 095, 096, 097, 396, 398	·	
IBE 001-022	134, 136, 143, 146, 158, 173, 176, 177, 199, 207, 223, 224, 240, 241, 246, 264, 266, 274, 303, 312, 323, 356		
KAC 001-003	181, 182, 195		
MON 001,002	379, 389		
MSR 001-007	165, 166, 178, 194, 198, 351, 366		

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Customer	and	MSN		Kit No.	Qty of
Fleet No.				NONE	Kits
MXA 001-0 012	• •	. 260, 261, . 321, 353,			
NWA 301-34	106, 107, 153, 160, 208, 213, 281, 282, 318, 319, 358, 360,	034, 040, 118, 121, 171, 192, 262, 263, 297, 298, 329, 339, 367, 372, 399, 400,	125, 152, 197, 206, 272, 273, 306, 307, 340, 355, 380, 381,		
OYC 001-00	06 163, 164,	168, 169,	179, 193		
RJA 001-00	02 087, 088				
SAA 001-00	06 243, 249,	250, 251,	334, 335		
SHK 001-00	03 322, 326,	344			
TAR 001-00	07 119, 124, 123	205, 370,	390, 402,		
XF 001,00	393, 394				
00,800	09 405, 361				
504-50	371, 397,	409			
551	279				
XP 053-05 062-06		294, 299, 392	301, 348,		
502-50	362, 363				
XR 501-51	280, 291,	238, 247, 292, 304, 327, 336,	308, 314,		
XW 501-50	05 347, 354,	357, 373,	411		
XZ 003-00	189, 190				
101-10	08 234, 235, 395, 407	288, 289,	331, 343,		

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The modification 22995K2883 is embodied prior to delivery on aircraft MSN 364, 385, 412 and subsequent.

This Inspection Service Bulletin will be superseded after accomplishment of Service Bulletin A320-21-1051 (Mod. 22995K2883) or A320-21-1098 (25459K4419).

Service Bulletin A320-21-1098 introduces a new operating lever, inserts and reidentifies the flap.

Service Bulletin A320-21-1051 introduces a complete new outlet assembly or new flap and modification instructions to be accomplished with Service Bulletin A320-21-1098.

(3) Spares

None

### **B. REASON**

(1) History

Several operators have reported damage of the ram air outlet flaps due to over-travel of the guides and excessive mechanism backlash.

(2) Objective/Action

A general visual inspection of the fastening parts of the flap levers and the outlet assembly, the bolts of the hinge shafts for security, the outlet flaps at the actual position for correct adjustment and play and the outlet chamber for deformation.

(3) Advantages

To avoid flap over-travel and subsequent flap damage.

(4) Accomplishment Timescale

It is recommended to accomplish this Inspection Service Bulletin at the first C-check. For aircraft which have exceeded the first C-check, the general visual inspection should be accomplished at the next C-check. The general visual inspection should be repeated at every C-check.

### C. DESCRIPTION

Accomplishment of this Service Bulletin consists of:

- (1) Gaining access to the pack ram air outlets, LH and RH.
- (2) Inspecting the fastening bolts of the outlet assembly.

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- (3) Inspecting the outlet flap and outlet chamber for deformation.
- (4) Inspecting the fastening bolt of the flap lever (both packs) for security.
- (5) Inspecting the four fastening bolts of the hinge shaft (both packs) for security.
- (6) In case of findings:
  - Tightening the fastening bolts of the outlet assembly
  - Accomplish the Service Bulletin A320-21-1051 or A320-21-1098, as applicable.
  - Adjusting the flap
  - Doing an operational test of the pack temperature control system.
- (7) Close-up.

### D. APPROVAL

The technical information including design data contained in this Service Bulletin has been approved under the authority of DGAC Design Organisation Approval No. F.JA.O2.

### E. MANPOWER

	Manhours
Gain access	1.0
Inspection	1.0
Test	
Close-up	<u>1.5</u>
TOTAL MANHOURS	3.5
ELAPSED TIME (HOURS)	3.5

NOTE: This Service Bulletin assumes that the aircraft has been placed in a maintenance status. The manhours/elapsed time estimates do not include preparation for the modification, non-productive elapsed time, or administrative functions.

### F. MATERIAL - COST AND AVAILABILITY

None

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G. TOOLING - PRICE AND AVAILABILITY

None

H. WEIGHT AND BALANCE

None

I. REFERENCES

Aircraft Maintenance Manual (AMM): 12-34-24, 21-52-00, 21-61-00, 21-61-52,

29-22-00, 53-35-13

Illustrated Parts Catalog (IPC): 21-61-03

Service Bulletin: A320-21-1051, A320-21-1098

Consumable Material List (CML):

J. PUBLICATIONS AFFECTED

Aircraft Maintenance Manual (AMM): 21-61-52

Illustrated Parts Catalog (IPC): 21-61-03

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### 2. ACCOMPLISHMENT INSTRUCTIONS

WARNING: MAKE SURE THAT NO AIR IS SUPPLIED TO THE AIR CONDITIONING SYSTEM FROM THE MAIN ENGINE, THE APU OR GROUND SOURCE.

### A. GENERAL

Accomplishment of this Service Bulletin includes these operations:

### (1) Preparation

- (a) Electrically ground the aircraft (Ref. AMM 12-34-24, P. Block 201).
- (b) Open, safety and tag these circuit breakers:

PANEL	SER	VICE		•	IDENT.	LOCATION
FOR 9H	1		•	-	4	
122VU	AIR	COND/PACK	TEMP/CTL	SYS1/1/115VAC	1HH	X22
122VU	AIR	COND/PACK	TEMP/CTL	SYS1/1/28VDC	<b>3</b> HH	X21
122VU	AIR	COND/PACK	TEMP/CTL	SYS2/1/28VDC	4HH	Y19
122VU	AIR	COND/PACK	TEMP/CTL	SYS2/1/115VAC	2HH	Y18
FOR 29H	<b>ł</b> H		•			
122VU	AIR	COND/PACK	TEMP/CTL	SYS1/2/115VAC	21HH	W22
122VU	AIR	COND/PACK	TEMP/CTL	SYS1/2/28VDC	23HH	W21
122VU	AIR	COND/PACK	TEMP/CTL	SYS2/2/28VDC	24HH	Y21
122VU	AIR	COND/PACK	TEMP/CTL	SYS2/2/115VAC	22HH	Y20

- (c) Put a warning notice in the cockpit to tell persons not to operate the air cooling system (Ref. AMM 21-52-00, P. Block 501).
- (d) Remove the access panels 191KB and 192KB (Ref. AMM 53-35-13, P. Block 401).

#### (2) Standard Practices

- (a) For the material specification (Mat. No.) given in this Service Bulletin, refer to the CML.
- (b) Renew protective finish with wash primer, Mat. No. 16-005, polyurethane primer, Mat. No. 16-001 and polyurethane top coat, Mat. No. 16-002.

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### **B. INSPECTION**

NOTE: The accomplishment of Service Bulletin A320-21-1051 or Service Bulletin A320-21-1098 supersedes this Inspection Service Bulletin.

Refer to Figures 1 and 2

- (1) Inspect the fastening bolts of the assembly
  - (a) Inspect the fastening bolts, position shown in figure 2, detail B:
    - ensure that there are eleven bolts with washers. If not, replace bolt(s) and washer(s) in accordance with the IPC 21-61-03.
    - torque tighten all bolts to 0.36daNm (31.86 lb.in.)
- (2) Check the backlash of the flap lever:
  - If backlash exists between the flap lever and shaft and if the torque of the bolt of the flap lever is not 0.5daNm (44.24 lb.in.), torque tighten all bolts or accomplish the Service Bulletin A320-21-1098 or Service Bulletin A320-21-1051 and A320-21-1098.
  - If there is no backlash and the torque of the bolts is correct, proceed with the next step.
- (3) Check of loosened bolts at the flap hinge.
  - (a) Remove and retain the plates, items 12 and 6 and the fastening parts, items 11 and 5.
  - (b) Remove the Lockwire, item (13).
  - (c) Check the bolts, item 10 by checking the torque value. The torque value is 0.4daNm (35.40 lb.in.):
    - If the torque value is less than 0.4daNm (35.40 lb.in.), torque tighten all bolts or accomplish the Service Bulletin A320-21-1098 or Service Bulletin A320-21-1051 and A320-21-1098.
    - If the torque value at each bolt is correct, install new lock-wire, item 13 and plates, items 6 and 12 with retained fastening parts, proceed with the next step.
- (4) Inspection of the flap for abrasion marks (due to 'internal weld') and inspection of the outlet flap and outlet chamber for deformation.
  - (a) Disconnect the lever, item 20 from the electrical actuator.

NOTE: Take the weight off the flap while removing the bolt, item 21.

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- (b) Lower the flap and perform a visual inspection at the flap and internal weld of the flap guide:
  - 1 If there are signs of abrasion marks of the painting (area 'B'), rework the flap as per Para. 2.B.(4)(c).
  - 2 If there are no signs of abrasion marks of the painting, move the flap in and out of the flap guide while manually applying a slight load to one side and repeat with a slight load to the other side:
    - If interference between the flap and the internal weld is noticed, rework the flap as per Para. 2.B.(4)(c).
    - If there is no indication of interference between the flap and the internal weld, inspect the outlet flap for deformation as per Para. 2.B.(4)(d).
- (c) Rework the flap as follows only if interference is noticed:
  - 1 Remove approx. 2 mm (0.08 in.) from the contour of the flap edges (areas 'B').
  - 2 Renew the painting.
- (d) Inspection of the outlet flap for deformation.
  - 1 Inspect the areas 'A' and 'B' shown in detail C and section A-A, for mechanical deformation:
    - In case of findings at the outlet flap (area 'A' and 'B') accomplish the Service Bulletin A320-21-1051.
- (e) Inspection of the outlet chamber for deformation.
  - 1 Inspect the area 'C', shown in section B-B and the flap guide area at the outlet chamber for mechanical deformation:
    - If deformation is found, accomplish the Service Bulletin No. A320-21-1051.
- (f) Reassemble the lever, item 20 and the electrical actuator.
- (5) Adjust the ram air outlet flap in accordance with AMM 29-22-00, P. Block 501.
- (6) In case of no findings after performance of Para. 2.B.(1) thru 2.B.(5) repeat the inspection at every following C-check. In case of findings accomplish the Service Bulletin A320-21-1098 or Service Bulletin A320-21-1051 and A320-21-1098.

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### C. TESTS

None

### D. CLOSE-UP

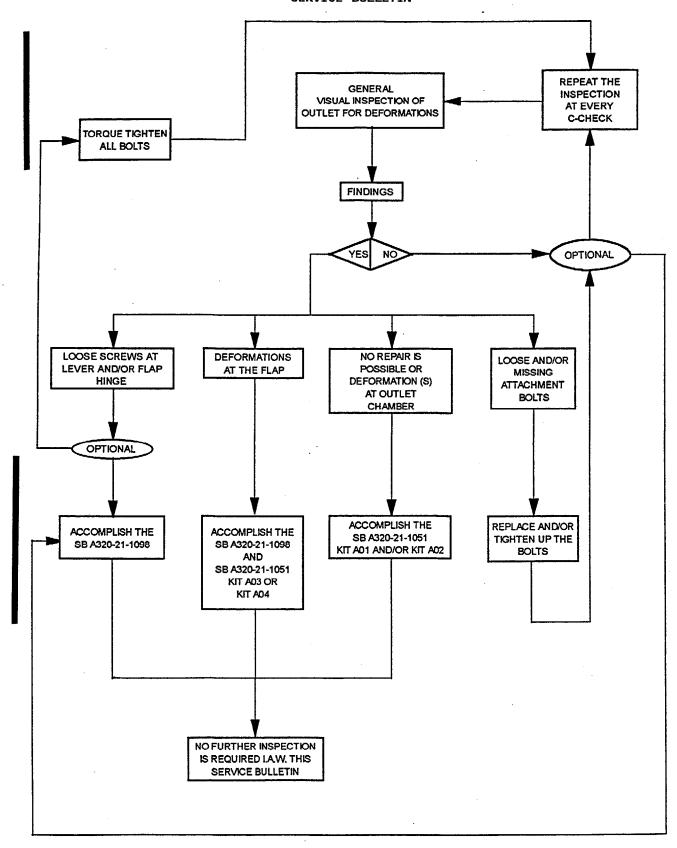
- (1) Close the access panels 191KB and 192KB (Ref AMM 53-35-13, P. Block 401).
- (2) Remove the warning notice from the cockpit.
- (3) Restore the aircraft to normal operating condition.

### E. DOCUMENTATION

Record the accomplishment of this Service Bulletin in the relevant aircraft technical records.

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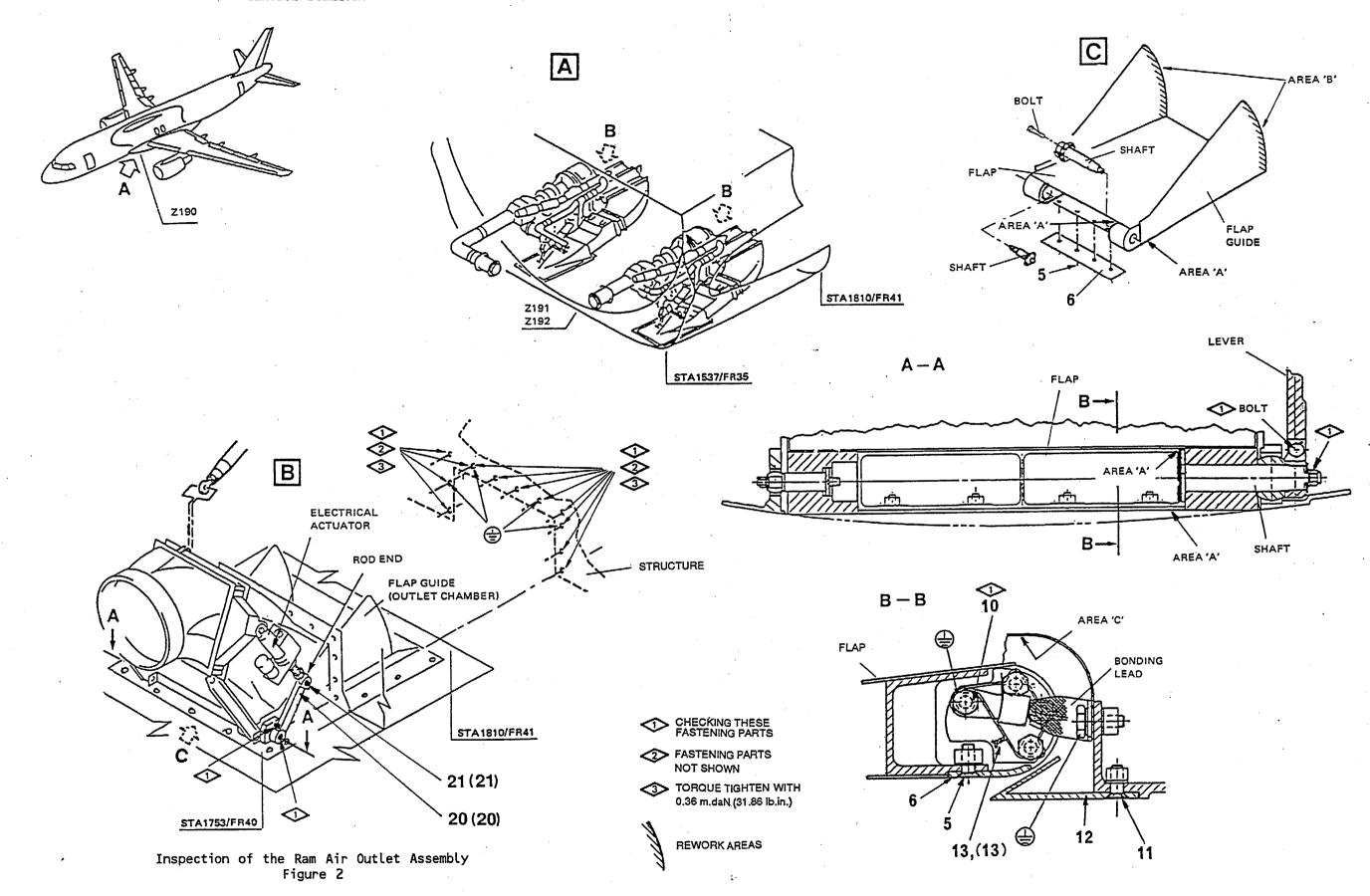
Flow Chart Figure 1

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### 3. MATERIAL INFORMATION

A. LIST OF COMPONENTS

None

B. SPECIAL TOOLS

None

C. LIST OF MATERIALS - OPERATOR SUPPLIED

DESCRIPTION	REFERENCE TO CML	QTY PER A/C
Lockwire LN 9424-1.4314.9-0.8		as required
Sealant	Mat. No. 09-013	as required
Wash primer	Mat. No. 16-005	as required
Polyurethane primer	Mat. No. 16-001	as required
Polyurethane top coat	Mat. No. 16-002	as required

### D. PARTS TO BE RE-IDENTIFIED BY OPERATOR

None

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MODIFICATION No. : INSPECTION

ATA SYSTEM : 21

T I T L E : AIR CONDITIONING - AIR COOLING SYSTEM - INSPECT RAM AIR OUTLET

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