AIRBUS INDUSTRIE PRODUCT SUPPORT DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE

Tel: (33) 61-93-33-33 Telex: AIRBU 530526F

SERVICE BULLETIN CHANGE NOTICE

S.B. No. A320-21-1037

REV. 0 1

DATED : Aug 08/91

Mod. No. 22285 K2360

TITLE: AIR CONDITIONING-PACK TEMPERATURE CONTROL-

MODIFY PACK RAM INLET

MODEL: All models listed on S.B.

DESCRIPTION:

This notice is issued to inform the affected operators that the subject Service Bulletin is changed as stated below.

Service Bulletin

Page 2

Para 1.A. Effectivity Customer and Fleet No.:

read MSR 001-005

instead of MSR 001-006

Page 15

Para 3.A. Material Information Item 22: read NAS 1100E08-12 instead of NSA 1100E08-12

This change will be incorporated in the next revision of this Service Bulletin; however no revision is planned at the present time.

FILING INSTRUCTIONS:

File this Change Notice in front of this Service Bulletin.

SERVICE BULLETIN No.: A320-21-1037

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3 DATE : MAR 20/92 CHANGE NOTICE No. : 1.A. Printed in France

AIRBUS INDUSTRIE PRODUCT SUPPORT DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE

Tel: (33) 61-93-33-33 Telex: AIRBU 530526F

SERVICE BULLETIN CHANGE NOTICE

S.B. No. A320-21-1037 REV. 1 DATED : Aug 08/91

Mod. No. 22285K2360

TITLE: AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK RAM AIR INLET

MODEL: All models listed on S.B.

DESCRIPTION:

This notice is issued to inform the affected operators that subject Service Bulletin is changed as stated below.

Service Bulletin Summary, Page 1 of 2

Para. EFFECTIVITY - operator KAC is added

Service Bulletin, Page 2

Para. 1.A.(2) - allocation of aircraft MSN 181, 182 and 195 are changed from RJA 003-006 to KAC 001-003,

This change will be incorporated in the next Revision of this Service Bulletin; however no revision is planned at the present time.

FILING INSTRUCTIONS:

File this Change Notice in front of the Service Bulletin.

SERVICE BULLETIN No.: A320-21-1037

6 DATE : NOV 25/94 CHANGE NOTICE No.: 1.B. Printed in Prance



AIRBUS INDUSTRIE PRODUCT SUPPORT DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE Tel: (33) 61-93-33-33

Telex: AIRBU 530526F

SERVICE BULLETIN CHANGE NOTICE

S.B. No. A320-21-1037

REV. 1 DATED: 7Aug 08/91

Mod. No. 22285K2360

TITLE : AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK RAM AIR INLET

MODEL: All models listed on S.B.

DESCRIPTION:

This notice is issued to inform the affected operators that subject Service Bulletin is changed as stated below.

Service Bulletin, Page 5

Para. 2.A.(1)(a) - Instead access panel 191BB read access panel 191PB

Service Bulletin, Page 7

Para. 2.D.(1) - Instead access panel 191BB read access panel 191BB

This change will be incorporated in the next Revision of this Service Bulletin; however no revision is planned at the present time.

FILING INSTRUCTIONS:

File this Change Notice in front of the Service Bulletin.

SERVICE BULLETIN No.: A320-21-1037

6 DATE: FEB 03/95 CHANGE NOTICE No.: 1.C. Printed in France

AIRBUS INDUSTRIE
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE

31707 BLAGNAC CEDEX FRANCE SERVICE BULLETIN

Tel: (33) 61-93-33-33

Telex: AIRBU 530526F REVISION TRANSMITTAL SHEET

MODIFICATION No.: 22285K2360 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK

RAM AIR INLET

Herewith Revision No. 1. of Service Bulletin A320-21-1037.

No additional work is required by this Revision.

REASON

This Revision is issued to include the following changes.

Service Bulletin Summary

Page 1 of 2 Para. EFFECTIVITY - Updated.

- Reference to SB A320-21-1040

deleted.

Service Bulletin

Pages 1 of 15 and 2 Para. 1.A - Updated

Page 3 Para. 1.B. (4) - Last sentence deleted.

Para. 1.C. (5) - Reference to SB A320-21-1040

deleted.

Page 4 Para. 1.J. - Reference to SB A320-21-1040

deleted.

Page 6 Para. 2.B.(1)(g) - Reference to SB A320-21-1040

deleted.

Page 15 Para. 3.A. - Filler item (20) added.

FILING INSTRUCTIONS:

Replace Service Bulletin Summary page 1 of 2 and Service Bulletin pages 1 of 15, 2, 3, 4, 6 and 15.

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

REVISION SEQUENCE

Original: Feb 27/91 Revision No.: 1- AUG 08/91

SERVICE BULLETIN No.: A320-21-1037

Printed in France PAGE: 1 of 1

SA320

SERVICE BULLETIN

AIRBUS INDUSTRIE PRODUCT SUPPORT DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE

SUMMARY

Tel: (33) 61-93-33-33 Telex: AIRBU 530526F

> This summary is for information only and is not D.G.A.C.-approved for modification of the aircraft

MODIFICATION No.: 22285K2360

ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK RAM AIR

INLET

REASON/DESCRIPTION/OPERATIONAL **CONSEQUENCES**

Air cycle machine seizure occured with consequent ECAM fault warning. Tests have shown that the fan stress level was extreme when the ram air inlet was in closed (linked to reduced fan flow) position.

The filler in the pack ram air inlets (LH and RH) has to be removed and the holes sealed.

This action will increase the airflow when the ram air inlets are closed.

This Service Bulletin can be accomplished at the convenience of the operator.

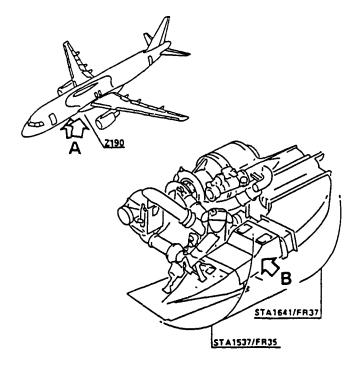
EFFECTIVITY

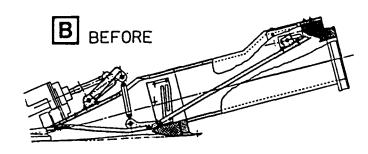
This Service Bulletin is applicable to the following operators: AAA, ACA, ADR, AFR, AMC, ANA, BAW, BV, CYP, DLH, HP, IAC, IBE, ITF, MSR, NWA, OYC, RJA, TAR, XF, XP and XZ.

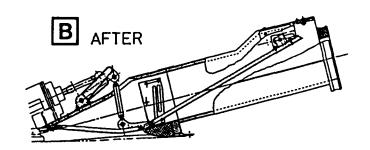
This modification is embodied prior to delivery on A/C MSN 149, 150, 152, 153, 154, 159, 160, 171, 174, 175, 192, 197, 206, 208, 210, 213, 220 and subsequent.

SERVICE BULLETIN/MODIFICATION TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTA-NEOUSLY

None







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PAGE: 1 of 2

REFERENCES/REPERCUSSIONS

TFU

21.52.21.01

LIFE LIMIT

None

OEB Added

None

LINE MAINTENANCE AFFECTED

Cancelled None

NO

TOA

None

SIL

None

OTHERS

None

NATURE OF THE MODIFICATION

AIRCRAFT

YES

EQUIPMENT

NO

COMPLIANCE

Desirable

MANPOWER

Manhours

23

Elapsed time (hours)

11

MATERIAL INFORMATION

Aircraft Data

Screws, nuts and washers.

Equipment Data

None

APPENDICES

None

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AIRBUS INDUSTRIE SERVICE BULLETIN

PRODUCT SUPPORT DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE

Tel: (33) 61-93-33-33 Telex: AIRBU 530526F

MODIFICATION No.: 22285K2360 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK RAM AIR

INLET

1. PLANNING INFORMATION

A. EFFECTIVITY

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

(2) Aircraft

> Customer and MSN Fleet No.

022, 023, 024, 025, 026, 027, 029, AAA 001-011 030, 140, 142, 157

ACA 201-208 059, 068, 073, 084, 122, 126, 127,

141

043, 113, 114 ADR 001-003

005, 007, 014, 019, 020, 021, 002 AFR 001-002,

004-008

061, 062, 063, 100, 101, 102, 128, AFR 031-042

129, 133, 186, 187, 188

AMC 001 112

ANA 001-009 138, 139, 148, 151, 167, 170, 196,

212, 219

BAW 001-010 006, 008, 011, 017, 018, 039, 042,

103, 109, 120

185, 191 BV 051-052

028, 035, 037, 038, 180 CYP 001-005

069, 070, 071, 072, 078, 083, 086, DLH 001-028

093, 094, 104, 105, 110, 111, 116, 117, 135, 137, 147, 161, 162, 172,

200, 201, 202, 209, 216, 217, 218

052, 053, 054, 055, 064, 065, 066, HP 620-622,

067, 076, 077, 081, 082, 091, 092, 624-629

631-637 098, 099

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Customer and Fleet No.	MSN
IAC 001-012, 014-019	045, 046, 047, 048, 049, 050, 051, 056, 057, 058, 074, 075, 080, 089, 090, 095, 096, 097
IBE 001-010	134, 136, 143, 146, 158, 173, 176, 177, 199, 207
ITF 001-017	010, 012, 013, 015, 016, 033, 036, 044, 004, 003, 108, 115, 130, 155, 156, 184, 214
MSR 001-006	165, 166, 178, 194, 198
NWA 301-311	031, 032, 034, 040, 041, 060, 106, 107, 118, 121, 125
OYC 001-006	163, 164, 168, 169, 179, 193
RJA 001-006	087, 088, 123, 181, 182, 195
TAR 001-003	119, 124, 205
XF 001	215
XP 001, 051	085, 203
XP 301-302	204, 211
xz 001-004	131, 132, 189, 190
XZ 201, 202	144, 145

This modification is embodied prior to delivery on A/C MSN 149, 150, 152, 153, 154, 159, 160, 171, 174, 175, 192, 197, 206, 208, 210, 213, 220 and subsequent.

(3) Spares

None

B. REASON

(1) History

Air cycle machine seizure occured with consequent ECAM fault warning. Tests have shown that the fan stress level was extreme when the ram air inlet was in closed (linked to reduced fan flow) position.

(2) Objective/Action

Removal of the fillers from the pack ram air inlets (LH and RH) and sealing of the holes with screws and nuts.

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(3) Advantages

This action increases the airflow when the ram air inlets are closed and prevents damage of the air cycle machine.

(4) Accomplishment Timescale

This Service Bulletin can be accomplished at the convenience of the operator.

C. DESCRIPTION

Accomplishment of this Service Bulletin consists of:

- (1) Gaining access to the pack ram air inlets, LH and RH.
- (2) Removing the pack ram air inlets from the aircraft.
- (3) Removing the fillers from the pack ram air inlets on bench.
- (4) Installing the pack ram air inlets in the aircraft.
- (5) Checking the adjustment of the ram air inlet flaps.
- (6) Performing an operational test of the pack temperature control system.
- (7) Close-up.

D. APPROVAL

This Service Bulletin is approved by Direction Générale de l'Aviation Civile - FRANCE (D.G.A.C).

E. MANPOWER

	<u>Manhours</u>
Gain access	3.50
Modification	14.00
Test	1.00
Close-up	4.50
TOTAL MANHOURS .	23.00
ELAPSED TIME (HOURS)	11.00

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.

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SERVICE BULLETIN

F. MATERIAL - COST AND AVAILABILITY

No kit is supplied by AIRBUS INDUSTRIE for this modification. Parts are to be supplied from the Operator's stock.

G. TOOLING - PRICE AND AVAILABILITY

None

H. WEIGHT AND BALANCE

M.E.W. Moment:

-0.56 kg (-1.23 lb.)

-9

-9.35 kgm (-67.60 lb.ft.)

I. REFERENCES

Aircraft Maintenance Manual: 20-28-00, 20-31-00, 21-52-00, 21-52-42,

21-61-00, 21-61-51, 53-35-13

J. PUBLICATIONS AFFECTED

Aircraft Maintenance Manual: 21-61-51

Illustrated Parts Catalog: 21-61-03

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©A320SERVICE BULLETIN

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 the following operations:

(1) Preparation

- (a) Remove the access panels 191KB, 191BB, 192FB and 192KB (Ref. AMM 53-35-13, P. Block 401).
- (b) 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).
- (c) Open, safety and tag these circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
FOR 8HH			
122VU	AIR COND/PACK TEMP/CTL SYS1/1/115VA	C 1HH	X22
122VU	AIR COND/PACK TEMP/CTL SYS1/1/28VDC	3HH	X21
122VU	AIR COND/PACK TEMP CTL SYS2/1/28VDC	4HH	Y19
122VU	AIR COND/PACK TEMP CTL SYS2/1/115VA	С 2НН	Y18
FOR 28HH	1		
122VU	AIR COND/PACK TEMP/CTL SYS1/2/115VA	C 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 SYS2/2/115VA	C 22HH	Y20

(2) Standard Procedures

- (a) For material specifications (Mat. No.) given in this Service Bulletin, refer to AMM 20-31-00.
- (b) Clean surfaces with solvent Mat. No. 11-003.
- (c) Install the bolts and nuts with corrosion preventive compound Mat. No. Q5-Q05D.
- (d) Coat the bolts and nuts after the installation with anti-corrosion compound Mat. No. 05-002.
- (e) Install bonding connections in accordance with AMM 20-28-00, P. Block 201.

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B. MODIFICATION

(1) Removal and Installation of the pack ram air inlets.

Refer to Figure 1, Sheet 1 of 2

- (a) Disconnect the water hoses from the water injectors 20HM and 21HM, item 2 (Ref. AMM 21-61-51, P. Block 401 and 21-52-42, P. Block 401).
- (b) Electrically disconnect the air inlet flap actuators 8HH and 28HH, item 1 (Ref. AMM 21-61-51, P. Block 401).
- (c) Remove the pack ram air inlets, item (3) and (4) (Ref. AMM 21-61-51, P. Block 401) from the aircraft for modification on bench.
- (d) Install the modified pack ram air inlet, LH D21571101008000, item 3 and the pack ram air inlet, RH D21571100004000, item 4 (Ref. AMM 21-61-51, P. Block 401).
- (e) Electrically re-connect the air inlet flap actuators 8HH and 28HH, item 1 (Ref. AMM 21-61-51, P. Block 401).
- (f) Re-connect the water hoses to the water injectors 20HM and 21HM, item 2 (Ref. AMM 21-61-51, P. Block 401 and 21-52-42, P. Block 401).
- (g) Check the adjustment of the ram air inlet flaps (Ref. AMM 21-61-51, P. Block 401).
- (h) Make sure that the work area is clean and clear of tools and other items.

C. TEST

(1) Remove the safety clips and tags and close these circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
FOR 8HH			
122VU	AIR COND/PACK TEMP/CTL SYS1/1/115VAC	1HH	X22
122VU	AIR COND/PACK TEMP/CTL SYS1/1/28VDC	3HH	X21
122VU	AIR COND/PACK TEMP CTL SYS2/1/28VDC	4HH	Y19
122VU	AIR COND/PACK TEMP CTL SYS2/1/115VAC	2HH	Y18
FOR 28HH			
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

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WARNING: BEFORE YOU START THE TEST, MAKE SURE THAT THERE ARE NO PERSONS NEAR THE RAM AIR OUTLET DOORS.

(2) Do the operational test of the pack temperature control system (Ref. 21-61-00, P. Block 501).

D. CLOSE-UP

- (1) Close the access panels 191KB, 191BB, 192FB 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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BENCH

F. ACCOMPLISHMENT INSTRUCTIONS — REMOVED COMPONENTS AND SPARES

(1) Removal of filler from the ram air inlet.

NOTE: The following description is given for pack ram air inlet, LH; RH is similar.

Ref. Figure 1, Sheet 2 of 2

(a) For disconnecting the rod, item 11, remove and retain these items:

screw	item 12	(retain)
nut	item 13	(retain)
washer	item 14	(retain)

NOTE: Do not change settings of the rod, item 11.

NOTE: The diffuser ramp, item 10 must be loosened on the two bottom points only.

- (b) For loosening the diffuser ramp, item 10 with hinge, item 16 at the lower side (see detail E) remove and retain the screws, item 15.
- (c) Move down the diffuser ramp, item 10 at the hinge, item 16. At the same time pull the rod, item 11 so that the diffuser ramp moves out of the filler area, ref. detail F.
- (d) Remove and do not re-use the filler, item (20) with these items:

screw	item (22)	(not re-used)
washer	item 23	(retain)
shim	item (21)	(discard)

(e) Install these items to seal the holes, ref. detail F:

	NAS1100E08-12 AN960C8	item 22 item 23	(new) (new and
			retained)
nut	MS21042-08	item 24	(new)

(f) Fasten the Loosened diffuser ramp, item 10 with these items, ref. details E and D:

screw	item 15	(retained)
screw	item 12	(retained)
washer	item 13	(retained)
nut	item 14	(retained)

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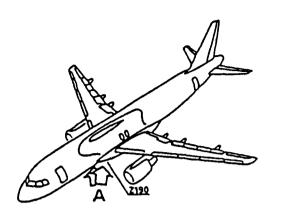
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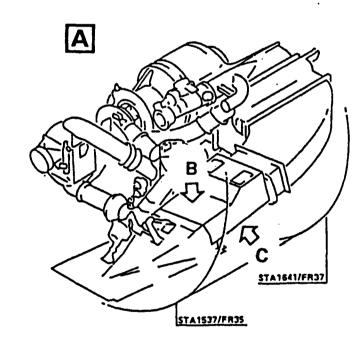


- (g) Identify the modified pack ram air inlet, LH as D21571101008000.
- (h) Identify the modified pack ram air inlet, RH as D21571100004000.

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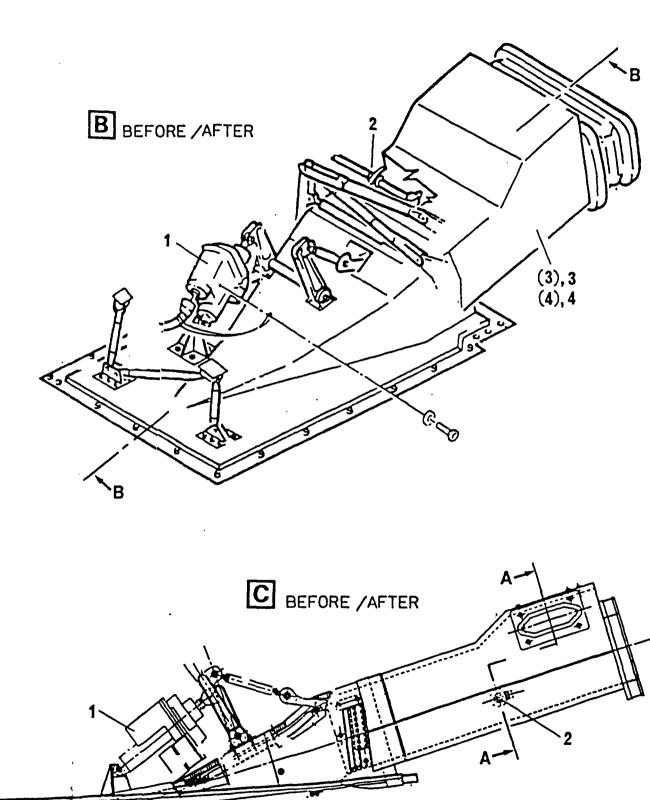
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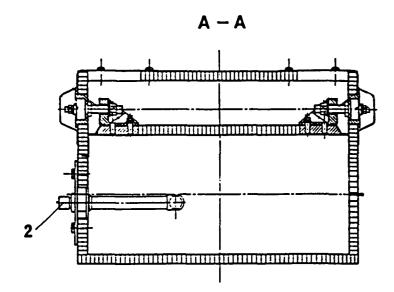
REVISION No. :

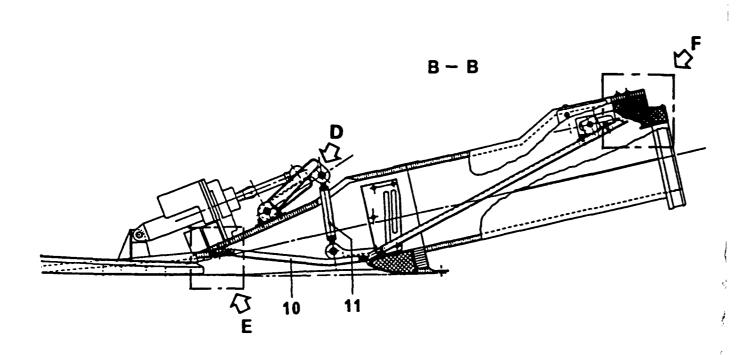
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Modification of the Pack Ram Air Inlet, LH and RH Figure 1, Sheet 2 of 2

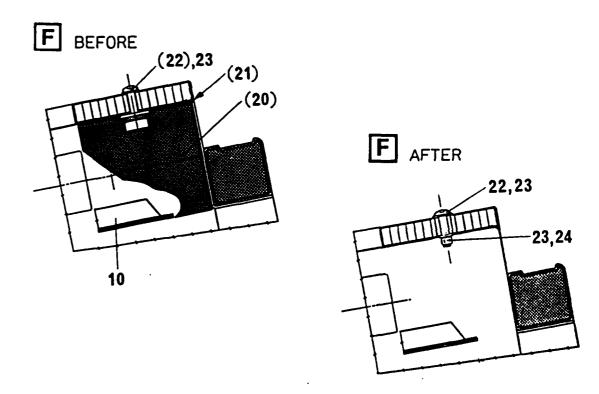
DATE: Feb 27/91

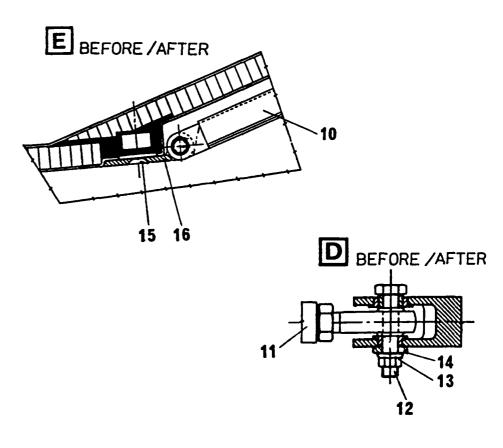
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SERVICE BULLETIN No.

3. MATERIAL INFORMATION

Basis for the following material data is per aircraft

A. LIST OF COMPONENTS

I T E M	NEW PART NO.	QTY	DESCRIPTION	I T E M	OLD PART NO.	I N T	INSTRUCTIONS/ DISPOSITION
22 23 24	NSA1100E08-12 AN960C8 MS21042-08	6 6 6	Screw Washer Nut Filler	(20)	D2157115000200		discard

B. SPECIAL TOOLS

None

C. LIST OF MATERIALS - OPERATOR SUPPLIED

DESCRIPTION	REFERENCE AMM 20-31-00	QTY PER A/C
Corrosion preventive compound	Mat. No. 05-005D	as required
Anti-corrosion compound	Mat. No. 05-002	as required
Solvent	Mat. No. 11-003	as required

D. PARTS TO BE RE-IDENTIFIED BY OPERATOR

ITEM	NEW PN	QTY	DESIGNATION	ITEM	OLD PN	INT
3	D21571101008000	1	Pack ram air inlet, LH	(3)	D21571101006000	
4	D21571100004000	1	Pack ram air inlet, RH	(4)	D21571100002000	



SERVICE BULLETIN

AIRBUS INDUSTRIE
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE

Tel: (33) 61-93-33-33 Telex: AIRBU 530526F

MODIFICATION No.: 22285K2360 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - PACK TEMPERATURE CONTROL - MODIFY PACK RAM AIR

INLET

IS BEING HEREWITH SUBMITTED TO YOU FOR REVIEW

Please fill:

... REJECTED

... WILL BE EMBODIED

... EFFECTIVITY

This SB can only be incorporated in your "customized" documentation within the agreed time schedule in so far as this sheet is returned to us on purchase date and signed by a duly authorized and empowered officer or representative.

FROM:
<u>AIRLINE</u> :
NAME :
<u>DATE</u> :

Please return to:

AIRBUS INDUSTRIE
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE

Att.: AI/SP - Technical Publications
Department

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