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

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

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

MODIFICATION NO: 21668K1811

ATA SYSTEM: 21

TITLE: AIR CONDITIONING - AIR GENERATION - INSTALL MODIFIED AIR-CYCLE MACHINES

Herewith Revision No. 2 of Service Bulletin A320-21-1022. NO ADDITIONAL WORK IS REQUIRED BY THIS REVISION.

REASON

This revision is issued to revise the Para. MATERIAL.

CHANGES

Service Bulletin Summary

- Page 1 of 2

Approval statement revised.

EFFECTIVITY revised.

Service Bulletin

- Page 1 of 7

EFFECTIVITY revised.

- Page 2

Para. D. APPROVAL revised.

- Page 3/4

Para. J. PUBLICATIONS AFFECTED revised.

FILING INSTRUCTIONS

- Replace Service Bulletin Summary 1 of 2 and Service Bulletin pages 1 of 7,
 2 and 3/4.
- File this Revision Transmittal Sheet in front of this Service Bulletin.

REVISION SEQUENCE

Original: Aug 18/89 Revision: 1 - Dec 15/89 Revision: 2 - APR 28/93

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

MODIFICATION NO: 21668K1811 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - AIR GENERATION - INSTALL MODIFIED AIR-CYCLE MACHINES

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

Operational experience has shown on in-service A/C that the air conditioning packs froze at the turbine outlet reducing the reliability of the air-cycle machines.

To improve the air-cycle machine de-icing device the air-cycle machines and the pipe assy have to be replaced. The modified air conditioning packs are equipped with a modified air-cycle machine and a modified pipe assy to improve the reliability of the air-cycle machines.

EFFECTIVITY

This Service Bulletin is applicable to the following operators: AAA, ACA, ADR, AFR, BAW, CYP, DLH, HP, IAC, ITF, NWA, RJA and XP.

This modification is embodied, prior to delivery on A/C MSN 002, 107 and subsequent and partially embodied on A/C MSN 106 (only one air-cycle machine).

SERVICE BULLETIN/MODIFICATION TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTANEOUSLY

None

REFERENCES/REPERCUSSIONS

None

NATURE OF THE MODIFICATION

AIRCRAFT	NO
EQUIPMENT	YES
HARD	YES
SOFT	NO
OBRM	NO

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SERVICE BULLETIN SUMMARY

COMPLIANCE

DESIRABLE

MANPOWER

Per A/C

Total manhours :

10.00

Elapsed time (hours):

4.00

MATERIAL INFORMATION

Aircraft Data: None

Equipment Data: Vendor Service Bulletin No. 744A-21-03

Designation: Air Conditioning Pack

Supplier: LIEBHERR ABG SEMCA

Service Bulletin No.: 744A-21-03

Part Number Before: 744A0000-07

Part Number After: 744A0000-08

Interchangeability Code: 01 PDD

Intermixability: It is possible to use the air conditioning system even if only

one of the two air conditioning packs is modified.

Equipment Data: Vendor Service Bulletin No. 757A-21-03

Designation: Air-Cycle Machine

Supplier: LIEBHERR ABG SEMCA

Service Bulletin No.: 757A-21-03

Part Number Before: 757A0000-07

Part Number After: 757A0000-08

Interchangeability Code: 01 PDD

Intermixability: It is possible to use the air conditioning system even if only

one of the two air conditioning packs is modified.

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MSN Qty of Kits

None

T I T L E : AIR CONDITIONING - AIR GENERATION - INSTALL MODIFIED AIR-CYCLE MACHINES

1. PLANNING INFORMATION

A. EFFECTIVITY

(1) Aircraft Models: 320-111, 320-211, 320-231

(2) Aircraft

Customer and

Fleet No.	
AAA 001-008	022,023,024,025,026,027, 029,030
ACA 201-204	059,068,073,084
ADR 001	043
AFR 001-002 004-007	005,007,014,019,020,021
AFR 031-036	061,062,063,100,101,102
BAW 001-008	006,008,011,017,018,039, 042,103
CYP 001-004	028,035,037,038
DLH 001-011	069,070,071,072,078,083,
	086,093,094,104,105
HP 620-622	052,053,054,055,064,065,
624-629	066,067,076,077,081,082,
631-637	091,092,098,099
IAC 001-012	045,046,047,048,049,050,
014-019	051,056,057,058,074,075,
	080,089,090,095,096,097
ITF 001-003	010,012,013,016,033,036,
005-010	044,004,003
NWA 301-307	031,032,034,040,041,060, 106
RJA 001,002	087,088
XP 001	085
• • •	

This modification is embodied, prior to delivery, on A/C MSN 002, 107 and subsequent and partially embodied on A/C MSN 106 (only one air-cycle machine).

(3) Spares

Air-cycle machine, 757A0000-07

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B. REASON

History

Operational experience has shown on in-service A/C that the air conditioning packs froze at the turbine outlet reducing the reliability of the air-cycle machines.

Objective/Actions

To improve the air-cycle machine de-icing device the air-cycle machines and the pipe assy have to be replaced.

Advantages

The modified air conditioning packs are equipped with a modified air-cycle machine and a modified pipe assy to improve the reliability of the air-cycle machines.

Accomplishment Timescale

It is desirable that this modification be embodied at the operator's convenience.

C. DESCRIPTION

Accomplishment of this Service Bulletin consists of:

- (1) Removing the air-cycle machines 10HM1 and 11HM1.
- (2) Removing and discarding the pipe assy.

NOTE: Return the air-cycle machines for modification to LIEBHERR ABG SEMCA or an approved repair station as detailed in Vendor Service Bulletin No. 757A-21-03.

- (3) Installing the modified air-cycle machines.
- (4) Installing the new pipe assy.
- (5) Marking the new part numbers on the name plates of the air conditioning packs as detailed in para. 3.D.

D. APPROVAL

This Service Bulletin relates to the change(s) referenced on page 1 which has (have) been approved by the DGAC. The technical information contained in this Service Bulletin has been approved under the authority of DGAC Design Organisation Approval No. C 01.

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E. MANPOWER

Manhours

	1101111001	•
	Aircraft	Bench Per Air-Cycle Machine
Removal	2.5	8.00
Modification		Ref. LIEBHERR ABG SEMCA Service Bulletin Numbers 744A-21-03, 757A-21-03
Installation	3.0	THAN ET OUY TOTAL ET OU
Test	2.0	
Close-Up	2.5	
Total manhours Elapsed time (ho	10.0 purs) 4.0	

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

(1) Material

Refer to LIEBHERR ABG SEMCA Service Bulletin Numbers 744A-21-03, and 757A-21-03.

G. TOOLING - PRICE AND AVAILABILITY None

H. WEIGHT AND BALANCE

MEW = + 1.2 Kg (+ 2.65 lb.)

MOMENT = + 20.13 Kgm (+ 145.6 Lb. ft.)

I. REFERENCE

LIEBHERR ABG SEMCA Service Bulletin Numbers 744A-21-03, 744A-21-03

Aircraft Maintenance Manual 12-34-24, 21-52-00, 21-52-21 21-52-23, 53-35-13

J. PUBLICATIONS AFFECTED

Illustrated Parts Catalog 21-52-03, 21-52-41, 21-52-21

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2. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL

- (1) Electrically ground the aircraft (Refer to AMM 12-34-24, P. Block 201).
- (2) Put the access platform in position.
- (3) Open the passenger/crew door.
- (4) Open, safety and tag these circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
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
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

(5) Remove the access panels 191KB and 192KB (Refer to AMM 53-35-13, P. Block 401).

B. MODIFICATION

- (1) Remove the air-cycle machines 10HM1 and 11HM1 (Refer to AMM 21-52-21, P. Block 401).
- (2) Remove and discard the pipe assy 778A2800-01 from the air conditioning packs 1 and 2.

NOTE: Return the air-cycle machines for modification to LIEBHERR ABG SEMCA, or an approved repair station as given in Vendor Sevice Bulletin No. 757A-21-03.

CAUTION: WHEN YOU INSTALL THE MODIFIED AIR-CYCLE MACHINE YOU MUST BE CAREFUL NOT TO DAMAGE THE SEALING ELEMENT WHICH IS INSTALLED BETWEEN THE FAN OUTLET AND THE PLENUM.

- (3) Install the modified air-cycle machines 10HM1 and 11HM1 (Refer to AMM 21-52-21, P. Block 401).
 - (a) Get access to the sealing element.
 - (b) Check with your hand that the sealing element is correctly installed.
 - (c) Check that the two bellows retaining straps are correctly installed.

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- (4) Install the new pipe assy 778A2800-02 to the air conditioning packs 1 and 2.
- (5) Write the new part number 744A0000-08 on the name plate of the air conditioning packs as given in para. 3. D.

C. TEST

- (1) Remove the safety clips and tags and close the circuit breakers opened in para. 2.A.(4).
- (2) Do a leak check of the pipe assy connections (Refer to AMM 21-52-23, P. Block 401).
- (3) Do an operational test of the air cooling system (Refer to AMM 21-52-00, P. Block 501).

D. CLOSE-UP

- (1) Make sure that the work area is clean and clear of tools and other items.
- (2) Install the access panels 191KB and 192KB (Refer to AMM 53-35-13 P. Block 401).
- (3) Close the passenger/crew door.
- (4) Remove the access platform.

E. DOCUMENTATION

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

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3. MATERIAL INFORMATION

Basis for the following material data is per aircraft.

A. LIST OF COMPONENTS PER AIRCRAFT

Refer to LIEBHERR ABG SEMCA Service Bulletin No. 744A-21-03 and 757A-21-03.

B. SPECIAL TOOLS

None

C. LIST OF MATERIALS - OPERATOR SUPPLIED

None

D. PARTS TO BE RE-IDENTIFIED BY OPERATOR

NEW PART NO. QTY DESCRIPTION ITEM OLD PART NO. INT
744A0000-08 2 Air Conditioning 744A0000-07 01PDD
Pack

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ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - AIR GENERATION - INSTALL MODIFIED AIR-CYCLE MACHINES

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.

AIRLINE:

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

Att.: AI/SP - Technical Publications
Department

DATE:

19.

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