AIRBUS HELICOPTERS

WORK ORDER

2017 255 001

(Retrofit)

A/C Reg	**9M-LKE**
A/C S/N	**8297**
A/C Type	**AS350 B3 e**

Schedule Maintenance Inspection /Retrofit/Role Change	Man Hours
Composite Repair of LH Cargo Compartment Door edge i.a.w ESI/AS350B3/055	
Panel installation (new panel to be installed) - in worksheet	

Defect Rectification	Man Hours

AIRBUS HELICOPTERS

WORK PACK INDEX

AIRCRAFT REGN: 9M-LKE **AIRCRAFT S/No :** 8297

WORK ORDER No: 2017 255 001 **AIRCRAFT TYPE :** AS350B3 e

SHEET 1 **OF** 1

No.	Description	No. of Pages
1	WORK PACK CONTROL PAGE	1
2	CUSTOMER ORDER SHEET	1
3	WORK SHEETS	1
4.	ESI/AS350B3/055	5.
5.	ROAS (AS350B3/377/ROAS), Date: 27/4/2017, Issue NO:0	6.
6.	Used part list	1
7.	Attachment.	3
	TOTAL	18

PLANNING CLEARANCE

Remarks: _____

All work raised above has been accounted for and completed. Signature:.....

AIRBUS HELICOPTERS

WORK PACK - CONTROL PAGE

1. WORK PACK COMPILED BY ...ZURAIDA...

2. Start date: (dd/mm/yy)	3. A/C Reg. No.	4. Work Order No. / Customer Order No.
8/5/2017	9M-LKE	2017 255 001
5. Customer's name	**6. Customer's Technical Log No.**	**7.**
KI HUAT TIMBER	-	INTENTIONALLY LEFT BLANK

8. A/C Type	9. A/C S/N	10. A/C TT	11. Landings
AS350 B3e	8297	5.2	35

12. Engine Type:	13. Engine S/N:		14. Engine TT:	15. Engine Ng Cycle:	16. Engine Nf Cycle
ARRIEL 2D	Eng # 1	50942	5.2	27.0	11.0
	Eng # 2	NA	NA	NA	NA

17. Summary of customers order:

Type of check (Retrofit)

Composite Repair of LH Cargo Compartment Door edge i.a.w ESI/AS350B3/055

AD 2017-0059 / EASB 05.00.77 : Checking and ensuring water - tightness of connectors on Microswitches

18. Number of Customer Order Sheets	19. Number of Work Sheets	20. Number of Part Used Sheets
1	1	1

21. Aircraft Maintenance Manual Rev. No.	22. Engine Maintenance Manual Rev. No.	23. Maintenance Schedule Ref. No.
~~Rev 12 Dated 03 Nov 2016~~ Rev 12 Dated 9 Jan 2017	~~Rev 12 Dated 30 May 2016~~ Rev 13 Dated 30 Nov 2016	AHM/MS/AS350B3 Version, Issue no 1, ~~Rev no 0, Date: 7 May 2014~~ Rev no 1, Date: 9 Jan 2017.

24. Work Pack Closed		25. Technical Record Update	
Date (dd/mm/yy)	Signature & Stamp	Date (dd/mm/yy)	Signature & Stamp
15/5/17		15/5/17	

AIRBUS

CUSTOMER ORDER SHEET

1. **Work Order No.:** 2017 255 001

2. Item	3. Work Required	5. Performed by		6. Inspected by - CRS *		
		Sign	Auth. no.	Sign	Auth. no.	Date
0020	Composite Repair of LH Cargo Compartment Door edge i.a.w ESI/AS350B3/055 **Remarks** found "SATIS"	[signature]	405	[signature]	Airbus Helicopters Malaysia M23	15/5/17
0030	AD 2017-0059/ EASB 05.00.77 Rev. 1 Checking and ensuring water-tightness of connectors on microswitches **Remarks** TASK CARRIED OUT. FOUND SATISFACTORY	[signature]	416	[signature]	Airbus Helicopters Malaysia M06	9/5/17.

7. * The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations /~~ _____ for the time being in force an in that respect the aircraft /equipment is considered fit for Release to Service.
** Delete as required.

AIRBUS HELICOPTERS

WORK SHEET

1. Work Order No.: 2017 255 001

2. Item	3. Defect / Work	4. Authorized Personnel	5. Details of rectification with reference to approved data	6. Tech.	7. CRS #
01	L/H CARGO COMPARTMENT DOOR REMOVED DUE TO COMPOSITE REPAIR AS PER AMM 52-31-00, 4-1C.	Sign	L/H CARGO COMPARTMENT DOOR INSTALLED AS PER AMM 52-31-00, 4-1C, SATIS.	Sign	Sign
		Auth. / Emp. ID No: 387	REFER TO ITEM 0020 FOR COMPOSITE REPAIR.	Auth. no.: 412	Auth. no.
		Date	10. Man Hours: -	Date	Date
	8. Removed P/N: 350A2105320401 9. S/N: -	08/05/17	11. Installed P/N: 350A2105320601 12. S/N: -	15/5/17.	15/5/17
02	FORWARD LOWER FAIRING TO BE REMOVE AND REPLACE NEW LOWER FAIRING AS PER AMM 53-51-00, 4-2	Sign	FORWARD LOWER NEW FAIRING INSTALLED AS PER AMM 53-51-00, 4-2, SATIS.	Sign	Sign
		Auth. / Emp. ID No: 412	.	Auth. no.	Auth. no.
			PO NUMBER : LKE-3170952	412	
		Date	10. Man Hours: -	Date	Date
	8. Removed P/N: 350A2100240603 9. S/N -	08/05/17.	11. Installed P/N: 350A2100240603 12. S/N: -	15/5/17.	15/5/17
		Sign		Sign	Sign
		Auth. / Emp. ID No	.	Auth. no.	Auth. no.
		Date	10. Man Hours:	Date	Date
	8. Removed P/N: 9. S/N:		11. Installed P/N: 12. S/N:		
		Sign		Sign	Sign
		Auth. / Emp. ID No		Auth. no.	Auth. no.
		Date	10. Man Hours:	Date	Date
	8. Removed P/N: 9. S/N:		11. Installed P/N: 12. S/N:		

13. # The work recorded above has been carried out in accordance with the requirements of the * Malaysian Civil Aviation Regulations / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service.

* Delete not applicable

AIRBUS HELICOPTERS

Declaration of Compliance

Reference No:
AS350B3/377/DC

a) Design Change Description:

Modification No: **AS350B3/377**

Modification Title: **Repair of LH Cargo Compartment Door**

Description: Composite reinforcement to recover structural integrity of the lateral baggage door.

b) Modification Classification: (in accordance with AS350B3/377/RDAS)

☐ Activity: Major change / repair
Technical Field:

☒ Activity: Minor change / repair
Technical Field: Structure

c) Certification Basis: (in accordance with /MCR)

Regulation: FAR Part 27 and CS 27 (a/c incorporating mod. OP-3369 (2370 kg weight extension) and OP-4305 (Arriel2D engine installation))

Amendment: FAR Part 27, Amendments 1 to 10 included and CS 27 first issue of 14/11/2003

Type Certificate: EASA.R.008 Issue 08

d) Effectivity:

Aircraft Type: AS350B3 Serial Number: 8297 Registration Number: 9M-LKE

On behalf of the AIRBUS HELICOPTERS MALAYSIA SDN. BHD., I hereby declare that:

- our investigations have shown that the design change defined in item a) to d) fulfils the applicable airworthiness and environmental protection requirements and does not impair safety.
- the compliance documents, including affected publications, have been completed, verified and approved.
- we confirm the compliance with the procedures laid down in the AHM Design Organization Manual (ref: ECMD-01).
- we will undertake the responsibility of the change for reporting specific occurrences such as malfunction or defects, and we will assume compliance with the airworthiness codes in accordance with AHM Design Organization Manual (ref: ECMD-01).
- **the technical content of this document is approved under the authority of the DOA Approval No. DOA/2011/02.**

1. Compliance Report & Airworthiness Requirements
AS350B3/377/CCD Rev 0 or later approved revision.

2. Configuration
AS350B3/377/MDL Rev 0 or later approved revision.

3. Effects on approved documentation (e.g. Flight Manual, Operation Manual)
Maintenance schedule in accordance with AS350B3/377/RDAS Para 6.

4. Effects on airworthiness, operating and/or other limitations
None.

5. Other restrictions and/or conditions
None.

Considering the rules and restrictions mentioned above, as well as appropriate use, no objections or characteristics which impair the safety of the change/repair could be detected.

I, therefore, ☐ **Recommend approval of these data**
☒ **Approve these data**

Sudriman Hassan
Authorised Signatory *Date* 27/4/2017 *Signature*

AIRBUS HELICOPTERS MALAYSIA SDN. BHD. (591041-A) (formerly known as Eurocopter Malaysia Sdn. Bhd.)
Helicopter Centre, Malaysia International Aerospace Centre,
Sultan Abdul Aziz Shah Airport, 47200 Subang, Selangor Darul Ehsan, Malaysia.
Tel: 603-78483408 Fax: 603-78483409

Engineering Services Instruction

No. Of Pages : 6

1. AIRCRAFT /ENGINE /EQUIPMENT TYPE:
   AS350B3

2. ATA CHAPTER: 52

3. EFFECTIVITY: 8297

4. DESCRIPTION:
   Composite repair on the LH Cargo Compartment Door edge.

5. REFERENCES / SOURCE DOC:
   1. Declaration of Compliance: AS350B3/377/DC
   2. AHM Modification Document : AS350B3/377/RDAS.

6. REASON:
   To restore the peforation on the LH Cargo Compartment Door edge.

7. REASON FOR REVISION:
   Not applicable

8. COMPLIANCE:

   INITIAL: Compliance with this modification is left to the operator's or installer's initiative.

   REPEAT: Not applicable

9. AFFECTED DEPARTMENT

No.	Department	Task
1.	Planning and Aircraft Management Department	Distribute work order for ESI/AS350B3/055 to be carried out.
2.	Maintenance	To carry out the instruction according with ESI/AS350B3/055.

Note: Please refer to continuation sheet (if applicable)

PREPARED BY:

X
ENGINEER

Hui CHOW DATE: 27/4/2017

APPROVED BY:

X
ESD MANAGER

Sudriman HASSAN DATE: 27/4/2017

* The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service.
** Delete as required.

1. Preliminary Steps

Item	Work Required	Performed By		Inspected By - CRS*		
		Sign	Staff. No	Sign	Auth. No.	Date
1.1	Remove LH Lateral Cargo Hold Door in accordance with AMM 52-31-00,4-1C. Remarks: CARRIED OUT " SATIS "		387		M27	8/5/17

2. Repair of Monolithic Structure (Figure 1)

Item	Work Required	Performed By		Inspected By - CRS*		
		Sign	Staff. No	Sign	Auth. No.	Date
2.1	Trim damaged material. Remarks: CARRIED OUT " SATIS "		405		M23	8/5/17
2.2	Create stepped surface in accordance with Figure 1. Remarks: CARRIED OUT " SATIS "		405		M23	8/5/17
2.3	Prepare surface for bonding in accordance with MTC 20-04-05-436. Remarks: CARRIED OUT " SATIS "		405		M23	8/5/17
2.4	Prepare adhesive of HYSOL EA 9396 as per MTC 20.06.01.411. Remarks: CARRIED OUT " SATIS "		405		M23	8/5/17

* The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service.
** Delete as required.

Item	Work Required	Performed By		Inspected By - CRS*		
		Sign	Staff. No	Sign	Auth. No.	Date
2.5	Install 4 plies (1) wrapping the edge, overlapping each ply by 12 mm minimum, in accordance with Figure 1. Clamp with two pieces of sheet metal if necessary. Remarks: CARRIED OUT "SATIS"		405		M23	8/5/17
2.6	Cure repair with vacuum bag in accordance with MTC 20-03-06-406. Remarks: CARRIED OUT "SATIS"		405		M23	8/5/17

3. Final Steps

Item	Work Required	Performed By		Inspected By - CRS*		
		Sign	Staff. No	Sign	Auth. No.	Date
3.1	Touch up exterior with top coat in accordance with MTC 20.04.05.101. Remarks: CARRIED OUT "SATIS"		405		M23	9/5/17
3.2	Touch up interior with P20 in accordance with MTC 20.04.05.402. Remarks: CARRIED OUT "SATIS"		405		M23	9/5/17
3.3	Reinstall LH Lateral Cargo Hold Door in accordance with AMM 52-31-00,4-1C. Remarks: CARRIED OUT "SATIS"		412		M37	15/5/17

* The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service.

** Delete as required.

APPENDIX: Material Information

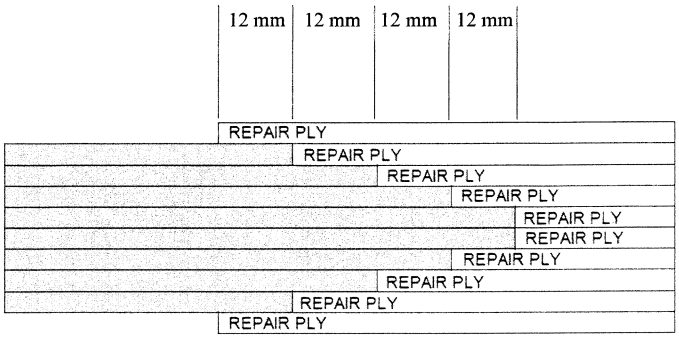
New parts:

New P/N	QTY	Item	Keyword	Former P/N	Instructions Disposition
HCS 2410-020	AR	1	GLASS CLOTH		

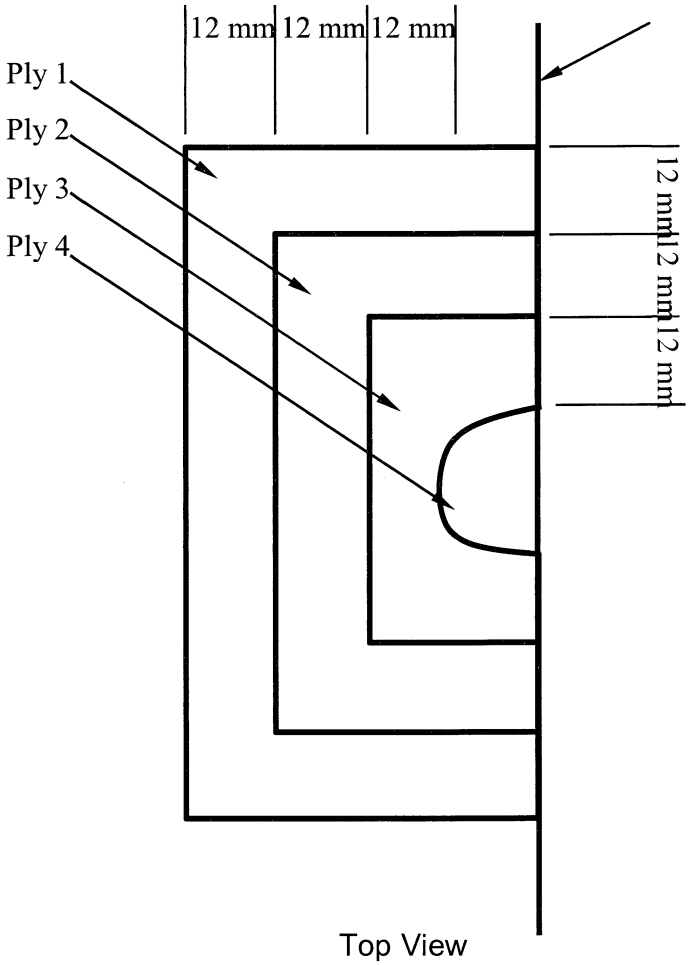
Consumables:

HYSOL EA 9396	Adhesive
Commercial	180 - 400 grit sand paper
Commercial	Cleaning Agent
Commercial	Top coat

* The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service. ** Delete as required.



Side View



Top View

Figure 1

* The work recorded above has been carried out in accordance with the requirements of the ** Malaysian Civil Aviation Regulation / ~~FAA Regulations~~ / _____ for the time being in force and in that respect the aircraft / equipment is considered fit for Release to Service. ** Delete as required.

Repair Design Approval Sheet

This form provides evidence of approved repair data in accordance with AHMP-10.

1 Organisation: AIRBUS HELICOPTERS	1A RDAS Ref No: AS350B3/377/RDAS Date: 27/4/2017	Issue No: 0	Page 1 of 6
Organisation operating H/C (Owner) KI HUAT	H/C Type: AS350 B3	Ser No: 8297 Reg No: 9M-LKE	F/H 4.5 F/C 28
	H/C Component: DOOR INST,CARGO COMPARTMENT,LH	Part No: 350A21-0532-0201 Ser No: N/A	F/H N/A F/C N/A

Title: Repair of LH Cargo Compartment Door

1B
Damage/Repair Description: see Annex 2 for damage description and Annex 3 for repair description

Drawing No(s): None

2
Repair Classification : ~~MAJOR~~ / MINOR(*) according to AHMP-10 & AHMP-07
(: Please delete as appropriate)*

Reasons for Classification: See Annex 1	**Airworthiness Approval for repair classification** Name & Signature: Sudriman HASSAN Date: 27/4/2017
3 TCDS ref. & Regulations involved:	EASA.R.008, FAR Part 27, Amendments 1 to 10 included and special conditions defined in DGAC-F letter 971726 dated April 3, 1997

4
Justification: AS350B3/377/CCD

5
Fatigue Evaluation Document: None

5A
Other related substantiation (includes ref. to communication with TC/STC, ...): None

6
Impact on Maintenance Program/Operational Procedures:

- Details of impact on existing Maintenance Program
  Annex 3 Para 6
- Details of impact on Operational Procedures
  N/A

Compliance is declared with the airworthiness and environmental protection requirements as defined under Para. 3. This declaration has been made under the DOA privilege referenced in Para. 1.

7 **Prepared by**	Name & Signature: Hui CHOW Date: 27/4/2017
8 **Verified by**	Name & Signature: Sudriman HASSAN Date: 27/4/2017
9 **Approved by**	Name & Signature: Chuen Kat WONG Date: 27/4/2017

Distribution list: Airbus Helicopters (M) Sdn Bhd and Ki Huat.

The technical content of this document is approved under the authority of the DOA Approval No. DOA/2011/02

Annex 1 – Reasons for Classification

CRITERION	YES	NO	EXPLANATIONS
The repair has appreciable effect on weight and balance.	☐	☒	No effect on weight and balance since the repair does not introduce parts or installation with significant weight.
The repair has appreciable effect on structural performance such as: o Fatigue / damage tolerance characteristics adversely affected, o Fatigue behaviour (if the new lifetime of the changed part is below the lifetime published for the original part), o Flutter and stiffness characteristics adversely affected. o Changes of materials, processes or manufacturing methods of primary structural elements or other critical parts	☐ ☐ ☐ ☐	☒ ☒ ☒ ☒	Structural performance is not appreciably affected because this repair is performed to restore its original condition.
The repair has appreciable effect on performance such as: o Approved performance adversely affected, o Flight envelope adversely affected, o Handling qualities adversely affected,	☐ ☐ ☐	☒ ☒ ☒	Not applicable since this repair does not affect performance.
The repair has appreciable effect on o Aerodynamics o Load path and load sharing o Noise and emissions o Fire protection / resistance	☐ ☐ ☐ ☐	☒ ☒ ☒ ☒	No impact on aerodynamic performance since repair restore original design and no significant weight added.
The demonstration of compliance uses methods or processes that have not been previously accepted as appropriate for the nature of the repair (i.e. unusual material selection, heat treatment, material processes, jigging diagrams etc)	☐	☒	The repair is performed based on Maintenance Manual (AMM) and referenced from Standard Practices manual (MTC).
The repair has appreciable effect on the Airworthiness Limitations section of the maintenance manual.	☐	☒	The repair does not affect Airworthiness Limitations.
The repair has appreciable effect on the operation of the complete system (i.e. significant impact on critical function) and on system redundancy.	☐	☒	Not applicable.
The repair requires a permanent additional inspection to the approved maintenance programme.	☐	☒	No permanent additional inspection is added to the maintenance programme.
The repair constitutes the subject or impacts the content of an Airworthiness Directive	☐	☒	No Airworthiness Directive is associated with or impacted by this repair.
Means of compliance with certification rules are unusual	☐	☒	Standard means of compliance.
The extent of new substantiation data necessary to comply with the applicable airworthiness requirements and the degree to which the original substantiation data has to be re-assessed and re-evaluated is considerable.	☐	☒	Not applicable.

Notes / Remarks:
N/A

Annex 2: Description of Damage

SUBJECT: Repair of LH Cargo Compartment Door

Operator reported that the Door INST, Cargo Compartment, LH has a perforation at the aft lower end.

Figure 1

Annex 3: Description of Repair

SUBJECT: Repair of LH Cargo Compartment Door

1 APPLICABLE DOCUMENTATION

MTC 20.03.06.406	Structural repairs vacuum bag techniques
MTC 20.03.07.101	Repair and machining of composite material: General
MTC 20.04.01.102	Use of cleaning products on individual parts and on aircraft
MTC 20.04.04.401	Surface treatment before painting
MTC 20.04.05.101	General information about painting means and paint touch up
MTC 20.04.05.402	Application of epoxy primer p05 - p20
MTC 20.04.05.436	Application of paint touch-ups
MTC 20.06.01.101	General rules for bonding with adhesives
MTC 20.06.01.411	Application of HYSOL EA 9396 cement

2 MATERIALS INFORMATION:

2.1 NEW PARTS:

New P/N	QTY	Item	Keyword	Former P/N	Instructions Disposition
HCS 2410-020	AR	1	GLASS CLOTH		

2.2 CONSUMABLES:

HYSOL EA 9396	Adhesive
Commercial	180 - 400 grit sand paper
Commercial	Cleaning Agent
Commercial	Top coat

2.3 SPECIAL TOOLS:

None.

3 PROCEDURE:

3.1 Preliminary Steps

3.1.1 Remove LH Lateral Cargo Hold Door in accordance with AMM 52-31-00,4-1C.

3.2 Repair of Monolithic Structure (Figure 2)

3.2.1 Trim damaged material.
3.2.2 Create stepped surface in accordance with Figure 2.
3.2.3 Prepare surface for bonding in accordance with MTC 20-04-05-436.
3.2.4 Prepare adhesive of HYSOL EA 9396 as per MTC 20.06.01.411.
3.2.5 Install 4 plies (1) wrapping the edge, overlapping each ply by 12 mm minimum, in accordance with Figure 2. Clamp with two pieces of sheet metal if necessary.
3.2.6 Cure repair with vacuum bag in accordance with MTC 20.03.06.406.

3.3 Final Steps

3.3.1 Touch up exterior with top coat in accordance with MTC 20.04.05.101.
3.3.2 Touch up interior with P20 in accordance with MTC 20.04.05.402.
3.3.3 Reinstall LH Lateral Cargo Hold Door in accordance with AMM 52-31-00,4-1C.

4 IMPLEMENTATION

All work shall be carried out in accordance with the instructions above and all applicable documentation mentioned in this RDAS.

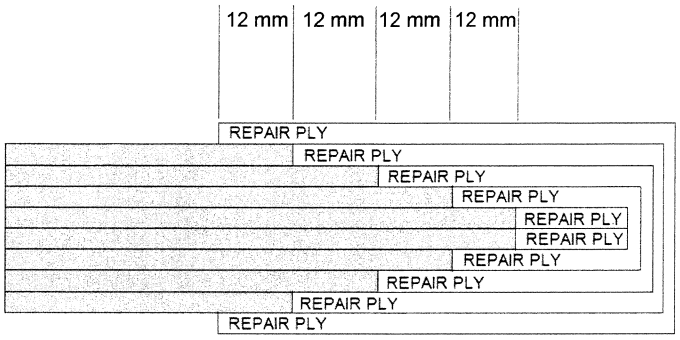
5 DOCUMENTATION

Enter the application of the RDAS ref. no. AS350B3/377/RDAS in the aircraft log book.

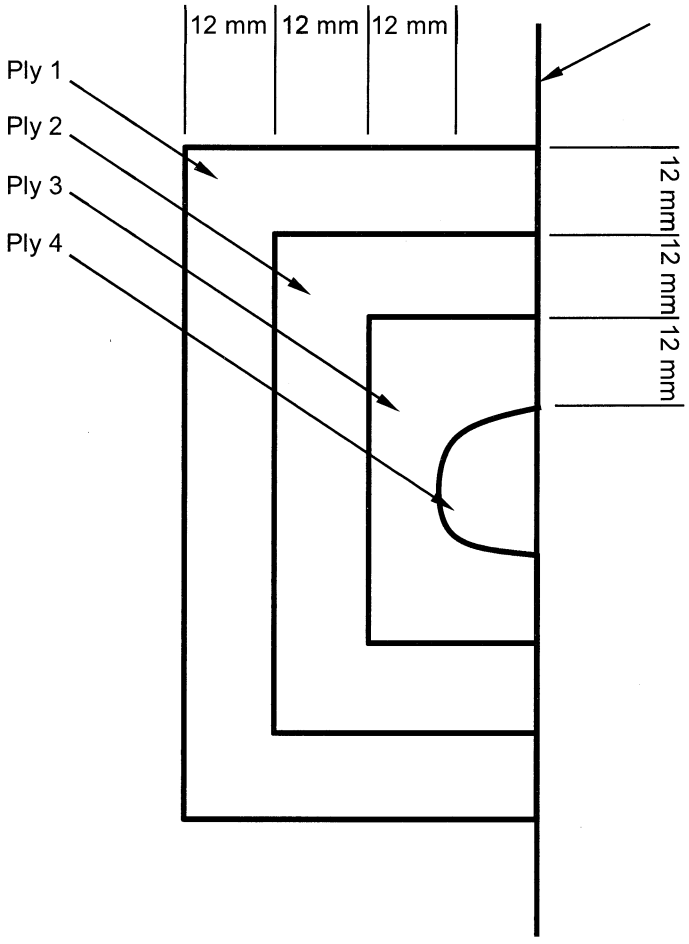
6 MONITORING

MAINTENANCE ACTION
- Airbus Helicopter Malaysia recommends checking the repaired area after 25 FH. If finding occurs, contact Airbus Helicopter Malaysia. Suspend operation until further notice. - Resume schedule interval as per Operator Approved Maintenance Program after first inspection.

7 FIGURE



Side View



Top View

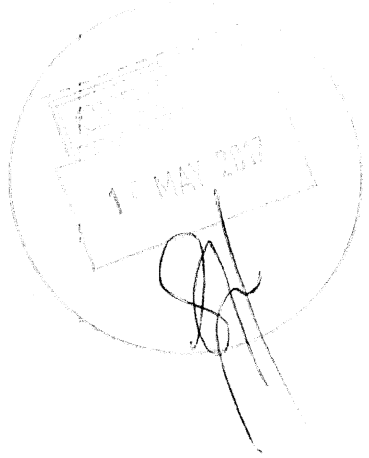
Figure 2

AIRBUS HELICOPTERS

. ARTS (AND CONSUMABLES) USED SH_ _T

I. RIC No.: 2017 255

2. Item	3. Ref. CO/WS	4. Part Name	5. Part No.	6. Serial No.	7. PO No.	8. Issued	9. Used	10. Returned
1	2017 255 001	CARENAGEM INFERIOR DIANTEIRA	⇨ 350A21002406A3			1.00	1.00	0.00
2	2017 255 001	PIN	⇨ 23310CA020015			2.00	2.00	0.00



1. Approving Competent Authority / Country	2	3. Form Tracking Number
DIRECTION GÉNÉRALE DE L'AVIATION CIVILE - FRANCE	**AUTHORISED RELEASE CERTIFICATE** **EASA FORM 1**	10252969/17

4. Organisation Name and Address

AIRBUS HELICOPTERS
Aéroport International Marseille Provence
13725 Marignane, France

AIRBUS HELICOPTERS

5. Work Order / Contract / Invoice

ICU F021010090887189

6. Item	7. Description	8. Part No.	9. Qty	10. Serial No	11.Status / Work
001	FRONT LOWER COWLING ASSY, BASIC	350A21002406A3	1/EA	N/A	NEW

12. Remarks: This document has been printed from electronic file.

13a. Certifies that the items identified above were manufactured in conformity to:

[X] approved design data and are in a condition for safe operation

[ ] non-approved design data specified in block 12

14a.

[ ] Part-145.A.50 Release to Service [ ] Other Regulations specified in Block 12

Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.

13b. Authorised Signature	13c. Approval / Authorisation Number	14b. Authorised Signature	14c. Certificate / Approval Ref. No
Electronic Signature on File	FR.21G.0003	Electronic Signature on File	
13d. Name	**13e. Date (d/m/y)**	**14d. Name**	**14e. Date (d/m/y)**
FERNANDEZ Christophe	11. Apr. 2017		

User / Installer Responsibilities

This certificate does not automatically constitute authority to install the item(s).
Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1.
Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

AIRBUS HELICOPTERS

Delivery address
Airbus Helicopters Malaysia Sdn Bhd
(formerly EUROCOPTER MALAYSIA SDN BHD)
Helicopter Centre
Malaysia International Aerospace Centre
(MIAC)
SULTAN ABDUL AZIZ SHAH AIRPORT
47200 SUBANG - SELANGOR
Malaysia

Invoice address
Company
AIRBUS HELICOPTERS MALAYSIA SDN BHD
HELICOPTER CENTRE
MALAYSIA INTERNATIONAL AEROSPACE
CENTRE (MIAC)
SULTAN ABDUL AZIZ SHAH AIRPORT
47200 SUBANG - SELANGOR
Malaysia

Certificate / Declaration of Conformity

CoC No/ Delivery Creation Date:
847555481 / 20.04.2017
Our AH Contract:

Customer Number :
55009791
Your Contact :
Marine Abraham
Telephone :
+33 442 754 455
Fax :
+33 (0) 442 85 14 33
E-mail :
marine.abraham@eurocopter.com

All the parts listed hereon have been manufactured and inspected in accordance with all the technical applicable specifications, drawings, standards rules, and have been kept in an airworthy condition according to Airbus Helicopters procedures and quality system.

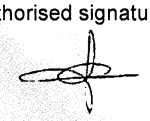
Your order / Order Creation Date:
LKE-3170952 / 20.04.2017
Our AH Order:
2624183

Item	Quantity	Code	Designation Ordered reference Delivered reference NATO code Customer reference
	1 PC		COWLING LOWER FRONT
10			350A21002406A3
10		P	350A21002406A3
			F0210

CERTIFICATION CLAUSE

Nous certifions que, sauf exception ou dérogations énumérées ci-contre, la fourniture citée a été fabriquée conformément aux spécifications techniques du marché, commande ou sous-commande du client et que, toutes opérations de contrôle et essais effectués, elle répond sous tous ses aspects, aux spécifications particulières, ci-jointe, aux plans, ainsi qu'aux normes et règlements en vigueur s'y rapportant.

We certify that, apart from exceptions or concessions listed below, the supply concerned has been manufactured in accordance with the technical specifications contained in the customer's contract, purchase order or sub-contract and that, all inspection operations and tests having been carried out, it is conforming, in all points, to the particular specifications, therein included, the applicable drawing and current standards and rules.

DATE-NAME AND VISA	Waiver - Concessions	DATE-STAMP-NAME AND VISA
PLANT Name : GILLIBERT Chantal Title : Quality Inspection Date : 20 Apr. 2017 Authorised signature :  Document validated by electronic signature		

AIRBUS HELICOPTERS

STORE IDENTIFICATION SERVICEABLE LABEL

AHM.50.001

CARENAGEM INFERIOR DIANTEIRA

Part Number: 350A21002406A3

Serial Number: No te: P

P.O Number: LKE - 3170952

P.O Line Item: 0

Bin Location:

Project Code:

Quantity: 1

Date Received: **25.04.17** Shelf Life

INSPECTO

NEW

USE

AIRBUS HELICOPTERS

AIRBUS HELICOPTERS MALAYSIA SDN. BHD.
INTERNAL STOCK ISSUE OUT

Item	P/N	Description	P
1	350A21002406A3	CARENAGEM INFERIOR DIANTEIRA	3

Other Information:
Aircraft Type: AS350 B3e
Aircraft Registration No.

Issue By:

Receive By:

Signature :

Name : sam alagan

NRIC :

Date of Receipt : 8/5/17

Airworthiness Directive

AD No.: 2017-0059

Issued: 06 April 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:	Type/Model designation(s):
AIRBUS HELICOPTERS	AS 350 and EC 130 helicopters

Effective Date:	13 April 2017
TCDS Number(s):	EASA.R.008
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2017-0052 dated 24 March 2017.

ATA 76 – Engine Controls – Switches 53Ka, 53Kb and 65K – Inspection / Modification

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Manufacturer(s):
Airbus Helicopters (formerly Eurocopter)

Applicability:
AS 350 B3 helicopters, all serial numbers, if equipped with a Turbomeca ARRIEL 2B1 engine incorporating the two-channel FADEC (modification (MOD) 073254) and embodying MOD 073261 (new twist grip), or if equipped with a Turbomeca ARRIEL 2D engine (MOD 074302).

EC 130 B4 helicopters, all serial numbers, if equipped with a Turbomeca ARRIEL 2B1 engine incorporating the two-channel FADEC and embodying MOD 073773 (new twist grip).

EC 130 T2 helicopters, all serial numbers, if equipped with a Turbomeca ARRIEL 2D engine.

Reason:
During trouble-shooting analysis performed by Eurocopter, a dormant failure risk was identified for one of the two switches, 53Ka or 53Kb, following the introduction of MOD 073261 (AS 350 B3) or MOD 073773 (EC 130 B4).

This condition, if not detected and corrected, would, in case of failure of the other switch, prevent the pilot to switch from "IDLE" to "FLIGHT" mode during training of autorotation landing, which

would make aborting the autorotation impossible and compel the pilot to continue autorotation until touchdown.

To address this potential unsafe condition, EASA issued AD 2009-0256 to require, pending the development of a modification, repetitive inspections of the switches 53Ka and 53Kb for correct opening and closing and, depending on findings, corrective action(s).

Subsequently, Eurocopter designed a new modification intended, in case of simultaneous failure of switches 53Ka and 53Kb, to recover engine "FLIGHT" mode when the pilot operates the twist grip. Newly built helicopters are fitted with this modification, identified as MOD 074263. Installation of that modification on in-service helicopters was made possible through Eurocopter Alert Service Bulletins (ASB) No. AS350-80.00.09 or ASB No. EC130-80A005, as applicable. Consequently, EASA issued AD 2013-0061, retaining the requirements of EASA AD 2009-0256, which was superseded, to require a modification, improving the twist grip operational logic and constituting terminating action for the repetitive inspections.

After that AD was issued, Eurocopter found an error in the modification installation procedure as presented in Eurocopter ASB No. AS350-80.00.09 and ASB No. EC130-80A005. As a consequence of this error, helicopters modified in-service in accordance with the instructions of those ASBs were not in conformity with the approved modification design. The error identified in the ASBs did not affect helicopters with MOD 074263 installed on the assembly line. Additionally, in the course of investigation into causes of a recent accident of an AS 350 B3 helicopter operated offshore, involving engine power loss in flight, it was found that operation of switches in the engine "IDLE" / "FLIGHT" control system could be affected by corrosive effects of operating in a salt-laden atmosphere, possibly resulting in engine power loss. These effects are not prevented by installation of MOD 074263.

Consequently, EASA issued Emergency AD 2013-0191-E, superseding EASA AD 2013-0061, to require repetitive inspections for corrosion, installation of protection against corrosive environment, testing for insulation and operation of the switches in the engine "IDLE" / "FLIGHT" control system and, depending on findings, accomplishment of applicable corrective action(s). Additionally, that AD required in-service helicopters to be modified to install an improved twist grip operational logic (MOD 074263) in conformity with the approved design. That AD also amended the status of MOD 074263, which was no longer considered terminating action for the required repetitive maintenance actions.

After EASA AD 2013-0191-E was issued, following feedback from some operators, Airbus Helicopters added complementary specifications to the operational procedure and introduced, for configuration management, reference to MOD 074699 and extended the applicability to helicopters equipped with a Turbomeca ARRIEL 2D engine. Consequently, EASA issued AD 2017-0052, retaining the requirements of EASA Emergency AD 2013-0191-E, which was superseded, to require installation of MOD 074699 and expanding the Applicability.

Since that AD was issued, errors were discovered in the Applicability, also inadvertently omitting the Model EC 130 T2.

For the reason described above, this AD retains all requirements from EASA AD 2017-0052, which is superseded, but corrects the Applicability, adjusts certain compliance times, and introduces several editorial changes for clarification and readability.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

Modification (MOD 074263): For all pre-MOD 074263 helicopters, except those equipped with a SAFRAN (Turbomeca) ARRIEL 2D engine, as installed on the assembly line:

(1) Within 6 months after 23 August 2013 [the effective date of EASA AD 2013-0191-E], modify the twist grip operational logic in accordance with the instructions of paragraph 3, excluding paragraph 3.B.2.a.2, of Eurocopter ASB No. AS350-80.00.09 Revision 1, or ASB No. EC130-80A005 Revision 1, as applicable.

(2) For helicopters already modified before 23 August 2013 [the effective date of EASA AD 2013-0191-E] in accordance with the instructions of the original issue of Eurocopter ASB No. AS350-80.00.09, or ASB No. EC130-80A005, as applicable, within 6 months after 23 August 2013, modify the twist grip operational logic in accordance with the instructions of paragraph 3, excluding paragraph 3.B.2.a.1, of Eurocopter ASB No. AS350-80.00.09 Revision 1, or ASB No. EC130-80A005 Revision 1, as applicable.

Note 1: Airbus Helicopters AS350 ASB No. 05.00.61 Revision 3, AS350 Emergency ASB No. 05.00.77 Revision 1, EC130 Emergency ASB No. 05A009 Revision 3, and EC130 Emergency ASB No. 05A014 Revision 1, are hereafter collectively referred to as 'the applicable ASB' in this AD.

Modification (MOD 074699):

(3) Within the compliance time as specified in Table 1 of this AD, as applicable, install MOD 074699, inspect and test the "IDLE" and "FLIGHT" controls on the pilot's and co-pilot's twist grips in accordance with the instructions of paragraph 3 of the applicable ASB.

Table 1 – Modification

Helicopters in Pre-MOD 074699 Configuration	**Compliance Time**
AS 350 B3 (except those with ARRIEL 2D engine) and EC 130 B4	Within 10 flight hours (FH) or 7 days, whichever occurs first after 23 August 2013 [the effective date of EASA AD 2013-0191-E]
AS 350 B3 equipped with ARRIEL 2D engine, and EC 130 T2 helicopters	Within 10 FH or 7 days, whichever occurs first after the effective date of this AD

Repetitive Inspections:

(4) Within 330 FH after installation of MOD 074699 (see Note 2 of this AD), or within 30 days after the effective date of this AD, whichever occurs later, and, thereafter, at intervals not to exceed the values specified in Table 2 of this AD, inspect and test the "IDLE" and "FLIGHT" controls on the pilot's and co-pilot's twist grips in accordance with the instructions of paragraph 3 of the applicable ASB.

Note 2: The compliance time of paragraph (4) of this AD is since first flight of the helicopter (MOD 074699 installed during manufacture), or after the moment of in-service modification in accordance with the instructions of the applicable ASB, as required by paragraph (3) of this AD, as applicable.

Table 2 – Repetitive Inspections / Tests

Helicopter Operating Conditions (since last inspection/test as required by paragraph (3) or (4) of this AD)	**Interval** (not to exceed, whichever occurs first)
For helicopters which operate or have operated in salt laden atmospheric conditions (see Note 3 of this AD)	330 FH or 6 months
For helicopters which do not operate and have not operated in salt laden atmospheric conditions (see Note 3 of this AD)	660 FH or 12 months

Note 3: For the purpose of this AD, a salt laden atmospheric condition is defined to exist when a helicopter is ship-based, or based less than 1 km from the coast, or when an offshore flight is conducted at an altitude below 1 000 feet.

Credit:

(5) Modification (MOD 074699), test and inspection of a helicopter, accomplished before the effective date of this AD in accordance with the instructions of an earlier issue of the applicable ASB, is acceptable to comply with the initial requirements of paragraphs (3) and (4) of this AD.

Corrective Action(s):

(6) If, during any inspection or test as required by paragraph (3) or (4) of this AD, as applicable, discrepancies are detected, before next flight, accomplish the applicable corrective action(s), depending on findings, in accordance with the instructions of paragraph 3 of the applicable ASB.

Terminating Action:

(7) None.

Ref. Publications:

Eurocopter AS350 Emergency ASB No. 05.00.61 and EC130 Emergency ASB No. 05A009 (published as single document) original issue dated 16 November 2009, or Revision 1 dated 22 November 2012, or Revision 2 dated 13 August 2013, or Airbus Helicopters ASB No. 05.00.61 and EC130 Emergency ASB No. 05A009 Revision 3 dated 15 June 2015.

Airbus Helicopters AS350 Emergency ASB No. 05.00.77 and EC130 Emergency ASB No. 05A014 (published as single document) original issue dated 03 February 2015, or Revision 1 dated 15 June 2015.

Eurocopter ASB No. AS350-80.00.09 original issue dated 22 November 2012, and Revision 1 dated 13 August 2013.

Eurocopter ASB No. EC130-80A005 original issue dated 22 November 2012, and Revision 1 dated 13 August 2013.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

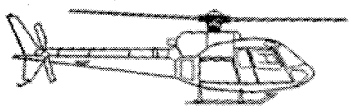
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters - Aéroport de Marseille Provence 13725 Marignane Cedex, France. Telephone +33 (0) 4 42 85 97 97, Fax +33 (0) 4 42 85 99 66.
   E-mail: support.technical-avionics.ah@airbus.com
   Internet: https://keycopter.airbushelicopters.com > Technical Requests Management.

AIRBUS HELICOPTERS

EASB

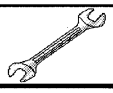


EMERGENCY
ALERT SERVICE BULLETIN

SUBJECT: TIME LIMITS - MAINTENANCE CHECKS - Twist grip

Checking and ensuring water-tightness of connectors on microswitches 53Ka, 53Kb and 65K (IDLE / FLIGHT modes)

Corresponds to modification 07-4699
ATA 76

For the attention of	
	

AIRCRAFT CONCERNED	NUMBER	Version(s)	
		Civil	Military
AS350	05.00.77	B3	
AS550	05.00.52		C3
EC130	05A014	T2	

Revision No.	Date of issue
Revision 0	2015-02-03
Revision 1	2015-06-15

Summary:
The purpose of this ALERT SERVICE BULLETIN is to check the connectors on microswitches 53Ka, 53Kb and 65K (IDLE/FLIGHT modes) on the twist grip and to make them water-tight.

Reason for last revision:
The purpose of Revision 1 of this ALERT SERVICE BULLETIN is to give information concerning:
- compliance with the check on the copilot's side as per paragraph 3.A.
- the insulation test as per paragraph 3.B.3.

Compliance:
Airbus Helicopters renders compliance with this ALERT SERVICE BULLETIN mandatory.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment

AS350 and AS550 helicopters equipped with the ARRIEL 2D engine (MOD 07-4302).
EC130 helicopters equipped with the ARRIEL 2D engine.

NOTE 1

Refer to the aircraft individual inspection record (MOD record), the equipment log cards (FMs) or the aircraft log book to identify the actual configuration of the helicopter.

1.A.2. Non-installed equipment

Not applicable.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

Revision 0:
Following a recent incident (significant loss of power in flight), which occurred during an offshore flight, the subsequent investigations and tests revealed that the operation of the microswitches involved could be impaired due to the environmental conditions (malfunction related to the possible presence of salt water on the microswitch terminals).

The malfunction of a microswitch may prevent the change from "IDLE" mode to "FLIGHT" mode.

The purpose of this ALERT SERVICE BULLETIN is to apply a protective varnish in order to ensure water-tightness of the connectors of the microswitches concerned, subject of modification 07-4699.

Revision 1:
The purpose of Revision 1 of this ALERT SERVICE BULLETIN is to give information:
- in paragraph 3.A.: compliance with the check on the copilot's side.
- in paragraph 3.B.3.: the insulation test is not applicable between all terminals.

Revision 1 does not affect compliance with Revision 0 of this ALERT SERVICE BULLETIN.

1.D. DESCRIPTION

- Visual inspection to make sure there is no corrosion on the microswitches.
- Electrical test and check.
- Application of protective varnish.

1.E. COMPLIANCE

1.E.1. Compliance at the works

Not applicable.

1.E.2. Compliance in service

Helicopters/installed equipment:

1.E.2.a. For the helicopters concerned given in paragraph 1.A.1. and which do not embody modification 07-4699:

NOTE 2

Modification 07-4699 introduces the application of a protective varnish in order to ensure water-tightness of the connectors of microswitches 53Ka, 53Kb and 65K.

Comply with paragraph 3. of this ALERT SERVICE BULLETIN **within 10 flying hours or 7 days** (the first limit reached is applicable) following compliance with Revision 0, issued on February 3, 2015.

THEN

1) For all the helicopters concerned given in paragraph 1.A.1. which operate or have operated in salt-laden conditions [salt-laden conditions persist when a helicopter is ship-based, based less than 1km from the coast or performs an offshore flight at low altitude (below 300m)]:

   - comply with paragraph 3. of this ALERT SERVICE BULLETIN at intervals not exceeding **330 flying hours or 6 months** (the first limit reached is applicable).

OR

2) For all the helicopters concerned given in paragraph 1.A.1. which do not operate and have never operated in salt-laden conditions:

   - comply with paragraph 3. of this ALERT SERVICE BULLETIN at intervals not exceeding **660 flying hours or 12 months** (the first limit reached is applicable).

1.E.2.b. For the helicopters concerned given in paragraph 1.A.1. and which embody modification 07-4699

1) For the helicopters which operate or have operated in salt-laden conditions since embodiment of modification 07-4699 [salt-laden conditions persist when a helicopter is ship-based, based less than 1km from the coast or performs an offshore flight at low altitude (below 300m)]:

   - comply with paragraph 3. of this ALERT SERVICE BULLETIN at intervals not exceeding **330 flying hours or 6 months** since embodiment of modification 07-4699 (the first limit reached is applicable).

OR

2) For the helicopters which do not operate and have never operated in salt-laden conditions since embodiment of modification 07-4699:

   - comply with paragraph 3 of this ALERT SERVICE BULLETIN at intervals not exceeding **660 flying hours or 12 months** since embodiment of modification 07-4699 (the first limit reached is applicable).

Non-installed equipment:

Not applicable.

1.F. APPROVAL

Approval of modifications:

The information or instructions relate to modification 07-4699 which was approved on July 22, 2014 under the authority of EASA Design Organization Approval No. 21J.056 for helicopters of civil versions subject to an Airworthiness Certificate.

The information or instructions relate to modification 07-4699, which was approved on July 22, 2014 by the Airbus Helicopters Airworthiness Department for export military versions.

Approval of this document:

The technical information contained in this ALERT SERVICE BULLETIN Revision 0 was approved on February 02, 2015 under the authority of EASA Design Organization Approval No. 21J.056 for helicopters of civil versions subject to an Airworthiness Certificate.

The technical information contained in this ALERT SERVICE BULLETIN Revision 0 was approved on February 02, 2015 by the Airbus Helicopters Airworthiness Department for export military versions.

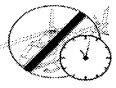
The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on June 15, 2015 under the authority of EASA Design Organization Approval No. 21J.056 for helicopters of civil versions subject to an Airworthiness Certificate.

The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on June 15, 2015 by the Airbus Helicopters Airworthiness Department for export military versions.

1.G. MANPOWER

Qualification:
1 Avionics Technician.

Time for the operations:
4 hours.



Estimated helicopter grounding time:
half a day.

1.H. WEIGHT AND BALANCE

Not applicable.

1.I. EFFECT ON ELECTRICAL LOADS

Not applicable.

1.J. SOFTWARE MODIFICATION EMBODIMENT RECORD

Not applicable.

1.K. REFERENCES

Aircraft Maintenance Manual (AMM):
- Task 24-00-00, 3-1
- Task 53-51-00, 4-2
- Task 76-12-04, 4-1
- Task 76-12-04, 5-1

Standard Practices Manual (MTC):
- Work Card: 20.04.03.401
- Work Card: 20.04.03.103

1.L. DOCUMENTS AFFECTED

The following document will be the subject of a future update: AMM

1.M. INTERCHANGEABILITY OR MIXABILITY OF PARTS

Not applicable.

2. MATERIAL INFORMATION

2.A. MATERIAL: PRICE - AVAILABILITY - PROCUREMENT

For any information concerning the price of components, contact the Airbus Helicopters Network Sales & Customer Relations Department.

NOTE 1

On the purchase order, please specify the mode of transport, the destination and the serial numbers of the aircraft to be modified.

NOTE 2

For ALERT SERVICE BULLETINS, order by:
Telex: HELICOP 410 969F.
Fax: +33 (0)4.42.85.99.96.

2.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

For any information concerning technical support, contact the Sales and Customer Relations Department of the Airbus Helicopters network.

For any technical information, contact the Technical Support Department of Airbus Helicopters:
Fax: +33 (0)4 42 85 99 66
Email: Avionics.Technical-Support@eurocopter.com

2.C. MATERIAL REQUIRED FOR EACH HELICOPTER/COMPONENT

Products to be ordered separately:

Refer to the Work Cards and Tasks specified in this ALERT SERVICE BULLETIN and the list below:

Material P/N	Qty	Item	Designation	Former Part Number	Instruction
E0718-00-30	A/R	10	Transparent heat shrink sheath		
E0718-02-30	A/R	11	Transparent heat shrink sheath		
ECS2228.10	A/R	12	Vernelec 43022 varnish or equivalent		

The products can be ordered separately from the INTERTURBINE AVIATION LOGISTICS company:
Website: http://www.interturbine.com
Telephone: +49.41.91.809.300
AOG: +49.41.91.809.444

Tooling:

Designation	Qty	Part Number	Item
Megohmmeter	1	Off the shelf	zz
Ohmmeter	1	Off the shelf	yy

2.D. MATERIAL TO BE RETURNED

Not applicable.

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

CAUTION

APPLY THE ROTOR BRAKE TO PREVENT ANY RISK OF STARTING.

Read and comply with the general instructions as per AMM Task 24-00-00, 3-1.
Carry out the check described below, on the pilot's and/or copilot's side according to the helicopter version.

3.B. OPERATIONAL PROCEDURE

3.B.1. Visual inspection of the microswitches (Figure 1)

3.B.1.a. Removal of fairings

- Remove the forward lower fairing as per AMM Task 53-51-00, 4-2.
- Remove the protective cover (b).

3.B.1.b. Visual inspection (Figure 1)

- Inspect the wiring side of microswitches (c), (d) and (e) in order to ensure that there are no marks, residues, corrosion or flaky varnish (DETAIL A - Figure 1).
- If there are marks, residues, corrosion or flaky varnish, comply with paragraph 3.B.2.
- If there are no marks, residues, corrosion or flaky varnish, comply with paragraph 3.B.3.

3.B.2. Procedure in the event of marks, residues or corrosion (Figures 1, 2, 3 and 4)

- Disconnect the electrical connector 87DELTAP1 (a).
- Loosen and mechanically remove the microswitch(es) concerned as per AMM Task 76-12-04, 4-1.
- For each microswitch, note the position of the wires on the terminals.
- Remove and discard the sheath.
- Remove any varnish present.
- Unsolder the wires.
- Clean the wire side as per MTC Work Card 20.04.03.401 or 20.04.03.103.

As per Figure 3:
- Strip and tin the wires over a length of 4mm: Detail B.
- Position two pieces of sheath: one 10mm piece of sheath (10) and one 8mm piece of sheath (11): Detail B.
- Preform the wire strands into a hook shape: Detail C.
- Position the preformed wire strands in the contact hole of the microswitch: Detail D.
- Solder using a soldering iron set to 340°C (tolerance -15°C to +30°C): Detail E.
- In order to protect them from corrosion, apply varnish (12) with a brush to (See Diagram - Figure 4):
  - the soldered points of the electrical terminals,
  - the unused terminals,
  - the microswitch "heels" (area where the terminals are located).

  Comply with MTC Work Card 20.04.03.103 without oven-drying the component: Detail E.
- Allow to dry until the varnish hardens.
- Position the sheath (10) against the soldered area and shrink fit it: Detail E.
- Position the sheath (11) against the microswitch over sheath (10) and shrink fit it: Detail F.

CAUTION

WHEN INSTALLING THE MICROSWITCH (C, D) AND (E), TORQUE-TIGHTEN TO A VALUE BETWEEN 0.25 AND 0.3 N.M (2.21 - 2.65 IN.LB).

- If necessary, install the microswitch(es) concerned as per AMM Task 76-12-04, 4-1.
- Carry out an insulation test as per paragraph 3.B.3.

3.B.3. Insulation test (Figure 2)

- If not previously disconnected, disconnect electrical connector 87DELTAP1 (a).
- Carry out an electrical insulation test at 50 volts using a megohmmeter (zz) connected between:
  . the housing of microswitch 53Ka and terminals A and B of connector 87DELTAP1.
  . the housing of microswitch 53Kb and terminals D and F of connector 87DELTAP1.
  . the housing of microswitch 65K and terminals D and E of connector 87DELTAP1.

Interpretation of the results:

a) If the values displayed are higher than or equal to 10MΩ, comply with paragraph 3.B.4.

b) If the values displayed are less than 10MΩ:

- Replace the microswitch(es) concerned according to the procedure described in Appendix 4.A.
- Comply with paragraph 3.B.4.

3.B.4. Checking the IDLE and FLIGHT controls on the pilot's and copilot's twist grips (Figure 2)

- If not previously disconnected, disconnect electrical connector 87DELTAP1 (a).
- Connect an ohmmeter (yy) to the terminals A and B of connector 87DELTAP1.
- Turn the twist grip from "IDLE" to "FLIGHT" and from "FLIGHT" to "IDLE":
  . Check on the ohmmeter (yy) that the microswitch closes in the "IDLE" position and opens as soon as the twist grip is turned from the "IDLE" position to the "FLIGHT" position.
  . If the check result is not correct, replace the microswitches concerned by carrying out the procedure described in Appendix 4.A.
- Disconnect the ohmmeter (yy) and connect it to the terminals D and F of connector 87DELTAP1.
- Turn the twist grip from "IDLE" to "FLIGHT" and from "FLIGHT" to "IDLE":
  . Check on the ohmmeter (yy) that the microswitch closes in the "IDLE" position and opens as soon as the twist grip is turned from the "IDLE" position to the "FLIGHT" position.
  . If the check result is not correct, replace the microswitches concerned by carrying out the procedure described in Appendix 4.A.
- Disconnect the ohmmeter (yy) and connect it to the terminals D and E of connector 87DELTAP1.
- Turn the twist grip from "IDLE" to "FLIGHT" and from "FLIGHT" to "IDLE":
  . Check on the ohmmeter (yy) that the microswitch closes in the "IDLE" position and opens as soon as the twist grip is turned from the "IDLE" position to the "FLIGHT" position.
  . If the check result is not correct, replace the microswitch concerned by carrying out the procedure described in Appendix 4.A.
- Disconnect the ohmmeter (yy).
- Connect the electrical connector 87DELTAP1 (a).

- According to the case, carry out the procedure defined in the table below:

Compliance with paragraph 3.B.2	Replacement of microswitch	Required procedure
YES	NO	Comply with paragraph 3.B.6.
YES	YES	Comply with paragraph 3.B.6.
NO	NO	PRE MOD 074699, comply with paragraph 3.B.5. POST MOD 074699, comply with paragraph 3.B.6.
NO	YES	Comply with paragraph 3.B.6.

3.B.5. Application of varnish (Figure 4)

- Apply varnish (12) with a brush to (See Diagram - Figure 4):
  - the soldered points of the electrical terminals,
  - the unused terminals,
  - the microswitch "heels" (area where the terminals are located).
- Comply with MTC Work Card 20.04.03.103 without oven-drying the component: Detail E.
- Allow to dry until the varnish hardens.
- Comply with paragraph 3.B.6.

3.B.6. Tests

- Install the protective cover (b) Figure 2.
- Install the forward lower fairing as per AMM Task 53-51-00, 4-2.
- Conduct the operational tests and indicating tests of the twist grip as per AMM Task 76-12-04, 5-1.

3.C. IDENTIFICATION

Identification of the modification:

Record the embodiment of modification 07-4699 in the helicopter documents upon first compliance with this document.

Identification of this document:

Record first compliance with this document in the helicopter documents.

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.

4. APPENDIX

4.A. PROCEDURE FOR REPLACING A MICROSWITCH

- If not previously disconnected, disconnect electrical connector 87DELTAP1 (a).
- Loosen and mechanically remove the microswitch concerned as per AMM Task 76-12-04, 4-1.
- Note the position of the wires on the terminals.
- Remove and discard the sheath.
- Remove any varnish present.
- Unsolder the wires.
- Clean the wire side as per MTC Work Card 20.04.03.401 or 20.04.03.103.
- Install a new microswitch.
- Note the position of the wires on the terminals.
- Remove and discard the sheath.
- Remove any varnish present.
- Unsolder the wires.

As per Figure 3:

- Strip and tin the wires over a length of 4mm: Detail B.
- Position two pieces of sheath: one 10mm piece of sheath (10) and one 8mm piece of sheath (11): Detail B.
- Preform the wire strands into a hook shape: Detail C.
- Position the preformed wire strands in the contact hole of the microswitch: Detail D.
- Solder using a soldering iron set to 340°C (tolerance -15°C to +30°C): Detail E.
- In order to protect them from corrosion, apply varnish (12) with a brush to (See Diagram - Figure 4):
  - the soldered points of the electrical terminals,
  - the unused terminals,
  - the microswitch "heels" (area where the terminals are located).

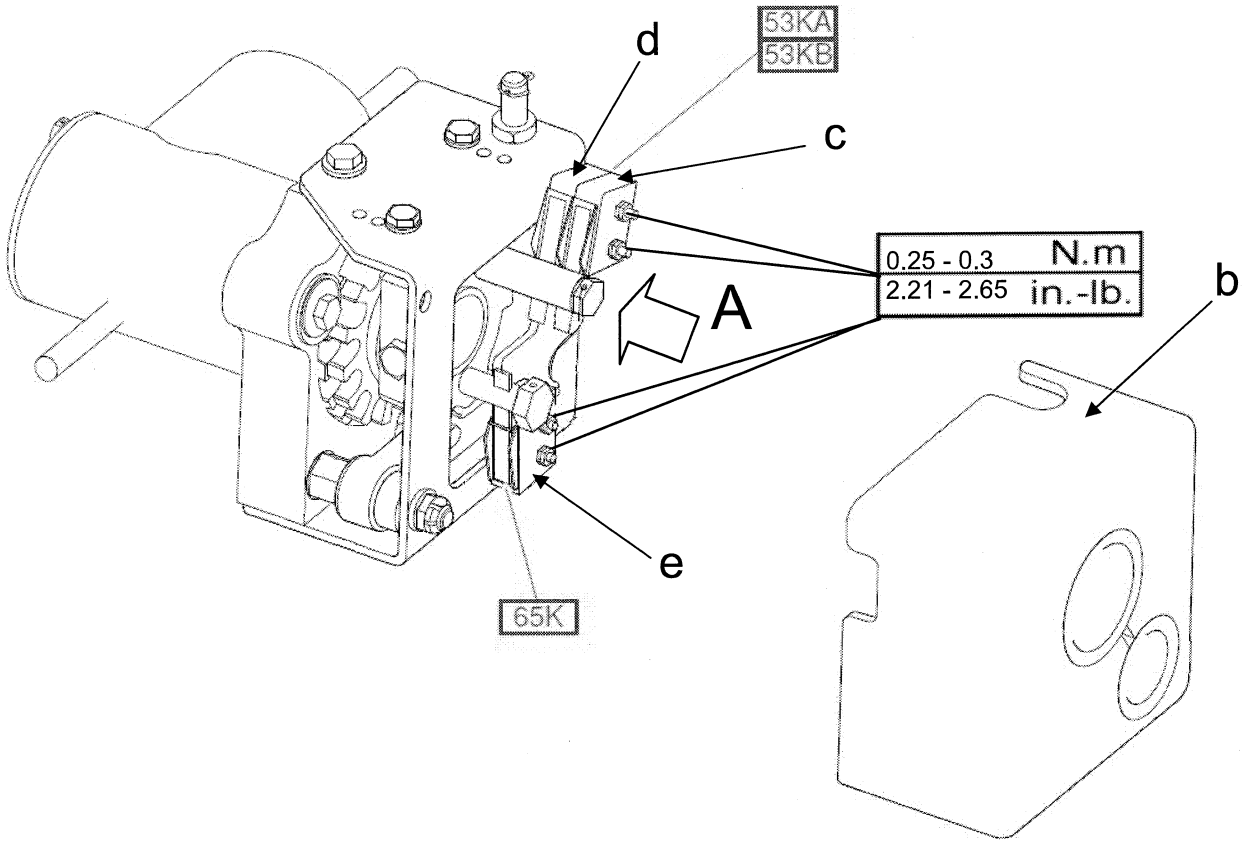
Comply with MTC Work Card 20.04.03.103 without oven-drying the component: Detail E.

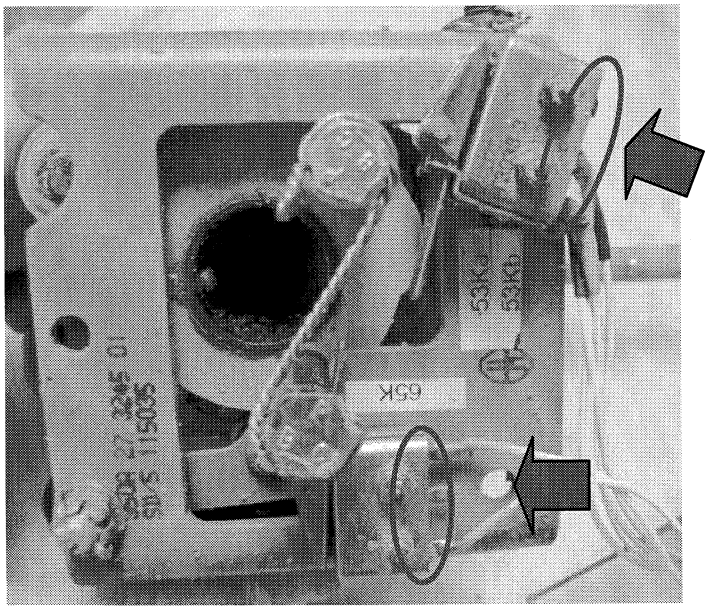
- Allow to dry until the varnish hardens.
- Position the sheath (10) against the soldered area and shrink fit it: Detail E.
- Position the sheath (11) against the microswitch over sheath (10) and shrink fit it: Detail F.

CAUTION

WHEN INSTALLING THE MICROSWITCH, TORQUE-TIGHTEN TO A VALUE BETWEEN 0.25 AND 0.3 N.M (2.21 - 2.65 IN.LB).

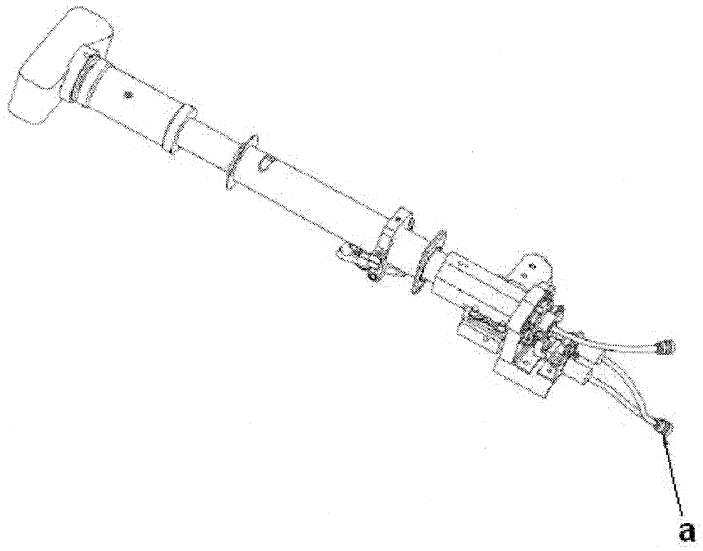
- Install the microswitches concerned as per AMM Task 76-12-04, 4-1.
- Carry out an electrical insulation test as per paragraph 3.B.3.
- Connect the electrical connector 87DELTAP1 (a).





DETAIL A

Figure 1



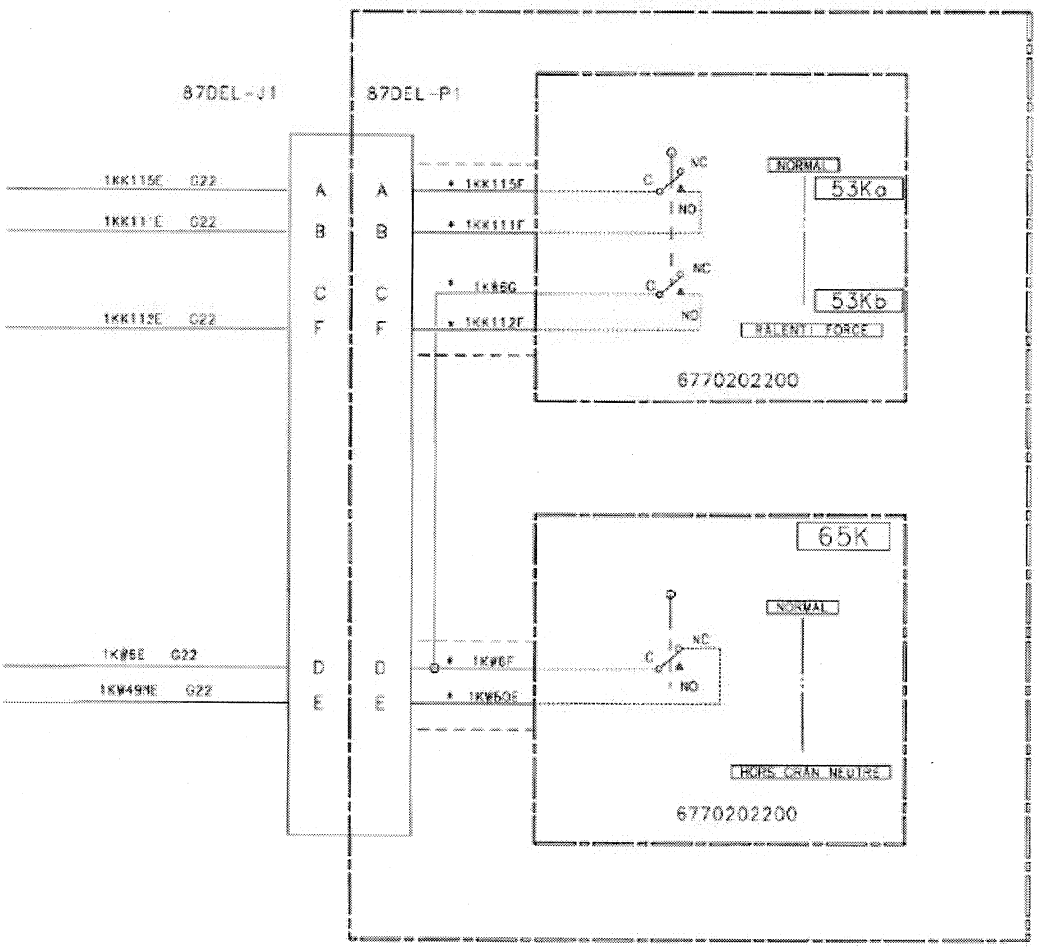
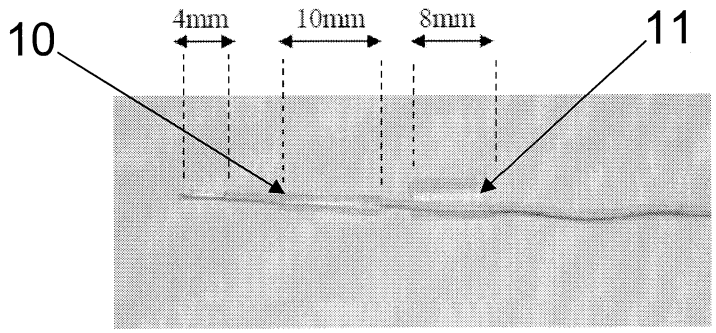
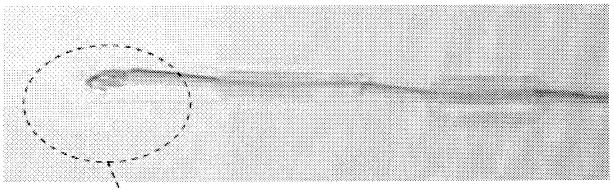
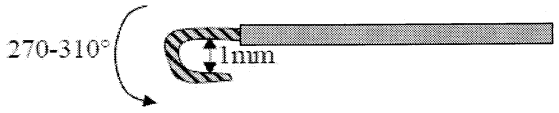


Figure 2: Electrical continuity test of microswitches 53Ka, 53Kb and 65K

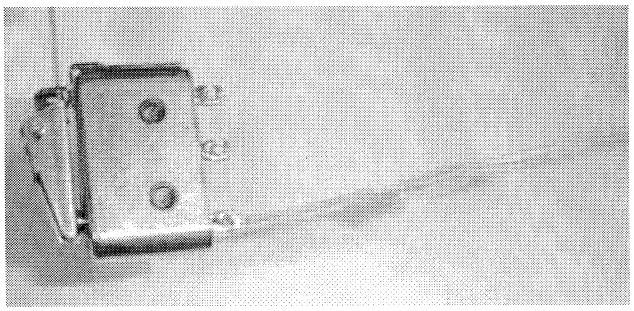


B

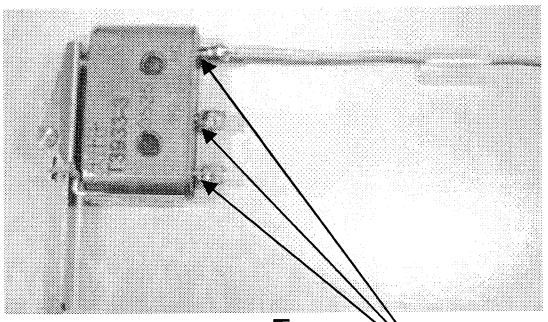




C

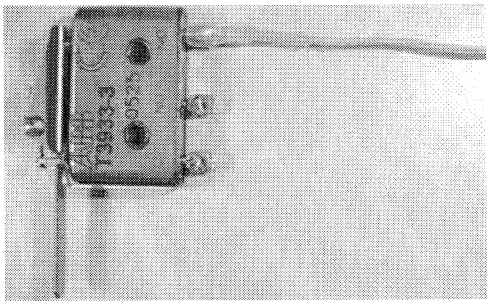


D



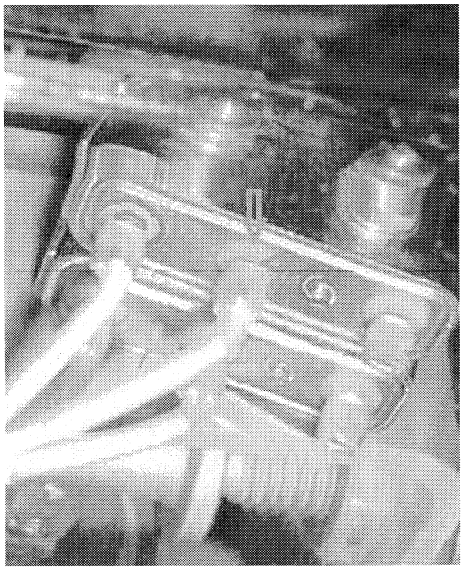
E

12



F

Figure 3



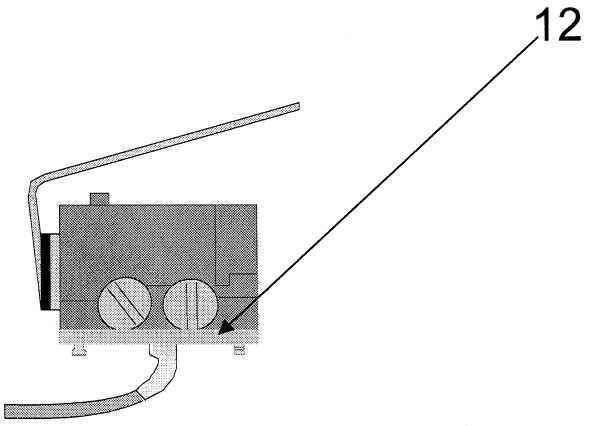


Figure 4