

EUROCOPTER
DIRECTION TECHNIQUE SUPPORT
13725 MARGNANE CEDEX FRANCE

CIVIL VERSION(S): B,B1,B2,B3,BA,BB,D
MILITARY VERSION(S): L1

ALERT SERVICE BULLETIN

No. 55.00.16

SUBJECT: STABILIZER(S)

Improvement of attachment strength for upper and lower fin skids

Corresponds to MOD 073330

REVISION No.	DATE OF APPROVAL	DATE OF ISSUE
Revision 0 Revision 1	On: February 28, 2008 On: December 22, 2008	2008.02.28 2009.01.05

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters / Equipment installed on aircraft

Helicopters pre-MOD 073330, fitted with fins whose P/N listed in paragraph 1.A.2.

NOTE 1

Refer to the aircraft Certificate of Conformity (or RIC AMS-Individual Inspection Log Book), the Equipment Log Cards (FME) or the aircraft Log Book to identify the actual modification status of the aircraft.

1.A.2. Equipment not installed on aircraft

- Upper fin assembly P/N: 350A14-0020-00XX.
- Upper fin assembly P/N: 350A14-0020-01XX.
- Upper fin assembly P/N: 350A14-0020-02XX.
- Upper fin assembly P/N: 350A14-0020-03XX.
- Upper fin assembly P/N: 350A14-0020-08XX.
- Upper fin assembly P/N: 350A14-0020-09XX.
- Upper fin assembly P/N: 350A14-0020-10XX.
- Upper fin assembly P/N: 350A14-0020-17XX.
- Upper fin assembly P/N: 350A14-0020-18XX.
- Upper fin assembly P/N: 350A14-0020-19XX.
- Upper fin assembly P/N: 350A64-1144-00XX.

- Lower fin assembly P/N: 350A14-0021-00XX.
- Lower fin assembly P/N: 350A14-0021-01XX.
- Lower fin assembly P/N: 350A14-0021-02XX.
- Lower fin assembly P/N: 350A14-0021-03XX.
- Lower fin assembly P/N: 350A14-0021-04XX.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

The purpose of this Alert Service Bulletin is to improve the fatigue strength of the upper and lower fin attachment.

Revision 0 of this Alert Service Bulletin formed the subject of an EASA Airworthiness Directive No. 2008-0121.

Compliance with this Alert Service Bulletin replaces compliance with Revision 1 of Alert Service Bulletin No. 55.00.12 for versions B, B1, B2, BA, BB, D and L1.

Compliance with this Alert Service Bulletin cancels compliance with the instructions of Revision 1 of Alert Service Bulletin No. 55.00.13 for version B3.

This information will be made official by Revision 2 of Alert Service Bulletin No. 55.00.13.

The purpose of this Alert Service Bulletin Revision 1 is to supplement the list of upper and lower fin P/Ns for which this Alert Service Bulletin is applicable.

Revision 1 of this Alert Service Bulletin does not supersede compliance with Revision 0 and will form the subject of an EASA Airworthiness Directive.

1.D. DESCRIPTION

During take-off of an aircraft from Ecureuil family, the upper fin tilted leftwards.

This technical event formed the subject of Alert Service Bulletin No. 55.00.12 and No. 55.00.13.

This Alert Service Bulletin defines the modifications to be embodied in order to correct the initially encountered anomalies.

In order to introduce a corrective solution, EUROCOPTER studied modification 073330 which consists of:

- reducing risks of loaded installation by increasing the diameter of passage holes for bolts on lower and upper fin attachment fittings on tail boom.
- improving fatigue strength of upper and lower fin attachment by replacing bolts P/N: 22126BV060032L with special bolts with higher head P/N: 350A23-4016-20 and replacing washers P/N: 23112AG060LE with special washers P/N: 350A23-4017-22.

For these reasons, EUROCOPTER renders compliance with this Alert Service Bulletin mandatory.

1.E. COMPLIANCE

EUROCOPTER renders compliance with this Alert Service Bulletin mandatory.

1.E.1. Compliance at the works

1.E.1.a. On helicopter

Not applicable.

NOTE 2

Modification 073330 is introduced in design definition of new helicopters delivered as from 1st April 2007.

NOTE 3

This date is for information, refer to the aircraft Certificate of Conformity (or RIC AMS- Individual Inspection Log Book), the Equipment Log Cards (FME) or the aircraft Log Book to identify the actual modification status of the aircraft.

1.E.1.b. On equipment not installed on aircraft

Before delivery, comply with paragraph 2.C.

1.E.2. Compliance in operation

1.E.2.a. On helicopter / equipment installed on aircraft: by operator

Comply with paragraphs 2.A. and 2.B. of this Alert Service Bulletin, publish at the date mentioned in the page footer, by March 31, 2009 at the latest.

1.E.2.b. On equipment not installed on aircraft

Before installation on helicopter modify stocks as per paragraph 2.C. by March 31, 2009, at the latest.

1.F. APPROVAL

Approval is limited to civil version helicopters subject to an Airworthiness Certificate.

1.F.1. Approval of modifications

The information or instructions relating to modification 073330, Issue 2, were approved on April 25, 2007.

1.F.2. Approval of Alert Service Bulletin

The technical information contained in this Alert Service Bulletin No. 55.00.16 Revision 0 was approved on February 28, 2008 under the authority of EASA Design Organization Approval No. 21J.056.

The technical information contained in this Alert Service Bulletin No. 55.00.16 Revision 1 was approved on December 22, 2008 under the authority of EASA Design Organization Approval No. 21J.056.

1.G. MANPOWER**1.G.1. Qualification**

For compliance with this Alert Service Bulletin EUROCOPTER recommends the following personnel qualifications:

Qualification: 1 Mechanical Technician.

1.G.2. Time

Time values are indicated for reference, for a standard configuration.

Time: 4 hours approximately for Mechanical Technician.

1.G.3. Estimation of aircraft downtime

1 day approximately.

1.H. WEIGHT AND BALANCE**1.H.1. Weight**

Weight negligible.

1.H.2. Moment

Moment negligible.

1.I. EFFECT ON ELECTRICAL LOADS

Aircraft's electrical load analysis is not affected.

1.J. SOFTWARE MODIFICATION EMBODIMENT STATE

Not applicable.

1.K. REFERENCES

The following documents are required for compliance with this Alert Service Bulletin:

MET: 24.00.00.301: Electrical generation - General instructions,
MET: 55.00.00.402: Stabilizer: Removal - Installation,
MET: 65.20.00.401: Tail gearbox (B.T.A.), hub body and spider plate -
Removal - Installation,
MTC: 20.02.06.402: Safetying and locking of assemblies – Safetying with lockwire,
MTC: 20.04.03.102: Corrosion inhibiting and removal procedures – Surface protective treatment against
corrosion,
MTC: 20.04.05.101: Paint and primer application procedure – General information concerning painting
means and paint touch-ups,
MTC: 20.05.01.211: Sealing compounds used in structural repairs or on transmission assemblies - Sealing
compound MASTINOX 6856,
MTC: 20.05.01.222: Sealing compounds used in structural repairs or on transmission assemblies - Sealing
compound PR 1771 B2,
MTC: 20.06.02.303: Bonding with araldite compounds - ARALDITE AW 106,
MTC: 20.07.03.408: Technical instructions – General principles applicable for visual cleanliness, appearance
checks on an aircraft after an inspection or repair.
MTC: 20.08.05.103: Monitoring of parts in operation, marking and service life customization

1.L. OTHER DOCUMENTS CONCERNED

This Alert Service Bulletin will give rise to amendment of the following documents by EUROCOPTER:
Illustrated Parts Catalog (IPC).
This document will be circulated at a later date.

1.M. TOOLING AFFECTED

Not applicable.

1.N. INTERCHANGEABILITY AND MIXABILITY BETWEEN THE PARTS

1.N.1. Interchangeability

Fins pre- and post-MOD are physically but not functionally interchangeable.

1.N.2. Mixability

Mixability of parts is prohibited.

2. ACCOMPLISHMENT INSTRUCTIONS

2.A. GENERAL

- Before any intervention refer to general instructions on electrical generation as per Work Card 24.00.00.301 (MET).
- Safetying with lockwire as per Work Card 20.02.06.402 (MTC).
- Protection against corrosion as per Work Card 20.04.03.102 (MTC).
- Refer to guidelines on painting means and paint touch-ups as per Work Card 20.04.05.101 (MTC).
- Sealing with Mastinox as per Work Card 20.05.01.211 (MTC).
- Sealing with sealing compound as per Work Card 20.05.01.222 (MTC).
- Bonding with adhesive as per Work Card 20.06.02.303 (MTC).

2.B. OPERATIONAL PROCEDURE

2.B.1. Preliminary steps

Implement suitable access means.

2.B.2. Procedure

2.B.2.a. Removal of fins (Figure 1)

- Remove and separate upper fin (e) from lower fin (f) as per Work Card 55.00.00.402 (MET).
- Scrap bolts (c) and washers (b).

2.B.2.b. Modification of lower and upper fittings on work bench (Figure1, Detail A and Section D-D)

NOTE

Modification procedures for lower and upper fittings (a) are identical. Carry out the following procedure for each fitting (a).

- Increase initial diameter of passage holes for bolts in fitting (a) from 7 mm to 7.5 mm + or – 0.1 mm.
- Deburr and carry out protection against corrosion.
- Carry out paint touch up, as required, as per Work Card 20.04.05.101 (MTC).

2.B.2.c. Installation of fins (Figure 1, Detail A and Section B-B)

- Assemble upper fin (e) and lower fin (f) as per Work Card 55.00.00.402 (MET).
- Offer up fin assembly on tail boom.
- Check presence of peel washers (d) installed underneath fitting (a):
 - If peel washers are present (d), check that fitting (a) is properly resting on existing washers (d). Otherwise, remove peel washers (d) and carry out procedure below,

- if no peel washers are present (d) check clearance between fin and skin of tail boom as per Work Card 55.00.00.402 (MET) and should setting be required:
 - define thickness of peel washers (4) to be installed as per clearance read,
 - install and bond peel washers (4) on skin of tail boom by means of adhesive (9) and hardener (10) as per Work Card 20.06.02.303 (MTC).
- Loosen TGB attachment bolts TGB in order to facilitate installation of new bolts (2).
- Coat shank of bolts (2) with sealant (8).
- Fit bolts (2) fitted with washer (1).
- Tighten bolts (2) to torque.
- Safety bolts (2) by means of lockwire (5).
- Protect twist of lockwire (5) with a piece of sheath (6).
- apply bead of sealant (7) on periphery of fitting (a) of fin (e or f) and around heads of bolts (2).
- Tighten TGB attachment bolts as per Work Card 65.20.00.401(MET).
- Identifying as per paragraph 2.D.
- Carry out final steps defined in Work Card 55.00.00.402 (MET).

2.B.3. Tests

Not applicable.

2.B.4. Final steps

- Restore aircraft to flight condition.
- Disengage access means.
- Check aircraft aspect as per Work Card 20.07.03.408 (MTC).

2.B.5. Ground run-up / Flight test

Not applicable.

2.C. OPERATIONAL PROCEDURE ON EQUIPMENT NOT INSTALLED ON AIRCRAFT

2.C.1. Retrofitting of spare part stocks

Retrofit stock of fins mentioned in paragraph 1.A.2. as per paragraph 2.B.2.b. and identify as per paragraph 2.D.

2.C.2. Replacement, scrapping and stock building-ups

Not applicable.

2.D. IDENTIFICATION

2.D.1. Identification of modifications in the documents

- Record embodiment of modification 073330 and compliance with this Alert Service Bulletin No. 55.00.16 revision 1 in the aircraft documents.

2.D.2. Identification of modifications on material

Indicate with ink the new part number as per table in zones A, B and C of labels (3).
Record compliance with this Alert Service Bulletin No. 55.00.16 revision 1 on label (3) in zone D.
Bond these labels close to that of initial marking.

Key Word	Former P/N	New P/N	MOD	Marking type
Upper fin	350A14-0020-00XX	350A08-5506-1301	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-01XX	350A08-5506-0801	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-02XX	350A08-5506-0901	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-03XX	350A08-5506-1001	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-08XX	350A08-5506-1101	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-09XX	355A08-5508-0701	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-10XX	350A08-5506-0201	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-17XX	350A08-5506-1901	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-1801	350A08-5506-0301	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-1802	350A08-5506-0302	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A14-0020-19XX	350A08-5506-1201	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Upper fin	350A64-1144-00XX	355A08-5508-0901	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Lower fin	350A14-0021-00XX	350A08-5506-1401	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Lower fin	350A14-0021-01XX	350A08-5506-1501	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Lower fin	350A14-0021-02XX	350A08-5506-1601	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Lower fin	350A14-0021-03XX	355A08-5508-0801	073330	Ink as per MTC 20.08.05.103 §4.2.2.
Lower fin	350A14-0021-04XX	350A08-5506-0401	073330	Ink as per MTC 20.08.05.103 §4.2.2.

2.E. OPERATING AND MAINTENANCE INSTRUCTIONS

2.E.1. Operating instruction(s)

Not applicable.

2.E.2. Maintenance instruction(s)

Not applicable.

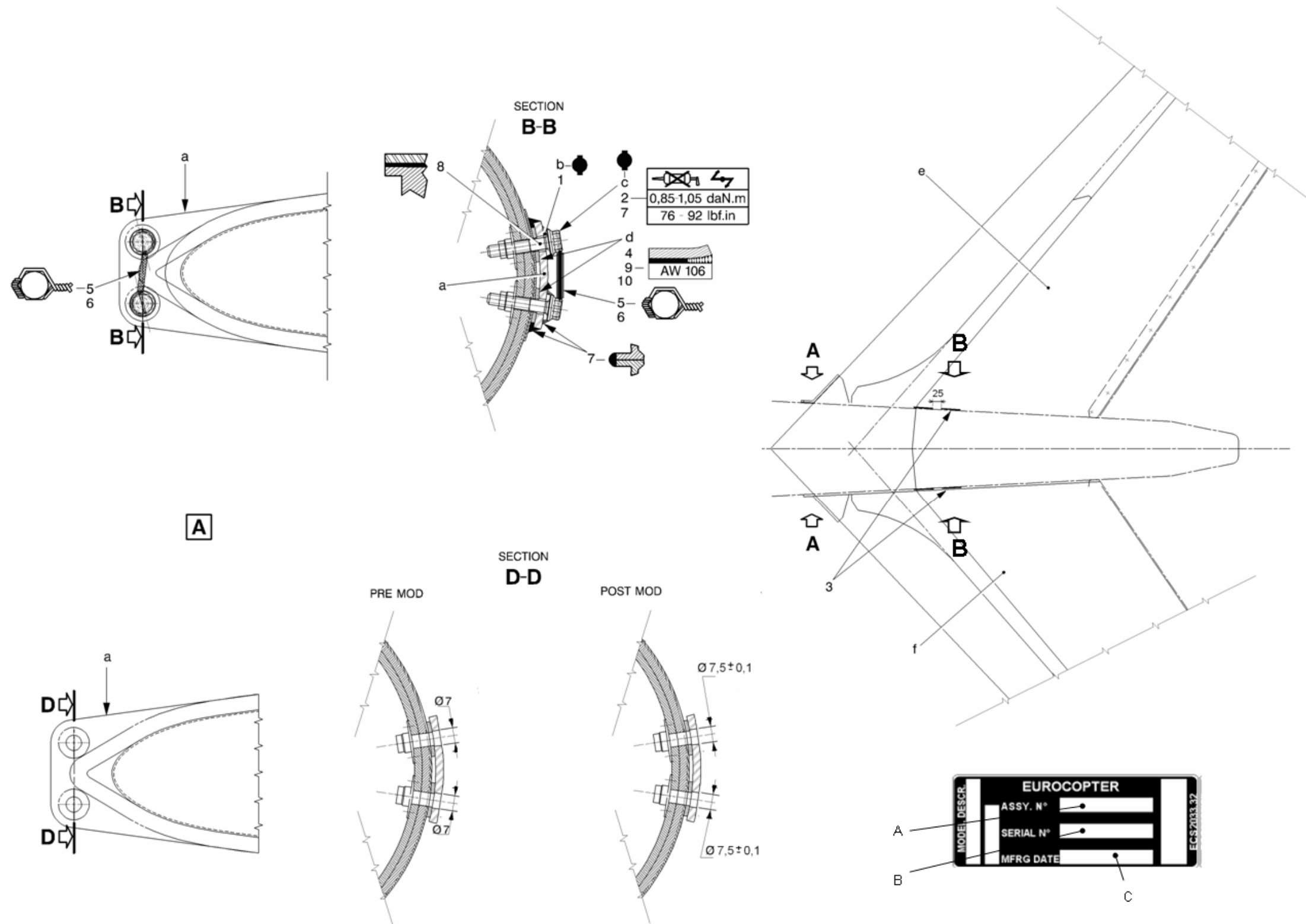


Figure 1

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3. MATERIAL INFORMATION

3.A. MATERIAL: COST – AVAILABILITY

3.A.1. Cost

3.A.1.a.Components

The components 1, 2, 3, 4 and 6 will be delivered free of charge on operator's order until March 31, 2009.

3.A.1.b.Tooling

Not applicable.

3.A.2. Availability

3.A.2.a.Components

The components will be delivered upon operator's order.

3.A.2.b.Tooling

Not applicable.

3.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

3.C. MATERIAL REQUIRED FOR EACH HELICOPTER/ENGINE/COMPONENT

3.C.1. Component(s) to be ordered for one helicopter

Material P/N	Qty	It.	Key Word	Former P/N	Instruction
350A23-4017-22	4	1	Washer	23112AG060LE	scrap
350A23-4016-20	4	2	Bolt	22126BV060032L	scrap
ECS2033-32	2	3	Nameplate		

3.C.2. Material to be ordered separately

Material P/N	Qty	It.	Key Word	Former P/N	Instruction
350A14-0030-20	A/R	4	Washer, peel		
EN3628-0,8	A/R	5	Lockwire		
GAINE2.5X3.5	A/R	6	Sheath		

3.C.3. Material to be modified on the Supplier's premises or to be returned

Not applicable.

3.C.4. Material to be ordered separately

As per Work Cards mentioned in this Alert Service Bulletin and list below.

The ingredients below can be delivered separately, from INTERTURBINE:

Website: <http://www.itlogistics.de>
 Telephone: +49.41.91.809.300
 AOG: +49.41.91.809.444

Material P/N	Qty	It.	Key Word
PR1771B2SEMK654	0.1 kg	7	Sealant
MASTINOX 6856 K	160 ml	8	Mastinox tube, 160ML
DHS172-171.20	1 kg	9	Resin, Araldite, 1 kg box (AW106) to be delivered with:
HV953U	0.8 kg	10	Hardener, 0.8 kg box (see 20.06.02.303 (MTC)

3.C.5. Tooling

As per Work Cards mentioned in this Alert Service Bulletin.

3.C.6. Material provided by the operator

Not applicable.

3.C.7. Material required for item not installed on aircraft

As per paragraphs 3.C.1, 3.C.2 and 3.C.4.

3.D. PROCUREMENT CONDITIONS

Order the required quantity from the EUROCOPTER network's Customer Support Sales Department

or

EUROCOPTER
Etablissement de Marignane
Direction VENTES Service Client (C.R.)
13725 MARIGNANE CEDEX
FRANCE

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.*

4. APPENDIX

Not applicable.