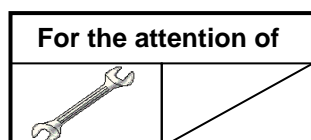




EMERGENCY ALERT SERVICE BULLETIN

SUBJECT: MAIN ROTOR - Rotor mast

Check of the rotor mast oil pipe
ATA 62



HELICOPTER(S) CONCERNED	NUMBER	Version(s)	
		Civil	Military
AS350	62.00.39	B, BA, BB, B1, B2, B3, D	L1
AS355	62.00.36	E, F, F1, F2, N, NP	
AS550	62.00.20		A2, C2, C3, U2
AS555	62.00.23		AF, AN, AP, SN, UF, UN
EC130	62A015	B4, T2	

Revision No.	Date of issue
Revision 0	2017-05-15
Revision 1	2017-05-19

Summary:

Ensuring that the main rotor mast bearing lubrication pipe is not obstructed.

Reason for last Revision:

The purpose of Revision 1 of this ALERT SERVICE BULLETIN is to give details and an alternative method to the checking procedure.

Compliance:

Airbus Helicopters renders compliance with this ALERT SERVICE BULLETIN mandatory.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment or parts

Helicopters equipped with a pipe P/N 704A34-412-015, which is not identified by an "X" behind the Part Number on its metal identification plate.

1.A.2. Non-installed equipment or parts

Pipe P/N 704A34-412-015 which is not identified by an "X" behind the Part Number on its metal identification plate.

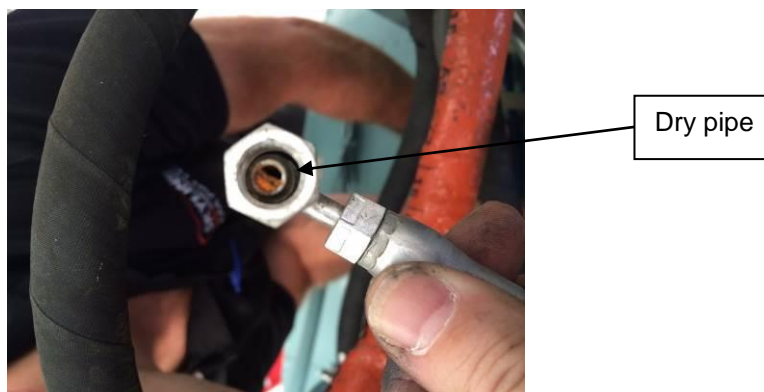
1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

Revision 0:

During replacement of a pipe which ensures the lubrication of the rotor mast bearings, this pipe was found to be obstructed. There was no oil on the upper union of the pipe (See photos below).



Analysis revealed that this obstruction is due to a solder run which occurred during soldering of the lower union of the pipe, thus making the oil flow impossible.

The lack of lubrication may affect the operation of the main rotor mast bearings.

Consequently, Airbus Helicopters renders compliance with this ALERT SERVICE BULLETIN mandatory.

Revision 1:

Following customer feedback, Airbus Helicopters decided to give details to the checking procedure. These details consist in proposing an alternative method to the use of cable ties by replacing them with a semi-rigid wire. Moreover, the rotor shaft removal criteria were also reviewed.

Revision 1 does not affect compliance with Revision 0 of this document.

1.D. DESCRIPTION

Compliance with this ALERT SERVICE BULLETIN consists in ensuring that the main rotor mast lubrication pipe is not obstructed.

1.E. COMPLIANCE

1.E.1. Compliance at H/C manufacturer level

Airbus Helicopters renders compliance with [paragraph 3.](#) of this ALERT SERVICE BULLETIN mandatory before delivery of the helicopter.

1.E.2. Compliance in service

The work on the helicopter is to be performed by the operator.

Helicopters/installed equipment or parts:

Comply with [paragraphs 3.B.1.](#) and [3.B.2.](#) within 30 flying hours or 30 days (the first limit reached is applicable) following receipt of this ALERT SERVICE BULLETIN Revision 0 issued on May 15, 2017.

Interpretation of the results:

- if there is oil:
 - . comply with [paragraph 3.B.6.](#),
 - . then, comply with [paragraph 3.B.3.](#) no later than within 30 flying hours following compliance with [paragraph 3.B.2.](#)
- if pipe (a) is dry, comply with [paragraph 3.B.5.](#)

Non-installed equipment or parts:

Modify the stock before installation on the helicopter or no later than within 3 months following receipt of this ALERT SERVICE BULLETIN Revision 0 issued on May 15, 2017.

1.F. APPROVAL

Approval of modifications:

Not applicable.



Approval of this document:

The technical information contained in this ALERT SERVICE BULLETIN Revision 0 was approved on May 11, 2017 under the authority of EASA Design Organization Approval No. 21J.700 for civil version helicopters subject to an Airworthiness Certificate.

The technical information contained in this ALERT SERVICE BULLETIN Revision 0 was approved on May 11, 2017 by the Airbus Helicopters Airworthiness Department for export military versions.

The technical information contained in this ALERT SERVICE BULLETIN Revision 0 was approved on May 11, 2017 under the prerogatives of the recognition of design capability FRA21J-002-DGA for French Government helicopters.

The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on May 19, 2017 under the authority of EASA Design Organization Approval No. 21J.700 for helicopters of civil versions subject to an Airworthiness Certificate.

The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on May 19, 2017 by the Airbus Helicopters Airworthiness Department for export military versions.

The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on May 19, 2017 under the prerogatives of the recognition of design capability FRA21J-002-DGA for French Government helicopters.

1.G. MANPOWER



For compliance with this ALERT SERVICE BULLETIN, Airbus Helicopters recommends the following personnel qualifications:

Qualification: 1 Mechanical Engineering Technician.



The time for the operations is given for information purposes, for a standard configuration.

Time for the operations: approximately 1 hour to check the pipe.

1.H. WEIGHT AND BALANCE

Not applicable.

1.I. POWER CONSUMPTION

Not applicable.

1.J. SOFTWARE UPGRADES/UPDATES

Not applicable.

1.K. REFERENCES

The documents required for compliance with this ALERT SERVICE BULLETIN are as follows.

For all helicopters:

Standard Practices Manual (MTC):

- MTC: 20-01-01-301: Use of greases - Miscellaneous products used on helicopters
- MTC: 20-02-01-103: Installation of pipes - General
- MTC: 20-02-05-404: Joining by bolts and nuts - Joining
- MTC: 20-02-06-402: Safetying with lockwire - Safetying and locking assemblies
- MTC: 20-08-05-103: Monitoring of parts in operation - marking - service life customization - General rules applicable to aircraft

For AS350 B2, B3, AS550 C3 and EC130 helicopters:

Aircraft Maintenance Manual (AMM):

- AMM: 60-00-00,3-1: General Safety Instructions - Mechanical Assemblies
- AMM: 62-31-00,4-1: Removal / Installation - Rotor Mast - Rotor Shaft

For all helicopters except AS350 B2, B3, AS550 C3 and EC130 helicopters:

Maintenance Manual (MET):

- MET: 60-00-00-301: General instructions - General - Mechanics Systems
- MET: 62-30-00-401: Main rotor shaft assy: Removal - Installation - Main rotor shaft assembly
- MET: 62-30-16-401: Main rotor shaft assy (POST MOD 076120 - Removal - Installation - Main rotor shaft assembly (POST MOD 076120)

1.L. OTHER AFFECTED PUBLICATIONS

Not applicable.

1.M. PART INTERCHANGEABILITY OR MIXABILITY

Not applicable.

2. EQUIPMENT OR PARTS INFORMATION

2.A. EQUIPMENT OR PARTS: PRICE - AVAILABILITY - PROCUREMENT

The Airbus Helicopters Ecureuil Program Department will advise customers of availability times for kits or components.

Airbus Helicopters
 Etablissement de Marignane
 Direction Ventes et Relations Client
 13725 MARIGNANE CEDEX
 FRANCE

NOTE 1

On the purchase order, please specify the mode of transport, the destination and the serial numbers of the helicopters 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. LOGISTIC INFORMATION

For any information concerning the modification kits and/or components or assistance, contact the Sales and Customer Relations Department.

2.C. EQUIPMENT OR PARTS REQUIRED PER HELICOPTER/COMPONENT

Kits to be ordered for one helicopter or one assembly:

Key Word	Qty	New P/N	Item	Former P/N →	Instruction
Pipe	A/R	704A34-412-015	1	704A34-412-015	If the pipe is obstructed: return as per paragraph 2.D.

Equipment or parts to be ordered separately:

Key Word	Qty	New P/N	Item	Former P/N →	Instruction
Cable ties	A/R	E0043-4C0	2	/	/

Consumables to be ordered separately:

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

Key Word	Qty	Consumable P/N	CM	Item
Grease	A/R	DCSEA355 (G-355 NATO)	CM116	3
Lockwire	A/R	EN3628-0,8	CM7015	4

The consumables can be ordered separately from KLX AEROSPACE SOLUTIONS.

Website: <https://www.klxaerospace.com/klxaero/>

Telephone: +1.305.925.2600

AOG: +1.305.471.8888

Special tools:

Key Word	Qty	Tool P/N or equivalent	Item
Air gun	1	Off the shelf	ZZ
Vibro-etcher	1	Off the shelf	XX

2.D. EQUIPMENT OR PARTS TO BE RETURNED

Return the pipe in accordance with the procedure described in Service Letter 1567-00-02.

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

- Read and comply with the general mechanical instructions as per MET Work Card 60-00-00-301 or AMM Task 60-00-00,3-1.
- Read and comply with the instructions for the use of greases as per MTC Work Card 20-01-01-301.
- Read and comply with the instructions for installing pipes as per MTC Work Card 20-02-01-103.
- Read and comply with the instructions for joining by bolts and nuts as per MTC Work Card 20-02-05-404.
- Read and comply with the instructions for safetying with lockwire as per MTC Work Card 20-02-06-402.
- Read and comply with the general marking and customization rules as per MTC Work Card 20-08-05-103.

3.B. WORK STEPS

3.B.1. Preliminary steps (Figure 1)

- Remove and/or open all cowlings, panels, doors and equipment as required for access to the various work areas.
- Install the access equipment.
- Unlock the upper part of pipe (a).
- Disconnect the upper part of pipe (a).

3.B.2. Check for oil

- Make sure there is oil in the visible part of the inside of pipe (a).
- Interpret the results as per [paragraph 1.E.2.](#)

3.B.3. Check for non-obstruction of the pipe using air

- Unlock pipe (a).
- Disconnect and remove pipe (a).
- On a workbench, check that pipe (a) is not obstructed using an air gun (zz):
 - . blow air through pipe (a),
 - . make sure the air flows freely:
 - .. if pipe (a) is not obstructed, comply with [paragraph 3.B.4.](#)
 - .. if pipe (a) is obstructed contact Airbus Helicopters support at the following address:
E-mail: support.technical-dyncomp.ah@airbus.com

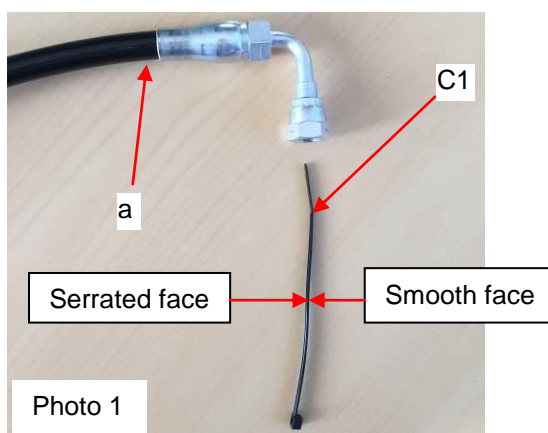
3.B.4. Check for non-obstruction of the pipe using cable ties

- On a workbench, check that pipe (a) is not obstructed using two cable ties (2):

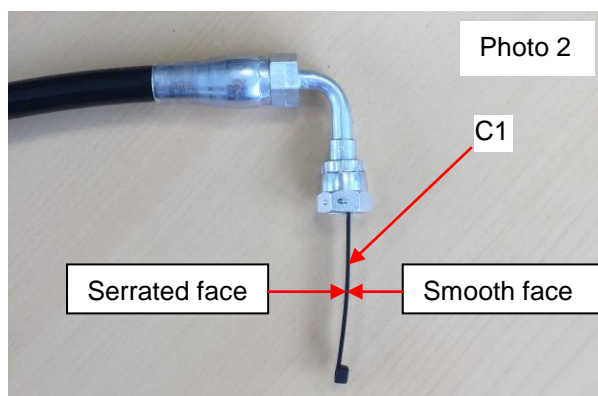
NOTE 1

For simplification purposes, the two cable ties (2) will be designated C1 (first cable tie) and C2 (second cable tie).

- . position pipe (a) and cable tie (C1) (see photo 1),



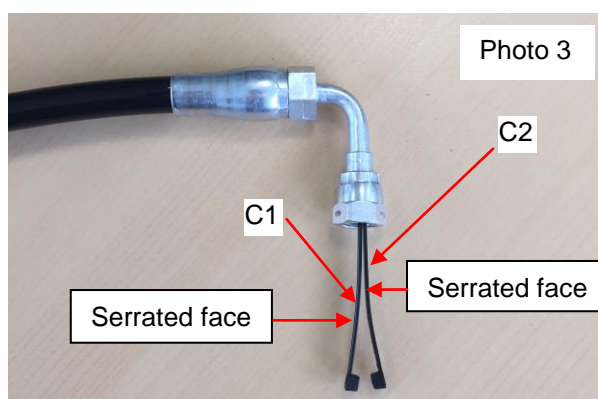
- . insert cable tie (C1) as far as possible into pipe (a) (see photo 2),



NOTE 2

If the full length of cable tie (C1) enters pipe (a), the steps which involve cable tie (C2) are not necessary.

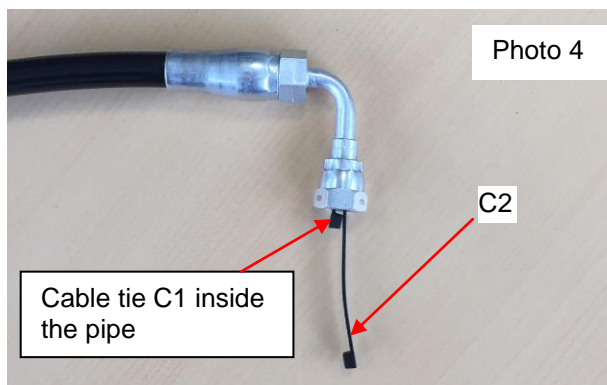
- . insert cable tie (C2) as far as possible into pipe (a) (see photo 3),



- . push cable tie (C1) into pipe (a) over its full length (see photo 4),

NOTE 3

Cable tie (C2) is used as a guide to facilitate the penetration of cable tie (C1) in pipe (a).



NOTE 4

If necessary, persist and make several tries to insert cable tie (C1) into the pipe.

NOTE 5

As a replacement for the procedure above that uses two cable ties (C1 and C2), it is possible to ensure that pipe (a) is not obstructed by inserting a semi-rigid wire with a diameter between 2 mm (0.079 in.) and 2.3 mm (0.091 in.) (Examples: electric wire, bicycle cable, etc...). The wire used must penetrate to a minimum length of 100 mm (3.94 in.).

- . if in doubt, contact the Airbus Helicopters support at the following address:
E-mail: support.technical-dyncomp.ah@airbus.com

- . comply with the same procedure for the other end of pipe (a).

Check results:

- If pipe (a) is not obstructed:
 - . using a vibro-etcher (xx), mark an "X" behind the pipe's Part Number (example: 704A34412015X) on metal plate (c) (Figure 1).
 - . comply with [paragraph 3.B.6.](#)
- If pipe (a) is obstructed, contact Airbus Helicopters support at the following address:
E-mail: support.technical-dyncomp.ah@airbus.com

3.B.5. Repair (Figure 1)

- Unlock the other end of pipe (a).
- Disconnect and remove pipe (a).
- Remove rotor mast (b) as per MET Work Card 62-30-00-401 or 62-30-16-401 or AMM Task 62-31-00,4-1.

NOTE 6

Rotor mast (b) is declared unfit for flight until a solution is provided by Airbus Helicopters.

- Before resuming flights:

- . Return pipe (a) as per [paragraph 2.D.](#)
- . Order a new pipe (1) as per [paragraph 2.C.](#)
- . It is mandatory to complete the form appended in [paragraph 4.](#) and to return it to Airbus Helicopters.
- . Contact the Airbus Helicopters support at the following address to know the conditions for returning the helicopter to flight conditions:
E-mail: support.technical-dyncomp.ah@airbus.com

3.B.6. Final steps

After compliance with paragraph 3.B.2. or 3.B.4.:

- Install pipe (a) or (1) using grease (3).
- Tighten both ends of pipe (a) or (1) to the torque indicated in Figure 1.
- Safety pipe (a) or (1) using lockwire (4).
- Remove the access equipment.
- Install and/or close all cowlings, panels and doors and equipment removed and/or opened during the preliminary steps (paragraph 3.B.1.).

After compliance with paragraph 3.B.5.:

- Install the rotor mast as per MET Work Card 62-30-00-401 or 62-30-16-401 or AMM Task 62-31-00,4-1.
- Install pipe (1) using grease (3).
- Tighten both ends of pipe (1) to the torque indicated in Figure 1.
- Safety pipe (1) using lockwire (4).
- Remove access means.
- Install and/or close all cowlings, panels, doors and equipment removed and/or opened during the preliminary steps (paragraph 3.B.1.).

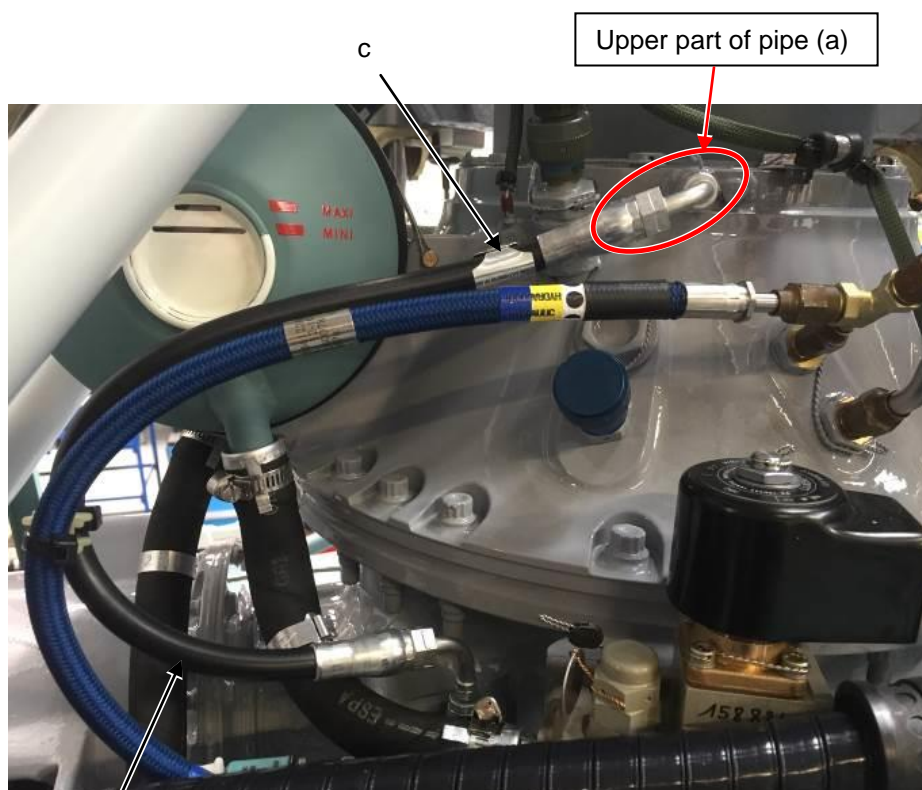
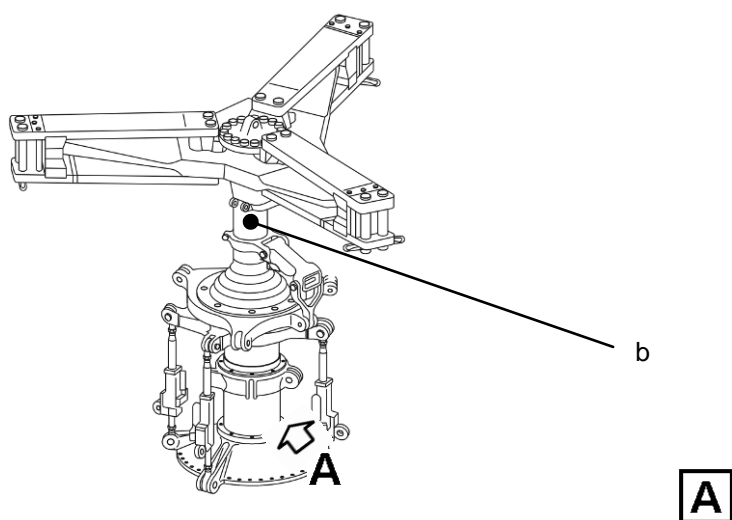
3.C. COMPLIANCE CONFIRMATION

Compliance with this document:

Record compliance with this document, with the revision number, in the helicopter documents.

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.



CM 116	a
0.9 - 1.2 daN.m	1
79.7-106.2 lbf.in	

For EC130
helicopters:

CM 123	
9 - 12 N.m	
79.7-106.2 in.-lb.	

Figure 1

4. APPENDIX
EMERGENCY ALERT SERVICE BULLETIN Response Form
"Check of the rotor mast oil pipe"

Fill in the form and send it to the indicated fax number or by e-mail

Airbus Helicopters - Etablissement de Marignane

Customer Support

 Fax: +33 (0)4 42 85 99 66 or e-mail: support.technical-dyncomp.ah@airbus.com
Operator Name and Address:

Aircraft Type and Version: _____

S/N of the helicopter: _____

Flying hours (FH): _____

Operating zone (country): _____

Date of last oil pipe replacement: _____

Flying hours logged since last oil pipe replacement: _____

Fill in the table below:

	P/N	S/N	Total flying hours
			Date of installation
Main rotor mast			
Epicyclic reduction gear			
Bevel reduction gear			
Oil pump			

Attach a copy of the Log Card (FM) for each component listed in the table
Remarks:

Date: _____

Signature: _____

Please make a copy of this page. The original form must remain in the ALERT SERVICE BULLETIN.