

BOLETIN TÉCNICO DE SEGURIDAD OPERACIONAL AÉREA

BT-02-2013 EUROCOPTER ECUREUIL AS350B3

HELICÓPTERO EUROCOPTER AS350B3



DIRIGIDO A: OPERADORES, ORGANIZACIONES DE MANTENIMIENTO APROBADAS, ESCUELAS TÉCNICAS DE AVIACIÓN, PILOTOS AVIADORES Y PERSONAL ADMINISTRATIVO DE TODAS LAS EMPRESAS DE AVIACIÓN QUE OPERAN EN EL PAIS

EMITIDO: DEPARTAMENTO DE SEGURIDAD DE VUELO E INVESTIGACIÓN DE ACCIDENTES

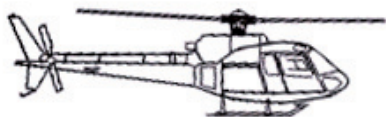
ASUNTO: INSPECCIÓN DE TIEMPO DE LOS LIMITES DE MANTENIMIENTO - ROTOR DE COLA (TRH) BASE DE LAS VARILLAS DE CAMBIO DE PASO

FECHA: 27 DE JUNIO DE 2013

De acuerdo a la información consignada en el boletín de servicio de alerta Eurocopter AS350, con fecha de revisión No. 1 del 25 de Junio 2013, se ha notificado la inspección de tiempo de los limites de mantenimiento – Rotor de cola (TRH) base de las varillas de cambio de paso.

- Se sugiere la aplicación del Alert Service Bulletin 05.00.74 para el AS350, este boletín de emergencia fue emitido por EUROCOPTER AN EADS COMPANY.

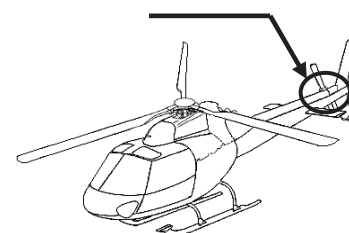
**ALERT SERVICE BULLETIN
05.00.74 Revisión No. 1**





EMERGENCY ALERT SERVICE BULLETIN

SUBJECT: TIME LIMITS/MAINTENANCE CHECKS - TAIL ROTOR - Tail Rotor Hub (TRH) pitch horn

**Check of the TRH pitch horn condition
ATA: 64**



For the attention of	
	

AIRCRAFT CONCERNED	NUMBER	Version(s)	
		Civil	Military
350	05.00.74	B, B1, B2, B3, BA, BB, D	L1
550	05.00.49		A2, C2, C3, U2
355	05.00.65	E, F, F1, F2, N, NP	
555	05.00.44		AF, AN, SN, UF, UN

Revision No.	Date of issue
Revision 0	2013-05-27
Revision 1	2013-06-25

Summary:

Check that there are no cracks on the inner yoke of the two TRH pitch horns.

Reason for last Revision:

The purpose of Revision 1 of this ALERT SERVICE BULLETIN is:

- To authorize the pilot to carry out the first check for cracks on the inner yoke of the two TRH pitch horns if he has the appropriate training and certification in compliance with the local regulation in force.
- To extend effectivity to part numbers 350A12-1368-XX in order to list all the P/Nos. for bare pitch horns and pitch horn assemblies.
- And, if necessary, to modify the Log Card of the Tail Rotor Blade Assembly.

Compliance:

Compliance with this ALERT SERVICE BULLETIN is mandatory.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment

Helicopters equipped with TRH pitch horn assemblies P/Nos. 350A12-1368-01 / 02 / 03 / 04 equipped with pitch horn P/N 350A12-1368-XX.



CAUTION

**ON SOME LOG CARDS FOR THE TAIL ROTOR
BLADE ASSEMBLY, THE PART NUMBER OF
THE PITCH HORN ASSEMBLY MAY BE
INCORRECT.
READ 350A121368.01 or 02 or 03 or 04 INSTEAD
OF 355A121368.01 or 02 or 03 or 04.**

NOTE

Refer to the aircraft individual inspection log book (MOD record) 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:

EUROCOPTER has been informed of a case of crack detection on the yoke of a TRH pitch horn. If this crack is not detected, it may eventually lead to the failure of the two horn yokes, resulting in the loss of the anti-torque function.

Consequently, EUROCOPTER makes it mandatory to comply with this ALERT SERVICE BULLETIN, the purpose of which is to check that there are no cracks on the yokes of the two TRH pitch horns, and to replace them if any cracks are detected.

Revision 1:

The purpose of Revision 1 of this ALERT SERVICE BULLETIN is:

- To authorize the pilot to carry out the first check for cracks on the inner yoke of the two TRH pitch horns if he has the appropriate training and certification in compliance with the local regulation in force.
- To extend effectivity to part numbers 350A12-1368-XX in order to list all the P/Nos. for bare pitch horns and pitch horn assemblies.
- And, if necessary, to modify the Log Card of the Tail Rotor Blade Assembly.
This is due to the fact that some of the pitch horn P/Nos. recorded on the Log Card are incorrect:
The Part Number **355**A121368.01 or 02 or 03 or 04 is recorded instead of **350**A121368.01 or 02 or 03 or 04.

1.D. DESCRIPTION

- 1) Check that there are no cracks on the inner yoke of the two TRH pitch horns:
If no cracks are found: Leave as is and inspect every 165 flying hours.
If any cracks are found: Replace the cracked TRH pitch horn before resuming flights.
- 2) On the Log Card of the Tail Rotor Blade assembly, record Part Number **350**A121368.01 or 02 or 03 or 04 if necessary instead of **355**A121368.01 or 02 or 03 or 04.

1.E. COMPLIANCE**1.E.1. Compliance at the works**

Not applicable.

1.E.2. Compliance in serviceHelicopters/installed equipment:a) - With less than 155 flying hours logged since new:

- . comply with paragraph 3. (except paragraph 3.B.4.) of this ALERT SERVICE BULLETIN at the latest upon reaching 165 flying hours unless this was already ensured in compliance with previous revisions.
- Then,
- . comply with paragraph 3.B. (except paragraph 3.B.4.) at intervals not exceeding 165 flying hours.

- With more than 155 flying hours logged since new:

Comply with paragraph 3. (except paragraph 3.B.4.) of this ALERT SERVICE BULLETIN:

- . within 10 flying hours following receipt of Revision 1 of this ALERT SERVICE BULLETIN issued on the date indicated at the bottom of the page, unless this was already ensured in compliance with previous revisions.

Then,

- . comply with paragraph 3.B. (except paragraph 3.B.4.) at intervals not exceeding 165 flying hours.

- b) If necessary, comply with paragraph 3.B.4. within 10 flying hours following receipt of Revision 1 of this ALERT SERVICE BULLETIN in order to modify the Log Card.

Non-installed equipment:

Not applicable.

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 27, 2013 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 May 27, 2013 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 0 was approved on May 27, 2013 by the EUROCOPTER Airworthiness Department for export military versions.

The technical information contained in this ALERT SERVICE BULLETIN Revision 1 was approved on June 25, 2013 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 25, 2013 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 June 25, 2013 by the EUROCOPTER Airworthiness Department for export military versions.

1.G. MANPOWER



EUROCOPTER recommends that compliance with this ALERT SERVICE BULLETIN be ensured by personnel with the following qualification:

Qualification: - 1 Mechanical Engineering Technician,
- 1 Pilot with appropriate training and certification in compliance with the local regulation in force.



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

Time for the operations:

- Check: Approximately 5 minutes (1 hour if there is any doubt).
- Check + replacement of the TRH pitch horn: Approximately 1 hour.



Estimated helicopter grounding time: Approximately 1 hour.

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):

- AMM: 60-00-00, 3,1: General safety instructions - Mechanical Assemblies
- AMM: 64-10-00, 8-2: Replacing - Pitch horn assembly

Maintenance Manual (MET):

- MET: 60.00.00.301: General Instructions

Mechanical Repair Manual (MRM):

- MRM: 64.10.00.707: Replacing the pitch horn assembly

Standard Practices Manual (MTC):

- MTC: 20.02.09.101: Crack detection through dye-penetrant inspection: General
- MTC: 20.02.09.601: Checking structural parts/components using the dye-penetrant procedure
- MTC: 20.04.02.401: Chemical stripping of organic surface finishes

1.L. DOCUMENTS AFFECTED

Not applicable.

1.M. INTERCHANGEABILITY OR MIXABILITY OF PARTS

Interchangeability:

Not applicable.

Mixability:

Not applicable.

2. MATERIAL INFORMATION

2.A. MATERIAL: PRICE - AVAILABILITY - PROCUREMENT

2.A.1. Price

For any information concerning the price of kits and/or components, contact the EUROCOPTER Network Sales & Customer Relations Department.

Order the required quantity
 from
 EUROCOPTER
 Etablissement de Marignane
 Direction Ventes et Relations Client (ECR)
 13725 MARGNANE CEDEX
 FRANCE

NOTE

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

2.A.2. Availability

The parts will be delivered on the operator's order.

2.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

2.C. MATERIAL REQUIRED FOR EACH HELICOPTER/COMPONENT

Kits or components to be ordered for a helicopter or an assembly:

Key Word	Qty	Item	New P/N	Former P/N→	Instruction
<u>If cracks are detected:</u>					
TRH pitch horn assembly	1 or 2	1	350A12136804		

Material to be ordered separately:

Order attachment components (screws, washers, nuts, etc.) according to the Work Cards and Tasks given in this ALERT SERVICE BULLETIN.

Products to be ordered separately:

As per Work Cards and Tasks given in this ALERT SERVICE BULLETIN.

2.D. MATERIAL TO BE RETURNED

Not applicable.

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

- Read and comply with the crack detection instructions as per MTC 20.02.09.101.
- Read and comply with the instructions for checking structural components and parts using the dye-penetrant procedure as per MTC 20.02.09.601.
- Read and comply with the instructions for the chemical stripping of organic surface coatings as per MTC 20.04.02.401.

3.B. OPERATIONAL PROCEDURE

3.B.1. Preliminary steps

- Set up the appropriate access equipment.

3.B.2. Procedure



CAUTION

**COMPLY WITH THE GENERAL MECHANICAL
INSTRUCTIONS AS PER MET WORK CARD
60.00.00.301 OR AMM TASK 60-00-00, 3-1.**

3.B.2.a. Check of the TRH pitch horn

Visually check that there are no cracks on the inner yoke of the two TRH pitch horns (a) (Figure 1, DETAIL A and B). If in doubt, carry out a dye-penetrant test.

- case 1: no cracks detected on the two TRH pitch horns: leave as is and proceed with the final steps as per paragraph 3.B.3.
- case 2: at least one crack detected on the TRH pitch horn: remove and replace the incriminated horn as per paragraph 3.B.2.b. before resuming flights.

3.B.2.b. Replacement of the TRH pitch horn

- Remove the TRH pitch horn (a) as per MRM Work Card 64.10.00.707 or AMM Task 64-10-00,8-2.
- Install the TRH pitch horn (1) as per MRM Work Card 64.10.00.707 or AMM Task 64-10-00,8-2.

3.B.3. Final steps

- Remove the access equipment.

3.B.4. Update of the Log Card

On the Log Card of the tail rotor blade assembly indicating pitch horn Part Number 355A121368.01 or 02 or 03 or 04:

- Cross out the incorrect Part Number **355**A121368.01 or 02 or 03 or 04, and,
- Record Part Number **350**A121368.01 or 02 or 03 or 04.

3.C. IDENTIFICATION

Identification of this document:

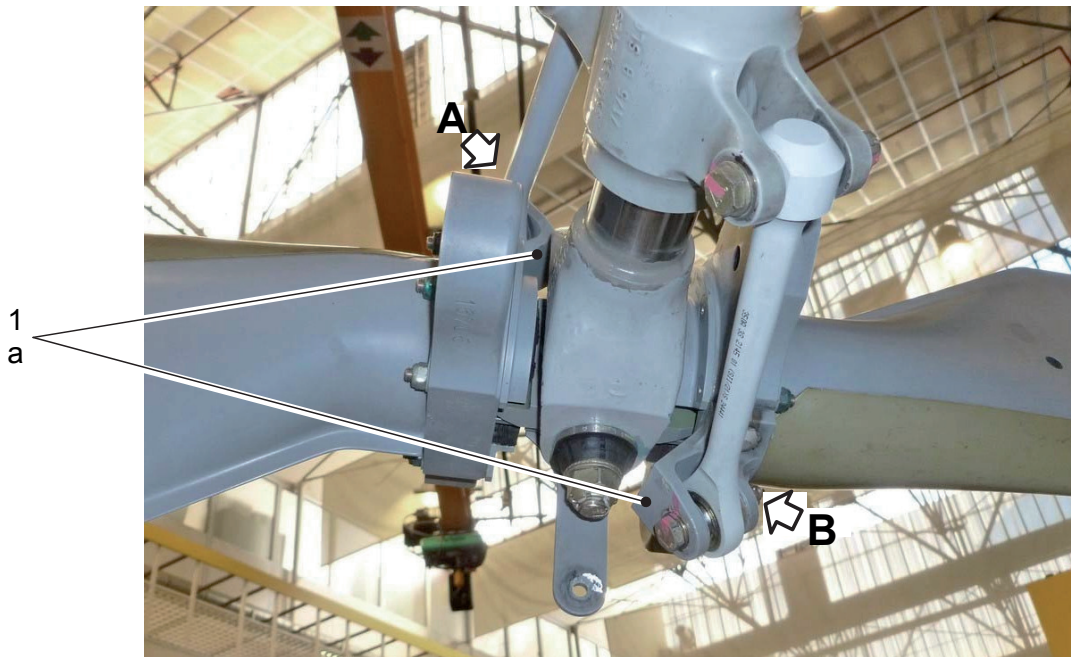
Record compliance with this ALERT SERVICE BULLETIN in the helicopter documents.

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.

4. APPENDIX

Not applicable.



A

B

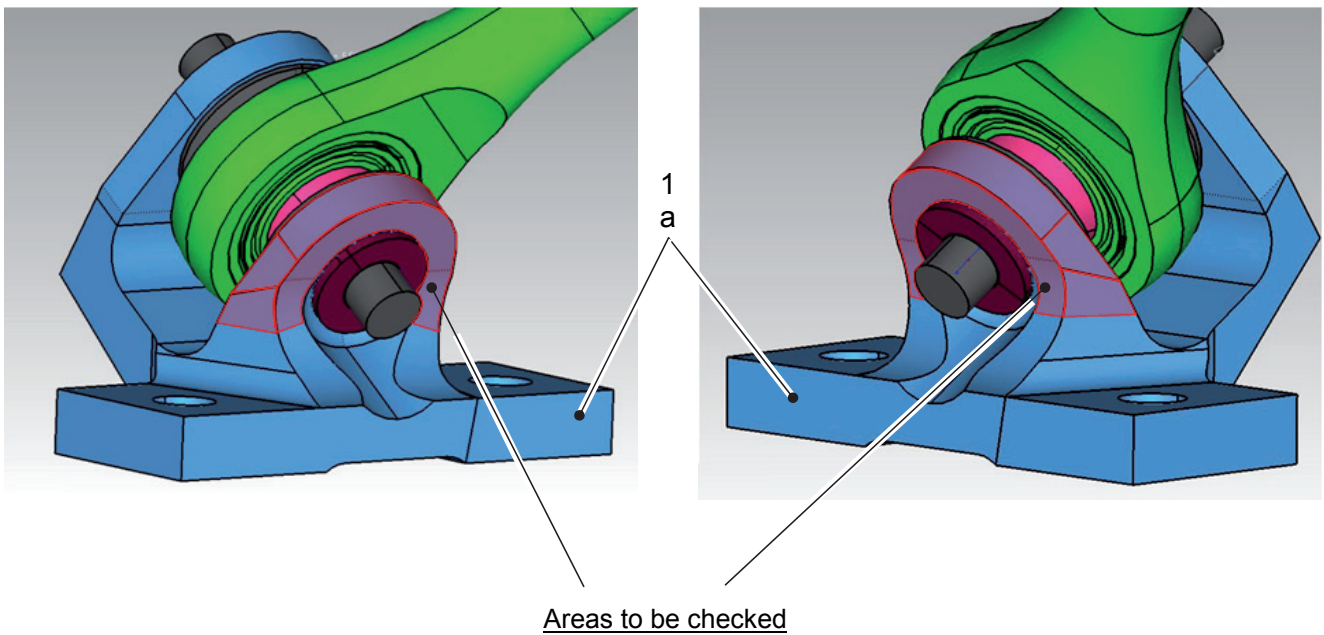


Figure 1: Areas to be checked for cracks