

Civil versions: B, BA, BB, B1, B2, B3, D

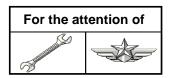
Military version: L1

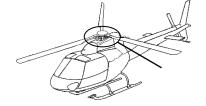
# ALERT SERVICE BULLETIN

# PROTECTIVE MEASURE

TIME LIMITS - MAINTENANCE CHECKS - Main Rotor Inspection of the pitch rod upper links

ATA 62





Revision No.	Date of issue		
Revision 0	2021-02-09		

# **Summary**:

This ALERT SERVICE BULLETIN consists in making sure that the attachment pins of the pitch rod upper links do not rotate.

# **Compliance:**

Compliance with this ALERT SERVICE BULLETIN is mandatory.



ASB AS350-05.01.01



#### 1. PLANNING INFORMATION

#### 1.A. EFFECTIVITY

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

AS350 helicopters, all versions.

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

Not applicable.

#### 1.B. ASSOCIATED REQUIREMENTS

Not applicable.

#### 1.C. REASON

Airbus Helicopters has recently been informed of a case a total loss of tightening torque of a screw used for the connection of the pitch rod and the horn.

This loss was discovered after a flight with increasing vibration level, during the post-flight inspection. After detailed inspection of the parts, significant wear was also noticed on the shank of the screw.

Consequently, Airbus Helicopters makes it mandatory to mark the pitch rod upper links with a red paint line and to check the position of the red paint line at every 10-FH inspection.

#### 1.D. DESCRIPTION

This ALERT SERVICE BULLETIN consists in:

- marking the position of the screws and the nuts by a red line,
- checking the position of the red lines.

#### 1.E. COMPLIANCE

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

Helicopters/installed equipment or parts:

Airbus Helicopters makes it mandatory to comply with the instructions of paragraph <u>3.B.2.a.</u> of this ALERT SERVICE BULLETIN before the delivery of the helicopter.

Non-installed equipment or parts:

Not applicable.

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#### 1.E.2. Compliance in service

The work must be performed on the helicopter by the operator.

Helicopters/installed equipment or parts:

- Comply with paragraph <u>3.B.2.a.</u> of this ALERT SERVICE BULLETIN within 150 flight hours from receipt of this ALERT SERVICE BULLETIN revision 0 issued on the date indicated in the page footer.
- Comply with paragraph <u>3.B.2.b.</u> of this ALERT SERVICE BULLETIN within 10 FH following compliance with paragraph 3.B.2.a.

Then,

- Comply with paragraph 3.B.2.b. every 10 FH.

Non-installed equipment or parts:

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 February 08, 2021 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 February 08, 2021 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 February 08, 2021 by the Airbus Helicopters Airworthiness Department for export military versions.

#### 1.G. MANPOWER



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

Qualification: - 1 Mechanical Technician,

or

- 1 Pilot with appropriate training and accreditation in compliance with the local regulations in force for the visual check.



The Estimated Man-hours are indicated for reference purposes only and based on a standard helicopter configuration.

Estimated Man-hours: 30 minutes for the Mechanical Technician or the Pilot for the visual check.

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#### 1.H. WEIGHT AND BALANCE

Not applicable.

#### 1.I. POWER CONSUMPTION

Not applicable.

#### 1.J. SOFTWARE UPGRADES/UPDATES

Not applicable.

#### 1.K. REFERENCES

The following documents are required for compliance with this ALERT SERVICE BULLETIN:

#### Aircraft Maintenance Manual (AMM):

AMM: 60-00-00, 3-1: General Safety Instructions - Mechanical Assemblies - General - Mechanical

Systems

AMM: 62-21-00, 6-12: Inspection Criteria - Pitch Change Lever - Main Rotor Hub

AMM: 62-33-00, 4-1: Removal / Installation - Housing / Swashplate / Hub coupling (Dual Hydraulic) -

Rotor Control

AMM: 62-33-00, 6-1: Detailed Inspection Criteria - Pitch rod - Rotor Control

AMM: 62-33-00, 6-6: Check of tightening torque on the coupling pins on the pitch control rods - Rotor

Control

#### Maintenance Manual (MET):

MET: 60-00-00-301: General instructions - General - Mechanics Systems MET: 62-20-00-401: Main rotor hub: Removal - Installation - Main rotor hub

MET: 62-20-00-605: MRH: Detailed condition check - Main rotor hub

MET: 62-20-16-401: Main rotor hub POST MOD 076120: Removal - Installation - Main rotor hub

MET: 62-30-00-601: Check on the aircraft of the rotor mast condition - Rotor mast

## Standard Practices Manual (MTC):

MTC: 20-02-05-404: Assembly by screws and nuts - Joining

MTC: 20-07-02-201: Helicopter parked in a repair shop - Safety instructions

MTC: 20-07-03-408: Appearance checks on an aircraft after inspection or repair - Technical instructions

#### Information Notice (IN):

IN 3447-I-00: Introduction of the digital Service Bulletin reporting service R-TEX

IN 3481-I-00: The Marketplace: an AirbusWorld eOrdering service

# 1.L. OTHER AFFECTED PUBLICATIONS



Airbus Helicopters will modify the Aircraft Maintenance Manual (AMM), the Maintenance Manual (MET) and the Airworthiness Limitations Section (ALS) with respect to this ALERT SERVICE BULLETIN.

#### 1.M. PART INTERCHANGEABILITY OR MIXABILITY

Not applicable

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#### 2. EQUIPMENT OR PARTS INFORMATION

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

#### Price

For any information on the price of modification kits and/or components or for assistance, contact the Airbus Helicopters Network Sales and Customer Relations Department.

#### Availability

Delivery lead times will be indicated by the Sales and Customer Relations Department on the operator's request.

#### **Procurement**

Order the required quantity from the Airbus Helicopters Network Sales and Customer Relations Department:

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 modify.

# **NOTE 2**

For ALERT SERVICE BULLETINS, order by:

Telex: HELICOP 410 969F Fax: +33 (0)4.42.85.99.96

#### 2.B. LOGISTIC INFORMATION

Not applicable.

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

Equipment or parts to be ordered separately:

Key Word	Qty	New P/N	Item	Old P/N →	Instruction
Screw	A/R	350A31-1873-20	1	350A31-1873-20	Discard
Split pin	A/R	23310CA015020	2	23310CA015020	Discard
Nut	A/R	ASNA0045BC080L	3	ASNA0045BC080L	Discard
Washer	A/R	23116AG080LE	4	23116AG080LE	Discard

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# Consumables to be ordered separately:

As per the Work Cards indicated in this ALERT SERVICE BULLETIN and the list below.

Key Word	Qty	P/N	CM	Item
Sealing compound	A/R	PR 1771 B2	6068	5

You can order the consumables from the AirbusWorld Marketplace through e-ordering (IN No. 3481-I-00). If you cannot get access to e-ordering, please contact your Logistic Focal Point.

# 2.D. EQUIPMENT OR PARTS TO BE RETURNED

Not applicable.

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#### 3. ACCOMPLISHMENT INSTRUCTIONS

#### 3.A. GENERAL

- As per Task 60-00-00, 3-1 (AMM), read and comply with the general safety instructions for mechanical assemblies.
- As per Work Card 60-00-00-301 (MET), read and comply with the general mechanical instructions for rotors.
- As per Work Card 20-07-02-201 (MTC), read and comply with the safety instructions for a helicopter parked in a repair shop.

# 3.B. WORK STEPS

The procedure is described for one pitch rod upper link. Comply with the same procedure for the other 2 pitch rod links.

### 3.B.1. Preliminary steps

- Install appropriate access equipment.
- Remove and/or open all cowlings, panels, doors and all equipment items to enable adequate access to the various work areas.

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#### 3.B.2. Procedure

- 3.B.2.a. Marking of the screw (e) and the nut (b) of the pitch rod (a) upper link, (Figure 1)
  - As per the principles of Work Card 20-02-05-404 (MTC), mark the tightening of the screw (e) or (1) and nut (b) or (3), (Figure 1) by applying a line of red paint (approximately 2 mm (.078 in.)) to:

## **NOTE 1**

Figure 1 is given as an indication to illustrate the lines of red paint.

- . the screw head (e) or (1), the washer (d) or (4) and the pitch horn (f),
- . the nut (b) or (3), the washer (d) or (4) and the pitch horn (f).

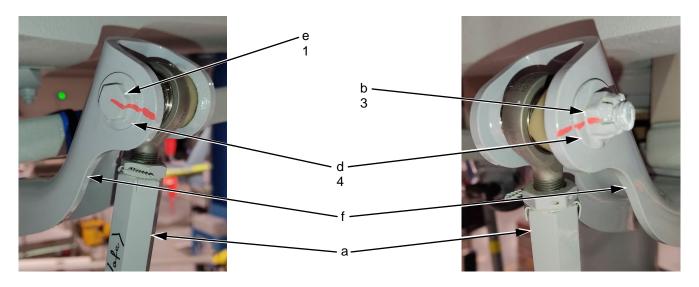


Figure 1

- 3.B.2.b. Visual inspection of the pitch rod (a) upper link, (Figure 1)
  - Make sure that the two red lines of the pitch rod (a) upper link are aligned (Figure 1).
  - If the two red lines are aligned on both sides, comply with paragraph 3.B.3.,
  - If at least one of the two red lines is not aligned, check the tightening torque of the pitch rod upper links as per paragraph 3.B.2.c.

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#### 3.B.2.c. Check of the pitch rod (a) upper link (Figure 2)

- Before removal of the pitch rod (a) upper link (Figure 2):
  - . remove and discard the split pin (c),
  - . check the tightening torque of the nut (b) as per Task 62-33-00, 6-6 (AMM) or Detail B, <u>Figure 2</u> and Work Card 20-02-05-404 (MTC).
  - . contact Airbus Helicopters for RETEX information and send the tightening torque value to the following address:
    - .. Airbus World: Technical Request Management https://airbusworld.helicopters.airbus.com
    - .. E-mail: support.technical-dyncomp.ah@airbus.com
    - .. Fax: + 33 (0) 442.85.99.66
  - . remove and discard the nut(s) (b), the washers (d) and the screw(s) (e) (Figure 2),
  - . disengage the pitch rod (a) from the pitch horn (f),
  - . perform a visual inspection of the pitch rod (a) upper link as per the principles of Task 62-33-00, 6-1 (AMM) or Work Card 62-30-00-601 (MET),
  - . without removal, perform a visual inspection of the pitch horn (f) (Figure 2) as per the principles of Task 62-21-00, 6-12 (AMM) or Work Card 62-20-00-605 (MET),
  - . engage the pitch rod (a) in the pitch horn (f),
  - . install the screw (1), the washers (4), the nut (3) and the split pin (2) on the pitch rod (a) upper link as per the principle of Task 62-33-00, 4-1 (AMM) or Work Card 62-20-00-401 or 62-20-16-401 (MET),
  - . comply with paragraph 3.B.2.a.

#### 3.B.3. Final steps

- Install again and/or close all cowlings, panels, doors and all equipment removed and/or opened during preliminary steps (paragraph 3.B.1. of this ALERT SERVICE BULLETIN).
- Remove the access equipment.
- Clean and restore the work zones and the helicopter as per Work Card 20-07-03-408 (MTC).

### 3.C. RECORD OF COMPLIANCE

#### Compliance with this document:

- Record full compliance with this ALERT SERVICE BULLETIN, with the revision number, in the helicopter documents.
- Please confirm compliance with this ALERT SERVICE BULLETIN as per Information Notice No. 3447-I-00: QR-code or hypertext link



#### **NOTE 2**

The recording of compliance with ALERT SERVICE BULLETINs in the R-TEX tool does not replace the recording in the helicopter documents.

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# 3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Operating instructions:

Not applicable.

Maintenance instructions:

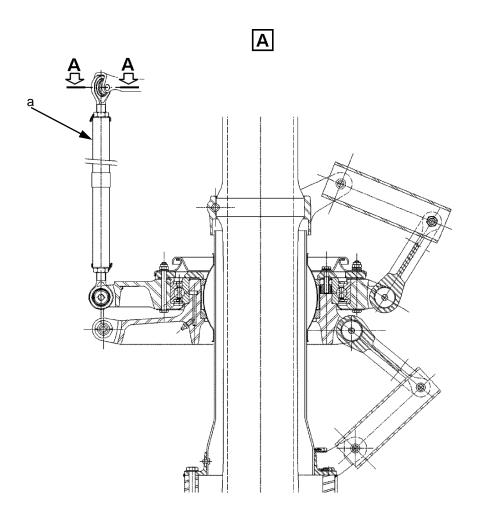
After replacement or installation of a pitch rod, mark the tightening of the screw (e) or (1) and the nut (b) or (3), (Figure 1) as per paragraph 3.B.2.a.

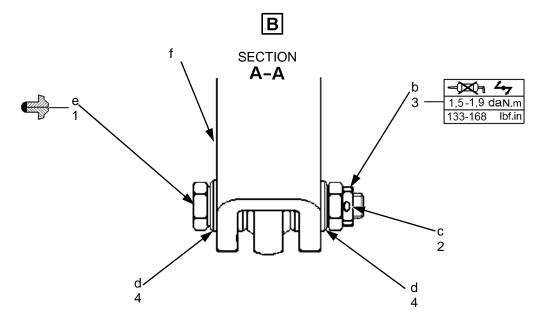
The Aircraft Maintenance Manual (AMM) and the Maintenance Manual (MET) will integrate maintenance instructions during a future revision. When the instructions are integrated, refer to these manuals.

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# **AIRBUS**

# No. AS350-05.01.01





Return to paragraph <u>3.B.2.c.</u> Return to paragraph <u>3.D.</u>

Figure 2