

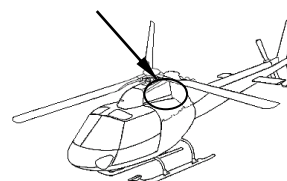
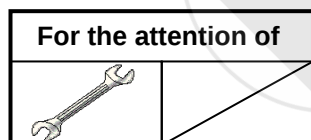
No. AS350-63.00.38

Civil version(s): B, B1, B2, B3, BA, BB, D
Military version(s): L1

ALERT SERVICE BULLETIN

PROTECTIVE MEASURE

MAIN ROTOR DRIVE - Main Gear Box (MGB) engine coupling
Check the correct assembly of the MGB engine coupling flange



Revision No.	Date of issue
Revision 0	2023-05-31
Revision 1	2023-07-19

Summary:

The purpose of this ALERT SERVICE BULLETIN is to check the assembly direction of the flange and to correctly re assemble it if necessary.

Reason for last Revision:

The purpose of revision 1 is to offer alternatives means to inspect MGB/engine coupling flange.

Compliance:

It is mandatory to comply with this ALERT SERVICE BULLETIN.

1. PLANNING INFORMATION

1.A. EFFECTIVITY

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

- Helicopters AS350 all versions delivered before May 15, 2023 (date of statement of conformity, EASA form 52 or equivalent).
- Helicopters AS350 version D that have a Lycoming engine are not concerned with this ALERT SERVICE BULLETIN.

NOTE

Helicopters AS350 all versions delivered on May 15, 2023 or after May 15, 2023 are not concerned with this ALERT SERVICE BULLETIN.

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

Not applicable.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

Revision 0:

Cases of inverted assembly of the Engine Flange on MGB engine coupling have been detected by Airbus Helicopters.

Consequently, the purpose of this ALERT SERVICE BULLETIN is to check the assembly direction of the flange and to correctly re assemble it if necessary.

Revision 1:

The purpose of revision 1 is to offer alternatives means to inspect MGB/engine coupling flange.

Revision 1 of this ALERT SERVICE BULLETIN has no effect on the compliance with revision 0 of this ALERT SERVICE BULLETIN.

1.D. DESCRIPTION

This ALERT SERVICE BULLETIN includes the work steps that follow:

- Check the assembly of the MGB engine coupling.
- Make an analysis of the results.
- If necessary:
 - . Remove the MGB engine coupling incorrectly assembled.
 - . Remove the flange from the MGB engine coupling.
 - . Install the flange on the MGB engine coupling correctly.
 - . Install the MGB engine coupling correctly assembled.
 - . Send back the response form to Airbus Helicopters.

1.E. COMPLIANCE

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

Not applicable.

1.E.2. Compliance in service

Helicopters/installed equipment or parts:

The operator must do the work on the helicopter.

Comply with paragraph 3. of this ALERT SERVICE BULLETIN not more than 165 flight hours or 12 months and 36 days (the first limit you get to is applicable) after you received revision 0 of this ALERT SERVICE BULLETIN (refer to the issue date on the page footer).

Non-installed equipment or parts:

Not applicable.

1.F. APPROVAL



The technical content of this document is approved under the authority of the Design Organization Approval ref. EASA. 21J.700.

The technical content of this document is approved under the prerogatives of the recognition of design capability ref. FRA21J-002-DGA for French Government helicopters.

The technical content of this document is approved by Airbus Helicopters Airworthiness Department for export military versions.

1.G. MANPOWER



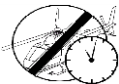
Airbus Helicopters recommends that the personnel who will do this ALERT SERVICE BULLETIN have this qualification:

Qualification: 1 Mechanical Technician.



The man-hours are an estimate given for information only and for a standard helicopter configuration.

Estimated Man-hours: 1 hour for the mechanical technician (excluding time to modify the MGB engine coupling).



The helicopter downtime is an estimate given for information only and for a standard helicopter configuration.

The estimate of the helicopter downtime is 1 hour.

1.H. WEIGHT AND BALANCE

Not applicable.

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1.I. POWER CONSUMPTION

Not applicable.

1.J. SOFTWARE UPGRADES/UPDATES

Not applicable.

1.K. REFERENCES

These documents are necessary to comply with this ALERT SERVICE BULLETIN:

For helicopters AS350 versions B, B1, BA, BB, D and L1

Maintenance Manual (MET):

MET: 63-00-00-401: MGB engine coupling: Removal - Installation - Main rotor drive

MET: 63-00-00-616: Engine to MGB coupling: Detailed check - Main rotor drive

For helicopters AS350 versions B2 and B3

Aircraft Maintenance Manual (AMM):

AMM: 63-11-00, 4-1: Removal - MGB / Engine Coupling - Engine / MGB Drive line

AMM: 63-11-00, 4-2: Installation - MGB / Engine Coupling - Engine / MGB Drive line

AMM: 63-11-00, 6-1: Detailed Inspection Criteria - Flexible Coupling - Engine / MGB Drive line

AMM: 63-11-00, 6-9: Inspection Criteria - Engine Flange - Engine / MGB Drive line

For helicopters AS350 all versions

Standard Practices Manual (MTC):

MTC: 20-07-03-406: Instructions applicable when working on an aircraft electrical circuit and power generating systems - Technical instructions

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

Information Notices (IN):

IN: 2832-I-00: Procedure for returning parts to Airbus Helicopters for overhaul/repair/technical investigation/core unit return

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

IN: 3785-I-00: Introduction of the digital Service Bulletin reporting service SB Insight

Safety Promotion Notice:

SPN: 3703-P-00: Foreign Object Damage prevention

1.L. OTHER AFFECTED PUBLICATIONS

Not applicable.

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 information about the price of the modification kits and/or components, or for aid, contact the Airbus Helicopters Network Sales and Customer Relations Department.

Availability

Contact the Sales and Customer Relations Department to know the delivery lead time the operator's request.

Procurement

Send an order for the necessary quantities to the Airbus Helicopters Network Sales and Customer Relations Department:

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

In the purchase order, write the information that follows:

- The mode of transport
- The destination
- The serial numbers of the helicopters to change.

2.B. LOGISTIC INFORMATION

Not applicable.

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

Equipment or parts to be ordered separately:

Key Word	Qty	New reference	Item	Former reference →	Instruction
Flange	1		1		
Flexible coupling	1		2		
Pin	A/R		3		
Screw	A/R		4		
Washer Ø 18 mm	A/R	Refer to Illustrated	5	Refer to IPC.	Replace, if necessary, with the same MP/N as that found on the helicopter.
Washer Ø 20 mm	A/R	Part Catalog (IPC).	6		
Washer flector	A/R		7		
Washer	A/R		8		
Nut	A/R		9		

Consumables to be ordered separately:

Refer to Work Cards and Tasks given in this ALERT SERVICE BULLETIN.

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.

Special tools:

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

Key word	Qty	Tool reference or equivalent	Item
Endoscope	1	Commercial	zz

2.D. EQUIPMENT OR PARTS TO BE RETURNED

Not applicable.

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3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

Not applicable.

3.B. WORK STEPS

3.B.1. Preliminary steps

- Disconnect all the electrical power supplies. Refer to Work Card 20-07-03-406 (MTC).
- Install the access equipment.
- Remove and/or open all applicable cowlings, panels, doors and other equipment items to get access to the different work areas.

3.B.2. Procedure



CAUTION

**MAKE SURE THAT YOU PREVENT ALL POSSIBLE
FOREIGN OBJECT DAMAGE (FOD).
REFER TO SAFETY PROMOTION NOTICE (SPN)
No. 3703-P-00.**



CAUTION

**DO NOT TURN ANY MECHANICAL PART DURING
THE INSPECTION OF THE FLANGE.**

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3.B.2.a. Access to the flange of the MGB engine coupling with the endoscope

3.B.2.a.1. With access through the engine housing

- Position the endoscope (zz) through inspection access hole of engine housing (a) (Figure 1 and Figure 2).



Figure 1



Figure 2

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3.B.2.a.2. Without access through the engine housing

- Access through the engine coupling housing
- Loosen the clamps (s) of the protection plate (u).
- Align the hole (t) of the protection plate (u) with the inspection hole (v) of the engine coupling housing (w).
- Position the endoscope (zz) (not shown) through inspection access hole of the protection plate of the engine coupling housing (w) (Figure 3).

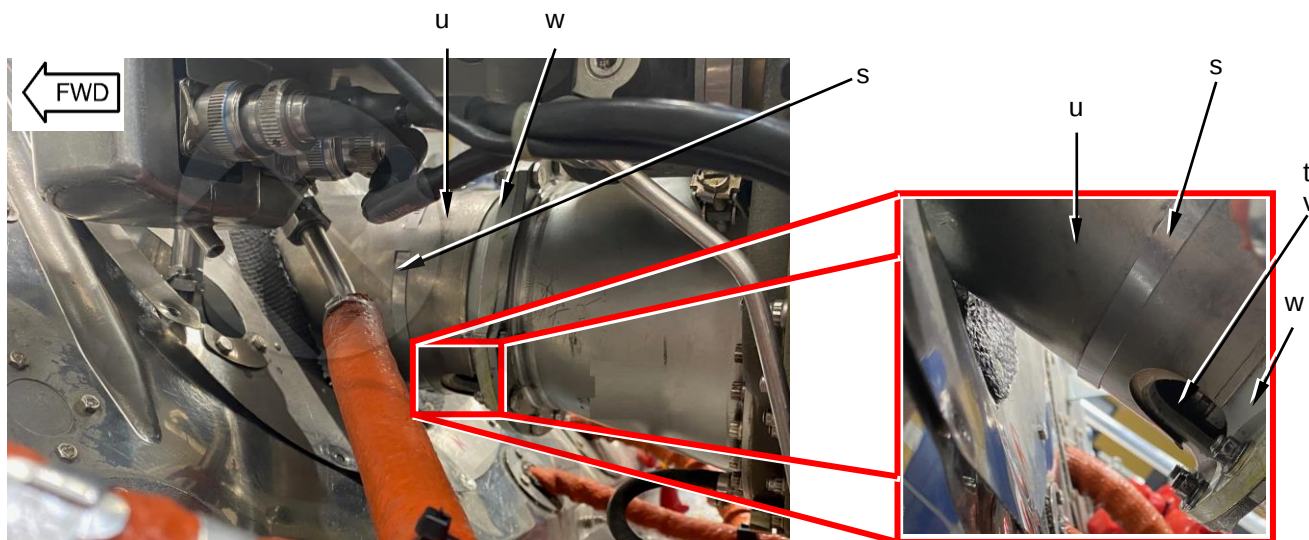


Figure 3

3.B.2.b. Flange inspection

- Make sure that the flange (b) of MGB engine coupling (c) is correctly assembled with the endoscope (zz) (Figure 4 and Figure 7).

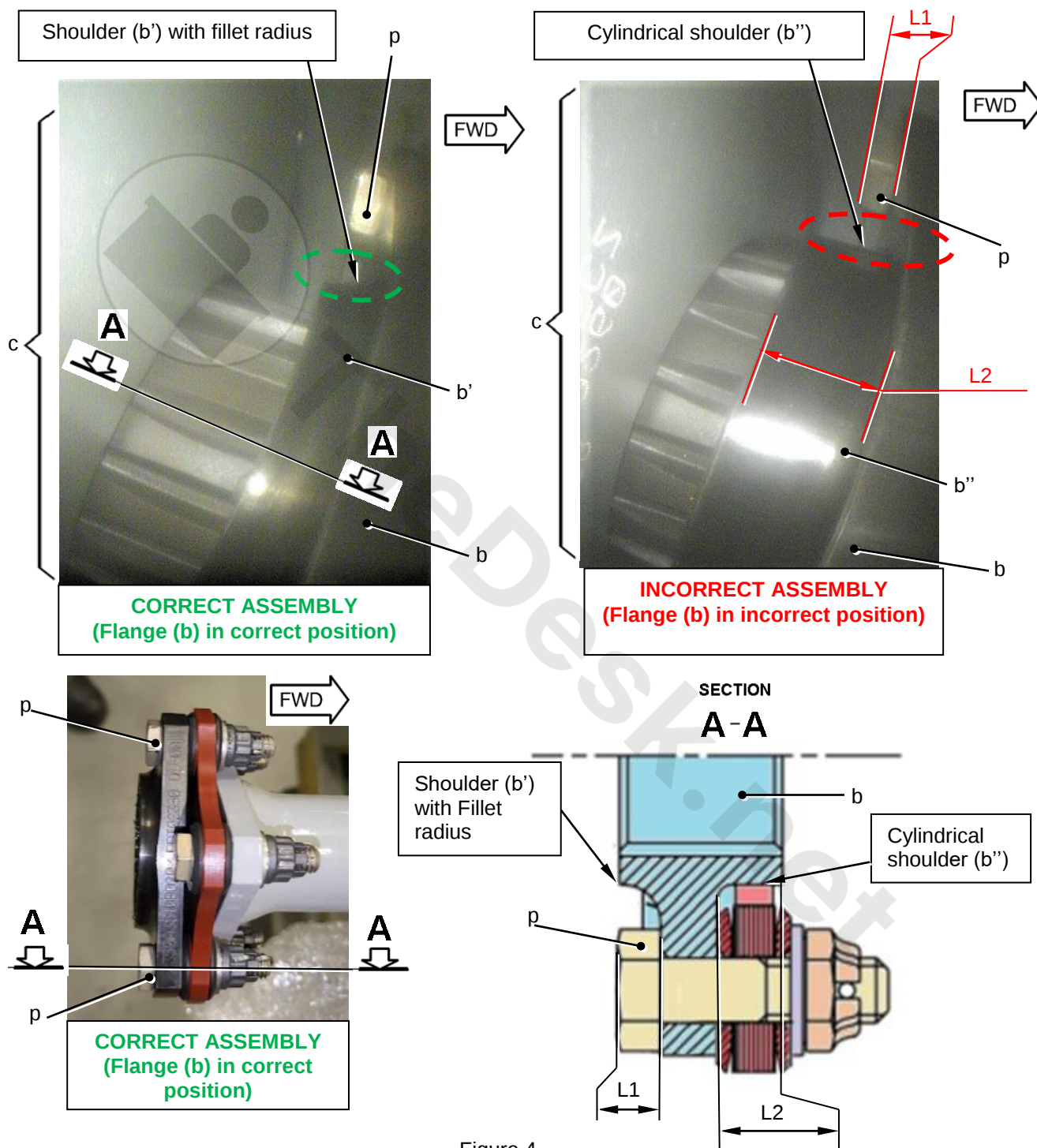


Figure 4

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NOTE 1

Incorrect assembly can be identified with a check of relative length (L1) of the head (p) of the screw and the length (L2) of the shoulder (b''). The head (p) of the screw is two times shorter than the shoulder (b'') ([Figure 4](#) and [Figure 7](#)).

3.B.2.c. Analysis of the results

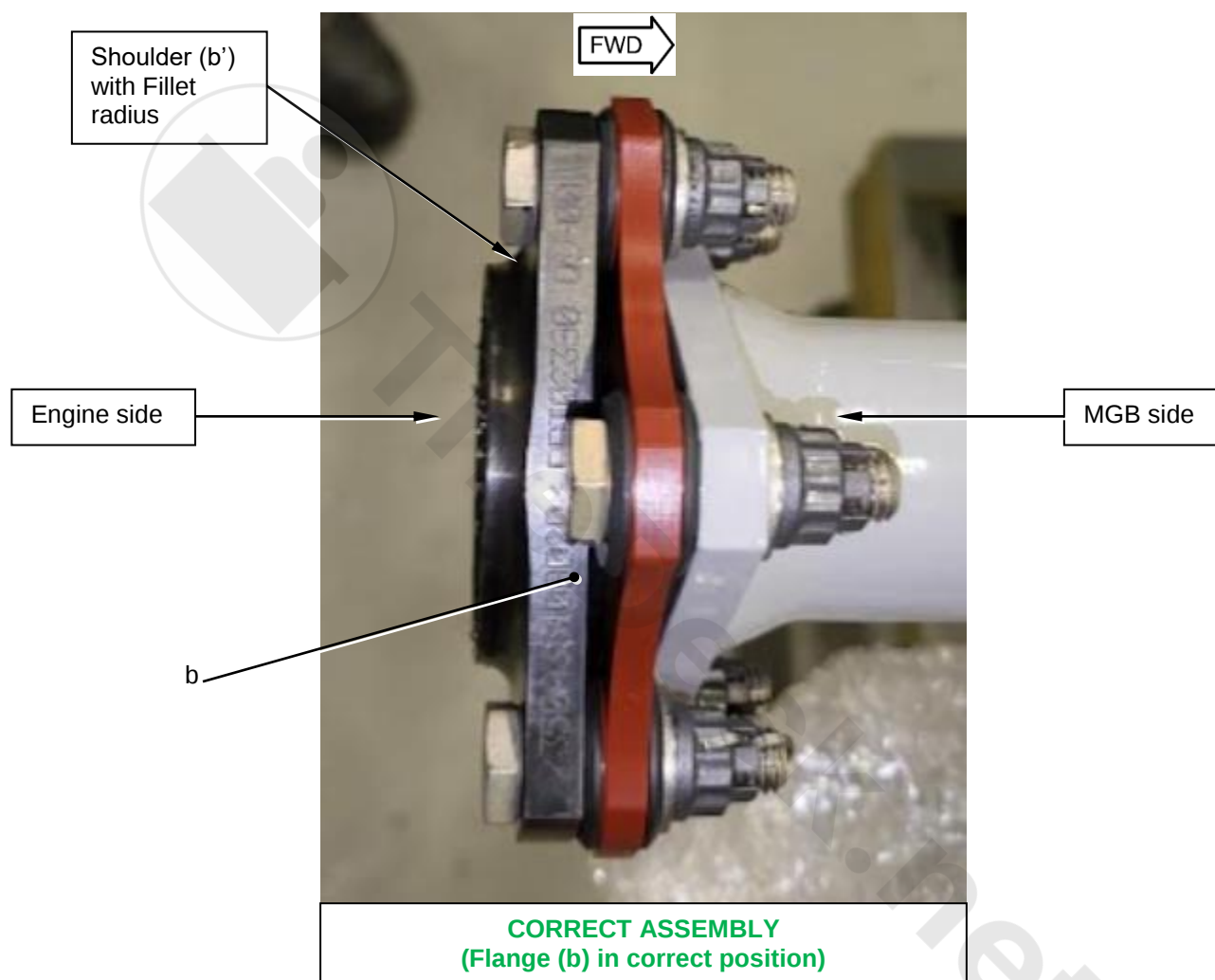


Figure 5

- If the flange (b) is correctly assembled (Figure 5 and [Figure 7](#)):
 - . Remove the endoscope (zz) (not shown) from the inspection access hole of the engine coupling housing (a).
 - . If necessary:
 - .. Position the hole (t) in the protection plate (u) so that it closes the inspection hole (v) in the engine coupling housing (w) ([Figure 3](#)).
 - .. Tighten the clamps (s) of the protection plate (u).
 - . Comply with paragraph [3.B.3](#).
- If the flange (b) is incorrectly assembled:
 - . Comply with paragraph [3.B.2.d](#).

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3.B.2.d. Removal of the flange incorrectly assembled from the MGB engine coupling (Figure 6)

- Refer to Work Card 63-00-00-401 (MET) or Task 63-11-00, 4-1 (AMM):
 - . Remove the MGB engine coupling (c) from the helicopter.
 - . Remove the flange (b) and the flexible coupling (d) from the MGB engine coupling (c).
- Discard:
 - . The screws (e)
 - . The washers (f), (k) and (m)
 - . The washers flexor (n)
 - . The nuts (h)
 - . The pins (g).
- Do an inspection of the flange (b) of the MGB engine coupling. Refer to Work Card 63-00-00-616 (MET) or Task 63-11-00, 6-9 (AMM).
- Do an inspection of the flexible coupling (d) of the MGB engine coupling. Refer to Work Card 63-00-00-616 (MET) or Task 63-11-00, 6-1 (AMM).

3.B.2.e. Installation of the flange correctly assembled on the MGB engine coupling (Figure 6)



CAUTION

FOR CORRECT INSTALLATION OF THE FLANGE (b) OR (1), THE HEADS OF THE SCREWS (4) MUST BE ON THE CHAMFER SIDE (AREA A). REFER TO DETAIL C.

- Refer to Work Card 63-00-00-401 (MET) or Task 63-11-00, 4-2 (AMM):
 - . Install the flange (b) or the new flange (1) and the flexible coupling (d) or the new flexible coupling (2) on the MGB engine coupling (c) with:
 - .. The new screws (4)
 - .. The new washers (5), (6) and (8)
 - .. The new washers flexor (7)
 - .. The new nuts (9)
 - .. The new pins (3).
 - . Install the MGB engine coupling (c) correctly assembled on the helicopter.
- Send the response form to Airbus Helicopters (see Appendix [4.A.](#)).

3.B.3. Final steps

- Do an appearance check on the helicopter after inspection or repair. Refer to the Work Card 20-07-03-408 (MTC).
- Install again or close all cowlings, panels, doors and equipment removed and/or opened during preliminary steps (paragraph [3.B.1.](#) of this ALERT SERVICE BULLETIN).
- Connect all the electrical power supplies. Refer to the Work Card 20-07-03-406 (MTC).
- Remove the access equipment.
- Comply with paragraph [3.C.](#)

3.C. RECORD OF COMPLIANCE

Compliance with this document:

- Record the full compliance with this ALERT SERVICE BULLETIN, with the revision number, in the helicopter documents.
- Record compliance with this ALERT SERVICE BULLETIN (see IN 3785-I-00 for instructions):
QR code or hypertext link



NOTE 2

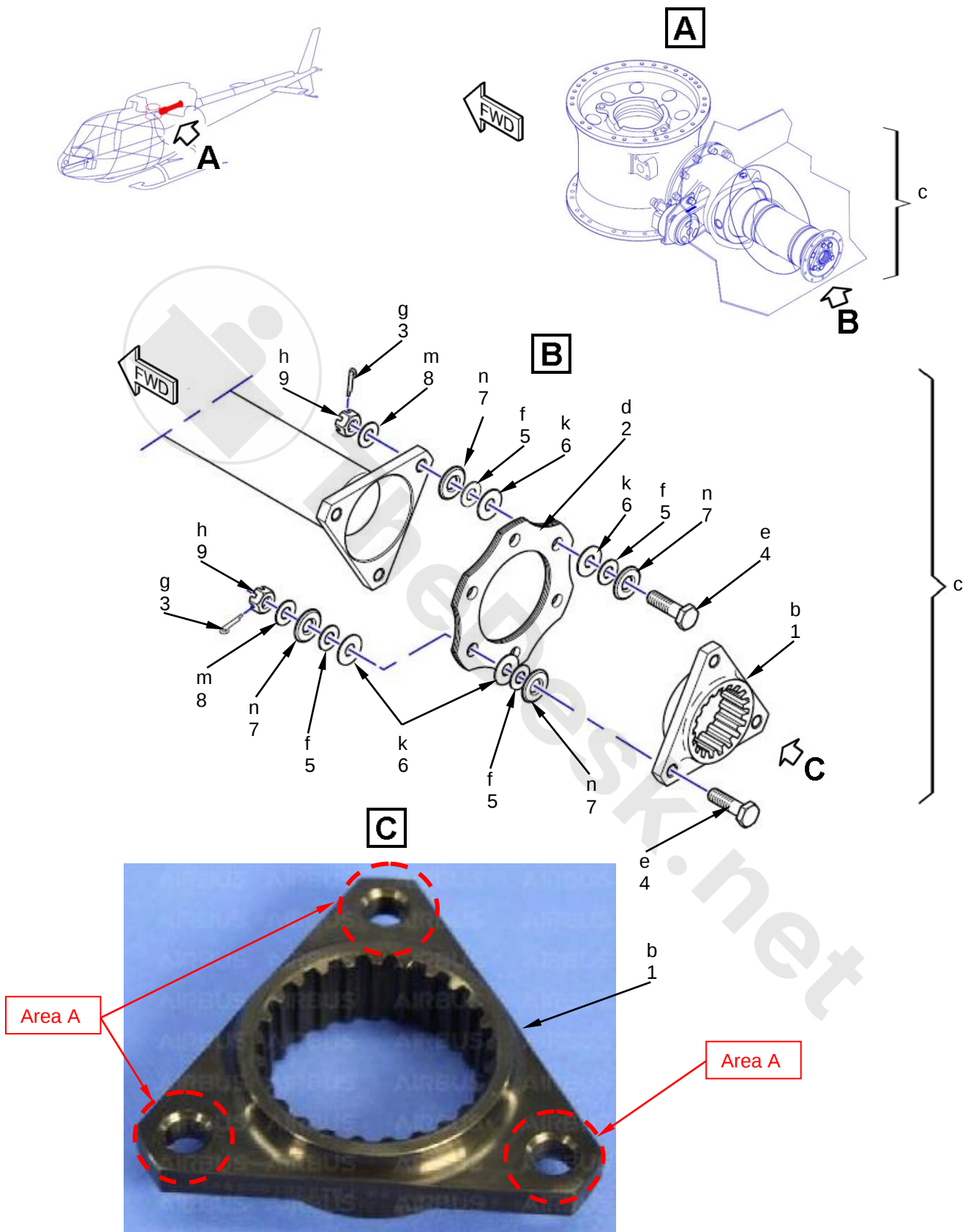
*The recording of compliance with
ALERT SERVICE BULLETINS in the SB Insight tool does
not replace the recording in the helicopter documents.*

[ASB AS350-63.00.38](#)

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

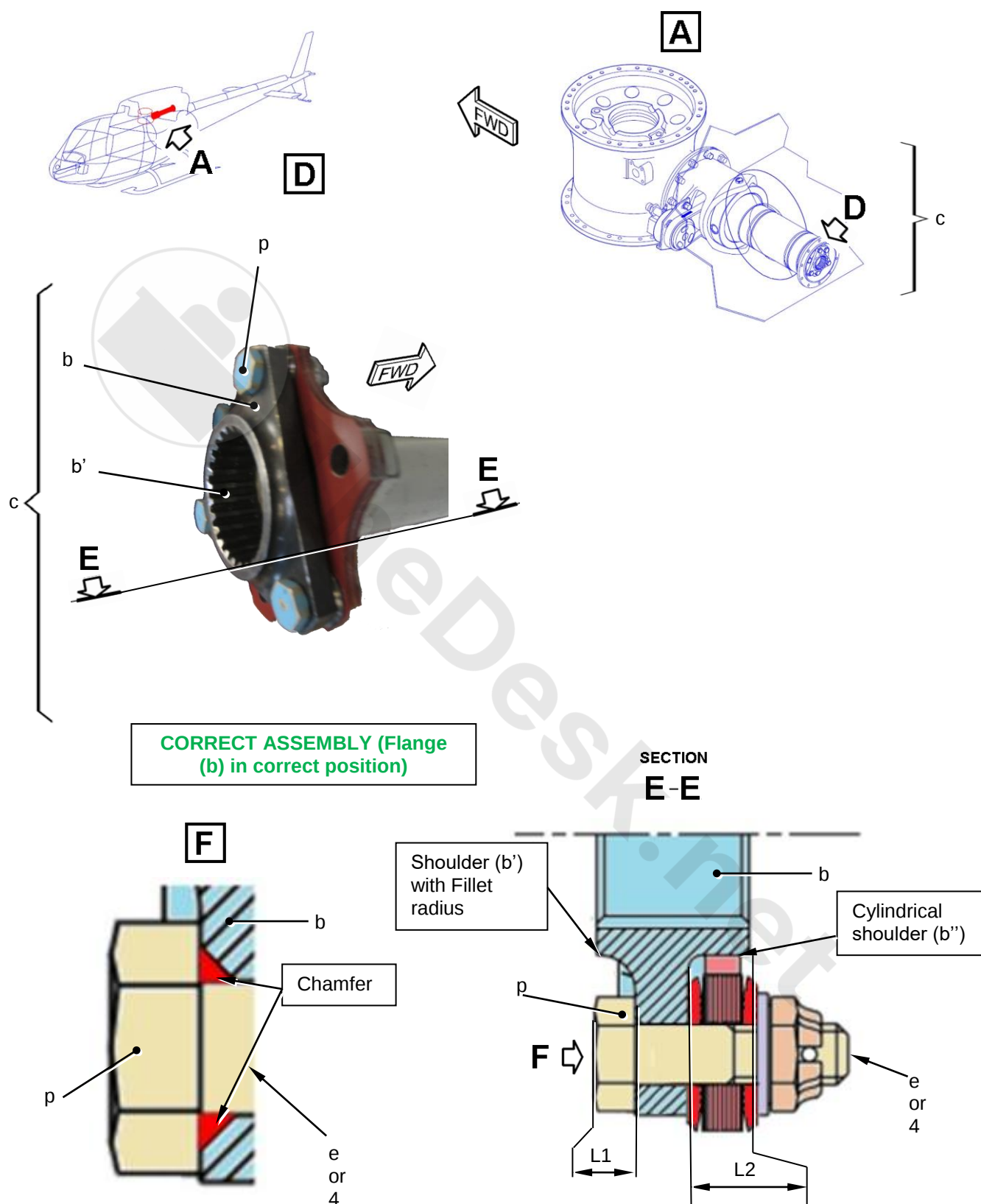
Not applicable.

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Back to paragraphs [3.B.2.d.](#) and [3.B.2.e.](#)

Figure 6



Back to paragraphs [3.B.2.b.](#) and [3.B.2.c.](#)

Figure 7

4. APPENDIX

4.A. RESPONSE FORM



AIRBUS
Airbus Helicopters

SB ID Card Questionnaire
Questionnaire for AS350-63.00.38

Page 1 of 1

SB ID Card

Title
Check the correct assembly of the flange MGB engine coupling

Description
The purpose of this ALERT SERVICE BULLETIN is to check the assembly direction of the flange and to correctly re assemble it if necessary.

Compliance information

Applied on:
On aircraft or Off aircraft

AC S/N: _____ **Part number:** _____

Questionnaire

What is the MGB P/N and MGB S/N? *

Before compliance with this ALERT SERVICE BULLETIN, was Work Card 63-00-00-401 (MET) or Task 63-11-00,4-2 (AMM) applied on the MGB-engine coupling installed on the helicopter ? *

☐ Yes ☐ No

Did you replace the flange following compliance with this ALERT SERVICE BULLETIN? *

☐ Yes ☐ No

Did you replace the flexible coupling following compliance with this ALERT SERVICE BULLETIN? *

☐ Yes ☐ No

Upload pictures of incorrect assembly or damaged parts *
