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AgustaWestland Products

SERVICE BULLETIN

N° 139-569

ALERT

DATE: December 28, 2018

REV. : B - July 25, 2022

TITLE

ATA 64 – TAIL ROTOR SLIDER ASSY DETAILED INSPECTION

REVISION LOG

Revision A was issued to introduce a more detailed inspection procedure and to provide instruction for surface finish restoring, when further checks do not confirm alleged evidence of corrosion on the slider.

Revision B is issued to state that the duplex bearing must be discarded following its removal from a sliding control assembly, as already prescribed by the AMP applicable DM procedure.

Helicopters that have complied with the previous issues of this Service Bulletin and have not re-installed a removed duplex bearing do not need any additional action.

Helicopters that have re-installed a removed duplex bearing, complying with the previous issues of this Service Bulletin, must be subject to SB 139-725 and replace the duplex bearing accordingly.

1. PLANNING INFORMATION

A. EFFECTIVITY

All AB139/AW139 helicopters.

B. COMPLIANCE

PART I

- Within fifty (50) FH if the slider assy has already logged more than twenty-four-hundred (2400) FH at the issue date of this Service Bulletin.
- Before exceeding twenty-four-hundred-and-fifty (2450) FH if the slider assy has NOT logged more than twenty-four-hundred (2400) FH at the issue date of this Service Bulletin.
- Every one (1) year after first accomplishment of Part I, only if during the inspection signs of refinishing are found.

PART II

Immediately after compliance with Part I, if evidence of corrosion is found during the inspection.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to require the inspection of the slider assembly on the tail rotor.

E. DESCRIPTION

Following a reported occurrence of Tail Rotor Slider found cracked on an AW139 helicopter after landing, this Service Bulletin requires a detailed inspection of the slider assembly P/N 3G6430A00131 for corrosion and mechanical damage and, depending on findings, the replacement of the part.

In particular, the investigation on the cracked slider highlighted presence of corrosion craters on its surface, originated along finishing signs compatible with low grit sanding operations, possibly generated from a maintenance activity not allowed in service.

This condition, if not detected and corrected, could lead to the breakage of the slider.

F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives.

If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin the following MMH are deemed necessary:

Part I: approximately one (1) MMH.

Part II:

- approximately four (4) MMH, if tool kit P/N 3G6405G04032 is NOT available at Customer's facilities.
- approximately ten (10) MMH, if tool kit P/N 3G6405G04032 is available at Customer's facilities.

MMH are based on hands-on time and can change with personnel and facilities available.

H. WEIGHT AND BALANCE

N.A.

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	I
DM02	39-A-64-31-04-00A-520A-A	Sliding control assembly - Remove procedure	I, II
DM03	39-A-64-31-04-00A-720A-A	Sliding control assembly - Install procedure	I, II

DATA MODULE		DESCRIPTION	PART
DM04	39-A-64-31-04-02A-530A-B	Spider and slider assembly (sliding control assembly) - Disassemble procedure	I
DM05	39-A-64-31-04-02A-710A-B	Spider and slider assembly (sliding control assembly) - Assemble procedure	I
DM06	39-A-64-31-04-01A-921A-B	Duplex bearing (sliding control assembly) - Replacement (remove and install a new item)	I, II

Following Data Modules refer to CSRP:

DATA MODULE		DESCRIPTION	PART
DM07	CSRP-A-51-21-08-00A-649A-D	Passivation of CRES - Other process to change the surface finish of material	I

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMM	Aircraft Maintenance Manual
AMP	Aircraft Maintenance Publication
CSRP	Common Structural Repair Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
FH	Flight Hours
ITEP	Illustrated Tools and Equipment Publication
LHD	Leonardo Helicopter Division
MMH	Maintenance Man Hours
MMIR	Maintenance Malfunction Information Report
SB	Service Bulletin
TR	Tail Rotor
WRM	Warranty Reply Memo

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

PART I

N.A.

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	3G6430A02531	3G6430A01931	Sliding control assy	1	.	(1)	-

2) CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
2	Commercial	Gloves	AR	(2)	I, II
3	MS20995C32	Lockwire	AR	(2) (3)	I, II
4	A629A02UV or AW001CK02UV	Strap tiedown	AR	(2) (3)	I, II
5	CCC-C-440, Class I	Cheesecloth (C028)	AR	(2)	I
6	TT-N-95, Type II	Aliphatic naphtha (C059)	AR	(2)	I
7	Commercial	3M Scotch Brite (C015), abrasive pad with grade 7447 or finer	AR	(2)	I
8	UU-T-106	Masking tape (C064)	AR	(2)	I
9	AWPS008T	PPG Aerospace Semco® Pasa Jell 101 (C905)	AR	(2)	I

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

3) LOGISTIC MATRIX

N.A.

NOTE

(1) Spider and slider assy P/N 3G6430A01931 can be ordered along with duplex bearing P/N 3G6430V00153, as a valid alternative to sliding control assy P/N 3G6430A02531, only if tool kit P/N 3G6405G04032 is already available at Customer's facilities.

(2) Item to be procured as local supply.

(3) To be procured if already installed on TR boot.

B. SPECIAL TOOLS

The following special tools, or equivalent, are necessary to accomplish this Service Bulletin:

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
10	Commercial	Magnifying glass (10 power)	1	(B1)	I
11	Commercial	Light source (fluorescent) / Flashlight	1	(B1)	I
12	RMGE-DS-06-2010-RH	Deck servicing platform, RH	1	(B1)	I, II

Refer also to ITEP for the special tools required to comply with the AMP DM referenced in the accomplishment instructions.

SPECIAL TOOLS NOTE

(B1) Item to be procured a local supply.

C. INDUSTRY SUPPORT INFORMATION

WARRANTY: Owners/Operators who comply with the instructions of this Service Bulletin no later than the applicable date in the “Compliance” section will be eligible to receive necessary replacements on free of charge basis, except for Consumable Materials and Special Tools.

NOTE: Customers who fail to comply with the instructions in this Service Bulletin before the compliance date are not eligible for the aforementioned special policy.

Please Issue relevant MMIR form to your Warranty Administration Dpt.

NOTE: WRM will include RETURN MATERIAL AUTHORIZATION (RMA) number; the unit disembarked from the aircraft has to be returned to LHD within thirty (30) calendar days after the shipment of the replacement part. In case of missing return within thirty (30) calendar days, Customer will be invoiced for the price of the replacement part.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.

PART I

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. Put the Platform (GG-02-00), or an approved alternative, adjacent to the right side of the fuselage.

NOTE

During the accomplishment of the following steps, the removal of the slider assy from the tail rotor is not required, unless specified.

3. With reference to Figure 1, get access to the TR, remove the installed tiedown strap or lockwire and move the boot to expose the area shown in Figure 2 Detail C.

WARNING

BEFORE APPLYING STEP 4, KEEP IN MIND THAT THE ALIPHATIC NAPHTHA (C059) IS A DANGEROUS MATERIAL. BEFORE YOU DO THIS PROCEDURE, MAKE SURE THAT YOU KNOW ALL THE SAFETY PRECAUTIONS AND FIRST AID INSTRUCTIONS FOR THE ALIPHATIC NAPHTHA.

4. Clean the base of the slider stem with a clean cheesecloth (C028) and the aliphatic naphtha (C059).

NOTE

When you examine the slider assy, use the magnifying glass (10 power) and, where necessary, the flashlight.

NOTE

During the accomplishment of the following steps, in case of doubt contact the Product Support Engineering (cse.aw139.aw@leonardocompany.com).

NOTE

During the accomplishment of the following steps, limit the inspection for corrosion only to the area delimited within the Figure 2 Detail C.

NOTE

Figure 2 and Figure 3 Details A and B show evidence of corrosion damage and signs of surface imperfections from refinishing with improper abrasives.

5. With reference to Figures 2 and 3, identify on the slider stem the area enclosed within the Detail C and compare its finishing with the one shown in Details A and B.

CAUTION

During polish operation on the area to be examined with the Scotch Brite (C015), make sure that you follow the subsequent precautions:

- The Scotch Brite must be used only in the axial direction;
- The Scotch Brite must be used only with your hands.

6. If you find suspected evidences of corrosion signs as per Figures 2 and 3, perform following step 7, otherwise go to step 9.
7. Check the suspected evidences of corrosion signs as described in the following procedure:
   - 7.1 In accordance with AMP DM 39-A-64-31-04-00A-520A-A, remove the sliding control assembly from the helicopter.
   - 7.2 Polish gently the related area with a very light Scotch Brite (C015).
   - 7.3 After polishing, examine the slider:
     - 7.3.1 If the signs of corrosion are confirmed as per Figure 3, go to Part II to replace the slider assembly with a serviceable part.
     - 7.3.2 If, after polishing, the suspected signs of corrosion are no longer evident, perform following step 8 to restore the surface finish.
8. Restore the surface finish of the slider material as described in the following procedure:
   - 8.1 In accordance with AMP DM 39-A-64-31-04-02A-530A-B, remove the spider from the slider.

CAUTION

Apply the masking tape (C064) around the area where the cleaning solution must be applied.
During passivation activity pay particular attention not to let the cleaning solution flow out from the masking tape boundaries to the outer surface.

8.2 In accordance with the repair publication CSRP-A-51-21-08-00A-649A-D, apply the Cleaning solution (C905) on the surface of slider assy.

8.3 In accordance with AMP DM 39-A-64-31-04-02A-710A-B, assemble the spider and the slider components.

8.4 In accordance with AMP DM 39-A-64-31-04-00A-720A-A, reinstall the siliding control assembly on the helicopter.

9. If evidences of corrosion are not found and evidences of refinishing signs are found, update the maintenance schedule to plan the next inspection according to paragraph “COMPLIANCE” (Part I).
10. If no corrosion and no refinishing signs are found, no further action is required.
11. With reference to Figure 1, move the boot in the right position on the slider assy and install the tiedown strap or lockwire.
12. Remove the platform from the right side of the fuselage.
13. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
14. Send the attached compliance form to the following mail box:

    engineering.support.lhd@leonardo.com

    As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”

PART II

NOTE

Perform the following step 1, if tool kit P/N 3G6405G04032 is NOT available at Customer's facilities.

1. Send the sliding control assy P/N 3G6430A02531 removed performing Part I to LHD.

NOTE

Perform the following steps 2 thru 4, only if tool kit P/N 3G6405G04032 is available at Customer's facilities.

2. In accordance with AMP DM 39-A-64-31-04-01A-921A-B, perform the applicable steps to remove and discard the duplex bearing.
3. Send the spider and slider assy P/N 3G6430A01931 removed in previous step 2 to LHD.

NOTE

A serviceable part is a component that is new (never installed on a helicopter); or a component that, before installation, has passed the visual inspection (no defects detected) in accordance with the instructions of Part I of this SB.

4. In accordance with AMP DM 39-A-64-31-04-01A-921A-B, perform the applicable steps to install a new duplex bearing on a serviceable spider and slider assy.
5. In accordance with AMP DM 39-A-64-31-04-00A-720A-A install a serviceable sliding control assembly on the helicopter.
6. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
7. Send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication"

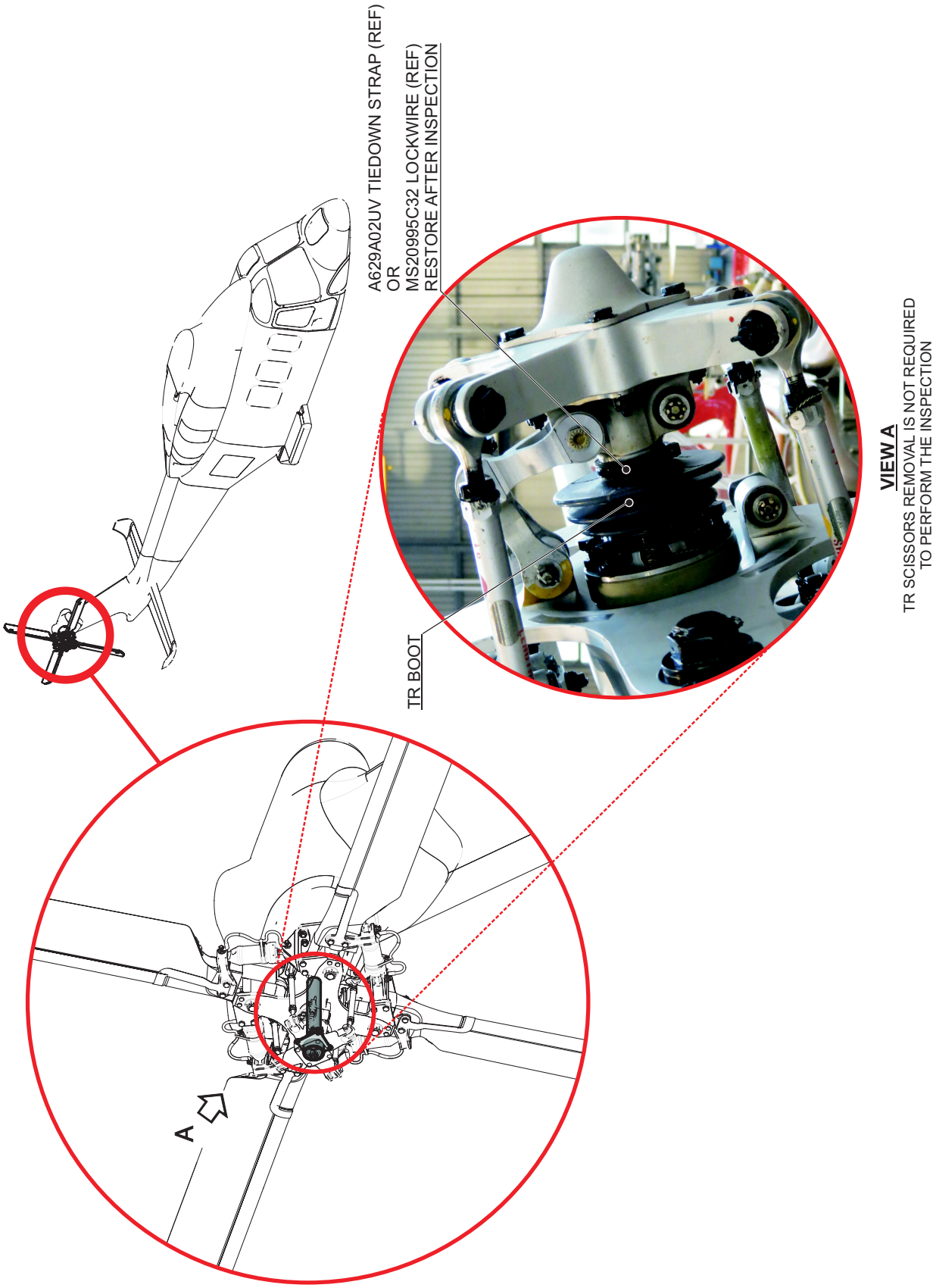

A629A02UV TIEDOWN STRAP (REF)
OR
MS20995C32 LOCKWIRE (REF)
RESTORE AFTER INSPECTION
TR BOOT
VIEW A
TR SCISSORS REMOVAL IS NOT REQUIRED
TO PERFORM THE INSPECTION
A

Figure 1

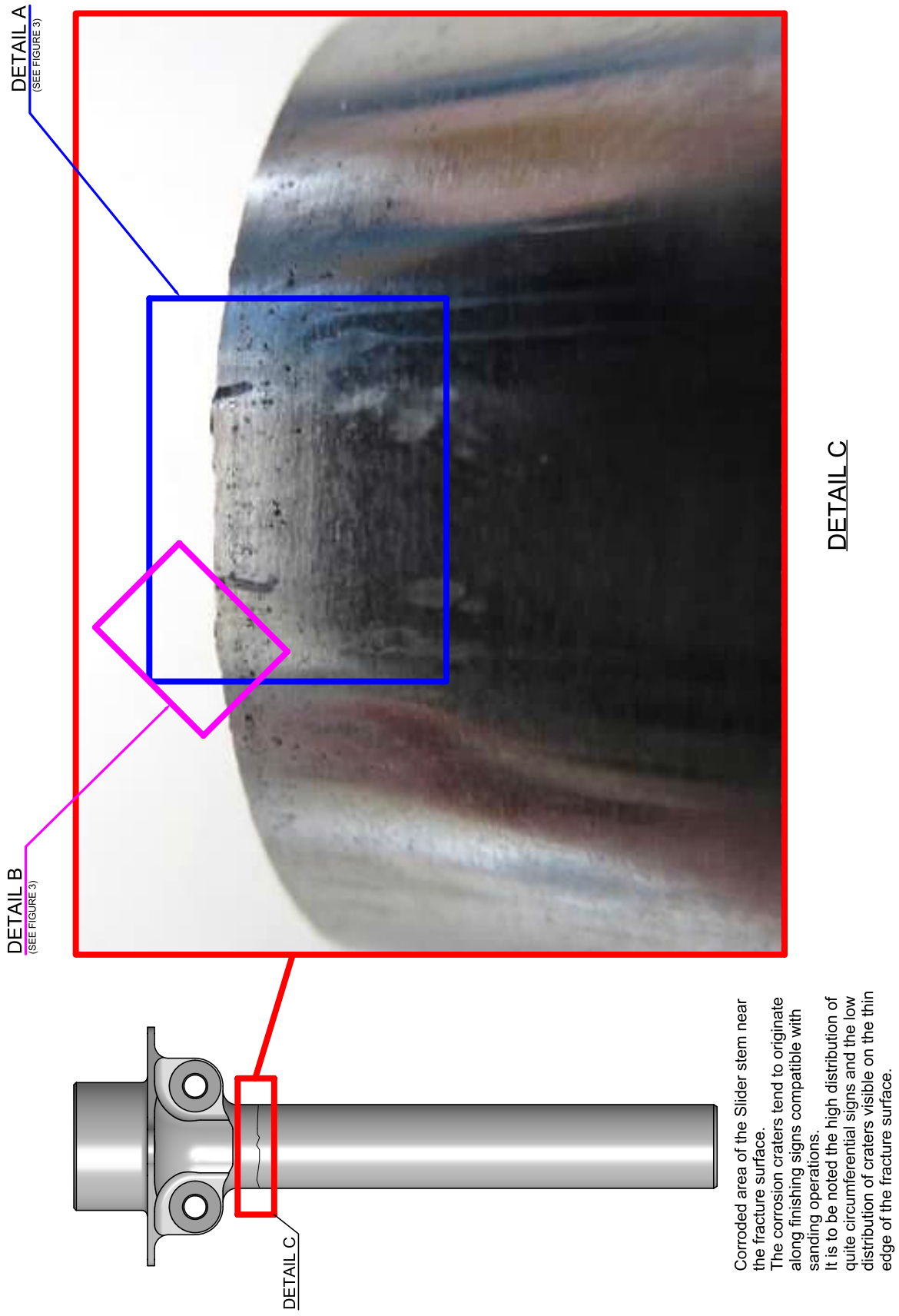
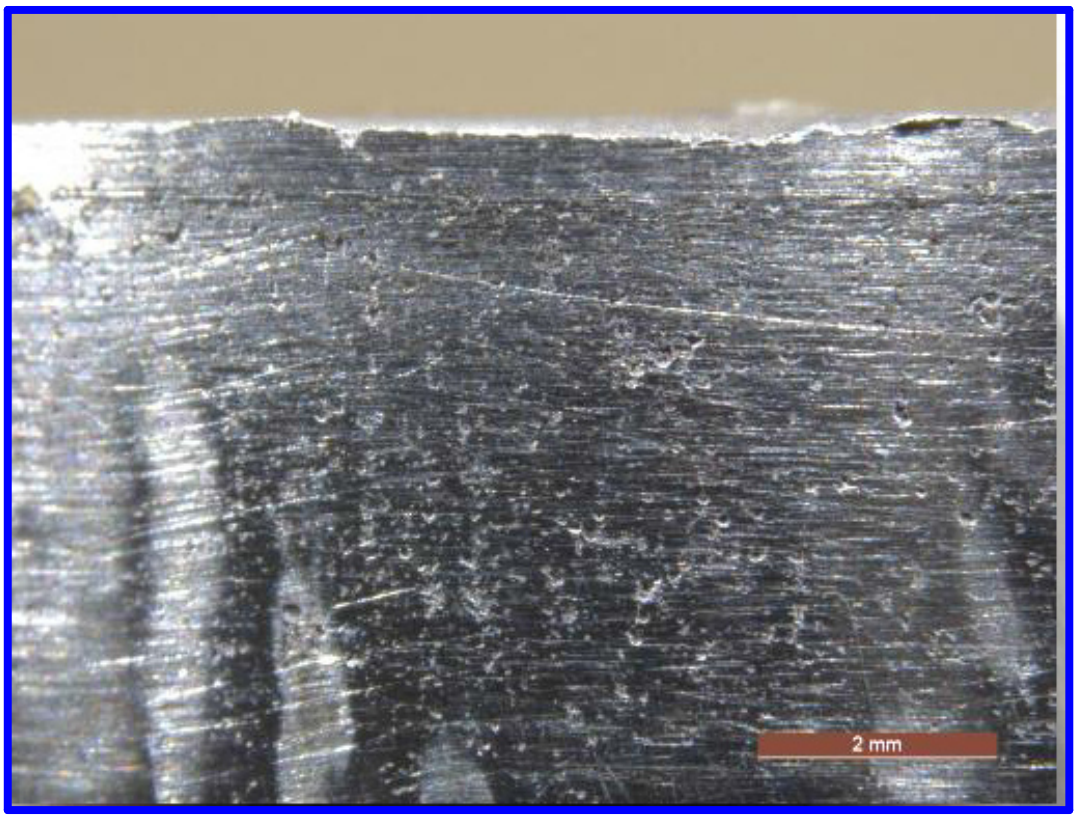
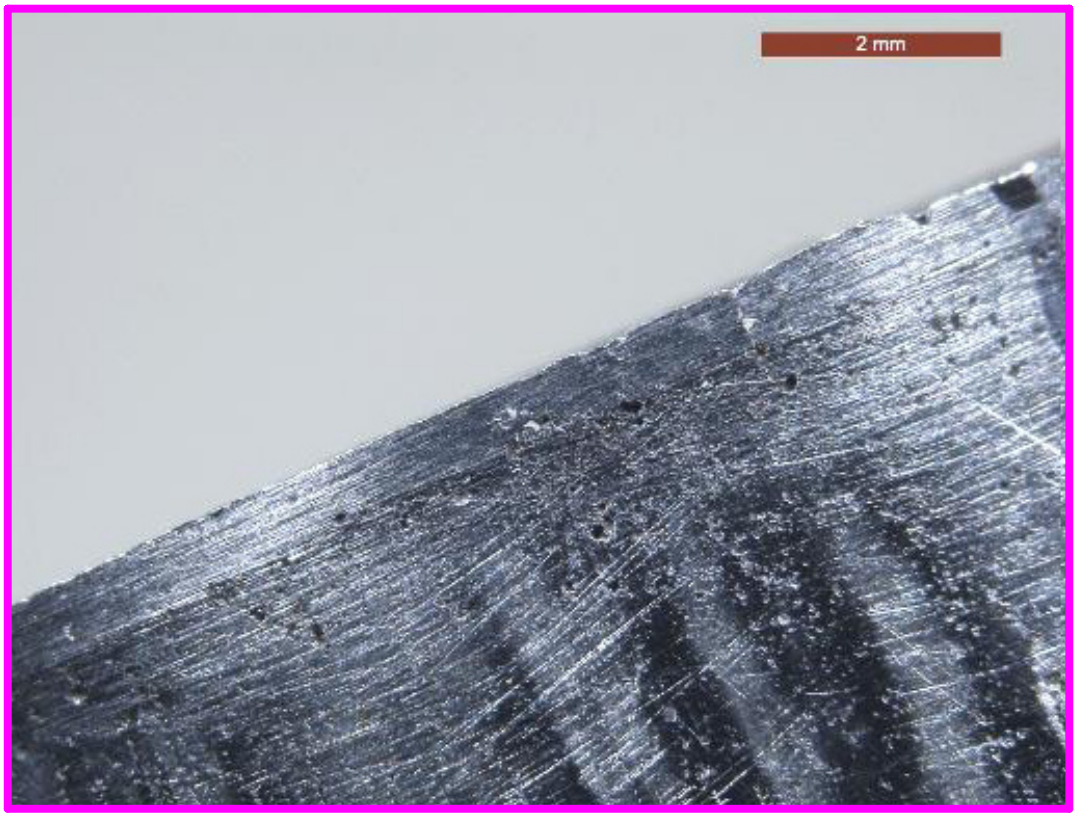

DETAIL A
(SEE FIGURE 3)
DETAIL B
(SEE FIGURE 3)
DETAIL C
DETAIL C
Corroded area of the Slider stem near the fracture surface.
The corrosion craters tend to originate along finishing signs compatible with sanding operations.
It is to be noted the high distribution of quite circumferential signs and the low distribution of craters visible on the thin edge of the fracture surface.

Figure 2



DETAIL A
(REF TO FIGURE 2)



DETAIL B
(REF TO FIGURE 2)

Figure 3

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Please send to the following address: **LEONARDO S.p.A.** **CUSTOMER SUPPORT & SERVICES - ITALY** **PRODUCT SUPPORT ENGINEERING & LICENSES DEPT.** Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988	**SERVICE BULLETIN COMPLIANCE FORM**	Date:
	Number:	
	Revision:	

Customer Name and Address:	Telephone:
	Fax:
	B.T. Compliance Date:

Helicopter Model	S/N	Total Number	Total Hours	T.S.O.

Remarks:

Information:

We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.