

SERVICE BULLETIN

MANDATORY No. 05.92

SUBJECT: TIME LIMITS
 Main Rotor Blade Root Skin and Reinforcement Strip Bonding Check

LIST OF EFFECTIVE PAGES

- (1) Page Revision Code
 - R: Revised, to be replaced
 - N: New, to be inserted
 - D: Deleted, to be destroyed

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05.92.P5	01	98-41	N				
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05.92	5	98-41	R				

LIST OF APPROVED REVISIONS		REVISION No 1 APPROVED
No.	Date	Date
0	98-22	September 28, 1998

1. PLANNING INFORMATION

A. Effectivity

Main rotor blades:

P/Nos. 3160S.11.10000 All dash numbers
 3160S.11.30000 All dash numbers
 3160S.11.35000 All dash numbers
 3160S.11.40000 All dash numbers
 3160S.11.45000 All dash numbers
 3160S.11.50000 All dash numbers
 3160S.11.55000 All dash numbers

B. Reason

Blade root skin and reinforcement strip bonding check.

Revision 1 of this Service Bulletin which forms the subject of Revision 1 of the 57th Airworthiness Directive for Alouette III helicopters:

- 1) increases the width of the seal from 2 mm to 4 mm, in order to take into account creeping of the resin, that is difficult to remove.
- 2) determines a zone of acceptable bonding separation in the blade root reinforcement strip area; this zone is to be followed up at reduced checking interval: every 25 flying hours.

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C. Description

Subsequent to feedback of information and analyses, relative to the checks which have been introduced and are to be carried out on main rotor blades 3130 following the failure of a blade, the decision has been taken to perform similar checks on main rotor blades 3160 referenced in paragraph 1A.

D. Compliance

Eurocopter renders compliance with this Service Bulletin mandatory.

At the works : Not applicable.

Retrofit action : By the operator :
 - Comply with the instructions in paragraph 2.B :
 . within 25 hours following receipt of this Service Bulletin,
 . then every 100 flying hours or 6 months (the first limit reached is applicable), or every 25 flying hours, if there is a bonding separation in the non-hatched area of the reinforcement strip.

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Spares : By the operator before putting a blade into service.

E. Approval

Approval is limited to civil version helicopters subject to an Airworthiness Certificate.

The technical information contained in Revision 0 of this Service Bulletin was approved on May 4, 1998 under the authority of the DGAC Design Organisation Approval No. F.JA01.

The technical information contained in Revision 1 of this Service Bulletin was approved on September 28, 1998 under the authority of DGAC Design Organisation Approval No. F.JA01.

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F. Manpower

Qualification : 1 mechanic
1 hour per set of 3 blades.

G. Materiel - Cost - Availability

Not applicable.

H. Tooling - Cost - Availability

Not applicable.

I. Weight and Balance

Weight : None

Moment : None

J. Effect on Electrical Loads

None.

K. References

Refer to :

- Maintenance Manual (MDE) work card 57.10.401
- Maintenance Manual (MDE) work card 57.10.808
- Standard Practices Manual (MTC) work card 20.04.04.403.

2. ACCOMPLISHMENT INSTRUCTIONS

A. General

The work must be carried out with the blades removed from the helicopter.

B. Operational Procedure and Action

- Removal : as per MDE work card No. 57.10.401.

B.1. Check for bonding separation

- Hatched area of skin on spar, 15 x 50 mm, aft of the stainless steel protection (upper surface and lower surface) see FIGURE 1

Inspect the sealant bead along the reinforcement strip: if the width of the sealant bead exceeds 4 mm remove it over a length of 70 mm from the leading edge using a Plexiglas scraper only. R
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- Check that there is no bonding separation in this area, using tapping method.
- If any bonding separation is detected in this area, the blade must be withdrawn from service.

- Reinforcement strip area (upper surface and lower surface) (see FIGURE 1) R

- Check that there is no bonding separation in the reinforcement strip area (100 x 20 mm), using tapping method. R

- If any bonding separation is detected in the hatched area, the blade must be withdrawn from service. R

- Bonding separation in the non-hatched area (10 mm) is permissible and must be checked using tapping method every 25 flying hours in order to monitor possible propagation. As soon as a bonding separation reaches the hatched area, the blade must be removed. R
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B.2. Visual inspection, check that there are no cracks or corrosion on the skin (in the 100 x 100 mm blade root area)

Using a magnifying glass (approximately 3 to 7 times magnification), check that there are no cracks in the skin over the first 100 mm of the blade from the edge of the blade root reinforcement strip.

- If a crack is detected, the blade must be withdrawn from service.

Check that there is no corrosion on the skin in the same area.

- If any corrosion is detected, the blade must be removed from service.

B.3. Return to service

- If the checks in paragraphs B1 and B2 allow the blade to be returned to service, ensure that there are no crazings in the sealant bead or separation of the sealant bead between the spar and the reinforcement strip on the blade root side. If necessary, replace the sealant bead at the same time as the sealant bead on the reinforcement strip side if it has been removed during operation B1.
- Clean the area with gauze swabs soaked in methyl ethyl ketone.
- Wait 15 minutes for the solvents to evaporate completely.
- If the scraping operation has exposed the skin, protect with Alodine 1200 as per the procedure on Standard Practices Manual (MTC) work card No. 20.04.04.403.

- Dry the degreased area for 5 minutes using a hot air blower.
- Produce a new 4 mm wide sealant bead with compound PR 1221 B2 or EC 1239 B ½ . R
- Allow to cure for 24 hours at ambient temperature (18 to 23°C).
- Touch up paint as per Maintenance Manual (MDE) work card No. 57.10.808.

During subsequent inspections (every 100 flying hours or 6 months: the first limit reached is applicable, or every 25 flying hours if there is a bonding separation in the 10 mm wide non-hatched area on the strip (FIG. 1)), the 4 mm-wide sealant bead is no longer to be removed unless crazings appear as described above. R
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If an anomaly is found, inform Eurocopter La Courmeuve, Department E/SRPT,
Fax : (33) 1.49.34.41.70.

C. Identification

Record the first compliance with this Service Bulletin on the Equipment Log Card (FME) of each blade.

D. Operating and Maintenance Instructions

In accordance with the aircraft documentation.

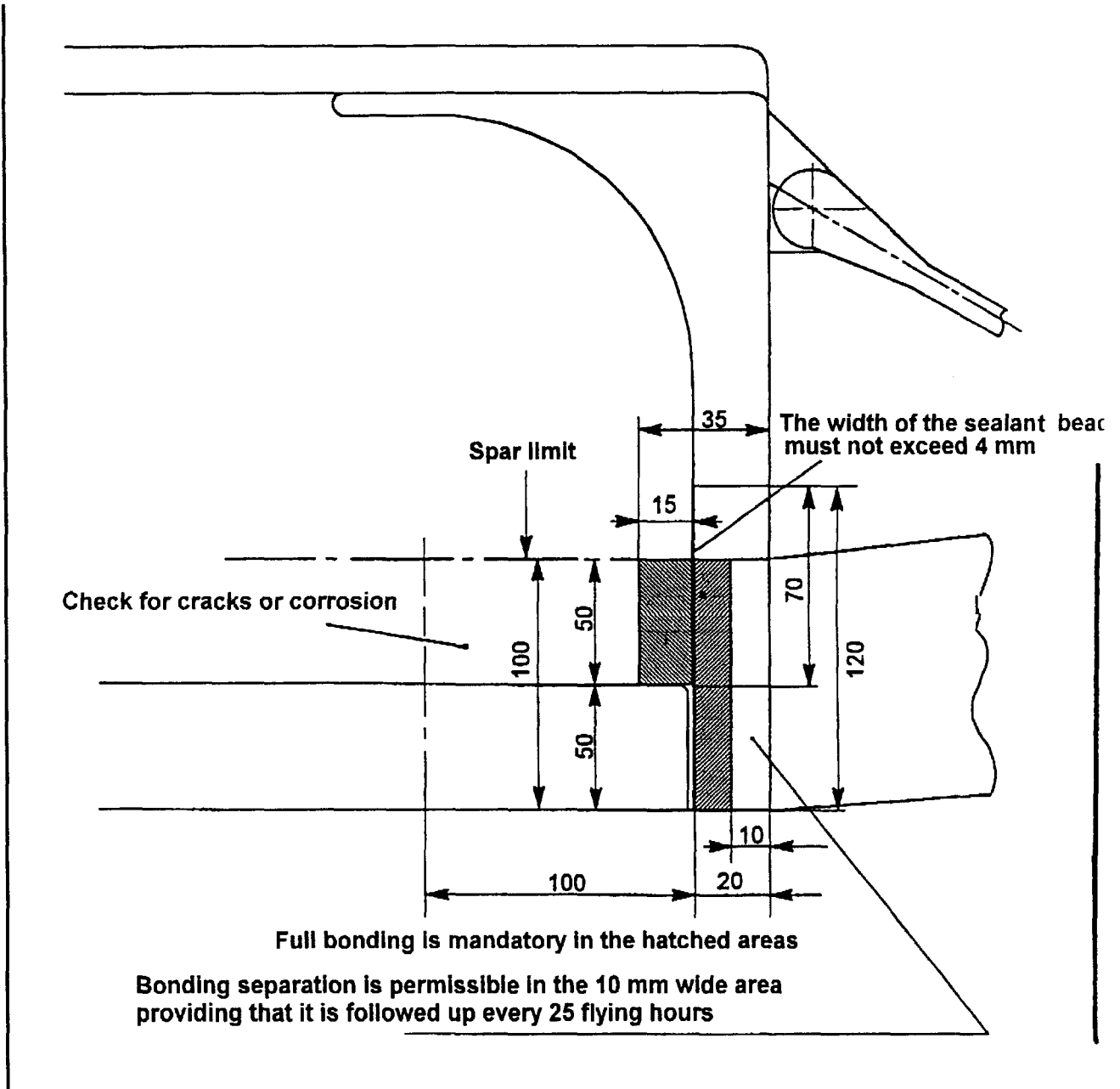


FIGURE 1