



SERVICE BULLETIN NO. MSB1078-151/2

I. TECHNICAL DETAILS

1.1 Category:

Mandatory

1.2 Aircraft affected:

G 115C, C1, C2	with propeller HO-V343K-V/180FP installed
G 115D, D2	with propeller HO-V343K-V/180FP installed
G 115E	all S/N

1.3 Time of Compliance:

Item 1.8.1: before next flight.

1.4 Subject:

ATA - Code: 61 Propeller

1.5 Reason:

This Service Bulletin informs about an incident involving Hoffman Propeller HO-V343K-V/183GY. (Propeller blade separation from the hub). As a result additional inspections of the propeller must be completed. Hoffman Propeller HO-V343K-V/180FP is similar in design, so the inspection is also applicable to this propeller.

1.6 Concurrent documents:

- 1.6.1 HOFFMANN Service Bulletin No. 61-10-03 SB E 15 A (or subsequent issues)
- 1.6.2 LUFTFAHRT-BUNDESAMT Airworthiness Directive D-2004-352-R1 (or subsequent issues)
- 1.6.3 HOFFMANN Service Instruction No. 61-10-05 SI E 4 A (or subsequent issues)
- 1.6.4 Service Bulletin 1078-70 (optional installation of various propellers)
- 1.6.5 Service Bulletin 1078-87 (modification to D standard, optional installation of HO-V343K-V/180FP)

G115C, C1, C2
G 115D, D2
G 115E



1.7 Approval Note:

The technical information contained in this document has been approved under the authority of JAR 21, JA Design Organisation Approval No. LBA.JA.014.

1.8 Accomplishment/ Instructions

1.8.1 Complete Inspection I.A.W. HOFFMANN Service Instruction (item 1.6.3)

1.9 Repetitive Actions

Refer to: HOFFMANN Service Instruction (item 1.6.3)

1.10 Mass (Weight) and CG:

N/A

II. PLANNING INFORMATION

2.1 Material & Availability:

N/A

2.2 Special Tools:

Refer to: HOFFMANN Service Instruction (item 1.6.3)

2.3 Labour costs:

Refer to: HOFFMANN Service Instruction (item 1.6.3)

G115C, C1, C2
G 115D, D2
G 115E



2.4 Reference documents:

N/A

2.5 Credit:

N/A

III. REMARKS

3.1 The installation may be performed by a qualified tradesman and has to be certified in the logbook by an authorised inspector

3.2 If you have sold your aircraft in the meantime, would you kindly pass this information on to the new owner and forward his address and aircraft S/N to us.

3.3 For questions and assistance please contact:

Michael Reinhold, Product Support,
phone: +49 (08268) 998 105
fax: +49 (08268) 998 200
e-mail: m.reinhold@grob-aerospace.de

G115C, C1, C2
G 115D, D2
G 115E



HOFFMANN PROPELLER

Service Bulletin 61-10-03 SB E 15A

13 July 2004

Replaces 61-10-03 SB E 15, dated 02. July 2004

1.1 Effectivity

Propeller: HO-V343
Airplane: G115E (but not limited to)

Modification Designation - NONE

Compliance: Mandated by Luftfahrt-Bundesamt
Airworthiness Directive LTA D-2004-352

1.2 Reason

Possible hub failure.

1.3 Description

A propeller blade separation due to unknown reason has been occurred. In order to cover fatigue effects for safety reasons, additional checks have been introduced.

1.4 Approval

***The design data contained in this Document is approved by
EASA Approval No. 2004/7529 dated 13. July 2004***

1.5 References

Operation and Maintenance Manual No. (E)492
Hoffmann Service Instruction 61-10-05 SI (E) 4(), latest issue.



2 Accomplishment Instructions

Carry out Additional inspections according to Hoffmann Service Instruction 61-10-05 SI (E) 4(), latest issue.

3 Material Information

Not affected.

HOFFMANN PROPELLER
Service Instruction 61-10-05 SI E 4A

12.07.04

Replaces Service Instruction 61-10-05 SI E 4 dated 2004-07-02/Sp

1.1 Effectivity

HOFFMANN Propellers Type
Compliance:

Propeller HO-V343

Hubs exceeding 1200hrs TSN
Prior to next flight.

1.2 Reason

Cracked propeller hub.

1.3 Description

A propeller blade separation due to unknown reason has been occurred. In order to cover fatigue effects for safety reasons, the following additional eddy current test is required.

1.4 Approval

***The design data contained in this Document is approved by
EASA Approval No. 2004/7530 dated 13. July 2004***

1.5 Manpower

3hrs.

1.6 References

Operation and Maintenance Manual No. (E)492.

2 Accomplishment Instructions

2.1 Blade Removal

Remove blades according to propeller overhaul manual No. (E)661 chapter 4.

2.2 Eddy current instrument probe compensation

Instrument Centurion NDT Type ED 520

Probe: Fischer-Pierce & Waldburg P/No. 223180

Preparation

1. Turn MODE-Switch to TEST
 - a. If meter reading exceeds the red line, battery test has passed and the instrument can be operated on battery power.
 - b. If meter reading is less than the red line, instrument needs power supply.
 - c. CHARGING-LED comes on if MODE-Switch is in LO, MED, HI and CHG
2. Connect the probe to front panel PROBE-connector.

Probe Compensation

3. Initial Setting:
 - a. When approximate setting of the LIFT-OFF/FREQ control respectively lift-off-frequency, required for lift-off compensation is not known
 - Set the MODE-Switch to the LO position.
 - Set the LIFT-OFF/FREQ control to 3.50 and the BALANCE control to 0.00.
 - b. When approximate setting of the LIFT-OFF/FREQ control, required for lift-off compensation is known, adjust LIFT-OFF/FREQ control to the known value.
 - c. When approximate lift-off-frequency, required for lift-off compensation is known
 - Set the MODE-Switch to the FREQU position.
 - Adjust LIFT-OFF/FREQ control until meter reading shows the known lift-off-frequency.
 - Set MODE-Switch to MED
4. Place the probe on the surface of the test block and adjust the BALANCE control so that the meter pointer is on scale.
5. If the previous step does not position the meter needle on scale, return the BALANCE control to 0.00 and change the LIFT-OFF/FREQ control in half turn increments
 - a. Clockwise, if the meter pointer is below "0"
 - b. Counterclockwise, if the meter pointer is above "500".
 - c. Repeat step 4
6. Place a piece of paper or tape (writing paper thickness) between the probe and the metal surface of the test block.

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7. Note the difference in meter reading and readjust the LIFT-OFF/FREQ until approximately the same meter indication is obtained with and without the paper/tape.
 - a. Move probe from the paper/tape to the blank surface.
 - b. Note the direction of needle deflection.
 - c. Turn LIFT-OFF/FREQ control to deflect the pointer in the same direction.
 - d. Turn BALANCE control if necessary to keep the pointer on scale.
 - e. Repeat steps a through d if necessary until the proper "lift-off" or "intermediate layer" compensation is found.
8. Set MODE-switch to the next more sensitivity (MED, HI) and repeat steps 4 through 7 until compensation in the most desired sensitivity mode is found.

NOTE

It will generally be found, that the lift-off compensation can be obtained at more than one setting of the LIFT-OFF/FREQ control. For maximum sensitivity, the LIFT-OFF/FREQ control should be set at the lowest dial setting for which lift-off compensation can be achieved

9. Note LIFT-OFF/FREQ control reading.
10. Note lift-off-frequency.
 - a. Set MODE-switch to FREQ.
 - b. Note meter reading.
 - c. Set MODE-switch back to the previous setting.

2.3 Hub inspection

1. Visually inspect hub for cracks.
2. Visually inspect hub-arm bottom for any fretting or marks of the bearing race and note in Form M314.
3. Visually inspect hub-arm thread for mechanical deformation and note in Form M314
4. Note any other finding in Form M314
5. Place eddy current probe in the inner thread groove
6. Move probe in the thread groove through the full thread length.
7. Cracks, fractures, breaks or other flaws are recognized by a downscale (for nonmagnetic materials) meter needle deflection.
8. Note any findings in Form M314
9. Complete inspection on all remaining hub arms.
10. Complete Form M314 independent of any findings and send it back to HOFFMANN.
11. If any cracks have been found, the hub must not be released to service.

2.4 Propeller Reassembly

Reassemble and check propeller blades according to propeller overhaul manual No. (E)661

Inspection Report HO-V343 Hub Eddy Current Inspection

Compliance: Hoffmann Service Instruction 61-10-05 SI E 4A

Aircraft: _____

Aircraft S/No.: _____

Engine: _____

Engine S/No.: _____

Propeller: _____

Propeller S/No.: _____

Blade S/No.: No.1 _____ No.2 _____ No.3 _____

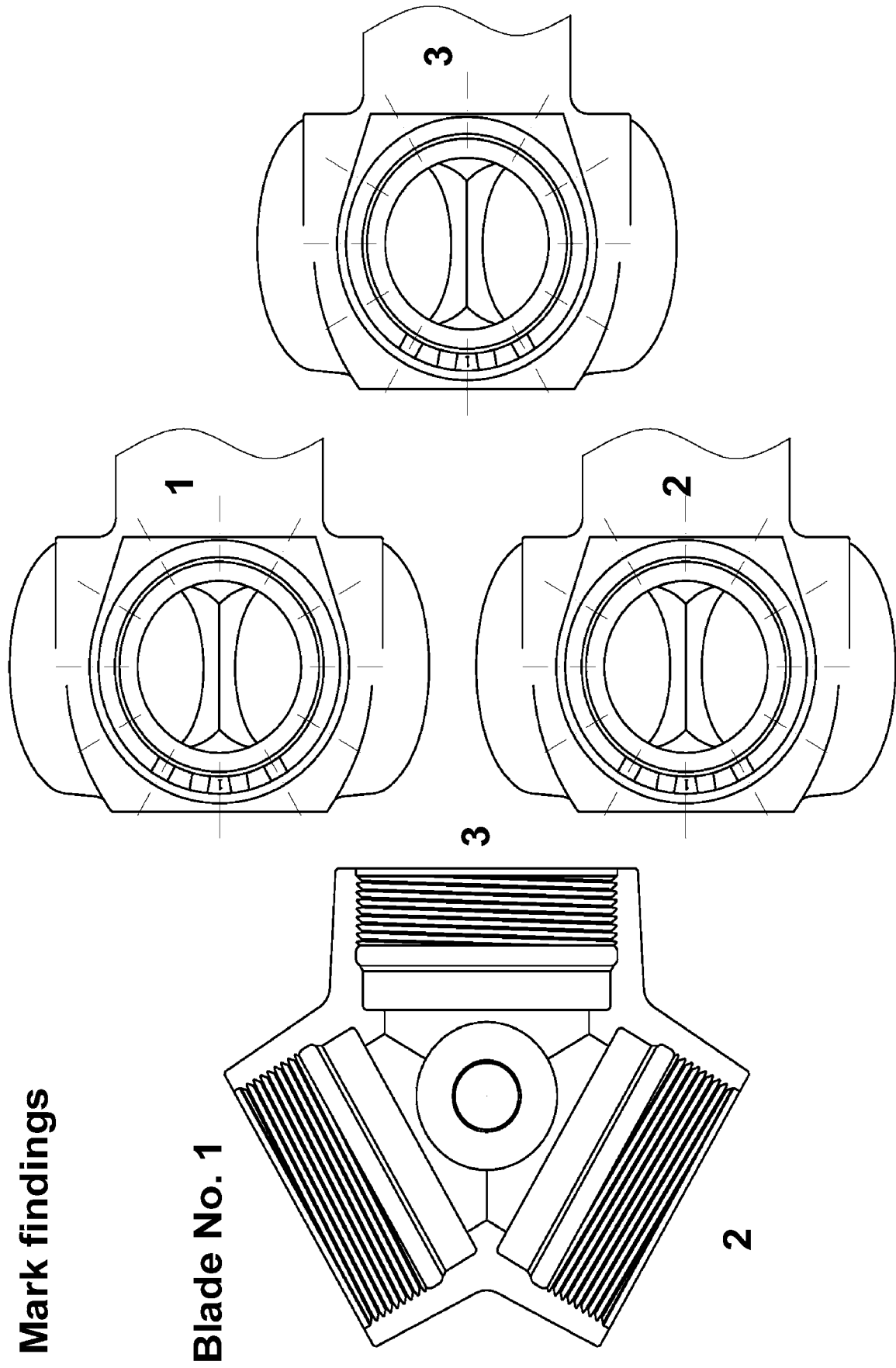
Hub TSN: _____ TSO _____ AcroTSN: _____

Cracks detected in thread yes no

Thread mechanical damage yes no

Note findings in Fig. 1

Visual inspection findings:



Mark findings

Blade No. 1

2

Fig. 1



Airworthiness Directive

D-2004-352R1

Luffahrt-Bundesamt

Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
G E R M A N Y

Hoffmann

Effective Date: 19 July 2004

Affected:

Kind of aeronautical product: Aircraft Propeller
Manufacturer: Hoffmann Propeller GmbH&Co. KG, Rosenheim, Germany
Type: HO-V343
Models affected: HO-V343K
Serial Numbers affected: All
German Type Certificate No.: 32.130/90

Subject:

Possible hub failure due to unknown reasons.

Reason:

An occurrence of propeller blade separation due to a possible hub failure has been reported. The cracked propeller hub is still under investigation and therefore no detailed information about the kind of failure is known at present time.

The actions specified by this Airworthiness Directive are of precautionary nature and intended to prevent possible further hub failures.

Action:

The following actions are required by this Airworthiness Directive:

1. Eddy current inspection and visual inspection of the propeller hub in the internal blade retention area for cracks and damages.
2. Exchange or repair of the propeller if any signs of cracks or damages outside serviceable limits have been detected during the inspection.

All necessary actions must be performed on the basis of the referenced manufacturer Service Bulletin and Service Instruction.

Compliance:

For the actions mentioned above the following compliance times have been laid down:

Action 1: For propeller hubs exceeding 1200 flight hours TSN (time since new):

- Prior to the next flight

For propeller hubs fewer than 1200 flight hours TSN:

- Before accumulating of 1200 flight hours TSN

Action 2: Prior to further flights.

Technical publication of the manufacturer:

Hoffmann Propeller Service Bulletin 61-10-03 E 15A of 13 July 2004 and Service Instruction 61-10-05 SI E 4A of 12 July 2004. These manufacturer publications become herewith part of this AD and can be obtained from:

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EASA-Approval

Approved by EASA under Approval-No. 2004-7528 on 13 July 2004.