

HELICOPTERS

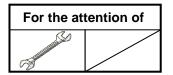
No. EC155-53A040

Civil version(s): B, B1

ALERT SERVICE BULLETIN

PROTECTIVE MEASURE

FUSELAGE - Engine cowlings Inspection of the engine upper fixed cowling





| Revision No. | Date of issue |
|--------------|---------------|
| Revision 0 | 2021-10-27 |

Summary:

The purpose of this ALERT SERVICE BULLETIN is to make sure that there is no finish paint inside the duct of the engine upper fixed cowling.

Compliance:

It is mandatory to comply with this ALERT SERVICE BULLETIN.

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1. PLANNING INFORMATION

1.A. EFFECTIVITY

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

Helicopters EC155, versions B and B1 with engine upper fixed cowling, P/Ns 365A58-1012-xx and delivered before the release date of revision 0 of this ALERT SERVICE BULLETIN.

<u>NOTE 1</u>

"xx" at the end of the P/N means all numbers.

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

Engine upper fixed cowling, part number 365A58-1012-xx and delivered before the release date of revision 0 of this ALERT SERVICE BULLETIN.

<u>NOTE 2</u>

"xx" at the end of the P/N means all numbers.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

Airbus Helicopters observed polyurethane finish paint on the internal side of the engine upper fixed cowling of some in-service Helicopters.

In the certified engine fixed cowling definition, all internal surfaces of the cowling are coated with primer paint only (no finish paint).

From Airbus Helicopters fire test results, the presence of polyurethane finish paint on non-ventilated surfaces may support fire propagation in case of a fire event adjacent to this area.

Consequently, the purpose of this ALERT SERVICE BULLETIN is to make sure that there is no finish paint inside the duct of the engine upper fixed cowling.

1.D. DESCRIPTION

The purpose of this ALERT SERVICE BULLETIN is to:

- Do a visual check to make sure that there is no finish paint inside the duct of the engine upper fixed cowling.
- If there is finish paint inside the duct of the engine upper fixed cowling:
 - . Remove the engine upper fixed cowling.
 - . Remove the finish paint from the painted zones.
 - . Apply primer on the stripped zones.
 - . Install the engine upper fixed cowling.

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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.

Do a check of the duct of the engine upper fixed cowling, refer to paragraph <u>3.B.2.a.</u> of this ALERT SERVICE BULLETIN, not more than 110 flight hours or 6 months after you received revision 0 of this ALERT SERVICE BULLETIN (refer to the issue date on the page footer).

Interpretation of results

- If there is no finish paint inside the duct of the engine upper fixed cowling (a): . No more actions is required.
- If there is finish paint inside the duct of the engine upper fixed cowling (a):
- . Obey with paragraph <u>3.B.2.b.</u> not more than 6 months after you complied with paragraph <u>3.B.2.a.</u> of revision 0 of this ALERT SERVICE BULLETIN.

Non-installed equipment or parts:

Before you install an engine upper fixed cowling, do a check of the stock and modify when applicable as given in paragraph <u>3.B.4.</u>

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 October 25, 2021 under the authority of EASA Design Organization Approval No. 21J.700 for civil version helicopters subject to an Airworthiness Certificate.

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1.G. MANPOWER

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

Qualification: 1 Airframe Technician.

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

Estimated Man-hours: one hour for one Airframe Technician (only for the check).

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

The estimate of the helicopter downtime is one hour (excluding stripping time).

1.H. WEIGHT AND BALANCE

Not applicable.

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:

| Standard Pr | ractices Manual (MTC): |
|---------------|---|
| MTC: 20-04 | -01-402: Cleaning of removed individual parts with liquid solvents - Cleaning |
| MTC: 20-04 | -05-101: Painting equipments and paint touch-ups - General - Paint and primer application procedure |
| MTC: 20-04 | -05-402: Application of Epoxy primer P05 - P20 - Paint and primer application procedure |
| MTC: 20-07 | 2-02-201: Helicopter parked in a repair shop - Safety instructions |
| 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 |
| MTC: 20-08 | -05-103: Monitoring of parts in operation - marking - service life customization - General rules applicable to aircraft |
| Aircraft Mair | ntenance Manual (AMM): |
| | 4-00-061: Engine cowlings: Removal / Installation - Engine Cowlings |
| Information | Notice (IN): |
| | |

IN: 3481-I-00: The Marketplace: an AirbusWorld eOrdering service IN: 3643-I-00: Introduction of the digital Service Bulletin reporting R-Tex

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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

Not applicable.

2.B. LOGISTIC INFORMATION

Not applicable.

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

Consumables to be ordered separately:

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

| Designation | Qty | Consumable P/N | СМ | Item |
|-----------------------|-------|----------------------|-----|------|
| | | | | |
| 240 to 360 Sand paper | A/R | Commercial reference | / | 1 |
| 400 Sand paper | A/R | Commercial reference | / | 2 |
| Epoxy primer P20 | A/R | DHS186-111.40 | 488 | 3 |
| | | | | |
| | ,,,,, | | 100 | 0 |

<u>NOTE</u>

When ordering epoxy primer P20 (DHS186-111.40/CM488), also order hardener (DHS186-111.21/CM4008) and if necessary thinner (DHS186-111.22/CM4009).

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 Tasks and Work Cards mentioned in this ALERT SERVICE BULLETIN.

2.D. EQUIPMENT OR PARTS TO BE RETURNED

Not applicable.

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3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

- Obey with the general instructions for painting equipments and paint touch-ups, refer to the Work Card 20-04-05-101 (MTC).
- Obey with the safety instructions for a helicopter parked in a repair shop, refer to the Work Card 20-07-02-201 (MTC).

3.B. WORK STEPS

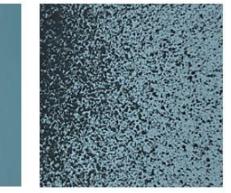
3.B.1. Preliminary steps

- Park the helicopter in a maintenance hangar.
- Disconnect all the electrical power supplies, refer to the Work Card 20-07-03-406 (MTC).
- Install the appropriate access equipment.
- Remove and/or open all cowlings, panels, doors and all equipment items to enable adequate access to the various work areas.

3.B.2. Procedure

3.B.2.a. Visual check of the inside of the duct of the engine upper fixed cowling (Figure 1, Figure 3)

- Do a visual check to make sure that there is no finish paint inside the duct of the engine upper fixed cowling (a) in the hatched zone C (Figure 1 and <u>Figure 3</u>, Details A and B):
 - . The last layer must be the P20 primer layer.
 - . A light spray of paint through which the primer color is still visible is considered acceptable and does not need to be stripped.



P20 primer

Acceptable: P20 primer exposed across the whole surface

Figure 1 - representation of P20 primer layer

- Refer to paragraph <u>1.E.2.</u> for the interpretation of results.

Not acceptable: P20

primer partly covered

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3.B.2.b. Removal of finish paint inside of the duct of the engine upper fixed cowling (Figure 3)



DO NOT USE ANY MECHANICAL TOOLS OR CHEMICALS PRODUCTS TO REMOVE FINISH PAINT INSIDE THE DUCT OF THE ENGINE FIXED COWLING (a). USE SANDPAPER WITH AN APPROPRIATE GRIT SIZE TO PREVENT DAMAGE WHEN YOU REMOVE FINISH PAINT INSIDE THE DUCT OF THE ENGINE FIXED COWLING (a).

- Remove the engine upper fixed cowling (a), refer to the Task 53-54-00-061 (AMM).
- Remove the finish paint inside of the duct of the engine upper fixed cowling (a) with sand paper (1) or (2) (not shown) until the primer layer appears.
- Apply the protection on the stripped zone with epoxy primer P20 (3) refer to Figure 1 and Work Card 20-04-05-402 (MTC).
- Identify again the engine upper fixed cowling (a), refer to paragraph 3.C.
- Install the engine upper fixed cowling (a), refer to the Task 53-54-00-061 (AMM).

3.B.3. Final steps

- Set the helicopter to the flight condition.
- Do an appearance check of the helicopter after inspection or repair, refer to the Work Card 20-07-03-408 (MTC).
- Remove the access equipment.
- Connect all the electrical power supplies, refer to the Work Card 20-07-03-406 (MTC).

3.B.4. Work steps for non-installed equipment or parts

Refer to Figure 2 and Figure 3

- Do a visual check to make sure that there is no finish paint inside the duct of the engine upper fixed cowling (a) in the hatched zone C (Figure 2 and <u>Figure 3</u> Details A and B):
 - . The last layer must be the P20 primer layer.
 - . A light spray of paint through which the primer color is still visible is considered acceptable and does not need to be stripped.







Not acceptable: P20 primer partly covered

P20 primer

Acceptable: P20 primer exposed across the whole surface

Figure 2 - representation of P20 primer layer

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- If there is no finish paint inside the duct of the engine upper fixed cowling (a): . No action is required.
- If there is finish paint inside the duct of the engine upper fixed cowling (a):



DO NOT USE ANY MECHANICAL TOOLS OR CHEMICALS PRODUCTS TO REMOVE FINISH PAINT INSIDE THE DUCT OF THE ENGINE FIXED COWLING (a). USE SANDPAPER WITH AN APPROPRIATE GRIT SIZE TO PREVENT DAMAGE WHEN YOU REMOVE FINISH PAINT INSIDE THE DUCT OF THE ENGINE FIXED COWLING (a).

- . Remove the finish paint inside of the duct of the engine upper fixed cowling (a) with sand paper (1) or (2) (not shown) until the primer layer appears.
- . Apply the protection on the stripped zone with epoxy primer P20 (3) refer to Work Card 20-04-05-402 (MTC).
- . Clean the engine upper fixed cowling (a), refer to Work Card 20-04-01-402 (MTC).
- . Identify again the engine upper fixed cowling (a), refer to paragraph 3.C.

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.
- Record compliance with this ALERT SERVICE BULLETIN (see IN 3643-I-00 for instructions): QR-Code or hypertext link



<u>NOTE</u>

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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Identification of modifications on equipment or parts:

Identify the engine upper fixed cowling refer to table below and Work Card 20-08-05-103 (MTC).

| Key Word | Old P/N or equivalent | New P/N | MOD | Marking type |
|----------------------------------|--------------------------|-----------------------------|-----|---------------|
| Engine upper fixed cowling | Old P/N | Old P/N + ASB No. 53A040 | - | Indelible ink |

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3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.

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