

**AIRBUS**

HELICOPTERS  
Services

# Standard Upgrades

January 2023

H145 family  
BK117 / EC145 & H145



**AIRBUS**



# Introduction

## Dear Customers,

In the aim of continuously improving our services, Airbus Helicopters is pleased to present you this new pdf version for the catalogue of Standard Upgrades.

Airbus Helicopters proposes tailored solutions to increase the helicopter's overall performance and mission effectiveness with role change capabilities, contributing to harmonized fleet, product improvement and maintenance cost reduction.

A wide range of solutions, from optional equipment up to mid- life upgrades, is available to bring aircraft to the latest version. These modifications, perfectly adapted to customers' aircraft configuration, are benefitting from innovations and advanced technology defined by Airbus Helicopters' experienced design office teams.

These upgrades give extended life to customer aircraft while covering obsolescence, with the added assurance of proven, certified and safe modifications developed by the Type Certificate holder as well as Supplemental Type Certificate holders.

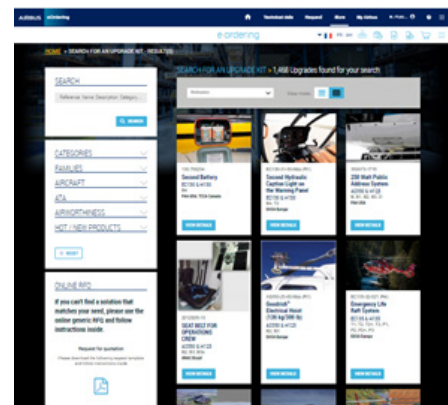
Airbus Helicopters proposes a large range of service bulletins (SB) and supplemental type certificates (STC) solutions available through its worldwide network, certified in accordance with international authorities (FAA, EASA...) and local requirements.

The standardization of such services (including kits preparation and certification) allows shorter lead times and greater competitiveness.

The complete and growing range of SB/STC standard upgrades is available on our AirbusWorld customer portal, which allows e-ordering of the associated kits. Together with a search engine, several filtering criteria will allow you to find the adequate available solution to answer your need, such as Equipment Categories, Aircraft type, ATA chapter as well as Airworthiness certifications.

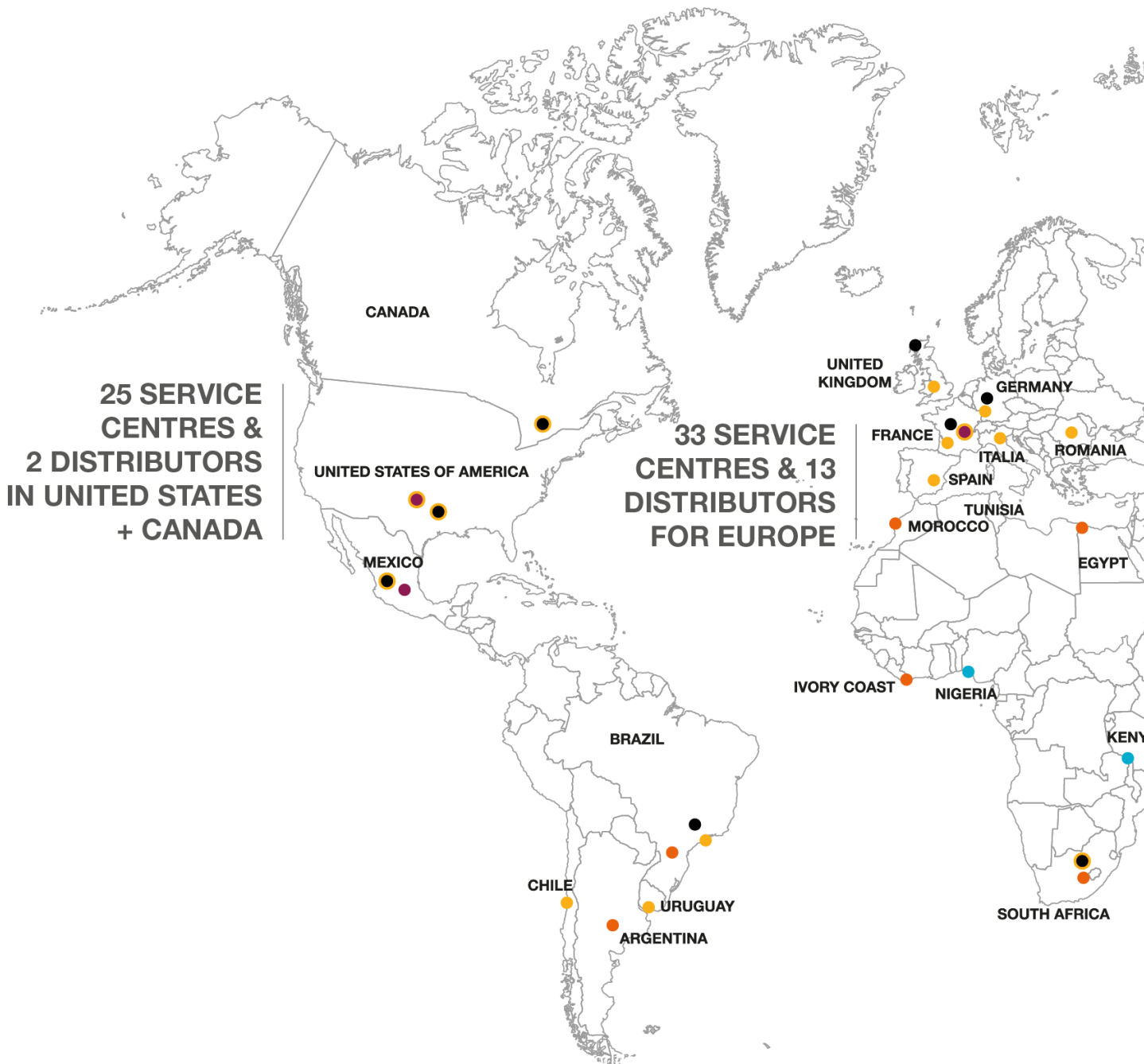
Airbus Helicopters offers also customers Customized upgrades solution, developed according to the as-delivered configuration of their helicopter. This service is also available from the standard upgrades catalogue on AirbusWorld through a request for quotation available online.

With the comprehensive Turnkey solution, Airbus Helicopters both designs and installs upgrades on customer's aircraft. This work can be performed either within the Airbus Helicopters network or at customer facilities.





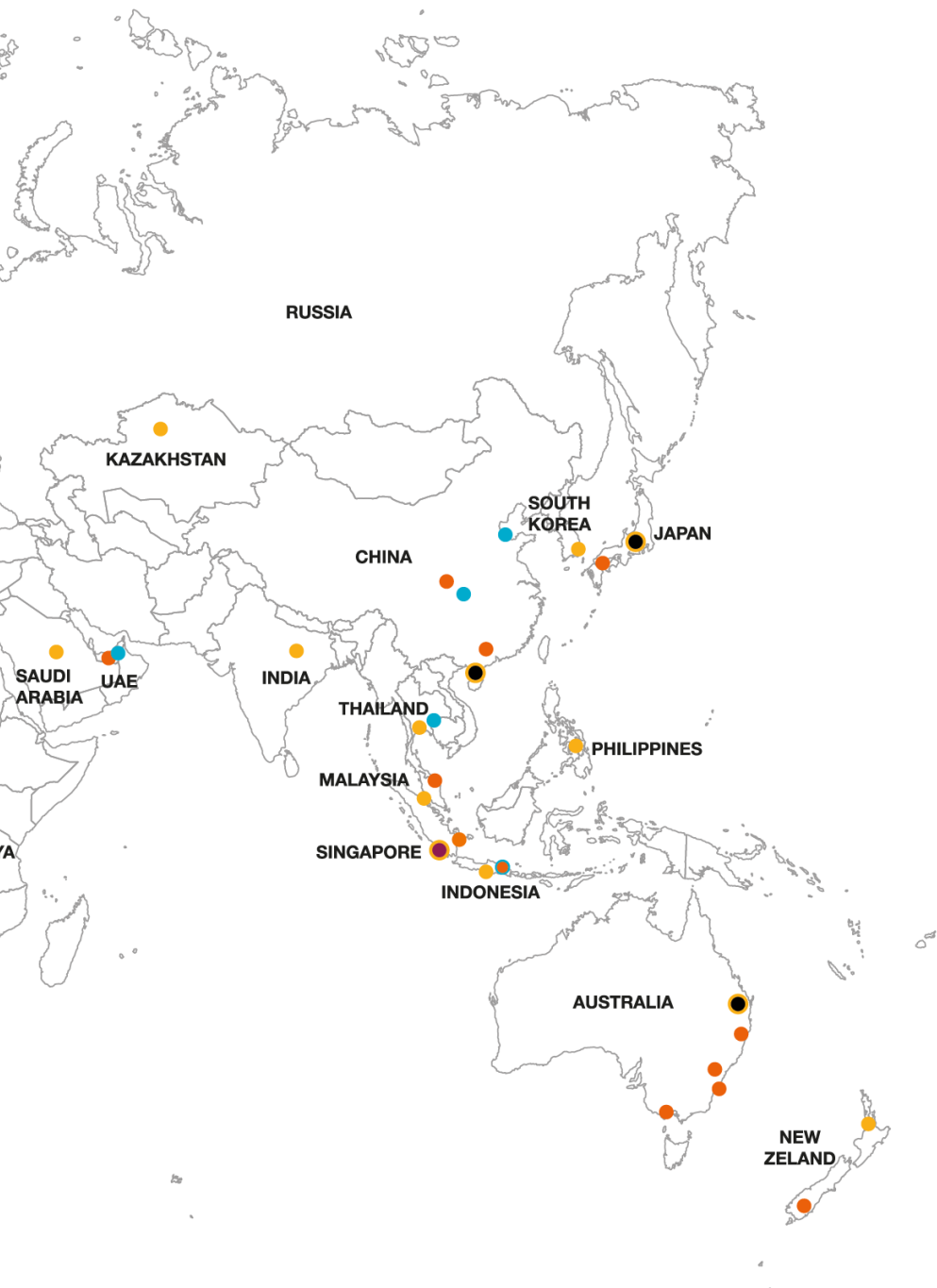
# WHEREVER YOU OPERATE... WE SUPPORT YOU





**OUR GLOBAL NETWORK SPANS MORE THAN 150 COUNTRIES  
WITH AN EXTENSIVE APPROVED MAINTENANCE NETWORK  
LOCATED IN CLOSE PROXIMITY TO CUSTOMER FACILITIES:**

- 30 main sites, customer centres and affiliated sites
- 38 helicopters and/or support & services distributors.
- 92 service centres.
- 10 logistics hubs and local inventories,  
as well as multiple local stock warehouses.
- 4 technical support hubs.



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through our Airbus Helicopters  
web site

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products-  
services/helicopters/](https://www.airbus.com/en/products-services/helicopters/)



# User Guide

Search efficiently in Airbus Helicopters catalogues by product categories and sub-categories.

Select an aircraft family catalogue...



## Aircraft families

- Colibri
- Ecureuil family
- H135 family
- H145 family
- Dauphin family
- H175
- Super Puma family

Please note that regarding the version of the catalogue, all the families are not necessarily represented

...then search by product category

## Product categories



Aircraft improvement



Airframe options



Cockpit & avionics options



Interior options



Maintenance improvement



Mission & external equipment



Obsolescence management



Operational protection



Power plant related options



Product improvement



Safety



Please note that regarding the version of the catalogue, all the segments are not necessarily represented.



# How to read the product page

Type of Upgrade (SB or STC)   
 Back to the Table of contents

Airframe options   
 AS350 & H125   
 Product category   
 Aircraft applicability

## Windshield Wipers for pilot and co-pilot (opt)

Reference: AS350-30-40-Max (00)   
 Applicable to version(s): 82, 83, 83e

**Installation of windshield wiper for pilot and co-pilot.**

This Service Bulletin consists in :   
 Installing the Removable Part (RP) of the pilot and copilot windshield wipers.   
 Carrying out the adjustments and tests of the windshield wiper installation.

**BENEFITS**

- Better visibility in rainy weather conditions.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+2.5 kg per windshield wiper installation	+1.265 m.kg per windshield wiper installation	1 Day(s) or 2 Day(s) depending on aircraft configuration	22 Week(s)	5381 - 6440 EUR (a.e. 2020)	eOrdering

**INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical Aircraft Maintenance Engineer	2 to 4 Hour(s) depending on aircraft configuration 3 to 6 Hour(s) depending on aircraft configuration

**PRE-POST REQUISITE / EFFECTIVITY**

This service bulletin is applicable on aircraft already equipped with :   
 MOD 074280 (Multi-unit installation)and not equipped with :   
 MOD 074292 (Installation of windshield wiper optional equipment by Multi-Unit)   
 thru drawing 350A28052.07 or 350A28052.08   
 MOD AL4295 (Change in windshield wiper relay bolts)(The following MOD also impact the applicability of the SB (will be selected in the CONFIGURATION ASSISTANT)   
 MOD 073439 (Ecoreal canopy re-design)

**CERTIFICATION ORGANIZATION(S)**

EASA Europe

Please visit the Upgrades catalogue on AirbusWorld/eOrdering for online eOrdering and eRFQ.   
 <https://airbusworld helicopters.airbus.com/> 53

Commercial interface availability in the online catalogue on Customer's portal AirbusWorld/Ordering;   
 eOrdering with configuration assistant or eRFQ

Bilateral agreement between Certification Authorities are not considered in this Upgrades catalogue.   
 SB are indicated EASA approved : other certifications already exist on case by case basis, to be checked with your own local Authority.   
 For STC, complementary certifications can be requested, to be checked with your usual AH commercial interface.

Version of the catalogue   
 Contact information

# What do these icons mean ?

Type of Upgrades



Service Bulletin   
 Or   
 Supplemental Type   
 Certificate

Weight



Delta weight of the A/C   
 due to Upgrade   
 installation

Moment



Longitudinal moment   
 value

Downtime



Average value based on   
 qualified technicians with   
 appropriate tooling

Lead time



Average value based on   
 usual stock



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BK117 / EC145 & H145

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# H145 family

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BK117 / EC145 & H145

# AIRCRAFT IMPROVEMENT





# Conversion of MBB-BK117 version A-3 to version A-4

Reference: BK117-80-105 (R3)

Applicable to version(s): A3

**With this service bulletin an electric engine torque indicator is installed in place of the hydraulic engine torque indicator.**

This modification consist of :

- removing and replacing hydraulic engine torque indicator with electric engine torque indicator
- modify the code data on helicopter identification plate

If the first issue of this service bulletin have been accomplished, it is recommended to retrofit the boost of the plugs of the wiring harnesses 523VB and 524VB on next occasion.

SB from Airbus Helicopters Deutschland (AHD)

Please contact Airbus Helicopters to place order.



## > BENEFITS

- After compliance with this service bulletin a higher takeoff power may be used (transmission power limitations 5 min takeoff power 83% in place of 71%).

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+1,55 kg	+5,425 m.kg	On request	On request	On request	eOrdering

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

8 to 58 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft S/N 7001 up to and including S/N 7121 having YAW CSAS P/N 117-88610 or 3-axis CSAS P/N 117-88603 (includes YAW CSAS P/N 117-88610).

Compliance with this service bulletin in succession to previously accomplished service bulletin :

- On helicopters up to and including S/N 7054 service bulletin SB-MBB-BK 117-10-4 (Modification from A1 to A3 configuration)
- On helicopters up to and including S/N 7101 installation of SPAS in accordance with service bulletin SB-MBB-BK 117-40-7

## > CERTIFICATION ORGANIZATION(S)

LBA Germany

# Conversion of MBB-BK117 version A-4 to version B-2

Reference: BK117-80-169

Applicable to version(s): A4

## Conversion of MBB-BK117 helicopters from version A-4 to version B-2.

- Retrofit the center cowlings
- Retrofit the doors on the engine cowlings
- Retrofit the fire detectors
- Remove the anti-ice detection
- Retrofit the chip detectors No.2
- Install the shut off valves
- Retrofit the bleed air heating system

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- improve the aircraft performances.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

### > PRE-POST REQUISITE / EFFECTIVITY

On request.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Conversion of MBB-BK117 version B-1 to version B-2

Reference: BK117-80-168 (RO)

Applicable to version(s): B1

## Conversion of MBB-BK117 helicopters from version B-1 to version B-2.

- Retrofit the main rotor system
- Retrofit the tail rotor system
- Install the bellcrank
- Retrofit the landing gear
- Upgrade the OEI torque limits
- Replace the VNE table
- Replace the placard for the maximum permitted cross weight

While accomplishing this Service Bulletin, Service Bulletin SB-MBB-BK117-60-113, Service Bulletin SB-MBB-30-105 and Alert Service Bulletin SB-MBB-30-116 must also be accomplished.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- improve the aircraft performances.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	On request	On request	eRFQ

### > PRE-POST REQUISITE / EFFECTIVITY

On request.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Flights with increased gross mass 3800 kg

Reference: BK117 D-2-11-002

Applicable to version(s): D2

**This Service Bulletin, Airbus Helicopters Deutschland (AHD) offers the increase of the gross mass from 3700 kg to 3800 kg.**

This Service bulletin consists in:

- Install the placard in the cockpit
- Selection of lettering (black/white) according to background

This SB only be accomplished by PHSt Baden-Württemberg.

SB from Airbus Helicopters Deutschland (AHD)

Two choices of placard:

- with black lettering for light background
- with white lettering for dark background



## > PRE-POST REQUISITE / EFFECTIVITY

Installed equipment and parts :

- MBB-BK117 D-2, S/N 20041, 20048, 20065, 20100, 20102, 20106.
- Pre Post : BK117 D-2-11-002

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

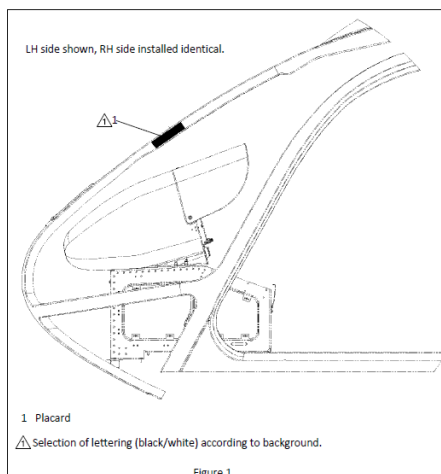
## > BENEFITS

- Increase of the gross mass from 3700 kg to 3800 kg under special limitations .

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
WEIGHT					
Negligible	Negligible	1 Hour(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	0,5 Hour(s)



# Optional limitation of maximum gross mass to 3170 kg

Reference: BK117-10-127 (R3)

Applicable to version(s): C1

**A placard is installed on the instrument panel and on the outside, below the RH cockpit door.**

This modification consist in :

- install placard on the instrument panel
- install placard on the outside, below RH cockpit door
- respect FMA 14-1

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Limit the maximum gross mass to 3170 kg.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	On request	On Request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	0,5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# AIRFRAME OPTIONS





## Additional ballast weight (3 kg to 6 kg) in the tail boom

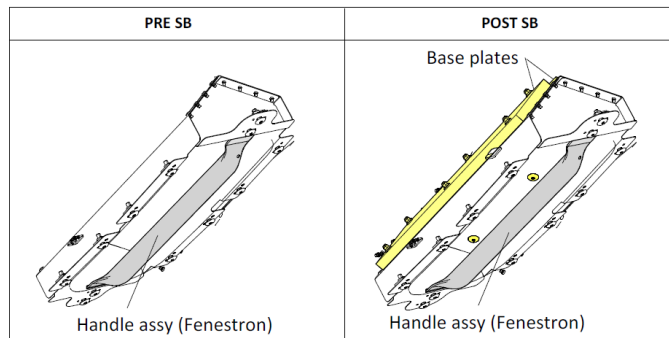
Reference: BK117 D-2-85-019 (R0)

Applicable to version(s): D2

**Airbus Helicopters offers the installation of additional ballast weight (3 kg to 6 kg) in the tail boom.**

Remove the handle Assy. Install the base plates. Install the handle Assy.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- To keep the helicopter balanced after installation of additional equipment.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 3.034 kg to depending on aircraft configuration	+ 37.452 m.kg to + 74.447 m.kg depending on aircraft configuration	On request	10 Week(s)	1449 - 2892 EUR (e.c. 2023)	eOrdering

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2m, all S/N.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

### > INSTALLATION TIME

QUALIFICATION  
Mechanics

INSTALLATION DURATION  
4 Hour(s)

# Additional PU film for the main rotor blades

Reference: BK117 C-2-62-006 (R1)

Applicable to version(s): C2

**With this Service Bulletin Airbus Helicopters Deutschland (AHD) offers the retrofit of an additional PU film for the rotor blades.**

This modification consist in prepare bonding areas and affix PU film to the rotor blades.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this Service Bulletin main rotor blades without an additional PU film on the blade cuff can still be used. It is admissible to combine main rotor blades with and without an additional PU film on the blade cuff.



## > BENEFITS

- To protect the blade cuff from environmental influences and to ease the judgement of criteria in case of cracks and delaminations in the surface protection of the blade cuff.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	4 Week(s)	185 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all helicopters MBB-BK117 version C-2.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Air Conditioning System-Retrofit from ECS to ACS

Reference: BK117 D-2-21-002

Applicable to version(s): D2

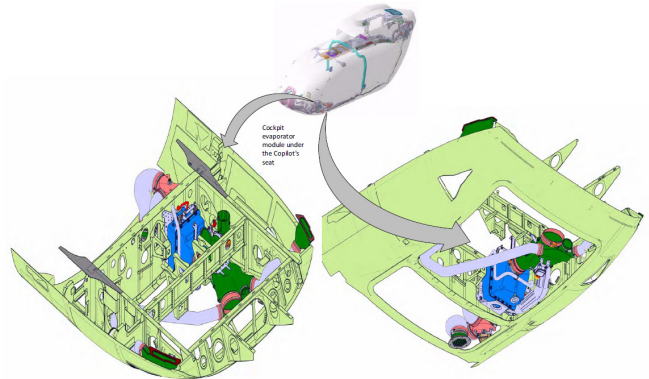
**This Service Bulletin (SB), Airbus Helicopters offers the retrofit from the Environmental Control System (ECS) to the Air-Conditioning System (ACS)**

Airbus Helicopters offers the retrofit from the ECS to the ACS

" Please refer to the SB to consult the consumables to be order separately "

SB from Airbus Helicopters Deutschland (AHD)

This SB must be accomplished together with SB MBB-BK117 D-2-21-008/02 (basic ventilation to ECS).



## > BENEFITS

- Improvement of control system(ECS) to the (ACS) Air conditioning system.

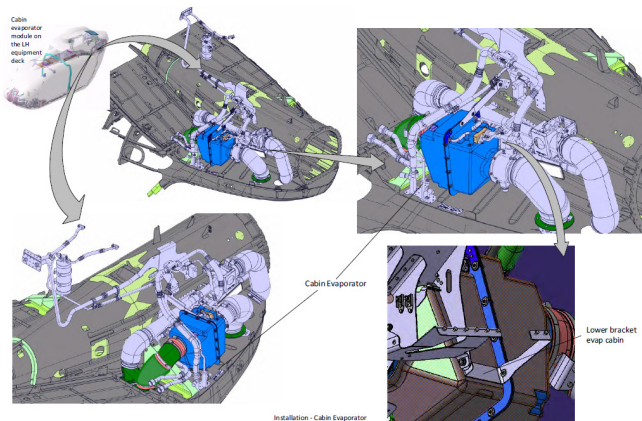
<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request



## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Anti-slip surface installation on the forward fitting of the multifunction step

Reference: BK117 D-2-32-004 (R0)

Applicable to version(s): D2

**Airbus Helicopters offers an anti-slip surface for the forward fitting of the multifunction step.**

- Paint the top of the forward fitting of the multifunction step with PUR anti-slip lacquer or
- apply anti skid tape

The installation of the anti-slip surface on the forward fitting of the multifunction step is in serial production from S/N 20081 and up.

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.

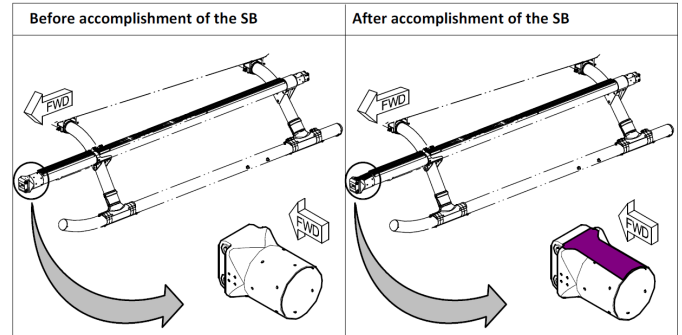
**> BENEFITS**

- The anti-slip surface ensures a more safe stepping on the forward fitting of the multifunction step while entering the helicopter cockpit.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eRFQ

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s)



**> PRE-POST REQUISITE / EFFECTIVITY**

MBB-BK117 D-2, up to and including S/N 20080 equipped with multifunction steps.

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe



# Bracket covers on the upper door retainers

Reference: BK117 C-2-52-021 (R0)

Applicable to version(s): C2, C2e

**Airbus Helicopters offers the installation of covers on the brackets on the upper door retainers of the pilot and co-pilot doors.**

Install bracket covers to retainers of the pilot and co-pilot doors.

SB from Airbus Helicopters Deutschland (AHD)

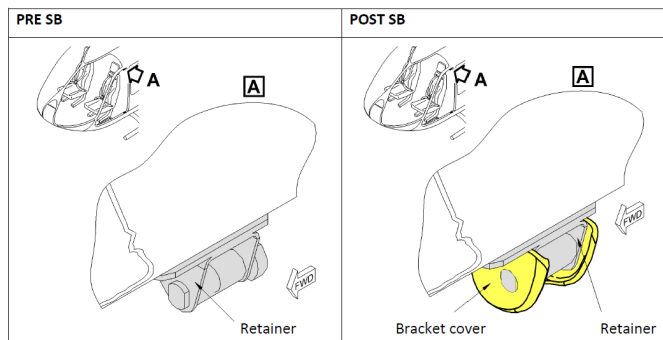
## > BENEFITS

- For tall persons these covers contribute to a safe boarding and disembarkment.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.023 kg	+ 0.063 m.kg	On request	8 Week(s)	286 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	75 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e, all S/N 9001 up to including S/N 9803 (\*) equipped with :  
• Retainers B521M109110X and B521M109210X

\*The bracket covers are in serial production of helicopter from S/N 9804 and up.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Bracket covers on the upper door retainers

Reference: BK117 D-2-52-004 (R0)

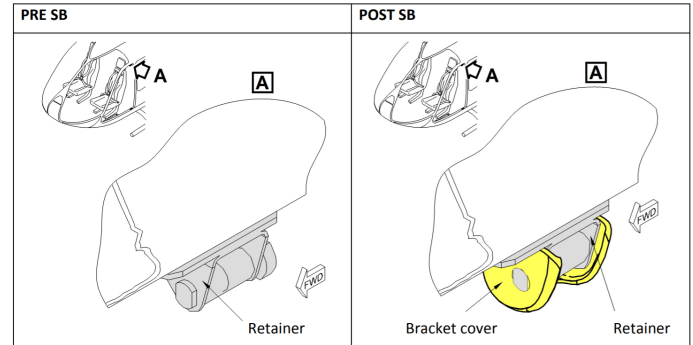
Applicable to version(s): D2

**This Service Bulletin consist in Install bracket covers to retainers of the pilot and co-pilot doors.**

The purpose of this modification is the installation of covers on the brackets of the upper door retainers of the pilot and co-pilot doors.

The bracket covers are in serial production of helicopter from S/N 20231 and up.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Especially for tall persons these covers contribute to a safe boarding and disembarkment.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.023 kg	+ 63 kgmm	On request	14 Week(s)	712 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N 20001 up to including S/N 20230 equipped with Retainers B521M109110X and B521M109210X.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Cargo Door Windows

Reference: BK117 C-2-56-003 (R0)

Applicable to version(s): C2

**With this Service Bulletin Airbus Helicopter Deutschland (AHD) offers windows for both rear doors. These windows are made of 2 mm thick acrylic glass and their dimensions are approx 600 x 500 mm.**

This modification consist in :

- Remove cargo doors
- Establish cutouts in the cargo doors
- Install cargo door windows
- Install cargo doors

When spare parts are ordered, the rear door is delivered without cutout for the rear door window.

This Service Bulletin has to be accomplished again on the spare part, if necessary.

SB from Airbus Helicopters Deutschland (AHD)

The retrofit kits SB-117C2-56-003-2C3 and SB-117C2-56-003-2C4 are not in stock at AHD and are only produced after order has been placed.

## > BENEFITS

- Increase the brightness of the medical interior
- Offer an additional view to the outside

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.291 to + 0.582 kg depending on aircraft configuration.	+ 1949 to + 3898 kgmm depending on aircraft configuration.	On request	4 Week(s)	2259 - 5329 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Composites	8 Hour(s)
Paint	2 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all S/N.

No incompatibility with other systems.

Compliance is optional.

The kit to order are depending if the Right and/or Left cargo door window have to be installed and if the window have to be clear or tinted in dark grey. (will be selected in the CONFIGURATION ASSISTANT)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Clamshell Door Modification

Reference: AHUK-145-0001

Applicable to version(s): C2

The Clamshell door modification alters the existing right hand factory fitted clamshell door to introduce a flap located in the forward lower corner. The flap prevents fouling between the door and a step mounted payload ensuring full movement of the clamshell door and unrestricted access into the rear of the cabin

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change



## > BENEFITS

- Full unrestricted door opening with step mounted payload
- None obstructed loading into rear of cabin with step mounted payload

 WEIGHT	 MOMENT	 DOWN TIME	 LEAD TIME	 PRICE RANGE	 ONLINE CAT.
1.5 kg	On request	2 Day(s)	On request	On request	eRFQ

## > PRE-POST REQUISITE / EFFECTIVITY

- RHS Step rear mounted payload.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Cover for Oat Sensors

Reference: BK117 C-2-34-009 (R0)

Applicable to version(s): C2

**Protection of the OAT sensors.**

Retrofit of covers to protect the OAT sensors.

SB from Airbus Helicopters Deutschland (AHD)



**> BENEFITS**

- Protection of the OAT sensors against damage caused by operation or handling of the helicopter

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
+ 0.135 kg	+ 334 kgmm	On request	4 Week(s)	1536 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	9 Hour(s)

**> PRE-POST REQUISITE / EFFECTIVITY**

Effective for S/N 9004 up to and including S/N 9076.  
 No incompatibility with other systems.

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

# Door catching mechanism

Reference: BK117 C-2-52-006 (R1)

Applicable to version(s): C2

**Airbus Helicopters offers a catching mechanism for cockpit doors.**

Remove standard locking mechanisms of the cockpit doors and install the locking mechanism with integrated door catching mechanism.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- To simplify the locking procedure of the cockpit doors.
- By this catching mechanism the cockpit doors can be closed in two steps.
- In the first step the doors are held in an almost closed position.
- With the second step the cockpit doors are completely closed by operating the door handle.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.113 kg	+ 0.308 m.kg	On request	4 Week(s)	3790 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

All MBB-BK117 C-2 with cockpit doors without catching mechanism.

Components affected:

- Cockpit door LH B521M1031101 or B521M1031102
  - Cockpit door RH B521M1032101 or B521M1032102
  - Cockpit door jettison LH B522M1131101 or B522M1131102
- or
- Cockpit door jettison RH B522M1132101 or B522M1132102

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Erosion protection for the main rotor blades

Reference: BK117D-3-62-001 (RO)

Applicable to version(s): D3

**With this Service Bulletin (SB), Airbus Helicopters (AH) offers the retrofit of a sprayable erosion protection for the main rotor blades and its repair procedure**

Two parts of the main rotor blade are affected the most by erosion: One is the leading edge and the other is the blade tip. The leading edge is covered with a metallic shell, but the blade tip is not protected to that extent in extremely sandy conditions. Therefore, with this SB the sprayable main rotor blade erosion protection on the blade tip area is introduced. Two different options are available to apply the erosion protection to the main rotor blades:  
 The first option is recommended for flying in sandy conditions.  
 The second option is recommended for flying in sandy and rainy conditions. The sand option covers the complete main rotor blade leading edge with the erosion protection while the sand/rain option covers only the transition between the metallic shell of the leading edge to the composite material of the main rotor blade.

- The SB consists in:
- Remove main rotor blades.
  - Send main rotor blades for retrofit / repair.
  - Install main rotor blades.

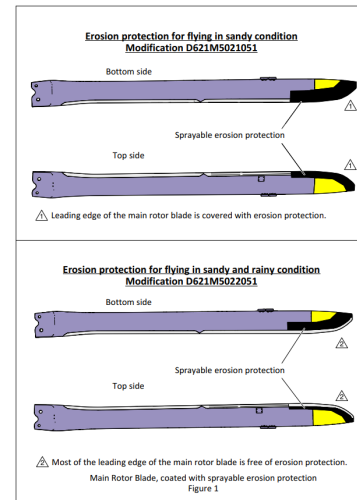
The main rotor blades without and with modifications are not mixable (P/N D621M5021051: sprayable erosion protection for sandy conditions; P/N D621M5022051: sprayable erosion protection for sandy / rainy conditions).

Main rotor blades can be returned to AH/AHI for retrofit or repair according to the regular customer contract.

SB from Airbus Helicopters Deutschland (AHD)

Operators or service stations are only allowed to accomplish the repair of the main rotor blades on which the sprayable erosion protection has been applied after having been trained and authorized by AH/AHI.

Please download the SB in TIPI (use the link above) and answer to the Reply Form Sheet in annex. Then attach this RFS to your Request For Quotation in the form below.



## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Protection of blades in sandy environment.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Approved Airbus Helicopters Technician	On Request



# Erosion protection for the main rotor blades

Reference: BK117 C-2-62-008 (R1)

Applicable to version(s): C2, C2e

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a sprayable erosion protection for the main rotor blades and its repair procedure.**

- This modification consist of :
- remove main rotor blades
  - send main rotor blades for retrofit / repair
  - install main rotor blades

The main rotor blades with modification P/N B621M1015051 (sprayable erosion protection) are not mixable with main rotor blades without this modification.

SB from Airbus Helicopters Deutschland (AHD)

Please download in TIPI the associated SB to apply the annex.

## > BENEFITS

- Protect the main rotor blades against erosion.

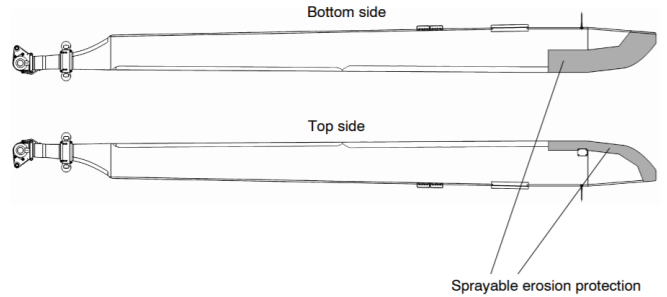
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+130,0 g +/-15 g per main rotor blade	Negligible	On request	10 Week(s)	2120 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N equipped with main rotor blade P/N: B621M1002XXX.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Erosion protection for the main rotor blades

Reference: BK117 D-2-62-007 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a sprayable erosion protection for the main rotor blades and its repair procedure.**

**This modification consist in remove, send for retrofit / repair and install main rotor blades.**

Two different options are available to apply the erosion protection to the rotor blades :

- the first option is recommended for flying in sandy conditions
  - the second option is recommended for flying in sandy and rainy conditions
- The sand option covers the complete rotor blade leading edge with the erosion protection while the sand/rain option covers only the transition between the metallic shell of the leading edge to the composite material of the rotor blade.

- The main rotor blades with modification P/N D621M1015051 (sprayable erosion protection for sandy / rainy conditions) are not mixable with main rotor blades without this modification.
- The main rotor blades with modification P/N B621M1015051 (sprayable erosion protection for sandy conditions) are not mixable with main rotor blades without this modification.
- The main rotor blades with modification P/N B621M1015051 (sprayable erosion protection for sandy conditions) are not mixable with main rotor blades with modification P/N D621M1015051 (sprayable erosion protection for sandy/rainy conditions).

SB from Airbus Helicopters Deutschland (AHD)

Main rotor blades can be returned to AHD / AHI for retrofit or repair according to the regular customer contract.

Please download in TIPI the associated SB to apply the annex.

## > BENEFITS

- The main rotor blade of a helicopter is the component which is affected the most by erosion.
- That is especially because of the high rotational speed in hover and the sum of rotational speed and forward speed while flying.
- The leading edge is covered with a metallic shell, but the blade tip is not protected to that extent in extremely sandy conditions.
- Therefore, with this SB the sprayable rotor blade erosion protection on the blade tip area is introduced.

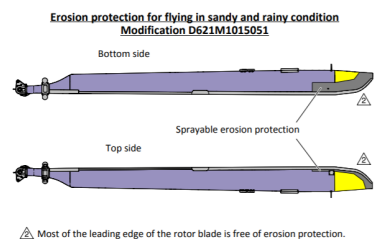
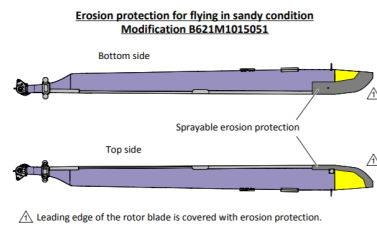
KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+130,0 g (+/- 15 g per rotor blade)	Negligible	On request	10 Week(s)	1250 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to Helicopters all S/N equipped with Main Rotor Blade P/N D621M1002XXX.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Flat Top Moulded Trim for Landing Gear Foot Step

Reference: BK117 C-2-32-003 (R0)

Applicable to version(s): C2

**With this Service Bulletin flat step patches may be installed.**

Add a plate trim on landing gear foot step.

SB from Airbus Helicopters Deutschland (AHD)

For order placement, please get in touch with your usual business contact or your local Order Administration Department stating your helicopter's S/N. The installation can be done with the help of or by the Airbus Helicopters repair network.



## > BENEFITS

- A better grip to access the cabin
- Easier boarding/disembarking

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.6 kg	+ 2127 kgmm	On request	14 Week(s)	1665 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N equipped with multipurpose carrier.  
 No incompatibility with other systems.

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	4 Hour(s)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Grids for NACA Inlets

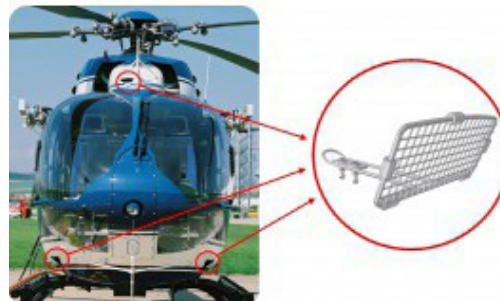
Reference: BK117 C-2-21-003 (R0)

Applicable to version(s): C2

### Protection of the heating system.

Retrofit of the grids for the NACA inlets.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Prevent the penetration of coarse impurities into the heating system
- Increase the durability of the heating system

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.2 kg	+ 466 kgmm	On request	4 Week(s)	2682 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	18 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
 No incompatibility with other systems.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Hand-Grips on the LH and RH cockpit structure

Reference: BK117 C-2-25-004 (R0)

Applicable to version(s): C2

**Airbus Helicopter Deutschland offers with this Service Bulletin hand grips on the LH and RH cockpit structure.**

This modification consist in install hand grips on the LH and RH cockpit structure.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Makes it easier and safer to enter and exit the cockpit.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.070 kg	+ 148.2 kgmm	On request	10 Week(s)	2743 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	2,5 Hour(s)
Paint	0,5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
 No incompatibility with other systems.  
 Compliance is optional.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improved brushless cockpit blower for the cockpit ventilation system

Reference: BK117 C-2-21-007 (R0)

Applicable to version(s): C2

**With this Service Bulletin (SB), Airbus Helicopters Detuschland (AHD) offers the retrofit of an improved brushless cockpit blower for the cockpit ventilation system.**

This modification consist in :

- Remove the old cockpit blower assy
- Retrofit wire harness
- Install bracket on the new cockpit blower assy
- Install the new cockpit blower assy

SB from Airbus Helicopters Deutschland (AHD)

After the retrofit, the blower assy P/N B212M20C2001 can no longer be used.



## > BENEFITS

- The improved cockpit blower has a brushless blower motor which reduces the maintenance effort.
- Furthermore, the brushless cockpit blower has an increased lifetime and a weight reduced by approx 0.74 kg in comparison to the currently used cockpit blower.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 0.741 kg	- 1817 kgmm	On request	20 Week(s)	25059 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	3 Hour(s)
Mechanics	5,5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters S/N 9004 up to and including S/N 9600 equipped with cockpit blower assy P/N B212M20C2001.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improved Center Car and Door Backstop

Reference: BK117 C-2-52-014 (R1)

Applicable to version(s): C2

## Improved center cars and improved sliding door backstops for the sliding doors.

The wheel and the rolls of the improved center cars have a wider faying surface which considerably reduces the wear.

If the Revision 0 of this Service Bulletin has been accomplished, and the round buffer touches the roll of the center car and not the milling part of the center car it is recommended to install the improved doorstop holder using retrofit kit SB-117C2-52-014-2C3-1.

SB from Airbus Helicopters Deutschland (AHD)

The old center cars and the improved center cars are interchangeable. It is admissible to mix the old center cars and the improved center cars.



### > BENEFITS

- Wider faying surface
- Reduces the wear

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	12 Week(s)	201 - 4176 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 to 4 Hour(s) depending on aircraft configuration

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft S/N 9004 up to and including S/N 9600 (With helicopter S/N 9601 the improved center cars and the improved sliding door backstops are standard)

already equipped with :

- B520M4025102

or

- B520M4025103

Sliding door backstop RH :

- B520M4026102

or

- B520M4026103

and for aircraft S/N 9004 up to and including S/N 9500 :

- Center car LH P/N L521M3081101
- Center car RH P/N L521M3082101

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Improved silver shim to the rotor mast

Reference: BK117 D-2-63-006 (R0)

Applicable to version(s): D2

**Installation of silver shim without center hole between rotor head and rotor mast.**

**For this purpose, also the retaining disc assy has to be replaced by an adapted holding disc.**

This modification consist in :

- remove the retaining disc assy and the silver shim
- install the new silver shim and the new holding disc

After accomplishment of this SB, the silver shim P/N 105-13101.14 must not be installed again.

SB from Airbus Helicopters Deutschland (AHD)

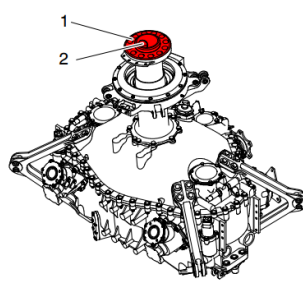
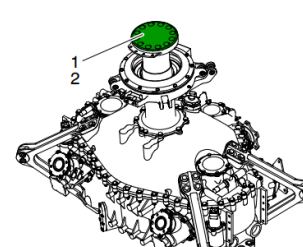
### > BENEFITS

- Prevent oil from the main rotor head ingressing into the rotor mast and possibly damaging the mast moment system.

 <b>WEIGHT</b>	 <b>MOMENT</b>	 <b>DOWN TIME</b>	 <b>LEAD TIME</b>	 <b>PRICE RANGE</b>	 <b>ONLINE CAT.</b>
Negligible	Negligible	On request	Week(s)	992 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 to 20 Hour(s) depending on aircraft configuration

PRE SB	POST SB
<p>1 Silver shim P/N 105-13101.14 2 Retaining disc assy P/N 4639315002</p> 	<p>1 Silver shim P/N D622M1013201 2 Holding disc P/N B634M4026201 <b>Note:</b> Holding disc installed below the silver shim.</p> 

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on all aircraft S/Ns without improved silver shim to the rotor mast.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



## Improved silver shim to the rotor mast

Reference: BK117 C-2-63-014 (R0)

Applicable to version(s): C2, C2e

**Installation of silver shim without center hole between rotor head and rotor mast.**  
**For this purpose, also the retaining disc assy has to be replaced by an adapted holding disc.**

This modification consist in :

- remove the retaining disc assy and the silver shim
- install the new silver shim and the new holding disc

After accomplishment of this SB, the silver shim P/N 105-13101.14 must not be installed again.

SB from Airbus Helicopters Deutschland (AHD)

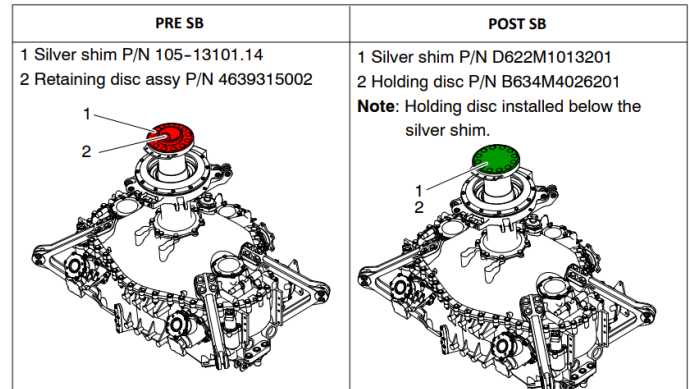
### > BENEFITS

- Prevent oil from the main rotor head ingressing into the rotor mast and possibly damaging the mast moment system.

 <b>WEIGHT</b>	 <b>MOMENT</b>	 <b>DOWN TIME</b>	 <b>LEAD TIME</b>	 <b>PRICE RANGE</b>	 <b>ONLINE CAT.</b>
Negligible	Negligible	On request	Week(s)	912 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 to 20 Hour(s) depending on aircraft configuration



### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on all aircraft S/Ns without improved silver shim to the rotor mast.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improved Tail Rotor Actuator

Reference: BK117 C-2-67-013 (R0)

Applicable to version(s): All versions

**More control comfort and lower direct maintenance costs.**

Improved tail rotor actuator.  
The previous tail rotor actuator (B673M40A1001) will not be available as a new spare part any longer and will be replaced by the improved version (B673M40A1002).

SB from Airbus Helicopters Deutschland (AHD)

This Service Bulletin must be accomplished if the tail rotor actuator P/N B673M40A1001 is to be replaced by a new one.



**> BENEFITS**

- Improved durability, in particular for the sealing system
- No life limits, "on condition" maintenance
- Reduced pedal forces need for tail rotor pitch adjustment
- Better feedback on control of the helicopter and yaw control margin

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.630 kg	+ 6776 kgmm	On request	24 Week(s)	66950 - 67069 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	10 or 12 Hour(s) depending on aircraft configuration
Avionics	0 or 2 Hour(s) depending on aircraft configuration

**> PRE-POST REQUISITE / EFFECTIVITY**

Valid for S/N 9004 up to and including S/N 9430.  
No incompatibility with other systems.  
Applicable on aircraft already equipped with :  
• Tail rotor actuator B673M40A1001  
The Kit are impacted depending if the aircraft is equipped or not with a chip detector at the tail rotor transmission

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

# Installation of new door cautions for the sliding doors

Reference: BK117D-3-52-001 (RO)

Applicable to version(s): D3

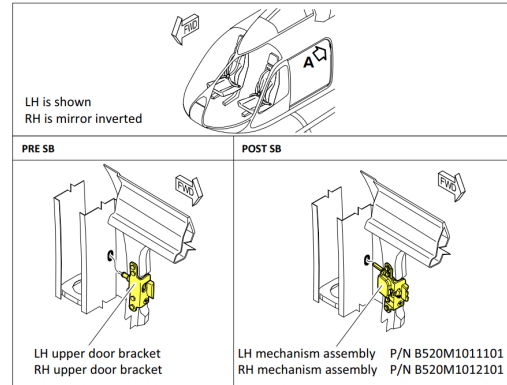
**This Service Bulletin (SB), Airbus Helicopters offers the installation of new door cautions for the sliding doors.**

This service bulletin consists to:

- Removal of the door cautions
- Modification of the cabin frame and the adjacent helicopter structure
- Installation of the mechanism assemblies
- Test
- Final Steps : Install the removed panels

Mixability : Not permitted.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- During flights, the door cautions can give incorrect signals to the crew, because of the movement and vibration of the sliding doors.
- With this SB, Airbus Helicopters offers the installation of new door cautions that will operate independently from the movements and vibrations of the sliding doors during flight.

## > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts

- MBB-BK117 D-3, D-3m, all S/N up to S/N 21077 inclusive. With S/N 21078 and on, the modification is included in the serial production.
- LH upper door bracket P/N B520M0007202, RH upper door bracket P/N B520M0008202.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,137 kg	+0,545 m.kg	On request	Week(s)	12944 EUR (e.c. 2023)	eOrdering

# Introduction of a Sand Erosion Protection on the Blade Tip

Reference: BK117 C-2-62-004 (R0)

Applicable to version(s): C2

**Improved erosion protection.** This erosion protection is installed in the blade tip area on the nose of the blade leading edge profile and consists of an fibreglass reinforced plastic (FRP) preformed part and various larger PU-erosion protective films.

This modification consist in :

- Remove main rotor blade
- Prepare blade tip
- Install PU-erosion protective films
- Install FRP preformed part
- Install main rotor blade

If worn, these parts are relatively easy to replace.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Avoid erosion during operation within an erosive environment.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 1.176 kg	+ 5209 kgmm	On request	12 Week(s)	Ref to detailed price online.	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all helicopters MBB BK117 version C-2 equipped with main rotor blade B621M1002101, B621M1002102 or B621M1002103.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Introduction of improved blade fittings

Reference: BK117 C-2-62-013 (R0)

Applicable to version(s): C2, C2e

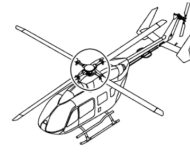
**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers improved blade fittings on the main rotor blades.**

This modification consist in remove the main rotor blades, send the main rotor blades for retrofit and install the modified main rotor blades.

Rotor blades with old blade fittings and rotor blades with new blade fittings may be installed on one helicopter.

SB from Airbus Helicopters Deutschland (AHD)

Please download in TIPI the associated SB to apply the annex.



Pre SB		Post SB	
1 Upper Blade fitting	B621M1001201 or B621M1001205	1 Upper Blade fitting	B621M1001210
Lower blade fitting	B621M1002201 or B621M1002205	Lower blade fitting	B621M1002210

## > BENEFITS

- The load definition for the blade fittings has been revised. The new load definition resulted in a reduction of the lifetime.
- In order to restore the original lifetime and to change the inspection intervals, AHD introduced new blade fittings with improved strength.



**WEIGHT**

+0,033 kg



**MOMENT**

+0,146 m.kg



**DOWN TIME**

On request



**LEAD TIME**

28 Week(s)



**PRICE RANGE**

51745 EUR  
(e.c. 2023)



**ONLINE CAT.**

eOrdering

## > INSTALLATION TIME

**QUALIFICATION**

Mechanics

**INSTALLATION DURATION**

20 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N equipped with the rotor blade assy P/N B621M1002104 (With the rotor blade assy P/N B621M1002105 and on, the blade fittings are already implemented in the serial production). The SB MBB-BK117 C-2-62-006 must be accomplished in addition to this SB.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



## Lashing Points (60 kts / 100 kts)

Reference: BK117 C-2-10-002 (R0)

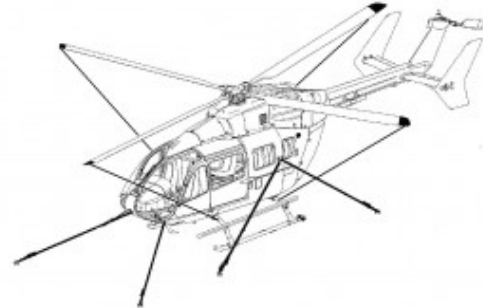
Applicable to version(s): C2

**With this Service Bulletin Airbus Helicopters Deutschland (AHD) offers the retrofit of lashing points on the forward fuselage and the center of the fuselage to secure and park the helicopter up to 100 kts wind velocity.**

This modification consist in install lashing points to the forward fuselage and to the center of the fuselage.

It is necessary to install additionally the lashing points on the cross tubes i.a.w. Service Bulletin MBB BK117 C-2-10-001.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- These items of equipment enable to park and secure the helicopter up to 60 kts or 100 kts wind velocity.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0,490 to 0,524 kg depending on aircraft configuration	+ 797 to 963 kgmm	On request	16 Week(s)	2377 - 8255 EUR (e.c. 2023)	eOrdering

### > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all BK112 version C-2.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Lead Acid Battery

Reference: SR09298RC-D

Applicable to version(s): C2, D2

### Installation of a Concorde RG-380E/44 lead acid battery.

The Concorde lead-acid battery provides a "low-maintenance" alternative to the standard ni-cad battery. This installation consists of a Concorde RG380E/44 recombinant gas lead-acid battery and, a temperature sensor bypass to ensure the aircraft charging system provides the correct charging voltage to the battery.

You need to order Part # 145A73-0001-03.

STC from Airbus Helicopters Inc. (AHI)



### > BENEFITS

- Reduced maintenance requirements
- Increased battery performance and safety

 WEIGHT	 MOMENT	 DOWN TIME	 LEAD TIME	 PRICE RANGE	 ONLINE CAT.
+41.73 kg/92 Lbs	6.43 m.kg	On request	On request	5799 / 6046 USD (e.c. 2017)	eRFQ

### > PRE-POST REQUISITE / EFFECTIVITY

This STC is only valid as a replacement of the TC 40Ah NiCad battery and not for the TC 44Ah NiCad battery.

### > CERTIFICATION ORGANIZATION(S)

- FAA USA
- TCCA Canada
- CAA Israel
- EASA Europe

# Multifunctional Step LH

Reference: BK117 D-2-32-010 (R0)

Applicable to version(s): D2

**Installation of Multifunctional Step LH (P/N D853M1012104) instead of Standard Boarding Step.**

- removal of the existing boarding step
- retrofitting of multifunctional step LH

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- The multifunctional step serve both as boarding step and as a mount for external mission equipments.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+5,451 kg	+20,345 m.kg	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft equipped with standard boarding step.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# New Blower for the Passenger Compartment Ventilation

Reference: BK117 C-2-21-004 (R0)

Applicable to version(s): C2

## Life time extension of the blower.

Improved, brushless blower for the passenger compartment ventilation.

After accomplishment of this Service Bulletins the hitherto used blower with filter can no longer be used.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- A considerably life time extension of the blower
- Low-maintenance due to elimination of the brushes
- Decreased costs for maintenance and for exchange

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 0.135 kg	- 432 kgmm	On request	10 Week(s)	8223 - 8279 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all MBB-BK117 C-2 S/N 9004 up to and including S/N 9230.  
No incompatibility with other systems.  
The aircraft S/N impact the kit to order (will be selected in the CONFIGURATION ASSISTANT).

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Systems	38 Hour(s)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# New wiper gearbox assembly and wiper arm

Reference: BK117 C-2-30-002 (R2)

Applicable to version(s): C2, C2e

**With this SB Airbus Helicopters Deutschland AHD introduce a new wiper gearbox assembly (gearbox and motor) and a new wiper arm.**

This Service Bulletin consist in remove the old wiper arm, install the new damped wiper arm ITALTERGI, remove the old wiper gearbox assembly and install the new wiper gearbox assembly ITALTERGI.

- If wiper arm P/N L304M2003101 (BOSCH), P/N L304M2003102 (BOSCH), P/N L304M2003103 (BOSCH) or P/N B304M1002101 (ITALTERGI) is already installed, this Service Bulletin consist in replacing it with the new damped wiper arm L304M1003101.
- If gearbox assy ITALTERGI P/N B304M1007101 is installed, this Service Bulletin consist in replace the wiper motor with the new wiper motor self-locking ITALTERGI.
- For helicopters with optional equipment weather radar RDR1600, replace the protection cover.
- For helicopters with Wire Strike Protection System replace the support wiper post deflector.

If the weather radar RDR1600 is installed with the transmitter/receiver RT-1601 in vertical position, the protection cover has to be exchanged together with the wiper gearbox assembly.

SB from Airbus Helicopters Deutschland (AHD)

The old wiper arms P/N L304M2003101, L304M2003102, L304M2003103 (BOSCH) or B304M1002101 (ITALTERGI) must not be used together with the new wiper gearbox assembly ITALTERGI P/N B304M1008101.



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N up to 9796 inclusive and S/N 9800.

Equipped with:

- Wiper arm P/N L304M2003101, L304M2003102, L304M2003103 (BOSCH) or B304M1002101 (ITALTERGI).
- Gearbox assembly P/N B304M2009101 (BOSCH), B304M1001101, B304M1003101 (BOSCH/ITALTERGI) or B304M1007101 (ITALTERGI).

The Kits to be ordered are impacted depending gearbox P/N and if the helicopter is equipped with optional equipment weather radar RDR1600 or not (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- The production of the current wiper motor and wiper arm has been ended.
- This modification add a new wiper gearbox assembly and a new damped wiper arm (ITALTERGI).

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.203 kg	+ 237 kgmm	On request	16 Week(s)	2647 - 8085 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	7 to 15 Hour(s) depending on aircraft configuration
Electrical systems	0,5 to 2 Hour(s) depending on aircraft configuration



# Reinforced skid protections

Reference: BK117 D-2-32-007 (R0)

Applicable to version(s): D2

**The propose of this Service Bulletin is to replace basic protection by reinforced skid protection with three longitudinal stainless-steel strips welded to the bottom of the skid protection.**

This modification consists in :

- Remove the skid protections
- Install the reinforced skid protections

SB from Airbus Helicopters Deutschland (AHD)

- The reinforced skid protection P/N L327M2814101 is interchangeable with the skid protection P/N L321M1005103.
- The reinforced skid protection P/N L327M2814101 cannot be installed together with the skid protection P/N L321M1005103.



## > BENEFITS

- These reinforced skid protections prevent damage to the skids during landing on rough terrain with stones or sharp edges and have an extended life.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+3,29 kg	+13,223 m.kg	On request	Week(s)	5345 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N without Emergency Flotation System (EFS).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Removable pins for hinged doors

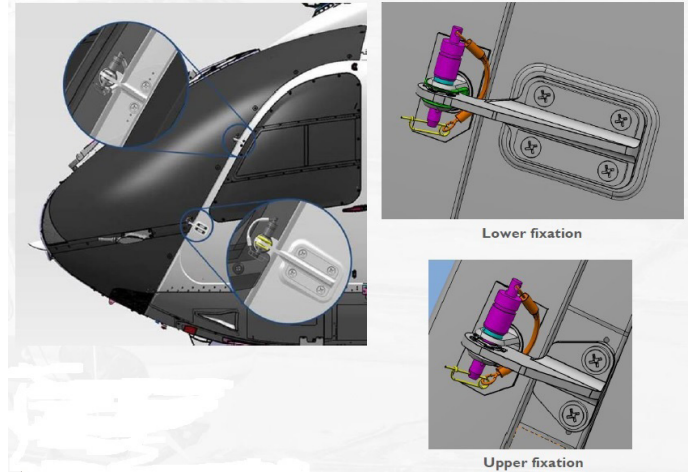
Reference: ICA-AHCA-298

Applicable to version(s): All

**The installation of removable pins for hinged doors is utilized on the left hand, right hand or both doors to provide a "tool free" means to remove and re-install the hinged doors.**

The installation of removable pins for hinged doors is utilized on the left hand, right hand or both doors to provide a "tool free" means to remove and re-install the hinged doors. Pip pins (quick release positive locking pins) replace the existing bolts, and a spacer clip fits over the existing lower door fitting to replace the existing washers that are no longer used. Safety pins slide through holes in the bottom of the pip pins providing additional security.

STC from Airbus Helicopters Canada Ltd (AHCA)



## > BENEFITS

- Easy and quick removal of doors
- Self guided washer clip design
- Quick release pip pins
- Tool free removal

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	On request	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > PRE-POST REQUISITE / EFFECTIVITY

For all H145

## > CERTIFICATION ORGANIZATION(S)

- FAA USA
- EASA Europe
- TCCA Canada

# Replacement of the standard windshields with windshields provided with erosion

Reference: BK117 C-2-56-006 (R0)

Applicable to version(s): C2, C2e

**Airbus Helicopters offers the replacement of the standard windshields by windshields with erosion protection.**

Operations, especially when conducted in desert-like environments, have shown that a high amount of sand and dust in the air results in an increase of abrasion on windshields.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- These hard coated windshields are more resistant against sand erosion.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	20 Week(s)	40489 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	48 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, all S/N.

Equipped with :

- Windshield LH B561M10X1001
- Windshield RH B561M10X1002

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of windows with Infrared protection for the cabin, sliding doors and/or cargo doors

Reference: BK117 C-2-56-007 (R0)

Applicable to version(s): C2, C2e

## Replacement of the standard or tinted sliding door windows, cabin windows and/or cargo door windows to windows with infrared (IR) protection.

This modification consist in replacing the sliding door windows, cabin windows and/or cargo door windows as necessary.

The windows with IR protection are interchangeable and mixable with light-grey tinted windows, dark-grey tinted windows and standard windows.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Reduce the heat development in the cabin by IR radiation.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,848 kg to +3,1 kg depending on aircraft configuration	+3,842 m.kg to +15,654 m.kg depending on aircraft configuration	On request	Week(s)	4292 - 29177 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	70 to 80 Hour(s) depending on aircraft configuration
Paint	10 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N without IR protection on sliding door windows, cabin windows and/or cargo door windows.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of windows with Infrared protection for the cabin, sliding doors and/or cargo doors

Reference: BK117 D-2-56-005 (R0)

Applicable to version(s): D2

## Replacement of the standard or tinted sliding door windows, cabin windows and/or cargo door windows to windows with infrared (IR) protection.

This modification consist in replacing the sliding door windows, cabin windows and/or cargo door windows as necessary.

The windows with IR protection are mixable and interchangeable with light-grey tinted windows, dark-grey tinted windows and standard windows.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Reduce the heat development in the cabin by IR radiation.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,848 kg to +3,1 kg depending on aircraft configuration	+3,842 m.kg to +15,654 m.kg depending on aircraft configuration	On request	Week(s)	4206 - 27799 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Paint	10 Hour(s)
Mechanics	70 to 80 Hour(s) depending on aircraft configuration

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N without IR protection on sliding door windows, cabin windows and/or cargo door windows.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofit from Basic Ventilation to ECS

Reference: BK117 D-2-21-008 (R1)

Applicable to version(s): D2

**This Service Bulletin offers the retrofit from Basic Ventilation to ECS. EC improves the air flow with an enhanced cockpit and cabin air distribution circuit.**

**The helicopter internal air temperature is continuously monitored by means of two internal air temperature sensors located within the cockpit and cabin compartment. Thus the ECS knows at any time what is the remaining delta between the targeted temperature and the internal air temperature and consequently adjusts its performance.**

The purpose of this modification is to remove the basic ventilation and install the ECS.

Three additional adjustable air outlets are installed on either side of the cabin frame. If the optional jettisonable cockpit doors are installed (option separately available), only two additional air outlets are installed. In the cabin, new air canals and brushless blowers are integrated.

The ECS can be controlled from the cockpit control panel located in the center console and by a passenger control panel located in the forward area of the cabin ceiling (except for ACH Edition - Mercedes-Benz Style configuration, where a passenger control panel is not installed).

Before the accomplishment of this SB, the helicopter must be updated to Helionix Step 2.

SB from Airbus Helicopters Deutschland (AHD)

With the ECS the temperature regulation is provided either by the use of heated air or by the use of fresh air (OAT). If a cooling functionality is requested, the ACS needs to be additionally installed.

## > BENEFITS

- Provide the cabin with an ambient air function increasing the temperature homogeneity.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	28 Week(s)	100638 - 101709 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION



## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable for helicopters with Helionix Step 2, without optional equipment ECS, except S/N 20008 and S/N 20118.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



## Retrofit of a center skid protection

Reference: BK117 C-2-32-006 (R0)

Applicable to version(s): C2

### Airbus Helicopters offers the retrofit of an additional skid protection.

- Remove the skids
- Install anchor nuts for the extended skid protection to the skids
- Install the center skid protection
- Install the skids

SB from Airbus Helicopters Deutschland (AHD)

The flight attitude is then calculated by the internal AHRS laser gyros.



### > BENEFITS

- The center skid protection prevents the skid tubes from being damaged by stones or sharp edges when the helicopter is landed on unsurfaced ground.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 2.627 kg	+ 10.794 m.kg	On request	20 Week(s)	40489 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION  
Mechanics

INSTALLATION DURATION  
5,5 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, all S/N,

- except landing gears equipped with snow skids
- except landing gears equipped with emergency floating system

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of a shortened RH Multi-Function Step

Reference: BK117 C-2-85-043 (R0)

Applicable to version(s): C2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a new shortened multi-function step (MFS).**

This modification consist in remove the old multi-purpose carrier/reinforced entrance step and install the new MFS.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- If a camera system (e.g. FLIR) is installed, this new step improves the vibration behavior and thus the picture quality of the camera which is installed on the MFS.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 5,587 kg	+ 20578 kgmm	On request	18 Week(s)	40137 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	6 Hour(s)
Electrical systems	0,5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N with a camera system (e.g. FLIR) installed and equipped with multi-purpose carrier P/N R853-002.12100-00 or reinforced entrance step P/N B853M1002101.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of a Wind Deflector for the sliding windows

Reference: BK117 C-2-56-005 (R0)

Applicable to version(s): C2, C2e

## Retrofit of wind deflectors for sliding windows of the pilot doors.

Drill boreholes and install wind deflector.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The fresh air supply for the cabin is improved.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.57 kg	+ 1.245 m.kg	On request	20 Week(s)	8551 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s) per side

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e, all S/N, equipped with cockpit door window panes with sliding windows but without wind deflectors.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of a Wind Deflector for the sliding windows

Reference: BK117 D-2-56-002 (R0)

Applicable to version(s): D2

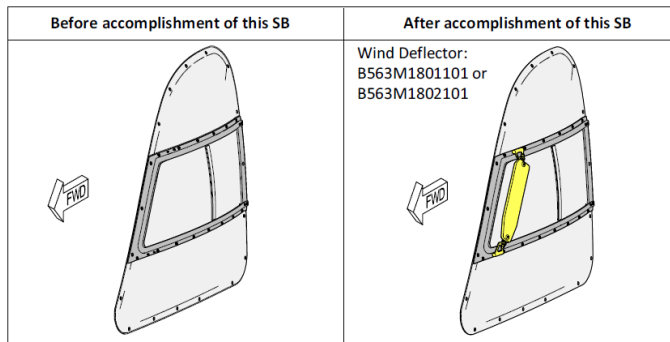
## Retrofit of wind deflectors for sliding windows of the LH and RH cockpit doors.

This modification consist in :

- drill boreholes
- install wind deflector

On both sides.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The fresh air supply for the cabin is improved.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.569 kg	+ 1.243 kg.m	On request	20 Week(s)	8551 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s) per side

### > PRE-POST REQUISITE / EFFECTIVITY

MBB BK117 D 2, D 2m, all S/N, equipped with cockpit door window panes with sliding windows but without wind deflectors.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofit of a windshield wiper dual drive

Reference: BK117 C-2-30-001 (R0)

Applicable to version(s): C2

### Modify four contacts bearing to improve reliability.

This service bulletin consist in remove wiper pivot and slave pivot from wiper gearbox and install new drive units.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Increase both the reliability and the stability of the windshield wiper system.
- The retrofit significantly improves the torque transmitted between gearbox and wiper arm.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0,090 kg	+ 110,7 kgmm	On request	4 Week(s)	2878 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	1 Hour(s)
Mechanics	12 to 15 Hour(s) depending on aircraft configuration
Airframe, Structure	9 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2 S/N 9004 up to and including S/N 9150 with optional equipment windshield wiper.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of flat step patches

Reference: BK117 D-2-32-002 (R1)

Applicable to version(s): D2

**Airbus Helicopters offers the retrofit of flat step patches to the multifunction step (MFS) and the dual multifunction step (dual MFS).**

The option comprises the installation of three rugged, lightweight aluminum alloy flat step patches, with a negligible increase in step height. The surface of the patches is painted with a black anti-slippage paint.

- Only for MFS damper fairing LH (P/N D327M3020101) and/or MFS damper fairing RH (P/N D327M3019101) :

If the center flat step patches LH and/or RH have been installed, modify the MFS damper fairing LH (P/N D327M3020101) and/or MFS damper fairing RH (P/N D327M3019101).

As an additional option one flat step patch can be installed in the aft area of the round entrance step.

SB from Airbus Helicopters Deutschland (AHD)



## > PRE-POST REQUISITE / EFFECTIVITY

Applicable on aircraft MBB-BK117 D-2, D-2m, all S/N with optional equipment MFS and/or dual MFS.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- The installation of the flat step patches is enhancing comfort, safety and stability of the step for passengers and crew when entering the helicopter as well as for maintenance personal during maintenance activities.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,422 kg	+1,192 m.kg	On request	12 Week(s)	1454 - 3394	eOrdering
+4,414 kg	+17,752			EUR (e.c.	
depending	m.kg			2023)	
on aircraft	depending				
configuration	on aircraft				
	configuration				

## > INSTALLATION TIME

### QUALIFICATION

Mechanics

### INSTALLATION DURATION

3 to 8 Hour(s) depending on aircraft configuration



# Retrofit of Lashing Points on the Cross Tubes

Reference: BK117 C-2-10-001 (R1)

Applicable to version(s): C2

**Airbus Helicopters Deutschland (AHD) recommends to tie down the four main rotor blades when the helicopter is parked outside in order to avoid damage caused by flapping main rotor blades. This Service Bulletin propose the retrofit of four lashing points on the standard landing gear.**

This modification consist in install fixed provisions and detachable parts to the forward and aft cross tube.

If Revision 0 of this SB has already accomplished, no further work is necessary.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- This item of equipment enables to park and secure the helicopter up to 30 kts wind velocity and 5 degrees roll and pitch angle.
- These values correspond to a wind intensity of 7 beauforts.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 3.145 kg	+ 12463 kgmm	On request	32 Week(s)	18705 - 19210 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all MBB BK117 C-2. The Kits to be ordered are impacted depending on weather the helicopter is equipped with standard entrance step or multi-purpose carrier (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of locking device for the sliding door

Reference: BK117 C-2-52-009 (R0)

Applicable to version(s): C2

## Airbus Helicopters offers a locking device for the sliding door.

This modification consist in :

- remove sliding doors
- retrofit door locking devices
- install sliding doors

With this locking device the sliding doors can be locked in the middle or full open position.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Especially for operations with external mounted hoist, rope down of special forces, flight with open doors or other purposes it is advantageous to lock the sliding doors in the middle or full open position.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 1.49 kg	+ 5,148 m.kg	On request	20 Week(s)	6251 - 32764 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	85 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2 without locking device of the sliding doors (middle/full open position).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of multifunction step & dual multifunction step

Reference: BK117 D-3-32-003 (R0)

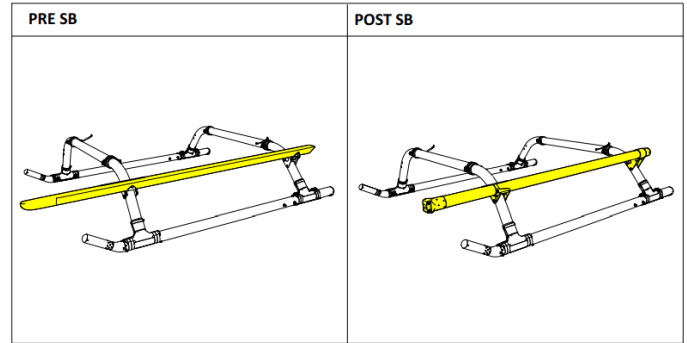
Applicable to version(s): D3

**This Service Bulletin (SB), Airbus Helicopters describes the replacement of the standard entrance step with the multifunction step (MFS) or dual multifunction step (dual MFS).**

This service bulletin consists to:

- Remove the standard entrance step
- Install the multifunction or dual multifunction step

SB from Airbus Helicopters Deutschland (AHD)



### > PRE-POST REQUISITE / EFFECTIVITY

Aircraft equipped with Boarding step LH assy P/N B321C2001101 or B321C2002101.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+7,018 kg	+26,177 m.kg	On request	Week(s)	10722 - 28851 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 to 8 Hour(s)



## Retrofit of reinforced skid protection

Reference: BK117 C-2-32-005 (R0)

Applicable to version(s): C2

### Airbus Helicopters offers the retrofit of reinforced skid protection.

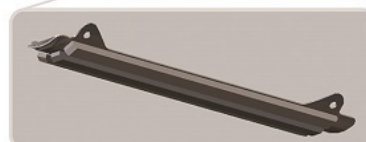
This modification consist of :

- Remove the skid protections.
- Install the reinforced skid protect.

The reinforced skid protection has three longitudinal stainless-steel strips welded to the bottom of the skid protection.

The skid protections P/N L321M1005103 must not be installed together with the reinforced skid protections P/N L327M2814101.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The reinforced skid protection prevents damage to the skids during landing on unsurfaced terrain with stones sharp edges and extends the service life of the skid protection.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 3.290 kg	+ 12.149 kg.m	On request	22 Week(s)	6194 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2 without emergency flotation system.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of tinted windows for the cockpit doors, sliding doors, cabin and cargo doors

Reference: BK117 C-2-56-004 (R1)

Applicable to version(s): C2, C2e

## Retrofit of the clear cockpit door windows, sliding door windows, cabin windows and cargo doors windows to tinted windows.

This modification consist in remove standard windows to install tinted windows.

If Revision 0 of this SB has already been accomplished, no further measures are required due to this Revision.

SB from Airbus Helicopters Deutschland (AHD)

Light-grey tinted windows, dark-grey tinted windows and standard windows are interchangeable, with the following exceptions: - The cabin FWD Window LH (bonded) P/N B562M40X1001 is not interchangeable with the cabin FWD Window LH (bonded) P/N B562M40X1003. - The cabin FWD Window RH (bonded) P/N B562M40X1002 is not interchangeable with the cabin FWD Window RH (bonded) P/N B562M40X1004. - The cabin AFT Window (bonded) LH P/N B562M40X2001 is not interchangeable with the cabin AFT Window (bonded) LH P/N B562M40X2003. - The cabin AFT Window (bonded) RH P/N B562M40X2002 is not interchangeable with the cabin AFT Window (bonded) RH P/N B562M40X2004. Cockpit Door Windows are only available in standard or light-grey tinted version. Light-grey tinted windows, dark-grey tinted windows and standard windows are mixable without any restriction. Cockpit Door Windows are only available in standard or light-grey tinted version.



### > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N. The Kits are impacted depending if tinted windows have to be light-grey or dark-grey and the type of windows (push out or bonded) (will be selected in the CONFIGURATION ASSISTANT).

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

### > BENEFITS

- Tinted windows offer a better view in direct sunlight.
- Furthermore, tinted windows are more glare-free than clear windows and offer more privacy when on ground.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible to + 0.122 kg depending on aircraft configuration.	Negligible to + 2818 kgmm depending on aircraft configuration.	On request	61 Week(s)	6809 - 97023 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Paint	1,5 Hour(s)
Mechanics	3 or 5 Hour(s) depending on aircraft configuration

# Sliding Door Function

Reference: BK117 C-2-52-003 (R1)

Applicable to version(s): C2

**Airbus Helicopter is offering modified parts for the sliding doors.**

This modification consist in :

- replace lower guide with modified lower guide
- replace lower rail with modified lower rail
- modify sliding door backstop in centre rail or, if sliding door backstop is not installed, install sliding door backstop in centre rail
- install absorber seal on sliding door
- remove upper rail, modify and install
- replace key collar aft with modified key collar aft

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- In order to improve ease of maintenance this modification includes alteration of the locking device in the upper rail, installation of a backstop in the centre rail, installation of an absorber seal on sliding door, a modified key collar aft, a modified lower guide and installation of an improved lower rail.
- By installation of the absorber seal, the vibration level of the sliding door can be reduced to a more comfortable level.

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft S/N 9004 up to and including S/N 9230.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
+0,635 kg	+3,283 m.kg	On request	20 Week(s)	Ref to detailed price online.	eOrdering

# Starter/Generator – Introduction of Improved Brushess

Reference: BK117 C-2-24-005 (R1)

Applicable to version(s): C2

## Airbus Helicopters offers the retrofit Brushes.

This SB provides instruction for converting 23081-043, MOD B, DC Starter-Generators to model 23081-072. The brushes are replaced with brush P/N 23081-1831, air inlet P/N 23081-1092 and bearing and brush support assembly P/N 23081-303.

The commutator must be refinished before seating new brushes. A new identification plate is attached that will re-identify the DC Starter-Generator Model 23081-043 to be a Model 23081-072.

P/N 23081-043 identifies the starter/generator without attachment flange. P/N 23081-042 identifies the starter/generator with attachment flange (QAD kit). Normally, when the starter/generator is removed, the attachment flange remains on the helicopter.

SB from Airbus Helicopters Deutschland (AHD)

The components have to be ordered directly at Goodrich Corporation. Please download the SB (use the link above) to find adequate contact to proceed.

### > BENEFITS

- With accomplishment of this Service Bulletin, better brushes are installed to lengthen the life of the brushes and the commutator.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request



### > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2 equipped with Starter/Generator 23081-043.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



## Sun Shades

Reference: BK117 C-2-25T-007 (R1)

Applicable to version(s): C2

**Provides protection from strong sun rays.**

- This service bulletin consist in :
- Remove the front roof panelling
  - Install the fixed part
  - Install the sun shades
  - Install the front roof panelling

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Protection from sun rays by installation of the sun shades above the pilot/copilot seats
- Improvement of flight safety through glare protection

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 2.1 kg	+ 5106 kgmm	On request	8 Week(s)	3478 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	5 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft not equipped with sun shades.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Sun shades with infrared protection

Reference: BK117 D-2-25-010 (R0)

Applicable to version(s): D2

**Installation of sun shades with infrared (IR) protection, or replacement of sun shades by sun shades with IR protection.**

For aircraft without sun shades :

- install the sun shades with IR protection fixed provisions
- assemble and install the sun shades with IR protection

For aircraft with sun shades :

- remove and disassemble the sun shades
- assemble and install the sun shades with IR protection

SB from Airbus Helicopters Deutschland (AHD)

- The sun shade with IR protection LH P/N B251M40X2001 is interchangeable with the sun shade LH P/N B251M40X1001 or P/N B251M40X1003.
- The sun shade with IR protection RH P/N B251M40X2002 is interchangeable with the sun shade RH P/N B251M40X1002 or P/N B251M40X1004.
- The sun shade with IR protection LH P/N B251M40X2001 and the sun shade RH P/N B251M40X1002 or P/N B251M40X1004 are mixable.
- The sun shade with IR protection RH P/N B251M40X2002 and the sun shade LH P/N B251M40X1001 or P/N B251M40X1003 are mixable.

**> BENEFITS**

- Reduce the IR radiation to the crew.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	Week(s)	3252 - 4344 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 to 8 Hour(s) depending on aircraft configuration

PRE SB		POST SB	
1 Sun shade LH P/N	B251M40X1001	1 Sun shade LH P/N	B251M40X2001
	B251M40X1003	2 Sun shade RH P/N	B251M40X2002
2 Sun shade RH P/N	B251M40X1002	<b>Note:</b> Sun shades with IR protection.	
	B251M40X1004		
<b>Note:</b> Only if sun shades are installed.			

**Note:** LH is shown, RH is similar.

**> PRE-POST REQUISITE / EFFECTIVITY**

This service bulletin is applicable on aircrafts all S/N :

- without sun shades
- or
- with optional equipment sun shades (without IR protection)

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

## Sun shades with infrared protection

Reference: BK117 C-2-25-018 (R0)

Applicable to version(s): C2, C2e

### Installation of sun shades with infrared (IR) protection, or the replacement of sun shades by sun shades with IR protection.

For aircraft without sun shades :

- install the sun shades with IR protection fixed provisions
- assemble and install the sun shades with IR protection

For aircraft with sun shades :

- remove and disassemble the sun shades
- assemble and install the sun shades with IR protection

SB from Airbus Helicopters Deutschland (AHD)

- The sun shade with IR protection LH P/N B251M40X2001 is interchangeable with the sun shade LH P/N B251M40X1001 or P/N B251M40X1003.
- The sun shade with IR protection RH P/N B251M40X2002 is interchangeable with the sun shade RH P/N B251M40X1002 or P/N B251M40X1004.
- The sun shade with IR protection LH P/N B251M40X2001 and the sun shade RH P/N B251M40X1002 or P/N B251M40X1004 are mixable.
- The sun shade with IR protection RH P/N B251M40X2002 and the sun shade LH P/N B251M40X1001 or P/N B251M40X1003 are mixable.

### > BENEFITS

- Reduce the IR radiation to the crew.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	Week(s)	3411 - 4313 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 to 8 Hour(s) depending on aircraft configuration

PRE SB		POST SB	
1 Sun shade LH P/N	B251M40X1001	1 Sun shade LH P/N	B251M40X2001
	B251M40X1003	2 Sun shade RH P/N	B251M40X2002
2 Sun shade RH P/N	B251M40X1002		
	B251M40X1004		
<b>Note:</b> Only if sun shades are installed.			
<b>Note:</b> Sun shades with IR protection.			
<b>Note:</b> LH is shown, RH is similar.			

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircrafts all S/N :

- without sun shades
- or
- with optional equipment sun shades (without IR protection)

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Supplement cabin heater

Reference: ICA-AHCA-310

Applicable to version(s): All

**The supplement cabin heater is located in the aft left hand side window recess.**

The supplement cabin heater is located in the aft left hand side window recess. The system is powered ON with the cabin heater (three position toggle switch) located on the overhead panel. When selecting LO on the toggle switch it utilizes the first 500W heater element and the fan. Selecting HI on the toggle switch utilizes the second 500W heater element.

Note: The cabin heater and the air condition must not be operated simultaneously.

STC from Airbus Helicopters Canada Ltd (AHCA)



### > BENEFITS

- Extra warmth in the cabin when operating in extreme cold conditions.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Complete Installation +5,28 kg	On request	On request	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

### > PRE-POST REQUISITE / EFFECTIVITY

For all H145

### > CERTIFICATION ORGANIZATION(S)

TCCA Canada

# Tail Rotor Blade Erosion Protection

Reference: BK117 C-2-64-004 (R0)

Applicable to version(s): C2

## Airbus Helicopters Deutschland proposes the sprayable erosion protection for the tail rotor blades.

The helicopter's tail rotor blades are adversely affected by erosion because of the high rotational speed in hover and the sum of rotational and forward speed during the flight. Especially the blade tip and the leading edge are not protected to that extent in sandy conditions.

Therefore, the sprayable rotor blade erosion protection was introduced in order to increase the operating time and availability.

Tail rotor blades can be returned to Airbus Helicopters Deutschland respectively Airbus Helicopters Inc for retrofit or repair according to the regular customer contact. The tail rotor blades with modification P/N B641M1069051 (sprayable erosion protection) are not mixable with tail rotor blades without this modification.

SB from Airbus Helicopters Deutschland (AHD)

Please download in TIPI the associated SB to apply the annex.

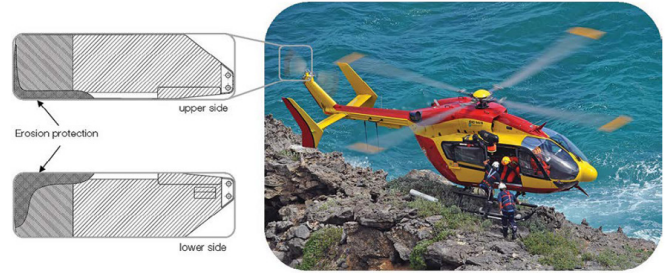
### > BENEFITS

- This sprayable tail rotor blade erosion protection is good suited for sandy conditions and with a high reliability.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
Negligible	Negligible	On request	10 Week(s)	1882 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Paint	On request



### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft equipped with :

- Tail Rotor Blade P/N B641M1001101

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# USB Charging Outlets

Reference: 2019S10-01

Applicable to version(s): D2

**The USB Charging Outlet is a certified accessory that converts 10 to 32 volts of DC electrical input from the aircraft to standard 5V power for any electronic product that charges using a USB connector.**

The USB Charging Outlet is a certified accessory that converts 10 to 32 volts of DC electrical input from the aircraft to standard 5V power for any electronic product that charges using a USB connector. It provide two Universal Serial BusA (USB-A) ports. The unit provides confidence and convenience to be mounted in either, the cabin or cockpit.

STC from Helicópteros do Brasil SA (HELIBRAS)

## > BENEFITS

- Increased versatility in the use of on board equipment.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	6 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	30 Hour(s)
Avionics	20 Hour(s)



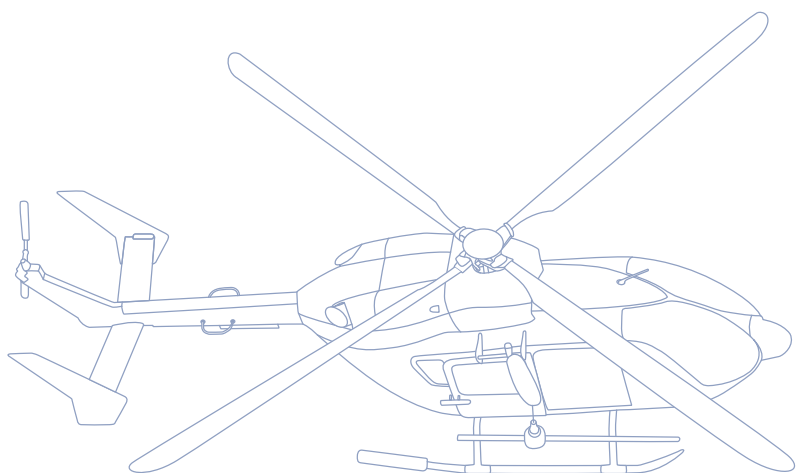
## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with Helicópteros do Brasil SA (HELIBRAS).

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil





# COCKPIT & AVIONICS OPTIONS



# Activation of SAR modes patterns on dual GTN750

Reference: BK117D-2-34-018 (RO)

Applicable to version(s): D2

## This Service Bulletin (SB), Airbus Helicopters offers the activation of Search and Rescue (SAR) Patterns on Dual GTN750.

This service bulletin consists to:

- Insert the GTN7XX SAR ENABLEMENT CARD in the GTN750 FMS1 SD slot
- Perform the activation of the SAR Patterns on the configuration page
- Remove the GTN7XX SAR ENABLEMENT CARD from the GTN750 FMS1 SD slot
- Perform a test.

SB from Airbus Helicopters Deutschland (AHD)



Examples of different SAR Patterns

### > BENEFITS

- For operators conducting SAR missions, the GTN 750 can generate flight plans with 4 different search patterns: Parallel Track Pattern, Sector Search Pattern, Expanding Square Pattern or Orbit Pattern. These search patterns may be inserted directly into the flight plan or via direct-to-navigation. SAR patterns can be coupled to autopilot. Airbus Helicopters offers the activation of the coupling between GTN750 Search and Rescue (SAR) Patterns and AFCS.

### > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts :

- MBB-BK117 D-2, all S/N with HLX SW step 3.
- Dual Garmin GTN 750 with SW v6.21 or v6.62.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On Request	Ref to detailed price online.	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	1 Hour(s) (pilot also)

# Audio Input

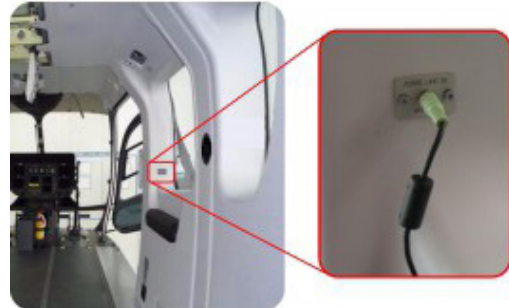
Reference: BK117 C-2-23T-005 (R1)

Applicable to version(s): C2

### Retrofit of an AUDIO input via a 3.5 mm jack socket.

An audio source (e.g. a MP3 player) can be connected to this input which can be exclusively heard in the passenger headsets.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- More convenience for the passengers through additional entertainment.
- Operating noises of the helicopter are less audible when using the audio source.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.205 kg	+ 1167 kgmm	On request	30 Week(s)	9167 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	8 Hour(s)
Airframe, Structure	6 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N except helicopter of Gendarmerie National. No incompatibility with other systems.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Auto Pilot Mode Selector - Retrofit of LED for annunciators

Reference: BK117 C-2-22-010 (R0)

Applicable to version(s): C2

**Modification of annunciators lighting: lamp technology becomes LED technology.**

Application of LED technology already qualified on front face assembly.

The retrofit of LED is realized by the Sagem company.

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



## > BENEFITS

- LEDs have better performance.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
Negligible	Negligible	On request	On request	On request	eRFQ

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all MBB BK117 version C-2.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Cassidian TPM-700 UHF Transceiver Installation

Reference: 2019S03-09

Applicable to version(s): C2

**The Cassidian UHF TETRA Transceiver TPM-700 is a UHF transceiver designed to provide communications compatible within a TETRA communication network. It is designed to be controlled by the TPM700 control head.**

The Cassidian UHF TETRA Transceiver TPM-700 is a UHF transceiver designed to provide communications compatible within a TETRA communication network. It is designed to be controlled by the TPM700 control head. The transceiver supports the transmission of voice and data and can operate in both TMO (Trunked Mode of Operation) and DMO (Direct Mode of Operation), according the system is operating in a network infrastructure or not, respectively.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > BENEFITS

- To provide on board tactical communication.

KG	Moment	Down Time	Lead Time	Price Range	Online Cat.
4,135 kg	X.M: 11,846 Kg.m Y.M: 0,192 Kg.m	4 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Cabin	18 Hour(s)
Aircraft Maintenance Engineer	18 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil



# Common iPad Folding Mount (LHS and-or RHS)

Reference: AHUK-145-0006

Applicable to version(s): C2, D2

**The iPad Folding Mount is installed outboard of the instrument panel glare shield. The mount consists of a bracket assembly and spring loaded cradle.**

The spring loaded cradle ensures secure stowage and retention of the iPad. Removable cups allows to accommodate different iPad sizes. The spring loaded mechanism means fitment and removal of the iPad is simple, quick and there is no need for tooling or locking keys.

The bracket assembly enables the user to "fold-out" the iPad and then retains it in position for viewing, access and touchscreen control. With an applied force the bracket will "fold-in" and stows adjacent to the instrument panel glare shield enabling pilot unrestricted view out of the cockpit.

The iPad Mount is also available with an integrated cooling system to avoid the Portable Electronic Device over-heating.

STC from Airbus Helicopters UK Ltd (AHUK)

Maximum iPad size (RHS): iPad Mini (BK117 C-2 only) to iPad Pro 11" (BK117 D-2 only).

Maximum iPad size (LHS): iPad Mini to iPad Pro 11" (BK117 D-2 only).  
 EASA Minor change



## > PRE-POST REQUISITE / EFFECTIVITY

None

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Folds for unrestricted cockpit view.
- Cost effective.
- Support of multiple iPad sizes.



**WEIGHT**

On request



**MOMENT**

On request



**DOWN TIME**

2 Day(s)



**LEAD TIME**

On request



**PRICE RANGE**

On request



**ONLINE CAT.**

eRFQ

## > INSTALLATION TIME

**QUALIFICATION**

Airframe

**INSTALLATION DURATION**

On Request

# Conversion to 8.33 kHz channel spacing for VHF aircraft radio

Reference: BK117 C-2-23-008 (R1)

Applicable to version(s): C2

**This Service Bulletin describes how to convert VHF aircraft radios devices to 8.33 kHz channel spacing.**

Check the VHF aircraft radio configuration.

After receiving the order and Reply Form Sheet, Airbus Helicopter will create a new CMA Configuration File. The new file is sent to the customer in the form of a CD (Compact Disc).

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- The publication of Implementing Regulation 1079/2012 by the European Commission disclosed the requirements relating to voice channel spacing for the European airspace.
- This regulation describes a Europe-wide procedure on how to introduce 8.33 kHz channel spacing for VHF aircraft radios. With this Service Bulletin, Airbus Helicopters offers potential solutions for the different configurations.

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117C-2, all S/N.

If the corresponding VHF aircraft radio system has been installed at Airbus Helicopters and if those aircraft have been operated in the European airspace only.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
Negligible	Negligible	On request	20 Week(s)	24580 EUR (e.c. 2023)	eOrdering

# CPDS (Central Panel Display System) – Upgrade to software version V2006

Reference: BK117 C-2-31-016 (R0)

Applicable to version(s): C2

## Airbus Helicopters offers upgrading of the CPDS software to the V2006 version.

The service bulletin consists in:

- replace VEMD (Vehicle and Engine Multifunction Display)
- replace CAD (Caution and Advisory Display)
- accomplish functional test

SB from Airbus Helicopters Deutschland (AHD)

The retrofit kit SB-117C2-31-016-2C is to be ordered directly at Thales Avionics: Please download the associated Order Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below. It will be sent directly to Thales.



### > BENEFITS

- Cancellation of failures in maintenance mode failure recording
- Additionally to the linear mast moment scale a circular indicator which shows the direction of the mast moment vector is introduced (if Vector-Mastmomentsystem is installed)
- Logic to suppress the caution GPS integrity (satellite loss) under certain conditions is introduced
- Modification of nTO discrepancy (two outside air temp.)
- FLI nN1/TRQ curve is improved – FLI AEO TOP yellow range is widened
- The display of the 5 min. AEO TOP Timer is changed.
- The displayed remaining countdown time increased to 1 min 30 sec.
- Modification of VAR NR caution during system power up
- GEN PARAM OVERLIMIT suppression during engine start
- Maintenance mode failure scrolling improvement
- The indication of the external load of cargo hook is improved
- For FCDS equipped helicopters – an engine power margin indication for the current atmospheric conditions (outside air temperature and altitude) is indicated on VEMD to support pilot's decision for planned operation

### > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117C-2, S/N 9004 up to and including S/N 9150, excluding S/N 9113, 9124, 9127 and S/N 9140.

Components affected :  
VEMD CPDS Version :  
• V2001 NVG B19030NA02  
• V2002 NVG B19030NA03  
• V2002 NVG B19030NB03  
• V2003 NVG B19030NA04  
• or V2003 NVG B19030NB04

and CAD CPDS Version :  
• V2001 NVG C19243EA02  
• V2002 NVG C19243EA03  
• V2002 NVG C19243EB03  
• V2003 NVG C19243EA04  
• or V2003 NVG C19243EB04

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	Month(s)	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
	8 Hour(s)

## Dual USB Charging Port (RHS)

Reference: AHUK-145-0009

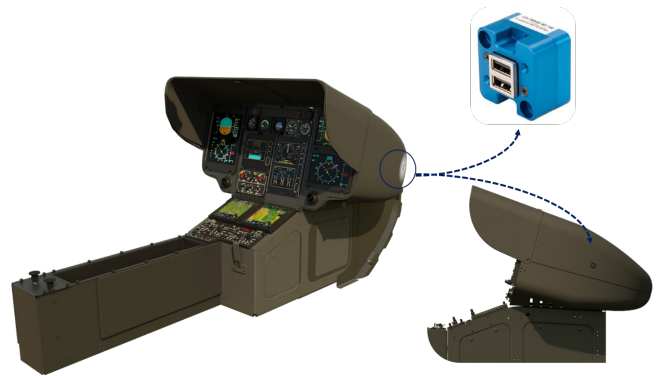
Applicable to version(s): C2

**The Dual USB Charging Port converts the aircraft electrical input to a standard 5V power for any electronic product that charges using a USB connector.**

The two Universal Serial Bus-A (USB-A) ports can be mounted in a variety of locations throughout the aircraft cockpit and cabin. As a high power dedicated charging port the system can provide up to 2.1A of power to charge any USB device including the higher demand products. The Dual USB Charging Port can provide 2.1A of power to both ports simultaneously.

The unit features short circuit protection, over-current protection, low voltage shut-down and temperature monitoring making it ideal for any application.

AHUK install a master power switch to enable the pilot to have final control over the aircraft electrical consumption.



### > PRE-POST REQUISITE / EFFECTIVITY

- None

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change

### > BENEFITS

- Charge any USB electrical device.
- Lightweight, Small and versatile.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Complete Installation +0.11 kg	Complete Installation +0.2 m.kg	5 Day(s)	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Approved Airbus Helicopters Technician	On Request

# Flight hour meter

Reference: 2013S03-13

Applicable to version(s): C2

## The Hour Meter Flight monitors the flight duration

The Hour Meter Flight installation function is to measure and record the flight time since the takeoff of the aircraft.

STC from Helicópteros do Brasil SA (HELIBRAS)

### > BENEFITS

- To control flight time.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	1 Day(s)	On request	On request	eRFQ

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	2,5 Hour(s)
Avionics	4,5 Hour(s)



Hour meter flight installation

### > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

### > CERTIFICATION ORGANIZATION(S)

ANAC Brasil



Horímetro Honeywell modelos 85000/85094



# IFR Single or Dual Pilot WAAS GPS Upgrade

Reference: SR09495RC-D

Applicable to version(s): C2

**The Garmin GNS 430W GPS/WAAS receiver installation allows LPV and L/VNAV coupled approach capability in the BK117C-2 helicopter.**

The system installation includes the following:

- Dual Garmin GNS 430W GPS/WAAS receivers with modified software enabling the GLS mode (GLS = GPS Landing System), which is an ILS-Look-Alike signal
- A NMS1/NMS2 switch to select the GPS NAV unit to be displayed on ND #1 and #2 for navigation
- Approach mode annunciation repeater located below the VEMD
- Thales SMD45 displays modified to indicate the GLS mode, the available LOS, the distance and label of next waypoint, and the autopilot modes

The system is capable of the following types of operation RNP operations:

- RNP 2.0 – This is equivalent to GPS enroute operations
- RNP 1.0 – This is equivalent to GPS terminal operations
- RNP APCH – This is equivalent to RNP 0.3 for GPS-based approaches
- Advanced RNP (RNAV Holding, Parallel Offset)

The system is compatible with RNP APCH, including the following types of GPS-based approaches:

- LPV (Localizer Performance with Vertical Guidance)
- LP (Localizer Performance without Vertical Guidance)
- L/VNAV or LNAV/VNAV (Lateral Navigation/Vertical Navigation)
- LNAV+V approach: This approach consists of an LNAV approach with advisory vertical guidance (i.e. the vertical guidance provided in this case is "not approved")
- LP+V approach: This approach consists of an LP approach with advisory vertical guidance (i.e. the vertical guidance provided in this case is "not approved")

Use kit #145A73-0054-02.

Only applicable for aircraft with SMD45, not SMD68

STC from Airbus Helicopters Inc. (AHI)

The system is not eligible for RNP-AR, and is not capable of the following Advanced RNP Functions:

RF-Legs (Radius to Fix), Scalable RNP, FRT (Fixed Radius Transitions), TOAC (Time of Arrival Control), RNP less than 0.3 nm for Approach operations, RNP less than 1.0 nm for Terminal operations.



**CERTIFICATION ORGANIZATION(S)**

- FAA USA
- EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+3.8 kg	+6.5 m.kg	On request	On request	On request	eRFQ

**INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
	On Request



# Installation of Flight Stream 510 and software update of Garmin GTN 750 750 GTN

Reference: BK117 D-2-34-010 (R0)

Applicable to version(s): D2

**Airbus Helicopters offers the software update for Garmin GTN 750 from version 6.00 to version 6.21 and the installation of Flight Stream 510**

This modification consist in :

- install the software on the GTN 750
- change the configuration of the GTN 750
- install Flight Stream 510 on the GTN 750

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Software version 6.21 for the GTN 750 will support the display of information for facilities using 8.33 kHz COM frequencies.
- Flight Stream 510 allows a wireless transfer of flight plans to the GTN 750.
- This also requires software version 6.21 on the GTN 750.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	24 Week(s)	5302 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	4 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, all S/N with Garmin GTN 750 having software version 6.00 installed and GTX 33 transponder with software version 7.04. HELIONIX Step 2 or 3 has to be implemented on the helicopter or SB MBB-BK117 D-2-42-001/x (Retrofit to HELIONIX Step 2R) has to be accomplished prior to the accomplishment of this SB.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Map cases on the glare shield

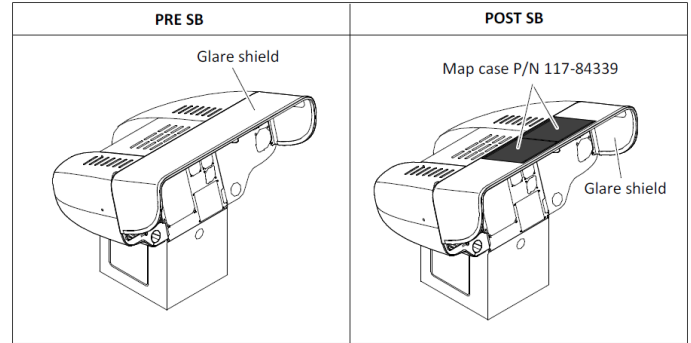
Reference: BK117 C-2-25-019 (R0)

Applicable to version(s): C2

### Installation of map cases on the glare shield.

Installation solution of map cases on the glare shield.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Map cases on the glare shield.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.568 kg	+ 1000 kgmm	On request	Week(s)	1440 EUR (e.c. 2023)	eRFQ

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft without optional equipment map cases installed on the glare shield.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

## New water immersion sensor

Reference: BK117 C-2-31-069 (R0)

Applicable to version(s): C2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the replacement of the water immersion probe and the immersion probe electronic-box by a new Water Immersion Sensor (WIS).**

This Service Bulletin consist in replace the water immersion probe and the immersion probe electronic-box with the WIS, modify the electrical installation and test the system.

The new design was introduced in the serial production

SB from Airbus Helicopters Deutschland (AHD)

The water immersion probe P/N 64762-001-1 and the immersion probe electronic-box P/N 66223-011-2 must not be used anymore.

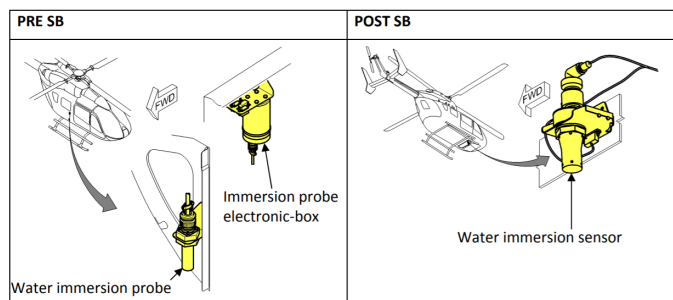
### > BENEFITS

- To get a new Water immersion sensor for aircraft

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 0.138 kg	- 998 kgmm	On request	22 Week(s)	6563 - 6567 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	6 Hour(s)
Electrical systems	10 Hour(s)



### > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N with optional equipment CVFDR, equipped with water immersion probe P/N 64762-001-1 and immersion probe electronic-box P/N 66223-011-2.

The Kit are impacted depending if the helicopter is equipped with G-switch in the right side wall or in the underfloor avionics compartment (will be selected in the CONFIGURATION ASSISTANT).

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Overhead Panel Attachment

Reference: BK117 C-2-24-009 (R2)

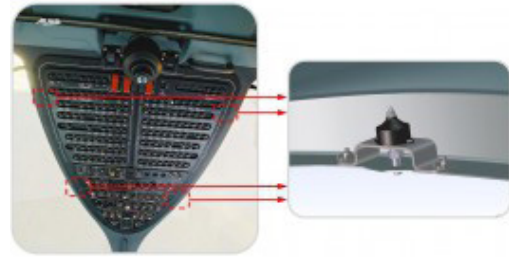
Applicable to version(s): C2

## Improved attachment of the overhead panel.

In order to prevent wear of the attachment screws and attachment boreholes caused by the weight and vibrations of the overhead panel, AHD offers with this Service Bulletin (SB) the retrofit of an improved attachment.

If Revision 1 of this SB has already been accomplished, the ASB BK117 C-2-24A-015 must be accomplished also.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Significant reduction of overhead panel vibration
- Significant reduction of wear of the attachment screws and boreholes of the overhead panel

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.144 kg	+ 367 kgmm	On request	Week(s)	4365 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for BK117 C-2 S/N 9001 up to and including S/N 9500.  
 No incompatibility with other systems.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# POLYCON New Generation (PNG) system installation

Reference: 2019S01-13

Applicable to version(s): C2

**The Polycon New Generation (PNG) system is a wireless intercom system extension that provides both full duplex and secure communication between the helicopter crew and external crew members.**

The Polycon New Generation (PNG) system is a wireless intercom system extension that provides both full duplex and secure communication between the helicopter crew and external crew members.

The PNG system allows external crew members to be connected to the aircraft intercom system, which reduces the need to relay information between aircrew and suspended crew members.

The external crew members situational awareness is improved through monitoring the onboard communication, and allows for the crew members "to remain part of the crew" vital in complex rescue operations.

The external crew members may also remotely access other radio resources such as Tetra or tactical radios on a separate PTT.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil

## > BENEFITS

- To provide wireless communication between the helicopter crew and external crew members.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
1,672 Kg	X.M: 9,400 Kg.m Y.M: 0,021 Kg.m	4 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Cabin	13 Hour(s)
Aircraft Maintenance Engineer	12 Hour(s)

# Radio transceiver system (UHF TETRA) COBHAM

Reference: 2015S09-16

Applicable to version(s): C2

The 'RADIO TRANSCEIVER SYSTEM (UHF TETRA) COBHAM Installation aims to meet the demand of a tactical communications system.

The Radio transceiver system UHF TETRA Cobham 7-450-14 installation, with CH150-14 control unit, aims to meet tactical communication requirements for public safety missions (police, fire, etc.). The system enables voice and data communication and operates in either "trunking" (TMO) and Direct (DMO) according to its operating network. It includes a GPS receiver for tracking the aircraft by a ground station.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > BENEFITS

- To provide on board tactical communication.

 WEIGHT	 MOMENT	 DOWN TIME	 LEAD TIME	 PRICE RANGE	 ONLINE CAT.
13.06 kg	47,56 (N)	5 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	10 Hour(s)
Avionics	30 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil



# Replacement of the USB charging ports

Reference: BK117 D-2-31-012 (R0)

Applicable to version(s): D2

## Replacement of the USB charging ports on the cockpit tray and on the long center console.

This modification consist in :

- removal of the old USB receptacles
- retrofit of the cockpit tray and long center console
- retrofit of the electrical parts
- installation of the new USB charging ports
- functional test

SB from Airbus Helicopters Deutschland (AHD)

MS-USB receptacle P/N LS03-05050 must not be used anymore after accomplishment of this SB.



### > BENEFITS

- New charging ports with integrated converter on the cockpit tray and on the long center console.
- The integrated converter ensures the needed 5 VDC at the receptacle to connect different devices.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
-0,267 kg	-0,427 m.kg	On request	Week(s)	3788 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	8 Hour(s)
Electrical systems	25 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N up to S/N 20250 inclusive (The improved USB charging ports are included in serial production from S/N 20251), equipped with :

- MS-USB receptacle P/N LS03-05050
  - ADF and USB center console plate P/N D311M3840101
- or
- USB center console plate P/N D311M3841101
- or
- Passenger adress plate P/N D311M3854101

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit from single to dual pilot system

Reference: BK117-40-116 (R0)

Applicable to version(s): B1, B2

**With this Service Bulletin Airbus Helicopters Deutschland offers the retrofit from single to dual pilot system.**

This upgrade is the dual command integration to enable the helicopter to be controlled by a left side co-pilot.

SB from Airbus Helicopters Deutschland (AHD)

Please contact Airbus Helicopters to place order.



## > BENEFITS

- Safety increased
- Workload reduction for the pilot
- Allow Pilot training school practice



**WEIGHT**

On request



**MOMENT**

On request



**DOWN TIME**

On request



**LEAD TIME**

On request



**PRICE RANGE**

On request



**ONLINE CAT.**

eRFQ

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of AHRS Free Steering Mode

Reference: BK117 C-2-34-003 (R1)

Applicable to version(s): C2

## Airbus Helicopters offers the retrofit of the Free Steering Mode (FSM).

- Install operating unit
- Install wire harnesses
- Update configuration file CPDS and FCDS
- Perform functional test

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Allows the magnetic sensors to be manually switched off.
- The flight attitude is then calculated by the internal AHRS laser gyros.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.611 kg	+ 1.786 m.kg	On request	20 Week(s)	22402 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	10 Hour(s)
Electrical systems	40 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

- Helicopters affected :
- MBB-BK117 C-2 with optional equipment AHRS.
- Components affected :
- AHRS B342M4002051 (S/N 9004 up to and including S/N 9080).
  - AHRS B342M40020xx\* (S/N 9081 upwards).
- \* xx = 52 and higher

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of collective protection pilot and copilot

Reference: BK117 D-2-67-001 (R0)

Applicable to version(s): D2

## Retrofit of a collective protection on pilot and/or copilot side.

This modification consist in:

- Prepare installation on center console and floor panel. Install collective protection on pilot side.

And/or

- Remove collective lever on copilot side. Remove old bellows. Install collective protection on copilot side. Install collective lever on copilot side with new bellows.

According to the Flight Manual (FLM), flights with the following configurations are only allowed with installed collective protection:

- First PAX seat or seat row installed in flight direction.
- No seat or seat row and no other internal equipment or furnishing installed directly behind the collective lever.

If TRAKKA or a center console XXL are installed, the collective protection on the pilot side is not necessary

SB from Airbus Helicopters Deutschland (AHD)

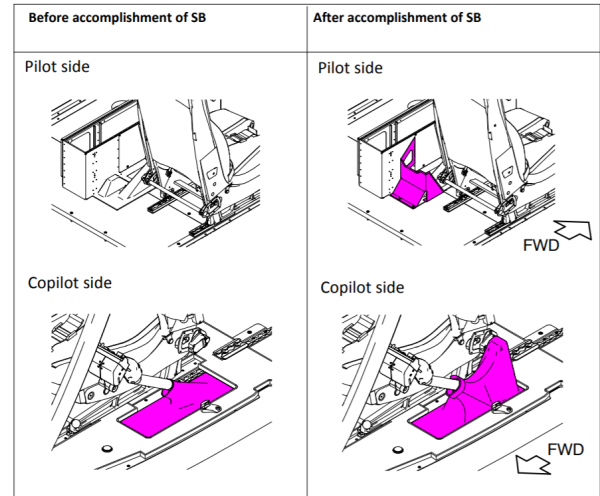
## > BENEFITS

- Improve the collective lever.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.204 to + 0.450 kg depending on aircraft configuration.	+ 532 to + 1198 kgmm depending on aircraft configuration.	On request	16 Week(s)	420 - 1982 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	5 to 11 Hour(s) depending on aircraft configuration



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N. The kit are impacted according to the installation on pilot side and/or copilot side (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of collective protection pilot and copilot

Reference: BK117 C-2-67-023 (R0)

Applicable to version(s): C2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a collective protection on pilot and/or copilot side.**

This Service Bulletin consist in prepare installation on floor panel and install collective protection on pilot side and/or install collective protection on copilot side.

If a center console XXL is installed, the collective protection on the pilot side is not necessary.

SB from Airbus Helicopters Deutschland (AHD)

## > BENEFITS

- According to the Flight Manual (FLM), flights with the following configurations are only allowed with installed collective protection:
- First PAX seat or seat row installed in flight direction.
- No seat or seat row and no other internal equipment or furnishing installed directly behind the collective lever.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.191 to + 0.426 kg depending on aircraft configuration.	+ 517 to + 1116 kgmm depending on aircraft configuration.	On request	12 Week(s)	2000 - 4229 EUR (e.c. 2023)	eOrdering

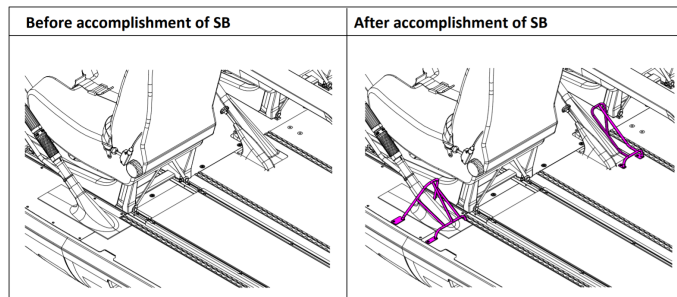
## > INSTALLATION TIME

### QUALIFICATION

Mechanics

### INSTALLATION DURATION

3 or 6 Hour(s) depending on aircraft configuration



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N. The Kit are impacted depending if pilot and/or copilot collective protection have to be installed (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Tactical mission system

Reference: 2015S09-15

Applicable to version(s): C2

**The Tactical Mission System integrates different subsystems, including functions of: moving map (DMAP), augmented reality, CCD / TV imaging and infrared (IR), and recording video and audio.**

The installation It has a removable tactical console installed in the passenger cabin, supporting two 17 inches HD monitors, keyboard with joystick to control the maps on the screens, rack equipment for TETRA UHF Cobham and Audio Becker ACU6100 Control units installation. The system also features a 6.5-inch HD monitor on the right side of the instrument panel for the pilot's visualisation.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > BENEFITS

- To provide complete monitoring to public safety missions.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
68.27 kg	276,25 (N)	10 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	116 Hour(s)
Airframe, Electrical	80 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil



# Update from Helionix SW Step 2 to SW Step 3

Reference: BK117 D-2-42-003 (R1)

Applicable to version(s): D2

**Airbus Helicopters offers the update of the HELIONIX (HLX) software installation (Maintenance Release 1 - MR1), SW Patch Step 3.0.2.**

This modification consist of :

- update the MFD software
- update the AMC software
- load new PCF file
- update the databases and ground tools

- SB MBB-BK117 D-2-76-001 "FADEC (EECU) Software TU206" must be accomplished before accomplishment of this SB.
  - If the Maintenance Ground Station (MGS) V1.3 or older is installed on the ground station, the SB MBB-BK117 D-2-46-003 "Update of the MGS" must be accomplished before accomplishment of this SB.
  - SB MBB-BK117 D-2-31-008 "Update of the Dynamic Monitoring Acquisition Unit Software" must be accomplished together with this SB.
  - For the update of the MFD, AMC software and PCF instances the full license of the AHDL V5.0 is necessary.
- For further information about the AHDL license see Information Notice (IN) 3231-I-46 or contact the AH software distribution support.

SB from Airbus Helicopters Deutschland (AHD)

Please download in TIPI the associated SB to apply the annex.

## > BENEFITS

- With this update software bugs are removed and the capability of the helicopter is enlarged :
- Enhanced mission functions
- Enhanced Functionalities of Helionix
- Improved MGS (SB MBB-BK117 D-2-46-003)
- Helicopter Flight Data monitoring (HFDM) Converter Tool V1.3
- AHDL V5.0
- HLX (MR1) SW, patch step 3.0.2

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	14 Week(s)	1200 - 1306 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	8 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

Applicable on aircraft MBB-BK117 D-2, all S/N up to 20209\* with HLX SW Step 2 \*\*, excluding S/N 20195.

\* From S/N 20210 and on, the HLX Step 3 SW is permanent implemented in the serial production.

\*\* HLX SW step 2, SW patch step 2.0.1 or SW patch step 2.0.3 installed on Platform Hardware(HW) Step 2 or Step 2R

Equipped with :

- Multi Functional Display (MFD)
- Aircraft Management Computer (AMC)
- HTAWS / SVS / DMAP database
- AHDL

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Vectorial Mast Moment System

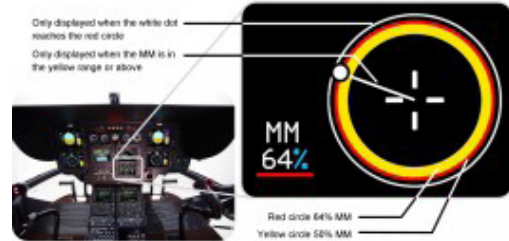
Reference: BK117 C-2-63-003 (R2)

Applicable to version(s): C2

## The retrofit of a vectorial mast moment system.

The bending moment of the main rotor hub-shaft and the relative direction to the helicopter center axis is shown with a circular scale and a pointer. If the vectorial mast moment indication is not available, the linear mast moment indication is automatically shown on the VEMD.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Easy avoidance of limit exceedance
- Qualitative improvement of mast moment direction
- Relative direction to the helicopter center axis of the bending moment
- Coloured indication

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.4 kg	+ 1323 kgmm	On request	20 Week(s)	Ref to detailed price online.	eOrdering

## > INSTALLATION TIME

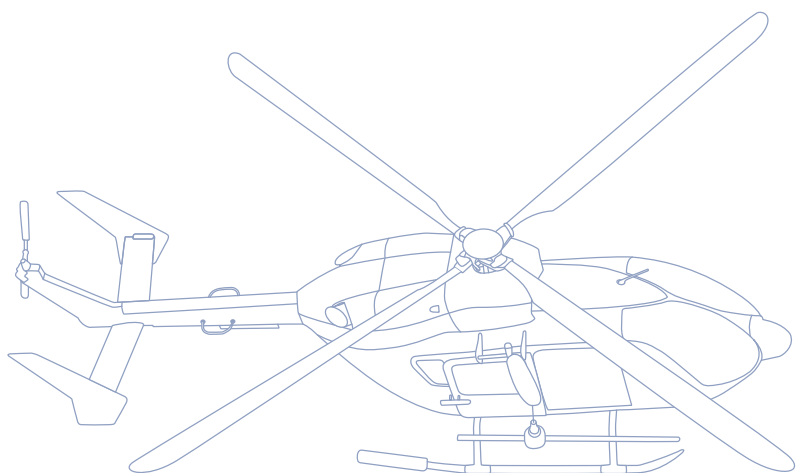
QUALIFICATION	INSTALLATION DURATION
Avionics	40 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
No incompatibility with other systems.  
CPDS Version V2006 (retrofit with Service Bulletin MBB-BK117 C-2-31-016) is required for the vectorial mast moment system.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# INTERIOR OPTIONS



# Cockpit curtain

Reference: BK117 C-2-25-010 (R0)

Applicable to version(s): C2

### The possibility to install a cockpit curtain.

A curtain rail is installed in the roof panel behind the overhead console. The NVG compatible curtain material has a gray color.

As alternative option the separation curtain can be made out of a material which can be easily wiped off / cleaned between two missions (e.g. in between two EMS Missions).

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The separation curtain for cockpit / cabin provides a light-tight separation between cockpit and cabin for privacy and to avoid dazzling of the cockpit crew by any illumination in the cabin during NVG operations.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 1.117 kg	+ 3.177 m.kg	On request	14 Week(s)	7877 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	11 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2 without cockpit curtain.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Cockpit dome light

Reference: BK117 D-2-33-008 (R0)

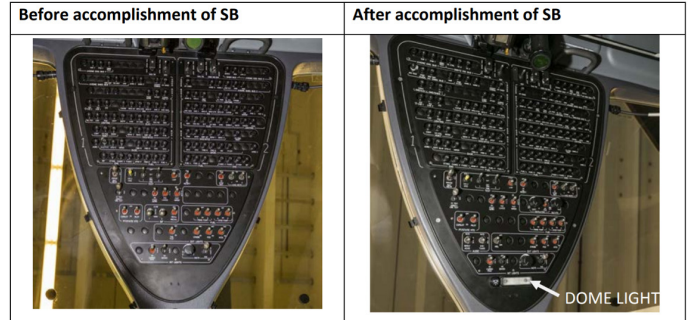
Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the installation of a cockpit dome light.**

The dome light is installed onto the overhead panel.

SB from Airbus Helicopters Deutschland (AHD)

Please download on TIPI the information notice 2423-I-24 and apply it.



## > BENEFITS

- This light improves the visibility inside the helicopter.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,27 kg	+0,884 m.kg	On request	14 Week(s)	7388 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N without dome light in the cockpit.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	15 Hour(s)
Electrical systems	30 Hour(s)



# Customised Cabin Interior for H145

Reference: H145/397

Applicable to version(s): C2, C2e, T2

**Customer shall be able to customised the cabin to express their personality or reflect their corporate identity.**

Approval including carpet and seat covers. Customer can op for any combination. Additional approval for cabin trim (ceiling, bulkhead, doors and handles) is available on request.

STC from Airbus Helicopters Malaysia Sdn Bhd (AHM)



<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
on request	on request	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	On request
Airframe	On request

## > CERTIFICATION ORGANIZATION(S)

DCA Malaysia

# Gooseneck Reading Light NVG (LHS+RHS)

Reference: AHUK-145-0003

Applicable to version(s): C2, D2

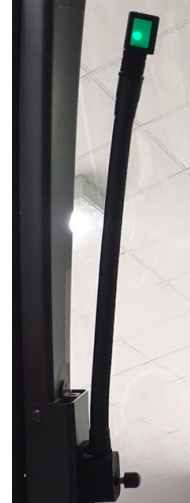
**The Gooseneck light is a flexible reading light located within the cockpit or cabin.**

The Gooseneck light is a NVG Compatible light which has an ON/OFF/Dimming control switch located in the mounting body. A flexible neck and swivelling head allows for the user to position the illumination from the lamp exactly where it is required.

Options allow for alterations in neck length and selection of filters/lenses.

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change



## > BENEFITS

- Flexible neck for maximum illumination
- NVG Compatible

 WEIGHT	 MOMENT	 DOWN TIME	 LEAD TIME	 PRICE RANGE	 ONLINE CAT.
0.74 kg	On request	5 Day(s)	On request	On request	eRFQ

## > PRE-POST REQUISITE / EFFECTIVITY

None

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Hand Grips in the cockpit inner structure

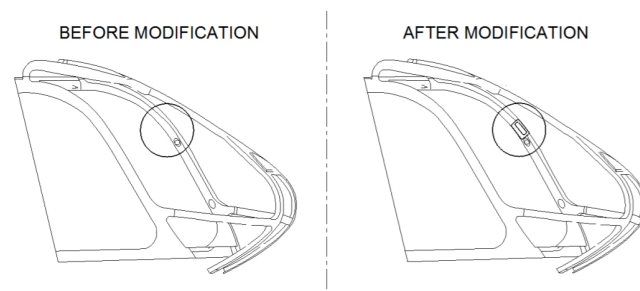
Reference: BK117 D-2-25-002 (R0)

Applicable to version(s): D2

**This Service Bulletin consist in the installation of hand grips in the cockpit inner structure.**

The purpose of this modification is to install the hand grips on LH and RH cockpit inner structure.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- To ease the crew access to the cockpit.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.070 kg	+ 148 kgmm	1.5 Day(s)	8 Week(s)	2743 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	12 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N without hand grips in the cockpit inner structure.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Large Edge Protection

Reference: BK117 C-2-85-012 (R0)

Applicable to version(s): C2

## Large edge protection for the lower cabin structure.

Large edge protection for the lower cabin structure. This edge protection protects the cabin entry areas against abnormal wear and damage.

SB from Airbus Helicopters Deutschland (AHD)

For order placement, please get in touch with your usual business contact or your local Order Administration Department stating your helicopter's S/N. The installation can be done with the help of or by the Airbus Helicopters repair network.



### > BENEFITS

- Protection against abnormal wear and damage
- Scratch-resistant surface
- Protection of the lower cabin structure

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.230 to 592 kg depending on aircraft configuration.	+ 762 to 980 kgmm depending on aircraft configuration.	On request	4 Week(s)	Ref to detailed price online.	eOrdering

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
 No incompatibility with other systems.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Systems	3 to 12 Hour(s) depending on aircraft configuration

# Leather Seat Upholstery Wollsdorf Ambassador

Reference: CRD258SEA0831E01

Applicable to version(s): T2

**This modification installs hand-crafted natural leather upholstery onto the seats of the aircraft. The upholstery enhances the aesthetic ambiance of the cabin, and the tactile comfort of the seats.**

Modification comprises: Customised seat upholstery units for all seats.

STC from Airbus Helicopters Southeast Asia Pte Ltd (AHSA)



## > BENEFITS

- Improved cabin comfort.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+14.95 kg	+55.953 m.kg	2 Day(s)	On request	from 8698 EUR (e.c. 2018)	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Day(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Prior to the installation of this modification, it must be determined that the interrelationship between this and any other previously installed and/or repair will introduce no adverse effects upon the airworthiness of the product

## > CERTIFICATION ORGANIZATION(S)

CAA Singapore

# Luggage Net installation

Reference: 2019S10-05

Applicable to version(s): D2

**Luggage Net Installation is an easy to operate net for placing the baggage into the cargo, a cabin division for luggage, which the main objective is to avoid the baggage drop when the compartment is opened after a flight.**

Luggage Net Installation is an easy to operate net for placing the baggage into the cargo, a cabin division for luggage, which the main objective is to avoid the baggage drop when the compartment is opened after a flight. The net is supported on floor, lateral and on the ceiling with hooks. It is adjustable on length and height allowing to be installed with two configurations. The ceiling holding points allow two different position for the net, which extend it on rear direction.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > BENEFITS

- Increased luggage security transport.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	3 Day(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	20 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with Helicópteros do Brasil SA (HELIBRAS)

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil



# Rear observer Workstation including foot switch

Reference: AHUK-145-0004

Applicable to version(s): C2

**The wrap around architecture of the workstation provides an ergonomic operating environment for the user with all mission system controls within easy reach.**

The wrap around architecture of the workstation provides an ergonomic operating environment for the user with all mission system controls within easy reach. The rear work station assembly can be fully removed (due to the fittings into the seat tracks), without the need for specialist tools, to enable a clear cabin configuration. In the case of a CASEVAC configuration the left hand screen, fitted to a movable arm, can be easily folded forward (towards the cockpit) by relocating the pip-pin. The user will be able to operate all of the equipment from the right hand seat by adjusting the viewing angle of each mission display. The hand controllers for the TV/TV EOS and searchlight are located on the inboard leg (LH) to enable the Observer to have full access.

AHUK have many different configurations of the Workstation and should something bespoke be required AHUK can make alterations to the base design to accommodate.

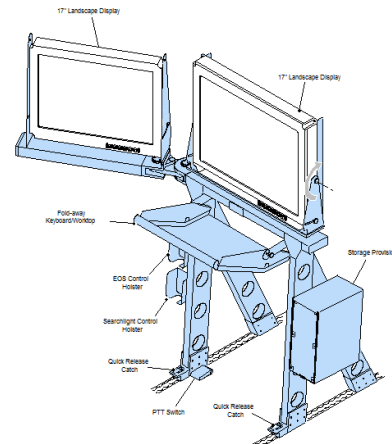
STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change

## > BENEFITS

- Lightweight with extensive capabilities.
- Quick Installation and Removal.
- Variants/Versions upon request.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
12.1 kg	On request	1 Day(s)	On request	On request	eRFQ



## > PRE-POST REQUISITE / EFFECTIVITY

None

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of height adjustable Pilot and Copilot Seat

Reference: BK117 C-2-25-005 (R0)

Applicable to version(s): C2

**The old height adjustable pilot and copilot seats are no longer available as spare parts in future. If it is required to replace the old height adjustable pilot and copilot seats, Airbus Helicopter offers in future height adjustable pilot and copilot seats.**

This Service Bulletin consist in :

- Remove pilot seat and copilot seat
- Modify rear stops in seat tracks
- Install new pilot seat and copilot seat

The pilot seat and the copilot seat can be replaced independently.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of Service Bulletin MBB BK117 C-2-25-005 the pilot seats 9606-100-030-XXXX9XXRXOX or 9606-300-030-XXXX1XXRXOX and the copilot seats 9606-100-030-XXXX9XXLXOX or 9606-300-030-XXXX1XXLXOX are no longer useable.

## > BENEFITS

- The new height adjustable pilot and copilot seats are of better quality and have less weight than the old pilot and copilot seats.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 2.485 to - 4.981 kg depending on aircraft configuration.	- 6377.0 to - 12782 kgmm depending on aircraft configuration.	On request	4 Week(s)	32 - 63 EUR (e.c. 2023)	eOrdering



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all MBB BK117 version C-2 equipped with :

- Height adjustable pilot seat 9606-100-030-XXXX9XXRXOX (\*) or 9606-300-030-XXXX1XXRXOX (\*)
- Height adjustable copilot seat 9606-100-030-XXXX9XXLXOX (\*) or 9606-300-030-XXXX1XXLXOX (\*)

(\*) Basic P/N of pilot seat and copilot seat.

The kit are impacted depending if the Pilot and/or Copilot height adjustable seat have to be replaced (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Retrofit of cargo door windows

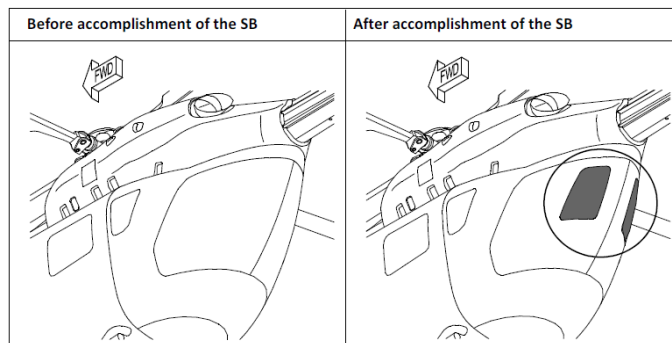
Reference: BK117 D-2-56-001 (R0)

Applicable to version(s): D2

### Airbus Helicopters offers a window installation for both rear cargo doors.

Remove the cargo doors. Establish cutouts in the cargo doors. Install the cargo door windows. Install the cargo doors.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The cargo door windows are made of 2 mm thick acrylic glass and their dimensions are approx. 600 x 500 mm. These windows considerably increase the luminosity of the medical compartment which especially is advantageous for EMS missions.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.290 kg or + 0.580 kg depending on aircraft configuration	+ 1.944 kg.m or + 3887 kg.m depending on aircraft configuration	On request	20 Week(s)	1386 - 3763 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Paint	5 Hour(s)
Mechanics	20 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2m, all S/N without cargo door windows.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of Luggage Net (RH)

Reference: BK117 D-2-25-016 (R0)

Applicable to version(s): D2

**Airbus Helicopters Deutschland (AHD) describes the installation of Cargo door luggage net (P/N: D255M1002051) on RH side.**

This modification consist in install honeycomb inserts and attach luggage net to the RH rear cargo door.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Improve the RH rear cargo compartment.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eRFQ

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit or replacement of an illuminated chart holder

Reference: BK117 C-2-33-019 (R0)

Applicable to version(s): C2

**With this Service Bulletin Airbus Helicopters Deutschland (AHD) offers the retrofit or replacement of the old chart holder for the pilot's and/or copilot's side with an improved LED chart holder.**

This modification consist in remove the old pilot/copilot chart holder and the old electrical wiring (if installed), install fixed provisions, electrical wiring, retrofit overhead panel attach chart holder(s) and perform functional test.

SB from Airbus Helicopters Deutschland (AHD)

After the retrofit has been accomplished it is no longer possible to install the old chart holder.



## > BENEFITS

- The new chart holder can be used for "7 extensions and 10 extensions" and can also be operated in the NVG mode.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.877 to + 1.658 kg depending on aircraft configuration.	+ 1 689 to + 3160 kgmm depending on aircraft configuration.	On request	10 Week(s)	8066 - 16095 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	15 or 25 Hour(s) depending on aircraft configuration
Mechanics	3 or 5 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters S/N 9006 and up. The kit are impacted depending if the new chart holder have to be installed on the pilot and/or copilot side, if fabric glare shield is installed and a chart holder is retrofitted on a "7 and/or 10" extension (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# SARIB system integration for pilot and co-pilot seat 180/260 H140

Reference: BK117 D-2-25-007 (R1)

Applicable to version(s): D2

**Airbus Helicopters offers the installation of the SARIB (Système Antivibratoire à Résonateur Intègre et a Barres) anti vibration system for pilot and co-pilot seats 180/260 H140.**

Install of the pilot seat SARIB and co-pilot seat SARIB

Possibility to install the anti vibration system for standard seats or Height adjustable seats

SB from Airbus Helicopters Deutschland (AHD)

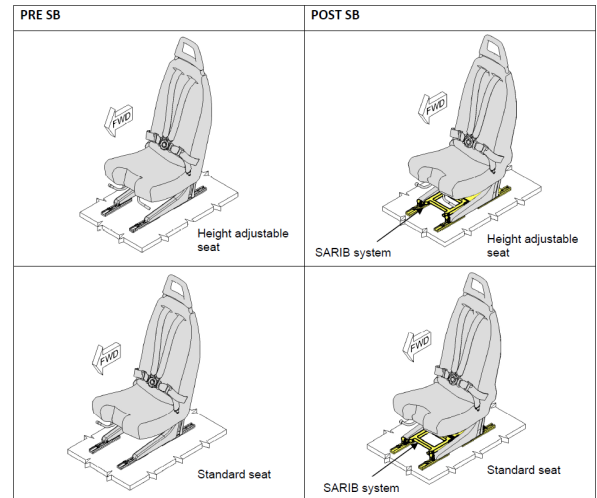
## > BENEFITS

- This anti vibration system is designed to reduce the vibration level on the pilot and co-pilot seats.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 7.98 kg	+ 19.268 m.kg	On request	20 Week(s)	14802 - 29610 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2 m all S/N with the pilot and co-pilot seat 180/260 H140.  
Pilot height adjustable seat P/N 0520-110-1085-ZZ0XZ9ZZZ4ZZ.  
Co-pilot height adjustable seat P/N 0520-110-1085-ZZ0XZ9ZZZ8ZZ.  
Standard seat P/N 0520-220-2085-ZZ0XZ1ZZZ0ZZ

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



## VIP Trim Interior

Reference: AHUK-145-0007

Applicable to version(s): H145 Fleet

**The customer is free to explore their creativity and develop the bespoke interior design of their dreams matching with a bespoke exterior paint scheme.**

Airbus Helicopters UK are on hand to assist with the concept, design and completion every step of the way.

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change



### > BENEFITS

- Refurbish in leather up to 9 place seating with skirts
- Refurbish cabinet when included in the specification
- Install carpet with bound edges, sewn in heel pads
- Carpet in the rear baggage bay compartments
- Cover lining panels in leather/ultra-leather: • Cockpit and passenger doors trim panels
- Cockpit overhead trim panel
- VIP separation wall
- Cabin overhead trim panel
- New placards with a metallic brush finishing

### > PRE-POST REQUISITE / EFFECTIVITY

None

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



**WEIGHT**

On request



**MOMENT**

On request



**DOWN TIME**

On request



**LEAD TIME**

On request



**PRICE RANGE**

On request



**ONLINE CAT.**

eRFQ

### > INSTALLATION TIME

QUALIFICATION

Approved Airbus Helicopters  
Technician

INSTALLATION DURATION

On Request

# Wool Carpet Glen Eden Cardigan Bay

Reference: CRD251SEA0831E01

Applicable to version(s): T2

**This modification installs hand-crafted natural wool carpets onto the cabin and cargo compartments of the aircraft. The carpet enhances the aesthetic ambiance of the cabin, and softens vibrations experienced by the passengers.**

Modification comprises: Customised carpet units for the cabin and all cargo compartments.

STC from Airbus Helicopters Southeast Asia Pte Ltd (AHSA)



## > BENEFITS

- Improved cabin comfort.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+18.85 kg	+76.401 m.kg	2 Day(s)	On request	from 8698 EUR (e.c. 2018)	eRFQ

## > INSTALLATION TIME

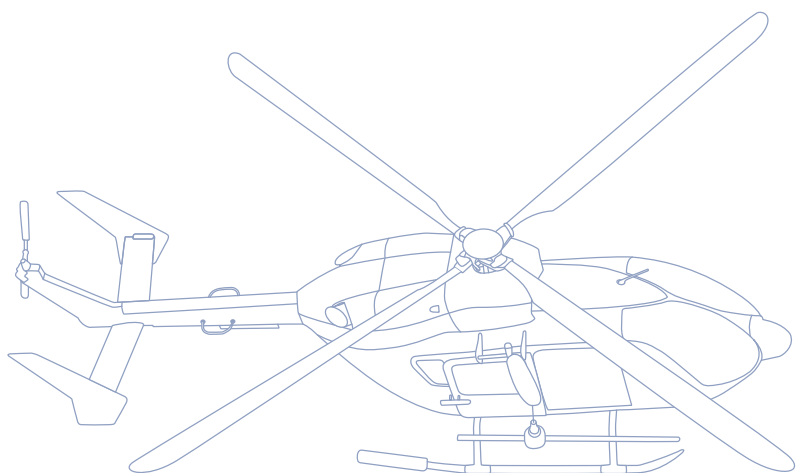
QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Day(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Prior to the installation of this modification, it must be determined that the interrelationship between this and any other previously installed and/or repair will introduce no adverse effects upon the airworthiness of the product

## > CERTIFICATION ORGANIZATION(S)

CAA Singapore



# MAINTENANCE IMPROVEMENT



# Anti-slip fittings on maintenance steps

Reference: BK117D-3-53-002 (RO)

Applicable to version(s): D3

**This Service Bulletin (SB), Airbus Helicopters offers the installation of anti-slip fittings on maintenance steps.**

This service bulletin consists to:

- Install the anti-slip fittings.

SB from Airbus Helicopters Deutschland (AHD)

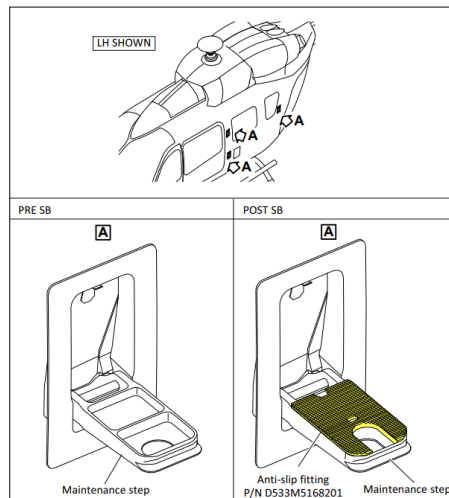
## > BENEFITS

- With this SB, Airbus Helicopters offers the installation of anti-slip fittings to make the maintenance steps rougher to have a safer stand during maintenance work.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,21 kg	+0,896 m.kg	On request	Week(s)	2397 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts

- MBB-BK117 D-3, D-3m, all S/N without anti-slip fittings on the maintenance steps.
- Maintenance step P/N B533K5166-211

## > CERTIFICATION ORGANIZATION(S)

EASA Europe





# Anti-slip surface on the cabin roof

Reference: BK117 D-2-53-002 (R1)

Applicable to version(s): D2

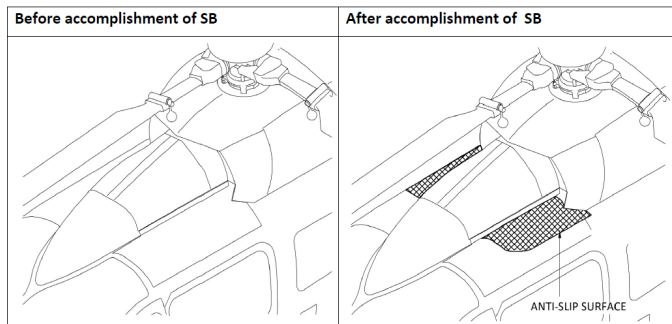
**Airbus Helicopters proposes this option to avoid to slip on roof cabin.**

Airbus Helicopters offers the installation of antislip surface on the cabin roof.

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received.

Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



## > BENEFITS

- This modification makes the access to the cabin roof easier and safer

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.130 kg	+ 0.477 kg.m	On request	8.2 Week(s)	20 EUR (e.c. 2019)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	25 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2m all S/N without anti-slip surface on the cabin roof.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Anti-slip surface on the cabin roof

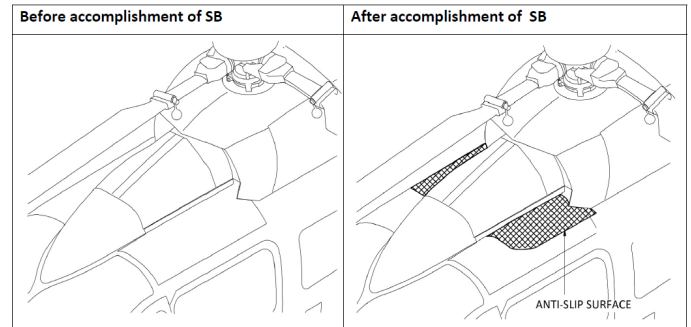
Reference: BK117 C-2-53-015 (R0)

Applicable to version(s): C2

**Airbus Helicopters proposes this option to avoid to slip on roof cabin.**

Airbus Helicopters Deutschland (AHD) offers the installation of antislip surface on the cabin roof.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- This modification makes the access to the cabin roof easier and safer.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.130 kg	+ 0.477 kg.m	On request	8 Week(s)	36 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	25 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2 all S/N without anti-slip surface on the cabin roof.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Handle on the RH Transmission Cowling

Reference: BK117 C-2-71T-011

Applicable to version(s): C2

**Airbus Helicopters Deutschland (AHD) offers the installation of handles on the main transmission cowling (XMSN).**

This Service bulletin consists in :

- Remove the RH transmission cowling
- Modify the RH transmission cowling
- Install the handle to the RH transmission cowling
- Install the RH transmission cowling

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- More comfortable pre-flight check
- Makes access to the upper covers easier and safer
- Makes it easier to remove and install transmission cowlings

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.382 kg	+ 1550 kgmm	On request	Week(s)	3432 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft equipped with :

- RH transmission cowling P/N B711M3003101

and not equipped with :

- Sand filter
- IBF

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of handles on the roof

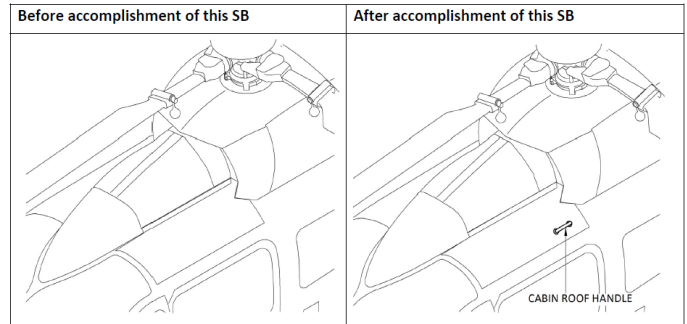
Reference: BK117 D-2-53-004 (R0)

Applicable to version(s): D2

**Airbus Helicopters offers the installation of handles on the cabin roof.**

- This modification consist in :
- modify the cabin roof
  - install the handles on the cabin roof

SB from Airbus Helicopters Deutschland (AHD)



**> BENEFITS**

- These handles make the work on the helicopter and the removal and installation of the cowlings easier and safer.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.690 kg	+ 2.612 kg.m	On request	16 Week(s)	607 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	25 Hour(s)

**> PRE-POST REQUISITE / EFFECTIVITY**

Applicable on aircraft S/N 20001 to 20080 without handles on cabin roof.

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

## Retrofit of handles on the roof

Reference: BK117 C-2-53-014 (R0)

Applicable to version(s): C2, C2e

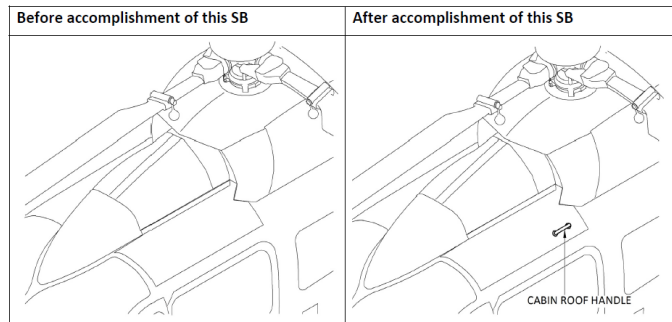
### Airbus Helicopters offers the installation of handles on the cabin roof.

This modification consist in :

- modify the cabin roof
- install the handles on the cabin roof

A handle can be installed on LH and/or RH side of the cabin roof.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- These handles make the work on the helicopter and the removal and installation of the cowlings easier and safer.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.690 kg	+ 2.612 kg.m	On request	16 Week(s)	201 - 412 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION

Mechanics

INSTALLATION DURATION

12,5 Hour(s) per side

### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2 S/N 9001 to 9751 without handles on cabin roof.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# MISSION & EXTERNAL EQUIPMENT





# Additional grounding cable between rescue hoist and airframe

Reference: BK117 D-3-85-005 (R0)

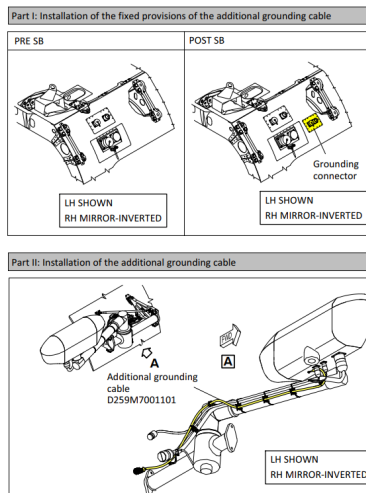
Applicable to version(s): D3

**With this Service Bulletin (SB), Airbus Helicopters offers the installation of an additional grounding cable to make the bonding connection better between the rescue hoist and the airframe.**

This SB consists on:

- PART I: Installation of the fixed provisions of the additional grounding cable. (Only for helicopters which do not have the fixed provisions of the additional grounding cable already installed)
- PART II: Installation of the additional grounding cable.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- During hoist operation, where strong electro-static discharge from the helicopter via hoist cable to the ground can occur, it was found that the bonding between the rescue hoist and the airframe is not enough. Because of this, the rescue hoist has to be reset via HOIST/CBL CUT switch (overhead panel) after every occurrence.
- With this SB, Airbus Helicopters offers the installation of an additional grounding cable directly between the rescue hoist and the airframe.

## > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts :  
MBB-BK117 D-3, D-3m all S/N with optional equipment rescue hoist.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,78 kg	+3,113 m.kg to +3,153 m.kg	On request	On Request	Ref to detailed price online.	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	12 Hour(s)

# Antenna Actuator Assembly

Reference: AHUK-145-0002

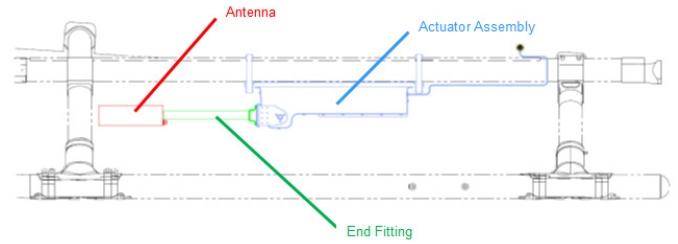
Applicable to version(s): C2

**The Antenna Actuator Assembly is a standalone system fitted to enable the deployment of an antenna below the aircraft landing gear.**

The actuator assembly is complete with an electrical harness for power, control and indication. Different end fittings, antennas and options for auto-retraction and interlocks can be installed by the integrator to suit their platform and requirement.

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change



## > PRE-POST REQUISITE / EFFECTIVITY

- Aircraft to have electrical provisions installed.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Actuator for deploying an antenna below the aircraft landing gear.
- Easy Role changeable installation

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
6.6 kg	On request	1 Day(s)	On request	On request	eRFQ

# Digital multipurpose Rear-View Camera and / or Forward Looking Camera

Reference: BK117 D-2-85-021 (R1)

Applicable to version(s): D2

**Airbus Helicopters offers with this SB the retrofit of a digital rear-view camera and / or a digital tail boom camera.**

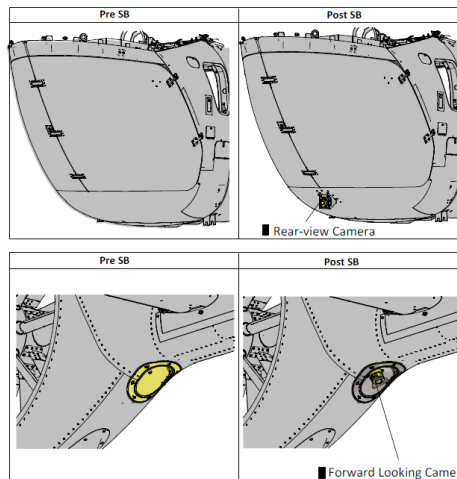
This Service Bulletin consists in:

- Modify the overhead panel and the wiring of the multifunction display (MFD). Install the Ethernet port.
- Install the video management system (VMS). Install the rear-view camera.
- Install the forward looking camera.

Please refer to the SB to consult the consumables to be order separately

SB from Airbus Helicopters Deutschland (AHD)

The flight manual (FLM) and the Avionic Manual (AVM) will be updated after the customer send back the "Reply form sheet" (page 31) of this SB to Airbus.



## > BENEFITS

- The connector modules 99FNBA and 40FNFA have been added to the materials kits and the nameplates for the new
- lighting plates have been implemented.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	Week(s)	76589 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	42 Hour(s)
Airframe, Electrical	54 Hour(s)

MFD 4 - Rear-view camera - Full Screen Mode



## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Double Cargo Hook – Installation of Weighing System

Reference: BK117 C-2-85-006 (R1)

Applicable to version(s): C2

## Airbus Helicopters offers the retrofit of a weighing system for the double cargo hook.

The weighing system can be used either in single hook operation (hook 1 only) or in dual hook operation (hook 1 and hook 2) by means of an appropriate Y-Rope. The load is properly indicated independently from the sling load angle. The system consists of fixed provisions and detachable parts for maximum mission flexibility.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- The dual cargo hook weighing system provides external cargo weight information to the pilot during cargo hook operation.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 2.833 kg	+ 8.751 m.kg	On request	14 Week(s)	52986 EUR (e.c.)	eOrdering

### > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2, with optional equipment double cargo hook.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# External speakers Power Sonix PSAIR32NP

Reference: 2015S09-14

Applicable to version(s): C2

**The Power Sonic is a speaker system with a maximum output power of 1200W, installed on the outside of the aircraft.**

It is a set of 3 horns arranged in line, which inclination angle can be adjusted. The system is controlled by Technisonic A790 control unit installed in the cockpit. Integrated into the on board audio system, this optional allows the operator to use the headset's microphone, without the need of a manual microphone.

STC from Helicópteros do Brasil SA (HELIBRAS)



## > BENEFITS

- Enables the transmission of messages, alarm signals and recorded messages to external audiences.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
19.2 kg	105,1 (N)	5 Day(s)	On request	On request	eRFQ

## > PRE-POST REQUISITE / EFFECTIVITY

The ability to receive this STC depends on the helicopter's configuration and shall be verified with the STC holder.

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	16 Hour(s)
Airframe, Electrical	47 Hour(s)

## > CERTIFICATION ORGANIZATION(S)

ANAC Brasil

# Installation of the detachable parts and activation of the rescue hoist system

Reference: BK117D-3-85-001 (R1)

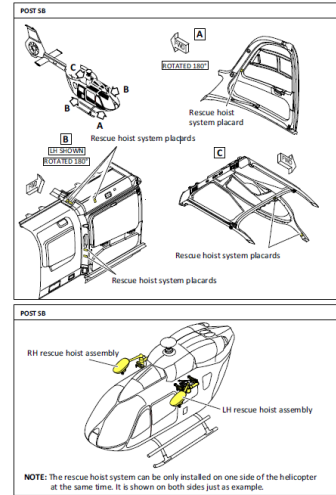
Applicable to version(s): D3

**With this Service Bulletin (SB), Airbus Helicopters offers the installation of the detachable parts and the electrical activation of the rescue hoist system and the installation of the corresponding placards for this system.**

The SB consists in:

- Modification of the old rescue hoist assembly
- Installation of the rescue hoist system
- Activation of the hoist system
- Installation of the rescue hoist system placards
- Final steps
- Tests

SB from Airbus Helicopters Deutschland (AHD)



KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+35,7 kg to +42,7 kg	+115,8 m.kg to +164,9 m.kg	On request	On Request	Ref to detailed price online.	eOrdering

## PRE-POST REQUISITE / EFFECTIVITY

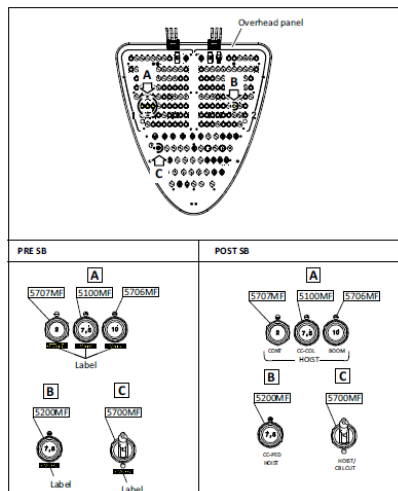
Helicopters/installed equipment and parts :  
 MBB-BK117 D-3, D-3m, all S/N with the fixed parts of the Collins (Goodrich) rescue hoist system installed.

## INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	9 Hour(s)
Airframe, Electrical	6 Hour(s)

## CERTIFICATION ORGANIZATION(S)

EASA Europe





# Onboard™ Cargo Hook System

Reference: BK117 C-2-85T-031 (R0)

Applicable to version(s): According to Service Bulletin

**With this Service Bulletin ECD offers the first installation of a cargo hook system (ONBOARD) and the retrofit from the INDRAERO SIREN cargo hook system to the ONBOARD cargo hook system.**

This modification consist of :

- Install the cargo hook system (ONBOARD)
- or
- remove for retrofitting the cargo hook system (INDRAERO SIREN) and install the cargo hook system (ONBOARD)

An optional weighting system is available.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Transports in rough terrain
- Easier lifting operations
- Improved reliability and reduction of the weight in comparison to the INDRAERO SIREN cargo hook system

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
-1,02 kg to +18,4 kg depending on aircraft configuration	-4,151 m.kg +70,735 m.kg depending on aircraft configuration	On request	22 Week(s)	44432 - 77237 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Sheet metal worker	2,5 to 20 Hour(s) depending on aircraft configuration
Electrical systems	60 to 80 Hour(s) depending on aircraft configuration
Mechanics	20 to 90 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft :

Already equipped with Cargo hook system (INDRAERO SIREN)

- Cargo hook AS22-67-1 or AS22-98-1 (without weighing system)
- Cargo hook AS22-67-1 / AS22-67-2 or AS22-98-1 / AS22-98-2 (with weighing system)

Or not equipped with Cargo hook system.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of a weighing system for the INDRAERO SIREN cargo hook

Reference: BK117 C-2-85-036 (R0)

Applicable to version(s): C2

**Airbus Helicopters offers the retrofit of a weighing system for helicopters equipped with an INDRAERO SIREN cargo hook.**

This Service Bulletin consist in :

- Install the helicopter-attached parts of the INDRAERO SIREN weighing system
- Install the detachable parts of the INDRAERO SIREN weighing system
- Do a functional test of the INDRAERO SIREN weighing system

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Allows weighing a charge.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 2.005 kg	+ 6.918 m.kg	On request	20 Week(s)	14288 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	25 Hour(s)
Mechanics	4 Hour(s)
Electrical systems	30 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, equipped with INDRAERO SIREN cargo hook.

Cargo hook :

- AS22-98-1
- AS22-67-1

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of an External Mounted Hoist System

Reference: BK117 C-2-85-011 (R0)

Applicable to version(s): C2

## Retrofit of an external mounted hoist system on the LH side of the helicopter.

- retrofit of external mounted hoist system
- accomplish functional test

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



## > BENEFITS

- Increases of capacities enabling to carry out a wide range of missions.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Fixed Part +2.038 kg	Fixed Part +8.777 m.kg	On request	On request	On request	eRFQ
Mobile Part +3.396 kg	Mobile Part +14.676 m.kg				

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Retrofit of an IR flasher

Reference: BK117 C-2-33-015 (R0)

Applicable to version(s): C2

**AHD offers with this Service Bulletin the retrofit of an IR-Flasher to the end plates of the horizontal stabilizer.**

This Service Bulletin consist in install a IR-Flasher to the end plates of the horizontal stabilizer.

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



### > BENEFITS

- To identify the helicopters with NVG goggles when the position lights are switched off.

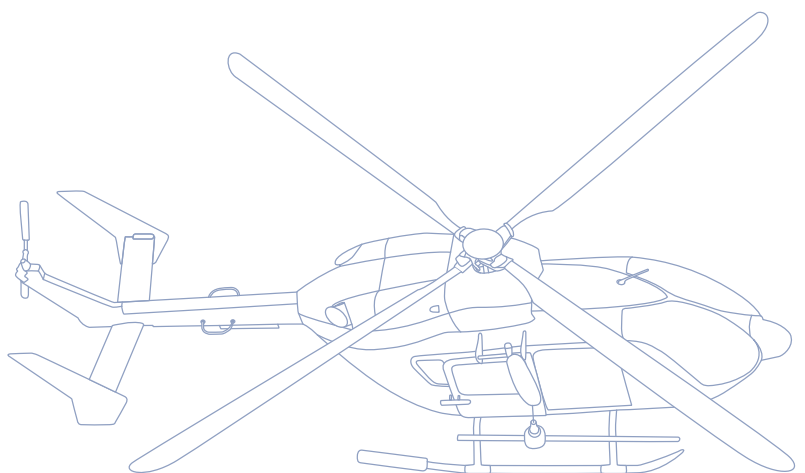
<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

### > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all helicopters MBB-BK117 version C-2.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# OBSOLESCENCE MANAGEMENT





# Modification of the wiring during the replacement of the radar altimeter KRA405 by radar altimeter KRA405B

Reference: BK117-90-125 (R0)

Applicable to version(s): A1, A3, A4, B1, B2, C1

**The radar altimeter KRA405 is no longer available as new part and will therefore be replaced by radar altimeter KRA405B. Prior to installation of the radar altimeter KRA405B, the wiring of the helicopter must be modified due to a changed interface assignment.**

This modification consist in disconnect the wires from the old plug for the radar altimeter KRA405 (32-pin), connect them to the new plug for the radar altimeter KRA405B (41-pins) and perform functional test.

This Service Bulletin must be complied with during a first-time replacement of a radar altimeter KRA405 by a radar altimeter KRA405B.

SB from Airbus Helicopters Deutschland (AHD)

After compliance with this Service Bulletin, the radar altimeter KRA405 can not be reinstalled.



## > BENEFITS

- To manage obsolescence of the radar altimeter KRA405.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	Week(s)	434 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	7 Hour(s)
Mechanics	1 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft MBB-BK117 with optional equipment radar altimeter KRA405.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of the NVG LED position lights at the horizontal stabilizer

Reference: BK117 C-2-33-023 (R1)

Applicable to version(s): C2, C2e

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the replacement of the NVG LED position lights at the horizontal stabilizer. In future, the NVG LED green position light P/N 2LA455359-00 and the NVG LED red position light P/N 2LA455358-00 will no longer be supplied and will be replaced by NVG LED green position light P/N 03-9002-0004 and NVG LED red position light P/N 03-9002-0003.**

This Service Bulletin consist in remove the obsolete NVG LED position light, install the new NVG LED position light and perform the functional test of the new NVG LED position light.

It is recommended to retrofit an improved grounding bracket i.a.w. SB MBB-BK117 C-2-33- 011.  
 The improved grounding bracket is installed from S/N 9231 and up.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this SB the NVG LED green position light P/N 2LA455359-00 or NVG LED red position light P/N 2LA455358-00 must not be used anymore. It is allowed to have a new NVG LED position light (green P/N 2LA455359-00 or red P/N 2LA455358-00) installed together with an old NVG LED position light (green P/N 03-9002-0004 or red P/N 03-9002-0003)

## > BENEFITS

- New NVG LED position lights at the horizontal stabilizer futher to the obsolescence.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	16 Week(s)	3528 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 Hour(s) per LED position light

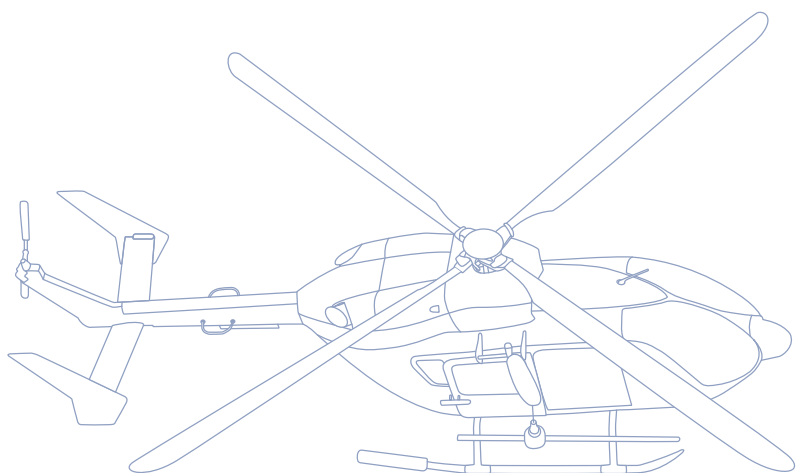


## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N equipped with NVG LED green position light P/N 2LA455359-00 and NVG LED red position light P/N 2LA455358-00.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# POWER PLANT RELATED OPTIONS



# Fuzz Burner Engine

Reference: BK117 C-2-79-001 (R1)

Applicable to version(s): C2

## Airbus Helicopters offers the retrofit of the fuzz burner engine.

Retrofit of one or more fuzz burners for the systems engine and/or main gear box and/or tail rotor and intermediate gear box.  
The fuzz burner system is designed to eliminate fine metal particles caused by "normal" wear conditions collected on the engine's chip detectors during a flight.

SB from Airbus Helicopters Deutschland (AHD)

Name plates for the CBI and the SWIII has to be order. Plate kit depends of aircraft S/N .



### > BENEFITS

- 50 fh supplementary check of the magnetic plugs is no longer applicable
- Increased mission success
- Fuzz burn can be accomplished by the pilot (59) No mechanic required

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 1,060 to + 2,818 kg depending on aircraft configuration	+ 5641 to 12793 kg.mm depending on aircraft configuration	On request	26 Week(s)	Ref to detailed price online.	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	28 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N starting from S/N 9004.  
Equipped with Engine B793M5001051 and/or Main Gear Box B793M5002051 and/or Tail Rotor and Intermediate Gear Box B793M5003051 .  
No incompatibility with other systems.  
Compliance is optional.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Heat Protection

Reference: BK117 C-2-71-001 (R3)

Applicable to version(s): C2

### Heat protection for the inner side of the LH and RH engine cowling.

During persistent hovering, this area is subject to special thermal stresses. The heat protection improves the thermal resistance of the engine cowling.

If a previous issue of this Service Bulletin has already been accomplished, no further action is required due to this Revision.

SB from Airbus Helicopters Deutschland (AHD)

For order placement, please get in touch with your usual business contact or your local Order Administration Department stating your helicopter's S/N. The installation can be done with the help of or by the Airbus Helicopters repair network.



Figure shows the LH heat protection

### > BENEFITS

- Improved thermal resistance of the engine cowling
- Increase the durability of the engine cowling

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.698 to 0.785 kg depending on aircraft configuration.	+ 3909 to 4396 kgmm depending on aircraft configuration.	On request	Week(s)	3216 - 3439 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	10 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N MBB BK117 C-2 excluding S/N 9005.

No incompatibility with other systems.

This service bulletin is applicable on aircraft already equipped with Engine Cowling P/N :

- B711M4100101
- or
- B711M4100102
- or
- B711M4100103
- or
- B711M4300101

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Inlet Barrier Filter System (IBF)

Reference: BK117 C-2-71-005 (R5)

Applicable to version(s): C2, C2e

**The IBF system prevents foreign objects such as grass, sand or dust or any other particles from being ingested into the engine inlet air stream.**

This Service Bulletin consist in :

- Install wiring harnesses and control boxes
- Modify CPDS and warning indication systems, transmission cowlings
- Install pressure measuring system and modify static system
- Modify transmission cowlings
- Install fixed provisions and detachable parts of the IBF system

If Revision 0 thru 3 of this SB has been accomplished it is recommended to modify the IBF bypass doors. This modification will increase the operation time of the actuators.

It is also possible to order new IBF bypass doors with retrofit kit SB-117C2-71-005-2C26.

If the gas springs of the XMSN cowlings were retrofitted in accordance with SB MBB-BK117 C-2-71-015 before accomplishment of this SB, the SB MBB-BK117C-2-71-015 must be accomplished again to install gas spring which are compatible with IBF.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Reduced erosion of the engine compressor components
- Filtering efficiency better than 99 %
- Less inspections and exchanges of engine parts due to erosion
- Completely covered installation under the transmission cowling
- Increase the operation time of the actuators

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+26,0 kg	+124,0 m.kg	On request	20 Week(s)	88469 - 238705 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	25 Hour(s)
Avionics	290 Hour(s)
Composites	115 Hour(s)
Paint	5 Hour(s)
Avionics	220 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to aircraft MBB-BK117 C-2 or C-2e all S/N, equipped with Transmission Cowling (RH and LH).

The kit to order depend on :

- The application of the previous revisions
- If the helicopter is used to operate with the IBF system detached

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Installation of improved air-no-fuel-valves

Reference: BK117D-3-28-001 (RO)

Applicable to version(s): D3

**This Service Bulletin (SB), Airbus Helicopters offers the installation of improved air-no-fuel-valves to prevent air from being trapped in the fuel system.**

- This service bulletin consists to:
- Remove the old air-no-fuel-valves
  - Install improved air-no-fuel-valves

Interchangeability:  
PRE MOD and POST MOD equipment items are not interchangeable.  
After the accomplishment of this SB, you cannot use the air-no-fuel-valves (P/N B03C10 and P/N B03D00) again.

Mixability:  
Do not use PRE MOD and POST MOD components together.

SB from Airbus Helicopters Deutschland (AHD)

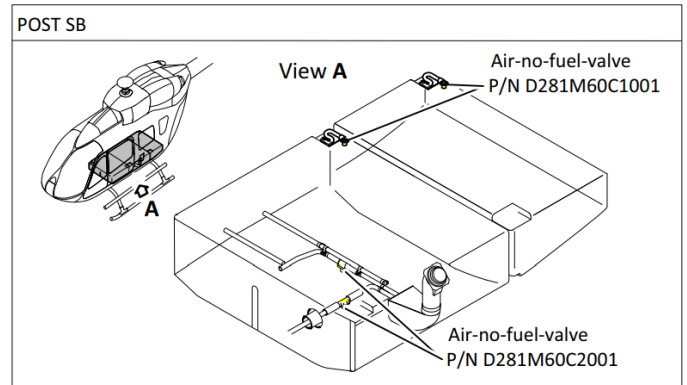
## > BENEFITS

- Sometimes it is not possible to fill the complete amount of the fuel into the tanks due to leaking air-no-fuel-valves, which results in air being trapped in the fuel system.
- Consequently, Airbus Helicopters offers with this SB the improved air-no-fuel-valves to vent the air from the tanks.

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,102 kg	+0,477 m.kg	On request	Week(s)	6171 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	1 Hour(s)
Mechanics	20 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

- Helicopters/installed equipment and parts
- MBB-BK117 D-3, D-3m, all S/N up to 21070 inclusive.
  - Air-no-fuel-valve P/N B03C10 or P/N B03D00

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Installation of the IBF system

Reference: BK117D-3-71-001 (R1)

Applicable to version(s): D3

**With this Service Bulletin (SB), Airbus Helicopters offers the installation of the Inlet Barrier Filter (IBF) system.**

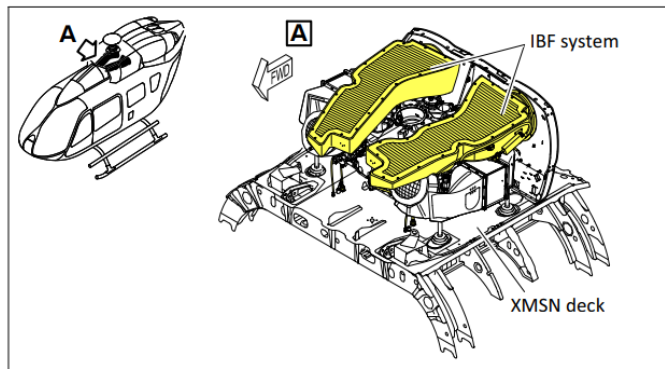
For fixed parts:

- Modification of the transmission cowlings
- Installation of the fixed provisions of the IBF System
- Installation of the electrical fixed parts of the IBF system
- Installation of the fixed provisions of the IBF pressure sensing system
- Installation of the IBF pressure sensing system
- Installation of the fixed IBF wire harness
- Retrofit of the overhead panel

For removable parts:

- Installation of the studs on the FWD firewalls
- Modification of the IBF tray assembly
- Installation of the IBF detachable parts (hydraulic and electrical)
- Installation of the IBF tray assembly
- Tests
- Final steps
- Ground run
- Flying without the IBF system

SB from Airbus Helicopters Deutschland (AHD)



## > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts

- MBB-BK117 D-3, all S/Ns without IBF system installed.
- Transmission cowling LH. Transmission cowling RH.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Fixed Part +7,269 kg	Fixed Part +31,547	On request	On Request	Ref to detailed price online.	eOrdering
Mobile Part +20,435 kg	m.kg Mobile Part +90,533 m.kg				

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

# Installation of the XMSN cover to operate the helicopter without IBF

Reference: BK117D-3-71-002 (R1)

Applicable to version(s): D3

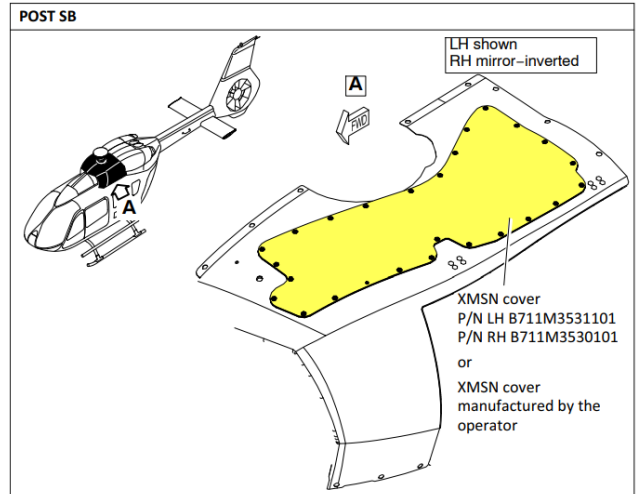
**With this Service Bulletin (SB), Airbus Helicopters offers the modification of the transmission cowlings to install the XMSN covers. The installation of the XMSN covers is necessary to operate the helicopter without the Inlet Barrier Filter (IBF).**

This SB consist as:

- Modification of the transmission cowlings.
- If necessary, manufacture the XMSN covers.
- Installation of the XMSN covers.

Airbus Helicopters permits to manufacture the XMSN covers by the operator.

SB from Airbus Helicopters Deutschland (AHD)



WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+1,854 kg	+8,098 m.kg	On request	On request	On request	eOrdering

## INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	10 Hour(s)

## PRE-POST REQUISITE / EFFECTIVITY

- Helicopters/installed equipment and parts:
- MBB-BK117 D-3, D-3m, all S/N with IBF system installed.
  - Transmission cowling LH. Transmission cowling RH.

## CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of Fuel Flowmeter

Reference: BK117 C-2-28-002 (R0)

Applicable to version(s): C2, C2e

**Airbus Helicopters offers with this Service Bulletin the retrofit of a fuel flowmeter.**

This modification consist in :

- remove covers, panels and cowlings
- install wire harness
- install fuel flowmeter

With the fuel management system installed, current fuel flow per engine is metered and displayed on the central panel display system (CPDS).

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- To show the current fuel flow / fuel consumption and the remaining helicopter flight time.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.936 kg	+ 4.182 m.kg	On request	14 Week(s)	21106 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	5 Hour(s)
Electrical systems	35 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to MBB BK117 C-2, all models.

Equipped with :

- Dummy 0301031350
- Engine TURBOMECA ARRIEL 1E2

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of grids for the NACA-Inlets

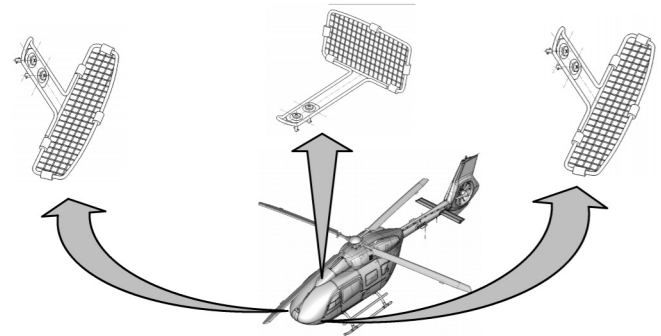
Reference: BK117 D-2-21-009 (R0)

Applicable to version(s): D2

**This Service Bulletin offers a retrofit of grids for the NACA inlets.**

This purpose of this modification is to install fastener sheet assembly and grid assembly to NACA inlets.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- To prevent the penetration of coarse impurities into the ventilation system.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.241 kg	+ 549 kgmm	2.5 Day(s)	10 Week(s)	2712 - 2716 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	18 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N, without NACA grids and with basic ventilation.

The kit are impacted depending if the helicopter is equipped or not with LAVCS. (will be selected in the CONFIGURATION ASSISTANT)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofit of provisions to install a long range fuel tank

Reference: BK117 C-2-28-004 (R0)

Applicable to version(s): C2

**Airbus Helicopters offers the retrofit of provisions to operate the helicopter with a long range fuel tank.**

This modification consist of :

- modify the access cover and the frame cover STA5000 RH
- modify the overhead panel
- install the new harness for the long range fuel tank
- install the fuel vent line
- install the drain line
- install the fuel feed line
- install the long range fuel tank

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- The long range fuel tank gives the helicopter an increased fuel capacity of 222 ltr (58.65 gal/US).
- The long range fuel tank is installed on the RH seat rails in one of two positions for optimal center of gravity configuration of the helicopter and for easy removal/ installation.

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, all S/N without provisions for the long range fuel tank.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 2.430 kg	+ 11.010 m.kg	On request	16 Week(s)	201179 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	75 Hour(s)
Mechanics	95 Hour(s)

# Retrofit of the Inlet Barrier Filter (IBF) system

Reference: BK117 D-2-71-001 (R1)

Applicable to version(s): D2

**This Service Bulletin (SB), offers the retrofit of the Inlet Barrier Filter system (IBF).**  
Per design intent the IBF system prevents foreign matters such as grass, sand or dust or any other particles from being ingested into the engine inlet air stream.

This modification consist in :

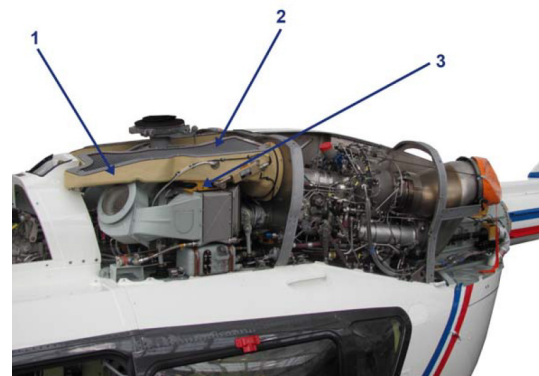
- modify the transmission cowling
- install the fixed provisions of the IBF system
- retrofit the overhead panel
- install the detachable provisions of the IBF system

It is not permitted to fly without XMSN covers when the IBF-System is detached from the helicopter. Use the XMSN covers (optional equipment) to fly without the IBF system after the retrofit has been accomplished.

The weather protection must be installed on the helicopter when the IBF system is installed and the helicopter is not parked in a hangar. It protects the IBF system against rain and objects in the air.

SB from Airbus Helicopters Deutschland (AHD)

Please download on TIPI the information notice 2423-I-24 and apply it.



1. Filter housing
2. Filter element
3. By-pass door

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable on aircraft equipped with transmission cowling LH and RH, all S/N without IBF.

The kit are impacted according to the aircraft serial number and depending if the customer want the optional IBF filter replacement and/or maintenance Filter oil. (will be selected in the CONFIGURATION ASSISTANT)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- With a filtering efficiency of more than 99%, the device serves as a means to exclude premature erosion of compressor blades and other engine components in case of operations in a dirty atmosphere.



**WEIGHT**

On request



**MOMENT**

On request



**DOWN TIME**

On request



**LEAD TIME**

18 Week(s)



**PRICE RANGE**

170423 -  
197928 EUR  
(e.c. 2023)



**ONLINE CAT.**

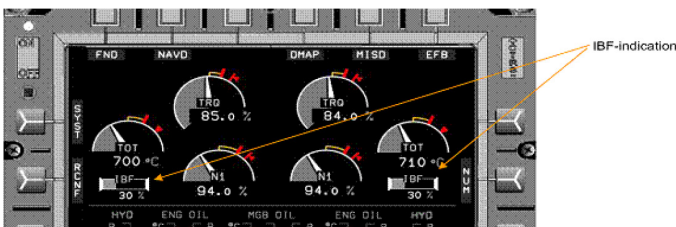
eOrdering

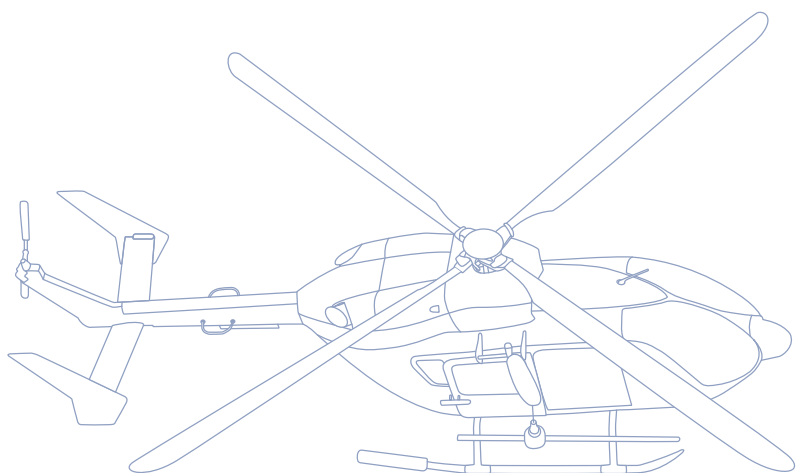
## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request





# PRODUCT IMPROVEMENT



# ACS condenser assy modification

Reference: BK117 D-2-21-011 (R0)

Applicable to version(s): D2

**With this SB, AHD introduces a cutout of the ACS condenser assy.**

This modification consist in remove the ACS condenser assy, do the cutout on the ACS condenser assy and install the ACS condenser assy.

The new ACS condenser assy P/N D211M1901104 replaces the ACS condenser assys P/N D211M1901101, P/N D211M1901102 and P/ND211M1901103. All ACS condenser assys are interchangeable. The new ACS condenser assy P/N D211M1901104 has the modification from this SB already incorporated.

SB from Airbus Helicopters Deutschland (AHD)

Refer to this Service Bulletin to order requiered spares.



## > BENEFITS

- This Service Bulletin allow to ensure a sufficient distance between the ACS condenser and the forward drive shaft in all cases.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	25 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters S/N 20003 up to and including S/N 20140 with optional equipment ACS P/N D211M1901101, D211M1901102 or D211M1901103.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Air conditioning improvement

Reference: BK117 D-2-21-010 (R1)

Applicable to version(s): D2

**This Service Bulletin consist in introduces a performance upgrade for the air condition.**

This modification consist in :

- Replace the Cooling and Heating Control Unit (CHCU). Replace the cockpit air distributor. Change the power supply of the cockpit ventilation blower
- Install a new pulley and a belt. Retrofit the camlock
- Install new outlet grid condenser on the exhaust cowling LH/RH. Replace the grid condenser assy.
- Modification of the Condenser Assy and Exhaust Cowling.
- Retrofit the ceiling panel.
- Modify the cockpit and cabin evaporator.
- Install the Condenser Pre-Expansion Washer and modify the refrigerant quantity.
- Install the non-return valve.
- Retrofit the air outlet nozzles.
- Retrofit the evaporator inlet sleeves for the cockpit and the cabin.

Parts of this SB can be accomplished separately. The air condition will not have the full improved cooling performance unless all parts of this SB are accomplished.

SB from Airbus Helicopters Deutschland (AHD)

Please return the removed CHCU together with the "Return Material Authorization" (RMA) provided by Airbus Helicopters, R&O Order Administration. the CHCU P/N D216M20A1101 become D216M20A1102.



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable on aircraft all S/N with optional equipment air conditioning except S/N :

- 20109, 20119, 20127, 20130, 20138, 20147, 20151, 20154, 20157, 20162, 20164, 20168, 20173, 20176, 20180, 20188, 20189, 20190, 20192, 20194, 20196, 20198, 20199.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- With this performance upgrade, the air conditioning will have an increase of efficiency in cooling and drying the air.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible to + 0.3 kg depending on aircraft configuration.	Negligible to + 1444 kgmm depending on aircraft configuration.	On request	20 Week(s)	19003 - 33407 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 to 94 Hour(s) depending on aircraft configuration
Electrical systems	0 or 12 Hour(s) depending on aircraft configuration
Pilot, Flight test	0 to 2 Hour(s) depending on aircraft configuration



# Center Lashing Point

Reference: BK117 C-2-10-003 (R0)

Applicable to version(s): C2

### Lashing points upgrade.

Replacement of the center lashing points. The new design contains a spring (highlighted in yellow) which keeps the shackle down in order to prevent an interference with the sliding door when it is being opened. In addition, a replacement of the new shackle is made easier since the central bolts do not have to be removed.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- An interference of the shackle with the sliding door is prevented
- Easier replacement of the shackle

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.1 kg	+ 503 kgmm	On request	18 Week(s)	4070 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	7 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Effective for all MBB-BK 117 C-2 equipped with center lashing points. From S/N 9676 onwards, the new lashing points are installed on helicopters as standard.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Drip Catcher above the Swivel Units of the Flexball Cables

Reference: BK117 C-2-67-017 (R1)

Applicable to version(s): C2

## Improvement of the corrosion protection.

Retrofit of a drip catcher above the swivel units of the flexball cables.  
 With Revision 1 a second configuration of the installed drip catchers has been added in the effectivity and the procedure.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Corrosion protection

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
Negligible	Negligible	On request	4 Week(s)	239 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	7 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for S/N 9004 up to and including S/N 9550 equipped with Drip catcher P/N :  
 • B290M0021201  
 or  
 • B711M1028201  
 No incompatibility with other systems.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Exchange of the Clevis Assembly/Conversion of the Cardan–Pivot Joint Assembly

Reference: BK117 C-2-67-021 (R1)

Applicable to version(s): C2, C2e

**This Service Bulletin describe the replacement of the Clevis Assembly for the Type I actuator and the modification of the Clevis Assembly for the Type II actuator.**

This Service Bulletin consist in:

- Remove the Tail Rotor Actuator
- Exchange the Clevis Assembly or convert the Cardan Pivot Joint Assembly
- Install the Tail Rotor Actuator

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Avoid damage the Clevis assembly or Cardan Pivot joint assembly due to higher forces of the Tail Rotor Actuator.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	24 Week(s)	3398 - 5777 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to MBB-BK117 C2 and C-2e, all S/N, equipped with Tail Rotor Actuator P/N:

- B673M40A1001 (Liebherr P/N 1620A0000-01)
- or
- B673M40A1002 (Liebherr P/N 5038A0000-01)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Fuel transfer pump switches replacement

Reference: BK117 D-2-28-001 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the replacement of the fuel transfer pump toggle switches by double action toggle switches.**

This Modification consist in removing the toggle switches and installing the double action toggle switches.

The double action toggle switches are in serial production from S/N 20231 and up.

SB from Airbus Helicopters Deutschland (AHD)

Toggle switch 1101QM and 1201QM P/N MS24523-22 must not be used anymore after accomplishment of this SB

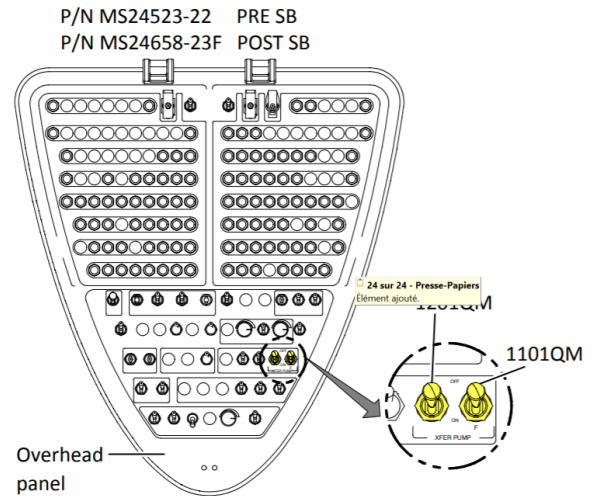
## BENEFITS

- The double action toggle switches avoid unintended deactivation of the transfer pumps by unintentional manipulation of the toggle switches.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	20 Week(s)	408 EUR (e.c. 2023)	eOrdering

## INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	3 Hour(s)



## PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable for helicopters all S/N up to and including S/N 20230, equipped with Toggle switch 1101QM P/N MS24523-22 and Toggle switch 1201QM P/N MS24523-22.

## CERTIFICATION ORGANIZATION(S)

EASA Europe

# Ground mode power supply for the cargo entry LED strips

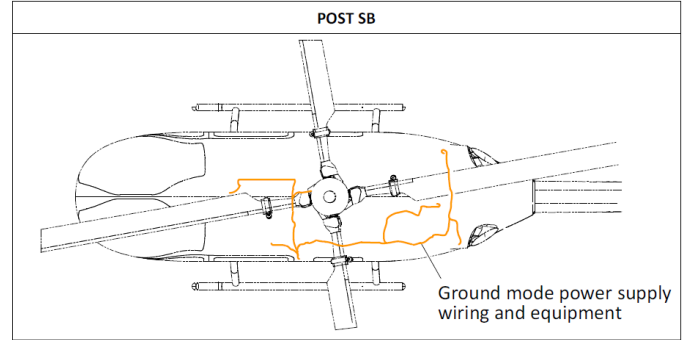
Reference: BK117D-2-33-023 (RO)

Applicable to version(s): D2

**Airbus Helicopters offers the installation of a ground mode power supply for the cargo door switch. In combination with a 10 minutes timer module, the functionality of the cargo entry Light Emitting Diode strips for helicopters without "Ground Mode Switching Concept "will be improved**

This service bulletin consists to:

- Remove the interior panels as necessary
- Install the fixed provisions
- Retrofit the battery box
- Install the wire harness for the cargo entry LED strips ground mode
- Do the functional test of the cargo entry LED strips ground mode
- Install the removed interior panels



## > CERTIFICATION ORGANIZATION(S)

EASA Europe

SB from Airbus Helicopters Deutschland (AHD)

## > BENEFITS

- When the engines are off and a EPU is not connected, there is no lighting . An additional power supply via BAT BUS
- in combination with a 10 minute a timer module will be introduced for the loading door switch.
- The strips will be on for 10 minutes when the cargo doors are open.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	Week(s)	5714 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Electrical	20 Hour(s)
Airframe, Mechanics	12 Hour(s)

# Handles on XMSN cowling

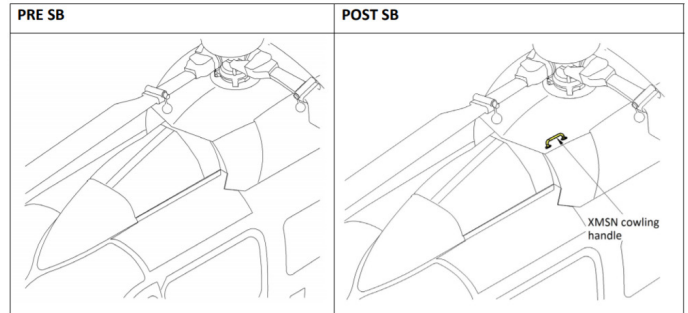
Reference: BK117 D-2-71-004 (R1)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the installation of handles on the main transmission cowling (XMSN).**

This modification consist in Modify the XMSN cowling and install the handles on the XMSN cowling.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- These modifications make the removal and installation of the cowlings easier and safer.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.728 kg	+ 2904 kgmm	On request	6 Week(s)	1839 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION  
 Mechanics

INSTALLATION DURATION  
 10 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable for helicopters S/N 20010 and up.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Improved Bracket for the Proximity Switch of the cockpit doors

Reference: BK117 C-2-52-008 (R0)

Applicable to version(s): C2

**Ensures reliable door caution indication.**

Improved bracket for the proximity switch.  
 The new bracket of the proximity switch ensures that without influence of possibly existing vibrations, the door caution indication can only illuminate if one of the cockpit doors is not closed properly.

SB from Airbus Helicopters Deutschland (AHD)



**> BENEFITS**

- Improvement of door caution indication by optimized position of the two contact surfaces between proximity switch and door
- Completely covered installation within the roof panelling
- Easier maintenance
- Less components

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 0.1 kg	- 113 kgmm	On request	4 Week(s)	2494 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Paint	0,5 Hour(s)
Avionics	0,5 Hour(s)
Airframe, Structure	4 Hour(s)

**> PRE-POST REQUISITE / EFFECTIVITY**

Valid for S/N 9004 up to and including S/N 9095.  
 No incompatibility with other systems.

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe



# Improved Guidance Clamps for the Flexball of the Tail Rotor Controls

Reference: BK117D-2-67-009 (R1)

Applicable to version(s): D2

**This Service Bulletin (SB), Airbus Helicopters offers the replacement of the guidance clamps for the Flexball of the tail rotor controls in area of the tail boom.**

This service bulletin consists to:

- Remove the clamps from the tail boom
- Install new clamps to the tail boom
- Do a free movement test of the Flexball of the tail rotor controls.

SB from Airbus Helicopters Deutschland (AHD)

Mixability:

Do not use PRE MOD (clamps P/N EN4113F12WH) and POST MOD (clamps P/N EN4113F11WH) components together.

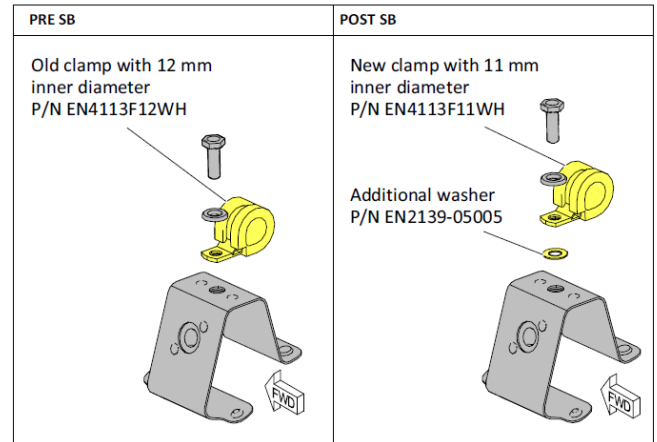
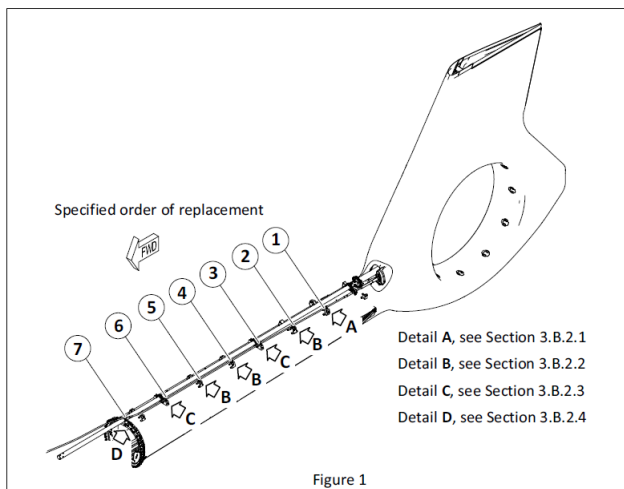
## > BENEFITS

- Reduce potential wear in the tail boom area, 12mm clamps are replaced with 11mm clamps.
- Improved product quality.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	Week(s)	94 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	4 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

Pre mod: BK117D-2-67-009 (R1)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improved sealing of the fire detectors

Reference: BK117 C-2-26-004 (R0)

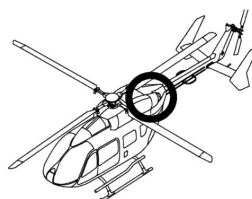
Applicable to version(s): C2, C2e

**Airbus Helicopters Deutschland (AHD) offers with this SB the installation of additional sealing protections for the fire detectors installed on the LH and RH engine aft firewalls.**

- This modification consist in :
- Remove the harnesses connection
  - Install the heat-shrinkable sleeves
  - Install the harnesses

This modification is included in serial production from S/N 9811.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- This additional sealing of the electrical connection against environmental humidity is foreseen to improve the in-service reliability of the sensors.
- Thus, the likelihood of incorrect fire warning triggering is reduced.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	10 Week(s)	39 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Hour(s)
Electrical systems	6 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to aircrafts all S/N up to and including S/N 9810.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## Improved upper exhaust cowlings

Reference: BK117 C-2-71-017 (R0)

Applicable to version(s): C2

### Airbus Helicopters offers the installation of improved upper exhaust cowlings.

This modification consist in :

- remove the existing upper exhaust cowlings
- prepare the improved upper exhaust cowlings
- install the improved upper exhaust cowlings

SB from Airbus Helicopters Deutschland (AHD)

For the installation of the improved cowlings holes must be closed. The holes can be closed by riveting or by laminating.

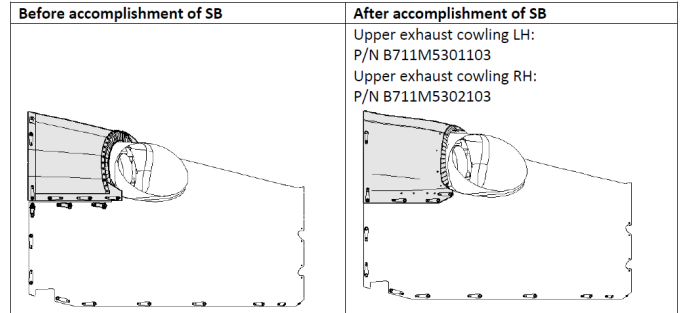
#### > BENEFITS

- The features of the improved upper exhaust cowlings are an additional outer panel to avoid color changes, transfer forces and adapt the distance to the composite parts.
- Furthermore the installation of the ejector springs will be simplified, sharp edges will be avoided.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	18 Week(s)	14447 - 14509 EUR (e.c. 2023)	eOrdering

#### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 or 8 Hour(s) depending on aircraft configuration



#### > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e, all S/N equipped with :

- Upper exhaust cowling LH P/N 117-230551, B711M5301101 or B711M5301102
- Upper exhaust cowling RH P/N 117-230561, B711M5302101 or B711M5302102

#### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improved upper exhaust cowlings

Reference: BK117 D-2-71-003 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the installation of improved upper exhaust cowlings. The features of the improved upper exhaust cowlings are an additional outer panel.**

This modification consist in remove the existing upper exhaust cowlings (LH and RH), prepare and install the improved upper exhaust cowlings.

SB from Airbus Helicopters Deutschland (AHD)

Upper exhaust cowling P/N 117-230551 or D711M5301101 or D711M5301102, P/N 117-230561 or D711M5302101 or D711M5302102 must not be installed anymore.

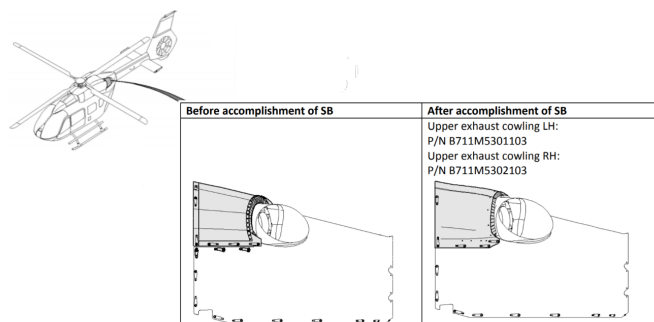
## > BENEFITS

- Avoid color changes, transfer forces and adapt the distance to the composite parts. Furthermore the installation of the ejector springs will be simplified, sharp edges will be avoided.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	18 Week(s)	15277 - 15310 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	4 or 8 Hour(s) depending on aircraft configuration



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N, equipped with:

- Upper exhaust cowling LH P/N 117-230551 or D711M5301101 or D711M5301102
- Upper exhaust cowling RH P/N 117-230561 or D711M5302101 or D711M5302102

The purchase order are impacted depending if the holes are closed by rivets or by lamination (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Improvement of fire extinguishing system

Reference: BK117 C-2-26-003 (R0)

Applicable to version(s): C2, C2e

**AirbusHelicopters offers an improved wiring of the engine fire extinguisher system in the overhead panel.**

This modification consist in :

- Open the overhead panel
- Modify the switch logic and install new wires
- Close the overhead panel
- Perform a functional test of the engine fire extinguishing system

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Improve the switch logic of the fire extinguisher system.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	8 Week(s)	106 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION  
 Mechanics

INSTALLATION DURATION  
 4 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e, up to and including S/N 9810 equipped with :

- Toggle switch S10031
- Toggle switch S10030

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Improvement of the condenser inlet sealing

Reference: BK117 D-2-21-013 (R0)

Applicable to version(s): D2

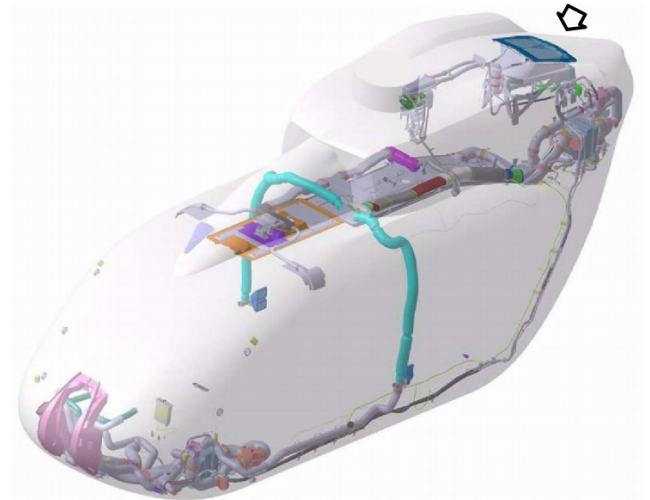
## Replacement of the sealing on the ACS condenser and reinforcement of the inlet grid condenser assy.

- Install the aluminum frame on the ACS condenser
- Remove the old upper stiffener and the old lower stiffener from the inlet grid condenser assy
- Install the new reinforced upper stiffener and new reinforced lower stiffener to the inlet grid condenser assy

The ACS condenser P/N D211M1101301 should not be used anymore.  
 Order the ACS condenser P/N D211M1101302 for spare part after the accomplishment of this SB.

The inlet grid condenser assy P/N D211M5002101 should not be used anymore.  
 Order the inlet grid condenser P/N D211M5018101 for spare part after accomplishment of this SB.

SB from Airbus Helicopters Deutschland (AHD)



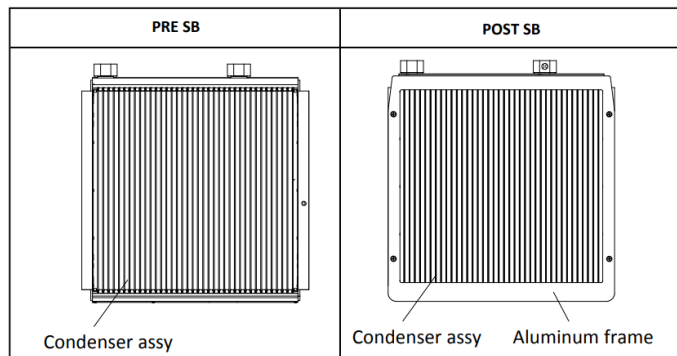
### > BENEFITS

- Allows better air flow through the ACS condenser.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,352 kg	+5,171 m.kg	On request	Week(s)	537 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	8 Hour(s)



### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft S/N 20003 up to and S/N 20108 inclusive with optional equipment air conditioning system, equipped with ACS condenser P/N D211M1101301, and not having complied with SB MBB-BK117 D-2-21-010 Revision 1.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Installation of anti-slip fittings on maintenance steps

Reference: BK117D-2-53-010 (R1)

Applicable to version(s): D2

**This Service Bulletin (SB), Airbus Helicopters offers the installation of anti-slip fittings on maintenance steps.**

This service bulletin consists to:

- Install the anti-slip fittings

SB from Airbus Helicopters Deutschland (AHD)

Interchangeability:

PRE MOD and POST MOD components are not interchangeable.

Mixability:

Do not use PRE MOD and POST MOD components together.

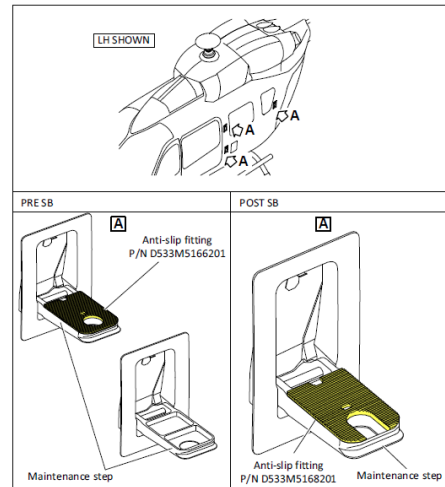
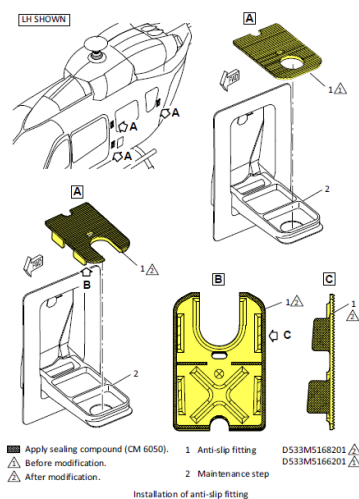
## > BENEFITS

- Airbus Helicopters offers the installation of non-slip fittings to make the coarser maintenance steps to have a safer position during maintenance work.
- Improves security.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	Week(s)	2397 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	2 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

Pre mod: BK117D-2-53-010 (R1)

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Installation of improved air-no-fuel-valves

Reference: BK117D-2-28-002 (R0)

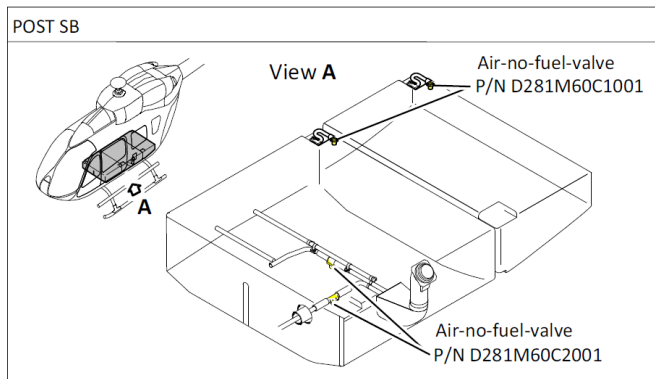
Applicable to version(s): D2

**This Service Bulletin (SB), Airbus Helicopters offers the installation of improved air-no-fuel-valves to prevent air from being trapped in the fuel system**

- This service bulletin consists to:
- Remove the old air-no-fuel-valves
  - Install improved air-no-fuel-valves

SB from Airbus Helicopters Deutschland (AHD)

Interchangeability:  
 PRE MOD and POST MOD equipment items are not interchangeable  
 After the accomplishment of the SB, you cannot use the air-no-fuel-valves (P/N B03C10 and P/N B03D00) again.



## CERTIFICATION ORGANIZATION(S)

EASA Europe

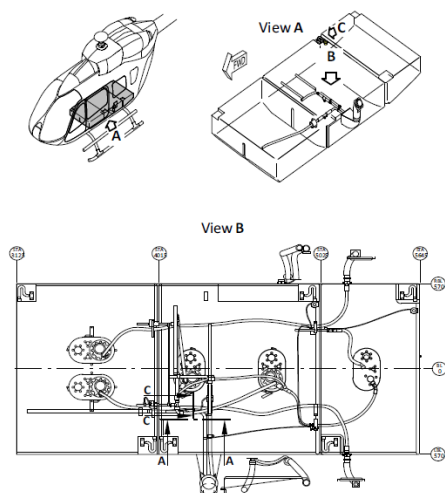
## BENEFITS

- Airbus Helicopters offers with this SB the improved air-no-fuel valves for evacuate the air from the tanks.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
On request	On request	On request	Week(s)	6171 EUR (e.c. 2023)	eOrdering

## INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Mechanics	20 Hour(s)
Airframe, Electrical	1 Hour(s)



# Insulation of bleed air heating lines

Reference: BK117 C-2-21-001 (R3)

Applicable to version(s): C2

## Improvement of the bleed air heating's performance.

Retrofit of a thermal insulation for the bleed air lines routed along the engine and equipment deck.  
 Thus, the performance is increased by 10 %.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- 10 % higher efficiency of the bleed air heating
- Less heat loss at the lines

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 3.8 kg	+ 22977 kgmm	On request	Week(s)	1192 - 10195 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	6,5 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
 No incompatibility with other systems.  
 The Kit to order are impacted according to aircraft S/N and if the previous revisions have been complied.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Modification of the damper fairings

Reference: BK117 D-2-32-005 (R0)

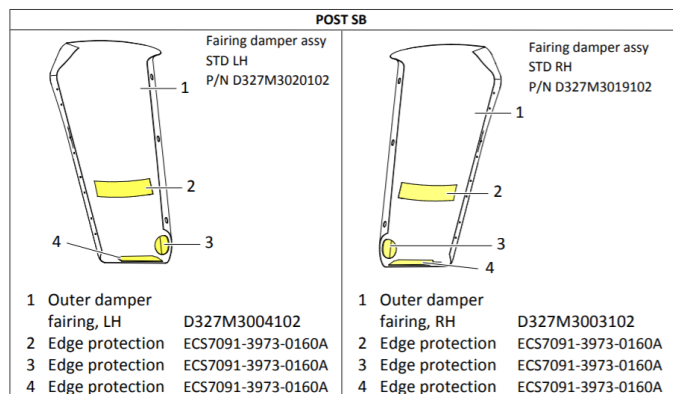
Applicable to version(s): D2

**Airbus Helicopters offers the improvement of the outer damper fairings.**

- This modification consist in :
- remove the outer damper fairings
  - install the edge protections
  - install the outer damper fairings

With the S/N 20171 and on, the outer damper fairings are modified in the serial production.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- To avoid contact between the outer damper fairings and the other elements.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	12 Week(s)	55 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	3 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

- MBB-BK117 D-2, D-2m, all S/N up to 20170 inclusive, equipped with :
- Fairing damper assy STD LH : P/N D327M3020102
  - Fairing damper assy STD RH : P/N D327M3019102

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Quick Disconnect Compressor Washing Device

Reference: BK117 C-2-71-006 (R1)

Applicable to version(s): C2

## Retrofit of compressor washing equipment, Gardena type connections.

Retrofit of the compressor washing equipment, Gardena type as well as the retrofit of the bleed air heating connections. During operation of a gas turbine, aerosols, organic compounds and fine particulate matter are ingested and deposited on the compressor blades. Compressor washing removes this deposited fouling, restoring the aerodynamic profile and compressor efficiency. After flights in salty or sandy environments compressor washing is especially recommended. After retrofit of the compressor washing equipment, the compressor washing device HMF-BG-135-115 is needed.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Quick release coupling
- Easy and fast connecting

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0,432 to 1,151 kg depending on aircraft configuration	+ 2428 to 6005 kg.mm depending on aircraft configuration	On request	20 Week(s)	8286 - 9342 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	9 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all S/N.  
Without compressor washing equipment, Gardena type or without bleed air heating connections, Gardena type.  
Ordered kit depend of aircraft S/N.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Reinforcement angle on the flexball support

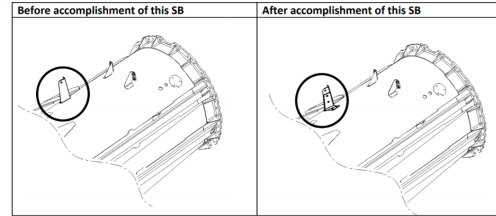
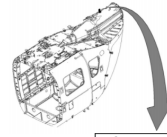
Reference: BK117 D-2-53-001 (R0)

Applicable to version(s): D2

**This Service Bulletin consist in install an angle to reinforce the flexball support on the tail cone.**

This modification consist in remove existing rivets from the tail cone and install an angle on the tail cone and flexball support.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Avoid occurrences of cracks in the painted sealing area of the flexball support.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.023 kg	+ 151 kgmm	On request	10 Week(s)	73 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	15 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters S/N 20001 up to and including S/N 20045 without Air Conditioning System (ACS) and equipped with Flexball support P/N D533K3582-201.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Relocation of the GPS1 Antenna

Reference: BK117 C-2-34-012 (R0)

Applicable to version(s): C2

## Improvement of the GARMIN GNS 430.






Relocation of the GPS1 antenna from the roof and/or from the engine cowling to the rear structure (vertical stabilizer).  
With the current installation of the GPS1 antenna on the roof and/or on the engine cowling it is possible that the GARMIN GNS 430 might be disturbed due to rotor modulation.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Reduction of error messages
- Improved readability of the GARMIN GNS 430

 WEIGHT	 MOMENT	 DOWN TIME	 LEAD TIME	 PRICE RANGE	 ONLINE CAT.
+ 0.228 to 1,26 kg depending on aircraft configuration.	+ 2443 to 8443 kgmm depending on aircraft configuration.	On request	8 Week(s)	599 - 1777 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	5 Hour(s)
Electrical systems	23 or 63 Hour(s) depending on aircraft configuration

### > PRE-POST REQUISITE / EFFECTIVITY

Valid for S/N 9051 up to and including S/N 9192.  
No incompatibility with other systems.  
The aircraft Serial Number impact the Kit to be ordered (will be selected in the CONFIGURATION ASSISTANT).

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement by a new Water Immersion Sensor

Reference: BK117 D-2-31-007 (R0)

Applicable to version(s): D2

**Airbus Helicopters offers the replacement of the water immersion probe and the immersion probe electronic-box by a new Water Immersion Sensor (WIS).**

Replace the water immersion probe and the immersion probe electronic-box with the WIS. Modify the electric. Test the system.

SB from Airbus Helicopters Deutschland (AHD)

The water immersion probe P/N 64762-001-1 and the immersion probe electronic-box P/N 66223-011-2 must not be used anymore.

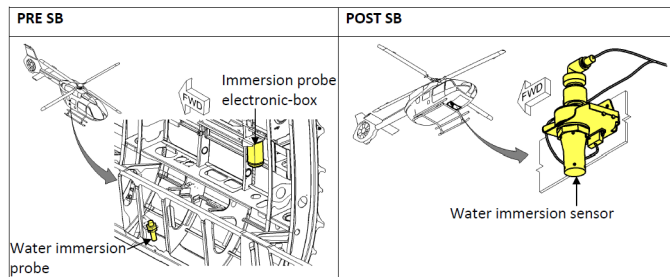
**> BENEFITS**

- To get a new Water immersion sensor for aircraft

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.099 kg - 1.179 m.kg		On request	20 Week(s)	6256 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	6 Hour(s)
Electrical systems	10 Hour(s)



**> PRE-POST REQUISITE / EFFECTIVITY**

MBB-BK117 D-2, D-2m all S/N equipped with :

- water immersion probe P/N 64762-001-1
- immersion probe electronic-box P/N 66223-011-2

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

# Replacement of air data computer ADU 3000 by the improved version ADU 3200

Reference: BK117 C-2-34-014 (R0)

Applicable to version(s): C2

**This Service Bulletin consist in replace the Air Data Computer ADU 3000 by the improved version ADU 3200 because he is not available as spare part any longer.**

This modification consist in:

- Remove air data computer ADU 3000
- Install new air data computer ADU 3200
- Perform functional test

It is allowed to combine air data computers ADU3200 (P/N C17133AA01) and ADU3000 (P/N C17027DA01) for system I and system II.

It is not allowed to combine air data computers ADU3200 (P/N C17133AA01) and ADU3000 (P/N C17027AA01) for system I and system II.

SB from Airbus Helicopters Deutschland (AHD)

The kit SB-117C2-34-014-2C (Air data computer ADU3200) is to be ordered directly at Thales Avionics.

Please download the associated Order Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.

It will be sent directly to Thales.



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all MBB BK117C-2, equipped with air data system ADS.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Use of an improved pressure sensor, a more precise indication at low speeds and improved long term drift behavior.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	7 Hour(s)

# Replacement of the ELT Antenna

Reference: BK117 C-2-25-015 (R0)

Applicable to version(s): C2, C2e

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the installation of a new improved ELT antenna for installed Integra AP-H ELT system.**

This Service Bulletin consist in remove the old ELT antenna, install the new ELT antenna, secure and connect the ELT antenna and test the ELT system.

With the S/N 9811 and on, the new ELT antennas are implemented in the serial production.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this SB, the old ELT antennas P/N 110-343, P/N 21-41 or P/N 21-41P4 must not be installed again.

## > BENEFITS

- The ELT antennas (P/N 110-343, P/N 21-41 or P/N 21-41P4) are no longer in supply.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	14 Week(s)	1496 - 1663 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	4 Hour(s)
Mechanics	2 Hour(s)

PRE SB		POST SB	
1	ELT antenna 110-343 or 21-41 or 21-41P4	1	ELT antenna 25-1000 or 25-1000P24

View A

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N up to 9810 inclusive equipped with ELT antenna P/N 110-343 or P/N 21-41 or P/N 21-41P4. The kit are impacted depending if the ELT antenna is black or white (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of the ELT Antenna

Reference: BK117 D-2-25-008 (R1)

Applicable to version(s): D2

## Airbus Helicopters offers the installation of a new improved ELT antenna.

This modification consist in :

- remove the old ELT antenna
- install the new ELT antenna
- secure and connect the ELT antenna
- test the ELT system

The ELT antenna is available in black or in white.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this SB, the old ELT antennas P/N 21-41 and P/N 21-41P4 must not be installed again.

### > BENEFITS

- The ELT antennas (P/N 21-41 and P/N 21-41P4) are obsolete and no longer in supply.

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	24 Week(s)	1286 - 1324 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	4 Hour(s)
Mechanics	2 Hour(s)

PRE SB		POST SB	
1	ELT antenna 21-41 or 21-41P4	1	ELT antenna 25-1000 or 25-1000P24

View A

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft S/N up to 20200 inclusive (with the S/N 20201 and on, the new ELT antennas are implemented in the serial production), equipped with ELT antenna P/N :

- 21-41
- or
- 21-41P4

If Revision 0 of this SB has already been accomplished, no further measures are required due to this Revision.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Replacement of the LED Anti-Collision Light

Reference: BK117D-2-33-024 (RO)

Applicable to version(s): D2

**This Service Bulletin (SB), Airbus Helicopters offers the replacement of the LED anti-collision light by an improved one to prevent broken glasses.**

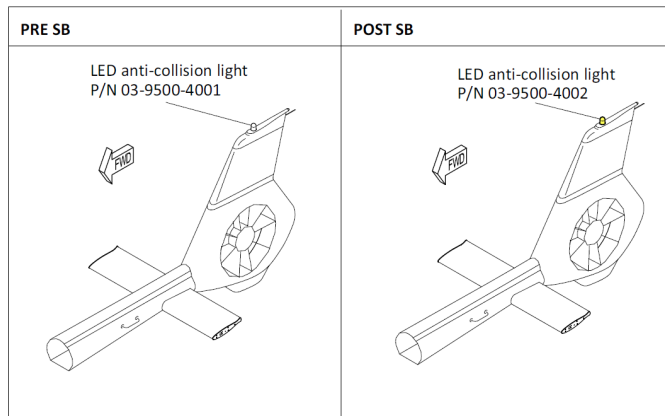
This service bulletin consists to:

- Remove the old anti-collision light.
- Install the new anti-collision light.

SB from Airbus Helicopters Deutschland (AHD)

Interchangeability:

After accomplishment of this SB the LED anti-collision light P/N 03-9500-4001 must not be used anymore.



## PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts

- MBB-BK117 D-2, D-2m, all S/N.
- LED anti-collision light P/N 03-9500-4001

## CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	Week(s)	4904 EUR (e.c. 2023)	eOrdering

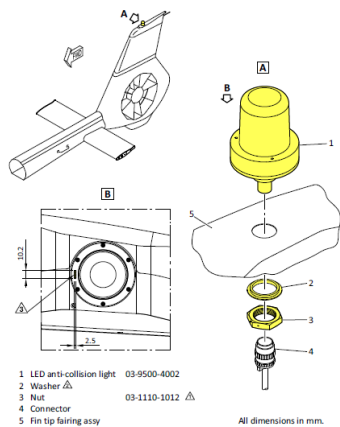
## INSTALLATION TIME

QUALIFICATION

Airframe, Mechanics

INSTALLATION DURATION

2 Hour(s)



- LED anti-collision light 03-9500-4002
- Washer
- Nut 03-1110-1012
- Connector
- Fin tip fairing Assy

All dimensions in mm.

Replace the nuts supplied with the LED anti-collision light (1) with the nut (3).

Part of the anti-collision light.

Apply varnish (CM 514) on bare metal surfaces.

Installation of the anti-collision light

# Replacement of z-absorber

Reference: BK117 C-2-18-002 (R0)

Applicable to version(s): C2, C2e

**Airbus Helicopters offers the replacement of the z-absorber pre-assy by an improved one.**

Replacement of the z-absorber pre-assy.

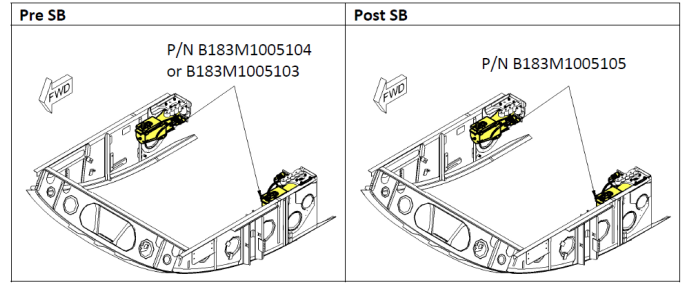
z-absorber pre-assy have to be send from supplier. A new Z-absorber pre-assy will be return.

SB from Airbus Helicopters Deutschland (AHD)

\*The improved z-absorber assy P/N B183M1005105 is in serial production from S/N 9751 and up.

After installation of the z-absorber pre-assy P/N B183M1005105, z-absorber pre-assy P/N B183M1005104 or B183M1005103 and the clamping frame P/N B183M1085201 must not be used anymore.

A mixed operation of z-absorber pre-assy P/N B183M1005104 or B183M1005103 and P/N B183M1005105 is not allowed.



## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e, S/N 9113 up to and including S/N 9750 (\*).  
MBB-BK117 C-2, C-2e, S/N 9004 up to and including S/N 9112 post SB MBB-BK117 C-2-18-001, Revision 0.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Replacement of the z-absorber pre-assy P/N B183M1005104 or B183M1005103 by an improved one P/N B183M1005105

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.122 kg	+ 0.306 m.kg	On request	16 Week(s)	656 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	5 Hour(s)

# Retrofit of a chip indication for tail rotor and intermediate gear box

Reference: BK117-90-119 (R0)

Applicable to version(s): A1, A3, A4, B1, B2, C1

**With this Service Bulletin ECD offers the retrofit of a chip indication for tail rotor transmission and intermediate transmission.**

- This modification consist of :
- retrofit chip detector, switch and wires
  - perform functional test

SB from Airbus Helicopters Deutschland (AHD)

Please contact Airbus Helicopters to place order.



## > BENEFITS

- The check of the magnetic plugs i.a.w. the 50 fh supplementary check is no longer applicable after accomplishment of this Service Bulletin.

KG					
WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,176 kg	+1,045 m.kg	On request	On request	On request	eOrdering

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

65 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable to all models.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of an improved helmet holder

Reference: BK117 D-2-25-006 (R0)

Applicable to version(s): D2

**This Service Bulletin consist in replacing the helmet holder in the cockpit.**

The purpose of this modification is to remove the existing helmet holder from the cockpit frame, Install the fixed provisions for the improved helmet holder and Install the improved helmet holder in the cockpit frame.

The improved helmet holder P/N D251M3001101 is in serial production from S/N 20201 and up.

SB from Airbus Helicopters Deutschland (AHD)

The helmet holders P/N L251M4874101 and P/N L251M4879101 must not be used anymore.

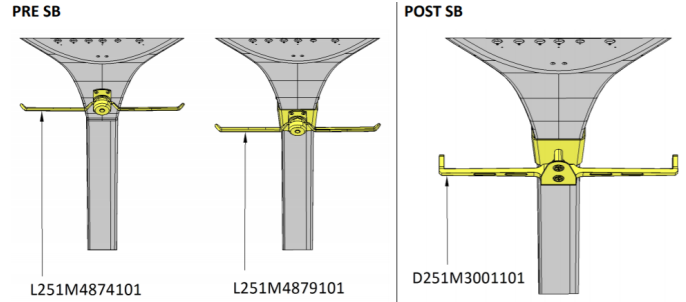
**> BENEFITS**

- With this improved helmet holder, two large and heavy helmets (e.g. with mounted night vision goggles) can be stowed at the same time.
- The possibility of a falling helmet on displays and switches is reduced.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
Negligible or + 0.079 kg depending on aircraft configuration.	Negligible or + 158 kgmm depending on aircraft configuration.	0.5 or 1 Day(s) depending on aircraft configuration.	16 Week(s)	1525 - 1565 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

<b>QUALIFICATION</b>	<b>INSTALLATION DURATION</b>
Mechanics	2 or 8 Hour(s) depending on aircraft configuration



**> PRE-POST REQUISITE / EFFECTIVITY**

For helicopters all S/N up to and including S/N 20200. Equipped with Helmet holder P/N L251M4874101 or P/N L251M4879101. (will be selected in the CONFIGURATION ASSISTANT).

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

# Retrofit of an improved helmet holder

Reference: BK117 C-2-25-016 (R0)

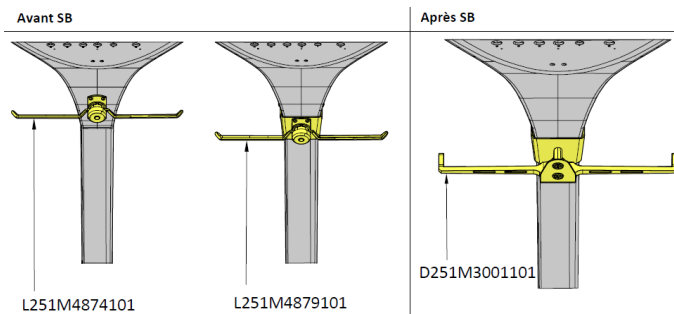
Applicable to version(s): C2, C2e

## Airbus Helicopters offers the replacement of the helmet holder in the cockpit.

This modification consist in :

- remove the existing helmet holder from the cockpit frame
- install the fixed provisions for the improved helmet holder
- install the improved helmet holder in the cockpit frame

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- With this improved helmet holder, two large and heavy helmets (e.g. with mounted night vision goggles) can be stowed at the same time.
- Also the possibility of a falling helmet on displays and switches is reduce.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.079 kg	+ 0.158 m.kg	On request	16 Week(s)	3839 - 3885 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

### QUALIFICATION

Mechanics

### INSTALLATION DURATION

2 or 8 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, C-2e all S/N equipped with helmet holder P/N L251M4874101 or P/N L251M4879101.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of High density seat bench.

Reference: BK117 C-2-25-011 (R0)

Applicable to version(s): C2

## Retrofit of fixed provisions for High density seat bench Heli 1000 RH.

- Install the multipurpose fittings at the side panel RH
- Modify interior panels RH
- Install fittings at the cabin floor

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received.



### > BENEFITS

- Improved high density seat bench.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

### > PRE-POST REQUISITE / EFFECTIVITY

On request.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofit of improved trim tabs

Reference: BK117-10-135 (R0)

Applicable to version(s): A1, A3, A4, B1, B2, C1

**Airbus Helicopters Deutschland (AHD) offers the installation of improved trim tabs on the main rotor blades.**

- This modification consist in :
- Remove pilot doors and sliding doors
  - Retrofit door locking devices
  - Install pilot doors and sliding doors

If the first issue or Revision 1, 2 or 3 of this Service Bulletin have already been accomplished, no further measures are required due to this Revision.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- The new trim tabs gives a higher reliability and reduces the maintenance costs.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	10 Week(s)	Ref to detailed price online.	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	7 to 9 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all S/N.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of improved trim tabs

Reference: BK117 C-2-62-011 (R0)

Applicable to version(s): C2, C2e

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers a retrofit of improved trim tabs for the main rotor blades.**

This modification consist in :

- Remove the main rotor blades
- Remove the trim tabs
- Modify the main rotor blades
- Install the improved trim tabs and the main rotor blades

The trim tabs (P/N 117-151331.08) are obsolete. This SB must be accomplished in case of a replacement of a trim tab.

SB from Airbus Helicopters Deutschland (AHD)

A main rotor blade removal/installation tool reduce the time and the number of mechanics for the application of this Service Bulletin. After accomplishment of this SB, the trim tabs P/N 117-151331.08 must not be installed to the rotor blade(s) again. Mixed installations of trim tab P/N 117-151331.08 and trim tab P/N L621M1021201 is possible on individual blade.

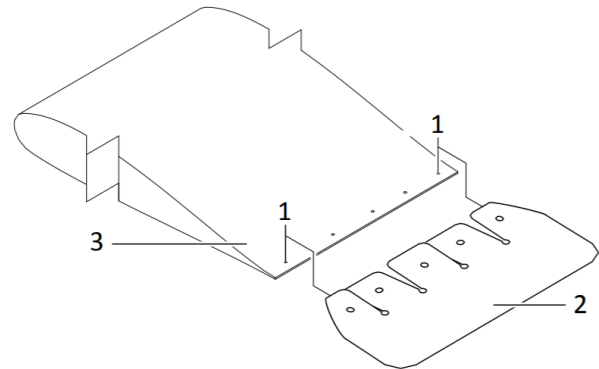
## > BENEFITS

- The new trim tabs (P/N L621M1021201) gives a higher reliability and reduces the maintenance costs.

KG	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	10 Week(s)	169 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	7 or 9 Hour(s) depending on aircraft configuration
Mechanics	0 or 9 Hour(s) depending on aircraft configuration



- 1 Boreholes dia. 2.5mm
- 2 Trim tab L621M1021201
- 3 Main rotor blade

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to aircrafts all S/N equipped with trim tabs P/N 117-151331.08.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of improved trim tabs

Reference: BK117 D-2-62-006 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers a retrofit of improved trim tabs for the main rotor blades.**

The trim tabs (P/N 117-151331.08) are obsolete and no longer in supply so they are replaced by improved trim tabs (P/N L621M1021201). This modification consist in modify the main rotor blades and remove the damaged trim tabs to install the improved trim tabs.

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this SB, the trim tabs P/N 117-151331.08 must not be installed to the rotor blade(s) again. Mixed installations of trim tab P/N 117-151331.08 and trim tab P/N L621M1021201 is possible on individual blade.



## > BENEFITS

- Higher reliability and reduces the maintenance costs.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	10 Week(s)	159 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	7 or 9 Hour(s) depending on aircraft configuration
Mechanics	0 or 9 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N equipped with Trim tab P/N 117-151331.08.

The time required for applying the change depends if removal/installation special tools are used or not.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of reinforced cabin ceiling rails

Reference: BK117 D-2-25-005 (R0)

Applicable to version(s): D2

## Replacement of the 5 kg ceiling rails by new reinforced 10 kg ceiling rails.

- Removal of the fixed parts to be re-used and the ceiling rails
- Location of the new fixed parts of the ceiling rails
- Installation of the new AFT crossbeam and new FWD crossbeam
- Installation of the new FWD crossbeam and new FWD brackets
- Installation of the fixed parts to be re-used
- Installation of new ceiling rails

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received.



### > BENEFITS

- The new reinforced cabin ceiling can load 10 Kg per rail.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

### > PRE-POST REQUISITE / EFFECTIVITY

On request.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of reinforced vibration absorber bracket

Reference: BK117 C-2-53-016 (R0)

Applicable to version(s): C2, C2e

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a reinforced bracket for the vibration absorber system.**

This modification consist in remove the non-reinforced actuator bracket and install the reinforced actuator bracket.

The improved vibration absorber bracket is in serial production from S/N 9813 and up.

SB from Airbus Helicopters Deutschland (AHD)

The bracket base plate P/N B531K1234201 and the bracket fitting assy P/N L533M1195101 must not be used after accomplishment of this SB.

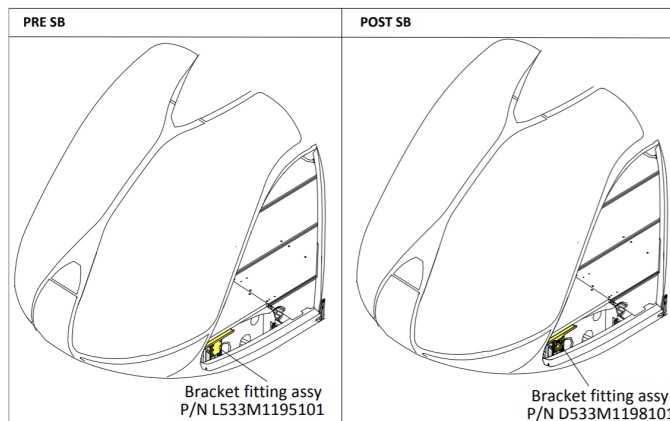
## > BENEFITS

- To prevent loosing of rivets in the area where the vibration absorber is installed and to avoid the formation of cracks.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.146 kg	+ 306 kgmm	On request	14 Week(s)	1435 - 1464 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	8 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N up to and including S/N 9812 equipped with Bracket fitting assy P/N L533M1195101 and Bracket base plate P/N B531K1234-201.

The kit are impacted depending if Co-pilot seat-rails or Co-pilot seat-rails for armour cockpit are installed or not (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Sealed version of the Sensor Signal Transmitting Unit

Reference: BK117 C-2-63-010 (R0)

Applicable to version(s): C2

**Prevent fluids to intrude from the main rotor shaft.**

Improved and sealed Sensor Signal Transmitting Unit (SSTU).  
The replacement of the sealed version prevents fluids like water and oil to intrude from the main rotor shaft into the SSTU.

SB from Airbus Helicopters Deutschland (AHD)



**> BENEFITS**

- Protection against fluids
- Lower DOC
- Less contamination of particulates in the SSTU
- Less dysfunctions

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	20 Week(s)	9662 - 9806 EUR (e.c. 2023)	eOrdering

**> INSTALLATION TIME**

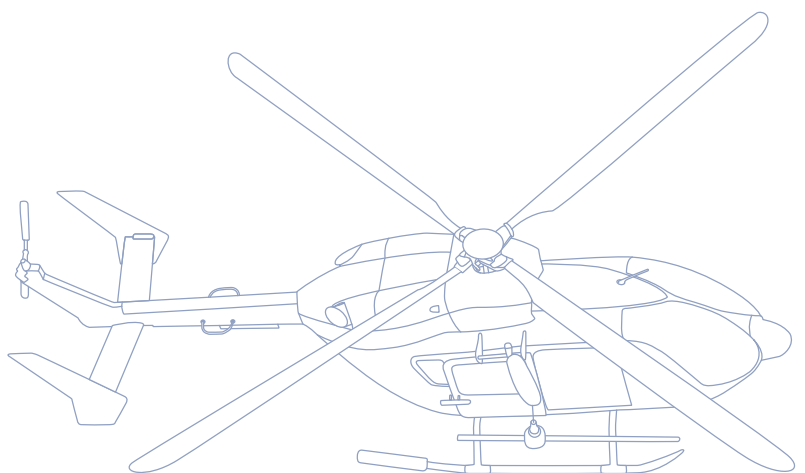
QUALIFICATION	INSTALLATION DURATION
Electrical systems	15 Hour(s)
Pilot, Flight test	1 Hour(s)

**> PRE-POST REQUISITE / EFFECTIVITY**

Effectiv for all S/N 9004 up to and including S/N 9700, EXCEPT helicopters with Vector Mast Moment System retrofitted i.a.w SB MBB-Bk117 C-2-63-003 Revision 2. The kit to order are impacted according to the Mast Moment System (Linear or Vector) (will be selected in the CONFIGURATION ASSISTANT).

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe





SAFETY



# Additional 4 LED Landing Lights

Reference: AHUK-145-0008

Applicable to version(s): D2

**The 4 additional LED landing lights, attached to the landing gear, serve as a complementary light source for taking off and landing at night.**

Three lights are installed on the rear landing gear cross tube (LH/middle/RH position) and one on the forward landing gear cross tube on LH side.

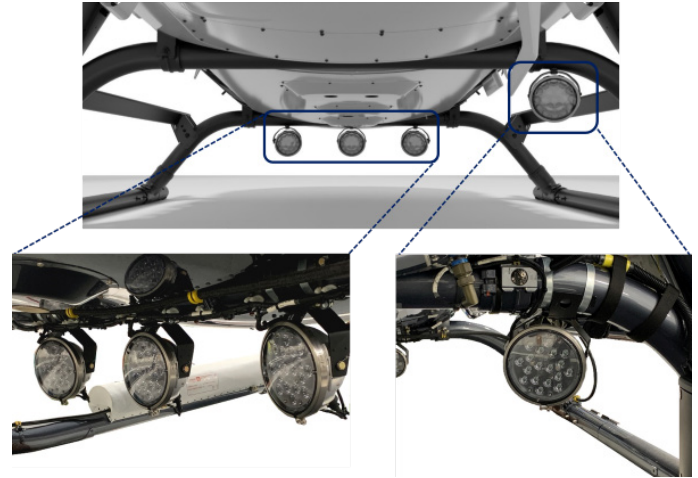
On the forward RH position the standard fixed landing light can be installed.

Each light orientation (lateral and vertical angle) can be modified under a permitted lighting configuration in order to adapt the lighting coverage.

The 4 additional LED landing lights are controlled by an additional switch located on the pilot's collective grip.

The status of the landing lights is reflected on the cockpit Main Flight Display.

STC from Airbus Helicopters UK Ltd (AHUK)



## > PRE-POST REQUISITE / EFFECTIVITY

- None

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > BENEFITS

- Increases the visibility during night landing phases.
- NVIS Compatibility.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Complete Installation +4.4 kg	Complete Installation +20.4 m.kg	3 Week(s)	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Approved Airbus Helicopters Technician	On Request

# Appareo Vision 1000™ cockpit camera

Reference: BK117 D-2-31-004 (R2)

Applicable to version(s): D2

**Airbus Helicopters offers the installation or relocation of a vision 1000 cockpit camera.**

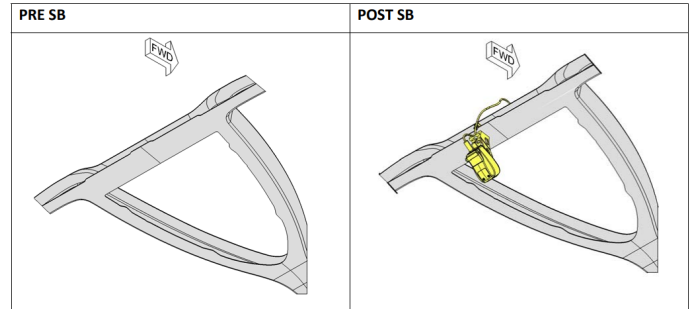
The vision 1000 cockpit camera is an autonomous recording system for the recording of position data such as altitude or the GPS position, as well as video data and ambient noises from the cockpit.

If Revision 0 or 1 of this SB has already been accomplished, no further work is required due to this Revision.

Together with the installation of the new crew reading light in accordance with SB MBB-BK117 D-2-33-013, this installation is compatible with monkey belt fitting LH on the overhead panel.

The old crew reading light must be replaced against the new crew reading light according SB MBB-BK117 D-2-33-013.

SB from Airbus Helicopters Deutschland (AHD)



**> PRE-POST REQUISITE / EFFECTIVITY**

This service bulletin is applicable on aircraft :

- without vision 1000 cockpit camera
- or
- with vision 1000 cockpit camera installed in the old position (S/N 20001 up to and including S/N 20080 with the cockpit camera installed in serial production and all S/N post SB MBB-BK117 D-2-31-004 Rev 0.)

**> CERTIFICATION ORGANIZATION(S)**

EASA Europe

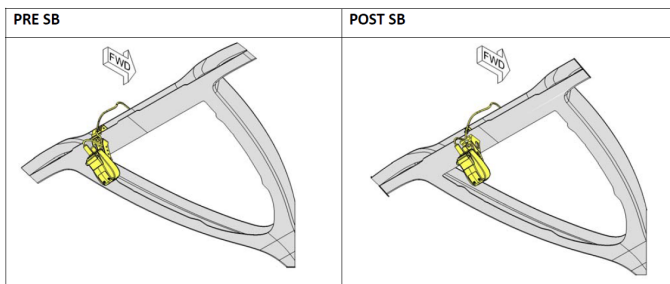
**> BENEFITS**

- The data are saved to an internal memory as well as to an SD card, and can be downloaded to a PC/Laptop for evaluation using the supplied software.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.02 kg or + 0.277 kg depending on aircraft configuration	+ 0.056 m.kg or + 0.621 m.kg depending on aircraft configuration	On request	14 Week(s)	Ref to detailed price online.	eOrdering

**> INSTALLATION TIME**

QUALIFICATION	INSTALLATION DURATION
Mechanics	20 or 25 Hour(s) depending on aircraft configuration
Electrical systems	2 or 30 Hour(s) depending on aircraft configuration



# Appareo Vision 1000™ cockpit camera

Reference: BK117 C-2-31-058 (R0)

Applicable to version(s): C2

**Airbus Helicopters offers the retrofit of a vision 1000 cockpit camera for the recording of instrument and altitude data.**

- This modification consist of :
- Install fixed part for the vision 1000 camera
  - Install the GPS antenna
  - Install the electrical part
  - Install the vision 1000 camera

SB from Airbus Helicopters Deutschland (AHD)

Please download on TIPI the information notice 2423-I-24 and apply it.



## > BENEFITS

- The vision 1000 cockpit camera is an autonomous recording system for the recording of position data such as altitude or the GPS position, as well as video data and ambient noises from the cockpit.
- The data are saved to an internal memory as well as to an SD card, and can be downloaded to a PC/Laptop for evaluation using the supplied software.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.582 kg	+ 1.389 kg.m	On request	20 Week(s)	1 4659 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	45 Hour(s)
Mechanics	16 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, all S/Ns.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Cassiopée Helisafe Helicom data acquisition box

Reference: PN47xxP

Applicable to version(s): C2, D2

**Cassiopée Helisafe consists of a data acquisition box which is called Helicom to install on your Helicopter and a back office interface Helisafe to visualize your flight data. Safran Electronics & Defense provide the Helicom data collection box in order to answer to the need to automatically alert if one or more operating parameters of the helicopter are exceeded.**

- Data collection is the first step in understanding the behavior of aircraft and systems. Recorded by the data acquisition box Helicom V2+, the flight data is transmitted automatically after and/or during the flight. In addition to the Torque Measurement Aid function, the Helicom V2+ offers:
- Data acquisition: analog, pulse, digital bus type ARINC429, ARINC767, RS232, RS422, RS485, CAN
  - Data recording simultaneously in one Recorder memory, in one LOG memory and in one Transmission memory (more than 150 flight hours)
  - Processing units: which allow to develop calculated data and to monitor exceedances thanks to unlimited triggers (thresholds) and possibility to implement embedded algorithms
  - Optional Transmission in real time through an integrated satellite link of Geolocation data, exceedance threshold, mission status
  - Transfer of recorded data in transmission memory:
    - Manually using a USB stick, USB slave port, activated Bluetooth link,
    - Automatically using GSM/WiFi link (pending on Customer demand, functions can be enabled/disabled by equipment configuration)
  - Updates of software or configuration settings:
    - either manually using a USB stick, USB slave port, activated Bluetooth link,
    - or automatically using GSM/WiFi link (pending on Customer demand, functions can be enabled/disabled by equipment configuration)
  - USB and Bluetooth link allowing connecting a touch pad or a maintenance laptop
  - On-ground 3D trajectory Replay synchronized with flight instruments.

As a standard, the Helicom V2+ is available for analogic or numerical helicopters, including the battery, a rack for installation and the GPS and GSM antennas.

STC from Safran Electronics & Defense

The distribution of this STC is ensured by Safran Electronics and Defense. Your RFQ will be sent and handled by Safran directly.

## > BENEFITS

- To monitor your helicopters flight data to improve flight safety
- To be able to track your whole fleet in real time (with SAT option)
- To be automatically alerted if one or more operating parameters of your helicopters are exceeded and avoid AOG
- To improve your troubleshooting capabilities and reduce significantly maintenance costs

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Complete Installation +1,1 kg ; Helicom : 800 gr ; Installation Kit : 300 gr	On request	On request	4 Week(s)	11800 - 18800 EUR (e.c. 2020) EXW	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	20 to 30 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

More than 20 Airbus helicopter models are already covered by EASA certification STC

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Cassiopée Helisafe Helicom data acquisition box

Reference: PN47xxP

Applicable to version(s): A1, A3, A4, B1, B2, C1

**Cassiopée Helisafe consists of a data acquisition box which is called Helicom to install on your Helicopter and a back office interface Helisafe to visualize your flight data. Safran Electronics & Defense provide the Helicom data collection box in order to answer to the need to automatically alert if one or more operating parameters of the helicopter are exceeded.**

- Data collection is the first step in understanding the behavior of aircraft and systems.  
Recorded by the data acquisition box Helicom V2+, the flight data is transmitted automatically after and/or during the flight.
- In addition to the Torque Measurement Aid function, the Helicom V2+ offers:
- Data acquisition: analog, pulse, digital bus type ARINC429, ARINC767, RS232, RS422, RS485, CAN
  - Data recording simultaneously in one Recorder memory, in one LOG memory and in one Transmission memory (more than 150 flight hours)
  - Processing units: which allow to develop calculated data and to monitor exceedances thanks to unlimited triggers (thresholds) and possibility to implement embedded algorithms
  - Optional Transmission in real time through an integrated satellite link of Geolocation data, exceedance threshold, mission status
  - Transfer of recorded data in transmission memory:
    - Manually using a USB stick, USB slave port, activated Bluetooth link,
    - Automatically using GSM/WiFi link (pending on Customer demand, functions can be enabled/disabled by equipment configuration)
  - Updates of software or configuration settings:
    - either manually using a USB stick, USB slave port, activated Bluetooth link,
    - or automatically using GSM/WiFi link (pending on Customer demand, functions can be enabled/disabled by equipment configuration)
  - USB and Bluetooth link allowing connecting a touch pad or a maintenance laptop
  - On-ground 3D trajectory Replay synchronized with flight instruments.

As a standard, the Helicom V2+ is available for analogic or numerical helicopters, including the battery, a rack for installation and the GPS and GSM antennas

STC from Safran Electronics & Defense

The distribution of this STC is ensured by Safran Electronics and Defense. Your RFQ will be sent and handled by Safran directly.

## > BENEFITS

- To monitor your helicopters flight data to improve flight safety
- To be able to track your whole fleet in real time (with SAT option)
- To be automatically alerted if one or more operating parameters of your helicopters are exceeded and avoid AOG
- To improve your troubleshooting capabilities and reduce significantly maintenance costs

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Complete Installation +1,1 kg ; Helicom : 800 gr ; Installation Kit : 300 gr	On request	On request	4 Week(s)	11800 - 18800 EUR (e.c. 2020) EXW	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	20 to 30 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

More than 20 Airbus helicopter models are already covered by EASA certification STC

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



Please visit the Upgrades catalogue on AirbusWorld/Ordering for online eOrdering and eRFQ.

## Dual Colour LED Anti-Collision Light (HISL)

Reference: AHUK-145-0005

Applicable to version(s): D2

### The Dual Colour LED Anti-Collision Light replaces the original Anti-Collision light on the tail fin cap

The light is a dual colour (Red/White) LED Anti-Collision light which can provide up to five functions. - Red Colour (with two levels, Norm/NVG). - White Colour (2000 candelas). - IR Mode (with two levels High/Low) -Both White and Red Colour - White Colour (400 candelas).

The anti-collision light is used to warn other aircraft of the presence of the helicopter, even in adverse conditions.

The light is composed of Red and White LEDs, a filtering and protection module, a power regulation and switching module and a rating module which is housed in a single LRU.

Control of the system is provided to the pilots with a selection switch in the overhead electrical distribution and switching panel.

STC from Airbus Helicopters UK Ltd (AHUK)

EASA Minor change



### > PRE-POST REQUISITE / EFFECTIVITY

None

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

### > BENEFITS

- Single LRU system
- Multiple Functions
- Simple Easy to Use System.



**WEIGHT**

0.85 kg



**MOMENT**

On request



**DOWN TIME**

5 Day(s)



**LEAD TIME**

On request



**PRICE RANGE**

On request



**ONLINE CAT.**

eRFQ



# Emergency Flotation System

Reference: BK117 C-2-32-007 (R0)

Applicable to version(s): C2

### Installation of the Emergency Flotation System (EFS, Emergency Flotation System).

This modification include :

- Retrofit of the mechanical fixed part of the EFS
- Retrofit of the collective switch units and electrical fixed parts
- Retrofit of the electrical fixed parts
- Retrofit of the overhead panel
- Retrofit of the landing gear
- Instruction for the first installation of the EFS
- Installation of the detachable parts of the EFS
- Test

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.

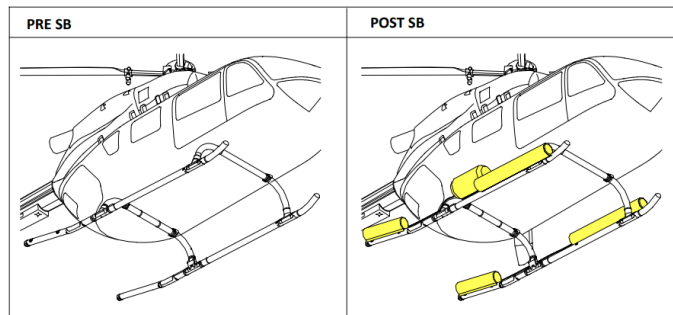
#### > BENEFITS

- Allow the operator to keep the aircraft afloat in the event of ditching to enable safe evacuation of the crew.

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
On request	On request	On request	On request	On request	eRFQ

#### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	80 Hour(s)
Electrical systems	50 Hour(s)



#### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N without optional equipment EFS.

The EFS is not compatible with sharp-edge accessory assemblies and/or antennas of various optional equipment which are installed within a defined area on both sides of the fuselage and/or on the landing gear.

For helicopters with searchlight SX-16, the SB MBB-BK117 C-2-33-022 must be accomplished before accomplishment of this SB.

#### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Enhanced Ground Proximity Warning System (EGPWS)

Reference: BK117 C-2-34-015 (R1)

Applicable to version(s): C2

## Ground proximity warning installation.

Retrofit an Enhanced Ground Proximity Warning System (EGPWS).

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received. Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



## > BENEFITS

- Real-time data-based situational awareness display of surrounding terrain and obstacles in relation to the helicopter's altitude and flight path
- Visual and audible warning system factoring in terrain, man-made obstacles and other primary scenarios associated with Controlled Flight Into Terrain (CFIT) risks

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

<b>WEIGHT</b>	<b>MOMENT</b>	<b>DOWN TIME</b>	<b>LEAD TIME</b>	<b>PRICE RANGE</b>	<b>ONLINE CAT.</b>
+ 2.9 kg	On request	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Avionics	20 Hour(s)
Paint	10 Hour(s)
Airframe, Electrical	80 Hour(s)
Avionics	230 Hour(s)

# Functional restrictions of the emergency hammer

Reference: BK117 C-2-25-009 (R1)

Applicable to version(s): C2

**A placard will be affixed inside the cabin to draw the customer's attention to the fact that the emergency hammer is not intended to create an emergency exit.**

Affix placard close to the emergency hammer either on the pilot's door, on the RH side of the emergency locator transmitter (ELT) or on the RH side beside the pilot's seat on the floor, depending on the installation position of the emergency hammer.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Airbus Helicopter would like to draw the customer's attention to the fact that the emergency hammer is neither intended nor suitable for smashing the helicopter windows in the event of an emergency.
- The certified emergency exits are the doors and the push-out windows in the sliding doors of the helicopter.
- The emergency hammer is role equipment that is to be used outside the helicopter when rescuing car crash victims.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	0.5 Hour(s)	8 Week(s)	4 - 5 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	0,5 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 C-2, all S/N with Emergency hammer LH1PGFO0001.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Health and Usage Monitoring System (HUMS)

Reference: SR04358CH

Applicable to version(s): C2

**The overall goal of Health and Usage Monitoring System (HUMS) is to provide information pertaining to the helicopter usage and the condition of the helicopter dynamic system, to support customers in their maintenance program application. In this way the HUMS helps to increase the helicopter readiness and availability, decreases operation and maintenance costs, and enhances the flight safety.**

The overall goal of Health and Usage Monitoring System (HUMS) is to provide information pertaining to the helicopter usage and the condition of the helicopter dynamic system, to support customers in their maintenance program application. In this way the HUMS helps to increase the helicopter readiness and availability, decreases operation and maintenance costs, and enhances the flight safety.

STC from Airbus Helicopters Inc. (AHI)



## > BENEFITS

- Rotor track balance alleviation, main rotor tail rotor
- Health prognosis
- Reduction of maintenance after exceedance
- Flight Data Monitoring

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+7.7 kg	On request	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
	On Request

## > CERTIFICATION ORGANIZATION(S)

FAA USA

# Monkey belt fittings

Reference: BK117 D-2-85-006 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters offers the installation of the monkey belt fittings.**

This modification includes :

- monkey belt fittings on the overhead panel
- monkey belt fitting on the middle ceiling panel (Frame 5000)
- monkey belt fitting on the middle ceiling panel (Frame 4000)
- monkey belt fitting on the middle side panel (Frame 4000)
- installation of placards
- reidentification of the components

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- New multipurpose attachment hard points.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+2,589 kg	+9,795 m.kg	On request	Week(s)	18154 -	eOrdering
+2,631 kg	+10,019			19214 EUR	
depending on aircraft configuration	m.kg depending on aircraft configuration			(e.c. 2023)	

## > PRE-POST REQUISITE / EFFECTIVITY

The vision 1000 cockpit camera installation is not compatible with the monkey belt fitting LH installation on the overhead panel.

For the installation of the monkey belt fitting LH, the vision 1000 cockpit camera must be relocated according to SB MBB-BK117 D-2-31-004.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Electrical systems	1 Hour(s)
Mechanics	140 Hour(s)

# Push-Out forward Cabin Windows

Reference: BK117 C-2-56-002 (R0)

Applicable to version(s): C2

## Improvement of the passenger security.

This modification consist in :

- remove the standard forward cabin windows
- install the adapter frame
- install the push-out cabin windows with clamping profiles
- affix placards for the best press-out locations of the windows

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Additional possibility to evacuate the helicopter.
- In case of emergency this windows can be pushed out manually to evacuate the helicopter.

## > PRE-POST REQUISITE / EFFECTIVITY

Valid for all MBB BK117 C-2, excluding helicopters with push-out forward cabin windows already installed.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 3.1 kg	+ 14.143 m.kg	On request	12 Week(s)	10839 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

### QUALIFICATION

Mechanics

### INSTALLATION DURATION

12 Hour(s) per side





# Relocation of portable fire extinguisher

Reference: BK117 C-2-25-008 (R0)

Applicable to version(s): C2, C2e

**Airbus Helicopters offers the relocation of the portable fire extinguisher from the floor track to the RH aft frame of the cabin.**

Relocate portable fire extinguisher and modify aft RH panel.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- This relocation makes it easier to install items of optional equipment in the cabin as the cabin space can now be better utilized.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.356 kg	+ 1.825 m.kg	On request	24 Week(s)	1447 EUR (e.c. 2023)	eOrdering

## > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2 with portable fire extinguisher P/N HAL1-74-00 in the cabin.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Replacement of the “EN” portable fire extinguishers with new “UL” portable fire extinguishers

Reference: BK117D-3-26-002 (RO)

Applicable to version(s): D3

**This Service Bulletin (SB), Airbus Helicopters offers the replacement of the “EN” portable fire extinguishers with new halon-free portable fire extinguishers that satisfy the environmental qualification requirements specified in the “UL” standard.**

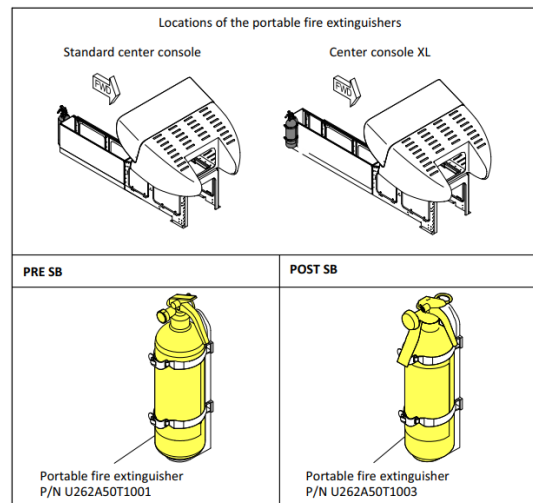
This service bulletin consists to:

- Remove the portable fire extinguisher
- Remove the cable tie and the label from the portable fire extinguisher
- Install the portable fire extinguisher
- Remove all the tools and other materials and clean the work area
- Set the helicopter to flight condition.

Interchangeability:

Portable fire extinguisher P/N U262A50T1001 must not be used anymore.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- In 2016, the EASA released the ETSO-2C515 (Aircraft Haloncarbon Clean Agent Hand-Held Fire Extinguisher). It make the use of a halon-free portable fire extinguisher necessary, that satisfies the environmental qualification requirements
- specified in the UL standard ANS/UL2129.
- The “UL” version of the new Halon Alternative Fire Extinguisher (HAFEX) was not available. Therefore, the EASA agreed to use the HAFEX which satisfies only the European standard EN4649 (P/N U262A50T1001) until the “UL” version is available.
- Now, Airbus Helicopters offers the installation of the new halon-free portable fire extinguisher (U262A50T1003) that satisfies the environmental requirements
- specified in the UL standard.

## > PRE-POST REQUISITE / EFFECTIVITY

Helicopters/installed equipment and parts

- MBB-BK117 D-3, D-3m, all S/N.
- Portable fire extinguisher P/N U262A50T1001

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,096 kg	+0,263 m.kg to +0,533 m.kg	On request	Week(s)	1015 EUR (e.c. 2023)	eOrdering

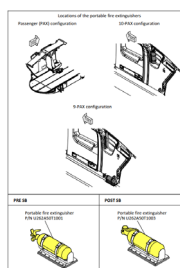
## > INSTALLATION TIME

QUALIFICATION

Mechanics

INSTALLATION DURATION

0,2 Hour(s)



# Replacement of the fixed landing light from conventional light bulb to LED

Reference: BK117 D-2-33-012 (R0)

Applicable to version(s): D2

**With this SB, AHD offers the replacement of the fixed landing light mounted on the FWD cross tube.**

This modification consist in remove the halogen landing light and install the LED landing light on the FWD cross tube.

SB from Airbus Helicopters Deutschland (AHD)

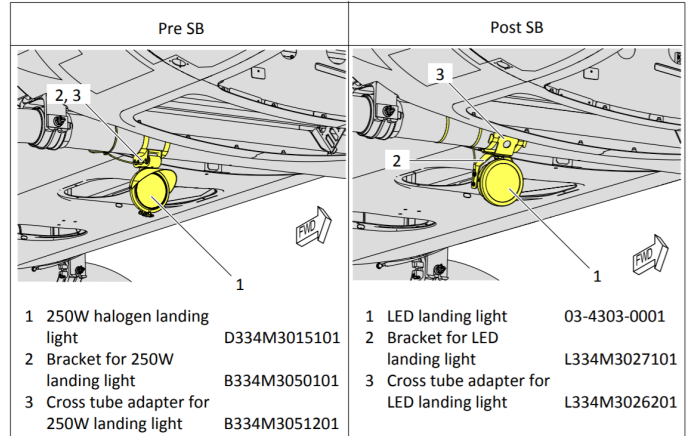
## > BENEFITS

- The new LED fixed landing light for the FWD cross tube features an improved reliability and light intensity compared to the conventional 250W fixed landing light.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.260 kg	+ 826 kgmm	On request	12 Week(s)	5787 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	2 Hour(s)



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to helicopters all S/N equipped with a 250W fixed landing light on the FWD cross tube.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of the halogen landing light by a LED landing light on the nose cover

Reference: BK117 D-2-33-018 (R0)

Applicable to version(s): D2

## replacement of the halogen landing light (250 W) by a LED landing light (55W) on the nose cover

- remove the halogen landing light
- install the fixed provisions for the LED landing light
- replace the wire harness in the fuselage. Install the LED landing light
- replace the circuit breaker of the landing light
- modify the wiring in the overhead panel
- perform the functional test of the LED landing light

SB from Airbus Helicopters Deutschland (AHD)

After accomplishment of this SB, the halogen landing light P/N 0230191-001 cannot be installed anymore.

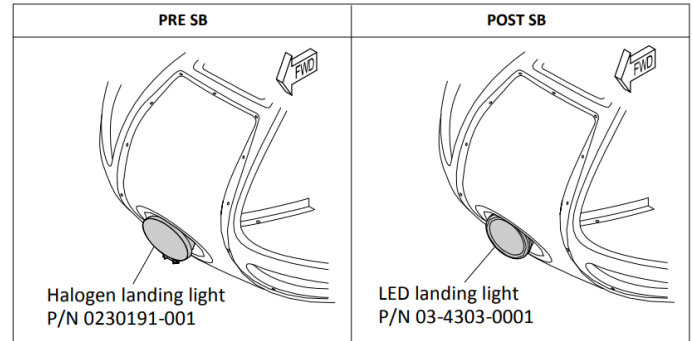
### > BENEFITS

- More reliable lights that also have the advantage of an increased light intensity at a lower power consumption.

WEIGHT	MOMENT	DOWNTIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,354 kg	+0,636 m.kg	On request	Week(s)	5259 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	6 Hour(s)
Electrical systems	10 Hour(s)



### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable on aircraft all S/N with 250 W halogen landing light P/N 0230191-001 on the nose cover, except helicopters with two search and landing lights installed (EHAC).

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Replacement of the RH halogen Search and Landing light by LED S/L light

Reference: BK117 D-2-33-017 (R1)

Applicable to version(s): D2

## Replacement of the RH halogen Search and Landing (S/L) light by LED S/L light.

- This modification include :
- retrofit of the electrical parts
  - retrofit of the overhead panel
  - installation of the LED S/L light
  - functional test

SB from Airbus Helicopters Deutschland (AHD)

Halogen S/L lights P/N 0230116-001 or P/N D334M3042101 must not be used anymore after accomplishment of this SB.



### > BENEFITS

- The higher reliability of this LED S/L light leads to a reduction of the maintenance costs.
- The IR spectrum emitted by LED lights is reduced, therefore the visibility with NVG in the pure white light mode is reduced compared to the conventional halogen lights.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
-0,84 kg	-1,681 m.kg	On request	Week(s)	33738 - 34328 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	20 Hour(s)
Electrical systems	25 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

This service bulletin is applicable to all S/N equipped with RH halogen S/L light P/N 0230116-001 or D334M3042101.

If Revision 0 of this SB has already been accomplished, no further work is required due to this Revision.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of an emergency jettison system for the cockpit doors

Reference: BK117 C-2-52-005 (R2)

Applicable to version(s): C2e

**Airbus Helicopters Deutschland offers the retrofit of an emergency jettison system for the cockpit doors and retrofit of a locking mechanism for the emergency jettison lever**

The reinforced skid protection has three longitudinal stainless-steel strips welded to the bottom of the skid protection. Each pilot door can be individually jettisoned by operating the red jettison handle.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Jettisonable cockpit doors allow fast and easy exit from the cockpit in the case of an emergency or hard landing.
- The reinforced skid protection prevents damage to the skids during landing on unsurfaced terrain with stones or sharp edges and extends the service life of the skid protection.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.050 kg or + 0.645 kg depending on aircraft configuration	+ 1.258 kg.m or 0.05 kg.m depending on aircraft configuration	On request	16 Week(s)	1777 - 31002 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	8 or 30 Hour(s) depending on aircraft configuration

## > PRE-POST REQUISITE / EFFECTIVITY

All MBB-BK117 C-2 equipped with :

- Cockpit doors without emergency jettison system :  
 LH Cockpit door B521M1031101 or B521M1031102  
 RH Cockpit door B521M1032101 or B521M1032102

Or

- Cockpit doors with emergency system but without a locking mechanism for the emergency jettison lever :  
 LH Cockpit door B522M1131101 or B522M1131102  
 RH Cockpit door B522M1132101 or B522M1132102

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofit of improved NVG Anti-Collision Light and Retrofit Installation of New NVG Tail Position Light

Reference: BK117 C-2-33-003 (R2)

Applicable to version(s): C2

## Retrofit installation of an improved anti-collision light through replacement of the xenon flashtube version by an LED anti-collision light.

This modification consist in :

- Remove power supply and the wire harness
- Install electrical connection and bracket assembly
- Replace wire harnesses, anti-collision light and tail position light
- Accomplish functional tests

If a former version of the Service Bulletin has already been accomplished, the retrofit kit SB-117C2-33-003-2C6 has to be ordered and the bracket assy must be additionally installed on all helicopters equipped with chip detector. From now on, only the new LED tail position light will be available as a spare part.

SB from Airbus Helicopters Deutschland (AHD)

For all helicopters equipped with an electrical chip detector for the intermediate gearbox and tail gearbox, the Revision 02 describes the retrofit of a bracket assy for chip detector on which a wire harness of the chip detector must be installed. The NVG anti-collision light and the NVG position light, to be installed respectively in accordance with this Service Bulletin, can be retrofitted independently of each other. When position light 03-9200-2006 has been retrofitted, the lamp MS35478-1683, which has been installed up to now, can no longer be installed.

### > BENEFITS

- This new LED anti-collision light has a longer service life.
- With the electronics integrated in the LED anti-collision light, the power supply needed up to now can be discarded which reduces the weight.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
- 0,551 to + 0,179 kg depending on aircraft configuration.	- 5577 to + 1921 kgmm depending on aircraft configuration.	On request	8 Week(s)	8 - 15665 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

3 to 8 Hour(s) depending on configuration



### > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to:

- All MBB BK117 C-2, S/N 9004 up to and including S/N 9080, equipped with anti collision light NVG P/N B856M3012101, B856M3012102, B856M3012103
- All MBB BK117 C-2, S/N 9004 up to and including S/N 9083, equipped with tail position light NVG P/N B856M3015102

The Kits to be ordered are impacted depending on whether the anti-collision light and/or the tail position light have to be retrofitted, if the last revision of this Service Bulletin have been realised and if a chip detector is or is not installed (will be selected in the CONFIGURATION ASSISTANT).

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Retrofit of UMS/SSQAR for helicopters with CVFDR installed

Reference: BK117 C-2-31-050 (R2)

Applicable to version(s): C2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the retrofit of a Usage Monitoring System (UMS) for helicopters that already have a Cockpit Voice and Flight Data Recorder (CVFDR).**

This modification consist in :

- For helicopters up to and including S/N 9109, install ground/flight switch, wire harness, module filter TB317201, module filter cycle counter, wires for additional SSQAR parameters and Data Transfer Unit (DTU).
- For helicopters starting from S/N 9110, install ground/flight switch, wire harness and Data Transfer Unit (DTU).

The last revision of this SB introduce a new PCMCIA memory card (FPCI-256MB-4162TM2).

The old PCMCIA memory card (SG9PC256SME11) is no longer available.

SB from Airbus Helicopters Deutschland (AHD)

Please download the SB in TIPI (use the link above) to apply the annex.

## > BENEFITS

- Recording of engine data, limit exceeding and the flight time
- Improves flight safety and increases the helicopter availability
- Meets current regulations (JAR-OPS 3, CAA requirements)
- Provides a management aid for scheduled as well as unscheduled maintenance

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+1,722 kg to +1,886 kg depending on aircraft configuration	+5,248 m.kg to +5,756 m.kg depending on aircraft configuration	On request	14 Week(s)	17723 - 21767 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Mechanics	40 Hour(s)
Electrical systems	60 or 80 Hour(s) depending on aircraft configuration



## > PRE-POST REQUISITE / EFFECTIVITY

This Service Bulletin is applicable to all S/N that have an installed cockpit voice and flight data recorder (CVFDR).

A free mounting slot in the center console is necessary (max. 38 mm).

The kit to order are impacted depending the helicopter Serial Number (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Retrofitting of UMS SSQAR and replacement of module filter cycle counter

Reference: BK117 C-2-31-003 (R2)

Applicable to version(s): C2

The above mentioned MBB BK117 C-2 are equipped with an Usage Monitoring System (UMS).  
**For a continuous recording of additional parameters a Solid State Quick Access Recorder (SSQAR) can be retrofitted with this Service Bulletin.**

This modification consist in :

- replace module filter cycle counter
- retrofit wires
- replace MFDAU software and memory card PCMCIA

SB from Airbus Helicopters Deutschland (AHD)

The ability to apply this Service Bulletin depends on the helicopter's configuration and will be verified as soon as the reply form sheet has been received.  
 Please download the associated Reply Form Sheet in the SB (use the link above) and attach it to the Request For Quotation in the form below.



## > BENEFITS

- Continuous recording of additional parameters.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,141 kg	+0,428 m.kg	On request	On request	On request	eRFQ

## > INSTALLATION TIME

QUALIFICATION

INSTALLATION DURATION

On Request

## > PRE-POST REQUISITE / EFFECTIVITY

On request.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Suppression of the emergency exit light during hoist operation

Reference: BK117 D-2-33-005 (R0)

Applicable to version(s): D2

**With this Service Bulletin, Airbus Helicopters offers the suppression of the emergency exit light during the hoist operation.**

Remove one wire. Install two wires. Perform functional test.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- The emergency exit light system has currently a logic, which activates the lights as soon as one door is opened. Therefore the emergency exit lights remain on during hoist operation. With this Service Bulletin AHD offers the suppression of the emergency exit lights during hoist operation, however, in case of an emergency the emergency exit lights will still illuminate.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
Negligible	Negligible	On request	8 Week(s)	69 EUR (e.c. 2023)	eOrdering

## > INSTALLATION TIME

QUALIFICATION  
Mechanics

INSTALLATION DURATION  
4 Hour(s)

## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2m, up to and including S/N 20140 with optional equipment rescue hoist system excluding S/N 20002, 20103, 20104, 20105, 20118, 20121 and S/N 20131.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Upgrade of the Traffic Advisory System (TAS) 620 to the TAS 620A

Reference: BK117 D-2-34-005 (R0)

Applicable to version(s): D2

**With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the procedure to upgrade the TAS 620 to the TAS 620A.**

This modification consist of :

- remove the TAS 620 and send it to the manufacturer (Avidyne) for upgrade
- install new and close old inserts on the avionic deck
- install the TAS 620A
- update the pcF file of the helicopter
- do the ground check of the TAS 620A

By active interrogation, the TAS 620A computes relative altitude and range of threats from nearby transponder-equipped aircraft. The system consists of two directional antennas, the TAS processor and a transponder coupler.

SB from Airbus Helicopters Deutschland (AHD)

Please download on TIPI the information notice 2423-I-24 and apply it.

## > BENEFITS

- The Avidyne TAS 620A is designed to improve flight safety by assisting pilots in detecting and avoiding aircraft intersecting their flight path.
- The other modifications presented by this upgrade of the TAS 620 to the TAS 620A in comparison are :
- Audible position alerting (APA) function, which eliminates the need to look inside the cockpit for traffic information by announcing the direction, relative vertical position and distance of traffic alert aircraft.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+0,733 kg or +1,862 m.kg	+0,775 kg +2,128 m.kg	On request	16 Week(s)	4179 EUR (e.c. 2023)	eOrdering
depending on aircraft configuration	depending on aircraft configuration				

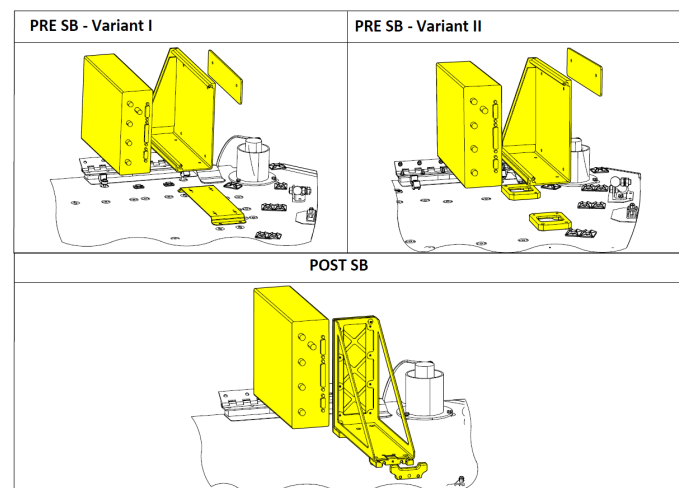
## > INSTALLATION TIME

### QUALIFICATION

Electrical systems  
 Mechanics

### INSTALLATION DURATION

35 Hour(s)  
 10 Hour(s)



Transponder Coupler



TAS Processor

Top & Bottom Antennas



## > PRE-POST REQUISITE / EFFECTIVITY

MBB-BK117 D-2, D-2m, all S/N already equipped with TAS 620 P/N 70-24208TAS620 with Installation tray P/N 60-2006.

The Helionix must be step 2(R) or higher for the upgrade of the TAS 620 to TAS 620A.

## > CERTIFICATION ORGANIZATION(S)

EASA Europe



# Wear Pads for the Cable Deflector

Reference: BK117 C-2-32-008 (R1)

Applicable to version(s): C2

## Retrofit of wear pads for the cable deflector of the emergency flotation system (EFS).

Retrofit of wear pads for the cable deflector of the emergency flotation system. The wear pads help to protect the hoist cable from excessive wear.

SB from Airbus Helicopters Deutschland (AHD)



### > BENEFITS

- Reduction of the wear on the hoist cable
- Increase service life of the hoist cable

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 0.6 kg	+ 2118 kgmm	On request	16 Week(s)	5377 EUR (e.c. 2023)	eOrdering

### > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe, Structure	5 Hour(s)

### > PRE-POST REQUISITE / EFFECTIVITY

Effective for all S/N equipped with external mounted hoist system and emergency flotation system. The cable deflector must have already been installed.

### > CERTIFICATION ORGANIZATION(S)

EASA Europe

# Wire Strike Protection System (WSPS)

Reference: BK117 C-2-85-004 (R0)

Applicable to version(s): C2, C2e

## Installation of Wire Strike Protection System.

Have the retrofitting of the wire strike protection system (WSPS) accomplished by ECD or by a maintenance facility authorised by ECD.

The retrofit i.a.w. this Service Bulletin is optional and is to be accomplished by ECD or by a maintenance facility authorised by ECD.

SB from Airbus Helicopters Deutschland (AHD)



## > BENEFITS

- Increase safety, the system cuts the electrical cables in case of hit.

WEIGHT	MOMENT	DOWN TIME	LEAD TIME	PRICE RANGE	ONLINE CAT.
+ 11.050 kg or + 11.140 kg depending on aircraft configuration	+ 23.283 m.kg or + 23.172 depending on aircraft configuration	On request	44 Week(s)	35650 - 54935 EUR (e.c.)	eOrdering

## > INSTALLATION TIME

QUALIFICATION	INSTALLATION DURATION
Airframe	On Request

## > PRE-POST REQUISITE / EFFECTIVITY

All MBB BK117 C-2, without Wire Strike Protection System (WSPS).  
 The radome installation impact the components ordered (will be selected in the CONFIGURATION ASSISTANT).

## > CERTIFICATION ORGANIZATION(S)

EASA Europe





# Standard Conditions of Sale

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## 1 - DEFINITIONS

- Affiliate means a company which Controls or is Controlled by respectively the Customer or the Airbus Helicopters group of companies.

- AOG (Aircraft On Ground) means a situation in which the Helicopter is unable to fly or is ineligible to return to service because of an unscheduled need for replacement or major repair of components, that is not related to scheduled maintenance tasks.

- BFE/CFE means Buyer Furnished Equipment / Customer Furnished Equipment.

- Certificate of Conformity (or Statement of Conformity) means the document issued by the Seller's quality assurance organization after completion of procedures approved by the respective authorized national agency certifying the Product's conformity with the Seller's applicable specifications.

- CAMO means Continuing Airworthiness Management Organization.

- Contract means the agreement between the Parties of which these Standard Conditions of Sale form part, comprising the applicable Specific Annex(es) and the Purchase Order or Order Confirmation.

- Control (including with correlative meanings the terms "controlling", "controlled" and "under common control with"), with respect to any natural or legal person, means the possession, directly or indirectly, whether through ownership of voting securities, by contract or otherwise of: a majority of the voting rights exercisable at general meetings of the controlled undertaking on all, or substantially all, matters, or, the power to appoint or remove directors having a majority of the voting rights exercisable at meetings of the board of directors on all, or substantially all, matters; or a power to exert a dominant influence over the affairs of the controlled undertaking.

- Core Unit means the used Part sent by the Customer to the Seller in case of exchange for an overhauled or repaired Part under the standard exchange service.

- Customer means the person, entity, or company to whom the Seller sells any Products and/or Services under the Contract.

- Customer Centre means a subsidiary or an Affiliate of Airbus Helicopters (SAS).

- Documentary Credit means an irrevocable, confirmed and non-transferable documentary credit.

- EASA means European Aviation Safety Agency.

- Helicopter means helicopter manufactured by Airbus Helicopters (SAS) (H125, H130, H160, H175, H215 and H225) or by Airbus Helicopters Deutschland GmbH (H135 and H145).

- IT Service Provider(s) mean(s) a third party(ies) contracted by the receiving Party that provide(s) IT services, project management services or other office management services and which may have administrative rights to sustain the IT systems.

- Item means hardware, software, technical data/technology(ies) and/or services.

- Order Confirmation means the acknowledgement of receipt of the Customer's order by the Seller, i.e. either the confirmation sent by the Seller to the Customer to take into account the Customer's order or the approval sent by the Customer to the Seller on the Quotation.

- Part means a physical good defined with a part number.

- Party/Parties mean either separately or collectively the Customer and/or the Seller.

- Product(s) means the goods to be provided by the Seller under the Contract in compliance with the applicable specification and/or definition, including all types of Helicopters, optional equipment, Spare Parts, tools, other equipment, documentation, technology, data, software on a Product (and any other goods mentioned in the Specific Annex(es), when applicable).

- Production Organization Approval (POA) means approvals issued by the respective competent authority to the Seller in compliance with EASA part 21/G regulation.

- Purchase Order (or Order) means the order covering the acquisition of Products and/or Services.

- Quotation means the priced offer and associated conditions, sent to the Customer by the Seller.

- R&O means the following activities: repair, overhaul, standard exchange, inspection and modification of a Part.

- RMA means Return Material Authorization format provided by the Seller for the purposes of the warranty article and/or R&O Service.

- Seller means Airbus Helicopters (SAS) located in Marignane, France (referred to as "AH") and/or Airbus Helicopters Deutschland GmbH (referred to as "AHD"), located in Donauwörth, Germany.

- Service(s) means the services which may be performed under the Contract consisting of: performance of R&O Technical Data, technical assistance, technical expert services, and/or tool rental performance of Training, SaaS, and any other services mentioned under the Specific Annex(es), when applicable. The specific Service(s) to be provided by the Seller under the Contract are specified therein.

- SaaS (Software As A Service) means a software application available online on an internet website and/or a software application available on defined mobile operating system(s).

- Specific Annex (or Annex) means the annex of the SCS outlining specific conditions.

- Spare Parts means new parts provided by the Seller.

- SCS means these general Standard Conditions of Sale for Products and Services.

- SB means Service Bulletin.

- STC means Supplemental Type Certificate and also refers to an equipment which has a STC.

- TAT means Turn Around Time, from the time the Seller receives the Customer's Part and its related and valid documents in its facility up to the time the Part is at the Customer's disposal Free Carrier (FCA) Incoterms® 2020 at Seller's facility, less the Customer's approval lead time and/or less lead time due to Customer's responsibility discrepancies.

- Technical Data (or TechData) means technical publications provided by the Seller.

- Training Items means training software, training documentation and courseware.

- Training means training need analysis, training courses, simulator sessions and on-the-job training.

- TSN, TSO, TSR, TBO, OTL, SLL mean respectively Time Since New, Time Since Overhaul, Time Since Repair, Time Between Overhaul, Operating Time Limit and Service Life Limit.

- VAT means Value Added Tax.

## 2 - SUBJECT AND SCOPE

These general Standard Conditions of Sale apply to any sale of Products and/or Services sold by the Seller to its Customer(s), excluding brokerage or other distributor activities. The purchase of the Products and/or Services by a Customer is considered to be performed within the framework of its professional activities.

These general Standard Conditions of Sale are supplemented by the relevant Specific Annex(es) as quoted hereinafter, when applicable:

- for Helicopter sales:

- Sale of new Helicopters and associated services
- Sale of pre-owned Helicopters and associated services

- and for Products (other than Helicopters) and Services:

- Sale of Spare Parts
- R&O Services
- Technical Data, technical assistance, technical expert services, tool rental
- Training Services and Training Items
- Helicopter maintenance, repair, overhaul, inspection, upgrade and retrofit
- SaaS

## 3 - PURCHASE ORDER / QUOTATION

## 3.1 Sale of Helicopters and associated Services – Purchase Order

The Contract shall be binding when signed by duly authorised representatives of both Parties and the delivery schedule shall become effective upon receipt by the Seller of the initial downpayment and subject to compliance by the Customer to article 4.1.

## 3.2 Products and Services sold independently of a Helicopter sale – Order issuance, acceptance

Customer's Orders shall be confirmed by the Seller in writing. The Contract shall become binding upon receipt by the Customer of the Seller's Order Confirmation and the delivery schedule shall become effective upon receipt by the Seller of the down-payment when relevant (as mentioned under article 6.2) and subject to compliance by the Customer to article 4.1.

In case the Customer requires a Quotation from the Seller, the Contract shall become binding when the Seller receives the Customer's written approval of such Quotation issued without changes. Said Quotation duly signed by the Customer shall constitute the Order Confirmation when received by the Seller.

## 3.3 Purchase Order modifications

### 3.3.1 Modifications to Purchase Order by the Seller

Pursuant to new manufacturing or engineering requirements, obsolescence or new regulations, the Seller shall be entitled to carry out modifications without the consent of the Customer, as long as these modifications do not affect the specification and/or performance of the Product and/or Services, and/or delivery time. Should the requirements affect specification and/or performance of the Product and/or Services, related costs and/or delivery time, the Seller and the Customer shall agree on the contractual consequences. Should the requirements affect specification and/or performance of the Product and/or Services, related costs and/or delivery time, the Parties shall agree on the contractual consequences.

### 3.3.2 Modifications to Purchase Order modifications by the Customer

Any changes or configuration changes requested by the Customer require prior mutual written agreement of the Parties and may lead to an adjustment of the price and/or delivery time.

## 4 - COMPLIANCE, EXPORT CONTROL, CUSTOMS

The Parties hereby undertake to comply at all times with all applicable laws and regulations in particular and not limited to national and international anti-corruption, anti-money laundering and any which impose economic, trade or other restrictive measures, or export, reexport licences or other authorisations in each case issued and enforced by a Sanctions Authority (together "Regulatory Rules").

For the purpose of the Contract,

- "Authorisation(s)" means the approval to export, re-export, transfer or retransfer but not limited to, a governmental licence as may refer to an exemption, an exception, or an agreement issued by the relevant authority under Export Regulations. "Export Regulations" means U.S., E.U. and any other applicable national export control, sanctions and embargoes laws and regulations issued by a Sanctions Authority or export control authority.
- "Sanctions Authority" means the United States of America (including, without limitation, the Department of State, the Department of Commerce and the Office of Foreign Assets Control (OFAC) of the US Department of the Treasury), the United Nations Security Council, the European Union, the United Kingdom or the government of any country with jurisdiction over the Parties.
- "Sanctioned Person" means:

a. any natural or legal person in any list of sanctioned persons of any Sanctions Authority (including the list of Specially Designated Nationals (SDN) and Sectorial or Sanctions Identifications (SSI) list, as issued and administered by OFAC); or

b. any natural or legal person directly or indirectly owned or Controlled by any one or several person(s) designated under (a) above.

## 4.1 Representation from the Customer and Know your Customer policy

The Customer undertakes to provide truthful, accurate and complete information to the Seller such as may be required by the Seller from time to time to comply with its obligations pursuant to the Regulatory Rules, including but not limited to information on the Customer's corporate structure and shareholding, or source of financing of the Contract.

Subject to articles 3.1 and 3.2, the Seller's obligations will only begin once the Seller has received from the Customer all required information and performed all necessary verifications pursuant to the Regulatory Rules and to the "Know your Customer" policy of the Seller. During Contract execution, a) failure by the Customer to comply with the Regulatory Rules and/or b) Customer becomes a Sanctioned Person and/or c) performance of either Party's obligations under the Contract would constitute a breach of Regulatory Rules and/or d) failure by the Customer to timely provide all necessary information and/or cooperate with the Seller, shall entitle the Seller to terminate the Contract forth with without any prior notice and liability whatsoever.

## 4.2 Export control

a) Each Party commits to act in compliance with all applicable Export Regulations. The Customer shall ensure that its supply chain and clients comply with Export Regulations when dealing with the Seller's Items.

b) The Parties acknowledge that performance by the Seller of its obligations under the Contract shall remain subject to obtaining, and to the terms of, any required Authorisation. The Seller shall not be held liable if an Authorisation is not granted or is granted with limited conditions and/or with delay or if an Authorisation that has been granted is amended, suspended, revoked or not renewed. Such event shall be considered as a force majeure event as defined in article 13.

In the event all or part of the Item is subject to import restrictions in the country of the Customer, the Customer shall apply for any relevant import authorisation required for the Seller to perform all or part of the Contract. In addition, the Customer is responsible to obtain the applicable Authorisation for the re-export/re-transfer of any Seller's Item.

Each Party agrees to provide to the other with any declarations or certifications required by Export Regulations and all information necessary to obtain and to comply with any required License (including providing without delay duly completed and signed enduser statement/certificate).

When the Products and Services under the Contract are subject to Authorisations, the Customer undertakes to abide by the content of Authorisations, including specific end-use/end-user and provisions/conditions. Prior to any change in the end-use/end-user or transfer of Item to any third party, the Customer shall notify the Seller thereof and follow the instructions given by the Seller.

c) Should the Customer be involved in ITAR Part 130 or 129, it is the Customer liability to comply with the applicable Export Regulations. The Customer duties is to request for the Seller any applicable declaration as required by the Export Regulations. In the event, the Customer provides to the Seller any USML Items (e.g. return for repair) then the Customer shall complete the corresponding form F provided by the Seller.

d) When the Customer provides any Item to the Seller under the Contract, the Customer shall ensure the required Authorisation is obtained prior to the delivery. In addition, the Customer shall provide in writing to Airbus each Item with all applicable export control classification(s) and the Authorisation number when applicable.

e) The Customer acknowledges that the Seller prior approval is required for the Customer to access any controlled Item and that such access can be granted, refused or revoked at any time by the Seller. To access any controlled Item provided by the Seller, the Customer shall complete and sign the template of compliance declaration for third Party Export Controlled Items access control provided by the Seller.

f) Each Party represents to the other as at the date hereof that neither it nor any of its natural or legal person that has Control over it is a Sanctioned Person. If at any time following the signature of the Contract, a Party or any of its natural or legal person that has Control over it becomes a Sanctioned Person or performance of a Party's obligations under the Contract would constitute a breach of Export Regulations (a "Sanctions Event"), the affected Party shall promptly notify the other Party and the Parties shall, to the extent permitted by applicable Export Regulations, consult with each other with a view to mitigating the effects of such Sanctions Event. Such consultation is without prejudice to the right of either Party to suspend its obligations under the Contract, including to the right of the Seller to deny the access to any digital tool or system when applicable, at any time following the occurrence of a Sanctions Event.

g) The Customer undertakes to use the Item exclusively for civil purpose and that, unless authorised by all applicable Export Regulations, it will not directly or indirectly sell, import, export, reexport, lease, sublease or operate the Item to or in (a) any country which is the subject of commercial, economic or financial restrictions pursuant to any applicable Export Regulations and/or, (b) to any Sanctioned Person.

## 4.3 Customs

If the Customer is in charge of the transportation, in case of intracommunity supply or exportation directly to a country outside the European Union, the Customer will have to provide to the Seller documentation for VAT purposes (proof of transportation and/or import declaration) to justify such intracommunity supply or exportation.

Irrespective of the applicable Incoterm, if Products are exported directly to a country outside the European Union, the Seller will provide appropriate export customs documentation to the Customer or its designated freight forwarder. The Customer guarantees correct closure of the related customs procedure in due time on leaving the European Union or the country of dispatch. In case of non-compliance, the Customer shall be liable for any additional costs and charges imposed on the Seller by the national tax administration.

## 5 - PRICES

### 5.1 General

Prices are stated and payable in Euros.

Helicopter prices and the prices of other Products and Services sold together with Helicopters are according to the baseline Helicopter definition in force at the date of signature of the Contract and to the specific configuration and scope detailed in the Contract.

For Products and Services sold independently of Helicopters, all invoices for Products and Services will be at the prices stated in the relevant Seller's price list in force, or in the relevant Quotation. The Seller's price lists are subject to regular updates.

Prices relate to Products and Services delivered in accordance with the Incoterms mentioned in each Specific Annex of these SCS.

### 5.2 Duties and taxes, VAT

Prices are exclusive of taxes, duties and/or charges resulting from administrative and legislative regulations in force in any country other than the Seller's country and of any customs and duty charges, which shall be borne by the Customer.

Prices are exclusive of VAT or sale taxes or turnover taxes or other similar taxes. If applicable, such taxes will be charged in addition.

### 5.3 Additional costs/ Chargeable amounts

Prices, unless otherwise stipulated in the Contract, do not include any preparation, packing and crating charges nor any modifications carried out at Customer's request before and after delivery, expenses incurred for the inspection of Products by third parties, expenses relating to freight forwarding, carriage by sea, air or land, ferry-flight, storage and insurance costs incurred after Customer's acceptance.

For all Orders below a minimum amount of two hundred (200) Euros, the Seller reserves the right to invoice a minimum amount of two hundred (200) Euros.

## 6 - PAYMENTS

### 6.1 General

The payment obligation will be considered fulfilled at the time the due amount is irrevocably credited in full to the Seller's bank account. The Customer shall make the payment by bank transfer (swift), which, on the Seller's request, may be secured by a stand-by letter of credit or a Documentary Credit.

Subject to article 14.1.2 any down-payments (including intermediate) made before acceptance are non-refundable, as they are necessary to cover the production, procurement, financial, administrative and other costs.

In the event of payment by Documentary Credit, the Customer shall at the time of the initial down-payment and/or Purchase Order, open at its own expense, a Documentary Credit in favour of the Seller for the Contract price, reduced by the initial down-payment, if any. The Documentary Credit shall permit partial deliveries and shall be valid for the total specified period of delivery or performance plus three (3) months covering the time required for preparing the necessary documents and for performing the payment. Should the Documentary Credit expire before full delivery is completed, the Customer shall in due time extend, at its expense, the Documentary Credit without any need for action in this respect on the part of the Seller. The Documentary Credit shall be payable at sight in favour of the Seller as deliveries are made upon presentation of the following documents by the Seller to the bank:

- In case of Helicopter sale :

- Commercial invoice in triplicate,
- Statement of conformity or Certificate of Conformity for Helicopters and optional equipment installed therein,
- Authorized release certificate (EASA Form 1) for packed optional equipment and Spare Parts and
- Certificate of Conformity for miscellaneous parts and tools which are not subject to installation on Helicopter.

- In case of Products and Services sold independently of a Helicopter sale :

- Commercial invoice in duplicate, and
- Any document specified by the Seller and mentioned under the Contract.

As well, the stand-by letter of credit shall be opened at Customer's expense and payable upon presentation by the Seller on first demand to the bank of the here-above described documents.

### 6.2 Payment terms

#### 6.2.1 Sale of Helicopters and associated Services

The Customer shall make the following payments:

- An initial down payment of thirty (30) per cent of the contractual amount no later than fifteen (15) calendar days after the signature of the Contract,

- An intermediate down payment of

- Twenty (20) per cent of the contractual amount, six (6) months prior to delivery for H125, H130, H135 and H145 Helicopters, or
- Thirty (30) per cent of the contractual amount, nine (9) months prior to delivery for H160, H175, H215 and H225 Helicopters,

- The balance of the total contractual amount at the time of the acceptance of the Products and Services and prior to delivery.

In case of sale of pre-owned helicopter(s), the Customer shall make the following payments:

- An initial down payment of thirty (30) per cent of the contractual amount no later than fifteen (15) calendar days after the signature of the Contract,

- The balance of the total contractual amount at the time of the acceptance of the Products and prior to delivery.

#### 6.2.2 Products and Services sold independently of a Helicopter sale

For any Order (except as specified hereinafter), the Customer shall make the following payments:

- Upon Contract signature, a thirty (30) per cent down payment of the total amount of the Contract shall be paid by the Customer no later than fifteen (15) calendar days following the date of invoice;

- Upon delivery of the Products / performance of the Services, the balance of the invoiced amount of the delivered Products or Items / performed Services shall be paid by the Customer no later than thirty (30) calendar days following the date of invoice.

Nevertheless, for Spare Part Orders not exceeding two hundred thousand (200,000) Euros and for R&O Service Orders not exceeding fifty thousand (50,000) Euros, full payment shall be made upon delivery no later than thirty (30) calendar days following the date of invoice.

Payment terms for Services such as, but not limited to, SaaS or Helicopter maintenance, repair, overhaul, upgrade, retrofit or inspection, are specific and defined in the relevant Specific Annex.

Without prejudice to article 6.3, should the Customer be in a situation of past due balance exceedance towards the Seller, the Seller is entitled, without prior notice, to

- alter the terms of payment and request cash in advance payment for any Order and/or

- postpone any Product delivery or Service performance ordered by the Customer to the Seller in any agreement without any liability whatsoever to the Seller; the Seller may charge the Customer for any additional costs and/or expenses incurred as a result of such postponement, such as but not limited to storage, maintenance, loss of training slot.

Unless otherwise agreed, no discount shall be granted by the Seller to the Customer in case of early payment.

## 6.3 Late payment remedies

Payment shall under no circumstances be postponed or apportioned for any reason whatsoever. Consequently, in case of late payment, the Customer shall pay to the Seller interest on the unpaid amount at the rate calculated on the basis of ten (10) percentage points per annum computed on the basis of 365 days/year and the actual number of days elapsed since the due date until the actual date of payment without any need for a formal demand or any prior notice.

Without prejudice to the above, should the Customer fail to pay or in the event of a delay in payment, the Seller will be entitled to extend the schedule for an equivalent time period and/or suspend performance of the Contract and/or in all cases, definitively retain the amount of any payments already made by the Customer. The retention of any such payment shall not preclude the Seller from seeking compensation from the Customer for further damages and/or costs. In the event of a delay or failure by the Customer to pay for more than two (2) months, the Seller shall be entitled to terminate the Contract for default of the Customer under the conditions defined in article 14.1.1.

In addition, when French law is applicable as per article 15, the Customer shall also be liable to the Seller for a fixed amount of forty (40) Euros for cost recovery fees pursuant to French code of commerce article L. 441-6. If the actual costs incurred by the Seller in recovering unpaid sums exceed forty (40) Euros, the Seller shall be entitled to ask for additional compensation upon producing evidence of such actual costs.

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# 7 - QUALITY ASSURANCE AND AIRWORTHINESS

## 7.1 General

Airbus Helicopters and Airbus Helicopters Deutschland GmbH hold

- a POA issued by EASA according to Part 21/G regulation,

- a maintenance organisation approval in compliance with the EASA Part 145 regulation, as issued by its respective national civil aviation authorities, and

- a training organisation approval in compliance with the EASA Part 147 for maintenance staff and helicopter Part FCL (Flight Crew Licensing) for aircrews as issued by its respective national civil aviation authorities.

The privileges of an approved production organization include the issuance of airworthiness documents.

The Seller holds a CAMO approval certificate issued by its national civil aviation authority in compliance with EASA Part M/ Subpart G.

The official recognition that Products and repaired / overhauled / standard exchange

Items have satisfied the quality assurance procedures is certified by the issuance of the following documents:

For Helicopter(s) in baseline definition and installed optional equipment:

- A Statement of Conformity or Certificate of Conformity issued by the Seller's quality organization to certify compliance with the contractual specification,

- An Aircraft Statement of Conformity (EASA Form 52) for Helicopters sold to customers of EASA member states signed by the Seller's authorized certifying staff within the above mentioned POA. The EASA Form 52 allows the issuance by the national civil aviation authority of the certificate of airworthiness for the European countries members of EASA, or

- A certificate of airworthiness for export, for Helicopters sold outside the European Union, issued by EASA upon submission by the Seller of the above mentioned original Helicopter Statement of Conformity (EASA Form 52),

- For the concerned components/equipment, a logcard,

- Upon request, a certificate of non-registration issued by the national civil aviation authority.

For optional equipment delivered packed, Spare Parts and repaired / overhauled / standard exchange Items:

- Upon request, a Certificate of Conformity or other equivalent document issued by the Seller's authorized certifying staff, for standard components,

- An authorized release certificate (EASA Form 1) for other certified components or non-standard Spare Parts issued on behalf of the national civil aviation authority by the Seller or the Seller's selected workshop,

- A logcard if applicable For new parts/Items: a hard copy or a digital one at the Customer's choice,

For other parts/Items: if the Customer is using the paper format, in the same format as provided by the Customer, the previous customer or previous user as applicable; if the Customer is using the digital format, a digital one,

- A dual or tri release if required through a bi/tri lateral agreement between authorities (e.g. Federal Aviation Regulation (FAR) 145 / Transport Canada Civil Aviation (TCCA) 145).

For miscellaneous parts and tools which are not subject to installation on the Helicopter (if applicable):

- A Certificate of Conformity issued by the Seller's authorized certifying staff.

The Customer that has its civil helicopter registered in a country under EASA regulation is responsible of any task related to the management of the continuing airworthiness of the helicopter or shall transfer this obligation by signing a contract with a CAMO in order to ensure the proper accomplishment of the airworthiness management activities in accordance with the regulations in force (Part M/ Subpart G). Upon signature of the Contract with the Seller, the Customer shall indicate who will assume the responsibility of the CAMO.

## 7.2 Modifications after delivery

The Seller will notify the Customer of any modifications that the competent national airworthiness agency has decided to impose on Helicopters or Spare Parts of the same type. In the event of such modifications, the Seller shall make available to the Customer, within a reasonable time, at the latter's request and expense, the equipment kits required to incorporate such modifications to the Helicopter and Spare Parts previously delivered. For this purpose, the Customer shall receive at no additional cost the technical information bulletins relating to the type of Helicopter mentioned in the Contract for as long as at least one (1) Helicopter of the type remains in service with the Customer.



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## 8 - ACCEPTANCE AND TRANSFER OF OWNERSHIP AND RISK

### 8.1 Helicopter acceptance activities

#### 8.1.1 Helicopter acceptance activities by the Seller

Prior to Customer's acceptance activities for new Helicopters, the Seller shall perform production ground and flight tests on Helicopters. Flight tests will not exceed per Helicopter:

- Twenty (20) flight hours for H125, H130, H135 and H145 or,
  - Thirty (30) flight hours for H160 and H175 or,
  - Fifty (50) flight hours for H215 and H225.
- Equipment and components may be delivered with up to fifty (50) hours and/or the remaining time of equipment and components may be reasonably affected by the industrial cycle. Additional hours may be flown in the event that development and installation of specific equipment is requested by the Customer. The cost of such additional hours shall be borne by the Customer. Helicopter non conformities with certified definition, which have an impact on Helicopter operation and maintenance by the Customer, shall be submitted to the Customer for approval.

Upon satisfactory completion of the Seller's acceptance activities, a Certificate of Conformity will be issued by the Seller. As from the date of issuance of this document, the Helicopters shall be deemed ready for Customer's acceptance, referred to as the "Ready for Acceptance" date.

#### 8.1.2 Helicopter acceptance activities by the Customer

Not later than (1) month prior to the date on which a Helicopter is to be Ready for Acceptance by the Customer, the Seller will provide the Customer with a procedure describing the acceptance process (organization, schedule, documents, etc) and document(s) defining the flight tests that could be performed by the Customer (hereinafter referred to as "Acceptance Test Document(s)"). The purpose of these tests is not to re-perform certification tests. These documents shall be valid for all Helicopters of the same type.

Within one (1) week after receipt of the Ready for Acceptance notice, the Customer shall send to the Seller the information required from the Customer's representatives in order to be admitted to the Seller's premises. The Customer's inspection team shall not exceed three (3) persons.

The acceptance activities by the Customer shall not exceed, per Helicopter:

- One (1) day for H125, H130, H135 and H145, or
- Two (2) days for H160, or
- Three (3) days for H175, H215 and H225.

The Customer shall bear its own expenses and costs related to the Customer acceptance activities including but not limited to travel and accommodation of its representatives during this process.

During the Customer's acceptance activities, it may perform acceptance flights, the combined time of which shall not exceed per Helicopter one (1) flight hour for H125, H130, H135 and H145 Helicopters and two (2) flight hours for H160, H175, H215 and H225 Helicopters.

Acceptance flights will follow the format and procedures described in the Acceptance Test Document(s) provided by the Seller and shall be carried out under the responsibility of a Seller's pilot acting as pilot in command.

Unless a major deviation from the specification is found during the Customer's acceptance, the Customer shall accept the Helicopters as being in conformity with the contractual specifications. The acceptance shall be acknowledged by the Customer's signature of an acceptance certificate, designated as "Acceptance Protocol" and/or "Acceptance and Transfer of Ownership Protocol". If the acceptance certificate is not signed within the above acceptance time period, and without such absence of signature being duly justified in writing explaining the precise reason of the rejection and the contractual grounds thereof, or if the Customer does not attend the acceptance procedure, the acceptance shall be deemed to have been granted by the Customer.

### 8.2 Acceptance of Products (other than the Helicopters) and Services

A Certificate of Conformity or equivalent document is issued by the Seller for Products other than the Helicopters.

With regards to Products other than Helicopters, the Customer shall check and notify any defect and/or non-conformity with the Order and/or missing associated documentation in a documented registered letter:

- within twenty one (21) calendar days as from the date the Seller has notified that the Product is ready to be collected, or
- in case of Products delivered CIP or DAP, the time frames for acceptance are the following:
  - forty eight (48) hours for AOG Orders,
  - fifteen (15) calendar days after delivery for Training Items and/or technical publications

and claims against the carrier shall be made within three (3) working days as from the date of receipt of the Product. After expiry of said periods, the Customer's acceptance of the Products shall be deemed given unless the Customer's refusal is duly substantiated in writing and explaining the precise reason of the refusal and the contractual grounds thereof.

For the Services, except SaaS, a certificate of completion of Services or assignment sheet shall be issued once the Service has been performed. The Customer shall sign the form certifying that the Service has been provided in accordance with the Contract. Unless the Customer's refusal is duly substantiated in writing and explains the precise reason of the refusal and the contractual grounds thereof, the Service shall be deemed accepted five (5) working days after issuance of the certificate of completion of the Services or of the assignment sheet. SaaS, including any and all of their supporting elements and content, are provided on an "as is" and "as available" basis.

### 8.3 Collection of Products

After the transfer of ownership, the Customer shall collect the Helicopter within two (2) weeks in case of ferry flight or within one (1) month if it is to be dismantled or conditioned for sea, air or road transport.

If pilot's training has been contractually agreed to take place following the acceptance of the Customer's Helicopter, said duration shall be extended by the time required to train its pilot(s) on its Helicopter.

The Customer shall collect any optional (i.e. not installed on Helicopter) packed equipment, Spare Parts, R&O Items and/or tools:

- within four (4) weeks for Products sold together with Helicopters
- within fifteen (15) calendar days otherwise following the notification by the Seller to the Customer of its availability.

If the Customer fails to pick up its Products within the above mentioned periods of time:

- The Customer shall reimburse the Seller any expenses incurred by the Seller such as maintenance, storage, insurance, taxes and associated penalties if any, levies, etc. The foregoing does not constitute any obligation for the Seller to maintain, store or insure the Products beyond the date the Products should have been collected.
- The Seller may terminate the Contract as per article 14.2 and shall not be liable for any loss or damages incurred by the Customer as a consequence of such termination.

In the event that the Products are delivered in consigned containers, the Customer shall return said containers at its expense within fifteen (15) calendar days after they are made available to the Customer by the freight forwarder. After the expiry of this period, the Seller shall be entitled to invoice the container at its current price.

### 8.4 Transfer of ownership and risk

#### 8.4.1 Helicopters

Transfer of ownership of the Product shall be subject to the prior fulfilment by the Customer of its obligations, in particular full payment of the balance of the Contract and interest, if any. Upon signature of the "Acceptance Protocol" or the "Acceptance and Transfer of Ownership Protocol" by the Seller and the Customer and upon full payment of the Contract price, the ownership of the Products is transferred from the Seller to the Customer. The Seller shall also immediately issue the bill of sale.

All risks relating to the loss of or damage to the Products shall pass to the Customer upon transfer of ownership following delivery, as per the Incoterms specified in the Specific Annex applying to the sale of new Helicopters and associated Services.



Until the transfer of risks to the Customer, the Seller shall maintain an insurance coverage whose the scope, the limits of cover and the duration are as wide as what is usually practiced in the aviation industry for the activities to be performed by the Seller.

From the transfer of ownership to the Customer,

- the Customer shall effect and maintain, at its own cost, an appropriate insurance coverage, including but not limited to a hull all risk and hull war risk insurance coverage;
- with respect to the Customer's hull all risk and hull war risk insurance coverage, the Customer shall cause the insurers of the Customer's hull insurance policies to waive all rights of subrogation against the Seller, its assignees and its directors, officers, agents and employees.

From the transfer of risks, the Customer shall bear all risks related to the Helicopter and waive the right of any recourse of any nature whatsoever against the Seller, its assignees and its directors, officers, agents and employees to this respect.

In case of collection of the Product by the Customer as per article 8.3, the Seller shall remain liable for any damage to the Products due to the Seller's negligence, gross negligence or wilful misconduct until the collection of the Product provided that the collection is made in the timeframe defined in the two first paragraphs of article 8.3.

At Customer's request and costs, and according to the terms of the Contract, the Seller will dismantle and package the Helicopter for transportation after the transfer of ownership.

## 8.4.2 Products other than Helicopters

The transfer of ownership of any Products other than Helicopters shall take place after fulfilment of export customs formalities by the Seller (when applicable):

- at the Seller's facility, at the time of their collection by the forwarding agent appointed by the Customer, or

- in case of Products delivered CIP or DAP, at the mentioned delivery place, and shall be subject to the prior performance by the Customer of its obligations in particular the full payment of the delivered Products and interest, if any.

As a result, should the Customer fail to pay according to the contractual payment terms, the Seller reserves the right to terminate the Contract through notification sent by registered letter and, if the Products are already delivered, to demand that said Products be returned.

As a result, should the Customer fail to pay according to the contractual payment terms, the Seller reserves the right to terminate the Contract through notification sent by registered letter and, if the Products are already delivered, to demand that said Products be returned. If the laws of the country where the Products are delivered do not allow the Seller to regain ownership, the Seller shall be entitled to benefit from any other rights that such laws may confer. The Customer shall implement all measures necessary to protect the Seller's aforementioned rights. In all cases, this will not prevent the Seller from claiming any damages.

Risk of loss or damage to the Products is transferred to the Customer at the time of delivery of the Products by the Seller as determined by the agreed Incoterms® 2020.

## 8.5 Adherence to the delivery date

Adherence to the delivery date is conditioned upon the Customer fulfilling all of its contractual obligations.

## 8.6 Helicopter ownership chain

Without any time limit, the Customer will inform the Seller of any resale of Helicopter(s). This information will be provided in writing and within fifteen (15) days from transfer of ownership to the Customer's buyer and shall include the identity of the new owner and, if available, of the operator.

# 9 - WARRANTY

## 9.1 General

The Seller warrants that the Products and Services provided, except the turbine engine(s),

specific equipment with a STC mentioned in the Contract (if any) and MEGHAS avionics equipment, are free from defects in material and workmanship under normal use and service and that software identified in the applicable Helicopter specification substantially provides the functions set forth in the said specification or in the applicable SB.

The turbine engine(s) as well as the MEGHAS avionics equipment installed in the Helicopter and STCs equipment identified in the Purchase Order are covered by the warranty granted by the manufacturers of these items (Safran Helicopter Engines, Pratt & Whitney and Thales and the STC holder), the benefits of which the Seller hereby assigns on to the Customer who hereby acknowledges and accepts such assignment.

As soon as possible but no later than fifteen (15) calendar days after the discovery of a defect, the Customer shall furnish to the Seller, by using a warranty claim form provided by the Seller, the full details of its claim and the basis thereof. As soon as it receives the said form, the Seller will forward to the Customer a warranty claim acknowledgment and a RMA form. Within fifteen (15) calendar days following the receipt of such documents the Customer shall return the allegedly defective Parts to the Seller. If the Customer fails to return the allegedly defective Parts in due time, the Seller reserves the right to invoice the replacement Parts which have been ordered or produced for the Customer at the price stated in the relevant Seller's price list in force, or in the relevant Quotation.

The Seller will compensate reasonable transportation costs outbound from the Customer premises to the Seller's premises for the repairable Parts for which the benefit of the warranty has been granted by the Seller. The Customer shall send the invoice to the Seller by the end of each quarter and in any case not later than three (3) months after the acceptance by the Seller of the warranty claim. Corresponding credit notification will be issued on a quarterly basis by the Seller and shall be applicable to Spare Parts and/or R&O invoice(s). Insurance, customs expenses and other charges as well as the expenses incurred by the Customer for the removal, re-installation, calibration and troubleshooting operations with respect to such Parts shall be borne by the Customer.

However, during the first year of the warranty of a new civil Helicopter (except H215 one), for each valid warranty claim, the Seller will compensate in kind the Customer for reasonable labour charges related to warranty issues on the basis of removal and re-installation of the concerned Part(s) (troubleshooting excluded). These labour charges flat rates in force are defined by the Seller per category and are available to the Customer on request. Such compensation shall be cumulated on a monthly basis under the form of a credit which shall be valid for one (1) year and shall be used by the Customers for paying ordered Spare Parts. If applicable, the Customer hereby authorizes the Seller to grant the credit to the company who manages and performs the warranty claim on its behalf for the final benefit of the said Customer.

Said credit(s) shall not apply in case of Customer's default, such as, but not limited to, late payment and payment failure.

For Parts for which the benefit of the warranty has been granted by the Seller, the return transportation costs to the Customer premises shall be borne by the Seller.

The warranty exclusions are as follows:

- in the event that maintenance activities have not been properly entered in the appropriate logbook (or in case of failure to produce the logbook to the Seller if so requested), or

- in the event of a defect that is the result of normal wear and tear, or

- Parts and any associated costs incurred for scheduled maintenance, or

- if the Parts have been stored, protected, freighted, operated, maintained, installed, altered, repaired or overhauled otherwise than in accordance with the manuals, documentation and instructions delivered by the Seller or its subcontractors/suppliers, or

- if the Parts has suffered an accident, or

- if a defect of the Part(s) alleged by the Customer is not confirmed during the technical expertise done by the Seller, or

- if the Parts have not been delivered by the Seller, or

- if the defect is partly or wholly caused by a defective item not provided by the Seller, or

- if the software or the host media is exposed to any computer virus or to any conditions in excess of those published in the applicable manuals, documentation and instructions delivered by the Seller, as well as any alteration and/or modification not validated by the Seller, having an impact on the software, or

normal wear and tear of item(s) such as, but not limited to, seals, tires, inner tubes, bulbs, packings and similar consumables parts.

The warranty is granted to the Customer personally. As a consequence, should the Customer sell a Helicopter during the warranty period, it undertakes to notify the Seller of the new owner's name at the time of the transfer of title. Notwithstanding, any request for warranty transfer to any third party within the six (6) months following the Helicopter's delivery is subject to the prior written consent of the Seller. Should the Customer want the warranty to be managed by a third party, it shall then provide the Seller with a power of attorney authorizing the said third party to act on its behalf. The warranty constitutes the Seller's sole liability in case of breach of the warranty obligation, and is exclusive and in lieu of any other warranty or remedy available under the Contract or at law (to the extent permitted at law).

## 9.2 Warranty period

The Seller's obligation under the warranty is limited to the repair - or replacement at the Seller's discretion - of the allegedly defective Products or Services that have been returned to its facility and, at the time of any repair or replacement have been recognized by the Seller after expert investigation as defective. To be eligible under this warranty, the alleged failure must have occurred within the time-limits mentioned here-after:

- For new civil Helicopter(s) in baseline definition and installed optional equipment:
    - Within two thousand (2,000) flying hours or thirty six (36) months after their acceptance at the Seller's factory, whichever event occurs first.
  - For Spare Part(s) and SB kit(s):
    - Within one thousand (1,000) flying hours or twelve (12) months from the time they are fitted to the Helicopters or twenty four (24) months after their delivery from the Seller's factory, whichever event occurs first.
  - For tool(s):
    - Within twenty four (24) months after their delivery from the Seller's factory.
  - For Training Item(s):
    - Within the twelve (12) months after their delivery from the Seller's factory.
  - For repaired, overhauled and standard exchange Items, and used Part(s):
    - Within five hundred (500) flying hours or six (6) months from the time they are fitted to the Helicopters or twelve (12) months after their delivery from the Seller's site, whichever event occurs first. For repaired Item, the warranty is limited to the repair done and/or the Parts replaced.
  - For tools repaired, overhauled or returned for calibration:
    - Within twelve (12) months after their delivery from the Seller's site.
  - For workmanship:
    - Within five hundred (500) flying hours or six (6) months from the signature date of the acceptance certificate by both Parties, whichever event occurs first.
- Warranty periods in case of sale of pre-owned Helicopter(s) are defined in the relevant Specific Annex.

Software identified in the applicable Helicopter specification shall only be considered as non-conforming, if there are substantial deviations of the functions supported by software from the Helicopter specifications. The Seller will, at its sole discretion, remedy such non-conforming software for the considered Helicopter by providing a correction release of the software or by finding a reasonable workaround. The Customer shall supply the Seller with all necessary information and documentation in its possession, to enable the Seller to investigate and rectify such non-conforming software. The Seller warrants the software identified in the applicable Helicopter specification provided that the alleged warranty is notified by the Customer to the Seller within one hundred and eighty (180) calendar days from the date of delivery of the Helicopter to the Customer.

The warranty conditions for software embedded in the delivered Spare Parts or in the delivered repaired/overhauled/ standard exchange Item shall be the ones applicable to the software delivered with the Helicopter, as mentioned in the previous paragraph.

Any SaaS, including any and all of their supporting elements and content, are provided "as is" and "as available". The warranty period on the repaired or replaced part(s) shall be the warranty period that was remaining on the respective defective part. The part(s) removed for which the Seller supplies a replacement part(s) shall become the property of the Seller.

## 9-3 German legal warranty

For Contracts governed by German law, the German legal warranty (Sachmängelhaftung) supersedes the standard warranty conditions described here above for the first twelve (12) months. During this period, and provided that the German legal warranty is applicable, the Seller may elect to repair or replace the defective Products.

## 10 - CONFIDENTIALITY

During the performance of the Contract, the proprietary information of the Parties shall be protected as follows: the term "Proprietary Information" shall mean any information or data in whatever form (either in writing or orally, subject to the conditions set forth hereinafter, and including but not limited to any written or printed documents, samples, models or any means of disclosing such Proprietary Information that the disclosing Party may elect to use during the life of the Contract), disclosed by either Party to the other and which is designated as proprietary to the disclosing Party by an appropriate stamp, legend or any other notice in writing, or when disclosed orally, has been identified as proprietary at the time of disclosure and has been promptly (thirty (30) calendar days at the latest) confirmed and designated in writing as Proprietary Information of the disclosing Party.

The receiving Party hereby covenants that, from the effective date of the Contract, the Proprietary Information received from the disclosing Party shall:

- a) be protected and kept in strict confidence by the receiving Party, which must use the same degree of precaution and safeguards as it uses to protect its own Proprietary Information of like importance, but in no case any less than reasonable care; and
- b) be only disclosed to and used by those persons within the receiving Party's organization (including temporary workers) and its Affiliates, external counsels, lawyers, accountants, auditors, banks, insurers and IT Service Providers, who have a need to know and solely for the purpose specified in the Contract (and provided such entities are bound by confidentiality obligations either at least as constraining or resulting from a professional duty by operation of law); and c) not be used, in whole or in part, for any purpose other than the purpose of the Contract without the prior written consent of the disclosing Party; and
- d) neither be disclosed nor caused to be disclosed, whether directly or indirectly to any third party or persons other than those mentioned in subparagraph b) above; and
- e) neither be copied nor otherwise reproduced nor duplicated, in whole or in part, where such copying, reproduction or duplication has not been specifically authorized in writing by the disclosing Party.

Any Proprietary Information and copies thereof disclosed by either Party to the other shall, subject to any third party rights, remain the property of the disclosing Party and shall be immediately returned by the receiving Party upon request.

Notwithstanding the confidentiality obligations stated in the Contract, the receiving Party may disclose the Proprietary Information to any governmental agency or judge legally authorized to have mandatory access to such information, provided however that in these circumstances, the receiving Party shall prior to disclosure notify the disclosing Party to give the disclosing Party the opportunity to take appropriate action(s), as far as available, against such disclosure.

AH, as a French company, is under the obligation to comply with French Law n°68-678 (as modified by Law n°80-538) regarding the communication of documents and information of economic, commercial, industrial, financial or technical nature to natural or legal entities abroad.

## 11 - INTELLECTUAL PROPERTY

AH and/or AHD retain all rights in respect of developments, inventions, know-how, production procedures and any intellectual property rights relating to the Products that they manufacture and/or Services related thereto.

Nothing in the SCS shall be construed as a legal transfer of or licence to (other than specified hereafter), any patent, utility or design model, copyright, trademark, know-how or other intellectual property right. Copying and/or reproducing and/or communication and/or transmission to a third party of Seller's Products or Services or technical information or publications or training manuals, either wholly or partially, without the Seller's written express approval is strictly forbidden (except for the copying by the Customer of technical documentation provided by the Seller exclusively for the purposes of operation and maintenance of the Helicopters by the Customer).

The Seller grants the Customer a non-exclusive, non-transferable licence to use

- a SaaS for the purposes of operating and/or maintaining helicopters and/or
- the executable form of the software on the related Product, for the purposes of operating the Helicopters.

This licence does not entitle the Customer to receive free of charge updates of such software. The Customer shall not decompile, disassemble, modify, reverse assemble, reverse engineer or reduce to human readable form, the software and/or any SaaS except to the extent the foregoing restriction is, by operation of applicable law, prohibited or of no effect.

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## 12 - LIABILITY

Notwithstanding any provision to the contrary in the Contract or elsewhere, the total and cumulated liability of the Seller under the Contract, due to any and all causes whatsoever, whether based on breach of contract or in tort or otherwise, shall in no event exceed in aggregate an amount equivalent to ten per cent (10%) of the total net Contract price (excluding taxes) or in case a specific Order is passed and the triggering event of liability relates to that Order, ten per cent (10%) of the total net Order price (excluding taxes).

The above limitation shall not apply in the event of gross negligence, wilful misconduct, death or bodily injury.

Each Party shall be responsible for death or bodily injury arising to its own personnel, whatever the cause. The Parties therefore waive the right to any claim against the other in this respect, except if such death or bodily injury is caused by the gross negligence or wilful misconduct of the other Party.

In no event shall the Parties be liable for any indirect, consequential, incidental, special or punitive damages of any kind, including, but not limited to, damages for any loss of use or profit, loss of assets, loss resulting from business disruption, loss of goodwill or loss of contractual opportunity by the other Party.

To the extent permitted at law, the Seller's obligations and liabilities and the Customer's rights and remedies as set forth in the Contract are exclusive and are in replacement of any and all other remedies under law or otherwise.

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## 13 - FORCE MAJEURE AND EXCUSABLE DELAY

### 13.1 Force majeure

The Seller shall not be held responsible for failure to perform or delay in performing any of the contractual obligations of the Contract if such failure or delay is due to, but not limited to:

- acts of God, war, insurrection, epidemics, sabotage, labour disputes, strikes, lock-outs, shortages of labour, interruption or delays in transportation, fire, explosion, equipment or machinery breakdown, failure or delays of the Seller's sources of supply, shortage in material or energy, or
- acts, orders or priorities resulting from any government action, national or international authorities, or
- acts caused by any supplier or subcontractor of the Seller (or lower level subcontractor or supplier), or
- a bankruptcy or insolvency event concerning any supplier or subcontractor (or lower level subcontractor or supplier), or
- any other case beyond the reasonable control of the Seller.

For the avoidance of doubt, the delay or absence of payment by the Customer cannot be considered by it as a case of force majeure.

In case of force majeure, the contractual delivery date shall be extended by such period of time reasonably required to remove and/or overcome the event of force majeure and its effects.

### 13.2 Excusable delay

Any postponement of the contractual dates due to the following causes shall not constitute a delay:

- a) BFE/CFE not delivered according to the schedule stated in the Contract or found defective and which consequently requires to be replaced by the Customer or,
- b) Changes or additions to the Contract requested by the Customer or,
- c) Any failure or omission by the Customer to perform its obligations set forth in the Contract.

Any additional costs incurred by the Seller as a result of the occurrence of one of the above events shall be invoiced by the Seller and paid by the Customer over and above the Contract Price.

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## 14 - TERMINATION

### 14.1 Termination for default

A Party may terminate all or part of the Contract for default of the other Party in the event that the other Party persistently fails to perform its obligations and despite the non-defaulting Party having notified by acknowledgment of receipt the defaulting Party to take adequate corrective measures and provided no such measures have been proven to have been taken within a period of two (2) months, following the above notice. The termination shall occur without any specific formality other than the above notice.

In the case of termination for default, the following shall apply:

#### 14.1.1 In case of default of the Customer:

a) the Customer shall indemnify the Seller for all costs and damages (including but not limited to raw materials, labour, overhead, storage fees, work in progress) incurred by the Seller or which the Seller could not avoid incurring (including termination indemnities, if any, under the contracts between the Seller and its subcontractors or suppliers or under the second level contracts or subcontracts),

b) the Customer shall pay to the Seller a termination indemnity equal to ten per cent (10%) of the contractual price as well as an indemnity equal to the damages sustained by the Seller,

c) the Customer shall indemnify the Seller in case other remedies are available by the Customer under the Contract, than those mentioned under paragraphs a) to b) above, and

d) the Seller shall be entitled to retain any payments already made by the Customer, until an agreement is found on the above or the dispute resolution has been implemented and a decision has been taken in consequence.

#### 14.1.2 In case of default of the Seller:

a) the Seller shall be entitled to deliver the remaining non-faulty Products and render the remaining non-faulty Services, and shall be paid the corresponding price thereof, and

b) the Seller shall return to the Customer all the BFE/CFE remaining in its premises, once the Products are delivered and/or the Services are rendered, and

c) the Seller shall refund the Customer, the amount of the down payment which refers to the unfulfilled part of the Contract.

### 14.2 Termination for force majeure

In case of the occurrence of a force majeure event as provided in article 13.1 results in the contractual delivery or performance dates being extended by more than six (6) consecutive months, the Parties shall meet in order to determine under which conditions they wish to pursue the Contract or if they do not reach an agreement within a one (1) month period, either Party shall be entitled to terminate the Contract, without being entitled to claim for any damages or compensation in any form whatsoever.

## 15 - APPLICABLE LAW AND DISPUTE RESOLUTION

The Contract shall be governed by German law for the sale of Products and/or Services by Airbus Helicopters Deutschland GmbH and by French law for the sale of Products and/or Services by Airbus Helicopters. Irrespective of the applicable law, the United Nations Convention for the international sale of goods is excluded.

The Parties shall attempt to amicably settle any dispute, controversy or claim arising out or in connection with the Contract, including through mediation (under the authority of a neutral, independent mediator to be jointly appointed by the Parties). If two (2) months after the occurrence of such dispute, controversy or claim, the Parties have failed to reach an agreement (unless they agree to extend the amicable phase), then the dispute, controversy or claim shall be settled as follows, depending on the contractual aggregate amount:

- A dispute will be finally settled under the rules of arbitration of the International Chamber of Commerce (ICC) by three (3) arbitrators appointed in accordance with the said rules.

- In the specific case of a dispute of which the aggregate amount does not exceed ten million (10 000 000) Euros, the Parties agree to opt for a fast track arbitration process in accordance with the ICC rules.

The place of arbitration shall be Geneva (Switzerland) and the language of the arbitration shall be English.

However, in all cases, should the Seller elect to choose a local court jurisdiction due to arbitration not being adapted to the specific nature of the dispute, in particular the need for immediate injunctive relief or to recover sums due, then such local court will be competent to settle the dispute.

The Parties hereby consent and agree to be subject to the jurisdiction of the aforesaid courts and/or arbitration and, to the greatest extent permitted by the applicable law, the Parties hereby waive any right to seek to avoid the jurisdiction of the above courts on the basis of the doctrine of forum non conveniens.

Unless otherwise agreed by both Parties, the fact that any dispute has been referred to arbitration pursuant to this article shall not relieve either Party from any of its obligations as set out in the Contract.

## 16 - DATA EXCHANGE

### 16.1 General

In order to improve the Products, their reliability and availability and the Customer services, the Seller has set up a data exchange process based on maintenance and operational data coming from the Customer's helicopters in service. The Data will notably consist of:

- Helicopter data generated by on-board recording systems,
- information system data, such as maintenance, operation, logistics and airworthiness data and
- data loaded to, transmitted by and/or stored as well as data generated by the SaaS as a result of the use of the SaaS.

For these purposes, the Customer, or its designated entity for operations and/or maintenance, hereby authorizes the Seller on a free and non-exclusively basis:

- to collect such Data.
- to use the Data to create processed data (data which is reconciled, enriched, qualified and analysed by AH) (hereinafter the "Processed data"),
- to anonymize such Processed data (Processed data which is anonymized, not enabling to identify the Customer) (hereinafter the "Anonymous data"),
- to disclose Data, Anonymous data and Processed data internally only to those of its employees (for the avoidance of doubt, this shall include temporary agency workers and freelancers) and/or Customer Centres having a need to have access to such data for the purpose (\*) stated below,
- to disclose Data and Processed Data to partners, suppliers and/or subcontractors of AH (i) having a need to have access to such data for the purpose (\*) stated below and (ii) being bound by confidentiality obligations,

- to disclose Anonymous data to partners, suppliers and/or subcontractors of the AH for the purpose (\*) stated below,

- to use and disclose to customers Anonymous data (including after being complemented with additional sources of anonymous data) for the purpose (\*\*) stated below, and

- to store Data, Processed data and Anonymous data.

(\*) Disclosure shall be for the purpose of further software & service development, helicopter improvement & expert analysis.

(\*\*) Trend monitoring, benchmarking services, report issuance, analyses and customer workshops for helicopter maturity.

Data, Anonymous data and Processed data may also be used for the purposes of supporting the Customer subject to a specific agreement.

### 16.2 Data confidentiality and intellectual property

The Parties agree that any and all Data disclosed by the Customer or its designated entity to AH shall be deemed confidential. Nevertheless, AH shall be entitled to disclose Data and Processed data to the persons and entities and at the conditions described under article 16.1 above. Anonymous data (including after being complemented with additional sources of anonymous data) can however be used and disclosed by the Seller without being subject to any confidentiality limitations/obligations.

AH owns all foreground intellectual property and know-how, if any, generated by the outcome of the analysis of the Data, Processed data and/or Anonymous data.

### 16.3 Data related liability

Notwithstanding anything to the contrary in the Contract, the Seller or its Customer Centers shall not be liable toward the Customer or its designated entity in the frame of the analysis of the Data and/or in connection with the Customer's helicopter maintenance, repair and flight operations as a result of the disclosure of confidential information by the Customer or its designated entity to the Seller or its Customer Centers or as the result of any exchange or analysis of information collected through the process.

## 17 - MISCELLANEOUS

These SCS along with the applicable Specific Annex(es) and Purchase Order (or Order) constitute the entire agreement between the Seller and the Customer. They supersede all previous communications and/or agreements either oral or written, between the Seller and the Customer with respect to the Products or Services.

In the event that one (1) or more of the articles provided for in these SCS is deemed invalid or unenforceable, the remaining provisions shall remain entirely valid and applicable.

English shall be the language of the Contract. Both Parties shall use English as the language to exchange, issue and deliver information, documentation and notices, and any related documents excluding those documents which might be produced by a governmental institution in the local language.

In the Contract, unless the contrary intention appears:

- headings are for the purpose of convenient reference only and do not form part of the Contract;

- where the last day of any period prescribed for the doing of an action falls on a day which is not a working day in the country of the applicable law, the action shall be done no later than the end of the next working day.

In case of any contradictions and discrepancies between the parts of the Contract, precedence shall be given in the following decreasing order:

- 1) Purchase Order, Order or Order Confirmation (as applicable)
- 2) Present SCS
- 3) Specific Annex(es)
- 4) Other Annexes and/or appendices in their order of appearance.

The provisions of the confidentiality, intellectual property, liability, applicable law and dispute resolution articles of the Contract shall survive and continue to have effect after the termination or expiry for any reason whatsoever of the Contract, and for a period of thirty (30) years thereafter.

No term or provision hereof will be considered waived by either Party, and no breach excused by either Party, unless such waiver or consent is in writing and signed by the Party against whom the waiver is asserted. No consent by either Party to, or waiver of, a breach by either Party, whether express or implied, will constitute a consent to, waiver of, or excuse of any other, different or subsequent breach by either Party.

Any variation or modification of the Contract shall be made in writing through an amendment and signed by duly authorised representatives of each Party.

The relationship between the Seller and the Customer is solely that of purchaser and seller. No joint venture or partnership is intended nor will any be construed from the Contract. Neither Party will have the authority to enter into contracts on behalf of or bind the other in any respect.

The Customer shall not be entitled, without the prior written consent of the Seller, to assign or transfer to a third party all or part of the rights and obligations under the Contract.



# STANDARD CONDITIONS OF SALE SPECIFIC ANNEX APPLYING TO THE SALE OF SPARE PARTS

## B1 - GENERAL

This Specific Annex, subject to SCS, is applicable to sale of Spare Parts, including tools, SB kits and STCs performed by the Seller to any Customer in order to maintain and/or operate Helicopters.

## B2 - DELIVERY AND INCOTERMS

Unless the Contract stipulates another Incoterm, Spare Parts shall be delivered packed Free Carrier (FCA) Incoterms® 2020 at the Seller's site or logistic platform as specified in the Purchase Order.

In case of unavailability of the Spare Parts or of raw material, the Seller shall be entitled to make partial deliveries.

## B3 - ORDER'S TYPOLOGY AND SPECIFICITIES

### B3-1 Planned Purchase Orders

Purchase Orders of Spare Parts shall be considered as planned Purchased Orders if the requested delivery date is above two (2) weeks from the date of receipt by the Seller of a valid Customer's Order (Order Date), under FCA Incoterms® 2020 defined in Article B2. In case of complete or partial modification of the Order, the date of receipt shall be updated accordingly.

For each Order line of any planned and confirmed Purchased Orders, the Seller shall commit on delivery performance, except for critical part(s) as mentioned in the Order Confirmation. In case of late delivery, the Seller will grant to the Customer a credit under the conditions defined hereafter:

- If the Spare Part(s) ordered is(are) "on collection" as identified in the Seller's price list in force and is(are) delivered by the Seller after the delivery date requested by the Customer, the credit per delayed Spare Part shall depend on the timeframe between the requested delivery date and the Order Date, under FCA Incoterms® 2020 defined in Article B2, as follows:
  - Timeframe of fifteen (15) calendar days up to thirty (30) calendar days: eight (8) per cent of the invoiced value of the Spare Part; the total credit per Order's line shall not exceed four thousand (4 000) euros;
  - Timeframe of thirty one (31) calendar days up to sixty (60) calendar days: twelve (12) per cent of the invoiced value of the Spare Part; the total credit per Order's line shall not exceed six thousand (6 000) euros;
  - Timeframe of more than sixty (60) calendar days: sixteen (16) per cent of the invoiced value of the Spare Part; the total credit per Order's line shall not exceed eight thousand (8 000) euros.
- If the Spare Part(s) ordered is(are) "on demand" as identified in the Seller's price list in force, the Seller shall propose a delivery date and commit on it in the Order Confirmation. If the Seller delivers the Spare Part(s) on demand after the said committed delivery date, the credit per delayed Spare Part shall equal to sixteen (16) per cent of the invoiced value of the Spare part; the total credit per Order's line shall not exceed eight thousand (8 000) euros.
- The credit shall not apply in case of an event disrupting the logistic flow for reasons not attributable to the Seller.
- The eligible credits shall be cumulated from 1st of January to 31st December of year n and the related total amount will be then granted under the form of a credit which shall be valid from 1st of April until 31st December of year n+1 and shall be used by the Customers for paying ordered Spare Parts. Said credit shall not apply in case of Customer's default, such as, but not limited to, late payment and payment default.

If the Contract stipulates another Incoterm than FCA Incoterms® 2020, the conditions for

allocating the credit are subject to adjustments and shall be agreed between the Parties.

### B3-2 Rush Purchase Orders

The Rush Purchase Order is an Order with a requested delivery time below two (2) weeks from the date of its receipt by the Seller, the Customer not being in AOG situation.

### B3-3 AOG Purchase Orders

To guarantee an efficient service to the Customer and respond quickly to any situation where the Customer's Helicopter is AOG, the Seller provides a twenty four (24) hours a day/seven (7) days a week AOG service. The AOG service is available for Orders of Spare Parts which are essential to put a Helicopter back into service or to enable it to perform its mission.

Any Spare Parts listed in the Seller's illustrated Parts catalog can be ordered by the Customer via AOG service, except main assemblies, raw materials, ingredients and hazardous materials.

The AOG service is provided to the Customer at the price stated in the relevant Seller's price list in force or in the relevant Quotation plus a surcharge fee of three hundred (300) euros (excluding transportation) charged per confirmed AOG Order. A flat rate for transportation cost will be added to the price of Spare Parts.

The Customer shall also mention in writing regarding any AOG Order placed to the Seller, the following information:

- Part number/ nomenclature
- Failure description and reason of removal
- Quantity required for the specific AOG
- Ship to address

The Seller, by sending an Order Confirmation, shall confirm in writing to the Customer the price and the delivery time within twelve (12) hours after receipt of the Customer's Order.

The Spare Parts already available in the Seller's inventory upon receiving the Order from the Customer will be delivered packed Carriage Insurance Paid (CIP) Incoterms® 2020 to the nearest international airport to the Customer and within seventy two (72) hours after receipt by the Seller of the Customer's Order, depending on the delivery location.

The Customer may order in AOG the concerned Spare Parts in accordance with the quantity fitted on the Helicopter. If several line items are ordered, the Seller has the right to make partial deliveries, depending on the availability of the Spare Parts.

The Customer shall check the Spare Parts provided in AOG conditions, notify any recognisable defects in a documented registered letter within forty eight (48) hours as from the date the Spare Parts have been received by the Customer and place them at Seller's disposal.

## B4 - SB kit and STC

Unless otherwise specified, the kits originated from SB or STC modification are defined on the basis of the "as-delivered" configuration (i.e. the configuration of the Helicopter at the time of transfer of title from the Seller to the original customer). It is the responsibility of the Customer to make sure that the actual configuration of the Helicopter corresponds to the pre-mod configuration of the relevant SB or STC installation instruction. Any deviation of the actual configuration that requires the amendment of the SB or the STC installation instruction shall be charged to the Customer on a time and material basis.

Unless otherwise specified, the STC is sold to the Customer with the certification(s) as listed in the catalog and specified in the offer. It is the responsibility of the Customer to make sure that such certification(s) are acceptable to its competent airworthiness authority before the installation of the kit. The Seller will provide all reasonable support to the Customer for the additional certification or validation of the existing certification(s) at the latter's sole expense on a time and material basis.

The STC holder of the Product shall retain full responsibility for the type design definition its own Product (configuration, definition, necessary changes and continuing airworthiness). The Seller does not warrant the compatibility of the STC with future mandatory or non-mandatory modifications.





## Contacts

Please contact your usual AIRBUS HELICOPTERS commercial interface

# AIRBUS

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