

# SERVICE BULLETIN

**TITLE:** Rear Fuselage - Modification of the cables routing in the tail boom

**SB Type:** Product improvement

## APPLICABILITY

Model:	EC120
Version:	B

## COMPLIANCE: RECOMMENDED

Airbus Helicopters recommends that you comply with this Service Bulletin.

## SUMMARY

The purpose of this Service Bulletin is to add several attaching points to improve the routing inside the tail boom of the yaw ball control, convoluted sheaths VHF antenna and flux valve to prevent chafing.

## GENERAL EVALUATION

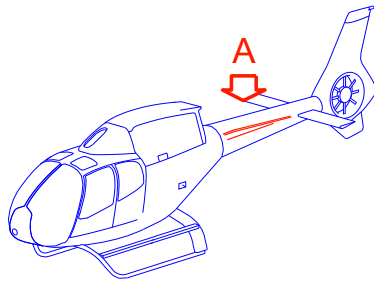
Evaluation table			
Perform once	YES	Accomplish recurring	NO

**Export Control:**

US Export Control - No US content. This Item does not contain any U.S. origin ITAR or EAR content.

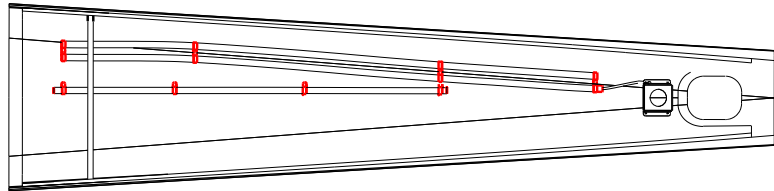
FR Export Control - Not Listed. This Item is not listed against the EC regulations in the EU/FR.

### GENERAL ILLUSTRATION



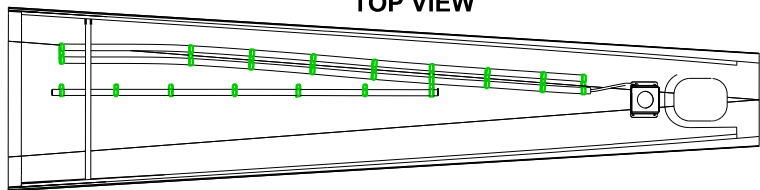
**BEFORE MODIFICATION**

**TOP VIEW**



**AFTER MODIFICATION**

**TOP VIEW**



## PLANNING INFORMATION

### 1. REASON

The current routing design inside the tail boom of the yaw ball control, convoluted sheaths VHF antenna and flux valve results in chafing with the tail boom skin leading to heavy repair or tailboom scrapping.

The root cause is a distance too important between the clamps.

Airbus Helicopters has defined a modification which adds clamps for better support of the routings and the addition of spacers under these clamps to avoid chafing on the tail boom skin.

Consequently, this Service Bulletin recommends to implement the modification.

### 2. DESCRIPTION

This Service Bulletin provides instruction to modify the routing of yaw ball control, VHF antenna and flux valve in the tail boom by:

- Adding spacers under the existing clamps
- Adding new clamps with spacers.

### 3. CONFIGURATION DEFINITION

Not applicable.

### 4. CONCURRENT REQUIREMENTS

Not applicable.

### 5. APPROVAL

The technical content of this document is approved under the authority of EASA DOA No. 21J.700. For helicopters operated outside the terrain regulated by the EASA, the application of this document is subject to validation provided by the responsible aviation authority of the state of registry.

## 6. MANPOWER

### NOTE

The purpose of Man Hours is to give Airbus Helicopters customers a guideline for maintenance scheduling. It is not a contractual information.

### 6.1. Manpower for procedure

Number of Persons	Qualification	Estimated Man Hours
1	Airframe technician	8h

## 7. WEIGHT AND BALANCE

Weight (kg)	Longitudinal moment X (kg.m)	Lateral moment Y (kg.m)
+ 0.204	+ 1.493	+ 0.017

## 8. ELECTRICAL LOAD DATA

Not applicable.

## 9. DOCUMENTATION AFFECTED

Illustrated Parts Catalog (IPC).

The changes to Instructions for Continued Airworthiness (ICA) which are required as a result of this Service Bulletin will be incorporated in the next Normal Revision. Refer to DN.008.0103 until the information is available in the published technical documentation.

## 10. MATERIAL INFORMATION

### 10.1. Price

For information about the price of the modification kits and/or components, or for aid, contact the Airbus Helicopters Network Sales and Customer Relations Department.

#### 10.2. Availability

Contact the Sales and Customer Relations Department to know the delivery lead times.

#### 10.3. Procurement

Send an order for the necessary quantities to the Airbus Helicopters Network Sales Department.

You can send an order for the consumables from the AirbusWorld Marketplace through e-ordering. If you cannot get access to e-ordering, please contact your Logistic Focal Point.

#### 10.4. Mixability

This Service Bulletin has no effect on the mixability.

#### 10.5. LIST OF NEW MATERIALS

Individual Spares List				
Item	Designation	Reference	MFC	QTY
1	STUD	CS125-5M25MCCR	9J699	8
2	SPACER	MBBN3087B0510	C0418	16
3	SCREW	22208BC050012L	F0111	4
4	NUT	ASN52320BH050N	F5442	8
5	SCREW	22208BC050018L	F0111	4
6	CLAMP	EN4114S18NH0	I9005	5
7	CLAMP	ASNA0021-15N24	F5442	5
8	CLAMP	815N32	F0215	3
9	WASHER	23112CA050	F0111	13

Consumables, Materials and Expendables			
Designation	Reference	MFC	QTY
Adhesive	CM 616	-	As required
Fabric	CM 7020	-	As required

Consumables, Materials and Expendables			
Designation	Reference	MFC	QTY
Hollow filler	CM 7931	-	As required

Special Tools				
Item	Designation	Reference	MFC	QTY
None				

### 10.6. LIST OF EXISTING PARTS

REMOVED SPARE PARTS		
Old Reference	Designation	See Notes
22208BC050008L	Screw	
EN4114S18NH0	Clamp	(1)
ASNA0021-15N24	Clamp	(1)
815N32	Clamp	(1)
23112CA050	Washer	(1)
NOTE(S)		
(1) Keep parts for the installation procedure.		

### 11. ACCOMPLISHMENT INSTRUCTION

Comply with the accomplishment procedure [53-52-0001, 933](#)

### 12. ADDITIONAL INFORMATION

Not applicable.

End of section

## ACCOMPLISHMENT PROCEDURE 53-52-0001, 933

### 1. APPLICABILITY

Model:	H120
Version:	B

### 2. GENERAL INFORMATION

Acronym/Abbreviation List

FOD - Foreign Object Debris

MTC - Standard Practices Manual

### 3. PRELIMINARY REQUIREMENTS

#### 3.1. Applicable Documents

- Repair and machining of composite materials: General - Repair and machining of composite material [MTC 20-03-07-101](#)
- Application of HYSOL EA 9396 cement (CM 616) - Bonding with adhesives [MTC 20-06-01-411](#)
- Application of mixtures No. 16 and No. 17 - Use of bonding mixtures [MTC 20-06-04-305](#)
- Handling of helicopters in a hangar and in a prepared area - Handling [MTC 20-07-01-201](#)
- Appearance checks on an aircraft after inspection or repair - Technical instructions [MTC 20-07-03-408](#)

#### 3.2. Set up

- Park the helicopter in a maintenance hangar refer to [MTC 20-07-01-201](#)
- Disconnect all electrical power sources.
- Install the applicable access means.
- Remove and/or open all applicable cowlings, panels, doors and other items or equipment to get access to the different work areas.

#### 3.3. Special Tools

None

#### 3.4. Consumables, Materials and Expendables

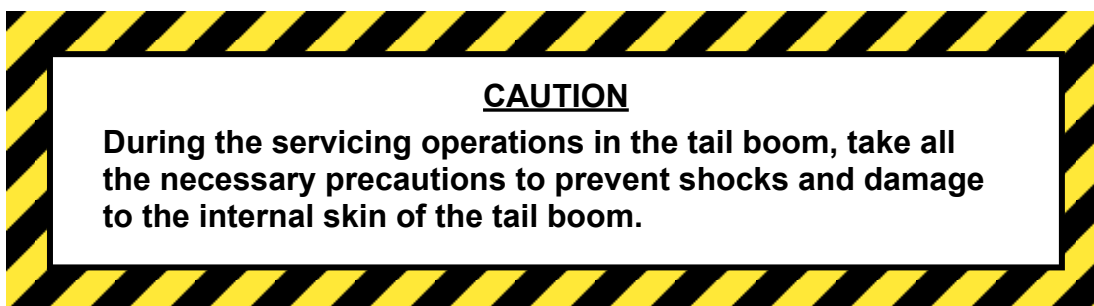
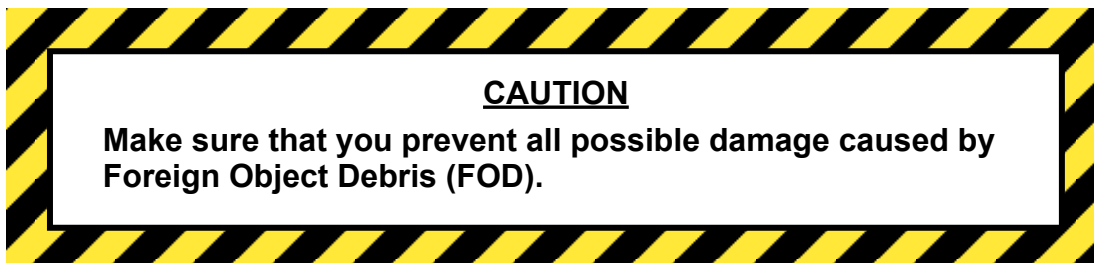
Designation	Reference	MFC	QTY
Adhesive	CM 616	-	As Required
Fabric	CM 7020	-	As Required
Hollow filler	CM 7931	-	As Required

#### 3.5. Spares

Designation	Reference	MFC	QTY
NUT	ASN52320BH050N	F5442	8
STUD	CS125-5M25MCCR	9J699	8
SPACER	MBBN3087B0510	C0418	16
SCREW	22208BC050012L	F0111	4
SCREW	22208BC050018L	F0111	4
CLAMP	EN4114S18NH0	I9005	5
CLAMP	ASNA0021-15N24	F5442	5
CLAMP	815N32	F0215	3
WASHER	23112CA050	F0111	13



### 3.6. Safety conditions



## 4. PROCEDURE

### 4.1. Removal of the yaw ball control and flux valve routing clamps

#### 4.1.1. Remove and discard (Figure 1):

- Screws (101)
- Screws (108)
- Spacers (107).

#### 4.1.2. Remove and keep:

- Clamps (102)
- Clamps (103)
- Washers (104)
- Screws (109)
- Clamps (110).

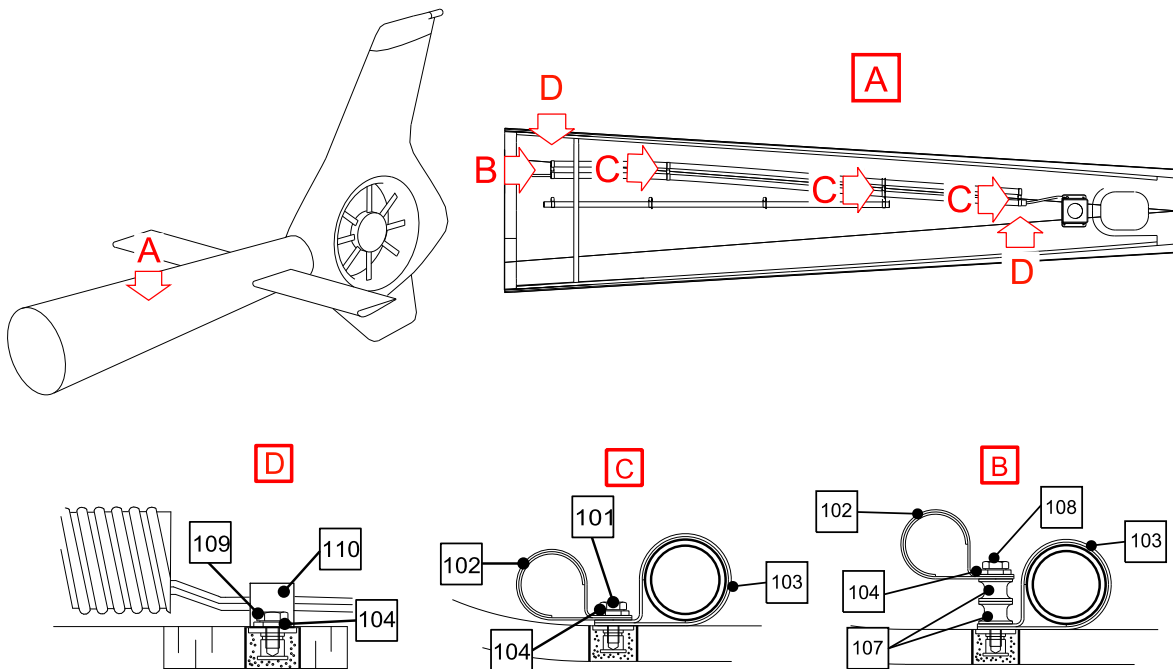


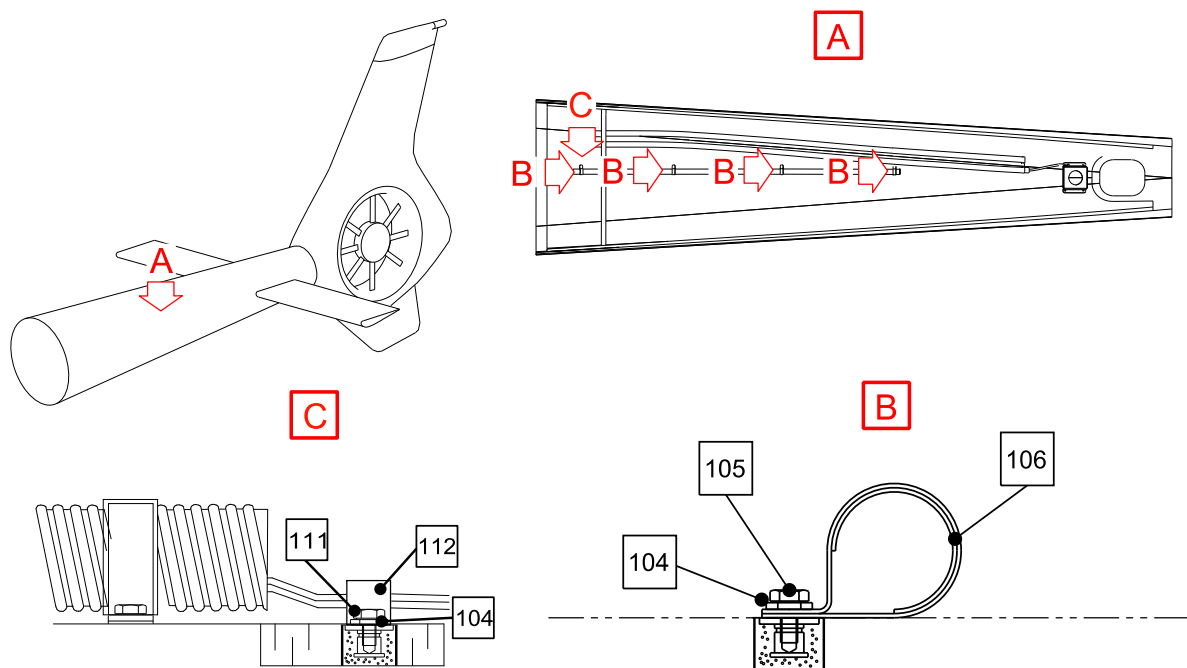
Figure 1

#### 4.2. Removal of the VHF antenna routing clamps

4.2.1. Remove and discard Screws (105) (Figure 2).

4.2.2. Remove and keep:

- Clamps (106)
- Washers (104)
- Screw (111)
- Clamp (112).



**Figure 2**

- 4.3. Installation of new routing for yaw control and flux valve
- 4.3.1. Prepare five pieces of Fabric CM 7020 with a diameter D1 of 70 mm ([Figure 3](#)).
- 4.3.2. Prepare a mixture of Adhesive CM 616 and Hollow filler CM 7931, refer to [MTC 20-06-04-305](#).
- 4.3.3. Install the five pieces of Fabric CM 7020 with the previously prepared mixture following the cables routing and the dimensions that follow, refer to [MTC 20-03-07-101](#):
- D2 = 915 mm
  - D3 = 1145 mm
  - D4 = 1375 mm
  - D5 = 1800 mm
  - D6 = 2010 mm.
- 4.3.4. Bond five STUD CS125-5M25MCCR (1) over the five Fabric CM 7020 with Adhesive CM 616, refer to [MTC 20-06-01-411](#).
- 4.3.5. Install yaw ball control and convoluted sheath of the flux valve with:
- Five SPACER MBBN3087B0510 (2)
  - Five CLAMP EN4114S18NH0 (6)
  - Five CLAMP ASNA0021-15N24 (7)
  - Five WASHER 23112CA050 (9)
  - Five NUT ASN52320BH050N (4).

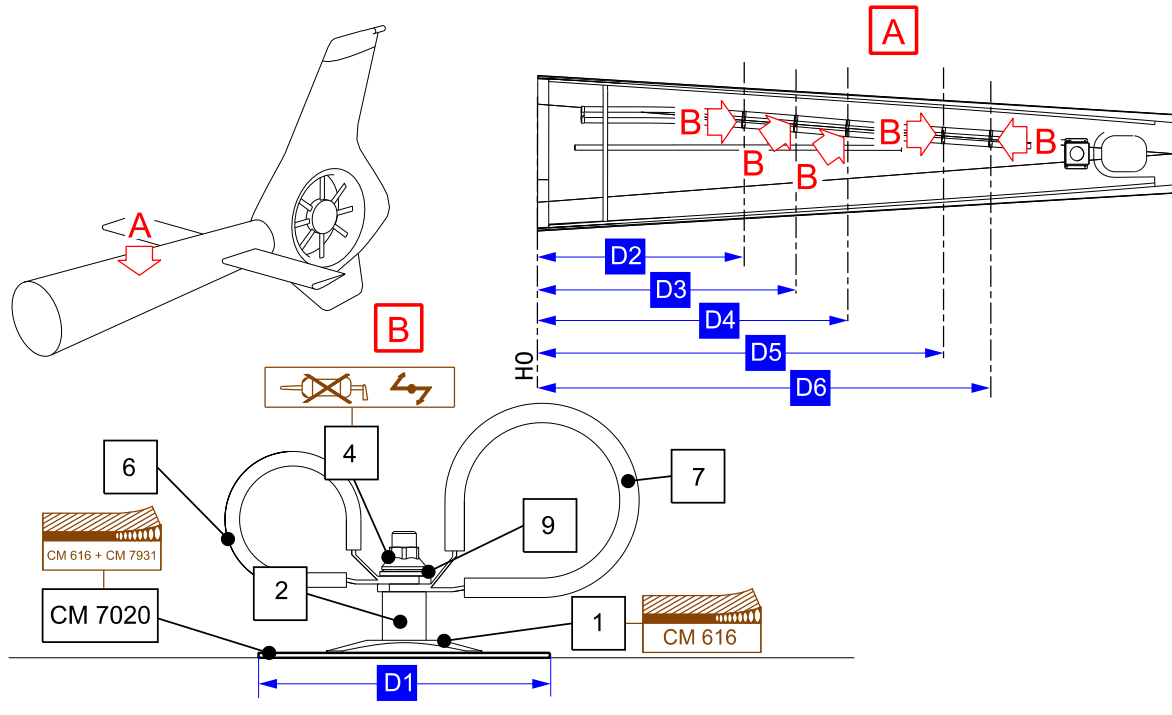
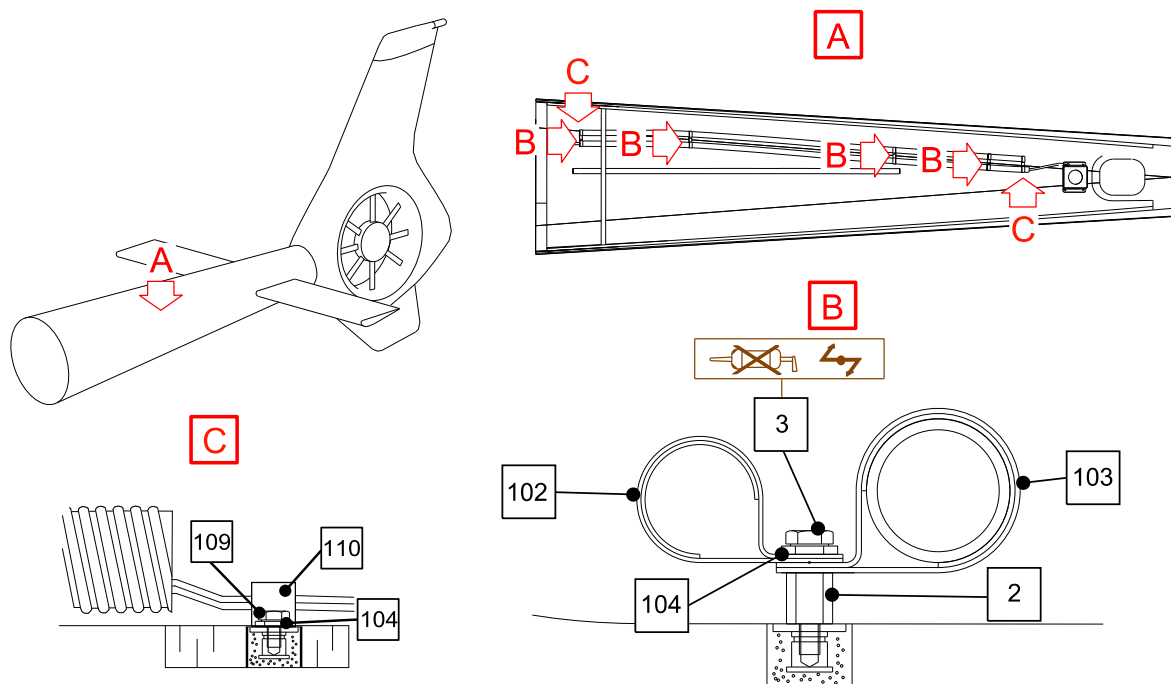


Figure 3

- 4.3.6. Install yaw control and flux valve routing with :
- Four SPACER MBBN3087B0510 (2) (Figure 4)
  - Four Clamps (102)
  - Four Clamps (103)
  - Six Washers (104)
  - Two Screws (109)
  - Two Clamps (110)
  - Four SCREW 22208BC050012L (3).



**Figure 4**

#### 4.4. Installation of new routing for VHF antenna

- 4.4.1. Prepare three pieces of Fabric CM 7020 with a diameter D1 of 70 mm (Figure 5).
- 4.4.2. Prepare a mixture of Adhesive CM 616 and Hollow filler CM 7931, refer to [MTC 20-06-04-305](#).
- 4.4.3. Install the three pieces of Fabric CM 7020 with the previously prepared mixture following the cables routing and the dimensions that follow, refer to [MTC 20-03-07-101](#):
  - D7 = 405 mm
  - D8 = 850 mm
  - D9 = 1340 mm.
- 4.4.4. Bond three STUD CS125-5M25MCCR (1) over the three Fabric CM 7020 with Adhesive CM 616, refer to [MTC 20-06-01-411](#).
- 4.4.5. Install the convoluted sheath of the VHF antenna with:
  - Three SPACER MBBN3087B0510 (2)
  - Three CLAMP 815N32 (8)
  - Three WASHER 23112CA050 (9)
  - Three NUT ASN52320BH050N (4).

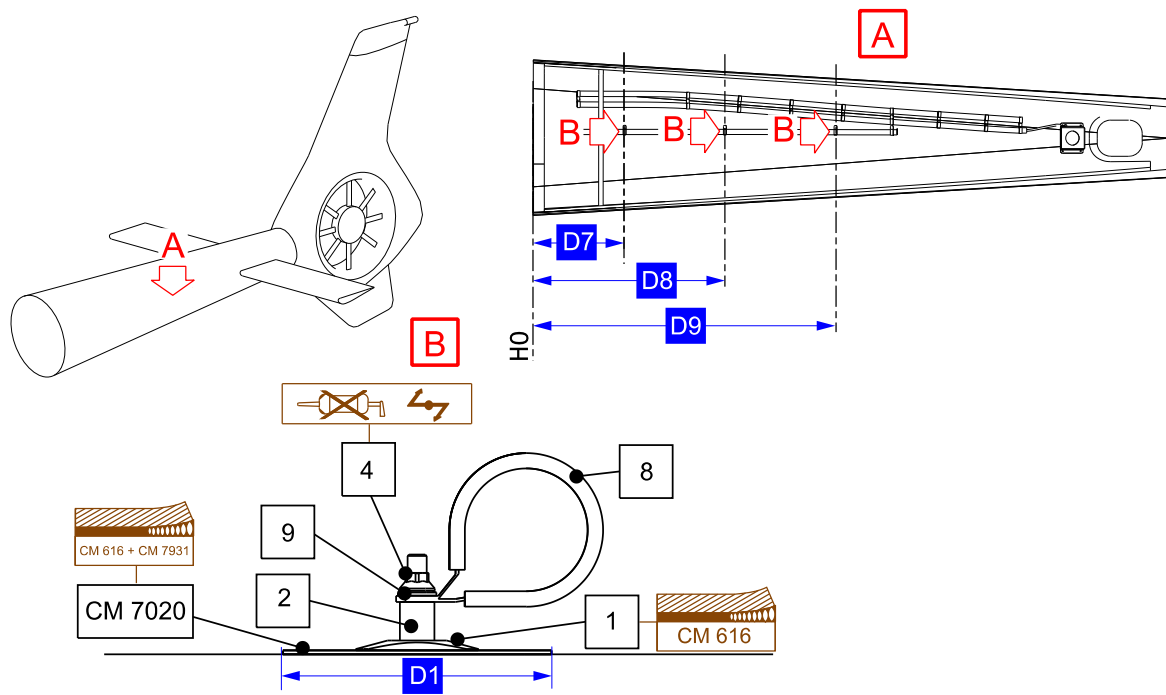
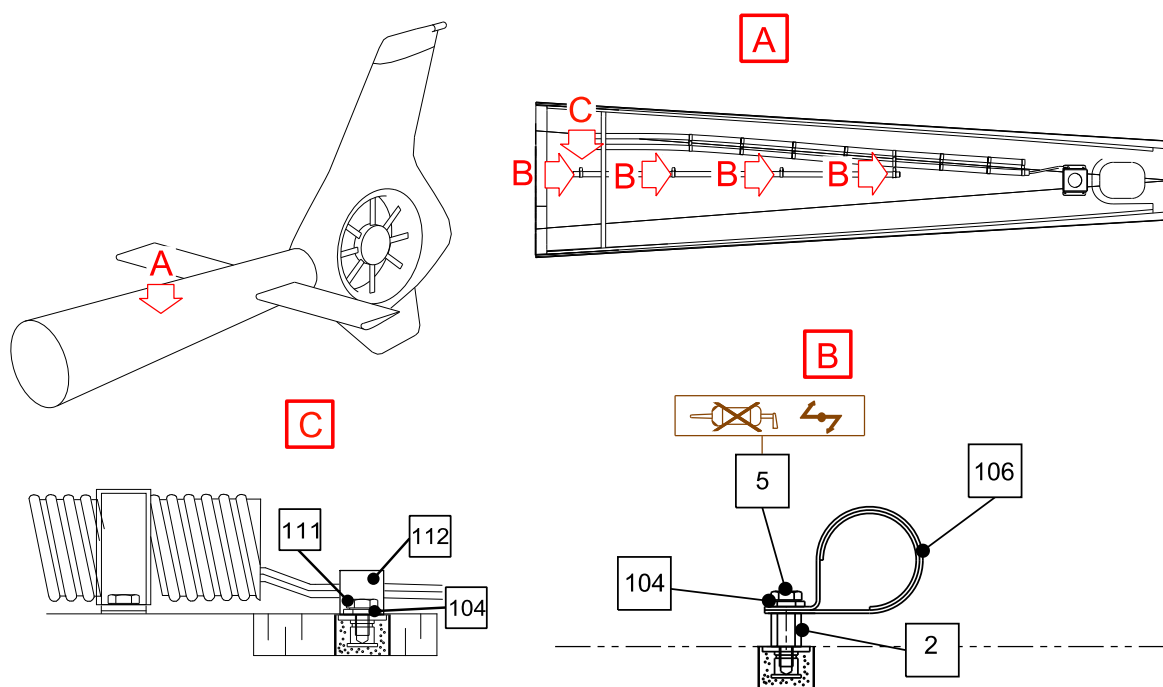


Figure 5

- 4.4.6. Install VHF antenna routing with :
- Four SPACER MBBN3087B0510 (2) (Figure 6)
  - Five Washers (104)
  - Four Clamps (106)
  - One Screw (111)
  - One Clamp (112)
  - Four SCREW 22208BC050018L (5).



**Figure 6**



## 5. CLOSE UP

- 5.1. Remove all the tools, the materials and the equipment from your work area.
- 5.2. Clean the work area and the helicopter [MTC 20-07-03-408](#)
- 5.3. Install or close all cowlings, panels, doors and items of equipment that you removed and/or opened.
- 5.4. Remove all the access means.
- 5.5. Connect all electrical power sources.
- 5.6. Record the new weight and moment in the applicable document.
- 5.7. Record compliance with this Service Bulletin, in the helicopter documents.
- 5.8. Record compliance with this Service Bulletin (see IN 3785-I-00 for instructions):  
QR Code or hypertext link.



[EC120-53-52-0001](#)

End of Service Bulletin