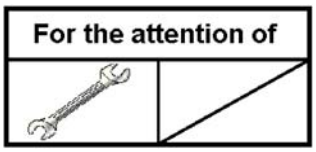
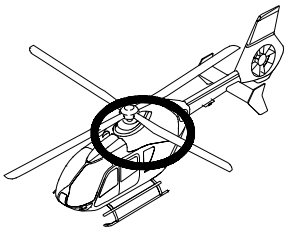
Valid for Version(s): T1, T2, T2+, T3, P1, P2, P2+, P3
635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3

# SERVICE BULLETIN

**PRODUCT IMPROVEMENT**

**VENTILATION / HEATING - Independent ventilation**
**Retrofit of a water trap air duct**



| Revision No. | Date of issue |
|---|---|
| Revision 0 | 2019-02-12 |

**Summary:**

With this Service Bulletin (SB), Airbus Helicopters Deutschland (AHD) offers the replacement of the air ducts by water trap air ducts. The new air ducts have an integrated water trap which protects the Master Boxes from water ingress.

**Compliance:**

Compliance with this SB is optional.

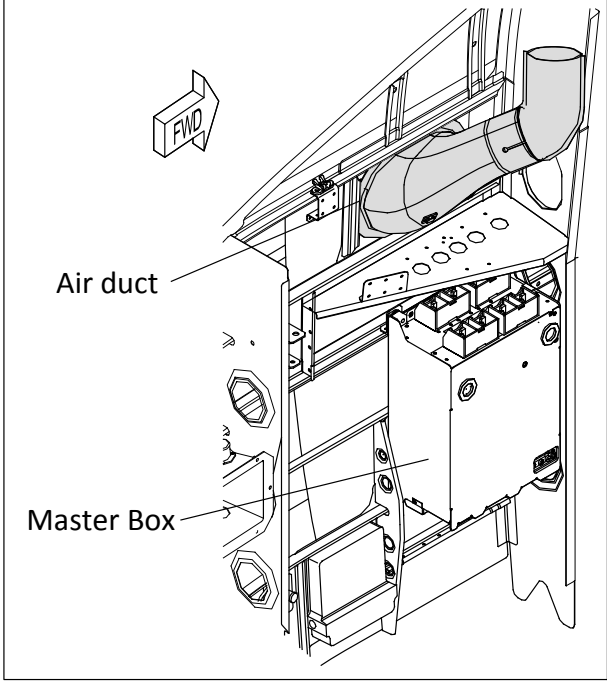
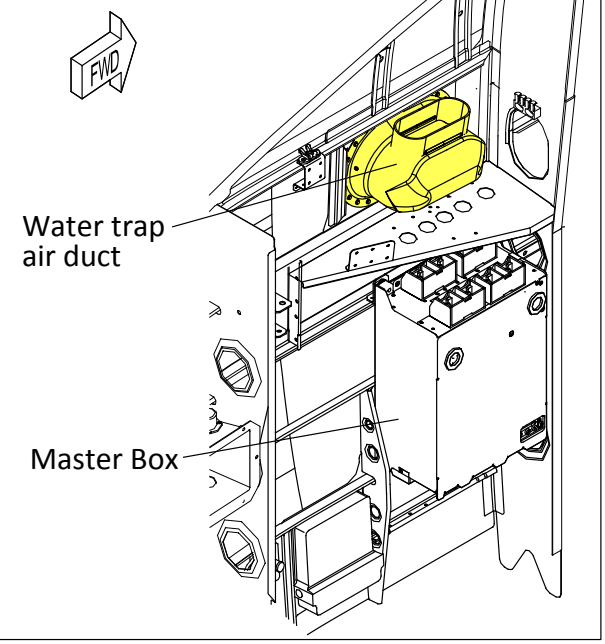
# 1 PLANNING INFORMATION

## 1.A EFFECTIVITY

### 1.A.1 Helicopters/installed equipment and parts

a) EC135, T1, T2, T2+, T3, P1, P2, P2+, P3, 635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3, all S/N without blowers.

b) Air duct RH P/N L212M2015101
Air duct LH P/N L212M2023101

| PRE SB | POST SB |
|---|---|
|  | P/N E212M20X4201<br>  |

### 1.A.2 Non-installed equipment and parts

None.

## 1.B ASSOCIATED REQUIREMENTS

None.

## 1.C REASON

AHD offers with this SB the replacement of the air ducts by water trap air ducts. The new air ducts have an integrated water trap which protects the Master Boxes from water ingress.

## 1.D DESCRIPTION

Remove the air ducts. Install the water trap air ducts.

## 1.E COMPLIANCE

### 1.E.1 Compliance at H/C manufacturer level

Helicopters/installed equipment and parts:

Not affected.

Non-installed equipment and parts:

Not affected.

### 1.E.2 Compliance in service

Helicopters/installed equipment and parts:

Compliance with this SB is optional.

Non-installed equipment and parts:

Not affected.

## 1.F APPROVAL

Approval of modification:

The information or instructions contained in this document refer to change no. 5416. The technical content of this document is approved under the authority of DOA No. EASA.21J.700.

## 1.G MANPOWER

| Qualification | Mechanic | Electrician | Pilot | Others |
|---|---|---|---|---|
| Estimated Man-hours | approx. 8 h | - | - | - |

## 1.H WEIGHT AND BALANCE

Material kit SB-AHD-21-001-2C1

Weight: + 0.132 kg

Arm longitudinal: + 4963 mm  Moment longitudinal: + 655 kgmm

Arm lateral: + 143 mm  Moment lateral: + 19 kgmm

Material kit SB-AHD-21-001-2C2

No effects on weight and balance.

## 1.I POWER CONSUMPTION

Not affected.

## 1.J SOFTWARE UPGRADES/UPDATES

Not changed.

**1.K REFERENCES**

AMM EC135, AMM EC135/635 and SRM EC135.

**1.L OTHER AFFECTED PUBLICATIONS**

Publications to be updated:

The changes to IPC EC135 and IPC EC635 which are required as a result of this SB will be incorporated with one of the next revisions.

**1.M INTERCHANGEABILITY OR MIXABILITY OF PARTS**

Interchangeability:

Not affected.

Mixability:

Not affected.

# 2 MATERIAL INFORMATION

## 2.A MATERIAL: PRICE - AVAILABILITY - PROCUREMENT

Information on price and availability of required material kits SB-AHD-21-001-2C1 and SB-AHD-21-001-2C2 will be provided by AHD, Dept. Spares Order Administration on request.

## 2.B LOGISTIC INFORMATION

None.

## 2.C MATERIAL REQUIRED PER HELICOPTER/COMPONENT

Material kits to be ordered for one helicopter:

Material kit SB-AHD-21-001-2C1 in accordance with design document L212M2021881.

| No. | Keyword | Qty | New P/N | Old P/N | Rem. |
|---|---|---|---|---|---|
| 1 | Bender head (Water trap air duct) | 2 | E212M20X4201 | - | - |
| | Air duct RH | 1 | - | L212M2015101 | A |
| | Air duct LH | 1 | - | L212M2023101 | A |
| 2 | Fastener | 4 | TY3G1 | - | - |
| | | | - | TY3G1 | A |
| 3 | Washer | 48 | LN65049-24L | - | - |
| | | | - | LN65049-24L | A |
| 4 | Washer | 10 | LN65049-32L | - | B |
| 5 | Universal rivet | 48 | LN9198-2408BF | - | - |
| | | | - | LN9198-2407BF | A |
| 6 | Blind rivet | 10 | MBBN3012L3203 | - | C |

Remark:

A = AHD does not take back parts with old part numbers.

B = Can be used alternatively to position 3.

C = Can be used alternatively to position 5.

Material to be ordered separately:

Products contained in the following material kit are standard parts required for the retrofit. They can be ordered stating order number SB-AHD-21-001-2C2 as needed.

Material Kit SB-AHD-21-001-2C2

| No. | Keyword | Qty | New P/N | Old P/N | Rem. |
|---|---|---|---|---|---|
| 1 | Cable tie | 8 | E0043-5A0P | - | - |

Consumables to be ordered separately:

**WARNING**

**RESPECT THE SAFETY DATA SHEET OF THE MANUFACTURER.**

| No. | Keyword | Qty. (approx.) | Specification ** | CM | Rem. |
|---|---|---|---|---|---|
| 1 | Sealing compound | a.n.* | - | 6050 | - |
| 2 | Adhesive | a.n.* | - | 6077 | - |
| 3 | Primer | a.n.* | - | 6081 | - |
| *a.n. = as needed<br>** For specification, refer to AMM 01-00-00, 2-1. | | | | | |

The consumables can be ordered separately from the KLX AEROSPACE SOLUTIONS company.
Website: https://klxaerospace.com/klxaero/
Telephone: +1.305.925.2600
AOG: +1.305.471.8888

## 2.D MATERIAL TO BE RETURNED

None.

# 3 ACCOMPLISHMENT INSTRUCTIONS

## 3.A GENERAL

Not applicable.

## 3.B WORK STEPS

### 3.B.1 Preliminary steps

1. De-energize the helicopter electrical system (AMM 24-00-00, 2-1).
2. Remove the cargo compartment panelling (AMM 25-20-00, 4-3).

### 3.B.2 Replacement of air duct LH / RH

**NOTE** The following procedure describes the replacement of the LH air duct. The replacement of RH air duct is symmetrical.

1. Removal of the existing air duct:

**CAUTION**

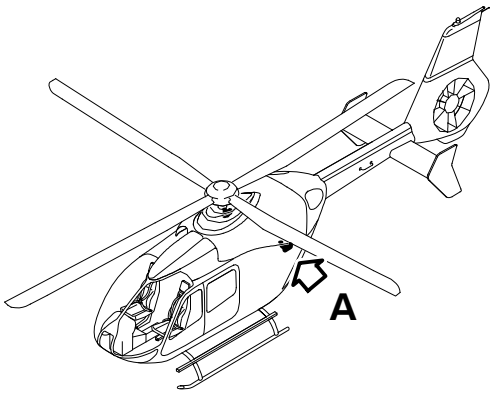
**WHILE DRILLING, ENSURE THAT UNDERNEATH LYING COMPONENTS ARE NOT DAMAGED. CAREFULLY REMOVE DRILLING CHIPS AND RIVET REMAINS DURING AND AFTER DRILLING BY MEANS OF A VACUUM CLEANER.**

a. If any harness is installed on the air duct (2, Fig. 1), unfasten the harness from the fasteners.

b. Remove the clamps (4, Fig. 1) and the vent duct (3) from the air duct (2). Discard the vent duct (3) and the clamps (4).

c. Drill out the rivets (6, Fig. 1) (SRM 51-20-00, 8-1) and remove the air duct (2) together with the washers (5) from the side panel (1). Discard the washers (5).

d. Clean the side panel (1, Fig. 1) (SRM 51-20-00, 8-7).

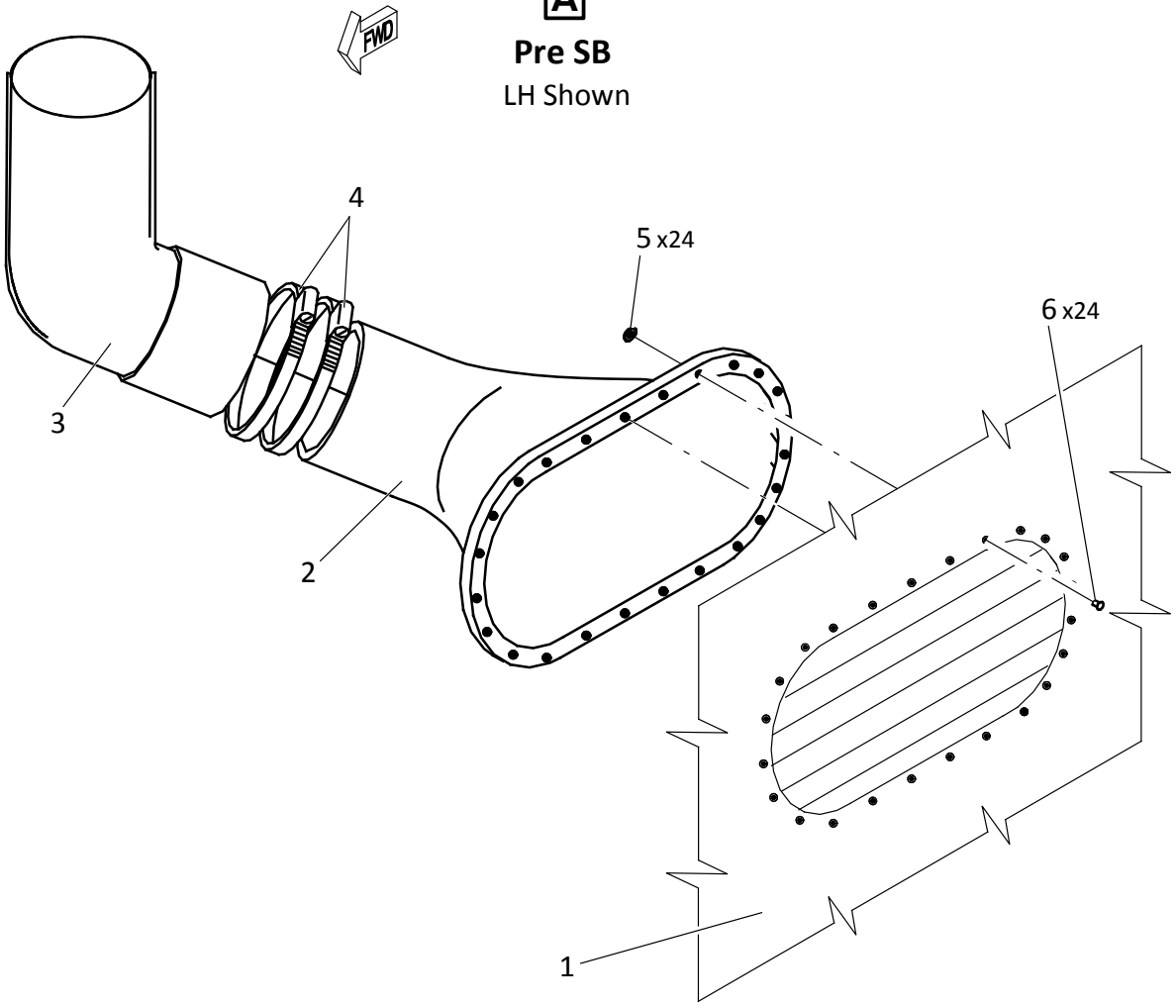



| | | |
|---|---|---|
| 1 | Side panel | |
| 2 | Air duct LH | L212M2023101 |
| | Air duct RH | L212M2015101 |
| 3 | Vent duct | L212M2019102 |
| 4 | Clamp | EN2903A090 |
| 5 | Washer | |
| 6 | Rivet | |

**A**

**Pre SB**

LH Shown




Removal of air duct

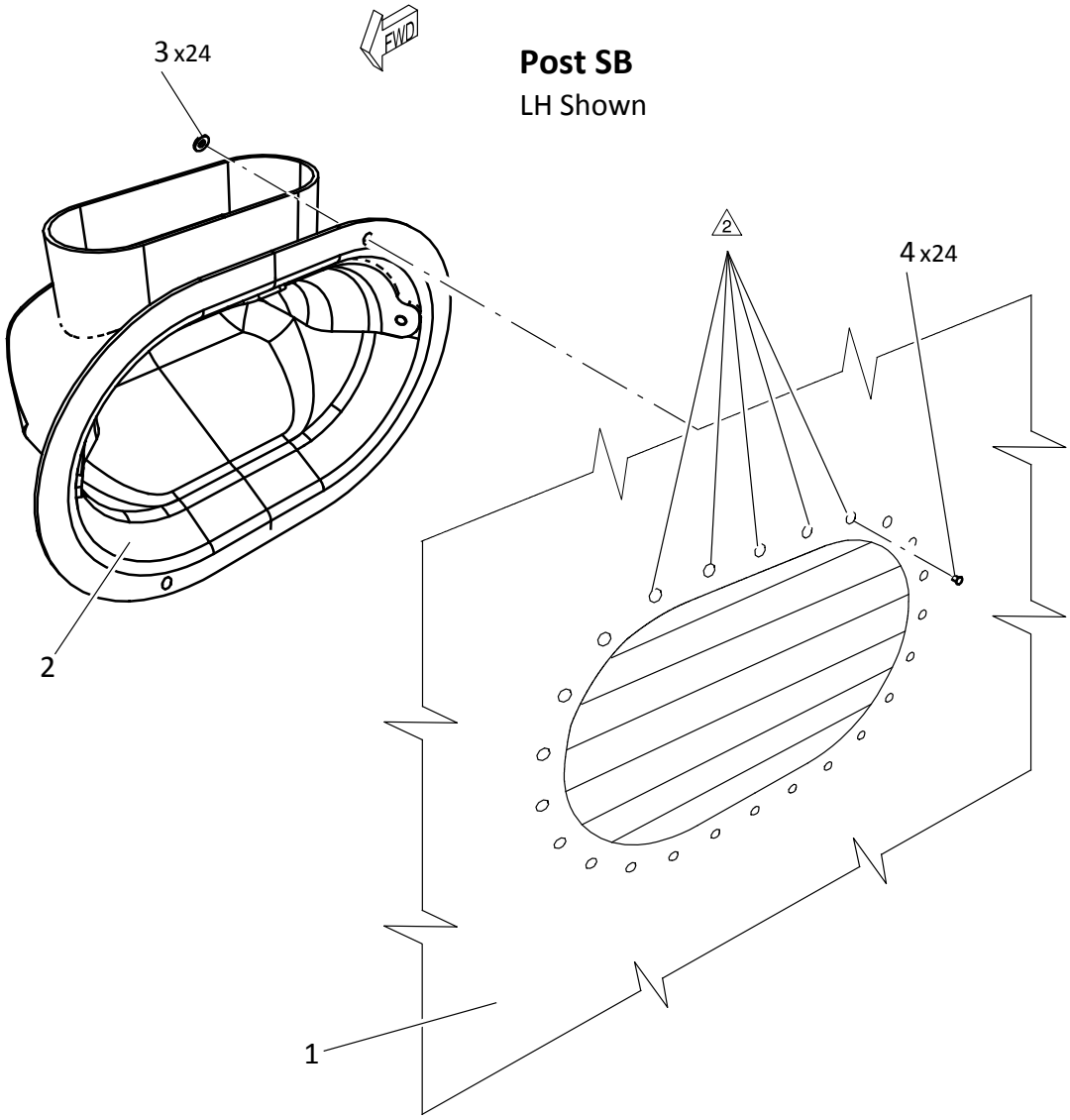
Figure 1

2. Installation of the water trap air duct:
   a. Position the water trap air duct (2, Fig. 2) on the side panel (1). Use two pilot boreholes of the water trap air duct (2) as guidance.
   b. Transfer 22 boreholes from the side panel (1, Fig. 2) to the water trap air duct (2) for the installation of the rivets (4) using drill bit diameter 2.5 mm.
   c. Remove the water trap air duct (2, Fig. 2).
   d. Deburr the boreholes and clean the reworked areas (SRM 51-20-00, 8-7).
   e. Apply sealing compound (CM 6050) on the rivets (4, Fig. 2).
   f. Apply sealing compound (CM 6050) on the contact surfaces of the water trap air duct (2, Fig. 2) and the side panel (1).
   g. Rivet the water trap air duct (2, Fig. 2) to the side panel (1) using rivets (4) and washers (3) (SRM 51-20-00, 8-2). Let the sealing compound dry, refer to the manufacturer instructions.
   h. Touch up paint on side panel (1, Fig. 2).

| | | |
|---|---|---|
| 1 | Side panel | |
| 2 | Water trap air duct | E212M20X4201 ⚠1 |
| 3 | Washer | LN65049-24L |
| | | LN65049-32L ⚠2 |
| 4 | Rivet | LN9198-2408BF ⚠1 |
| | | MBBN3012L3203 ⚠1 ⚠2 |

⚠1 Installed with sealing compound (CM 6050).

⚠2 If necessary, use alternative blind rivets and washers.



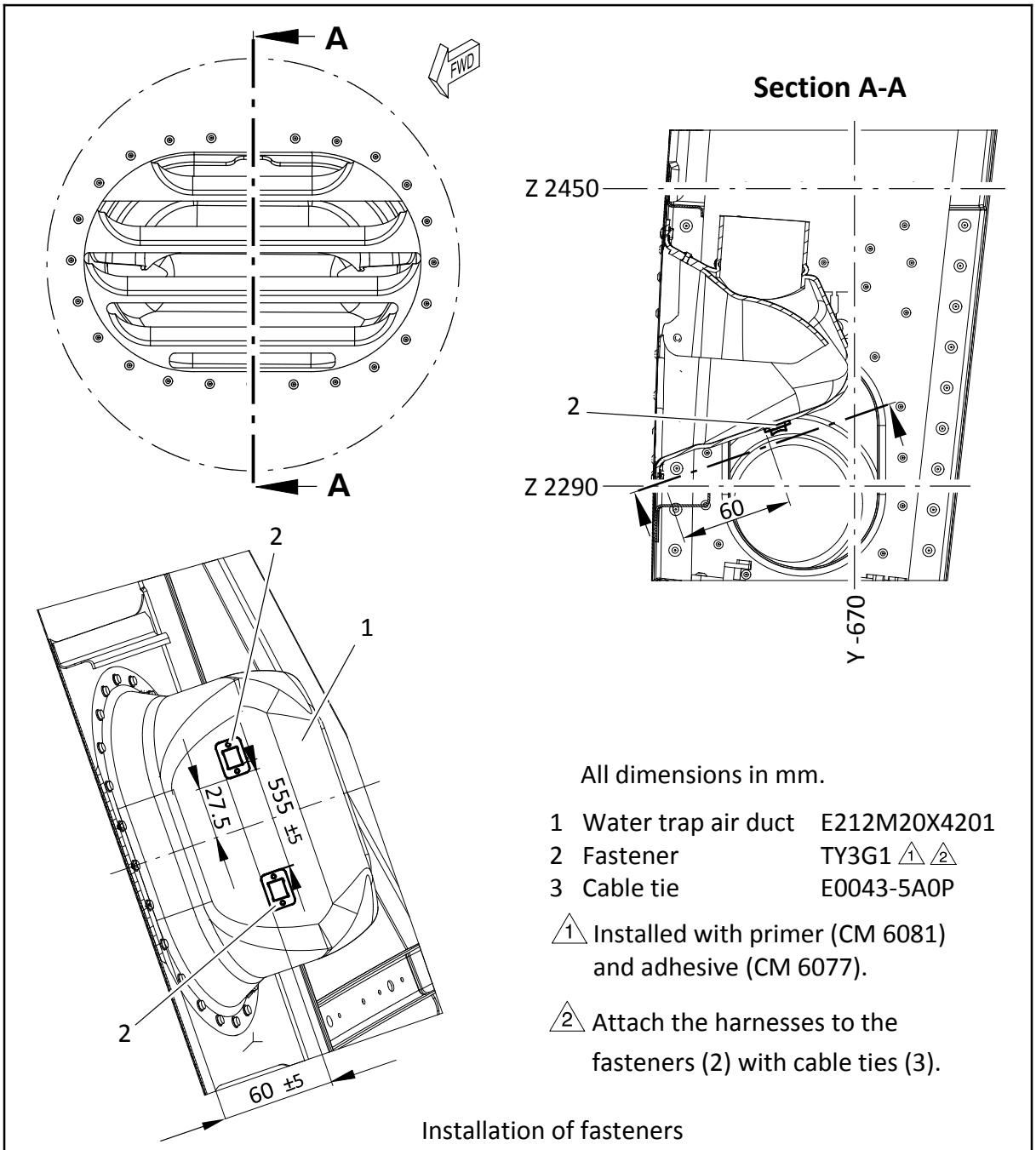

Installation of water trap air duct

Figure 2

i. Apply primer (CM 6081) on the water trap air duct (1, Fig. 3) where the fasteners (2) will be installed. Let the primer dry, refer to the manufacturer instructions.

j. Install the fasteners (2, Fig. 3) on the water trap air duct (1) with adhesive (CM 6077). Let the adhesive dry, refer to the manufacturer instructions.

k. If removed, attach the unfastened harnesses to the fasteners (2, Fig. 3) with cable ties (3).




All dimensions in mm.

| | | |
|---|---|---|
| 1 | Water trap air duct | E212M20X4201 |
| 2 | Fastener | TY3G1 ⚠1 ⚠2 |
| 3 | Cable tie | E0043-5A0P |

⚠1 Installed with primer (CM 6081) and adhesive (CM 6077).

⚠2 Attach the harnesses to the fasteners (2) with cable ties (3).

Installation of fasteners
Figure 3

**3.B.3 Final steps**

Install the cargo compartment panelling (AMM 25-20-00, 4-3).

**3.C COMPLIANCE CONFIRMATION**

Compliance with this document:

Confirm accomplishment of this SB by an entry in the historical record of the helicopter.

**3.D OPERATING AND MAINTENANCE INSTRUCTIONS**

None.

## 4 APPENDIX

None.