EvoBus

# Technical information

**TI No.: 75.00U21166A** **Distribution list: D** **Distribution date: 09.08.2021**

**Valid until: 31.12.2041**

**The point of contact is the EvoBus after-sales service in each country**

| | |
|---|---|
| Model: | S 417 TC, S 407 CC |
| MODEL SERIES: | 629540; 629557 |
| **TITLE:** | **S 417 TC, S 407 CC - Fitting arrester cables to the engine compartment flap** |

## COMPLAINT

The engine compartment flap could come loose while the bus is in motion.

## CAUSE

Possible crack formation at the weld seams at high mileage.

## REMEDY

Check for cracks at the existing weld seams on the brackets of the engine compartment flap.

If cracks are found at the weld seams, the engine compartment flap must be replaced with a new one.

On all vehicles, fit arrester cables to the brackets of the engine compartment flap.

## MEASURE TYPE

The scope of the work is carried out as part of a safety recall (RC).

## REPLACEMENT PARTS REQUIRED

| Quantity | Designation | Number | Comment |
|---|---|---|---|
| 1 | Engine compartment flap | A 629 750 40 33 | Only if required |
| 2 | Arrester cable | A 628 750 04 59 05 | |
| 2 | Rivet nut | A 001 990 37 59 05 | |
| 2 | Screw M5x20 | N 910105 005003 | |
| 2 | Washer | N 000000 003250 | |
| 2 | Washer | N 000000 003337 | |
| 2 | Nut M5 | N 910112 005000 | |

## OPERATION TEXTS

| Operation no. | Operation text | Working time/h | Comment |
|---|---|---|---|
| 02-1425 | Check weld seams on brackets of engine compartment flap | 0.2 | |
| 02-1426 | Retrofit 2 arrester cables to brackets of engine compartment flap (after check) | 1.1 | Associated work for 02-1425<br>Includes adjustment work |

The times apply for work at an hourly rate.

## DEFECT NUMBER

| Defect no.: | Designation |
|---|---|
| 7592054 | |

## CODEWORD

7500U21166

## INTRODUCTION OF MODIFICATIONS INTO SERIES PRODUCTION

01.02.2020

## WARRANTY AND GOODWILL SETTLEMENTS

Field measure type RC: 100 % of costs will be accepted.

| | |
|---|---|
| BUS/MCC | BUS/MCC-T |
| pp. | pp. |
| Markus Fischer | Tobias Griesbeck |

## Attachments

## Procedure

**Warning**

**Risk of injury.** Danger due to the dropping of unwieldy or heavy components. The unforeseen dropping of components can result in serious injuries to the body and limbs.

Details...

**Warning**

**Risk of accident.** Danger when lifting and transporting heavy components. The use of defective or unsuitable lifting equipment and hoists for the lifting and transporting of heavy components could result in serious or fatal injuries to all persons involved if the component were to drop or slip.

Details...

**Warning**

**Risk of entrapment and crushing.** Danger to hands, arms and legs during all work on doors, flaps, covers and roof hatches.

Details...

**Warning**

**Risk of injury.** Danger from the spontaneous opening or dropping of flaps, doors, covers and panels. There is a risk of flaps, doors, covers or panels that have been closed or fitted incorrectly opening or coming loose spontaneously, especially while the vehicle is in motion, and thereby causing injury.

Details...

**Warning**

**Risk of entrapment and crushing.** Reaching in between mechanically operated parts may result in serious injuries due to the severing or crushing of body parts.

Details...

**Warning**

**Risk of explosion and poisoning.** Risk of explosion and of poisoning from solvent vapours and gases. There is a risk of injury to the eyes and skin when handling corrosion inhibitors. Do not spray corrosion inhibitor onto naked flames or red-hot materials. Keep corrosion inhibitor away from sources of ignition at all times. Carry out the work in well-ventilated rooms and wear respiratory protection.

Details...

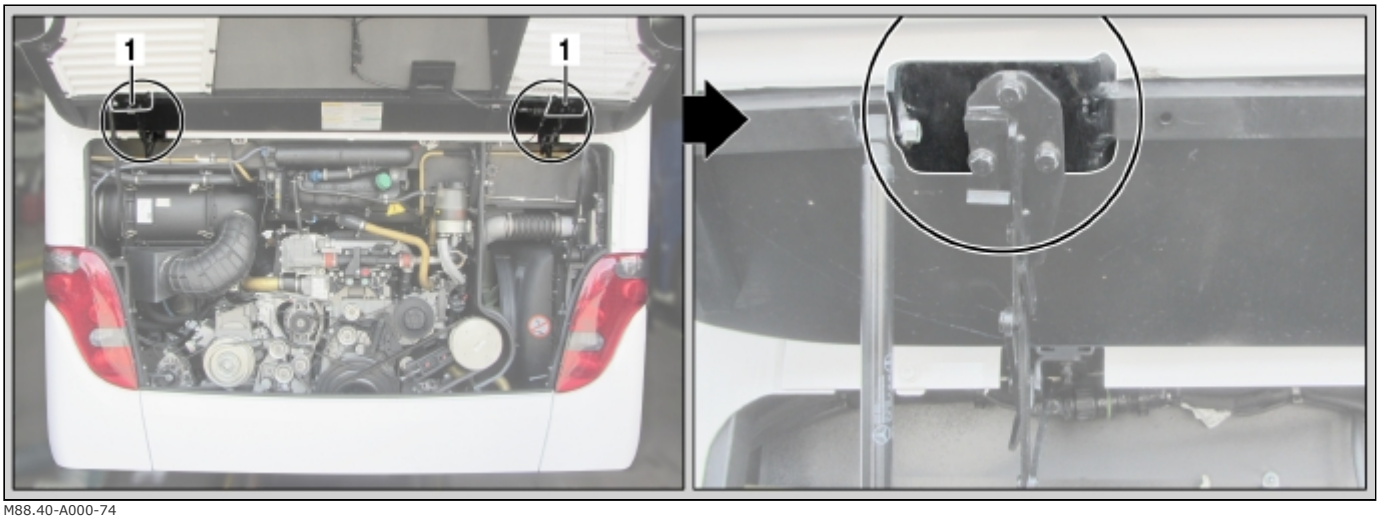
**Warning**

**Risk of accident.** Danger from unauthorised starting of the engine or movement of the vehicle. Persons in areas of the bus that are hidden from view (underbody, rear, roof, etc.) are at risk of injury if the engine is started or the vehicle is moved by other or unauthorised persons.

Details...

## Procedure

### Checking the weld seams for cracks

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1. Open the engine compartment flap.
2. Check for cracks at all existing weld seams on left- and right-side bracket **(1)** of the engine compartment flap.
   **Result 1 / 2**

Cracks found at the weld seams.

- Replace the engine compartment flap with a new one.
- Fit arrester cables.

**Result 2 / 2**

No cracks found at the weld seams.

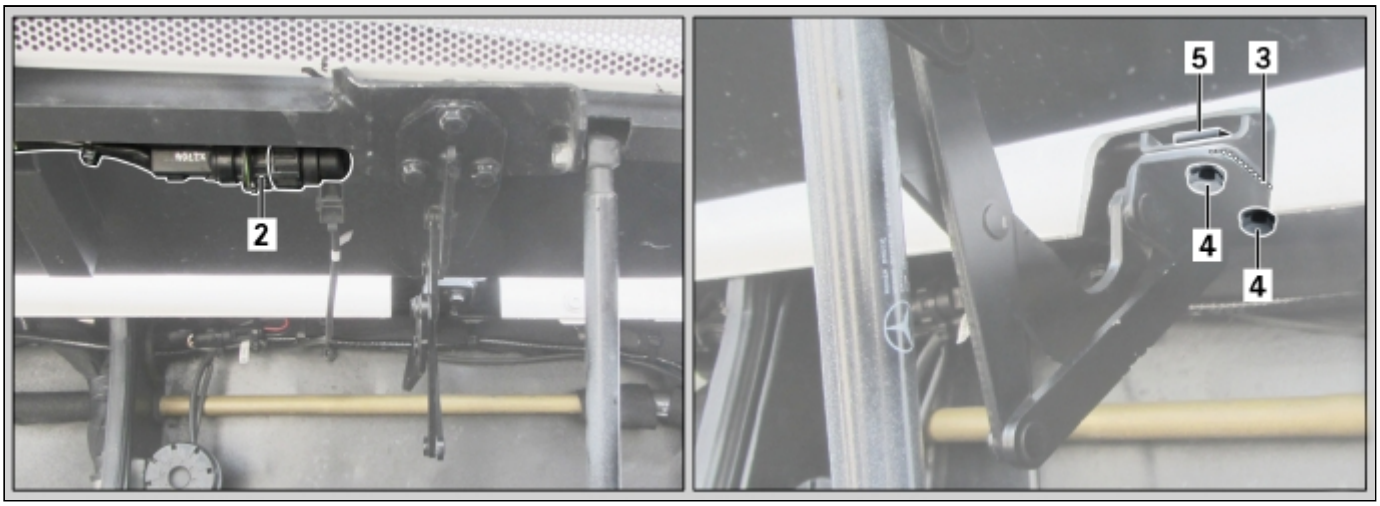
- Fit arrester cables.

## Fitting arrester cables

**Note**

The following operations should be carried out at both brackets of the engine compartment flap in sequence.

The illustrations show the fitting procedure on the right-hand side as an example. Differences in the fitting procedure on the left-hand side are highlighted by notes where applicable.

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3. Disconnect the electrical connection on right-hand flap side **(2)**.

   **Note**

   This operation does not apply on the left-hand side.

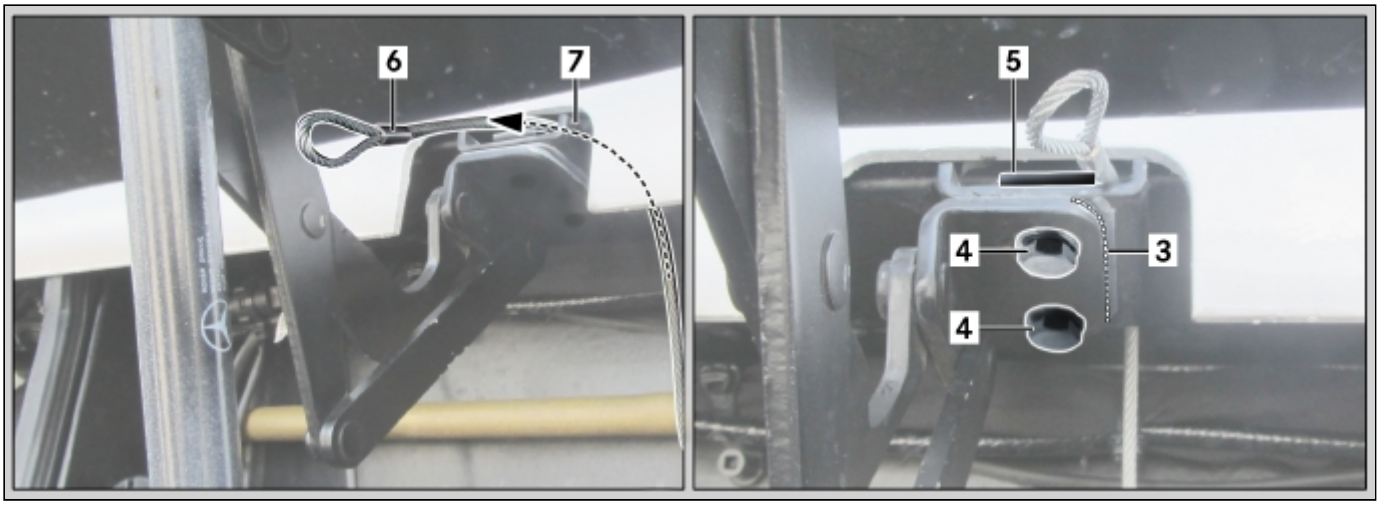
4. Mark **(3)** the installation position of the flap hinge on the vehicle bracket by suitable means (e.g. white permanent marker).

5. Unscrew **(4)** the flap hinge from the vehicle bracket.

   **Note**

   A second person is needed to hold the engine compartment flap.

6. Remove inserted threaded hole plate **(5)**.

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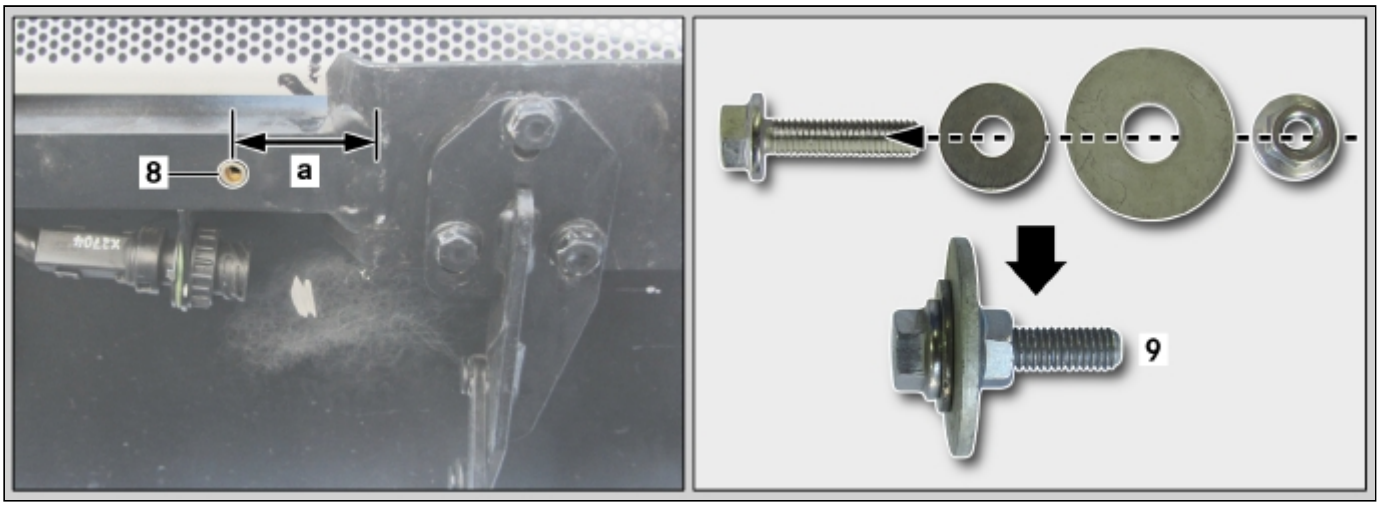
7. Slide the loop of arrester cable **(6)** through vehicle bracket **(7)** from the rear.

8. Insert threaded hole plate **(5)**.

> **Note**
>
> The arrester cable must run to the right of the threaded hole plate. This also applies to installation on the left-hand side.

9. Screw on **(4)** the flap hinge aligned on applied marking **(3)** on the vehicle bracket.

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10. Using a twist drill bit **(⌀ 7.5 mm)**, drill a hole in the frame of the engine compartment flap, deburr and apply corrosion inhibitor.

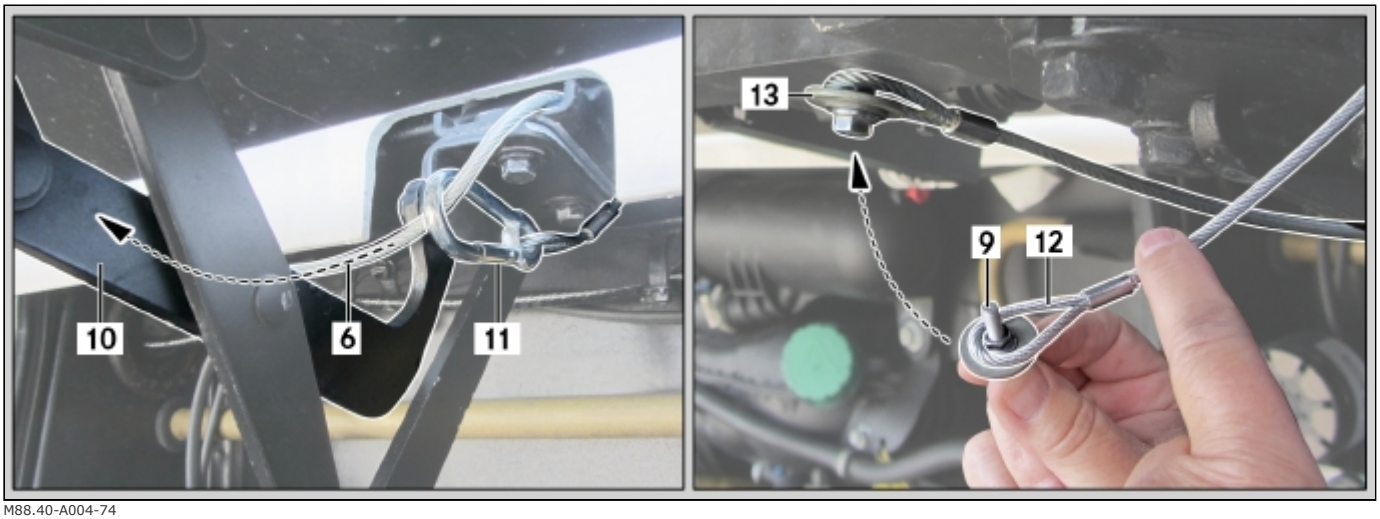
| **Reference values** | |
|---|---|
| **(a)** | ≈ 40 mm |

> **Note**
>
> This operation does not apply on the left-hand side. The bore hole is already present.

11. Fit blind rivet nut **(8)**.

12. Preassemble securing screw **(9)** for the arrester cable with washers and nut.

| Reference values |
| --- |
| ≈ 6 Nm |



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13. Guide arrester cable **(6)** above flap hinge **(10)** to the fastening point.

> **Note**
>
> This operation does not apply on the left-hand side.

14. Place loop **(12)** of the arrester cable around preassembled securing screw **(9)**.

15. Screw **(13)** the arrester cable onto the frame of the engine compartment flap.

| Reference values |
| --- |
| ≈ 6 Nm |

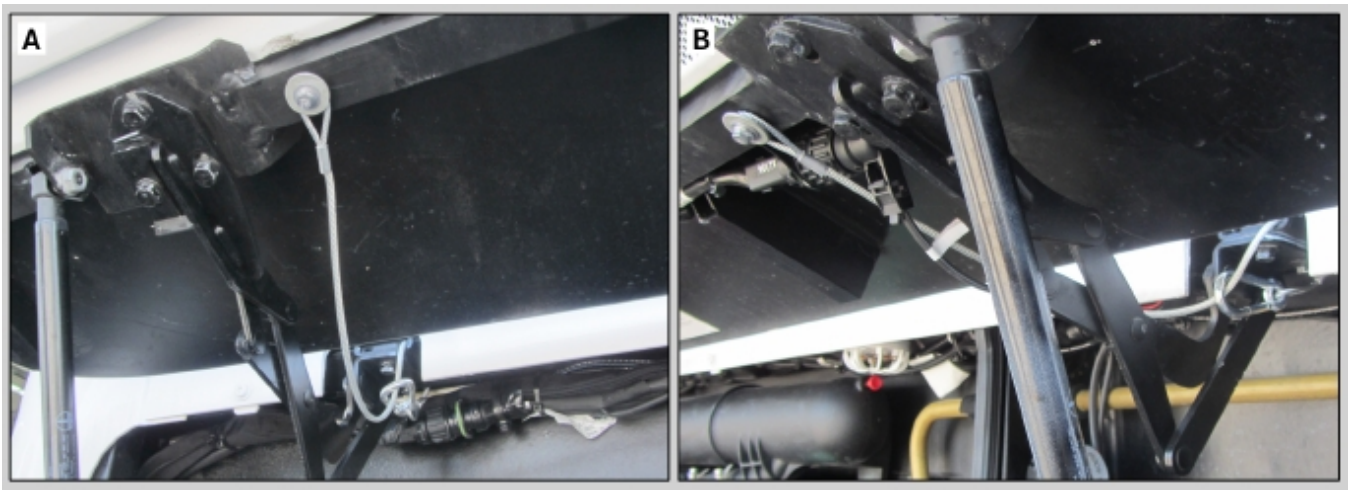
16. Secure arrester cable **(6)** using snap hook **(11)**.

17. Establish the electrical connection on right-hand flap side **(2)**.

> **Note**
>
> This operation does not apply on the left-hand side.

## Overview of left 'A' and right 'B' side after installation

18.




## Adjusting the engine compartment flap

**Note**

Whenever you are adjusting flap gap dimensions, always take into consideration (adapt to) the gap dimensions of adjacent components.

**Note**

The following priorities govern the adjustment of exterior flaps: Priority 1: leak-tightness of the flaps. Priority 2: gap dimensions, appearance of the gap line and evenness of the outside of the flap surface in closed condition. Priority 3: gap dimensions, position and evenness of the outside of the flap surface in open condition.

19. The use of adjustable gap gauges or suitable feeler gauges is advisable when making adjustments to gap dimensions.

| Required material |
| --- |
| Gap gauge set |

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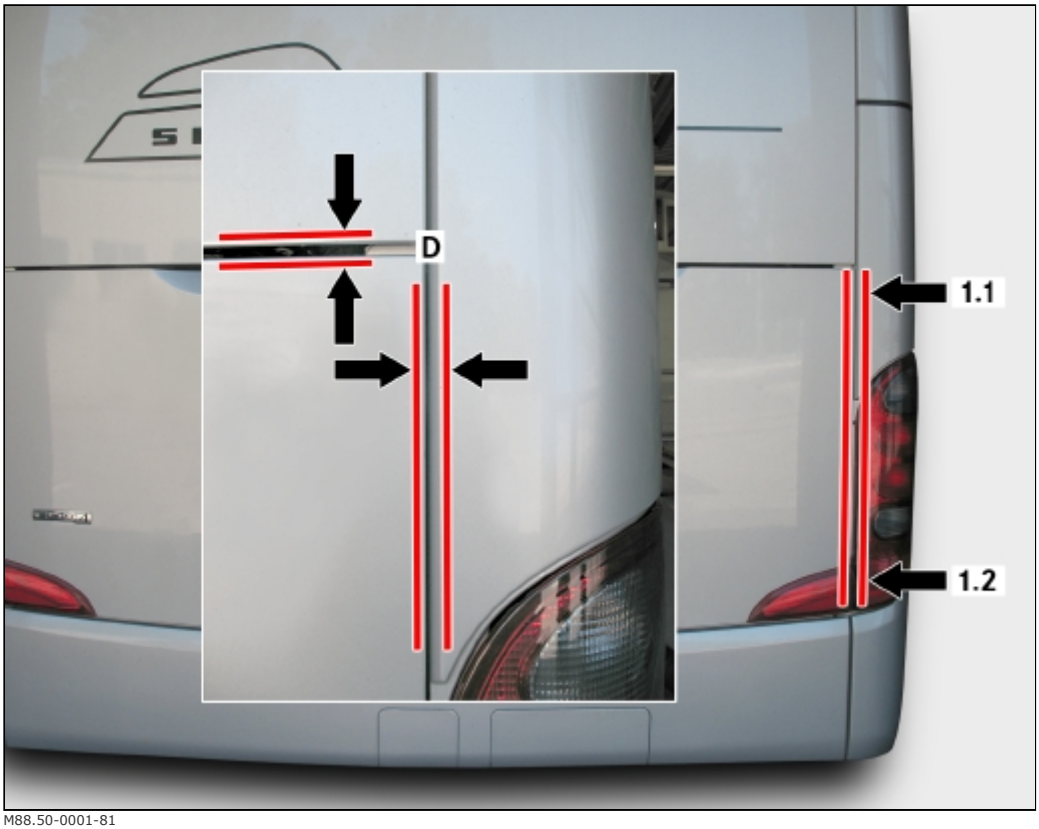


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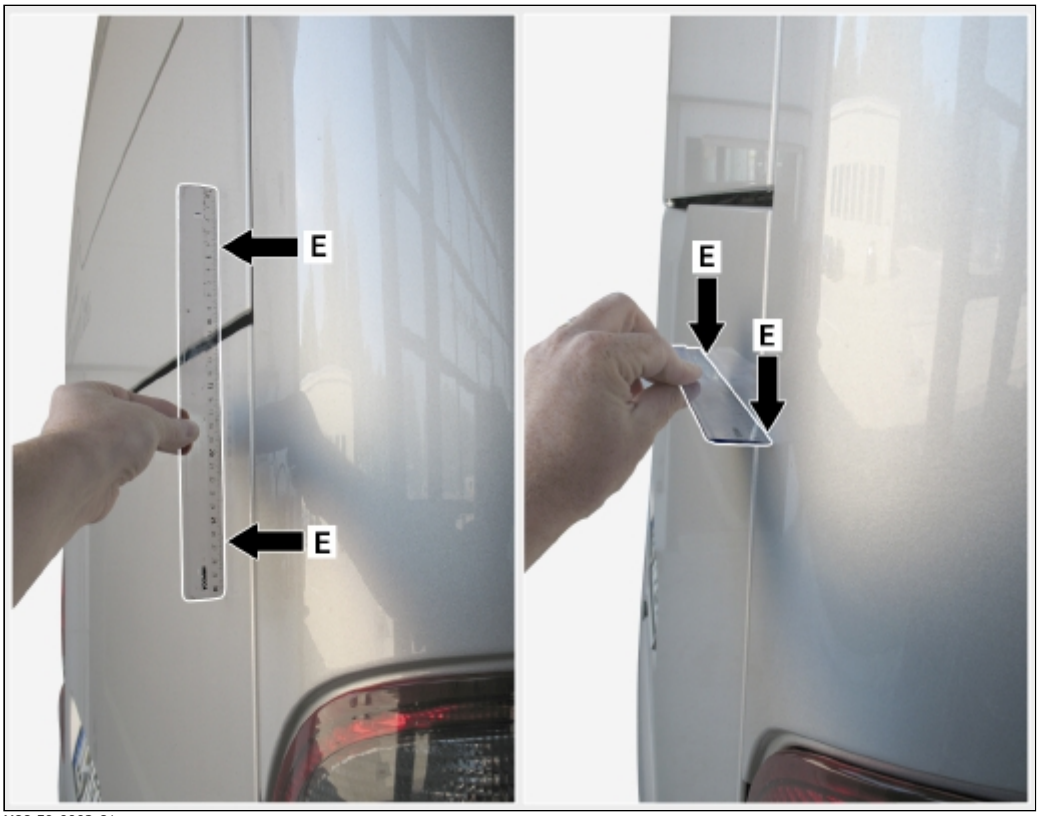
20. →

| Reference values | |
| --- | --- |
| Engine compartment flap gap dimension (D) | 6 … 10 mm |

| Reference values | |
|---|---|
| Uniform gap line from (1.1) to (1.2), permissible deviation | 1.5 |

**Note**

Adjust all gaps around the engine compartment flap in such a way that their dimensions are as equal as possible. The maximum relative deviation is 1.5 mm.

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21. →

| Reference values | |
|---|---|
| Transitions (planar alignment) (E) from the outer surface to all adjacent components | $0^{+1.5}_{+1.5}$ mm |

## Finishing tasks

▶ Updating vehicle documentation in the “VeDoc” system and updating bus-specific electrical data