

K Installation documentation

vor water heater Thermo Top Evo

'Inline' coolant circuit with engine preheating

Mercedes Benz GLA

Left-hand drive vehicle

| Manufacturer | Model | Type | Model year | EG-BE-No. / ABE |
|---------------|-------|------------|------------|-----------------------|
| Mercedes Benz | GLA | H247 / F2B | from 2020 | e1* 2007/46* 1909*... |

| Motorisation | Fuel | Emission standard | Transmission type | Output [kW] | Displacement [cm ³] | Engine code |
|--------------|--------|-------------------|-------------------|-------------|---------------------------------|-------------|
| 180 | Petrol | Euro 6d Temp | 7G-DCT | 100 | 1332 | M282 |
| 200 | Petrol | Euro 6d Temp | 7G-DCT | 120 | 1332 | M282 |

| Validity | Equipment variants | Model |
|-------------------------------|---------------------|-------|
| | | GLA |
| Verified equipment variants | Thermatic | x |
| | LED main headlights | x |
| | Start button | x |
| Unverified equipment variants | Alarm system | x |
| | 4MATIC | x |
| Exclusion | Thermotronic | x |

| Total installation time | Note |
|-------------------------|------|
| 10.5 hours | |

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1 List of abbreviations

| | |
|------|--|
| ASH | Spacer bracket |
| DCT | Dual clutch transmission |
| DP | Fuel pump |
| FF | FuelFix (tank extracting device) |
| Fig. | Figure |
| HG | Heater |
| SH2 | Engine compartment fuse holder for F1/F2 |
| UP | Coolant pump |
| Veh. | Vehicle |
| X10 | Female plug for control element |

2 Installation notes

2.1 Information on Validity

This installation documentation applies to vehicles listed on page 1, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation. Vehicle and engine types, equipment variants and other specifications not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible.

2.2 Components used

| Designation | Order number |
|--|-------------------------------|
| Basic delivery scope of Thermo Top Evo | In accordance with price list |
| Installation kit for Mercedes Benz GLA Thematic | 1328715A |
| Additional 'Webasto Standard' A/C control kit for Mercedes Benz A-Class and B-Class 2018, GLA, GLB and CLA Thematic/Thermotronic | 1326863_ |
| In case of Telestart, control element, as well as indicator lamp in consultation with end customer | In accordance with price list |

2.3 Notes on installation, in coordination with the end customer

- ▶ Arrange for the vehicle to be delivered with the tank only about ¼ full.
- ▶ The installation location of the following elements should be chosen in coordination with the end customer:
 - the push button in case of the Telestart and/or ThermoCall and/or ThermoConnect options
 - the MultiControl CAR option

2.4 Information on Total Installation Time

The total installation time includes the time needed for mounting and demounting the vehicle-specific components, the heater specific installation time and all other times required for the system integration and initial start-up of the heater.

The total installation time may vary for vehicle equipment other than provided.

3 About this document

3.1 Purpose of the document

This installation documentation is part of the product and contains all the information required to ensure professional vehicle specific installation of the:

| |
|-----------------------|
| Thermo Top Evo heater |
|-----------------------|

3.2 Warranty and liability

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties. Insulate loose wire ends and tie back. Connectors on electronic components must audibly snap into place during assembly.

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K).

Observe the instructions and guidelines of the respective vehicle manufacturer for demounting and mounting vehicle specific components.

The initial start-up is to be executed with the Webasto Thermo Test Diagnosis.

When installing a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

3.2.1 Statutory regulations governing installation

The Thermo Top Evo heater has been type-tested and approved in accordance with ECE-R 10 (EMC) and ECE-R 122 (heater). The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

The heater is licensed in accordance with paragraph 19, section 3, No. 2b of the StVZO (German Road Traffic Licensing Authority).

3.3 Safety

Qualifications of installation personnel

The installation personnel must have the following qualifications:

- Successful completion of Webasto training
- Corresponding qualification for working on technical systems

Regulations and legal requirements

The regulations from the heater's general installation and operating instructions must be observed.

3.3.1 Safety information on installation

Danger posed by live parts

- ▶ Prior to installation, disconnect the vehicle from the voltage supply.
- ▶ Make sure the electrical system is earthed correctly.
- ▶ Always comply with legal requirements.
- ▶ Observe data on type label.

Danger of fire and leaking toxic gases due to improper installation

- ▶ Vehicle parts in the vicinity of the heater must be protected against excessive heating by the following measures:
 - ⇒ Maintain minimum safety distances.
 - ⇒ Ensure adequate ventilation.
 - ⇒ Use fire-resistant materials or heat shields.

Danger due to sharp edges

- Lacerations
 - Short circuit due to electrical wire damage
- ▶ Fit protectors on sharp edges.

3.4 Using this document

Before installing and operating the heater, read this installation documentation, the installation instructions of the heater, the operating instructions and supplementary sheets provided.

3.4.1 Explanatory Notes on the Document

There is an identification mark near the respective work step to allow you to quickly allocate the other applicable documents to the Webasto components to be installed:

| | |
|---|--|
| Generally valid Webasto documentation | |
| Vehicle-specific installation documentation | |
| Vehicle-specific installation documentation of the cold start kit | |
| Webasto Comfort A/C control | |
| Webasto Standard A/C control | |
| Tank extracting device (e.g. FuelFix) | |
| Exhaust end fastener (EFIX) | |
| Combustion air intake silencer | |
| Spacer bracket (ASH) | |

3.4.2 Use of symbols



DANGER

Type and source of the risk

Consequences: Failure to follow the instructions can result in death.

► Actions to protect yourself against risks.



WARNING

Type and source of the risk

Consequences: Failure to follow the instructions can lead to serious or even fatal injuries.

► Actions to protect yourself against risks.



CAUTION

Type and source of the risk

Consequences: Failure to follow the instructions can lead to minor injuries.

► Actions to protect yourself against risks.



Type and source of the risk

Consequences: Failure to follow the instructions can lead to material damage.

► Actions to protect yourself against risks.



Reference to the vehicle manufacturer's specific documents.



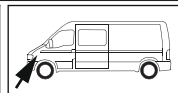
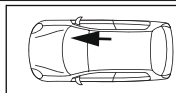
Note on a special technical feature

3.4.3 Work step identification marks

The ongoing work step is indicated on the outside top corner of the page:

| | | | |
|-------------------|-------------------|--------------|----------|
| Mechanical system | Electrical system | High-voltage | Coolant |
| | | | |
| Combustion air | Fuel | Exhaust | Software |
| | | | |

3.4.4 Orientation aid



The arrow indicates the position on the vehicle and the viewing angle.

3.4.5 Use of highlighting

| Highlight | Explanation |
|----------------------------------|--|
| ✓ | Action |
| ► | Necessary action |
| ⇒ | Result of an action |
| 1 / 12 / a1 | Position numbers for the image descriptions |
| ① / ⑫ / Ⓐ | Position numbers for the image descriptions for electrical wires and components as well as coolant hose sections |

4 Technical Information

Dimension specifications

- All dimensions specified in mm
- Perforated brackets and mounting angles are shown to scale
- Observe data regarding scale on the templates

Tightening torque specifications

- Tightening torque values of 5x13 heater bolts and 5x11 heater stud bolts = 8Nm
- Tightening torque values of 5x15 retaining plate of water connection piece bolts = 7Nm
- 5x12 bolt tightening torque of 2-part heater bracket = 6Nm
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology

Temperature specification for heat shrink plastic tubings

- Fabric heat shrink tubing: shrink temperature max. 230°C
- Standard heat shrink plastic tubing: shrink temperature max. 300°C

Necessary special tools

- Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Hose clamping pliers
- Hose cutter
- Automatic wire stripper 0.2 - 6 mm²
- Crimping pliers for cable lugs 0.5 – 10 mm²
- Crimping pliers for male connector 0.14 – 6 mm²
- Crimping pliers for connector 0.25 – 6 mm²
- Torque wrench for 2.0 - 10 Nm
- Deep-hole marker
- Metric thread-setter kit
- Nibbler for sheet steel Knipex 90 55 280 EAN
- Webasto Thermo Test Diagnosis with current software

5 Preparations

5.1 Vehicle preparation



Further information can be found in the vehicle manufacturer's technical documentation.

| Vehicle area | Components to be removed | Other applicable documents |
|-----------------------------|--|----------------------------|
| General | <ul style="list-style-type: none"> ▶ Open the fuel tank cap ▶ Ventilate the fuel tank ▶ Close the fuel tank cap again ▶ Depressurise the cooling system | |
| Engine compartment and body | <ul style="list-style-type: none"> ▶ Battery cover ▶ Disconnect the battery ▶ Detach heat shield plate of bulkhead ▶ Front wheel on the driver's and front passenger's side ▶ Detach wheel well trim on the driver's and front passenger's side ▶ Engine underride protection ▶ Underride protection on the front passenger's side ▶ Lower bumper trim | |
| Passenger compartment | <ul style="list-style-type: none"> ▶ Entrance strip on the front passenger's side ▶ Footwell trim on the front passenger's side ▶ Glove box ▶ Fold back the carpet on the front passenger's side ▶ Fold back the carpet under the rear bench seat towards the front ▶ Rear bench seat ▶ Lug in the rear area on the driver's side (only if present) ▶ Passenger compartment fuse holder (ZE) | |

5.2 Heater preparation

| | | |
|--------------------|--|--|
| Engine compartment | <ul style="list-style-type: none"> ▶ Remove years that do not apply from the type and duplicate label ▶ Attach the duplicate label (type label) in the appropriate place in the engine compartment | |
|--------------------|--|--|

6 Installation overview

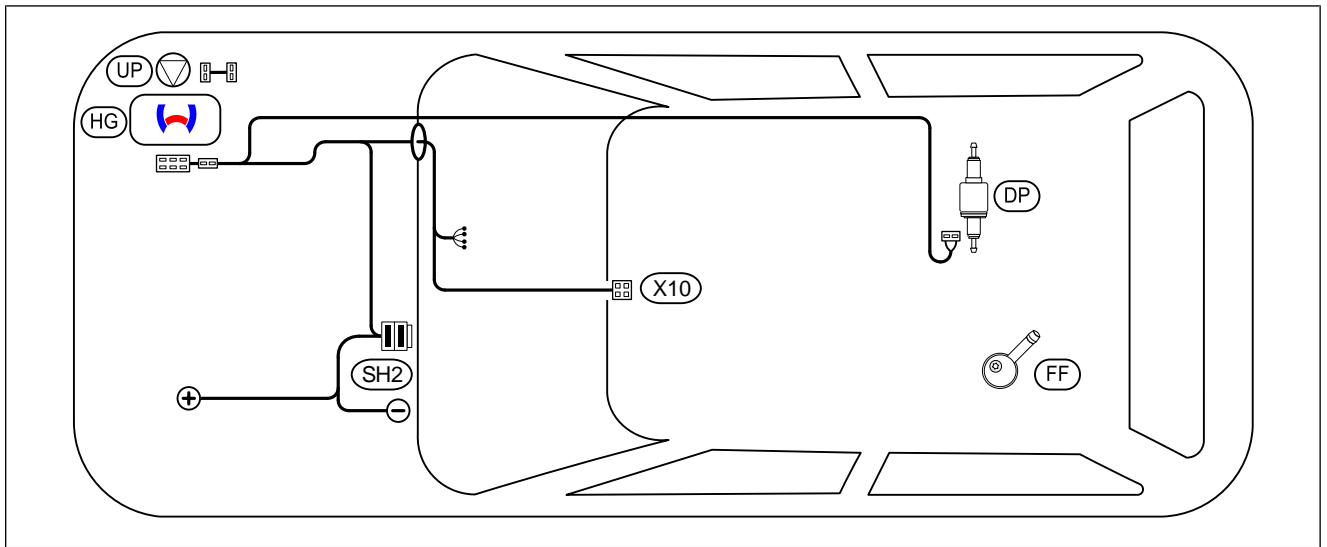
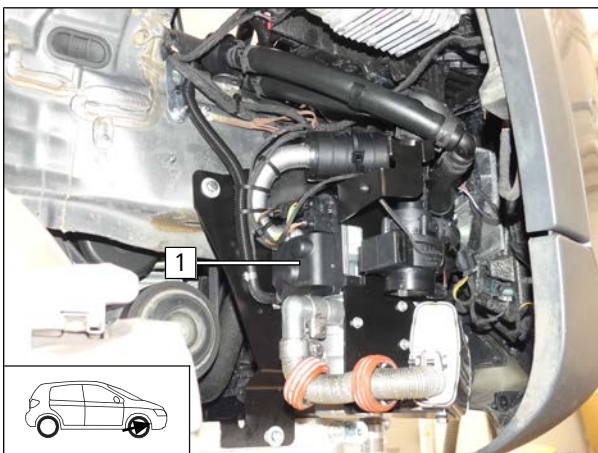


Fig. 1

Legend to installation overview

| Abbreviation | Component |
|--------------|--|
| DP | Fuel pump |
| FF | FuelFix |
| HG | Heater |
| SH2 | Engine compartment fuse holder for F1/F2 |
| UP | Coolant pump |
| X10 | Female plug for control element |

Heater installation location



1 Heater

Fig. 2



7 Electrical system of engine compartment

Bending angle bracket

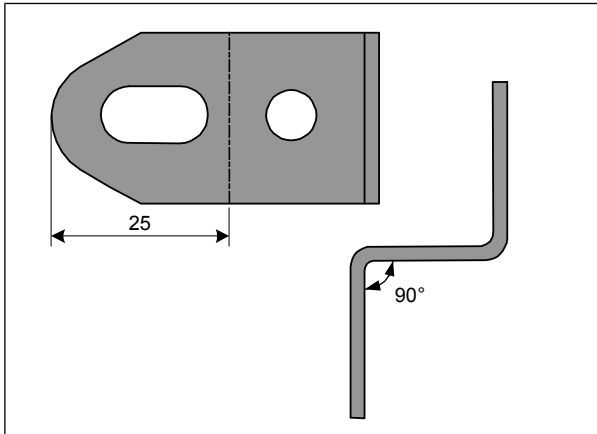


Fig. 3

Premounting angle bracket

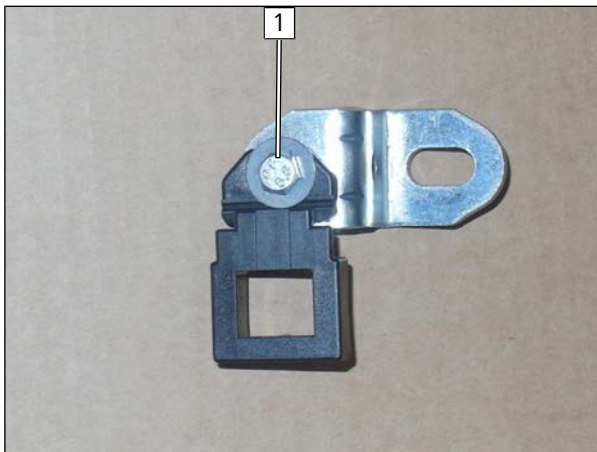


Fig. 4

- 1 M5x16 bolt, large diameter washer, retaining plate of SH2, angle bracket, large diameter washer, nut

Mounting angle bracket

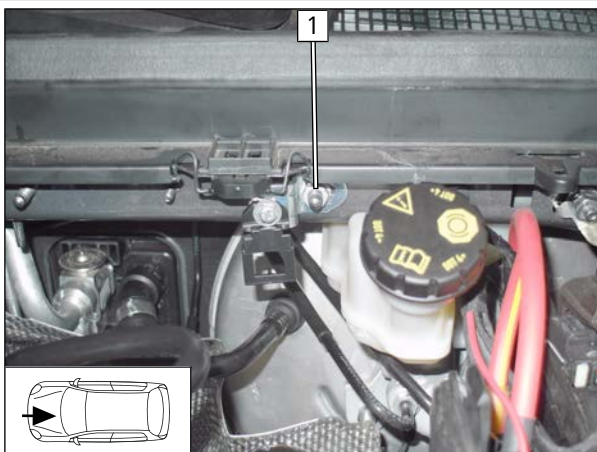


Fig. 5

- 1 Original vehicle stud bolt, premounted angle bracket, M8 flanged nut



Installing SH2

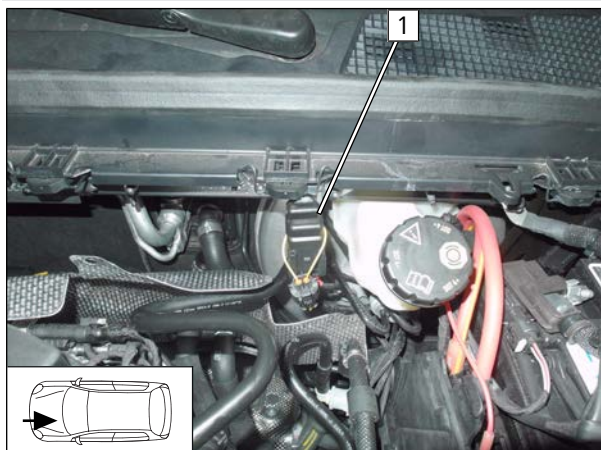


Fig. 6

- 1 Fuse F1/F2

Routing wiring harnesses

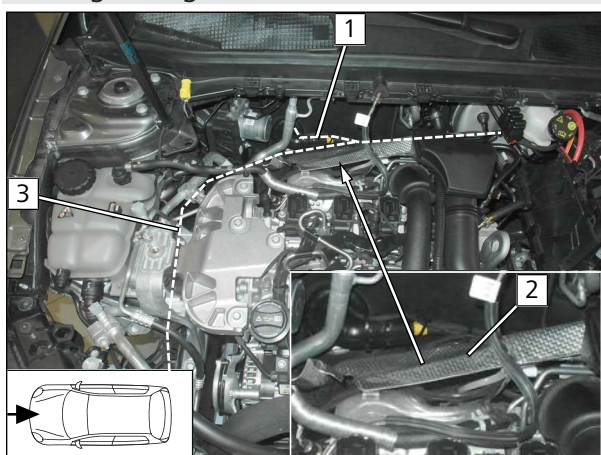


Fig. 7

- ▶ Detach original vehicle heat shield plate **2** and position for assembly work as shown.
- ▶ Route wiring harnesses along original vehicle lines as shown in Fig. and attach using cable ties.
 - 1 Passenger compartment and control element wiring harnesses
 - 3 Heater wiring harness

Connecting positive wire

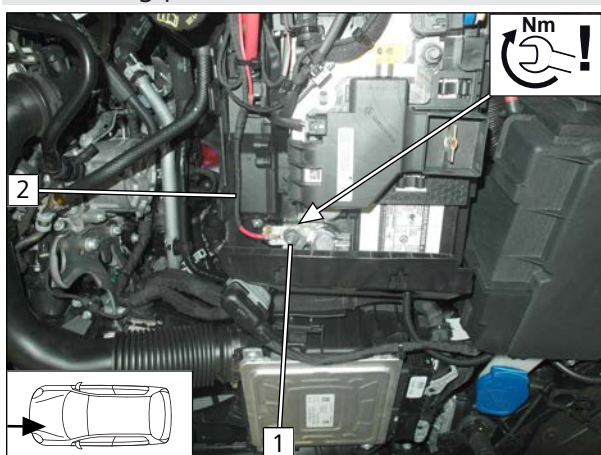


Fig. 8



DANGER

Observe tightening torque



The Fig. shows the installation situation. The battery is connected during the final work phase.

- 1 Original vehicle positive support point
- 2 Positive wire



Connecting earth wire

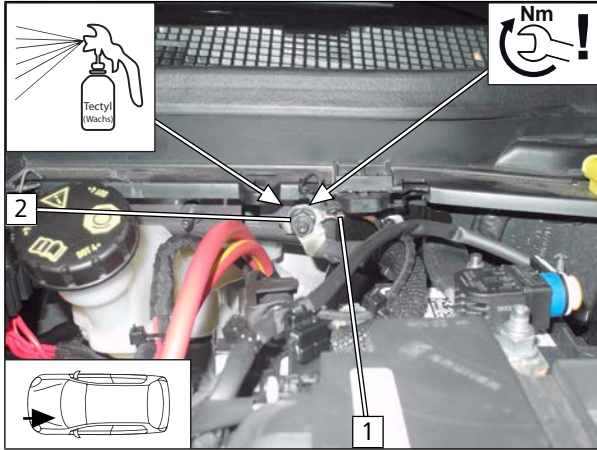


Fig. 9



DANGER

Observe tightening torque

- 1 Earth wire
- 2 Original vehicle earth support point

Passenger compartment wiring harness pass through

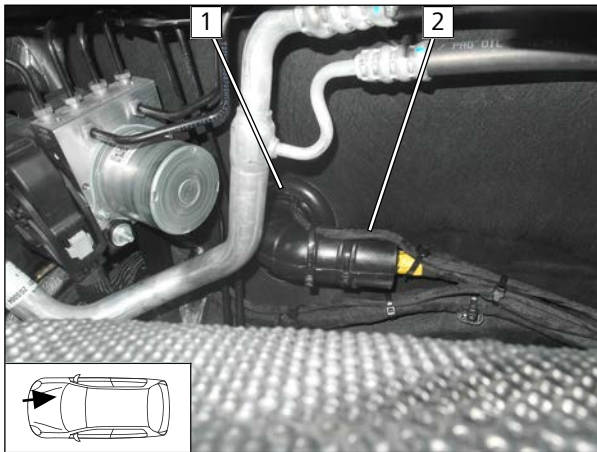


Fig. 10

- Route passenger compartment and control element wiring harnesses 2 through original vehicle protective rubber plug 1 into the passenger compartment.



8 Mechanical system

8.1 Installation location preparation

Routing original vehicle earth wires, aligning original vehicle tab

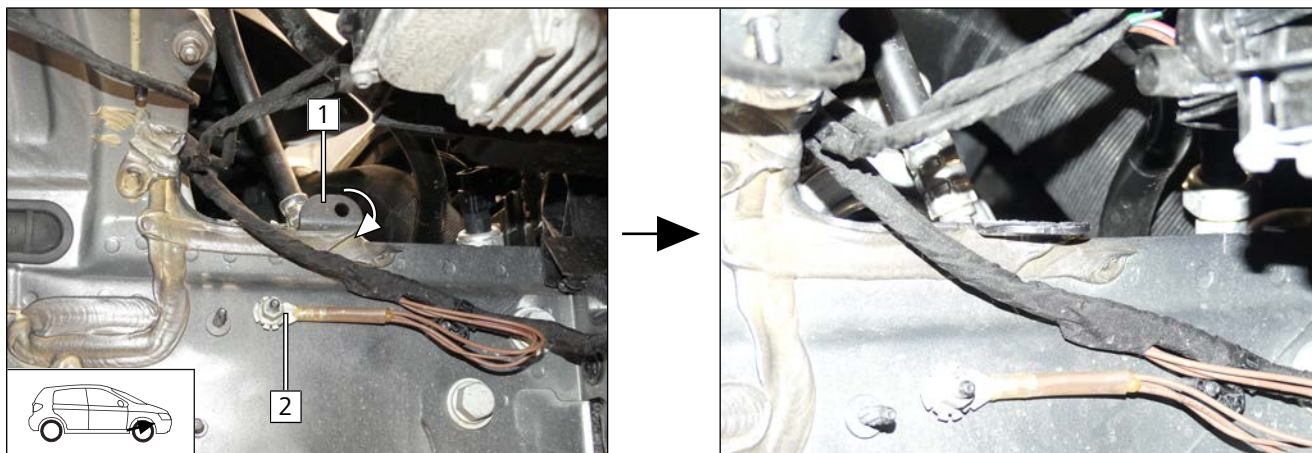


Fig. 11

1 Original vehicle tab

► Disconnect original vehicle earth wires 2, route as shown and connect again.

Preparing perforated bracket

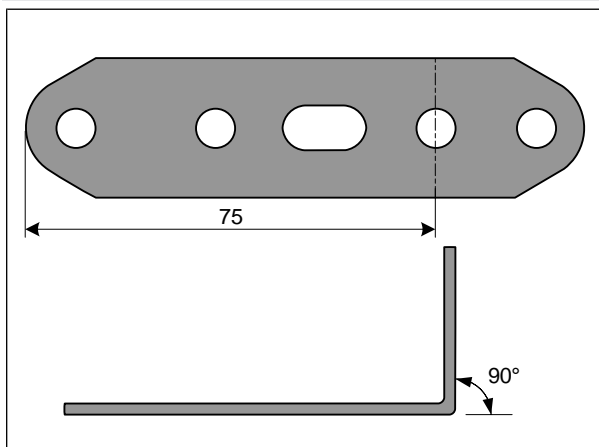


Fig. 12



Premounting and mounting perforated bracket, mounting edge protection

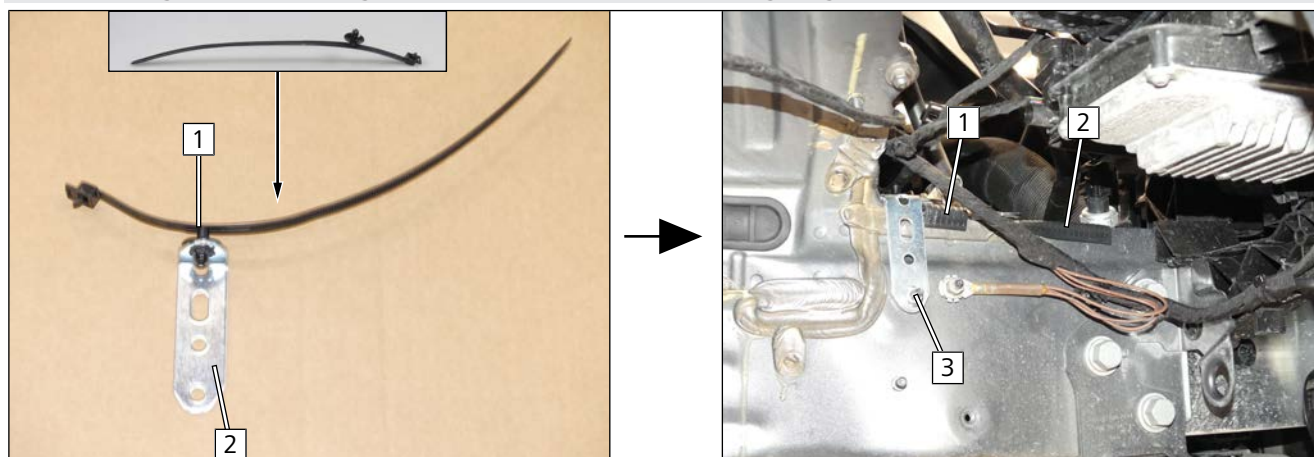


Fig. 13

- 1 Eyelet cable tie, lock washer
- 2 Perforated bracket

- 1 30 lg. edge protection
- 2 70 lg. edge protection
- 3 Original vehicle stud bolt, premounted perforated bracket, flanged nut

Routing original vehicle wiring harness 1

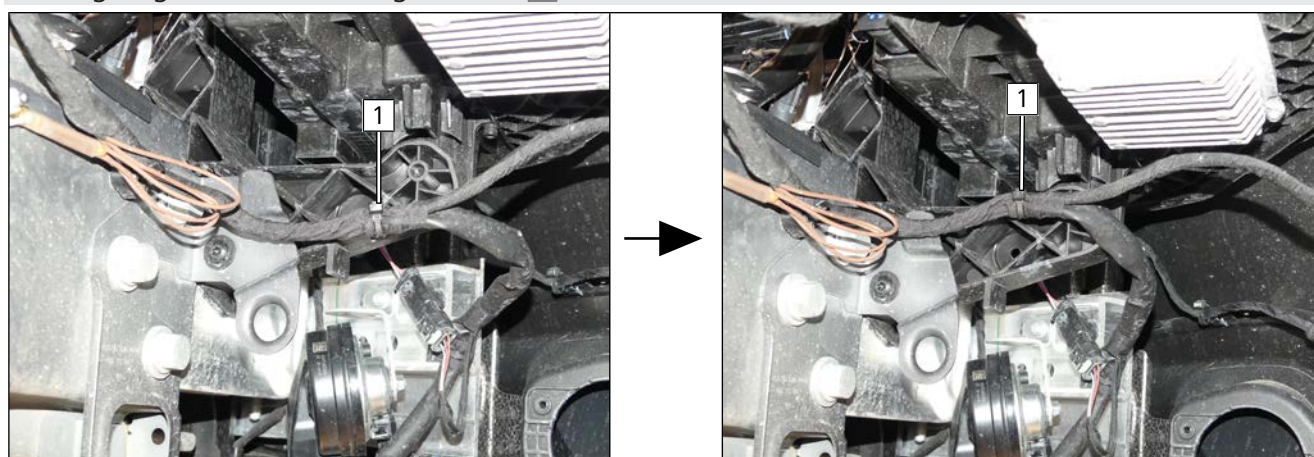


Fig. 14

Turning the horn

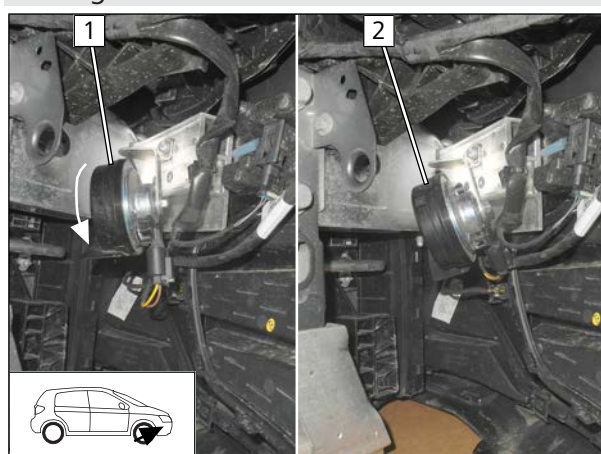


Fig. 15

► Turn the horn by approx. 45° in the driving direction.

- 1 Original horn
- 2 Horn turned by 45°



Inserting rivet nut

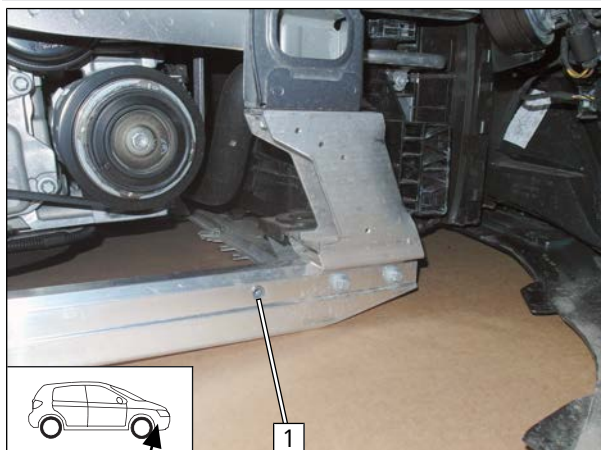


Fig. 16

1 Original vehicle hole, rivet nut

Routing HG wiring harness

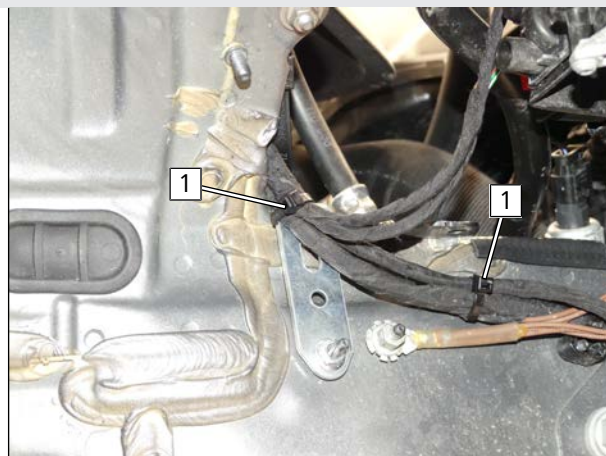
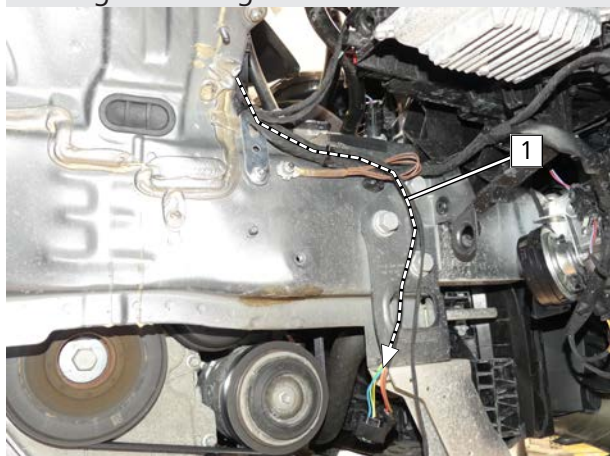


Fig. 17

1 Heater wiring harness

1 Cable tie

8.2 Premounting heater

Mounting, aligning and fastening with 7Nm water connection piece with sealing ring and retaining plate

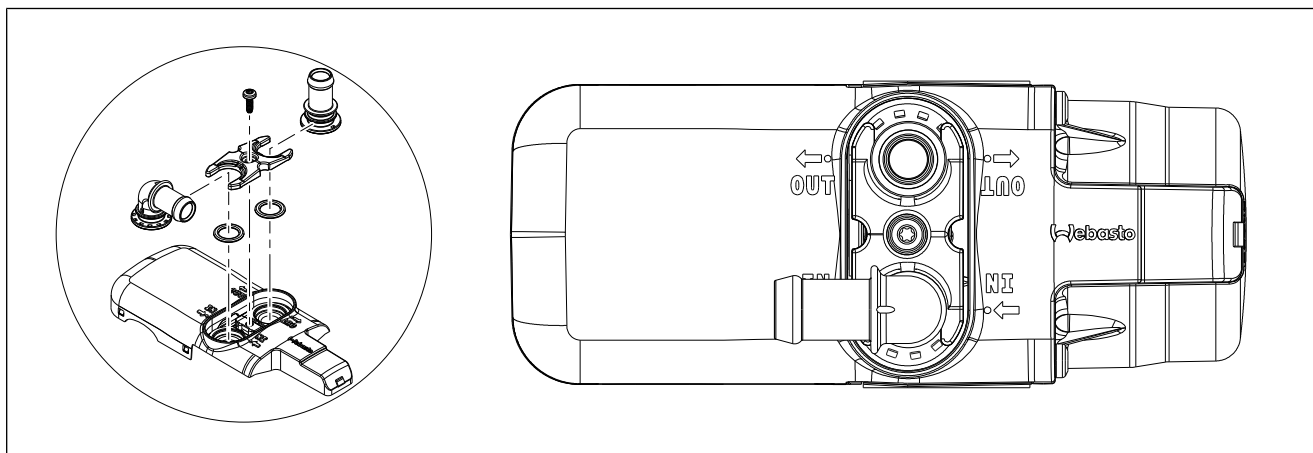


Fig. 18



Mounting moulded hose

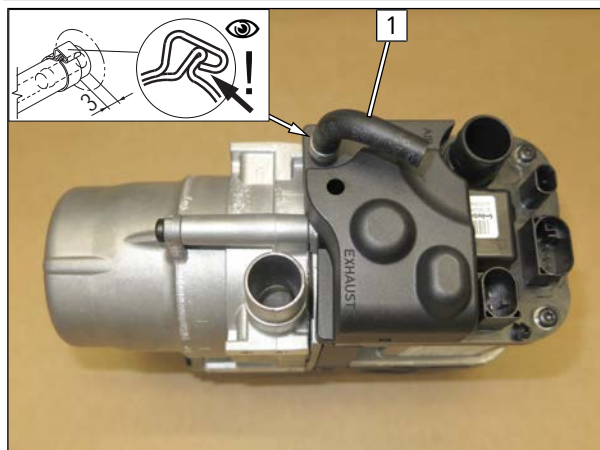


Fig. 19

- 1 90° moulded hose, Ø10 clamp

Arranging two-part bracket

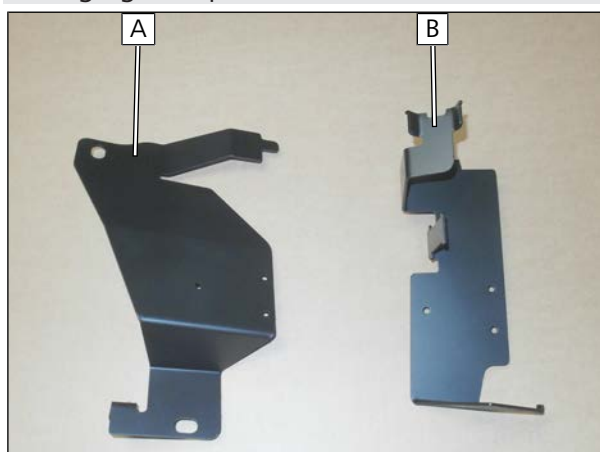


Fig. 20

Mounting bracket **A**

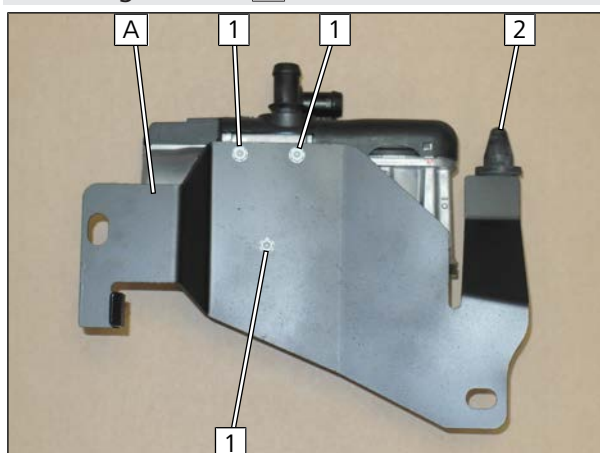
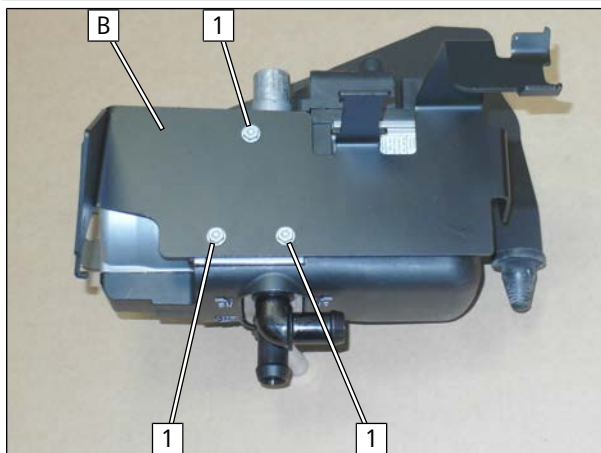


Fig. 21

- 1 5x13 self-tapping bolt
- 2 Installing rubber plug



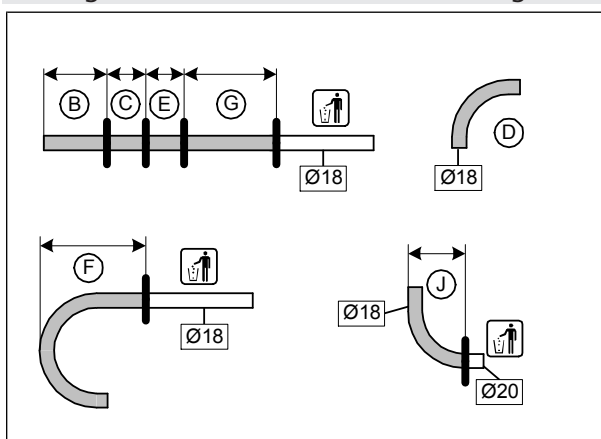
Mounting bracket **B**



1 5x13 self-tapping bolt

Fig. 22

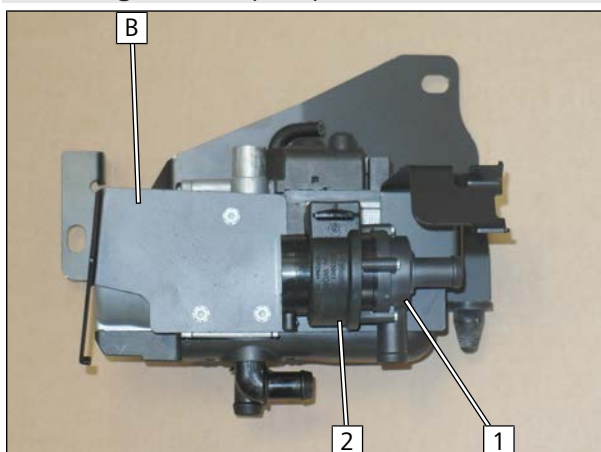
Cutting Ø18 and Ø18x20 hoses to length



| | |
|----------|----------|
| B | 190 |
| C | 90 |
| D | Ø18, 90° |
| E | 60 |
| F | 190 |
| G | 250 |
| J | 75 |

Fig. 23

Mounting coolant pump



1 Coolant pump
2 Coolant pump mount on bracket **B**

Fig. 24



Mounting hoses **D** and **E**

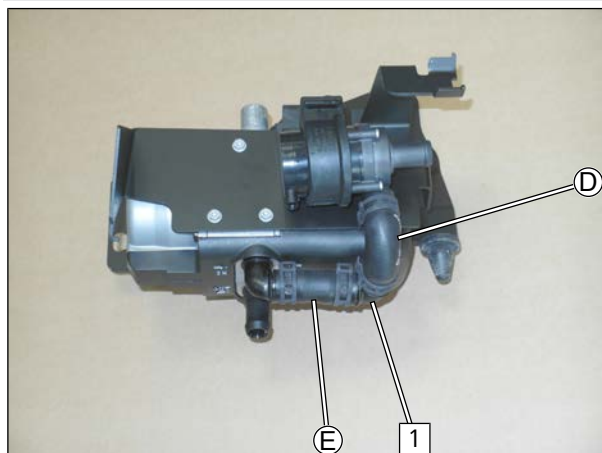


Fig. 25

All spring clips Ø25

1 90°, 18x18 connecting pipe

Cutting combustion air pipe to length

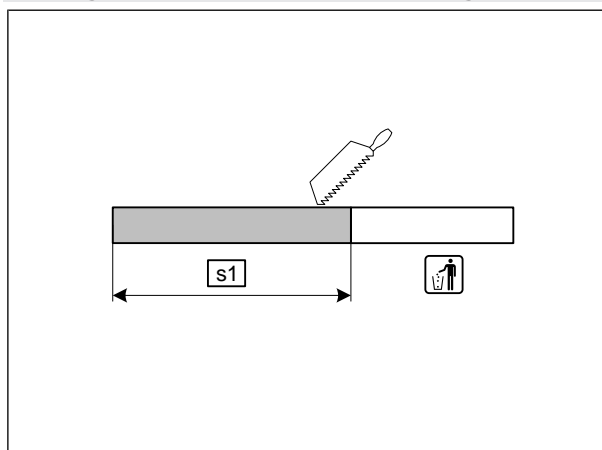


Fig. 26

s1 160

Mounting combustion air intake silencer and combustion air pipe **s1**

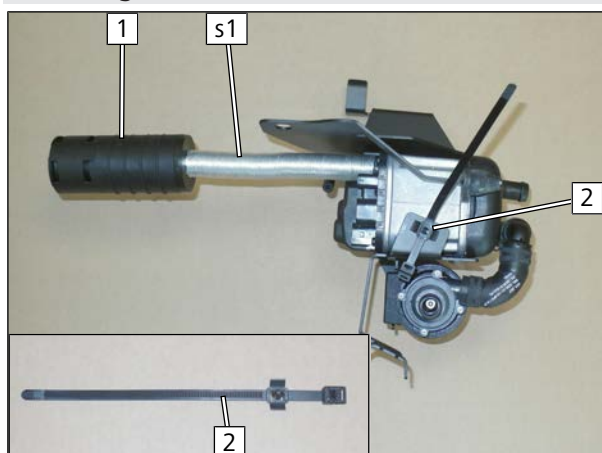


Fig. 27

L Observe the installation instructions of the combustion air intake silencer.

1 Combustion air intake silencer

2 Premount eyelet cable tie



Fastening combustion air intake silencer

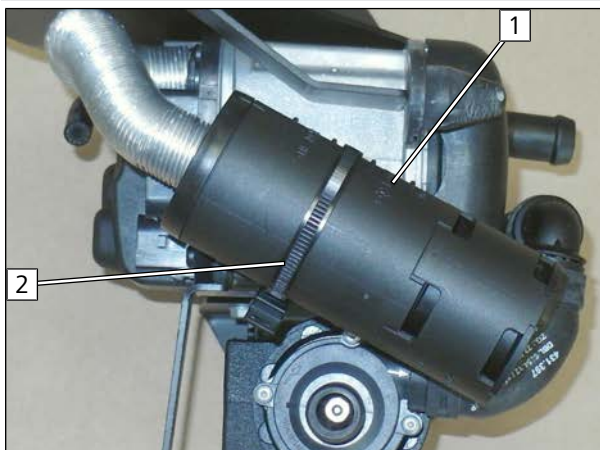


Fig. 28

- 1 Combustion air intake silencer
- 2 Close eyelet cable tie

Mounting coolant pump wiring harness

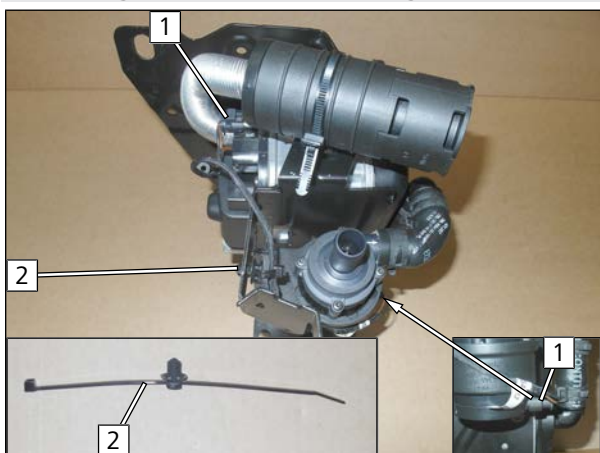


Fig. 29

- 1 Coolant pump wiring harness connector
- 2 Eyelet cable tie

Preparing exhaust pipe

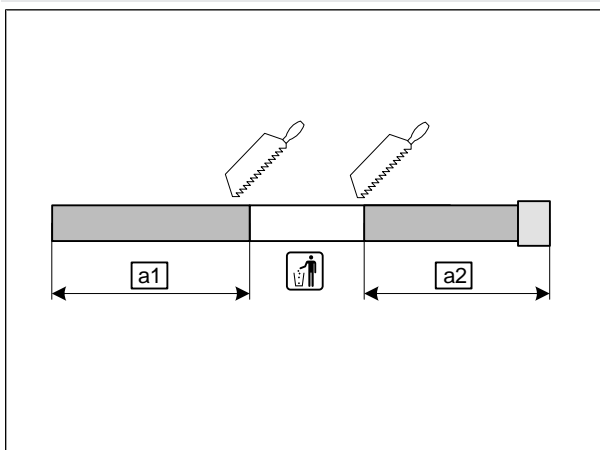


Fig. 30

- a1 210
- a2 250



Preparing exhaust pipe **a1**

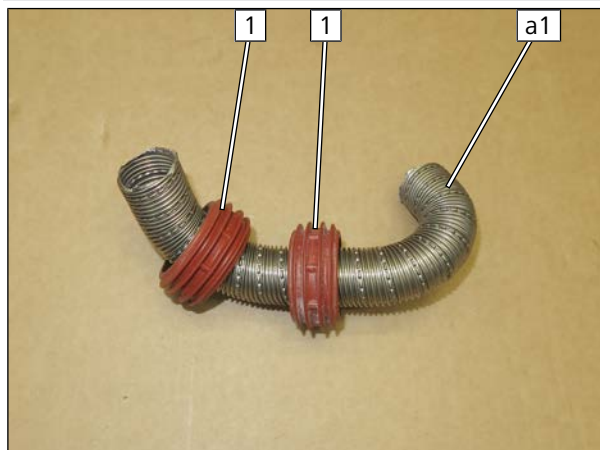


Fig. 31

► Bend exhaust pipe **a1** as shown.

1 ASH

Shortening exhaust elbow

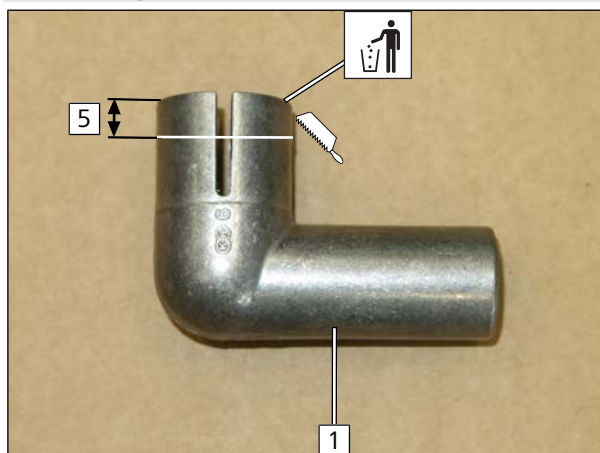


Fig. 32

1 Exhaust elbow

Mounting exhaust silencer

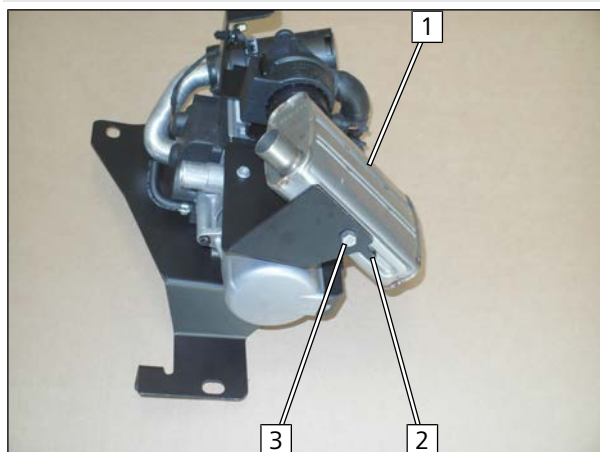


Fig. 33

► Engage twist protection at position **2**.

1 Exhaust silencer

3 M6x16 bolt, spring lockwasher



Mounting exhaust pipe **a1**

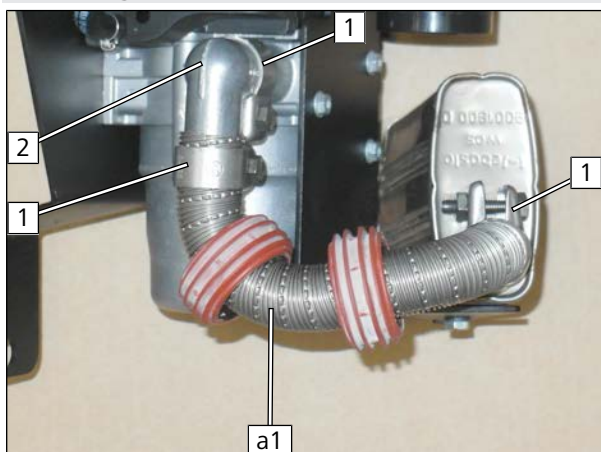


Fig. 34

- 1** Hose clamp
- 2** Exhaust elbow

Preparing rubber isolator

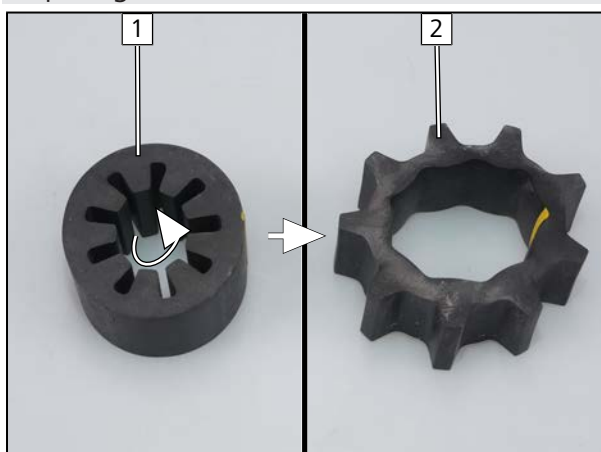


Fig. 35

► For easier installation, turn two rubber isolators **1** inside out.

- 1** Ø22 rubber isolator, original
- 2** Rubber isolator turned inside out

Mounting hoses **B** and **C**

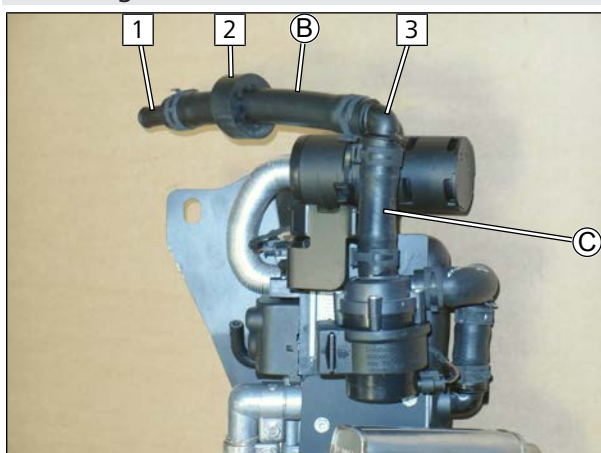



Fig. 36

 All spring clips Ø25

- 1** 15x18 connecting pipe
- 2** Slide on Ø22, black (sw) rubber isolator and turn it back to its original state.
- 3** 90°, 18x18 connecting pipe



Mounting hoses **F** and **G**

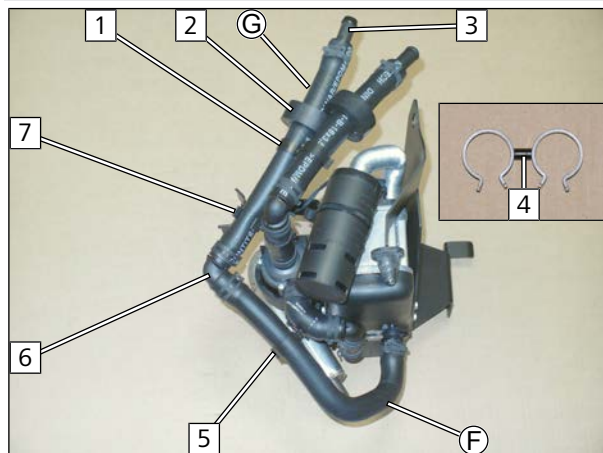


Fig. 37



All spring clips Ø25

- 1 Hose bracket 4 between hoses B and G
- 2 Slide on Ø22, black (sw) rubber isolator and turn it back to its original state.
- 3 15x18 connecting pipe
- 4 25x25 hose bracket
- 5 Hose bracket 4 between hoses D and F
- 6 90°, 18x18 connecting pipe
- 7 Hose bracket 4 between hoses C and G

8.3 Heater mounting

Locating fastening points

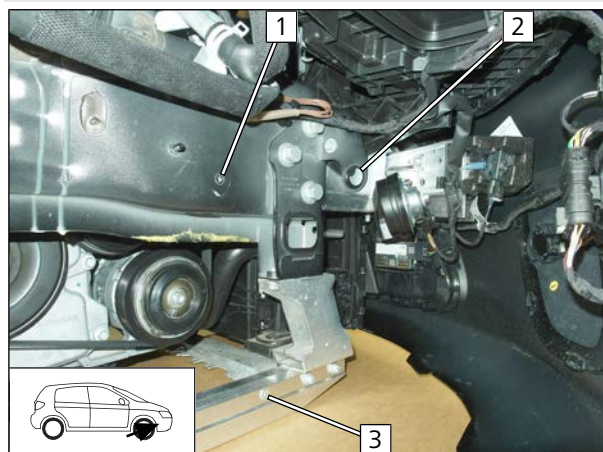


Fig. 38

- 1 Original vehicle thread
- 2 Mount for rubber plug of bracket A
- 3 Rivet nut

Mounting heater

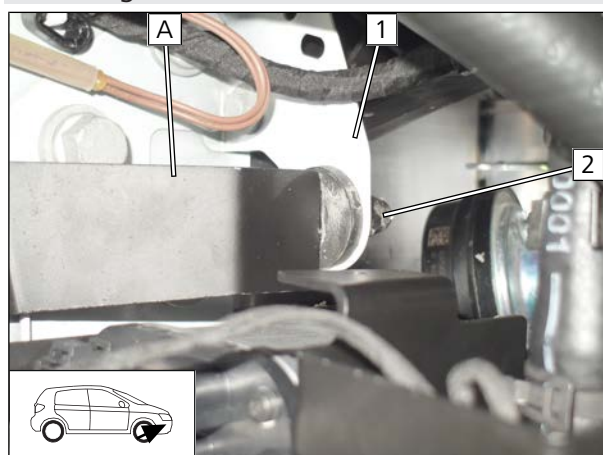


Fig. 39



Observe the general installation instructions of the heater.

- Insert premounted rubber plug 2 on bracket A in original vehicle mount 1.

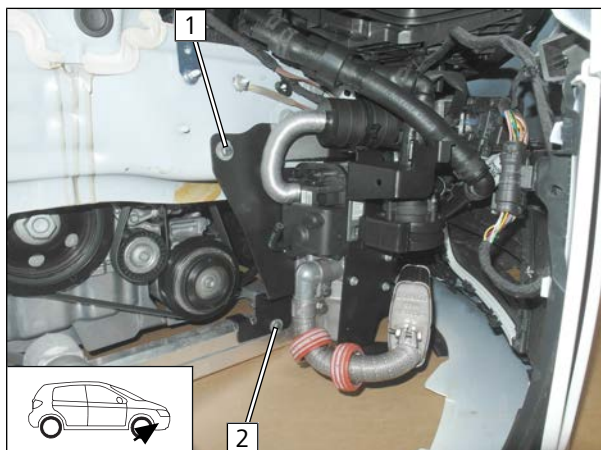


Fig. 40



Mount all screw connections loosely, they will be tightened later.

- 1 M6x20 bolt, spring lock washer, large diameter washer, bracket **A**, original vehicle thread
- 2 M6x20 bolt, spring lock washer, large diameter washer, bracket **A**, rivet nut

Aligning horn



Fig. 41



Ensure sufficient distance from neighbouring components, correct if necessary.



Tighten all screw connections.

Mounting heater wiring harness

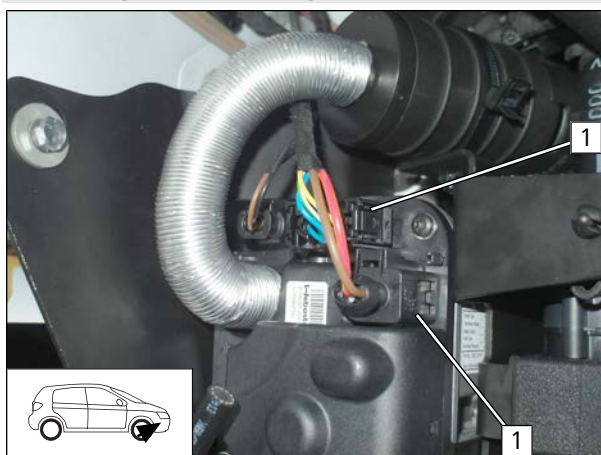


Fig. 42

- 1 Heater wiring harness connector



9 Fuel



DANGER

Risk of fire and explosion due to leaking fuel and escaping fuel vapours.

The incorrect installation of the fuel extractor can cause damage and fire.

- ▶ Avoid electrostatic discharges and open fire
- ▶ When working on the fuel system, ensure sufficient ventilation and bleeding
- ▶ Open the fuel tank cap of the vehicle
- ▶ Ventilate the fuel tank
- ▶ Re-close the tank lock
- ▶ Catch any fuel running off with an appropriate container



Danger of damage to components

- ▶ Install fuel line and fuel pump wiring harness so that they are protected against stone impact
- ▶ Provide rub protection for fuel line and wiring harness in areas where there are sharp edges

Dismantling fuel pump connector X7

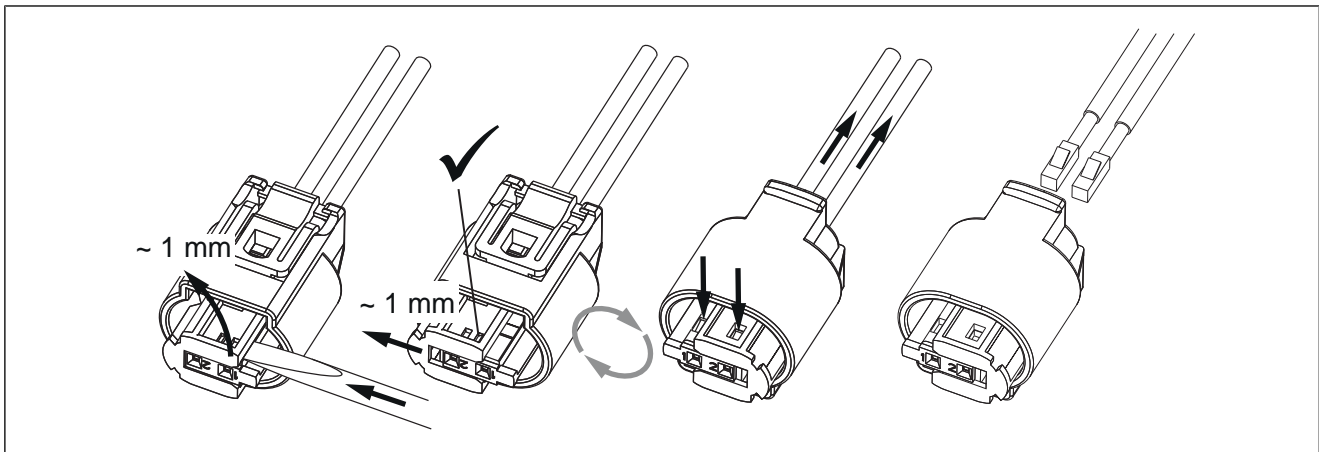


Fig. 43

9.1 Routing fuel line

Connection to heater

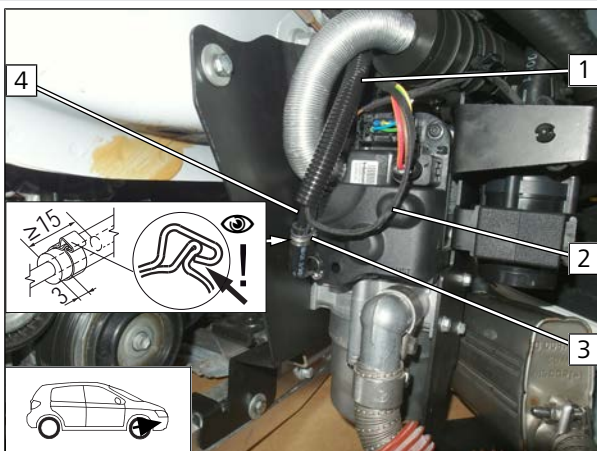


Fig. 44

- ▶ Draw fuel line **4** and fuel pump wiring harness **2** into corrugated tube **1**, route in the engine compartment and fasten with cable ties.

3 Ø10 clamp



Bending angle bracket

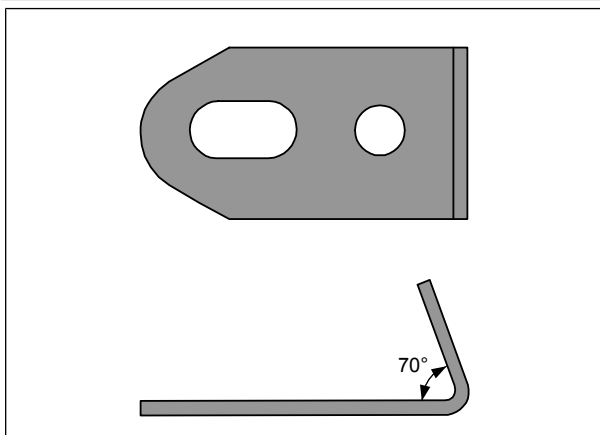


Fig. 45

Mounting angle bracket

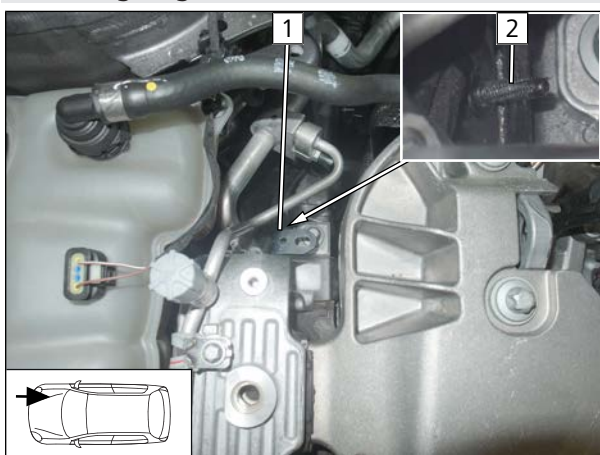


Fig. 46

- 1** Original vehicle stud bolt **2**, angle bracket, flanged nut

Routing corrugated tube

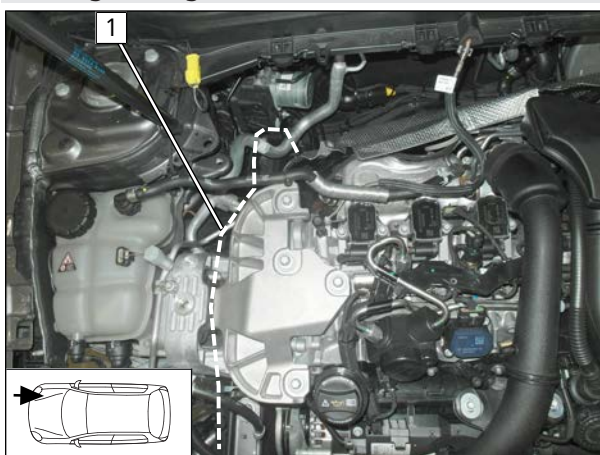


Fig. 47

- Route corrugated tube **1** with fuel line and fuel pump wiring harness to the firewall and further to the underbody. Attach corrugated tube to original vehicle lines using cable ties.



Securing corrugated tube

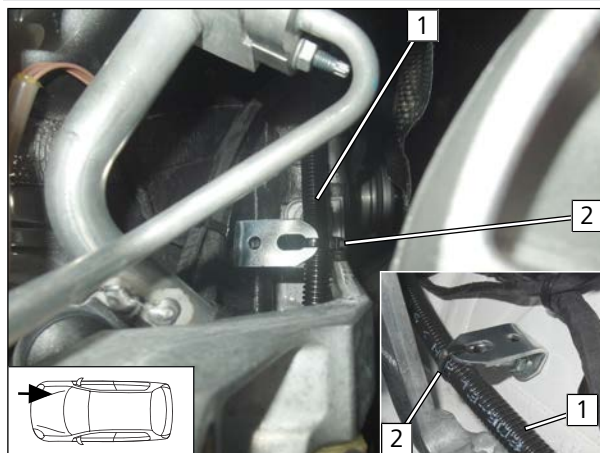


Fig. 48

- Fasten corrugated tube **1** with fuel line and fuel pump wiring harness using cable tie **2**.

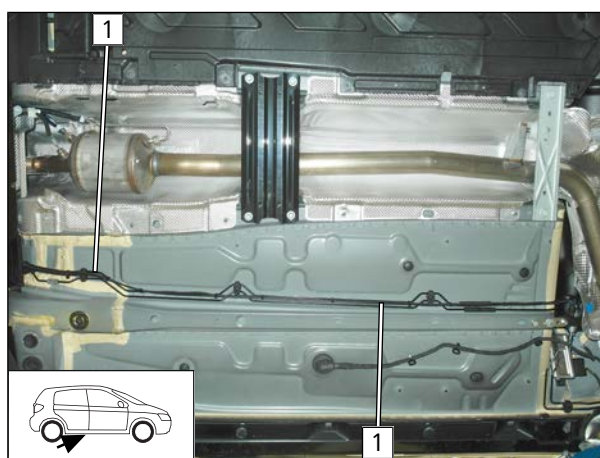


Fig. 49

- Route fuel line and fuel pump wiring harness **1** on original vehicle lines to fuel pump installation location.

Preparing perforated bracket

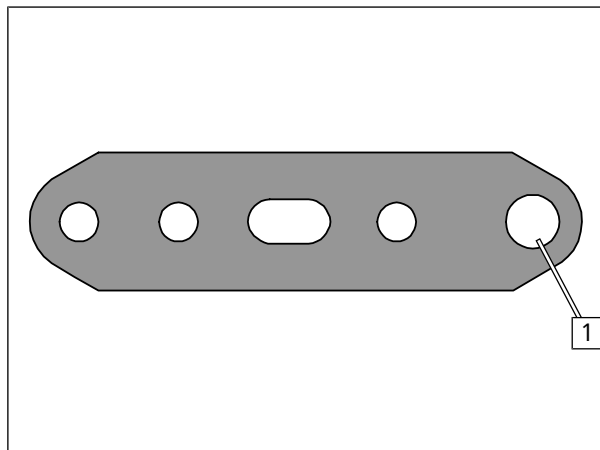


Fig. 50

- Drill out hole **1** to $\text{Ø}8.5$



Premounting fuel pump

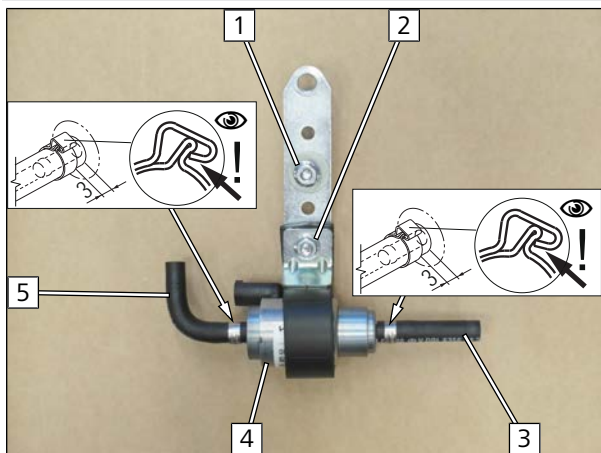


Fig. 51

- 1 Mount M6x20 bolt, large diameter washer, perforated bracket, large diameter washer, flanged nut loosely
- 2 M6x25 bolt, perforated bracket, fuel pump mount, support angle bracket, flanged nut
- 3 Hose section, Ø10 clamp
- 4 Fuel pump
- 5 90° moulded hose, Ø10 clamp

Preparing fuel pump installation location

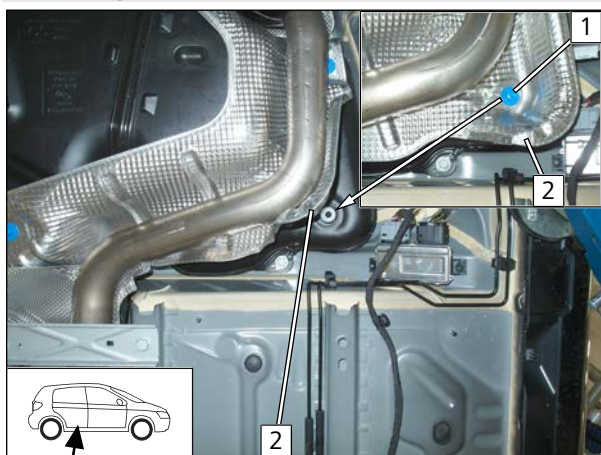


Fig. 52

- Remove original vehicle plastic plug **1** and bend heat shield plate **2** as shown.

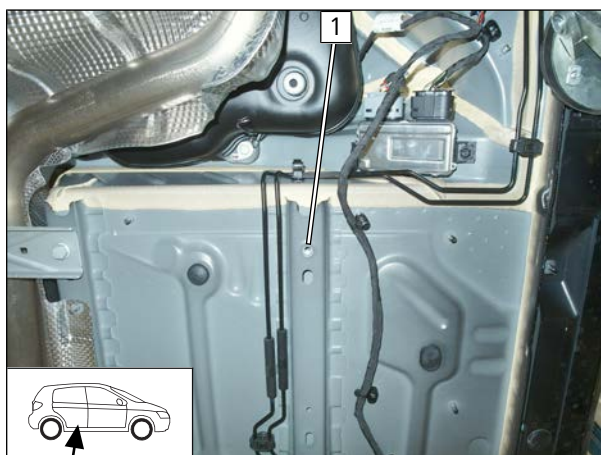


Fig. 53

- Insert M8 rivet nut **1** in available hole.



Mounting fuel pump

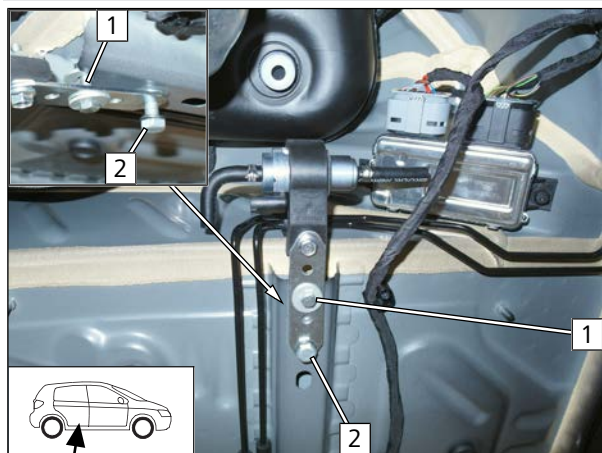


Fig. 54

► Tighten premounted bolt **1**.

2 M8x20 bolt, spring lock washer, rivet nut

Assembling fuel pump connector X7

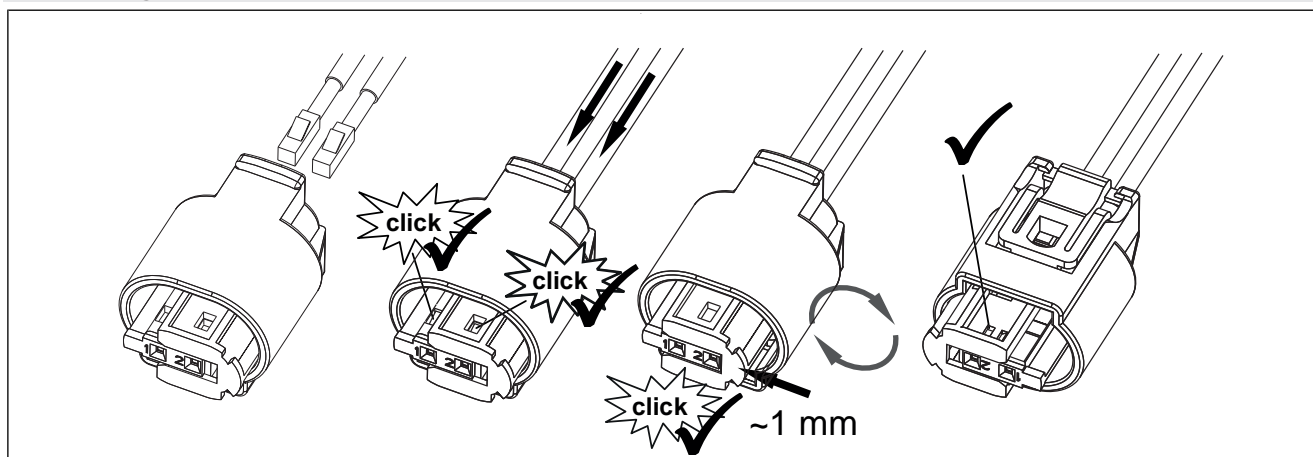


Fig. 55

Connecting fuel pump

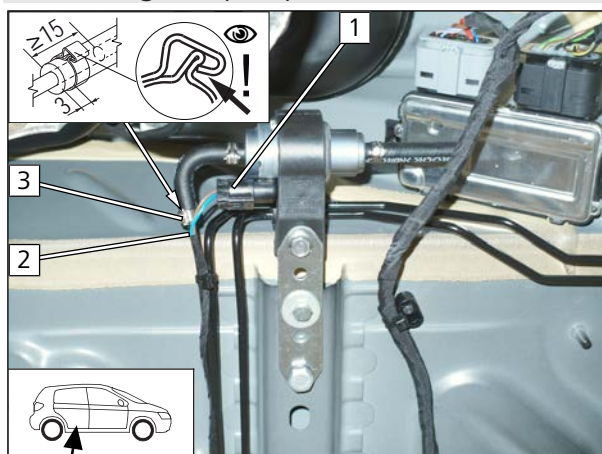


Fig. 56

1 Fuel pump wiring harness, connector X7 mounted

2 Heater fuel line

3 Ø10 clamp



9.2 Installing FuelFix

Cutting carpet

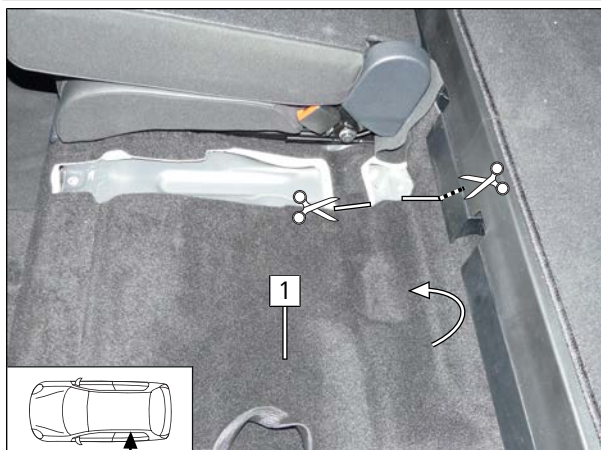


Fig. 57

- ▶ Cut original vehicle carpet **1** as shown and fold in the driving direction.

Creating an opening for tank fitting

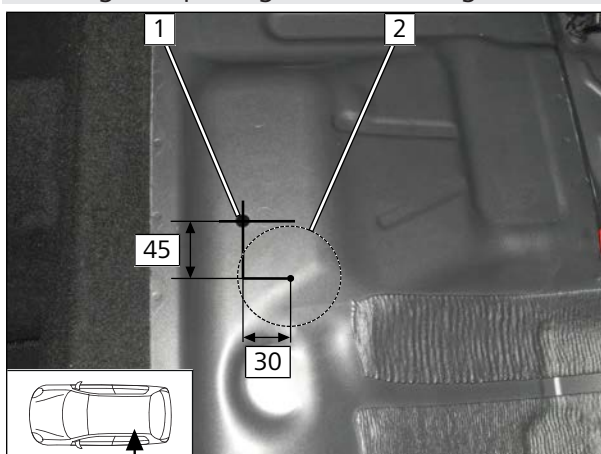


Fig. 58

- ▶ Remove original vehicle rubber plug at position **1** and discard.

- 2** Copy Ø80 hole pattern

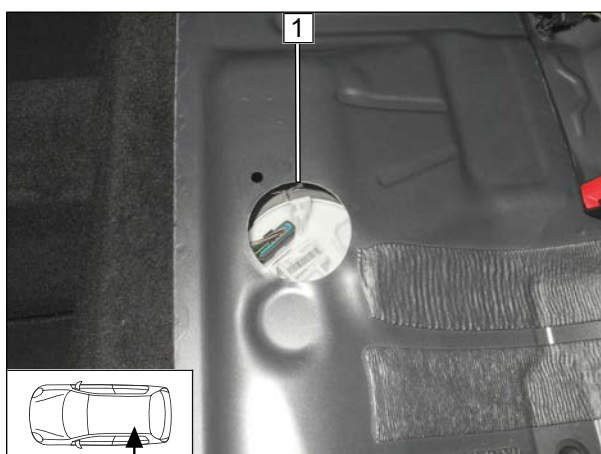
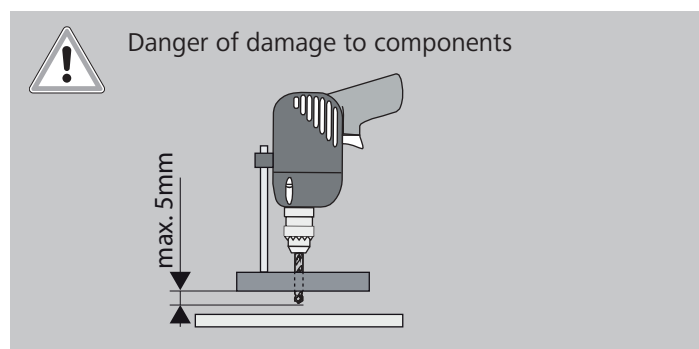


Fig. 59



- ▶ Cut out marked area with special tools (nibbler for sheet steel) and discard.

- 1** Ø80 opening



Moving label

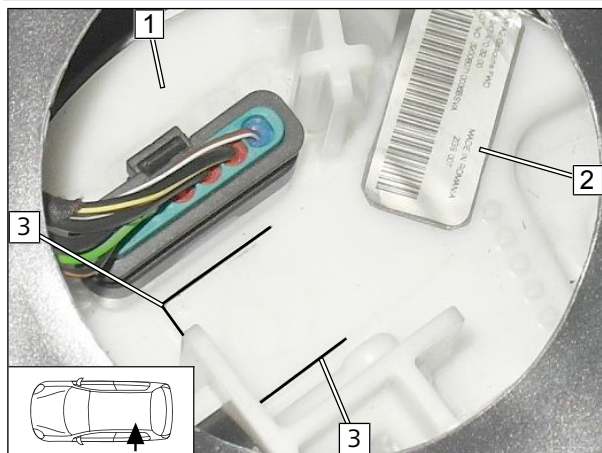


Fig. 60



Fire hazard due to tank fitting leaks

► Vacuum / remove resulting metal shavings in the area of tank fitting **1** using a vacuum cleaner and magnetic rod.

► Move original vehicle label **2** on tank fitting **1** as shown.

► Trace the outline at position **3** for guidance.

Assigning / preparing drilling template

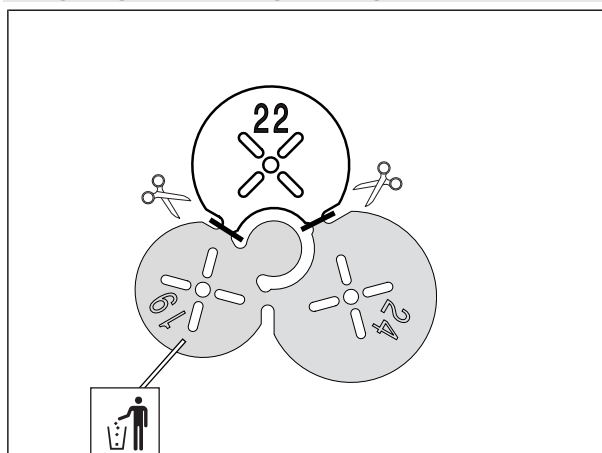


Fig. 61

Copy hole pattern

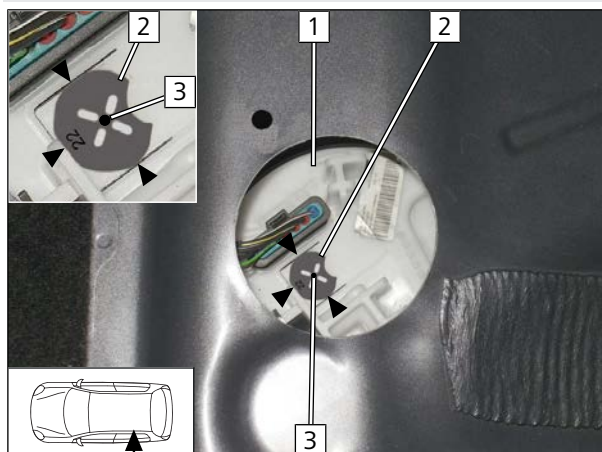


Fig. 62



Observe the installation instructions of the tank extracting device.

► Work steps F1, F2

1 Tank fitting

2 Position 22mm dia. drilling template as shown in fig.

3 Hole pattern



Hole for FuelFix

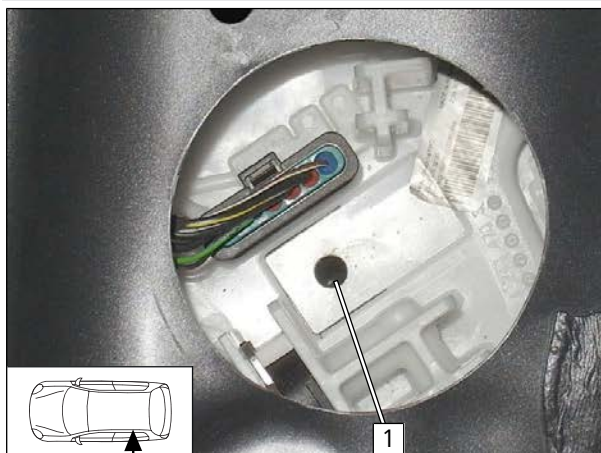


Fig. 63



DANGER

Risk of fire and explosion due to leaking fuel and escaping fuel vapours.

► Work step F3

- 1 Hole made with provided drill

Inserting FuelFix

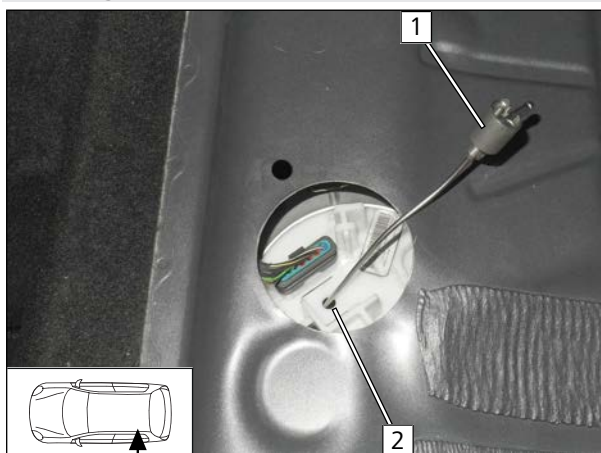


Fig. 64

► Work step F4

- Bend FuelFix **1** as shown in template and cut to length. Insert in hole **2**.



Fig. 65



Fig. 66



Fig. 67

Aligning FuelFix

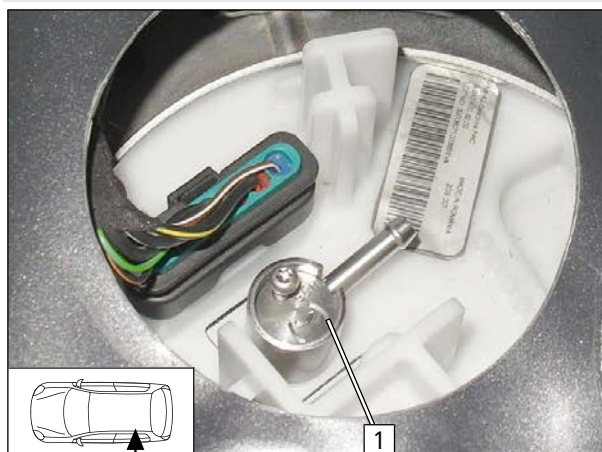


Fig. 68

- ▶ Work steps F5.3, F5.4
- ▶ Align FuelFix **1** as shown.



Preparing fuel line

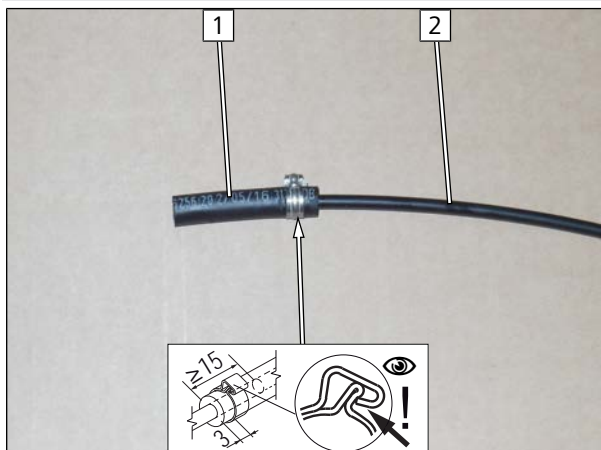


Fig. 69

- 1 Hose section, Ø10 clamp
- 2 Fuel line

Routing fuel line

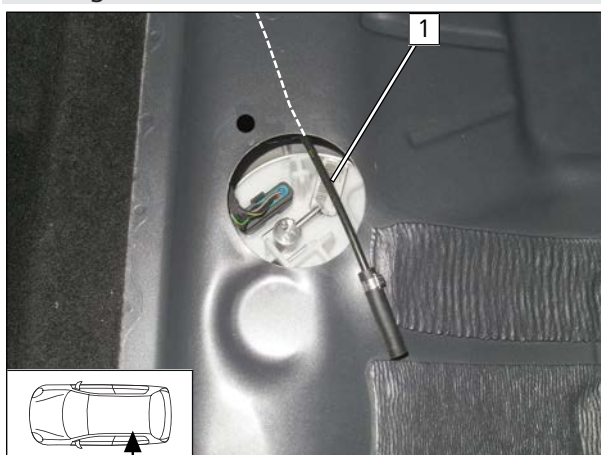


Fig. 70

- Insert fuel line **1** as shown and move it to the right side of the vehicle.

Connecting fuel line

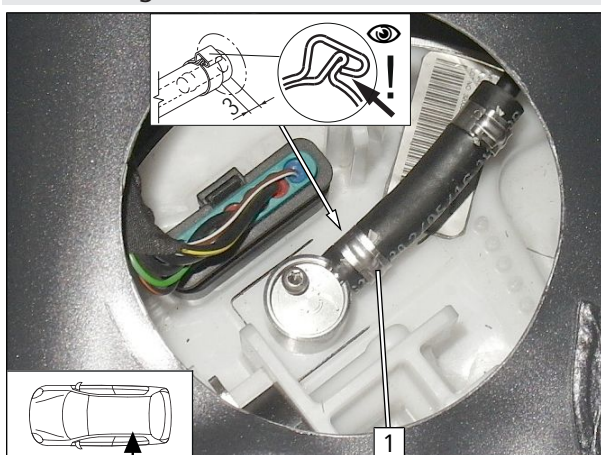


Fig. 71

- Work step F6
- 1 Ø10 clamp



Installing FuelFix

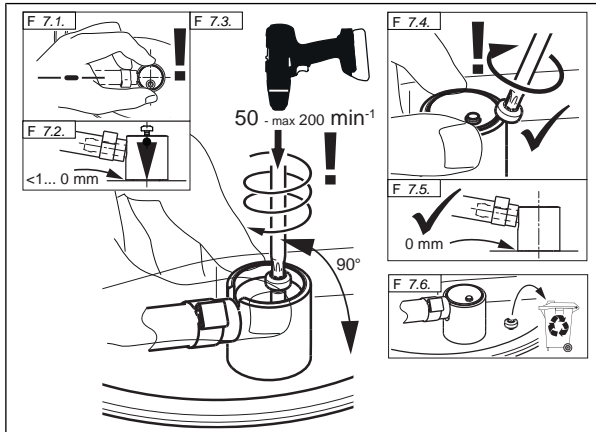


Fig. 72



DANGER

Risk of fire and explosion due to leaking fuel and escaping fuel vapours

► Work step F7

Ensuring firm seating of FuelFix



Fig. 73

► Work step F8

Securing fuel line

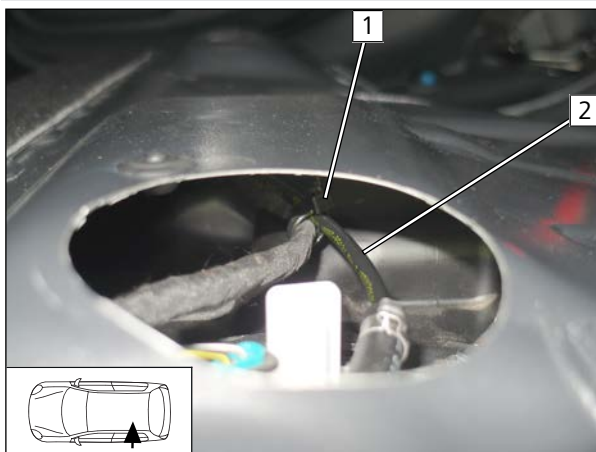


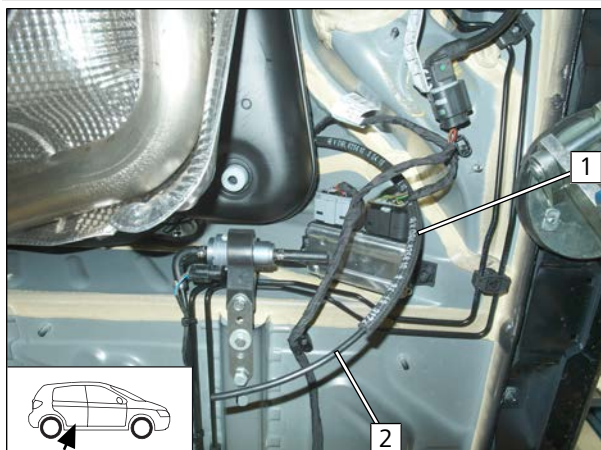
Fig. 74

► Secure fuel line **2** using cable tie **1** for tension relief.



9.3 Fuel pump connection

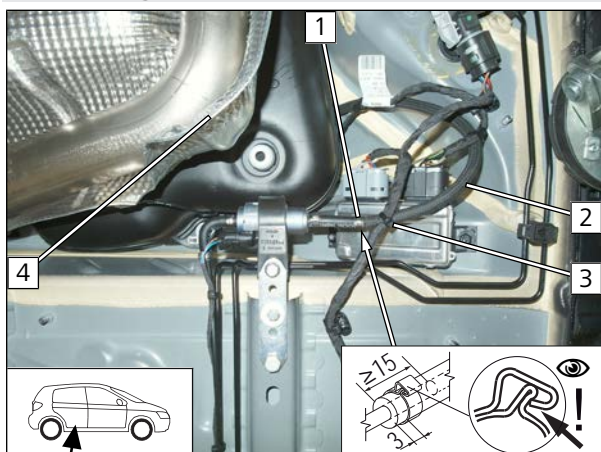
Routing fuel line



- ▶ Push fabric-reinforced hose **1** onto fuel line **2**.

Fig. 75

Connecting fuel line of FuelFix



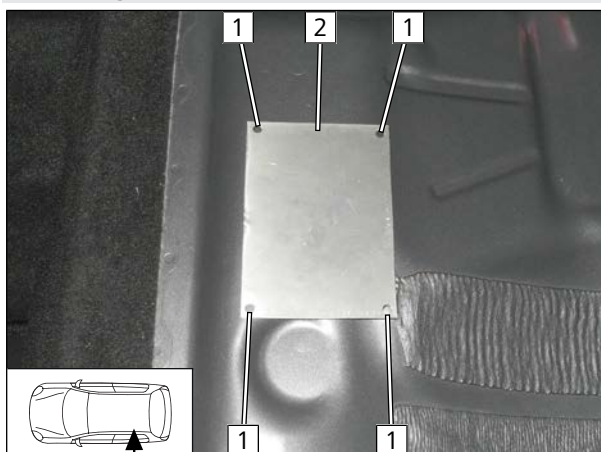
- ▶ After the installation, move heat shield plate **4** back in its original position and fasten again with original vehicle plastic plug.

- 1** Ø10 clamp
- 2** Fuel line of FuelFix in fabric-reinforced hose
- 3** Cable tie

Fig. 76

9.4 Mounting tank fitting cover plate

Preparing cover plate installation



- ▶ Position cover plate **2** as shown and adapt to the contours of the vehicle.
- ▶ Copy hole pattern **1**.

Fig. 77



Drilling hole

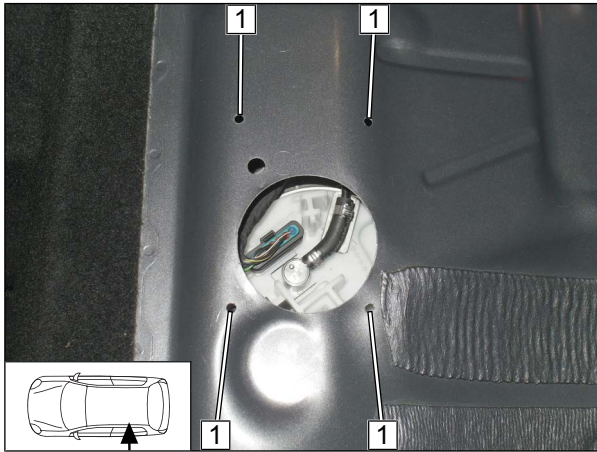
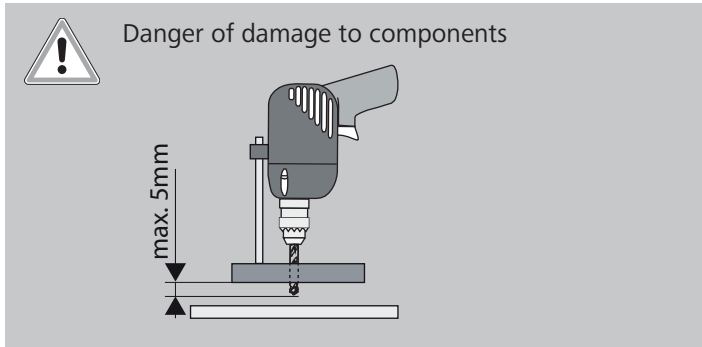


Fig. 78



► Drill $\varnothing 5.5$ hole **1**, remove metal shavings.

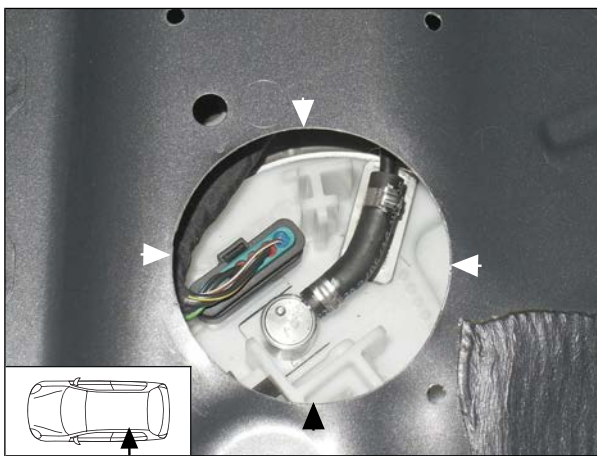
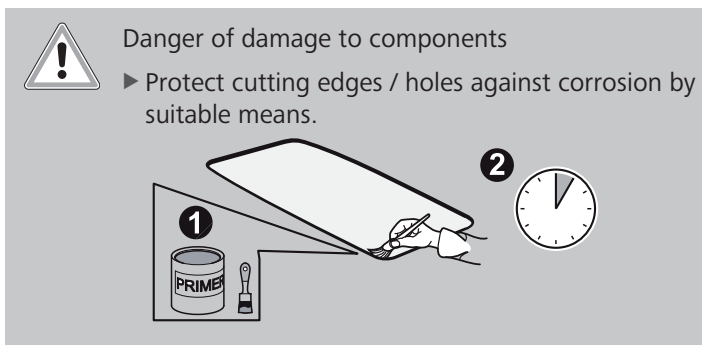


Fig. 79



Applying sealing compound

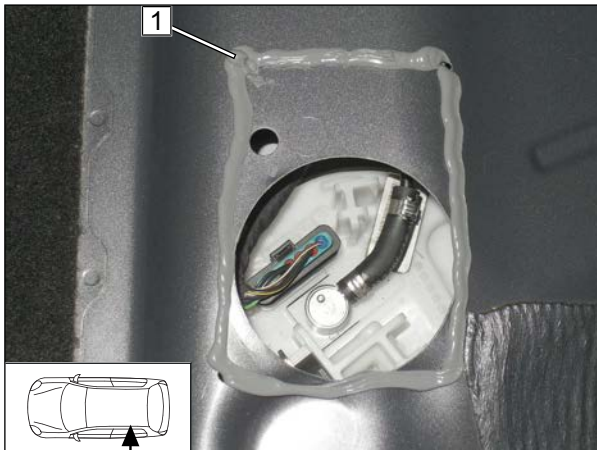
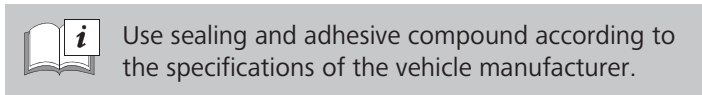


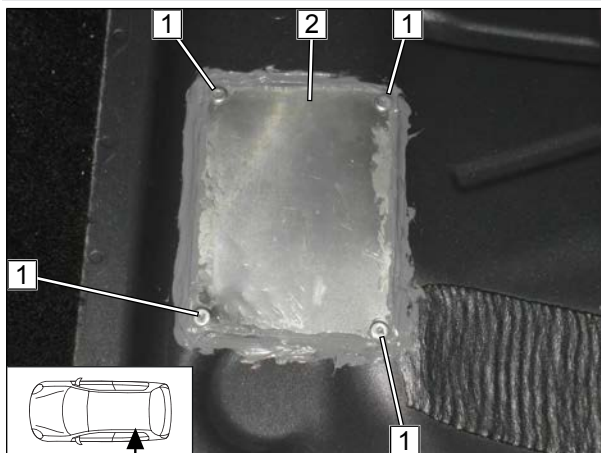
Fig. 80



1 Sealing compound



Riveting and sealing cover plate



► Seal cover plate **2** with sealing compound.

1 4.8x15 body-bound rivet

Fig. 81



10 Coolant

10.1 Coolant circuit

10.1.1 Hose routing diagram

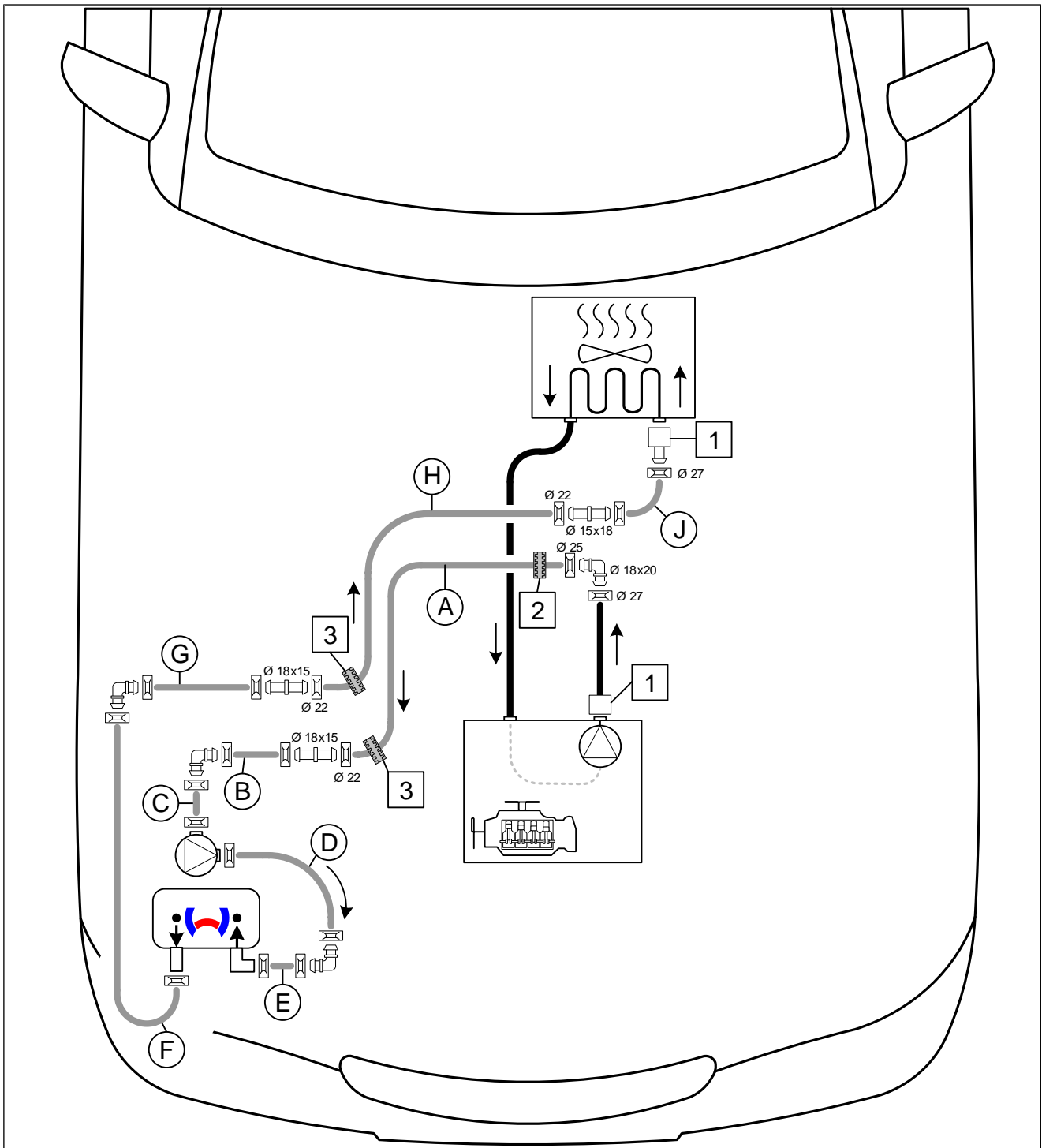





Fig. 82

All spring clips without a specific designation  = Ø25

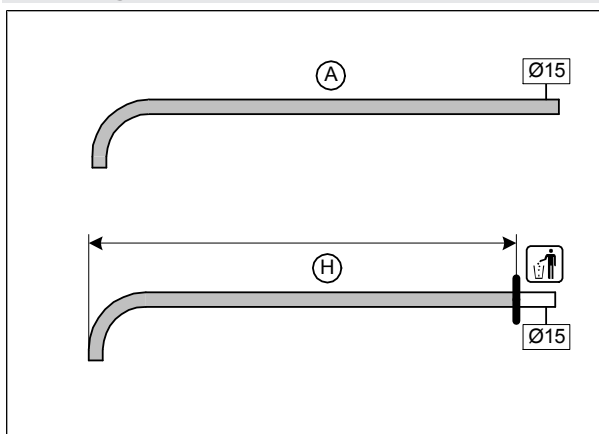
All connecting pipes without a specific designation  = 18x18

1 Original vehicle hose coupling, **2** Ø20, black (sw) rubber isolator , **3** Ø22 black (sw) rubber isolator 



10.1.2 Coolant circuit installation

Preparing Ø15 hoses



| | |
|-----|------|
| (A) | 1030 |
| (H) | 970 |

Fig. 83

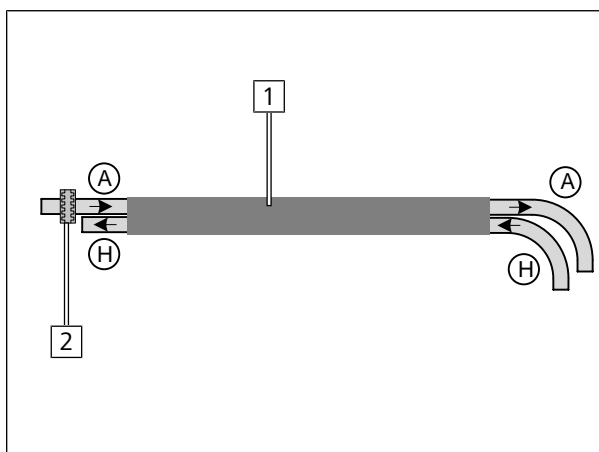


Fig. 84

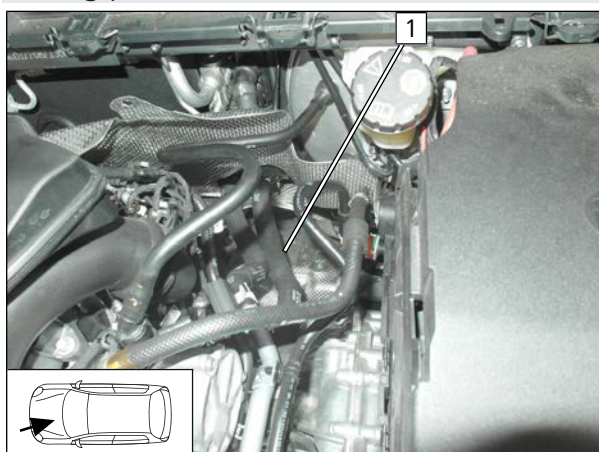


Risk of interchanging the hoses

► Indicate the direction of flow on hoses (A) and (H) using suitable means.

- 1 Cut fabric heat shrink tubing to length and shrink
- 2 Ø20 rubber isolator

Cutting point



► Disconnect engine outlet / heat exchanger inlet hose 1.

Fig. 85



Removing fabric protective hose

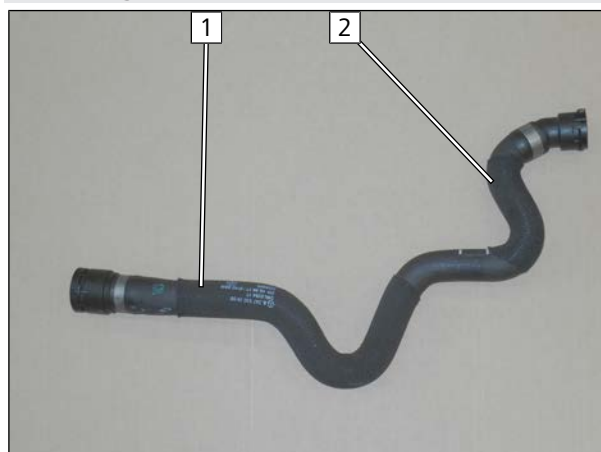


Fig. 86

- 1 Engine outlet / heat exchanger inlet hose
- 2 Fabric protective hose

Cutting hose of engine outlet / heat exchanger inlet

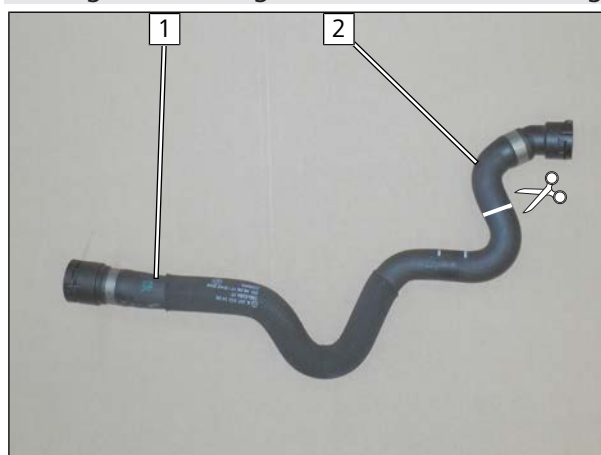


Fig. 87

- 1 Engine outlet hose section
- 2 Heat exchanger inlet hose section

Preparing hose section of engine outlet

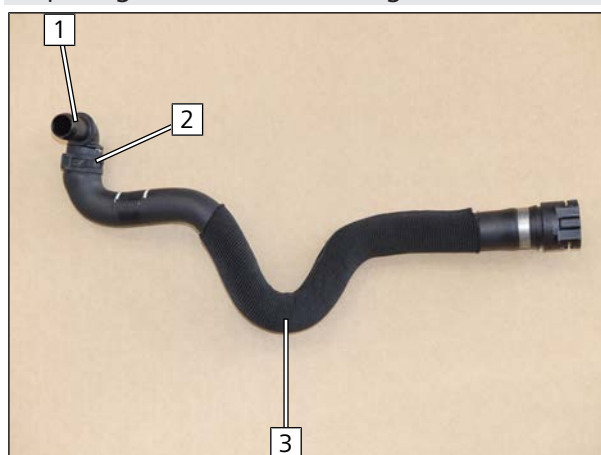


Fig. 88

- 1 90°, 18x20 connecting pipe
- 2 Ø27 spring clip
- 3 Engine outlet hose section



Preparing heat exchanger inlet hose section

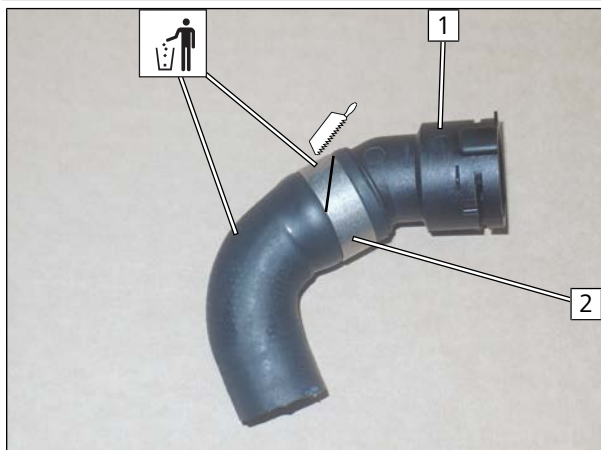


Fig. 89



Danger of damage to components

► Cut clamp **2** carefully as shown.

1 Heat exchanger inlet hose coupling

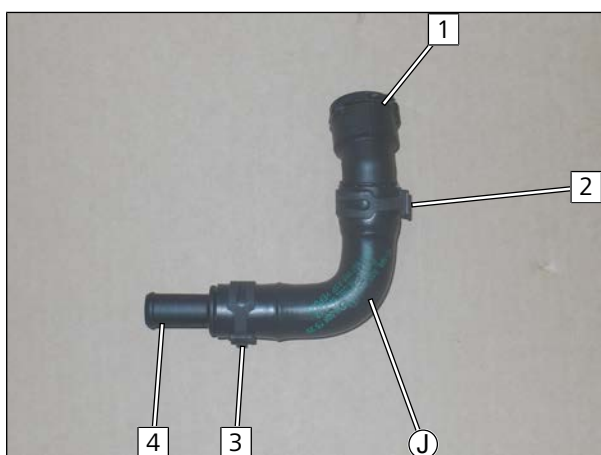


Fig. 90

► Mount hose **J** as shown with Ø20 shortened side on heat exchanger inlet hose coupling **1**.

2 Ø27 spring clip

3 Ø25 spring clip

4 15x18 connecting pipe

Aligning eyelet cable tie

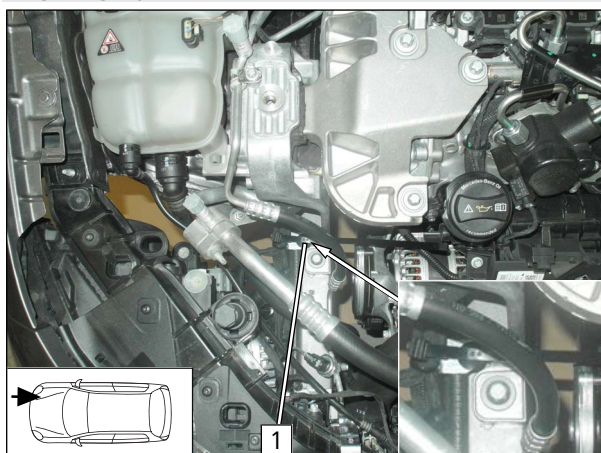
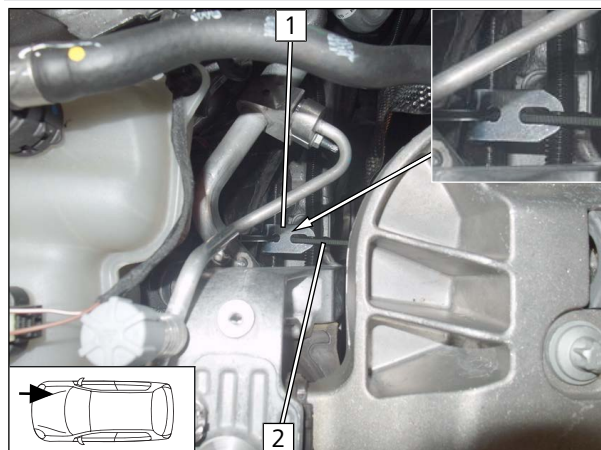


Fig. 91

1 Eyelet cable tie



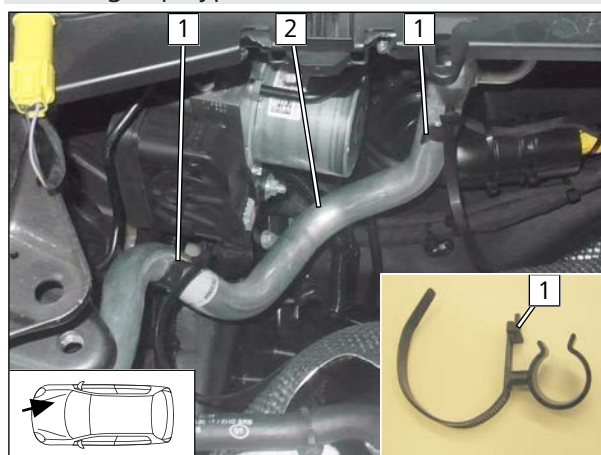
Installing cable tie



- 1 Angle bracket premounted
- 2 Cable tie

Fig. 92

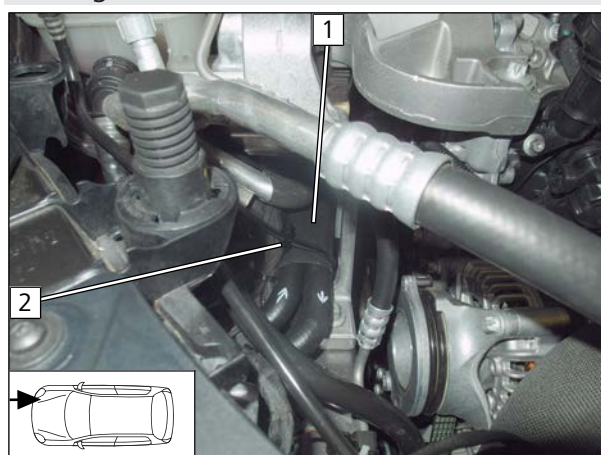
Installing clip-type cable tie



- 1 Clip-type cable tie
- 2 Original vehicle A/C line

Fig. 93

Routing hoses (A) and (H)



► Attach eyelet cable tie 2 loosely, it will be tightened later.

- 1 Hoses (A) and (H)

Fig. 94



Connection to heater

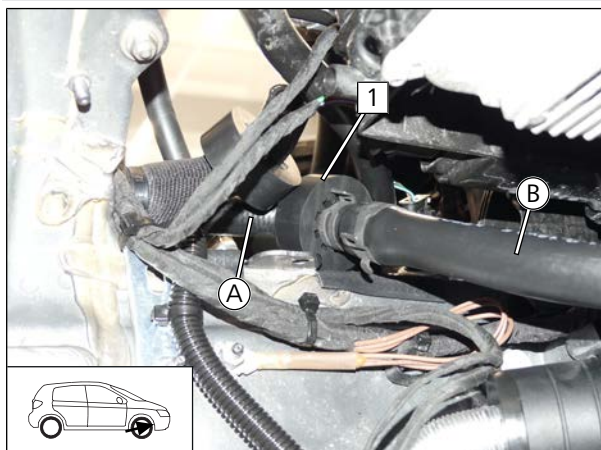


Fig. 95

- 1 Mount and align rubber isolator

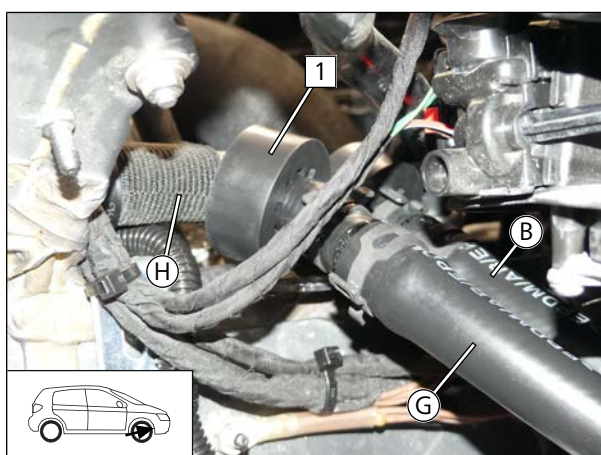


Fig. 96

- 1 Mount and align rubber isolator

Aligning rubber isolator

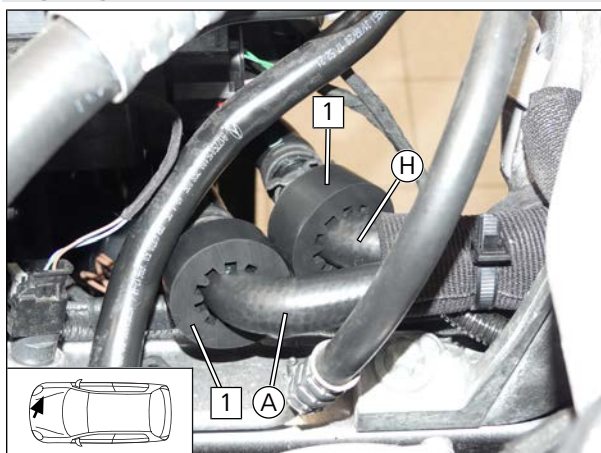


Fig. 97

- 1 Aligning rubber isolator



Routing hoses **(A)** and **(H)**

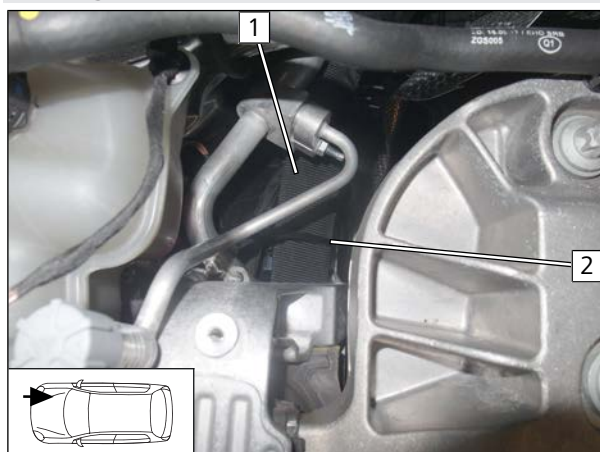


Fig. 98

► Attach cable tie **(2)** loosely, it will be tightened later.

(1) Hoses **(A)** and **(H)**

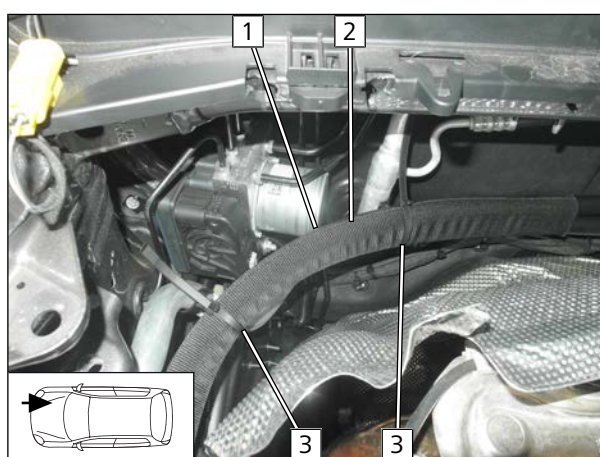


Fig. 99



Ensure sufficient distance between ABS unit and premounted hose group **(2)** at position **(1)**, correct if necessary.



► Attach clip-type cable tie **(3)** loosely, it will be tightened later.

Position black (sw) rubber isolator

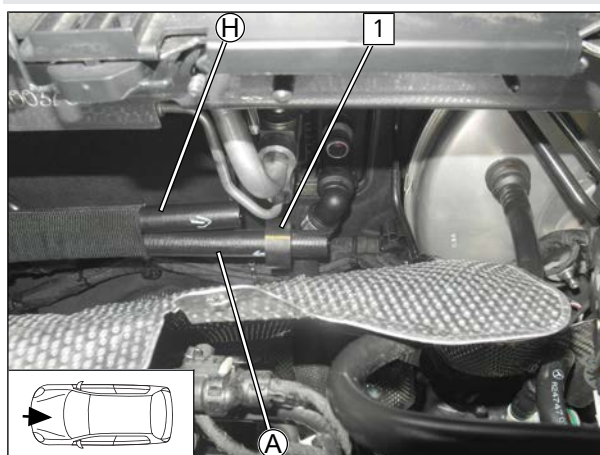


Fig. 100

(1) Black (sw), Ø20 rubber isolator



Engine outlet connection

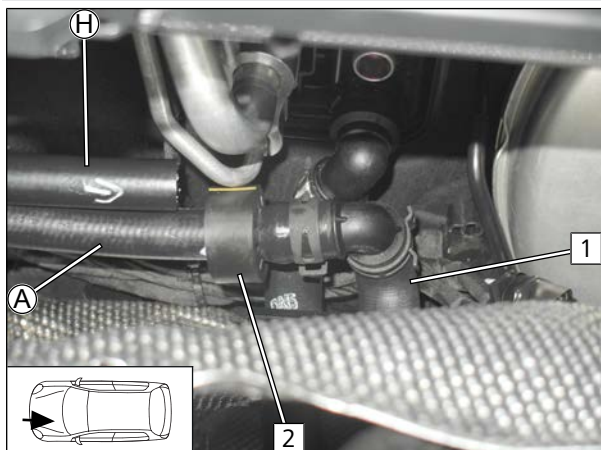


Fig. 101

- 1 Premounted engine outlet hose section
- 2 Aligning black (sw) rubber isolator

Heat exchanger inlet connection

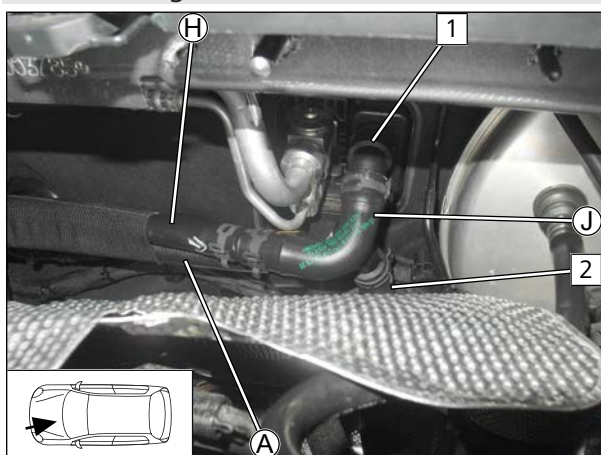


Fig. 102

- 1 Heat exchanger inlet hose coupling
- 2 Engine outlet hose section

Fastening heat shield plate

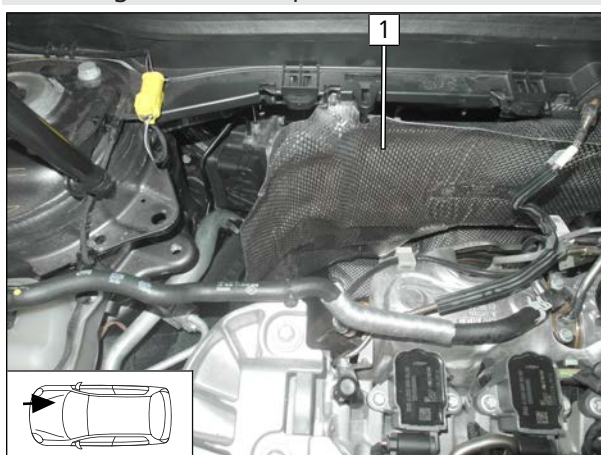


Fig. 103



► Align hoses and tighten all cable ties.

- Adapt original vehicle heat shield plate 1 and fasten it.



11 Exhaust

Preparing and mounting angle bracket

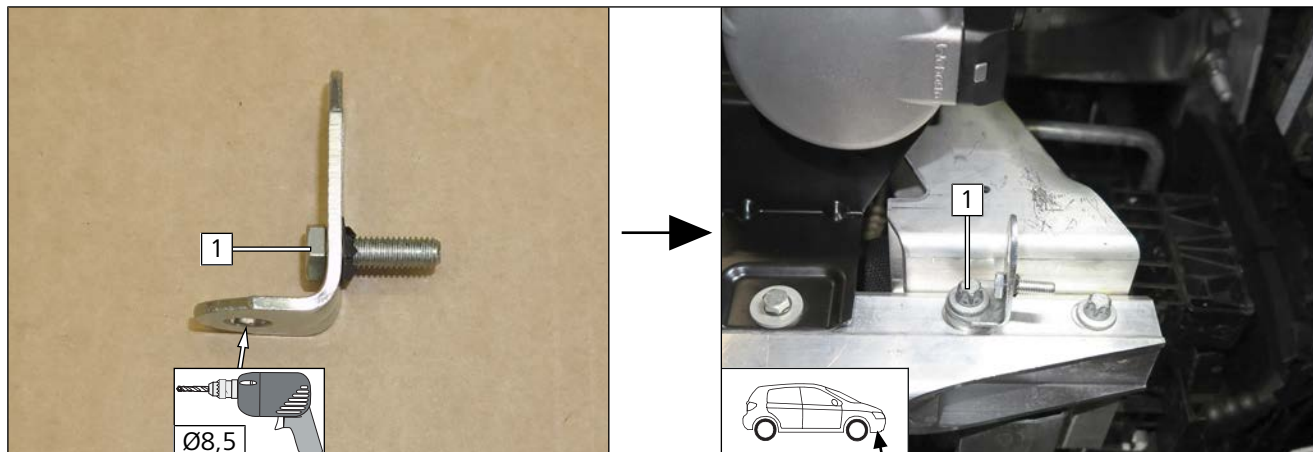


Fig. 104

1 M6x20 bolt, angle bracket, lock washer

1 Original vehicle bolt, premounted angle bracket, spacer (5), original vehicle thread

Preparing and mounting exhaust pipe a2

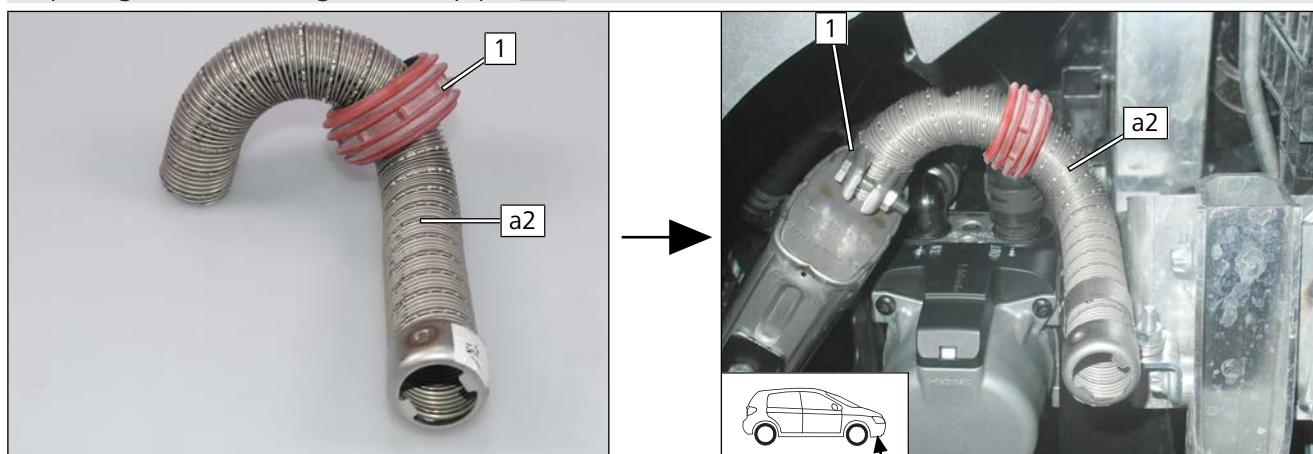


Fig. 105

► Bend exhaust pipe a2 as shown.

1 ASH

1 Hose clamp

Mounting and aligning exhaust pipe a2

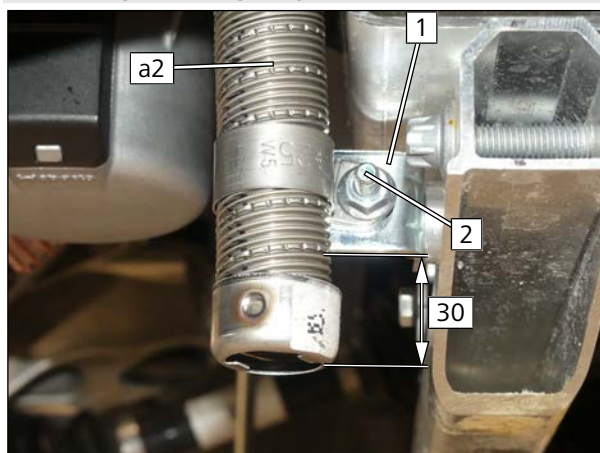


Fig. 106

1 Angle bracket premounted

2 Premounted M6x20 bolt, p-clamp, flanged nut



Creating hole pattern

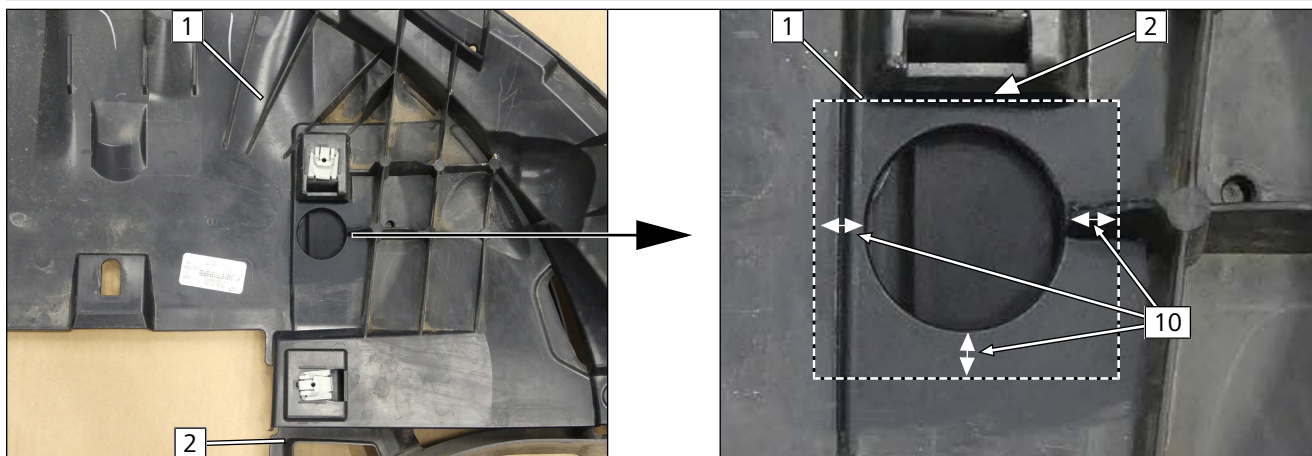


Fig. 107

► Bolt bumper cover **1** and lower wheel well trim **2** together.

► Copy hole pattern **1** as shown.
2 Edges of the retaining member

Creating an opening for **a2**

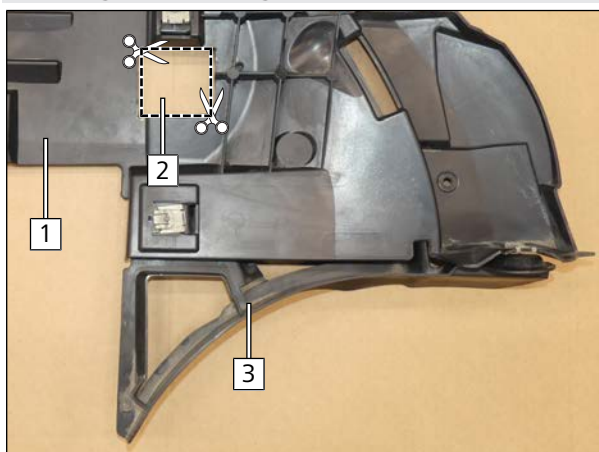


Fig. 108

► Create an opening **2** as shown.

► After the creation of the opening, remove lower bumper cover **1** and lower wheel well trim **3**.

Position ASH

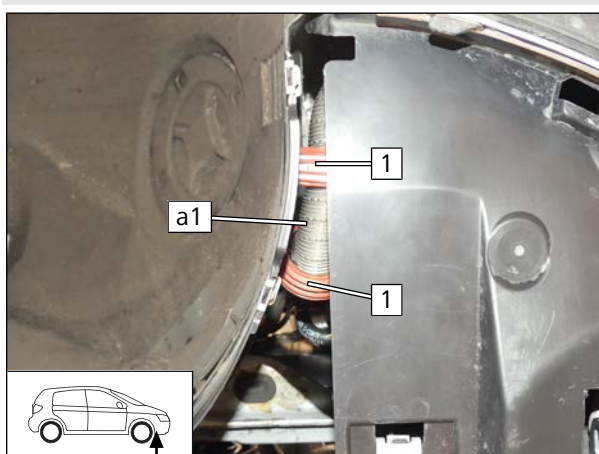


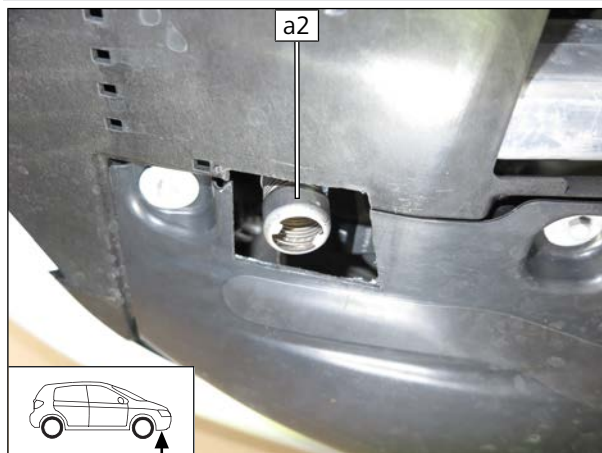
Fig. 109

► Mount wheel well trim and bumper cover.

► Position ASH **1** as shown.



Aligning exhaust pipe **a2**



Danger of damage to components

► Ensure sufficient distance from neighbouring components, correct if necessary.

► Align exhaust pipe **a2** as shown.

Fig. 110



12 Electrical system of passenger compartment

12.1 Air-conditioning control

Integrate the air-conditioning control as per the separate installation documentation:



'**Webasto Standard**' A/C control installation documentation for Mercedes Benz A-Class, B-Class, GLA, GLB and CLA Thematic/Thermotronic

12.2 Control element installation



Install the control element in accordance with the provided relevant general installation documentation. The installation location of the optional control element MultiControl or the push button of the Telestart or ThermoCall/ThermoConnect options should be confirmed with the end customer and should comply with the installation conditions.



13 Final Work



Further information can be found in the vehicle manufacturer's technical documentation.

- ▶ Mount removed parts in reverse order.



▶ Check all hoses, clamps and all electrical connections for firm seating.

▶ Insulate and tie back loose lines

▶ Spray heater and electrical components with anti-corrosion wax (Tectyl 100K).

▶ Connect the battery.



Only use manufacturer-approved coolant.

- ▶ Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.



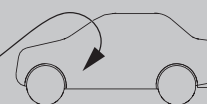
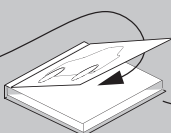
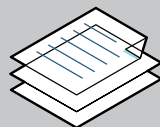
Further information can be found in the general installation and operating instructions of the Webasto components.

▶ Program MultiControl CAR, teach Telestart transmitter

▶ If the fan function or A/C control panel settings need to be checked, see the installation documentation in the additional kit 'Webasto Standard' A/C control, section 'Final work'

▶ Initial start-up and function check

▶ Affix 'Switch off parking heater before refueling' caution label in area of filler neck



These are the original instructions. The German language is binding.
You can request your language if it is missing. The telephone number of each country can be found in the Webasto service centre leaflet or the website of the respective Webasto representative of your country.

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Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany

Company address:
Friedrichshafener Str. 9
82205 Gilching
Germany

Technical Extranet: <https://dealers.webasto.com>



WWW.WEBASTO.COM



14 FuelFix template



100mm



**Set print option to custom scale on 100%.
Check scale 1:1 for print output.**

0

100mm

