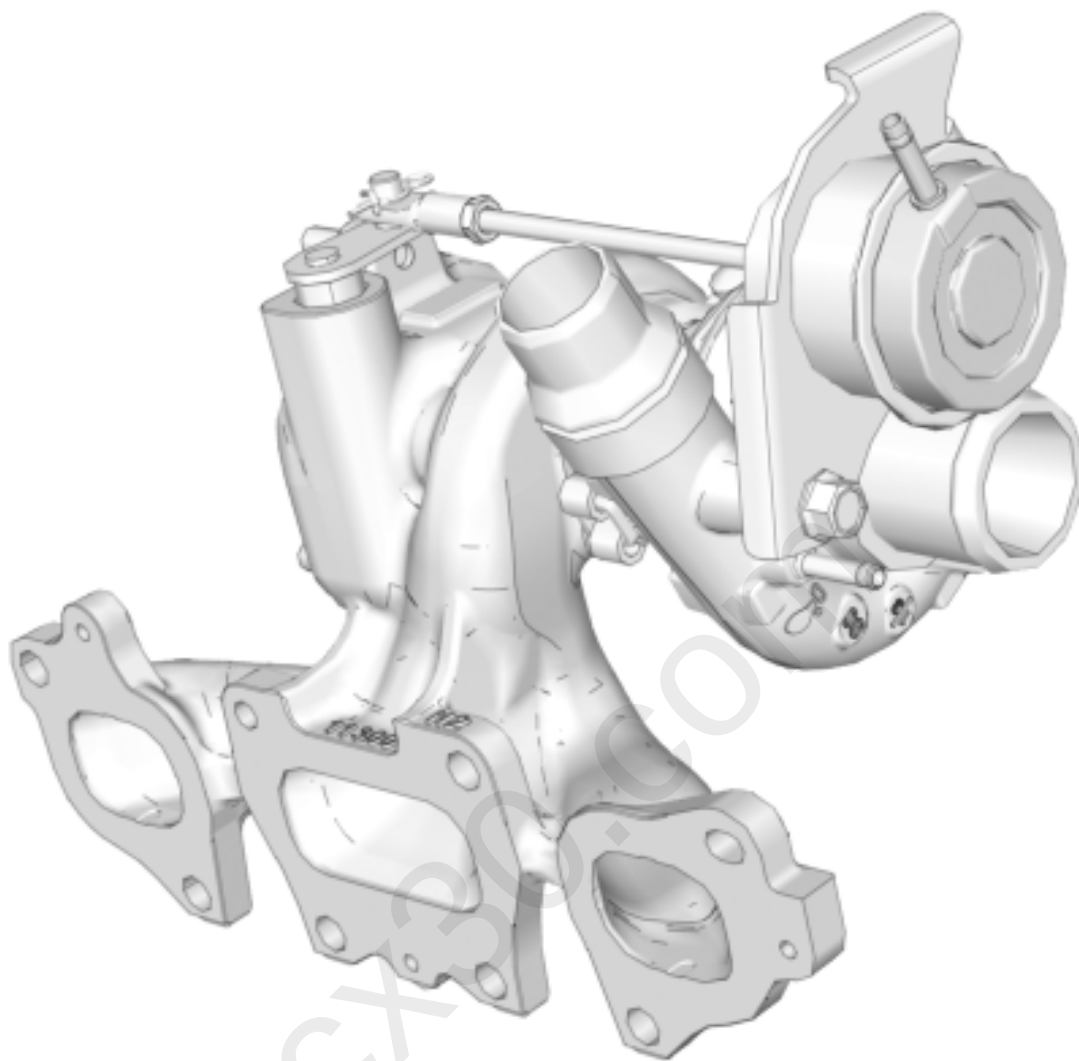




154136

- This engine is equipped with an integrated turbocharger exhaust manifold.
- To remove the exhaust manifold, see the removal of the turbocharger ([see 12B, Turbocharging, Turbocharger: Removal - Refitting](#)) .



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EXHAUST: PRECAUTIONS FOR THE REPAIR



Note, one or more warnings are present in this procedure



Special tooling required

Exhaust pipe cutter (diameter 35/50 mm and diameter 50/65mm). Complete kit in a case.

Mot. 1199-01

Equipment required

component jack

1. PARTS AND CONSUMABLES FOR THE REPAIR

1- PARTS ALWAYS TO BE REPLACED:

- the exhaust sleeve (if fitted)
- the seal or sealing ring on the connection between the catalytic converter or catalytic pre-converter and the rest of the exhaust system
- the exhaust clip(s) (if fitted)

2- CONSUMABLES (SEE PART NUMBER IN TECHNICAL NOTE 5068, 04B, CONSUMABLES - PRODUCTS):

- exhaust mastic
- surface cleaner
- grey abrasive pads

2. ADVICE TO OBSERVE



WARNING

Do not park and run the engine in a place where combustible substances and materials such as grass or leaves can come into contact with the hot exhaust system.



WARNING

Catalytic converters contain ceramic fibres, these are contained within a closed unit, and cannot disperse. Drilling or cutting catalytic converters is prohibited.

- 1 - During removal and refitting, the catalytic converter or catalytic pre-converter must not receive any knocks or impacts as this could damage it.
- 2 - The whole exhaust pipe is made of stainless steel.
- 3 - After working on the bracket between the catalytic converter or catalytic pre-converter and the rest of the exhaust system, ensure that the connection is perfectly sealed.

■ To do this:

- clean the bearing faces of the connection using grey abrasive pads,
- degrease the bearing faces of the connection using surface cleaner and clean cloths,
- always replace the seal or sealing ring on the connection.

3. SPECIAL NOTES ON THE SINGLE UNIT EXHAUST PIPE

1- CUTTING THE SINGLE UNIT EXHAUST PIPE

The exhaust pipe is a "single unit type" .

To replace different parts of the exhaust system it must be cut.

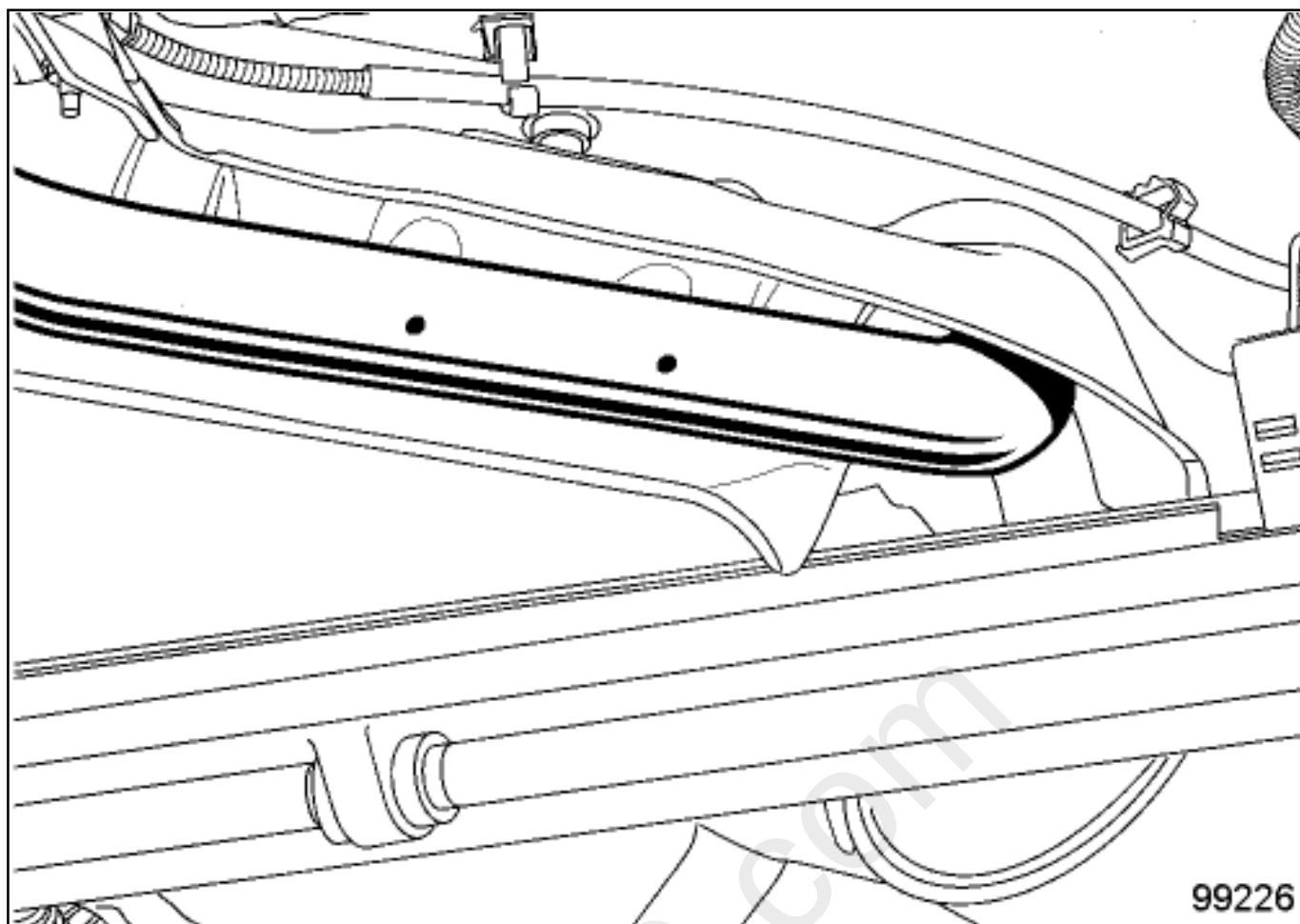
■ To do this be sure to carry out these precautions in the following order:

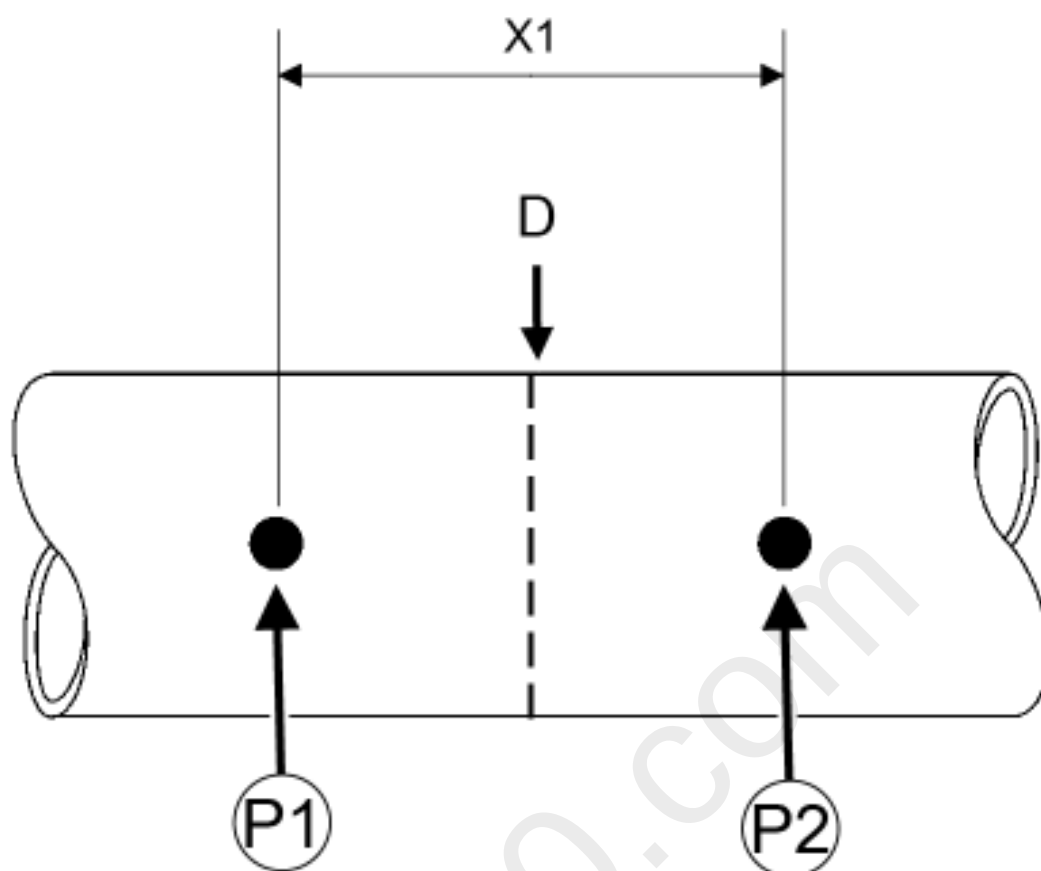
- correctly identify the area to be cut, as explained below,
- use the cutting tool correctly Exhaust pipe cutter (diameter 35/50 mm and diameter 50/65mm). Complete kit in a case. ([Mot. 1199-01](#)) ,
- position the exhaust sleeve correctly.

2- IDENTIFYING THE AREA OF THE EXHAUST SYSTEM TO BE CUT

Two marks made on the exhaust system define the area to be cut ([see 19B, Exhaust, Exhaust assembly under body: Exploded view](#)) (see MR for vehicle concerned, 19B, Exhaust).

EXAMPLE OF CUTTING AREA



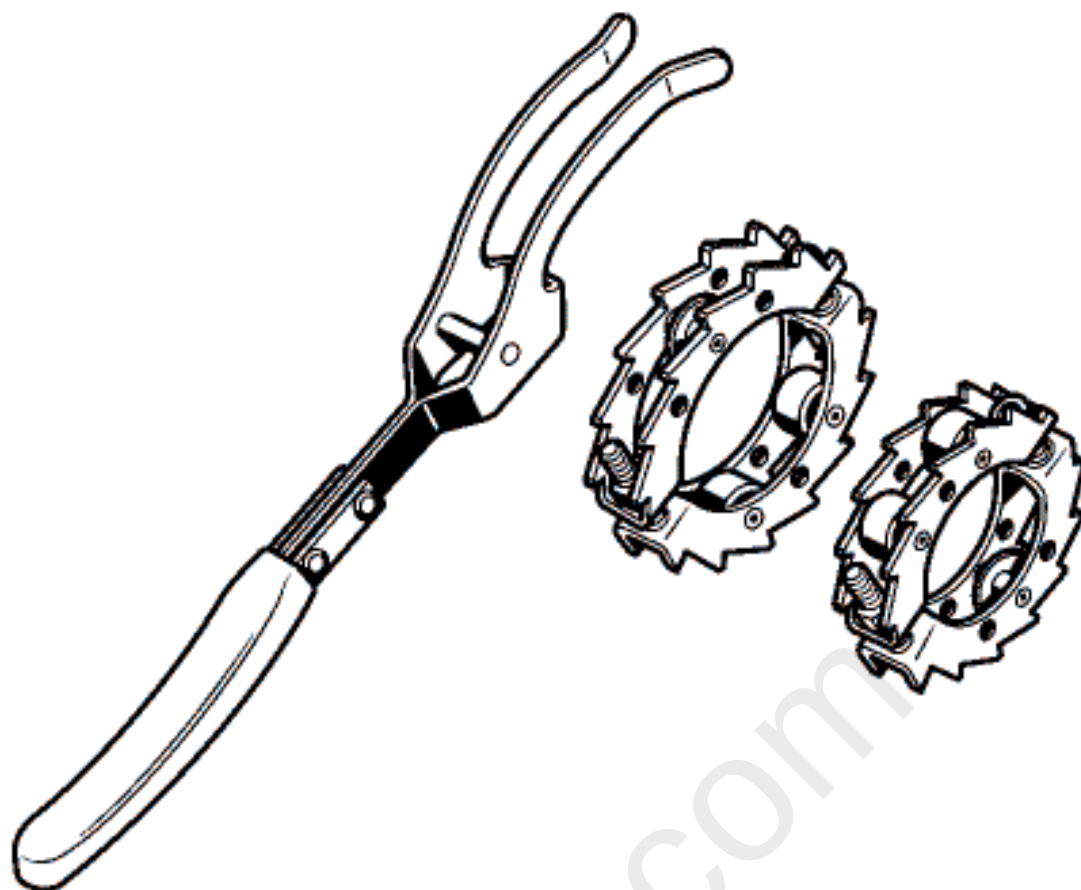


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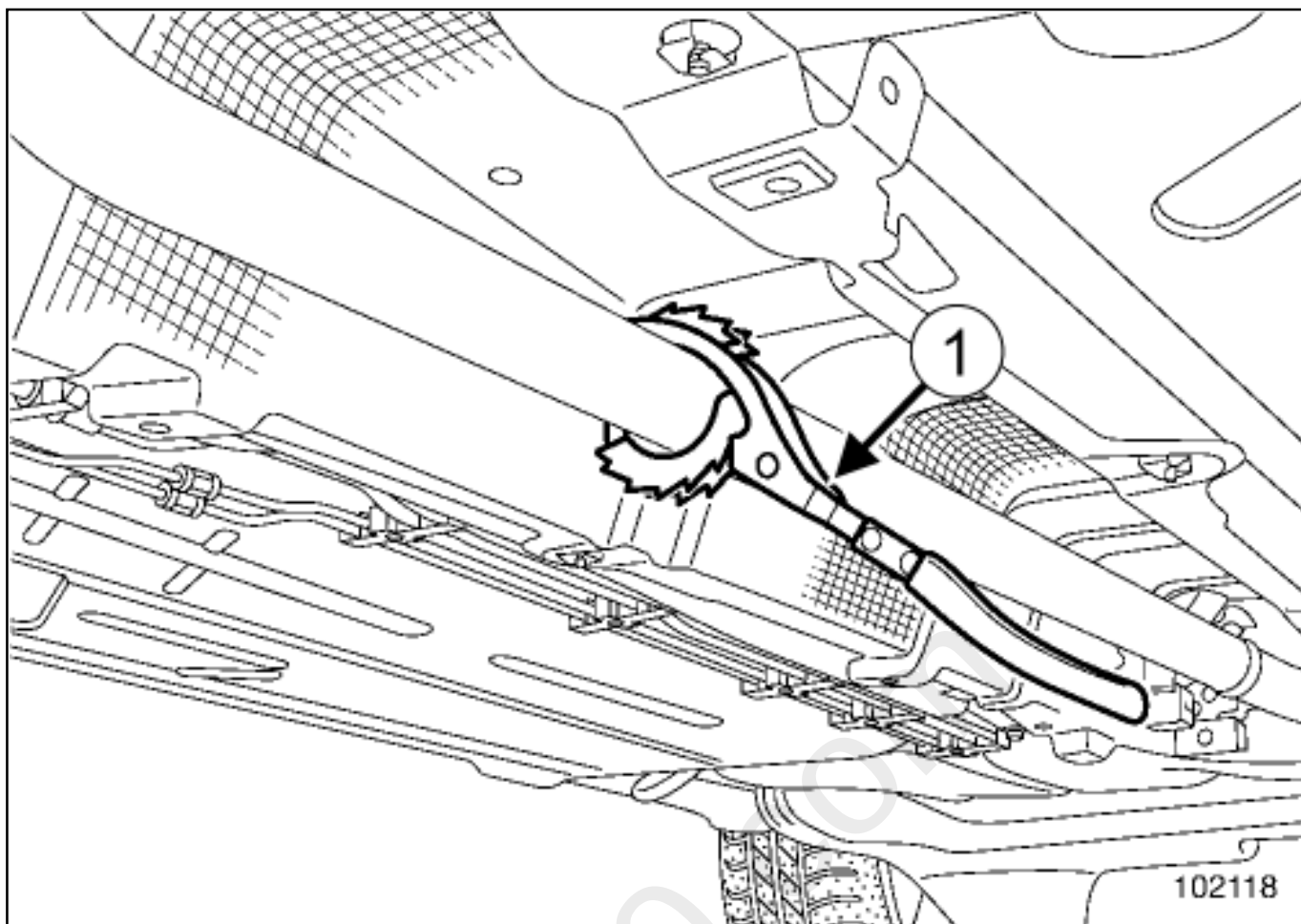
Before cutting the exhaust system, draw a line(**D**) between the two marks(**P1**) and (**P2**) .

The distance between the two marks on the exhaust pipe is(**X1**) : 80 mm .

3- OPERATE TOOL MOT. 1199-01



14747



Fit the Exhaust pipe cutter (diameter 35/50 mm and diameter 50/65mm). Complete kit in a case. (Mot. 1199-01) (1) on the exhaust pipe.

Tighten the two bolts on the tool until they touch the pipe in order to clamp the tool onto the pipe.

Turn the cutting tool using the handle and pressing it against the pipe (as indicated in the diagram above).

Tighten the two bolts on the tool whilst cutting, until the pipe is completely cut.



Note:

Do not over-tighten the tool onto the pipe to avoid deforming it.

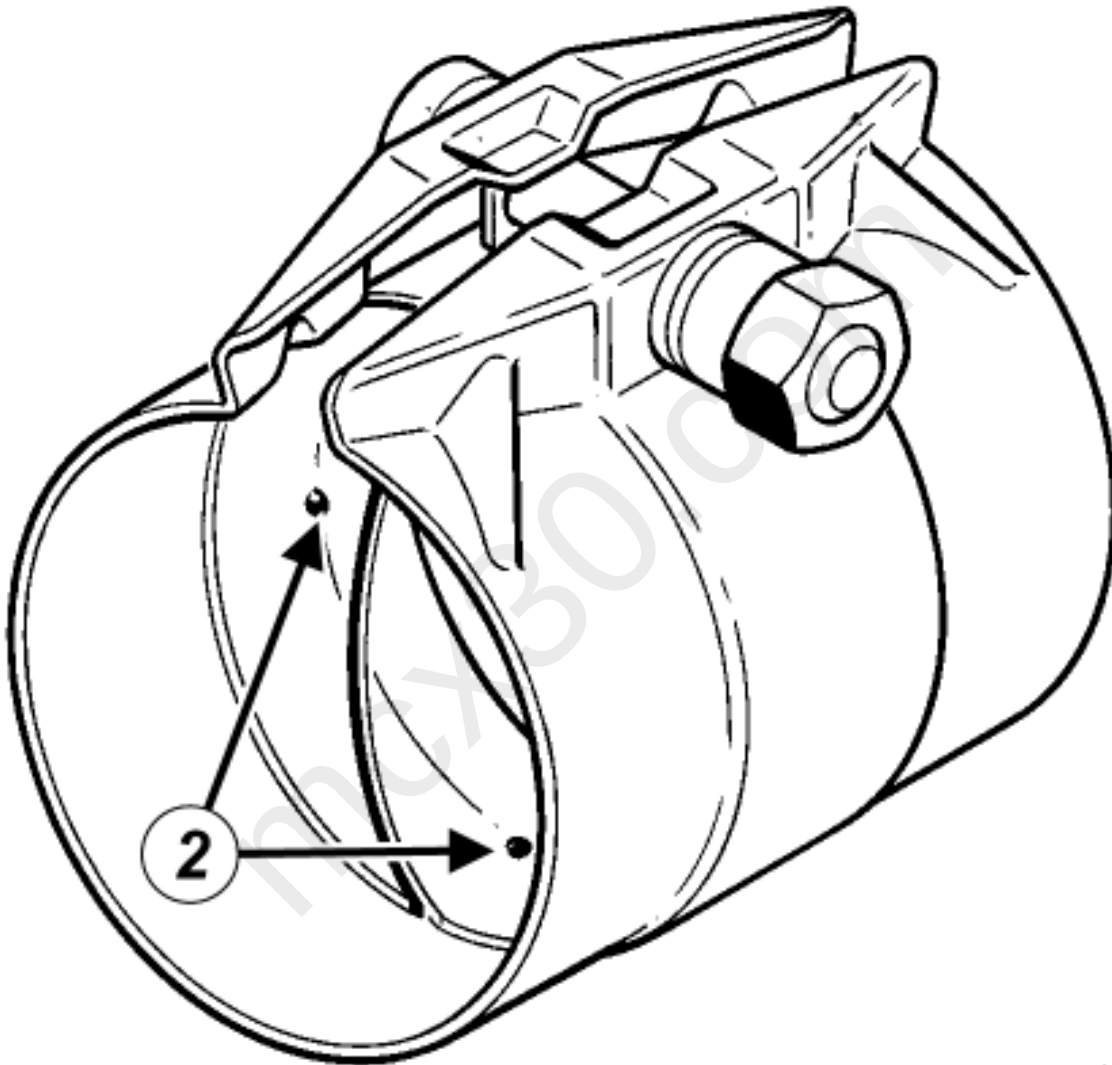
Once the pipe is cut, file and deburr the end of the pipe to be used on the vehicle again.



CAUTION

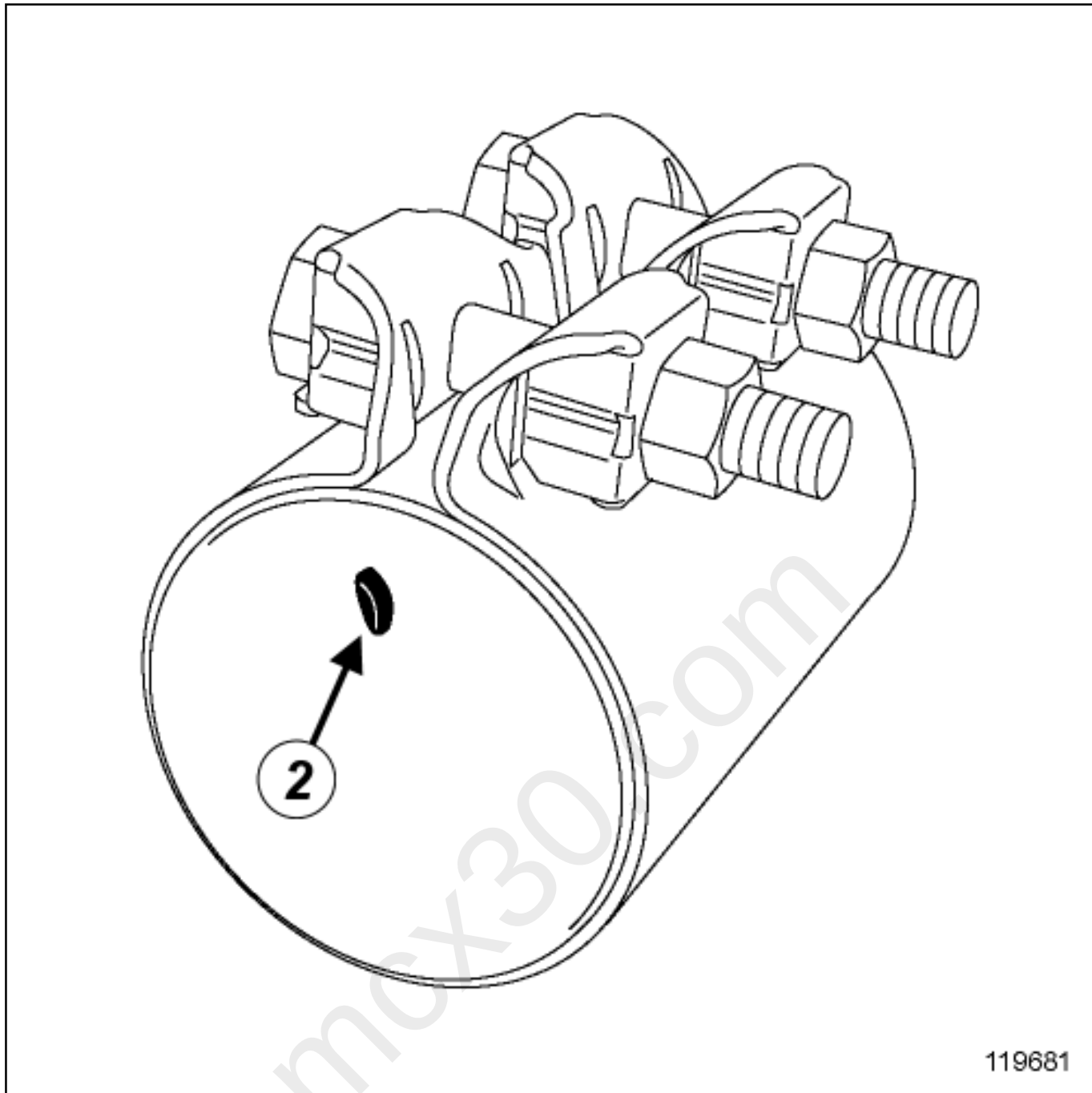
Do not reuse an old exhaust sleeve.

EXHAUST SLEEVE WITH 1 BOLT



95478

EXHAUST SLEEVE WITH 2 BOLTS



119681

Fit the exhaust sleeve onto the part of the exhaust system fitted to the vehicle.

Position the pipe onto the lugs(2) inside the exhaust sleeve.

Tighten the exhaust sleeve bolt(s) slightly (depending on the version).

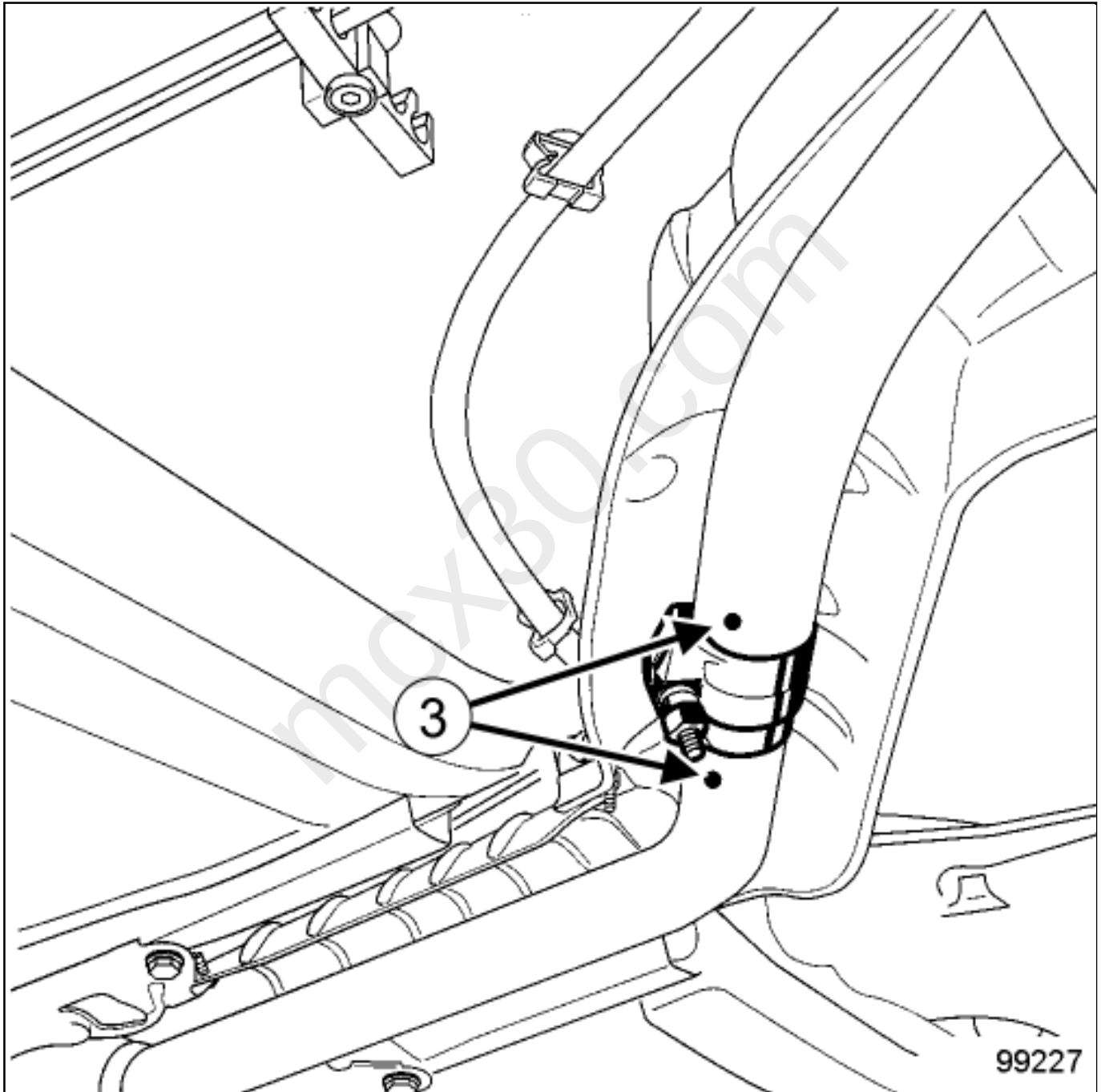
Position the second part of the exhaust system under the vehicle, fitting it in the exhaust sleeve.



Note:

If necessary, use a component jack to lift and hold the heavy and bulky components of the exhaust system.

Position the second exhaust pipe onto the lugs inside the exhaust sleeve.



Check that the two cut marks(3) are aligned (if applicable).

Position the sleeve so that there is no risk of contact between its bolt or bolts and the heat shields.

Torque tighten:

- the exhaust sleeve nut with 1 bolt **25 N.m**(if fitted),

- the exhaust sleeve nuts with 2 bolts **18 N.m**(if fitted).

Check the following and deal with if necessary:

- no underbody contact between the exhaust system and the heat shields,

- all of the heat shields are present and secure.



Note:

Any damaged heat shields must be replaced.

Start the engine.

Check that there are no leaks: deal with any leaks.

Note:

If there are leaks from the exhaust sleeves with 1 bolt, apply exhaust mastic to the sleeve (see part no. in Technical Note 5068, 04B, Consumables - Products).



If the application of exhaust mastic does not fix the leak:

- remove and replace the used exhaust sleeve,

- check the condition of the exhaust pipes (condition of the pipe surface, deburring of the area cut, damage to the pipes).

- fit the new sleeve in accordance with the instructions given before.