

- check that the working area is clean and tidy during the operation,

- use personal protection (gloves, goggles, work shoes, masks, skin protection, etc.),

- do not use harmful products in unventilated rooms,

- do not ingest any chemicals (brake fluid, coolant, etc.).

Respecting the environment:

- sort waste according to its particular qualities,

- do not burn discarded products (tyres, etc.).

4)CONCLUSION

Respecting the recommended methods will guarantee the best performance and reliability of the component.



[Repair-12x07x01-02x60-1-14-1.xml](#)



XSL version : 3.02 du 22/07/11

AUTOMATIC GEARBOX: REMOVAL-REFITTING



Note, one or more warnings are present in this procedure



Equipment required

Diagnostic tool

component jack

safety strap(s)

indelible pencil



parts always to be replaced:



Differential output seal

WARNING



To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair:



Automatic gearbox: Precautions for the repair ,



Vehicle: Precautions for the repair .



REMOVAL

1. REMOVAL PREPARATION OPERATION



Position the vehicle on a two-post lift Vehicle: Towing and lifting .



Remove:



■ the engine cover,

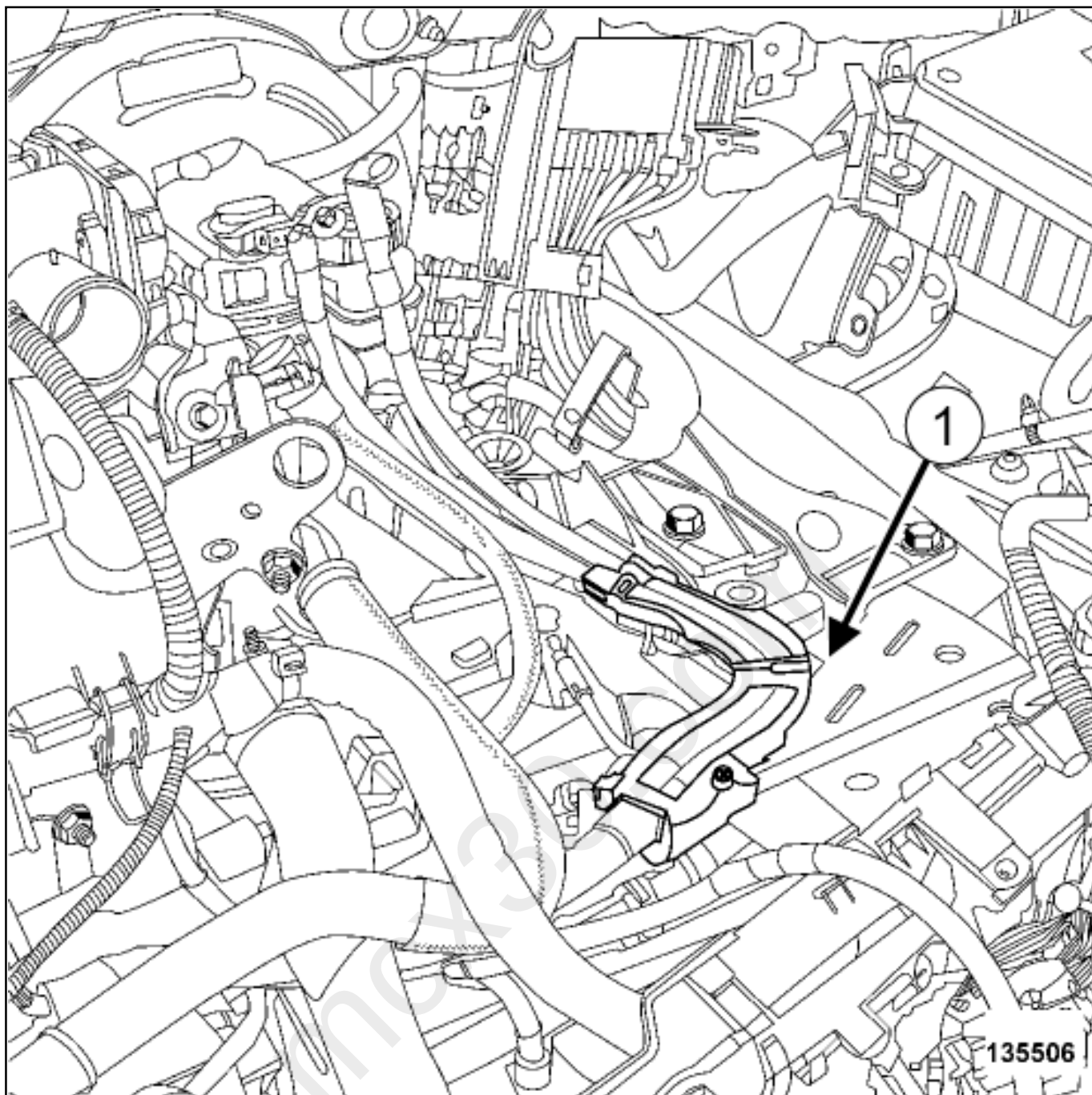
■ the battery [Battery: Removal - Refitting](#) ,

the battery tray [Battery tray: Removal - Refitting](#) .

Remove [\(see 12A, Fuel mixture, Air inlet assembly: Exploded view\)](#) :

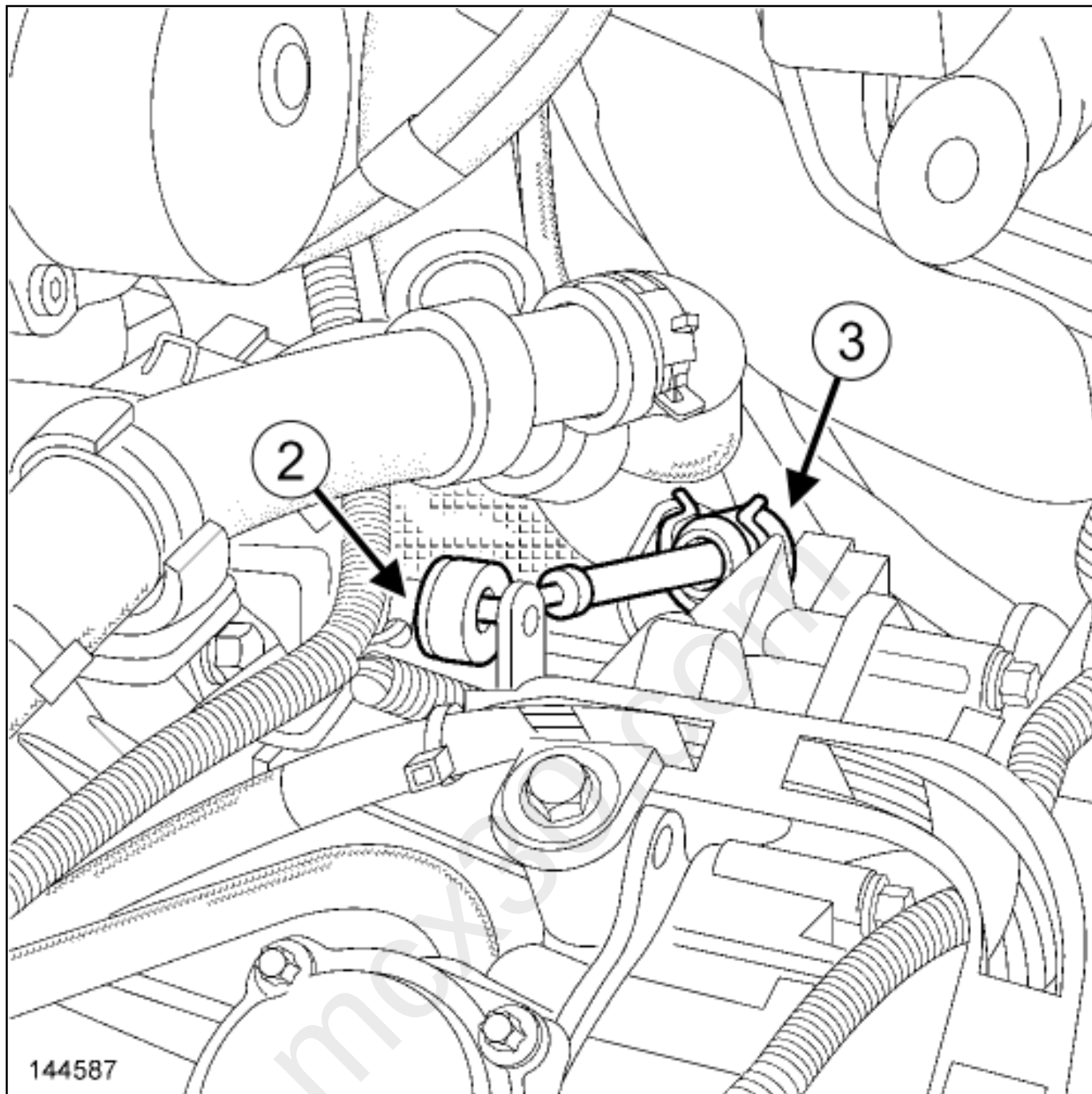
■ the air filter unit air inlet pipe,

the air filter unit.



Unclip the battery wiring channel(1) from the left-hand suspended engine mounting.

Move the battery wiring channel away from the left-hand suspended engine mounting.



Unclip:

- the gear control cable(2) from the selector ball joint using an open-jawed spanner,

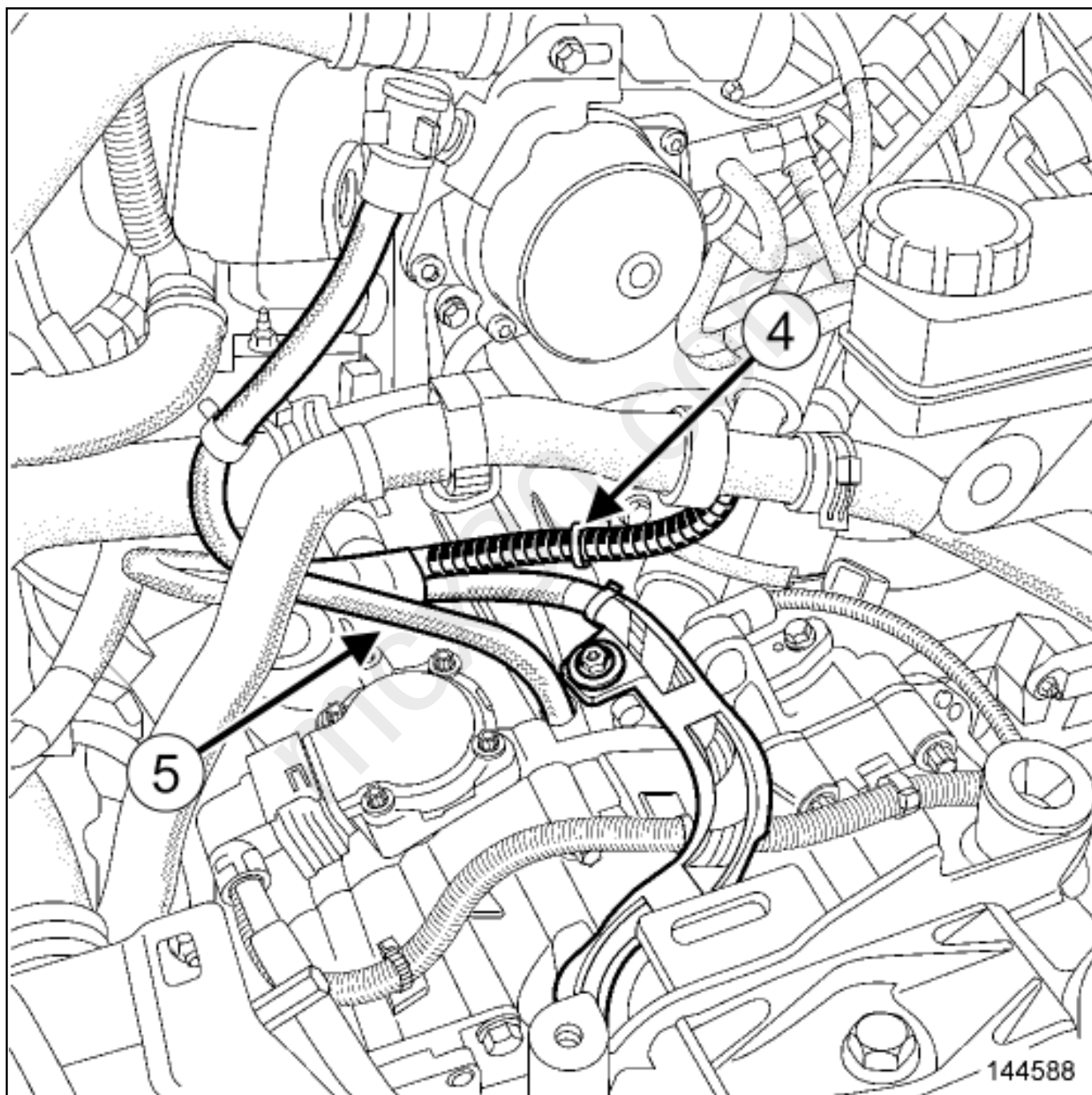
- the gear control cable(3) from the support.

Move the gear control cable to one side.

Remove:

the engine undertray,

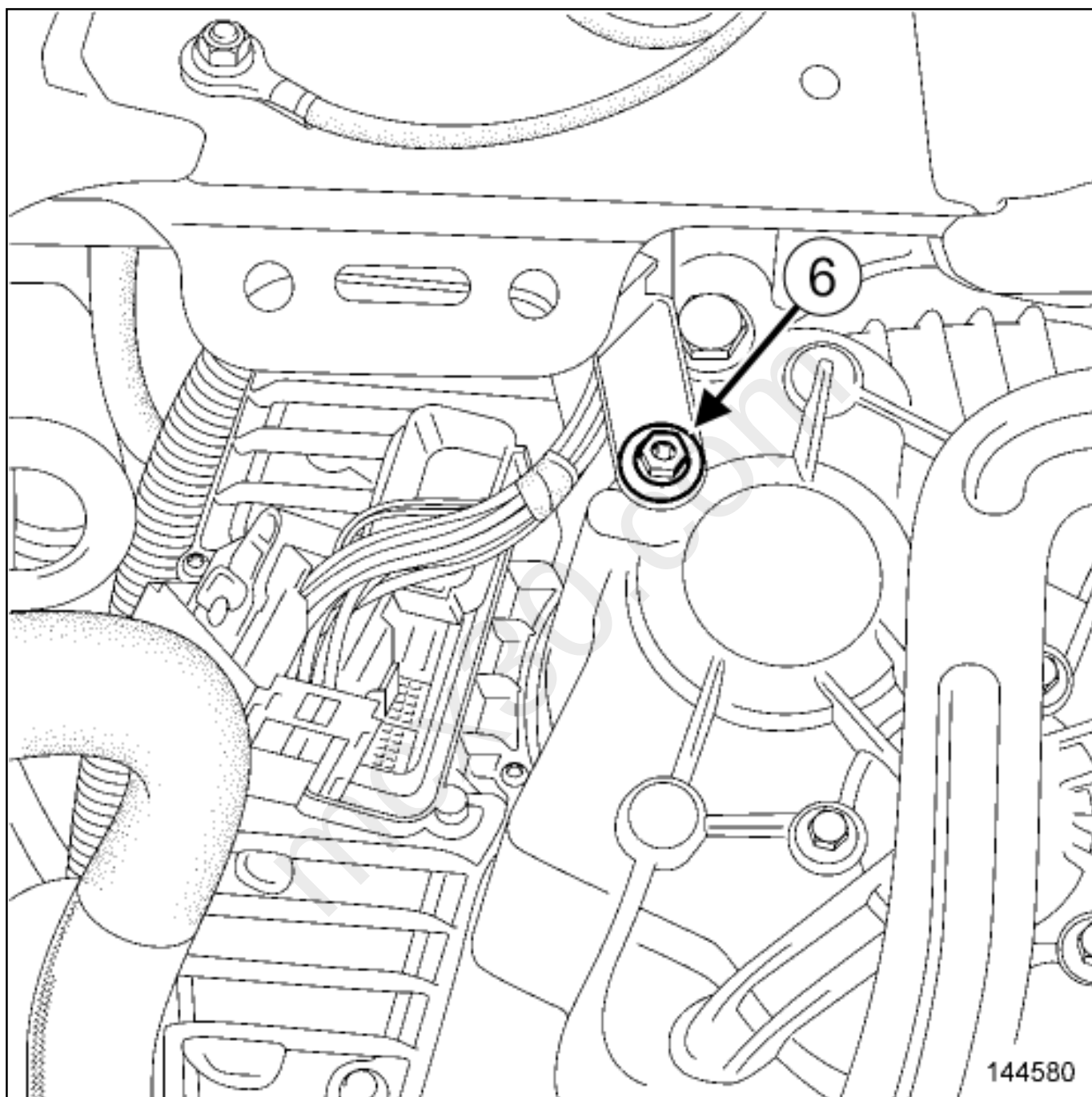
the crankshaft position sensor(see **Crankshaft position sensor: Removal - Refitting**) .

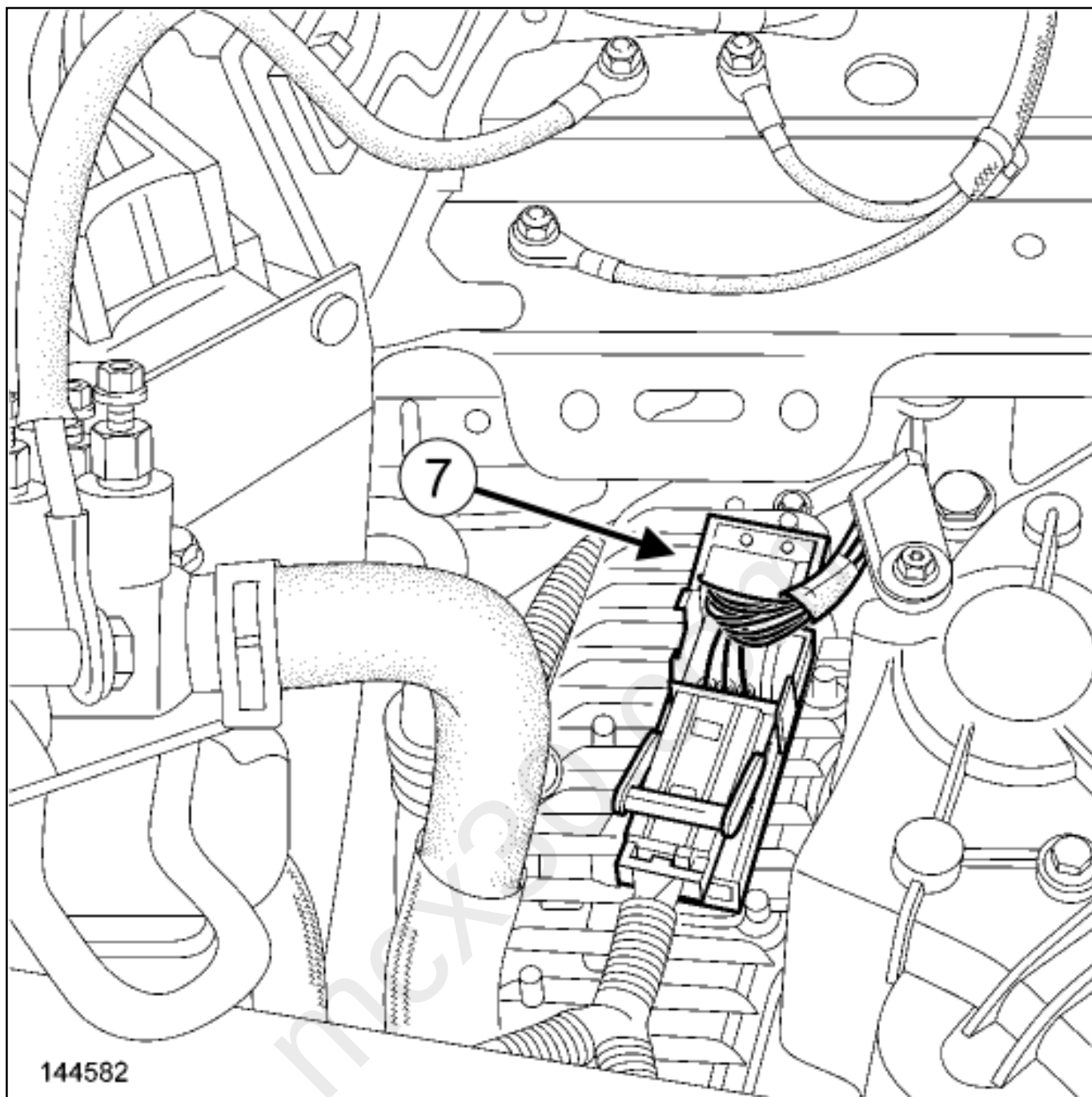


Unclip the following from the automatic gearbox:

the engine wiring channel(4) ,

the breather pipe from the gearbox(5) .





Remove the lower bolt(6) of the engine wiring.

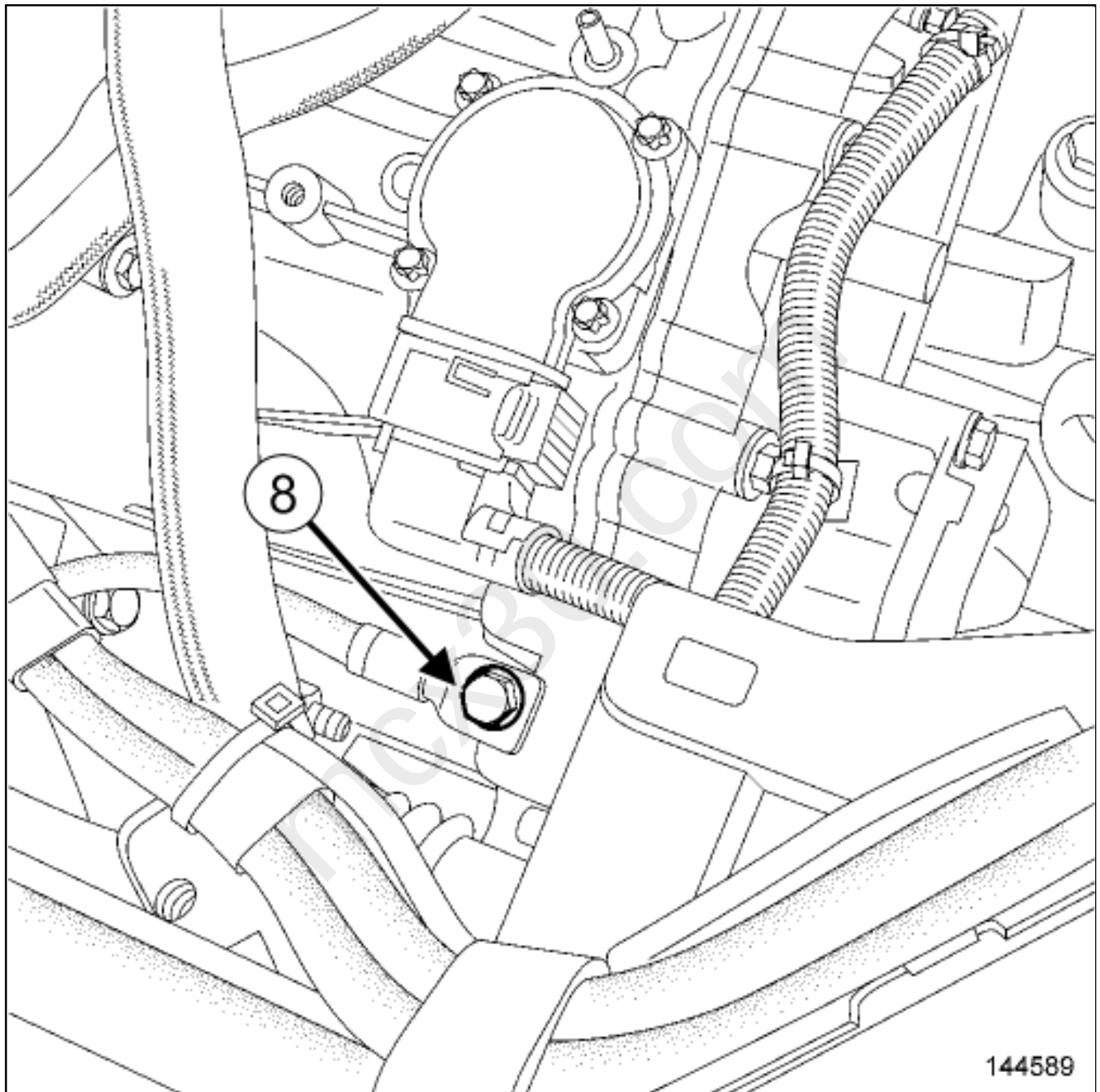
Note:



Do not touch the metal contacts of the computer - an electrostatic discharge can damage the shift drum actuator motors.

Disconnect the connector(7) from the gearbox computer.

Move the engine wiring away from the gearbox.



Note:



Before removing the earth terminal, mark its position using an indelible pencil by drawing a line on the earth terminal and on the gearbox casing.

When reassembling, improper positioning of the earth terminal on the gearbox casing could result in damage to the earth terminal or earth wiring.

Remove the earth cable bolt(8) from the gearbox.

Remove:

-
- the front wheels [Front hub carrier assembly: Exploded view](#) ,
- the front section of the front wheel arch liners [Exterior body front trim assembly: Exploded view](#) ,
- the starter [\(see 16A. Starting - Charging, Starter: Removal - Refitting\)](#) .

Drain the automatic gearbox oil [Automatic gearbox oil: Draining - Filling](#) .

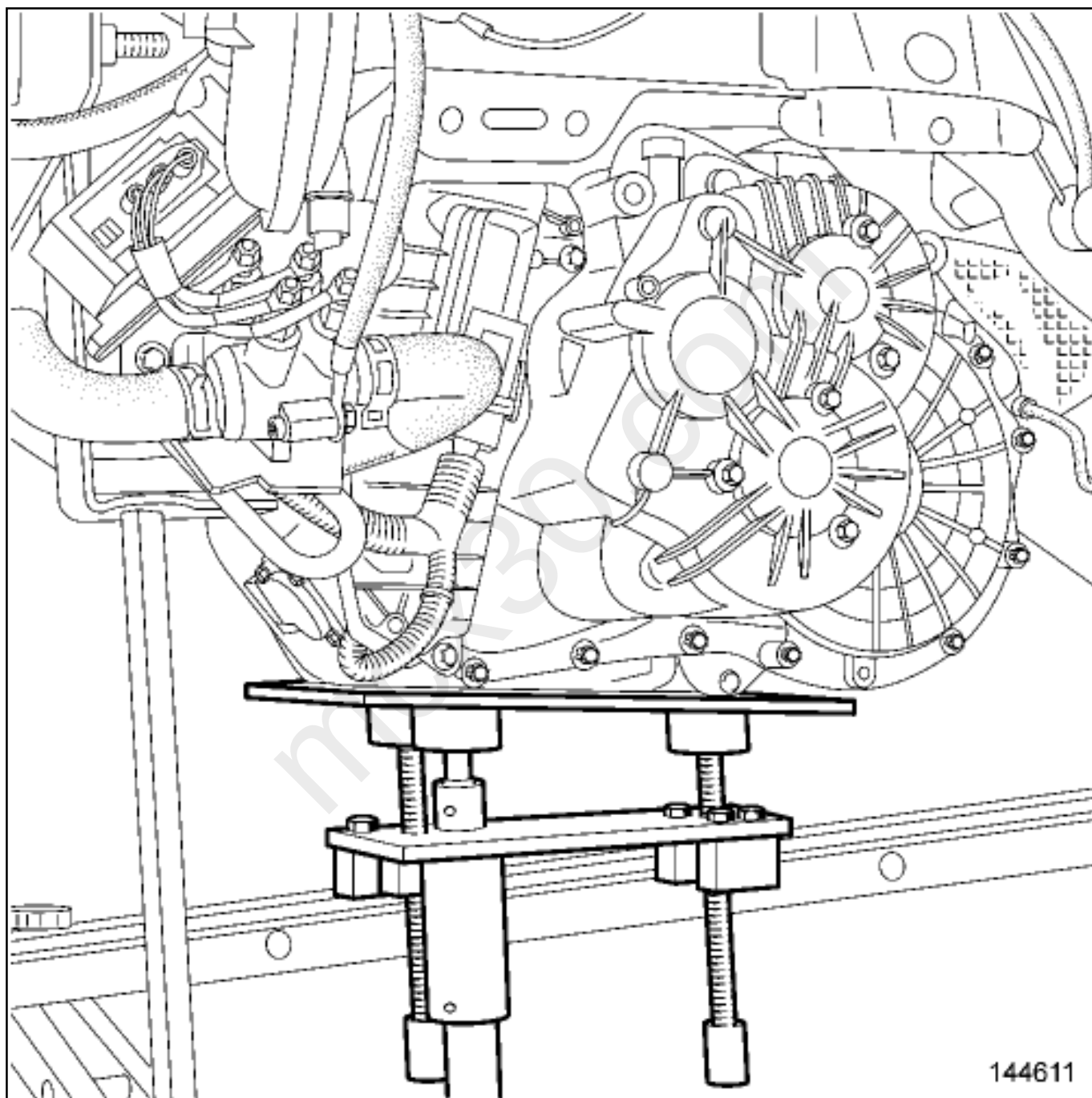
Remove:

-
- the front left-hand driveshaft [Front hub carrier assembly: Exploded view](#) ,
- the front right-hand driveshaft [Front hub carrier assembly: Exploded view](#) ,
- the front bumper [Front bumper assembly: Exploded view](#) ,
- the radiator mounting cross member,
- the front axle subframe [Front axle assembly: Exploded view](#) .

Remove the left-hand suspended engine mounting [Engine-gearbox unit support assembly: Exploded view](#) .

2. REMOVAL OPERATION

Remove the gearbox bell housing bolts.



Fit a component jack under the gearbox.



Note:

Correctly position the component jack under the gearbox to facilitate the removal.

Remove:



the gearbox nuts,



the gearbox studs.

Using a safety strap(s), strap the gearbox on the component jack.

Remove the gearbox.



Note:

This operation requires two people due to the weight of the gearbox.

REFITTING

1. REFITTING PREPARATION OPERATION

Clean:



all the removed parts [Vehicle: Parts and consumables for the repair](#) ,



the joint face of the automatic gearbox and engine casings [Vehicle: Parts and consumables for the repair](#)



parts always to be replaced:

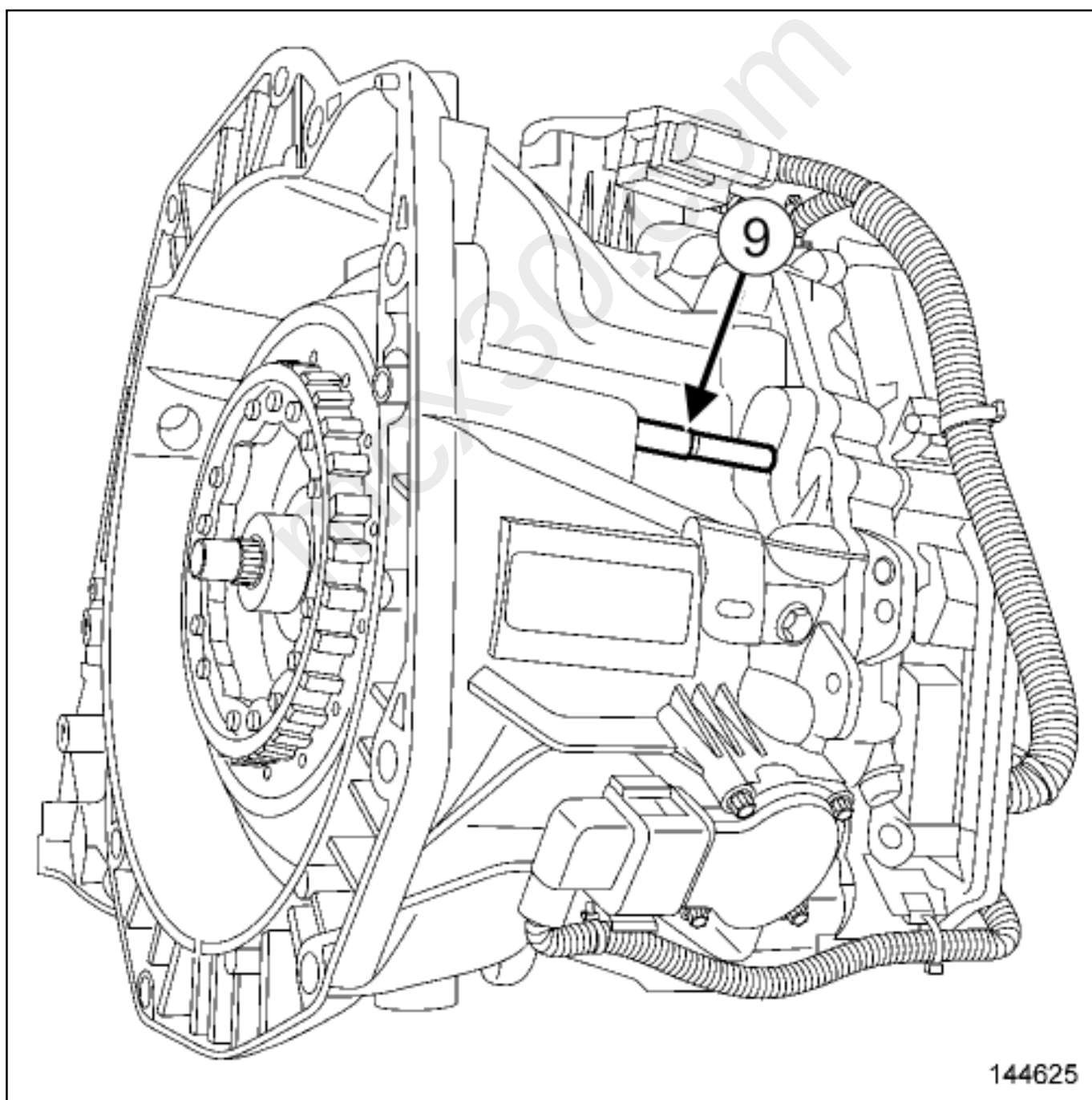
Differential output seal



CAUTION

Failure to observe the following procedure may damage the system connecting the clutch to the flywheel of the automatic gearbox.

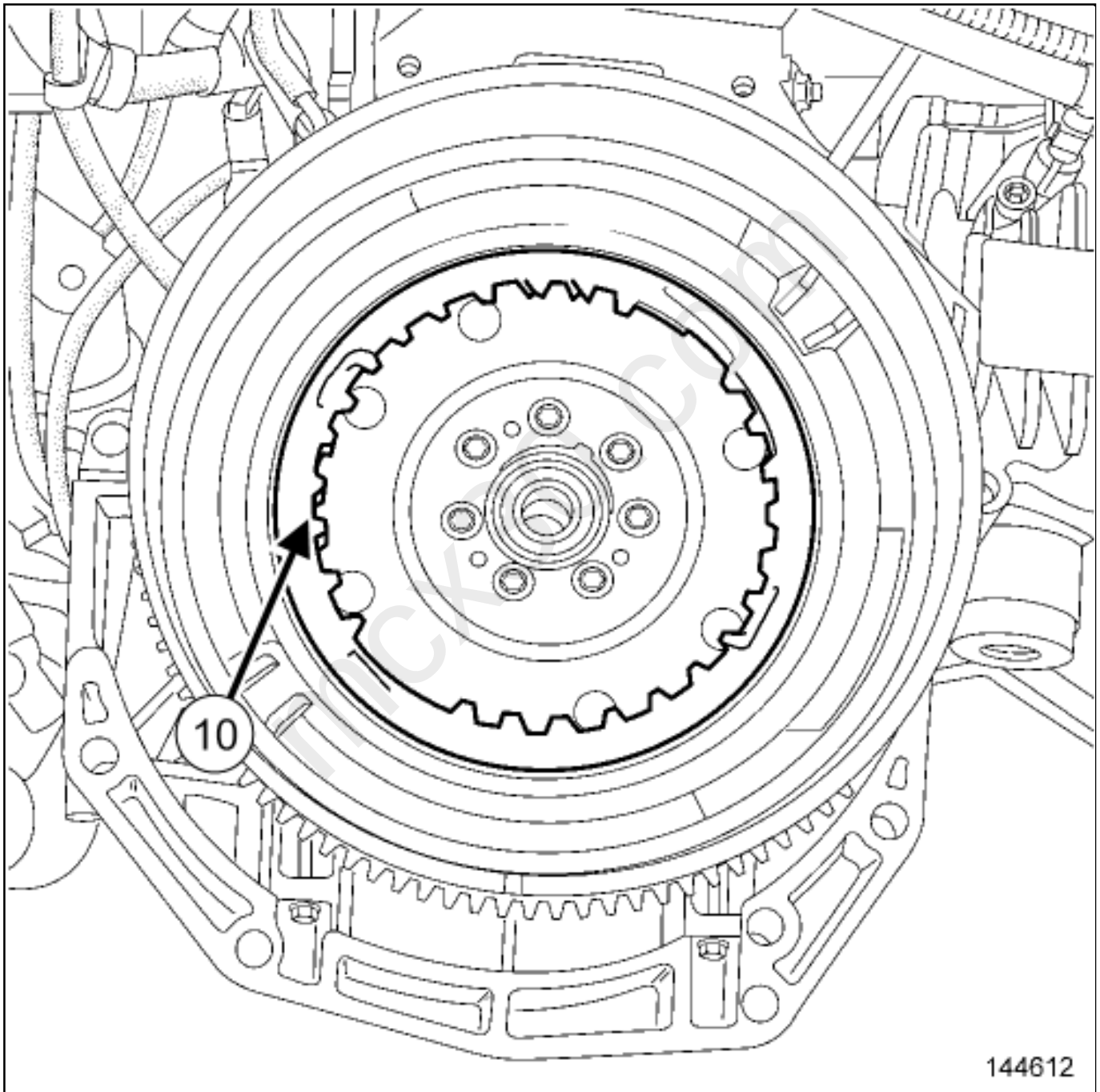
Check for the presence of centring dowels on the gearbox casing.



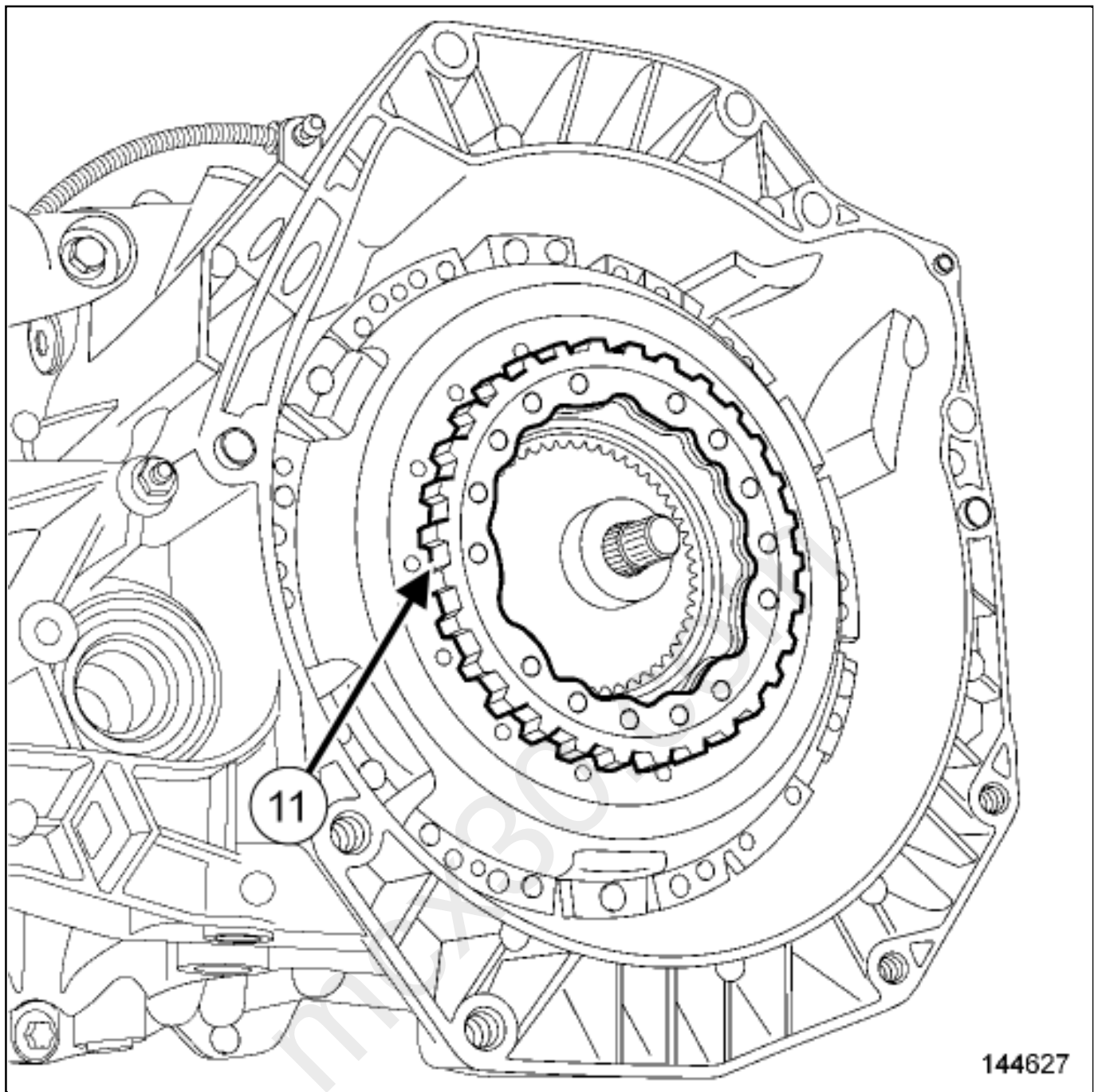
144625

Position the stud (9) on the gearbox.

Correctly position the gearbox on the component jack.



144612



Move aside the engine wiring.

Note:



Correctly position the gearbox using a component jack so that the gearbox bearing face is exactly parallel to the engine bearing face, and the flywheel splines(10) and the clutch pressure plate splines(11) are aligned.

2. REFITTING OPERATION



Refit the gearbox using a component jack.



Note:

This operation requires two people due to the weight of the gearbox.



Note:

If the flywheel splines and the clutch pressure plate splines do not fit together, turn the clutch pressure plate or the flywheel slightly.



Note:

Check for perfect contact between the bearing face of the gearbox and the engine.



Torque tighten:



the gearbox studs **7 N.m**,



the gearbox nuts **44 N.m**,



the gearbox bolts **44 N.m**.



Remove the safety strap(s) from the gearbox.

3. FINAL OPERATION



Refit the left-hand suspended engine mounting [Engine-gearbox unit support assembly: Exploded view](#) .

Clip the rail protector drain pipe onto the gearbox.

Refit:

- the front axle subframe [Front axle assembly: Exploded view](#) ,
- the radiator mounting cross member,
- the front bumper [Front bumper assembly: Exploded view](#) ,
- new differential output seals [Differential output seal: Removal - Refitting](#) ,
- the front right-hand driveshaft [Front hub carrier assembly: Exploded view](#) ,
- the front left-hand driveshaft [Front hub carrier assembly: Exploded view](#) .

Fill the automatic gearbox [Automatic gearbox oil: Draining - Filling](#) .

Refit:

- the starter [\(see 16A. Starting - Charging, Starter: Removal - Refitting\)](#) ,
- the front section of the front wheel arch liners [Exterior body front trim assembly: Exploded view](#) ,
- the front wheels [Front hub carrier assembly: Exploded view](#) .

Note:



Refit the earth terminal at the mark made by the indelible marker on the gearbox casing.

When reassembling, improper positioning of the earth terminal on the gearbox casing could result in damage to the earth terminal or earth wiring

Torque tighten the gearbox earth cable bolt 24 N.m.

Position the engine wiring on the gearbox.

Connect the gearbox computer connector.

Refit the engine wiring bolts onto the gearbox.

Clip the following onto the gearbox:

-
- the breather pipe on the gearbox,
- the engine harness channel.

Refit:

-
- the crankshaft position sensor (see **Crankshaft position sensor: Removal - Refitting**),
- the engine undertray.

Fit the gear control cable.

Clip:

-
- the gear control cable on the support,
- the gear control cable on the selector ball joint,
- the battery wiring channel on the left-hand suspended engine mounting.