

Exhaust gas cooler: Removal - Refitting

K9K, and 796

- the joint face of the exhaust gas cooler mounting on the gearbox end,
- the joint face of the exhaust gas cooler mounting on the timing end.

☐ Use **SURFACE CLEANER** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to clean and degrease:

- the joint faces of the exhaust gas cooler if it is to be reused,
- the joint face of the exhaust gas cooler mounting on the gearbox end,
- the joint face of the exhaust gas cooler mounting on the timing end.

II - REFITTING OPERATION

☐ On the workbench, refit:

- the exhaust gas cooler fitted with a new seal on the exhaust gas cooler mounting at the gearbox end,
- fit without tightening the exhaust gas cooler bolts on the exhaust gas cooler mounting at the gearbox end,
- a new exhaust gas recirculation rigid pipe on the exhaust gas recirculation assembly,
- fit without tightening the bolts of the exhaust gas recirculation rigid pipe on the exhaust gas recirculation assembly.

Note:

The exhaust gas cooler must be able to move in relation to the exhaust gas cooler mounting and the exhaust gas recirculation rigid pipe so that it can be adjusted correctly.

☐ Fit the exhaust gas recirculation assembly equipped with the exhaust gas recirculation rigid pipe on the cylinder head.

☐ Tighten:

- the bolts of the exhaust gas recirculation assembly on the cylinder head,
- the bolts of the exhaust gas recirculation rigid pipe bracket on the cylinder head,
- the bolts of the exhaust gas cooler on the exhaust gas recirculation mounting,
- the bolts of the exhaust gas recirculation rigid pipe on the exhaust gas recirculation assembly,

☐ Remove:

- the exhaust gas recirculation assembly bolts,
- the bolts of the exhaust gas recirculation rigid pipe bracket,
- the exhaust gas recirculation assembly fitted with the exhaust gas recirculation rigid pipe.

☐ On the workbench, torque tighten:

- the **exhaust gas cooler bolts (12 N.m)**,
- the **exhaust gas recirculation rigid pipe bolts (12 N.m)**.

III - FINAL OPERATION

☐ Proceed in the reverse order to removal.

☐ Bleed the cooling system (see **19A, Cooling, Cooling system: Draining - Refilling**, page **19A-6**) .

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Special tooling required

Ms. 583 Pipe clamps.

Tightening torques

bolts of the exhaust gas recirculation assembly **21 N.m**

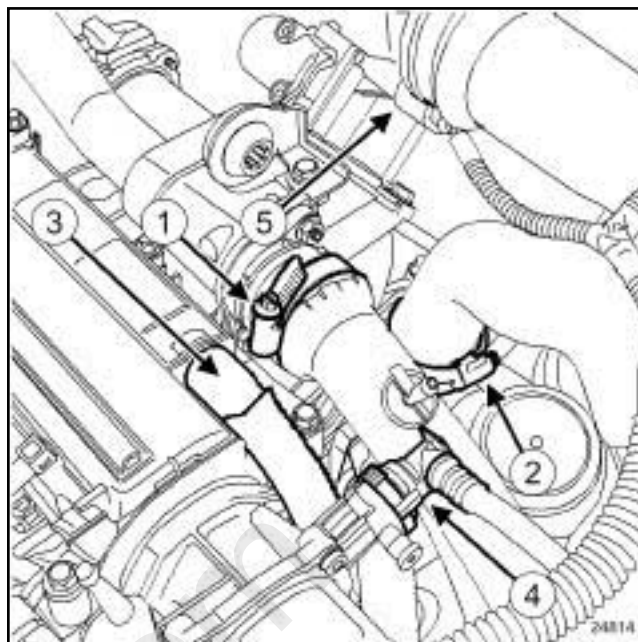
bolts on the «timing end lifting eye - air inlet metal tube assembly» **10 N.m**

IMPORTANT

Wear cut-resistant gloves during the operation.

I - REMOVAL PREPARATION OPERATION

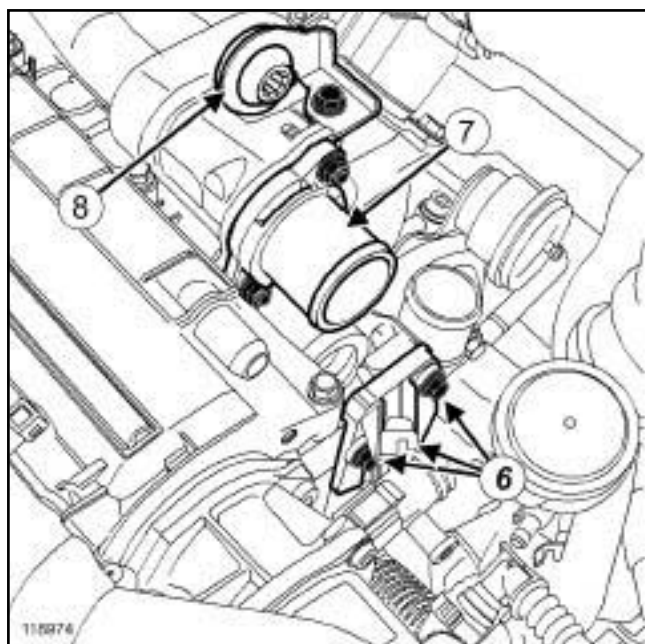
- ☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (02A, Lifting equipment).
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Remove:
 - the engine cover,
 - the air filter box (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page **12A-6**),
 - the engine undertray,
 - the catalytic converter (see **19B, Exhaust, Catalytic converter: Removal - Refitting**, page **19B-10**).



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- ☐ Remove:
 - the clip (1) on the air pipe between the intercooler and the exhaust gas recirculation assembly,
 - the clip (2) on the air pipe between the intercooler and the turbocharger.
- ☐ Disconnect:
 - the air pipe between the intercooler and the exhaust gas recirculation assembly,
 - the air pipe between the intercooler and the turbocharger,
 - the oil vapour rebreathing pipe (3),
 - the non-return valve (4) at the vacuum pump,
 - the exhaust gas recirculation solenoid valve connector (5).

K9K, and 796



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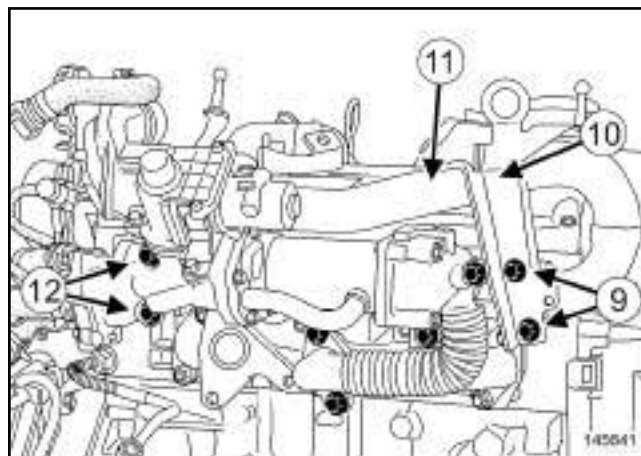
- ❑ Position the (**Ms. 583**) or the hose clamps on the coolant inlet and outlet hoses of the exhaust gas cooler.

WARNING

Prepare for the flow of fluid, and protect the surrounding components.

- ❑ Remove:
 - the bolts (**6**) on the coolant circulation cover,
 - the coolant circulation cover,
 - the seals of the coolant circulation cover.

II - REMOVAL OPERATION



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- ❑ Remove:
 - the bolts (**9**) from the lifting eye at the timing end,
 - the lifting eye on the timing end (**10**) ,
 - the air inlet metal tube (**11**) ,
 - the air inlet metal tube seals,
 - the exhaust gas recirculation rigid pipe (see **14A, Antipollution, Exhaust gas recirculation rigid pipe: Removal - Refitting**, page **14A-12**) ,
 - the bolts (**12**) of the exhaust gas assembly mounting,
 - the exhaust gas recirculation assembly.
- ❑ Remove the following on the workbench:
 - the air duct sleeve (**7**) ,
 - the centring ring (**8**) of the air filter unit.

REFITTING

I - REFITTING PREPARATION OPERATION

- ❑ On the workbench, refit:
 - the air pipe sleeve (**7**) ,
 - the centring ring of the air filter unit.
- ❑ Always replace:
 - the air inlet metal tube seals,
 - the coolant circulation cover seals,
 - the turbocharger air outlet pipe seal.