



Kangoo Clio II

Type

S/Section

XB0 7, 8 and 9

13B

XC0 7, 8, 9 and W

13B

13B

Removing / refitting the high pressure injection pump

- Engine: **K9K 700 - 702 - 704 -710**
- Gearbox: **XXX**

Basic manuals:
Workshop Repair Manuals **345, 337 and K9**
Technical Notes **3470A, 3527A**

This Technical Note covers the removal / refitting of the high pressure injection pump, with the timing belt in place.

It concerns only Clio II and Kangoo vehicles fitted with the K9K engine, which has a high pressure injection pump pulley with a number other than 070 575.

"The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed".

All copyrights reserved by Renault.

Copying or translating, in part or in full, of this document or use of the service part reference numbering system is forbidden without the prior written authority of Renault.

IMPORTANT: it is strictly forbidden to remove any injection pump pulley marked with the number 070 575.

For pump pulleys marked with a different number, the injection pump is removed / refitted with the timing belt in place.

SPECIAL TOOLING REQUIRED

Mot. 1453	Adjustable engine support tool
Mot. 1606	High pressure pump pulley locking tool
Mot. 1525	High pressure pump pulley extraction tool
Mot. 1525-02	High pressure pump pulley extractor tool claws

EQUIPMENT REQUIRED

Low torque wrench
Angular torque wrench
Pipe socket for tightening the pump-rail high pressure pipe (for example, Facom Crowfoot 19-17 wrench).

TIGHTENING TORQUES (in daNm and °)



High pressure pipe union	3.8
Rail nuts	2.8 ± 0.3
High pressure pump mounting bolts	2.1 ± 0.2
High pressure pump pulley nut	1.5 ± 0.1 then 60° ± 10°
Filler neck nut on the rail	2.1
Suspended mounting on the cylinder head	2.1
Right-hand suspended mounting support bolt	6.2

IMPORTANT: before carrying out any work, connect the After-Sales diagnostic tool, set up communication with the injection computer and check that the injection rail is not under pressure.

Wait until the fuel temperature drops.

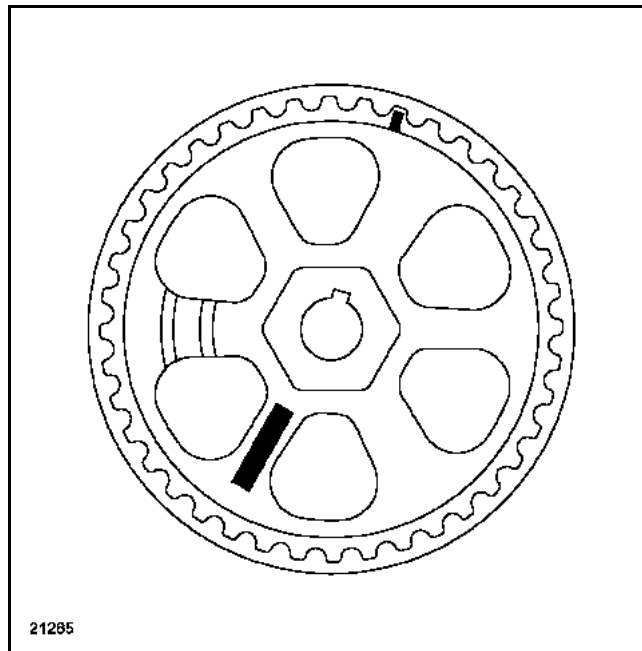
Order the special high pressure injection circuit plug kit.

YOU SHOULD FOLLOW THE CLEANLINESS INSTRUCTIONS CLOSELY

IMPORTANT: it is strictly forbidden to remove any injection pump pulley marked with the number **070 575** (see diagram).

For pump pulleys marked with a different number, the injection pump is removed / refitted with the timing belt in place.

This operation requires the use of pump pulley locking tool **Mot. 1606**, pump pulley extraction tool **Mot. 1525** and claws **Mot. 1525-02**.



Put the vehicle on a two-post lift.

Disconnect the battery.

Remove the engine cover.

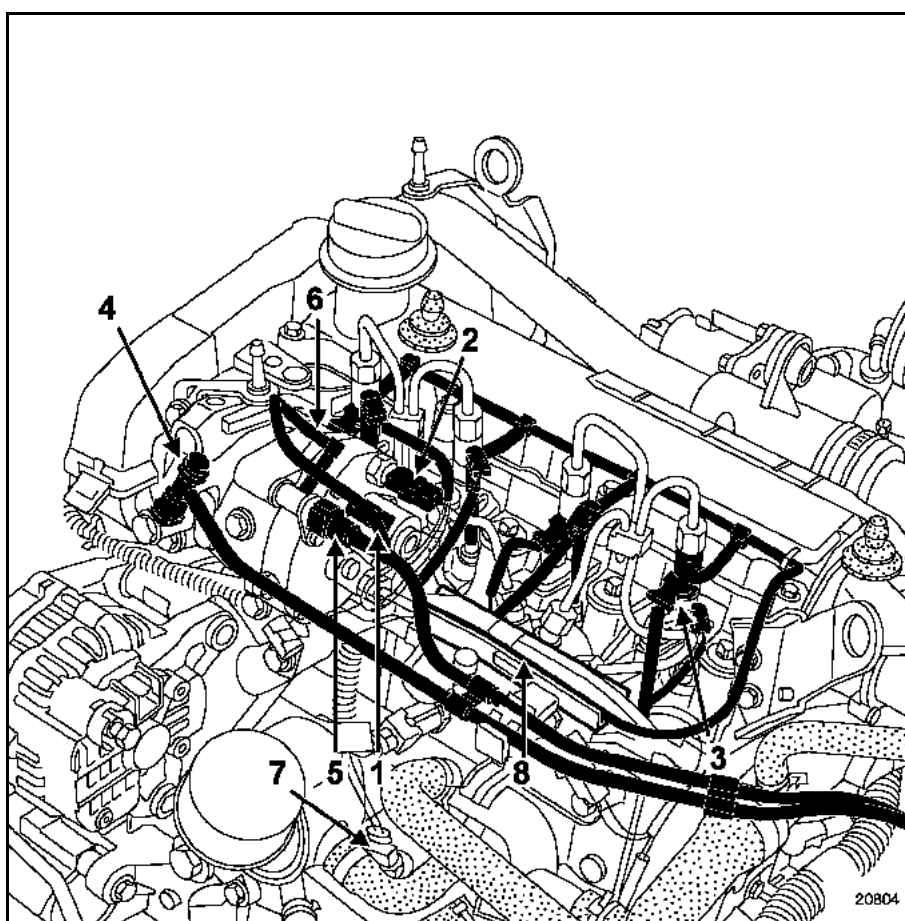
Disconnect the air inlet sleeve on the air filter unit.

Remove the dipstick guide and block the opening on the engine block.

Carefully disconnect:

- the flow actuator (1) and diesel fuel temperature sensor (2) connectors,
- the pre-heater plugs and the injectors (3),
- on the pump, the fuel supply (4) and return (5) pipes.
- the return pipe (6) connecting the injectors with the pump,
- the engine oil level sensor (7).

Remove the neck (8) located on the fuel rail

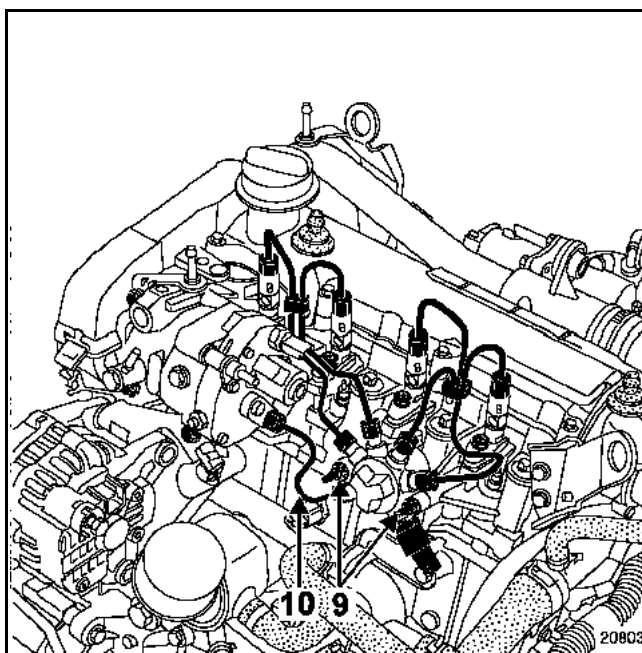


Unscrew the mounting nuts of the rail (9) by a few turns.

Remove high pressure pipe (10) connecting the pump to the rail. To do this:

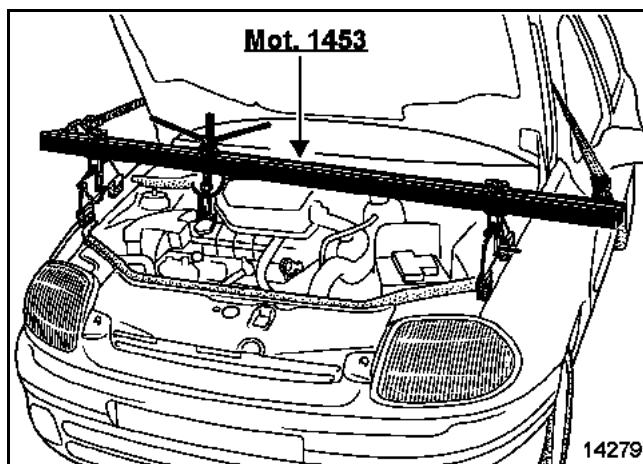
- undo the nut on the pump side then the nut on the rail side,
- move the nut along the tube keeping the oval-shaped handle in contact with the taper.

Plug all the holes of the injection circuit.



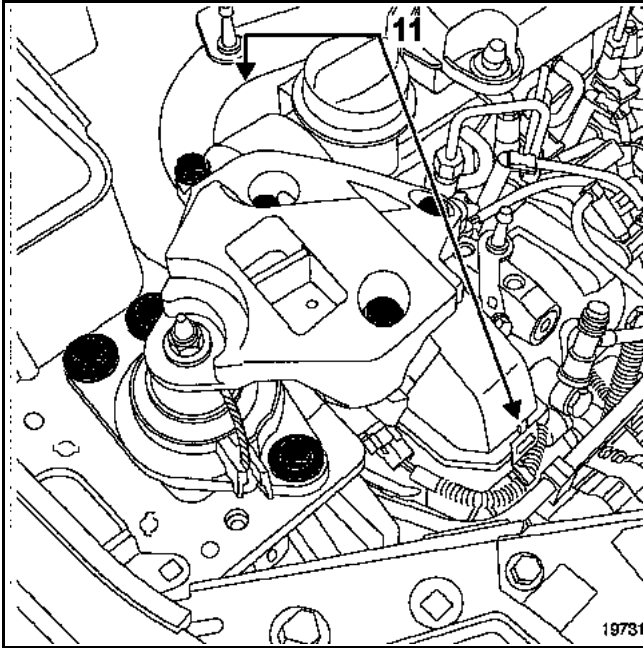
Position the engine support, tool **Mot. 1453** with the retaining straps.

NOTE: when doing this make sure that the feet of the engine support tool are positioned on the rigid sections of the wings.

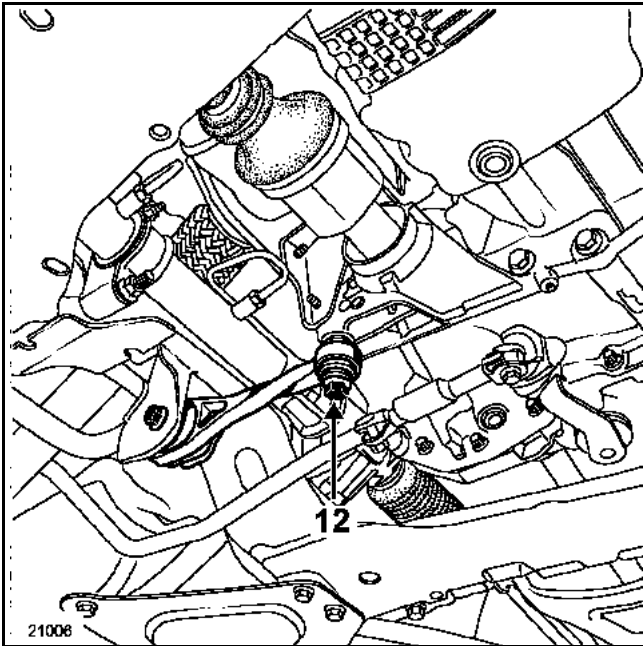


Remove:

- the right-hand suspended mounting support and cover,
- the upper timing cover by unclipping the two tabs (11),



- bolt (12) for mounting the engine tie-bar onto the gearbox.



Lift the engine a few centimeters to access the suspended mounting attachments on the cylinder head and the high pressure pump pulley.

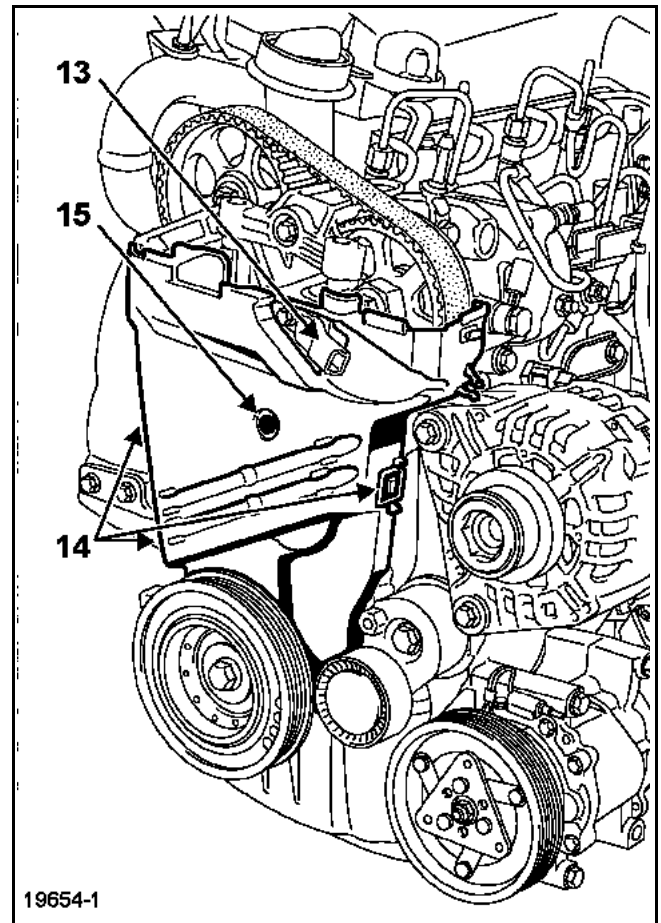
WARNING: take care not to pull the right-hand driveshaft away.

Remove cylinder marking sensor (13).

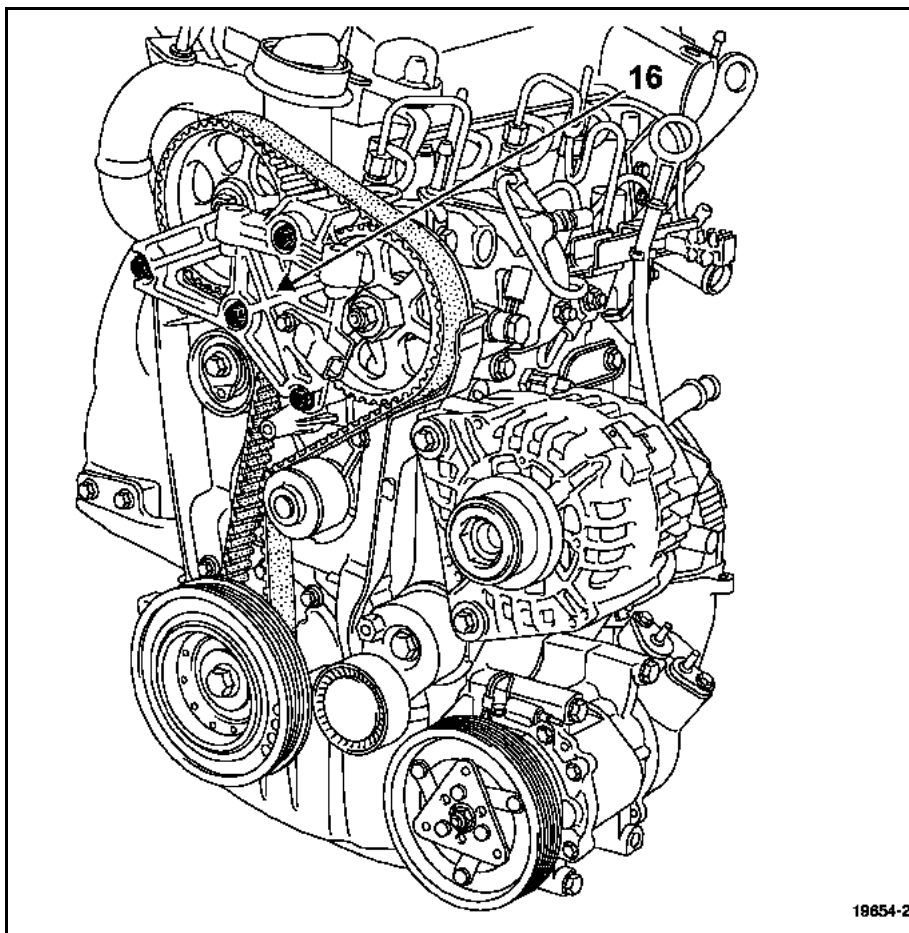
Disconnect, then plug the fuel delivery and return pipes on the filter, unclip them then release them to the side.

Remove:

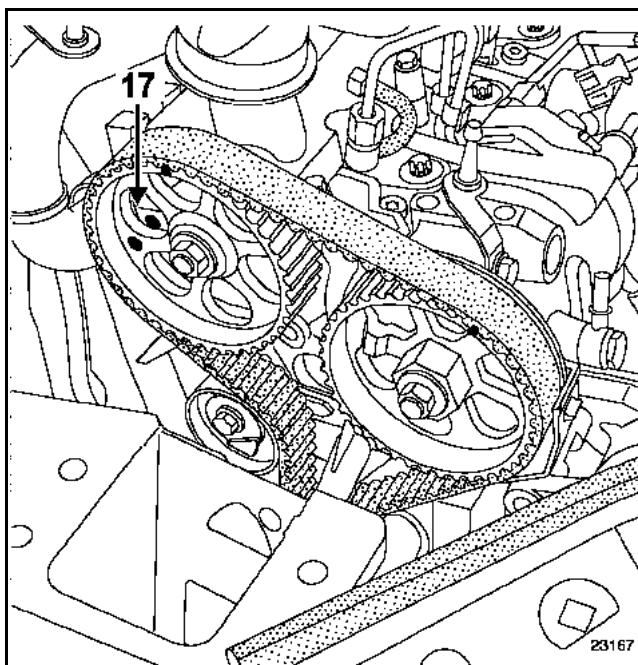
- the lower timing cover by unclipping the three tabs (14) and pulling out plastic bolt (15),



- suspended mounting (16) on the cylinder head.



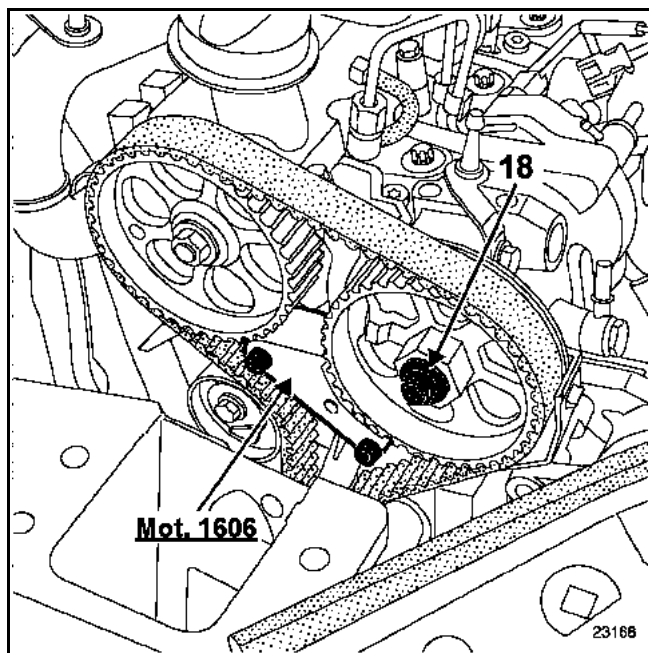
Position the engine at Top Dead Centre. Camshaft pulley virtually opposite cylinder head slot (17).



Fit high pressure pump pulley locking tool **Mot. 1606**.

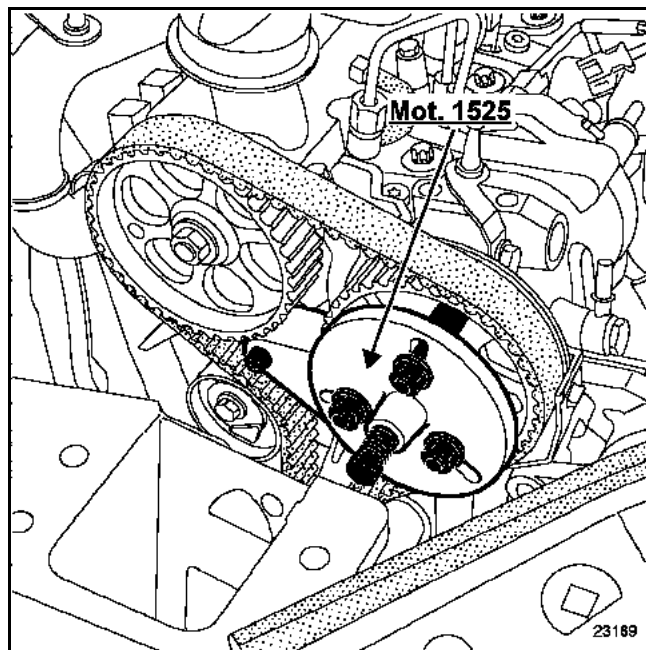
NOTE: if necessary, turn the engine over slowly to adjust the position of the locking tool on the pump pulley teeth.

Remove injection pump pulley nut (18), keeping the pulley in position with an open wrench.

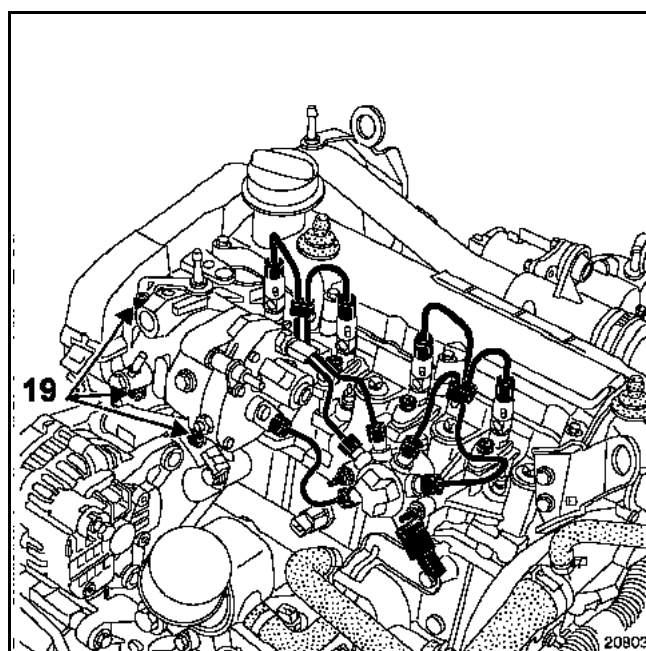


Fit high pressure pump pulley extractor tool **Mot. 1525** with the claws **Mot. 1525-02** in place.

NOTE: ensure that the tool push rod is fully in the shaft and is pressing against the pump shaft.



Remove the three injection pump mounting bolts (19).



Tighten the tool push rod **Mot. 1525**, then disconnect the assembly.

Remove:

- the high pressure pump,
- high pressure pump pulley extraction tool.

REFITTING

Ensure that the pulley clamping pin is still in place.

Fit:

- the pump then tighten the mounting bolts to a torque of **2.1 ± 0.2 daNm**,
- pump pulley nut.

Tighten the pump pulley mounting nut to a torque of **1.5 ± 0.1 daNm** and angle tighten to **$60^\circ \pm 10^\circ$** keeping the pulley in position using an open wrench.

Remove high pressure pump pulley locking tool
Mot. 1606.

IMPORTANT: all the high pressure pipes removed must be replaced as a matter of course.

Before fitting the new high pressure pipe, lightly lubricate the union threads with the oil from the sachet provided in the new parts kit.

Refit the high pressure pipe, to do this:

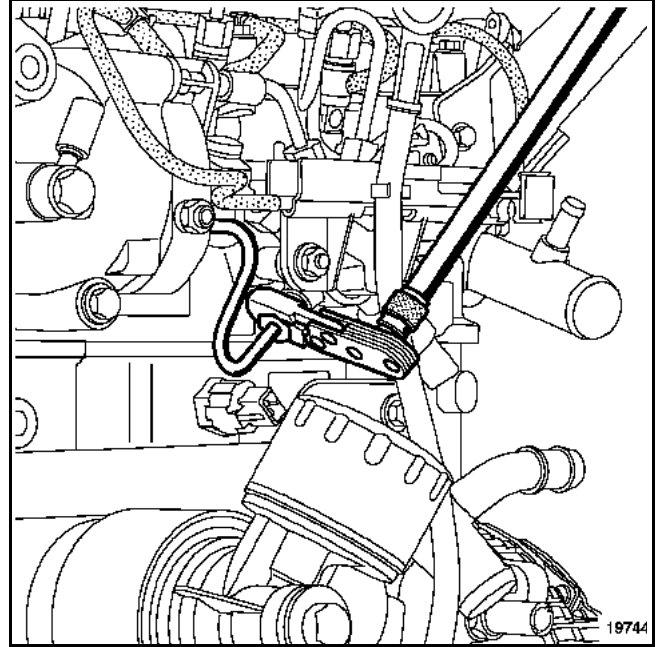
- remove the protective plugs,
- insert the high pressure pipe oval-shaped handle into the taper of the pump outlet,
- insert the high pressure pipe oval-shaped handle into the taper of the high pressure rail inlet.

Finger tighten the unions of the high pressure pipe starting with the one located on the rail side.

Tighten the rail mounting nuts to a torque of **2.8 ± 0.3 daNm**.

Using the recommended tools, tighten the following in the order and to the torques shown:

- the union located on the rail side to **3.8 daNm**,
- the union located on the pump side to **3.8 daNm**.



Refit in the reverse order to removal for the other refitting operations.

Prime the diesel fuel supply circuit with the priming bulb (automatic degassing).

Test the high pressure circuit sealing after repair (refer to **Technical Note 3527 A or 3470 A section 13 Special notes**).