VOLUME AND GRADE OF COOLANT

Engine	Volume (in litres)	Grade	Special notes
F9Q 760	**6.4**	**GLACEOL RX (type D)** only use coolant liquid	Protection down to **- 20** ± **2°C** for temperate and cold countries. Protection down to **- 37** ± **2°C** for very cold countries.

THERMOSTAT

Engine type	Starts to open at (°C)	Fully open at (°C)	Travel (mm)
F9Q 760	**83**	**101**	**7.5**

FILLING

It is essential to open the bleed screws on the coolant reservoir cylinder head housing outlet.

Fill the circuit through the expansion bottle opening.

Close the bleed screws as soon as the liquid starts to flow in a continuous stream.

Start the engine (**2 500 rpm**).

Adjust the level by overflow for a period of about **4 minutes**.

Close the bottle.

BLEEDING

Allow the engine to run for about **20 minutes** at **2 500 rpm**, until the engine cooling fan starts up (time necessary for automatic degassing).

Check that the liquid level is at or near the **Maximum** mark.

NEVER OPEN THE BLEED SCREW WHEN THE ENGINE IS RUNNING.

RE-TIGHTEN THE EXPANSION BOTTLE CAP WHILE THE ENGINE IS WARM.

SPECIAL TOOLING REQUIRED	
M.S. 554-01	Adapter for M.S. 554-07
M.S. 554-06	Adapter for M.S. 554-07
M.S. 554-07	Kit for testing cooling circuit sealing

1 - Testing the circuit sealing

Replace the expansion bottle valve with adapter **M.S. 554-01**.

Connect this to tool **M.S. 554-07**.

Warm up the engine then switch it off.

Pump to pressurize the circuit.

Stop pumping at **0.1 bar** less than the valve is calibrated.

The pressure should not drop; if it does, look for the leak.

Slowly unscrew the union of tool **M.S. 554-07** to decompress the cooling circuit, then remove tool **M.S. 554-01** and refit the expansion bottle valve with a new seal.

2 - Checking the valve calibration.

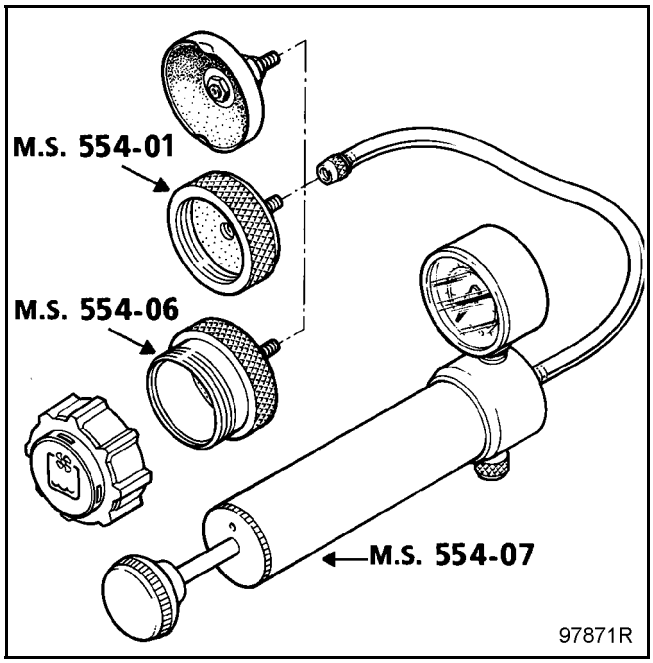
If liquid passes through the expansion bottle valve, the valve must be replaced.

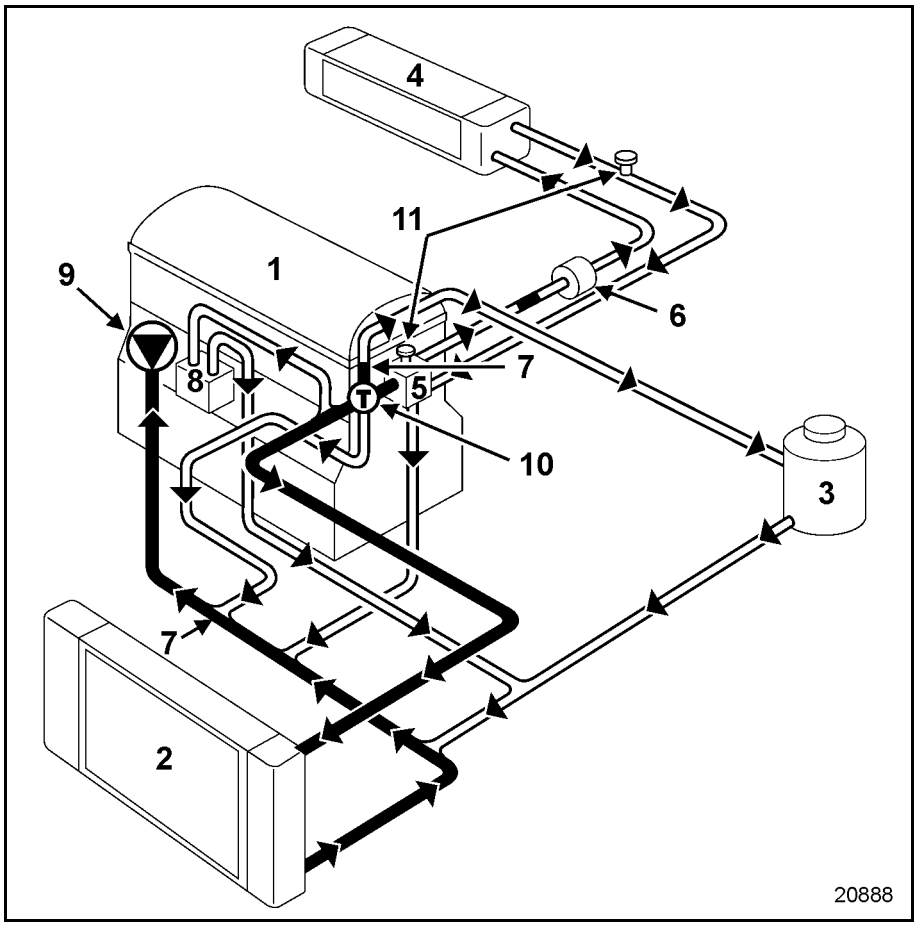
Fit tool **M.S 554-06** on pump **M.S. 554-07** and fit both onto the valve to be checked.

Increase the pressure, which should stabilise at the valve calibration pressure with a test tolerance of ± **0.1 bar**.

Valve calibration value:

Engines	Colour of valve	Valve calibration (in bar)
All types	Brown	1.2





1 Engine
2 Radiator
3 Hot bottle with degassing after thermostat
4 Heater matrix
5 Thermostat mounting
6 Thermoplunger mounting (if fitted)
7 ∅ **16 mm** restriction
8 Coolant/oil heat exchanger
9 Coolant pump
10 Thermostat
11 Bleed screw

The expansion bottle valve calibration is **1.2 bar** (colour brown).

SPECIAL TOOLING REQUIRED	
Mot. 1202-01 Mot. 1202-02	Hose clip pliers
Mot. 1448	Distance pliers for hose clips

TIGHTENING TORQUE (in daNm)	
Coolant pump bolt	0.9

REMOVAL

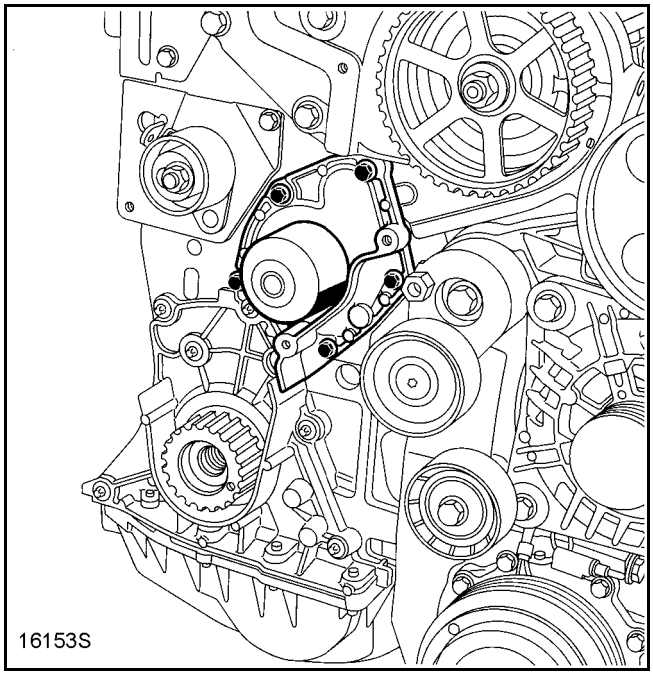
Put the vehicle on a two-post lift.

Disconnect the battery.

Remove the engine undertray.

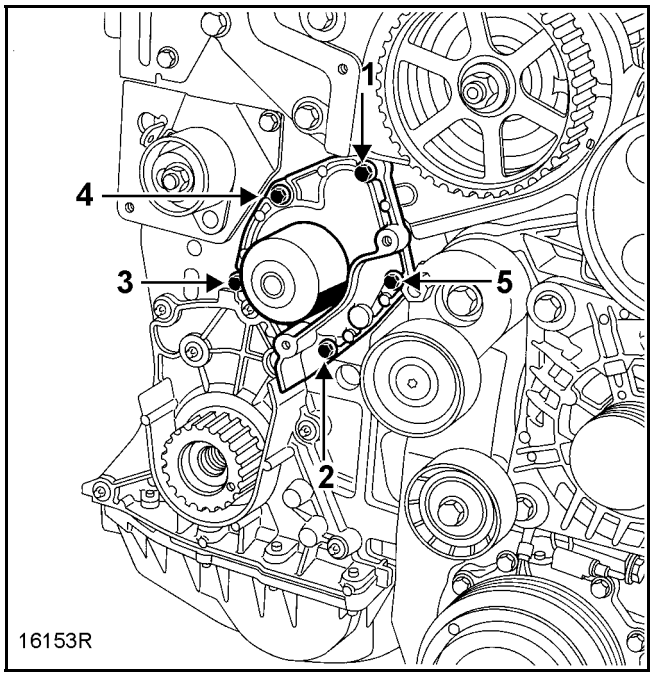
Drain the cooling circuit through the lower radiator hose.

Remove:
– the timing belt (see Section **11 Timing belt**).
– the coolant pump.



REFITTING

NOTE:
put a drop of Loctite FRENETANCH on bolts (3) and (4).



Refit:
– the coolant pump fitted with a new seal by tightening the bolts to a torque of **0.9 daNm**,
– the timing belt (see method described in Section **11 Timing belt**).

Fill and bleed the cooling circuit (see Section **19 Filling and bleeding**).