

| Engine                                 | Start of opening (°C)     | End of opening (°C) |
|----------------------------------------|---------------------------|---------------------|
| D4F 764<br>Thermostat in actuated mode | 100 ± 2                   | 120                 |
| D4F 784                                | 89                        | 99 ± 2              |
| K4J                                    | 89                        | 99 ± 2              |
| K4M                                    | 89                        | 99 ± 2              |
| M4R                                    | Cylinder head thermostat  |                     |
|                                        | 93.5                      | 96.5                |
|                                        | Cylinder block thermostat |                     |
|                                        | 80.5                      | 83.5                |
| F4R 830/832                            | 75                        | 87                  |
| K9K                                    | 89                        | 99 ± 2              |

**Special tooling required**

|                   |                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Mot. 1700</b>  | Fault finding and filling - bleeding the cooling circuit.                                                       |
| <b>Ms. 554-07</b> | Instrument for testing the cooling circuit and the expansion bottle valve. Contains caps 554-01, 554-04, 554-06 |

**IMPORTANT**

When working in the engine compartment, take care as the radiator fan(s) may start up unexpectedly (risk of being cut).

To avoid any risk of serious burns when the engine is hot:

- do not open the expansion bottle cap,
- do not drain the cooling system,
- do not open the bleed screw(s).

**Note:**

There are two procedures for checking the cooling system:

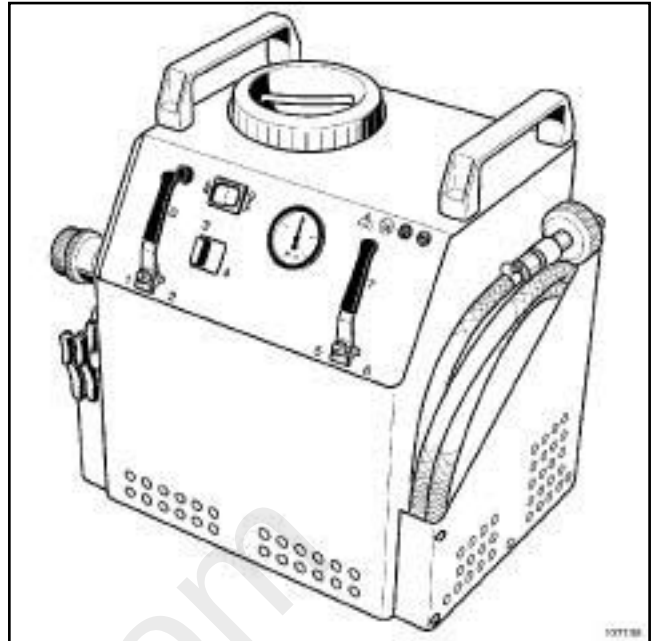
- the procedure using the **(Mot. 1700)**
- the procedure using the **(Ms. 554-07)**

**Expansion bottle cap valve rating:**

| Expansion bottle cap with ... | Valve rating   |
|-------------------------------|----------------|
| ... a brown circle            | <b>1.2 bar</b> |
| ... a yellow marking          | <b>1.4 bar</b> |
| ... a white marking           | <b>1.6 bar</b> |
| ... a grey marking            | <b>1.8 bar</b> |

**I - CHECKING THE COOLING SYSTEM USING THE TOOL (MOT. 1700)****WARNING**

If the coolant is leaking from the expansion bottle cap, replace the valve.

**1 - Checking the expansion bottle cap valve**

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- ☐ Use the cooling system filling and diagnostic tool **(Mot. 1700)**. Consult the user's manual for this tool (see **Cooling system filling and diagnostic tool: Use**) (Technical Note 3857A, 19A, Cooling).

**2 - Checking the sealing of the cooling circuit**

- ☐ Use the cooling system filling and diagnostic tool **(Mot. 1700)**. Consult the user's manual for this tool (see **Cooling system filling and diagnostic tool: Use**) (Technical Note 3857A, 19A, Cooling).

**II - CHECKING THE COOLING SYSTEM USING THE TOOL (MS. 554-07)****WARNING**

If the coolant is leaking from the expansion bottle cap, replace the valve.