17 Radiator

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Specifications

Radiator

Model		1502	1602	1802	2002	2002 A	2002 TI	2002 tii
Coolant capacity incl. heater litres (Imp. pints/US qts)		7 (12.3/7.4)						
Radiator cap Excess pressure	bar (lb/in^2)	$1.0^{+0.15}_{-0.10}$ ($14.2^{+2.1}_{-1.4}$)						
Vacuum	bar (lb/in^2)	down to 0.1 (1.4)						
Antifreeze		Brand-name long-life antifreeze and corrosion inhibitor[1] – see page 17-0/4						
Mixing ratio	%	60 : 40 (water : antifreeze)						
Radiator test pressure	bar (lb/in^2)	1.5 (21.3)						
Gearbox oil cooler test pressure	bar (lb/in^2)	–				5 (71)	–	

1) Renew every 2 years

Tightening torques in Nm (mkp) (ft.lb)

Radiator cap and drain plug	9 ... 11 (0.9 ... 1.1) (6.5 ... 8.0)
Hollow bolt for supply and return pipes at converter housing	40 ... 45 (4.0 ... 4.5) (28.9 ... 32.5)
Supply and return pipes at oil cooler	12 ... 15 (1.2 ... 1.5) (8.7 ... 10.8)

Specifications

Radiator

Model	1502	1602	1802	2002	2002 A	2002 TI	2002 tii

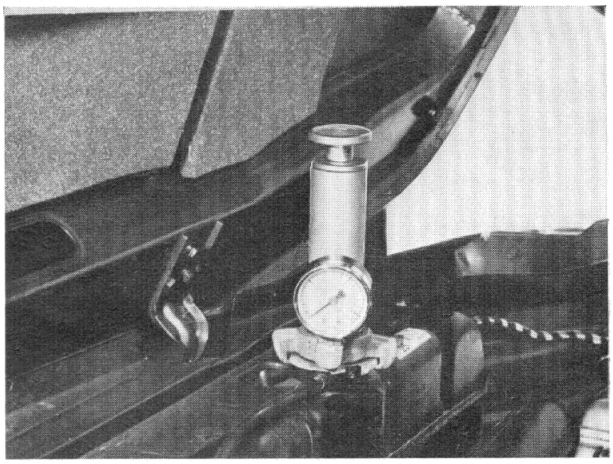
Approved brands of long-life antifreeze with corrosion inhibitor

Designation	Manufacturer or supplier
Agip F 1 Antifreeze	Agip
BP Anti-Frost (H 22)	BP
Chevron Antifreeze	Chevron
Avia Antifreeze	Avia
Fina Termidor	Fina
Antifreeze Coolant	Texaco
Total Frostfrei UK 5110	Total
Genantin	Farbwerke Hoechst AG
Fuchs Frostschutz V 9110	Fuchs Mineralölwerke GmbH
500 Antifreeze	Mobil Oil
Külerfrostschutz Optimol	Optimol-Ölwerke GmbH
Frostschutz Westfalen	Sauerstoffwerk Westfalen AG

The following additional products are also approved, but must not remain in contact with the car's paintwork for any length of time — risk of damage to paint surface.

Designation	Manufacturer or supplier
Frostschutz Aral	Aral KG
Glysantin	BASF AG
Antifreeze	Castrol
Esso radiator antifreeze	Esso
Veedol antifreeze and summer coolant	Getty Oil

17 00 009 Checking cooling system for leaks



Secure test instrument on radiator.

Generate approx. 1 atü (14.7 psi) in cooling system by means of a hand pump.

The cooling system is completely tight if no pressure drop is seen after approx. 1 - 2 minutes.

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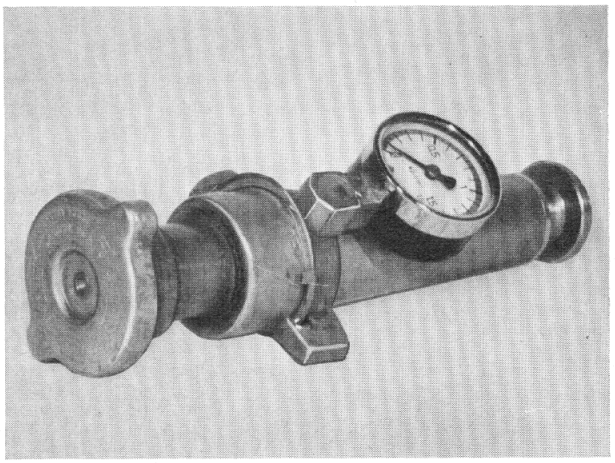

Secure radiator filler cap and test instrument on connection piece.

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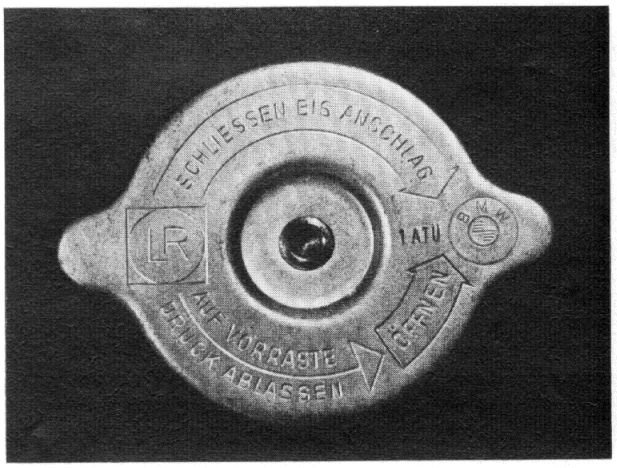

The opening pressure[1]) must correspond to the data on the radiator filler cap.

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[1]) See Technical data

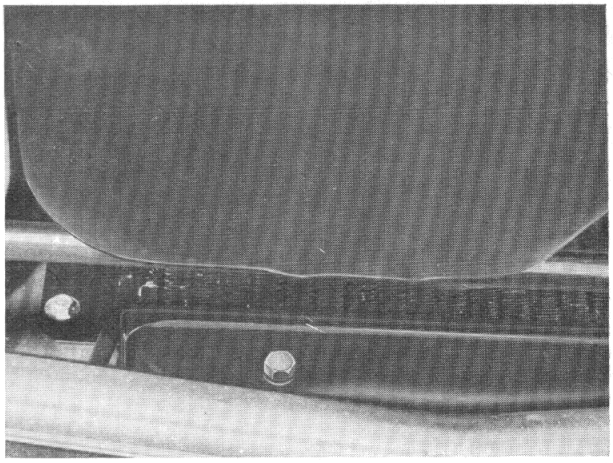
17 11 000 Removal and fitting of radiator

Drain coolant. When doing this, move warm air temperature on instrument panel to the right so that it is set to „Warm". Unscrew radiator cap and hexagon head bolt (drain plug at the bottom left of the radiator.

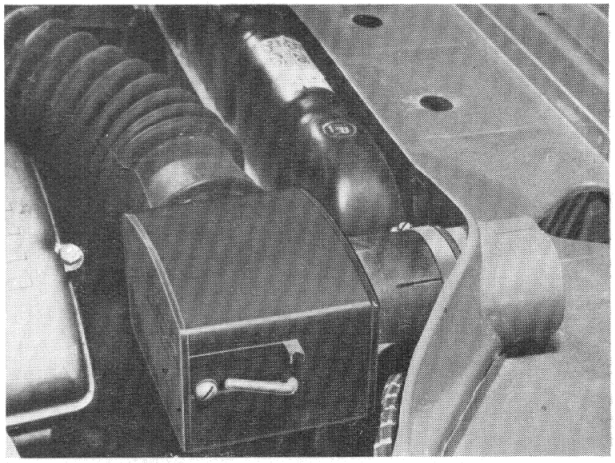
Note when fitting: Note correct tightening torque[1]).

When refilling the coolant system, set warm air temperature lever to „Warm" and slowly fill up radiator. Screw on radiator cap until stop II is reached.

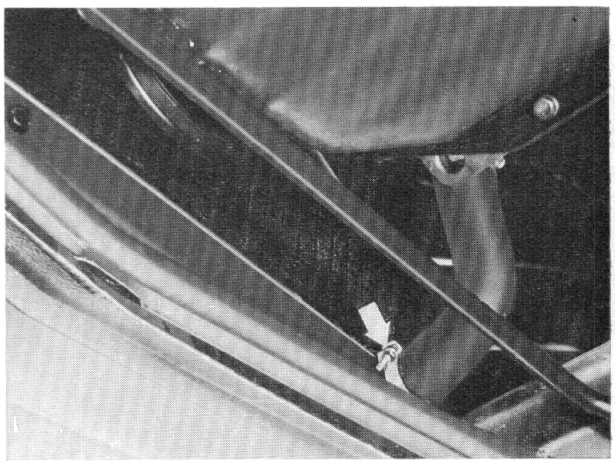
Drive car or let engine run until normal operating temperature is reached. Screw radiator cap further until stop I, as this bleeds any air from the coolant system, an then remove. Fill in coolant so that at least 2 cm (approx. 3/4 in.) is left free underneath the radiator cap and screw on cap tightly.



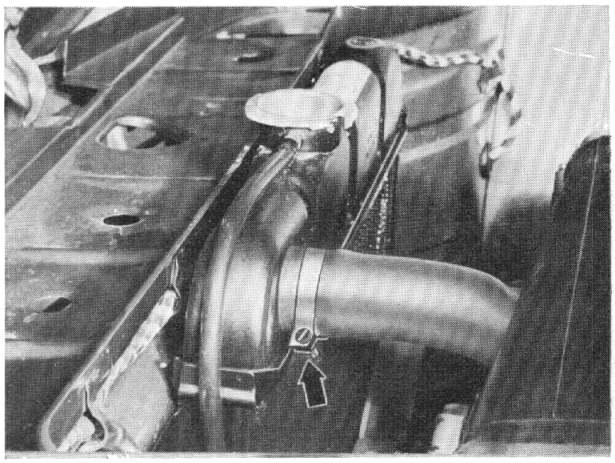
Remove pre-heating unit.



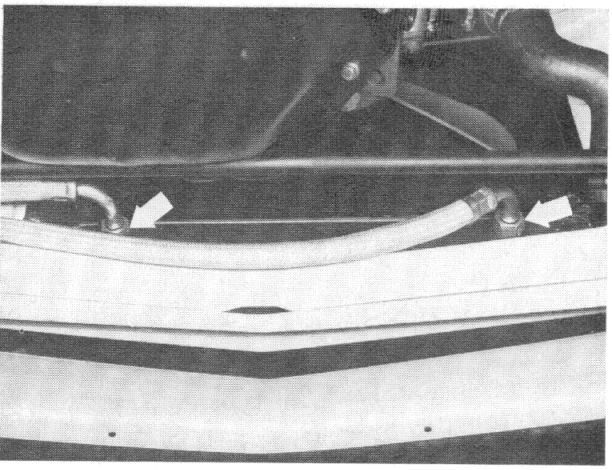
Detach coolant hose at bottom right.



Detach coolant hose at top left.



[1]) see Specifications



If radiator is fitted with oil cooler, detach inflow and reflow pipes.

Note when fitting: Check gearbox oil level.

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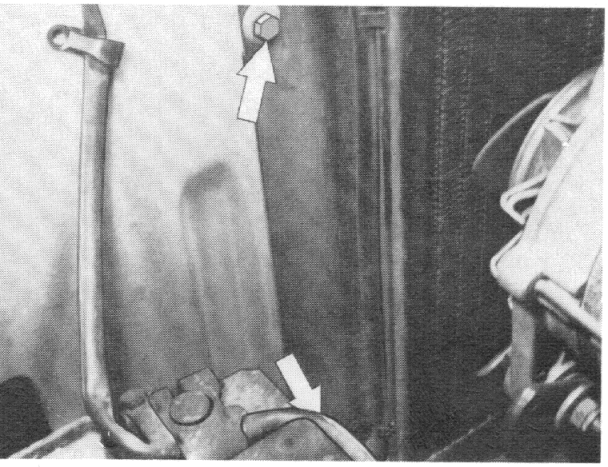

Unscrew hexagon head sheet metal bolts at the left and right of the front panel. Lift out radiator.

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