



H16	AH00.00-X-1000Z	General notes	28.6.99
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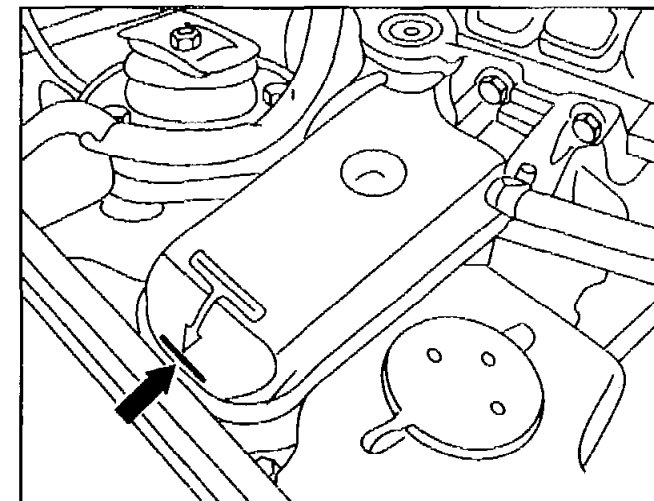
AH20.00-P-1142-01A	Notes on engine coolant level	Model 124, 129, 140, 168, 170, 202, 208, 210, 220, 463	J16
AH20.00-P-1142-01V	Notes on engine coolant level	Engine 112, 113, 137	P16
AH20.00-P-1142-01GH	Notes on engine coolant level	Model 163 with engine 111, 112, 113	C17
AH20.00-N-2080-01A	Instructions re coolant		D17



J16 AH20.00-P-1142-01A	Notes on engine coolant level	Model 124, 129, 140, 168, 170, 202, 208, 210, 220, 463	
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Model 124: The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank.

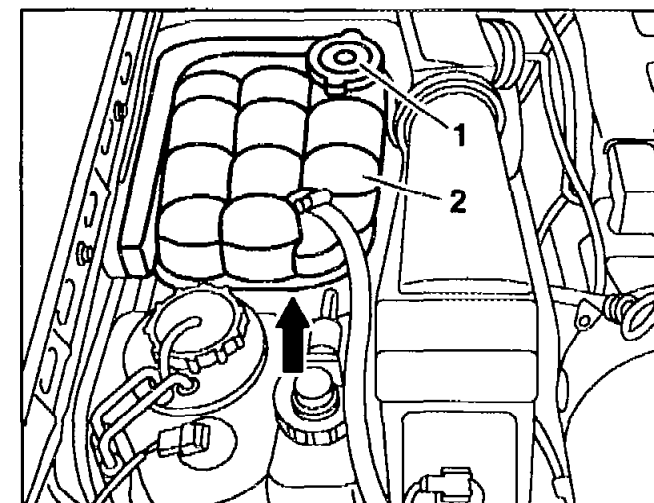
When coolant is warm: about 1 cm above this marking.



P20.00-0219-01

Model 129: The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank.

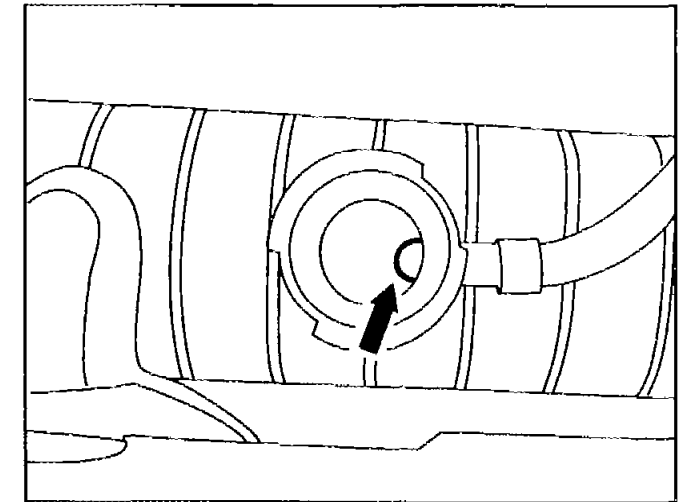
When coolant is warm: about 1 cm above this marking.



P20.00-0228-01



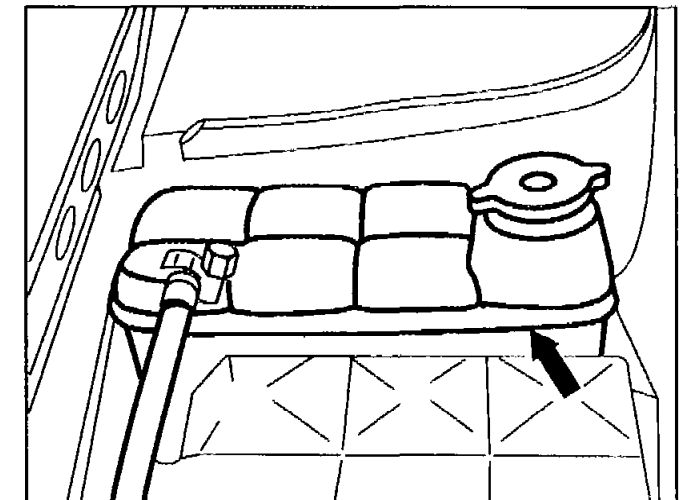
Model 202 with engine 111 without AC: The coolant level when the engine is cold must extend up to the marking (arrow) in the filler neck at the radiator.
When coolant is warm: about 1 cm above this marking.



P20.00-0220-01

**Model 202 with engine 111 with AC, engines 104, 112, 604, 605, 611:
model 463 with engine 606.964:
model 208 with engine 111:**

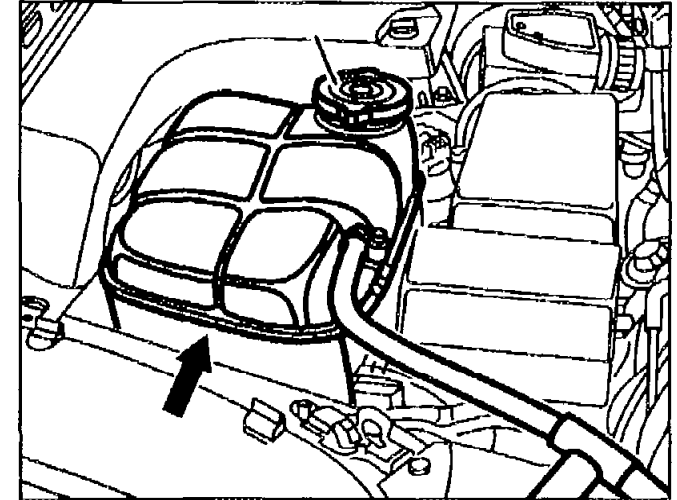
The coolant level must extend up to the separating surface between the top part and bottom part (transparent) of the coolant expansion reservoir (arrow).
When coolant is warm: about 1 cm above this marking.



P20.00-0221-01

Model 140: The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank.

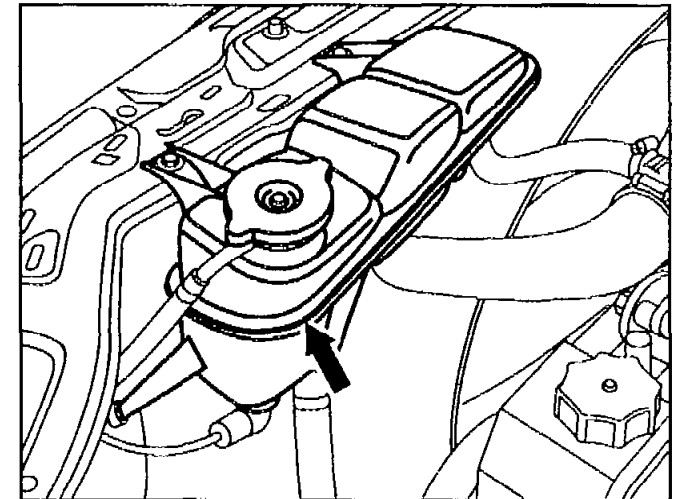
When coolant is warm: about 1 cm above this marking.



P20.00-0006-01

Model 170: The coolant level when the cooling system has been bled must extend up to the separation point between the top part of the reservoir (black) and the bottom part of the reservoir (transparent) (arrow) of the coolant expansion tank.

The float is positioned at the top of the coolant expansion tank.

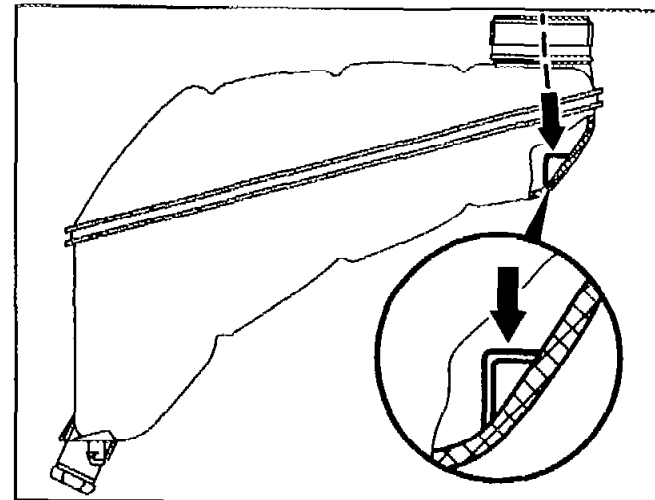


P20.00-0272-01



Model 210: The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank.

When coolant is warm: about 1 cm above this marking.

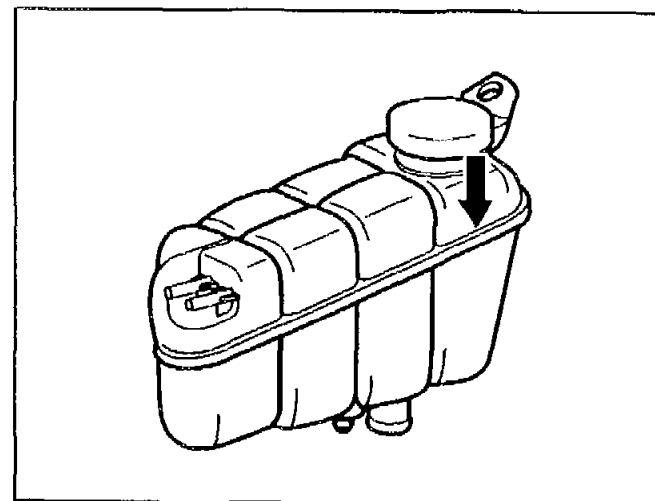


P20.00-0229-01

Model 220 with engine 613:

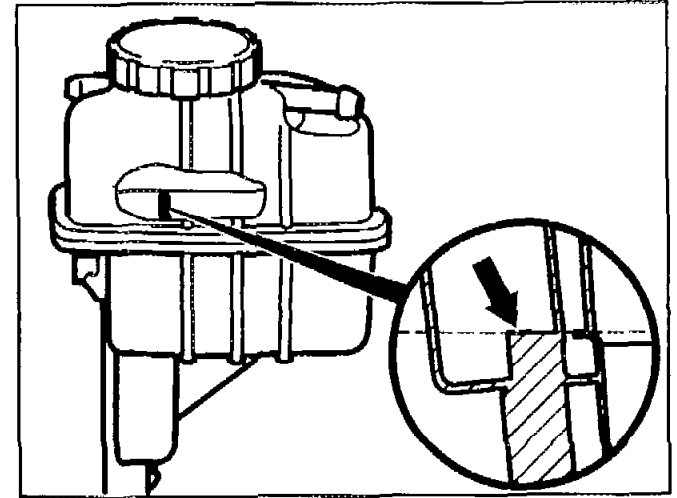
The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank.

When coolant is warm: about 1 cm above this marking.



P20.00-2015-01

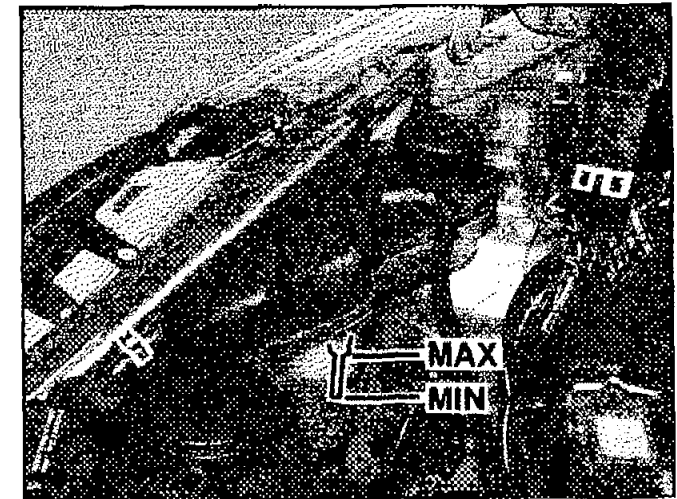
Model 168 with engine 166 up to approx. 5.99: The coolant level when the engine is cold must extend up to the marking (arrow) on the coolant expansion tank. When coolant is warm: about 1 cm above this marking.



P20.00-0386-01

Model 168 with engine 668: The coolant level when the engine is cold must extend up to the "MIN" marking on the coolant expansion tank.

i The marking is stamped on the coolant expansion tank as of approx. 6.99.



P20.30-2067-01



Model 168 with engine 166 as of approx. 6.99: The coolant level when the engine is cold must extend up to the "MIN" marking on the coolant expansion tank



P20.30-2067-01

**P16**

AH20.00-P-1142-01V

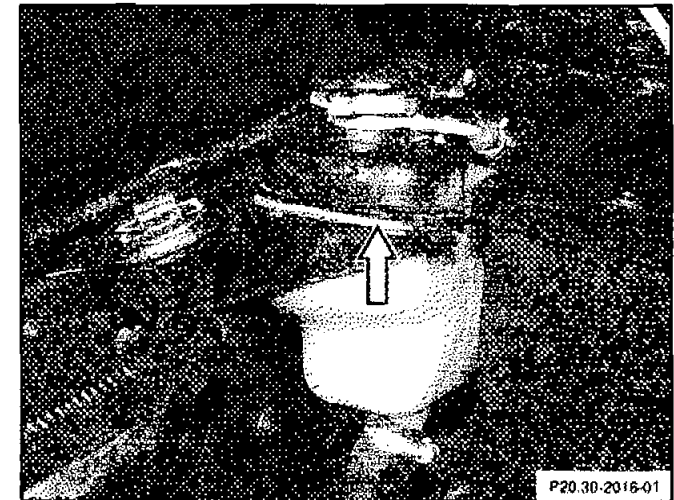
Notes on engine coolant level

Engine 112, 113, 137

**Model 463 with engine 112, 113:**

The coolant level should extend up to the marking (arrow) on the coolant expansion reservoir when the engine is cold.

When coolant warm: about 1 cm above this marking.



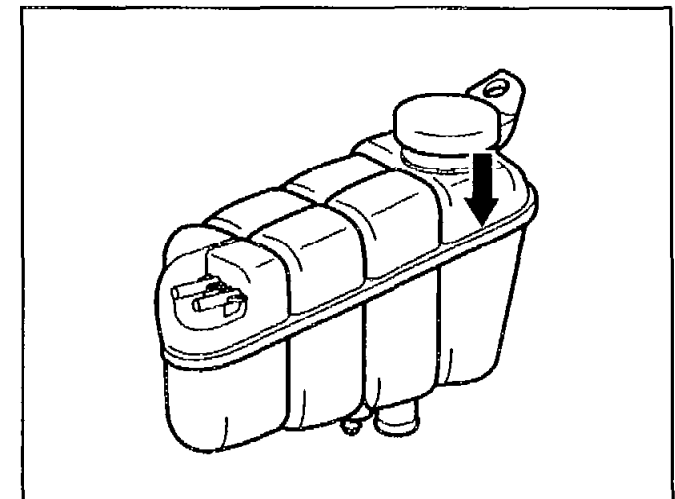
P20.30-2016-01

P20.30-2016-01

Model 215 with engine 113, 137:**Model 220 with engine 112, 113, 137:**

The coolant level should extend up to the marking (arrow) on the coolant expansion reservoir when the engine is cold.

When coolant warm: about 1 cm above this marking.

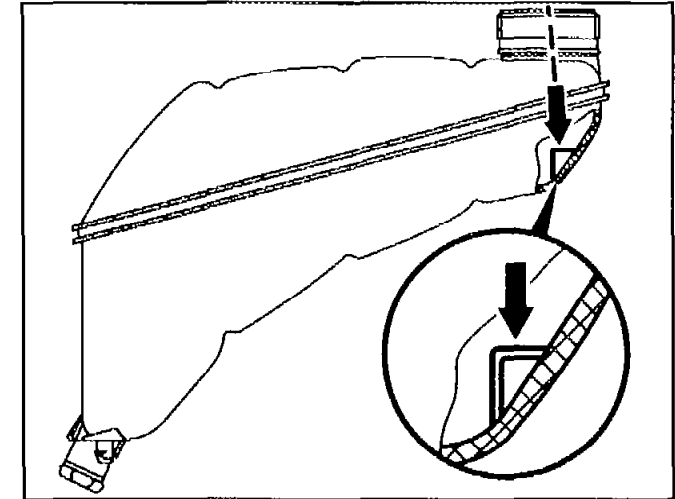


P20.00-2015-01

**Model 210 with engine 112, 113:**

The coolant level should extend up to the marking (arrow) on the coolant expansion reservoir when the engine is cold.

When coolant warm: about 1 cm above this marking.

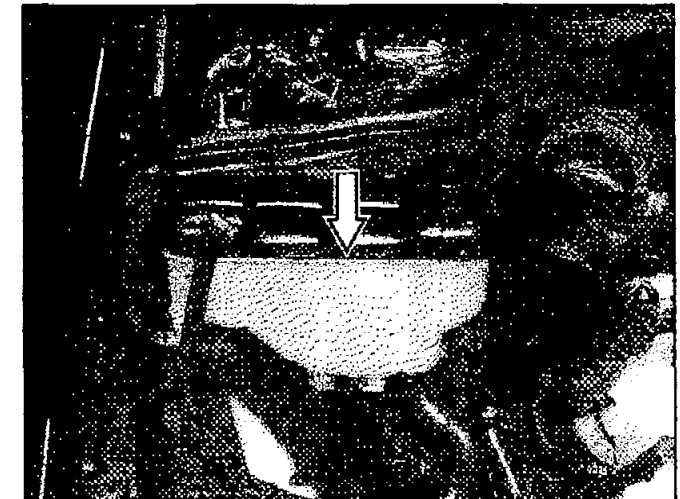


P20.00-0229-01

Model 202, 208 with engine 112, 113:

The coolant level should extend up to the marking (arrow) on the coolant expansion reservoir when the engine is cold.

When coolant warm: about 1 cm above this marking.

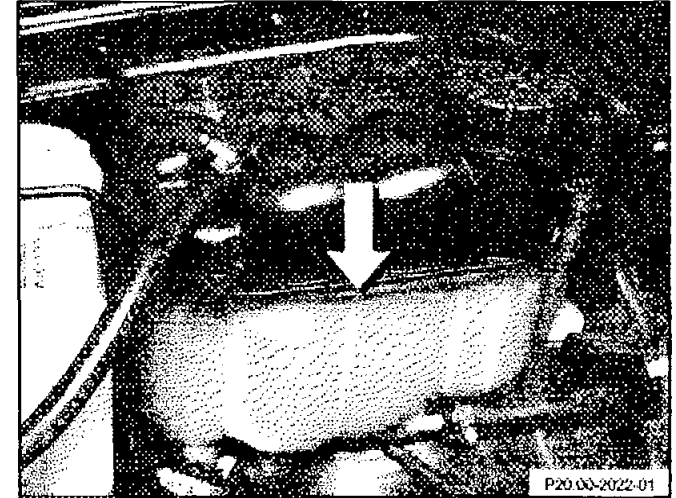


P20.30-2008-01

**Model 129 with engine 112, 113:**

The coolant level should extend up to the marking (arrow) on the coolant expansion reservoir when the engine is cold.

When coolant warm: about 1 cm above this marking.



P20.00-2022-01

**C17**

AH20.00-P-1142-01GH

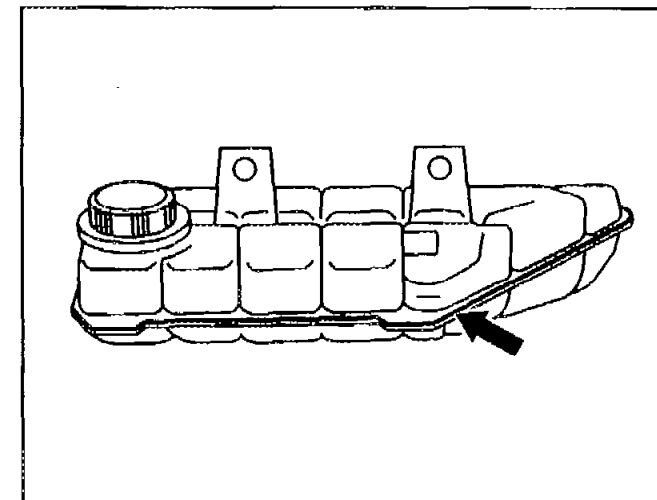
Notes on engine coolant level

Model 163 with engine 111, 112, 113



When the engine is cold the coolant should reach the mark (arrow) on the coolant expansion reservoir.

When coolant is hot: approx. 1 cm above this mark.



P20.00-0393-01

**D17**

AH20.00-N-2080-01A

Instructions re coolant

Coolant composition

Passenger car and commercial vehicle engine (normal case):

50 % by volume water and

50 % by volume anticorrosion/antifreeze agent.

See **MB Specifications for Service Products** for differing coolant composition for commercial vehicle engines.

Purposes of anticorrosion/antifreeze agent

- Corrosion and cavitation protection for all components in the cooling system
- Antifreeze protection
- Increasing boiling point so that the coolant does not evaporate so rapidly. Ejection of coolant is avoided at high coolant temperatures.

Antifreeze protection

50 % by volume of anticorrosion/antifreeze concentration offers antifreeze protection down to approx. -37°C .

A higher concentration is only practical at even lower ambient temperatures.

55 % by volume of anticorrosion/antifreeze concentration offers antifreeze protection down to approx. -45°C .

ⓘ A concentration of anticorrosion/antifreeze agent higher than 55 % by volume should not be used as the maximum antifreeze protection is thus reached. An even higher concentration again reduces the antifreeze protection and impairs heat dissipation.

Water

Use water which is clean and not too hard. Drinking water frequently, but not always, satisfies the requirements. The contents of dissolved substances in the water can be of importance for the occurrence of corrosion. In cases of doubt, analyze the water. See **MB Specifications for Service Products** for fresh water regulations.

Operation of monitoring of coolant

Inspect coolant for resistance to low temperatures before the start of the cold season of the year.

In countries with high ambient temperatures, inspect the anticorrosion/antifreeze concentration once a year.

The corrosion protection in the coolant is reduced during operation. Such coolants have a severely corrosive effect. The maximum permissible period of use of the coolant is for passenger car and commercial vehicle engines (normal case) **3 years**.

See **MB Specifications for Service Products** for the period of use for differing coolant composition for commercial vehicle engines.



ⓘ Before pouring fresh coolant into the system, flush the used coolant out of the cooling system. Clean cooling system if severe soiling or oil contamination exist.

Disposing of coolants

Observe legal regulations and local wastewater regulations.

For workshops located in the Federal Republic of Germany see:

*“Umweltschutz-Handbuch für Kfz-Reparaturbetriebe”
(Environmental protection manual for vehicle repair
workshops)*

Publisher: Verband der Automobilindustrie e.V. (VDA)
D-60625 Frankfurt am Main, Westendstraße 61