MIESSLER AUTOMOTIVE
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This is a general note on the topic of closed-loop systems.

The compressor in this vehicle differs from a conventional compressed air supply in that it does not transport the released compressed air to the outside.
Therefore, the system that uses this type of compressor is also called a "closed-loop system."
If there are no leaks in the air suspension's pressure system, this system operates solely by "pushing" the air back and forth.
And since, theoretically, no air needs to be drawn in from the outside, the system can be filled entirely with nitrogen instead of ambient air.

For some car manufacturers, such as Porsche and VW, this is a clear requirement to fill the system exclusively with nitrogen.
Because if this option exists, it should be used correctly.
Even though bleeding and refilling the system requires some effort, it offers far more advantages in the long run.
No moisture – pure nitrogen is completely dry.
This prevents corrosion in the system and the freezing of condensation in frosty conditions.
Constant behavior – Expansion during temperature fluctuations is less than with normal ambient air.
No oxygen – Prevents oxidative aging processes on the rubber bellows and seals from the inside.

In all vehicles equipped with this type of compressor,
when the vehicle's ride height is lowered, the nitrogen or air mixture is pumped directly back into a compressed air reservoir via the compressor.
Thus, this compressor doesn't just pump compressed air into the air springs/air struts,
but it also pumps the compressed air from the air springs/air struts into the pressure vessel/reservoir.
This is because the pressure in the compressed air reservoir is approximately 10 bar higher than in the air springs.

Pressure vessel/pressure equalization tank/reservoir or tank?!: The correct term is overpressure vessel/reservoir/tank.
Only because this "tank" always has significantly higher pressure than the air springs
can an air suspension system react quickly enough to the upward height changes requested by the control unit.
Incidentally, it's important to remember that the control unit depends on information from
the height sensors, which, of course, must also be functioning correctly.

Generally speaking, regarding "closed-loop" systems:
Advantages:
No constant intake and drying (compressor dryer) of fresh air is necessary – thus reducing the load on the compressor in terms of moisture absorption.
Moisture that builds up in a normal air suspension system over the years often leads to complete blockage
by ice formation at various points in the system during periods of frost.
Furthermore, the moisture corrodes all materials susceptible to corrosion – rust, which also often clogs nozzles in valves.
And even the rubber and plastic components suffer further from material fatigue, loss of strength, and seal failure with each passing year.

Keep in mind that the air drawn into a normal system is often a mixture of road grime and moisture.

When using nitrogen in a closed-loop system, it's worth noting that all materials that come into contact with compressed air,
i.e., pressurized nitrogen, last significantly longer than with normal ambient air.

Disadvantages: Increased complexity during repairs due to the special diagnostic and filling procedures.

One last thing: If an air suspension system malfunctions due to air loss,
the entire system must be checked for leaks after replacing one or more components. It's called "closed-loop" for a reason!