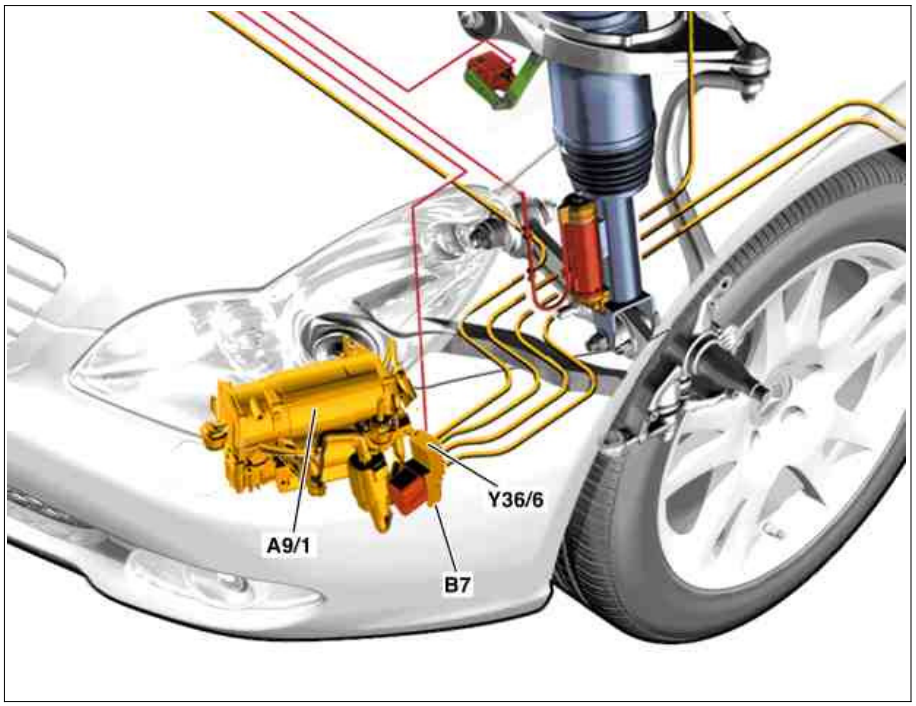
MODEL 219.3 with CODE (489) Airmatic (semi-active air suspension)

A9/1 *AIRmatic compressor unit*
B7 *AIRmatic pressure sensor*
Y36/6 *AIRmatic central reservoir charge valve*



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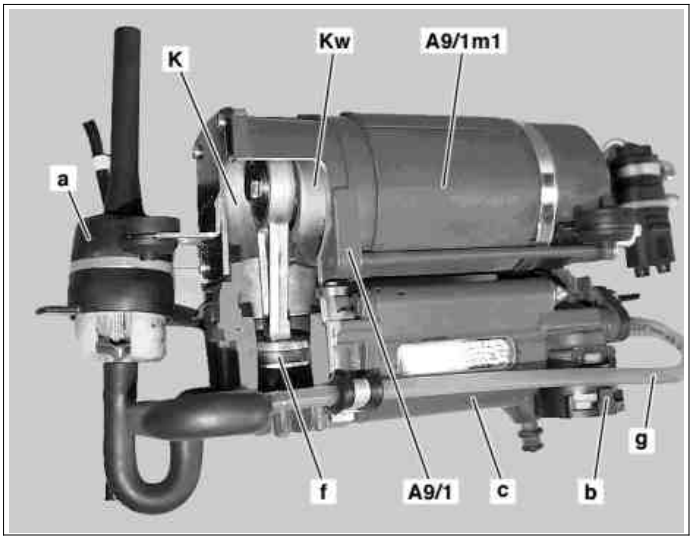
Design

A *Air filter*
B *Pressure relief valve/residual pressure valve*
C *Air drier*
F *Pistons*
G *Pressure reduction line*
K *Crankcase*
SW *Crankshaft*
A9/1 *AIRmatic compressor unit*
A9/1m1 *Air compressor motor (electric motor)*



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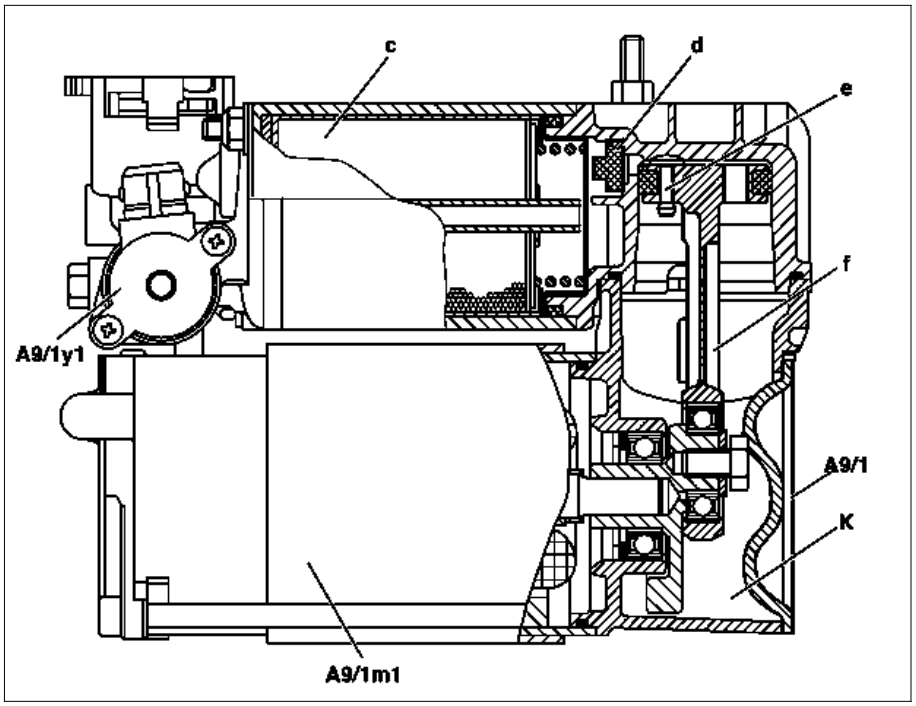
The primary elements in the AIRmatic compressor unit (A9/1) include the air compressor motor (A9/1m1) and the compressor consisting of the crankcase (K), crankshaft (Kw), connecting rod and pistons running in the cylinder (f).Other components are the pressure reduction valve, the pressure relief valve/residual pressure valve (b) and the air drier (c).

The air filter (a) connected with a hose to the AIRmatic compressor unit is located outside the AIRmatic compressor unit. Via the pressure reduction valve (g) the air released when lowering the vehicle is led back to the air cleaner (a) where it then reaches the atmosphere again backwards through the air cleaner.
The AIRmatic compressor unit is flexibly mounted on a bracket

Function

A9/1	*AIRmatic compressor unit*
A9/1y1	*AIRmatic pressure reduction valve*
A9/1m1	*Air compressor motor*
C	*Air drier*
D	*Outlet valve*
E	*Inlet valve*
F	*Pistons*
K	*Crankcase*



P32.22-2288-06

The air compressor is designed as a dry rotor and is driven electrically by the air compressor motor.The air compressor motor is supplied with power via the AIRmatic relay (K67).The air to be compressed is drawn out of the vehicle longitudinal member via an air cleaner into the crankcase (K) under the piston. During the downward movement of the piston (f) it reaches the clearance volume through the intake valve (e) in the piston crown. During the upwards movement of the piston (f) the intake valve (e) closes and the air is compressed. The compressed air is forced on via the outlet valve (d) into the air drier (c).

The silicate filling of the air drier (c) removes the moisture from the air. The air which is now dehumidified and compressed passes straight from the air drier (c) to the AIRmatic central reservoir or the suspension struts via the AIRmatic central reservoir charge valve (36/6) (see picture of location) as required.

The AIRmatic pressure release valve (A9/1y1) installed in the compressor unit is required for discharging air when lowering the vehicle.The discharged air is conducted through the air cleaner back into the atmosphere. This also cleans the filter.

The air drier (c) is maintenance free. The moisture is delivered back into the air when reducing the pressure.