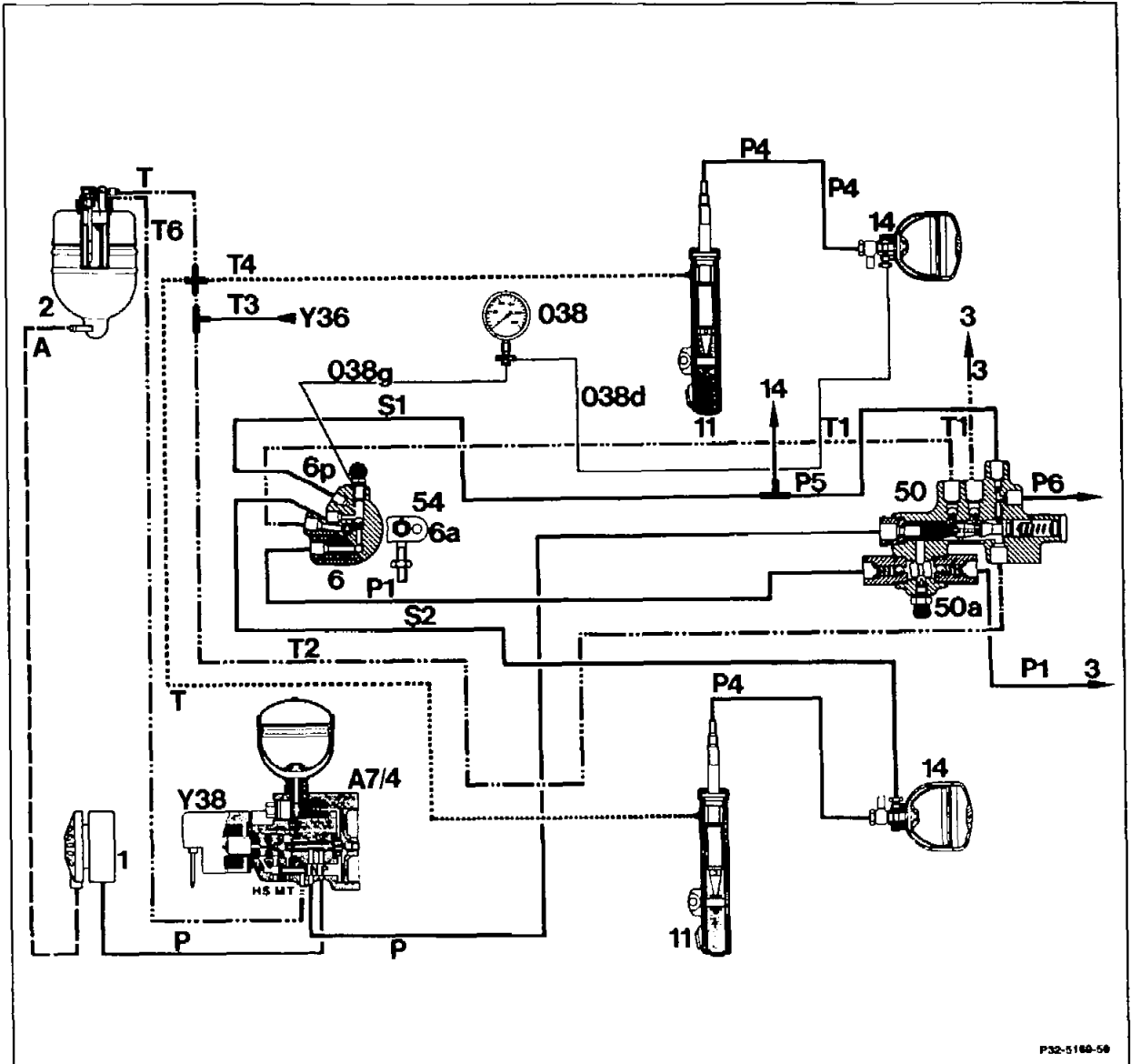


32-0520 Testing spring actuators on front and rear axles

Operation no. of operation texts and work units or standard texts and flat rates:
32-0765

A. Front axle (models 201.034/035/036 only)



- | | |
|--------------------------------------|---|
| Control rod (54) | Disconnect, connect at torsion bar lever; replace self-locking hexagon nut, 10 Nm (steps 1 and 18). |
| Lever (6a) on level controller | Move to "emptying" position (step 2). |

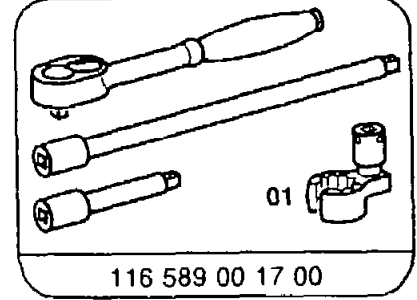
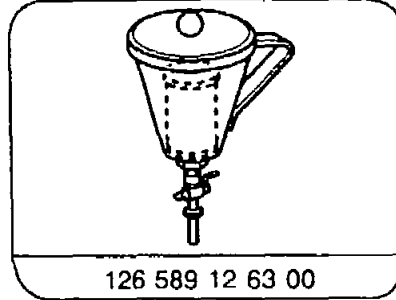
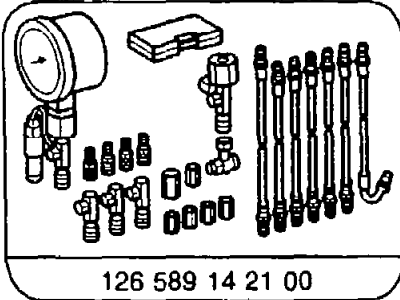
Oil drain hose	Connect, disconnect at oil drain plug (6p) on level controller (6) (step 3).
Oil drain plug (6p)	Open slowly, release pressure and collect the oil in a clean container. Then unscrew oil drain plug (steps 4 and 5).
Pressure tester (038)	Connect to level controller with test hose (038g) (step 6).
Pressure lines (S1 and S2)	Disconnect, connect at left and right spring actuators (14) using open box wrench 116 589 00 17 00, 14 Nm. Seal off using coupling and bleed screw (step 7).
	Testing right-hand spring actuator
Pressure tester (038)	Connect to right spring actuator (14) with test hose (038d) (step 8).
Engine	start, switch off (step 9)
Lever (6a) on level controller	Move to "filling" position. The needle on the pressure tester 126 589 14 21 00 must rise suddenly to a minimum value of 15 bar, or to 23 ± 1 bar for new spring actuators (step 10). Then move lever (6a) on level controller to "emptying" position (step 11).
Oil drain hose	Connect, disconnect at bleed screw (step 12).
Bleed screw on pressure tester (038)	Open slowly, release pressure and collect the oil in a clean container. Then retighten bleed screw (step 13).
	Note
	The test procedure is identical for both spring actuators.
Pressure oil system	Fill (32-0630).
Oil level in oil reservoir (2)	Check and top up if necessary with hydraulic oil (see Service Products table) using funnel 126 589 12 63 00 (step 19).

Service products

Hydraulic oil

See MB Specifications for Service Products,
sheet 343
(1.0-liter can, part no. 000 989 91 03/10)/10)

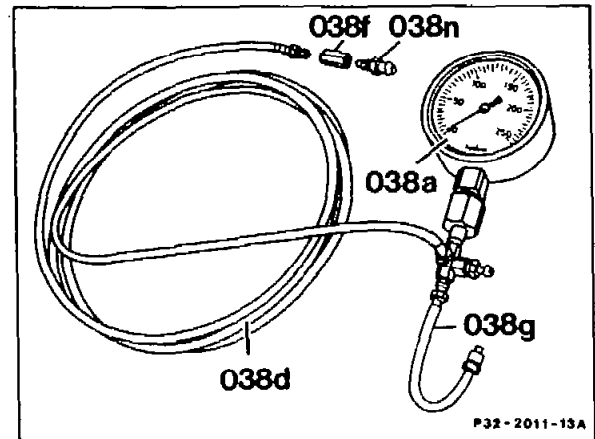
Special tools



Note

The following parts of the tester are required for the test work:

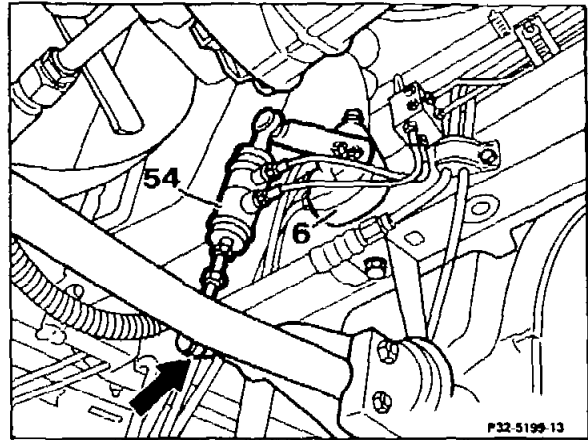
Pressure tester with connector and union nut with sealing ring (038a), test hoses (038d) and (038g), bleed screws (038n) and 2 couplings (038f).



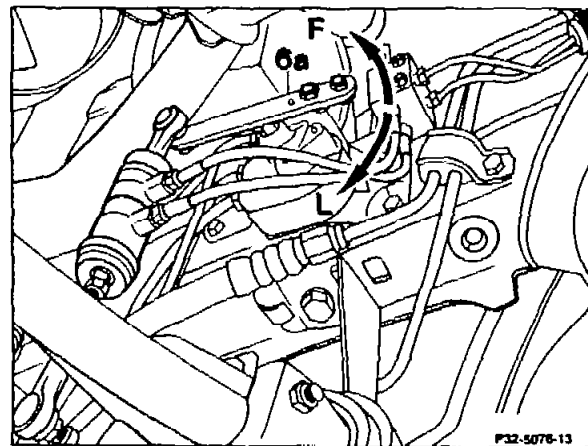
Insufficient gas pressure results in an abnormal pressure increase during spring deflection. This will be noticed by a stiffening of the suspension and may under certain circumstances lead to damage to the suspension elements.

Furthermore, a stiffer suspension may cause the damping force of the spring strut to become too low, resulting in a trend towards increased vehicle roll or increasing instability of the vehicle in alternating bends.

1 Disconnect control rod (54) at torsion bar lever (arrow).

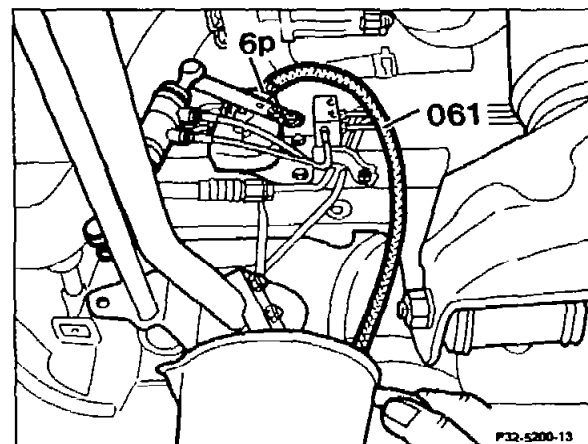


2 Move lever (6a) of level controller to "emptying".



F Filling position
L Emptying position

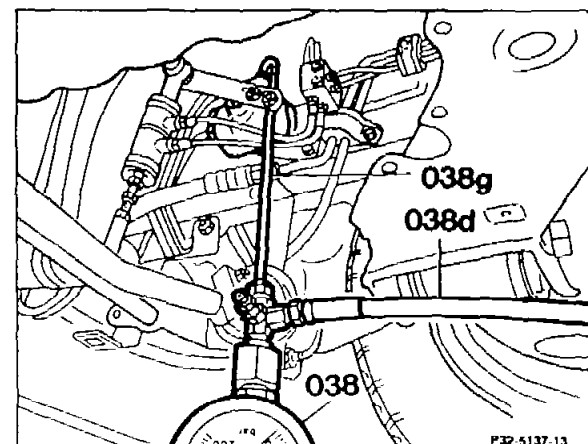
3 Connect oil drain hose (061) to oil drain plug (6p) on level controller.



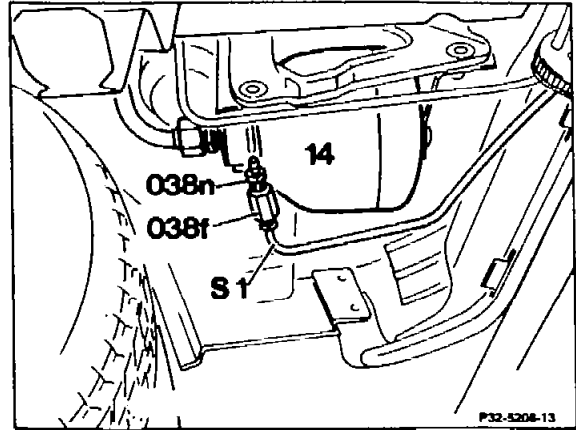
4 Slowly open oil drain plug (6p) and release pressure. Collect the oil in a clean container.

5 Unscrew oil drain plug (6p) on level controller.

6 Connect pressure tester (038) with test hose (038g) to level controller.

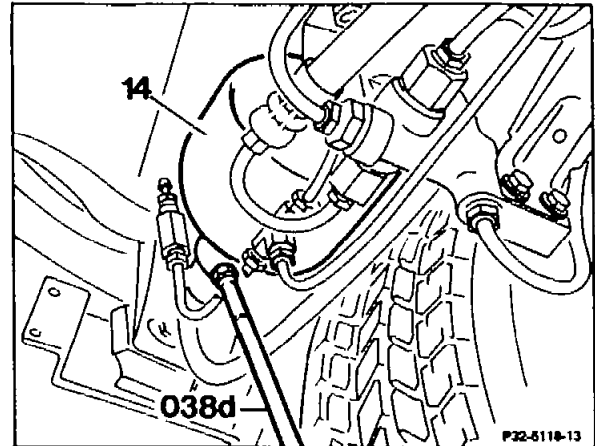


7 Disconnect pressure lines (S1 and S2) on right-hand and left-hand spring actuators (14) using an open box wrench. Seal off each pressure line with coupling (038f) and bleed screw (038n).



Testing right-hand spring actuator

8 Connect test hose (038d) of pressure tester to right-hand spring actuator (14).

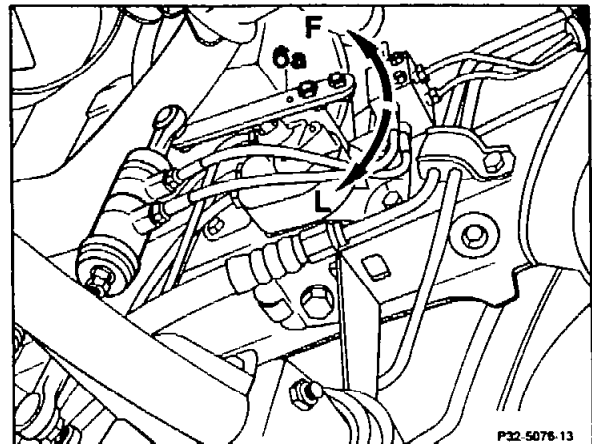


9 Start engine and run at idle.

10 Move lever (6a) of level controller to "filling", while watching the needle of the pressure gauge.

Nominal value:

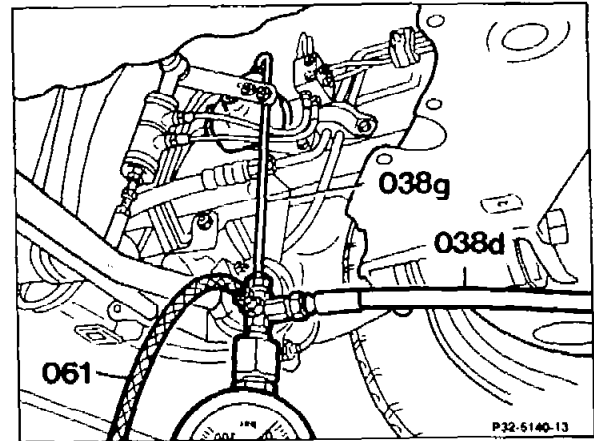
The gas pressure of the spring actuator is indicated when the needle of the pressure gauge rises immediately to a pressure of 15 bar, or to 23 ± 1 bar when the spring actuator is new. This sudden rise is caused by the oil pressure, if the oil pressure exceeds the gas pressure.



11 Move lever (6a) of level controller to "emptying" and switch off engine.

12 Connect oil drain hose (061) to bleed screw.

13 Slowly open bleed screw and release pressure. Collect the oil in a clean container, then close the bleed screw.



Testing left-hand spring actuator

14 Connect test hose to left-hand spring actuator and repeat steps 8 to 13.

15 Disconnect pressure tester. Screw oil drain plug into level controller. Connect pressure lines to spring actuators using an open box wrench, 14 Nm.

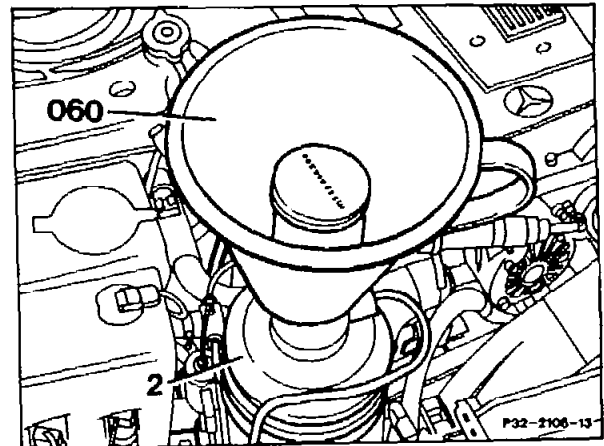
16 Pour collected oil into oil reservoir (2) through the funnel with filter (060).

Note

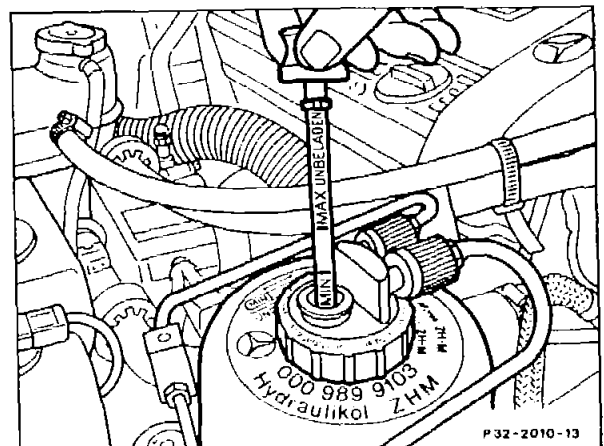
Only re-use oil if it is clean.

17 Fill pressure oil system (32-0630).

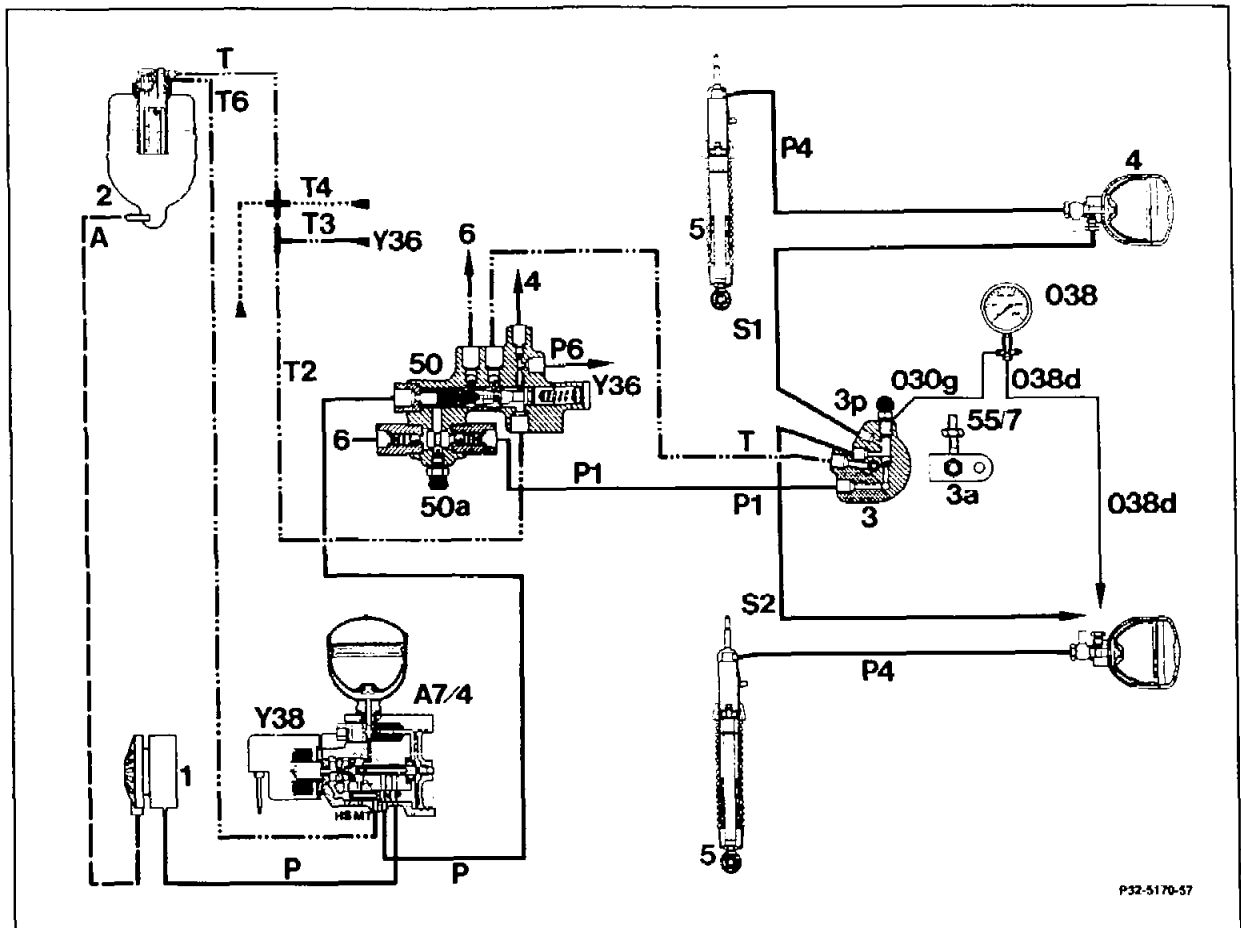
18 Connect control rod to torsion bar lever using new self-locking hexagon nut, 10 Nm.



19 Check oil level in oil reservoir (2) with engine stopped and correct if necessary. The oil level in the ready-to-drive condition should be between the "max" and "min" markings.



B. Rear axle (models 201.034/035/036 only)



P32-5170-57

- | | |
|---|--|
| Control rod/connecting rod (55/7) | Disconnect, connect at level controller (3); replace self-locking hexagon bolts and nut, 10 Nm (steps 1 and 18). |
| Lever (3a) on level controller | Move to "emptying" position (step 2). |
| Oil drain hose | Connect to oil drain plug (3p) on level controller (3) (step 3). |
| Oil drain plug (3p) | Open slowly, release pressure and collect the oil in a clean container. Then unscrew oil drain plug (steps 4 and 5). |
| Pressure tester (038) | Connect to level controller with test hose (038g) (step 6). |

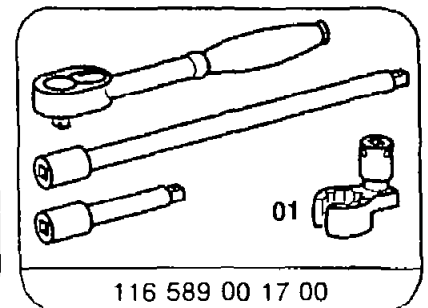
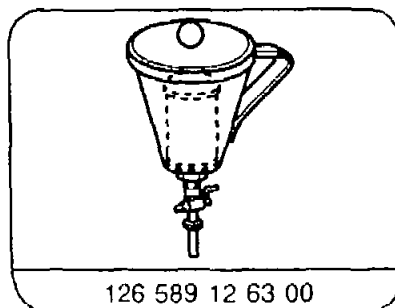
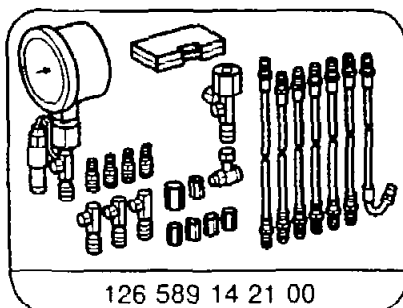
Pressure lines (S1 and S2)	Disconnect, connect at left and right spring actuators using open box wrench 116 589 00 17 00, 14 Nm. Seal off using coupling and bleed screw (step 7).
Pressure tester (038)	Testing right-hand spring actuator Connect to right spring actuator (4) with test hose (038d) (step 8).
Engine	Start, switch off (step 9).
Lever (3a) on level controller	Move to "filling" position. The needle on the pressure tester 126 589 14 21 00 must rise suddenly to a minimum value of 15 bar, or to 23 ± 1 bar for new spring actuators (step 10). Then move lever (3a) on level controller to "emptying" position (step 11).
Oil drain hose	Connect, disconnect at bleed screw.
Bleed screw on pressure tester (038)	Open slowly, release pressure and collect the oil in a clean container. Then close bleed screw (step 13).
	Note The test procedure is identical for both spring actuators.
Pressure oil system	Fill (32-0630).
Oil level in oil reservoir (2)	Check and top up if necessary with hydraulic oil (see Service Products table) using funnel 126 589 12 63 00 (step 19).

Service products

Hydraulic oil

See MB Specifications for Service Products, sheet 343
(1.0-liter can, part no. 000 989 91 03/10)

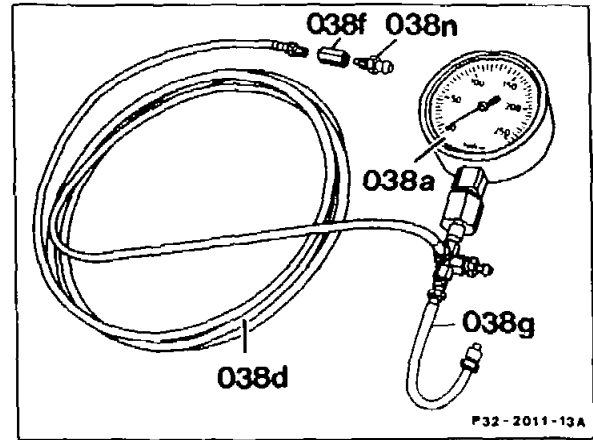
Special tools



Note

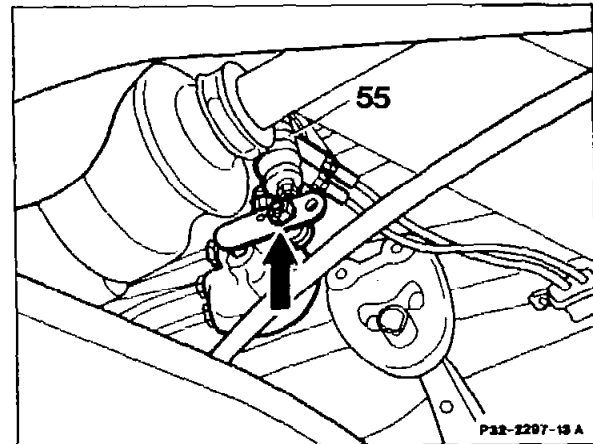
The following parts of the tester are required for the test work:

Pressure tester with connector and union nut with sealing ring (038a), test hoses (038d) and (038g), 2 bleed screws (038n) and 2 couplings (038f).



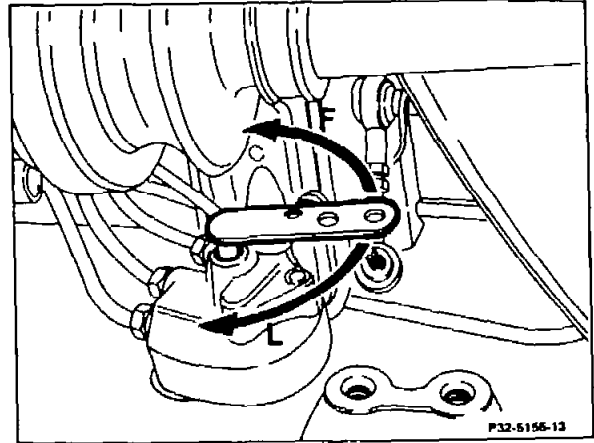
Insufficient gas pressure results in an abnormal pressure increase during spring deflection. This will be noticed by a stiffening of the suspension and may under certain circumstances lead to damage to the suspension elements. Furthermore, a stiffer suspension may cause the damping force of the spring strut to become too low, resulting in a trend towards increased vehicle roll or increasing instability of the vehicle in alternating bends.

- 1 Unscrew self-locking nut (arrow) and disconnect control rod (55).



2 Move lever of level controller to "emptying".

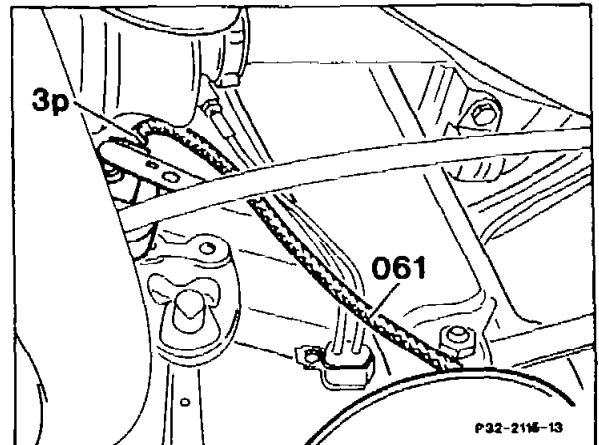
F Filling position
L Emptying position



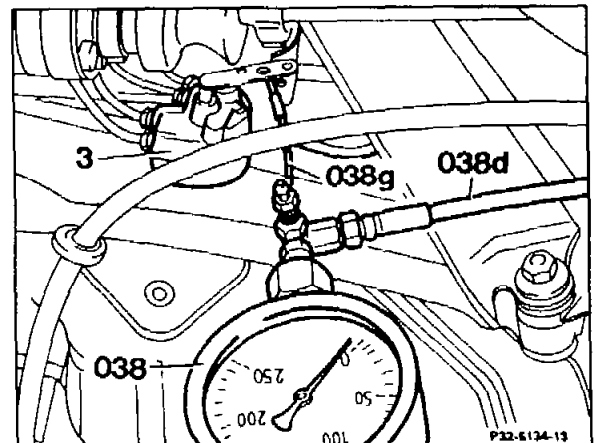
3 Connect oil drain hose (061) to oil drain plug (3p) on level controller.

4 Slowly open oil drain plug (3p) and release pressure. Collect the oil in a clean container.

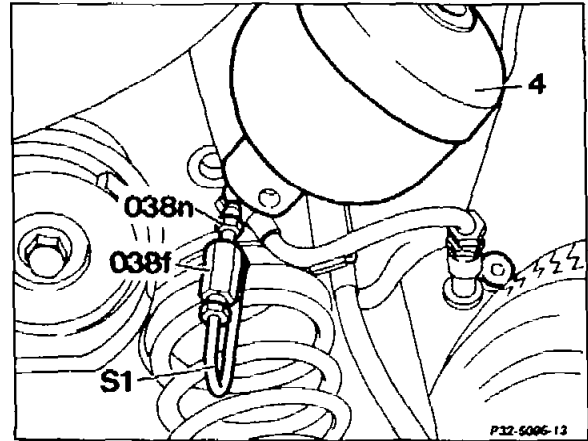
5 Unscrew oil drain plug (3p) on level controller.



6 Connect pressure tester (038) with test hose (038d) to level controller (3).

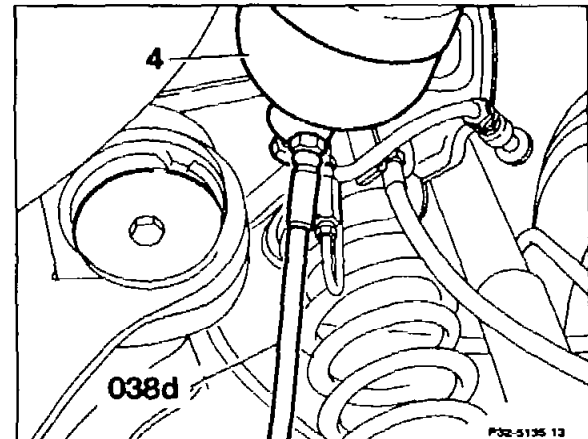


7 Disconnect pressure lines (S1 and S2) on right-hand and left-hand spring actuators (4) using an open box wrench. Seal off each pressure line with coupling (038f) and bleed screw (038n).



Testing right-hand spring actuator

8 Connect pressure tester with test hose (038d) to right-hand spring actuator (4).

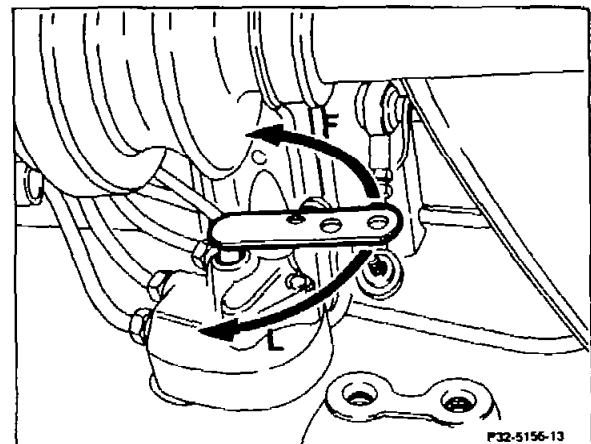


9 Start engine and run at idle.

10 Move lever (3a) of level controller to "filling", while watching the needle of the pressure gauge.

Nominal value:

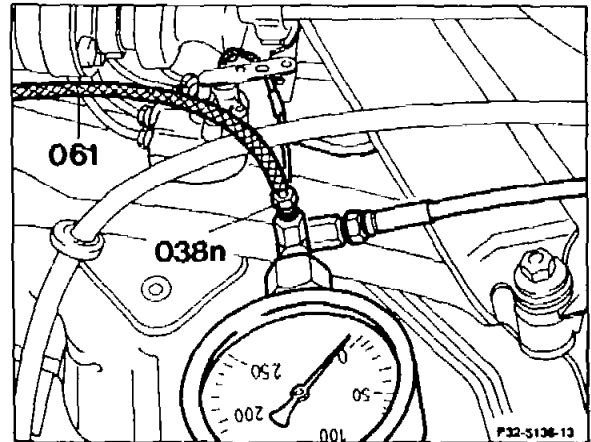
The gas pressure of the spring actuator is indicated when the needle of the pressure gauge rises immediately to a pressure of 15 bar, or to 23 ± 1 bar when the spring actuator is new. This sudden rise is caused by the oil pressure, if the oil pressure exceeds the gas pressure.



11 Move lever (3a) of level controller to "emptying" and switch off engine.

12 Connect oil drain hose (061) to bleed screw (038n).

13 Slowly open bleed screw (038n) and release pressure. Collect the oil in a clean container, then close the bleed screw.



Testing left-hand spring actuator

14 Connect test hose to left-hand spring actuator and repeat steps 8 to 13.

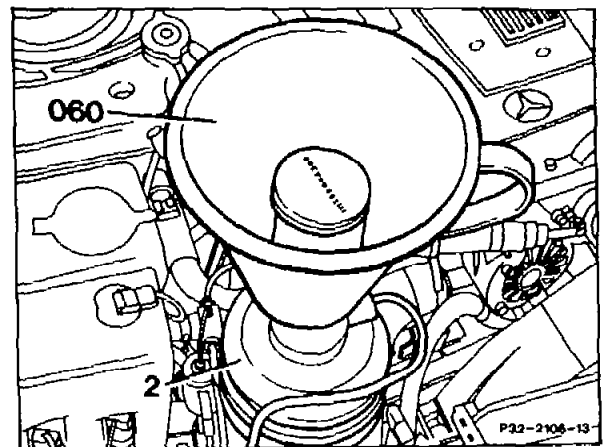
15 Disconnect pressure tester. Screw oil drain plug into level controller. Connect pressure lines to spring actuators using an open box wrench, 14 Nm.

16 Pour collected oil into oil reservoir (2) through the funnel (060).

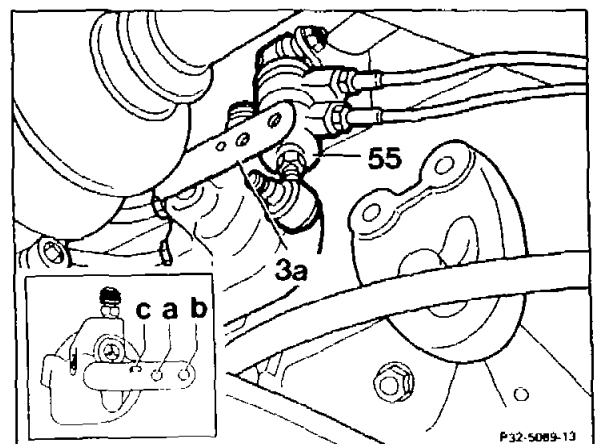
Note

Only re-use oil if it is clean.

17 Fill pressure oil system (32-0630).



18 Engage control rod (55) in bore "a" in lever (3a) and tighten new self-locking hexagon nut, 10 Nm.



19 Check oil level in oil reservoir with engine stopped and correct if necessary. The oil level in the ready-to-drive condition should be between the "max" and "min" markings.

