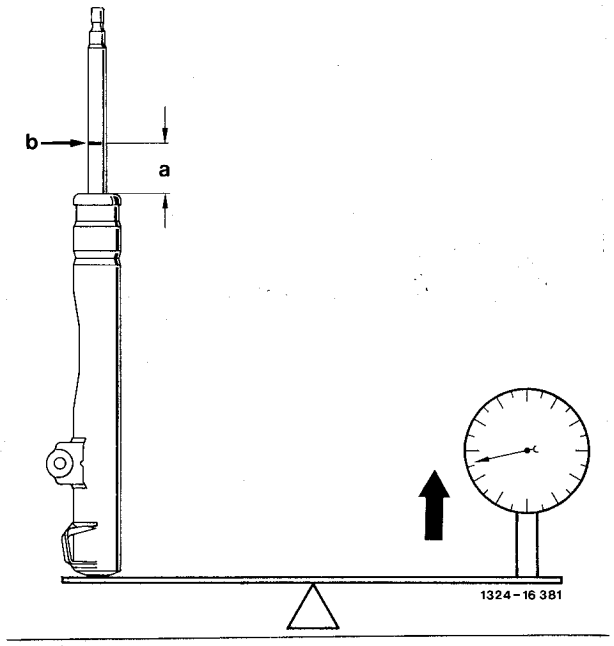


Visual check

Piston rod	check for surface damage and bending (items 1 and 2).

Checking oil reserve

Oil reserve	check via piston rod extension force (item 3).

Test procedure

Piston rod	press in at least 100 mm a number of times in the installation position (piston rod pointing upward) (item 4).
Dimension "a" = 84 mm	mark with felt tip pen or similar (item 5).
Shock absorber strut	place on scales and press piston rod in to test mark "b" (item 6 and table "Test values for shock absorber struts").

Scrapping shock absorber struts

Procedure	drill 5 mm hole in shock absorber strut in area of mounting bracket. ⚠ Observe items 7 – 10.

Test values for shock absorber struts

Check the oil reserve in the shock absorber strut [1]) gas extension force in N on piston rod including weight of shock absorber strut (piston rod pressed in to test dimension "a" = 84).	
Value for new struts	Minimum value
250 ± 30	140

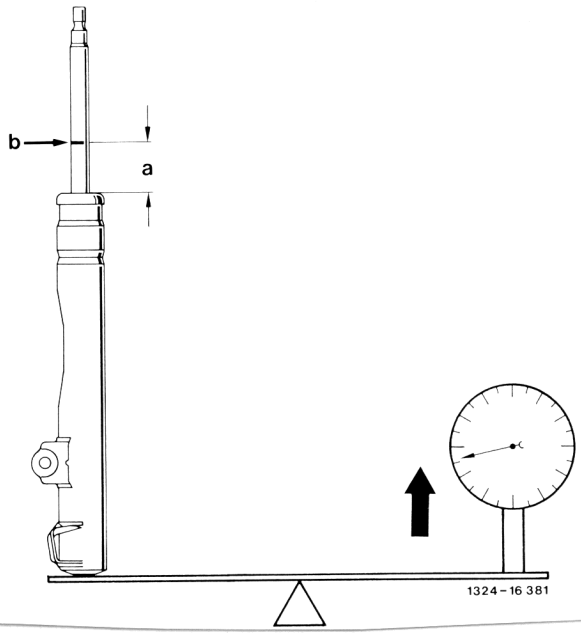
1) The temperature of the shock absorber strut should be approx. 20 °C for measuring the oil reserve.

Note

Testing and evaluation of the shock absorber struts should always be based on the version.

The shock absorber strut is designed as a twin-tube gas pressure shock absorber without separating piston (installation position with piston rod pointing upward).

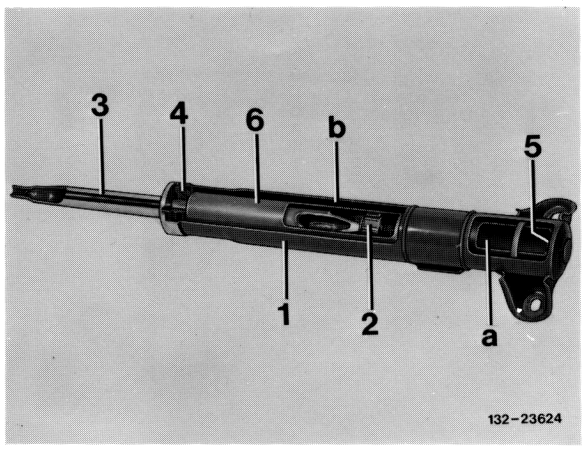
On the shock absorbers for the rear the oil and gas chambers are separated by a separating piston.



a Interval for test mark

b Test mark on piston rod (mark on piston rod with felt tip pen or similar before testing)

⚠ Do not damage piston rod



1 Shock absorber strut tube
2 Working piston
3 Piston rod
4 Seal assembly with piston rod seal and piston rod guide
5 Bottom valve
6 Working cylinder
a Working chamber
b Compensation chamber

Visual check

1 Carefully check piston rod for surface damage.

2 Check whether piston rod is bent. A bent piston rod can be indicated by the fact that it sticks when pushed into the guide bushing.

Note

The piston rod is designed to have a slight oil film for lubrication of the piston guide located outside of the piston rod seal.

Checking the oil reserve

3 The oil reserve can be determined by checking the extension force of the piston rod with the shock absorber strut in the installation position. The temperature of the shock absorber strut should be approx. 20 °C for checking the oil reserve.

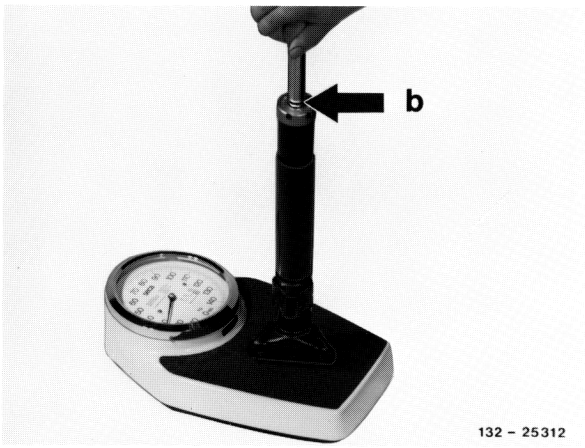
Scales with a range of 0 – 40 kg (for material or humans) are required for this test.

Test procedure

4 Before evaluating, press the piston rod in at least 100 mm a number of times in the installation position (piston rod pointing upward). The shock absorber strut can then be evaluated when a hissing noise is no longer audible when the piston rod is pressed in.

5 Mark the interval "a" = 84 mm on the piston rod with a felt tip pen or similar.

6 Place shock absorber strut on scales and press piston rod in up to test mark "b".



After a short settling time read off the value on the scales and compare with the value in the table. (The weight of the shock absorber is included in the table values.)

Note
When comparing with the table value, multiply the value read off on the scales by ten.

In the event of a gas or oil leak the extension force of the piston rod is reduced. If the value is less than the minimum value, the shock absorber can no longer function properly and should be replaced.

⚠
Shock absorbers can be replaced individually regardless of the brand for repair. It is only necessary to ensure that the shock absorber versions correspond in terms of the color code, e.g. one red longitudinal strip or two red longitudinal stripes.

Scrapping shock absorbers
When scrapping shock absorbers observe all applicable safety regulations.

To release the pressure carefully drill a 5 mm hole in the shock absorber tube until gas exits.

Wear protective goggles and gloves when performing this work as an accident prevention measure against exiting gas and protection against drilling chips. When drilling the hole exert a minimum of pressure on the bit.

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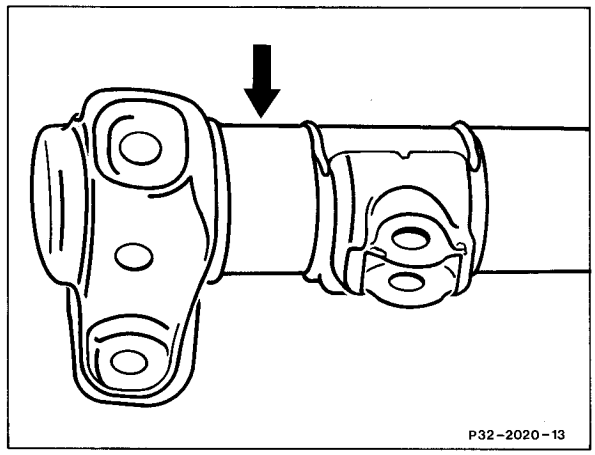
Procedure

7 Clamp shock absorber strut into machine vice on drill press.

8 Drill 5 mm hole in shock absorber strut in area of mounting brackets (arrow).

9 Unclamp the shock absorber strut after the gas has escaped.

10 Press in the piston rod a number of times to pump the shock absorber strut until it is empty.



Note

Oil filling depending on version: 250 – 500 cm^3.