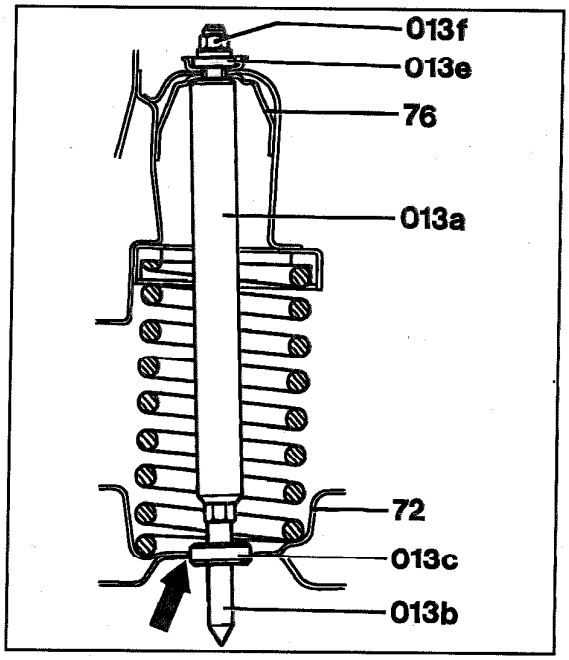
32–126 Checking alignment of rear shock absorbers

Preliminary work:
R and R rear shock absorbers (32–110).



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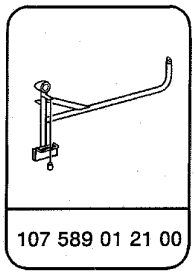
Vehicle rear end	load until specified vehicle level is reached.
Testing and straightening tool (013) (special tool 123 589 05 21 00)	attach to upper mounting point for shock absorber or spring strut. Check alignment based on the distance from the semi-trailing arm (72) around the test sleeve (13c) and compare values measured with table.
In event of deviations outside of tolerance.	remove test sleeve and correct with testing and straightening pin.

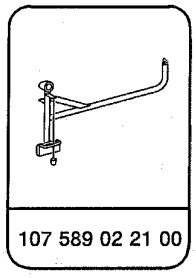
Test values:

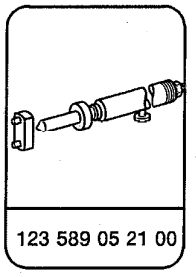
Shock absorber alignment on rear axle

Model	Vehicle level at rear axle	Permissible alignment deviation
126.02	+12 ± 5 mm	5 mm
126.032/033/034/035		
126.043/46		
126.12		
126.13		
126.036/037/038/039	+105 ± 5 mm	
126.044/045		

Special tools


107 589 01 21 00


107 589 02 21 00


123 589 05 21 00

Note

Extremely high deviation in the alignment of the shock absorber mounting points can lead to excessive shock absorber or spring strut wear resulting in rumbling noises and leakage at the piston rod seal. In extreme cases this can even negatively affect the driving comfort (suspension harder due to increased friction).

For this reason it is necessary to check and, if necessary, correct the shock absorber alignment following straightening and repair work on the affected rear end frame parts. The shock absorbers can be checked for proper alignment with the axle installed with the vehicle in the **design position.**

32-126 Checking alignment of rear shock absorbers

The previous testing and straightening tool for checking the shock absorber alignment on the rear axle, part no. 107 589 00 21 00 has been replaced by the new testing and straightening tool 123 589 05 21 00 which can be used for both the front and rear axles.

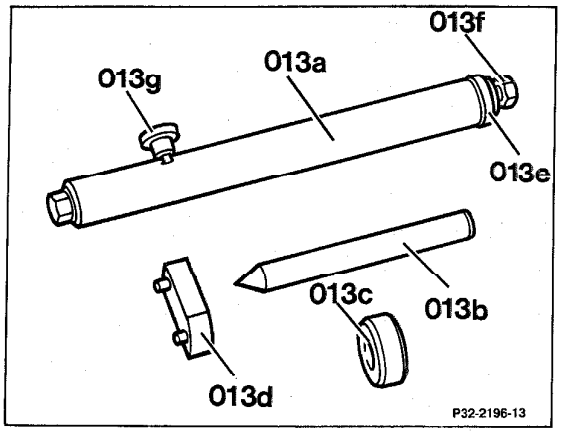
⚠ CAUTION!

When removing the shock absorbers with the vehicle jacked up and load relieved on the suspension ensure that the piston rod does not turn while loosening the top mount. Since the extension stop in the shock absorber is against the operating piston in this state, the connection between the operating piston and piston rod could loosen. This would result in sudden extension of the piston rod and expulsion of the oil in the shock absorber.

Checking

1 Load rear end of vehicle until specified vehicle level is reached.

2 Fasten testing and straightening tool to top mounting point for shock absorber after removing arresting screw (013g).



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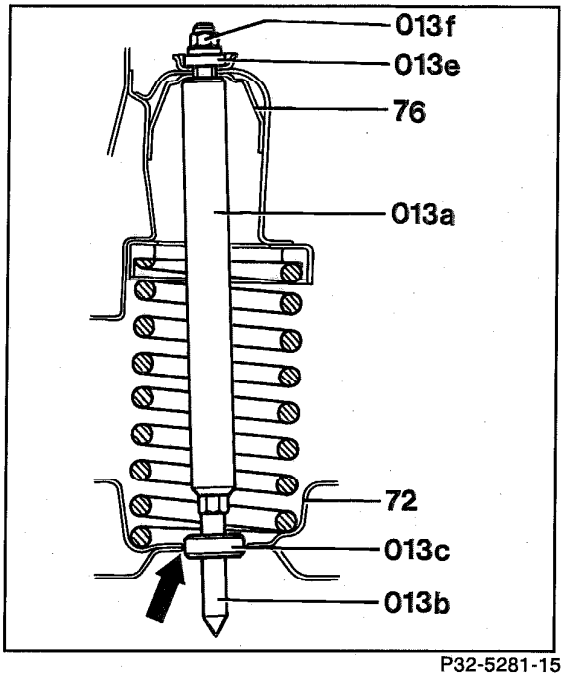
013 Testing and straightening tool
013a Straightening bolt
013b Testing and straightening pin
013c Test sleeve
013d Test plate
013e Washer
013f Hex. nut
013g Arresting screw

3 Check alignment with test sleeve (013c). When the gap between the semi-trailing arm and test sleeve (see arrow) is the same all the way around, this indicates a deviation of 0 mm. To correct remove test sleeve and use testing and straightening pin.



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013 Testing and straightening tool
013a Straightening bolt
013b Testing and straightening pin
013c Test sleeve
013e Washer
013f Hex. nut
72 Semi-trailing arm
76 Dome on frame floor