

32–100 Removal and installation of front shock absorber

Data

Upper shock absorber suspension

Part	Part No.	Height	Length	OD	Rubber hardness °Shore
Rubber rings top and bottom	180 326 01 68	19	—	40	57 ± 5
Protective tube ¹⁾	115 323 04 38	4	240	—	—

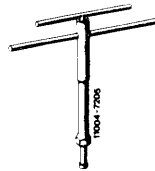
¹⁾ Only for gas pressure shock absorbers with separating piston.

Tightening torques

	Nm
Hex. nuts of lower shock absorber suspension	25
Hex. nuts of upper shock absorber suspension	tighten up to end of thread

Special tool

Socket wrench 5 mm for
fastening shock absorber



107 589 00 09 00

Note

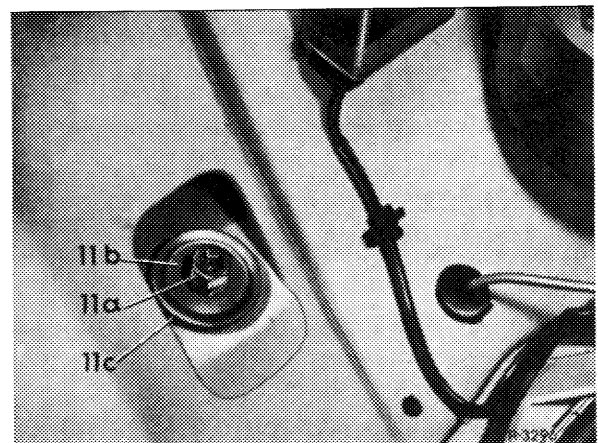
The front shock absorbers also serve as a deflection stop for the front wheels. For this reason, detach shock absorber suspension only when the vehicle is resting on its wheels or when the lower control arm is supported.

A safety stop is provided between the upper control arm and the front axle carrier.

In the event of repairs and independent of make, the shock absorbers can be **individually** exchanged. Only shock absorber versions identified by color code, e.g. 1 lengthwise line red or 1 crosswise line red, must be in agreement.

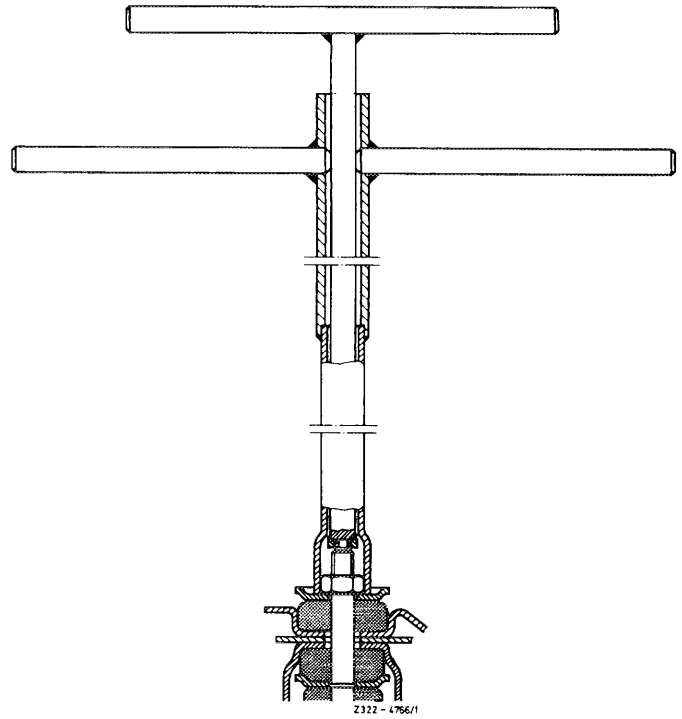
Removal

1 Loosen hex. nuts (11a) at upper shock absorber suspension, remove cup (11b) and rubber ring (11c).



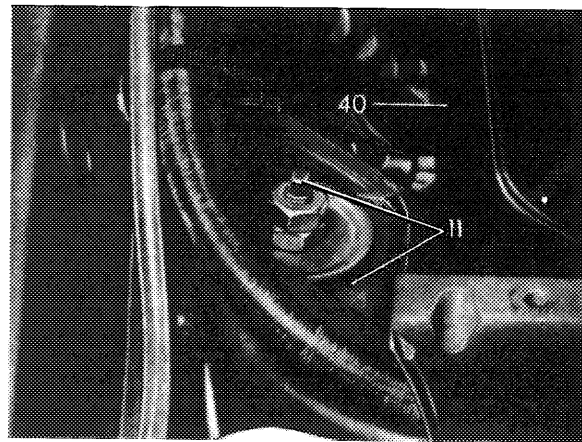
Attention!

When removing gas pressure shock absorbers with separating piston or with piston rod mounted at top, with vehicle jacked up and axle half relieved, make sure that the piston rod is not turning along when loosening upper suspension. Since in this condition the resilience stop in shock absorber rests against operating piston, the attachment of operating piston to piston rod may become loose. The gas pressure would then suddenly extend piston rod and the oil in shock absorber would flow out (risk of an accident).



Wrench for fastening shock absorber

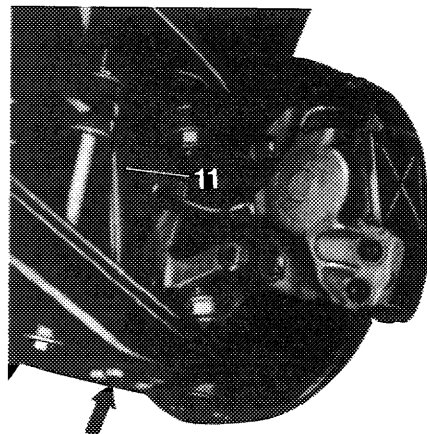
Note: When removing the righthand front shock absorber on model 107, unscrew coolant expansion tank first.



11 Upper shock absorber suspension
40 Coolant expansion tank

2 Loosen lower shock absorber suspension. For this purpose, unscrew hex. nuts (arrow) on lower control arm.

3 Press-in shock absorber piston rod and remove shock absorber.

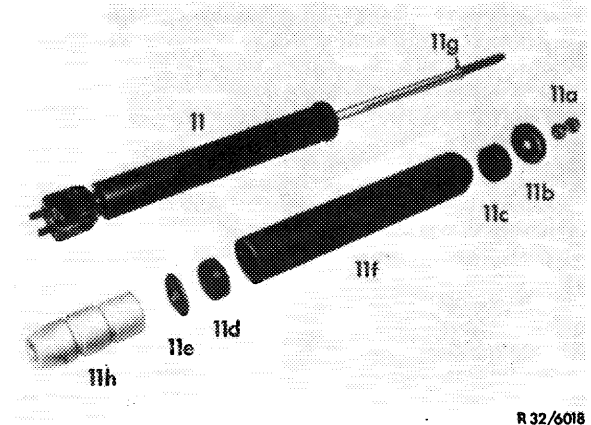


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4 Remove suspension parts:

a) On shock absorber with separating piston: Pull off protective tube (11f), remove lower rubber ring (11d), lower disk (11e) and supplementary rubber spring (buffer stop) (11h).

Bilstein shock absorber with separating piston starting November 1980 F & S

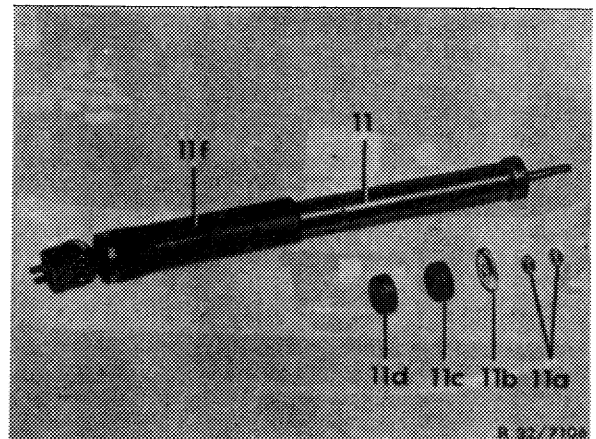


b) On shock absorbers without separating piston:
Remove lower rubber ring.

Note: The additional rubber rings (buffer stops, 11h) are inside the protective tube on piston rod.

On shock absorbers with separating piston they are located between the housing and the upper suspension, on shock absorbers without separating piston between housing and lower suspension.

F & S shock absorber without separating piston
Boge shock absorber



Installation

5 Check suspension components, clean lower control arm on supporting surface of fastening bracket of lower shock absorber suspension.

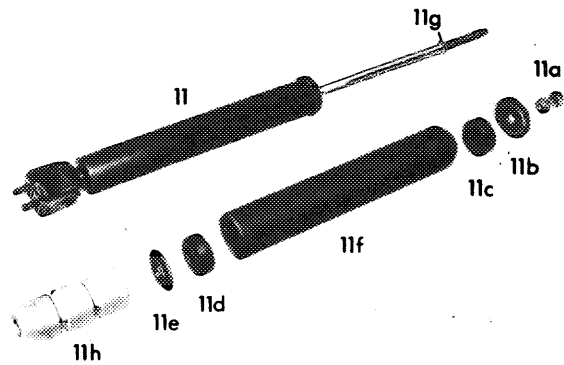
Note: The fastening bracket of the lower shock absorber suspension must be tightly seated in rubber mount, which should not be turnable within the suspension eye.

6 Slip suspension members on piston rod (on shock absorbers with separating piston: 11h, 11e, 11d and 11f; on shock absorbers without separating piston 11d).

Attention!

On shock absorbers with separating piston do not mix up lower disk (11e) and upper disk (11b), since otherwise the disk may slip over locking ring (11g) while driving.

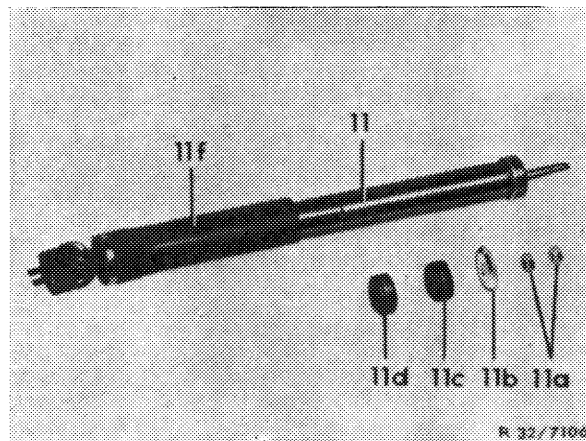
Bilstein shock absorber with separating piston starting November 1980 F & S



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Starting 1975 an additional lower disk is inserted on upper version on shock absorbers without separating piston, while the version installed up to now requires no lower disk.

F & S Boge shock absorber without separating piston



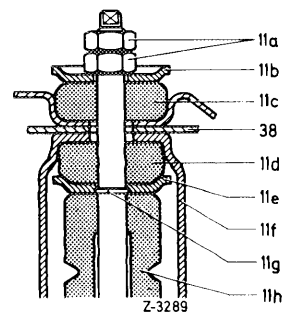
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7 Insert shock absorber into lower control arm and introduce shock absorber into front end.

8 Mount upper and lower suspension.

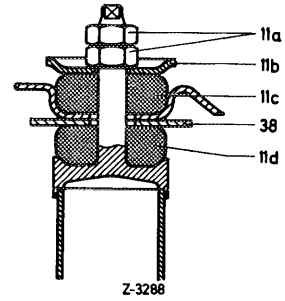
Upper suspension
Bilstein shock absorber
starting January 1980 F & S

- | | |
|------------------------|---|
| 11a Hex. nuts | 11f Protective tube |
| 11b Upper disk | 11g Locking ring |
| 11c Rubber ring top | 11h Supplementary rubber spring (buffer stop) |
| 11d Rubber ring bottom | 38 Front end |
| 11e Lower disk | |



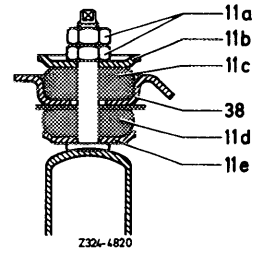
Upper suspension
F & S shock absorber
version up to 1974

- 11a Hex. nuts
- 11b Upper disk
- 11c Rubber ring top
- 38 Front end



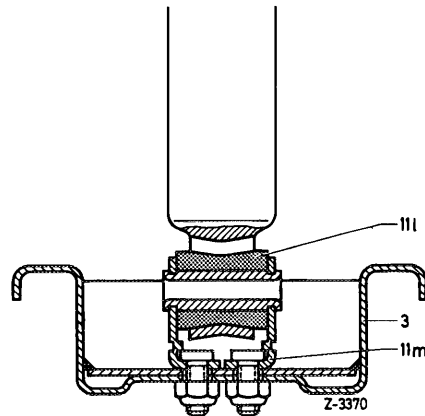
Upper suspension
F & S
Boge shock absorber
version starting 1975 up to October 1980

- 11a Hex. nuts
- 11b Upper disk
- 11c Rubber ring top
- 11d Rubber ring bottom
- 11e Lower disk
- 38 Front end



Lower suspension
Bilstein shock absorber
starting November 1980 F & S

- 3 Lower control arm
- 11 l Rubber mount
- 11 m Fastening clip



Lower suspension
F & S
Boge shock absorber
version up to October 1980

- 3 Lower control arm
- 11 f Protective tube
- 11 k Suspension eye
- 11 l Rubber mount
- 11 m Fastening clip

