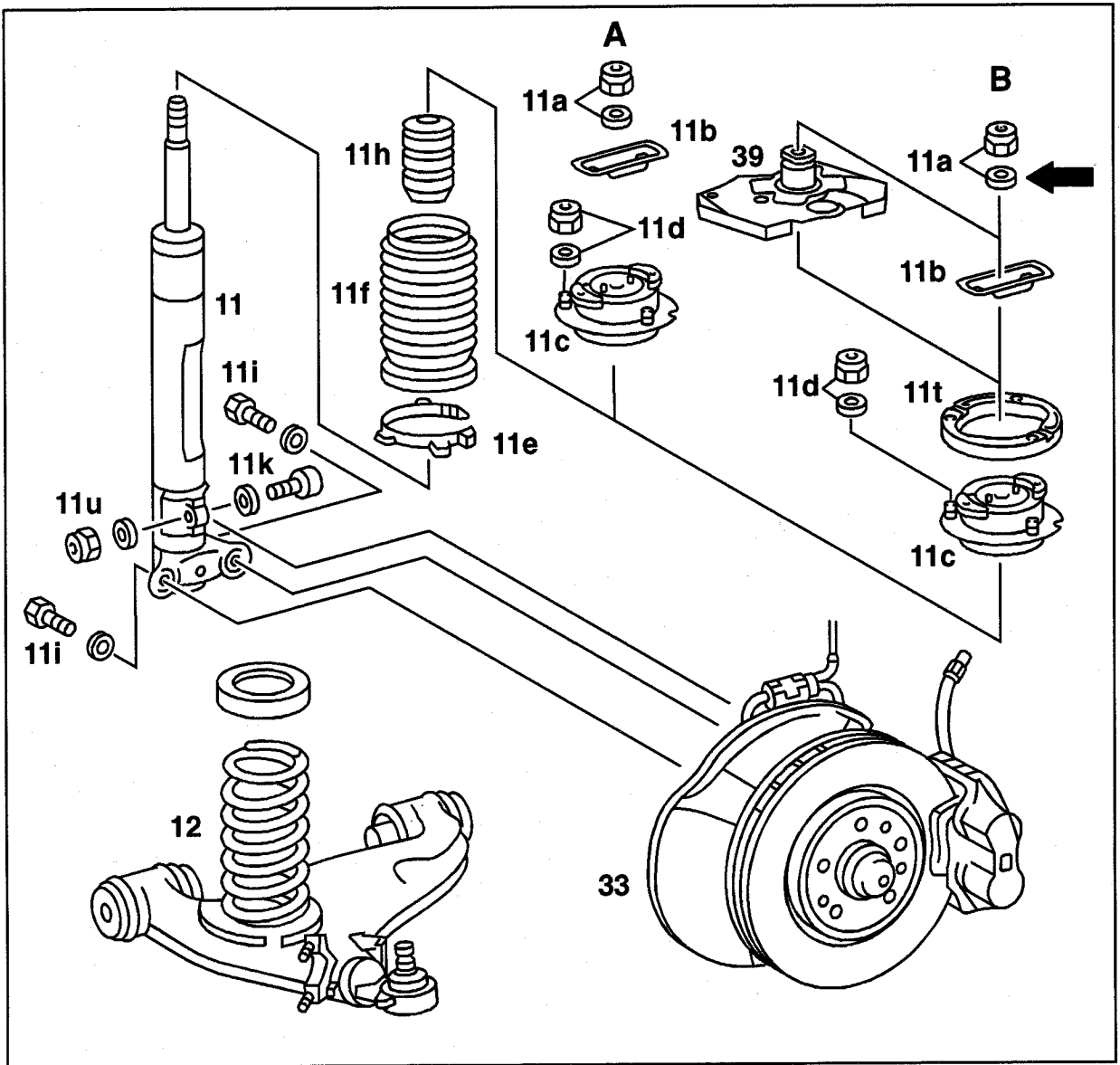


32-100 Removing and installing shock absorber struts

Preliminary work:
Front wheel removed.



P32.25-0230-59

A = Version, model 124, coupe, sedan, T-model
and model 201

B = Version model 124.06 convertible

Front spring (12)

compress with spring compressor
202 589 01 3100 and tensioning plates
202 589 13 63 00 (2 each) (32-200).

Front half axle on wishbone

lift with jack, lower.

Note

The shock absorber struts serve simultaneously as the rebound stop for the front wheels. For this reason loosen shock absorber strut suspension only when the vehicle is standing on the wheels, the wishbone is supported or the spring compressor with tensioning plates is installed.

Shock absorbers struts can be replaced separately for repair. It is only necessary to ensure that the version of shock absorber struts coincides in terms of the color code, e.g. one red longitudinal stripe or two red longitudinal stripes.

Removal

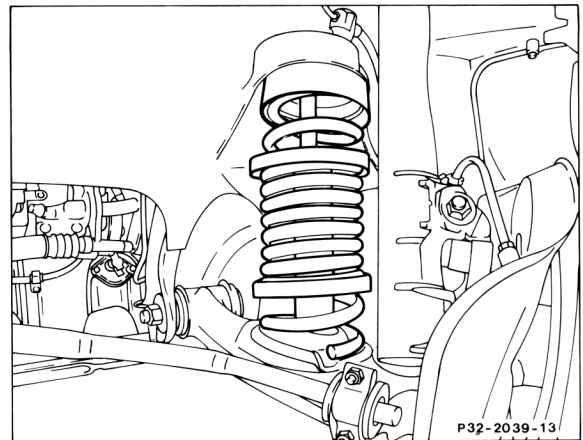


Ensure that spring compressor is properly arrested in upper tensioning plate. Do not use impact wrench.

- 1 Install spring compressor (01 202 589 01 31 00 and tensioning plates 202 589 13 63 00 (2 each) for front springs and compress spring until wishbone is no longer under load (32-200).

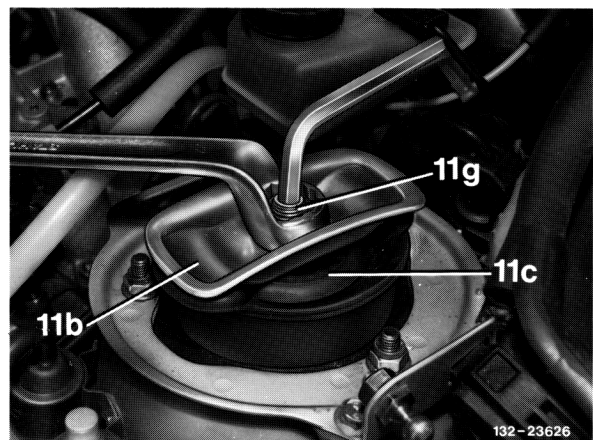
Note

Insert tensioning plates for spring compressor into front springs so that approx. 8 coils are compressed.



- 2 Loosen upper shock absorber strut mount while supporting wishbone.

- 11b Rebound stop
- 11c Rubber mount
- 11g Piston rod

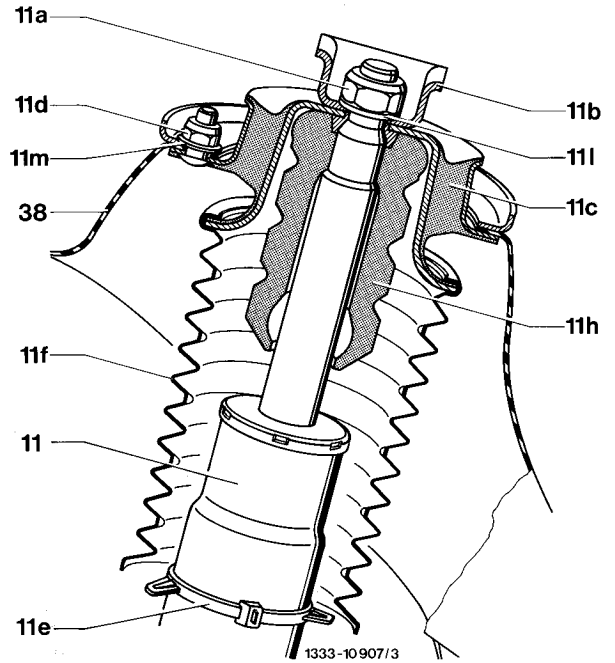




When removing top shock absorber strut mount observe following:

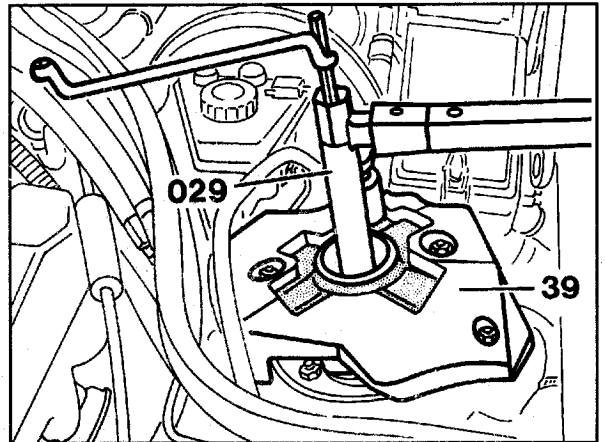
- Hold piston rod while screwing off nut using socket 124 589 00 09 00 and torque wrench 001 589 67 21 00. If not available hold piston rod in place with 7 or 8 mm Allen wrench.
- Do not use impact wrench.
- Do not unscrew hex. nut with half axle fully extended.
- The wishbone must be supported.

11	Shock absorber strut
11a	Hex. nut
11b	Rebound stop
11c	Rubber mount
11d	Hex. nuts
11e	Retaining strap
11f	Boot
11h	Stop buffer
11i	Washer B15
11m	Washer
38	Front end



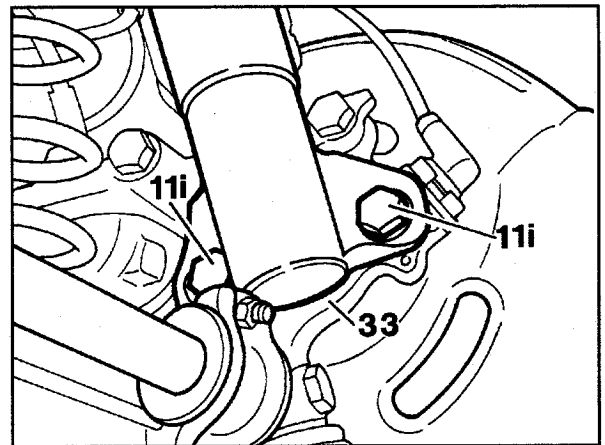
- On model 124.06 (convertible) a vibration damper is installed on the left top shock absorber mount. Installation is only possible with socket 124 589 00 09 00 and torque wrench 001 589 67 21 00.

39	Vibration damper
029	Socket wrench



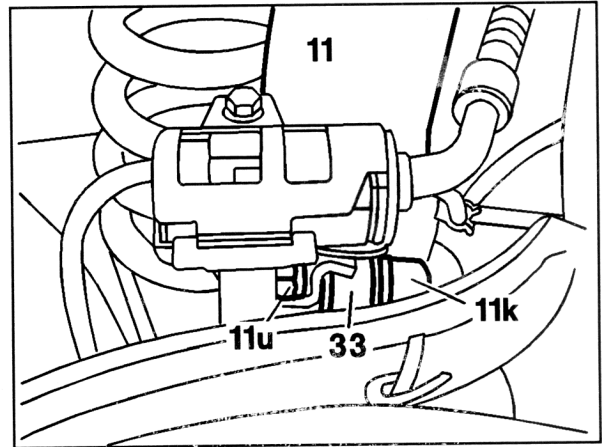
3 Pull clip for ABS speed sensor wire out of mount on shock absorber.

4 Screw hex. head bolts (11i) out of bottom mount for shock absorber strut (11) on steering knuckle (33).



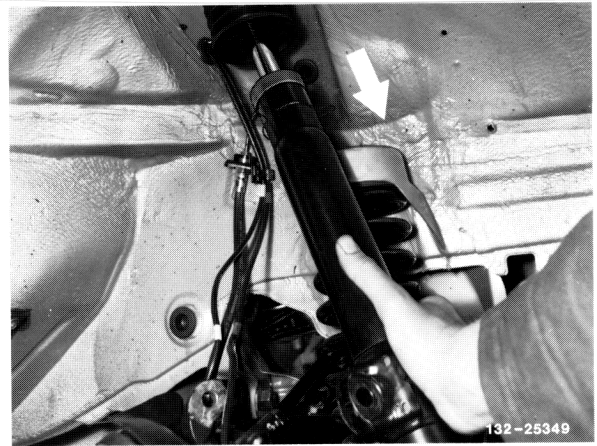
5 Unscrew self-locking hex. nut with washer (11u). Remove bolt with washer (11k).

- 11 Shock absorber strut
- 533 Steering knuckle



P32-5711-13

6 Remove shock absorber strut downward toward front of vehicle.

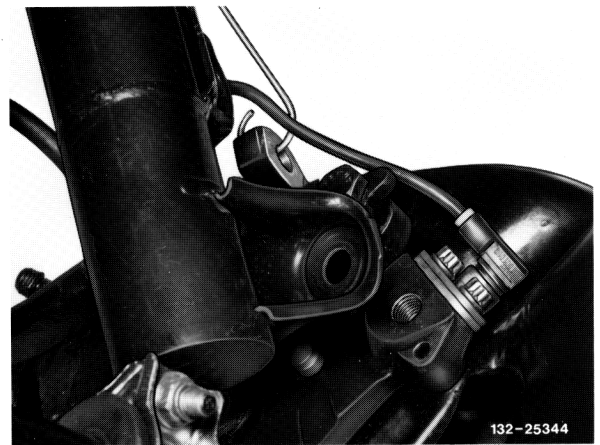


132-25349

7 Secure steering knuckle from falling down with hook.



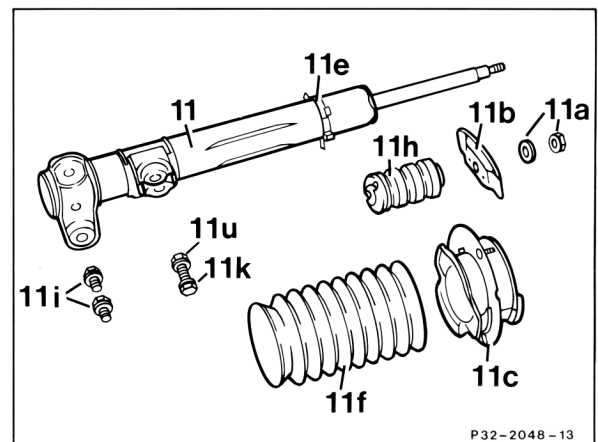
Do not subject brake hose, electric wires for brake pad wear indicator and ABS speed sensor to tension.



132-25344

8 Remove suspension parts: stop buffer (11h).

- 11 Shock absorber strut
- 11a Hex. nut with Washer
- 11b Rebound stop
- 11c Rubber mount
- 11e Retaining strap
- 11f Boot
- 11h Stop buffer
- 11i Hex. head bolts
- 11k Hex. head bolt
- 11u Self-locking nut

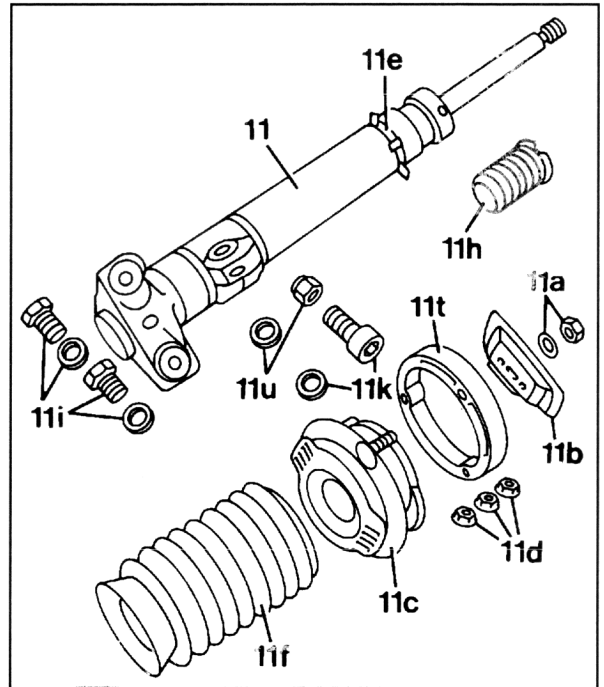


P32-2048-13

Note

Layout on model 124.06 (convertible):
A spacer ring (11t) is installed between the rubber mount (11c) and body front end (38) on the upper suspension.

- 11 Shock absorber strut
- 11a Hex. nut with washer (0.5 mm)
- 11b Rebound stop
- 11c Rubber mount
- 11d Hex. nuts
- 11e Retaining strap
- 11f Boot
- 11ii Hex. head bolts
- 11k Hex. head bolt
- 11t Spacer ring
- 11u Self-locking nut
- 38 Front end



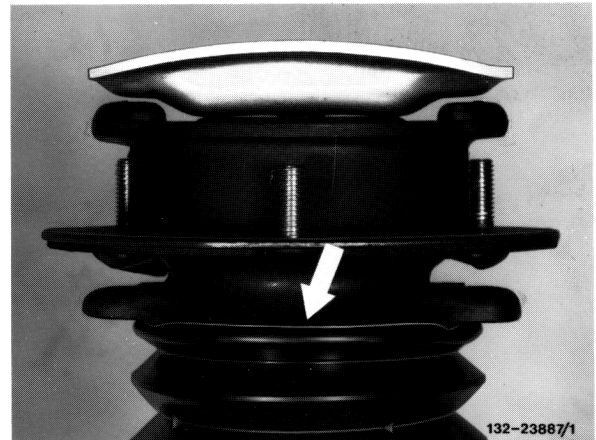
P32-5533-15

Installation

Note

If the rubber mount has been removed, it must be reinstalled with new self-locking hex. nuts (tightening torque 20 Nm).

Before installing the shock absorber strut hook the boot onto the two short collars on the rubber mount (arrow).



132-23887/1

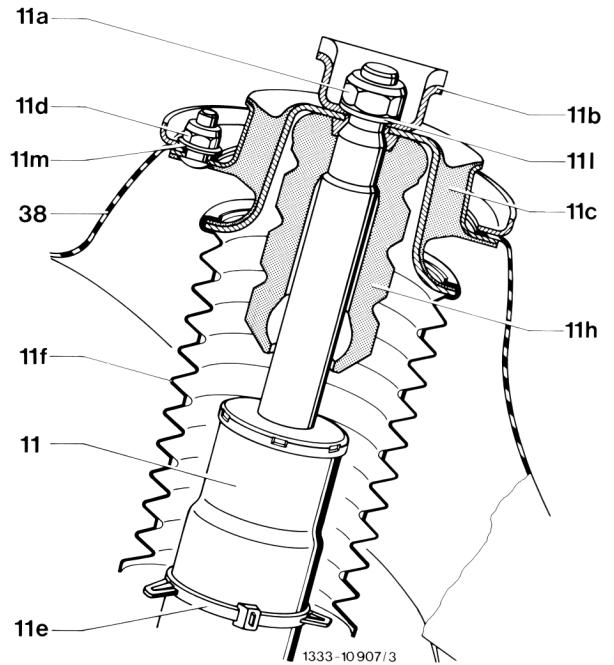
9 Check suspension parts. Clean steering knuckle on contact surfaces for mounting lower shock absorber strut.

10 Install suspension parts: position retaining strap (11e) around shock absorber strut at height of ring bead and tighten.



When installing retaining strap ensure that arresting points are positioned precisely in the ring bead. Slide stop buffer (11h) onto piston rod.

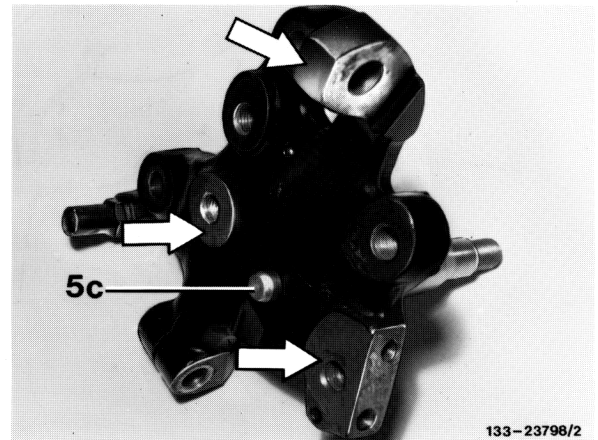
- 11 Shock absorber strut
- 11a Hex. nut
- 11b Rebound stop
- 11c Rubber mount
- 11d Hex. nuts
- 11e Retaining strap
- 11f Boot
- 11h Stop buffer
- 11l Washer B15
- 11m Washer
- 38 Front end



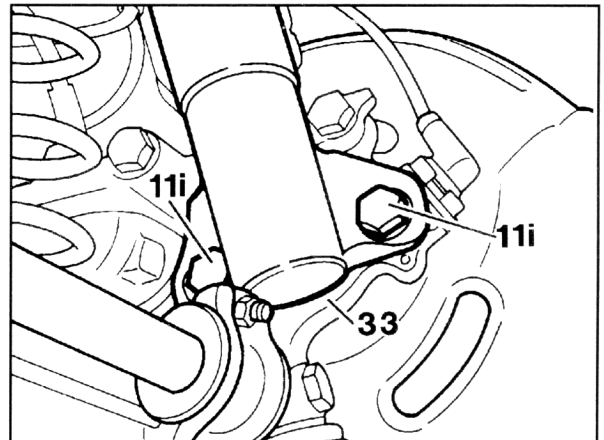
11 Insert shock absorber strut into rubber mount in body.



The steering knuckle and shock absorber strut must be positioned in relation to one another in the longitudinal direction (caster) with the centering bolt (5c) and in the lateral direction (camber) with the surfaces (arrows).



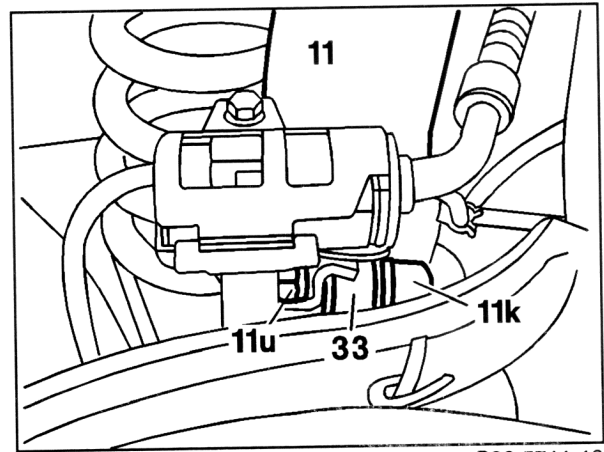
12 Install bottom shock absorber strut mount. First insert the two new bottom self-locking hex. head bolts (11i) and screw in until heads make contact.



33 Wishbone

P32-5055-13

13 Push shock absorber strut (11) upward until it makes contact with the steering knuckle (33), install top bolt with washer (11k) and new self-locking hex. nut (11u) and tighten lightly; the surface on the inside of the steering knuckle should make contact with the shock absorber strut.

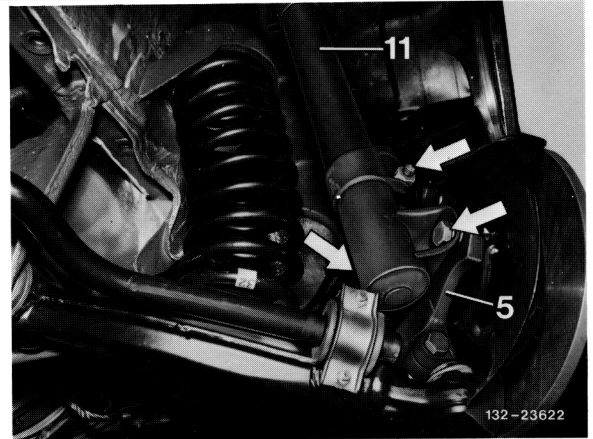


P32-5711-13

14 After inserting the bolts first tighten the two bottom hex. head bolts to 110 Nm and then tighten the hex. head bolt for the top clamp connection (arrows). Tightening torques: M12x1.5 = 110 Nm, M14x1.5 = 200 Nm.



When installing the shock absorber strut on the steering knuckle tighten the bolts in the prescribed sequence because proper positioning in relation to the steering knuckle is accomplished by means of the three contact surfaces and is therefore decisive for maintenance of the camber tolerances.

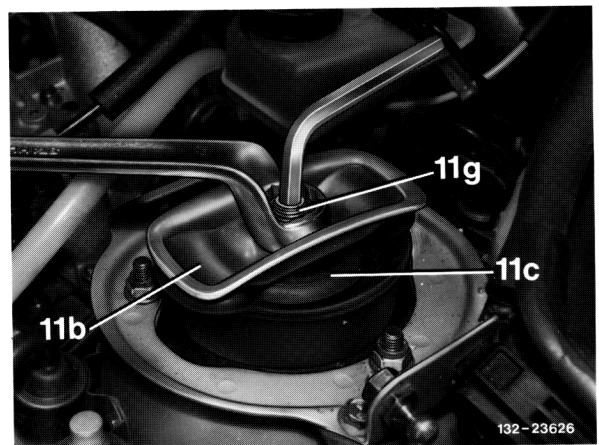


132-23622

15 Lift front half axle with jack and install upper shock absorber strut mount. Use new self-locking hex. nut and washer and tighten to 60 Nm.

- Use socket 124 589 00 09 00 and torque wrench 001 589 67 21 00. If not available hold piston rod while tightening with 7 or 8 mm Allen wrench.
- Do not use impact wrench.

11b Rebound stop
11c Rubber mount
11g Piston rod

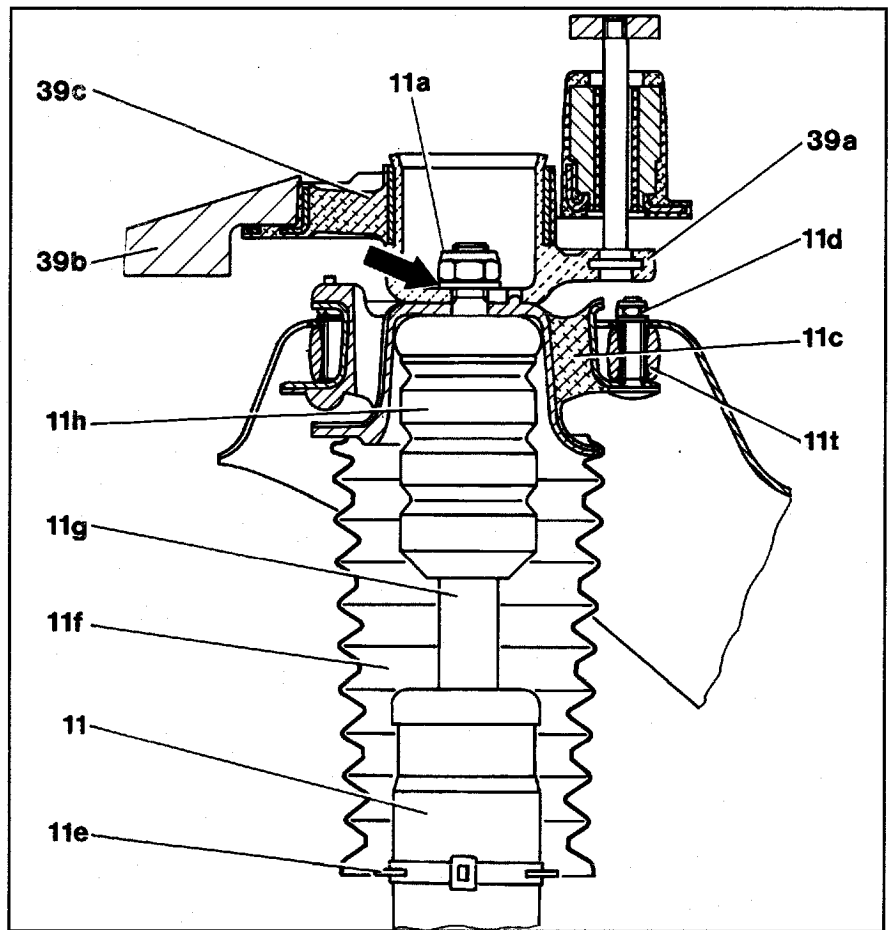


132-23626

Note

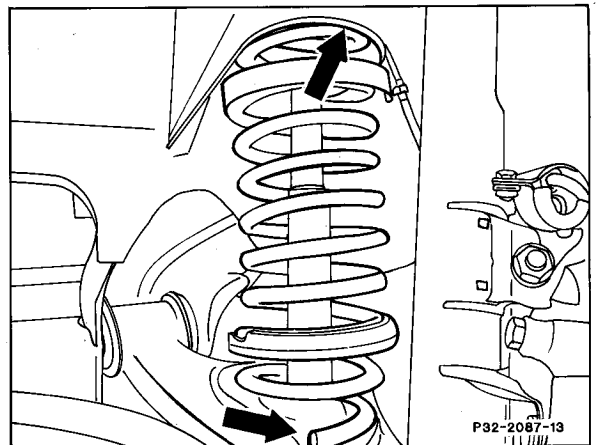
Only on model 124.06 (convertible):
When installing the shock absorber struts/vibration dampers ensure that the 0.2 mm thick steel washer (arrow) is installed below the self-locking hex. nut (11a).

- 11 Shock absorber strut
- 11a Self-locking hex. nut with 0.2 mm washer
- 11c Rubber mount
- 11d Self-locking hex. nut
- 11e Retaining strap
- 11f Boot
- 11g Piston rod
- 11h Stop buffer
- 11t Spacer ring
- 39a Vibration damper - rebound stop
- 39b Lead weight
- 39c Rubber suspension element



P32-5532-37

16 Release tension on front spring and ensure that rubber mount is properly seated in frame floor and end of spring coil is properly seated in wishbone (arrows) (32-200).



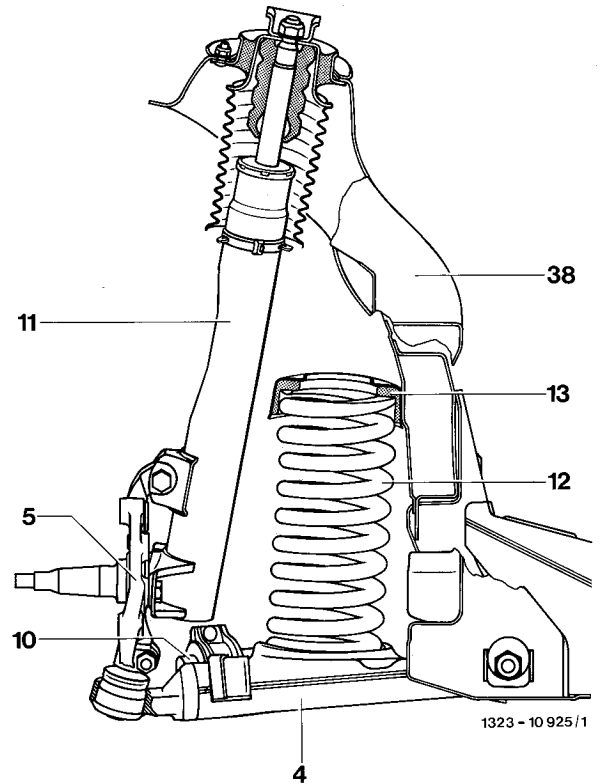
P32-2087-13

17 Check front wheel alignment and adjust, if necessary (40-0322/0323).

Note

When a shock absorber strut is replaced it is always necessary to realign the front wheels.

- 4 Wishbone
- 5 Steering knuckle
- 10 Torsion bar
- 11 Shock absorber strut
- 12 Front spring
- 13 Spring rubber pad
- 38 Front end



Note

Since the base plate for the vibration damper is made of lead (Pb), it is necessary to remove it when the part is scrapped following repair and recycle it according to the specific national laws.

- 39a Rebound stop
- 39b Lead weight
- 39c Rubber suspension element

