

P32-0072-15

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|---|--|
| On engines 103, 116 or 117 .....                              | remove air cleaner, install (09-400).  |
| On vehicles with auxiliary heater .....                       | remove coolant line in area of access opening to front spring, install.  |
| Protective cap (11o) .....                                    | remove, install.   |
| Top shock absorber mount (11a, 11b, 11c) .....                | loosen, tighten. Tighten bottom hex. nut to 17 Nm, top hex. nut (counter nut) to 30 Nm. Hold piston rod with 5 mm open-end wrench. |
| <p><b>⚠ CAUTION!</b><br/>Do not allow piston rod to turn!</p> |  |
| Vehicle .....   | jack up at front, lower. Remove front wheel (wheel lug bolts 110 Nm).  |

## 32-200 R and R front springs

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Compressing plates 140 589 07 63 00 and spring  
 compressing tool 000 589 46 31 00 .....

install in spring so that approx. 8 coils are  
 compressed (items 3 through 6).

**⚠ WARNING!**

Ensure that spring compressing tool is properly  
 arrested in bottom compressing plate.

Front spring (12) .....

compress; raise control arm (4) with jack or pit  
 lift to facilitate compressing spring.

**⚠ CAUTION!**

Do not use impact wrench.

Remove compressed front spring toward front  
 together with rubber spacer (13).

When installing ensure that front spring is  
 properly seated in control arm.

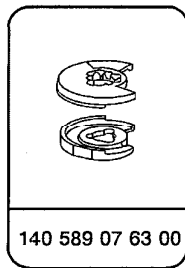
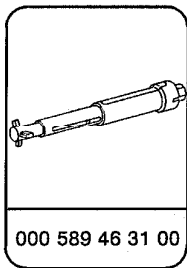
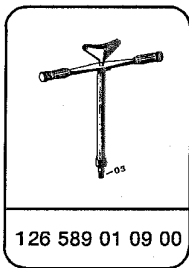
Vehicle level .....

check at front axle (40-300).

Headlamps .....

adjust (82-1130).

### Special tools



### Note

The front shock absorbers serve simultaneously as the extension stop for the front wheels.

For this reason, only release shock absorbers when vehicle is standing on wheels, the control arm is supported or spring compression tool with compressing plates is installed.

When the shock absorber is released, the upper control arm rests on the end stop on the front end.

To install upper suspension either place vehicle on wheels or lift suspension on lower control arm.

### ⚠ 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.

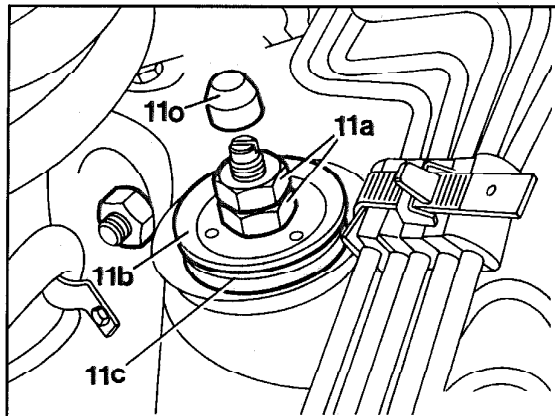
This would result in sudden extension of the piston rod and expulsion of the oil in the shock absorber.

### Removal

On engines 103, 116 and 117:

Remove air cleaner (09-400).

- 1 Loosen top shock absorber mount (11a, 11b, 11c), remove protective cap (11o).



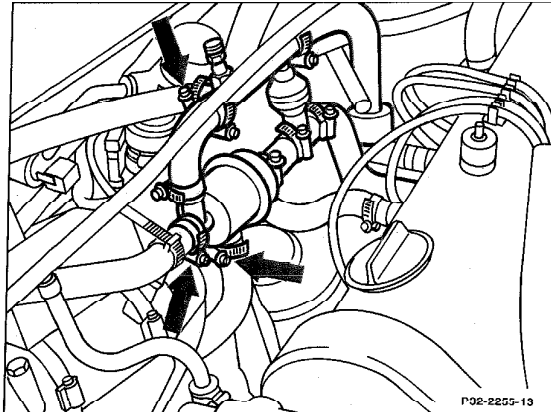
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## 32-200 R and R front springs

On vehicles with auxiliary heater:

Loosen hose clamps (arrows) and move coolant lines to side, for this purpose drain coolant.

2 Jack up vehicle at front, remove front wheel.

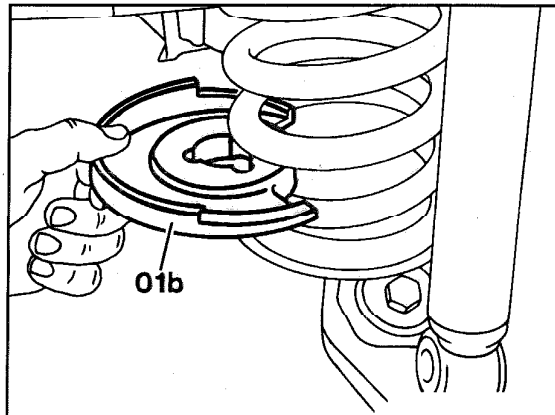


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3 Insert compressing plates 140 589 07 63 00 approximately in center of spring.

4 Turn top compressing plate all the way up.

5 Turn bottom compressing plate (01b) down so that approx. 8 spring coils will be compressed by the spring compressing tool.

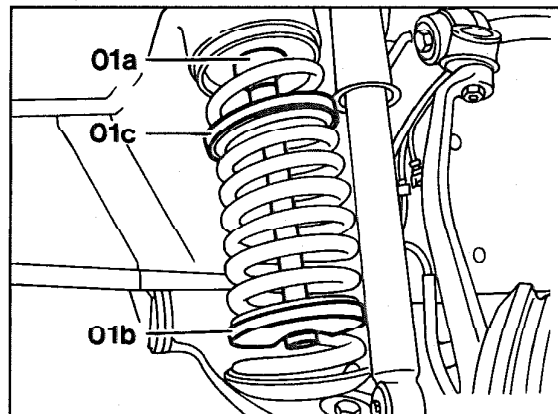


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### Note

Due to the curvature of the springs the recesses in the compressing plates must point toward the inside of the vehicle.

6 Slide spring compressing tool (01a) 000 589 46 31 00 through dome in wheelhouse from engine compartment side through both compressing plates and arrest in bottom compressing plate by turning 60°.



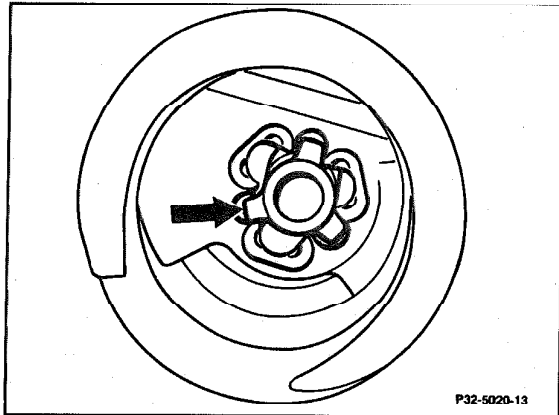
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01a Spring compressing tool  
01b Bottom compressing plate  
01c Top compressing plate

## 32-200 R and R front springs

### **WARNING!**

Ensure that spring compressing tool (arrow) is properly arrested in bottom compressing plate.



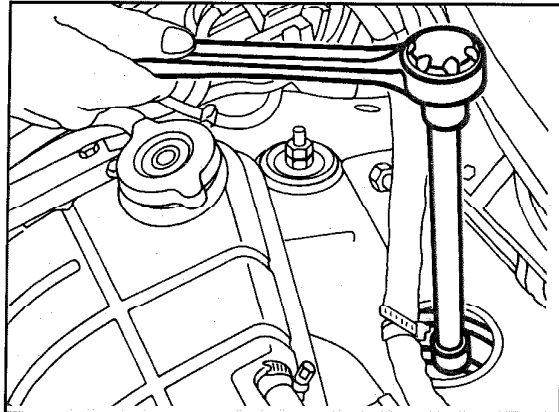
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7 Compress front spring. To facilitate compressing the spring lift bottom control arm with jack.

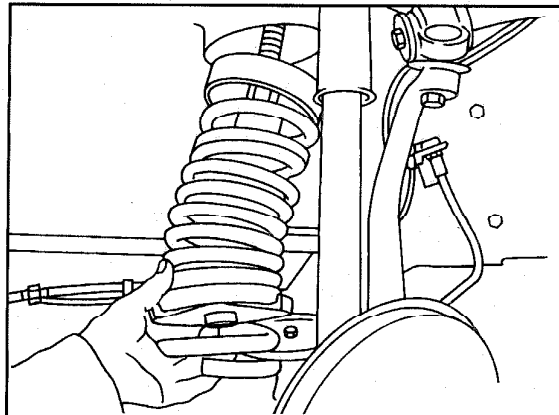
### **CAUTION!**

Do not use impact wrench.



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8 Lower front suspension slightly and remove front spring together with rubber spacer toward front.



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## 32-200 R and R front springs

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9 Clamp bottom compressing plate into vise on flat sections.

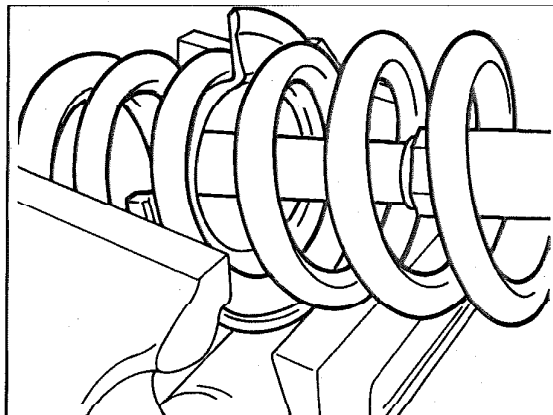
### Note

Before clamping into vise mark position of compressing plates in relation to spring coil with marking chalk.

10 Clamp front spring into vise. Remove rubber spacer on front spring; remove spring compressing tool and compressing plates.

### ⚠ CAUTION!

Do not use impact wrench.



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## Installation

### Note

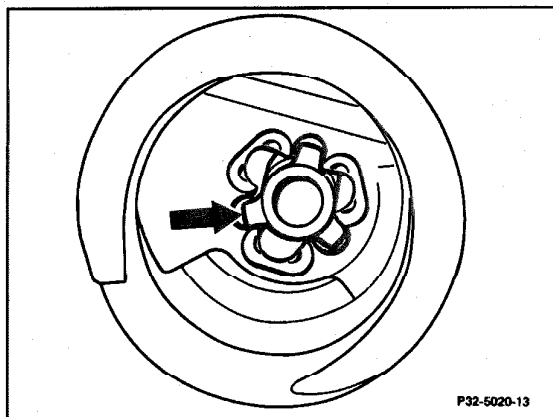
Before installing front spring ensure that no dirt or contamination is present on spring plate in area of contact surface of spring.

11 Compress approx. 8 coils on front spring.

### ⚠ WARNING!

Ensure that spring compressing tool (arrow) is properly arrested in bottom compressing plate. Do not use impact wrench.

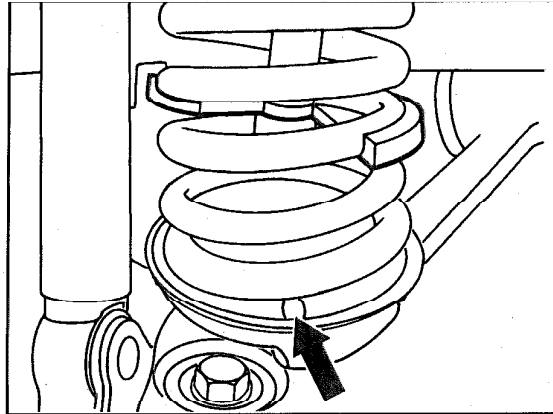
12 Install rubber spacer on front spring with turning motion.



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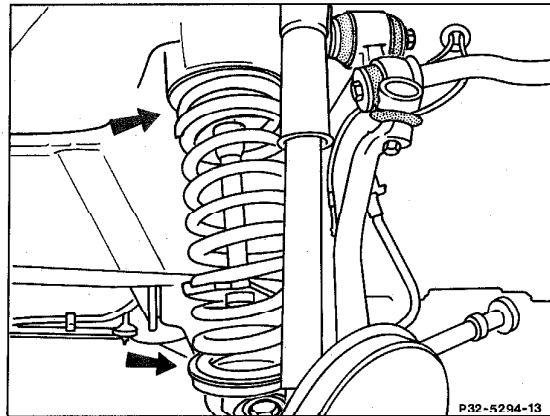
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13 Position front spring so that end of coil is located in recess in spring plate (arrow).



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14 Release spring while ensuring that rubber spacer is properly seated in spring dome/front end and end of spring coil is properly positioned in spring plate (arrows).



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**⚠ CAUTION!**  
Do not use impact wrench.

15 Install front wheel (wheel lug bolts 110 Nm).

16 Lower vehicle.

17 Install top shock absorber mount. Tighten bottom hex. nut to 17 Nm, top hex. nut (counter nut) to 30 Nm. Hold piston rod with 5 mm open-end wrench.

**⚠ CAUTION!**  
Do not allow piston rod to turn!

On engines 103, 116 and 117:  
Install air cleaner (09-400).

On vehicles with auxiliary heater install coolant hose, fill coolant circuit and bleed (83-415).

## 32-200 R and R front springs

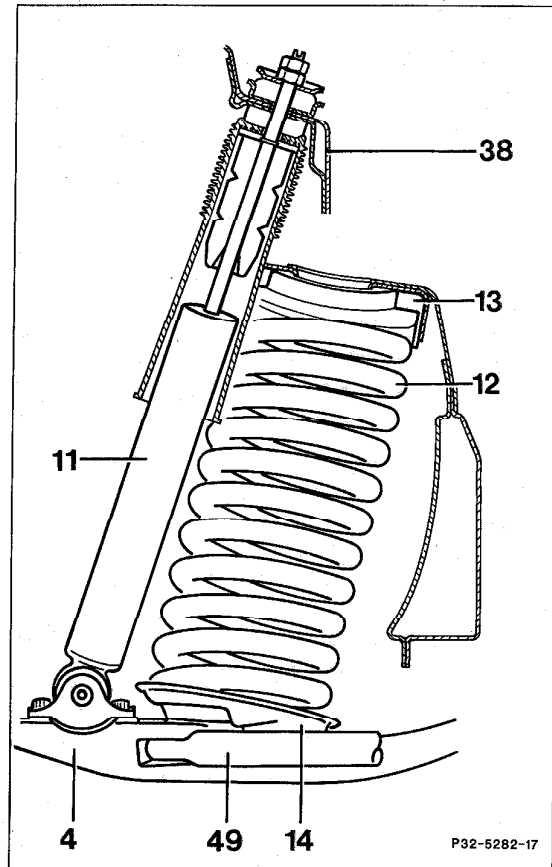
18 Check vehicle level at front axle (40-300).

### Note

If the vehicle level has changed by more than 20 mm in comparison to previously, also check front wheel alignment and correct, if required (40-320).

19 Adjust headlamps (82-1130).

- 4 Bottom control arm
- 11 Front shock absorber
- 12 Front spring
- 13 Rubber spacer for front spring
- 14 Plate for front spring
- 38 Front end



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