

# Removal and Installation of Front Brake Shoes

Job No.

42-8

## A. Removal and Installation

### I. Models 219, 220 a, 220 S, 220 SE, and 190 SL 1<sup>st</sup> Version

The removal and installation procedures for the front brake shoes are the same as on Model 190.

### II. Models 180, 180 a, 180 D, and 190 D

The removal and installation procedures for the front brake shoes are essentially the same as on Model 190, but the section on the automatic adjustment of the brake shoes does not apply since the brakes are provided with mechanical adjustment (Fig. 42-8/1).

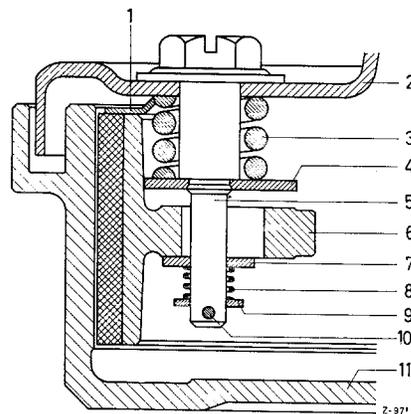


Fig. 42-8/1

- 1 Contact plate
- 2 Brake anchor plate
- 3 Pressure spring
- 4 Adjustment eccentric
- 5 Adjustment bolt
- 6 Brake shoe
- 7 Washer for brake shoe guide
- 8 Pressure spring
- 9 Washer
- 10 Cotter pin
- 11 Brake drum

### III. Models 180 b, 180 Db, and 190 Db 1<sup>st</sup> Version

#### Removal:

1. Jack up the car and remove the brake drum.
2. Detach the two return springs by means of Brake Spring Pliers 000 589 01 37.

**Note:** Put a suitable pad under the brake spring pliers to prevent damage to the brake lining.

3. Loosen the hexagon screw (9) and remove the washer (8), the spring (7), and the washer (6) (Fig. 42-8/2).

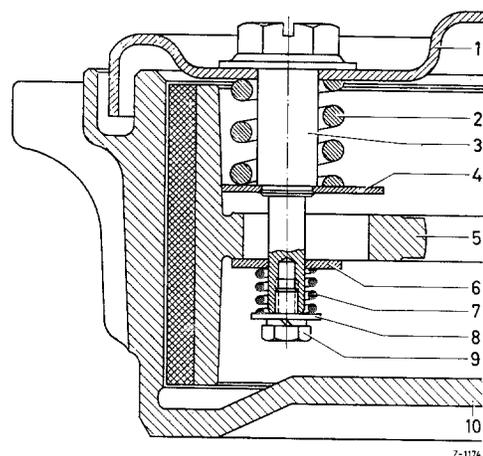


Fig. 42-8/2

- 1 Brake anchor spring
- 2 Pressure spring
- 3 Adjustment bolt
- 4 Eccentric
- 5 Brake shoe
- 6 Washer
- 7 Pressure spring
- 8 Washer
- 9 Hexagon screw
- 10 Brake drum

4. Unscrew the stop screw (2) (Fig. 42-8/3).

**Installation:**

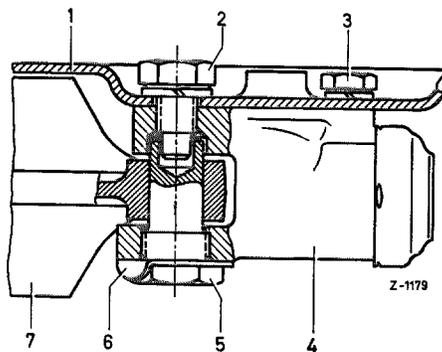


Fig. 42-8/3

- |                        |                 |
|------------------------|-----------------|
| 1 Brake anchor plate   | 5 Anchor pin    |
| 2 Stop screw           | 6 Locking plate |
| 3 Hexagon screw        | 7 Brake shoe    |
| 4 Wheel brake cylinder |                 |

5. Bend the locking plate (6) upward and screw the anchor pin (5) from the eye of the wheel brake cylinder (4) (Fig. 42-8/3).
6. Remove the brake shoes.
7. Follow the same procedure in removing the second brake shoe.
8. Remove the retaining pins from the wheel brake cylinders.
9. Thoroughly clean the brake shoes and the brake anchor plate with compressed air.

10. Press the retaining pin into the wheel brake cylinder and install the brake shoe in the brake anchor plate.
11. Place the locking plate (6) over the anchor pin (5) and screw in the anchor pin (Fig. 42-8/3).
12. Secure the anchor pin with the locking plate.
13. Screw in and tighten the stop screw (2) (Fig. 42-8/3).
14. First place in position the large washer (6), the pressure spring (7), and then the small washer (8) and screw in the hexagon screw (9) until it is positioned against the adjustment bolt (3) (see Fig. 42-8/2).

**Note:** The purpose of the pressure spring (8) is to press the brake shoe against the contact plate of the brake anchor plate.

15. Attach the return springs.
16. Install the brake drum and the wheel.
17. Adjust the brakes (see Job No. 42-20, Section A).
18. Jack down the car.

**IV. Models 180 b, 180 Db, and 190 Db 2<sup>nd</sup> Version**

The stop screw need not be removed since the anchor pin (5) stop is located in the wheel brake cylinder (4) (Fig. 42-8/4).

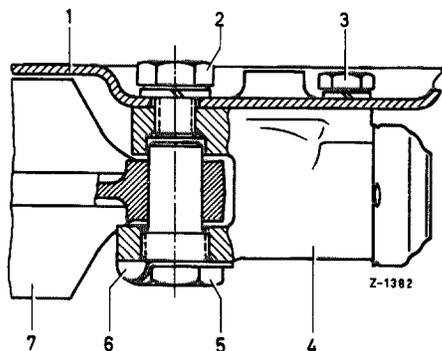


Fig. 42-8/4

- |                        |
|------------------------|
| 1 Brake anchor plate   |
| 2 Hexagon screw        |
| 3 Hexagon screw        |
| 4 Wheel brake cylinder |
| 5 Anchor pin           |
| 6 Locking plate        |
| 7 Brake shoe           |

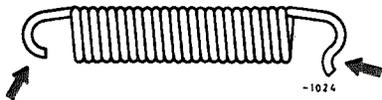
## V. 190 SL 2<sup>nd</sup> Version

In this version the brake shoes are attached to the wheel brake cylinder (for removal and installation of brake shoes see Job No. 42-8, Section A, III and Workshop Manual for Model 190).

### B. Return Springs for Brake Shoes

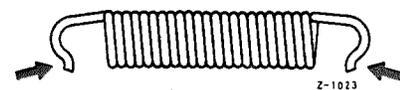
Various types of return springs have been installed on the individual models (see Table).

Model	Part No.	Spring length		Load kg	Spring steel wire $\phi$ mm	Remarks
		free length mm	under normal load mm			
180 180 D 180 a 190 190 D 190 SL 220 a 219 220 S	120 993 08 10 (a standard eye and an open eye Fig. 42-8/2)	85.5	114	36.6	2.5	On Models 190, 219, 220 S, and 190 SL 1 <sup>st</sup> version
180 b 180 Db 190 190 b 190 Db 190 SL 219 220 S 220 SE	180 993 25 10 (both eyes open Fig. 42-8/2)	84.0	114	28.9	2.5	On Models 190, 219, 220 S, and 190 SL 2 <sup>nd</sup> version



Return spring  
Part No. 120 993 08 10

Fig. 42-8/2



Return spring  
Part No. 180 993 25 10

- Note:** a) When installing the brake shoes make sure that return springs of the same elastic force are mounted.
- b) Use only 2<sup>nd</sup> version springs on cars of Models 220 S and 220 SE with ATE Power Brake T 50/12.

### C. Bolt for Automatic Brake Shoe Adjustment

(see Job No. 42-10).