

Removal and Installation of Rear Wheel Brake Cylinder

Job No.

42-6

A. General

Model	Rear wheel brake cylinder		Remarks
	Ø in inches	Ø in mm	
180, 180 a, 180 D, 190, 190 SL, 219, 220 a, 220 S	1"	25.4	1 st version, except Model 220 a
180, 180 a, 180 b, 180 D, 180 Db, 190, 190 b, 190 D, 190 Db, 190 SL, 219, 220 S, 220 SE	¹⁵ / ₁₆ "	23.81	2 nd version, except Models 180 b, 180 Db, 190 b, 190 D, 190 Db, and 220 SE

Note: When repairs are carried out the 1" wheel brake cylinders can be replaced by the ¹⁵/₁₆" wheel brake cylinders.

B. Removal and Installation

I. Models 190 SL, 219, 220 a, 220 S, and 220 SE

The removal and installation procedures for the rear wheel brake cylinders are the same as described for Model 190.

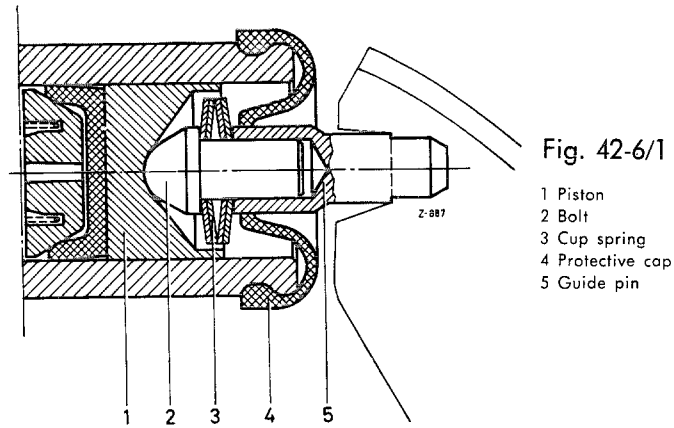
II. Models 180, 180 a, 180 b, 180 D, 180 Db, 190 D, and 190 Db

The removal and installation procedures for the rear wheel brake cylinders are essentially the same as on Model 190, but in addition the return springs of the brake shoes must be detached and the brake shoes must be forced outward.

C. Wheel Brake Cylinders with Spring-Loaded Pins

On Models 190 SL, 219, 220 S, and 220 SE rear wheel brake cylinders with spring-loaded pins have been installed as from the following Chassis End Nos (Fig. 42-6/1):

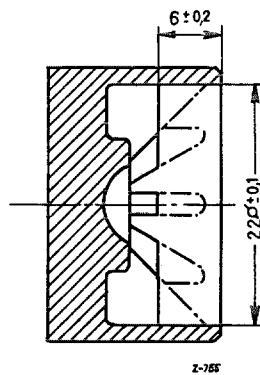
Model	as from Chassis End No.
190 SL	85 00741
219	85 01607
220 S	85 02964
220 SE	85 00001



When complaints are received about brake grabbing, the spring-loaded pins can be subsequently installed on older cars of Models 190 SL, 219, and 220 S (see Section D).

D. Subsequent Installation of Spring-Loaded Pins

For subsequent installation the spring-loaded pins are supplied together with the appropriate brake cylinder pistons $1\frac{5}{16}$ " ϕ with Part No. 180 420 00 74. If older cars are fitted with wheel brake cylinders with a piston diameter of 1", the pistons must be re-machined as shown in Fig. 42-6/2.



Installation Hints

- a) When installing the spring-loaded pins, pay attention to the required number and the correct positioning of the cup springs. Mount 4 cup springs on each spring-loaded pin in such a way that one pair of cup springs is supported by the other pair, so that the desired spring action is obtained (see Fig. 42-6/1).

Note: In order to reduce pedal travel, recent cars are fitted with 15 mm cup springs in place of the 1st version 20 mm diameter springs.

- b) After installing the spring-loaded pins, depress the brake pedal several times with the car stationary. Then take the car on the road to warm up the brakes, so that the brake shoes are adjusted properly and unnecessary pedal travel is prevented. As a result of the resilient spring-loaded pins, pedal travel is automatically somewhat increased. In order to ensure that this increase remains within normal limits particular attention should be paid to a proper and satisfactory wear pattern of the brake linings. Furthermore the whole brake system must be properly bled and the automatic adjustment must have proper clearance.

- c) Installation of spring-loaded pins does not automatically prevent brake grabbing if this should be due to other causes; in such cases check the brake system in order to trace the fault, in particular check the rear axle suspension, the uniform efficacy of the shock absorbers, check the brake drums for out-of-roundness, for eccentricity, and for variation in wall thickness.