

42-160 Replacing brake pads

Data

Fixed caliper piston dia.	38	57	60/40 ¹⁾
Thickness of brake pad with lining backing plate	15/15.5 ²⁾	15	15/17.5 ²⁾
Thickness of lining backing plate	5		4.5
Permissible wear of brake lining up to a residual lining thickness of	2		
Width of brake pad max.	61.75	76.75	89.75
Effective brake surface per axle (cm ²)	100	152	206
Thickness of brake disk	front	22	
	rear	10	
Wear limit	front	—	20.6/19.4 ²⁾
	rear	8.3	
Limit during maintenance ³⁾	front	—	21.2/20.0 ²⁾
	rear	8.6	

¹⁾ Starting September 1985 4-piston fixed caliper

²⁾ Starting March 1980

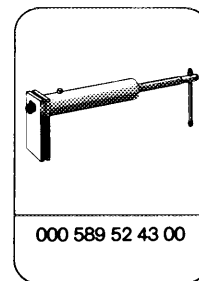
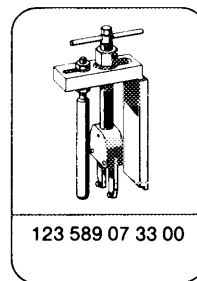
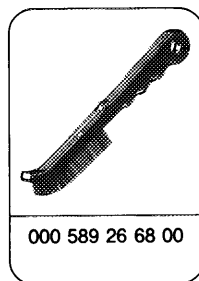
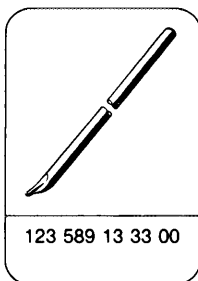
³⁾ Refer to maintenance manual volume 2 (item 4252).

Lubricant

DB brake pad paste

001 989 10 51

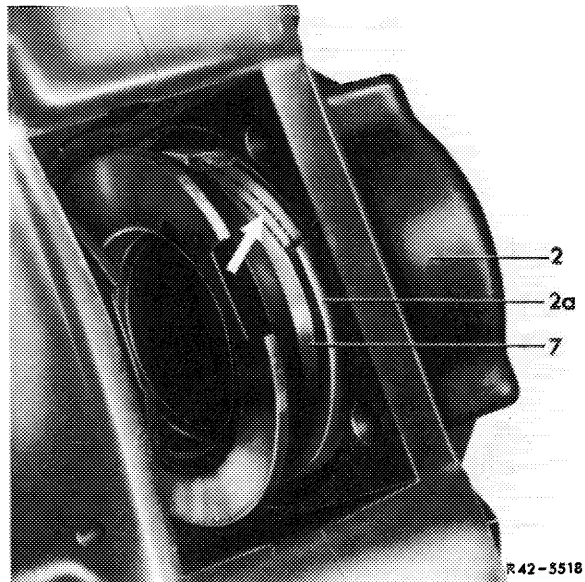
Special tools



Note

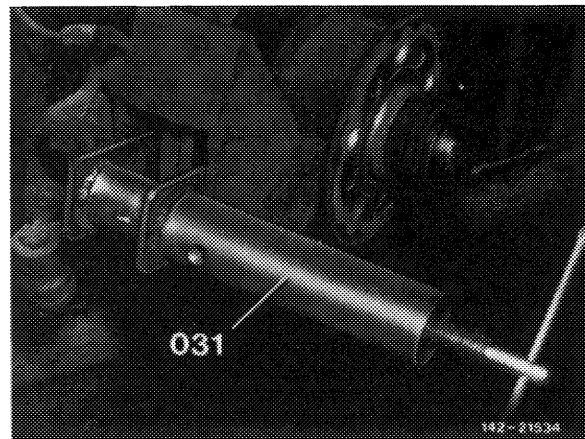
Replace brake pads when the lining is down to 2 mm or greasy. Use only approved lining grades.

When the brake pads are worn down to the lining backing plate beyond the permissible lining thickness, the fixed caliper may also suffer damage, since the web between the sealing ring groove and the dust cap will fracture and the fixed caliper will leak.



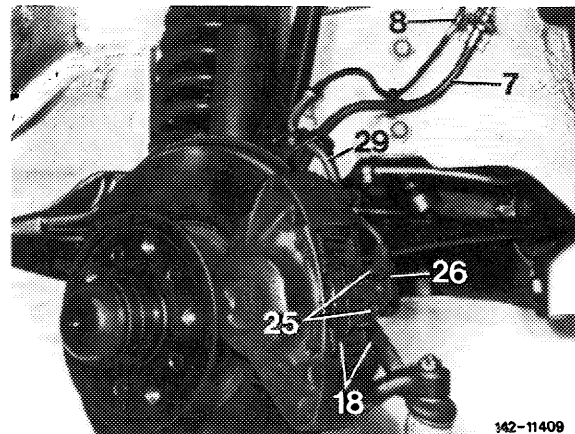
When brake pads are excessively worn, a high and low pressure test (90 or 3 bar gauge pressure) will be required.

To prevent canting of piston, push pistons back into their end position by means of resetting tool (031) only.



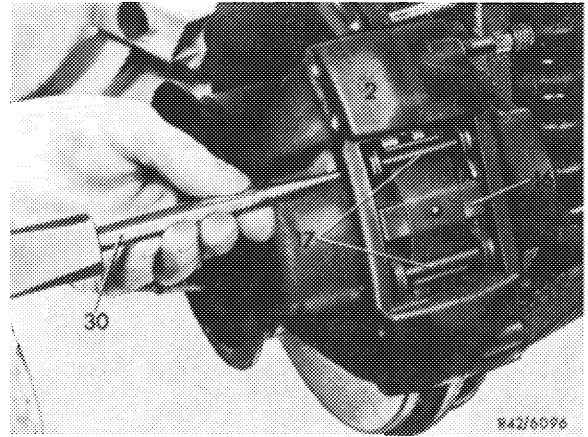
Removal

1 On fixed calipers with brake lining wear indicator, pull cables of clip sensor (25) out of plug connection (26) on fixed caliper.



2 On Teves fixed caliper, knock holding pins (17) out of caliper by means of punch.

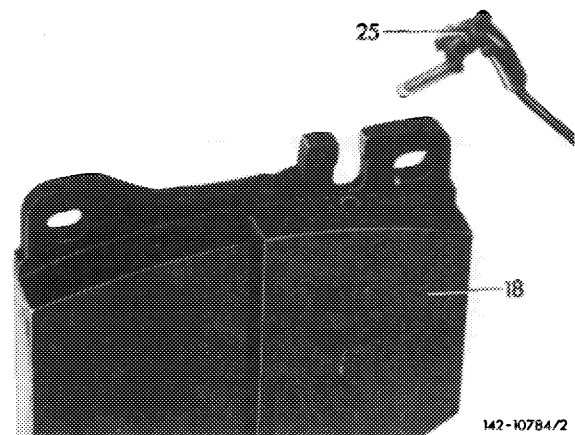
3 On Bendix and Girling fixed caliper, pull both locking eyes out of holding pins, remove holding pins.



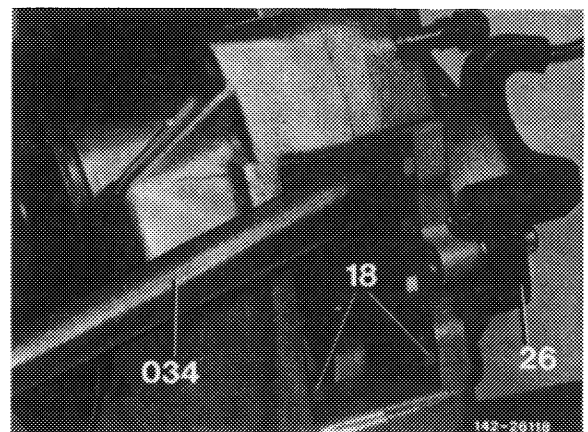
4 Pull sensor (25) out of backing plate or out of brake lining. Simultaneously remove cross spring or lining holding spring.

Attention!

Renew sensors on which the insulating layer of the contact pin has been chafed through or where a part of sensor including the line insulation, has been damaged.



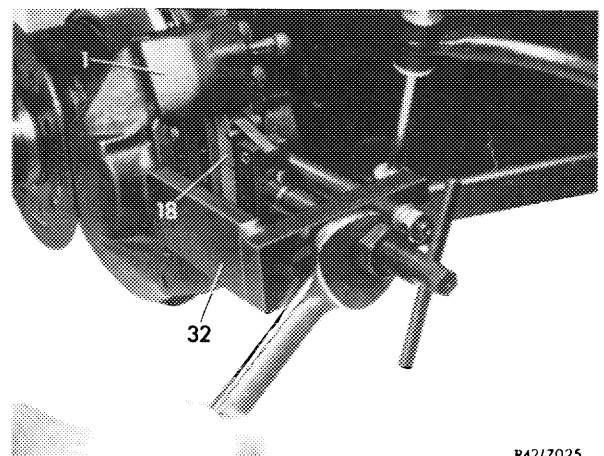
5 Force brake pads (18) out of fixed caliper by means of ejection lever (034).



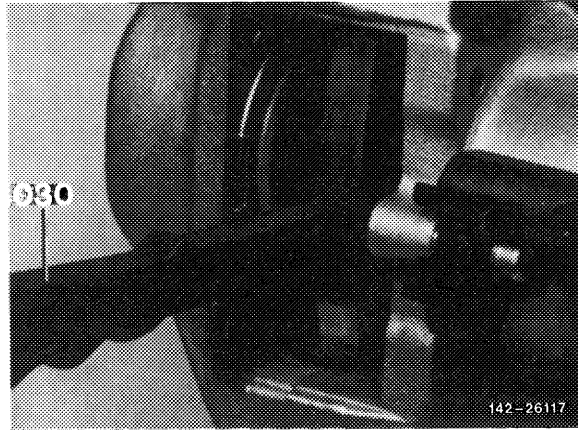
Note: When brake pad is rusted down, use puller (32) for removing pad.

If brake pad wear is high, check piston for easy operation. If pistons are hard to move, recondition fixed caliper.

Brake discs which are badly contaminated at braking surface by deposits from lining (indicated by gray or blue discoloration of brake surfaces), must be cleaned prior to installing new brake pads (42-260).



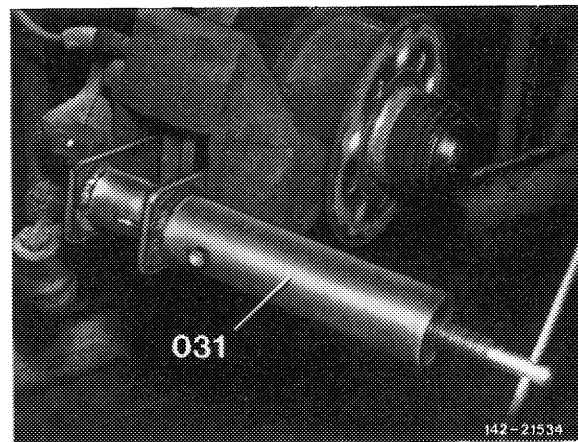
6 Clean guide for brake pad in fixed caliper (2) with brake caliper brush (030).



7 Check dust cap for cracks. If the dust cap is damaged, remove and disassemble fixed caliper, since penetrating dirt will quickly lead to leaks in caliper.

8 To prevent any overflowing of expansion tank when pushing back piston, draw some brake fluid out of expansion tank.

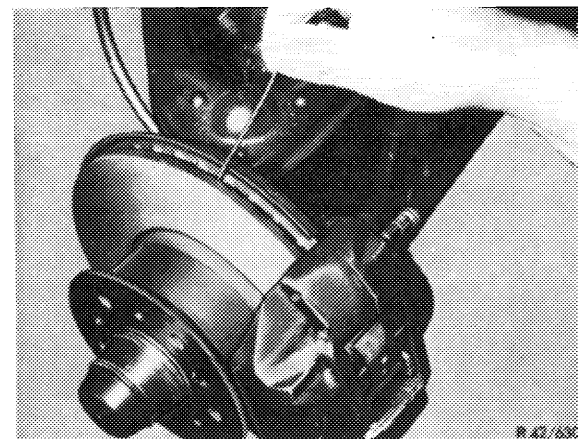
9 Push back both pistons by means of resetting tool (031).



10 When brake discs are vented, check air shafts for contamination. In such a case clean air shafts with a thin wire while making sure that the balancing clamps are not loosened. Blow dirt out of shafts with compressed air.

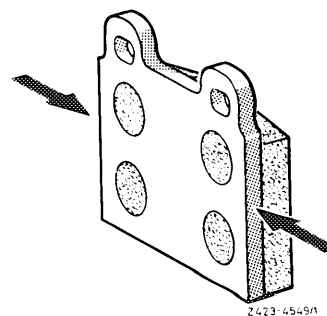
Note: Measure thickness of brake disk. Pay attention to limit dimension so that the wear limit is not less than specified (refer to data).

Replace brake disk if the test dimension is less than specified (42-220, 42-228).

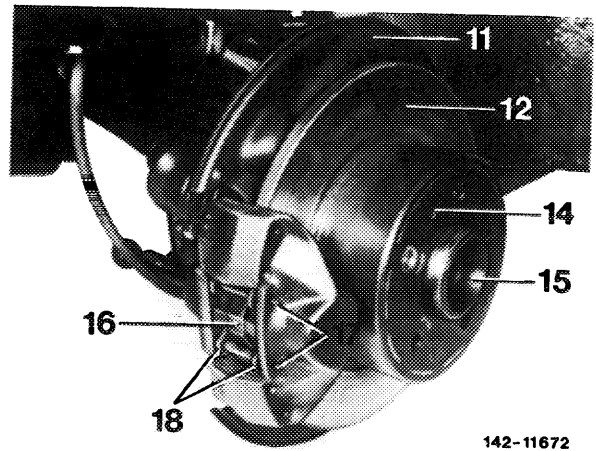


Installation

11 Slightly rub brake pads on spots indicated in illustration with arrows with specified lubricant (refer to table) and insert brake pads into fixed caliper.

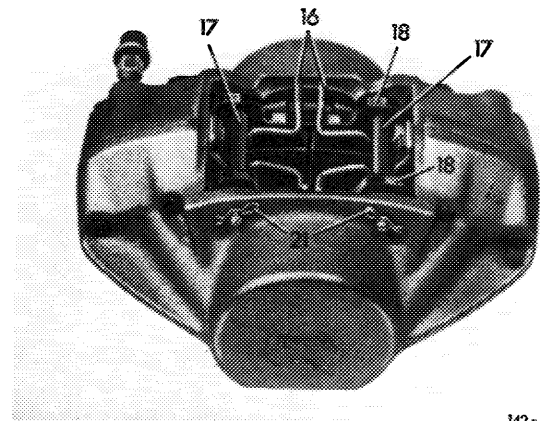


12 On Teves fixed caliper position cross spring (16) and knock holding pins (17) into fixed caliper.



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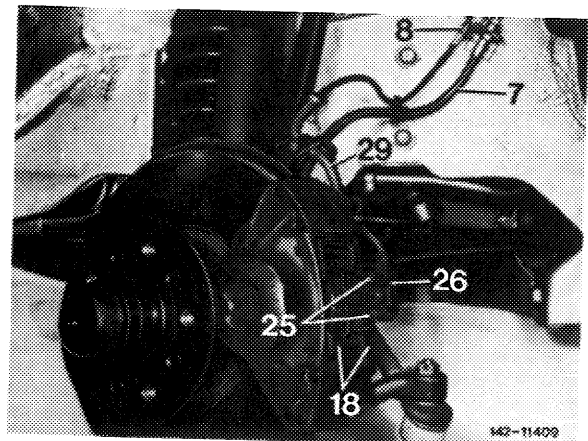
13 On Bendix and Girling fixed caliper, mount springs holding lining (16) and insert holding pins (17) into fixed caliper and locking eyes (21) into holding pins.



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14 On fixed calipers with brake lining-wear indicator, insert sensor (25) into brake pad and cable into plug connection (26).

15 Actuate brake pedal several times energetically until firm resistance is felt. Then check level of brake fluid in expansion tank and top up, if required.

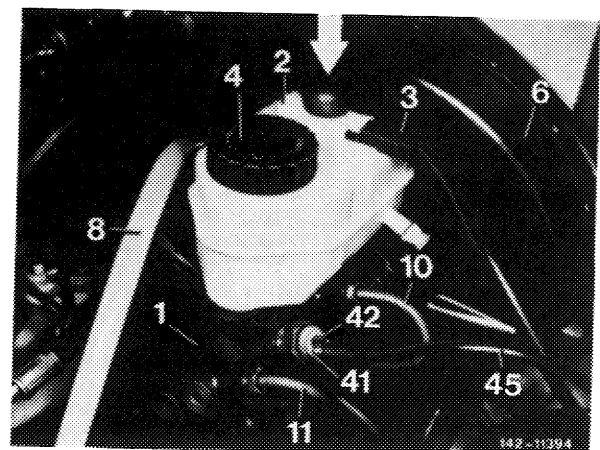


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Note: On vehicles with pressure difference warning indicator (DDW), the warning lamp of the warning indicator may light up when the lining is changed. For this reason, make sure that the releasing pin (42) on switch (41) is pushed following the change of lining.

New brake pads must be braked in carefully, that is, the vehicles should be braked several times from 80–40 km/h at slight pedal pressure.

Prior to each deceleration, permit brake to cool slightly. Braking to a stop under high deceleration should be attempted only with run-in linings.



142-11384