Revision: Brake shoes with brake lining wear indication and safety eyelets on all Bendix calipers outside lining inspection shaft added.

Data

Caliper piston dia.	38	57	60
Thickness of brake shoe with backing plate for lining		15	
Thickness of backing plate for lining		5	
Perm. wear of brake lining up to a remaining thickness of		2	
Width of brake shoe max.	61.75	76.75	89.75
Effective brake surface per axle (cm^2)	100	152	206

Lubricant

Molykote-Paste U	Molykote-Paste G Rapid	Liqui-Moly-Paste 36	Plastilube

Special Tools

Impact puller	115 589 14 33 00
Puller for stuck brake shoes	116 589 04 33 00
Piston resetting pliers	111 589 07 37 00

Note

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

When the brake shoes are worn down to the lining backing plate beyond the permissible lining thickness, the caliper may suffer damage since the web between the sealing ring groove and the dust cap will fracture and the caliper will leak (Fig. 1).

When brake shoes are excessively worn, a high and low pressure test (90 or 3 bar gauge pressure (atü)) will be required. To prevent canting of piston, pistons with badly worn linings may be pushed back to their end position by means of a piston resetting pliers only.

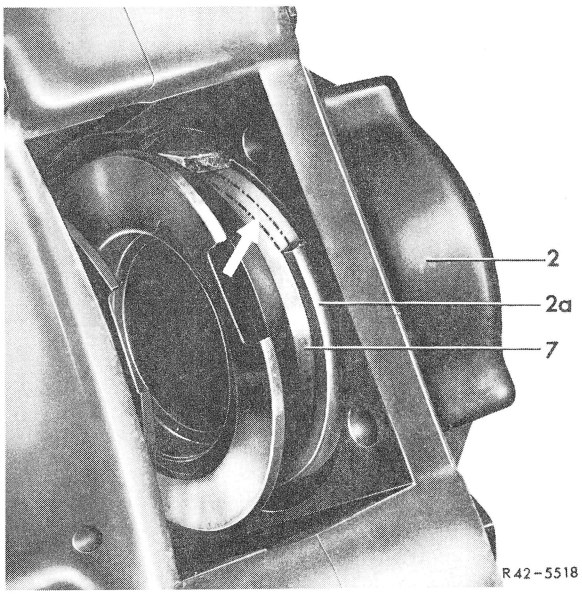

Fig. 1
2 Caliper
2a Web
7 Piston

Removal

1 Remove shaft cover plate (15) on caliper – on front wheel brake only, on calipers with 57 mm piston dia. and solid brake discs (Fig. 2).

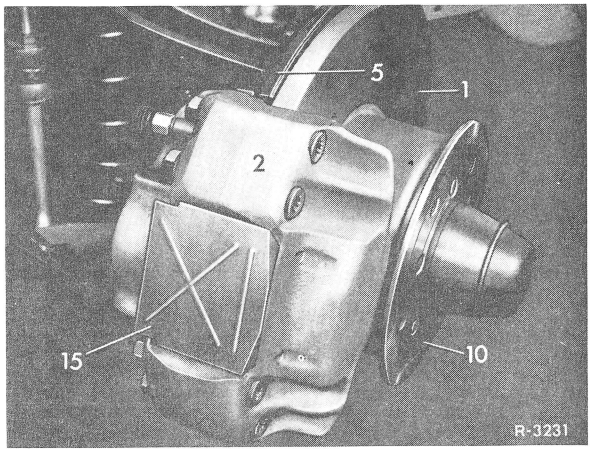

Fig. 2
1 Brake disc
2 Caliper
5 Cover plate
10 Front wheel hub
15 Shaft cover plate

2 On vehicles with brake lining wear indicator, pull cables of clip sensors (25) out of plug connection (26) on caliper (Fig. 3).

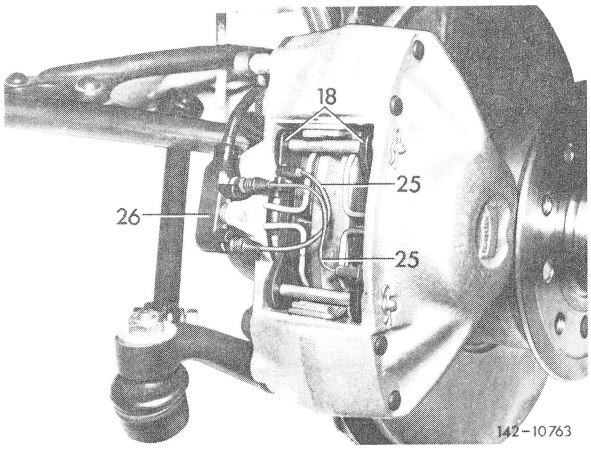

Fig. 3
18 Brake shoe
25 Clip sensor
26 Plug connection

3 On Teves-brake caliper, knock holding pins (17) out of caliper by means of a punch and remove cross spring (16) (Fig. 4).

4 On Bendix-caliper, pull both eyelets (21) out of holding pins (17), remove holding pins and lining holding springs (16) (Fig. 5).

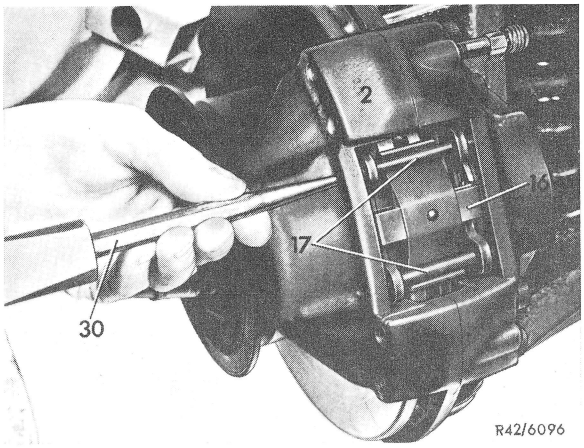

Fig. 4
2 Caliper
16 Cross spring
17 Holding pin
30 Punch

5 Pull one brake shoe (18) out of caliper gap by means of impact puller (033) (Fig. 6).

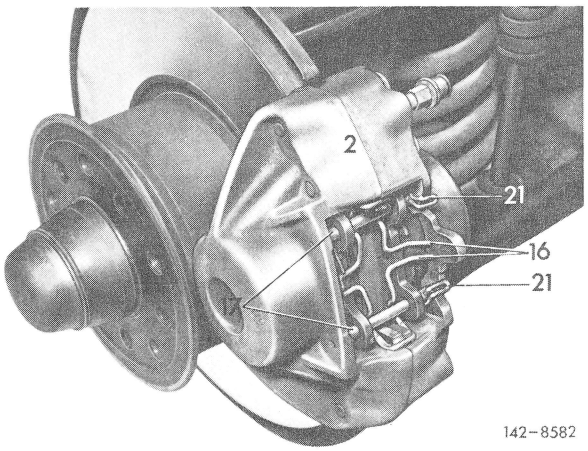

Fig. 5
2 Caliper
16 Lining holding spring
17 Holding pin
21 Safety eyelet

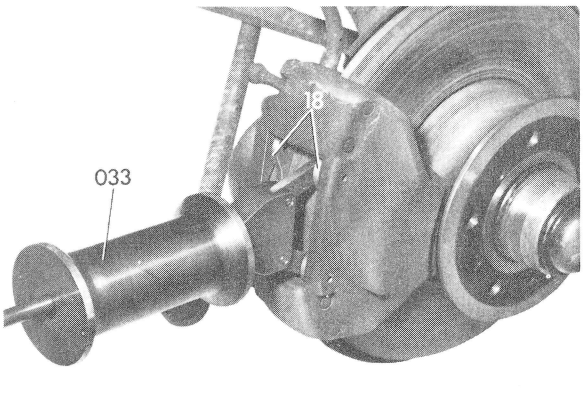

Fig. 6
18 Brake shoe
033 Impact puller

Note: If brake shoe is held by rust, use puller for stuck brake shoes (Fig. 7).

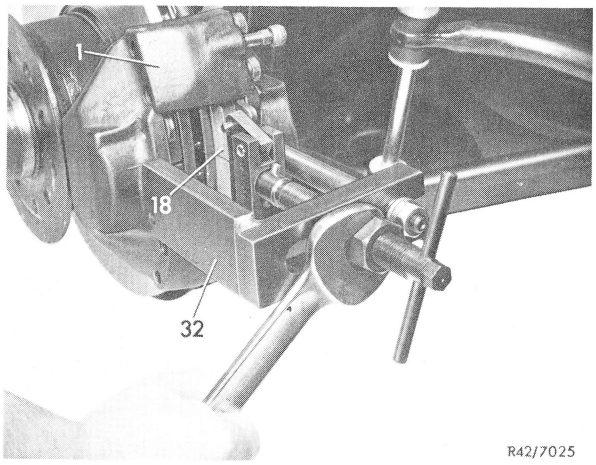

Fig. 7
1 Caliper
18 Brake shoe
32 Puller

Note: If brake shoes show excessive wear, check piston for easy running. If pistons are hard to move, recondition caliper.

Brake discs which are heavily fouled by deposits on brake surfaces (indicated by grey or blue discoloration of brake surfaces) must be cleaned prior to installing new brake shoes (42.0–260).

6 On vehicles with brake lining wear indicator, pull clip sensor (25) out of lining backing plate or brake lining (Fig. 8).

Note: Renew clip sensors on which the insulation layer has been rubbed from brake disc.

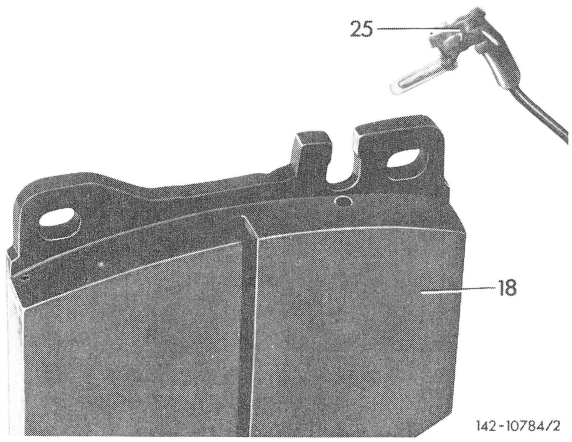

Fig. 8
18 Brake shoe
25 Clip sensor

7 Clean guide for brake shoe in brake caliper (1) with a cylindrical brush (30) (Fig. 9).

8 Check dust cap for cracks. If the dust cap is damaged, remove and disassemble caliper, since any dirt will quickly result in leaks on caliper.

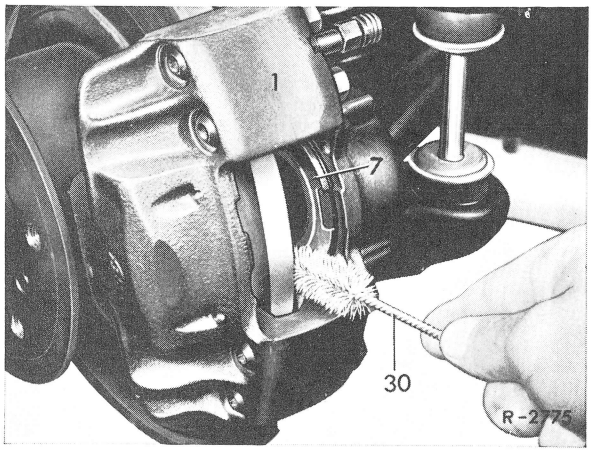

Fig. 9
1 Caliper
7 Heat shield
30 Cylindrical brush

9 To protect the compensating tank against overflow when the piston is forced back, draw some brake fluid from compensating tank.

10 Force piston back with piston resetting pliers (31). Make sure that one brake shoe (18) always remains in caliper, since otherwise the opposite piston will be pushed forward by forcing back the other piston (Fig. 10).

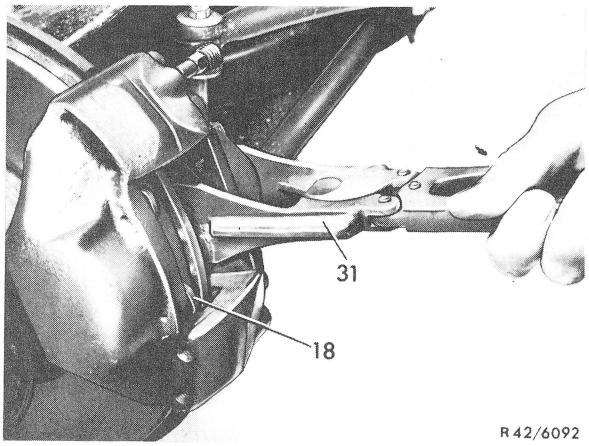

Fig. 10
18 Brake shoe
31 Piston resetting pliers

11 On vehicles with vented brake discs, check air shafts for contamination. If contaminated, clean air shafts with a thin wire, making sure that balancing clamps are not loosened. Blow dirt out of shafts by means of compressed air (Fig. 11).

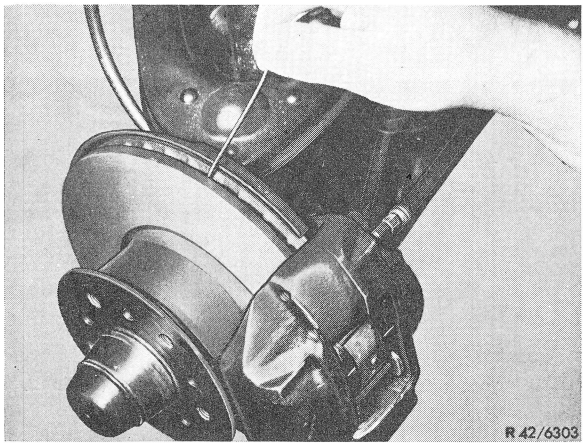

Fig. 11

Installation

12 On vehicles with brake lining wear indicator, insert clip sensor (25) into lining backing plate and brake lining (Fig. 8).

13 Slightly coat brake shoe with specified lubricant (refer to Table) at points indicated by arrows in Fig. 12.

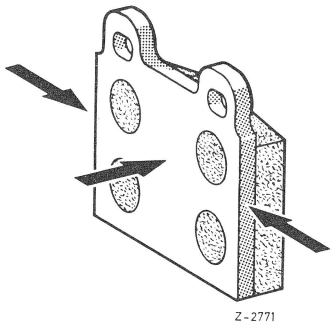

Fig. 12

14 Replace second brake shoe as described in item 5 to 10.

15 On Teves-caliper, mount cross spring (16) and knock holding pins (17) into brake caliper (Fig. 13).

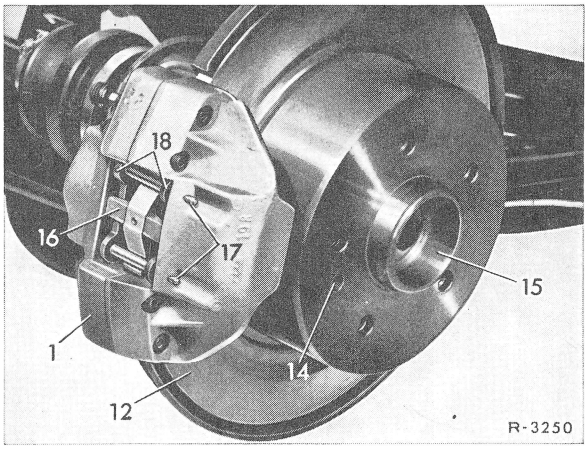

Fig. 13
Brake caliper on rear axle

1 Caliper
12 Brake disc
14 Set pin
15 Rear axle shaft flange
16 Cross spring
17 Holding pin
18 Brake shoe

16 On Bendix-caliper, mount lining holding springs (16), insert holding pins (17) into caliper and eyelets (21) into holding pins (Fig. 5 and 14).

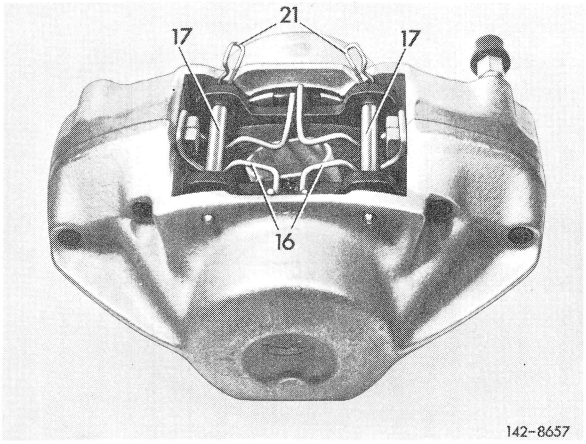

Fig. 14
Caliper version with 57 mm piston dia. up to end of 1974

16 Lining holding spring
17 Holding pin
21 Eyelet

Note: Bendix-calipers with 57 mm piston dia. up to end of 1974 are provided with lefthand and righthand eyelets. During assembly, make sure that the rounded-off leg of eyelet faces outwards (Fig. 14).
Starting 1975, the eyelets of Bendix-brake calipers are mounted outside the brake caliper inspection shaft similar to calipers with 60 mm piston dia. (Fig. 15).

17 On vehicles with brake lining wear indicator, connect cables of clip sensors (25) to plug connection (26) of caliper (Fig. 3).

18 Install cover plate, if removed.

19 Actuate brake pedal energetically several times until solid resistances are felt. Then check level of brake fluid in compensating tank and replenish, if required.

Note: New brake shoes must be **braked-in carefully,** that is, the vehicle should be braked several times from 80 to 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.

If the braking is too sharp right after installing new brake shoes, burnt spots may show up on surface of lining and the vehicle will show a tendency toward veering during deceleration.

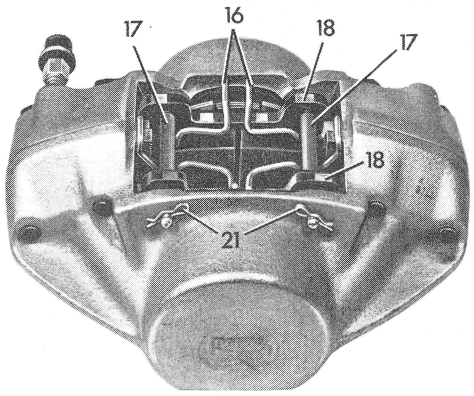

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Fig. 15

Caliper version with 60 mm piston dia. and starting 1975 with 57 mm and 38 mm piston dia.

16 Lining holding spring
17 Holding pin
18 Brake shoe
21 Eyelet