# 42 Service brake - general

42-84033 Poor braking effect (normal pedal travel)

### Cause

- Brake test on chassis dynamometer, checking the pressure, condition of tires and uniformity of the makes of tire.
- 2. Check braking system.



brake pads for wear and specified types of lining (observe batch no.), clean and dress, replace if necessary (42-0160).

Check for leaks: Brake caliper, wheel hubs and rear axle shaft flanges.

Check brake caliper piston for ease of movement and condition of brake discs.

Check brake hoses (ageing, swelling).

- a) Replace brake calipers, if necessary (42-0100, 42-0110, 42-0120) or
  - b) Repair brake calipers (42-0150, 42-0152).

If the brake discs are very dirty (lining abrasion etc.):

- 4. Clean brake discs with cleaning pads (42-0260)
- 5. Replace brake discs (42-0220, 42-0228).

# 42 Service brake - general

42-84032 Brake pedal moves down slowly when operated lightly.

#### Cause

Brake pressure drops slowly via defective primary or separating cup seal in tandem brake master cylinder.

# Remedy

1. a) Repair tandem brake master cylinder (42-0315).

Or

b) Replace tandem brake master cylinder (42-0310)

# 42 'Service brake - general

42-84033 Poor braking effect (normal pedal travel)

### Abhilfe

- 1. Brake test on chassis dynamometer.
- 2. Check braking system.



Check brake pads for wear and specified types of lining, replace if necessary.

Check for leaks: Brake caliper, wheel hubs and rear axle shaft flanges.

- If the brake discs or brake pads show signs of the effects of de-icing salt or lining abrasion is present, operate brake pedal firmly several times. Clean or dress brake discs or brake pads (42-0260), if necessary.
- 4. If there are scores along the circumference of the brake discs more than 0.5 mm deep, as well as open cracks and scorch marks (ventilated brake discs with hairline cracks up to 25 mm long do not need to be replaced):

Replace brake discs ((42-0220, 42-0228).

- 5. a) Replace brake calipers, if necessary (42-0100, 42-0110, 42-0120) or
  - b) Repair brake calipers (42-0150, 42-0152).

# 42 Service brake - general

42-84034 Poor braking effect with a hard brake pedal (short pedal travel)

## <u>Cause</u>

Sealing ring between tandem brake master cylinder and brake unit damaged, resulting in no pressure build up.

Rolling diaphragm cracked or sealing ring in control module of brake unit damaged or timing case broken.

#### Remedy

- 1. Check function of brake unit and non-return valve (42-0023, 43-0325).
- 2. Check function of vacuum valve (07.1-0160).
- Remove, install tandem brake master cylinder. Replace sealing ring (43-0350).
- 4. Replace brake unit (43-0350).

# 42 Service brake - general

42-84035 Brakes heat up while driving, without operating the brake pedal.

### <u>Cause</u>

- 1. Return spring for brake pedal not attached.
- 2. Brake pedal does not move back fully (binds, sticks).
- 3. Brake lining constantly rubs against the brake disc.
- 4. Central valve in tandem brake master cylinder does not open.
- 5. Mounting surface on firewall for brake unit deformed, uneven.

### Remedy

- 1. Attach return spring for brake pedal.
- 2. Check brake pedal for ease of movement (limit stop on brake booster)
- Replace brake pads which have seized due to rust in lining pocket (42-0160).
   Repair or replace piston which has seized due to rust in brake caliper (42-0100, 42-0110, 42-0150).
- 4. Replace tandem brake master cylinder (42-0310).
- 5. Repair firewall.

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## 42 Service brake vibrates

42-89121 Vibrating or rumbles when braking.

### Cause

- Thickness faults due to wear on the brake discs in conjunction with asbestos-free brake pads or excessive thermal loading.
- 2. Incorrect brake pads installed (model 124)
- Wheel bearing play excessive.

#### Remedy

1. Replace brake discs.

Model 124

On models with ventilated front wheel brake (except vehicles with engines 104, 119), install brake disc part no. 124 421 16 12 (standard production since 02/91).

On 4MATIC vehicles, install brake disc part no. 124 421 23 12.

2. Brake pads part no. 000 420 99 20 (Textar 298) must be installed.

Brake pads part no. 001 420 07 20 (Pagid 525) may only be installed in taxis or national versions (HIS) (HIS) (USA)

3. Adjust wheel bearing play (0.01 mm)

#### Note

In the case of repeated complaints: Check lateral runout of the new brake disc, when installed. To do this, secure the brake discs with 2 wheel bolts and spacers (0.04 mm lateral runout should be achieved). If necessary, replace brake discs on each axle and check lateral runout of wheel hub or wheel carrier (rear axle).

## 42 Service brake noise

42-84036 Brakes squeal

### Cause

Vibration due to friction



Slight squeal (contact chirp) during light braking is not a complaint. If squeal is pronounced:

#### Remedy

- Check brake pads for wear and specified types of lining, clean and dress. Check the 20° position on the rear wheel brake caliper (anti-squeal device), correct piston position, if necessary (42-0160).
- 2. On model 201, install brake pads part no. 001 420 01 20 05 on the rear wheel brake.

## 42 Service brake noise

42-89091 High frequency whistling sound from the front wheel

brake at a speed of 80-120 km/h

## Cause

Friction noises due to the brake pads making contact with the brake discs. The noise disappears when the brake is operated.

Model 201

## Remedy

Adjust wheel bearing play (0.01 mm).

Check brake calipers and pads for ease of movement.

## 42 Service brake noise

42-90121 Brake calipers rattle when brake is not operated.

### Cause

Play in bearing of sliding pin.

Damage Code for warranty/goodwill case: 42 123 17

### Remedy

- 1. Increase lining retainer spring or U-bolt preload, install correctly, if necessary.
- 2. Replace worn sliding pins (model 124, 201 front axle).
- 3. Install brake carrier with anti-rattle bushing (model 124).

# 42 Parking brake

42-84037 Inadequate braking effect of parking brake

## <u>Cause</u>

Excessive idle travel between brake shoes and brake disc drum.

Brake shoes dirty, contaminated by grease or oil.

### Remedy

- 1. Adjust parking brake (42-0540).
- During a test trip on a dry road (initial speed approx. 50 km/h), operate the parking brake several
  times with 100-200 N and brake the vehicle until it comes to a stop (Maintenance Manual 4290)



Pay attention to traffic behind you

It may be necessary to repeat the process. However the parking brake must not be overheated.

3. Check and replace brake shoes and expanding lock (42-0530).

## 42 Parking brake

42-88071 Parking brake does not release or malfunction indicator Model 124

lamp in instrument cluster does not go out.

### Cause

Front brake cable is difficult to operate.

## Remedy

Replace front brake cable (42-0520).

Improved front brake cables have been installed in production since mid-09/88.

# 42 Parking brake

42-92072 Parking brake expanding lock rattles.

## Cause

Play in expanding lock.

### Remedy

Install modified brake shoes (standard production as of 07/92)

# 42 Parking brake

42-91071 Parking brake linings burnt.

## Cause

Driving with a parking brake which has not been released.

### Remedy

Replace parking brake linings.



It is essential to replace the return springs at the same time.

The brake discs must be replaced in each case on vehicles with ventilated rear wheel brake discs.

# 42 Parking brake

42-91082 Foot controls carrier loose (pedal hangs loose with

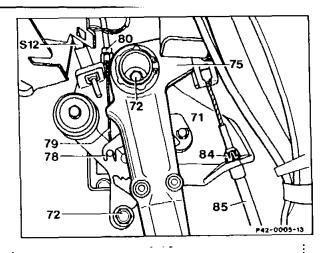
Model 124.036

## Cause

The sound insulation material (felt mat) on the front wall can be installed under the foot controls carrier (71), significantly reducing the tightening torque of the bolts (72).

## <u>Remedy</u>

Remove parts of the felt mat under the carrier. Tighten bolts (72) to 12 Nm.



- 71 Carrier
- 72 Bolt
- 75 Pedal
- 78 Pin
- 79 Release control cable
- 80 Clip
- 84 Clamping ring
- 85 Brake control cable
- S12 Parking brake switch