

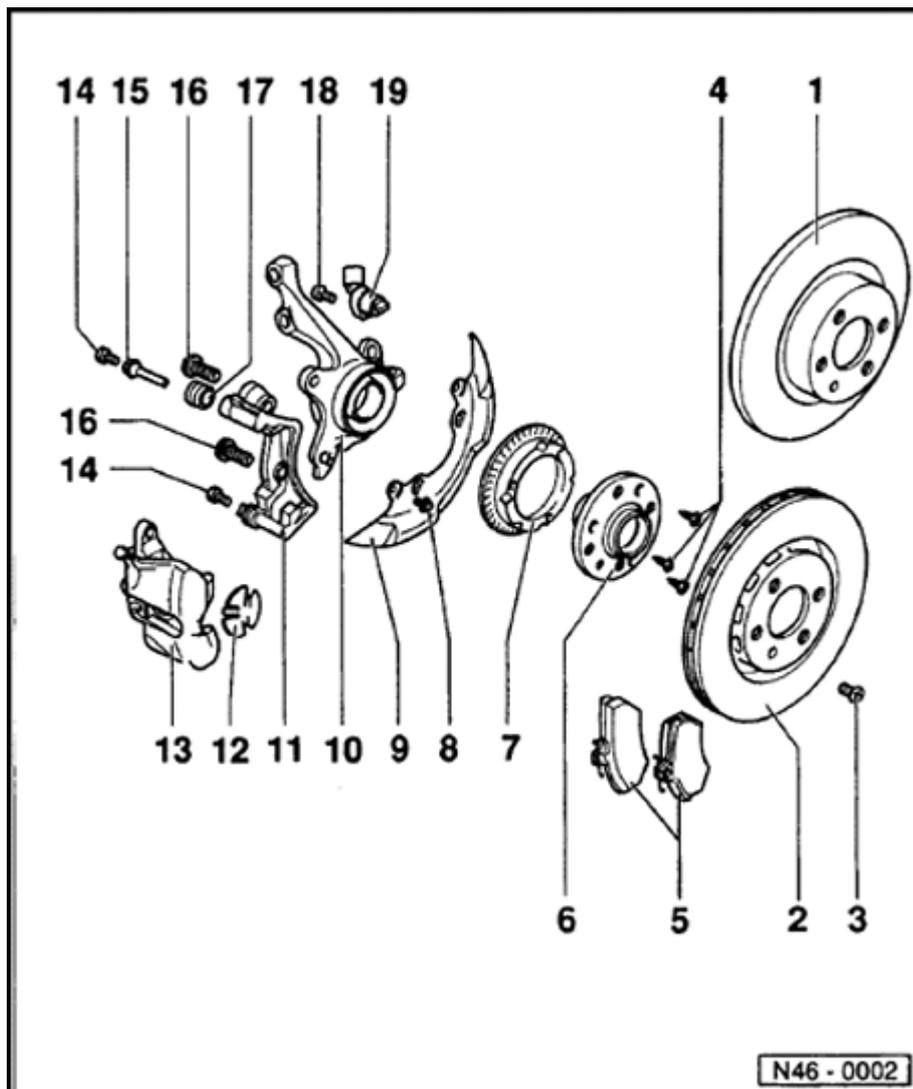


## Front brakes, servicing

### Front brakes - brake caliper Girling, servicing

#### Note :

- After replacing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.
- When siphoning brake fluid, always use a bleeder bottle that is used exclusively for brake fluid. Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!
- Wheel bolt tightening torque: 110 Nm.



- **Brake disc, not bled**
  - Must always be replaced together on both sides of axle
  - Brake disc:  $\varnothing$  256 mm
  - Brake disc thickness: 13 mm
  - Wear limit: 11 mm
  
- **Internally vented brake disc**
  - Must always be replaced together on both sides of axle
  - Brake disc:  $\varnothing$  256 mm
  - Brake disc thickness: 20 mm
  - Wear limit: 18 mm
  
- **Phillips-head screw**
- **Metal countersunk screw**
  - To secure rotor
  - Only on vehicles with ABS
  
- **Brake pads**
  - With brake pad wear indicator
  - Must always be replaced together on both sides of axle
  - Removing and installing  $\Rightarrow$  [46-1, Brake pads, removing and installing](#)
  - Brake pad thickness: Not vented brake disc, 14 mm
  - Brake pad thickness: Internally vented brake disc, 11 mm
  - Checking thickness

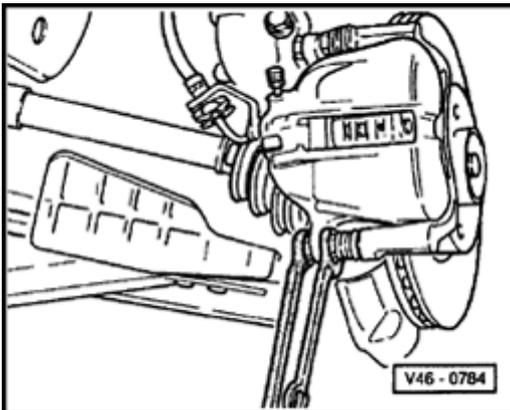
⇒ ⇒ [Repair Manual, Maintenance](#)

- Wear limit: 7 mm (including backing plate)
  
- **Wheel hub**
  - Removing and installing ⇒ [40-1, Wheel bearing, suspension strut, drive axle - Basic suspension, removing and installing](#)
  
- **Rotor for speed sensor**
  - Only on vehicles with ABS
  
- **Hex bolt, 10 Nm**
- **Cover plate**
- **Wheel bearing housing**
- **Brake carrier with guide pins and protective cap**
  - Supplied as pre-assembled replacement part with sufficient grease on guide pins
  - Use repair kit when protective caps are damaged.
  - Use grease packet supplied to lubricate guide pins
  
- **Heat shield**
  - insert in piston.
  
- **Brake caliper housing**
  - Do not unscrew brake hose when replacing brake pad
  
- **Hex bolt, self-locking, 35 Nm**
  - Replace

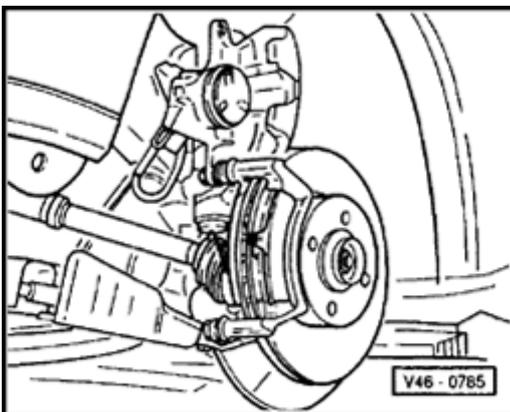
- **Guide pins**
- **Ribbed bolt, 125 Nm**
- **Protective cap**
- **Socket head bolt, 10 Nm**
- **Wheel speed sensor**
  - Only on vehicles with ABS
  - Before inserting wheel speed sensor, clean inner surface of bore hole and coat with securing grease G 000 650 .

## Brake pads, removing and installing

### Removing



- Unscrew lower mounting bolt for brake caliper housing. Counterhold at guide pin.



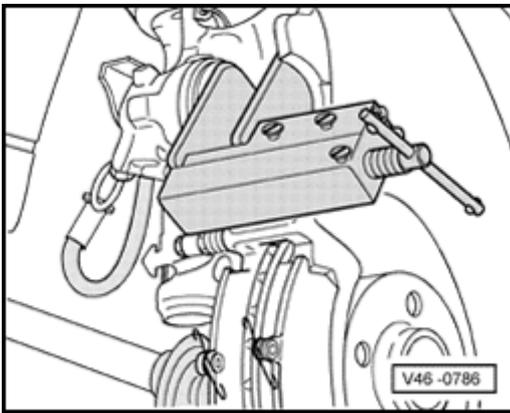
- Swing brake caliper housing upward.

- Remove brake pads.

### Installing

#### **Note:**

- *Press piston back into caliper housing using resetting tool before inserting new brake pads. Before pushing back the piston, siphon some of the brake fluid out of the brake fluid reservoir. Otherwise, especially if reservoir has been topped off, fluid will overflow and cause damage.*



- Press piston back.
- Insert brake pads.
- Swing brake caliper housing downward and tighten hex bolts.

#### **Note:**

- *Repair kit includes two self-locking hex bolts which must always be installed.*
- *After replacing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.*

### Front brake - Teves/ATE, servicing



axle

- Brake pads are different; pad on piston side has retaining spring
- Removing and installing ⇒ [46-1, Brake pads, removing and installing](#)
- Brake pad thickness: 14 mm
- Checking thickness  
⇒ ⇒ [Repair Manual, Maintenance](#)
- Wear limit: 7 mm (including backing plate)
- **Retaining spring**
  - Insert in both holes of brake caliper housing
- **Brake carrier**
  - Supplied as pre-assembled replacement part with sufficient grease on guide pins
  - Use repair kit when protective caps are damaged.
  - Use grease packet supplied to lubricate guide pins
- **Brake caliper housing**
  - Do not unscrew brake hose when replacing brake pad
  - Removing and installing ⇒ [46-1, Brake pads, removing and installing](#)
- **Guide pins, 25 Nm (18 ft lb)**
  - Removing and installing ⇒ [46-1, Brake pads, removing and installing](#)

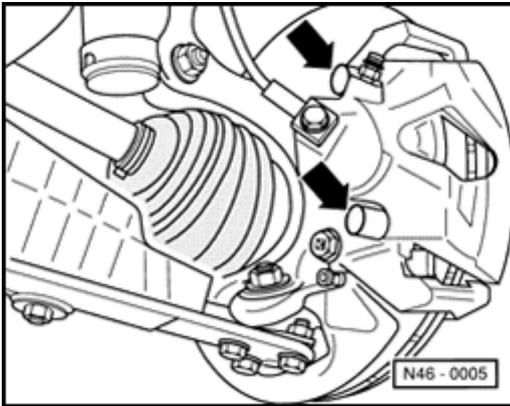
- **Concealment cap**
- **Seal**
  - Replace
  - Pry off using suitable tool
  
- **Brake hose**
- **Banjo fitting, 30 Nm**
- **Ribbed bolt, 125 Nm**
- **Wheel bearing housing**
- **Socket head bolt, 10 Nm**
- **Wheel speed sensor**
  - Only on vehicles with ABS
  - Before inserting wheel speed sensor, clean inner surface of bore hole and coat with securing grease G 000 650 .
  
- **Cover plate**
- **Hex bolt, 10 Nm**
- **Rotor for speed sensor**
  - Only on vehicles with ABS
  
- **Wheel hub**
  - Removing and installing ⇒ [40-2, Wheel bearing, suspension strut - Plus suspension, removing and installing](#)
  
- **Metal countersunk screw**

## Brake pads, removing and installing

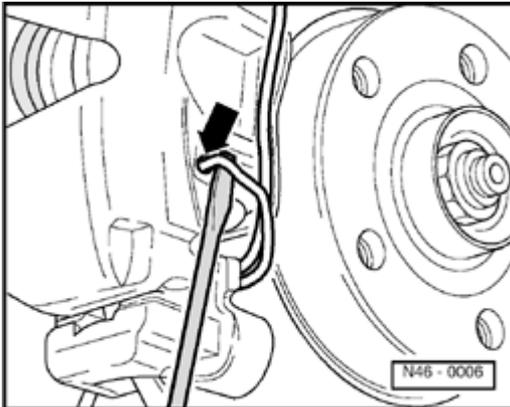
### Removing

### **Note:**

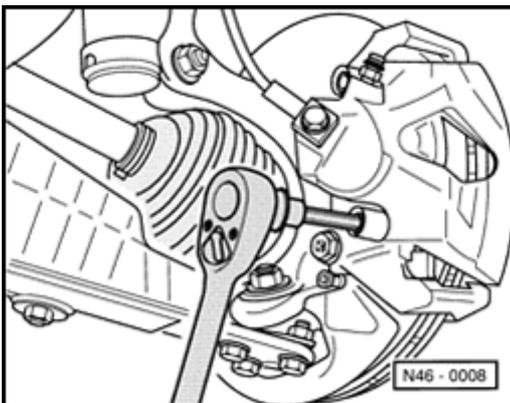
- *When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!*



- Remove protective caps - **arrows** - .



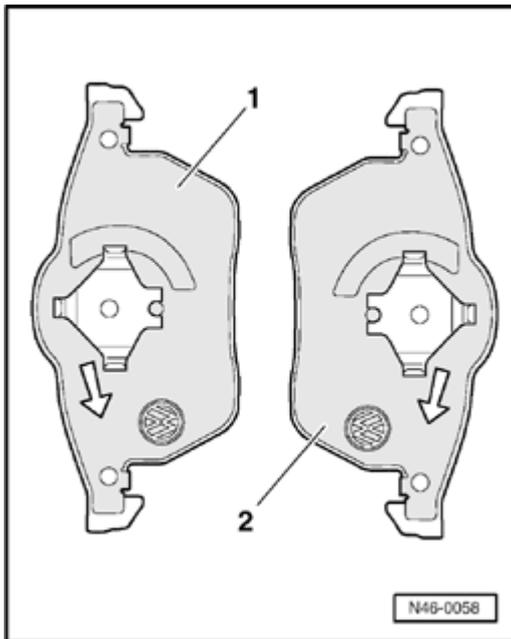
- Using screwdriver, pry off brake pad retaining spring - **arrow** - from brake caliper housing and remove.



- Remove both guide pins from brake caliper.
- Remove brake caliper housing and set aside so that the weight of the brake caliper does not burden or damage the brake hose.
- Remove brake pads from brake caliper housing or from

brake carrier.

### Installing



### Uni-directional brake pads

1 - right brake pad, piston side

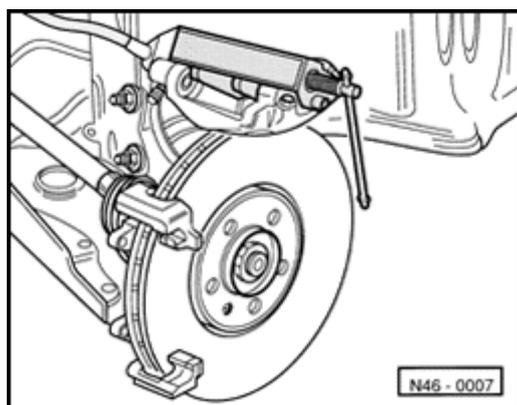
2 - left brake pad, piston side

Before installing new brake pads, press piston into cylinder using resetting tool. Before resetting, siphon brake fluid from brake fluid reservoir using bleeder bottle. Otherwise, especially if reservoir has been topped off, fluid will overflow and cause damage.

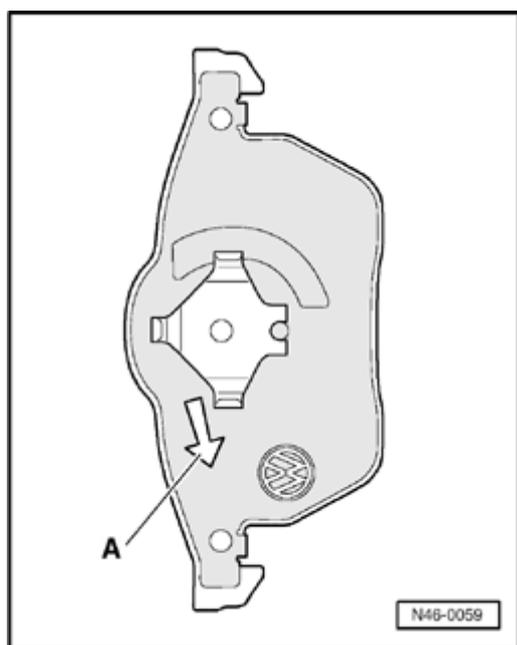
Thoroughly clean brake caliper housing before installing new brake pads. When doing this, be especially careful to remove any residual adhesive foil from outer brake pads.

### **Warning!**

**Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!**

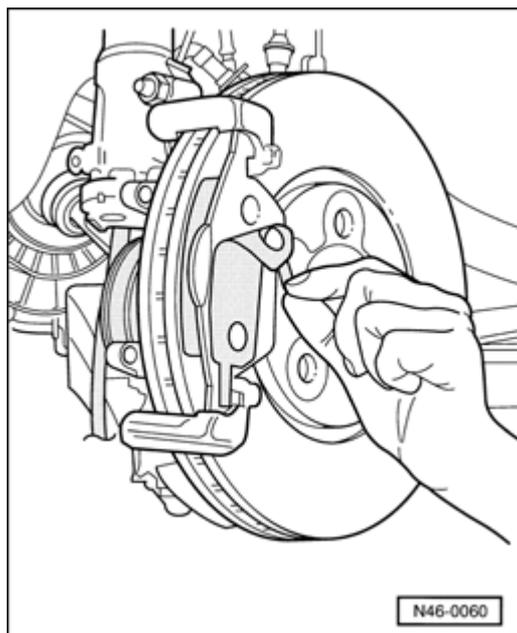


- Press piston back.
- Insert brake pad with retaining spring into brake caliper housing (piston).



**When installed, arrow on the backing plate - A - of brake pad must face downward. Make certain of this!**

- Install outer brake pad on brake carrier.



- Remove protective foil on backing plate of outer brake pad.
- Bolt brake caliper housing on to brake carrier with both guide pins.
- Install both protective caps.
- Install retaining spring in brake caliper housing.

**Note:**

- *After installing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.*