

Fig 18. Park Brake Calliper

⇒ [Component Identification](#) (□ G-19).

### Dismantle

A numerical sequence, intended as a guide to dismantling, is provided. → [Fig 18. \(□ G-20\)](#).

- 1 Remove the calliper and brake pads. See → [Removal \(□ G-17\)](#).
- 2 Type 1 - Bend the tabs on anti-rotation clip **18-16**. Remove bolt **18-3A**, anti-rotation clip **18-16** and washers **18-5** and **18-6**. Hold lever **18-6** against the tension of the spring as the bolt is removed.

Type 2 - Remove the screw **18-3**, and washers **18-4** and **18-5**. Hold lever **18-6** against the tension of the spring as the screw is removed.

- 3 Note the position of lever **18-6** relative to the splines of the shaft **18-8**. Mark the end of the shaft and lever **18-6** to aid assembly. Remove lever **18-6** and spring **18-7**.
- 4 Push out rotor **18-8** and remove ball spacer **18-9** and ball bearings **18-10**. Take care not to lose the ball bearings.
- 5 Type 1 - Push out mounting bushes **18-11** and remove dust seals **18-12**.

Type 2 - Push out mounting bushes **18-11A** and remove O-rings **18-12A**.

- 6 Remove the rotor seal **18-13** followed by bearing ring **18-14**. Note that the rotor seal may be located on the rotor shaft or may have been left in the calliper housing **18-15**.

**Note:** Shaft seal **18-16** will not need to be renewed unless excessively worn or damaged. If removal is necessary, press the seal out from inside the housing using a suitable spacer block and bench press. Clean out any remains of the seal after removal.

### Inspection

- 1 Clean and dry all parts. Check all parts are free from excessive wear, damage or corrosion. Light scores or stains should be removed. Renew corroded or deeply scored parts.
- 2 Check rotor **18-8** for damage or distortion and renew if necessary.

- 3 Always renew both brake pads if the park brake has been used in an emergency.
- 4 Check the ball pockets in housing **18-15** for signs of scoring, pitting, damage or corrosion. Renew the housing if damaged.
- 5 Check spring **18-7** is not broken or distorted.
- 6 Check the condition of the disc surface. Renew the disc if badly warped, pitted or worn.

### Assemble

A numerical sequence, intended as a guide to assembling, is provided. → [Fig 18. \(□ G-20\)](#).

Before assembly make sure all parts are clean and serviceable.

- 1 Fit a new shaft seal **18-16** if removed. Install the seal as shown. Press the seal into the housing using a suitable spacer block and bench press.
- 2 Coat the shaft and ball pockets of rotor **18-8** and the ball pockets of housing **18-15** with silicone grease.
- 3 Insert the three ball bearings **18-10** into the pockets in the housing **18-15**. Insert ball spacer **18-9**.
- 4 Coat the bearing ring **18-14** with silicone grease and fit the ring to the inner diameter on rotor seal **18-13**. Assemble the rotor seal to the rotor **18-8**.
- 5 Slide rotor **18-8** through the housing and seat the ball pockets against the bearings.
- 6 Position spring **18-7** over the shaft of rotor **18-8**. Insert the large diameter end of the spring into hole **19-A** in the face of the housing.
- 7 Locate the small diameter end of spring **18-7** around the outside edge of lever **18-6** as shown at **19-B**.

Dismantle, Inspection and Assemble

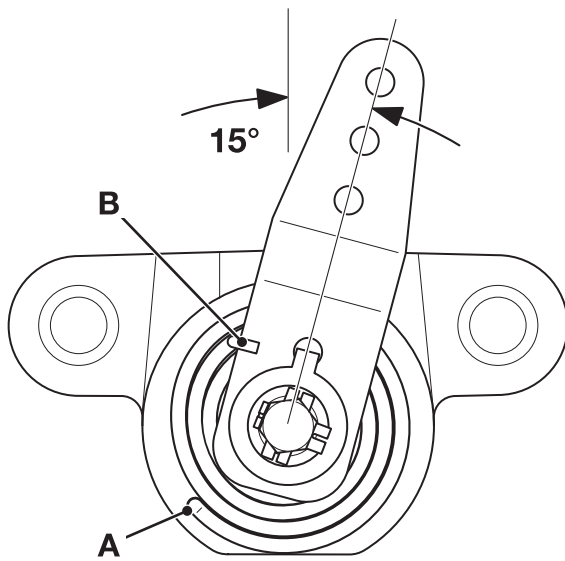


Fig 19.

- 13 Before fitting the calliper, ensure the lever rotates smoothly and that the lever side pad **18-2** returns to the off position when the lever is released.
- 14 Refit the brake calliper. → [Replacement \(□ G-17\)](#).
- 15 Adjust the park brake. → [Adjustment \(□ G-5\)](#).

Table 5. Torque Settings

Item	Nm	lbf ft
<b>18-3</b> (Type 2)	13-16	9-12
<b>18-3A</b> (Type 1)	13-16	9-12

- 8 Fit lever **18-6**. Align the lever to the mark made during dismantling. → [Fig 19. \(□ G-22\)](#).

- 9 Type 1 - Hold the lever against the tension of the spring and fit washers **18-4** and **18-5**, and new anti-rotation clip **18-17**. Fit bolt **18-3A** and torque tighten. → [Table 5. Torque Settings \(□ G-22\)](#)

Type 2 - Hold the lever against the tension of the spring and fit washers **18-4** and **18-5** Fit screw **18-3** and torque tighten. → [Table 5. Torque Settings \(□ G-22\)](#).

- 10 Type 1 Only - Bend up a tab on the anti-rotation clip that aligns with one of the flats on the bolt.

- 11 Fit the new brake pads. → [Renewing the Brake Pads \(□ G-7\)](#).

- 12 Type 1 - Lubricate the O-rings **18-12A** and bushes **18-11A** with silicone grease. Fit O-rings into the housing and insert mounting bushes. Wipe off any excess grease.

Type 2 - Lubricate the dust seals **18-12** and bushes **18-11** with silicone grease. Fit the dust seals to the housing and insert mounting bushes. Make sure that the dust seals locate in their location grooves on the bushes **18-11** and housing **18-15**. Wipe off any excess grease.

# Park Brake Brake Disc

## Removal and Replacement

### WARNING

This is a safety critical installation. Do not attempt to do this procedure unless you are skilled and competent to do so.

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### WARNING

Before working on the park brake, park on level ground and put blocks on each side of all four wheels. Stop the engine and disconnect the battery so that the engine cannot be started. If you do not take these precautions the machine could run over you.

BRAK-8-8

Table 6. Torque Settings

Item	Nm	kgf m	lbf ft
1	300	30.6	221

### Removal

- 1 Disconnect the propshaft to the rear axle. Refer to **Section F - Propshafts Removal and Replacement**.
- 2 Remove the Service brake and Park brake calliper from the transfer gearbox.
- 3 Undo the stake nut and withdraw the brake disc from the drive pinion shaft.

**Note:** If the transfer gearbox is not mounted to a machine, fit flange spanner (service tool 992/04800) to prevent brake disc and drive pinion shaft turning when loosening or tightening the stake nut. Refer to **Section F - Service Tools**.

### Replacement

Replacement is the reverse of the removal sequence.

- 1 Fit a new stake nut and torque tighten to 300 Nm (221 lbf ft).
- 2 Re-stake the nut using a square ended staking tool.