

Caliper Replacement

1 Caliper Replacement

Caliper Removal from Carrier

Remove Pads (see Section 6.1).

Remove the Brake Actuator (see Section 12.1, 12.3).

Disconnect Potentiometer Type Wear Indicator, if fitted.

 *Do not touch electrical contact points because of static discharge!*

Note:

It may be necessary for reasons of accessibility to remove the Caliper and Carrier from the axle (refer to Vehicle Manufacturer's recommendations) or remove only the Caliper.

Use a suitable Tool (e.g. a Screwdriver) to penetrate the Cover (10).

During penetration, the Cover may move inwards.

Remove Cover (10).

 *Cover (10) should be penetrated in the middle. Do not drive the tool between Caliper bore and Cover (10) since Caliper bore may be damaged.*

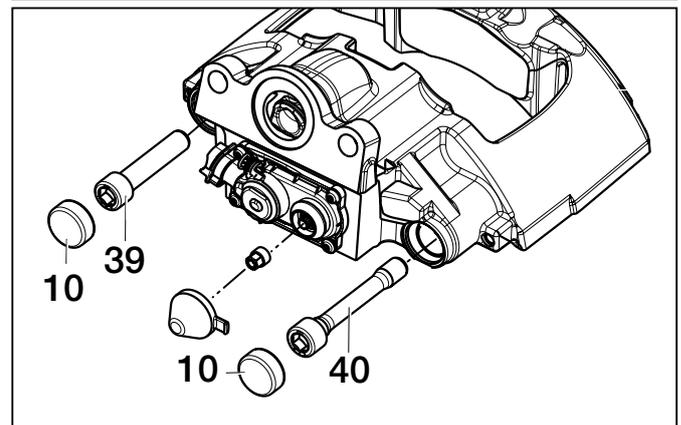
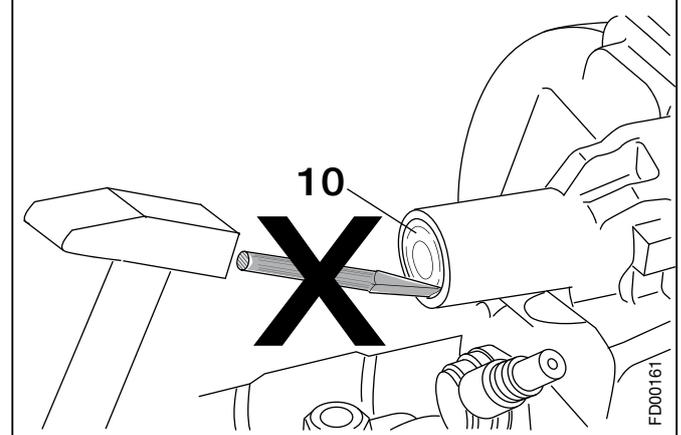
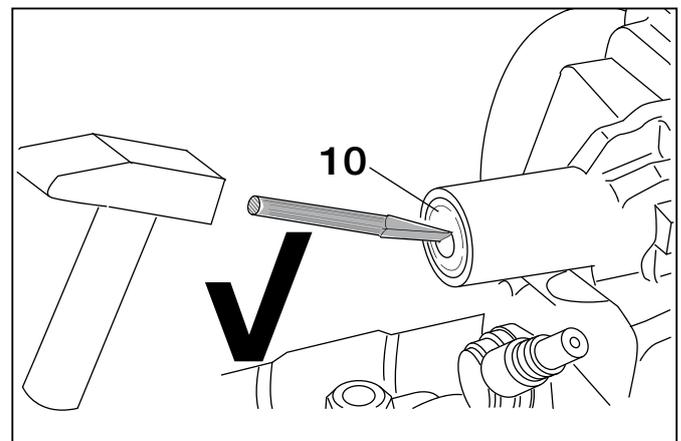
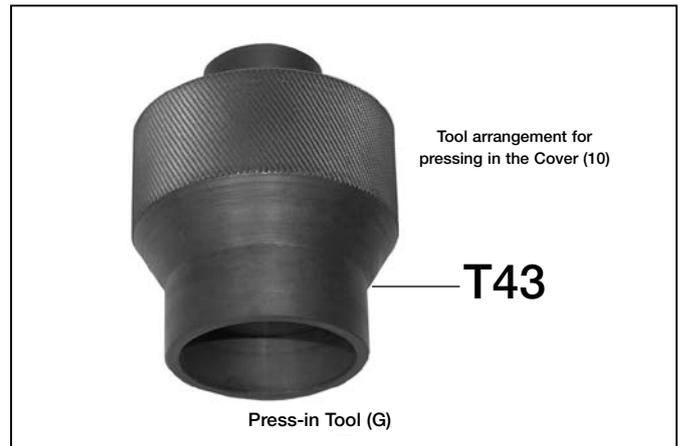
 *Before removing the Caliper Mounting Bolts (39 and 40) ensure that the Caliper (1) cannot move or fall down when the Bolts are removed causing damage or injury.*

Remove Caliper Mounting Bolts (39) and (40) and discard. They must not be re-used.

 *Never hold the Caliper with your fingers between Caliper and Carrier - there is a risk of injury! Do not fasten any lifting device to the Pad Retainer (11), since this could be damaged.*

 *The opening or dismantling of the Caliper is not authorised. Use only genuine Knorr-Bremse replacement Calipers.*

Remove Caliper (1) from Carrier (2).



2 Caliper Fitting to the Carrier (Carrier is fitted on the axle)

The correct choice of Caliper must be ensured by checking the part number on the identification label (see arrow A in sketch 1 and Section 1.2).

The replacement Caliper may have a plastic cap or adhesive tape in the area of the actuator attachment (see arrows B and C). Remove the cap or tape before fitting the Brake Actuator.

Note:

The replacement Caliper includes Seals and Guide Pins. Pads and Carrier are not included.

If the replacement Caliper is equipped with a potentiometer, then the connection must be made using the appropriate mating plug - (refer to Vehicle Manufacturer's recommendations).

! Never hold the Caliper with your fingers between Caliper and Carrier - there is a risk of injury! Do not fasten any lifting device to the Pad Retainer (11), since this could be damaged

! The Guide Pins (4 and 5) as well as the Caliper Mounting Bolts (39 and 40) are highly stressed items. They must be replaced whenever the Caliper (1) is removed from the Carrier (2).

Grease Brass Bush (7) and Guide Sleeve (6) with **white** grease (Part No. II14525 or II32868).

Insert Guide Pins (4) and (5).

The lip in the end of the Inner Boot must engage in the groove of the Guide Pins (4) and (5) (see arrow in the sketch below).

Pushing on the Rings (58) ensures that the Boots (9) engage in the grooves of the Guide Pins (4) and (5).

Fit the Caliper (1) to the Carrier (2).

Screw in new Caliper Mounting Bolts (39) and (40) and tighten to 180 Nm, then tighten by a further 90°.

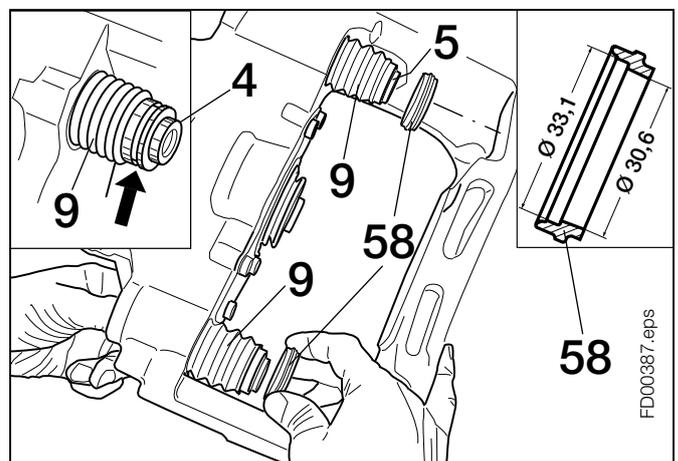
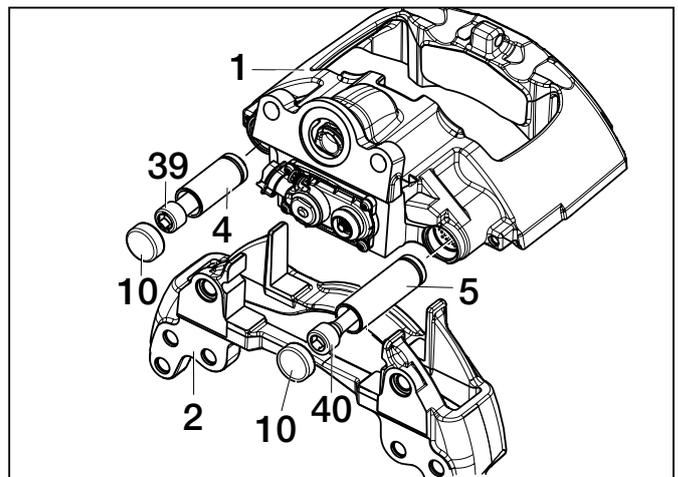
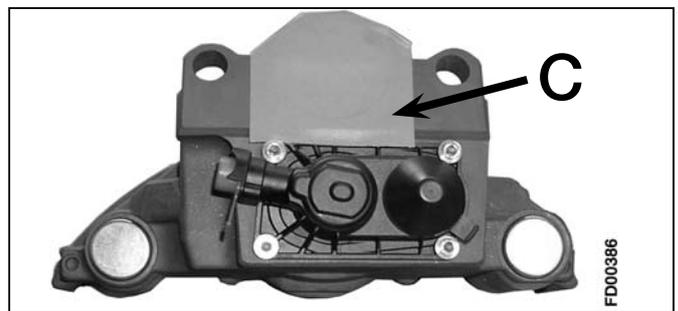
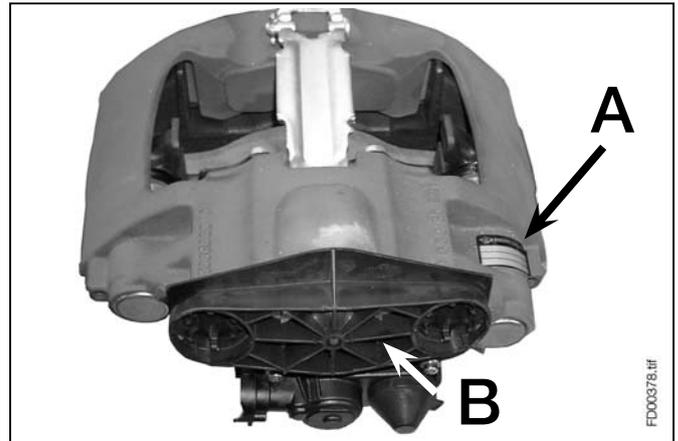
Note:

Only use new bolts.

! Screw threads and tapped holes must be clean and dry (free of lubrication and residuals of pre-applied adhesive).

Check that the Caliper slides easily on the Guide Pins.

Check the position of the Inner Boot (9) on the Guide Pins (4) and (5) - see arrow - as well as the position of Ring (58).



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Caliper Replacement

Fitting of Cover (10)

Caliper bore and Cover (10) must be clean and free from lubrication.

Clean the new Cover (10) thoroughly and check that the plane surface and the chamfer areas (see arrows in lower sketch) are clean and not damaged.

Clean the interior of the Press-in tool (G) and place the Cover (10) inside - see adjacent figure.

Position the Press-in tool (G) including Cover (10) to the plane surface of the caliper bore. The centring of the tool is achieved by using the diameter of the plane surface.

Note:

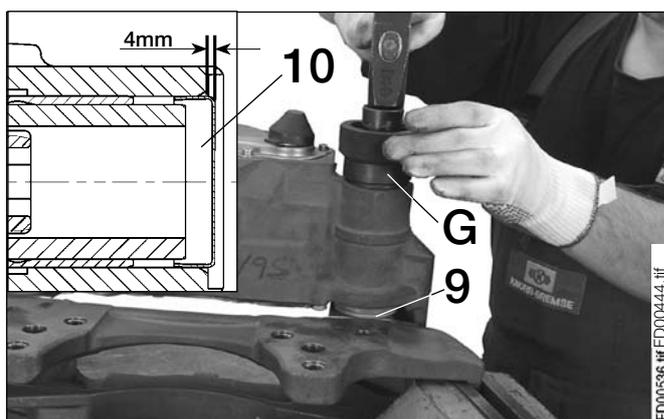
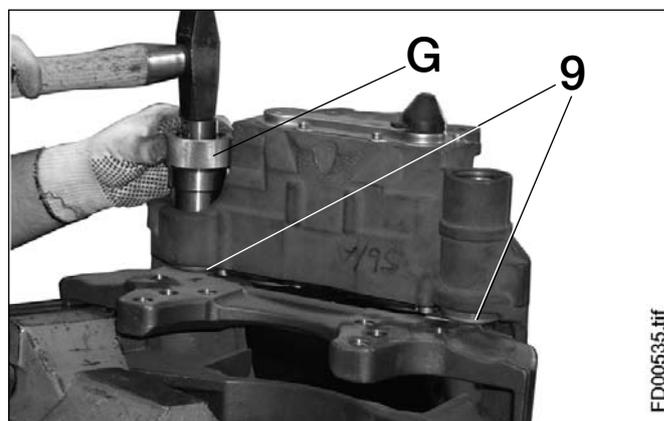
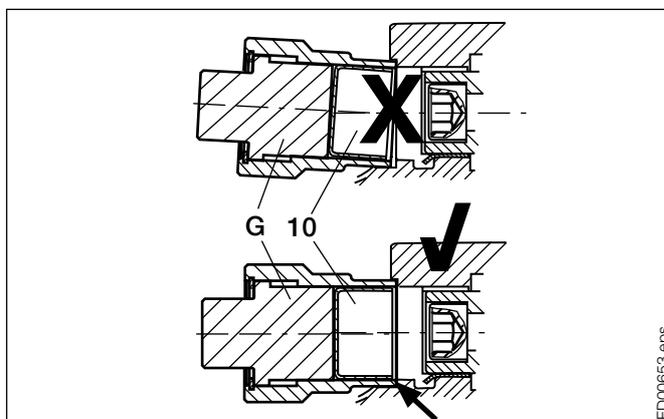
Do not tilt the tools when assembling the Cover (10) - see adjacent figure.

 *The Inner Boot (9) must be in a compressed condition - see adjacent figure -, otherwise the calipers's freedom of movement will be limited*

Press on the mandrel of the press in tool (G) by hand until it stops. Use a hammer on the mandrel to insert the cover to the end stop.

Note:

After fitting the new Cover (10), ensure that it protrudes 4 mm from the plane surface of the caliper - see adjacent figure.



If the Caliper (1) and Carrier (2) assembly is not fitted to the vehicle

Hold using a suitable clamping device. Move the Caliper against the Carrier so that the Inner Boots (9) are in a compressed condition.

 Check that the caliper slides easily on the Guide Pins. Clamp the caliper as shown (i.e. in a bench vice) and push the caliper as far as possible against the carrier. The Inner Boot (9) must be in a compressed condition - see adjacent figure - otherwise the caliper's freedom of movement will be limited.

Fit new Cover (10) as described above.

Pay attention to the vehicle manufacturer's recommendations for during subsequent assembly to the vehicle axle.

