

## Pad Replacement

**⚠** Before starting work, ensure that the wheels are chocked and the vehicle cannot roll away.

Ensure that service brake and parking brake, as well as the bus stop temporary hold brake, if fitted, are in the released condition.

### Pad Removal

Remove wheel (refer to Vehicle Manufacturer's recommendations).

#### Important:

Before removing Pads it is strongly recommended that the Adjuster mechanism is checked for correct operation (see Section 5.2).

Remove Clip (26) and Washer (45), depress the Pad Retainer (11) and remove Pin (44).

If the Pad Retainer (11) is corroded or damaged, it must be replaced.

Pull off the Adjuster Cap (37) using the tab, taking care not to lose the Shear Adapter (61).

Removal of the Adjuster Cap with a screwdriver, or similar, is not allowed as the seal may be damaged.

Fully wind back the Tappet and Boot Assembly (13) by rotating the Shear Adapter (61) in an anti-clockwise direction (see Section 5.2) – a clicking noise is generated.

Remove the outboard Pad.

**⚠** Never turn Adjuster Shaft (24) without Shear Adapter (61) being fitted. If the shear torque of the Shear Adapter is exceeded, then it is designed to fail. Try again with a new (unused) Shear Adapter. With a second failure of the Shear Adapter the Caliper must be exchanged since internal damage is present.

Exception: if the Shear Adapter (61) fails because the Adjuster has been wound back to its limit then the Caliper does not need to be replaced.

**Do not** use an open-ended spanner as this may damage the Adapter.

The inboard Pad is guided by grooves in the Carrier (2) - see adjacent Sketch.

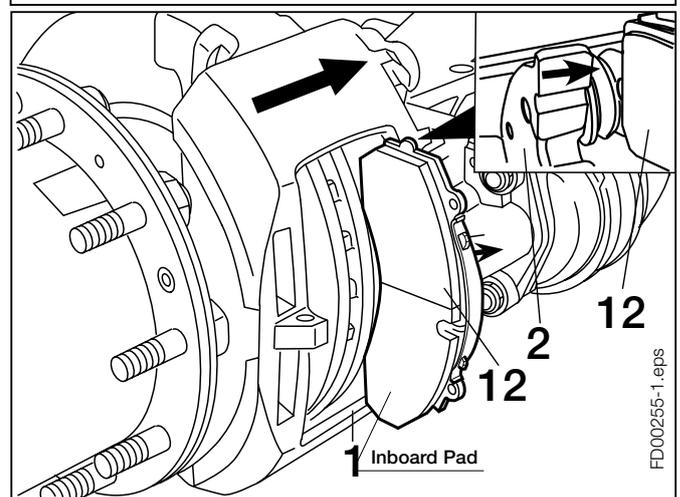
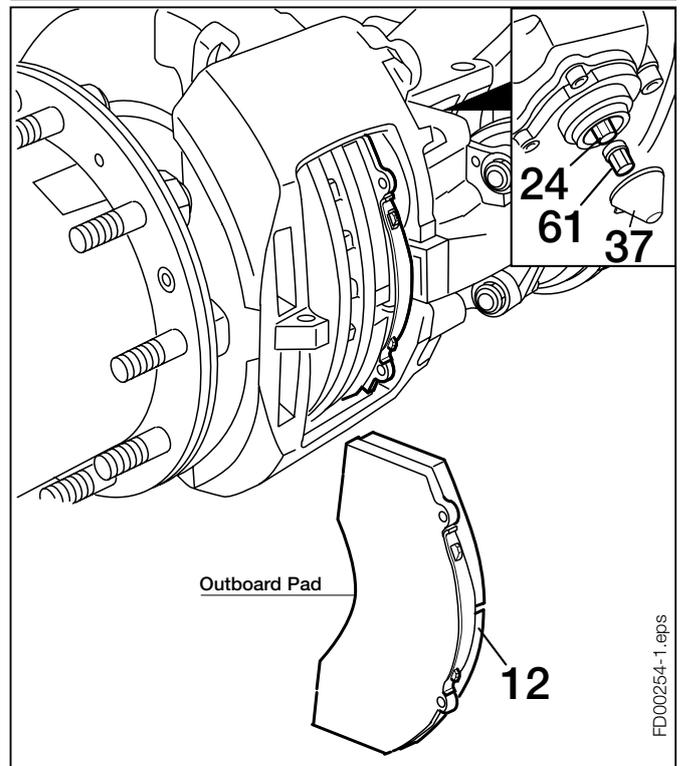
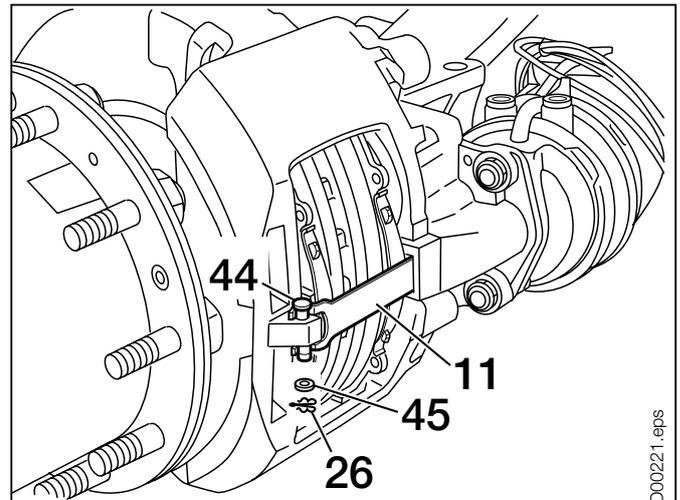
Push Caliper (1) toward Actuator - see arrow.

Push the inboard Pad (12) towards the Actuator until it can be pulled out from the Carrier's grooves.

Now the inboard Pad can be removed from the pad abutment.

#### Note:

The inboard Pad can only be removed, if the outboard Pad has been already removed.



### Pad Fitting

**!** Pads must be changed as an axle set and NOT individually. Use only Pads which are permitted by the vehicle manufacturer, axle manufacturer and disc brake manufacturer. Failure to comply with this will invalidate any Knorr-Bremse warranty, may invalidate the vehicle manufacturer's warranty and may impact on the vehicle's operating licence.

**Note:**

Fully wind back the Tappet and Boot Assembly (13) by rotating the Shear Adapter (61) in an anti-clockwise direction (see Section 5.2).

**!** Never turn Adjuster Shaft (24) without Shear Adapter (61) being fitted. If the shear torque of the Shear Adapter is exceeded, then it is designed to fail. Try again with a new (unused) Shear Adapter. With a second failure of the Shear Adapter the Caliper must be exchanged since internal damage is present.

Exception: if the Shear Adapter (61) fails because the Adjuster has been wound back to its limit then the Caliper does not need to be replaced.

Do **not** use an open-ended spanner as this may damage the Adapter.

**!** If the clearance is too large there is a danger of brake failure. If the clearance is too small there is a danger of overheating that may lead to consequential damage.

Clean the Pad abutments.

Push Caliper (1) towards the Actuator - see Sketch above.

The inboard Pad is guided over the grooves into the Carrier (2) - see adjacent Sketch.

Fit inboard Pad (12).

Note, that the inboard Pad is guided by the Carrier's grooves - see Sketch above.

Push Caliper (1) outboard and fit the outboard Pad (12) -see adjacent Sketch.

Turn the Shear Adapter (61) clockwise until the Pads come into contact with the Disc.

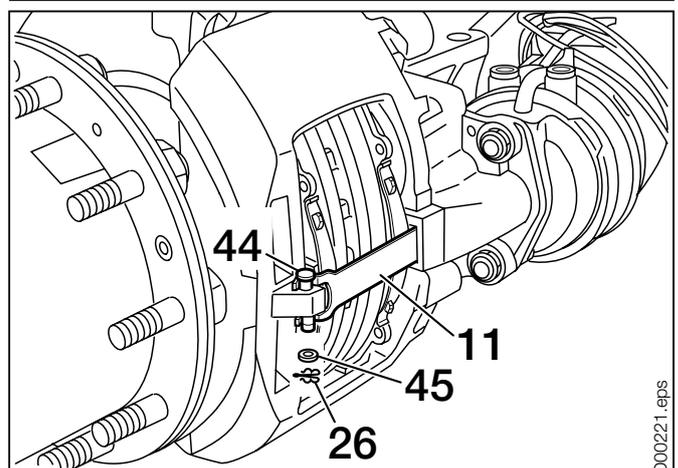
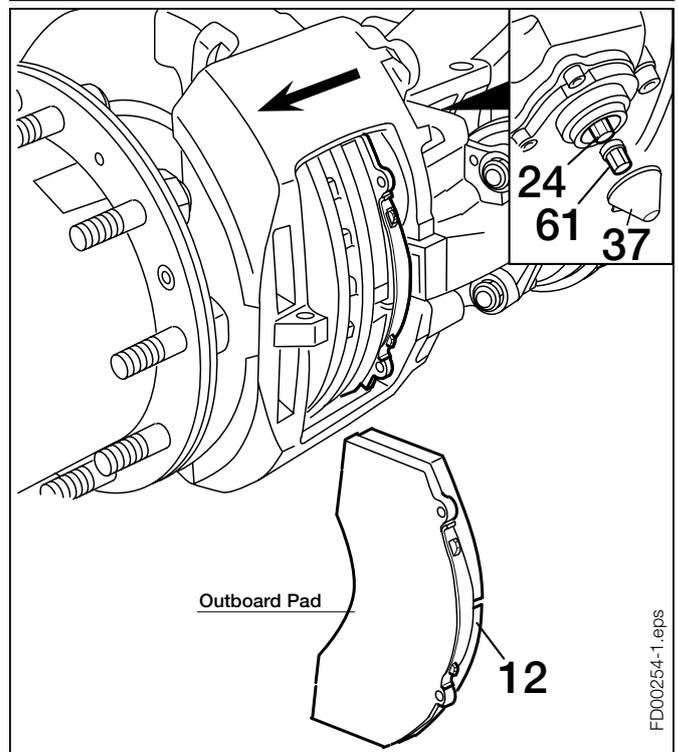
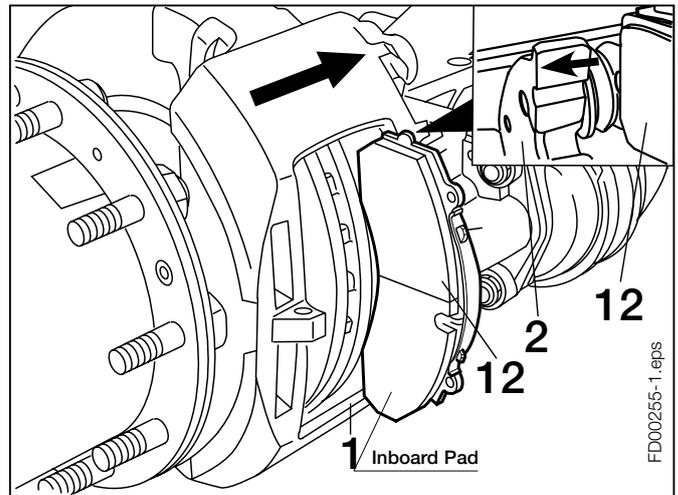
Then turn back the Adjuster 2 clicks and check the clearance (see Section 5.2).

The hub should turn easily by hand after having applied and released the brake.

After fitting the Pad Retainer (11) into the groove of the Caliper (1), it must be depressed to enable the insertion of the Pad Retainer Pin (44).

Fit washer (45) and Spring Clip (26) to the Pad Retainer Pin (44) (use only new parts).

It is recommended that Pad Retainer Pin (44) is installed pointing downwards - see Sketch.



## Pad Replacement

The Adjuster Cap (37) must then be replaced (use only a new Cap) having lightly greased the mating surface with **white** grease (available as Part No. II14525 or II32868).

**Note:**

The tag of the Adjuster Cap (37) should be positioned as shown by the arrow in the adjacent Sketch. This ensures access is maintained for subsequent removal.

Re-fit wheel according to the Vehicle Manufacturer's recommendations.

 *After any service work: Check the brake performance and the system behaviour on a roller dynamometer. Check function and effectiveness.*

*Bear in mind that a lower performance can be experienced during the bedding-in phase of the pads and/or the disc.*

