TEXTAR®

BRAKE TECHNOLOGY

SUPPLIERS OF OE TMDFRICTION A NISSHINBO GROUP COMPANY ORIGINAL EQUIPMENT

How it's done

Fitting instructions for replacing brakes

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We invest a lot in developing our products. We complete up to 300,000 test kilometres and 1,000 hours of bench tests on our brake friction products before they are released for series production. Our knowledge and the high quality of our products have made us one of the major manufacturers of original equipment for the world's automobiles industry.

But only correctly fitted brake friction products can function perfectly.

Therefore, you will find a copy of the general installation instructions of the VRI (German Association of the Friction Product Industry) and/or the FEMFM (Federation of European Manufacturers of Friction Materials) in each Textar brake friction product package. In addition, this brochure contains useful tips on maintaining and repairing the brake system.

Documentation of a disc brake repair

1

Start of brake repair

Check that brake discs and/or pads have reached the wear limit. Before starting the brake repair, all relevant components in the area of the axle and the hydraulic system must be checked.

▶ **It is important to replace any defective parts.**

2

Measuring the brake disc thickness

Measure brake disc thickness with an appropriate measuring gauge

▶ **Attention: Observe minimum thickness!**

Brake disc must not fall short of the minimum thickness up to the end of the service life of the new brake pad.

Depending on the version, wheel bearing and/or sensor rings should also be replaced.

3

Remove rust from the contact surface and hub

After dismantling the old brake discs, remove rust from the contact surface and the hub edge using appropriate tools (e.g., wire brush, Emery paper etc.).

▶ **Attention: Do not damage the wheel hub!**

The caliper, which is still connected to the hydraulic system, must be fastened so that no tensile load is exerted on the brake hose.

Documentation of a disc brake repair

4

Cleaning the contact surface and hub

Use Textar brake cleaner to clean the metallic-bright contact surface. We recommend checking the cleaned hub with an appropriate measuring gauge (dial gauge with stand) for possible lateral run-out.

Check backing plate for damage and clean.

5

Remove rust from the guide shafts of the caliper bracket

Depending on the design, remove rust and residues from the guide shafts of the dismantled caliper bracket using a wire brush and/or caliper file.

▶ **Attention: Do not damage the caliper bracket!**

Visually check the bracket for damage.

6

Greasing the guide surfaces of the caliper bracket

Grease the cleaned guide surfaces of the caliper bracket with a non-conductive, heat-resistant and solids-free (non-metallic) agent (Textar CERA TEC®).

▶ **Do not use copper paste!**

Documentation of a disc brake repair

7

Fitting the brake disc

Fit the new brake disc on the wheel hub and – depending on the type and system – fasten with the retaining screws.

We recommend measuring the newly fitted brake discs for lateral run-out approx.15 mm below the the outer edge using a dial gauge. Ideally, this measurement is performed with a properly mounted wheel.

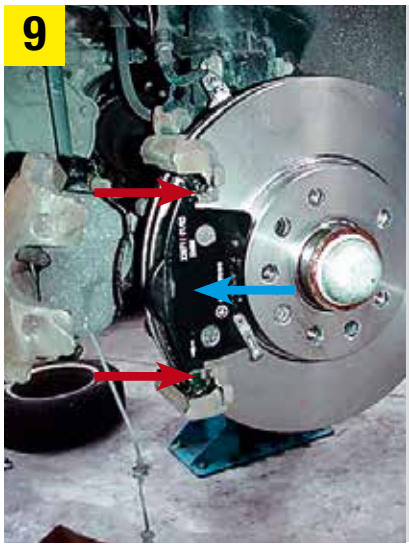
8

Moving back the brake piston

The brake piston must always be moved back using appropriate adjusting tools in order to prevent the piston jamming or twisting.

In doing so, attention is to be paid to the different versions of the caliper and/or the brake system, as well as to the manufacturer-specific requirements and special tools.

9



Greasing the contact points

Metal-free anti-squeal lubricant is not required on the backing plates of pads with so-called secondary measures, such as **damping lacquer coatings** or **dampening shims**. Lubrication is only vital in the area of the **contact points** of the pad and on the guide shafts. The torques settings and specifications/guidelines of the vehicle and system manufacturers are to be observed in all steps of the repair process.

Documentation of a drum brake repair and wheel mounting

1

Check brake drum for wear and damage. Measure diameter. New dimension plus 0.5 mm max. diameter can only be used with over-sized drum brake linings. Depending on the version, wheel bearings and/or sensor rings are also replaced.

2

Always use an appropriate special tool for fitting / removing the **return springs**

▶ **Attention: Risk of injury!**

3

To prevent damage to the components, always use appropriate special tool for fitting / removing the **retaining spring**

▶ **Attention: Risk of injury!**

4

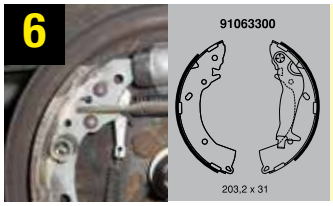
To prevent damage to the components, always use appropriate special tool for fitting / removing the **hand brake cable**

▶ **Attention: Risk of injury!**

5

When removing the brake shoes, secure the brake pistons with appropriate tools.

6



If necessary, check the automatic adjustment devices for wear and damage. For the precise arrangement of the brake shoes (primary and trailing shoes) the rear left-hand brake is always depicted in the TMD illustrated catalogue.

R

To prevent wheel hub damage and / or lateral run-out of the brake discs, the wheel bolt / nut must be tightened according to the manufacturer's specifications (sequence + torque).

▶ **Attention: when using impact wrenches always use a torque limiter, then finish installation with torque wrench.**

Wheels must be fitted to the correct torque setting to avoid damage.

Fault diagnosing

Check, diagnose and replace if necessary: (Tips for avoiding complaints)

I

▶ **Wheel bearing**
✓ play/damage

▶ **Wheel hub**
✓ clean (metallic bright)
✓ lateral run-out using a dial gauge
✓ visible damage
✓ corrosion protection (excluding solids contents)

▶ **Axle nut**
✓ tightness and security

▶ **Wheel bolt thread**
✓ damage
✓ can the bolts easily be screwed in by hand?

II

▶ **Traverse link mount**
✓ replace in case of porosity and increased play

Attention!
Depending on the axle design, an impermissible play can be difficult to ascertain.

III

▶ **Supporting ball joint**
▶ **Tie rod end**
✓ joint play
✓ check sealing collars for porosity and leakage
✓ fastening of joints (securing screws)

IV

▶ **Brake caliper**

Piston
✓ fluid leaks, smooth-running

Dust collar
✓ fluid leaks, porous

Caliper housing
✓ damage

Sliding element
✓ play, smooth-running
✓ seal

V

▶ **Brake hose**
✓ fluid leaks, porous, chafe marks
✓ inner diameter (swollen)
✓ screwed connection
✓ check maximum service life

VI

▶ **Strut**
✓ fluid leaks (detectable oil seepage)
✓ shock-absorber efficiency test, in advance
✓ strut fracture
✓ shock-absorber mount
✓ fastening

Attention!
Changes to the chassis have an effect on the efficiency and comfort of the brake system.

VII

▶ **Drive shaft boot**
✓ fluid leaks, porous

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Instructions and explanation

Basic prerequisite for every repair:

Clean all components and then lubricate the necessary points in the area of the pad / liner guide shafts, as well as the contact points of the brake shoes with a non-conductive, high temperature-resistant, solids-free (metal-free) paste suitable for ABS vehicles (Textar CERA TEC®).

▶ **Do not use copper paste!**

All worn or damaged components are to be replaced in strict accordance to vehicle, system and brake manufacturers' guidelines.

Following the instructions helps to avoid technical problems and complaints.

Important!

Please pay attention to the instruction leaflet in the Textar disc brake pad packages. This contains information on special installation instructions, such as

- directional disc brake pads
- coloured markings on the backing plate and their meaning
- warnings regarding working on the electrohydraulic brake system disc brake pads with removable foil on the backing plate for glued attachment, etc.

▶ **Attention! In the case of vehicles with an electrohydraulic brake (e.g., SBC-Sensotronic Brake Control). Never change the pad / lining and brake fluid at the same time! Work on the electronic brake system is only to be performed by trained personnel.**

Please note!
The instructions of the vehicle and brake system manufacturers regarding repair and maintenance must always be observed.