

# Braking

## Service and Repair Technical Faults



	Image	Problem	Cause	Solution		Image	Problem	Cause	Solution
Corroded friction area		<ul style="list-style-type: none"> <li>Judder and vibration felt during braking</li> <li>Inconsistent braking performance</li> <li>Brake piston seized in the caliper</li> </ul>	<ul style="list-style-type: none"> <li>Effects of climatic conditions (e.g. road salt, moisture)</li> </ul>	<ul style="list-style-type: none"> <li>Replace brake discs and pads</li> <li>Repair or replace brake caliper as required</li> </ul>	Scoring of the friction material		<ul style="list-style-type: none"> <li>Braking noise</li> <li>Vibrations during braking</li> <li>Scoring on the surface of the brake disc</li> <li>Reduced braking efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Foreign particles on the contact surface of the brake pad or brake disc</li> </ul>	<ul style="list-style-type: none"> <li>Check the brake disc and pads</li> <li>Replace as necessary</li> </ul>
Uneven wear		<ul style="list-style-type: none"> <li>Poor and/or inconsistent braking performance</li> <li>Vibration felt through the steering wheel</li> <li>Pulsing effect in the brake pedal</li> </ul>	<ul style="list-style-type: none"> <li>Uneven operation of the brake caliper</li> <li>Excessive run-out of the brake disc</li> </ul>	<ul style="list-style-type: none"> <li>Check the brake caliper and wheel hub when installing new brake discs</li> </ul>	Uneven wear		<ul style="list-style-type: none"> <li>Vehicle pulls to one side during braking</li> <li>Excessive and/or uneven brake pad wear</li> </ul>	<ul style="list-style-type: none"> <li>Brake caliper and/or brake caliper piston seized or worn</li> <li>Brake pad seized in the caliper carrier</li> </ul>	<ul style="list-style-type: none"> <li>Check the brake caliper and replace if necessary</li> <li>Replace the brake pads and discs as required</li> </ul>
Scoring or grooves on the friction surface		<ul style="list-style-type: none"> <li>Brake noise</li> <li>Rubbing effect during braking</li> <li>Reduced braking performance</li> </ul>	<ul style="list-style-type: none"> <li>Road debris on brake disc and pad</li> </ul>	<ul style="list-style-type: none"> <li>Replace brake discs and brake pads</li> <li>Check if the operation of the parking brake is functioning correctly</li> </ul>	Cracks in the friction material		<ul style="list-style-type: none"> <li>Braking noise</li> <li>Vehicle pulls to one side during braking</li> <li>Excess heat from one wheel</li> <li>Uneven brake pad wear</li> </ul>	<ul style="list-style-type: none"> <li>Extreme heat build-up due to constant contact between the brake pad and brake disc</li> <li>Distorted brake pad backing plate</li> <li>Seized brake caliper or brake caliper piston</li> </ul>	<ul style="list-style-type: none"> <li>Check the brake caliper and replace if necessary</li> <li>Replace the brake pads</li> </ul>
Contact surface indentations		<ul style="list-style-type: none"> <li>Excessive lateral run-out of the brake discs</li> <li>Chattering and rubbing effect</li> </ul>	<ul style="list-style-type: none"> <li>Incorrect cleaning of the contact surfaces</li> <li>Damage to the contact surfaces through contamination</li> <li>Distortion of the wheel hub</li> </ul>	<ul style="list-style-type: none"> <li>Clean the contact surface of the brake disc and the wheel hub before mounting new brake discs</li> <li>Do not use metal based paste lubricants</li> </ul>	Conical wear - vertical or horizontal		<ul style="list-style-type: none"> <li>Premature brake pad wear</li> <li>Braking noise</li> </ul>	<ul style="list-style-type: none"> <li>Worn brake caliper seals and/or spring</li> <li>Worn brake caliper and/or carrier</li> </ul>	<ul style="list-style-type: none"> <li>Check the brake caliper and replace if necessary</li> <li>Replace the brake pads</li> </ul>
Blue surface discoloration		<ul style="list-style-type: none"> <li>Rubbing effect during braking</li> <li>Overheating</li> </ul>	<ul style="list-style-type: none"> <li>Overheating due to seized brake pads</li> <li>Vehicle driven with a seized or activated parking brake</li> <li>Brake caliper piston and/or brake cable sticking during operation</li> </ul>	<ul style="list-style-type: none"> <li>Check that the brake caliper and parking brake are functioning correctly</li> <li>Replace parts as necessary</li> </ul>	Incorrect fitting		<ul style="list-style-type: none"> <li>Braking noise</li> <li>Brake pad stuck in one side of the caliper</li> <li>Reduced braking efficiency</li> </ul>	<ul style="list-style-type: none"> <li>The caliper has not been thoroughly cleaned and inspected for damage before fitment</li> </ul>	<ul style="list-style-type: none"> <li>Clean and inspect the brake caliper and replace if necessary</li> <li>Replace the brake pads</li> </ul>
Cracks in the brake disc hub		<ul style="list-style-type: none"> <li>Vibration felt through the steering wheel</li> </ul>	<ul style="list-style-type: none"> <li>Incorrect torque applied when mounting the brake disc or road wheel</li> <li>Incorrect seating of the brake disc on the hub</li> </ul>	<ul style="list-style-type: none"> <li>Clean the hub contact area</li> <li>Use the manufacturer's recommended torque setting</li> </ul>	Contaminated friction material		<ul style="list-style-type: none"> <li>Reduced braking efficiency</li> <li>Brake noise</li> </ul>	<ul style="list-style-type: none"> <li>Overuse of the incorrect lubricant</li> </ul>	<ul style="list-style-type: none"> <li>Use a ceramic based lubricant and only apply to the metal contact points</li> </ul>