



# CV TROUBLE TRACER - BRAKE PADS AND DISCS



<b>APPEARANCE</b>	Disc featuring scored surface.
<b>CAUSE</b>	Pads fitted with friction material too harsh for the disc or new pads assembled on excessively worn out discs.
<b>EFFECT</b>	Reduction in braking performance and possible imbalance on the affected axle during braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace the disc.</li> <li>• Check for the quality of the spare parts used.</li> </ul>



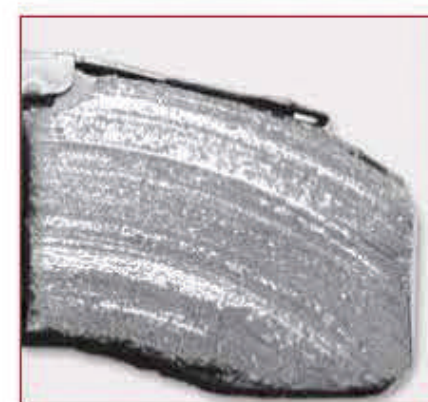
<b>APPEARANCE</b>	Blue stripes on the disc indicating a physical change due to overheating.
<b>CAUSE</b>	Intensive use of brakes for prolonged braking or improper downhill braking.
<b>EFFECT</b>	Brake disc overheating which may result in contact surface distortion and cracks.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Compulsory replacement of brake discs and pads.</li> <li>• During the first 250 km after replacement, sharp braking should be avoided in order to allow for the correct bedding-in of the newly fitted components.</li> </ul>



<b>APPEARANCE</b>	Disc surface features 1st and 2nd degree crack.
<b>CAUSE</b>	Too intensive use of brakes due to the track features or to the carried load.
<b>EFFECT</b>	Possible unexpected disc mechanical collapse, particularly with 2nd degree crack.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Compulsory replacement of brake discs and pads, particularly with 2nd degree crack, when one of the cracks is travelling from OD to ID.</li> <li>• Brake calipers shall be checked.</li> </ul>



<b>APPEARANCE</b>	Contaminated pad friction material.
<b>CAUSE</b>	Contamination by an oily substance or solvent.
<b>EFFECT</b>	Reduction in braking performance and possible imbalance during braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check the discs on the axle.</li> <li>• Identify any fluid leaks from the hubs or other nearby components.</li> </ul>



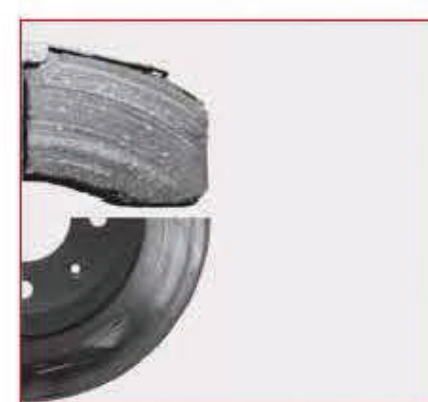
<b>APPEARANCE</b>	Glazed pad friction material.
<b>CAUSE</b>	Very low duty applied on the brakes, i.e. brake applications with low speed and low pressure.
<b>EFFECT</b>	Reduction in braking performance and typical noise (squeal) while braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• If glazing is not too heavy can try to recondition the surface by some mileage of medium/hard brake duty, otherwise replace the pads.</li> <li>• Check the disc condition and minimum thickness.</li> </ul>



<b>APPEARANCE</b>	Detached friction material.
<b>CAUSE</b>	Possible excessive load or heavy braking, along with the choice of unsuitable parts.
<b>EFFECT</b>	Reduction in braking performance and typical noise (squeal) while braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check the disc condition and minimum thickness.</li> <li>• Despite having a wear indicator, it is necessary to check the pad condition every normal garage brake control visit and/or every six months.</li> </ul>



<b>APPEARANCE</b>	Uneven brake pad wear.
<b>CAUSE</b>	One of the calipers has become stuck or does not return correctly to the rest position.
<b>EFFECT</b>	Reduction in braking performance and possible imbalance on the involved axle, during braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Brake calipers should be checked.</li> </ul>



<b>APPEARANCE</b>	Friction includes metal pick-up.
<b>CAUSE</b>	High temperature generated between brake pad and disc in wet conditions.
<b>EFFECT</b>	Wear of the affected brake disc with typical metal rubbing noise during braking.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace both discs on the axle.</li> </ul>



<b>APPEARANCE</b>	Pad with surface cracks.
<b>CAUSE</b>	Excessive load or high friction material temperature.
<b>EFFECT</b>	Possible detachment of friction material resulting in a reduction in braking performance.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check for correct caliper operation.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace both discs on the axle.</li> </ul>



<b>APPEARANCE</b>	Excessively worn out discs and pads
<b>CAUSE</b>	Possible contamination of the friction material by sand, mud or earth or incomplete return of the caliper gear.
<b>EFFECT</b>	Excessive wear of one or more brake pads, resulting in damage where the pad has not been fitted with a wear indicator.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace both discs on the axle.</li> </ul>



<b>APPEARANCE</b>	Pads on the same axle featuring uneven wear.
<b>CAUSE</b>	Incorrect return of one caliper on the same axle.
<b>EFFECT</b>	If the axle involved is the directional one, this fault may result in vehicle instability during brake release.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check for the proper caliper operation.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace both discs on the axle.</li> </ul>



<b>APPEARANCE</b>	Damaged edges to the friction material (edge-crumbling).
<b>CAUSE</b>	Brake pad has become stuck in the caliper. The parts used do not comply with the correct sizes and specifications.
<b>EFFECT</b>	Early pad deterioration and uneven disc wear.
<b>REMEDY</b>	<ul style="list-style-type: none"> <li>• Replace the pads.</li> <li>• Check for correct caliper operation.</li> <li>• Check disc condition and minimum thickness.</li> <li>• If necessary, replace both discs on the axle.</li> </ul>