

## **BRAKE DISC SERVICE GUIDE**

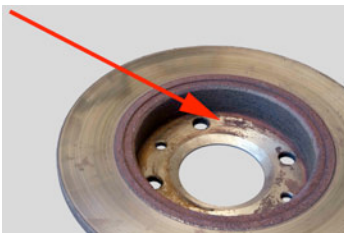
### **1. NORMAL WEAR**



Braking surfaces flat and smooth with light scoring and visible wear ridges on both the outer and inner edges. Corrosion will be present in areas not in contact with the pads but should not be excessive. There should be no visible cracks in the disc.

No action required unless the disc thickness is below the recommended minimum or the disc is likely to wear below minimum thickness before the next inspection is due.

### **2. DIRT / RUSTY HUB**



Imprints or deposits of rust on the disc mating face indicate that the wheel hub was not cleaned adequately before the disc was fitted. This installation error causes disc run-out and leads to vibration under braking. This often starts after a few hundred braking stops and becomes progressively more severe, because the run-out causes the disc to wear unevenly.

Replace disc, ensuring mating surfaces are completely flat and free from all deposits. Check disc run-out after installation using a Dial Test Indicator.

### **3. DISCOLOURATION**



Excessive heat leads to colouring of varying intensity and shades (blue, violet and golden), on all or part of the disc surface. This is caused by a faulty caliper or by making repeated hard stops from high speed. Overheating the disc alters the cast iron structure and sometimes leads to uneven wear and vibration. Uneven wear, as a result of overheating, is more likely to occur when the disc is new.

If uneven wear has occurred, replace disc and recommend that users observe a running period – avoiding heavy braking for the first 200 miles.

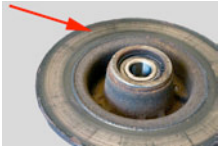
### **4. PARTIAL PAD CONTACT**



The pads are only making partial contact with the disc as indicated by the corroded section of the braking surface. This is caused by a faulty caliper, loss of part of the friction material or pads that are incorrect for the vehicle.

Replace disc and pads – check caliper for wear and correct operation. Ensure pads are the correct type for the vehicle.

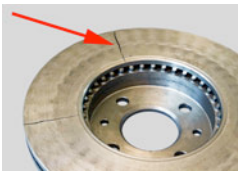
## **5. SCORED DISCS**



Circumferential grooves around the disc nearly always occur as a result of foreign bodies becoming trapped between the pad and the braking surface. Badly distributed abrasives, or hard object embedded in the friction material can also cause scoring – although both these faults are rare.

If grooves are deeper than 0.5mm, replace disc and pads.

## **6. HEAT SPOTS AND CRACKS**



Friction material deposits, heat spots and radial cracks in the braking surface of the disc are all signs of overheating. This is caused by a faulty caliper or by continuous heavy use of the brakes. The deep cracks illustrated are rare but are more likely to occur if the disc has worn below its minimum thickness. Cracks adjacent to stud and fixing holes result from failure to follow recommended tightening sequences and / or tightening torque settings.

Small cracks in the braking surface are not an immediate cause for concern. However, because they can propagate and become serious, it is recommended that all discs with visible cracks are replaced. Check caliper for wear and correct operation.