

1. Introduction

- 1.1 Running rails (including plain line and junctionwork) are a critical part of the track for supporting and guiding rail vehicles. This guidance covers visual defects and other faults in running rails in any part of a patrol route.
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- 1.2 Running rails are secured in position either by baseplate or chair assemblies, or by fastening systems cast directly into slabs or sleepers.
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- 1.3 This guidance describes the visual observations of any defects in running rails which patrollers should make from the track in the course of their duties.
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2. Faults to check for

- 2.1 Cracks in any part of the running rails (see section 5).

Crack in rail head



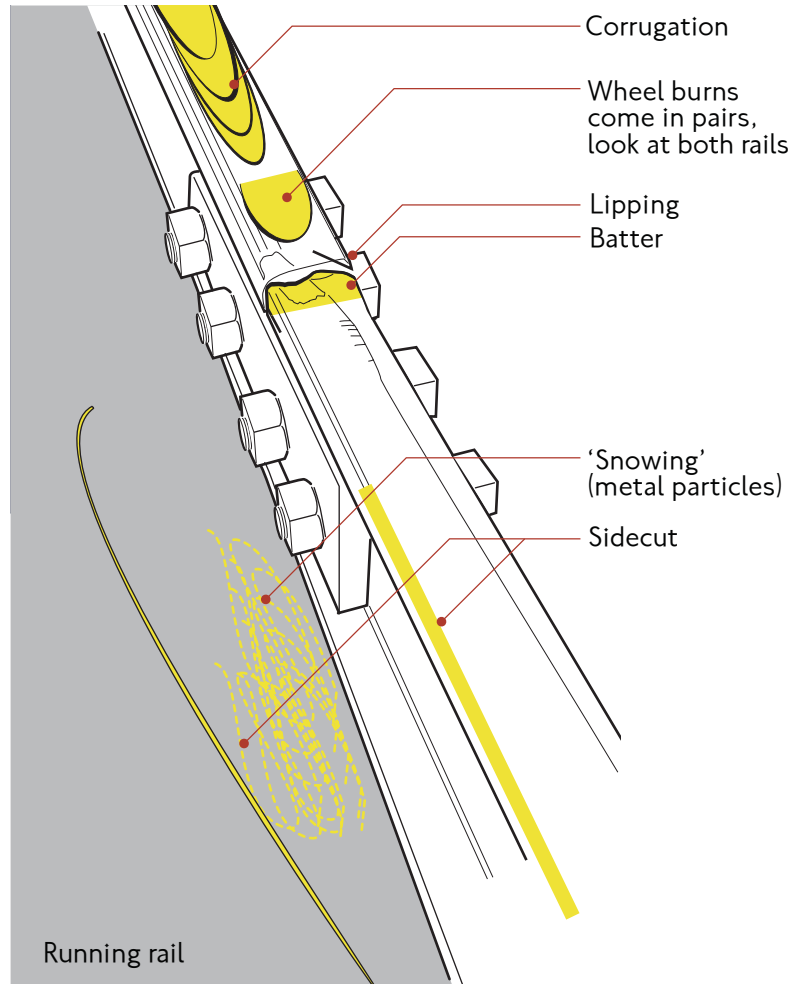
- 2.2 Breaks in running rails.

Note: A break is where a crack extends through the rail section so that a piece may become detached (see section 5).



2.3 Wheel burns, corrugation, batter or other defects.

Look for poor joint alignment where wheels are not making correct contact with the rail, leading to batter.



Gauge Corner Cracking (GCC)



2.4 Grease or leaves on the rail head.

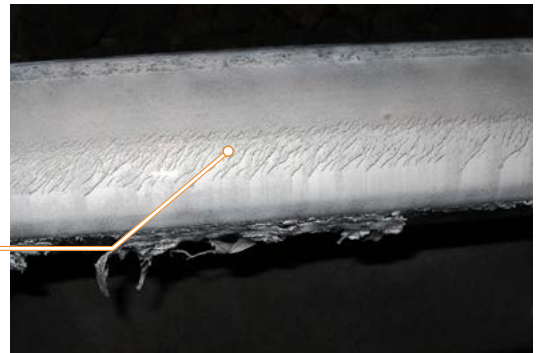


2.5 'Snowing' (metal particles).

Note: Particles may also be seen on the rail foot, or on the ballast in severe cases.



- 2.6 Unusual wear patterns (such as rolling contact fatigue, bright or rough surfaces).
Look for a changing or unusual wheel contact area on the rail head.
Note: Check the opposite rail for possible causes.

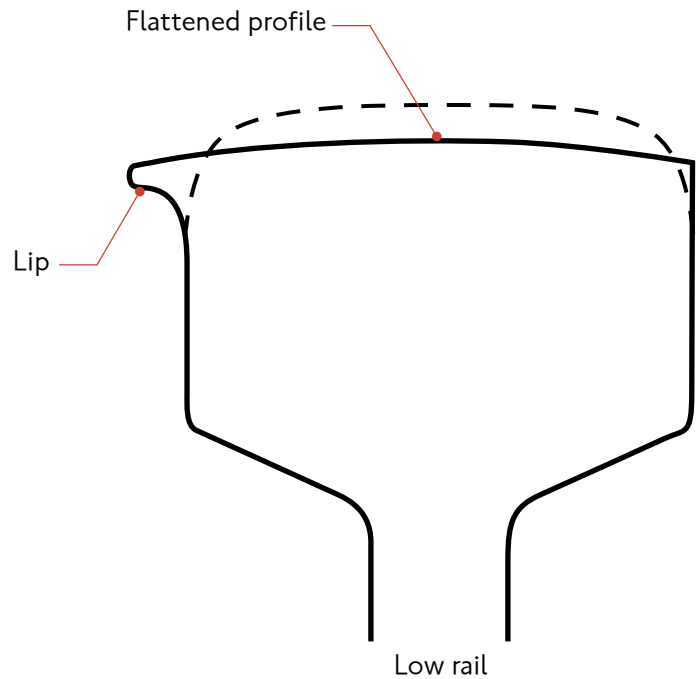


GCC -
a form of Rolling
Contact Fatigue (RCF)

- 2.7 Continuous or intermittent sidecut.



2.8 Rail approaching depth limit of wear.



2.9 Rail approaching limit of wear.

Look for:

- sidecut
- chair or baseplate gall on the rail foot
- rail foot corrosion.

