

Saw and Disc Cutting

Scope

Includes: Jointed plain line, unstressed CWR and unstressed S&C
Excludes: Stressed CWR and stressed S&C

Preparation

Tools & Equipment

- Abrasive Disc Cutter and appropriate discs
- Disc cutter rail guide
- Correct spanner for changing discs
- Rail Saw and appropriate blades
- Magnet
- Approved rail thermometer
- Lubricant
- Rail Marker
- Tape Measure
- Rail Jacks
- Hand tools shovels, forks etc.

Work planning considerations

- Availability of resource/tools/equipment/plant
- Signalling requirements
- Traction requirements
- Cutting into stressed CWR with rail saws and disc cutters is prohibited. In order to release the stress it must be cut using oxy/gas cutter

Method

Sawing of Rail:

1. Check rail steel – normal or high manganese.
2. Select correct saw blade for the steel type.
3. Ensure rail to be cut is adequately supported and secure.
4. Measure and mark rail to be cut.
5. Fit rail saw.
6. If rail is situated in track monitor rail temperature and ensure that room for rail expansion is available if necessary.
7. Cut rail.
8. Remove saw.
9. Clean loose metal from rail ends.

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10. Remove any scrap materials from site.

NB: If cut fails; fit emergency clamp plates and open to traffic at 5mph maximum. Arrange for removal in accordance with timescales for temporary rail joints.

Disc Cutting:

11. Check rail steel – normal or high manganese.
12. Select correct abrasive disc for steel type.
13. Ensure rail to be cut is adequately supported and secure.
14. Measure and mark rail to be cut.
15. Fit disc cutter guide.
16. If rail is situated in track monitor rail temperature and ensure that room for rail expansion is available if necessary.
17. Cut rail.
18. Remove cutter and guide.
19. Clean loose metal from rail ends.
20. Remove any scrap materials from site.

NB: If cut fails; fit emergency clamp plates and open to traffic at 5mph maximum. Arrange for removal in accordance with timescales for temporary rail joints.

References

Supports Ellipse Standard job

- Code to be created

If applicable refer to the following associated documents:

- NR/SP/TRK/0011 Continuous Welded Rail (CWR) Track
- NR/SP/TRK/008 Saw and Disc Cutting and Drilling of Rail
- NR/L3/TRK/002/C05 Cold bolt hole expansion
- NR/GN/TRK/7001/TWI2G010 How to use a rail saw
- NR/GN/TRK/7001/TWI2G043 How to carry out disc cutting of rail
- NR/GN/TRK/7001/TWI2G037 Fitting of emergency clamp plates

- Risk Control Sheets:
- NR/L3/MTC/0002/TK000 Generic Track Risks
- NR/L3/MTC/0002/TK202 Cold bolt hole expansion