

Track – CWR – Renew due to wear or rail defects

Scope

Includes: CWR plain line and S&C
Excludes: Jointed track, replacement rails longer than 36m in CWR, broken rails in CWR

Preparation

Tools & Equipment

- Rail saw/disc cutter
- Rail nips
- Ballast forks/shovels
- RRV with thimble attachment (If rail is unmanageable manually)
- Rail Marker
- Tape Measure
- Rail Jacks
- Hammers/Bars/Extractors (dependent on the fastening at the site of work)
- Rail Turner
- Pad Scraper
- Fishplate spanner/Impact Wrench
- Stressing Kit
- Welding equipment
- Gas cutting equipment
- Thermometer(s)
- Spare pads, insulators, fastenings

Work planning considerations

- Availability of resource/tools/equipment/plant
- Signalling requirements
- Traction bonding requirements
- Approved stressing plan

Method

1. Arrange for all signalling and traction bonding to be removed from the rail to be changed.
2. Fit continuity bonding.
3. Clear ballast.
4. Take rail temperature and record
5. Mark cutting in point and remove fastenings either side.
6. Mark reference points clear of the length of rail to be removed, ensuring that sleepers are unclipped and pads freed from rail.
7. Flame cut through rail roughly in the middle of the section to be removed to relieve stress.

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8. Cut defective rail out to suit the length of new rail with disc cutter.
9. Remove defective rail.
10. Record any movement of rail at the reference points.
11. Ensure pads are fitted correctly; renew as required.
12. Cut new rail to length and install.
13. Weld in one end of new rail (refer to applicable method statement).
14. Restore rail stress (refer to NR/SP/TRK/0011).
15. Install closing weld and profile grind.
16. Record final rail temperature.
17. Arrange for reinstatement of all bonding.
18. Refit all fastenings and insulators; renew as required.
19. Re-instate ballast.
20. Complete records and forward to line manager.
21. Remove all scrap from site.

References

Supports Ellipse Standard job

- 009075 Track - CWR - renew due to wear
- 009076 Track - CWR - renew (defects)

If applicable refer to the following associated documents:

- NR/SP/TRK/008 Saw and Disc Cutting and Drilling of Rail
- NR/SP/TRK/0011 Continuous Welded Rail (CWR) Track
- NR/SP/TRK/032 Joining of Rails by Aluminothermic Welding
- NR/WI/TRK/002/C03 Saw and disc cutting of rail
- NR/L3/TRK/002/C04 Drilling of rail
- NR/L3/TRK/002/F10 Track – Preliminary survey for CWR rail stressing
- NR/L3/TRK/002/F11 Track – Stress restoration
- NR/L3/TRK/002/F12 Track – CWR – Plain line tensor stressing
- NR/L3/TRK/002/F13 Track – CWR – Natural stressing
- NR/L3/TRK/002/G05 Track – CWR – S&C tensor stressing
- NR/L3/TRK/002/H01 Track – AL – Thermic weld
- NR/GN/TRK/7001/TWI2P011 How to install rail in CWR
- NR/GN/TRK/7001/ TWI2P015 Stressing Plain Line
- NR/GN/TRK/7001/ TWI2P016 How to use rail tensors
- NR/GN/TRK/7001/ TWI2P010 How to move rail
- Risk Control Sheets:
 - NR/L3/MTC/0002/TK000 Generic Track Risks
 - NR/L3/MTC/0002/TK401 Replace CWR
 - NR/L3/MTC/0002/TK407 CWR Stressing