

Track – CWR – Plain Line Tensor Stressing

Scope Includes: Plain Line
Excludes: S&C

Preparation

Tools, equipment and plant items required but not limited to:

- Pencil/scribe
- Rail wax crayon/marker
- Tape measure (20/30m)
- Rule (300mm with metric scale)
- Calculator
- Note book
- NR/SP/TRK/0011 Pull force and Pressure Reading table
- Approved rail thermometers
- Fastening extractors, hammers, spanners, pad scrapers
- Under rollers & side rollers
- Rail jacks
- Rail blocks
- Disc saw
- Grinder
- Trolley
- Generator
- Welding equipment
- Stressing equipment (matched by equipment reference IDs)

Work planning considerations:

- Check action arising from preliminary survey completed
- Check availability of resource, equipment, plant and materials essential to complete planned stressing work
- Radius of curve
- Reverse curve
- Signalling requirements
- Traction bonding requirements

Method

1. Check tools, equipment (present, functioning, calibrated & service in date), plant and materials are available and move to site.
2. Remove signalling bonds as necessary.
3. Fit continuity bonds if working in OLE area without isolation.
4. Ensure the first cut into stressed CWR is by flame cutting and allow room for rail to expand by splaying if necessary.

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5. Record rail temperature and carry out actions to stress rail(s) in accordance with NR/SP/TRK/0011.
6. Remove tensors when final weld has had sufficient time to cool.
7. Remove rail continuity bonds.
8. Dress and grind weld in accordance with NR/SP/TRK/0032.
9. Remove weld debris and scrap from site.
10. Re-profile ballast around welding and stressing location.
11. Clear tools, plant and equipment from site.
12. Complete signalling reconnection/testing works.
13. If the stressing work is successful, complete the stress certificate form. If the stressing work is unsuccessful, complete the disturbance of CWR form. Pass the form to the Line Manager.

References

Supports Ellipse Standard job

- 009062 Track – CWR - stressing

If applicable refer to the following associated documents:

- NR/SP/TRK/0011 Continuous Welded Rail (CWR) Track
- NR/SP/TRK/0032 Joining Of Rails By Aluminothermic Welding
- NR/PRC/MTC/TK0077 Management of rail stress and critical rail temperatures
- NR/PRC/MTC/TK0081 Management of rail welding
- NR/L3/TRK/002/B03 Ballast – Regulate - Manual
- TEF 3010 Stressing/Restressing
- TEF 3012 Disturbance of CWR
- NR/GN/TRK/7001/TWI2P013 How to understand stressing
- NR/GN/TRK/7001/ TWI2P015 How to carry out stressing

- Risk Control Sheets:
- NR/L3/MTC/0002/TK000 Generic Track Risks
- NR/L3/MTC/0002/TK407 CWR Stressing