

Track – CWR – S&C Tensor Stressing

Scope Includes: S&C and adjoining plain line
Excludes: Plain Line

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
- Impact Wrench
- Under rollers & side rollers
- Rail jacks
- Rail blocks
- Disc saw
- Grinder
- Trolley
- Road/railer used as lifting appliance
- 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
- Ensure adjoining plain line is stressed
- Signalling requirement
- Traction 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. The stressing process and order for S&C varies dependant on the layout and components involved. All actions to stress S&C shall be carried out in accordance with NR/SP/TRK/0011.

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5. Ensure the first cut into stressed CWR is by flame cutting and allow room for rail to expand by splaying if necessary.
6. Remove tensors when final weld has had sufficient time to cool.
7. Removal rail continuity bonds.
8. Remove weld debris and scrap from site.
9. Re-profile ballast around welding and stressing location.
10. Complete signalling reconnection/testing and test switches for detection in both the normal and reverse direction.
11. Clear tools, plant and equipment from site.
12. 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/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