Track – CWR – Stress Restoration

Scope

Includes: Replacement of worn, defective and broken rails in (including welds & IBJs) plain line and S&C
Excludes: Replacement of rail length exceeding 36m

Preparation

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

- Pencil/scribe
- Rail wax crayon/marker
- Tape measure
- Rule (300mm with metric scale)
- Calculator
- Note book
- NR/SP/TRK/011 Pull force and Pressure Reading table
- Flame cutting equipment
- Approved rail thermometers
- Fastening extractors, pad scrapers, hammers, bars, spanners
- Under rollers, side rollers
- Rail jacks
- Fire extinguisher
- Welding equipment
- Rail drill
- Disc saw
- Grinder
- Generator
- Stressing equipment (matched by reference IDs)
- Trolley
- Material as required

Work planning considerations (where work is not reactive) :

- Results of preliminary survey reviewed
- Signalling requirements
- Traction requirements
- Correct components available
- Completion of essential track work associated with stressing activity prior to commencement of the main stressing work
- Approved S&C stress plan where appropriate

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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.
5. Record rail temperature and carry out actions to restore stress in accordance with methodology set out in NR/SP/TRK/0011 appropriate for the work activity being undertaken.
6. Remove tensors when final weld has had sufficient time to cool.
7. Replace pads/insulators/fastenings as necessary during re-fastening work.
8. Dress weld, remove weld debris, and scrap from site.
9. Box in ballast around welding and stressing location.
10. Clear tools, plant and equipment from site.
11. Remove rail continuity bonds.
12. Complete signalling reconnection/testing works.
13. If stressing work is successful, complete stress restoration certificate form. If stressing work is unsuccessful, complete 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
- TEF 3011 Stress Restoration
- TEF 3012 Disturbance of CWR
- NR/GN/TRK/7001/TWI2P013 How to understand stressing

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

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