

Track – Cold Bolt Hole Expansion

Scope

- Includes: New and existing permanent fishplate bolt holes in plain line and S&C
- Excludes: Fishplate bolt holes in temporary rail joints. Factory made IBJs, adjustment switches, plain line and S&C rails with CBX certification. Existing fishplate bolts holes in AMS rails and S&C

Preparation

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

- Spanner
- Degreaser
- Soft-headed hammer
- Cold bolt hole expansion kit
- Sleeves of various sizes (sufficient for shift with spares)
- Table to check hole suitability
- Torque wrench

Work planning considerations:

- Signalling requirements
- Traction requirements
- Existing rail joints to be CBX marked up and ultrasonically tested
- Spare material requirements (i.e. rail)
- Estimate of how many rail ends involved and check suitability for CBX
- Check no rail defects present or rail needing replacement due to wear

Method

1. Fit continuity bonds if required.
2. Carry out CBX work in accordance with NR/SP/TRK/050 for new drilled fishplate bolt holes or NR/SP/TRK/051 for existing fishplate bolt holes.
3. Remove continuity bonds if fitted.
4. Remove all scrap including used sleeves, tools, plant and equipment from the site.
5. Record details of completed CBX holes in rail ends or IBJs and pass to Line Manager. Also record holes not treated with reasons why.

Track – Cold Bolt Hole Expansion

References

Supports Ellipse Standard job

- 009087 Track – cold bolt hole expansion

If applicable refer to the following associated documents:

- NR/SP/TRK/050 Process for Cold-Expanding New Fishbolt Holes by the Split Sleeve Method
- NR/SP/TRK/051 Process for Cold-Expanding Existing Fishbolt Holes by the Split Sleeve Method
- NR/L3/TRK/002/C03 Drilling of rail
- NR/L3/TRK/002/C04 Saw and disc cutting of rail
- NR/GN/TRK/7001/TWI2G029 How to carry out cold bolt hole expansion
- NR/GN/TRK/7001/TWI2C001 How to change fishplates
- NR/GN/TRK/7001/TWI2P040 How to carry out joint shimming

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