

Fit & Remove Tie bar

Scope Includes: Flat Bottom & Bull Head tie bars in plain line and S&C

Preparation

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

- Shovel
- Spanners
- Track gauge
- Heel bar
- Insulating mat or trough (only in DC electrified line areas)
- Tie Bar
- Clip on insulator (Track Guard or similar)
- Hammer
- Set
- Dismantling fluid.
- Track jack.
- Chair screw tap (or other suitable tool)

Work planning considerations:

- Check that the tie bar is of the correct type and insulated if required.
- Check for any damage and defects.

Method (for fitting)

1. Prior to fitting the tie bar check the static and dynamic gauge in accordance with NR/SP/TRK/001, action as required.
2. Remove ballast as necessary (if fitted to longitudinal timber or slab track, it will be necessary to remove the fastenings or chair screws as required to jack up the rail).
3. Tie bars must be orientated so as to avoid affecting track circuits.
4. In S&C layouts it maybe necessary to fit clip on insulators to the foot of any intermediate rails where they pass over the tie bar to prevent the track circuits being affected.
5. Slide the tie bar under both rails. (When working in electrified DC line areas the tie bar must be inserted from the non conductor rail side).
6. Hook one end of the tie bar on to the foot of the running rail. (When working in electrified DC line areas the tie bar must be hooked on the foot of the running rail on the non conductor rail side first).
7. Turn the bottle screw/turn buckle to adjust the other end until it can be hooked under the foot of the other running rail.
8. Draw the hooked ends towards each other by turning the bottle screw/turn buckle.

Fit & Remove Tie bar

9. Use the heel bar to make sure the tie bar is square to the track.
10. The tie bar should then be adequately tightened. The tie should be used to maintain gauge, it shall not be used to correct gauge by pulling in rails.
11. Tighten the locking nuts up against the bottle screw/turn buckle using two spanners.
12. Check the alignment to ensure the tie bar has not been over tightened.
13. Re-check the gauge.
14. Re profile ballast as required.
15. Tie bars should normally be fitted in groups of not less than three.
16. A record of tie bars fitted shall be completed and submitted on the form Tie bar record TEF 3030.
17. Tie bars should be individually numbered and this information added into the Tie Bar register. Tie Bars are automatically added and removed from the register Via Ellipse Work Orders.

Method (for removal)

18. Apply dismantling fluid (ideally 24hrs prior to removal)
19. Undo locking nuts.
20. Loosen the tie bar by turning the bottle screw/turn buckle until both hook ends can be removed from the foot of the rail. (When working in electrified DC line areas the tie bar must be unhooked on the foot of the running rail on the conductor rail side first).
21. Slide the tie bar out under the running rail towards the side of the track. (When working in electrified DC line areas the tie bar must be slide out from the non conductor rail side).
22. Re profile ballast.
23. The date removed should be recorded on the form TEF 3030 and the register updated.