

COMPROMISE JOINTS

****From Berlin STP 2935(1)
Berlin NH STP 2938(1)
Berlin NH STP 2947(1)**

xx. DESCRIPTION. This work shall consist of furnishing and installing compromise rail joint assemblies, in order to connect two abutting rails of differing sizes, at the locations indicated in the Contract Documents or where ordered by the Engineer.

xx. MATERIALS. Compromise joint bars shall be new or fit (used), 6-hole, as indicated in the Contract Documents and be of proper design for the rail sections to be connected.

If new compromise rail joint assemblies are to be furnished, they shall meet the material requirements of the Specification entitled: Specification for High Carbon Steel Joint Bars, AREMA Manual - current edition.

If fit (used) compromise rail joint assemblies are furnished, they will be acceptable, providing they fit properly, are pre-manufactured and are compatible with both rails which are to be connected. Fit bars shall be subject to inspection and acceptance by the Engineer.

All compromise joint bars must have a specific hand and rail weight designation that fits the rail exactly. "No-hand" joint bars and 4-hole joint bars are not acceptable unless approved by the Engineer.

The Contractor is cautioned that, due to the many slight variations in railroad rail and appurtenances, a preliminary inspection and acceptance of compromise rail joint assemblies by the Engineer shall always be conditioned upon the fact that the final acceptance cannot be given until the assembly is installed in its final position. In addition to being judged defective due to improper fit, compromise rail joint assemblies may be judged defective for the following reasons:

- (1) Cracks, breaks, or other flaws that impair its proper functioning.
- (2) Bolt holes with excessive wear.
- (3) Excessive deterioration from rust or scale.
- (4) If they permit any vertical movement of either rail when all the bolts are tight.

Bolts set shall be new and of the proper design and size for the two rail sections to be connected.

Compromise joint bar bolts and nuts shall meet the material requirements of the Specification entitled: Specification for Heat Treated Carbon Steel Track Bolts and Carbon Steel Nuts, AREMA Manual - current edition.

Spring washers shall meet the material requirements of the Specification entitled: Specifications for Spring Washers, AREMA Manual - current edition.

- xx. CONSTRUCTION REQUIREMENTS. Compromise joints shall be installed so opposite rail joints are staggered at least 4'-11".

When joining rails of differing sizes with a compromise rail joint assembly, it shall be fitted so that the top of rail surface and the gauge face of the rails to be connected are held in alignment. Bars must be installed, as markings indicate, GAUGE SIDE/FIELD SIDE.

The step in rail joint must not exceed 15 lbs of the adjacent rail. When adjacent rails exceed 15 lbs, buffer rails shall be provided by the Contractor.

Bolt sets shall be installed in all assembly bolt holes. Driving of bolts will not be permitted. All bolts shall be tightened to a tension of between 90 and 133 kN (20,000 and 30,000 lbs).

In the event it is necessary to provide additional bolt holes, it shall be done only by drilling with a rail drill of appropriate size. No other method will be permitted.

- xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Compromise Joints) to be measured for payment will be the number of compromise rail joint assemblies installed in the complete and accepted work.

- xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Compromise Joints) will be paid for at the Contract unit price for each. Payment will be full compensation for installing a properly fitted compromise rail joint assembly, complete with new properly tensioned bolts, nuts, and washers, and for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

| <u>Pay Item</u> | <u>Pay Unit</u> |
|---|-----------------|
| 900.620 Special Provision (Compromise Joints) | Each |