

RAILROAD CROSSTIES

This guide is intended to supplement railroad standards and specifications and is subject to the desires and whims of the chief track engineer.

1. GAUGE ~ Track shall be gauged to 56-1/2" in curves, tangents, turnouts, and other special track work, as measured by a real track gauge, not a tape measure.

Where steel ties are used, gauge shall be fixed by the pre-gauged steel ties -- typically 56-1/4" plus rail wear. Wood ties shall be gauged to match steel ties.

2. SPIKES ~ No more than two (2) spikes shall be used per plate. Spikes shall be installed in a diagonal pattern. Under no circumstances shall spikes be installed in notches in joint bars.

Spiking rotted ties is a waste of time and material.

3. SPACING ~ Ties shall be spaced longitudinally on 24" centers for new construction and where nests of three (3) or more ties are replaced.

Single ties shall be replaced on new existing tie spacing

these measurements:

Rail base	Tie should extend beyond base of rail
5"	18-3/4"
5-1/2"	18-1/2"
6"	18-1/4"
6-3/4"	18"

Formula is 21-1/4" less 1/2 base of rail.

6. PLATES ~ Tie plates of uniform design shall be used throughout project, i.e. single shoulder/double shoulder, flat/canted, etc. Canted plates shall be used on wye areas where steel ties are installed.

Ties shall not be installed without plates except where joint bars wrap under rail.

7. JOINT BARS ~ Joint bars shall be fully bolted. Broken bars shall be replaced, before ties are installed at joints.

8. SURFACE ~ Ties shall be installed in existing track against bottom of rail, disturbing roadbed as little as possible and taking care not to hump track.

No more than three (3) steel ties shall be installed unless track can be mechanically tamped before regular traffic.

disposed of according to arrangement.

PERMITTED EXCEPTIONS:

QUALITY CONTROL

These tolerances shall apply for quality control and/or acceptance of new work.

1. Deviation from nominal gauge at installed ties shall not exceed 1/4"
2. No more than two (2) spikes shall be in any plate on installed ties.
3. Tie spacing shall not deviate by more than 2" per installed tie or overall installed ties.
4. Installed ties shall not be skewed by more than 1" measured at gauge side base of rail opposite of line side.
5. Installed ties shall not be more than 1" short or long on line side, measured from outside base of rail.
6. Incorrect ties plates shall not be used.
7. Missing bolts or broken bars shall not exist at joints where ties are installed.