

# Railroad Rail

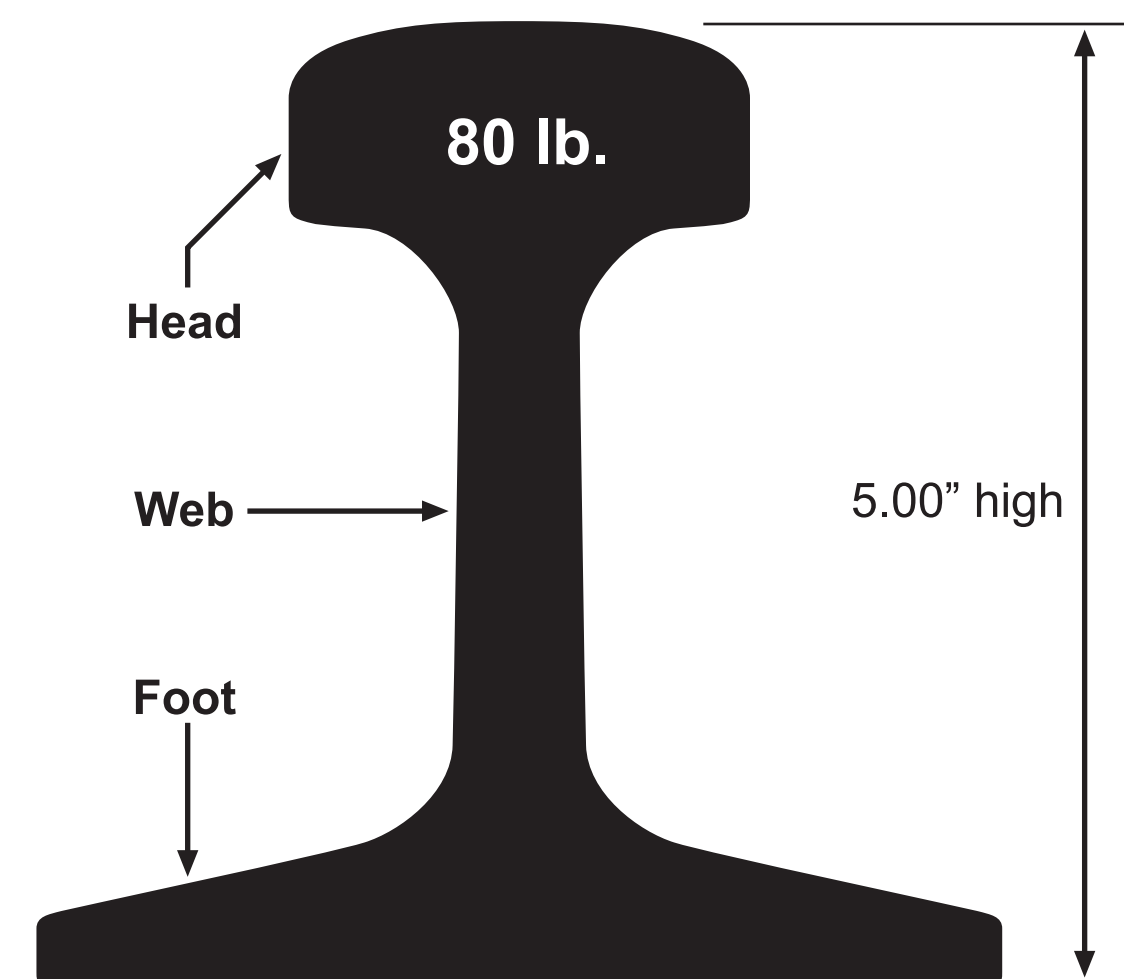
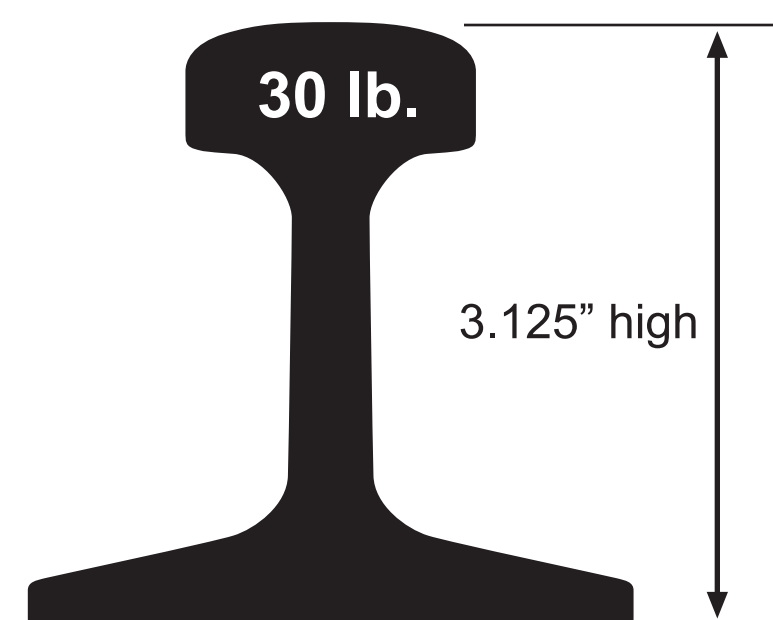
The rails that are the hallmark and defining feature of railroads evolved from simple wooden stringers used by horse-drawn and gravity operated tramways. As the rails automatically guide the path of the vehicle, they eliminate the need for steering and make the path and behavior of what travels over them more predictable and easier to control. As these tramways developed, wrought-iron straps were laid on top of the wood stringers for greater durability. These eventually gave way to cast iron rails and finally steel rails. As the material changed, so did the shape. The forerunner of the modern "T" section rail first appeared on the Camden and Amboy Railroad in 1830, alongside the "John Bull" steam engine and other early US locomotives.

Rail is designated by weight in pounds per yard. By the time the Western Pacific started construction in 1907, heavy mainlines used 85 to 100 pound rail, while industries, spurs and shortline railroads used rail as light as 40 pounds. Most of it was laid in 39' lengths which were bolted together. Today, the most common size is 136 pound, although rail as large as 152 pounds has been used at times. Since the mid 1980's, most railroads are placing welded rail, which is a continuous "ribbon" of rail thousands of feet

long, on their heavy traffic lines. While this makes for a smoother ride and less wear and tear, it eliminates the classic "clickety-clack" sound most people associate with train travel.

While the Western Pacific was an early user of such trackwork innovations as concrete ties, it was fairly conservative in its rail. By the time of the Union Pacific merger in 1983, much of the Oakland to Salt Lake City mainline was laid with 115 pound bolted rail, the common type at the time. Many branches and sidings were still laid with rail as light as 65 pounds. The yard at the Western Pacific Railroad Museum, for instance, is mostly 65 pound rail. The railroad did explore welded rail, but its widespread use on WP lines would not occur until after the Union Pacific took over.

Today, most of the ex-WP mainline is 136 pound welded rail.



Profiles shown  
actual size

