UPDATE ON SHORTLINE #8 CON'T

Our little pink caboose is now receiving much needed attention from Mel Moore. He has been stripping paint from the caboose sides. There is much work ahead to restore this precious bit of railroad history.

There was a fine response to our brochures that were introduced on Railroad Days. Many new officials have joined the Shortline. The processing of the applications is efficiently handled by Robert Erbeck who has been a Director and Secretary Treasurer of the Feather River Shortline Railroad since it was founded in 1958. The Board of Directors appreciate the generous donations made to the restoration of our vintage railroad equipment.

In November the Feather River Shortline #8 will be seventy nine years old! Jim is planning an extravaganza next year when #8 is 80...But in the meantime, Happy Birthday #8, with all the friends and steam lovers working for you, there will be many more.

MILEPOSTS

SEPTEMBER, 1956

They're closing the joints in Winnemucca at

WP's Rail Welding Plant

General view of loading area. At left, carloads of 39-foot rails just arrived from mill. In foreground, 78-foot rails are loaded onto cars destined for track-laying installations.

To many railroad travelers, a love for the sound of car wheels clicking off pleasant miles is second only to a love for the sound of the old steam whistle. Unfortunately, the old steam whistles have already "blown" from the railroad, and to a modern railroad like Western Pacific the elimination of every other "click" will mean a better and more quiet ride for those railroad travelers and added years to the life of the rail.

To eliminate every other rail joint, the cause of the "clickety-clack," the railroad in 1955 constructed a rail-welding plant which slightly resembles a modern assembly line. The plant was put into operation on the site of the former roundhouse (another antiquated railroad facility). It consists of racks and crane tracks for the storage and handling of rail, and a long roller line along which the rails are fed end to end, passing through sheds which straddle the assembly line and are designed for the various stages of the welding process.

The 39-foot standard rail sections received from the mill were drilled by CF&I for a standard joint, but with bolt holes at one end only. Placed on a set of skids which feed into a power hacksaw, the undrilled (without bolt holes) rail ends to be welded together are first clamped together at the saw. As the blade passes down through the ends of both rails it removes a small amount of metal from each rail, thus matching the ends perfectly and removing any oxide or rust that may be present. After further manual refinement of the end surfaces, the rail moves on to the next shed where the prepared ends are clamped together in the rail-welding machine and adjusted to proper alignment. Four heating heads, containing 132 adjusted heating tips, surround the ends to be welded. After the heads are ignited and the rail becomes heated to a temperature of about 2,000° F., hydraulic pressure of 5,000 pounds per square inch is applied. This fuses the ends and completes the weld but forms an "upset" —a protruding bulge—around the rail. Acetylene gas, used for the heating flame, is generated on the welding site by means of a 1,000-cubic-foot acetylene generator, and oxygen is supplied by manifolded cylinders.

THE rails, now 78 feet in length, move along rollers to the trimming station, where the upset is partially removed by oxy-acetylene cutting torches. After trimming, the weld is placed in a normalizing machine designed to heat the general weld area to remove residual stresses caused by the welding process. The welded rail is then advanced through three stages of grinding to remove the remaining upset from the rail head, sides and base.

After close inspection by Magnaflux —a magnetic method of detecting minute flaws or cracks—and other testing methods, the long rails are loaded on cars for distribution along the railroad for track gangs who will replace the old with new rail.

During 1956 it is planned to relay about 45 miles of track with the longer rail, which will require about a seven-month welding operation at a cost of about $100,000. Because of the efficiency of the operation and the cooperative efforts and increased experience of the workers, the rate of production at the rail-welding plant has climbed from an average of 50 to 55 rails a day, which is higher than the production rate obtained by any other railroad operating a similar rail-welding plant. The program was somewhat interrupted during the recent steel strike in July, as no new rail was manufactured during that period at the CF&I mill.

The welding process is licensed to Western Pacific by the Linde Air Products Company, a division of the Union Carbide and Carbon Corporation, and is known as the Oxweld Pressure-Welding Process. The method involves simple welding principles and is related to one of the earliest forms of welding, commonly known as blacksmith weld.

One of the reasons Western Pacific decided to weld rail into 78-foot lengths rather than into lengths as long as a quarter of a mile or more, as some railroads are doing, is because of the handling and transportation problems, not only just after the rail has been welded, but years later when worn-out rail is ready for replacement. While the larger railroads can reuse welded rail in secondary or branch lines, Western Pacific sells most of its used rails to outside firms. To do this, WP would have to cut up the longer lengths at considerable cost and the sale value would be considerably reduced.

Because of overhang, an idler car must be used between each pair of loaded cars to negotiate all the curves.