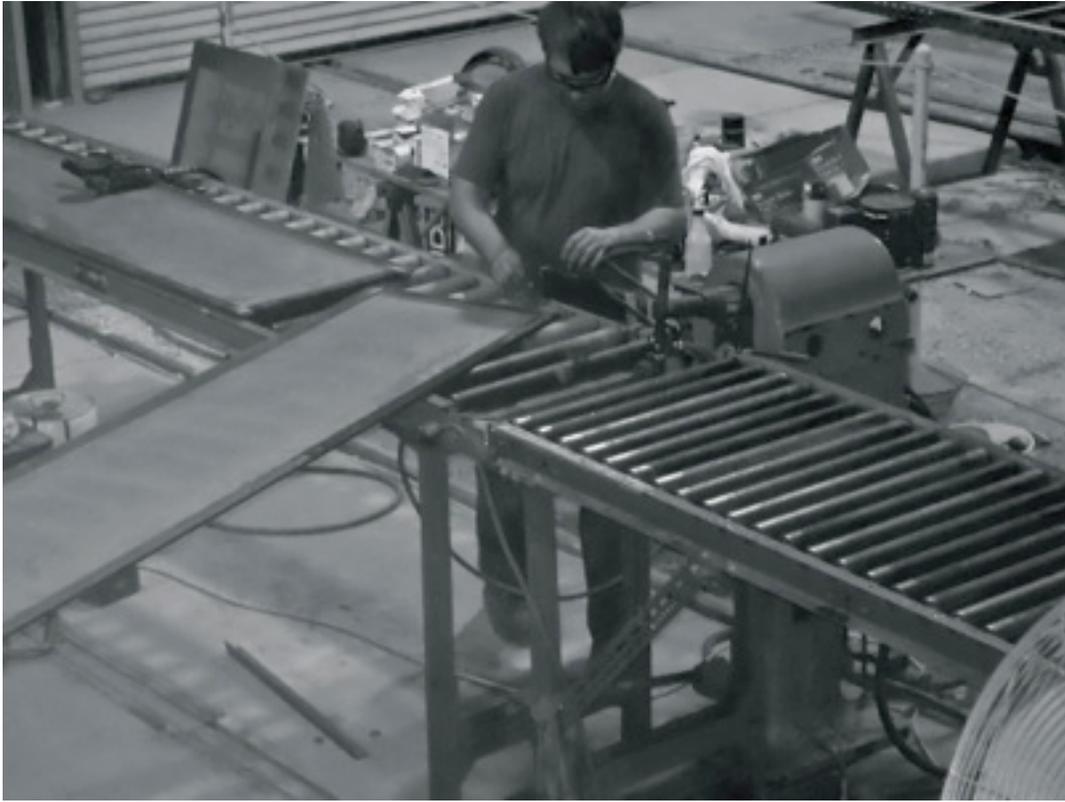


ATSF 108 Restoration Update - July, 2013



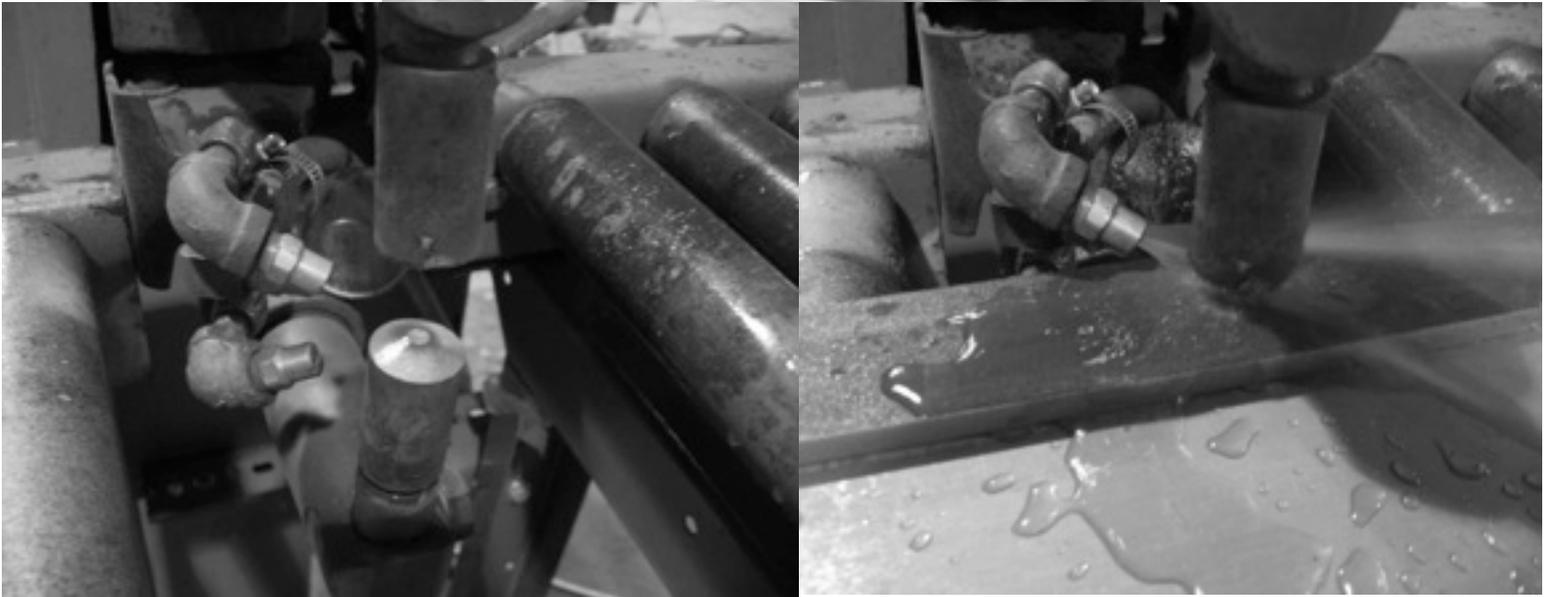
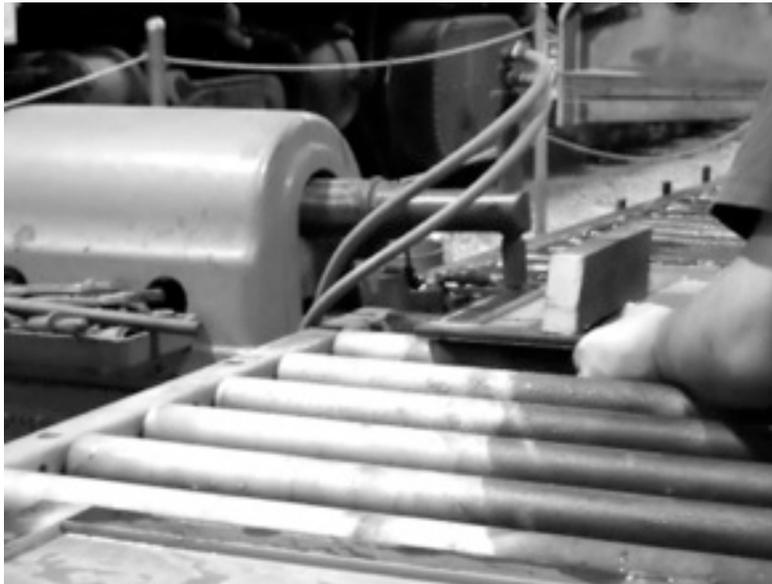
Jeff Williams, seen here, manufactures replica carbody panels for FP45, Santa Fe 108. New panels, stacked on the cart in the foreground are complete, ready for installation. Three test panels are applied to the locomotive to check fit and finish. They will be replaced with production panels. Full width carbody locomotives are particularly prone to corrosion and after 45 years in service for the original panels, all of them including service replacements were rusted through or distorted by rust build up.



Using original drawings, panels and stiffening bars were sheared to size at a metal service center then resistance welded together on a process line Jeff has set up in Car barn 7.

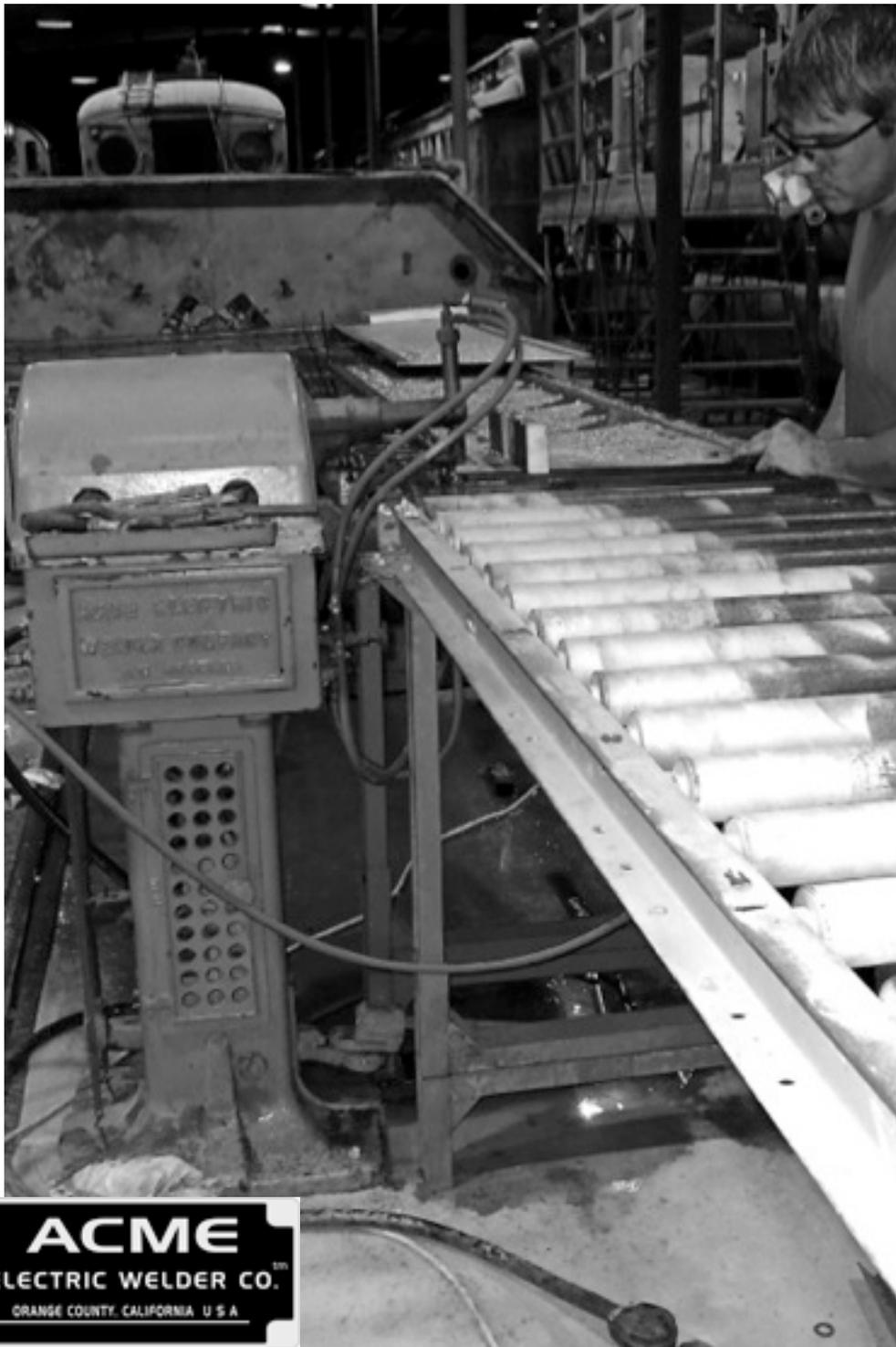


Joining material of significantly different thickness and shape made getting the exact heat for an effective spot weld with cool down to avoid distortion very challenging.



These views show the resistance welder clamping electrode head and the plumbing that delivers water to quenching nozzles for controlled cool down.

The Acme Electric welder itself is a fitting artifact in our 'living' museum of the evolution of industrial technology. A Southern California native, the new generation of Acme Electric resistance welding equipment is still manufactured by A.P. Sedorff-Acme Electric in Anaheim.



Founded in 1918 by George M. Hessdoerfer, A.M. Searles, & A.V.B. Cutler (a pioneer in the Electric Welding Industry), Acme provided welding machinery to a booming Industrial America. Industries such as: Aircraft, Automotive, Sheet metal, Iron working, Appliance etc., acquired many Acme Welders. As a result, Acme developed a standard production line of Rocker Arm, Press-type, Gun, and Multi-Head Welding Machines, many of which are still in production today!

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