

to set on some boiler parts. When installing Valve Rod in Combination Lever turn Driver so Eccentric is up. Then move Bell Crank almost rearward and Combination Lever vertical. Now you can install Valve Rod by determining where the 2nd hole needs drilling in it, .028" hole. Ours measured 4 3/4" between hole centers. Heat Combination Lever almost red hot to soften it, then next to fork bend outward, then move pliers slightly outward and bend the rod down again. This is to clear the Crosshead Guides.

## BOILER PARTS

Remove both Handrails and grind the bumps at the base off. smooth with Boiler, also grind and file Turbogenerator off, on left side in front of Cab, being sure to contour with Boiler top. Remove the Bell. File the unsightly parting line off, a rough line the length of Boiler on each side below Handrails. In some places you will need a small chisel to scrap it away. Also remove 2 gatings in front of Sand Dome and up the Dome, and on top of the Turret, in front of Cab. As you file these, you will find rough casting or paint or paint scratches. File these also. Many places you will not have to file all the way down to all shiny metal as old paint has filled it---rub your nail over these areas to check for smoothness. File around base of all parts on Boiler with fine sharp edged file, such as Boiler and Tank Bands, Socks Stack, Hinges, Piping etc., to get a good definition at corners. Your small chisel is good for this in many areas. File the Boiler Bands much thinner, a bit more than barely noticeable (they do not show on many photographs). The sides of you cut-off disc is good for this, followed with a file. Using the chisel, a slight roundness can be given the cast on Piping and Rods next to the Boiler. The step-shaped clamps around the Superheater Door (Plate) on the Smoke Box need squaring up. The Cab Window Frames are much too thick. Grind much thinner from inside with edge of cut-off disc so Sills & Frames are about 6" thick. This will take a lot of grinding but, will give much better appearance, removing the toy look to the Windows. In finishing up the grinding you will need a fairly small diameter disc, so save a worn down one for this, or do later when one is available.

#92.2 Washout Plugs--Open type. Dimensions between Plugs are running totals from Turret forward. Dimensions down from top of Boiler are side views, not curvature distance along Boiler. Lay these out first. We do not have dimensions on the left side, but appear last 3 are moved back 1'6" as drawn. See instructions for drilling. Approximately a #25 drill turned in these holes by hand will remove the burrs caused by drilling the #42 holes. Then run #41 drill thru holes again. On right side be sure layout and drilling is far enough away from the two close Piping lines from Turret to Smoke Box for heads of Plugs to go down next to Boiler.

#134.1 Handrail Posts--There are not enough Handrail Posts, so put a straight edge between front and rear existing holes and draw a line, to drill the following holes; rear corner of Superheater Plate (with clamps), just in front of Sander Cover of Sand Dome, just rear of center of Steam Dome, and just at front of Turbogenerator location. Center Punch and drill these holes #56. After drilling out all Post holes while still on the cluster .025", cut the Posts abit long, just before diameter starts to increase. Then cut them. Lay on work bench according to size in pairs. Grind with edge of cut-off disc around holes on inside of Boiler to remove paint and roughen surface. Put epoxy in holes and on ground surfaces inside the Boiler. Start installing with longest Handrail Posts in front, coating base pin with epoxy, stick into hole and pile epoxy over pin on the inside. (There is also a 5 1/2" Post on center line at very front of Boiler. We left this one out as epoxy may not hold here good enough, since Socks Box wall here is thin. If used, you would have to leave off one post per side at the rear.) The very shortest Post goes on the Turret near Cab. When all are in, set each Post perpendicular to Boiler. Handrail will be installed later.