

Shay Fire - Finishing Blower & Smoke Box

Nelson Riedel Nelson@NelsonsLocomotive.com

Initial: 12/ 04/03 Last Revised: 06/06/2004

The blower is the last thing needed to fire up the locomotive. The blower nozzle had been made earlier and installed with the the exhaust pipe. The smokestack base had been installed when the holes were drilled in the boiler. The blower valve was installed in conjunction with the blower/atomizer manifold.

The work remaining is to run the pipe from the the valve to the blower, install a pressure gauge on the blower line and to screw down the smokestack and petticoat. Also, a pressure relief is to installed on the blower line to protect the relatively low scale (0-30 psi) pressure gauge. The blower pipe runs down the right side stay tube. The pressure gauge sets on the reversing gear platform behind and above the atomizer pressure gauge. The relief valve is attached to the blower pipe line in the smoke box.

The blower valve is the upper of the two valves on the manifold. The photo shows that a tee is connected via a short nipple to the union on the valve. The right leg of the tee goes via another union and an elbow to a compression fitting that transitions to 1/8" pipe. The elbows and other fittings form a base for the blower pressure gauge ordered a few weeks ago but hasn't arrived yet. The union on the right side of the tee permits removing the gauge so that the platform and shelf can be removed. The left leg of the tee goes through 3 elbows and then enters the stay tube.



This photo of the smoke box is taken at an angle to show the fittings. Note that there are unions at each end of the link that connects the blower pipe with the blower. The unions permit easy removal of the the link so that either end and the link itself can be worked on. The safety valve is set for 30 psi to protect the gauge.

Update: The blower was modified and pressures greater than 30 psi were usable so the gauge was replace with a 0-60 psi gauge. The relief valve at this point is of little use and will be removed.



This is the straight-in view of the smoke box. The stay tubes are visible near the top. The right tube is closed with a tapered silicon plug used in powder coating.



Now to starting the fire

[Shay Project](#)
[NLW Home](#)

