

How I became a Railroader Again!

In 1986, as a member of the St. Louis Chapter of the National Railway Historical Society, I was at a meeting when a speaker told us about a steam engine that was being restored at The Museum of Transport, in St. Louis County. After the meeting I talked with Pat Cravens, and found out he was looking for more volunteers to help out. I showed up, the first weekend in January of 1987, on a very cold Saturday. I was put into the locomotive tender with another volunteer, and an air powered wire wheel to clean out the crud in the water compartment. When I came back the next day, Sunday, the other volunteers figured I was there to stay. We finished the restoration of the Frisco 1522 mountain class steam locomotive in July of 1988. What did I do on the locomotive? Just about everything. I did a lot of greasing; hard grease in the driving wheels, soft grease in the moving parts and rods, air oil in the air compressors, etc. and lifting, a lot of lifting! I took welding classes and became one of the group's welders. We worked on that locomotive year round, running it in the summer time, usually. In the rest of the year, we would do repairs and bring new electronics, roller bearings, testing, filling out forms for the Federal Railway Administration. We put thermal couples on many of the bearing surfaces, and had a computer display in the cab of the locomotive. The railroad never knew what the bearing temperatures were when the locomotive was in regular service, but we did. We had to know what the temperatures the bearings were running at, because bearing failure can destroy a locomotive. Several times we had to limp back home with bad bearings, running 10 miles an hour or less for hundreds of miles. This does not make for a happy railroad that you are running on. In the days of steam locomotives, there were roundhouses and shops every thirty miles. Those do not exist today, and while we used some diesel shops for servicing, they are really not equipped for a steam engine today. What is it like to run a steam locomotive? Oh, Baby! Just think, when I pull back on the throttle, I am using 3,600 horse power generated by just two cylinders. Newer locomotives have up to 5,000 horse power. Our locomotive was built in 1926. Locomotives built in the late 1930's and 1940's had higher boiler pressure. We ran at 214 pounds per square inch pressure in the boiler, with the safety valves set to open at 216 psi. Newer locomotives run at between 250 to 300 psi boiler pressure. That makes a big difference. We used bunker grade fuel oil to power the locomotive, no coal. Mileage was 13 gallons of oil to the mile for the locomotive, plus 2.5 gallons per mile for each car we were pulling. We have pulled up to 23 passenger cars full of riders, but usually try to limit the load to 20 cars. We carried 10,500 gallons of water in the tender, and another 15,000 gallons of water in a second tender. It was like dragging a swimming pool down the tracks. Water always limited how far we could go before we needed to water and grease the locomotive. 400 miles was about all we could do in a day. Long days, but I loved them!



(Editor's note: Jim Butler graduated in June 1959, and a few days later was in the US Navy Submarine service. Discharged 6 years later, he went to work for a St Louis defense contractor. Today he still works on old locomotives around the country about half the year, and rests in Hawaii the other half.)

Jim Butler
Class of 1959