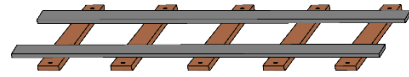


On Track



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If you are receiving this newsletter for the first time, welcome to the fold! We are cataloging our visitor logs for the last few years, and your name and email appeared! If you wish to be taken off our list, just let us know, but we hope that you will stay with us, follow us online, and return as a visitor sometime soon. Previous editions of this newsletter may be found on our [website](#). If you have comments on the newsletter, please send them to nmheritagerail@nmheritagerail.com or to your humble editor, [John Taylor](#).

We are STILL looking for members to fill the Secretary or the Treasurer positions, so please help your organization by putting your skills and abilities to work. We have other skill sets we are looking for too!

Current Status: NMHR is working with state agencies, various local politicians, local and national railroad operators, Operation Life Saver, and other interested parties for our next live-steam event – the New Mexico Railroad Days! On Saturday, September 30, from 10:00 a.m. to 6:00 p.m. and Sunday, 1 October from 10:00 a.m. to 2:00 p.m., we will be on display at the north end of the Albuquerque Rail Yards. Come see us! We have asked Amtrak, BNSF, and Rio Metro (i.e., Rail Runner) to have their motive power on display and are working with other parties to have informational displays in the parking lot. As far as the locomotive is concerned, she now has TWO whole road miles on her (and more soon to come)! Also, some of the fixes we implemented as a result of the last outing appear to be working well. The support car is making slow but steady progress and our sand-casting foundry keeps cranking out babbitted and other parts for the Cumbres & Toltec narrow-gauge railway. Do you know an artist or a maker who needs something that is relatively small cast in brass, bronze, or aluminum? Contact us. We are still working with the city of Albuquerque to establish them as our fiscal agent for the state monies we received. Work on the turntable has slowed as our live-steam moves have taken priority and as we wait for the state funds.

Accomplishments: We held our second successful fundraising event at Tractor Brewing – Wells Park (1800 4th St. NW)! Lots of people came throughout the day to see her move under steam, learn about 2926, and take a cab tour (and have a beer I hope)! She makes for a really impressive sight to behold. The operations crew and the merchandizing team deserve a big “Thank You” for all their hard work. It makes for a long day, but it’s encouraging to see so many people enjoy the fruits of our restoration effort!

Profile of a member In J.R.R. Tolkien’s classic *Lord of the Rings*, elves created all but one of the 20 rings in their foundry. The final ring, the Ring of Power, was created by the evil wizard Sauron in a foundry in the bowels of Mount Doom. Well, we at the 2926 have our own foundry, and our own foundry master, Bob Martin. He is way too tall to be an elf and way too nice to be an evil wizard, unless you believe the way Pecos Bill’s dog, Spirit, reacts to him. In addition, he is much better at creating bushings, plaques, and Cumbres and Toltec parts than he is at making Rings of Power. His furnace may look like an HO-scale Mount Doom, but there are no orcs around, at least none that I have seen.

Bob is a native Albuquerquean, born in 1955, and was schooled as a Hornet at Highland High School. He has a BS in Mechanical Engineering from UNM and a Professional Engineer certification. In between high school and college, he moved to Grants where he worked as a haulage drift miner in an underground uranium mine. While in Grants he met his wife, Judy, a radiochemist and amateur English major, and they

have been married for 42 years—see I told you he was no Sauron or she would have let him go years ago! They have one daughter who works as a chemist in the Wyoming oil patch.



After college, Bob worked for Honeywell Aerospace and at the General Electric Aircraft Engine Business Groups Albuquerque Plant on South Broadway. More recently he has worked as a private consultant, mostly for HVAC installations, and has a tool resale and refurbishment business on the side.

Bob came to us after he saw an ad for a lathe on Craigslist, and “Doctor Mike” gave him one of his famous tours. He joined just after his 60th birthday and has become a vital part of the casting crew. In addition, he has done some critically important CAD/CAM work in identifying and diagramming the large number of lubrication locations on the engine and tender and providing a detailed drawing of the track from the engine house to the pit.

So, the next time you hear Spirit burst into a paroxysm of barking, just look up—Bob Martin is almost certainly on the move across the site. Give him some love—Spirit is clearly mistaken about the danger Bob poses to the rest of us!

A short historical note: You may have wondered how we settled on the gauge of our mainline rails at the seemingly arbitrary four feet eight and ½ inches. The story goes something like this: the width of the rear axles on Roman chariots was, nominally, four feet nine inches which is, nominally, the width of two horses’ behinds when they are in harness. During their nearly 400 year occupation of the British Isles, the Romans built a significant network of roads. They left these roads and their associated ruts behind when they withdrew from the British Isles circa 410 CE. The carriages and wagons that continued to use these roads were also made to match these existing roads and ruts. Similarly, when the first rails were constructed in Britain in the early 19th century, they were installed along the existing roads. Because the first locomotives and rail configurations in the US came from Britain, our early gauge was the width of two horse’s butts! This was true across the northern railroads, although various other gauges were used in the South. After the Union victory in the

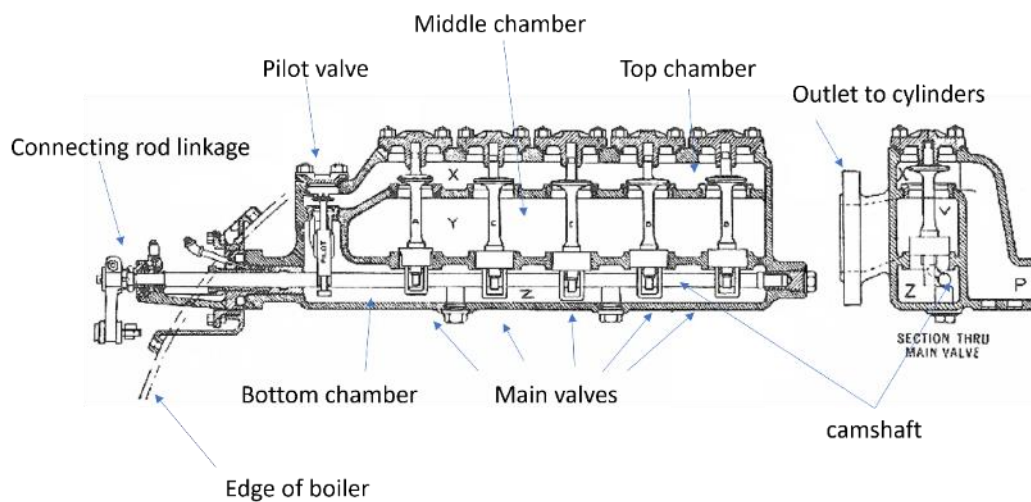


Civil War, gauges throughout the South were gradually converted to the four foot, eight and ½ inch standard. So, if someone calls you a horse’s ass—consider it an historical complement instead of an insult.

How does it work: This month we are going to take a detailed look at the throttle (much credit to Henry Roberts for guiding me through the explanation!). When most of us think about the throttle, we think about the large arc-shaped lever mechanism in the cab. Perhaps we speculate on why the engineer needs so much mechanical advantage to simply open and close a valve or why the throttle has all those notches. Well, here goes—



The 2926 has a superheat system that raises the temperature of the steam from about 400 °F to 700 °F to add energy to the steam to turn the drivers. The 2926’s superheat system was designed and manufactured by the Locomotive Superheater Company, informally known as Elesco, which still manufactures superheaters for marine use under the title of MarineLink, Inc.



The diagram above shows a locomotive superheater almost identical to the one on the 2926 except that ours has six main valves instead of five. The mechanism has three chambers. The superheater tubes exhaust their 700 °F/290 psig steam into the top chamber (and labeled “X” in the figure). The bottom chamber (labeled “Z”) contains a camshaft that is operated by the throttle lever in the cab via a long connecting rod that runs the length of the boiler. The top and bottom chambers are connected through a small (1-inch diameter) pilot valve.

When the engineer moves the throttle lever forward, the camshaft first opens the pilot valve. This allows steam from the top chamber to enter the bottom chamber, equalizing the pressure between the top and bottom chambers. If this pressure was not equalized, the engineer would not have enough mechanical advantage to open the large (6-inch diameter) main throttle valves. (That's 8,200 lbs of force on the main valve for anyone following along.)

Once the pressure has equalized (essentially instantaneously), further movement by the throttle lever in the cab moves the camshaft into positions to open the main throttle valves sequentially (from the outside in), allowing steam to pass from the top chamber into the middle chamber (labeled "Y") and out to the cylinders thorough the large (18-inch diameter) outlet ports that are visible on the sides of the boiler. The notches on the arc mechanism help to hold the throttle in the position desired by the engineer. The 2926 throttle body is shown here. Pecos Bill is included at no extra charge!



What's new in the store: CALLING ALL ARTISTS! The NMHR site store and gallery is seeking a selection of artists and artwork to help us promote our restored locomotive and surrounding local historic railroad locations. Art styles to be considered include 2D renderings in sketch, pastel, acrylic, and watercolor, as well as photographic images and compositions. 3D interpretations in your preferred medium will also be considered. For consideration, please forward your information, your media, and your subject matter to Rick Marsden at our site store, or by email to rmarsden@nmheritagerail.com.



How you can help and other tidbits: If you are interested in donating to our cause (because operating a steam locomotive takes money!), go to our website and make a donation through [PayPal](#) and/or click on our [GoFundMe](#) and [Venmo](#) links! Be sure to check out our [Facebook](#), [YouTube](#), and [Instagram](#) pages as well! Other potential sites of interest: our friends at the [Wheels Museum](#) and activities at the [Albuquerque Railyards](#). The Board of Directors is soliciting a volunteer to act as a Webmaster for the organization. This person would need to be a member but could work remotely. Tasks would include maintaining the website, adding photos and photo captions, and adding other materials as needed (e.g., newsletters, advertisements for the store, etc.). If you are interested, please contact [John Roberts](#) or [Gail Kirby](#). Please see our Membership page to discover our other volunteer opportunities.

In keeping with our Person of the Month, I would like to point out that September 22nd is National Hobbit Day, so check the soles of your feet—if they are hairy, you should probably celebrate!

