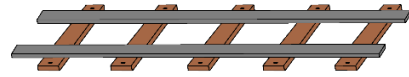


On Track



Vol. 3, Number 7, July 2024

If you are receiving this newsletter for the first time, welcome to the fold! We continue to catalog our visitor logs (some from several years past!), and your 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. **Additional financial support will never be turned down (maintaining and operating a steam locomotive is expensive)!** 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](#).

FROM THE PRESIDENT:

This wouldn't be a proper newsletter if we didn't ask for your financial help to support us. Please donate and help us complete our numerous projects and continue our movement along the tracks. Thank you!

The results of the 2024 board of directors' election will be announced this month and we are looking forward to welcoming the newly elected board members. They have their work cut out for them! I would be remiss if I didn't mention that our long time Chief Safety Officer, Jon Spargo, has decided to resign from his board and CSO officer positions. He has trained countless volunteers and guided NMHR through decades of safe operations. We thank him for his dedicated service and enthusiasm and wish him the best!



The strategic plan that was developed is being finalized and will be ratified by, or before, the next board meeting. This strategic plan will challenge and guide us in the coming years. After ratification, the board will work out how to best accomplish the goals. I will ask the board's approval to release the strategic plan publicly so that everyone can see where we are headed.

For the Santa Fe Railway Historical & Modeling Society's 2024 convention here in Albuquerque, NMHR was contracted to hold a private event for their members to display 2926 at the South Albuquerque Rail Yards – adjacent to the turntable! Their members came from far and wide to experience 2926 in a historically familiar place. This event, showcasing a steam locomotive at the rail yards for the first time in nearly 70 years, was a complete success and enjoyed by all! And yes, the new tracks that we were able to have installed, thanks funds from the State of New Mexico, worked like a charm! NMHR's only regret is that we couldn't make this a public event...

But your chance is coming soon as we will be holding our 2nd Annual New Mexico Railroad Days on 27-29 September in the exact same place. We are deep into the planning stages for the event. Mark your calendar and come experience for yourself the combination of historic steam locomotive 2926 in the yards at the Santa Fe repair shops! (The photo,

courtesy of Trains Magazine, shows 2926 being worked on in these shops. If only we had a picture of her on the turntable!! Although we did show a picture of our sister, 2925, on that turntable in a recent newsletter announcement.) Seeing a steam locomotive in her native surroundings is not to be missed! We have lots planned so keep an eye out for more information on our website and our social media pages.



2926 being worked on back in the day!

Capital Outlay Corner:

Incremental progress is being made with the city of Albuquerque to start spending the 2024 funds that were allocated to us to work on the turntable. We are meeting with city officials to discuss our turntable restoration plans and whether there are any environmental / remediation concerns. Wish us luck because remediation means only one thing – spending more money! NMHR is also concentrating on the 2025 capital outlay season. It's early in the process and we will be looking to the city for their feedback and buy-in for the Rail Yards projects we are considering.

NMHR was awarded a 2025 grant from the New Mexico Tourism Department that will help us with our future goals. Unfortunately, at the time of this writing, I am not permitted to divulge any of the pertinent details. Stay tuned! NMHR met (virtually) with New Mexico Tourism Department for a kickoff meeting for their 2025 Cooperative Marketing Grant program. We were awarded to take part in a Social Media Starter Package and Social Media Boost programs. NMTD's social media coordinator will work with NMHR and their professional social media partners to help us produce a better, more effective, social media presence.

Profile of a member: Twenty-twenty-four has been a year of big changes at New Mexico Heritage Rail. First, we have the name itself—no longer are we the New Mexico Steam Locomotive and Railroad Historical Society. We now have a name that “falls more trippingly off the tongue.” Secondly, our longstanding secretary, Gail Kirby, has stepped down. Thirdly, but not unrelated to the second issue, we

are about to say good-bye (but not farewell!) to our longest-serving Chief Mechanical Officer. Yes, it's true, Gail and Rick Kirby are stepping down from their elected positions and will be plain old worker-bees like the rest of us!



Rick and Gail in the real world

Rick was born in Georgia but came to Albuquerque as a toddler. He attended Sandia High School, graduating in 1968 and started at UNM. After two years as a Lobo, cooler heads prevailed, and he began a pipefitting apprenticeship program, graduating a few years later as a journeyman, second in his statewide class (Our own Carlos Osuna was the only person who stood above him in the class ranking!). From then on, he was a welder and pipefitter in copper mines and power plants in Arizona and New Mexico, eventually ending up with his own business here in Albuquerque.

Gail is an Albuquerquean all the way and attended Sandia High School, graduating in 1971. While they knew of each other in high school, they did not actually get together until Rick moved back to the Duke City in 1984. They were married in 1985. While Rick was busy with his business, Gail worked as a claims adjuster and manager for Allstate Insurance, retiring in 2003. She also sang (and is still much in demand) at weddings and funerals and other church functions.

Rick still has the O-gauge model railroad that he received when he was four, but he found out about real railroading when one of our early members, Doug Arundale, brought him to Coronado Park in 2000. Rick was involved in the move out of the park but was too busy with his own business to get involved with the restoration project until 2005. He retired from his personal business in 2017 and was selected as our Chief Mechanical Officer.



Rick and Gail as most of us would recognize them

Rick and Gail also seem to have a thing for speed and power. He drag raced a 1964 Plymouth Sport Fury with a four-speed 426; they have a 15,000-pound cabin cruiser with twin 496 Chevy engines at Lake Powell; and they have a 1985 Piper Dakota at Double Eagle airport. Their daughter Avery, a nurse practitioner by trade, is also one of our staunch members.

The Kirby's have seen the project through good times and tough times, but in the 15 years since he became CMO, we have moved from a rust bucket to a functioning locomotive that has driven on the mainline for the first time in nearly 60 years. We wish them all the best and know that we can count on Rick for an off-color joke and on both for corporate memory as we continue to move forward!

How does it work: Baby, it's hot outside! As we stroll into summer, everything on the 2926 seems hot to the touch. During this part of the year, it may be challenging to think about some of the problems that the engineers at the Baldwin Locomotive Works had to consider when they were designing a locomotive that would run 24/7/365 and would have to perform flawlessly in the snow-covered mountains as well as the burning heat of the desert.

We have described the sanding system (newsletter, May 2023), which helps achieve the appropriate traction on icy rails, but now we touch on two other critical winter accommodations—the water defrost systems and the tender oil heating system. Both feedwater supply systems are on the exterior of the locomotive and, hence, directly exposed to the elements. The injector sits right below the cab on the engineer's side and the Worthington feed-water system components (cold water pump, feedwater heater, and hot water pump) run along the fireman's side.

The injector defrost system taps into the **saturated** steam supply line just upstream of the cylinder cock valve on the saturated steam manifold in the cab. The valve that supplies defrost steam to the injector is located behind the left side of the brake stand.



Injector defrost valve



Cold water pump defrost lines



Check valve defrost line

Two components in the Worthington system, the cold-water pump and the cold-water pump outlet check valve, receive **superheated** defrost steam from the superheated steam manifold on the backhead in front of the fireman's seat.



Superheat auxiliary manifold



Tender fuel heat valve

The tender oil heating system has two functions—the superheated steam can pass through a radiator to heat the oil, or it can be sent directly into the oil bunker to stir/mix the oil. This was particularly useful when the engine burned Bunker C oil, which was very viscous, but it will also prove useful for our used motor oil fuel if it becomes stratified in the fuel bunker, or if we need mix it with diesel fuel. Control of the steam into the oil bunker is with a three-way valve on the front of the tender (i.e., direct heat, radiator heat, or no heat). The radiator flow is controlled by a throttle valve on the radiator drain.

A short historical note: One of the earliest applications of steam to move objects was the aeolipile, which was developed by Heron of Alexandria in the first century CE, although the Greek mathematician Archytas is said to have used steam to push a carved wooden dove along a wire some 500 years earlier.

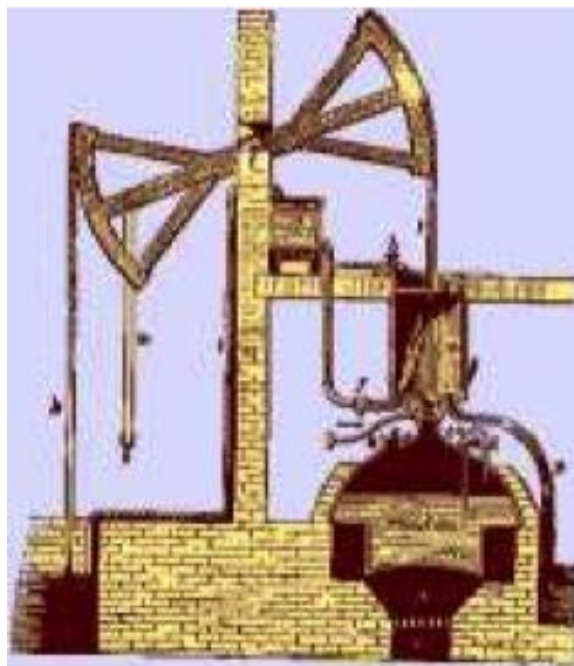


The aeolipile



Da Vinci's steam-powered cannon

Inventors, including Leonardo Da Vinci, proposed or even fabricated steam-driven devices. The first practical steam engines were built in England in the late 17th and early 18th century by inventors Thomas Savary and Thomas Newcomen. These devices used steam to push a piston and then sprayed cold water into the cylinder, causing the steam to condense and create a vacuum which pulled the piston back down. This reciprocating action was used to dewater coal mines.



Newcomen's dewatering pump

James Watt is credited with developing the first double-acting steam engine in which the steam pushed the piston in both directions and "used" steam, which could either be condensed for reuse or simply vented during each phase of the cycle. In 1788 Matthew Boulton and Watt formed a partnership to produce double-acting engines which attached the piston to a set of gears and wheels, thus allowing rotative action to drive equipment. The first of these engines was called the Lap Engine because it was used to drive equipment that polished (or lapped) buttons and buckles.

James Watt worried about the ability of boilers to contain pressure without exploding, so his systems ran on very low pressures (e.g., 7 psi). However, many inventors realized that higher pressures could produce more power and even operate transportation equipment such as steamboats. In 1800, British inventor

Richard Trevithick developed the first engine to run on “strong steam “ and in 1807 Robert Fulton used a Watt engine to power the first successful steamboat.



Trevithick's locomotive

Trevithick turned one of his fixed engines, used to drive a hammer in a local ironworks, into a locomotive and sold the patent for his locomotive to English industrialist Samuel Homfray. On a bet with another Englishmen, Homfray won 1,000 pounds when, on February 21, 1804, Trevithick's steam locomotive successfully carried 10 tons of iron, five wagons, and 70 men 9.75 miles in 4 hours and 5 minutes, at an average speed of approximately 2.4 mph along the Merthyr Tramroad from Penydarren to Abercynon. Thus the 2926's great-great-grandfather was born!

What's new in the store: If you don't see something that you would like to see, let us know. **Our online store went live on July 6th (just a bit later than we originally announced) and we have a link to it on our 2926.us website!**

How you can help and other tidbits: If you are interested in donating to our cause (because operating a steam locomotive is expensive!) go to 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](#). Please see our Membership page to discover our other volunteer opportunities or contact Robert Jones, our volunteer coordinator at r.jones@nmheritagerail.com, and ask how you can help.





Hope you had a great (and safe!) 4th!