

BIG STEAM NEWS

NEW MEXICO STEAM LOCOMOTIVE & RAILROAD HISTORICAL SOCIETY

Quarterly Newsletter

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SANTA FE 2926 is
NEW MEXICO True



SANTA FE 2926 ENDS THE YEAR ALL AGLOW

For fifteen years with scattered parts, rust, and grease, Santa Fe 2926 didn't look like the rail history icon it really is. Now, nearing an 'almost like-new' appearance, 2926 was lighted to participate in New Mexico's annual Christmas lighting events.

The Santa Fe 2926 Luminaria Special 2016



“Let there be light,” and there was light.

On three December nights, NMSLRHS volunteers assembled a crew to display Santa Fe 2926 fully lighted in typical New Mexico Christmas tradition. Led by Ron Taylor, whose photo artwork is shown above, Society members gathered dozens of strings of lights, checked and repaired them as necessary, and strung them on and around the locomotive and site structures. Ron named it the Santa Fe 2926 Luminaria Special 2016. Like most work at the 2926 site, the volunteers had help from the community at large.

The first two nights, 11-12 December, were a cooperative effort sponsored by the ABQ Trolley Co. The trolley company is also known as Albuquerque Tourism & Sightseeing Factory. The initials of the latter, AT&SF, seemed to be a good fit for a visit to a classic Atchison Topeka & Santa Fe (AT&SF) steam locomotive. The announcement pictured at right resulted in three sold out hour-long tours each of the two nights.

ABQ Trolley provided music and refreshments. For the kids, a ride to the site on The Piñon Express included a visit with Santa Claus in the cab of 2926. That was followed by hot chocolate and cookies with Mrs. Claus and Scrooge. There was also Jack Frost doing magic tricks. The photos on the next page show some highlights of the enchanted evening.

An AT&SF Production

ABQ Trolley Co: The Piñon Express

A magical ride to Santa's North Pole Depot
Presented in partnership with the New Mexico Steam Locomotive & Railroad
Historical Society at Holel Albuquerque at Old Town



(Luminaria Special Continued)

In the first picture, a brightly lighted trolley with a load of visitors arriving at the 8th St crossing. Called the Piñon Express, the trolley turned into the parking area and unloaded at the pedestrian gate. From there, the visitors were escorted along the Fireman's side of Santa Fe 2926 from the rear of the tender to stairs placed at the cab. Entering the cab, the kids discovered that Santa was sitting in the Fireman's seat waiting for them.

A member of the 2926 crew was there to answer questions about the locomotive. After a visit with Santa, and a look at the inside of the cab, visitors exited the Engineer's side of the cab to arranged seating for cocoa, cookies, music, and a visit with Mrs. Claus, Scrooge and magician Jack Frost. Fully loaded trolleys arrived at 6, 7, and 8 PM.

In the second picture, one youngster visits with Santa as 2926 crew member Henry Roberts looks on and answers the other youngster's questions.

Below left, some visitors have cocoa and cookies with Mrs. Claus, while in the background others check out the 2926 merchandise in the Santa Fe 2926 store.

Below right, one of many young visitors who posed at the front of the locomotive for parents to snap pictures. Hopefully, the bright lights didn't distort the resulting photos.

To say the three night at Santa Fe 2926 were considered a success is an understatement. Everyone was pleased with the events and are looking forward to December 2017 when a fully operating Santa Fe 2926 can participate in New Mexico's annual luminaria events.

Thanks to Jesse Herron and Mike Silva, "The Trolley Guys" who own and operate the Albuquerque Trolley Company, and all the volunteers who pitched in to help make the events a success.



A BUSY END TO A GOOD YEAR AT THE RESTORATION SITE

The phrase, ‘a flurry of activity’ might be a good general description of the last quarter of a very busy year. Several long running complex tasks, such as addressing the last few staybolt and washout plug leaks, the 26L brake work, and hydrotest of superheater bundles, were nearing completion. Then there were large infrastructure tasks such as the maintenance on the car mover. However, much of the activity involved myriad small tasks. The list of small parts, gauges, pipes, valves, and related items requiring attention seemed unending. The variety of resulting tasks kept the machinists busy. Often it was necessary to manufacture mounting brackets, special tools, and even replicate some small pipes and fittings. The busy three months displayed the varied talents of the volunteers.

Fortunately, there were no flurries of the weather kind—snow that is. There was a bit of rain, and some very cold mornings. The cold didn’t deter the volunteers, and when it rained on a work day, 2926 was left in its new home where several tasks continued inside. It was a bit crowded, but certainly better than previous experiences open to inclement weather. The following photos with brief descriptions summarize a number of the fourth quarter tasks.

The Long Running Brake Task

Upgrade of the brake system to current requirements was nearing completion as the year ended. Most mechanical parts and piping hidden beneath the cab were in place. Specialized breakers and other electrical components arrived, and were linked to the installed components. Final connections were labeled as such. In **Photo 1**, Martin Sanchez labels each completed connection with blue labels.



Superheater Bundle Work (Photos 2,3)

Pressure testing of the superheater pipe bundles is another long running task that is finally nearing completion. This task involved some heavy lifting that provided a lot of exercise—and possibly a few strained muscles and joints—for the volunteers. The routine is: 1) call for volunteers to bring the bundles from storage to the pressure test station; 2) pressure test each, and if necessary repair any leaks, then call for volunteers again; 3) move to a point for temporary storage; and 4) wrap them in plastic for weather protection.

Note: Carlos and crew did an outstanding job on welding the new superheater pipes to the original headers. The only leak found during testing to date was a weld on one of the headers. That leak dated back to an original weld in the old Santa Fe Shops.

The wrapped bundles are now resting on a vehicle that is also a piece of rail history. A heavy wagon with a metal bed, it was used to haul parts about the Santa Fe Shops. Lacking the infrastructure—traveling cranes, lifts, etc.—that once existed in the shops, the 2926 restoration team has made use of it on the site. It has served as a parts transport, work bench, and now temporary storage.



Staybolt And Firebox Work

By November, work on the troublesome staybolts and washout plug leaks was coming to an end. While reviewing that overall task, the firebox ultrasound measurements were also reviewed. The review revealed that there were two areas in the firebox that could use further attention. Though above minimum thickness, they were a bit below other ultrasound readings. The team members working on that problem decided to perform build-up welds in those two locations. That work may delay further pressure testing by a couple of weeks, but will contribute to longer boiler life.

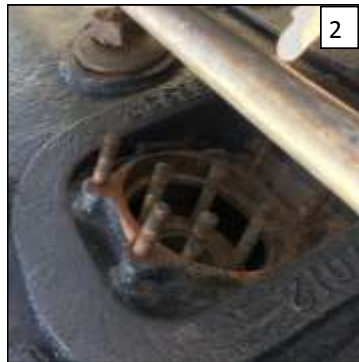
On November 8, two trips by a water truck delivered a total of 8000 gallons of water for a non-pressurized leak test. There were not many leaky staybolts and washout plugs, but some of them were in not-so-easy-to-reach places. Others, such as the washout plugs required extreme attention to fitting and torqueing. In the picture at right, Pecos Bill applies all the torque he can muster on one of the problem washout plugs.

The water test did reveal one more leak. The water was being transferred to the tender when a small flood occurred underneath the front of the tender. As expected, the source was difficult to reach. Seems a pipe connection behind the radial buffer, and below other components was not connected. After an initial wasted water panic, the pipe was connected—problem solved.



Valves, Valves, Valves

Santa Fe 2926 has a large variety of valves. They range from large drifting “spool” valves and throttle valves pictured below to numerous small valves associated with various functions. All needed careful attention in order to function efficiently and safely when the locomotive begins operation. There were multiple checks and measurements to ensure accuracy. Photos 1,2,3 below are three different views of the throttle valve system atop the front of the locomotive. The rust and corrosion is typical of virtually all the valves on 2926. With the throttle valve system, some of the smaller parts could be taken to a workbench for removal of surface corrosion, but cleaning the throttle manifold, and bolts, as well as lapping the seats had to be done in place. In the fourth picture, the throttle valve control rod also needed work and is being checked for proper fit.



Lapping the valve seats required additional tasks. The lapping also called for design and fabrication of special tools to hold the valves steady and maintain alignment while lapping. Picture 5 shows the lapping guide being built in the machine shop. In picture 6, the guide is being placed on the studs to begin lapping that seat.

The throttle and drifting valves were quite probably the most difficult tasks. In the case of the drifting valves, the work included heavy lifting, disassembly, lots of scraping and buffing, and reassembly. The photos below (7,8,9) give a brief look at the process involved with one drifting valve.

With a bit of grunt work, the spool is placed on a work table, (Photo 7). Volunteers are clean, buff and inspect all parts (Photo 8) before reassembly, (Photo 9). With a bit more heavy lifting,—the ready-to-install spools are wrapped in plastic and placed in storage, (Photo 10).



Among the remaining valves, the sander check valves and associated piping were probably the most bothersome. Some new piping, and the manufacture of mounting brackets created a lot of work. There is not room in this small newsletter for discussion of all the valve work—or any other tasks for that matter. However, more photos with greater detail can be found on the 2926 web site at www.nmslrhs.org or restoration progress can be tracked on Facebook and through the weekly TW3 reports on the web site.

A Few More Year End Tasks

During the last three months of 2016, as the weather became less cooperative volunteer activity actually increased. There also appeared to be an increase in small tasks. They kept popping up at every turn. There was a lot of activity in and around the cab. In addition to the 26L brake work, installation of gauges, pipes, levers, and more valves proceeded there.

One gauge task involved the much traveled dual sided boiler pressure gauge that was described in this newsletter a year ago. It was finally fully assembled, calibrated, and ready to mount in its place in the cab.

(Continued on Pg 5)



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In rebuilding the gauge, assistance came from individuals and organizations in several states. But back at the restoration site, brackets still had to be fabricated to mount it in the cab. In the picture at right, Rick Kirby is all smiles as he holds the fully assembled, ready-to-mount dual sided gauge.



The photos below show some late 2016 tasks that reveal how close Santa Fe 2926 is to coming alive. Such tasks as replacing the brass facing on the radial buffer, installing gauges in the cab, and creating brackets appear routine, but they must be done. They must be done carefully and accurately.

As the year drew to an end, two fully restored dynamos were hoisted to the top of the locomotive. The photo of the dynamos in place leads into another task that is just getting underway. That is the sheet metal jacking that will certainly change the appearance of the locomotive. The jacking will cover the all of the staybolts pictured beneath the dynamos, as well as a lot of piping and related fixtures. Most of the original jacking is severely rusted and not useable, but it has been kept for patterns, and a sheet metal fabricator is producing new jacking.



Above are the two dynamos that will provide electrical power when operating. At right is a photo of recently fabricated jacking. Some trimming and tailoring was necessary to fit the new jacking over the steam chest.



The previously mentioned radial buffer task involved a bit of innovation to facilitate lifting. The innovation is pictured in the first photo at right. Metal loops were welded to the edge of the buffer plate to make it easier to move. In the photo, Anthony and Henry lift the plate as Carlos watches.



Then was hammer and chisel work to remove the old brass facing on the buffer plate. In the second photo, Ron removes the old worn and scarred face plate. The new brass face was then replaced.



This is not the volunteers first radial buffer experience. When the tender side of the buffer was in pieces, scrap metal burglars took those parts, causing considerable cost and lost time. The owners of Santa Fe 2912 in Pueblo Colorado assisted by loaning parts of their radial buffer.

One other task, the result of which is pictured at right, demonstrates two things. One: Restoration of last century equipment that has experienced exposure and decay will mean that problems encountered cannot be solved by calling the parts room. Two: The all volunteer Santa Fe 2926 restoration crew is quite capable of solving such problems, often without having to call for outside help.



The doubled threaded stud shown was the response to such a problem. Bolt threads on the steam chest slide valve were in very bad shape. The workers drilled and re-tapped the hole for a larger bolt.

Then machinist John M. went to work and fabricated bolts with two diameters to match the original holes in the cylinder head.

In completing the restoration of Santa Fe 2926, many more tasks such as these will occur. After more than a decade of encountering new tasks each time they come to the site the 2926 volunteers will persevere, and soon they will **keep on steamin'!**

Place
Stamp
Here

NEW MEXICO STEAM LOCOMOTIVE
RAILROAD HISTORICAL SOCIETY
P. O. BOX 27270, ALBUQUERQUE, NM 87125-7270
2926 RESTORATION SITE 1833 8th St. NW
4 Blocks South of I-40 at RR tracks



ANNUAL SAFETY REFRESHER TRAINING

The new year brings expanded safety training. Santa Fe 2926 is nearing its first steam up in half a century. Anticipating operation to follow, the 2017 Safety Refresher Training session will include operational safety.

The Annual Safety Refresher Training for 2017 will take place on Saturday, January 21, 2017 beginning at 08:00 at Local 412 Plumbers and Pipefitters Union Hall. The Hall is located at 510 San Pedro SE in Albuquerque which is on the SE corner of San Pedro and Zuni. The session will last until approximately 12:00 noon.

The session will be presented by Mr. Warren Scholl and will focus on Blue Flag and other operational safety rules. Mr. Scholl recently retired from BNSF where he taught crew safety and GCOR rules at their facility at Overland Park, Kansas.

As we move toward first steam up and possible operation in 2017, we are beginning to refocus our safety program towards operational safety. The world of GCOR (General Code of Operating Rules) and safety rules for railroad operations is quite different from what we have been used to dealing with while working at the 2926 restoration site. Railroad safety and GCOR rules are tough and non-forgiving. NMSL&RHS members who could potentially be part of the operations team for 2926 will face extensive training and examinations before being allowed “out on the railroad!”

Thus, it is important that all NMSL&RHS members attend this session if at all possible. The session will be recorded and a video will be presented at a later date to those who cannot make the first session. As a reminder, this refresher training re-qualifies those members, who have had the new member safety orientation, to work on the restoration site in 2017. Never-the-less, even though you may not have had the initial safety training, you are encouraged to attend.— *Jon Spargo, Chief Safety Officer*



Not all 2926 volunteers are this far over the hill, but the bottom line is: **SAFETY IS IMPORTANT AT ANY AGE.**