

Job 1017 Coal Tipple Restoration - 343.994

Objective: Restore the Chama Coal Tipple using the winter, 2002, Structure Report/Maintenance Plan by Kells/Kreis.

Team Leader, Session E & F: John Sutkus

Team Members, Session E: Herbert Knoesel, LD Osborn, Samuel Schechter & Ron Schmitt

Team Members, Session F: Bill B. Bailey, Gene E. Bailey & Samuel Schechter

Work Accomplished:

Monday 1st - Set up for this year's work. Pump out the bucket pits. Remove siding from the south side of the hoist house. Straighten up window frame and door frame. Replace sheathing as necessary. Reinstalled window.



Old siding has been removed from the south side of the hoist house.



South side door boarded up overnight.

Tuesday 2nd - Reinstalled door threshold. Began installing the siding. Reinstalled the diesel tank cover. Began painting primer on the new siding boards. Discovered that approximately 10 more gallons would be needed.



New siding spread out for priming.



Herb Knoesel and Ron Schmitt priming new siding. They soon changed from hand painting to a spray gun.

Wednesday 3rd - Continued installing siding on the south side of the hoist house. Re-hung the door and completed the trim around the door.

Thursday 4th - Completed siding and trim on the south side of the hoist house. Began removing old siding and trim from north side of hoist house. Began installing new siding on north side of the hoist house.



Herb Knoesel and LD Osborn help Team Leader John Sutkus re-hang the south side door.



Team Leader John Sutkus working on the south side window.

Friday 5th - Continued installing siding on the north side of the hoist house. Began installing trim. We will complete siding and trim on the north side of the hoist house in Session F.

Monday 8th - Fabricated ground loops for north and south lightning protection system grounding. Completed siding on north side of the hoist house.

Tuesday 9th - Called 811 for excavation clearance at north and south sides of the coal tippie. Completed the trim on the north side of the tippie hoist house. Installed ground clamps on pillow blocks in sheave house.



Gene and Bill Bailey working on making the ground loops for the north and south side of the hoist house.

Wednesday 10th - Finished the trim on the north side of the hoist house. The painting crew painted the north, west and south sides of the hoist house. Began fabricating steel plates for bucket guides. Started digging hole for south side lightning protection ground loops.



Team Leader John Sutkus nailing the trim around the window of the north side of the hoist house.



Newly painted north side of the hoist house.

Thursday - 11th - Completed digging south side hole for the lightning protection ground loop. Installed ground loop and ground enhancing material. Began back filling the hole.

Friday - 12th - Completed the back filling of the south side hole for the lightning protection ground loop. Replaced the air storage tank next to the san house. Cleaned up the site and returned all checked out tools to the tool car.



Against the hoist house is the lightning protection ground loop.



Lightning protection ground loop and ground enhancing material has been installed and hole backfilled.

Project Status: Not Completed: Session E & F of 2010 - dig hole and install north side ground loop for lightning protection. Install lightning protection system. Install siding on the west side of the hoist house. Repair bucket guides.

Job 1021 - Restoration of Short Reefer #55

Objective: Continue Restoration of Short Reefer #55.

Team Leader, Session F: Randy Worwag

Team Members: Richard Howell, Matthew Jameson & Jay Samuels

Work Accomplished: After repeated e-mails sent to the team leader requesting his report – none was received.

Project Status: It is assumed the project is complete as the Railroad has been using the car.

Job 1026 – Derrick OP Restoration

Objective: Continue the reconstruction of OP to a restored and operating condition.

Team Leader, Sessions C, D, E & F: Russ Hanscom

Team Members, Session C: Chuck Dueker, Druby Hebert, Jim Millhouse Jr., Alan Robson, Adolph Weigant & John Weiss

Team Members, Session D: Bob Reib, John Weiss & Rod Whelan

Team Members, Session E: Chuck Cover, Jace Drennan, Daniel D. McGunegle, Daniel E. McGunegle and Guy W. McGunegle

Team Members, Session F: George Davies, Don Deuell, Gerard L. Glancy & Herbert Knoesel

Work Accomplished: Work focused on getting the car body completed and starting the A frame and decking.

The 2 x 8 decking was cut to ship lap pattern then it was primed. About half of the decking was fit over bolt heads and other obstructions then stacked for later installation. Water shield plastic will be installed over the sills before the decking is actually installed. The portion of the air brake retainer line under the deck was installed. The angle cocks were serviced by the brake group. A final check for missing tie rods and blocking is still needed.



First cuts to make the ship lap pattern have been made.



Painted 2 x 8 ship lap decking drying.

The A and B end couplers were installed. Both the A and B end coupler pockets had been installed at the wrong height and had to be lowered about 1 1/2" each. The A end coupler cheek plates had been installed with 4" spacing, which would not accept a 5" coupler shank. Ultimately, the A coupler draft timbers were removed and relocated laterally outwards to provide sufficient spacing for the coupler shank. These rework activities consumed a considerable amount of effort. Part of the confusion may have resulted from there being different types of couplers and related parts at opposite ends of the car. A number of grab irons and foot loops were installed. A different procedure for installing the couplers was tried and found to be superior to using the tractor. It requires a stack of blocking on the car and a beam to serve as a cantilever gantry. A come-a-long is attached to the coupler release eye, which keeps the coupler right side up during lifting and installation. The coupler knuckle is removed and a bar is inserted to balance the coupler in the long direction. Later, a hydraulic jack is placed under the coupler loop for final alignment.



“A” end coupler installed.



”B” end coupler installed.

Numerous bolts are required to connect the A frame base to the underlying bolster and eight long sills. The bolts typically pass through several wood members and multiple metal plates which involves special hole drilling techniques. Frequently, the metal parts have been distorted to the point where holes must be realigned, offset, or redone. A special article on these procedures will be forthcoming. A large number of long bolts were required, which were prepared by Marshall Smith.

With the A frame base secured, the side plates were installed and the four long 4 x 7 x 10' timbers that form the sides of the A frame were set in place. Multiple iterations of measuring, and fitting are required to assure that these and subsequent pieces will all fit together properly. Some parts need to be left loose so that other parts can be inserted later. One of the horizontal members that supports outriggers and carries the boom swing rope was put in place and the other one was converted to the opposite hand for use on the other side (we had two for one side of the A frame and none for the other side). A number of metal parts need straightening and this will be done between sessions.



Decking has been notched underneath where necessary in order for it to lay flat when nailed in place.



Decking was numbered in order and then stacked until Sessions E & F.

The site was cleaned up and secured until Sessions E & F.

Session E: One of the first efforts was installing decking; it had been ship lap cut and prime painted during Session D. A water barrier was installed first over the sills and blocking to stop water penetration and reduce the tendency for the wood to rot under the decking. The lower surface of the deck planks was relieved as necessary to provide clearance for bolt heads and bolster tops. The planks were nailed down with 40d ring shank nails; pilot holes were drilled through the planks. We had some extra assistance in nailing; several scouts from Boy Scout Troop 98 from Taos spent a day helping.

Two large hoops mount to the deck in front of the A frame to carry a set of horizontal outrigger timbers; these were installed as soon as that area of decking was completed.



Team Leader Russ Hanscom drilling holes for the outer supports/hold-downs for the horizontal outriggers.



Outer supports/hold-downs have been reinstalled and secured – one on each side.



The whole crew including 2 Boy Scouts installing the ship lap deck planks.



Team Leader Russ Hanscom using a short handled “8 pounder” to nail the 40d ring shank nails into prior drilled pilot holes.

Work was also started on the two outriggers from the A frame. The outriggers have rope sheaves as part of the swing system for the boom and they also serve as attachment points for the outriggers used to prevent the derrick from tipping when in use. Once the large oak blocks that form the core of the outriggers were installed, large steel reinforcement plates and a large number of 3/4" dia bolts were installed.

Scraping of the double drum winch assembly was started to remove 100 years of accumulated oil and dirt. The OP car body was moved up the track to couple with the flat car carrying the winch in preparation for moving the winch back onto OP.

The winch requires several holes in the deck to clear the bottom of one drum and parts of the brake assembly; these were marked and cut out.



Car with the deck nailed down at the end of Session E.



The double drum winch after being power washed by Don Duell for most of one day. It actually cleaned up very well.

Several of the channel iron reinforcements to the A frame were installed and one of the vertical tie rods was installed. The cut ends of the decking were prime painted along with the A frame outrigger blocks.

Rain on three days reduced work time.

Session F: Work focused on the A frame. The second vertical tie rod was installed then work shifted to other areas until the backhoe could set the center pivot post, a large assembly of oak and steel weighing about 1500 lbs. During the diversion, Don Duell spent the better part of a day pressure washing the winch assembly while others sorted parts and attempted to tighten the truss rods on the boom idler car. Additional work will be required there as at least one rod end has stripped threads.

Once the backhoe had lifted the pivot post into position, the post was clamped and tied in place until the A frame crown could be assembled over and around it. Drilling the large hole, 2 3/4" dia for the pivot pin and the angled holes for the 1 1/4" dia vertical truss rods took considerable

time and planning. About a dozen 3/4" dia bolts pass through the crown to keep all of the assorted parts together - getting the bolt holes to align in several layers of steel - and getting more than one hole to align at a time, was a big challenge. Herbert and Gerald provided most of the effort for the crown assembly. Most of the 3/4" bolts were not installed but the ones that were installed should keep things together making getting the remainder in an easier task.



Herb Knoesel is drilling two angled holes in the crown block for 1 1/4 " vertical tie rods. The crown block forms the core of the top of the A frame assembly.



The pivot post has been set in place.



Crown assembly in place ready for holes to be drilled and bolts installed.



The double drum winch assembly has been moved back onto the car and the pivot post has been secured.

While the crown work continued, the holes for the winch skid were located and drilled through the deck and blocking, then the winch skid was rolled into position on OP and lowered partially into place. Additional work for brake clearance and locating the cylinder cock drain lines needs to be done before the skid is completely lowered.

Much of the swing hardware was bent from prior use so it was straightened before reinstallation. The horizontal outrigger beams, a sandwich of three pieces of oak and two iron plates, were disassembled so the wood could be replaced and the plates straightened - George and Bob Reib did the straightening by using the metal plates to hold each other as one or the other plate were heated.

The eye bolts that anchor the swing tackle were installed along with assorted bracing and reinforcements for the A frame. The remaining channel irons were installed on the A frame sides.

A wood frame was built over the winch skid so it could be tarped for the winter. Most of the deck and the top of the A frame were also tarped for weather protection. The scaffolding was taking down and put into storage and the site was cleaned up and secured for the winter.

Project Status: Not Completed – Team Leader Russ Hanscom is thinking another eight work sessions will be needed to complete the project as there are a lot of bits and pieces remaining. Hopefully it will be completed by the end of the 2013 season.

Job 1061 - Yard Floodlight Installation

Objective: No Project Plan submitted.

Team Leader: John Engs

Team Members, Session A & B: Bob McCain & Marshall Smith

Work Accomplished: NOTE: The railroad cancelled this project do to a lack of funds because of the Lobato trestle fire and the need to repair the trestle.

Project Status: Not Completed: May be rescheduled in 2012.

Job 1073 Electrical Repairs/Installation Work Lights, Bath Heater, Misc. - Antonito A&B

Objective: No Project Plan submitted.

Team Leader, Session B: John Engs

Team Member, Session B: Bob McCain & Marshall Smith

Work Accomplished: Installed new water heater in the CRF bathroom.



Marshall Smith with the help of Bob McCain made short work of this installation.

Project Status: Completed

Job 1075 – Reroof the Night Watchman’s House - 344.100

Objective: Remove the existing roofing material, examine the existing decking, and replace or repair the decking as necessary. Apply new mineral roll roofing material over the entire roof and porch.

Team Leader, Session C: Phil McDonald

Team Leader, Session E: Wayne Huddleston

Team Members, Session C: Ron Horesji, Larry McDonald, Fred Morton

Team Member, Session E: Robert Hawkins

Work Accomplished: All of the existing mineral roll roofing and roofing felt was removed to reveal the decking. Several broken or rotten decking planks, particularly those at the eaves, were replaced. Approximately 20 sheets of 5/8” CDX plywood were required to cover the entire roof. New flashing was installed in the valleys at the junction with the porch roof and new drip edge was installed along all edges (eave and rake). The existing flashing for the water heater vent was removed, reconditioned, and replaced. 30-pound roofing felt was installed over the new decking. To finish the job, green mineral roll roofing was applied. However, a shortage of material prevented the job from being completed.



Fred Morton and Ron Horesji removing old roofing material.



Exposed roof showing rotted wood that needed to be removed and replaced.

Problems Encountered: Once the existing roofing material had been removed, an inspection of the decking and roof structure revealed that the roof structure appeared to be substandard. In particular, the rafters were on 36”-42” centers, rather than the normal 24” centers. It is also speculated that the roof trusses are probably under-designed. The complete replacement of the roof structure was beyond the intended scope of this project. It is strongly recommended that, although the existing roof has endured several years, the entire roof (surface and structure) be replaced in the near future.

Another problem was a shortage of material. While the team leader ordered 6 rolls of mineral roofing, only 5 were delivered. Every attempt was made to make full use the material on hand, including some material left over from years gone by. This “hand-me-down” material had been improperly stored and had become almost entirely unusable. Out of the several rolls available, only about one-third of a roll was passable. The rest were discarded to eliminate the temptation of trying to foist them on to future projects.



Team Leader Phil McDonald measuring a sheet of 5/8" CDX plywood to be cut to the length.



Larry McDonald, Team Leader Phil McDonald and Fred Morton putting down new green mineral roll roofing.



Reroofing was completed during Session C except for the black area at the top left of the roof. Additional material arrived on Monday of Session D; however, the final piece was not laid until Session E. (see next page)

Wednesday August 3, 2011

Bob Hawkins and I arrived at the Chama Yard at approximately 7:30 a.m. and collected the roofing cement and roofing nails that were needed to add the last piece of roofing to the “Night Watchman’s Shanty.” The piece that needed to be added was approximately 10’ long and 18” wide and was to be applied at the peak of the roof and the south end of the building. We decided to apply the roofing cement (black tar) to the east side only to start with. This made it somewhat simpler to handle and position the final piece of roofing material. Once the east side was tacked down in a few places we took a break to allow the roofing material to “warm up” and naturally fold over the peak without cracking. (The break also allowed Bob and I to straighten up our “old bodies” for a few minutes.) After our break Bob and I went back up on the roof to complete the project. While Bob held the roofing material up out of the way I applied the roofing cement to the west side of the roof. Once the roofing cement was applied over the whole 10’ we gently laid the final piece of roofing material over the summit (ridge line) of the roof insuring that it laid down flat. We then finished nailing the edges all the way around to fully secure it. We then removed all of our tools and extra material from the roof and retuned them to the paint car after cleaning all the roofing cement off of the putty knives we had used to spread the cement. Project completed by approximately 9:30 a.m.



Bob Hawkins and Team Leader Wayne Huddleston on their way with a ladder to place the last piece of roofing material on the Night Watchman’s House.

Project Status: Completed - Session E

Job 1080 - Restore Stock Car 5995

Objective: Continue the restoration of short Stock Car 5995

Team Leader, Session A: Dan Pyzel

Team Members, Session A: Kevin Corwin, Mike Horner & Warren Ringer

Work Accomplished: Disassembled body bolsters from 5510 in Chama and brought usable parts to Antonito. Prospected for brake and coupler parts in Chama and brought to Antonito. Disassembled 2 draft gears for usable parts. Removed parts of the floor and end wall from car to prepare for bolster and coupler installation. Installed draft gear check plates (A end) and coupler buffer castings on both ends of the car.



Team Leader Dan Pyzel taking notes.



Mike Homer cutting bolster from 5510 for future use on 5995.



Part of the flooring has been removed.



Parts moved inside car for next year.

Project Status: **Not Completed** – Team Leader Dan Pyzel says at this time it will take from 1 to 5 more years of working only one work session a year to finish the car.

Job 1085 - Misc. Repairs to Long Reefer 169 - Chama

Objective: The objective was to complete construction of the hatches, platforms and stringers and mount all to the car.

Team Leader, Session E: Phil Nissen

Team Members, Session E: Richard Dick, Michael D. Kennedy, Art Montgomery & Jim Nissen

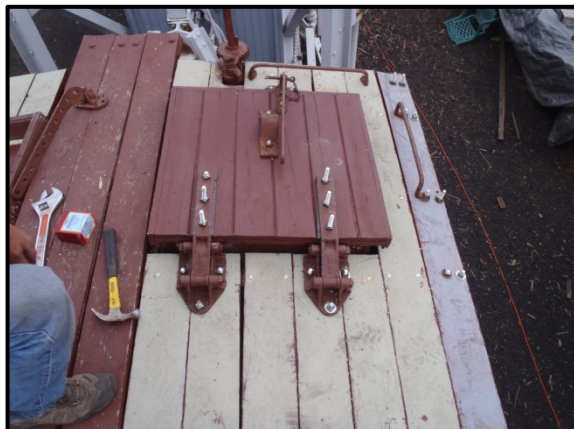
Work Accomplished: The three remaining hatches were installed to the mounting stringers which were then bolted to the fascia of the car. The platforms could then be placed on the stringers and mounted with screws. The hatch covers could then be fit to the hatch hinges and mounted. Only two of the four pieces of hardware that mount to the top of the hatch covers and pin to the arms could be found. Marshall Smith was able to fabricate the two missing pieces out of flat stock. Three sets of spacers that mount between the hinges and covers were also made by Marshall and one team member. The ice hatches and their covers were designed to work in combination with each other; when the cover is lifted it in turn lifts the inner hatch itself. Connecting pieces for two of the hatches are missing and no suitable raw material was on hand to try and fabricate replacements - thus two of the hatch covers are not connected with their inner hatches. From outward appearance, the hatches are complete however.



Team working on ice hatches.



Making adjustments to ice hatch.



Ice hatch - and - ice hatch cover.

The catwalk was re-repaired with proper screws placed instead of nails and one saddle was replaced. All of the hatch covers, hatch platforms and the catwalk were painted by hand since the complete car could not be scheduled for painting later this year as we had planned. The doors themselves were also painted but in an incorrect color since Rio Grande Reefer Yellow was not available though it had been ordered. To make the car more outwardly presentable all of the door hardware was painted black.



Hatches and catwalks newly hand painted.



Door hinges hand painted black.

In addition, three sections of paneling damaged by woodpeckers, was replaced, primed and painted. New message boards were made and mounted to the sides.

Another team tested and repaired the braking system of the car. Our team feels that we have completed the repairs needed and as planned. Neither of the A and B end fascia's were replaced as it would require another session to do so. More importantly, all of the siding on the car could be original to the car and is just as weathered and has the same "patina" as the end fascias. The car has been repaired and is now weather-tight and can be returned to whatever service the Railroad plans for it.

Project Status: Completed August 5, 2011

Job 1089 – Repairs to Sheep Car 5633

Objective: Replace roof and roof walk, and make other repairs in the allotted time.

Team Leader, Session C & D: Scott Hardy

Team Members, Session C: George Detwiler, Matt Schaffer & Cletus Wander

Team Members, Session D: Bruce Bloom, George Detwiler & Cletus Wander

(Note: One team member (David Sherburn) scheduled to attend Session D did not attend for unknown reasons but his vacancy was filled by Cletus Wander who was moved from the RPO project.

Work Accomplished: New upper side and end sills were fabricated and installed. New side tension rods were fabricated and installed. End tension rods were re-threaded and reused. Corner brackets were reinstalled using new bolts. Metal rafters were reinstalled. New longitudinal purlins were drilled and installed. Upper side boards (letter boards) were installed. Side door headers were installed. Missing end sheeting was installed. Brakes were inspected by running gear team.



Team Leader Scott Hardy removing old roof roofing material.



Most of the old roofing material has been removed.



George Detwiler working on an upper side sill.



A spliced upper side sill has been installed.



Upper end sills, upper side sills and metal rafters have been installed. New longitudinal purlins were drilled and installed.

Tasks remaining to complete this project: Install roof boards. Install roof grab irons. Install roof walk and end supports. Install end fascia boards. Secure brake staff and brake retainer valve.

Install side door hangers and stops. Rebuild side doors and install. Repair items discovered during inspection (see below)

Project Status: The car had effectively been disassembled during the 2010 work sessions so the majority of work was fabricating and installing new components. The car was moved out from the tent in order to provide more working room and have enough clearance to install the side tension rods. The rods could not be installed inside the tent because there is not enough clearance above the car.

During Session C inspection revealed several items that should be repaired prior to the car being put back in service. These are:

- Some lower decking rotten,
- side and possibly center and intermediate sills could be partially rotten,
- some portion of B-end sill partially rotten
- right side sill partially rotten.

These items should be inspected and repaired as necessary during the next work session, but before the side doors are reattached.

It is expected that another team will install a metal roof over the wooden roof and that team leader (Bill Lock) has requested that the roof walk and roof grab irons be left uninstalled until the metal roof is attached.

Unanticipated occurrences: One of the new side sills that had been stored in the wood storage container was warped to the point of being unusable but substituted materials were located and used instead (a splice was required). The longitudinal lumber was requested in 30ft lengths but arrived in 16ft lengths requiring splicing. Lumber for the upper end sills that was not part of the original project was not the correct size, resulting in field modifications.

Job 1097 – Museum Car Lighting

Objective: Install lighting arrays on ceiling for illumination of wall displays. Four individual 4 foot tracks will be installed on the ceiling. Each track will be equipped with four spot type lamps with spillage and bounce that will illuminate the floor. A light switch will be installed at the top of the side door to turn lights on and off. All electrical wiring is to be encased in plastic wireway and run to the end of the boxcar where a 120V grounded plug will be available for connection of an extension cord.

Team Leader: John Engs

Team Member, Session E: Robert Hawkins, Wayne Huddleston and Marshall Smith

Work Accomplished: Work started with the installation of plastic wireway in the boxcar during the later work session of the 2010 season. During session E of this year, Bob Hawkins and Wayne Huddleston joined the team. Since this was a somewhat unique installation Bob and Wayne spent most of the first morning trying alternative methods of how we might apply the track lighting to interior of the car roof. It was determined that an electrical box for each track would be necessary. After installation it was determined that additional spacers were also necessary. Wood spacers were then mounted and the four 4-foot tracks installed back to back at the ceiling peak. The tracks were installed between first and second roof rafter at each end of the car.



Wayne Huddleston and Bob Hawkins installing a piece of track for the track lighting.

This mounting will allow the track to extend under the first rafter at the end to allow a single lamp to be installed at the end rafter column. With wireway completed, each track was wired to a single switch above the sliding door.

Once the wiring was completed and the mounting plates were installed we were able to install the small spot lights on the track. A temporary connection was used to test the installation which worked correctly.

The following day, the installation of an electrical box for power connection was installed on the underside, at the 'A' end of the car. A 120V grounded electrical plug was installed in the electrical box and splices were made up to the car wiring. Power would be provided from an extension cord connected to the plug. Power is then routed to the switch above the door. Wiring of the plug, cord splices and other connections to the car wiring was now completed.



Track lighting installed and working.

The final step was to install the light switch itself and make the proper connections with the primary power wires. After all the wire terminations were completed we connected an extension cord to the primary power feed and turned on the lights! Everything worked as anticipated. We then collected all of our tools and cleaned up any trash.

Project completed at 3:00 p.m. Thursday.

Final note on the Museum Car: After the completion of the track lighting each day now during the season the door is opened and the lights are turned on. Visitors are no spending more time in the Museum car as they are able to read the display material and come away with a better understanding of the Railroad.

Job 1099 - Pole Barn Construction - Antonito

Objective: Continue construction of Antonito Pole Barn for future rail car storage.

Team Leader, Session A & B: Russ Hanscom

Team Leader Session D: Ted Norcross

Team Members, Session A: Dellon Blanton, Ron Lira and help and support from Tim Bristow, George Davies, Bob Reib, Marshall Smith & Ted Smith. Others helped as their workloads on other projects permitted.

Team Members, Session B: George Davies, James Kyser, Rod Whelan with help and support from Tim Bristow, David Ley, Bob McCain, Carl Olson, Rob Reib, Marshall Smith and Ted Smith.

Team Members, Session D: Maggie Karns, Gabriel Karns, Bernadette Karns, Chase Kepner, Bill Kepner, Emmanuel Lopez, Dan Robbins & Dana Willis

Work Accomplished, Session A: The work plan was revised several times, first due to strong winds that blew most of the two sessions, and secondly due to the realization that moving and processing 9000# of steel by a small crew was going to be a challenge.



It may not look like much but its \$12,000.00 worth of steel weighing 9,000 pounds!



Team Leader Russ Hanscom breaking the “bands” and separating the steel with a crow bar.

The 16 trusses require over 500 pieces and 1500+ holes so the first activity was to start erecting a windscreen between the two storage cars and setting up the band saw. Small parts were cut and taken into the CRF if holes needed to be drilled. Dellon and Ron did most of the cutting and others assisted with the drilling and moving of large pieces. Spero Bettalico did most of the hole drilling. Despite winds up to 50 mph, the wind screen survived and welding was possible outside.



Spero Bettalico gets instructions from Team Leader Russ Hanscom on the drilling of the Plates needed either 2 or 4 holes drilled. Over 500 holes in all.



Stacks of plates cut by Dellon Blaton and Ron Lira with help from George Davies.



Temporary wind screen under construction. The screen was needed to cut down on the wind for the welders, especially the MIG welder which uses a gas mixture for its flux.



Back side of finished wind screen. Without wind screen the MIG welder would have been completely useless.

Part of one day was used for offsite trash pickup and helping on the rider gondola end railings.

The upper and lower chords of the trusses consist of doubled angle iron. By the end of the week, all of the small parts had been cut and drilled, 16, half, of the lower chords had been assembled, and the pole top mounting plates and pole straps had been welded together. Everyone soon learned that the key words were hot, heavy, and sharp.



Members carrying a welded truss cord to be stacked on the trailer. In Session B the trailer was moved to the single overhead door of the CRF for final truss construction.

Session B: The first three days were used to complete the lower and upper chords; the lower were double 2 x 2 1/2 angle, 19 ft long, and could be moved by two persons. The upper chords were double 3 x 4 angle, 21 ft long, and weighed over 300#, requiring a six+ person crew to move effectively. The Kubota was used whenever space permitted, but it could not work between the storage cars, in the wind shelter, or in the CRF.

On day four the CRF became available and truss fabrication was started. A completed truss is 40 ft long and weighs 850+# so handling is a chore. A small cart to run on the CRF rails was assembled from loose bits and after a truss was partially assembled and welded on one side, it was rolled out of the CRF on the rails, turned over with the Kubota, and rolled back into the CRF for completion. Once the truss was completed it was rolled outside again and moved away with the Kubota. The first truss took a half day to assemble, reasonable given the setup needs. The second truss also took a half day, due to some welding before measuring - twice. The main welders were Ted Smith, Bob Reib, Marshall Smith, and Russ Hanscom; two stick and one MIG machine were used.



Upper and lower truss cords being moved into the CRF for final assembly of the first truss.



At times there were 3 welders going and you can bet the old power meter was really spinning.



The first truss is ready to be rolled outside, turned over, and rolled back into the CRF so the other side could be welded.

The cart Rob Reib built to move the trusses in and out of the CRF was certainly a back saver. "American ingenuity" at its best!!!!

With the plan firmly in mind, two trusses were assembled by early afternoon on Friday. The remainder of the day was spent stacking steel, cleaning out the CRF, dismantling the wind screen, and general session close up.



First completed truss being moved closer to the Pole Barn area.

Three finished trusses ready for installation in 2012.

By the end of the week, there were four completed trusses and parts for 12 more to show for all of the sore muscles.

Thanks for the hard work guys!

Session D: SESSION D – ANTONITO POLE BARN - WOODHENG

Monday 6/20 Lopez, 3 Karns, 2 Kepner, Robbins, Willis, C. Norcross – Prep Pole base and top according to drawing. 2 installed before lunch – finished 8 by end of day. 8 hrs.
T. Norcross – 6 hrs. help work - 2 hrs. Paperwork



Emmanuel Lopez, Dan Robbins, Dana Willis, Bill, Kepner, Gabe Karns & Bernadette Karns waiting for pole to be lifted.



Emmanuel Lopez and Dan Robbins helping set pole.

Tuesday 6/21 Lopez, 3 Karns, 2 Kepner, Robbins, Willis, C. Norcross- Finished 13 poles 8 Hrs.
Ted Norcross –Chasing parts – 3 Hrs. Work- 5hrs. – Also moved tank car truck frames for CRF – Dana Willis donated Poulan chainsaw, extra chains and 4 steel sawhorses to CRF.



Dana Willis preparing to saw end of pole.



Dana Willis sawing end with help of Chase Kepner.

Wed. 6/22 Lopez, 3 Karns, 2 Kepner, Robbins, Willis, C. Norcross – Completed job at 2:00 P.M. - 5 hrs to Woodhenge, helped CRF crew remainder of the day – 3 hrs. Ted Norcross 4 hrs. chasing parts for Woodhenge, 2 hrs. CRF, 2 hrs. paperwork



Chris Norcross - Pettibone operator.



Woodhenge completed.

Thurs. 6/23 Whole crew worked for C&TS (Marvin) – Clean-up Fort Knox – C. Norcross, 2 Kepners Robbins, Willis – 8hrs. Sort and rebin nuts and bolts in engine shop. Lopez and 3 Karns – 8hrs.



In exchange for the use of the Railroad's Pettibone part of the team worked for Marvin in "Fort Knox". The rest of the crew helped in the engine shop.

Friday 6/24 Worked at CRF – swept – General clean-up and put away – loaded trailer of wood for Chama –2 Kepners, 2 Norcrosses

Project Status: Construction of the Pole Barn will continue in 2012

Job 1106 - Cumbres Kiosk Panel Installation - 330.650

Objective: Replace a Kiosk panel that has faded.

Team Leader, Session E: Wayne Huddleston

Team Members, Session E: Robert Hawkins

Work Accomplished: Sunday, July 31, 2011: Bob Hawkins and I followed the C&TS passenger train up to the summit at Cumbres Pass. Since we had the tools we needed with us to remove the panel that needed to be replaced we went ahead and took it down since we were already at the Summit. This took us about 25 minutes to remove the putty covering the lag screws that held the picture frame in place and take it off the main structure. The frame was about 2.5' by 4' and it fit into the back of my Tahoe.

After arriving back in Chama about 1:00 p.m. we attempted to locate the replacement picture panel but were unable to do so. Subsequently we learned that it was being stored off property. By this time the wood shop was closed so we kept the panel in my car.

Monday, August 1, 2011: Bob and I learned that the replacement picture panel was being stored by Bob Ross to insure that it wasn't damaged before it could be put up. At about 10:00 a.m. Bob Hawkins and I followed Bob Ross to his home and picked up the new picture panel. We returned to the wood shop at the Chama yard and proceeded to dismantle the picture panel frame and remove the faded panel. The new panel was about ¾" too long so we used the table saw to cut off a little of each end of the panel. Then we placed the new panel in the wooden frame and put the backing back on the frame. Once we were done we put the completed frame into the back of my car for the trip to Cumbres Pass.

After lunch Bob Hawkins and I drove up to the information kiosk at Cumbres Pass and mounted the picture frame back onto the kiosk structure. After sealing the lag bolt holes with wood putty we worked on putting a new coat of stain on the wooden parts of the structure. We were able to complete about 2/3 of the staining before returning to Chama at 4:00pm.



Replacement panel has been installed and some staining has been done.

Tuesday, August 2, 2011: Tuesday morning was taken up with getting ready to do a couple of small projects and also reviewing and discussing the possibility for a project in 2012 or 2013 involving installing additional telephone/telegraph wire north of the wood shop. One of the small projects was to add a final piece of roofing material to the “night watchman’s shanty.” Tuesday morning we measured and cut the final piece of roofing material and laid it out in the sun to soften. We decided to wait until Wednesday morning when it would be a little cooler to actually apply the final piece to the roof. Our other small project was to complete cleaning out the future “office/air brake repair room” near the log bunk house. In addition we helped move 8 railroad ties that were needed for another project. We also met with John Engs to discuss adding interior lights to the “Museum Display” car.

After lunch Bob and I drove up to Cumbres Pass and completed staining the wood parts of the information kiosk as well as removing some weeds that had grown adjacent to it. We returned to Chama about 3:30pm and spent some time considering what needed to be done to install track lighting in the new “Museum Car.”



Kiosk replacement panel installed and Kiosk with new stain making it look brand new again!

Project Status: Session E, August 2, 2011

Job 1107 – Structural Condition Surveys

Objective: In the autumn of 2007 the Commission asked the Friends to survey the Railroad's major structures. This project is an outgrowth of that request. Our objective is to inspect structures in both Colorado and New Mexico, photo document them and complete a survey form for each.

Team Leader, Session C: Jim Herron

Work Accomplished: This summer Team Leader Herron setup an HTML framework for organizing both structure surveys and the documentation photos that go with each photo. This will enable the surveys and photos to be viewed with a web browser from media such as hard drives and DVD disks. It will also facilitate posting it on the Friends' website eventually. Five structure reports from Antonito (Depot, Locomotive and Car Shop, Railroad Commission Office, Speeder Shed, Water Tank) were edited and converted into HTML format. In addition, the documentation photos for each report were compiled and edited with Photo Shop (if necessary) and linked to the structure reports.

Project Status: All of the major structures along the line (except for trestles and bridges) have been surveyed and photographed. Some of the Cumbres structure reports still need to be transcribed from handwritten notes. Based on this summer's experience with the Antonito reports, most structure surveys need an introductory paragraph giving a brief history of the structure and Friends work accomplished so far. Doris Osterwald's *Ticket to Toltec* and the Wilson/Glover *Historic Preservation Study* are good sources for the historical material, though material for some reports was also taken from the Dorman books as well. One possibility is to off load writing of some of these introductions to the Friends' archivists who compiled the Dorman collection. The Friends' library collection contains a lot of good source material that Team Leader Herron does not have in his personal collection.

Job 1113 - High Side Gondola 9558 Rebuild

Objective: To continue the complete rebuild of high side gondola 9558.

Team Leader, Bill Pratt

Team Members: Donald Coleman, Walt Duncan, Ron Kennedy, Ron Lira, Lee Parks, Randy Parks & Warren Ringer

Work Accomplished: The B end - end sill and A end coupler were installed, all truss rods were connected and adjusted, and the air line was installed. All brake beams were installed, the brake linkage was installed, and four brake shoes were replaced with new. The four needle beam side stakes and bracing, and approximately 25% of the decking was installed.



Sills spliced and bolted together.



Team Leader Bill Pratt on the right discusses work on the car with Site Leader Bill Lock and Don Coleman on the left.

Project Status: This project is not complete.

What additional work is required? The B end coupler must be installed. The deck must be finished, the sides and ends must be installed, and all “above deck level” safety appliances and brake controls must be installed.

What is the target year for completion? I had hoped that this car would be finished in this session, but it will require one more session. It is now planned to finish it in either C or D session of 2012.

Comments: Excellent progress was made this session because I had an outstanding group of team members.

Some time was lost because of difficulty in obtaining the Kabota for coupler installation. After about four “no shows” we resorted to a less safe alternate method of installing the A end coupler. If we had the Kabota, we would have been able to mount both couplers in the same amount of time.

This car will be restored to its original configuration of a closed end gondola, rather than as a pipe gondola. All parts required for this conversion have been obtained.

Job 1118 - Frameless Tank Car Restoration – UTLX 11036 & 11037

Objective: Continue the restoration of the two UTLX frameless tank cars in Antonito.

Team Leader, Session B & F: Chris Trunk

Team Members, Session B: Tim Bristow, Dave Ley, Dave Traudt

Team Members, Session F: Hardy Cruse, Wade Hall & Bill McCall

Work Accomplished: Session B: During session “B” all the walkway grab irons were riveted onto both cars (24 grab-irons total; 12 per car). Dave Traudt and I drilled the holes through the perimeter angle iron, and temporarily bolted the grab irons in place; this took all of Monday & Tuesday. Once all the grab-irons were temporarily affixed, we enlisted the assistance of Dave Ley & Tim Bristow to help with the riveting. Dave Ley handled the torch & heating of the rivets and placement with the tongs, Tim & Dave Traudt handled the bucking tool and I worked with the rivet gun. We heated and installed two ½” rivets in each grab iron. This process was done on Wednesday & Thursday. On Friday all the grab irons were coated with a zinc-based primer, and the area cleaned-up and tools & equipment were put away. In addition, all the miscellaneous parts for the tank car project were moved out of the CRF to the reefer to make room for the machine shop equipment that was donated.



New grab iron in place – ready for a rivet.



Rivet being heated prior to installation.



New grab iron riveted in place – just like the old days!

Session F: During session “F”, work was done on the brake cylinders and cylinder mounting brackets and also finishing-up work in Chama to complete the exchange of trucks. On Monday we did prep work to the remnants of the brake cylinder brackets that are still in place under the frameless tank cars. The stubs were ground smooth and prepped for attaching the new brackets in place. Although new brackets were made, they didn’t fit the spacing of the old brackets. We attempted to modify the new brackets, but this didn’t work, so revised brackets will be fabricated & installed next year.

On Tuesday the crew was shifted over to Chama and we completed the truck work that had not been finished from work session “E”. We exchanged 2 of the Montana UTLX arch-bar trucks for the other 2 cast trucks that are required for the frameless tank car project. Two of the narrow-frame tank cars were cribbed-up on ties and the cast-style trucks were rolled-out and placed on the Chama speeder shed access track (the trucks on the opposite ends of both cars had been swapped-out the previous week). The arch-bar trucks were rolled under, and both cars placed back on their wheels. This work took the entire day, and since Hardy & Bill had previously worked on this project during session “E”, the work was completed quickly and safely. The cast-style trucks will be shipped by rail to Antonito at a later date.



Arch-bar trucks have been moved under the tank car.



UTLX 13168 with newly installed arch-bar trucks under both ends of the car.

The crew then shifted back to Antonito for the balance of the week, and we worked on overhauling the brake cylinders. Four Westinghouse type KC brake cylinder/reservoir assemblies were previously purchased from the D&S. These used components were disassembled and thoroughly examined. We were able to combine parts from the four units to create two usable cylinders. The interior cylinder walls were carefully polished with brass wool and diesel fuel (the Westinghouse manual recommends cleaning with kerosene, but we substituted the diesel and it worked fine to remove the caked-on grease). The piston cup seals were examined for any cracks and checked for pliability, they were then repacked with special air-brake cylinder grease that was provided by Marvin Cassias. The brake pistons were re-assembled into the cylinders and the cylinder walls coated with the special grease. The attached air reservoirs were found to contain a significant amount of dirt & debris. Both reservoirs were vacuumed-out and the ends sealed to prevent any dirt re-entry. Both units were tested with shop air. There were no leaks detected, and the pistons extended & retracted smoothly. This work took the balance of the week to complete, and the two overhauled cylinders were tagged & placed in storage inside the reefer car nearest the CRF.

Project Status: Not Completed. This is an on-going multi-year project.

There is a tentative plan for next year to set the frameless tank cars on the trucks. This will occur during the same week that the Antonito pole barn trusses are to be set in place. A portable crane is to be rented for setting the pole barn roof trusses, and while it is in Antonito it will be used to also move the frameless tanks onto the trucks. We also plan to finish the brake bracket work that was not completed from this year. There will also be another work session needed in Chama. With the help of Randy Worwag we were able to locate the appropriate draft gear and couplers in the Chama parts area (swamp). We plan to retrieve the draft gear and couplers and move the parts to Antonito for use on the frameless tank cars.