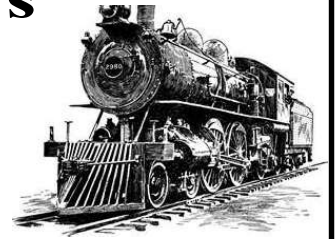


June 1, 2017

The official newsletter of the Adobe Mountain Railroad in Phoenix, Arizona, Operated by the Maricopa Live Steamers Railroad Heritage Preservation Society.



President's Message

If you missed it, a fire ban is in place. No steam engines are allowed to run on our railroad until further notice. Pottsville main line is closed until further notice due to replacing rail in the curves. Werner was open all the way to Osband tank and back but now closed due to kinks from the heat. I would like to thank everyone that had a hand in repairing West Werner main line.

The golf cart cannot be used outside the gates of our property because insurance will not cover you.

In the last six months we've lost two more members; Hugo Meisser and Truman Hafner. Our condolences to the family and friends of these two members. Truman is from Oklahoma City and Hugo is from Sun City.

I haven't been to the park for 14 days so I don't have much to say. I have been in Toronto, Canada and got to ride an excursion steam train ride. My family and I got on at the South Simcoe Railway station in Tottenham (50 minutes from Toronto) and then proceeded to go backwards 3 miles up the Beeton Creek Valley. The engine is built by Baker and is a 4-4-0 and 134 years old. The whole operation is run by volunteers including the engineer. We know what that is like. The train crosses four grade crossings and two volunteers get in cars and drive to these crossings and stop cars the old fashion way with a red flag. The passenger cars are 80 ton heavy weights built in the 1920s. Scenery is rolling hills and farm land and is very green due to a lot of rain. I tried to see the Roundhouse museum but that will have to be another trip.

The Thank-You luncheon for the volunteers who do anything for our club, is June 10 after the meeting. Gabriel Zorbas is putting the luncheon together. He could use some help. Also help is needed cleaning the track on the Postville branch in the cuvers. See Joe Schnyder or Bob Douglas if you want to volunteer.

Safety First and have a safe Summer vacation.
Perry McCully



South Simcoe Railway station in Tottenham, New Tecumseth, Ontario

**2017
MLS Board of
Directors**

Perry McCully
President

Pete Pennarts
Vice President

Bob Douglas
Treasurer

Mike Lewandowski
Secretary

Mick Janzen
Joe Fego
Mike Grant

Members at Large

Cliff Fought
Construction
Superintendent

Hank Gallo
Operations
Supervisor

Greg Gorman
Tower Signal
Superintendent

Terry Liesegang
Road Signal
Superintendent

Bill Pardee
Boiler Inspector

Pete Pennarts
Safety

Joe Schnyder
Maintenance of Way
Superintendent

Al Ford
Construction
Superintendent
Emeritus

John Bergt
Past President
2016

Timothy Freeman
Web Master

Jim Zimmerman
Engineering Test &
Card Administrator

Sandy Rauperstrauch
Stack Talk Editor

Calendar of Events

June 2017

Board meeting and General meeting: Saturday, June 10 12:00 noon
Appreciation lunch for volunteers Saturday, June 10 12:30

RSVP by June 2 to GabeZorbas@gmail.com

July - no meeting.

Board meeting and General meeting: Saturday, August 12 6:00 PM
Also, Ice cream social same time

Public Runs - first day Saturday Sept. 10 12:00 - 4:30

*****Fall Meet*****

October 26, 27, 28, 29

First Christmas run. Sunday December 1

RUN CREWS ARE STILL NEEDED FOR FALL - PLEASE HELP OUT!

See page 10 & 11 for more information

**Abbreviated Minutes from
April 8th Board Meeting and
General Meeting**

Board meeting began at 12:00 PM - closed session followed by general meeting.
General meeting began at 12:30 PM.

Superintendent's reports:

Tower, Greg Gorman - cables and steerable camers are in tower.

Maintenance of Way, Joe Schnyder - West Warner is almost complete.

Track in station almost complete. Replacing track in the yard.

Pottsville closed all summer - curves changed out to steel.

Boiler Inspector, Bill Pardee - All ok

Maintenance of Way, Joe Schnyder - West Warner is still out.

Construction, Cliff Fought - Driveway has been resealed, new concrete coming,
28 sq ft concrete for vender area, west transfer table,

No priority tasks.

Construction, Cliff Fought - out of 29 items on the priority list, 13 are complete.

Old Business:

Large track starts in the fall

Loose Knuckles - inspect and repair between now and September.

THANK YOU TO ENGINEERS ON RUNS. WE NEED MORE NEXT SEPTEMBER.

See page 10 and 11 on how to sign up.

Sandy Rauperstrauch, Stack Talk editor, thanks all who send photos and articles. Without you, there would not be a newsletter. Remember to submit articles and photos one week before the end of the month to allow for formatting in the newsletter. braup@cox.net or srauper@gmail.com

Safety at MLS



NO BURN DAYS at MLS

THIS MEANS

---- NO ----

COAL, or DIESEL FUELED atomizers & BBQS!

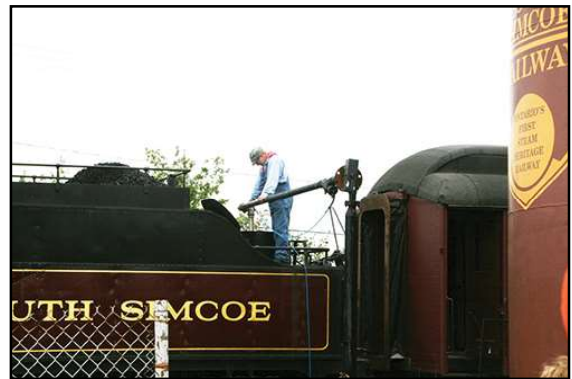
NO FIRE OF ANY KIND

Until Further Notice

More photos from Perry - S Simcoe RR



Nice weather and scenery for a train ride!



And when you ask him where he went.....



Passenger cars built in the twenties.



A HISTORY OF THE STEAM LOCOMOTIVE SHOP

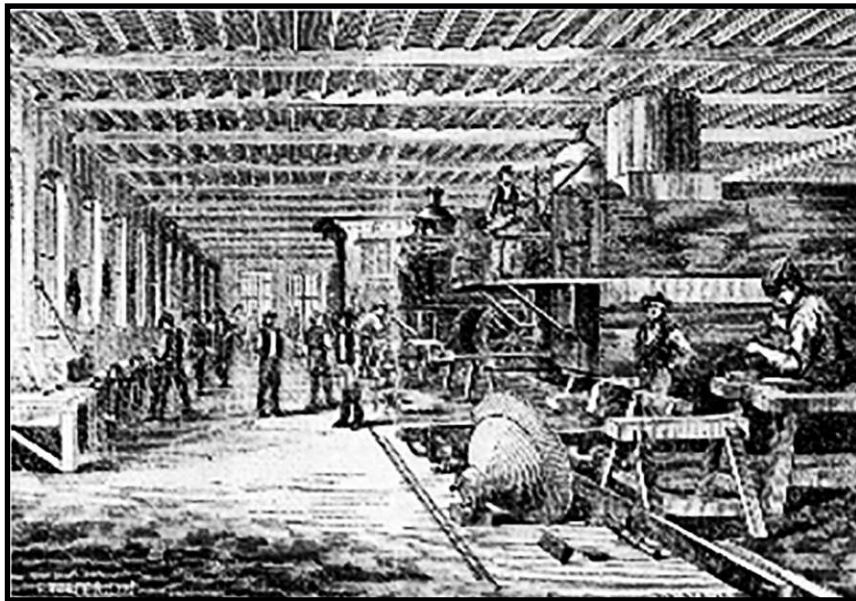
1829 - 1840

DEFINITION OF A LOCOMOTIVE SHOP

Dave Griner

In order to document the history of the early steam locomotive shops, we must first provide a definition of what constitutes that facility. Searching various dictionaries, an accurate description is not to be found. The nearest definition is noted as, “the workshop of a person who works in a manual trade; a place for doing specific, skilled manual work”. For those fortunate enough to have visited or worked in a true locomotive shop, this definition is something less than adequate.

Before the advent of the locomotive, a shop was indeed associated with individuals or small groups performing mechanical tasks such as iron working (“smithing”), woodworking, weaving, foundries and machine shops, most using singular skills. The locomotive shop gathers many of these skills under one roof to address mechanical issues in greater complexity than previously encountered.



So on that note, we will endeavor to provide a more encompassing definition, such as ;.....”a structure or group of structures used to house tools and machinery, employing personnel specifically dedicated to the skilled work of repairing and construction of steam locomotives associated with a given railway”.

Using this definition, we will begin our journey to learn how the very early mechanics of this great nation dealt with the “vicissitudes” of the steam locomotive!

Dave

MLS will have a new 1" scale track

The longest journey begins with the first step. And today, May 23, 2017, Joe Fego's dream of being able to run his 1" scale Hudson at MLS became even more real as we dropped in the first few panels of track!

Work started on the trench he made with the tractor by shoveling, raking, and hand rolling the first section. It was a great moment to see the first track laying on the ground! I'm glad Joe didn't feel like breaking a bottle of champagne over my head in celebration.



Laying track out in the 100+ degree heat may seem like insanity, but according to Joe, it's really not a bad time of year to do so, as the metal in the rail is quite expanded and should not want to buckle as readily as if was laid down cold. He's using the same size rail and ties as the 7.5" gauge track, and I think it gives a really cool narrow gauge look to the panels.

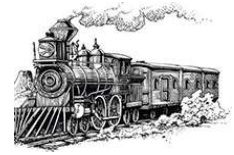


Just wait until you see the luxury engineer's car Joe is planning to build to help level out and finalize the rails... I thought he said something about luxury shade, icy-cold beverages, and an electro-massaging barcalounger... but I might not have heard him correctly. Anyway, we'll keep you posted on the progress!

Stan Ferris

High Ball!

By John Lovely



This month I want to talk about controlling train speed and slack. At Greyhound, they always told us we were driving by the seat of our pants. The total contact area between the tires and the road was about the same square footage as the driver's seat. On a train that contact area is much less – a cone shaped wheel on a curved rail head is theoretically a point. Those of you who know some physics, know that the co-efficient of friction at a point is phenomenally high. John Murray of Elyria, OH, posted a picture on "Backyard Railroading" group on Facebook. I think it really illustrates this point well.



Due to the elasticity of steel, on a real train it is probably about the size of a dime.

We all know we have only two tools to work with as an engineer: Throttle and Brakes. You need to think of the throttle as a way to add energy to the train to overcome friction, wind resistance, and gravity. Brakes are a way to subtract energy.

Going uphill, we need lots of energy to overcome gravity. Going downhill, gravity provides the power. But often part of your train will be going uphill and part downhill. On a long train this can be happening several places simultaneously, and it moves position in the train as we progress down the track. You need to make the railroad work for you, not fight against you.

There are four braking systems on trains. Automatic: applies braking on all cars. Independent: applies brakes on engines only. Dynamic: retarding effect by the engines. Hand brakes: used to hold the train when stopped. When you apply the Automatic brakes, the air pressure in the train line is reduced and each car's brake valve applies the brakes from the air tanks. You "Bail Off" or release the engine brakes after each set, so only the car brakes are retarding the train, keeping it stretched. You can add or subtract Independent if needed. Too much independent will over-heat the wheels, even to the point of loosening steam engine driver tires. Some steam engines have a Mountain Cock that shuts off the air to the engine brakes, allowing the tender to act with the automatics, lowering the TPOB – (tons per operative brake).

On our LS trains, we have quasi Dynamic and maybe Independent brakes. Our trains constantly go from being stretched to bunched as we change speeds and encounter grades. If you add brakes to your cars, you have more control to keep things stretched. At least one person has added a remote-control air brake to his caboose. I don't know if that is effective in train handling or only as a handbrake.

With our relatively short trains at GCR (1000') it is usually only one case of up and down. We try to keep the train stretched to avoid bumps that can upset passengers and/or their drinks. With the slack stretched or bunched, the train moves as a unit. A case in point is the Valle speedbump at about MP 29. The general NB grade is descending, notch one or two. There is a slight dip just before you get to the bump, so you may/not need to take a minimum set on the automatic, but is the slack stretched? Approaching the grade, you start to notch out the throttle to load the engine, kick the brakes, and usually wind up in notch 7 or 8 at the summit. Most of your train is now going uphill, slack is stretched. As you top over the hill, you begin to throttle back because gravity will be working on your 280 ton engines, counteracting the drag of cars still coming uphill. As more of the cars crest the hill, you need to grab some air to keep them from crashing into the engine. As most of your train reaches the bottom, you need to add throttle again and kick the brakes trying to keep the engine ahead of the descending cars while not exceeding 40 mph. Getting the timing right is the tricky part.

I have asked my son to tell what it is like to run a long train, 6000' and maybe 100,000 tons.

Freight Train Handling

By James Lovely
Engineer, BNSF

Safe and excellent train handling is a skill developed with practice. When handling a train, you need to consider the following factors:

- The grade of the track
- Track curvature
- Type of cars
- Tonnage of your train
- Length of your train
- Amount and location of power
- The condition of your train

A long train will take longer to start, stop, and clear slow orders. A long train at high speed is easier to run than a short train at slow speed, because a short train is either all on the uphill or downhill section of the track, while a long train will smooth out the little ups and downs that are in any section of track.

Train Makeup

The type of cars in your train is important. You'll need to know how many cushioned draw bars are on the train, the length of the cars in the train, the number of loads and empties, as well as the location of all cars. If you have a coal train, grain train, or tank cars, there will be only a little slack in the knuckles, but no end of car cushioning. With an auto train, there is about 4 feet of slack per car. So, a train with 100 coal cars may have 7 feet of slack in the train. A train with 75 auto racks will have about 280 feet of slack. A manifest (or mixed freight as some like to call them) you can have cars with lots of slack next to cars without. With a block of end-of-car-cushioning cars in the middle of the train, watch for heavy tonnage behind them. Adjustments in slack while moving will need extra caution. Remember too, that not all cars have the same braking power, due to design, wear, and defects.

Starting a train safely

Keep the following in mind when you are starting to move the train:

How much power is online (ready to provide tractive effort). If the HPT (horse power per ton) is high, too much throttle applied could derail the train.

What is the condition of the train? Is the slack bunched or stretched?

To start a train, use the smallest amount of throttle needed to start the train.

The more tonnage you have, a higher throttle notch will be required to start the train. Before you increase the throttle make sure the slack is completely pulled out. If you apply too much power before slack is out you can break a knuckle. If on a descending grade, start out by releasing the train brakes. Ease off of the independent (engine) brake. Dynamic brake may be required. If on an ascending grade, power may need to be applied prior to releasing the train and engine brakes. When starting on a curve you could string line the train (pull it off the inside of the curve). Extra care is required when starting on a curve, the tighter the curve the harder it is to get moving. "Slow and easy" is always required when starting on a curve.

Running the train safely (braking and speed control)

Once the train is moving the throttle can be moved as needed to control the speed of the train. The throttle can be moved more rapidly when already running than when starting the train. When transitioning from power into dynamic brake, bunch the slack and lower the amount of braking effort needed until the slack is bunched.

If you are utilizing distributed power (DP), you essentially have two or more trains coupled together. When starting the train, you can shove with the DP in a higher throttle notch than the head end. This will reduce the draw bar pull on the head cars, which will allow a longer, heavier train to be started without breaking it. You can also bunch or stretch a train while running to prepare for speed or grade changes.

With a DP consist on the rear or mid train, the brake pipe is essentially cut in half. This is due to the DP also charging the brake pipe. So, a 6000-foot train will have a 3000-foot brake pipe for train handling purposes. The train will stop in a shorter distance with DP than with a conventional consist (all power on the head end). The signal for the brakes to set-up moves through the brake pipe at approximately 700 feet per second (fps) for a service application. Emergency application moves at approximately 900 fps.

What can we learn about our little trains? Slack control is still very important. Since most of our cars don't have brakes, we need to make speed changes slowly, allowing the slack to run in/out gradually. You need to keep a mental picture of how much of your train is going up or downhill.

You also need to drive ahead of your train. Start applying power before you get to the hill to maintain track speed. Get into braking mode before you begin the descent. A case in point at Train Mountain is New Isom to Little Falls, the grade increases quickly from 2% to over 3%. LETC's dynamics won't hold even two of us on the train, I try to remember to grab some air as we pass the 2% switch. At Adobe Western, the grades are Massey to Soggy Bottom and Simmon's Bridge to Fritze's Corner that will give you a thrill.

I hope this discussion will help you enjoy your railroading more. Let me know what you want to talk about next: jmlprod@aol.com.



With the advent of summer, it's time for some of us to get out of the heat. If you're lucky enough to be able to get away and head for cooler weather, maybe trains will be part of your adventure. This photo is from a trip to Chama, NM in 2015, to ride the Cumbres and Toltec. If you have photos from your trip this summer and experiences that include trains, please share them by sending to the editor, srauper@gmail.com.

**Fall seems like a long way away,
But you can start planning on being a member of a
*Sunday/Holiday RUN CREW!***

Summer is here and we're planning our fall run crew sign up sheets now.
We will also use the sign-up sheets for the holiday runs.

We are working on adding the sign-up sheets to the web site. For now they will be located in the Station Master book. During the run season it is in the station master desk (in the station) and during the summer that book will be in the clubhouse by the computer.

What does it involve to be on the run crews? Glad you asked! A large percentage of our operating budget is obtained from public runs (Sundays and holidays). Without this income we couldn't operate the club (in addition to our dues and member donations for projects). Our crews consist of an engineer and conductor who must have a current MLS Engineer card, and have watched the public run safety video (available in Ford Station through John Broughman or Hank Gallo). The station master tries to vary the routes so each crew doesn't continually cover the same route. Please advise the station master if you plan on taking a custom route, like Bobberg to Pottsville, so he may control traffic.

**We are asking each local member who is able to engineer/conduct to sign up
for at least one shift per month for Sunday runs and one or more shifts during the holidays.**

One crew will sign up as the relief crew, who will be able to let your crew take a break. When you return they will relieve the next crew. We have members that run an entire shift without getting off the train. Not too bad on a Sunday, but winter nights can be cold, so some hot chocolate is a welcome break. We will be enforcing the sign up sheets as to who will be running the public. The advance sign up crews will be assigned to runs first. If you do not sign up you could be a relief crew. If you can't be present for your assigned shift, please try to arrange with another crew in advance of the shift and speak with John Broughman, run coordinator, about the change.

Arrival:

Please arrive at least 30 minutes before your shift starts to check out (using the log book) a loco and then a cut of cars (a maximum of 7). Have your whistle, charged VHF radio and flashlights for night runs. Do a visual inspection of the loco and cars, looking for leaks, chafed wires, working couplers, safety chains or any other defects. If found, report them and select other equipment. Fill the loco with fuel and check the oil. Check with the station master to see how many crews are in attendance and if we have any parties. That will dictate if you tie up in the station or coach yard. Retrieve a working GPS tablet and conductor alarm from the crew shed. We do these inspections before every run since someone else could have used the equipment and not noticed or logged any issues.

Private equipment:

Our new insurance policy covers private locos. They must be inspected and signed off by the Superintendent of Operations before hauling the public. Your loco will be inspected the same way we inspect club equipment. Wheel condition, flanges and gauge, safety chains, lighting, horn and general condition including loose bolts, leaks or cracking hoses. This covers steam, gas and electric powered locos.

Public:

Remember they are our guests and we may not know if it is their first visit or 100th. We want them to have a great time, make a donation and tell their friends how nice we were. Most of our guests don't know we are volunteers and are surprised when they find out. If you aren't at your best, please keep a distance from the public since one bad experience will be repeated to so many people or posted on social media. Children are our future members, so take a moment to answer any questions they have, or time permitting, put them in the engineer seat (engine off) for a photo op.

Between runs:

The construction crew has completed a covered concrete patio on the east side of the concession stand. This is where our crews should take breaks, eat meals and have discussions. The seats by the station master desk and exit gate are for guests. We have been told they feel uncomfortable sitting with the crews and hearing the discussions that go on. We forget that we don't want the public to hear a train derailed, got stuck or what movie we watched on TV last night. Please use the crew area, and don't be alarmed if one of us reminds you to use that area. It might be difficult to get used to but will be better for all.

Crews:

Any issues with a guests should be brought up privately with the crew running that train. If it doesn't involve a train, then a board member should be involved and notes should be taken. Again, these must happen away from the general public.

Accidents:

If there is an accident, the station master book has the forms to fill out. If there is an injury, photos should be taken along with the details and guest info. **The club president must be called after the paperwork is complete.** Hand any first aid supplies to the guest or their parent/guardian, do not apply any first aid yourself. If there is any question about the severity of an injury, request they go to emergency or call 911.

End of day:

The station master/run coordinator will begin having crews put away their equipment (GPS & conductor alarms, making sure they are powered off and key fobs are attached) as the crowds lessen. Fuel up the loco before storage so it's ready for the next run day and complete the log books. If there were any equipment or track issues, inform the station master and mark them on the crew white board in the back of the freight shed (concession stand).

Most of all, come out happy and ready to have a good time running trains. That's what this is all about. And with that, you'll spread the enthusiasm for trains to our guests, donors, and future members.

John Broughman - Run Coordinator (pluggie49@msn.com)

Hank Gallo - Superintendent of Operations (hanksqt@yahoo.com)

IMPORTANT!

If you have a container at MLS, please send your key # to Bob Douglas to update the key list.

rdouglas9@cox.net

