
HIGH BALL

A Publication for the Mid-Michigan Railroad Club
July 2022



June 11 was a beautiful day with moderate temperatures and good turnout. Andrew Higgins has departed with the club's Morris switcher. Mike Schmitzer waits for a few more passengers before loading the next train.

Steam and F Unit's, what's not to like?



June 12th was a slow day so the M of W forces went to work trimming trees.





July 2nd. Is this a future engineer getting look from the engineers seat? It's good to see people looking for the next generation. The locomotive is Rod's C&O GP40-2.



Jim Trimstra and his SD40-2. The full size 6271 was built in 1971 for the Penn Central. It was later rebuilt to SD40-2 standards by Conrail. After the Conrail break up it became CSXT 8882. I found pictures of the 8882 still working for CSX in 2019. Jim was lucky enough to run the 6271 in its Conrail days as it worked a fiber optic cable train.

Grade Crossing Signals by Tim Childs

Those that have been at the track on many run days since last October will no doubt have noticed the one of the two grade crossing signal near the depot has been in operation. The signals were pieced together and mounted by Les Hale and last year, just in time for the Halloween runs, I put in a track circuit on the south bound new main and prototyped a flasher circuit as proof of concept. The new main was chosen because it was harder for the hay ride tractor drivers to see oncoming trains from that direction. Currently, I have to haul a battery and flasher unit up to the signal and set it up each run day. The plan is to run power from the depot and permanently install the flasher unit in a track side cabinet and wire in both signals and all tracks over the crossing and all that will need to be done to have them in operation is turn on the power in the depot. Track circuits will extend in both directions and the signals will operate prototypically, eg they will start 20 to 30 seconds before the train reaches the crossing and stop shortly after the train clears, and they will be bi-directional.

The whole thing is controlled by a tiny, \$10 computer called an Arduino (www.arduino.cc) which monitors the track circuits, flashes the lights, and activates the bell. The beauty of going this route is it's less expensive than traditional approaches, in more reliable, and if it is desired to change some facet of the signal operation, nothing needs to be rewired, it's just an edit to the program.

Currently, because it's battery powered, the track circuit uses direct current (DC) at 12 volts. Once utility power becomes available, the track circuits will be 12 volts alternating current (AC).

Track circuits are not the most reliable things, even the real 12 inch to the foot railroads have difficulties. In some places, Amtrak has been required to run extra cars just to ensure reliable detection, and some railroads have rules about minimum number of axles, requiring light engine moves to haul a couple of freight cars with them. And in our scale the problem is worse because our rails are aluminum and oxidized aluminum is an insulator. I've seen many spastic acting signals as a result. To combat this, railroads use relays that are specially made to be very slow acting. Unfortunately, suitable relays are not available (at least for any \$ we want to spend) but fortunately their action is easy to mimic in software, so the program contains what may be thought of as virtual track relays that detect very quickly when a train enters a track circuit, typically about $\frac{1}{4}$ second, and release slowly after 3 seconds.



Pat Kinney passing the first working grade crossing signal at depot road crossing. Tim brings out the battery and box of electronics to operate the signal.



The wind break for the picnic shelter is partially complete. This will be a nice addition come October.



The fence Tom Stuck donated to hide the materials behind the barn. Like all railroads we have a variety of materials stored but our pile was becoming a bit unsightly.



Ted Hentchel is cleaning up some of this mess. Scrap steel in the black tote will go to the recyclers and aluminum to Steve's foundry. A few weeks ago Rod asked that we hold off bringing more materials to the track unless they will be used immediately for a project. Some of what we have laying around might be disposed of if there are no projects identified for it.

NMRA Visit by Mike Schmitzer

On October 28 (a Friday this year) and 29, Division 9 of the National Model Railroad Association (they cover all of Southwest Michigan) will be holding a 2 day convention in the Battle Creek-Kalamazoo area.

On Friday at noon the group plans to have lunch at Cornwell's and they have asked to get a tour of the Mid-Michigan Railroad right after that from approx. 1 p.m. to about 4 p.m. there will be anywhere from 20-30 people at the track.

We are hoping that a few of the club members will offer to do the same and to offer to give rides that afternoon as well. Of course everything will be "weather permitting" since it is late in October.

Project List

- Mainline tie replacement. Steve Morris and Pat Kinney have started working through the southmost curve behind the barn replacing ties and checking gauge. Ties, screws and gauge bars are in the barn. Check the gauge as you go.
- Bury a cable from the depot to the grade crossing signals south of the caboose so they can be operated without brining batteries out. Give Tim Childs a call and he will show you where to route the cable.
- Install outlets at the picnic pavilion. At the moment outlets are on a post south of the pavilion which can be inconvenient. This could be trenched when the grade crossing cable is laid.
- Wind break and shelf for the pavilion. The idea is to build a short wall along the west side of the pavilion to provide a wind break. This would also be a good spot to include a shelf for crock pots and so forth. Give Rod a call.
- Pre-drill ties. Tom Stuck found a nice multi-spindle drill press. He is setting it up so ties can be pre-drilled. This will make laying rail much easier. Once Tom has the drill press set up we can go to work drilling ties.
- The track panel jigs need some repair and TLC.
- Tunnel south portal has a rotted 2x4 at the roof edge. The roof drips rain water across the stringer. The 2x4 is water logged and in bad shape. There is a new treated 2x4 in the tunnel to replace it. A drip edge to carry water past the wood roof structure should also be installed.
- Rod and Tom do most of the mowing and trimming. They can always use a hand.
- Trim brush and weeds back from the driveways off 15-1/2 Mile Rd.
- Seal the wood bridge decks with boiled Linseed oil. Check with Rod for materials.

Want to help but you are not sure what to do? Contact one of the officers.

2022 Schedule

August 6, 20-21

September 3-4, 17-18

October 1-2, 8-9, 15-16, 22-23, 29-30

Officers

| | |
|-------------------------|---------------------------------------------------------------------------------------------|
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| Vice President | Pat Kinney 269-753-4177 patk1977@aol.com |
| Treasurer | Tim Childs 517-663-8730 tim.d.childs@gmail.com |
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| Corresponding Secretary | Mike Schmitzer 269-274-4366 mstrains@att.net |
| Safety | Ted Hentshel 269- 945-7628 tedhenrchel@yahoo.com |

Have news pictures or a for sale item? Send it to Pat Patton pattonpat@aol.com

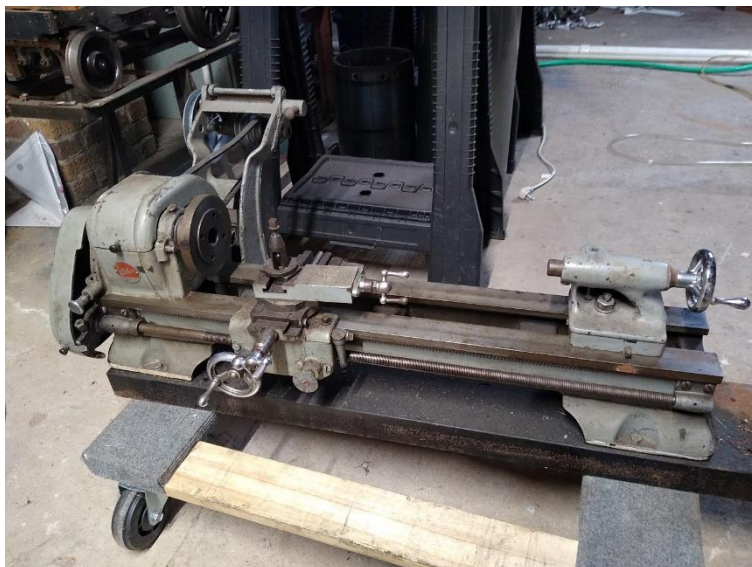
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Contact Pat Patton 269-929-8194
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6" Atlas Lathe

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