

FLIMZIE

**The Newsletter of the Rock River Valley Division
Midwest Region, National Model Railroad Association**



July 2022 Volume 55, Number 11

The Rock River Valley Division, RRVD, is a local division of the Midwest Region of the National Model Railroad Association, NMRA. The RRVD serves NMRA members in areas of Green and Rock Counties of Wisconsin, and Boone, Jo Davies, Lee, Ogle, Stephenson, Whiteside, Carol, DeKalb and Winnebago counties in Illinois. The RRVD holds monthly meets typically the first Sunday afternoon of each month, September through May, in Rockford at the at **The Lutheran Church of the Good Shepherd, 1829 North Rockton Avenue, Rockford, IL**. They consist of various clinics on model railroading, model contests, drawings for door prizes for NMRA members. The meets start at 1:00 PM, and the doors open at 12:30 PM.

Mark your Calendar

Gateway 2022

NMRA National Convention and National Show

The **Gateway 2022** NMRA National Convention and National Show will take place Sunday, **August 7, 2022, thru Saturday, August 13, 2022**. The Convention will be held at Marriott Grand, St Louis 800 Washington Ave, St Louis, MO Saint Louis, MO. The train show will be at the Collinsville, IL Gateway Convention Center. The website is https://www.eventsquid.com/event.cfm?preview&event_id=13724

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Office Vacancies

Flimzie Deadlines

The Flimzie is published once per month on the first of the month. It will be placed on the RRVD website for anyone that wants to read it.

The content for the Flimzie comes from you, our readers. Please submit your articles, pictures and editorial comments to the Editor, Ken Peterson, poplarken53@gmail.com, no later than 10 days before the 1st of the month, i.e., July 21, 2022, for a August 1st publication.

Message From the Superintendent

By Marty Hendrickx

Well June is almost over, and it is hard to believe almost a third of the summer has passed by already. Hopefully some of you have had a chance to get out and do some train watching with the milder weather. I attended the June Junket in Oregon at the Oregon Train Depot Museum and Blackhawk Model Railroad Club. The only regret we had was a lack of traffic on the BNSF. In the 2 plus hours we were there we only saw one train and it was empty well car move heading west to get more containers from our clogged ports.

Besides me, we had nine other members show up. The Oregon Depot is a very nice, fully restored train depot on the BNSF main line, and it has a wide range of artifacts for you to see and experience. The Board of Directors is considering have one of our fall meets at the depot though the date has not been set yet. We would then visit one of the model layouts in the area.

After lunch we visited the Blackhawk Model Train Club in the Conover Square in downtown Oregon. This club has a very nice operating HO layout and an N and S gauge display layout. The club is a very friendly and several

of the guys brought locomotives that ran on their layout. The Conover Square is an old piano factory with a number of other shops in the building so it is definitely a family's-oriented visit as our significant others will have other venues they can visit and shop.

The Oregon Depot is open on Saturday mornings from 9-12 with plenty of free parking at the depot. The Blackhawk Model Train Club is open on Saturday from 10-4 and Sunday from 1-4 with parking available. Both of these do not charge an admission, but donations are welcomed.

The Board of Directors has been working on our social media outreach and you will be seeing a number of new changes in the near future. We have our new Facebook page up and running, so if you are into Facebook, please visit the site and "like it". Brian Pinkstaff who has been spearheading this says if you have content or post, please send it along. We will also be updating our email programs in the near future. We have been sending out emails using Ken Mosny's email program, but the volume of emails has made it obvious we need to be using a email program to send out mass mailings. If you have a new email address, be sure to update it with the division as more and more of our communication will be done with emails notifications.

Harlem High School has published their 2022/2023 calendar and we have submitted an application for our 2023 Rock River Valley Train Show. We are hoping to have it the last weekend in March as in the past which will be March 25th and 26th. We are hoping to have a confirmation of these dates in the next 30-60 days. Last year's show was very successful and we have received a number of good comments from both attendees and vendors. We are working very hard to build on this success.

So that is all for now. I hope everyone has a happy and fun rest of the summer. Let me know your thoughts and ideas as we are always looking for your input to better the RRVD experience.

Message From the Assistant-Superintendent

By Ken Mosny

The RRVD will start using the Midwest Region Constant Contact email system for communications with the membership starting in July. The addresses in the system come from the addresses in the NMRA national database. In order to receive emails from the RRVD regarding upcoming events, publications, and important membership notifications, make sure you have a valid email address registered with the NMRA. To change or transmit an email address to the NMRA, log in into the nmra.org website, hover on [membership] and select [Request For Membership Info Changes] from the pull down menu. Scroll to the bottom and type your request in the

"Description of Change" box.

Why is it really important for RRVD members to have a current email address with the NMRA? Up until now, our emails were sent through my personal account. The addresses were managed by me. **In particular, member addresses were a combination of the addresses from NMRA and addresses filled in from members that did not have address listed with the NMRA, but which I knew.** Now that the address will be managed by the NMRA Constant Contact system, the addresses that I "filled in" will be dropped and those members that, in the past, received membership emails will no longer receive them. If you wish to receive the membership only emails from the RRVD, you **must** register an email address with the NMRA.

The Layout Design Column

By Ken Peterson

This month I am taking a different approach to a layout design. I propose to model a sleepy little branch line.

1. CONCEPTUAL PHASE

The first step in the layout design process is always conceptual. This involves developing the theme, or the look, feel, experience, or the real story you want tell with your model railroad (MR). You want to choose an era, locale, prototype, etc. What kind of experience do you want to create for the operator? What signature elements do you want to include? What can you include in the design to give that "typical" essence of the area you are representing? What are the space considerations required for operations by operators? Will it be portable, modular, permanent? These are important considerations in this phase of the design. To answer these questions, I begin with extensive research.

I read a book about the history of the 23-mile-long Waukon and Mississippi Railroad in NE Iowa. It was built and completed as a 3-foot narrow gauge in 1877. It ran from Waukon, IA to Waukon Junction on the Milwaukee Road along the west bank of the Mississippi River. It was built through some of the most rugged land of the state. It followed the Paint Creek from Waukon down to the Mississippi crossing the creek 32 times. In some places along the route there were limestone bluffs 200 feet tall. There were few roads and thick forests. The grades were so steep that at one point a "doubling spur" was built so the train could be broken in half and left on the spur, while the other half was taken up to Waukon. The curves were very sharp, so sharp

they had to impose a 10-mph speed limit on them. The sharp curves limited the size of the locomotives that operated on the railroad.

The Milwaukee Road bought the railroad in 1880. One of the biggest challenges to operating a narrow-gauge (NG) railroad that needs to interchange with a standard-gauge (SG) railroad was cost of transferring the freight from the narrow-gauge cars to the standard-gauge cars. Parallel tracks were often built, with the NG track elevated so the floor of the narrow-gauge box car is at the same elevation as the standard gauge box car floor. During the late 1800's coal and grain were carried in box cars. That meant men with shovels had to shovel out the NG car and throw it into the SG box car. Commonly an iron plate was placed between the two cars and as the NG car was getting empty, wheel barrels were used to speed up the process. A SG box car could hold the contents of two NG box cars. A bigger problem was when the locomotive needed to be serviced, it had to be loaded onto a special flat car and taken to the Milwaukee shops in Dubuque. To reduce these costs, the Milwaukee Road decided to convert the NG branch to standard gauge in 1884. Once it was SG, they ran all the locomotives operating on the Waukon branch out of the Marquette, IA shops. The man assigning power to Waukon trains assumed the branch could handle a Prairie 2-6-2 locomotive. The engineer assigned to the train that day learned a hard lesson. Richard Bogue was sent to Waukon with a Prairie locomotive. He is quoted, "We did fine until we got to the sharp curves just below Waterville," he recalls, "then, just as we went into a curve, then the trailing truck derailed. We got it back on the track and tried to back up. The lead truck derailed, and we were stuck, couldn't go backward or forward. Finally, a section crew came to help us. We oiled the track and skidded the lead truck along as we backed out the curve. I took her back to Marquette . . . a Prairie was just too long for those curves." [from *Grass Between the Rails*, by Rehder and Cook]

The railroad hauled primarily grain, livestock, lumber, and general merchandise. In the beginning the passenger revenues were about 18% of the total. From 1912 to 1922 the Missouri Iron Company, later owned by the Mississippi Valley Iron Company shipped processed iron ore from the mine 5 miles north of Waukon to either St Louis or South Chicago. The mine could only produce concentrated ore that was 51% as iron. Northern Michigan and Minnesota mines were producing ore that was 65% as iron. That is why the mine was shut down in 1922, it wasn't cost effective.

This railroad would be a great railroad to model. It could be built as the narrow-gauge, the standard gauge steam with iron ore, the standard gauge steam after 1922, or the diesel era 1952 to 1970. It ran both passenger and freight trains. For the modeler that likes scenery, this railroad is for you! High limestone bluffs, a creek that runs along the length of the RR, 32 bridges to build, thick forests, small towns, farms, interesting locomotives, and freight cars.

I model in N-scale. While I would like to build an N-scale narrow-gauge model railroad, I am not ready to take it on. I have seen some amazing N-scale narrow-gauge model railroads. One I saw on a layout tour in California was 650 square feet. It was built with hand laid code 30 and code 40 track and turnouts. Nn3 locomotives cost from \$850 to \$2000 to have them built for you and are the size of your thumb. To save money, you can buy a Z-scale steam engine for around \$650 and then buy an N-scale narrow-gauge steam engine brass kit for \$150 to build your own. Tom Knapp, MMR is a master at building N-scale narrow-gauge locomotives with DCC inside! I attended one of his clinics where he taught you how to do it. Doing it yourself saves you money but increases your anxiety from possibly wrecking a brand new \$650 Z-scale locomotive in the process.

So, I would choose to model 1954 when the Milwaukee Road started to replace the steam engines with SW-1 switchers on the Waukon Branch. They typically operated two switchers coupled long hood to long hood. From pictures of that era, the track was in poor shape. In some places you couldn't even see the track. Derailments were not that uncommon.

2. STRUCTURAL PHASE

The second phase of the design process is the structural considerations. This involves considering the available space for the layout structure, self-standing table style, shelf style, if it must share space with other uses, is storage space required underneath it, what kind of shape can be used, what are the track standards going to be, standards for aisle widths, layout height, and how will the operators fit in the layout space? What are the lighting requirements? How much staging should be included? Should the layout be expandable?

I would build it in modules that could be built and completed one at a time on my workbench and attached to the layout later. I would use a 1 x 3 frame, 1/4" plywood top, and 3/8" thick plywood sub roadbed, carved foam for scenery base, 2x2 legs with cross-bracing and adjustable carriage bolts in the bottom for height adjustment. Backdrops are 1/4" Masonite. This method has worked well for my existing layout. Some sections are nearly twenty years old and have gone through three moves without any harm.

The only staging to consider is at Waukon Junction. The Milwaukee Road from Marquette and Dubuque from the south and Minneapolis from the north. I have included all the stations and stops in this design. The only consideration for expansion would be to add distance between the stations. This would provide more area for scenery and increase the run time.

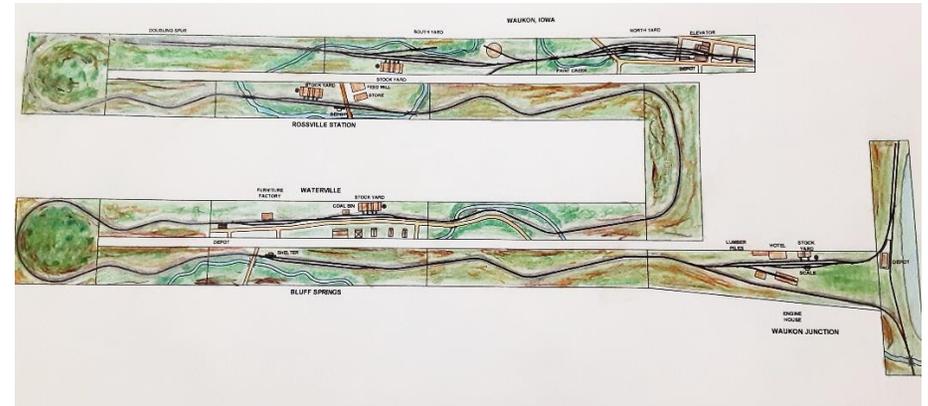
The track would be PECO code 55 with Unifrog turnouts. Structures would be scratch built. There are not a lot of structures on this layout. The 1920

Sanborn maps show more industries than I show in the sketches. I could not find more information about the businesses still in operation in 1954.

There are requirements for a lot of trees. This area is in the Yellow River Forest Preserve. The limestone bluffs will be 15" tall in N-scale. The elevation change from Waukon Junction to Waukon will be 7". The local grade at Cemetery Hill and the doubling spur just south of Waukon is 2.5%. These grades will be a challenge for the SW-1 switchers. I need a minimum of three-foot-wide aisles, four foot for multiple operators.

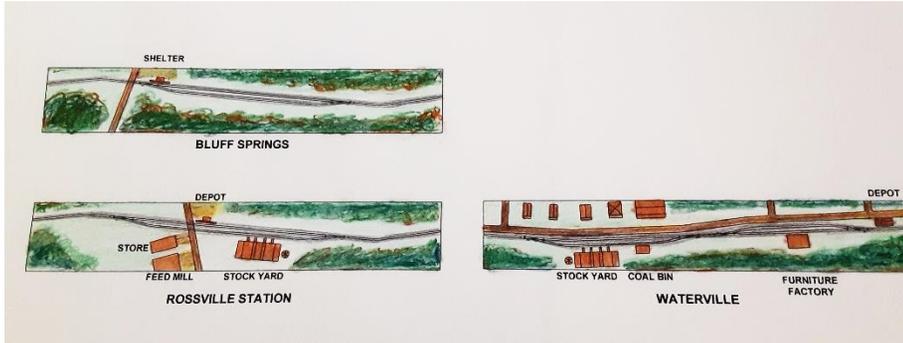
3. SKETCHING

The sketching phase begins with studying the track drawings shown in the book. Normally prototype track layouts are so large and complicated that they must be greatly simplified to model them. This is not the case with modelling this branch line in N-scale. The towns, whistle stops, and spurs can be modelled nearly to scale. A typical train with 36 ft to 40 ft freight cars in N-scale is only around 36 inches long. I used that as the basis for determining the minimum length of the spurs and yard tracks. Waukon could be modelled in 16 feet. Waukon Junction required a special shape due to the wye at the interchange with the Milwaukee Road. I wanted a minimum of 10 feet between towns and sidings. See the following sketch for one approach of this design.



The layout modules are 16" x 96", 16" x 48" and 36" square. The aisle is 36" wide for a single operator. The Mississippi River is on the lower right. The staging/fiddle track is attached to the bottom right edge. A train in South staging is coming from Marquette/Dubuque. A Waukon train moves west from the Junction to Bluff Springs, Waterville, Rossville Station, the doubling spur, and into Waukon. The following sketch shows Bluff Springs, Waterville, and Rossville Station.

I showed the turntable in Waukon even though it was taken out in 1952. I did this in case I wanted to back-date the Branch to steam times. Somehow the turntable was left in a partially rotated position where the "Armstrong" handles stuck out fouling the main, and a locomotive struck the handles causing much damage to the table bearings putting it out of commission. The railroad decided not to repair or replace the turntable. They chose instead to add a pilot to the rear of the tender. The steam engines now had to back down the branch from Waukon to Marquette until the diesels replaced them.



The following sketch shows Waukon.



4. FINAL DRAWING

The next phase, FINAL DRAWING, requires a drawing program, or drafting tools and paper. After spending many years of my career on a drafting board, I have the skill set to produce a detailed scale pencil and paper drawing of the layout. I also have an old version of AutoCAD LT. I have used it since the late 1990's when I bought it for all my layout design drawings. I have created a library of symbols/blocks that can be used over-and-over on new layout designs. I purchased each track component I planned on using and drew it to scale. Once I "blocked" it and placed in my symbol library it can be used in all drawings I choose to create. I strongly recommend investing in a drafting program. It makes producing the final drawing much easier. Making revisions is simple compared to a paper and pencil drawing.

In this phase, I start with the table structure. I put it on its own layer allowing me to turn it on or off (make it visible or invisible in the view screen). The

table design includes making a detailed drawing of each section complete with a list of materials to take to the lumber yard.

With the table design done, I start to layout the track design to scale. I determine the size and placement of the structures to include. As I said earlier, there were a few more industries than I show on my sketches.

5. OPERATIONS

In 1954 trains operated Monday, Wednesday and Friday. Daily operations would begin with a mixed train arriving from Marquette, IA at 6:35 AM on the South Staging/fiddle track (passenger train service ended in 1950). A combine was tacked on the end of the train. It was a forty-footer that seated twenty passengers, mail, and LCL freight. The train would pull onto the South wye track to clear the Milwaukee main, and then back into Waukon Junction, dropping the combine at the depot. The engine then picked up and dropped any freight (lumber, cattle, general merchandise) at the junction. Then the engineer put the train together and started the climb to Waukon. The first stop was Bluff Springs. In the days of steam there was water tank for engines to take on water. The siding was used as a team track. A saw mill a short distance away shipped car loads of ties, lumber, posts, and wagon materials. There was a small shelter for passengers. LCL freight was off-loaded into wagons along the spur.

The next stop up the grade was Waterville. Waterville had a stockyard, grain elevator and coal bins, a furniture factory, creamery, depot and freight depot. The creamery receives refrigerated cars to load. They are pre-iced from the icing platform in Marquette. They have to be loaded at the creamery in the time it takes for the train to travel to Waukon, do all its work and return in the afternoon. The fall and winter are the busy shipping times for cattle and grain. The furniture factory is one car per week. The coal deliveries are primarily fall and winter deliveries. Once the picks and setouts are complete, the train is off to Rossville Station.

At Rossville station there is a passenger stop, stock yard, general merchandise for the store, bagged feed for the feed mill, coal for the coal bins, and general merchandise for the team track. From here to Waukon the grade becomes steeper. Depending on the train tonnage, it may be necessary to double the hill at the doubling track spur. When that is the case, the engineer leaves half the train on the spur, and takes the rest into Waukon. He will bring the locomotive back to pull the remaining cars up to Waukon.

Waukon consists of the North yard, and the South yard. In the North yard are two grain elevators, a stock yard, two lumber yards, Interstate Power Plant, coal bins, Oakleaf Creamery, and the depot. The South yard has a large stock yard, the turntable (it was removed when it was damaged and the branch abandoned the use of all steam engines), Waukon Milling, an elevator, and a siding for a team track. The former track to the iron mine. All that is left of it is a short siding for off-spot cars.

The refrigerator car must be set out first at the Creamery. It was iced in Marquette. It will be picked up last, just before the train leaves for Marquette. Then the loaded cars are picked up and the remaining cars in the train are set out. The last work to be done in Waukon is to pick up the refrigerator car from the creamery.

One interesting fact I learned from the book was that the Milwaukee Road on occasion ran two cabooses on the Waukon Branch to ease the conductor's job in way freight operations. One at the end of the train, and one right behind the locomotive.

This is a great railroad to model. It offers so many interesting features and eras to choose from.

Making a Silk Purse

Part Three: The Rods, Cylinders and Such

By Ken Mosny

Most MDC diecast kits and locomotives have not been made for many years. Ones that you see for sale are probably 40-60 years old by now. Some diecast zinc has a reputation for swelling, cracking, and crumbling away as it ages. This is because the metal was originally of poor quality having contaminates. The good news is that the bad ones have by now probably crumbled away. Old Japanese imports, Mantua/Tyco and Varney products are well known to have this problem. There is no way to restore deteriorated diecast metal. It is junk, period. I have never seen MDC products have deterioration problems, a testament to their quality control, but it doesn't mean that they don't exist. Inspect any locomotive you may buy carefully. A small crack or a little distortion can be the start of deterioration, and it is a cancer that only gets worse.

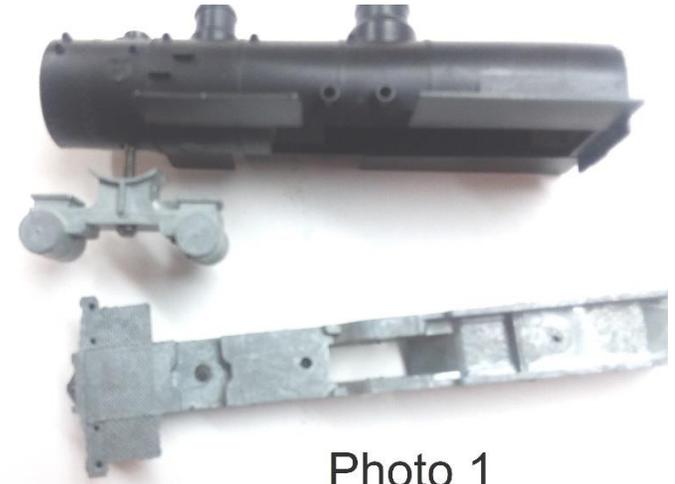
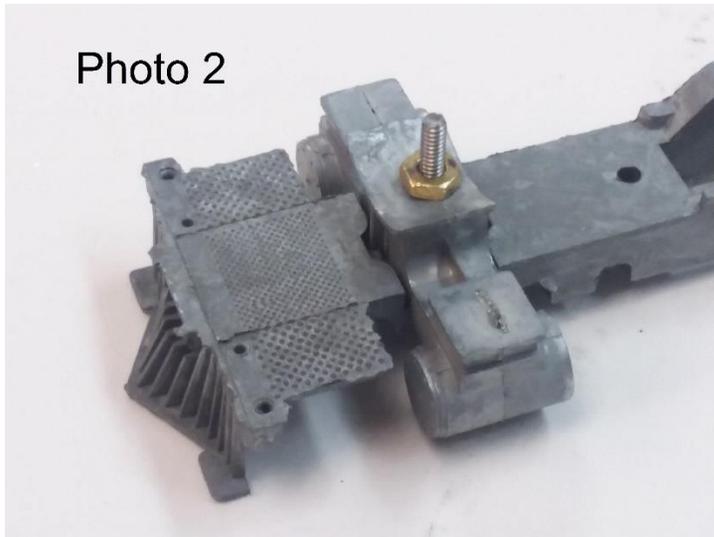


Photo 1

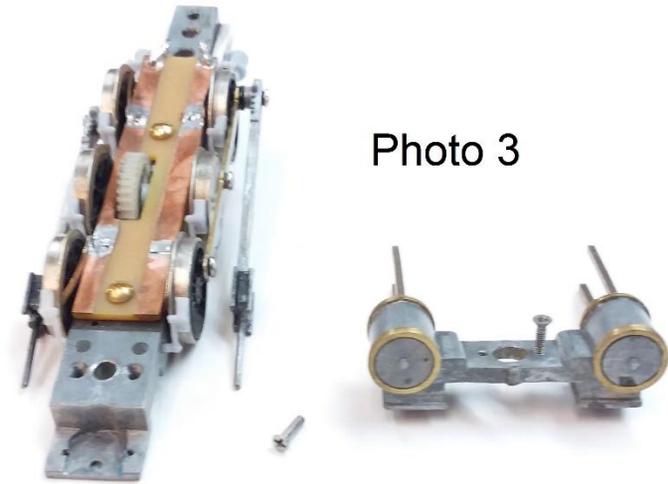
Now that the drivers on the 0-6-0 are done, it is time to work on the rest of the mechanism. This installment will cover the side rods, main rods, alligator guides and cylinders. Steam locomotive models have lots of moving parts which, if they don't move correctly, will cause binding. I have seen many models set aside, even discarded, because of mechanism problems. One of the advantages of the modeling the 1903 era is that the Stevenson type valve gear common at the time has few visible parts and is rarely modeled working, in HO at least. As a matter of fact, there is only one commercial HO model that I know of that has a working Stevenson valve gear, and it is a rather crude model made in the early 1950's. So, you need only model the visible parts of the valve gear statically with the rods and pistons the only moving parts.

The cylinder block of the MDC 0-6-0 is not attached to the frame. It is simply held in place by a long 2-56 screw passing up from the bottom through clearance holes in the frame and saddle on its way to a tapped hole in the boiler, photo 1. This is common for diecast models. The method uses minimal parts, is low cost, but leaves the cylinder block loose when the boiler is off. I always screw the diecast cylinder block to the frame by tapping it for 0-80 screws and drilling clearance holes in the frame. If your 0-6-0 has a plastic, rather than a diecast block, I suggest #0 sheet metal screws (Kaydee 402 or 403 can be used) as less likely to strip. By screwing the block to the frame, it is locked in position when the boiler is removed for testing the mechanism. You could simply thread a nut on the boiler screw to hold the cylinder block in place with the boiler removed. However, there is quite a bit of free play in positioning the block on the frame making its position not

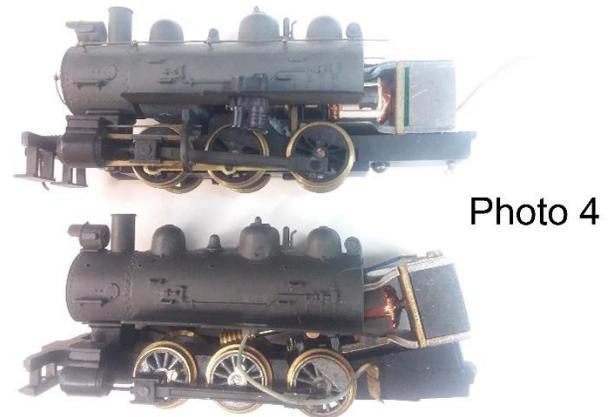
repeatable. Flat head screws and close fit clearance holes make its position very repeatable. Here is an easy way to make sure all the holes and taps line up without doing a lot of careful measuring. Fasten the block and frame tightly together with a screw and nut as in **Photo 2**.



Center punch the two screw holes in the bottom of the frame. Using an 0-80 tap drill (#56 or 3/64") and drill press, drill two holes into the frame and cylinder block as deep as you can without breaking out the far side. Do not try this by hand. This is deep hole drilling so drill a little, withdraw the drill out of the hole to clear the chips, put a drop of oil in the hole, and drill some more. For the plastic block, use the drill press to drill the diecast frame and finish the hole in the plastic by hand with a pin vise. Now, take the pieces apart, enlarge the frame holes only with a 0.062" bit for an 0-80 clearance hole and countersink for a flat head screw if desired. The holes in the frame and cylinder block will now be perfectly aligned. Tap a diecast cylinder block with an 0-80 tap. Make sure that you lubricate the tap with oil as diecast zinc can jam and break miniature taps easily. When tapping turn it only one quarter to one half turn before reversing to break the chips and withdraw the tap every few turns to clean the chips and oil the tap. The result is shown in **Photo 3**.

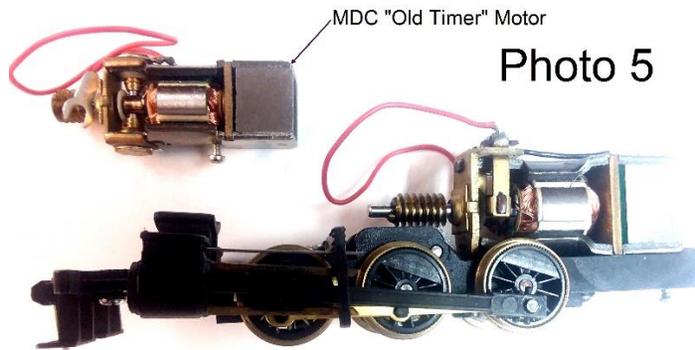


If you are going to alter the boiler saddle to lower the boiler, now is the time to do it. The boiler on this MDC 0-6-0 locomotive is very high, ungainly so. This is necessary to fit two of the large open frame motors MDC used as shown in **Photo 4**.



There are many modern smaller motors that can be used which have better performance, lower stall current and are more decoder friendly. This locomotive is small so most any size motor 12mm or so will be fine. A flat

can motor is good choice and there is a seller on eBay, cv-backshop, that makes a conversion kit for this locomotive. A motor from MDC 2-6-0 or 2-8-0 "old timer" with the reduction gear will do the job and already has the correct worm gear fitted to the motor, **Photo 5**.



If you chose to adapt your own motor, you will likely need a sleeve to match the worm gear hole to your motor shaft diameter. I routinely make these sleeves on my lathe. NWSL makes these sleeves in various sizes, also.

I lowered the boiler 0.100", almost 9 scale inches, to more closely match the height shown in drawings for this type of locomotive by using a 12mm diameter coreless motor. I milled off the boiler saddle and 3d printed a new one with better bolt details. **Photo 6** shows the height difference.

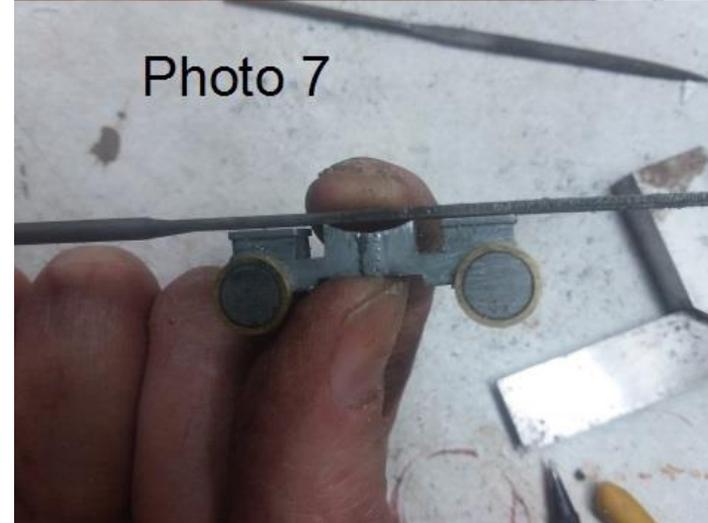
Photo 6



With a bit of work, you can rework the boiler saddle on the steam chest to lower the boiler. File off the saddle plate with a half round mill file that has a radius close to the radius of the boiler. Keep filing until the saddle is the desired height. It is easy to file this shape crooked. Go carefully keeping the file centered and square with the work, **Photo 7**.



Photo 7



If the radius of the file cut is not to your liking, just finish the cut with sandpaper wrapped around a stick or rod of the correct size. Then cut and bend a piece of brass plate for the new saddle plate. I bend thick plate like this by tapping it on a rod with a small hammer, **Photo 8**.



You can soften half hard brass plate to make it easier to bend by heating it to red heat with a propane torch and allowing it to cool of its own accord. Use CA to glue the plate on and flow more CA to fill any gap as needed. Some of the later steam chest castings MDC made from plastic would be much easier to rework. I would cut off the plastic boiler saddle at the base, shortened it and glue it back on. I have not tried it, but it looks like the steam chest casting from an MDC 2-6-0 or 2-8-0 "old timer" will fit and lower the boiler about 0.063" without changes.

The alligator guides need to be smooth and polished. Hone the sides of square brass guides on a fine Arkansas stone to polish them. I press them into the square holes after I nickel plate the guides. I make sure they are straight, and the alligators slide freely. Then I lock the guides in place with a little water thin CA applied to the joint. The guides as supplied are too long and should not extend past the back of the guide yoke. Now is the time to shorten them.

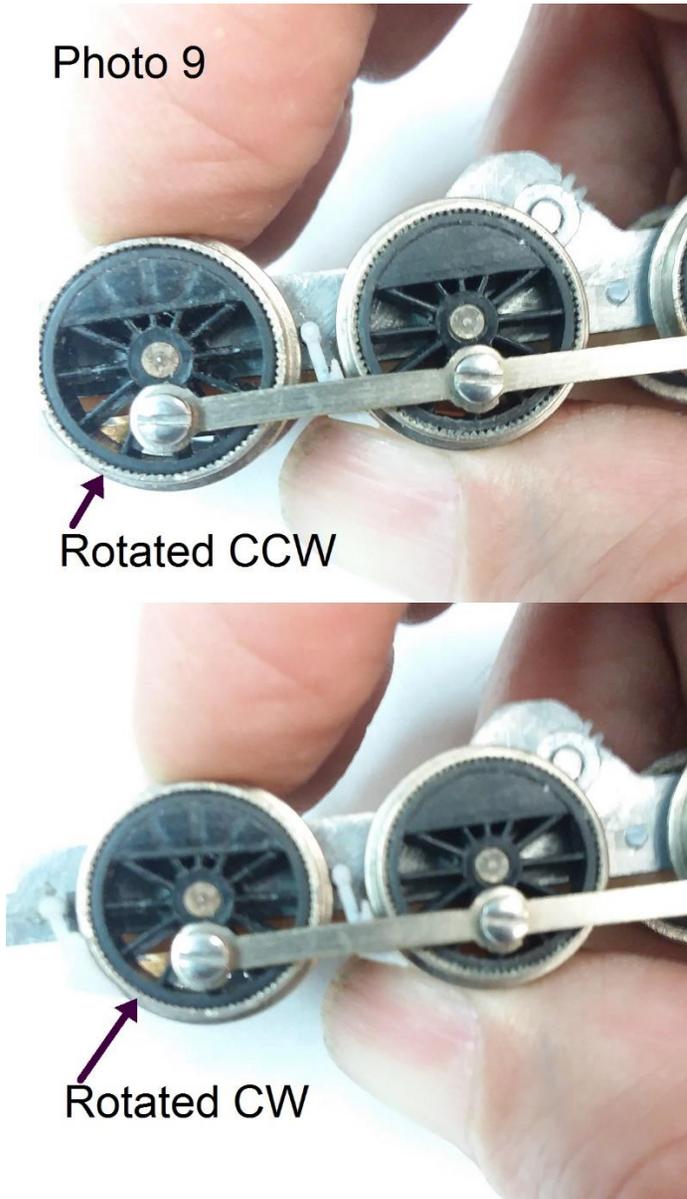
On to checking the side rods. It is important that the side rod hole spacing be exactly the same as the axle hole spacing, that they are straight and flat, and that all the holes in the side rods are the same diameter. Check the flatness and straightness on a flat surface. You can gauge the side rod hole sizes easily with a drill bit. Find a drill which just passes thru the holes in the side rod. Numbered and fractional bits in this size range differ by only a few thousandths of an inch so you should be able to find a size to use as a gauge. Using the smooth shank of the drill, not the twist end to avoid cutting, try the bit in all of the holes to see if the fit is the same and the holes are round. If you have a NOS kit or unmolested locomotive, it is unlikely there will be any perceptible difference in the sizes of the holes. Someone,

however, may have enlarged a hole or filed one oval in a used locomotive to try to correct a "problem". Bad idea. An out of quarter driver is a likely cause of the "problem" and this is a tip off to inspect the driver quartering closely with a jig if you have one. A bad hole should be noted but is difficult to fix if it causes the mechanism to not run smoothly. You can shrink a hole a little on a flat brass rod of an MDC locomotive by tapping the rod at the hole on a steel plate with a small hammer. Your only recourse to correcting a bad hole may be carefully enlarge the hole and solder in a sleeve.

Deburr the side rods with a few passes of a single cut mill file and polish using 320 wet or dry sandpaper lubricated with penetrating oil. I then lightly chamfer the holes with a countersink by twirling the tool in my fingers. Some people use a drill to do this, but I don't like the way the high cutting angle on a standard drill causes the drill to grab. Countersinks have a lower cutting angle and won't grab or chatter. Select a drill bit which closely fits the holes and burnish the holes by inserting and rubbing the inside of the holes with the smooth shank of a drill. You can finish up the rods by nickel plating them to represent bare steel if you want. It is also possible to iron plate brass to look like steel, but I have not tried this yet.

A side rod with an incorrect hole spacing would be rare unless it is the made wrong, the wrong rod or the holes have been altered in some way. Accurate inspection of the spacing is done by measuring the hole spacing with calipers, but a quick check can be done by eye. I find this is usually good enough unless a problem arises later. Assemble the rods and drivers in the frame. Hold one driver with the crank pin vertical. With your fingers, rotate the adjacent driver back and forth as far as the clearance in the rod holes allows **Photo 9**.

Photo 9



Observe whether the rotation is the same either way from vertical. Your eye can be quite good at seeing small angular errors. A sheet brass rod which is too short can be lengthened. I did this once on a 4-4-0 when the rod was shortened by bending for a modification. To lengthen the rod, I thinned the rod slightly by hammering the back with a small hammer against a steel block. Flattening the metal lengthened the rod a small amount and widened

it. I then filed the edges to restore the width. There are, of course, limits to how much a rod can be stretched. In my case, the rod was about 0.010" too short.

There is not much to do with the main rods. Make sure that they pivot freely on the crankpin bosses, the rod to alligator staked joint is free and it slides freely on the guides. On used locomotives, the rod to alligator or crosshead pivot made be poorly staked, loose, or binding. I don't try to fix a poor stake. It doesn't usually work well. I cut the pin off and tap the alligator for a small screw using blue Loctite on the screw, or it will come loose. I also chamfer and burnish the crank pin holes like on the side rods. Polish the piston rods so they have as little drag as possible.

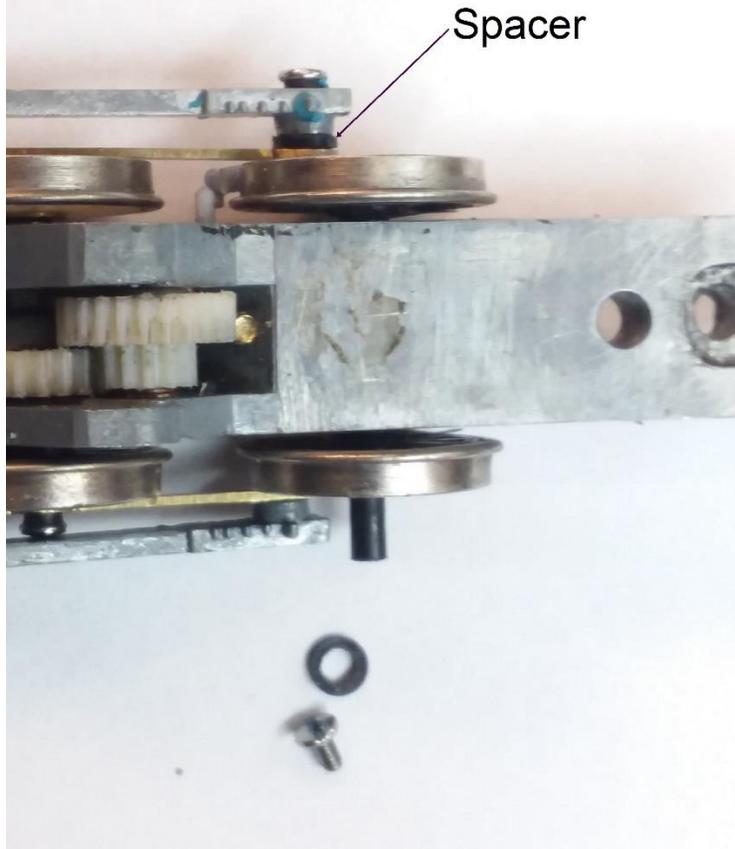
Having inspected all the pieces, it is time to assemble the mechanism to check the work. Make sure all the parts including the screws are clean and free of debris. I give the parts a rinse in mineral spirits and wash them in hot water and 409 cleaner while scrubbing with an old toothbrush. When they are dry, assemble the drivers and cover plate oiling the axles lightly. Rotate while pushing the drivers axially making sure they are absolutely free in all positions. Roll the chassis on a piece of straight, level track while pressing down firmly to burnish the axles and slots a little. If the drivers don't turn freely, check for debris in the axle slots. You may have to polish the axles more or carefully file the slots in the frame. MDC frames have very good frame slots and I have only had to remove flash, not file the width. When you are satisfied with the driver rotation, mount the side rods with screws. Push the chassis without pressing down back and forth on the bench and a piece of straight track looking for any signs of binding. If all the parts checked out as previously discussed, the mechanism will work perfectly. With the chassis held upside down, rotate the drive axle gear slowly with your thumb while feeling carefully for any resistance or any "jumping" or "hitching" of the drivers. It should be absolutely smooth in any position of the rotation. My experience at this point that binding is caused by an out of quarter driver. Poke each driver one by one to see which one is tight. If you can help a driver a little by poking it, that driver is out of quarter. Other possibilities are a side rod hole spacing off, not likely, or too much play in the frame axle slot if it was filed. Too wide of an axle slot can be shimmed with brass shim stock.

Mount cylinder block and main rods. Unless the rods aren't sliding or pivoting freely, the only problem which could arise here is an interference with the side and main rods. Rotate the mechanism pushing all of the parts side to side observing for potential interference. One of the issues with the MDC 0-6-0 is that there is enough axial play on the main rod crank pivot that the main rod could strike the screw heads on the drivers. I fixed that with washer spacers shown in **Photo 10**.

What Are Friends For? Chapter 3

Gary D. Loiselle

Photo 10



Spacer

These were plastic washers of unknown origin from my parts bin, but you could make them from slices of tube or punch them from sheet styrene. Fortunately, the main rod crank bosses were long enough to accommodate the washers. Sometimes I have filed the side rod crank bosses on the drivers a little so they don't protrude as far, and you could also use hex head screws with the heads thinned using a lathe or just filing.

Next installment will be replacing the motor and looking at gearing. I will cover various motor options and how to mount them.

My wife is originally from Columbus, WI. Columbus is a small-town northeast of Madison. Her brother still operates a farm outside of Columbus. We have a tradition of having a family get together at "the farm" for the holidays. To get there, we take I-90 to Hwy 73, Hwy 73 through Deerfield, and Marshall. From Marshall we take Hwy 19 to Waterloo, WI. Waterloo is the home of the corporate headquarters of TREK Bicycles. Just before Waterloo, the highway goes under railroad tracks which brings me to the focus of this story. The tracks are part of the WSOR system, but someone has spray painted the letters T.S. on the side of the bridge. **(Photo G1)**



I suggest that at some time the tracks were part of the Tryangit Southern. **(Photo G2, & 3)**



model railroad of S.R. "Bob" Guinter. As an aside, the tracks go by a large facility which I have discovered belongs to Briess Industries. Briess is a major supplier of malting ingredients for the food and brewing industries. Rail service has got to be a must.

Bob Guinter was the paymaster for the RRVD for a record 15 years. His layout was the first that I've seen with tracks running through the bathroom in the layout room.

I have been able to come across several industries with a "Guinter" connection. I will describe mine first, Guinter Grain. **(Photo G4)**



Several years ago, the RRVD coordinated a junket to the south and east of Rockford. Someone knew of a grain trans loading facility somewhere in the area. Our high hopes of a major industrial find turned out to be a gravel parking lot next to the tracks with a grain auger as the only remnant of a grain loading facility. **(Photo G5).**

The Tryangit Southern is a subsidiary of the Southern Pacific Railroad (Black widow paint scheme) and more importantly the private road name of the



On my layout, Guinter Grain has made a modest improvement by adding a small office building and a company sign. My grain auger is “scratch built” using a length of salvaged sprue, an inverted Central Valley step ladder, and a pair of wheels and an axle from a dime store VW bus.

With the disassembly of Charlie Wickhorst’s layout, I have been fortunate to add a building “flat” to my layout that is lettered for GUINTER SCALE.

(Photo G6)



FYI, Bob was a mechanical engineer who worked at Counselor Scale Co. in Rockford. I believe when he retired, Bob was their chief engineer. My assumption may be reinforced through the fact that the first parking space on the south end of the Counselor building on Kishwaukee St. had the name plate “GUINTER”.

Bob’s engineering expertise was brought to a different application on Bob Supinger’s layout. **(Photo G7)** is *Guinter Robotics*.



The largest footprint of the 'Gunter industrial complex' that I have found so far is that of Gunter Gravel (**Photo G 8 & 9**)



Gunter Gravel is part of the CMBP (Chicago, Malady Bay and Pacific layout of Tom Maladecki. The *Malady Bay* for short.



I found my final Gunter connection for this chapter in some layout tour pictures taken at the Rockford layout of Bill Lorence (MMR#45). A multi-story factory is the home of "The Makers of ROBERTS RULES. (**Photo G10**)



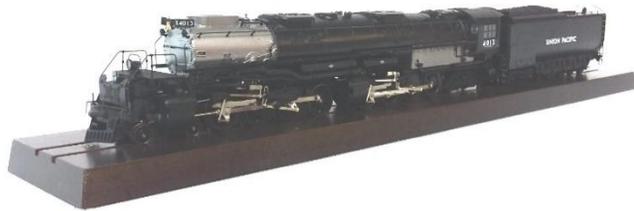
Bill's building flat was his way of recognizing and remembering Roberts.. Guinter..Reppert..and Ocain. What are Friends For?

Prototype Pictures By Myron Peterson

The stone building is the depot in Mineral Point, WI. It is now a museum. The depot was built for the Mineral Point Railroad, and later for the Milwaukee Road.



For Sale



You, too, can own an HO scale model of the iconic Union Pacific class 4000 4-8-8-4 "Big Boy" so named when a worker at the Alco factory chalked those enduring words across the smokebox front. Arguably the most powerful steam locomotive type in the world, they were originally built with one purpose in mind - to roam the Wasatch range with ease. This gently used Trix model of UP 4013 in its magnificent wooden presentation case is equipped with DCC and sound. It is ready to roam your HO railroad, too.

The sale of this locomotive is the result of the generosity of Steve Faivre and all proceeds of the sale go to the Rock River Valley Division. Contact Ken Mosny, uiop999@comcast.net or 815-566-0595.

\$550.00

(offers considered)

For Sale



Offered is a Lionel catalog number 6-18203 Canadian Pacific SD-40-2 diesel locomotive with dual motors, Magne-Traction, AC drive, lights, and horn. I believe it was first cataloged in 1989 and appears on the cover of that catalog. It appears to be in as new cosmetic condition, intact with instructions and original box. It has just been serviced with new lubricants and look only in test run condition.

All proceeds of the sale go to the Rock River Valley Division-NMRA. Contact Ken Mosny, uiop999@comcast.net or 815-566-0595

\$175.00

(offers considered)