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Supplies are going fast! This may be your last chance to order the 1989 Members-Only Series Car honoring Canada. See insert.

SEVEN NEW VIDEOS ADDED TO DEPOT!

We've added 7 new videos featuring prototypes of your favorite Märklin models traveling across Europe. See insert.

MÄRKLIN CLUB—North America

HOTTRAKS

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Volume 5 Number 3

HOTTRAKS is the official quarterly newsletter of the Märklin Club, P.O. Box 795, Elm Grove, WI 53122

Layout Showcase

Märklin Club Members Showcase Their Layouts!



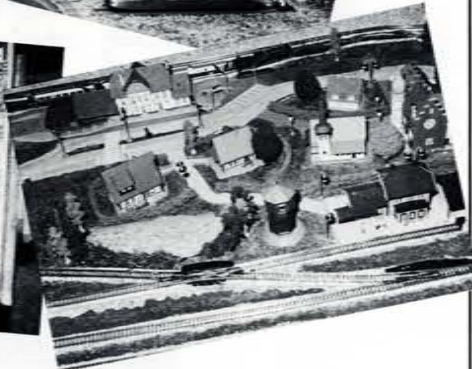
HO Table
Top Railway
Michael Festa,
Member #0182



Z-Gauge
Railway
Curt V.
Heinrich,
Member
#6550



HO 30" x 60" DOD/RR Layout
Chester H. Jordan, Member #7005



Märklin Z-Gauge Toporama Layout
Nat Taverna, Member #7119

Congratulations to Club members Michael Festa, Curt Heinrich, Nat Taverna, and Chester Jordan, for having their layouts selected as the first to be featured in our new Layout Showcase. For their contribution, all four will receive their choice of specially-selected Märklin gifts. For additional layout photos, as well as each member's perspective on his layout, turn to page 2.

Limited Edition Cars

The Spirits of France: An Imprinted Set Of Z-Gauge Cars Available Soon

By special arrangement with Märklin of France, Märklin, Inc. is proud to announce production of an exclusive limited edition set of three imprinted Z-gauge box cars — The Spirits of France. Car imprints will represent the actual logos from two famous French wineries and a renowned French cognac distiller.

Production will be limited to 1,000 sets, with 750 being offered in the United States and Canada. The set, #88125, has a suggested retail price of \$67.50. Sets will be available from authorized Märklin dealers only. Delivery is expected by the end of October. To reserve your set, see your dealer today.

Have Your Layout Featured In HotTraks! Details On Page 2.

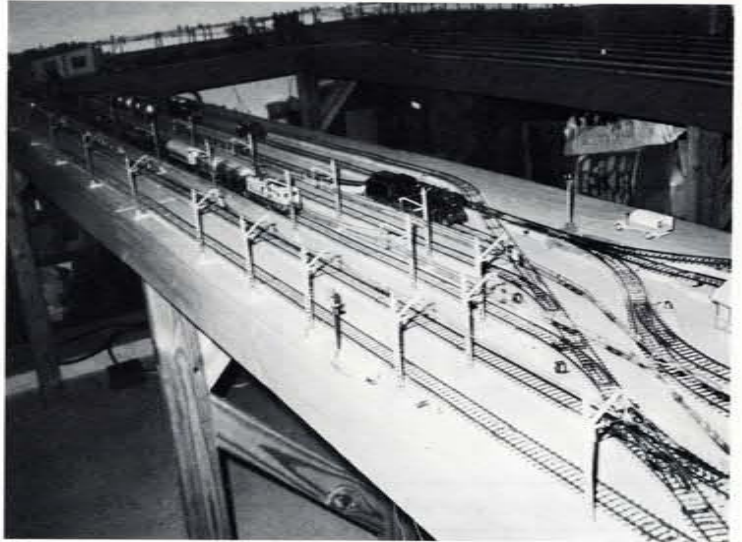
A Märklin Table-Top Railway

By MICHAEL FESTA
Member #0182
Austin, Texas

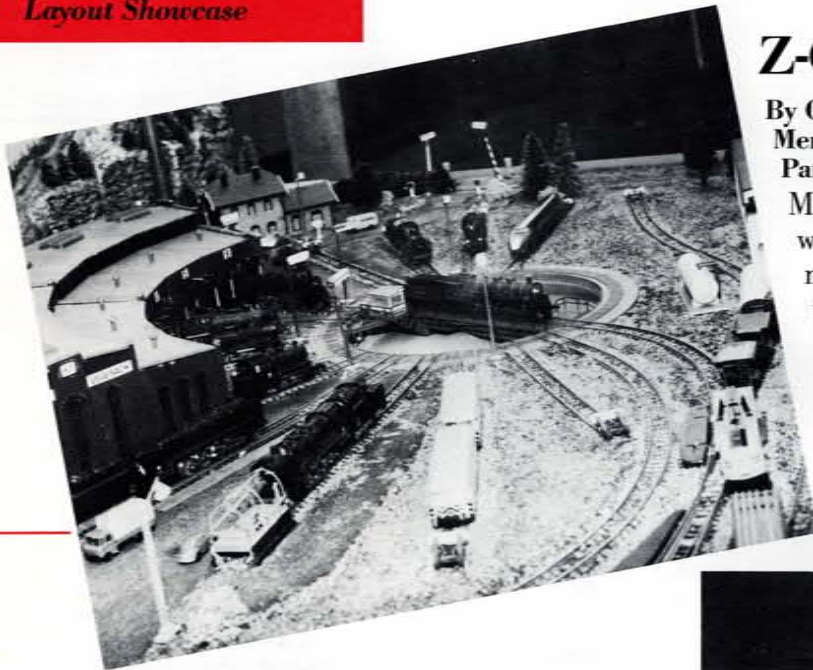
The inspiration for my layout comes from the early days of HO trains and the era before scenic items were available. Märklin unveiled this new gauge in 1935 and it took decades for other manufacturers to grasp its technology. Originally, the charm of Märklin HO (half "0" scale) was that an entire railway could be operated on a table-top—a tremendous innovation if you were living in a small apartment in Berlin!

As I paged through older Märklin catalogs, I became fascinated with the idea of a large, modern, table-top railway. Since collecting and operating Märklin trains is the most enjoyable part of the hobby for me,

I designed a plan where maximum space was devoted to operational possibilities. This type of layout is functional sooner and much easier to keep clean. With the exception of a few scattered buildings and vehicles for contrast, an amazingly realistic railroad atmosphere is created by the M-track and catenary system when used in such large quantities. In my mind, the realism of a Cono-Freight train made up of #4600 series wagons is interrupted as it passes a herd of plastic cows that never move!



Layout Showcase



Z-Gauge Layout

By CURT V. HEINRICH
Member #6550
Para Hills, Australia

My Z-gauge layout consists of both steam and diesel workshops (BW) covering an area of approximately 1 meter by .75 meters. There are provisions to integrate the layout with a bigger one in the future. The layout does not represent a specific era. The entire range of steam locomotives and diesel locomotives in the old DB colors are present. Hiding behind the backdrop is a staging yard with four tracks.

DOD/RR Layout In HO

By CHESTER H. JORDAN
Member #7005
Baton Rouge, Louisiana

It would be better to use a movie camera rather than a still camera to photograph my 30" x 60" DOD/RR because it is in a constant state of change. All development is on a 1/8" acrylic sheet (plexiglass) and can be removed and stored at any time. The only things affixed permanently to the base are the tracks, wires, and roadways.



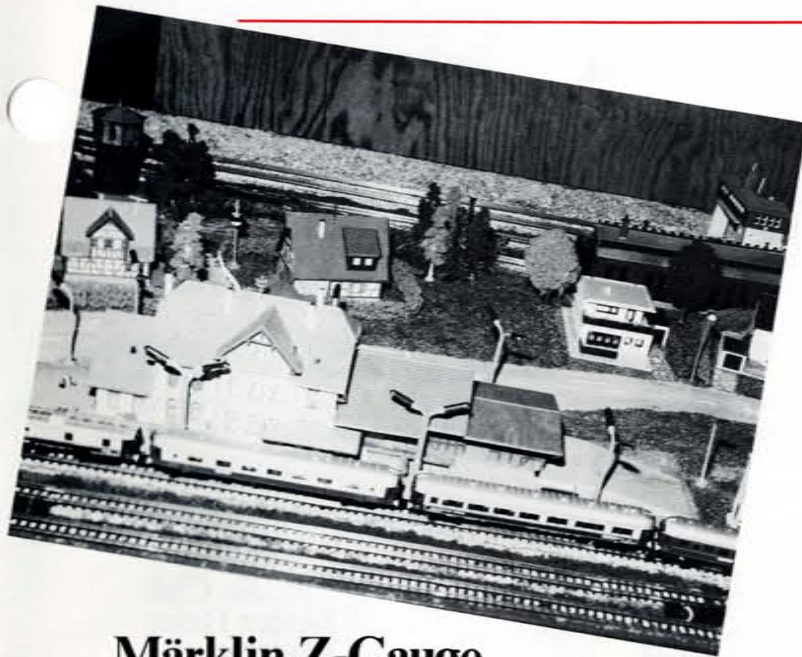
(Continued on Page 3)

(Continued from Page 2)

All wiring for lighting is with a flat tape conductor on top of the base.

My reasons for adopting this technique are many, but the principal one was the dearth of American equipment that may force me to Europe at some future date. The beauty of the thing is that I can change my mind with regard to eras, seasons, as well as continents without losing anything in the process. And I can always go back. The center of the model, now occupied by a paper plant, started life as an urban center, Uptown. A commuter village, Alicetown, with the train station on Grunt Square has pretty much stayed the same in the various reincarnations. The place now occupied by a Banana Port is reserved for a future turntable and roundhouse.

I have 15 turnouts and one double slip switch powered by a pair of Märklin and two other power packs that handle five engines on eight blocks. I have an #8807 Mikado, an #8860 F7, an #8862 F7, an #8805 tank locomotive (which I have converted to look like an American switcher), an #8802 for which I have made several suits of cloths, an EMD switcher and an F40-PH. I have also made a dummy A & B unit for my Santa Fe F7.



Märklin Z-Gauge Toporama Layout

By NAT TAVERNA
Member #7119
New Hyde Park, New York

My Z-gauge layout is a modified Märklin Toporama. I cut and rearranged the Toporama to fit a 2' x 4' board, which was mounted on four 3' legs. Instead of a special era, I decided to divide the layout into "new" and "old" sections.

As you can see from my photos, my overall plan

was to show how Z-gauge layouts can include a great amount of detail in limited space. I might also add that this is my first attempt at a layout of this kind. Now that I'm retired, I have the time to devote to my hobby, and find it very satisfying!

Showcase Your Layout In The Next Issue Of HotTraks!

Our new Layout Showcase is your chance to share your creativity and ingenuity with thousands of your fellow Märklin Club members in the United States, Canada, and elsewhere around the world!

Simply send us a **black and white** photograph of your layout, along with a brief description. In 100 words or less, tell what era your layout represents, which Märklin trains you run on it, and anything else of interest you would like to share.

We will publish at least one HO and one Z-gauge layout in future issues of HotTraks — more, as space permits. We have no set criteria for choosing which layouts will be published, although innovation, creativity, and authenticity (or fantasy) in design and technique will be considered.

Best of all, if your layout is featured, you'll receive your choice of the Märklin sport shirt, Märklin stein, or a 3-year extension of your Märklin Club membership!

Get going now! Send your black and white photos (feel free to send more than one) and layout description to:

HotTraks Layout Showcase
c/o The Märklin Club
P.O. Box 795
Elm Grove, WI 53122

Be sure to include you name, address, Club membership number, the name of your Märklin dealer, and your preference of gifts (if you choose the sport shirt, indicate size (Adult only, S, M, L, XL). The Märklin Club reserves the right to substitute gifts based on availability.

Trade Shows

Mark your calendar now for the Chicago Model & Hobby trade show, November 2-5, 1989, at the O'Hare Expo Center.

We'll be there with a display of many 1989 new items and current products, including the Digital System.

If you're able to attend, be sure to stop by our exhibit and say hi!

Fiddle Yards: Solving The Problem Of Storage

By RILEY O'CONNOR
Contributing Editor

Rare indeed is the individual who limits him or herself to owning one locomotive and a few cars. We all seem to fall to the siren call of "just one more locomotive." If you collect beer cars, you already know that there are many more cars than there is space on even the largest Z-gauge railroad. What to do with all the goodies? You are not alone.

Real railroads experience the problem of storage, too. For instance, in the Midwestern United States, grain harvests produce surges of freight traffic, which results in the need for large numbers of freight cars for relatively short periods of time. In earlier days, the railroads stored cars on every available siding to accommodate this peak demand. In the same manner, you can store excess equipment on sidings, too. Unfortunately, this results in a crowded look to the model railroad. There are other ways.

Real railroads have areas called yards to deal with the rolling stock. Yards not only serve as storage places for equipment, but also are centers for repairs and service. A major railroad yard has locomotive service facilities, freight car areas, and, sometimes, passenger car areas. A locomotive service area might use either the #8998 turntable or the #8994 transfer table, along with the necessary fueling facilities. Steam locomotives need coal and water, while diesels need fuel oil. Electric locomotives take their "fuel" from overhead catenary wires, but still need service. All locomotives need clean dry sand, which is applied to the rails when extra traction is needed.

A yard's main purpose is the storing and storage of freight cars and they usually are located near major sources of freight traffic. Typically, most yards have receiving tracks (where arriving freight trains leave their cars), storing tracks and departure tracks (where departing trains pick up their cars).

Big yards have lots of tracks devoted to each of these duties, while smaller yards may have only one track for sorting (called "switching")

and one track for temporary storage. Near major passenger stations, you may also find a passenger car yard, where such equipment is cleaned and serviced.

English model railroaders have given us the "fiddle yard," which is an easy way to add and remove excess equipment from the layout. The fiddle yard is one or two tracks located in a convenient corner where the model locomotives can bring cars. Designed with this "fiddling" in mind, there is ample clearance for your hands. Once a train arrives at the yard, you can pick up the equipment, place it in storage, and replace those cars with new ones. Another version of the fiddle yard is the "car ferry" or "car float."

In some cities, trains are ferried across open water. The car ferry is a self-propelled boat, while the car float is a barge moved about by a tugboat. On the model railroad, the car ferry acts like a fiddle yard, letting you to remove and introduce equipment in a realistic manner. Once off the railroad layout, you can store the excess cars in their original boxes on a shelf or in a drawer. Also, a variety of display cases are available which protect your collection from dust yet show each piece to advantage.

The German version of a "fiddle yard" is the "Schattenbahnhof," literally a yard in the "shadows." To gain more capacity for trains, it is very popular in German model railroading to construct a "through-yard" consisting of passing sidings where trains can be kept stored and brought out onto the layout. This yard is usually concealed under scenery, in a mountain, for example. A term used in American model railroading for this arrangement is a "staging yard."

Riley O'Connor is a Märklin Club member, #8846, who has published several articles on model railroading and is currently writing a comprehensive book on building layouts in Märklin Z-gauge. The book, scheduled to be published in early 1990, will be available from authorized Märklin dealers as well as through the Depot. Mr. O'Connor's columns appear regularly in HotTraks.

Club member Rolando Cordero, #8503, of San Jose, Costa Rica, recently submitted the following questions regarding Märklin Digital locomotives. Answers are provided by Ken Brzenk, service manager at Märklin, Inc.

Question: *Could you advise me if Märklin offers Digital locomotives with the new Five-Star Propulsion System? Is it possible to add the Five-Star System to a Digital locomotive? And could you please explain the advantages of operating a Digital locomotive with or without the Five-Star System?*

Answer: The Five-Star Propulsion System and Digital functions cannot be incorporated in the same locomotive.

The Five-Star System features allow you to preset your locomotive for a desired rate of acceleration and a top speed. Other advantages of the Five-Star System include the ability of the locomotive to maintain a constant speed going up and down grades, as well as a special feature which prevents wheel slippage and assures you of maximum traction. The 5-pole armature provides smooth operation at all speeds.

The Digital System features allow you to run the locomotive on a Digital layout that can be controlled with or without a personal computer. Built into Digital locomotives is a slight acceleration control feature. Incorporated into the totally electronic reversing and function module are features that let you control the lights, smoke, and telex coupling functions from your control panel.

At the present time, we do not know if Digital and the Five-Star functions will be incorporated into one decoder. However, if the factory does announce such plans, we will keep you informed.



Märklin Club Binder Helps Preserve HotTraks

The Depot is now offering a top quality 3-ring binder to help you save HotTraks for future reference. Each binder, which features a 2-color imprint of the official Club insignia, has a thickness of 1+," has a convenient inside pocket, is protected with a durable vinyl covering, and includes three nickel-plated rings. The spine has extra reinforcement for added durability. Club members price is \$5.00. #0037.

Continuity Tester

By KEITH GROVE

Member #8517

Wellington, New Zealand

Making your own continuity tester is fairly simple. It is merely a battery and electronic buzzer connected in series across the item to be tested. The buzzer will sound when a resistance of up to about 150 ohms is connected across the tester, so it will indicate continuity in low resistance circuits such as lamps, diodes, wiring, switches, etc., which are normally go/no/go devices.

If the buzzer sounds when connected across items such as locomotive motors, point motor coils, reverse units, or other devices which have some resistance, it indicates either: 1) the unit is sound; or 2) the unit is short-circuited. Typically, a device which has a short circuit will give other indications such as bringing up the overload light on the controller, or tripping the circuit breaker.

However, if the buzzer does not sound when checking these low resistance items, it, of course, indicates an open circuit.

Testing Diodes

Connected one way across the diode, your buzzer will sound; connected the other way, the buzzer should not sound. If your buzzer sounds when it is connected either way, it indicates that the diode has broken down and is short-circuited. If the buzzer does not sound in either position, it indicates that the diode has gone open circuit. In either case, the diode is useless.

Testing Circuitry As You Build

I model in Z-gauge and connect feeder wires to each rail of each piece of sectional track to ensure that good contact is made at all times and that continuity of current flow is not dependent upon rail joiners, which then serve the main purpose of aligning the various sections.

When the time comes to connect these short, light gauge feeder wires to the main supply lines, it is difficult to be absolutely certain that the right feeder wire is being connected, especially with the narrow spacing of Z-gauge rails.

This problem is overcome by connecting the continuity tester between the two rails.

As long as the feeder wire connections are being made to the correct supply line, the buzzer will remain silent, but as soon as a wrong connection is made, the buzzer will sound, indicating a short circuit.

The fault can be corrected immediately — instead of having to backtrack over several connections if the fault is not discovered until power is applied to the section.

Testing Circuitry On An Existing Layout

On an existing layout, connect the tester between one rail and the center stud on Märklin track (or between the two rails on Z-gauge track). With no locomotives or lighted coaches on the track, and no power connected

to the track, the sounding of the buzzer will indicate a short circuit in track or wiring.

Once again, by leaving the tester connected and removing connections one by one, it is possible to determine when the short circuit is removed as indicated by the cessation of the buzzing. Normally, the last connection removed would be the faulty one, but it would be prudent to replace them one by one just in case one of the first ones is also faulty.

There is no doubt many other uses which will spring to mind. Remember that the buzzer will operate with up to about 150 ohms in circuit and that any extraneous equipment should be disconnected or removed before tests are conducted.

Building A Continuity Tester

You will need the following materials:

- 1) Two AAA cells
- 2) One plastic 35mm film container with a lid (any container of similar size with a lid will work fine).
- 3) A 2" x 1/8" bolt with solder lug, washer, and nut
- 4) Wire
- 5) Small piece of cardboard
- 6) Something to cut cardboard
- 7) An electronic buzzer (available from most hardware and/or hobby shops)
- 8) One alligator clip

Follow these steps:

- 1) Cut the cardboard to fit the plastic container.
- 2) Cut a hole in the center of the cardboard the diameter of the bolt.
- 3) Cut a hole in the center of the plastic container, also the diameter of the bolt.

- 4) Insert the cardboard first, then the bolt. The cardboard will insulate the bolt from the cells.

- 5) Insert the electronic buzzer and the two AAA cells into the plastic container. The fit will be snug.

- 6) Make a probe by grinding the bolt (from the end of the thread) to a taper; tinning will help prevent oxidation.

- 7) Connect the negative lead from the buzzer to the solder lug on the bolt.

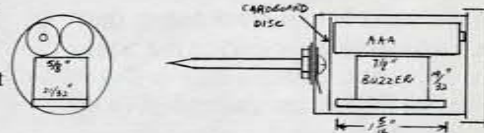
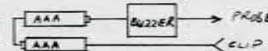
- 8) Connect the positive lead on the buzzer to the positive end of one cell (the negative end of this same cell should be connected to the positive end of the second cell).

- 9) Connect the negative end of the second cell to a lead of any desired length; I used 18 inches of black 7/.005 stranded wire.

- 10) Tie a knot near the cell so that when the wire is fed through a hole in the center of the container lid, the knot will prevent any strain on the connection to the battery. (NOTE: The two cells become a battery once they are connected together.)

- 11) Take the lid to the plastic container and make a hole in it for the wire (five or six more holes should be punched to make the buzzer more readily audible when the lid is fitted.)

- 12) Fit an alligator clip (I used one with a black plastic cover to indicate that it was the negative side of the device) to the free end of the wire.



As a matter of interest, the current drain on the model I built was 10 milliamperes with a 2.8 volt battery, so battery life should be very good — provided the device is not left connected for long periods of time. Normally, the buzzer is for 9 volt operations, but it does work well on the 2.8 volts supplied by two cells. Good luck!

Making Removable Loads For Z Flat Cars and Gondolas

By ROBERT J. KLUZ II

Member #1641

Sewickley, Pennsylvania

A pipe load for the #8610 flat car is a very easy and simple process that achieves a very realistic look both on the car and off. Looking for a simple item to make pipes from, I found a couple of old pens. The ink tubes were empty so it made my job easy. The tubes were 3mm in diameter.

I proceeded to cut the two tubes into five pieces which were 4.5cm long. This sits perfectly in the bed of the car. Using model glue, I glued three pieces together so they lay flat. Then I glued the other tubes on to the other three tubes so they lay in the creases. Let dry, then paint the entire unit silver.

I then dripped black paint into each end of the tubes to create the illusion of shadow and depth. Finally, using Indian ink, I put a thin

line of ink between where each pipe is touching each other. The ink creates a nice shadow that highlights each pipe.

Making A Removable Coal Ballast For Z Gondolas

A removable coal/ballast load for the #8650 Gondola is also easy to make. First, cut a small piece of wood 5.5cm long, 1cm wide, and 2mm thick. Then glue a piece of scrap wood about 5mm thick to the underside of the middle of the piece of wood. This scrap piece will raise the load, once it is placed in the gondola. Let the glue dry. I will explain how I did a coal load from here, but for a ballast load, just put a large amount of glue on the flat side of the wood strip. I did not have premade coal, so I used a brown ballast. Place large amounts on the glue, let dry, then, if desired, add more.

Once dry, place in the car to check to see if any ballast inhibits placement in the car. If so, remove any restricting parts. Then, paint the load with thick acrylic paint. Press the paint into the ballast; don't worry about neatness because the paint will help create the illusion of a coal load. Make sure you paint the side of the wood black so when you place it in the car, the natural color of the wood or ballast cannot be seen. For the final touch, coat the entire coal load with Indian ink. This creates a slight glimmer and shine of real coal.

You can adapt this procedure to any of the gondolas offered by Märklin. Details like these add realism to your layout and cars. They bring your cars a useful purpose as seen on the prototype but without the worry of ruining the cars. Have fun!

Building A Model Steam Locomotive Service Facility

An Idea For A Layout In A Small Space

By CARL WEAVER
Contributing Editor

Did you ever want a small, highly-detailed layout with lots of action? Well, here is an idea for those of you who think that you cannot have a layout because space is a problem. A model steam locomotive service facility has lots of track, intricate switching, many scenic details, a variety of buildings, plenty of locomotives, color, and an operating challenge...and all in a few square feet of space.

What Action Takes Place In A Steam Locomotive Service Facility?

Nearly everyone knows that steam locomotives need coal and plenty of water. But, did you know that they also need sand, they need their ashes cleaned out, their steam pipes cleaned, they need to be lubricated frequently, and they need assistance in turning around?

To start with, every service facility has a water tower. In Germany, these are ornate and colorful structures that provide water to numerous spouts that are installed in pairs next to the tracks. The ends of the spouts swing so that water can be put into the tenders or in the large tanks over the wheels on the sides of locomotives without tenders.

Service facilities also include sanding towers to fill the sand dome on the top of the locomotive boiler. Sand is trickled down through pipes in front of the driving wheels for traction in wet weather, on steep grades, and when starting with a heavy load. Sanding towers are fed by dry sand that is pumped from a nearby storage bin.

Steam locomotive servicing also includes an ash pit so that fireboxes can be conveniently cleaned. This is a hard item to model because of Märklin's third rail, so you may want to create only the sides of a pit or leave this detail out.

The Roundhouse

A prominent feature of the service yard is the turntable and its accompanying roundhouse. Tender locomotives usually have asymmetrical wheel arrangements which restrict them to running at high speed in only one direction. So, after they are serviced, they are turned around by the turntable and backed into the roundhouse ready for the next trip. Tank locomotives, on the other hand, have symmetrical

wheel arrangements and run equally well in either direction. Nevertheless, they too are turned around and backed into the roundhouse.

Under the cover of the roundhouse, preventative maintenance is performed and the locomotive, which is susceptible to rust when it is cold, is protected from the elements. Major repairs are normally made in a special building, which can also be an item on your layout.

The Coaling Station

Another prominent feature is the coaling station. In large facilities, coal is fed to the locomotive by a special crane that travels along its own track and straddles a pair of yard tracks. The crane picks up coal from a nearby bunker, turns, and feeds its own hopper. Locomotives are maneuvered so that the tender is under the hopper to receive coal. It is interesting to note that most of the space in a locomotive tender is taken up by water; only about 25% of the space is used for coal.

How Is A Steam Service Facility Arranged?

The accompanying drawing and photograph will help you to visualize the features of a typical steam locomotive service facility. First, note that there are service tracks to the coal (1) and sand bunkers (2). Small switcher locomotives (sometimes diesels) push full sand and coal cars to the bunkers for unloading. The switcher then removes the cars to be refilled.

Next, notice that there is an exit track (3) for fully-serviced locomotives to leave the facility without going through the maze of equipment. If something is wrong, it is usually discovered during servicing. This is why the repair building (4) is between the service area and the roundhouse area. They are not shown in the drawing, but often there is extra track for locomotives waiting for maintenance. In larger yards, there are even extra tracks for old locomotives waiting to be scrapped.

Ash pits (5) are first in the line of services. An ash removal truck (6) can usually be found next to the ash pit. A switcher maneuvers the ash cars. Next down the service line is the coaling crane (7), followed by the sanding

tower (8), and the water spouts (9). The turntable (10) is at the end of the line and the roundhouse (11) stands nearby. Often there are a few open-air parking tracks, but in most cases the roundhouses are large and cover most of the track radiating from the turntable. Other features shown in the illustration are a water tower (12), sand bunker (13), sand pump house (14), and coal bunker (15).

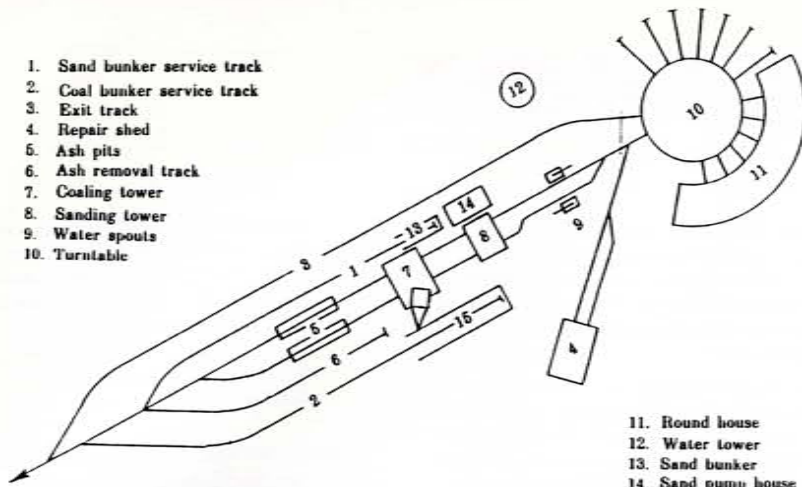
Layout Building Tips For Modeling A Service Facility

Here are some ideas for your model: **Start By Drawing A Plan.** Use the track measurements shown in the track section of the Märklin catalog to assist you in your planning. Also consider using a Märklin Track Planning Stencil (#0209 for M-track, #0210 for K-track, and #0212 for Z-track) for detailed planning. Think carefully before you decide on K- or M-track. If you are adding a service facility to an existing layout, then the decision has already been made. If you are just starting out, go for the #2200 series stainless steel K-track which does not rust. Be sure during planning to carefully consider how you want to wire your layout.

Building A Base. Start with a plywood base. Glue sheet cork or Homasote (a gray colored pressboard that comes in 4' x 8' sheets, half-inch thick and is sold in most all lumber yards). Paint the Homasote with flat black or very dark brown latex paint diluted with water. Lay the track directly on the Homasote and do not super-elevate with cork roadbed. If you are not using Digital control, be sure to electrically isolate each section of the track where you want a locomotive to sit while you run another. Control power to these sections with #7210 control boxes or with toggle switches.

Finishing Structures. As you finish building your structures, spray each one of them with "Testor's" Dullcoat. This will give them a realistic, non-shiny surface. Next, place all your buildings and trackside structures on the layout so that you can locate the holes for the wires for interior lighting. (Techniques for assembling and lighting structures will be the subject of a later article). Fasten the structures to the layout with little dabs of glue.

1. Sand bunker service track
2. Coal bunker service track
3. Exit track
4. Repair shed
5. Ash pits
6. Ash removal track
7. Coaling tower
8. Sanding tower
9. Water spouts
10. Turntable



Typical Steam Locomotive Service Facility

11. Round house
12. Water tower
13. Sand bunker
14. Sand pump house
15. Coal bunker

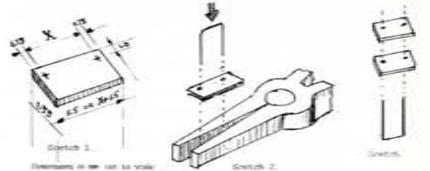
Z-Gauge Old Time Railbus

By LARRY DAMOKOSH

Member #1018

Burlington, Massachusetts

Recently, I finished a long-time pet project of mine, building an old-timer Z-gauge railbus. The process required 4 steps of open type construction. Below is the description of how I built them. I hope my fellow Club members can make use of it. The dimensions given can vary according to your own needs. However, the method of construction is the same.



You will need the following tools:

- 1) A pair of flat-nose jeweler's pliers
- 2) Exacto or similar hobby knife
- 3) 2 stubby but sharp pointed tweezers
- 4) #80 spiral drill in a proper (hand) chuck
- 5) 000 paint brush (a toothpick will also work).

You will also need the following materials:

- 1) Evergreen #103 B styrene strip (However a similar strip measuring .01 x .06, i.e. .25 x 1.55 mm (approx.) plastic strip will work fine)
- 2) Gauge 32 hard brass wire (you may need to tug, or yank, on the wire a couple of times to strengthen it).
- 3) Cyanoacrilate cement (crazy glue)
- 4) Your choice of paint or lacquer
- 5) Piece of old fishing line

Here are the steps to follow:

- 1) Cut several 5.5 mm long pieces from the plastic strip. To save time in the event of a mistake or misplaced parts, cut some extra pieces.
- 2) In each piece, drill two #80 holes as marked on Sketch 1.
- 3) Bend 25 mm long (brass) wire pieces to a square "U" shape. One for each step plus a couple for the gremlins should be made.
- 4) Take one of the plastic strips cut in Step 1, lay it over the pliers, insert the inverted U-shaped wire through the holes, press it flat and square, then cement it to the plastic piece. The pliers serve here as a squaring jig, as in Sketch 2.
- 5) After the cement is set, it usually takes only seconds, slip the second piece of plastic (rung) in its proper place and distance, then carefully cement around the two holes.
- 6) Use a piece of an old fishing line to transfer minuscule amounts of cyanoacrilate. Sketch 3 gives you the hole idea and depending on your need, you can continue to add more rungs or shape it in other ways using different dimensions.
- 7) Paint as desired.
- 8) Mount in pre-drilled #80 holes.

Making A Bonding Solution.

Make up a batch of bonding solution in a quart-sized spray bottle (buy one with a screen filter on the bottom of the pickup tube; I recommend using "Service Star" #2232-SS). For a bonding spray, mix 3 parts cold water, 1 part matte medium (a craft store item), and 8 drops of liquid detergent per quart. Shake thoroughly.

Applying The Bonding Solution.

Use a baby food jar with holes punched in the cap (punch out and not in) to sprinkle "Woodland Scenics" texture materials. I use Cinders, Fine (#B-76), Dark Brown, Fine (#B-71), and model coal. Cover your tracks with strips of paper. Wet the surface with the bonding solution. Sprinkle the texture material all over. Use more black than brown. If you want grass, sprinkle Green Blend (#T-49). Spray the entire surface with bonding solution when you are satisfied with its looks. The detergent will help to carry the solution deep into the texture as it dries, which will take overnight. Use model coal to fill the bunkers, coal cars, and coaling crane hopper. Spill a lot. The real facility does. Use "Woodland Scenics" Brown, Fine (#B-72) to fill the sand bunker and sand cars.

Finalizing The Details

Imperfections can be covered with shrubbery or detail items. Add lots of clutter to your layout such as barrels, lights, old wheel sets, oil drums, piles of junk, pieces of rail, stacks of new ties, piles of old ties, a few trees on the outskirts, a cobblestone road to a parking lot next to the roundhouse office, road signs, yard signs, telephone poles with brown thread as lines, a telephone booth, several bicycles, a few vehicles, people, a work crew, track repair equipment, switch heaters, a signal leading out of the facility fences, an oil tank, a small machine shop, a gantry crane near the

repair shed, a line of old locomotives, and on and on and on.

Selecting Equipment And Operating Your Layout

Choose a variety of steam locomotives, including some duplicates. One should be a switcher so that you can maneuver the coal, sand, and ash cars. If you are not using Digital control, it would be best to only use #3300 or #3500 series locomotives since they run very well at slow speeds and have flawless reversing mechanisms. Operate the locomotives very slowly.

Some Final Ideas

If you want more ideas, most Märklin catalogs have very detailed photographs of model service facilities. In addition, "Alba" Publications of Germany has a book on steam locomotive service facilities entitled "Bahnbetriebswerke auf der Modellbahn," which is available from a few dealers here in the States and by mail from most German hobby shops. Despite its German text, it has many photographs, illustrations, and track plans of actual facilities to stimulate your thinking during your layout planning.

Carl Weaver, #1019, is a charter member of the Märklin Club and the author of several articles and books on model railroading, including "Greenberg's Guide to Märklin HO," which is available from authorized Märklin dealers and the Märklin Depot for \$12.95 (#2622). Mr. Weaver's columns will appear regularly in HotTraks.

MÄRKLIN CLUB NOTE: Throughout this article, Carl Weaver mentions several specific product brands. While these products are fine, you should also know there are other product brands which provide the same quality results. If you have questions, check with your authorized Märklin dealer.

Answers To Your Questions

The following questions were submitted by members Ric Tanner, #0385, of Maumelle, Arkansas; Larry Damokosh, #1018, of Burlington, Massachusetts; John Surak, #5268, of Lake Forest, Illinois; and Timothy Eckert, #6478, of Granbury, Texas. For their contribution, each will receive their choice of a specially-selected gift from the Märklin Depot.

Question: *The beautiful DB electric locomotive class E03 (103) in TEE livery has been nicely modeled by Märklin with models #3053 and #3054 and recently by models #3354 and #3357. I have a #3053, which runs very slow and have been told that there were two versions of the #3053, the difference being in gear ratio. I believe I have the slower version. Is it possible to upgrade my #3053 to run at the faster speed?*

Answer: Our engineers inform us that there never were two different gear trains for the #3053. The top speed of locomotives—even of the same type—can vary quite a bit. It depends on the: 1) pressure of the brushes on the commutator; 2) mechanical resistance of the gear wheels; and 3) effectiveness of the armature.

To increase the speed of the locomotive, the following can be done: 1) change the brushes if they are worn down (part #60030); 2) clean the entire gear train and locomotive wheels (with ultrasonic bath, for example) and then carefully lubricate with Märklin oil; and 3) if the commutator shows extreme wear (grooves, for example), then it is recommended that a new armature (part #31745) should be installed. Your local authorized Märklin service center is best qualified to perform these repairs.

Question: *What is the difference between models #3354 and #3357?*

Answer: Basically, the differences between the #3354 and the #3357 reflect changes in the prototype class 103 electric. The skirting at the ends below the buffers and couplers was removed, the entire lower frame, including buffer housings, was painted red, pantographs were changed to a single arm model. The DB emblem at the ends was changed from black to red. On the model, the frame frame inside had been altered from the #3054 for the components making up the electronic reversing.

Question: *Many railroads in Europe, especially in Germany and Switzerland, are electrified. Does this create a problem with power failures bringing the trains to a halt? Also, do lightning storms interfere with train operations or the signaling system?*

Answer: 16,000 volts are used to carry the electrical energy over the catenary system with a minimal amount of power loss. Power outages are very rare, but the system is under constant surveillance and monitoring. Only when there is heavy frost are the electric locomotives run with both pantographs up to ensure proper contact. An extensive network of ground connections reduces interruptions due to weather to a minimum. On the contrary, the German Federal Railroad advertises that it is independent of the weather—in contrast to the automobile. On the Swiss Federal Railways, the principal threat from weather is avalanches in the winter. The SBB has an extensive monitoring and early warning network to keep this threat to a minimum.

Question: *Does Märklin in the near future intend to produce a DB Class E 191 or DR EG 589 in Z? It seems to me that with a little chopping of the existing frame of the #8856 "Crocodile" (presently in production) this unit would be an excellent candidate as a starting point of this new type.*

Answer: We certainly agree that these would be interesting locomotives. Thus far, the factory has not indicated any plans to offer these models. You can be sure that we will keep you fully informed if and when the factory announces production of these or any other new models.

Question: *Märklin used to make a number of items for the NEM 2-rail DC system under the name HAMO. Are there any plans to offer new models in 2-rail/DC? Also, are the Märklin DC wheel sets for coaches and wagons still available?*

Answer: Production of HAMO line models have been reduced considerably in recent years. However, some discontinued HAMO items are still available in limited quantities, including:

- #8307 SNCF CL 2-3-2T Locomotive
- #8310 DB CL 012 4-6-2 Locomotive
- #8312 K.W.ST. CL T5 Locomotive
- #8318 Berlin S-Bahn Train
- #8323 SBB CL Re 4/4 Electric Locomotive

- #8324 NS CL 1100 Electric Locomotive
- #8327 NS CL 1100 Electric Locomotive
- #8356 SBB Be 6/8 Electric Locomotive
- #8366 HAMO DB CL 152 Electronic Locomotive
- #8471 HAMO DB Ice Coach
- #8477 WHRG Beer Car
- #8485 K.W.ST.E. Boxcar

1989/90 New Items announced in the Special Export Catalog are:

- #8304 French "Micheline" Railbus
- #8309 Dutch PTT Postal Railcar
- #8321 French Class BB 15 000 Electric Locomotive

HAMO wheel sets for converting Märklin cars to 2-rail operation are available under the following stock numbers. The number of wheel sets per package and the current cars they can be used for are given after the catalog numbers.

- #7585 2-pack for cars: #4206-#4214; #4674; #4675; #4677-#4679; #4685; and #4780.
 - #7586 4-pack for cars: #4074; #4084; #4091-#4099; #4100-#4106; #4109; #4110; #4113-#4115; #4121-#4127; #4131-#4140; #4145-#4147; #4149-#4154; #4156-#4162; #4164-#4168; #4174-#4180; #4182-#4185; #4188; #4189; #4200-#4203; #4218-#4225; #4234; #4258-#4260; #4402-#4415; #4423; #4424; #4426; #4428-#4434; #4436; #4437; #4440-#4449; #4455; #4460; #4465; #4473-#4475; #4481; #4481; #4483; #4532; #4676; #4680; #4682; #4684; #4687-#4690; #4692-#4699; #4700; #4710; #4718; #4723; and #4781.
 - #7587 3-pack for cars: #4617; #4618; and #4671.
 - #7588 4-pack for cars: #4610; #4612; #4613; #4619; #4627; #4639; #4665; #4681; and #4761.
 - #7589 4-pack for cars: #4026; #4045; #4049; #4051-#4054; #4064; #4066-#4068; #4072; #4073; #4076; #4079; #4080; #4085; #4087; #4089; #4090; #4111; and #4112.
- These wheel sets can also be used on older items no longer in the catalog or for Special Export models where a match can be made between the original 3-rail wheel set used on that item and the 3-rail wheel set used for one of the cars listed above.

HOT TRAKS

Märklin Club, P.O. Box 795, Elm Grove WI 53122

The Märklin Club is dedicated solely to serving the special interests of the Märklin enthusiast. Our goal is to help you get the most from your Märklin trains and model railroading; we want to make a fun hobby fascinating... for you.

To do this, the Märklin Club publishes one of the most highly informative newsletters in model railroading, HotTraks. The newsletter is your direct line to all the latest product news and developments from the Märklin Factory in Göppingen, West Germany. HotTraks is also a valuable resource for articles and features on a broad range of model railroading subjects.

Membership in the Märklin Club is renewable annually for only \$10. Your satisfaction is guaranteed. If at any time, for any reason, the Club or HotTraks is not as fulfilling or exciting as we promise, tell us why in writing and we'll refund your dues for the remaining months in your membership term.



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