



GREAT NORTHERN RAILWAY
HISTORICAL SOCIETY
Founded 1973

REFERENCE SHEET M.P. 24

DATE: September 2003

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GNRHS MODELERS' PAGES No. 24

Modeling Editor: Duane Buck

GENERAL COMMENTS

1. With such a busy summer schedule, I'm "sandwiching" the Modelers' Pages (M/P's) in between events. Our journey to Illinois, in June, was enjoyable in spite of my being ill throughout. My health improved prior to and during our journey to Toronto for the NMRA National (International?) Convention. For those of you who may have decided to skip Toronto, you missed out on one of the best organized and enjoyable conventions we have attended. Once this set of M/P's is completed, we are off for California. We did miss not being able to see all of our friends in Havre, but we'll remedy that situation, in Spokane, next year.
2. Since I've not received any outside inputs for the Favorite Photo section, you will have to suffer through viewing my models once again. The featured model chosen was by request of a fellow GNRHS member. Hopefully, in the December M/P's we'll be able to feature someone else's work. It's up to you.
3. As many of you may know, the trade show, which was a part of the Toronto convention, was cancelled. This meant that there was no opportunity for me to go around and talk to the many manufacturers and importers as I usually do. However, there is much good news for the GN modeler as you will see in the comments below.
4. In June, I spent two enjoyable days at the Galesburg (Illinois) Railroad Days. For those of you who have not attended, or considered attending this event, you might want to do so. There were well over 300 vendors, so there were lots of "goodies" and bargains for the modeler and railfan. This is an annual event that occurs during the last weekend in June. Try it, you'll like it!
5. Much of the information on new products that you find in the M/P's can also be found on the internet. However, the internet does not provide the in-depth information found in the M/P's. The M/P's provide information with regard to prototypical accuracy for GN, series numbers, delivery dates and other comments on improving accuracy. Often, personal information received from manufacturer's representatives provides more insight and information about their intentions.

MODELING COMMENTS

1. Prior to our departure for Toronto, I received a phone call from Chuck Friedlein, of LIFE-LIKE fame. He informed me that L/L intends to produce a new GE U-28-B model. GN had six units in the 2524-2529 series delivered 6/66. This will be a welcomed replacement for the old "wide bodied" units produced by ATHEARN. Additionally, L/L intends to release a new run of E7A's. Unfortunately, there appears to be no intent to retool and correct the E7 nose contours. L/L is also thinking about a GP9 Ph I project. The Phase I's have never been done in plastic and would be a welcomed model, indeed. The GN Phase I's were included in the 656-680 series which were delivered 3-4-5/54, with 679 and 680 being boiler-equipped and having large fuel tanks and air reservoirs (torpedo tubes) on top of the hoods. If the decision is made to proceed with the Phase I project, we probably wouldn't see the models until late next year. Information for these models has been forwarded. All are HO scale models.
2. Other news from LIFE-LIKE indicates that they will be producing the P-2000 GN SD45's in the near future. The first GN releases will be #400 (HUSTLE MUSCLE) and #415 in the orange and green livery. The models will be of the "intermediate" phase or second SD 45 delivery to GN that included the 408-417 series (4/67). While #400 was an "early" phase version and this configuration and side number will not be totally accurate, this model should prove to be a fine one in view of the high quality P-2000 offerings of the

past. Info has been sent for these models, as well as that for a future "Big Sky Blue" release. These are HO scale models.

3. I've just received the LIFE-LIKE HO P-1000 sample ALCO RS-2 diesel models and they are stunning. Great paint and detail. They come in the now famous (infamous?) "as delivered" version. The only discrepancy is that they have the modern (E/B) lettering and numbers, instead of the RR Roman format. However, this is good, since it is compatible with adding details to make a more modern version. I'm sure that most of you who see these models will be as impressed as I am. We'll address detailing the RS-2's in a future column.
4. BRASS CAR SIDES is giving consideration to producing N scale sides for the Empire Builder 1250-1255 series of "Lake" dining cars. Fifteen reservations for these sides are required to bring this about. Reservations can be made by contacting BRASS CAR SIDES, 715 South 7th St., St. Peter, MN 56082-1435. Tel: (507) 931-2784. E-mail: dchenry@gac.edu
5. MIDWEST PRODUCTS (of basswood & balsawood fame) is going into competition with EVERGREEN and PLASTRUCT in the production of styrene sheets and shapes. The new line, called "Super Styrene", will feature over 200 items. Many of these items will be precision-extruded to give a more prototypical appearance.
6. INTERMOUNTAIN will be releasing their new HO FGE/WFE wood-sheathed reefers very soon. Their ad shows WFEX 49766 of the 49000-49999 series, built in 1921-22.
7. Brent Schmidt of BSE PRODUCTS, sent samples of his new products for review and comment. Like myself, I'm sure many of you have installed the various currently-available stainless steel grilles on HO F, A and B units with varying degrees of success. Brent's new products offer us an excellent alternative when it comes to installing grilles on the ATHEARN and STEWART F units. The grilles are made up of an acrylic-like material with the same luster as stainless steel. Using these grilles provides two distinct advantages. The first is the ease of installation. The grill has a sticky material on the back that is similar to that self-adhesive used on license plate tags. This allows rapid and accurate installation. The second is that, unlike stainless steel, there is no contraction or expansion to cause the warping. The material appears to be impervious to temperature changes. The grilles are available for ATHEARN (not GENESIS) and STEWART F A and B units. Additionally, BSE has made available the Northern Pacific lettering (prototype-stainless steel) found on NP passenger B units. For more information, check the entry in the New Products section below and/or contact BSE PRODUCTS, 106 Monroe St., Billings, MT 59101.
8. The "write in" campaign for the ATHEARN GENESIS HO F3's has been successful! In a conversation with Leo Munson, of ATHEARN, he indicates that the production schedule for 2003 is full and that the F3's should be produced in 2004. Thanks to all who wrote to ATHEARN for your efforts. We all benefit from your interest and action. For those of you who have not contacted ATHEARN expressing support for the F3 project, please do so. Some additional re-enforcement may help to move the schedule ahead. By the way, ATHEARN still has about 100 sets of GENESIS GN F7's. These units have a great paint job and run beautifully. If you haven't purchased any of these units, you might want to consider doing so.
9. Some of you may find the "At the Throttle" section of the July '03 issue of MODEL RAILROADER as interesting as I did. The article contains the results of a reader survey regarding the popularity of scales/gauges, eras, etc.. It should come as no surprise that almost 80% of model railroaders model in HO scale, and the post-war era (1946-1960) was the most popular. For other survey findings, please read this column.
10. For those of you who might be seeking back issue magazines or used books, try RAILPUB, 161 Gilmore Rd., Wrentham, MA 02093-1227. Phone calls (508) 397-1828 and e-mails: railpub@webstruct.com. You are welcome to check availability of or to reserve items. They have an extensive and constantly-changing inventory.

NEW PRODUCTS

ACCURAIL

HO 40' AAR Steel Box Cars, 3-pack, f/p GN, 2 vermilion/1 green.

Note: Not accurate for GN prototype. GN AAR style box cars were wood sheathed.

AMERICAN MODEL BUILDERS

HO #861 GN 25' Wood Sheathed Caboose, undec. kit.

Note: This caboose accurately represents the GN 25' caboose as modified by the modernization program of the 1940's. The caboose has the additional end and side windows included, along with the modifications to the cupola windows. Handrail bending jig, laser cut ladders and end panels are included. As with past AMB cabooses, the underbody detail is sparse and will require some additional effort and parts by the modeler.

ATHEARN

HO #91221 ACF 50' Combo Door Box Car, f/p GN blue.

Note: Same car mentioned in M/P No. 23.

ATLAS

O ALCO RS-1 Diesel Loco, f/p GN E/B w/ two road nos.

Note: Reasonably accurate for the GN 182-185 series, delivered 9/44. These models came with LIONEL TRAINMASTER Command and Railsounds in 2- and 3- rail versions. Two-rail DC is DCC ready. Features many separately-applied parts, including brake chains.

HO #7103 ALCO RS-1 Diesel Loco, f/p GN E/B, Road No. 182

HO #7104 ALCO RS-1 Diesel Loco, f/p GN E/B, Road No. 184

Note: Reasonably accurate for GN 182-185 series, delivered 9/44.

HO PULLMAN-STANDARD PS-2 Covered Hoppers, f/p GN w/ two new road nos.

N PULLMAN-STANDARD PS-2 Covered Hoppers, f/p GN

Note: Reasonably accurate for GN 71405-71504 series, blt 58.

N EMD SD9 Diesel Loco, f/p GN

Note: Scheduled for winter 2003 release. More info later.

BRASS CAR SIDES

N Sides for GN E/B 6-5-2 "Pass" Sleepers.

Note: These sides have been redesigned to fit AMERICAL LTD MODELS' core kits.

BROADWAY LIMITED

HO GN Class S-2 4-8-4 Steam Loco, f/p w/ two road nos. 2583 and 2588.

Note: These are the first announced brass locos from this firm. #2583 is the open cab version and #2588 is the vestibule cab version. Both will have sound units.

BSE PRODUCTS

HO #SAU-HR Grille for STEWART "A" F Unit

HO #SBU-HR Grille for STEWART "B" F Unit

HO #AAU-HR Grille for ATHEARN "A" F Unit

HO #AAU-HR Grille for ATHEARN "B" F Unit

HO #GL1 NP "B" F Unit Grille Lettering (NORTHERN PACIFIC)

Note: Please see comments in the Modeling Comments section, above. Grille sets run \$7.50 per set and \$7.95 for the NP Lettering set.

CHOOCH

HO Gondola Sugar Beet Load Castings.

Note: Mentioned because of GN's sugar beet business (primarily in North Dakota). These loads are designed for high side RED CABOOSE gondolas. Some of you may want to build up the sides of your R/C GN gondolas.

CLASSIC METAL WORKS

HO 1966 FORD Custom 4-Door automobile in two standard passenger car colors. Also comes in police and taxi versions.

HO 1950's INTERNATIONAL R-190 Refrigerator Van and Flat Bed Trucks.

Note: The release of new CMW HO vehicles is usually followed by a release of the same models in N scale.

GND (GUNTHER'S CAR CO.)

HO GN Passenger Depot

Note: A detailed resin kit that looks suspiciously like the old brick Wenatchee depot.

INTERMOUNTAIN

HO #45204 Cylindrical Covered Hoppers, f/p GN gray.

Note: Accuracy for GN prototype unknown at this time.

HO #46003 GN 12-Panel 40' Box Cars, f/p Blue w/ twelve new road nos.

LIFE-LIKE

HO #30706 ALCO RS-2 Diesel Loco, f/p GN E/B w/ Road No. 204

HO #30707 ALCO RS-2 Diesel Loco, f/p GN E/B w/ Road No. 207

Note: Accurate for the as-delivered GN 200-219 series. These units were delivered 6/7/8-47, 8/9-49 and 1-50. See Modeling Comments, above. Because of the modern lettering and numbers, I recommend that you do not drill out the provided dimples to install grabirons. These grabs were deleted with modernization. Many mods were made and will be covered by a future how-to Modeling Project article.

N EMD SW8 Diesel Switcher, f/p GN w/2 Rd. Nos. 98 & 99.

Note: Reasonably accurate for as delivered version in the GN 98 – 99 series delivered 6/8-51. Needs to have full handrails added.

MICRO-TRAINS

N #36466 50' Box Car w/Plug & Sliding Doors, f/p GN Blue

Note: Accuracy for GN prototype unknown at this time.

N #03-002 GE U-25-B Train Set, f/p GN

Note: Set includes a KATO U-25-B, three MICRO-TRAINS MOW and freight cars, caboose, a 22" x 52" oval of track and a MAGNE-MATIC uncoupler and railer ramp.

N #92170 ACF 2 Bay, Centerflow Covered Hopper, f/p GN Gray.

Note: Reasonably accurate for GN 173800-173999 series, blt 66. Comes with one road no., but good enough to buy more and change numbers.

MODEL DIE CASTING

HO #20401 AAR 40' Steel Box Car, f/p GN Orange & Green w/Youngstown door and new road no.

Note: Not accurate for GN prototype. GN did not have any steel AAR box cars.

MODEL POWER

N USRA 2-8-2 Light Mikado Steam Loco, f/p GN

Note: Not accurate for GN prototype. GN had USRA Heavy Mikes (class 0-3), not light Mikes.

ORIENTAL LIMITED

HO #2042 GN S-2 4-8-4 Steam Loco, f/p GN Glacier Park Scheme w/Open Cab & Road No. 2583.

HO #2043 GN S-2 4-8-4 Steam Loco, undec, Open Cab & Road No. 2583

HO #2044 GN S-2 4-8-4 Steam Loco, f/p Glacier Park Scheme w/Vestibule Cab and Road No. 2588.

HO #2045 GN S-2 4-8-4 Steam Loco, undec, Vestibule Cab & Road No. 2588.

Note: Accurate for GN prototypes (2575-2588 series, dlvr'd 2/3-30. Models built to specific side numbers as indicated. QUANTUM Sound available separately.

OVERLAND

N #2963.1 EMD E7A Diesel Loco, f/p GN

Note: Accurate for GN 510-512 series, dlvr'd 8/47.

HO #4256.1 INTERNATIONAL Steel Caboose, Std Cupola, GN X31-X40 series, f/p Red.

HO #4256.1 INTERNATIONAL Steel Caboose, Std. Cupola, GN Road Nos.X31 and X34, f/p Blue.

HO #4257.1 INTERNATIONAL Steel Caboose, Std. Cupola, GN X41-X50 series, f/p Red.

HO #4258.1 INTERNATIONAL Steel Caboose, Std Cupola, GN X66-X85 series, f/p Red.

HO #4259.1 INTERNATIONAL Steel Caboose, Std. Cupola, GN X86-X95 series, f/p Red.

Note: All units are accurate for GN prototypes and have interiors and interior lights.

RAILWAY CLASSICS

HO #GN40 GN 33' Truss Rod Wood Caboose, Pre 1926, X27-X70 series, f/p Red.

HO #GN40A GN 33' Truss Rod Wood Caboose, 1926-1939, X27-X70 series, f/p Red

HO #GN41 GN 33' Truss Rod Wood Caboose, Pre 1926, 90608-90668 series, f/p Red

HO #GN41A GN 33' Truss Rod Wood Caboose, 1926-1939, X72-X98 series, f/p Red

HO #GN42 GN 25' Truss Rod Wood Caboose, Pre 1926, 90335-90606, f/p Red.

HO #GN42A GN 25' Truss Rod Wood Caboose, 1926-1939, X100-X256 series, f/p Red.

HO #GN43 GN 25' Truss Rod Wood Caboose, pre 1926, 90110-90333 series, f/p Red

HO #GN43A GN 25' Truss Rod Wood Caboose, 1926-1939, X263-X328 series, f/p Red.

Note: All units are accurate for GN prototypes.

S HELPER SERVICES

S #01279 40' Wood Sheathed Refrigerator Car, f/p WFEX (GN).

S #10280 40' Wood Sheathed Refrigerator Car, f/p WFEX (GN).

Note: These reefers appear to be based on a PFE prototype, rather than WFEX. Walkways around ice hatches on model were not present on GN prototype.

STEWART

N BALDWIN VO-1000 Diesel Switcher, f/p GN E/B

Note: Reasonably accurate for GN 139-144 dlvr'd 8/44. We'll be covering the detailing of VO-1000 models in a future article.

NEW PRODUCTS FOLLOW-UP

ATHEARN

HO ATHEARN has requested a Glacier green paint chip for production of their 50' combo door box car. The chip has been provided.

ATLAS

N #44797 U-25-B PH 2b Diesel Loco, f/p GN Blue.

N #44798 U-25-B PH 2b Diesel Loco, f/p GN Blue.

Note: Both units have different Rd. Nos. and are DCC equipped.

N #44707 U-25-B PH 2b Diesel Loco, f/p GN Blue.

N #44708 U-25-B PH 2b Diesel Loco, f/p GN Blue.

Note: Standard model. GN units 2527 and 2528 were painted in the blue scheme.

O #6656 INTERNATIONAL Std. Cupola Caboose, f/p Red (3-rail version).

O #7556 INTERNATIONAL Std. Cupola Caboose, f/p Red (2-rail version).

Note: Road No. 72.

RED CABOOSE

The UP gondolas that R/C is painting in the GN scheme was erroneously reported, in the June issue, as being closest to the GN 75000-75499 series, blt. 1945. These gons are actually closest to the 75500-75999 series, blt. 1937. Thanks to Bill Williams for calling attention to the error.

STEWART

N BALDWIN VO-1000 Diesel Loco, f/p GN E/B.

Note: Due for release in fall 2003.

W&R ENTERPRISES

HO GN 0-6 2-8-2 Mikado Steam Loco, f/p Glacier w/2 versions.

Note: Delayed from May to Nov. 03.

BOOK

GREAT NORTHERN PICTORIAL, Volume Seven, by John F. Strauss, Jr., from FOUR WAYS WEST PUBLICATIONS, 14618 Valley View Ave., La Mirada, CA. 90638. VISA or MC. – Fax: (714) 521-5664
Phone: (714) 521-4259. e-mail: Jshine4449@aol.com.

M/P PHOTO SECTION

F45 #440 was a significant locomotive in GN history. It was the last locomotive delivered to GN prior to the BN merger. This photo was taken at Hillyard, WA in September 1969. This was 440's initial run from the Twin Cities to Seattle. The loco had stopped for a crew change at Hillyard. Your author was given an opportunity to go into the loco and "look around". This is a far cry from the way railfans are treated today.



MODELING PROJECT

This quarter's modeling project involves adding detail to the LIFE-LIKE P-2000 HO GP7 PH I to make the model more prototypically correct. This same information can be used on GP7 models in other gauges and scales.

The detail format was taken from GP7 #606 as pictured on page 18 of Shine's GREAT NORTHERN COLOR PICTORIAL Volume 1, and is representative of one of many configurations used by GN. It is recommended that all added detail parts be painted prior to installation. Please see the "before" and "after" photos Nos. 1 and 2.



(Left) Photo No. 1
BEFORE



(Right) Photo No. 2
AFTER

Start by cutting off the factory-installed airhorns on the short hood. Use close-cutting sprue cutters to leave the remaining base flush with hood roof. I chose no further action involving the removed airhorn base as GN frequently cut off and added appliances to their diesels.

The next step is to "fabricate" a "square" winterization hatch. Please see photo No. 3. A study of early GP and F units clearly shows the use of square hatches as opposed to those with the rounded edges of the standard EMD issue. It would appear that GN fabricated these "square" hatches, from sheet metal, prior to ordering later locos with the standard EMD hatch. The "square" (actually rectangular, but called square because of the ab-

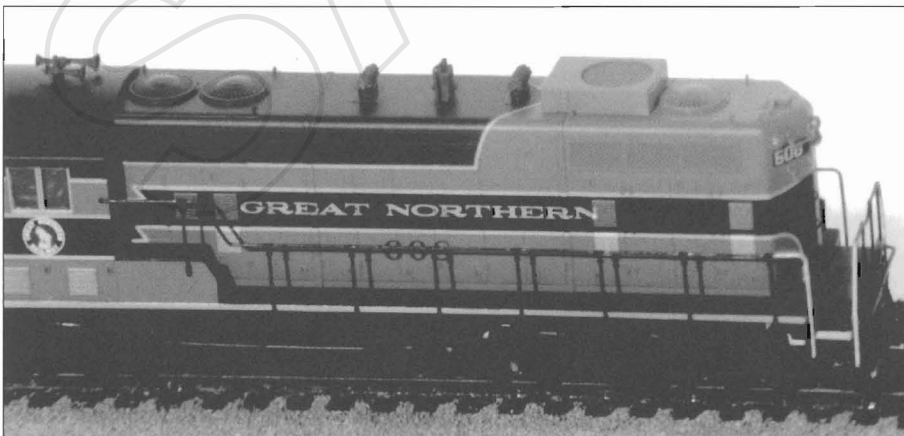


Photo No. 3. This photo shows the "square" winterization hatch and how it should appear when completed.

sence of rounded corners) hatch was made by taking a DETAILS WEST winterization hatch and wrapping it in .015 styrene. Before using the styrene, cut out the grille section of the D/W hatch. Using .015 x .125 styrene strip glue the four pieces to the sides and ends of the hatch. Next, cut a piece from a .015 styrene sheet to fit on top of the hatch. You now have a rectangular box. Sand as needed for flush and square corners. Using a No. 8 washer as a pattern, cut a round hole as far forward as you can over the open grille cut in the D/W hatch. Use a sharp pencil to trace around the washer. You'll find that the circle will be a little larger than the washer. Not to worry. It should be a bit larger to conform with prototype dimensions. Once the vent hole is made, install .015 x .030" pieces as retainers on the hatch sides. Locate these retainer pieces 5/32" from the rear of the hatch. See photo No. 3 for component positioning. Add a piece of 40 mesh nylon screen on the inside. Nylon is a fussy material and you may want to use contact cement. You'll have to cut two small notches to accommodate the band on top of the hood to allow the hatch to fit snugly without a gap. Paint the hatch prior to installation. If the colors don't match too well, just weather the hatch with a diluted spray (6 Dio-Sol-1 color) of FLOQUIL grimy black. Any other desired weathering can be done after all of the new detail parts are added.

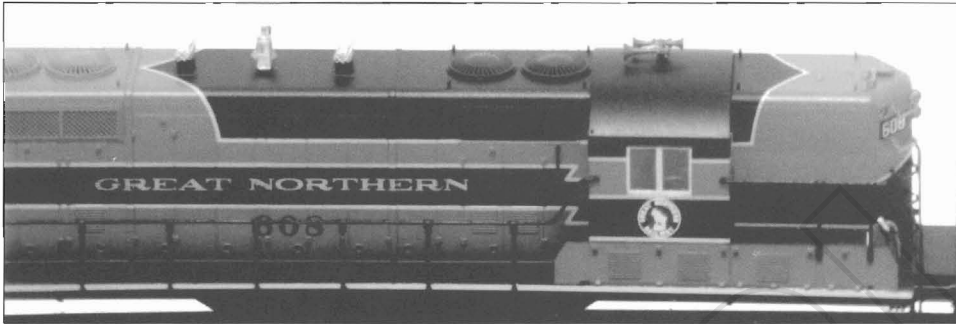


Photo No. 4. This photo shows the added details (horn, bell & spark arrestors) in an unpainted form for better visibility.

Please view photo No. 4 before starting this phase.

For the bell installation, drill a #52 hole, on the long hood centerline, halfway between the exhaust stacks. The bell ringer is normally located to the engineer's side (right). Drill a #70 hole to accommodate the bell

ringer. Before painting, take needle nose pliers and squeeze the outside hood to match the bell contour.

To install the spark arrestors, the inside bottom of the exhaust stacks will have to be drilled and filed. This is so the arrestor will fit down inside and the bottom will be flush with the top of the stack.

There is a convenient casting sprue "dimple" in the top center of the cab that aids in locating the three chime airhorn. A #60 hole will be required to mount the airhorn. Be advised that this D/W airhorn is not accurate for the GN prototype. The long chime is on the wrong side. D/W is planning to produce a Leslie three chime airhorn, in the near future, that will be accurate. Use a touch of contact cement to hold in the present airhorn so that it can be easily removed when the new one becomes available. Why do I use the present D/W airhorn? Because it is brass and is more durable than the plastic alternative, it is readily available in most hobby shops, and it looks good.

With our added details painted and installed, it is time to paint the handrails around the steps with safety white. How do I get paint to stick to the slick plastic of the handrails you ask? Choose the paint of your choice (ACCUPAINT, SCALECOAT or FLOQUIL), but not the acrylic or other water-based paint. Add a

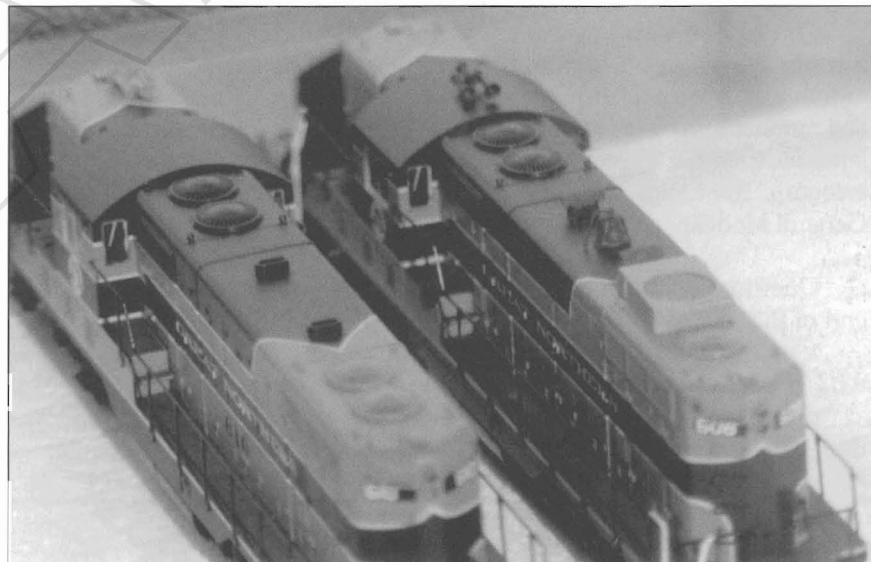


Photo No. 5. This photo shows a comparison of the "before" and "after" roof details.

1/3 ratio of BASF R-M #891 Flex Agent to the paint. The flex agent is normally used on automobile plastic bumpers. It is expensive – around \$30 a pint (a lifetime supply if safeguarded properly). It comes in a metal can, and exposure to light will shorten the shelf life. Be careful not to get this product on your skin and use in a well-ventilated area, and preferably with a respirator. Mix in small batches, just enough for immediate use to preserve quantity and because of short shelf life when mixed and exposure to light.

In closing, let me make three additional suggestions. First, always replace the plastic couplers with the more substantial metal KD 5's. This will prevent operational problems in the future. Second, replace the unsightly MU hoses with the more prototypically-correct ones from D/A. If you don't replace the original MU hoses, at least touch up the fittings with aluminum paint. Third, remove the truck sideframes and paint black to cover the shiny plastic appearance.

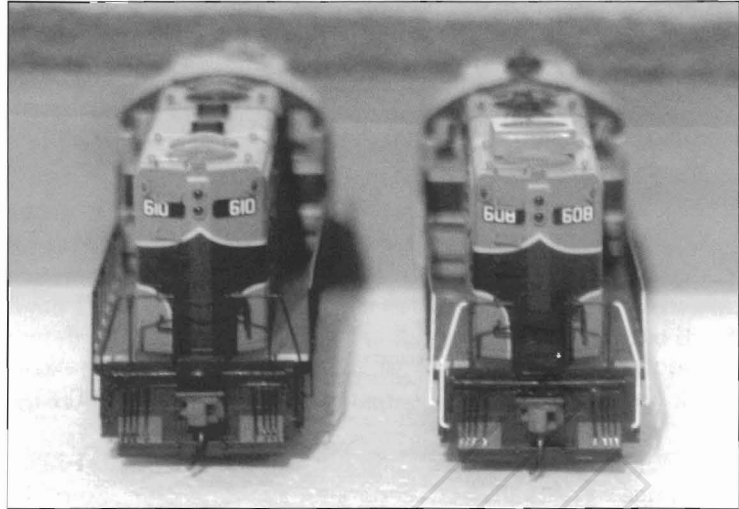


Photo No. 6. This photo shows how detailed model is enhanced by painting the handrails and MU hose fittings.

Materials List

EVERGREEN E/G #111 .015 X .030" Strip Styrene
 E/G #116 .015 x .125" Strip Styrene
 E/G #9015 .015 Sheet Styrene.
 CAL-SCALE C/S #BE-322 Hooded Bell
 DETAILS WEST D/W #SA-319 Spark Arrestors
 D/W #WH-164 Winterization Hatch
 D/W #AH-190 Airhorn
 DETAIL ASSOCIATES D/A #MU-1508
 KADEE K/D #5 Couplers
 CLOVER HOUSE C/H #888 40 Mesh Nylon

MODELERS' QUESTIONS AND ANSWERS

This section is devoted to answering GNRHS members' questions. A code system has been developed to assist in identifying the questions and responses. This will allow members to more easily recover this information and to give a topic reference point. The code system is simple and this is how it works. Example: 6/03-4D. The first number represents the month. The second number indicates the year. The third number and accompanying letter indicate the question number and topic- in this case it would be question number one in the (D) diesel category. The topics are broken down as follows: C – Caboose, D - Diesel, E – Electric, F – Freight Cars, G – General Modeling, M – Maintenance-of-Way/Non-Revenue, P – Passenger Cars, S – Steam, ST – Structures.

Questions are encouraged. Please send them to my snail mail or e-mail address which can be found at the end of the Modelers' Pages.

9/03-1C: A friend of mine would like to scratchbuild the unique "Hutch" caboose, but is not able to find any details or dimensions. Can you help?

Reply: GNRHS Reference Sheets Nos. 11 and 132 contain information on both the original X-100, and the modified and renumbered X-181 version. Both Reference Sheets are available through back issue sales from the GNRHS.

9/03-1G: I have two PROTO 2000 SW-9's decorated for CONRAIL. I intend to remove the paint with SCALECOAT "unpaint" solution. However, removal of the handrails troubles me. Any suggestions?

Reply: First of all, I'd recommend using 91% isopropyl alcohol to remove paint from LIFE-LIKE models. I've used this effectively. Cost is about \$1.00 per bottle at Walgreen's. Second, I've removed the L/L handrails, effectively, by using a small flat head punch. The handrails are secured by using a soldering iron to fuse them in place. Patience is the key. Since the SW9's do not have full handrails the chore will be easier than the GP7/9's I removed the handrails from.

9/03-7D: Where are the small numbers located on pre-'57 B units? What color were those numbers?

Reply: GN Paint Diagram 34000-1 dated Nov. 28, 1951 shows that the 2½" numerals are located on the rear lower panel (orange), next to the sill and just in front of the forward short handrail and that they are the same dark green as used on the carbody. This is the same for both A and B units. This information can be found on pages 2 and 3 of GNRHS Reference Sheet No. 34. As a point of interest, these small numbers were included on the GN factory painted PROTO-1000 F3's and the ATHEARN GENESIS F7's.

9/03-2S: I want to produce a dry transfer of the GN GOAT herald for Steam engine models in HO, N, O and S gauges. I need the correct data for size and color of our friendly goat. Can you help?

Reply: GNRHS Reference Sheet No. 25 is a good reference for steam tender heralds. However, the reference sheet is incomplete and does not address the aluminum lettering and heralds. It addresses the white heralds prior to the aluminum era and after WW II when the locos were being painted, replacing the Glacier Park scheme. Prior to the late 20's, the heralds used white lettering with a white goat on a red circle as were the heralds placed on the locos as they were painted black, post WW II. In between these two periods, the heralds had aluminum lettering with an aluminum goat on a red circle as used with the Glacier Park scheme. As a "rule of thumb", found in Reference Sheet No. 25, 54" heralds were used on tenders with over 4,000 gallon capacities and 42" heralds on tenders under 4,000 gallon capacities.

9/03-2F: I've converted an ACCURAIL Canton Hopper using an old VARNEY covered hopper roof and IHC PS-2 hopper hatches into a zinc concentrate car. The car has been painted in the Glacier green scheme. Do you know which decals can be used on the green scheme?

Reply: The lettering and herald for the Glacier green zinc concentrate does present some problems. For the basic lettering, use the CHAMP HG 143 decal set. The size of the herald used on the zinc car is somewhere in the 38" range. The smallest herald, of this type, produced by CHAMP and MICROSCALE is 42". The only herald, of this type, that matches the 38" size is available as a dry transfer in WOODLAND SCENICS #DT 610 GN Box Car Set.

9/03-3F: Do you know which decals will do GN stock cars in the Big Sky Blue and mineral red paint schemes?

Reply: CHAMP HC-487 GN (Blue Car) Jumbo Covered Hopper Set (Discontinued) had the only proper size lettering, I could find, that would fit the ACCURAIL name boards. Hopefully, you may be able to find this set in some of the "old" stock of some hobby shop or at a swap meet. Use CHAMP HN-66 GN Road Name Set, White, on the mineral red stock car.

9/03-8D: On the ALCO MODELS ALCO RS-1, the front edge of the radiator fan housing is curved. I believe it was straight on the prototype. Do you know for sure which it was?

Reply: The RS-1 drawings on page 58 of the MR CYCLOPEDIA, VOL 2 (DIESEL LOCOS) and page 91 of Carstens' LOCO 1 - THE DIESEL shows a square or straight radiator fan housing front. However, after viewing photos of various railroads, some radiator fronts appear to be curved. In looking at GN #185 on page 3 of GNRHS Reference Sheet No. 82, the radiator housing appears to be curved. Conclusion - it may be that RS-1's had both.

9/03-9D: How do you get the decal striping to lay down over those open radiator slats on your ATLAS RS-1 model?

Reply: To get the striping to "lay down" over the radiator you must use a longer than needed decal stripe and keep aligning and forcing it into the contours with a sharpened round wood toothpick, while applying a liberal amount of MICRO-SOL.

9/03-10D: I would like to build an FT 252A/B set from the STEWART models but am having difficulty finding detail photos of these units. Where can I find reference photos of these units?

Reply: I have many photos of FT units, but none of 252A/B. I do, however, have a photocopy of 256A/B which was configured the same as 252A/B (same series). That is, no dynamic brake housing and with large side number boards. Because GN's FT units were delivered with A-B drawbars (instead of couplers), the rear dropsteps on the A units and the front dropsteps on the B units were omitted. To build the 252A/B would require step removal (described above), removal of A unit skirts and installing common piping detail (scratchbuilt) which can be seen on all modified FTA units. Additionally, grabs above the front cab windows, ladder grabs on either side of the nose, and large number boards (I use STEWART) should be added. The detailing information can be found, collectively, in other FT photos.

9/03-1 ST: I'm building a depot kit by AMERICAN MODEL BUILDERS (LASERKIT) and I model in the mid-50's era. What colors would be appropriate for my depot in the mid-50's?

Reply: GN started painting their wood depots white, with green trim in the early 50's. Prior to that time they were painted with a light gray and dark gray trim. I can recall seeing the Grand Rapids, MN depot in the gray scheme in the very late 40's. GN started painting their MOW equipment with mineral red in 1953, changing from the previous light gray. The year 1953 would be a good cut-off date for the depot color change also, although, as you point out, there was undoubtedly some overlap.

9/03-11D: I am modeling an A-B-B-A set of GN FT's (#400) and can't find any photos to help me with decal placement. The units have large lighted side number boards. Can you help me?

Reply: The FT's in the 400 A/B/C/D – 428 A/B/C/D (even nos. only) were delivered with Railroad Roman lettering with number boards on the A unit noses. Additionally Pullman green 2½" numerals are located on the lower rear panel (orange) just above the sill on A and B units. These small numbers can be seen in the FT paint diagrams on pages 2 and 3 of GNRHS (FOEB) Reference Sheet No. 17. No lettering on the B units and A-B-C-D designations only in small (2½") Pullman green letters and numbers. Since I don't know what reference materials you may hold, I'll list several photo sources. GNRHS REF. SHT. NO. 271; RAILWAY HISTORY 143; LINES EAST, 2nd ED.; THE PACIFIC NORTHWEST RAILROADS of McGEE & NIXON; THE REVOLUTIONARY DIESEL EMC'S FTS by DIESEL ERA.

9/03-2G: With the availability of scale (HO) rail sizes one would like to use the right rail in the right place. My question is where was the heavier (most rail used was 90-110 lb) rail used? I model the Western Cascades in 1947. I would like to know if the heavy rail had other applications than in curves and tunnels.

Reply: Page 241 of "GREAT NORTHERN RAILWAY: A HISTORY", by Hidy, Hidy, Scott, and Hofsommer states, "Ties and rail got special attention. Beginning in 1946, all new ties for the mainline were creosote treated, and with few exceptions were 8½ feet long. At the same time, Seyton (GN's Chief Engineer) oversaw installation of additional 112 and 115 pound rail on the mainline; the 90 and 100 pound steel that it replaced was cascaded to improve branches. Following earlier experiments in Montana, the GN also laid continuous welded rail in the Cascade Tunnel, both to provide a smoother ride and to cut upkeep". This same page contains a coded drawing, by rail weight, showing where the different rails were used. Unfortunately, the solid line includes 100, 110, 112, 130 and 131 lb. rails as being the same. The chart on page 4 and 5 of GNRHS Reference Sheet No. 41 shows 90 lb. rail from Wenatchee to the eastern approach of the Cascade Tunnel, 110 lb. rail from the approach and through the tunnel, 130 lb. rail from the tunnel to Skykomish, a mixture of 90, 110 and 130 lb. from Skykomish to Monroe and Everett. This is a 1935 chart. After reading, in the above reference book, that the 90 and 110 lb. was replaced by 112-115 lb. rail starting in 1946, one could reasonably conclude that the sections containing the lighter rail in the 1935 chart were replaced by the heavier rail and that the 130 lb. rail areas remained. While going through my "almost" pristine GN RY Standard and Plans book, Rails and Fastening section, I noted no mention of rails lighter than 112 and 115 lbs., in drawings dated 1947 and later. Conclusion: Although the use of 130+ lb. rail was not restricted to tunnels and curves in mountains, as you state in your e-mail, it is safe to conclude that the heavier rail was used in tunnels and on lower radius curves because of the potential for less wear and maintenance. If it were my layout, I would use code 83 throughout to eliminate possible problems caused by transitioning back and forth from 83 to code 70.

9/03-12D: I recently acquired the STEWART GN VO-1000's #140 and #141. In your last M/P's you mentioned stack configuration and bell placement. Can you clarify these configurations?

Reply: GN VO-1000's #140 and #141 had four stacks. The photo on page 32 of Shine's GREAT NORTHERN COLOR PICTORIAL, VOLUME 1, shows #140 with four stacks of medium length with spark arrestors and the hooded bell. The photo on page 254 of Dorin's, LINES EAST, 2nd ED. shows #141 with four short

stacks and the bell. With the recent release of N scale VO-1000's along with the HO versions, it's time to dedicate a Modeling Project piece to these locos in December.

9/03-2M: I model in the 1920-1942 period. Is it possible to identify the GN MOW paint schemes from the earliest time to the 1970 merger?

Reply: Very early (from 1900 to the early 20's) the MOW equipment was painted mineral red, boxcar red or Tuscan red (take your choice). In the 20's GN started painting MOW equipment with light gray and black lettering. In 1953 GN began painting MOW equipment with mineral red and white lettering. The 1953 transition date is supported by dated photos in my private collection. You can see a string of gray MOW cars on page 115 of Hickcox's book, GREAT NORTHERN STEAM & ELECTRIC IN COLOR. Note that the trucks, drop steps and underframes are painted with mineral red.

9/03-13D: What are the black reflectors(?) that we see on the nose of GN F units.

Reply: The black strips on the nose of the F units are actually "non-skid" material. It was applied as a safety feature for maintenance personnel washing the windshield, changing wiper blades, etc.. These strips are most often, erroneously, thought to be there for anti-glare purposes.

9/03-4F: Are the RED CABOOSE Wood Sheathed reefers accurate for a GN prototype?

Reply: I have an R/C reefer (#67189). It is not accurate for a GN (WFEX) prototype. It is actually a replica of a PFE R-30-12-9 type car. While the model is similar to the WFEX 67000-67894 series, built by FGE in 1928 and 1932, there are some differences. The most notable and obvious difference is the side sills.

9/03-14D: Were GP7's #608 and #610 used on the Cascade Division at Skykomish?

Reply: Yes, both units were assigned to the Cascade Division.

9/03-15D: Can I change a PROTO-2000 S-1 to a GN S-2?

Reply: My recommendation would be to acquire an ATLAS S-2 (#8718 or #8719) factory painted GN.

9/03-16D: Did GN's BALDWIN S-12's have the Empire Builder paint scheme?

Reply: Yes, all of the #24-#28 series of S-12's were delivered in the E/B scheme.

9-03-2C: Which caboose shall I get for the Cascade Division? Are any correctly made? Were the 4-wheel bobber cabooses used?

Reply: The 4 wheel bobbies would have been disposed of long before your modeling era. Looking at the GN caboose assignment records, any 30' wood or steel caboose would be appropriate for through traffic. The 25' wood cabooses assigned to the Cascade/Spokane Division are X334, 353, 359, 369, 373, 375, 379, 390, 393, 406, 428, 454, 488, 494, 513, 519, 521, 523, 549, 551, 552, 554, 555, 566, 571, 577, 578, 580, 581, 584, 587, 589, 591, 602, 607, 611, 612, 613, 615, 616, 617, 618, 619, 620, 621, 628, 629, 630, 631, 632, 633, 634, 635, 636, 642, 642, 646, 657, 665, 666, 667, 669, 675, 679, 683, 684, 685, 686, 700, 701, 711, 712, 735, 736, 739, 745, 748, and 749. OVERLAND has imported brass models of 30' wood and steel cabooses. ORIENTAL LIMITED and CHALLENGER Imported brass models of the 25' wood cabooses. AMERICAN MODEL BUILDERS has just released a LASERKIT model of the GN 25' wood caboose.

9/03-17D: I would like to make or acquire an NW2 that was used on the Cascade Division. Which would be better, an OVERLAND or KATO model?

Reply: The OVERLAND model would be a good choice. However, due to limited availability and the price of the OMI model, the KATO model would be a more viable model. The KATO NW2 is a nice running model, but lacks the door louvers.

9/03-1E: Would it be possible to find a W-1 electric or should I try for an ORIENTAL Z-1?

Reply: There are a few W-1 models that become available even though these units have been out of production for a number of years. I have the CUSTOM Brass unit and find that it meets my needs. However, it is difficult to paint the C/B models (I know, I've painted seven of them). The OVERLAND W-1 model is nice, but the factory paint colors are atrocious. You might have better luck finding an ORIENTAL Z-1.

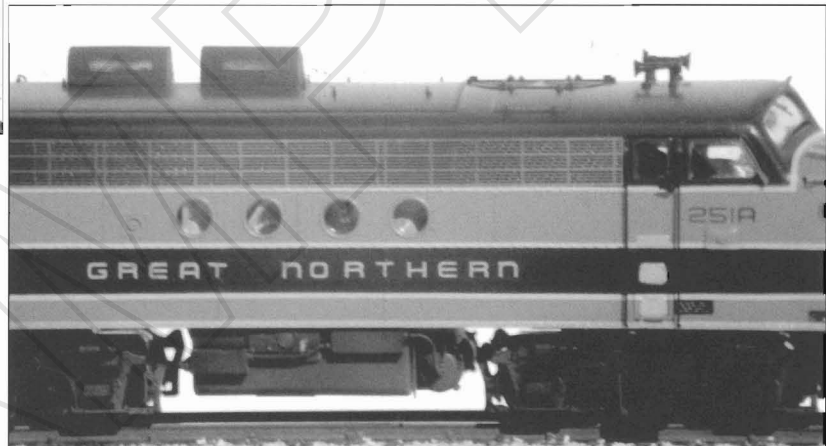
FAVORITE MODEL



(Top) Photo No. 7. An overall view of FT's #251 A and B.

(Middle) Photo No. 8. A nose view of FTA #251.

(Right) Photo No. 9. A close-up view of the detail on #251A. Note the airtank, scratchbuilt piping, and "squirrel cage" spark arrestors.



CLOSING COMMENTS

I'd still like to have you include your geographic location in your correspondence. It's the only way that Connie and I can find you when we are in your area so we can just drop in for dinner. JUST KIDDING, AGAIN.

In closing, I have a favor to ask. If anyone has official GN diesel paint diagrams for the intermediate (orange and green-no stripes) schemes and is willing to share these diagrams, please contact me. I will be happy to pay for any copying and mailing costs.

Happy Railroading!

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