





eCARIBOO

ISSUE #5 January 2009

The eCariboo is published by Paul J. Crozier Smith as an electronic newsletter for the enjoyment of those modelers and railfans of the BC Rail and its predecessor lines British Columbia Railway, Pacific Great Eastern Railway, Howe Sound & Northern Railway and the Howe Sound Pemberton Valley & Northern Railway.

If you have any material to contribute please contact Paul at <u>pjcrozier-smith@shaw.ca</u> or <u>paul@crozier-smith.ca</u>. It is preferable that material be submitted in doc format.

Modeling BC Rail Passenger trains in N scale Part 2 By Craig Aguiar-Winter

Painting and Decorating

Painting and decorating the consist is easy. Simply paint the bodies silver and in the window bands, a Tuscan Red stripe flanked by two thin white pinstripes (either painted of decaled). The name boards above the windows are white as well. For this you could use an ink-jet printer and print the Tuscan Red car name on white decal paper. Then cut it to fit.

For the locomotive and power car, the colour looks a little lighter than the consist so I would use the same Tuscan Red but with a few drops of white to make it a shade lighter. The gray looks very similar to the gray used on the older CPR diesels. These paints are all available from CN Sig Lines. Decals for #601 and Borealis were available from ORO Decals, which are now out of print but can still be found online and in hobby stores.

The School Train

The first time I ever found out about The School Train I knew I had to model it. I'm not modeling that area but it did not matter. Where else in the world can you find a single car train, named after a beer, that only has scheduled operation in one direction? I am guessing nowhere.

British Columbia Railway purchased a pair of ex-GM&O coaches. One for service on the Takla Logging train and the other for The School Train, named *Budweiser* by the kids who rode it.

For the N scale modeler everything needed for this train is readily available. Laser cut styrene sides are available from Union Station Products, set #2882. These sides fit well on the American Limited Models core kit or any other Pullman smooth sidecar. Budweiser ran on six wheel trucks and while no exact match exists in N scale, Micro Trains MTL-1018 is a suitable stand in. For details, refer to photos as the car went in for an upgrade and painting in the early 1990s. At that time the doors covering the electrical generator and heater were changed from a louvered to a screen design. The steps and roof vents are unique and while no commercial parts are available they would be an easy scratch build. The smoke stack is a Miniatures by Eric CPR Caboose Stack.

For locomotive just about any four-axle model would do. It was pulled by everything from a chop-nose RS-3 to a blue, white, and red lightening striped B36-7. Basically what ever was in the yard at the time.

The Whistler Northwind

What better way to see the most spectacular scenery in the world than by relaxing in the comfort of a full-length glass roofed lounge car? The short-lived train ran during the 2000-2002 seasons, taking passengers from Squamish to Prince George and back. Being such a short trip, and with the option of hotel stays along the way, there were no sleeping accommodations on the train, but travelers were none the less treated to a comfortable journey. Two classes, Panorama and Summit (the later offering meal service in the dining car and relaxation in the vintage lounge observation car), were available.

The consist of the Whistler Northwind was a mix of vintage and custom built cars, each offering comfort and class.

Locomotive #1700

The train was pulled by B39-8 1700. This model can be made using a B40-8 by Atlas. With some simple details a very nice model can be made with ease.

Power Car

This car was built as a baggage car for CN by CC&F in 1954 and converted to a power car by the BCR shops. If you want to build a kit you can use the ones available from Athabasca Brass. However Rapido Trains has announced the up coming release of this baggage car and, due to the level of detail, it would be a much better model to start from.

Crew Car

The second car in the consist also came from CN and was originally an E series sleeping car "Enfield". Athabasca makes this car too, but as before, Rapido has announced production of this car.

Panorama Dome Car, 1721 Caribou

The glass dome cars in the consist were built new by Colorado Railcar in 2000. These cars are a lot like the Amtrak Superliner Dome cars (only one level) and it could be possible to kitbash one starting with the Kato version of this car and any smooth side coach from Kato or Con-Cor. These cars are also available as custom models through the Ebay store "Lookmodel" of Japan. They are beautiful models and come decorated for VIA Rail, the current owner, and will need repainting. At \$200 each, one might consider the kit bashing a better option for these cars. You could also use the same computer design methods to build these cars as they are of welded design and have almost no features on the outside of the bodies. Certainly not any that are visible in N scale.

Lounge Car, 1750 Glenfraser

The car was also an ex-CN car and was purchased from the Okanagan Wine Train. As with the other two ex-CN cars, you could use either an Athabasca kit or a model from Rapido Trains.

Panorama Dome Car, 1720 Coastline

This car is another candidate for a similar kitbash or scratch building as the two other glass roofed cars.

Kitchen Car D'Arcy and Dining Car Strathnaver

These two cars were built as a pair in 1953, by ACF, for the Union Pacific. Currently no models are available, but you could build one starting with an American Models Ltd. core kit and either cutting your sides out of styrene or, as I suggested with Manhattan, printing the sides in full colour on the computer. Unfortunately, I have not found a suitable model to kit bash these cars and so at this time they are a real challenge to build.

Summit Dome Car, 1722 Chilcotin

This car is another one of the Colorado Rail Car built custom dome cars.

Summit Observation Car, Pavilion

The final car in the consist is the vintage stainless steel lounge observation. Built in 1938 for the Florida East Coast Railway, it is a rare pre-war classic and a fitting end for this train. In the original Budd Stainless sets offered by Kato was an observation car much like this one. It was based on Budd's pre-war non-skirted design and would be good place to start for this car. Con-Cor's non-dome observation car was also a pre-war design.

Painting and Decorating

Painting for this train set is fairly easy. Colours are listed in the spreadsheet in the files section of the BCRLY Modeler Yahoo Group. Decals on the other hand are another matter. ORO Decals made a set for #1700 which can still be found, but there is currently nothing for the consist. Modelers are left with no choice but to have them custom made or make them themselves.

The Royal Hudson

Unveiled in 1974, The Royal Hudson Steam Train was one of the most spectacular tourist trains in the world. The train featured ex-CPR Hudson 2860. Called a Royal Hudson after one of her sisters carried the Royal Family during their 1939 visit to Canada, she wore the royal crowns on her side skirts and is the only locomotive of her type still in operation. In fact, during her service on BCR, the Royal Hudson was the only steam train in North America in regular scheduled mainline service. Royal Hudson service lasted until 1999 when the locomotive suffered damage to her boiler and was replaced first by her stand-in, ex-CPR Consolidation 3716 and then finally by the WCRA owned ex-CPR FP-7 4069. The excursion was cancelled completely in 2001, along with the rest of BC Rail's passenger operations.

Royal Hudson 2860

In N scale, no commercially available model of 2860 has ever been produced so those wanting this locomotive are stuck having to scratch build it. This would be very difficult but not impossible as Miniatures by Eric offers many detail parts specifically for 2860. These include a smoke box front, funnel, trailing truck, pilot, and various boiler details. Model power offers a well-built model of a Pacific (4-6-2 wheel arrangement), which has the correct driver size and front truck spacing. These are the most critical aspects of building this model, so it can be done with some time and effort. Decals for her original paint scheme are not available and would have to be custom made. You could start with the CPR Steam Locomotive set offered by Black Cat Decals and depending on the era you are modeling you would need to custom make either the British Columbia coat of arms or the "British Columbia" lettering on the tender, and the "British Columbia" and "Canada" plates on her pilot.

Consolidation 3716

The best model to start with for 3716 is Bachman's Spectrum 2-8-0. It is little larger than the prototype but can be detailed to match using parts, including a cab, available from Miniatures by Eric. The tender needs to be changed as well. She had two different ones through out her carrier. For the earlier model you can use an Atlas 0-8-0 tender. Her current tender came from a CPR Mikado and would need to be scratch built. Trucks for the later tender are available from Miniatures by Eric. Decals for

3716 while she was decorated for the Provincial Museum Train were available from ORO Decals but are hard to find. Thankfully she only carried those markings for a short time in the late 1970s. Through most of her service though, she had very simple markings, the likes of which can be found in the Black Cat Decals CPR Steam Locomotive set.

WCRA FP-7 4069

Model power and Intermountain both offer an FP-7a. The Intermountain model is a nicer one but both are based on American EMD prototypes. Those wanting an exact model should use a Kaslo Shops CPR FP-7 resin shell kit, offered through Central Hobbies. This kit includes a shell and etched metal details. It is an excellent representation of the GMD built FP-7. Paints are available in the CN Sig Lines, and other varieties, and decals are available from Micro-Scale.

The Royal Hudson had three consists that she pulled. At first it was an all CC&F built ex-CPR consist including a 4700 series baggage car (power car Prince George) and several 2200 series coaches. These cars are available in cast resin from Central Hobbies. They require a lot of prep work but are very nice looking models. The kits are body only and require trucks and couplers. The CC&F trucks were unique to these cars and in the absence of a suitable model; Micro-Trains MTL-1017 trucks can be used. Also in the original consist was a WCRA owned, ex-CPR, open-air observation car. The CPR converted it from a heavy weight coach and your best bet would be to do the same, as no model exists that is even close to this car. It rides six wheel trucks, which can be approximated using Micro-Trains six wheel passenger trucks MTL-1017. CN Sig Lines Tuscan Red is a match for the paint and decals for this consist were available from ORO Decals.

Consists

In 1994 the aging consist was replaced with ex-CN cars. Athabsaca kits or Rapido Trains models would be excellent choices. Rapido offered their HO versions painted for BC Rail so maybe us N scalers will get lucky and be treated to ready to run models as well. The same paints as above can be used and ORO Decals also offered decals for this train.

LE STATE OF THE ST

The third consist pulled by 2860 was used in charter service and was made up of ex-American Freedom Train Coaches, originally built as commuter coaches for the Reading Railroad. BCR had four of them; power car Discovery (which was a combine), coaches Resolution and Endeavor, and business car Britannia. The cars ran on four-wheel trucks and had Harriman style roofs. No representative of these cars exists in N scale. One option is to start with a Rivarossi heavy weight coach. It has paired windows while the prototype has single windows. However, a close representation can be made by cutting it down in length, changing to four wheel trucks, adding the Harriman style roof offered by J-n-J Trains, and steps from Gold Medal Models. The other option is to use a ready to run coach recently released by Wheels of Time. It has four-wheel trucks and very nice details but unfortunately also has paired windows. Still, it is

the closest we have to a match and since you are probably getting tired of kit bashing by now, would be a good model to start with. Paint and decals would be the same as the original Royal Hudson consists.

I have started many of these models, but unfortunately at the time I wrote this, I did not have anything worth photographing. As I progress through these trains I will be sure to share the results with you. I hope someone else is inspired to build one of these magnificent trains and will do the same.

Slug S-410

by Colin Churcher

The inspiration for this project was a friendly contest proposed by list member Mark Giles, and Tim Horton's Article in issue #34 of *The Caribou*. At the time, I made this model the article was eight years old making the parts which Tim used easily attainable at a very fair price. I found mine in an e-list classified add for a very reasonable price. E-Bay is also an excellent source for used locos. If you can, find one with a burned out motor.

I had always wanted to model one of BC Rail's unique slugs and so with a tri-fecta of motivation, (a reference article, cheap parts, and a contest deadline) I had no reason to delay any further.

In addition to my own techniques, I used many of the ones described by Tim in his article. If you decide to build one too, I recommend finding a copy of it as well. Additional issues of *The Caribou* you will find helpful are issues #43 & #44, in which articles by Dan Rowsell detail the rebuild program including drawings and photos, and issue #42 in which an article by Mark Carelton covers building one in HO scale.

Parts required for this build are listed at the end of the article. Since I built mine, some new detail parts have become available so, where applicable, I listed those as alternatives to the parts and/or methods that I used. One final note before I get to the building, you will notice that throughout the article I flip between decimals and fractions, when describing measurements. The reasoning for this is that most scratch building supplies are packaged based on their metric measurement whereas my scale ruler is marked in 1/64 inch. Therefore, anything I measured and cut myself will be in fractions. Also all of my measurements for locating details were estimated from the scale drawings in issue #44. They look pretty close to me but by no means do I claim that they are accurate. If you have a source of exact measurements then of course you should use them (and e-mail them to me).

Preparing the model

If starting with a decorated model then begin by stripping all of the paint off. My favorite method is soaking in full strength Pine-Sol brand cleaner, (original scent only). Submerge the model and check it every

hour or so by scrubbing the model with a soft toothbrush while it is still submerged in the cleaner. It varies with manufacturer but at some point the paint should come off very easily. Be careful as soaking too long can result in a damaged shell. These days I think this goes without saying but one should do this work in a well ventilated area while wearing gloves.

Once stripped the paint you can start removing and filling details. Tim's article he modelled S-401, which was the only one of BCR's slugs built from an Alco RS-3, which is what the Atlas model is based on. Because of this he was able to use some of the louvers and what not on the Atlas shell. All of the other slugs in the program were based on MLW RS-3s in which case all of the details on the shell must be removed and/or filled. All the new details will be added later. The cab can be removed and thrown in your parts bin. In it's place will be channels in the body where it was mounted. To fill these in, I first laminated a thin strip of .005" styrene over the channels on the inside of the shell. This serves as a mounting surface for the filler strips which go on the outside. Measure the width of the channel and cut strips of .005" styrene. Glue them into the channel building up the thickness one strip at a time until it's just thicker than the shell. This process ensures the curve at the edge of the shell matches the curve you have created in the channels. using a chisel blade remove any details on the surface of the shell. 400 grit sandpaper sand the body down until it is smooth all over. Fill in any remaining holes and imperfections with your favorite brand of filler, (I use Squadron), and then sand smooth again this time using 600 grit sand paper.

At this point the shell needs to be cut down to the correct height. Scribe a line horizontally around the shell a scale 36" from the bottom. Then, using a new #11 blade to scribe repeatedly around the shell until it cut all the way through. On the inside of the shell mark the front end with a F.

On the prototype there are seams where the different pieces of the body were welded together. To reproduce these scribe lines vertically around the shell, first measuring the location of the lines and marking them with a piece of clear tape. This tape can be used as a guide for the blade. The first line is 2.5 feet from the front, the second one 8 feet from there, the third one 16 from there and the last one is 16 from there.

The next detail I added was the head light. I based the size of the mount on the size of the MBE headlight casting attempting to achieve the same look as seen in protoype photos. I started by measuring the MBE casting. I then cut a piece of .040 square styrene rod so it was just wider then the headlight casting. Now take that piece of styrene and center it on the front of the shell at the top. Mark its location and cut a notch out of the curved area at the top of the shell. Glue the styrene in this notch ensuring that top flat surface of the styrene forms a smooth transition to the flat surface on the top of the shell. Once the glue has dried fill around the edges of the styrene insert and then sand until no seams are visible. Finally, glue the light in place with CA. If you plan

to light your model then drill out the casting with #74 drill bit, to accommodate the fibre optics, before attaching the casting to the model. Once glued on, then finish drilling through plastic mount.

There are sand hatches located at the four corners of the shell. I made them from .020" styrene rod so in each corner drill a #74 hole. Glue a rod in each corner and cut it off using a .03" shim to locate the cut. To simulate the look of the sand hatch cover I heated a butter knife with a lighter and pressed it down on the top of the rod. This forms a small circular flat shape on the top of the rod, which nicely simulates the hatch.

Moving now to the sides, there are four pairs of louvered doors. (The louvers came from a Gold Metal Models GP-7/9/18 details set.) There are three pairs on the left and one pair on the right. On the right there are also two pairs of louvers in the same place as the doors on the left side. Make marks at the center lines between the doors (and louvers where there are no doors). From the front, the first is located at 8.25 feet, the second 20 feet from there, and the third 13.5 feet from there.

Cut nine rectangles (one will be used at the rear later), out of .005" styrene. Glue one on either side of the marks to make the four pairs of doors. Now cut 16 tiny squares out of .005" styrene to simulate hinges. They should be as tiny as you can make them. I used a Northwest Shortline chopper to ensure a uniform size. Using photos as a reference, locate the hinges, two on each door. On top of each door is a drip cap which I made using a piece of .010" brass rod cut just a bit longer than the width of the door pairs. Glue the hinges, drip cap and louvers in place with CA.

Moving onto the rear, the next details to add to the body are the brake wheel and rear access door. Using photos locate the last remaining door cut earlier and fix it in place with CA. Add a drip cap and hinges as you did before. On the rear left side drill a #78 hole where the brake wheel will be located. It will be added after painting.

On the top of the shell there are four lift rings. They are centered between the seams that divide the body. Drill a #80 hole in each of these locations and glue a BLMA GE Lift Ring in each location.

The final step to complete the body is to drill any holes required for grab irons. There is a curved grab iron on each corner, and a long one across the back at the top of the body. This one requires three holes as there is to support the middle. I guessed at the length of these using photos. The grab irons are bent from .006" brass wire. The single one across the back can be mounted now, using a JnJ EMD lift ring as the middle support. The corner grabs should be mounted after painting as they are silver.

At this point work is complete on the shell. The next step is to move onto the handrail/walkway assembly. The prototype had the handrails leading to the cab replaced with straight ones. In order to replicate this on the model two Atlas handrail/walkway parts are required. The idea is to cut away the cab portions of the walkways and join the remaining

parts together to make one straight set of railings with a continuous tread pattern on the walkway surface. Cut the first section of walkway just before the tread pattern ends and the handrail sweeps up to the cab. Cut the handrail off at the stanchion closest to this point. On the other side cut the walkway farther back so the joints on either side will be staggered. This will add strength to the joint once glued. Place the shell on this piece of cut walkway and then take the other uncut walkway section and measure and mark where to cut it, so that it lines up properly with the end of the shell. At this point the two pieces of walkway could be glued together but as I figured out, it is best to leave it until after the pilots are built and details are added as, once glued, it is very brittle.

For the pilots there are a couple of different routes you can take. using an N scale coupler, the easiest thing to do would be to use the Kaslo RS-18 pilots. They are very close to the slug pilots and will considerably reduce the amount of work required. I wanted to use Z-Scale couplers and so I opted to scratch build my pilots. To begin, file the stock pilots flat and cover them over with a piece of .005" styrene. Using the Z-Scale coupler mounting/height jig, locate and mark the draft gearbox for the Micro trains Z-Scale couplers. Cut out the hole in the pilot. On the inside of the pilot, glue styrene shims under the walkway until a platform has been built up thick enough to provide a flat surface on which to mount the draft gear box. To ensure a properly operating coupler, it is most important that this surface is absolutely horizontal. Insert the draft gearbox into the pilot and using a #72 drill the mounting Tap it (I didn't but you should as the styrene isn't very thick and can crack) and mount the draft gearbox using the supplied screw. To make the pilot stronger reinforce it from the inside by gluing on strips of With the pilots complete they can now be detailed. where similarities in the front and rear pilots start to differ and the next portion applies only to the front pilot.

The first thing the pilot needs is footboards. Cut two pieces of .010" styrene and glue them on the outsides of the pilot bottom. The front pilot has the unique and very "BCR" feature of the old style "Cow-catcher" pilot. To build this, I first cut a piece of .010" square brass strip about 1" long. Bend it in the center at a 90 deg. angle. Next, make a 45 degree bend on either side so the resulting triangle shaped point protrudes from the pilot approximately 1/8" and is as wide as the gap between the two footboards. Glue this centered to the bottom front edge of the front pilot and trim the edges flush with the outside edge. cut two small 90 degree triangles whose two equal sides are 1/16". Glue these onto the front of the pilot at the insides of the footboards. complete the "Cow-catcher" cut a piece of the square brass strip long enough to reach from the point of the "Cow-catcher" back to the surface of the pilot at a 45 degree angle and glue it in the center. Finally cut two smaller pieces to put on either side. They should be evenly spaced and at the same angle. I cut these pieces using just my eye and a lot of trial and error until they all fit right. To mount these brass pieces I used CA but in hindsight, a better method would have been to glue the pieces of brass to the points where they meet the pilot front and then solder the

parts where brass meets brass. The parts are so small that it would not melt the plastic and this would result in a much stronger assembly. I figured out, through a tragic turn of events, that the joints between the brass pieces are very weak when only glued with CA.

You can now detail both pilots. Using photos as a reference locate drill and mount the MU hoses, trainline air hose, and coupler lift bars. I used Sunrise MU hoses but they have since been discontinued and so I recommend the BLMA part. For the lift bars I bent my own from .008" phosphor bronze but BLMA makes some nice ones which I have listed in the parts list. I mounted the lift bars using four JnJ EMD Lift Rings on each one.

With pilots complete, it's time to move back to the handrails and make a drop step for the front and rear. Remove the MU receptacles and railing from between the middle two handrails. The BCR units have a handrail on the middle left stanchion to assist crossing between two units coupled together. I bent this from .008" phosphor bronze. For the drop step refer to pictures and form one out of .005" styrene. Fold the sides up and glue it in place between the stanchions. In all of the pictures I have seen the front step is in the up position and the rear step is down.

Now you can glue the two halves of walkway together. Also, to add strength, reinforce the joint by gluing a small flat piece of styrene across the joint on the underside of the walkway.

You have gone as far as you can now on the body and only a few items are left before painting, but before that you need to modify the chassis. Start by completely disassembling the Atlas mechanism and remove all of the motor and it's workings, including the gears in the trucks. Mark the two frame halves so they will have enough clearance inside the shell, and use cut off disk and motor tool to cut away the top portion of the frame halves. Round the ends off so they match the round edge of the shell and if you are using fiber optics, be sure to cut out a small notch to allow the fibers to come back into the motor cavity, where the stock Atlas light board will be mounted. I used NWSL low profile wheel sets and if you plan to as well then convert the axles at this time. Now reassemble the frame halves and trucks leaving out the motor and all gears. If you need to, grind the frame screws to accommodate the curve of the body at the ends. The light board will mount between the frame halves in the motor cavity with just enough width to be held in place with pressure. Make two small pick-up strips by bending them at a 90 degree angle and soldering them onto the traces on the PCB. This creates ears that will contact the frame halves, powering the light board. (On a side note, while I don't model DCC one could put a decoder in here instead or wire the slug right to the decoder in the parent locomotive.)

It is now time to assemble the model and add final details. If anything does not fit then make adjustments now. On the prototype there is an electrical box at the rear on the walkway between the two middle handrail stanchions. Once the model is assembled, cut a small piece of left over walkway to fit in this spot and glue it in place.

The brake wheel is next, from the Gold Metal Models set. While it is still on the sprue solder a piece of .020" wire to it. Leave it on the sprue for painting and mask the other wheels off.

The final project before painting is the addition of fiber optic lighting. I harvested mine from a fiber optic Christmas Tree (which I bought after Christmas for \$3) so I am not sure what size they are. Insert a fiber into each hole in the head light and cut long enough that it reaches back to the light board and sticks out the head light about 1/4". Using scrap styrene fashion a guide, inside that shell, so that the fibers terminate in front of the light. Leave them this way for now.

Now disassemble the model but leave the draft gear screwed into the coupler location. Rinse everything in a mild soap and water solution. From here on only handle it with gloves to prevent oils from you skin getting on the model. Stuff a piece of tissue or tape in the end of the draft gear so no paint gets inside.

First prep the handrails, trucks, draft gear and fuel tank by spraying them with a primer which makes paints adhere to flexible plastics. Paint the walkways and brake wheel silver. Then mask the walkways and end handrails, and paint the body and side handrails blue. Before applying decals spray everything with Testors Gloss.

The BC Rail logograms come from the Highball Decals set. The numbers come from the Micro Scale TTG decal set. The yellow warning decals on the pilot come from the ORO Decals set. The rest of the decals come from the Micro Scale RBW set. To cut the end stripes the right size, cover the nose in clear Scotch tape and trim it to the right size. Then place it on the Micro Scale stripes (stick it on a table a few times to reduce the stickiness of it so that it does not damage the decal) ensuring it is in a place that best resembles the arrangement of the stripes on the slug. Using the tape as a template cut out the stripes and apply them to the front of the slug. Once all of the decals are applied seal everything with a coat of Dullcoat. I weathered my model using chalks. Rust colour for the trucks and pilot, and various grimes and dirt for the under carriage work well. If you will be handling the model a lot then seal the chalks with another spray of Dullcoat. Just make sure you apply the chalks heavier than you normally would as the effect is lessened by the clear coat.

The last thing needed to complete the model is to finish the fiber optics. Brush paint the inside of the light casting silver and cut the end of the fibers of so they stick out of the casting just a bit. Hold a hot soldering iron close to the tips and they will melt to a convex shape and become polished. Put a dab of CA behind them and pull them into the casting from the inside. Finish the ends that face the light in the same way.

Parts List:

Atlas RS-3 locomotive Extra Atlas RS-3 Handrail/Running board Assembly Two Micro-Trains #903 Z scale Couplers and Draft Gear Miniatures by Eric NL1 Double and Single Light Miniatures by Eric NA7 Air Hoses BLMA 90 Lift Rings BLMA MU Hoses 100 BLMA 11 Coupler Cut levers JnJ Lift Rings 344-0016 EMD Lift Rings Gold Medal Models 160-40 GP7/9 Detail Kit Gold Medal Models 160-55 Assorted Brake Wheels Evergreen .005" styrene sheet Evergreen .040" styrene square rod Evergreen .020" styrene rod Tichy Trains .008" Phosphor Bronze Wire Detail Associates .006 Brass Wire Detail Associates .020 Square Brass Rod Testors Acrylic Blue Angel Blue Tamvia Silver Floquil Primer Testors Gloss Testors Dull Highball Decals BC Rail Blue Locomotives Micro Scale RBW BC Rail Locomotives Micro Scale TTG British Columbia Railway Decals ORO Decals Canadian Locomotive Safety Decals Complete PJCS 2009-01-15 1254hrs