



# The CARIBOO

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## BC Rail buys Vancouver Wharves

As part of a long-term strategy to diversify its revenue base and develop new rail freight products and markets, BC Rail has purchased Vancouver Wharves Limited. The company is a North Vancouver-based cargo terminal and the largest multi-product, deep-sea terminal on the Pacific coast.

Vancouver Wharves has operating assets of nearly \$85 million and was formerly owned by a small group of officers and directors. It is situated on 111 acres of land which adjoins BC Rail's North Vancouver yard, 98 of which are under long-term lease from the railway. Vancouver Wharves is one of five bulk terminals in the Vancouver area. It generates annual operating revenues of about \$50 million from handling sulphur, potash, mineral concentrates, pulp and paper and methanol. The company employs over 250 people and holds contracts with 20 major customers.

"We will continue to build Vancouver Wharves as a first class, deep-sea terminal and by doing so, provide significantly improved service to customers using the Port of Vancouver," says BC Rail President & Chief Executive Officer Paul McElligott.

"BC Rail's approach to customer service – the customer first, foremost and always – will become the guiding principle for Vancouver Wharves under the new ownership."

BC Rail ownership will provide Vancouver Wharves with the necessary resources to finance equipment renewals and future expansion plans.

The facility has five berths and a rail-barge slip with approximately 1000 metres of wharf frontage. It handles about 200 rail cars daily as well as unit trains of potash and sulphur. It is the only Canadian facility capable of unloading mineral concentrates from ships and the acquisition will allow BC Rail to offer uninterrupted service from points of origin to the port.

Vancouver Wharves will continue to operate as a separate company with its own board of directors and management. Unlike BC Rail, which is a provincially-owned and regulated company, Vancouver Wharves will continue to be federally regulated. ("Coupler")

### FIRE GUTS DAWSON CREEK STATION

On March 20, BC Rail's Dawson Creek terminal was ravaged by a fire that officials have determined to be arson related. The 37 year old structure was destroyed, and a trailer has been sited as a temporary measure. ("Coupler")

West Coast Energy is in the process of constructing a co-generation electrical plant near its natural gas refinery in Taylor. (Ed Note: Taylor is about 11 km east of Fort St. John.) The plant's generators will be powered by natural gas produced at the refinery. The excess power that is generated will be purchased by BC Hydro for re-distribution. ("Coupler")

Renovations to the Lillooet bunkhouse took place in the month of February. The number of rooms were reduced, which resulted in larger remaining ones. The terminal building is undergoing renovations as well. A booking-in room has been constructed, so that train crews can take their line-ups without interruptions. ("Coupler")

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### BRASS PLUS LIAISON

"Cariboo" editor Andy Barber has agree to act as a liaison between our Society and Jeff Lemke's Brass Plus. Jeff has expressed a desire to have our members provide input on future brass model projects. Brass Plus is a supporter of our newsletter, and imports a broad range of brass scale models. Drop Andy a note (c/o "Cariboo") advising which models you would most like to see available as brass scale reproductions.

### '92 results satisfying – Paul McElligott

The British Columbia Railway group of companies earned net income of \$51.3 million in 1992, compared to \$55.8 million in 1991. Revenues last year were \$325 million, compared with \$320 million the previous year.

President and Chief Executive Officer Paul McElligott says last year's decline in income was due mainly to the five-week pulp strike, as well as BC Rail's obligation to pay the new provincial capital tax, introduced last spring.

"Given the difficult economic conditions and the setbacks we encountered in 1992, it's a satisfying result," McElligott said.

Operating expenses in 1992 were \$247.6 million – slightly less than budgeted levels, and three per cent higher than in 1991. Operating income, before tax and minority interest payments was on budget at \$77.3 million. Improved lumber, pulp and paper and woodchip loadings offset reduced coal and sulphur volumes.

("Coupler")

WCRA's efforts toward the restoration of former PGE #561 are moving toward completion. BC Rail shopcraft employees and supervisors have been laboring to restore the locomotive to RSC-3 class, with A-1-A trucks. The four traction motors have been cleaned, rebuilt as necessary, and installed into the trucks. New brake cylinders have been mounted on the truck sideframes, and the entire brake system has been refurbished to like-new condition. (WCRA "News")

BCR Engineering has been working on a bank widening project between Darcy and Lillooet, in preparation for the installation of CWR. Work should be completed by September. ("Coupler")

BC Rail has agreed to lease four cars from VIA Rail for the Royal Hudson summer service. Included are Cafe-Bar Lounge 2505, and Coaches 5595, 5623, and 5628. These cars will replace 4 of the former CP 2200-series, which are considered too far gone bodywise to repair. (Earl Roberts)

Canfor Forest Products of Fort St. John has located what is reported to be the tallest white spruce tree on record. The tree is located at their logging operation in Niteal, which is mile 898 on the BC Rail line. The tree is 170 feet high. Quite significant considering that the average white spruce height is between 70 and 90 feet.

This tree died of natural causes, and a project is being considered to fall the tree, and transport it in pieces to Fort St. John where it would be reassembled. ("Coupler")

In late February, The Canadian Auto Workers union won an arbitration against the Railway that will give it the job of cleaning pulp cars.

Previously, BC Rail has contracted out this work, but an independent arbitrator decided that the work rightly belongs to BCR Carmen. (BCR "Briefly")

A new, pre-fabricated station has been sited in Chetwynd. This new structure replaces the former 1950s era building. ("Coupler")

Nearly one year ago, BC Rail officials discovered cracks in many of the 73,000 steel ties that had been installed on the Railway's vast trackage system. Since then, Engineering has been closely monitoring the steel tie situation, and has undertaken the replacement of some of the most damaged ones.

In 1992, a total of 5,000 ties were removed. This year, BC Rail crews will change out 93,000 ties around Williams Lake and the Cheakamus Canyon area. These damaged ties are being replaced by the hardwood variety.

The manufacturer, an Australian concern, has been working on a solution to the problem. BC Rail tested two types of "saddles" that were supposed to stop the cracking. However, both "saddles" have performed poorly. (BC Rail "Briefly")

Rumors persist regarding BC Rail's possible take over of portions of BC Southern Railway's operations. This scenario also includes the Stevenson industrial trackage going to CP Rail. (Paul J. Crozier Smith)

The BC Rail Centre (North Vancouver) recently celebrated its tenth anniversary. Prior to March 1983, BC Rail corporate staffers were housed in an office on West Pender Street in Vancouver. ("Coupler")

Container shipments through the Port of Vancouver jumped 15 percent to a record high in 1992. Grain shipments and Alaska cruise ship passengers were up significantly as well. Volumes declined in some bulk commodity areas. Exports of coal, sulphur, potash, and lumber products declined. The port's total throughput was down 10 percent compared to 1991. (Vancouver "Sun"/"Coupler")

Frank Jamieson, owner of Jamieson Construction, died on March 6 following a long battle with cancer. Jamieson Construction did a lot of work for the PGE, including grade construction on sections between Quesnel and Prince George from 1950-52. The company also performed work along Anderson and Seton Lakes. Jamieson Construction later became Star Equipment. ("Coupler")

110 jobs will be lost in 1994 when Weldwood of Canada shuts its Merrill Wagner (Williams Lake) mill. The company cites the end of pine beetle-infested timber as a fundamental issue in the decision to close the facility. The closure will mean a loss of about 800 carloads of lumber and 4,000 carloads of woodchips a year for BC Rail. This development, coupled with recent closures of Carrier sawmills in Tatla Lake and Anahim Lake, will mean a loss of about \$4 million in revenues for the railway. ("Coupler")

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In early January, BC Rail trucks started  
 hauling hog fuel (mill waste) from on-line  
 mills to NW Energy in Williams Lake.

NW Energy is a co-generating plant  
 designed to turn hog fuel into power that is  
 in turn sold back to BC Hydro. By  
 successfully bidding on the contract,  
 Intermodal has created about 7 new  
 full-time jobs and 2 part-time jobs for truck  
 drivers in Williams Lake.

The second phase of the North Vancouver  
 yard rehabilitation program is underway.  
 With the new trackage will come a much  
 needed drainage system, along with a  
 more reliable all steel tied switching lead.  
 BC Hydro has relocated poles and wires for  
 further track realignment and construction.  
 ("Coupler")

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Hard on the heels of the station at Dawson  
 Creek being lost to fire, the railway has torn  
 down the station at Chetwynd, this time  
 deliberately, citing structural deterioration.  
 This leaves only the Fort St. John station as  
 an example of the common "Peace River"  
 style which was built when the PGE  
 reached here in 1958. They really don't  
 have much of an architectural beauty to  
 them but they grew on you! (Ross Pugsley)

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Curragh Resources, Toronto based developer of the  
 Stronsay zinc-lead deposit (Ed Note: see "Cariboo"  
 #7, pg. 2), said that it has been holding talks with a  
 number of Asian investors. Subject: possible sale  
 of an equity interest in the company for an  
 estimated 50 million Canadian dollars.

Last month Curragh filed for court protection under  
 the Companies' Creditors Arrangement Act (similar  
 to chapter 11 of the U.S. Bankruptcy Code). ("Wall  
 Street Journal")

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## RAILWAY ROBOTS by Marcel de Vlieger

One hardly associates the term "robot" with a railway operation. Yet that's precisely the name given by the British Columbia Railway to its fleet of remote controlled, mid-train units. According to noted BCR historian Timothy J. Horton, "Locotrol", developed by Radiation Incorporated, was first used in 1960 by the Southern Railway. This electronic system was designed to remotely control train direction, throttle position, and braking". These "robots", more commonly referred to as Remote Control Cars (RCC), respond to FM radio signals transmitted by a lead station, normally located in a head-end diesel. As part of an on-going "conversation", control messages are updated approximately every 21 seconds.

Horton goes on to say, "Insertion of locomotives in the middle of the train provides better control of the slack action between cars, and drawbar forces are distributed more evenly within the consist. The reduction of slack action and drawbar stress enables longer and heavier trains to be operated."

I first came in contact with this equipment soon after its introduction in 1969, while working as a BCR trainman. I can vividly recall the look on many an engineer's face, the gritting of teeth, as we passed through a tunnel. Often time, without warning, the control signal would be lost while inside a tunnel. This occurrence would cause the mid-train engines to "cut out". Sometimes as the leading engines dipped over the crest of a mountain (and began to apply dynamic braking), the mid-train units would still be running at full throttle (in an effort to push the train over the hill).

To ensure the integrity of the Locotrol equipment (i.e. minimize "shock"), it was decided to build the RCCs using retired diesel "B" units. The Railway acquired a former Seattle, Portland, and Spokane FB-2. This unit had its diesel powerplant and traction motors removed. Locotrol equipment was installed, ballast was added, and the exterior received a full repainting. The completed "robot" was lettered as RCC 1.

Following successful in-service trials, the Railway purchased several more engines including ex Canadian National Railway FPB-2s, ex Canadian Pacific Railway CFB-16s, and F7-B units formerly operated by Great Northern, Northern Pacific, and Burlington Northern. This further purchase gave the British Columbia Railway 12 RCC cars on its active roster.

For more information I strongly recommend Timothy J. Horton's excellent book "The British Columbia Railway (volume 1)". This RCC model will give one a great excuse to put those dummy diesels in the middle of your train. So let's start modelling the F-7B version of BCR's Remote Control Car. As always, please refer to a photograph of a specific prototype unit for exact details.

Bill of Material

1	Athearn 3024	F-7B dummy unit
1 pkg	Evergreen 9040	.040" styrene
1 pkg	Evergreen 9010	.010" styrene
	K&S Engineering 498	.015" wire
1 pkg	Detail Associates 2202	grab irons
4	Phillips screws	round head (5/16)
1	K&S Engineering 1115	5/16" tubing
1 pkg	Detail Associates 1508	mu hoses
1	Detail Associates LT 1013	ditch light
1	McKean 10	brake wheel
2	Detail Associates 2204	coupler bar
2	Kadee	# 5 couplers
1	Detail Associates RA 1803	Sinclair antenna
1	Herald King C230	BCR decal
2	Detail Associates 1507	mu receptacle
2	MV Products LS-18	clear lenses
1	Detail Associates 6211	brake platform
1 pkg	Evergreen 9020	.020" styrene
1 pkg	Detail Associates 2206	eye bolts
1 pkg	Detail Associates LR 1103	lift rings

Paint: Model Master

Light green	1716 (FS 34227)
Dark green	1764 (FS 34092)
Black	1749 (FS 37038)
Yellow	1707 (FS 13538)

Read complete instructions before beginning construction.  
Refer to Figure 1 unless otherwise noted.

- Step 1: Using a razor saw, cut off all step ladders.  
Save these parts for later usage.
- Step 2: Again using the razor saw, remove both sides of  
the car leaving only the roof and ends intact.
- Step 3: Using a #11 Xacto chisel blade, remove the grab irons on  
both ends of the car.
- Step 4: Remove (by filing) all the equipment on the roof (fans,  
vents, etc.) Leave the panels and lift rings intact,  
unless new lift rings are desired. Fill with putty, and  
sand smooth using 600 grit wet/dry sandpaper.
- Step 5: There are two grooves on the bottom of the fuel tank.  
Using a hacksaw, slice into the grooves until you reach  
the frame. Remove these outer portions of the tank  
assembly. Cover over this area with .020" styrene.
- Step 6: Using .040" styrene, cut 1/8" X 6 3/8" pieces to replace  
the car sides. File to fit. Mark the sides A and B (to  
match the respective side.) Do not cement.

- Step 7: For the door assembly, mark two locations: one each at  $27/32$ " and  $1/16$ " from both ends of the car. Using .010" styrene, cut  $1/16$ " strips for framing in the door (outside these marks). The completed door assembly should be  $3/4$ " high. Using .020" styrene, cut  $1/16$ " wide strips to go across the top of the door. Four of these doors must be placed on the car. The right hand door receives a step using .020" styrene cut  $1/16$ " wide. Cement the step along it's edge between the door frame,  $1/16$ " up from the bottom of the side assembly.
- Step 8: Using .010" styrene, cut a piece  $1/16$ " square and cement it  $3/8$ " up from the bottom of the door. This will represent the door latches. Place these on the inside of the door frame, towards the center of the car. For the door handles, bend a  $1/16$ " length of .015 wire at a right angle. Drill a #78 Hole in the center of the door latch assembly. Cement the handles in place.
- Step 9: Cement the sides of the car in place (see step 6). Using .040" styrene, cut 4 strips  $1/8$ " X  $5/8$ " each, and cement inside the corners of the car for support. Be sure to leave enough clearance for mounting the carbody assembly on the frame. I did not putty the joints since these are visible on the prototype.
- Step 10: Choose a brake end for the car, and mark "B" on the inside face of the respective wall assembly. Cut the brake platform  $1/16$ " X  $3/8$ ". Cement at the bottom of the left side of the door outside the door frame.
- Step 11: File the roof overhang away at both ends of the car.
- Step 12: Using .010" styrene, cut 2 strips  $1/16$ " X  $1/4$ " in size. Cement vertically above the brake platform (see step 10) on top of, and on the outer ends, of the ribs.
- Step 13: Using .010" styrene, cut a piece  $5/16$ " square for the brake housing. Cement this piece on top of the 2 vertical strips in step 12, leaving a portion of the bottom strip exposed. Cement the brake wheel onto the center of this housing.
- Step 14: Using .010" styrene, cut a  $1/8$ " square piece for the flood light mounting plate. Cement this  $3/16$ " from the side edge of the car and  $1/16$ " from the brake platform. Cement a ditch light on top of this mounting plate. Do both ends of the car.
- Step 15: Cement the MU receptacle at the bottom right hand corner (on the brake side), directly above the bottom grab iron.
- Step 16: Drill and mount 2 grab irons directly above the MU cable mounts at both ends of the car. Left side "B" end grab iron will be installed below the brake platform.
- Step 17: Using .040" styrene, cut 2 pieces  $5/16$ " square and cement together (for .080" thickness). This will become the equipment box for the roof. File (shape) the bottom



of this box assembly so that it will fit the contour of the car roof. Fabricate two of these assemblies. Cement these boxes at the roof center line,  $1 \frac{5}{8}$ " from each end of the car roof. Facing the "B" end, mount the antennae towards the "A" end of the car. Place this at the front left corner, outside of the "B" end roof panel. Using .015" wire (folded back onto itself so as to double its thickness), cut a piece  $\frac{1}{16}$ " long. This will become the smaller of the two antennae. Cement this in the center of the equipment boxes, parallel to the main antennae.

Step 18: Using #78 drill, mount grab irons at all 4 corners of the car roof (at  $\frac{1}{16}$ " from the roof's edge).

Step 19: Drill and cement a  $\frac{7}{16}$ " long grab iron made from .015" wire. Mount this  $\frac{1}{16}$ " up from the brake platform along the left edge on the "B" end of the car. Cement lift rings on top corners of both door frames.

Step 20: At both ends of the car, drill and cement a grab iron on the right door frame  $\frac{3}{8}$ " up from the bottom of the door.

Step 21: Facing the side of the car, install full grab irons along the length of the door frame for each of the "right" doors.

Step 22: Again facing the side of the car, install grab irons at both the lower right and lower left corner of the car. These grab irons should be (horizontally)  $\frac{1}{16}$ " and  $\frac{1}{4}$ " from the bottom edge, and  $\frac{1}{32}$ " in from the ends of the car. Repeat at all 4 corners.

Step 23: To model the two underframe air tanks, cut a  $\frac{5}{8}$ " length of  $\frac{5}{16}$ " tubing. I used Phillips round-head screws with ( $\frac{5}{16}$ " diameter heads) to represent the domed tank ends. Cement the screws into each end of the tubes. Fill with putty and sand as needed. Drill the center of each tank end with a #78 drill. To simulate strapping mounts, wrap the tank with  $\frac{1}{64}$ " drafting tape or foil tape at  $\frac{1}{16}$ " from both ends of the tank. Draw a line horizontally along the center of the old fuel tank. Cement air tank using CA adhesive along the center of the horizontal line you previously defined. (Refer to step 5 above).

Step 24: Using a #78 drill, prepare 4 holes along the horizontal line (step 23) positioned at  $\frac{1}{8}$ " and  $\frac{7}{16}$ " from each end of the line.

Step 25: Using .015" wire, make 4 air lines from template in Figure 2. Wire through 2 eye bolts per air line. Cement eye bolts and air line into holes (step 24), with the end of the air line going into the center of the air tank. (step 23)

Step 26: Now you're ready to paint the car. Wash the car with soap and water before painting. Allow to air dry. Apply a coat of primer. This will highlight any imperfections or scratches that exist. Repair as necessary.

The only paint scheme applied to BCR's Remote Control Cars was the 2 tone green design. Depending upon the period modeled, either the "dogwood" or "PGE map" herald markings would be appropriate. Both the car roof and car ends are painted dark green. The car's sides are painted with the upper half in light green, and the lower half in dark green. A white stripe from Herald King's C230 set goes along the colour line. The trucks, tanks, and underframe are grimy black. Grab irons and stirrups are yellow (except for the roof grab irons). "RCC" lettering is 8" white Gothic, to be lettered 1/4" to the right of the left door frame, along center of the lower dark green half. The herald logo is also placed along the same horizontal line, 1/4" in from the left right door frame. There is also a 4" white Gothic lettering "RCC #" placed on the top right hand corner of each car end. A 4" "F" (for front) marking is placed under the lower front side grab iron at the "A" end. Remember to give the car a good gloss coat before applying any decal.

Seal the car after decal application with Dull Coat.

- Step 27: Using a #78 drill, drill out 6 holes at each end of the car for MU hoses. Paint the hoses black with grey glad hands.
- Step 28: Mount Kadee couplers following the manufacturer's instructions.
- Step 29: Install the trucks. Carefully insert the frame into the car body.
- Step 30: Cut coupler bars just short of the coupler. Drill out the coupler mount on the car to accept the coupler lift bar. Install two coupler lift bars at each end of the car. Paint these dark green.
- Step 31: Glaze all doors and windows with clear plastic.
- Step 32: Using white glue, cement the MV lenses into the ditch light sockets.
- Step 33: File the top of the stirrups (step 1) flat, and cement one under each side corner grab iron. Cement a stirrup under the right door. Paint these yellow.
- Step 34: I prefer to weather my cars using either chalk, watercolours, or my wife's make up (believe it or not!) These methods tend to be forgiving (unlike one's wife!), and can easily be removed in case you do make a mistake. I find the value also holds more with removable weathering, since the car can easily be restored to like-new condition with soap and water.

There you have it. Lash-up a couple of dummy engines with this RCC car in a mid-train consist, and you're ready for some heavy mountain service.



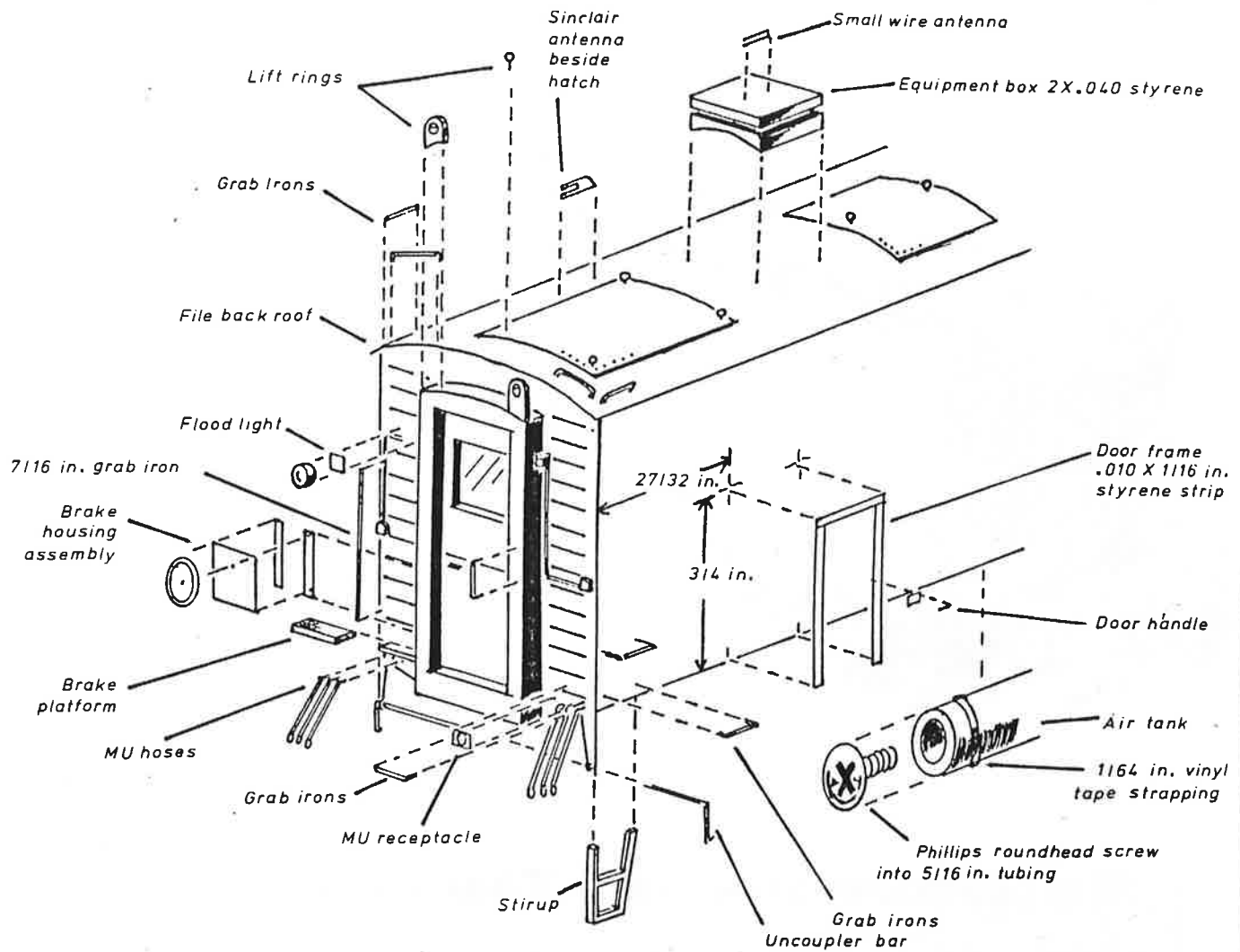
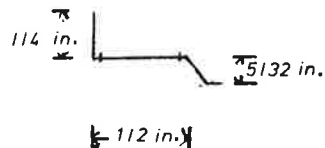


Fig. 1

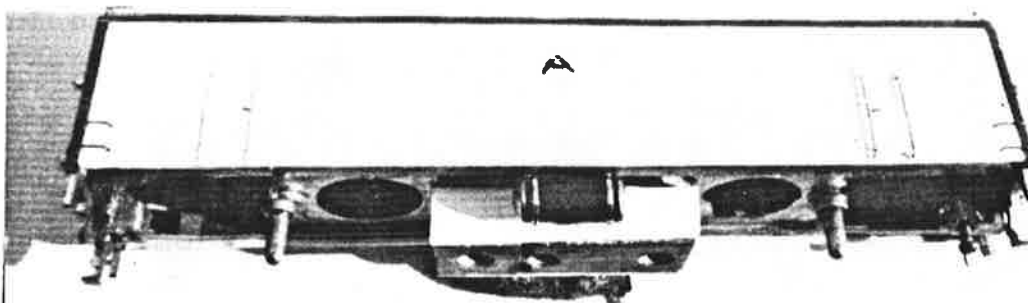
Fig 2.

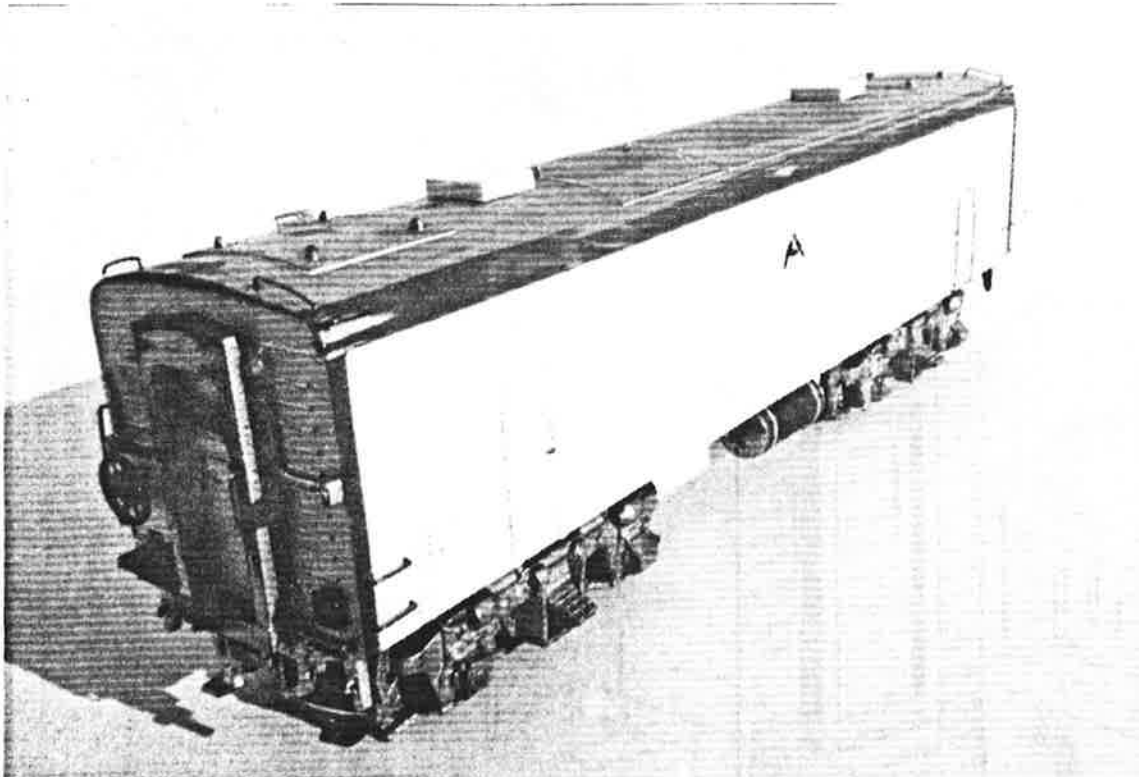
(HO scale)



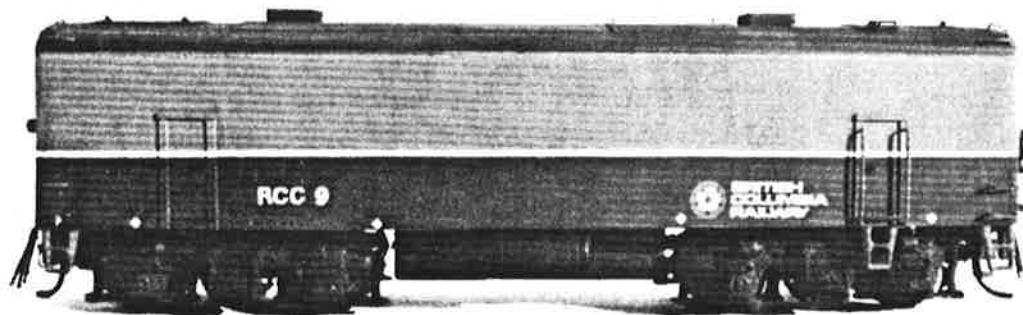
Drawings and photos by author unless other noted.

Below: In progress shot showing air tank positioning.

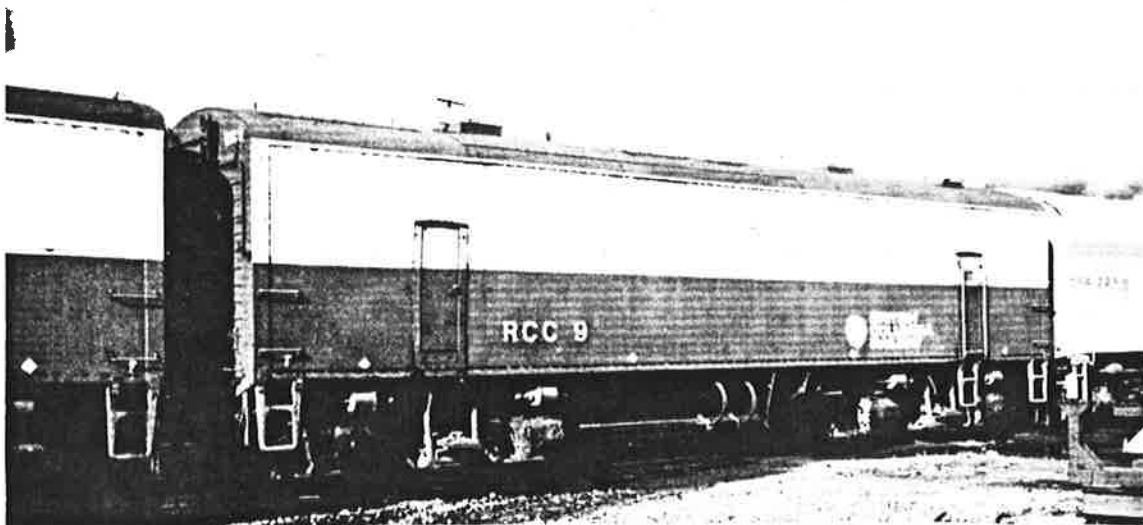




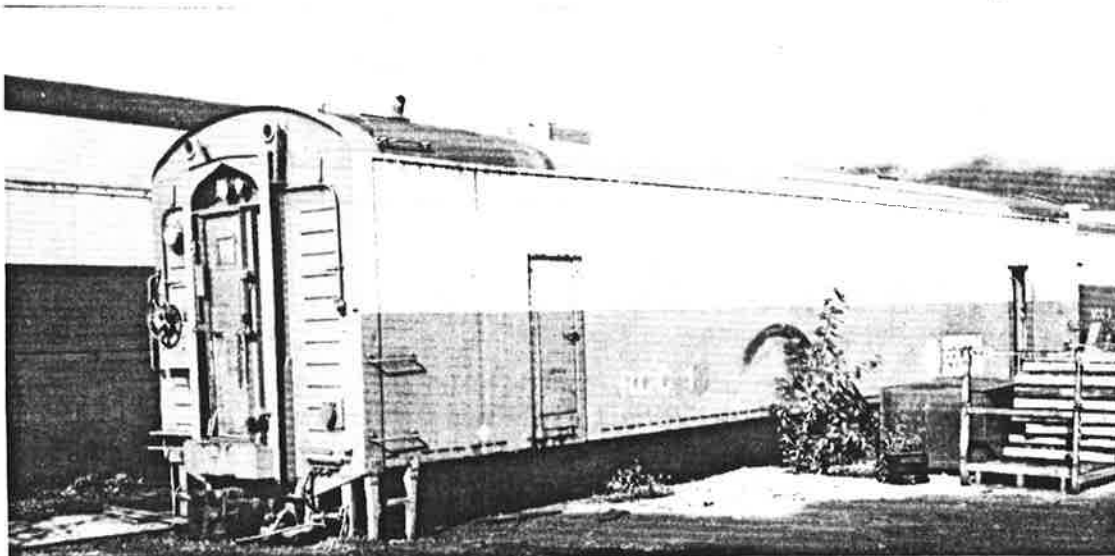
All detail parts installed.  
Ready for painting.



Fresh out of the paint shop.



Prototype in storage.  
Squamish yard, 1991.  
Andy Barber photo.



At career's twilight.  
Note end detail.  
Squamish yard, 1991.  
Andy Barber photo.

### BC RAIL'S REMOTE CONTROL CARS

Road#	Mfgr	Date	Model	Serial#	Notes
RCC 1	ALCO	Dec 50	FB-1m	78288	ex SP&S 210
					leased 5/69, purchased 4/72
					retired 1987
					NRHS 1988
RCC 2	MLW	Apr 55	FPB-2m	81186	ex CN 6854
					purchased 1971
					retired 1988
					Loco Preservation Society
RCC 3	CLC-FM	Apr 53	CFB16-4m	2722	ex CP 4455
					purchased 1971
					retired 1990
					stored @ Squamish
RCC 4	CLC-FM	Apr 53	CFB16-4m	2723	ex CP 4456
					purchased 1971
					retired 1990
RCC 5	EMD	Oct 50	F-7Bm	11087	never carried BCR#
					ex BN RCU 106
					purchased 1980
					sold to CP April 1987
RCC 6	EMD	Apr 52	F-7Bm	16087	ex BN RCU 107(2)
					purchased 1980
					retired 1990
					scrapped 1992
RCC 7	EMD	Mar 50	F-7Bm	9548	ex BN RCU 108
					purchased 1980
					sold to CP April 1987
RCC 8	EMD	Jan 47	F-3Bm	3874	ex BN RCU 108
					purchased 1980
					sold to CP April 1987
RCC 9	EMD	Feb 50	F-7Bm	10922	ex BN RCU 111
					retired 1990
					scrapped 1992
RCC 10	EMD	Mar 50	F-7Bm	9555	ex BN RCU 112
					renumbered as RCC 1(2)
					retired 1988
					Prince George Rwy Museum /92

## NORTHERN B&B CREWS BUSY IN 1992

By Gail Blake      Reprinted courtesy of "Coupler"

B&B is such an important part of Prince George's operation, I felt the rest of the railway should know just how busy they were in 1992. I asked Randy Chencharik, B&B Supervisor, to give us an overview. Here's what he sent:

*When I was first asked to compile what the B&B department did last year on territory 242, I thought I would have to write a book. We had a very busy year getting outfit cars ready for gangs, bridge building, culvert and retaining wall maintenance, and lots of bigger projects. Here is a list of the work we did:*

1. Built four new outfit cars in Prince George, including 2 five-person bunks, a cook/storage car, and a diner.
2. Installed two switch heaters at McEwen siding (near mile 509).
3. Began building a new sand storage shed in Prince George.
4. Installed a new roof over the existing Prince George freight shed/passenger depot.
5. Put a new roof on the Mackenzie station.
6. Set up foundations and bunkhouses at Lovell and Fort St. James.
7. Constructed the foundations and set up the new station at Chetwynd.
8. Upgraded the water system in the Fort Nelson yard.
9. Added 300 ft. of culvert fluming to the 6 ft. multi-plate at mile 969.
10. Added six glulams to the existing bridge at Fontas River (near mile 917).  
(Ed. Note: A glulam is composed of strips of wood heat-glued together so as to form a strong beam. Material is like plywood, only thicker layers of wood.)
11. Changed out last few ties and added a walkway to the Beatton River Bridge (near mile 822).
12. Assisted the Communications Department with installation of new fuel tanks at various microwave sites.
13. Finished the retaining walls on the Tumbler Subdivision, sheeted in the north portal of the Wolverine tunnel.
14. Put new ties and a walkway on the highway overpass at mile 399.
15. Stabilized a large scour hole at mile 328.5 with new drains, manholes, and a steel culvert pipe that was installed under the track and down the hill.
16. Constructed the north tower and three bents north out of steel pilings to replace the timber portion of the bridge at Birdflat Creek (mile 265, Takla Subdivision).
17. Replaced the timber pile bridge at Redrock Creek (mile 449) with fill and a 14 foot multi-plate culvert.
18. Replaced the two Tacheeda Creek bridges at miles 536 and 537 with fill and concrete box culverts.

**TIGER VALLEY PRODUCTS FOR THE BC RAIL MODELER**  
*by Paul J. Crozier Smith*

I was asked if I would do an article on modelling a BC Rail RS-18 using a Tiger Valley Models unit. I said I would but did not specify a time frame. Well, I said that in November, 1992 and by January 1993 realized it might be a while before I scraped together the money required to purchase the RS-18. So, the yes has turned into three articles; 1.) this one, 2.) modelling a RS-27 (yes two of these strange creatures operated on BC Rail/PGE [see Issues #2-5 of the Cariboo]) and 3.) the RS-18 article. The later two to come later.

Guilford L. Mack, Jr., an engineer by profession and owner of Tiger Valley Models, has made his business making models for the serious Alco/MLW modeller. His attentiveness to detail will be noticed as soon as you open one of these kits. The first kit that I got from him through Lark Spur Line in Ontario has been a work of love from the start. These kits are not, in my opinion, for the timid modeller. You will require tools and I would say some modelling experience.

The tools you will need are a number of jewellers type files, needle nose pliers, ACC and/or epoxy glue, a selection of #60-80 drill bits, pin vice, X-Acto knife and a Dremel tool if available.

These kits are designed for four to twelve hours of assembly time depending on the modeller's skill level (I found that this may be a bit under estimation of time needed). I have personally taken longer, but I have taken my time on the filing so as to do a good job on my RS-27. It is stated by Tiger Valley that its models are designed for a scale 55 mph at twelve volts DC. They are all cast metal with a Sagami motor powering all axles through a Delrin chain to the gear train. The bearings are of bronze and the wheels are nickel. The electrical pickup is from all eight or twelve wheels depending on the locomotive. These models are cast in a zinc-cadmium alloy which gives each model 25 to 36 ounces of weight depending on the model and each model frame is individually serial numbered. I think that is enough weight to cause my track gang some consternation. The pilots have been designed to take the Kadee #5 coupler.

I found that the instructions are easy to follow and that the drawings are good. None of the assembly is difficult as long as one does not rush, something that I have to really work at. I think I have succeeded in as much as I have worked off and on for three years on this model. I have most of the filing done and just have to detail, paint and assemble the body above the frame. At this time Tiger Valley has not made mention that the RS-27's ran on PGE/BC Rail. This is probably because they were never owned by PGE/BC Rail. Thus I have not followed the directions faithfully because of the changes that were made by MLW Leasing before they leased the RS-27's to PGE/BC Rail. I found that the filing the hardest thing to do and the most time consuming, but if you take your time this probably will not be a major problem. I have included two representational drawings of Tiger Valley units to give you an idea of the construction.

The four axle models are rated as being able to negotiate 15 inch radius curves, while the six axle units 24 inch radius curves. These kits come with ample easy-to-follow, at least in my opinion, instructions and drawings. I have accompanied this article with two general drawings of a Tiger Valley model so that you can see the general layout of these kits.

The following kits will be particularly of interest to the BC Rail/PGE modeller:

Kit #RS-10	PGE/BCR 579-86
Kit #RS-18-I High Nose	PGE 587-90, BCR 601-4 (now chopped nose), CPR 8729-8800
Kit #RS-18-II Low Nose	PGE 591-99, BCR 605-613
Kit #RS-18-III Low Nose	PGE/BCR 614-630
Kit #DL640	Alco Demos 640-1 and 640-2, UP 675-6 (MLW leasers 675-6 when PGE had them)
Kit #C420-I Low Nose	L&HR 25-6, BCR 631-2
Kit #MLW M420	BCR 640-47 (with a little work a M420B could be made from this kit as well)
Kit #C424-3	CNR 3200-01
Kit #C424-4	CNR 3202-40
Kit #C425-6	EL 2451-62, BCR 800-812
Kit #MLW C630	CNR 2000-43, PGE/BCR 701-704

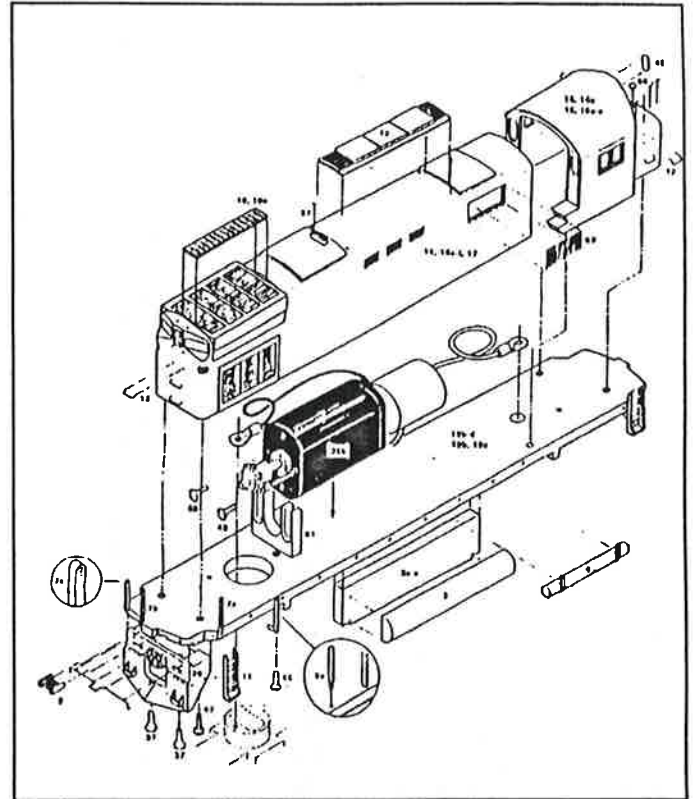
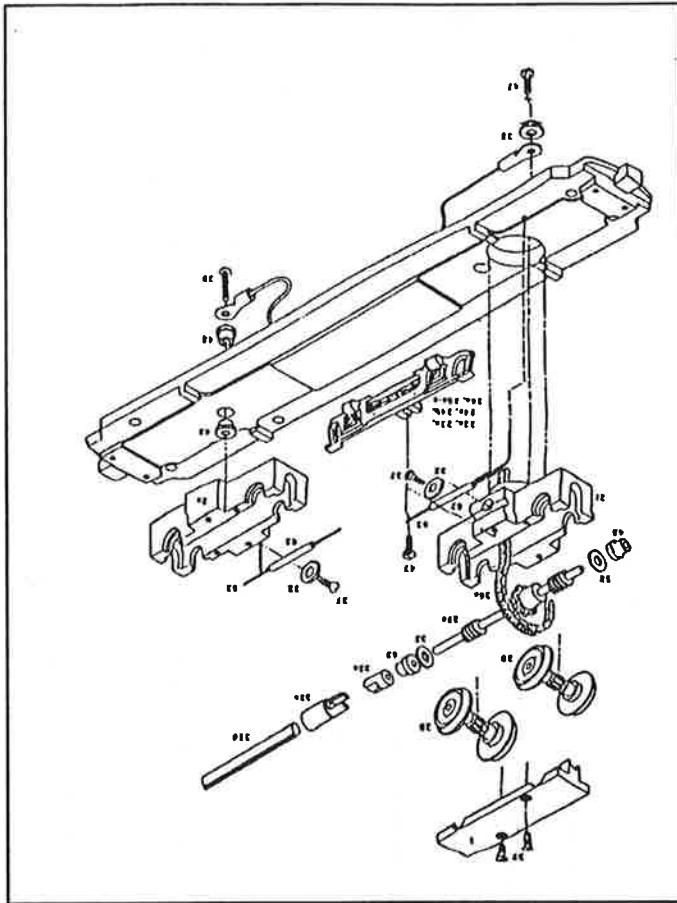
I have mentioned other railways equipment here that the modeller might be interested in because they were leased at some point by PGE/BC Rail. Note my list of leased locomotives in *Cariboo* Issues #2-5.

The last quoted price structure that I have indicates that four axle powered are \$99.00 (all prices in US funds) and dummy \$45.00. The six axle units are \$115.00 for the powered version and \$60.00 for the dummy. These models can be obtained with the mechanism assembled for \$105.00 for four axle and \$120.00 for six axle. Also they can be procured completed ready for painting for \$130.00 and \$145.00 respectively. He also can supply them custom decorated at a further cost, but it is best to contact Tiger Valley for a quote on exactly what you want put on the model.

Now that I have completed the frame of my RS-27, I can agree with Mr. Mack's ad stating "HO Scale Diesel Kits for the Craftsman". But oh, well worth the effort! I would heartily recommend these model kits to you. I would write Tiger Valley Models at #23 1070 County Rd., Phelps, NY., USA, 14532 for an up-to-date price quote. I know Mr. Mack has other Alco/MLW units planned and I am personally hoping for an S-10, but that is another story. I hope you find these units as good as I have found them.

**"THE CARIBOO" is published quarterly for enthusiasts and modelers of the Pacific Great Eastern Railway and its successor lines. Sample issues may be obtained for \$4.00 U.S. funds (posted to North American addresses). Send all correspondence to: Jim Moore, 25729 Floral Court, Valencia, California 91355-2139, U.S.A.**





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#### BRASS PLUS LIAISON

"Cariboo" editor Andy Barber has agreed to act as a liaison between our Society and Jeff Lemke's Brass Plus. Jeff has expressed a desire to have our members provide input on future brass model projects. Brass Plus is a supporter of our newsletter, and imports a broad range of brass scale models. Drop Andy a note (c/o "Cariboo") advising which models you would most like to see available as brass scale reproductions.

#### CALL FOR PHOTOS

We need prints and slides (of either PGE or BCR equipment) to illustrate several upcoming "Cariboo" features. As you know, a picture is worth a 1000 words, and can certainly make or break an article.

Unless otherwise agreed upon, all material will be returned in original condition. And appropriate photographer credit will be noted.

Here's our "shopping" list:

wood chip hoppers (any series)

pressure-flow hopper (2200 series)

fire protection tankers (99000 series)

100T coal gondolas (BCNE series)

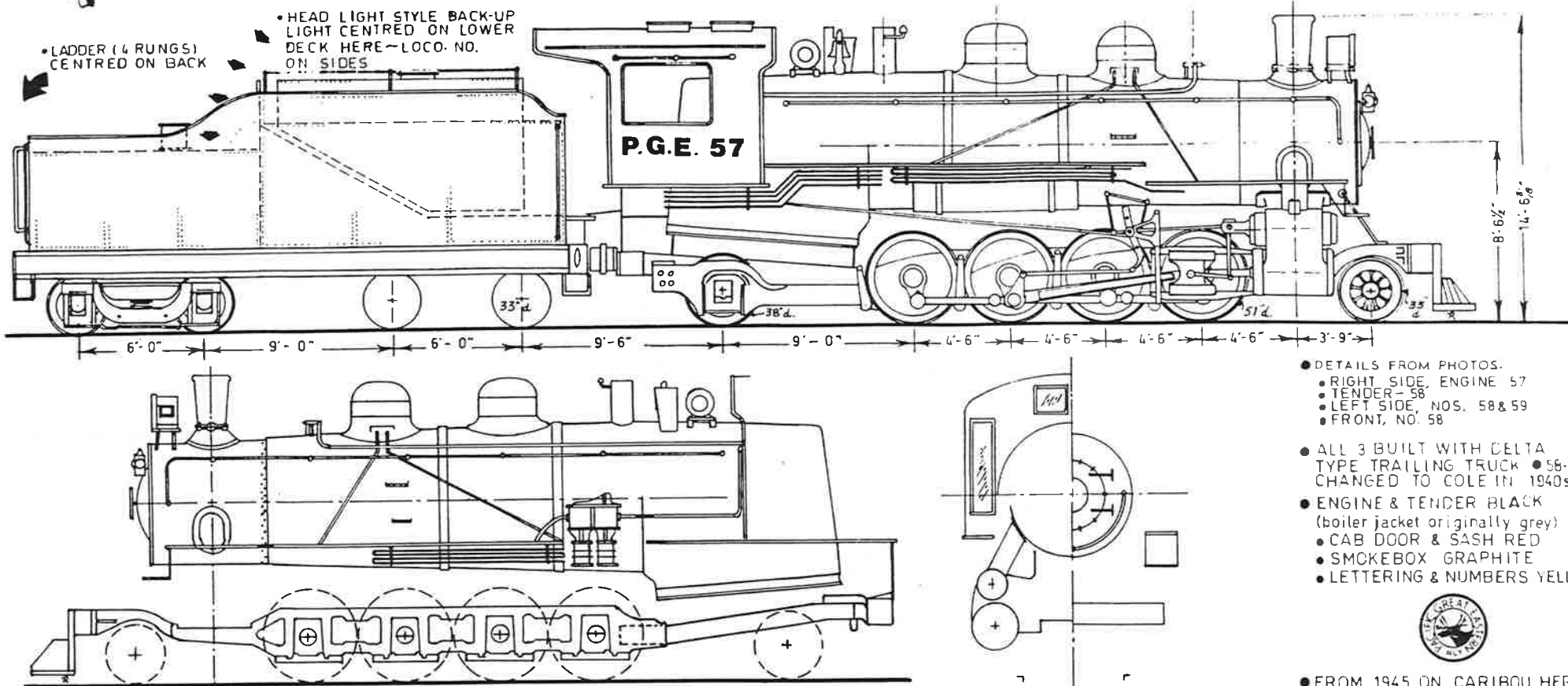
Roster photos are good, and detail shots are even better. Please provide captioning info (date, location, photographer) on a separate sheet.



O'SHO-ME

# ● **PACIFIC GREAT EASTERN RY.** ● **2-8-2 MIKADO TYPE** ● Nos. 57-59

- BUILT BY CANADIAN LOCOMOTIVE COMPANY (KINGSTON), 1920
- 22"x28" CYLINDERS ● 51" DRIVERS (11 spokes) ● 190 P.S.I
- 212,000 lbs. ENGINE WEIGHT ● 43,000 lbs. TRACTIVE EFFORT
- CLC Nos. 1630-1632 ● 12" PISTON VALVES ● WALSCHAERT GEAR
- 6000 IMP. GALS. WATER ● 2700 IMP. GALS. FUEL OIL



- DETAILS FROM PHOTOS.
- RIGHT SIDE, ENGINE 57
- TENDER-58
- LEFT SIDE, NOS. 58 & 59
- FRONT, NO. 58
- ALL 3 BUILT WITH DELTA TYPE TRAILING TRUCK ● 58-59 CHANGED TO COLE IN 1940s
- ENGINE & TENDER BLACK (boiler jacket originally grey)
- CAB DOOR & SASH RED
- SMOKEBOX GRAPHITE
- LETTERING & NUMBERS YELLOW



- FROM 1945 ON, CARIBOU HERALD APPLIED

ALWAYS FACING FORWARD on

- TENDERS ● CABOOSES ● SNOW PLOWS & FLANGERS ● NAMED PASSENGER CARS

## ● PHOTOS:

- STAN STYLES
- B.C. RAILWAY HISTORICAL ASSOCIATION
- B.C. PROVINCIAL ARCHIVES
- BORDERTOWN PUBLISHING

## ● DATA COURTESY

● **GREG KENNELLY**

## ● DRAWING

● **ROD RODDICK**

## ● FULL SIZE HO SCALE

## ● COPYRIGHT O'SHO-ME

## ● **PACIFIC GREAT EASTERN** ● **ALL-TIME STEAM ROSTER** ● **COMPILED BY THE LATE WILLIAM HEWLETT**

NUMBERS	TYPE	BUILT	CYLINDERS	DRIV	ENG. WT.	TRACT. EFF.	P.S.I	SHOP NO.	O-SHO-ME PLAN
1	0-4-0T	MANNING WARDLE 1874	8x10	36					XXIII 167
2	2-6-2T	BALDWIN 1910	16x24	45		21,957		34270	XXIII 168
3	0-6-0	DAVENPORT 1914	17x24	50	94,000	21,220	180	1477	VII 42
4-5	2-6-2	BALDWIN 1908	20x24	48	156,000	27,200	160	33021-22	XIX 137
51-52	2-8-0	MLW 1913	19x28	57	160,000	30,000	180	53709,53976	XVI 123
53-56	2-8-0	CLC 1914	22x28	57	188,000	36,300	180	1242,43,46,47	XVII 124
57-59	2-8-2	CLC 1920	22x28	51	212,000	43,000	190	1630-31-32	XXXV 261
160-163	2-8-2	CLC 1945-47	20x30	57	227,000	38,000	225	22867,2408-9	IV 20

● WE ARE EXTREMELY GRATEFUL FOR THE KINDNESS OF O'SHO-ME MEMBER GREG KENNELLY, OF VICTORIA, B.C., FOR PROVIDING THE INFORMATION UPON WHICH THIS DRAWING WAS BASED ● AFTER 16 YEARS OF RESEARCH, ALL WE KNEW ABOUT THESE LOCOS WAS WHAT SHOWS IN THE ROSTER ABOVE ● R.R.

PRODUCT REVIEW: MICROSCALE 87-726 "BC RAIL LATE 1980s LOCOMOTIVES"  
(THREE COLOR/RED-WHITE-BLUE/ SCHEME)

This new release is yet another of Microscale's wide selection of contemporary period scale markings.

Set 87-726 (HO scale) consists of a single sheet of four-color decals, plus an 8.5 x 11 inch instruction sheet. The following items are included on the decal sheet:

- (10) large sized "BC Rail" lettering sets, red and blue
- (8) fire extinguisher symbols, red and white
- (88) frame "dots", white
- (8) electrical "warning" notices, white
- (14) "BC" and provincial flag heralds, four color
- (4) "RCL" lettering, blue
- (6) "FR" and "FL" markings, white
- selection of numerals, (incl 4600-4613-4622), blue
- selection of numerals, (incl. 740-747), blue
- (2) different sizes of white numerals (as above plus extras)
- (6) scotchlite bars, white
- (4) scotchlite striping sets, white (for "F" end of locomotive)
- (2) scotchlite striping sets, white (for rear hood of certain SD40-2s)

The set's instruction sheet features a scale blueprint drawing of a General Electric Dash 8-40C. A factory paint process compilation is also included (again pertaining to the Dash 8-40C). Scale model paint references are provided.

This set offers decals that are of a high quality, in keeping with Microscale's entire product line. Both color reproduction and separation are good.

The large size "BC Rail" lettering (blue and red) sets are about 15% oversized. For most modelers this discrepancy will be of little consequence.

The set name is a bit of a misnomer, as it is obviously geared for the GE Dash 8-40C. The large size "BC Rail" lettering is not accurately sized for either the SD40-2 or RCL applications. However, this slight compromise can easily be overlooked. Modelers can either use the Microscale set as is, or combine it with other commercially available decal sets.

Overall quality is very good. Combine this with Microscale's wide availability and competitive pricing policy, and this set becomes a must purchase for late-era BC Rail modelers.

This set retails for \$4.00 U.S., and is available through retail hobby outlets in both Canada and the United States. Alternatively, sets may be purchased directly from Microscale Industries (POB 11950, Costa Mesa, CA 92627, USA).

# Tid Bits by DUNCAN DU FRESNE

## West Coast Steam and Budds

One year ago my wife and I rode BC Rail's Budd Cars from North Vancouver to Lillooet and return. It was a great trip, what with a friendly operating crew, spectacular scenery, and well prepared and maintained equipment.

We elected to travel out from North Vancouver "Cariboo Class" (first class). This extra fare option allows you to ride in a car (RDC-3) that has a "luxury", rather than "standard" coach, interior. There are individually reclining seats, carpeting, indirect lighting, etc., but best of all there is meal service at your seat, airline style. I felt the meal quality was a cut above airline fare, but maybe I was just extra hungry. We received both breakfast and lunch which was served by an attentive young lady from a stainless steel galley in the former baggage section of the car. Both meals were excellent in every respect, as was the service.

A BC Rail public relations lady riding the train to "survey" the passengers that day made arrangements for us to spend a few miles "up front" with the engineman. This gave me yet another insight into BC Rail's operation and an opportunity to see the extremely rugged terrain through which they maintain their excellent right-of-way. I couldn't help but notice that a proper engineman's "cab" has been installed in the former "control station" of the car. The one time vestibule door had been removed and the opening was now part of the side of the car, complete with crank operated window. Similarly, the trap was now a permanent floor upon which stood a proper engineer's arm chair, replacing the horribly inadequate stool. Throttle and reverse controls had been completely upgraded, as had the WABCO brake control system. The communication radio was a permanent fixture behind a panel located just above the windshield. These, and other improvements made by BC Rail, especially to the Cariboo Class cars, really impressed me and just go to show what can be done to what has always been a basically excellent piece of passenger equipment.

Because we only rode to Lillooet (not through to Prince George) our Cariboo Class odyssey ended right there, as that car went through. The southbound train, upon arriving in Lillooet, lifts the two cars left behind from the northbound job to fill out the consist for the return to North Vancouver.

It was a long (13-14 hour) day, but worth it in every respect. One of the lasting memories of the trip was made during the last few hundred yards of travel just before the final station stop as we passed the BC Rail steam shop and there, seen through the shop window, was the dimly lit front end of Royal Hudson 2860. A spectacular end to a spectacular day!

### A visit to BC Rail's steam shop ...

Our subsequent visit to the steam shop went just a smooth. Al Broadfoot, the shop's congenial foreman, made both of us feel welcome and spent considerable time with me reviewing what had been done and what was planned for the completion of the total rebuild of ex-CPR 2-8-0, Class N2b, number 3716, which shares the shop with the 2860. While Al and I talked shop, Joyce made

herself at home with a retired railroader who was on hand. Left on her own, Joyce doesn't do too bad a job of exchanging railroad quips with the professionals. She and her new found friend got along just fine.

While what I write here is based on what I learned a year ago, bear with me, for I'm not about to bore you with out-dated information. Perhaps a bit of history about the Royal Hudson's "lower class" stablemate is in order.

As 2-8-0s go the 3716 is a "mid size" machine. Certainly she's small when compared to the monstrous 2-8-0s of the Delaware & Hudson E-5a Class<sup>1</sup> but lots of 2-8-0s, both CP and others, were smaller.<sup>2</sup> The 3716 is an MLW product of 1912 and as with much of CP's power of that period she was rebuilt and upgraded as time went on. Her most major rebuild work was done at CP's Angus Shops in Montreal in 1929. When she left Angus she had:

- 1) a new frame
- 2) new cylinder saddle
- 3) higher boiler pressure
- 4) Type "A" Elesco superheater (to replace the V-H design - reference Tid Bits, September 1989 Branchline)
- 5) new running gear

Weston Shops in Winnipeg got to do significant work on the engine just after the end of World War II and, circa 1950 she was converted from coal to oil burning. The rest of 3716's working life with CP was spent in western Canada and, for reasons which now seem to make little sense, she received considerable running gear rebuild work at Weston Shops in 1956! This, at a time when steam power, new and old alike, was being scrapped in wholesale lots.

### A new role awaited ...

By the end of 1958 the 3716 had, apparently, come to the end of the iron trail. For the next 16 to 18 years she lingered on, her life definitely hanging on a thread. A scheme to make her a "park" engine fell through. She had sat outside "weathering" in a "controlled rusting" program for about ten years when the British Columbia Provincial Government came to the rescue in 1976 so that it could join recently restored 2860. The 3716, admittedly less glamorous than the 2860, has, nonetheless, been a "star" in her own right. She has done yeoman service on the Provincial Museum Train and, in 1981, substituted for 2860 on the "Royal Hudson Steam Train" for almost an entire operating season due to a 2860 mechanical problem. Similarly in 1990, when a 2860 rebuild took longer than expected, 3716 once again did the honours for about half of the season.

Just as most major railways upgraded and updated their sound older power as time went on, so have the men at BC Rail's steam shop. In the case of the 3716 it started in 1988 when the engine received an Elesco boiler feedwater heater. This, of course, is a major modification and one that was never carried out before on this class of engine. It didn't work nearly as well as expected and design changes to the pipes carrying exhaust steam to the bundle will, hopefully, correct the problem. Not helping the

<sup>1</sup> The D&H E-5a class 2-8-0 carried 272,000 pounds on her four driving axles, exerted an incredible 72,700 pounds of tractive effort and carried 265 PSI boiler pressure. Ex-CP 3716, by comparison, carries 216,000 pounds on her four driving axles, is rated at 43,000 pounds tractive effort and carries 190 PSI boiler pressure. Both engines ran on 63-inch diameter driving wheels.

<sup>2</sup> Alberta Prairie Excursion's 2-8-0 No. 41, shown on the cover of the November 1992 Branchline, is lilliputian when compared to the 3716. Her only commonality when compared to the D&H engine is wheel arrangement and track gauge.



situation was the small Duplex water pump which was installed because a proper Elesco CF-type reciprocating boiler feed pump was not available at the time.

Also, in 1988, the engine received a large modern tender from CP Pln 2-8-2 No. 5249. This increased her water carrying capacity from 7,000 to 10,000 Imperial gallons with a subsequent increase in fuel oil tank capacity to 3,800 gallons. When the current rebuild is complete a small portion of that 10,000 gallons of water capacity will be lost as a compartment large enough to house the "now-on-hand" Elesco feedwater pump will be built into the side of the tender, just the way CP used to do it on some of their G1 and G2 lights Pacifics.

And speaking of the "new" tender, just think for a minute of what is involved in mating this modern unit to the rear end of an engine intended for an adjustable wedge type slack adjuster. Again, the BC Rail boys rose to the challenge, built an extensive modification to the engine's frame so that engine slack adjusting component parts are compatible with those on the new tender and also to accommodate the modern type shackle (draw) bars. Just think about it, these people are serious!

Also, during the 1988 work the old hydrostatic lubricator was (thankfully) removed from the cab and a modern Nathan mechanical lubricator installed up under the right front running board - a major improvement to be sure. As a matter of interest, this Nathan lubricator is a survivor from Pacific Great Eastern 2-8-2 No. 161.

Last but hardly least in 1988 a modern schedule 26L air brake control system was installed to replace the existing No. 6ET equipment. It's not that the 26L works all that much better, but it is maintainable, parts are available, and when you advertise you're going to run you better have equipment that you can support. As an aside, the modern No. 8ET equipment on the 2860 was also replaced with 26L for exactly the same reasons.

As I saw the 3716 at the end of 1991 she looked pretty much as she appears in the accompanying photograph. Note the roller bearing freight car truck supporting the rear end of the engine - a novel idea indeed! Extensive work was in progress inside the boiler barrel to get things ready for new tubes and flues. The driving wheels and axle boxes were receiving much needed rebuilding as were worn areas around the pedestal jaws and upper frame bars. The engine's springs, as near as I can remember, are being replaced and all other spring rigging components are either being replaced or rebuilt. Pins and bushings in the running gear are being re-worked and, get this, a complete new cab is being fabricated, in kind, at BC Rail's own shops in Squamish.

Any number of problems were still waiting for solutions while I was there, not the least of these was a requirement for new pony truck wheels. Anyone out there know where Al can get a set? Having seen the results of the tenacity and ingenuity of

these very capable people I'm sure, given the necessary corporate will and financial resources, they will overcome all difficulties one way or another, and get the job done.

**So what's all the fuss about? ...**

Since the formation of the Royal Hudson Society and the commencement of steam passenger operation on the west coast nearly 20 years ago, countless thousands of people have seen and enjoyed main line steam in action and British Columbia's "supernatural" scenery, which they might nor otherwise have seen and enjoyed.

A respected Canadian railway historian was once most critical of "cosmetic", and other alterations, made to the former CP engines. I'm sure he wanted them left as they were when CP operated them. The railways updated and upgraded their motive power as time went on. The 3716 did not look, in 1958, very much like she did in 1912, so what's all the fuss about? What is happening now is, in my view, an extension of the natural progression of things in the wonderful world of railway technology that has gone on for well over a century. If no changes could have been made to either 2860 or 3716, then we would likely have two dead dinosaurs, rusting quietly away. The fact is 2860 and 3716 are not locomotives anymore, they're ambassadors for the Province of British Columbia, they're tools in a lucrative multimillion dollar tourist and public relations business, they're putting the place on the map - so to speak.

I, for one, would sooner see technical and cosmetic changes made to keep the engines operable than a pair of "original" static displays outside in the weather in some park. John White, Senior Curator at the Smithsonian Institute, once said that operation of a locomotive (artifact) is to destroy it as "original" parts are being destroyed in its operation. But there is a trade off here. One of a museum's responsibilities is to educate people. Working steam locomotives like 2860 and 3716 do a much better job of education than some dusty artifact ever will, and think of the tourism/PR and other "spin off" value they have.

No, I don't agree that you musn't "decorate" the engines or alter their paint scheme (just so long as it's tasteful), or make technical changes if such changes will result in their "restoration" to operational status. This, I find, preferable to doing nothing, for nothing will probably have a much more disastrous effect over the long term, even scrapping.

Three cheers for BC Rail, the Royal Hudson Society, the Province of British Columbia, and all those people who provide and promote one of the Province's premier attractions.

My thanks to Al Broadfoot and Doug Downie for their help in the preparation of this article. ☺

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#### REPAINT LEDGER: ROYAL HUDSON COACHES

Unit	Completion Date
Prince George	10 April 90
Alexandria	15 March 91
D'Arcy	12 April 91
Lone Butte	29 April 91
Lillooet	6 May 91

Data compiled by Michael R. Blusson.  
 Compilation date: 21 Jan 93.  
 Additions and revisions to this listing are welcome.

#### NEXT ISSUE

*Profile: North Vancouver Yard*

*Detailing BC Rail's SD40-2*

*Modeling the NOKL cars*

## MOTIVE POWER NOTES

Compiled by Paul J. Crozier Smith

BC Rail has taken delivery of its four latest GE Dash 8-40CM's (#4623-4626). The units were received by Canadian National at Buffalo NY, and moved westward in revenue service to Prince George. Delivery dates: 4623 (16 February), 4624 (19 Feb), 4625 (23 Feb), and 4626 (5 March). (WCRA "News", Paul Crozier Smith)

\*\*\*

A BCR engineer friend recently wrote to tell me his impressions of the railway's latest GE arrivals. In his opinion, the four new units (4623-26) are more powerful than the previous batch. Seems that two weeks ago he had 4624 with 4610 as "robot", and a SD40-2 trailing unit. While climbing through Cheakamus, the EMD unit died, yet he was able to make it over the top with the two GEs, even though he was at full tonnage. I've heard that the railway is considering the purchase of 10 more GE's, and is looking at an even more powerful GE engine purchase in the near future. (Patrick O. Hind)

\*\*\*

In conjunction with the Cat re-engining program, 9 of BCR's slugs are being modified to work with the recently upgraded RS-18s. (Paul Crozier Smith)

\*\*\*

The upgrading of 9 SD40-2s to Locotrol II capability was completed in April. The last units completed were 751-53. (PCS)

\*\*\*

C425s 802 and 811 remain in service pending sale or major component failure. (Paul Crozier Smith)

\*\*\*

A number of BCR SD40-2s have been working the CN Rail transfers between Lynn Creek terminal in North Vancouver and the Port Mann yards. It is believed that these engines are working off horsepower hours that (CN) were accumulated on the Tumbler Ridge line. (PCS)

## INTERCHANGE

SEEKING DATA on PGE box cars used for newsprint loading (circa 1940-52). Also, would like to correspond with any member who has info on modeling the MLW S-13s. All letters will be answered. Joel Norman, 777a Cross Creek Drive, St. Louis MO 63131, USA.

Marcel Devlieger (RR#2, Kettleby, ON LOG 1J0) has compiled a four page computer generated listing of his slide and print holdings. The listing is composed primarily of Canadian revenue cars, with just over two pages dedicated to PGE and BCR material.

If you are interested in obtaining a copy of Marcel's listing (for possible trade or purchase of material listed therein), send him one dollar along with your name and address.

\*\*\*

Joel Norman (777a Cross Creek Drive, St. Louis MO 63131) has a Bachmann GE 44T engine (HO scale) for sale or trade. Joel is looking for an Atlas RS-1 (HO scale, any roadname).

\*\*\*

Patrick O. Hind (#203, 620 Dobson Road, Duncan, BC V9L 4R8) is seeking info concerning the former PGE gas cars that operated in West Vancouver, and later between Lillooet and Shalalth. Patrick is preparing a companion volume to his previously released "PGE Steam Locomotives", which was published in 1984.

For further information concerning Patrick's steam book, write BCRHA, POB 114, Victoria, BC V8W 2M1.

## BEHIND THE BYLINE

Marcel deVleiger, author of this issue's RCC feature, is 37 years old and resides in Toronto. Presently employed as an Aircraft Electrical Technician, Marcel studied Commercial Art at Southern Alberta Institute of Technology. In addition to scale modeling, Marcel is an active railfan and photographer.

\*\*\*

Paul J. Crozier Smith, author of this issue's Tiger Valley feature, has been a railfan and modeler for more than 25 years. With a keen interest in railroad history, Paul has been active in the continuing efforts to save the Esquimalt & Nanair Railway. One of the founding member of the BCRH&TS, Paul has contributed extensively to "The Cariboo".



Thanks to the efforts of railway historians Patrick O. Hind and Paul J. Crozier Smith, we can offer several additions to Part One ("Cariboo" #9, July 92) of our "PGE-BCR Historical Motive Power Registry":

- #1 delivered new as Vancouver Coal Mining & Land "Nanaimo";  
to the New Vancouver Coal Mining & Land "Nanaimo" in 1889;  
to NVCM&L #3;  
to Western Fuel Corp. #3 in 1902;  
to Ladysmith Lumber #3 in 1905;  
to Howe Sound, Pemberton Valley & Northern #1 in 1908;  
to Howe Sound & Northern #1 in 1910;  
became PGE #1 on Feb 27, 1912, following takeover of HS&N.
- #2 built February 1910;  
delivered new as Howe Sound, Pemberton Valley & Northern #2;  
to Howe Sound & Northern #2 (tender added);  
to Comox Logging & Railway #7 in 1920;  
to Pacific Great Eastern Railway in 1965;  
placed on display in Squamish, November 1967.
- #3 built February 1914;  
scrapped in 1949;  
boiler used to heat Lillooet roundhouse.
- #4 built in December 1908;  
delivered new as Ocean Shore #9;  
to Warren Spruce #13 (lettered as "Spruce Production Division");  
to PGE #4 in 1919.
- #5 built in December 1908;  
delivered new as Ocean Shore #10;  
to Warren Spruce #14 (lettered as "Spruce Production Division");  
to PGE #5 in 1919.
- #51 built September 1913;  
delivered to PGE on November 4, 1913.
- #52 built September 1913;  
delivered to PGE on November 4, 1913.
- #53-54 built July 1914.
- #55-56 built September 1914.
- 59 built July 1920.
- #160 built June 1945;  
scrapped June 1962;  
last PGE steam engine.
- #161 built June 1945.
- #560 leased by PGE, June 1971;  
purchased by PGE, February 1972;  
retired, June 1984;  
rebuilt as S-404.
- #561 retrucked by PGE, 1956;  
retired, December 1985;  
donated to WCRA, 1986;  
repainted to original PGE scheme;  
retrucked to RSC-3, March 1993;  
on display, WCRA Squamish.
- #562 retrucked by PGE, 1956;  
retired, December 1985;  
rebuilt to S-410, May 1987.
- #563 retrucked by PGE, 1956;  
retired, July 1982;  
used as spare parts for MRS-16 units still in service.
- #564 retrucked by PGE, 1956;  
retired, April 1981 (following wreck September 1980);  
rebuilt to S-401.
- #565 retrucked by PGE, 1956;  
retired, December 1985;  
rebuilt to S-409.
- #566 retrucked by PGE, 1956;  
retired, December 1985;  
rebuilt to S-407.
- #567 retrucked by PGE, 1956;  
retired, February 1985;  
rebuilt to S-406.
- #568 retrucked by PGE, 1956;  
retired, April 1984 (following wreck @ Williams Lk;  
used as spares for MRS-16 units still in service.

Again, thanks to the efforts of historians Patrick O. Hind and Paul J. Crozier Smith, we offer the following update to Part Two ("Cariboo" #12, April 1993):

- #551 delivered new to the PGE in June 1948;  
to Jamieson Construction in July 1951;  
returned to PGE in February 1954;  
to MacMillan Bloedel #1012 (2) in June 1956;  
to Harmac Pulp Mill, Nanaimo;  
to West Coast Railway Museum, Squamish.
- #552 retired by PGE in 1961;  
scrapped at Squamish, 1962.
- #553 to Sydney & Louisburg #60, June 1960;  
to Laurinburg & Southern #107, September 1972;  
to Fairmont Western #107;  
scrapped.
- #554 sold to Andrew Merrilees, Toronto (dealer), 1964;  
resold as Gulf Pulp & Paper #65, January 1965;  
sold back to A. Merrilees, March 1967;  
to Ventura County (California) #2, January 1969;  
scrapped in California, 1977.
- #555 to Marathon Pulp & Paper #555, April 1964;  
to American Can of Canada #555, August 1967;  
withdrawn from use, 1975;  
scrapped, 1977.
- #556 to Lake Ontario Steel #1, January 1965;  
scrapped.
- #557 to Andrew Merrilees, 1964;  
resold to Western Co-op Fertilizer;  
re-engined in 1967;  
withdrawn from use, 1975;  
scrapped, 1977.
- #559 leased by PGE, June 1971;  
purchased by PGE, February 1972;  
retired, June 1984.
- #569 damaged in collision, January 1970;  
rebuilt;  
retired, December 1985;  
stored @ Squamish.
- #570 retired, December 1985;  
stored @ Squamish.
- #571 retired, December 1983;  
rebuilt to S-402.
- #572 unit fell through burning trestle @ Mile 185.3,  
Lillooet Subdivision, 2 miles north of old Moran siding;  
trucks and engine parts removed;  
unit buried as fill material on site;  
retired, August 1960.
- #573 retired, December 1985;  
rebuilt to S-408.
- #574 wrecked in washout at Mile 551.5, May 27, 1979;  
near Hodda, Chetwynd Subdivision;  
unit returned to Squamish;  
retired, May 1980;  
used as spares for MRS-16 fleet.
- #575 wrecked in collision, Prince George yard, May 20, 1979;  
unit returned to Squamish;  
retired, May 1985;  
used as spares for MRS-16 fleet.
- #576 retired, December 1985;  
stored @ Squamish.
- #577 retired, January 1984;  
rebuilt to S-403, 1984.

## MODIFYING McKEAN/FRONT RANGE CENTERBEAMS

by Richard Yaremko and Laszlo Dora

The McKean/Front Range 63' centerbeam lumber car, although offered in BC Rail livery, is an inaccurate model with the most obvious discrepancy being the car's length. In addition to this shortcoming, the finished model's deck is too high from the rail, the sill is too deep, and the overall detail is grossly exaggerated.

McKean Models is intending to produce a lengthened version of the car; although it is unlikely that the other characteristics will be corrected. Still, the basic components of the existing kit lend themselves to easy modification. By doing so, one can produce a more prototypically accurate model representing a 71 foot "opera window" BC Rail centerbeam.

A minimum of two "opera" kits are required; although greater modelling economy will be realized if several kits are lengthened simultaneously. Use undecorated kits marked "opera", as painted versions do not assemble well due to the extremely tight tolerances.

With regards to adhesives, an ACC type cement may be considered if the model is being built for display purposes only. However, if the completed model is to be run on a layout, a solvent based cement is strongly recommended. The plastic supplied is quite stubborn and very few adhesives will fuse it. Testors Liquid Plastic #3502 fused it after one or two applications. Plastruct Plastic Weld also worked, though not as well.

Naturally, modelers attempting this modification should have some experience with kitbashing. The following instructions outline the recommended construction sequence, though reference should be made to the instructions provided with each kit.

The first step is to determine if your finished car will be modeled loaded or empty. Modeling a fully loaded car (using Jaeger Products' lumber wraps) makes the conversion easier as many of the required steps involve visual changes that a freight load would otherwise hide. So if you can't see them, then why do them!

### The Center Beam

At each of the ends of a 63 foot centerbeam car, represented by the McKean/Front Range kit, there is an additional sloped vertical brace midway within each closed (solid) panel (next to the first open panel). Refer to the dashed vertical line on the accompanying photograph. On the prototype, this structural brace is directly above the truck bolster. However, this brace does not exist on the 73 foot version of the car, since the truck bolster is located below one of the regular sloped vertical braces. Here, the trucks are spaced sixty feet apart.

Prior to lengthening the centerbeam, remove the noted mid braces; all four of them. It is likely that the surrounding plastic will be damaged as a result, so remove the horizontal braces as well. As illustrated on the accompanying photograph, cover the end panels and then plug the first open panel using thin sheet styrene. This step may be completed after the car is assembled. Fabricate new horizontal braces using scale 2"x4" styrene strips.

By splicing in a section of three panels (12 feet total), the correct number of panels will be in place. This will result in an overall scale length of 73 feet, which is two feet longer than the prototype. The removal of this surplus length is not worth the effort due to the nature of the kit's overall design.

With regard to the lengthening of the prototype, three open panels were not what was added. The rebuild consisted of adding one closed panel to each end, plus the addition of a single open panel in the middle of the car. On the model, three open panels will be added. Then one open panel at each end will be covered (as described above).

A 12 foot section of the centerbeam top and floor will also have to be cut.

The key to achieving a strong "spliced" car is in the staggering of all the splices. Again, refer to the photograph to see where various colored plastics were used to illustrate this technique.

Only after the ends of the centerbeam have been modified, and the splices are fully set, should you proceed with assembling the car.

### Bulkheads and Assembly

The inner faces of the bulkheads are cast extremely thick. These need to be sanded down in order to achieve a prototypical appearance. Yet if the whole face is sanded on a flat surface, the tab slot (where the centerbeam is inserted) will disappear. This will make assembling the car very difficult. As an alternative, the bulkheads should be sanded in such a way as to produce a slightly tapered profile (with the tab slot retained).

Glue the bulkheads to the floor sections, then carefully insert the lengthened centerbeam and apply liquid cement. Pre-fit the centerbeam top to ensure that it fits into the bulkhead tabs. (Refer to the kit's instructions.) Then apply liquid cement.

### Underbody Frame

The underbody frame, and its accompanying sill, are also cast extremely deep. Since the truck bolsters must be removed to achieve the 60 foot spacing, it is recommended that a new sill be fabricated. Glue a continuous strip of scale 1"x10" styrene to the bottom of the sill to represent the sill flange.

By placing the sprue with the cable winches along the workbench edge, the portion of each winch that is to be retained (i.e., used in the kit's assembly) may be easily chopped off. Discard the portion that would have been passed through the slots in the supplied underbody frame. Glue the winches to the new sill. Move them around while the solvent cement is still wet to ensure a good fuse.

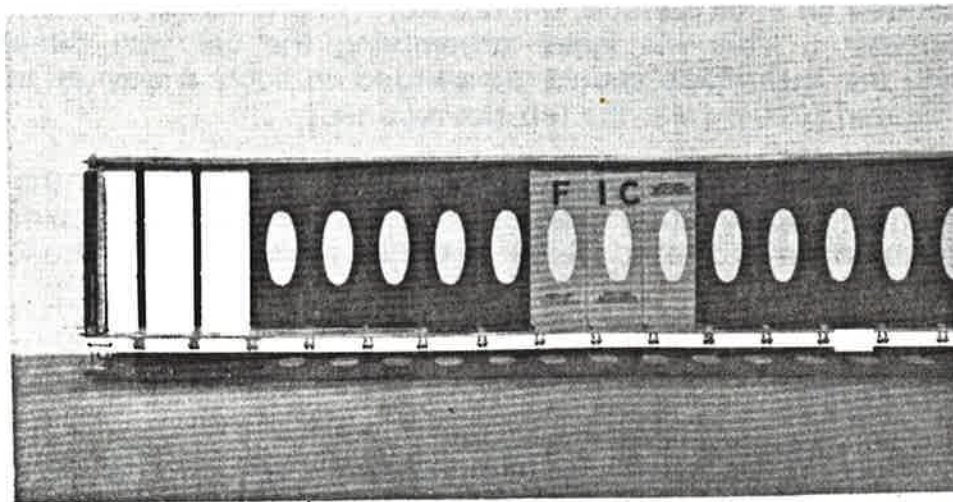
From the supplied underbody frame, cut out the bolsters and sand off a scale 6-8". Model Die Casting's modern rollerbearing trucks have smaller diameter wheel sets than those supplied by McKean/Front Range. Using MDC trucks will aid in lowering the car deck height (in conjunction with the modified truck bolsters). Glue the bolsters to the underside of the floor, making sure to keep them a scale 60 feet apart. From the floor, carefully remove the cast on bolster pins (i.e., where the trucks screw into the carbody). Trim these as necessary to accomodate the new MDC trucks. Then pre-tap using the provided screws.

### Other Details

The end lattice assembly and other detail parts may now be added if desired. On the prototype, the bulkhead ends are slightly different (gussets). To correct this feature would require considerable work, since the surfaces are not in line with each other. An adequate car weight may be installed between the new sills.

### Painting and Decaling

Andy W. Scale Models (7706 Windsor Street, Vancouver V5X 4A5) sells a BC Rail freight car decal sheet (AWS-1001) appropriate for this model. Andy's packet also includes placement information and paint color matches. Don't forget to add a styrene lube plate (18"x30") on each sill prior to painting.



The staggered splices are visible due to the use of various coloured plastics. The removed mid vertical sloped brace and the covered panel opening have been drawn in with dashed lines. Cable winches have been installed onto the new styrene sill, along with new metal stirup steps at each end. The lube plate is placed on top of the sill. Photo courtesy of Laszlo Dora.