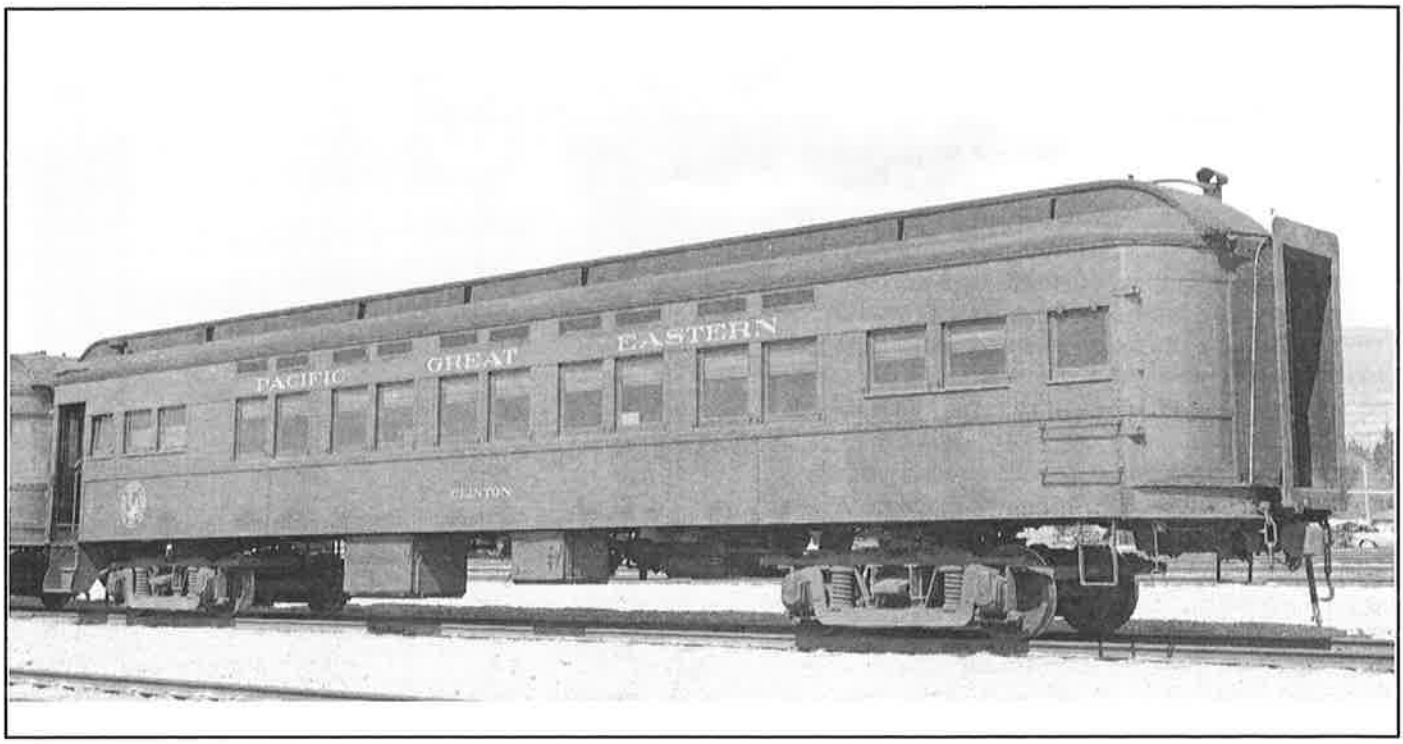
The CARIBOO

The British Columbia Railway Historical & Technical Society



Issue 32 April 1998

Center Beam Flat Cars

PGE Sleeper "Clinton"

Wood Chip Hoppers

FROM THE PUBLISHER

This issue marks the end of 8 years of publishing *The Cariboo*. During the last several months, some very spirited discussion has occurred within the editorial team. Among the topics grappled with were the decline of the Canadian dollar, rising postal rates in the States, the increasing length of *Cariboo* articles, and perhaps most important of all, the desire to reduce the time required to produce each issue of *The Cariboo.*

Let's start with the easy one first. The decline of the Canadian dollar means that we are have fewer funds available to produce each issue. One obvious remedy would have been to increase the annual rate for Canadian subscribers. However, since we are subscribers first and editors second, we felt that our first priority was to ensure that as many people as possible remain able to subscribe. In other words, to do our best to keep current subscription rates unchanged.

Second, we expect that the American postal service will continue to increase rates on a nearly annual basis. Since the majority of our members live outside the U.S., this is definitely a cost we need to control. To address both of these points, we intend to begin printing and mailing *The Cariboo* from Canada in the near future.

Finally, the need to reduce the time required to produce each issue of the newsletter. Producing *The Cariboo* is a labour of love. While this certainly has been a team effort, its a relatively small team. A team whose members have families, jobs, and other interests. To accomplish this goal, we've decided to do a number of things. First, this issue marks the first one to be produced using true desktop publishing. While this required a significant labour investment, we believe the anticipated dividends will be worth it. Subsequent issues can now be built incrementally using an established publication template. We will also be able to import articles and other editorial matter directly into the publication, thereby reducing production time. Second, we intend to actively enlist the participation of/ assistance from other members of the Society.

By implementing these changes, all members will continue to receive the same value (i.e., annual page count) for their dollar, and the Society will be able to keep subscription/membership costs at their present levels.

On Our Cover...

Pacific Great Eastern steel sleeper *Clinton* is shown at North Vancouver on May 15, 1958. Stan Styles photo. Courtesy of GTC Collectibles/Quality Rail Graphics (Maple Ridge, B.C.)

Lawson Little reports on the return home of this historic car beginning on page 19.

BCRHTS Convention Info

Volunteers are currently being sought to assist with the organizing of our Society's second convention. At present, we expect to meet in Prince George, B.C. in August 1999. A full program of events is planned.

To help make this event a reality, volunteers are needed. Contact Andy Barber at 3718 Marine Vista, Cobble Hill, B.C. V0R 1L1

The CARIBOO

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All contributions are welcome. It is helpful if submissions are on 3.5" disk in Microsoft Word (PC format), compatible software, or typewritten.

All submissions are subject to editing as a condition of publication. Material will be retained unless other arrangements have been agreed upon in advance.

The editors encourage submission of photographs and other illustrations which help reinforce the content of the material submitted. Appropriate captions should be included. Photographs may be either black and white prints, colour prints, or colour slides.

Our 24-hour fax line is (805) 253-1208. We also accept submissions via the Internet. Our address is transitwiz@aol.com.

Authors are responsible for all original statements made in their work. Submissions are accepted with the understanding that they are not under consideration elsewhere.

IN THE NEWS

Edited by Jim Moore

Incident at Pemberton: Three cars of a four-car BC Rail passenger train (Train #1) derailed on Friday, February 13 north of Pemberton at Mile 97.5. The units involved were BC-30, BC-14, BC-31, and BC-15. No one was hurt.

It is believed that the incident was caused by a broken rail. All 59 passsengers were bused to their destination.

Another derailment occurred on the 13th at Williams Lake. Seven freight cars left the track on a passing siding. (Associated Press, Paul J. Crozier Smith) ❑

Railway to Add 500 Cars: BC Rail is increasing its fleet by five percent, adding 500 cars during the next two years. The new equipment, costing more than C$28 million, is in response to customer needs driven by a robust American economy and increased demand for British Columbia resources.

BC Rail, the third largest railway in Canada, reported a C$36.3 million profit last year, down C$10 million from 1995, yet President and CEO Paul McElligot said the long-term outlook calls for steady growth to 2001.

Additions to the fleet include 250 centerbeam flatcars at a cost of C$20 million, 75 boxcars at a cost of C$8 million, and 130 leased grain cars to serve producers in the Peace river region. (*Vancouver Sun* via William MacLatchy) ❑

New Railcars Add Flexibility

Grain Cars: BC Rail has entered into a new lease agreement for the supply of 130 additional grain cars, replacing an existing lease for 84 cars. The new cars –100 at 5150 cubic feet and 30 at 4750 cubic feet— were manufactured by Thrall Railcar in 1996 and delivered to BC Rail in September 1997.

The new cars will reduce the railway's dependence on the supply of government

cylindrical hoppers from CN. The cars will mean more control to secure additional volume on a year-round basis.

Lumber cars: 250 new 73-foot centerbeam flatcars at a cost of about C$20 million have been ordered from National Steel Car in Hamilton ON. Delivery began in late November. In addition, the railway has started a program of modifying 130 of its 52-foot bulkhead flats to centerbeam format in its Squamish shops.

The bulkheads had been sitting in storage pending sale.

Boxcars: BC Rail is also spending C$8 million to add 75 60-foot boxcars to is revenue service fleet primarily for handling panel product shipments. The cars were ordered from Greenbrier and are being built in Trenton NS. The 100-ton cars are numbered in the 60250-series. (BC Rail *Carrier*) ❑

Deltaport News: BC Rail's latest investment in the facility amounts to just over C$10 million, the cost of relocating inbound coal tracks, building four bulk train 'storage" tracks, an intermodal lead, container train storage tracks, associated trackage revisions, and upgrading existing facilities.

According to a company spokesperson, the track changes were extensive, and the entire face of the yard was altered. Aside from the container terminal, they included the potential for trackage to a proposed bulk agricultural products terminal, as well as providing revised service to Westshore's existing bulk terminal.

BC Rail will benefit from the track improvements through significant improvements in revenues from the increased tonnage handled by the user railways.

The four BC Rail-designed storage tracks each have a capacity for two 88-TEU (Twenty-foot Equivalent Unit) container trains, with storage capacity in the intermodal yard for a further 1200 TEU's. Double-stacked container trains are 7000 feet long. Two can be loaded simultaneously.

To compete successfully with other West Coast ports, speed is crucial. (Ed Note: The two transcontinental railways offer a 72-hour transit time for Deltaport to Chicago IL). Two double-stack container trains can be loaded and heading east within eight hours of a ship berthing.

Deltaport features two berths each capable of handling the largest containerships either afloat or planned. Ships are unloaded by four rail-mounted gantry cranes on to one of 13 tractor trailer units, each capable of hauling three containers. The units transfer the containers to waiting trains, a round trip of 2.8 km from the most distant berth to the furthest railcar.

Deltaport doubles Port of Vancouver's container-handling capacity, and has the advantage of being the closest North American container terminal to Asian ports. (BC Rail *Carrier*) ❑

Historic Coaches Donated: Four vintage rail cars were given to a Washington state historical group by BC Rail in early November despite protests from local railway buffs. *Sundance* (now MRSR 684), *Darcy* (MRSR 685), *Britannia* (MRSR 321), and *Resolution* (MRSR 322) were donated to the Mount Rainier Scenic Railroad (Elbe WA) which will restore them for use in connection with historical train tours south of Tacoma.

The donation consists of two Canadian Pacific coaches built in the 1920s, and two coaches built in 1950 for the U.S. *Freedom Train*. BC Rail policy is to offer railcars to groups that will restore and use the equipment, rather than organizations which request the material primarily for scrapping or parts. (*Vancouver Sun* via Frank A. Clapp, *WCRA News*) ❑

BCR-CN Savings Pact: BC Premier Glen Clark unveiled a pair of provincially brokered deals in late October designed to improve rails service in northern British Columbia. The announcement, which was made at the government's economic summit on development and jobs in Prince George, will allow BCR and CN to use cars on each of the rail lines, thereby reducing freight costs to customers. Previously, northern customers who wanted to ship anywhere from Prince Rupert to Chicago faced problems because of competition between the two railways. They were faced with paying transfer fees to get goods carried on one line loaded on to the other at Prince George, the transfer point. And along with the extra cost came extra time.

The new pact is expected to reduce travel time by two days. BC Rail will now be able to transfer to CN Lines, where CN engines and crews will move the cargoes to Prince Rupert or east to the U.S. and other markets. This will allow freer access of grain and other goods to the north coast port of Prince Rupert and make it easier to ship forest products to Vancouver. (*Vancouver Province* via Glen Etchells, *Alaska Highway News* via Ross Pugsley) ❑

BC Coal Flows At Record Pace: British Columbia's Westshore Terminals set a third consecutive coal-throughput record in 1997. The two-berth facility handled 23.9 million metric tons for the year. Located on a man-made peninsula at Roberts Bank, Westshore opened in 1970. (*Pacific Maritime*) ❑

BC Rail received an Award of Merit in the recent Dalton Pen International Awards Program for its 1997 calendar. The calendar, which featured archival photos from the earliest days of rail in the province, can be purchased at the North Vancouver Passenger Depot. (BC Rail *Carrier*) ❑

Sulfur Contract Signed: Two Calgary-based sulfur exporters (Procor Sulfur Services and Sultran Ltd.) have signed a five-year deal to continue shipping their product through the Port of Vancouver.

Vancouver Wharves and Pacific Coast Terminals handle the bulk of the sulfur moving out of Vancouver. As a result of this agreement, Vancouver Wharves is investing C$7 million in its bulk commodities terminal in North Vancouver. The company plans to completely rebuild its sulfur exporting berth by the end of the decade to include a loop track and rotary car dumper to feed the facility's existing twin quadrant shiploaders located at Berth 4. (*Pacific Maritime*) ❑

Dinner Train A Success: The Pacific Starlight has lived up to corporate expectations. In its first season, it carried more than 26,000 diners and earned revenues of more than C$2 million. (*WCRA News*) ❑

New Coal Deal Sealed: BC Rail has recently inked an agreement with Teck Corporation for northeastern BC coal.

The Japanese steel industry has extended its agreement with Teck to buy Northeast coal until 2003. The agreement was subject to concluding acceptable rail freight contracts with BC Rail, CN, and Ridley Terminals.

Although contracts between Teck and eight Japanese steel mills provide for continued coal sales, tonnage has been reduced by nearly one-quarter of the current total. (Ed Note: Production at Quintette Mine will be reduced by 25%, while production at Bullmoose will remain unchanged.)

According to a BCR spokesperson, in addition to the reduced volumes, Teck will face a reduction in its coal sales price. Current coal prices will fall to world market prices of approximates C$72 a tonne. The combined impact of lower volumes and world pricing will reduce rail revenues by approximately C$39 million for both BCR and CN.

BC Rail continues to investigate alternative sources of revenue. One of these is a potential mine at the Willow Creek coal field near Chetwynd. (BC Rail *Carrier*) ❑

Hollywood North: In October, "Wrongfully Accused", a crime spoof featuring actor Leslie Nielsen of *Naked Gun* fame. Included lead actor B36-7 #3607, the locomotive regularly assigned to the *Pacific Starlight* dinner train. #3607 was observed later that month at Porteau lettered for *The Friggin' Express*. While #3607 was busy in the movies, sister B36-7 #3613 handled the duties of the *Pacific Starlight.*

Also in October, Royal Hudson #2860, power car *Shalalth*, coaches *Capilano, Dragon* and *Sunset Beach*, and caboose #1874 were used in the filming of a commercial for Tic Tac breath mints. Entitled "Friendly Goodbye/Train", the commercial was produced by Jonathan Miller & Co., neighbor of *Cariboo* publisher Jim Moore. Featured in the spot was veteran character actor Ed Lauter, another neighbor of Moore. ❑

BC RAIL'S CENTER BEAM FLEET Laszlo Dora

The shipment of lumber products by rail goes back to the earliest railroads. Through the decades, various freight cars types were employed, including flat cars, gondolas, and boxcars. Each had its own labour intensive system of securing the load to the car. Despite the development of larger capacity bulkhead flat cars and boxcars, as well as the forklift, the modern railroad industry still lagged behind competing transportation methods.

In 1963, the "center beam" concept was developed and patented by Canadian National Railway engineers working in partnership with several British Columbia lumber companies. The lumber companies were seeking a lightweight, easy to load car design in order to capitalize on both increasingly favourable shipping rates and the opportunity to expand their customer market. The center beam design eliminated the heavy structural frames found on both flat and bulkhead flat cars of the time; thereby allowing an increased load capacity. The car's structural design provided both support for the load and a means of securing it. This latter feature significantly decreased the time needed to either load or unload the car, not to mention the dunnage disposal costs at the receiving end.

THRALL CENTER BEAMS

In 1966, the Thrall Car Company acquired the design patents from Canadian National, and dubbed its product "center beam," a term which previously had generic connotations. In 1968, the first 66-foot, 100-ton cars were tested on the Northern Pacific Railway. Shortly thereafter, a limited number of 60-foot and 83-foot versions were built for other railways. These early cars featured elongated hexagonal shaped openings which were closely spaced and spanned most of the beam. Over time, this design was improved upon and eventually evolved into the now common "opera window" car with the oval-shaped openings.

By the 1980s, kiln-dried lumber had become the dominant lumber product. The 66-foot cars then commonplace could not be loaded to their full load capacity, for kiln dried lumber was appreciably lighter than green lumber.

Thrall stretched it's centerbeam to 71 feet, with most of the lengthening occurring at the end overhangs. A 73-foot version followed in 1986, although the weight of the additional length resulted in the need to impose a 97-ton load limit. In an attempt to further increase the car's load capacity, Thrall introduced a new design incorporating a Pratt truss arrangement (i.e., diagonals in tension). This advancement resulted in a weight reduction from 68,000 to 64,300 pounds. Initially, BC Rail operated only the 71-foot and 73-foot "opera window" versions. Later, in 1988, the railway obtained the truss version. Truss version cars from such operators as Southern Railway of B.C. (then known as BC Hydro) could be seen in interchange service. Two further exceptions may have been cars BCIT 871700 and 871701, which are noted in the roster as being truss version. If any reader has a good photograph of one of these two cars, I would appreciate receiving a copy for my collection.

GUNDERSON CORPORATION, NATIONAL STEEL CAR, AND TRENTON WORKS CENTER BEAMS

In the mid 1980s, Gunderson Corporation introduced its own version of the 73-foot model. The Thrall design was copied almost exactly on the initial deliveries. Only two obvious differences could be noted. The Gunderson car had a smooth top surface on the beam's cap, and it lacked pulling eyes under the side sills, near the truck bolsters. On subsequent deliveries, the two outermost openings were smaller and egg-shaped. Though BC Rail never used these Gunderson cars, foreign cars such as Hampton Lumber Sales could occasionally be seen in interchange service.

National Steel Car also produced a 73-foot center beam car incorporating a Howe truss arrangement (i.e., diagonals in compression). Of all the center beam designs, this version weighed the least (63,000 pounds), and therefore offered the highest load capacity (100 tons). BC Rail obtained over 700 of these cars.

The latest NSC version acquired by BC Rail offers a 222,500 pound capacity. While the overall design has remained virtually unchanged, both the trucks and wheels have been upgraded to match the heavier rail now being used. During a recent tour of the National Steel Car plant in Hamilton, Ontario, it was revealed that the current structural design has the potential to accommodate even greater loads, but is limited by the trucks and rail which the car travels upon.

Starting in November 1997, BC Rail placed another order for 250 cars. These units will differ primarily in the structural design of the deck onto which the lumber is placed. For ocean shipping, it is now preferred to have the dunnage attached to the bundles of lumber. To accommodate this request, the decks of the new cars will no longer include the raised supports that have heretofore been commonplace. These raised supports formed a structural element on previous versions. Therefore, engineering efforts will have to be revised to accommodate the change. I imagine that these cars will initially be restricted to servicing the docks. Still, with the increased loading efficiency they offer, the design may become the standard of the future.

Trenton Works Limited also produced a center beam car which closely reflected the National Steel Car design. The only significant differences I have noted is that the Trenton Works car has a partially open top surface and lacks the NSC heralds that one would expect to find at the base of the bulkheads.

KOREAN CENTER BEAM KITS

Since the early 1970s, the 52'8" bulkhead flat car had been the workhorse of the BC Rail fleet. By the 1980s, these cars had become outdated. Newer, longer cars were now more economical. Therefore, in 1988, upon expiration of a Procor lease concerning 238 cars, the railway elected to modernize its fleet. In 1987, the board of directors approved a budget of $C10 million to acquire one hundred sixty 73-foot center beam cars. The initial tender bids were deemed unacceptable, so the job was tendered a second time.

The lowest acceptable bid was submitted by Transcisco Inc., a subsidiary of PLM Industries Inc., a San Francisco based railcar maintenance company. The bid was based on having South Korean-made kits shipped from Daewoo to Portland, Oregon for assembly in Miles City, Montana. For the reasons noted below, the kits ended up being shipped to Lynnterm at Vancouver, and subsequently assembled at BC Rail's Squamish Shops:

1) BC Rail's Squamish Car Shops had both the capacity and skilled work force to assemble the cars.
2) Local assembly allowed for better budget control.
3) Greater savings in import duty could be achieved by assembling the cars in Canada.
4) American assembled cars would have been restricted to U.S. rail service, while the Squamish built cars would have been free to run in both countries.
5) Future assembly work could possibly be obtained from PLM if it could market kits elsewhere.

The program involved the assembly of 160 kits for BC Rail over a 16-week period at a rate of two cars per day. Eight cars were worked on at any given time by two shifts of 38 workers each. In brief, the main deck was rolled in on its trucks, turned upside-down with the brake and coupler cushioning equipment being added. Once this was done, the deck was again placed onto the trucks and the bulkheads were attached. Once the center beam was assembled using a large jig, it was then attached by welding it to the main frame. The car then was sent to the paint shop where it was finalized for revenue service. The first

car was completed in December of 1987, with the balance following into 1988. A further 40 cars, originally intended for delivery Transcisco Inc., were instead delivered to BC Rail.

OTHER CONVERSIONS

In 1986, Squamish Shops began converting regular bulkhead flat cars into center beam style cars in order to satisfy demands for the newer, easier-to-load style of cars. Although the installation of an "A frame" or "center divider" made these older cars appear like center beams, the primary purpose of the conversion was to enable the loading time savings experienced with the actual center beams. In 1986, the first two cars were converted, with an additional 50 cars being completed the following year. The program continues with hundreds of cars now having been upgraded. For those interested in building a model of such a car, see my article in the November-December 1992 issue of *Canadian Railway Modeller*.

SECURING THE LOAD

As previously stated, an easier method of securing the load allowed for substantial savings which proved popular with the on-line lumber mills. The car deck had an inclined base for the lumber to sit upon, which kept it in place when the car was moving. Thrall equipped its initial cars with chain and nylon tie-down straps, but their high quality made them attractive targets for thieves. Thereafter, ordinary industrial cables with latch hook hardware were used. A piece of angle iron, with the cable threaded through, served to protect the upper edge of the load from chafing of the steel cable.

As noted above, the center beam cars were stretched to 71 feet and 73 feet lengths to accommodate a full load of kiln dried lumber, while the older shorter cars remained adequate for a full load of wet (green) lumber. Most often center beam cars are seen fully loaded, though occasionally there may be a small gap between loads resulting from the differing lengths being transported. Kiln-dried lumber is almost always covered with wrappers to protect against moisture absorption during rain. In many instances, individual customers have very specific requirements regarding the wood's moisture content.

Reporting Mark	Car Series	Length	Builder	Built	Tare	Owner	Style	Units Built	Cars in Svc (Oct 97)	Notes
BCOL	730000-730199	73'	RWM	1988	196000	BCR	TRUSS + OPERA	200	193	(1)
BCOL	730200-730399	73'	NSC	1992	200000	BCR	TRUSS	200	192	
BCOL	730400-730499	73'	NSC	1993	201000	BCR	TRUSS	100	100	
BCOL	730500-730599	73'	TWL	1994	201000	BCR	TRUSS	100	248	
BCOL	730600-730749	73'	TWL	1994	201000	BCR	TRUSS	150	see above	
BCIT	871000-871149	71'	THRALL	1984	196000	TCA	13 OPERA	150	138	(2)
BCIT	871200-871259	71'	THRALL	1984	194000	TCA	13 OPERA	60	57	
BCIT	971300-871424	71'	THRALL	1986	195000	USR	13 OPERA	125	0	
BCIT	871500-871624	71'	THRALL	1986	194000	USR	11 OPERA	125	0	
BCIT	871700-871701	71'?	THRALL	86-88?	198000	TCA	TRUSS	2	0	
BCIT	873000-873099	73'	THRALL	1988	198000	PRO	TRUSS	100	97	
BCOL	873100-873174	73'	NSC	1988	197000	PRO	TRUSS	75	74	
BCOL	873200-873499	73'	NSC	1990	199000	CGTX	TRUSS	300	291	(1)
BCOL	873500-873599	73'	NSC	1995	222000	?	TRUSS	100	99	
BCOL	873600-873649	73'	NSC	1995	222000	CBRY?	TRUSS	50	47	(4)
BCOL	873650-873689	73'	NSC	1996	222000	CBRY?	TRUSS	40	40	(4)
BCIT	873950-873953	73'	THRALL	1988	198000	FNB	?	4	4	
CBRY	2539-2663	73'	GUND	1996	293000	CBRY	TRUSS	97	97	(3)

As far as wrappers go, a prototype carload almost always consists of identical wrappers from an individual mill. One exception I have noted was a CP car loaded with lumber from 5 different mills, suggesting that it was a special shipment from a lumber distributor. If a center beam car is only loaded 75% to 90%, it is usually an indication that the lumber being carried is wet, and the car is loaded to its full load capacity. Unlike traditional flat cars or bulkhead flat cars where staggering of the banded units of lumber is important, center beam cars can be loaded with wider latitude. I have seen both staggered and non-staggered loads, and even instances where large openings where left in the car's center portion. Therefore, good quality reference photographs are very helpful.

As is the case with empty BC Rail cars, the cables tend to be hung at mid height position and stretched out to another location in order to reduce the need to wind the cables back onto the winches. Naturally, when loading the car, labour time is saved since most of the cable is already unwound. Several other common patterns of cable placement have been observed on empty cars (see Sketch #1). For those wishing to model empty cars, further details appear below.

BC RAIL CENTER BEAM ROSTER

		NOTES
BCR	BC RAIL	
CBRY	COPPER BASIN RAILWAY	
CGTX	CANADIAN GENERAL TRANSPORTATION INC.	1) Can be used in Canada or US
FNB	FIRST NATIONAL BANK OF MARYLAND	2) Some painted British Columbia Railway
GUND	GUNDERSON CORPORATION - SPRINGFIELD	3) Initial lease included CBRY 2500-2699
PRO	PROCOR LTD.	from Desticon a holding company, and
RWM	RAILWEST MANUFACTURING (BC RAIL)	leased on behalf of them by First Union
TCA	TRANSPORTATION CORPORATION OF AMERICA (THRALL)	Rail of Illinois. Leased early 1997
TWL	TRENTON WORKS LTD. (GUNDERSON)	4) An assortment of cars including CBRY
USR	U.S. RAIL SERVICES	renumbered as BCOL (painted blue)

Build dates reflect the earliest date observed, though in several cases the construction period spans into the next year.
Load capacity is rounded to the nearest one thousand pounds. Within a specific car series, variations are common.

MODELING PROJECTS

THRALL CENTER BEAMS

In Issue 13 (July 1993) of *The Cariboo*, Richard Yaremko and I presented a technique for kitbashing two Front Range kits to produce a model of a 71-foot Thrall 13 "opera window" center beam car. Although it actually ended up being a 73-foot car, the decals were intended for a 71-foot car, so that is what it became. Using a similar technique, an 11 "opera window" center beam could likewise be produced or even a Gunderson look-alike. Refer to the accompanying photographs.

Recently Walthers released two versions of the Thrall 73-foot center beam car in HO scale. I found the ready-to-run cars of considerably better quality than the Front Range kits, as well as being one of Walthers best releases to date. There is, however, some confusion. On the box, the cars are labeled as 72-foot, but the model measures 73-foot between bulkheads. Further confusion is the fact that the box containing the decorated car(s) has the word "opera" blacked out, and the car is a truss-style car.

The decorated versions are numbered for car series BCIT 873000-873099 which are Thrall truss-style

center beams. The initial run of the "opera" version did not include a decorated for BC Rail version, though Walthers has indicated that it will produce this version in the near future.

Concerning the "opera" version of the car, a few changes can be made to improve its overall appearance:

1) As with the Front Range kitbash, the additional vertical brace midway between the solid panels (adjacent to the end opera openings) needs to be removed. This detail was not common on the cars used by BC Rail. In the process, the shallow horizontal braces may become damaged. Therefore, each should be removed and replaced with a slightly larger piece of styrene.

2) Complete Steps 5 to 9 as described in the "Korean Center Beams" section (below).

With regard to off-line cars, chances are that some of them may indeed be correct. Use reference photographs and make any needed/desired alterations. The Hampton Lumber Sales car available from Walthers is painted fairly accurately, although the only cars I have spotted in North Vancouver were of the Gunderson variety.

An undecorated truss-style car may be painted as Southern Railway of British Columbia, replicating many of the same type cars I have spotted. Most of the appropriate marking information can be pieced together from CDS dry transfers or Andy W. Scale Models decals. Some of the warning decals will have to be obtained from Microscale MC-4035 (Center Beam Data Sheet.)

KOREAN CENTER BEAMS

The Korean built centerbeams described in the first part of this article are quite similar to the Thrall truss-style cars, with the most noticeable and obvious difference being the truss itself. The truss is a unique combination of diagonal and opera style oval openings. The Walthers undecorate standard car (#932-4100) is an excellent starting point, and the following steps will produce a convincing model of the car.

1) Using a pointy razor saw, and sharp knife, cut away the four diagonal braces from the model. With a fine file clean away any traces of the diagonals and mismatched marks from all of the openings.

2) Using the template provided in Sketch #1, trace copies onto .020 styrene. Carefully cut out a pair of panels with oval shaped openings in them. A bit of trimming, the two panels should fit into the two end openings of the car. Glue them into place with a gap-filling CA glue.

3) From .010 styrene, cut eight scale 15-inch squares. Clean up the edges. These will form the new gussets at the end of the diagonals. Using the first template provided with Sketch #1, lay one of the gussets in its appropriate spot. Glue a length of scale 1"x3" strip styrene onto it. Place the second square at the other end. Once the styrene strip has been trimmed to the correct length, glue it into place. Turn the assembly around. Cut a shorter strip to fit between the two gussets. Now add the third strip (same length as the first) and glue it on top. With regard to the diagonals that span only two bays, note that the styrene strips will not line up with the corners of the gussets. Once the four diagonals have been assembled, trim and round the gussets so that they match the appearance of the prototype. Work carefully as the pieces are delicate.

4) Taking one completed diagonal brace at a time, place it over the template. Mark the location of the vertical members onto the diagonal. Place the assembly onto the car in the proper location. Verify the cuts you are about to make. Put a mark onto the car's vertical brace at the location where the diagonal brace will intersect. This will serve as a guide for the brace sections as they are glued into

position. From the diagonal braces, cut away the sections where the verticals had been marked. Now glue the individual pieces into position.

5) Remove the cast on grab irons at the ends of the sill. Replace them with metal ones. Add longer metal vertical grab irons to the bulkhead sides. Don't forget to drill the elongated openings above them.

6) The stirrup steps are rather heavy in appearance. File them thinner from the back, sides, and bottom.

7) Using sheet styrene, cut two lube plates and glue one onto each side of the sill as indicated on the prototype. Add coupler cut-bars to the car ends.

8) Using thin brass or steel wire, fashion a few lengths to represent the brake rods on the underside of the car. You may wish to do this step once all painting and decalling is completed.

9) Replace the kit wheels with 36-inch metal wheels. Install Kadee couplers. Otherwise the coupler pin will catch on the track work.

PAINTING THE MODELS

All BC Rail center beams are painted dark green, becoming lighter in appearance with age and weathering. To mix a batch of faded green, simply add some white and tan to the mix. Previous *Cariboo* articles outline the formula for the dark green paint mix. (Ed Note: See Laszlo's intermodal article in Issue 20, April 1995.)

The final appearance of the Thrall cars is somewhat different from the Korean and NSC cars due to its structural design. Otherwise, there is an overall consistency with few variations. Use photographs as a reference when applying decals to a particular model.

Andy W. Scale Models (Set AWS-1001) provides appropriate decals for the Thrall 71-foot center beam car. The other cars can be pieced together using the AWS-1001 decal, and a combination of Microscale MC-4035 (Center Beam Data Sheet) and CDS 255 and 256 (BCR Bulkhead Flat) dry transfers. For the BC Rail herald, use the second smallest one from AWS-1000 (locomotive sheet) since those from AWS-1001 will not fit. Car end numbers are best applied using the small numbers from CDS applied onto Walthers decal paper and then slipped into position. Patrick Lawson provided excellent drawings for the NSC car in the December 1995 issue of *Mainline Modeler*, while the AWS-1001 decal sheet has an illustration for the Thrall 71-foot car.

ADDING CABLES TO EMPTY CARS

Though removable loads are available, I strongly recommend modeling cars which are either permanently loaded or unloaded. By doing so, the steel cables that secure the load can also be detailed. An empty car would not appear correct without cables stretched out as observed on the prototype.

1) To replicate the cable, use a thin strand of silver-coloured metal electrical wire. This may be weathered using one of the commercially available chemical agents.

2) Using a ruler or other spacer, draw a line across each of the vertical posts at either the 5-inch or 7-inch level. Drill a hole into each post. On the Walthers cars, the key slots are detailed, so simply drill as needed. Drill a slightly larger hole into each winch (between the frame and the winch drum), drilling from the underside.

3) Precut the wire strand to adequate length. Glue one end into each post. Dip each end into CA glue and insert into each hole. Once the glue has set, pull the other end through a winch and wind it around at least once. Pull it tight enough so that it remains straight. Add a drop of glue to the hole in the winch. Cut off any remaining wire once the glue had set.

LUMBER LOADS

Lumber loads from various sources are available for those wishing to keep a load on the cars. Walthers also produced several loads for their center beam cars. These are not very prototypical in appearance since they are formed from a pair of painted plastic castings. Wrapped lumber coming from British Columbia tends to be stacked four bundles high. Very rarely have I seen it stacked five bundles high, as depicted in the Walthers load. The few such loads that I have seen were special orders of unusually long proportions. Jaeger is expected to release kits for the Walthers car. Jaeger loads are of superior quality since each bundle is individually wrapped. Hopefully the wood blocks included will be prototypical in length.

Since I wanted specific mill markings on my loads, I produced my own wrappers using photographs and company literature. The information was then reproduced in scale and printed by a computerized digital photocopier. Some kits may become made available in the near future, and each will be announced in *The Cariboo*.

Exposed loads of lumber (unwrapped) tend to be stacked five bundles high. Products such as Out West Lumber Loads could be used to produce excellent prototypical loads. See Issues 30 and 31 of *The Cariboo* for additional information.

CONCLUSION

Walthers has produced a much needed model, and, with a bit of work, several center beam versions can be easily modeled, all of which are welcome on a contemporary period layout.

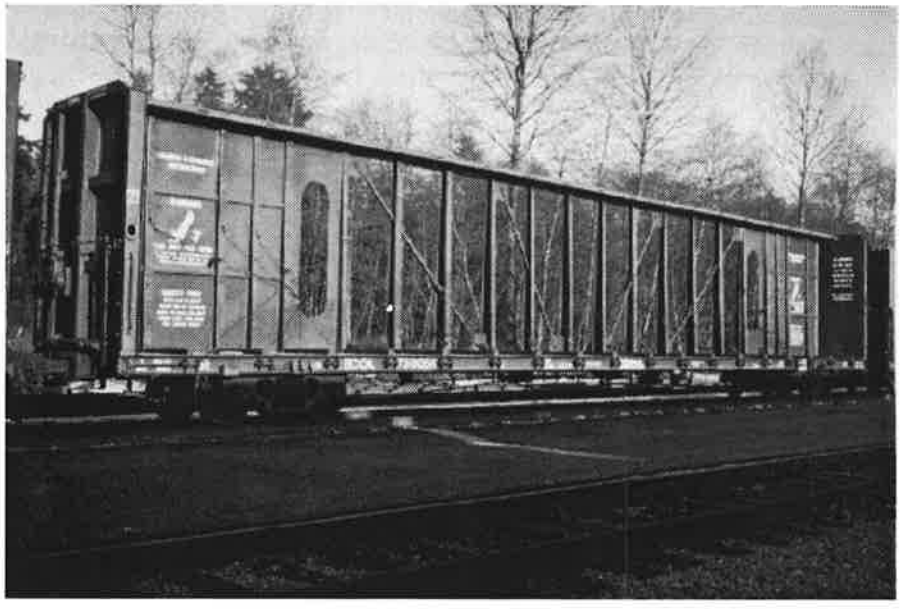


PHOTO 1 - BCOL 730056
(Andy Barber 1993)
One of the Korean made kits that were assembled and painted in Squamish. Although the railway initially ordered 160 units, the final tally came to 200 cars.

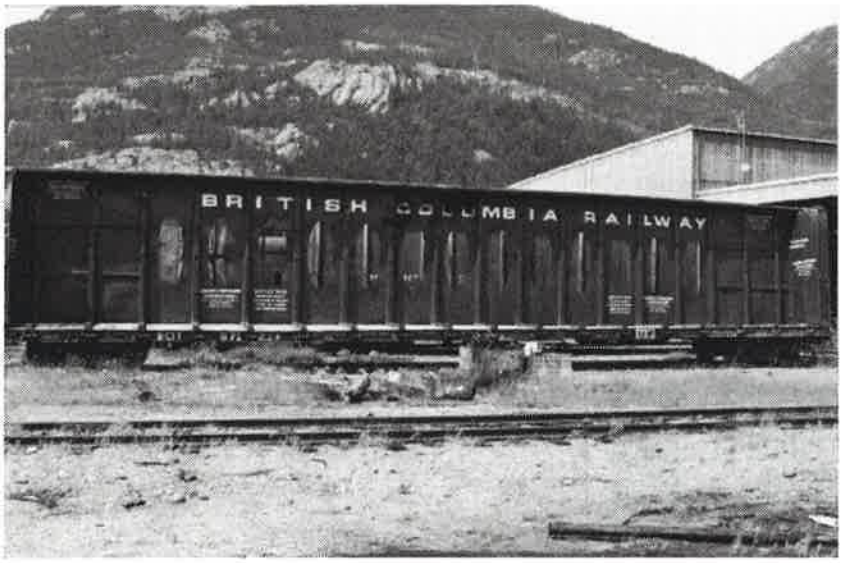


PHOTO 2 - BCIT 871219 (Marcel Devlieger) An example of the first center beam cars used by BCR. These Thrall "opera window" cars, where obtained via lease, first appeared in 1984. The railway name is spelled out across the car center beam.

PHOTO 3 - BCIT 871344 (Andy Barber) Subsequent Thrall center beam cars were delivered decorated for BC RAIL, typical of the majority of the Thrall "opera window" operated. Walthers has announced plans to include this version in its next run.

PHOTO 4 - BCIT 871572 (Andy Barber 1993) Unique because of its eleven openings. Both the Front Range and Walthers cars offer a candidate for kitbashing.

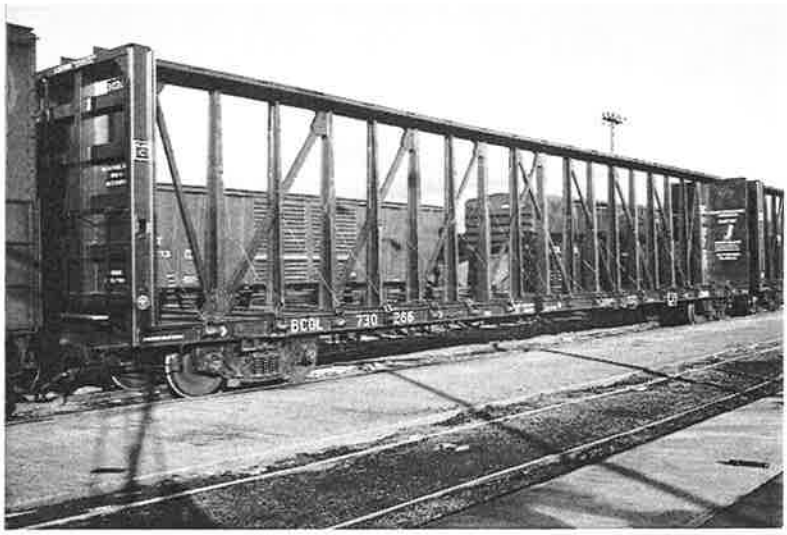


PHOTO 5 -BCOL 730266 (Andy Barber 1993)
A typical National Steel Car center beam car. While this design was emulated by others, one definitive spotting point is the ubiquitous National Steel Car herald painted onto the sides of all of that manufacturer's cars. Cars leased from CGTX, as depicted in this photo, have appropriate lease markings painted between the winches at the far end of the car.

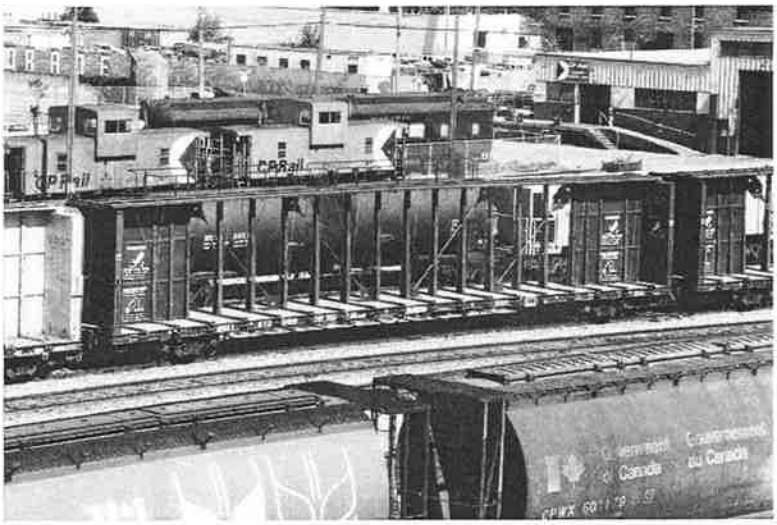


PHOTO 6 - BCIT 873098 (Ian Cranstone)
An example of the BCIT 873000-873099 series, upon which the Walthers model is based. The cables are left in an unusual manner, hung from the top of car.

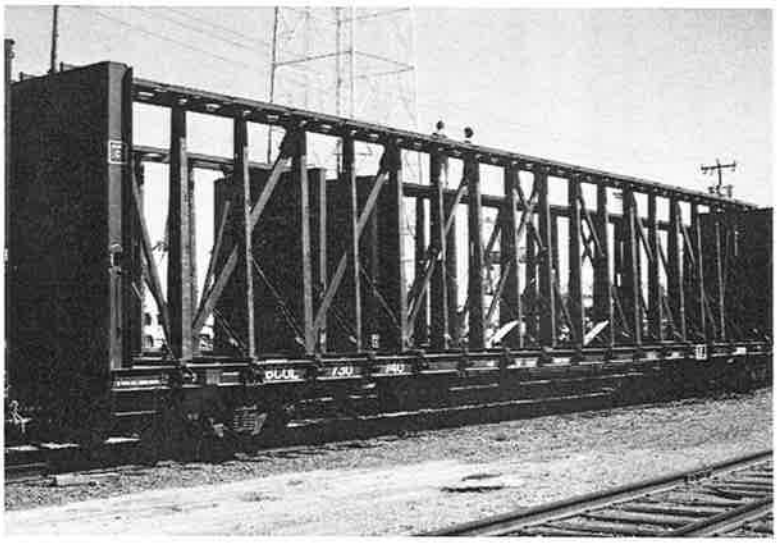
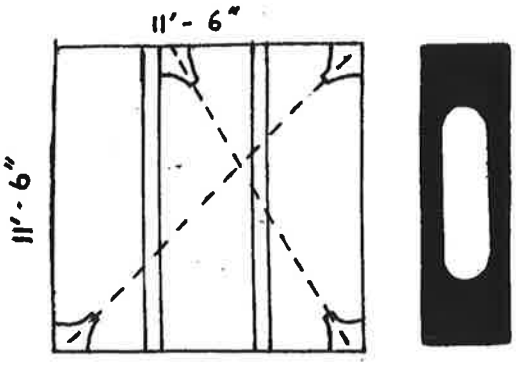
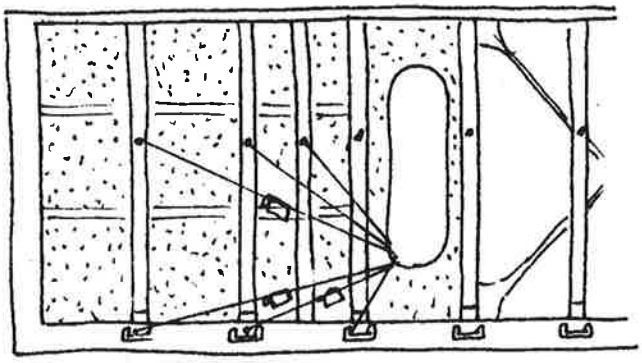


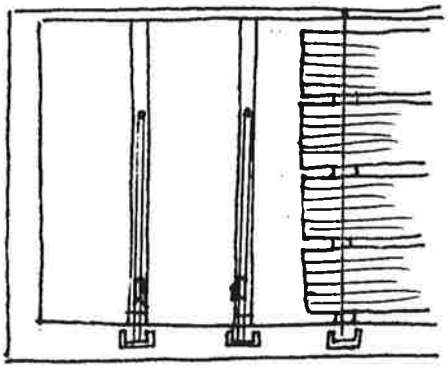
PHOTO 7 - BCOL 730740 (Ron Tuff 1994)
Although very similar in appearance to the National Steel Car center beam, this is actually a Trenton Works Ltd. Car. As such, there are no NSC heralds painted onto the bulkheads. While most NSC center beams have solid panels along the top of the beam, this TWL car features a partially open top.



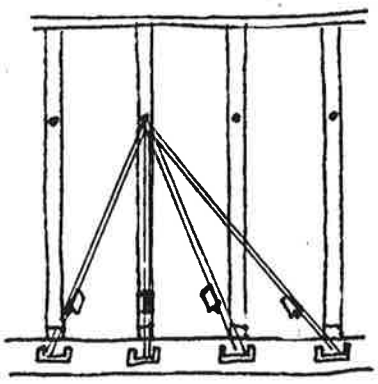
SKETCH 1
The drawing on the lest is an HO scale template to aid in the conversion of a Walthers model. Photocopy it and produce your braces to the same size, following the instructions the text. The template it the right is for the two panels that need to be cut from the sheet styrene.

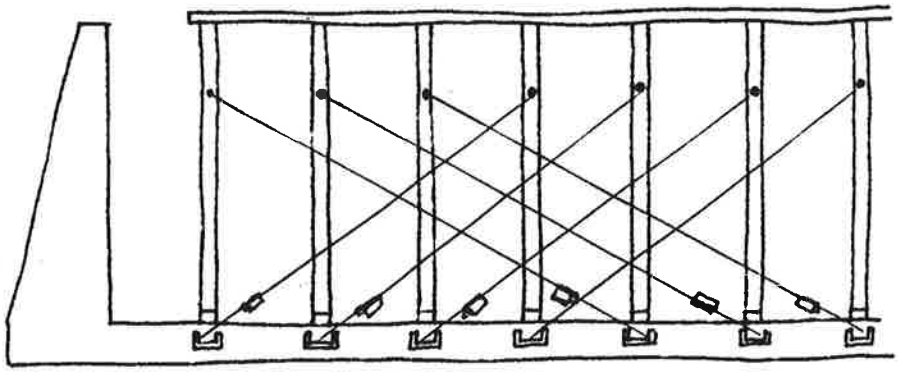


SKETCH 2
This drawing shows the cables as observed a Korean center beam car. The cables were passes through the opening and hung on the opposite side, so as to limit the length of cable to wind back onto the winch.



SKETCH 3 AND 4
Two variations are shown where the cable is hung around the hook and anchored ate the winch. The angle irons usually slip down towards the deck of the car. The angle irons protect the top edge of the upper lumber stack.





SKETCH 5
One of the many variations where the cable is hung at a convenient hook so as to reduce the amount of cable to be wound back onto the winch.

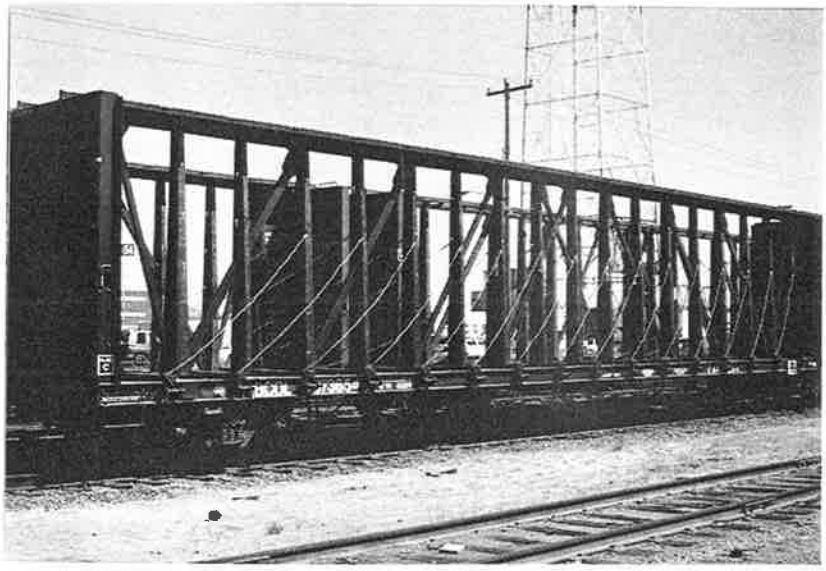


PHOTO 8 - BCOL 873654 (Ron Tuff 1996)
A recently acquired car, most likely leased from Copper Basin Railway (CBRY). Although there isn't a NSC herald visible in the photograph, the car is an NSC model. CBRY cars are typically painted dark blue.

PHOTO 9 - CBRY 1595 (Andy Barber 1997)
As noted in the fleet roster, this NSC center beam car is leased and has "Desticon" painted onto the sides of the bulkheads.

PHOTO 10 - SRY 73044
(Laszlo Dora 1996)
This center beam car, marked for Southern Railway of British Columbia Ltd., is blue in colour. The car is made by Thrall and the Walthers model is correct for it. This is probably the only car that I have seen where the cable was fully wound onto the winch.

PHOTO 11 - CRLE 2573 (Laszlo Dora 1996)
The reporting mark signifies Coe Rail Inc. (Welland Lake MI). These colourful red cars have been seen traveling around the system for many years. Although the car appears to be a Thrall, it actually is a Gunderson, as indicated by the two smaller sized end openings. Despite the fact that Walthers offers a "Hampton Lumber Sales" model, it is a Thrall car and as such, not correct.

PHOTO 12 - MR 9008 (Andy Barber)
The reporting mark on this center beam car indicates McCloud River Railroad Company (McCloud CA). The car is painted light blue with "Longtree Inc." in white letters. This is a Gunderson car.

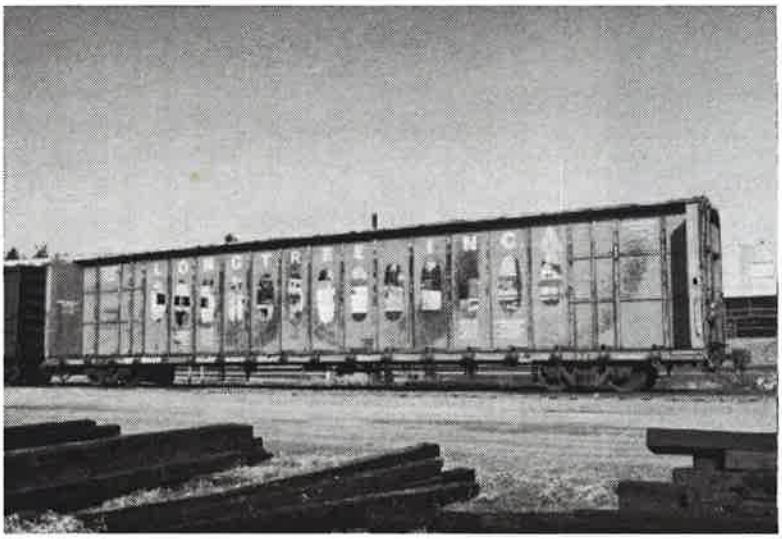


PHOTO 13 - WCRC 7509 (Al Mitchell 1988)
The reporting mark signifies Washington Central Railroad Company Inc. (Yakima WA). The Walthers model is available in this red paint scheme. While the model has 13 openings, the prototype has 14 openings. Built in January 1987 by Gunderson, this car is part of the 7500-7572 series.

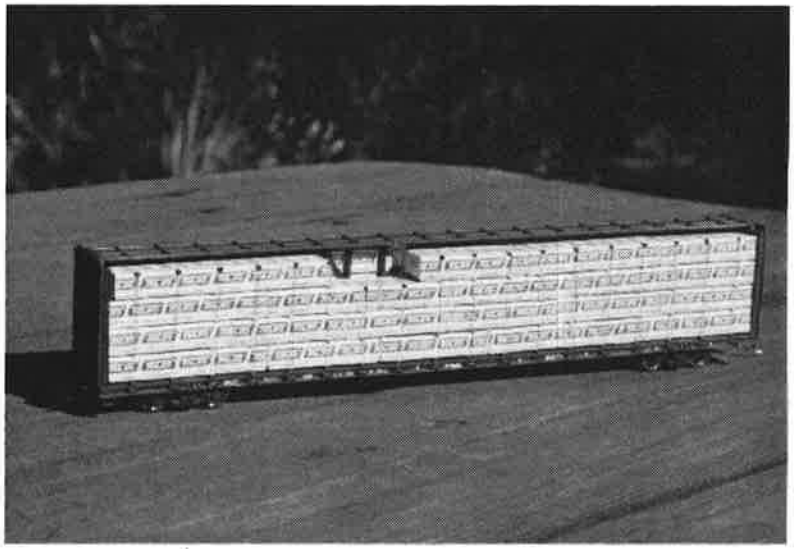


PHOTO M1 - BCIT 873000
A Walthers center beam loaded with lumber. The car is upgraded with Atlas 100-ton trucks and weathered. The lumber wrappers were custom made, enabling prototypical lengths to be modelled. The load is permanently attached and secured with strands of wire. The angle irons that protect the lumber from the cables were painted onto the wrappers after the load was glued into place.

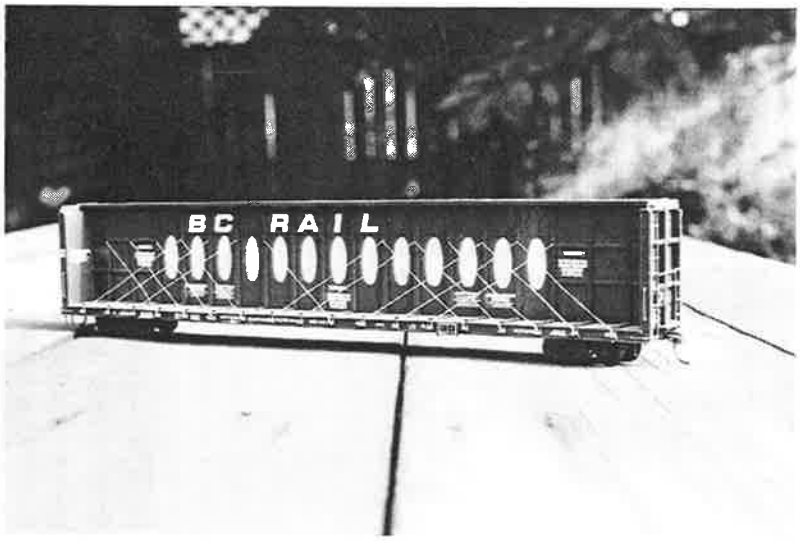


PHOTO M2 - BCIT 871356
A lengthened and refined Front Range model. The cables are positioned as commonly seen on BCR cars.

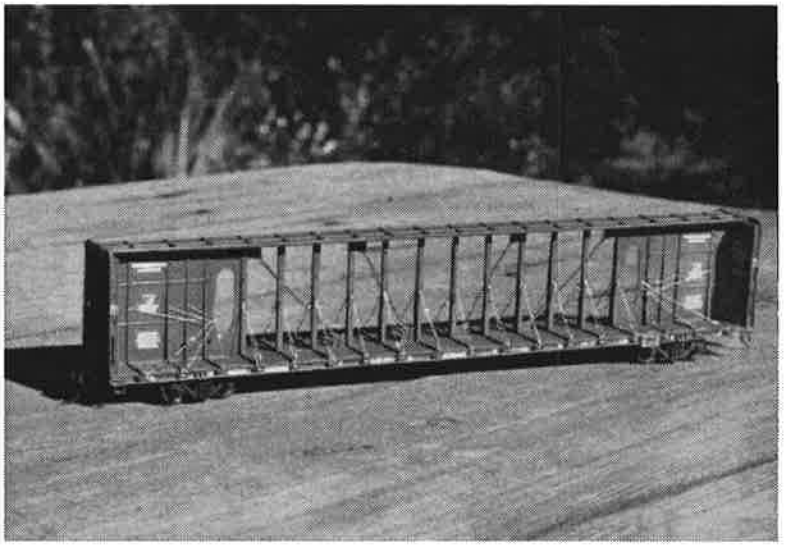


PHOTO M3 - BCOL 730056
A Walthers model converted to represent one of the Korean "kit" cars. Strands of wire represent the cables, which are positioned as observed on the prototype. The angle irons that protect the edge of the lumber can also be seen.

THE CLINTON: A UNIQUE SURVIVOR Lawson Little

Returned to Squamish in 1994 after thirty years south of the border in Washington state, the former Pacific Great Eastern Railway sleeping car *Clinton* is a rare example of pre-RDC passenger stock, and is unique as North America's only surviving steel interurban sleeper.

Built for the Interstate Public Service Company in 1924, the *Scottsburg*, as it was originally named, was part of a fleet modernization program instituted by the IPS Co. as a positive response to diminishing patronage after World War I. The IPS Co. operated a 117-mile interurban route between Indianapolis, Indiana, and Louisville, Kentucky.

Scottsburg, numbered 167 on the IPS Co. roster, was a 62-foot, 10-section steel-bodied sleeper built by American Car & Foundry at a cost of $33,000, and delivered with identical sisters 166 *Indianapolis* and 168 *Louisville*. In deference to the needs of sleeping passengers, the three cars were built as unpowered trailers, with no compressor, motors, or trolley poles to disturb their rest. A coal-fired heater was provided, an unusual fitting for an electric vehicle, but explained by the IPS Co.'s practice of parking occupied cars on an intermediate siding part-way along the route, to avoid arriving at their destination in the early hours of the morning (the 117 miles occupied less than four hours on the normal schedule).

In 1930 the IPS Co. merged with other interurbans to form the Indiana Railroad System, but two years later, with the demand for sleeping car berths falling away, the three cars were placed in storage. With interurbans closing all over America, it looked like the end of the line for the eight-year-old cars.

North of the border, however, the Pacific Great Eastern Railway was experiencing a marked upturn in passenger business, with sleeping car revenues almost doubling in the early 1930's. Always on the lookout for equipment suitable for its light rail and heavy grades, the impecunious PGE had already discovered the benefits of buying redundant interurban equipment; purchasing nearly two dozen wooden coaches, sleepers and head-end cars from the Oregon Electric Railway.

Needing more sleeper capacity, the PGE eventually learned of the existence of the stored IPS Co. cars; and in 1935, bought 166 and 168 via a Chicago broker. The price was only 10% of their cost new, but the market for interurban sleepers was hardly buoyant at the time!

The two cars were renamed *Pavilion* and *Barkerville*, respectively, and soon proved a good investment. Although only offering 20 berths against the 27 in a standard Pullman sleeper, the cars weighed in at only 50 tons apiece, almost half that of full-size cars; their short length was also more appropriate for the winding PGE main line. (The low price was a bonus, too).

By 1937 the PGE was sufficiently satisfied with its purchase to return for No.167, which still languished in storage. *Scottsburg* became *Clinton* under its new owners, and like the other cars was modified for its new steam-railroad environment. The lightweight couplers and drawgear were replaced by standard items, and the interiors modified to allow through passage. On the IPS Co., there had been no connections to adjacent cars, so a washroom occupied the full width of one end of each car. Full-size diaphragms sat rather uncomfortably on the rounded car ends.

The three cars trundled uneventfully between Squamish and points north for the next twenty years, the only change of note being the rebuilding of *Clinton* and *Barkerville* to an 8-section/1 compartment layout soon after World War Two. In January 1957, however, the new Budd RDC's took over the through runs between North Vancouver and Prince George, and their snappy performance enabled the journey to be completed in 13/14 hours, thus dispensing with the need for sleeping car service.

The three ex-IPS Co. cars remained in use as day coaches for a few years on shorter runs, but by 1962 *Clinton* had been side-lined in Squamish Yard, one of its diaphragms removed and apparently ready for scrap. The other two cars were withdrawn in April 1964 and demoted to work train service. *Barkerville* became 9-man Bunk Car X-223, but was destined for only a brief career as such, being written off after falling into Seton Lake in November 1967. *Pavilion* was converted to 10-man Bunk Car X-224, later becoming No. 990224 before being withdrawn and scrapped around 1975.

Fortunately *Clinton* had better luck; after several years in storage, it was purchased by one Maynard Laing and moved to premises adjacent to the Puget Sound RHA Museum at Snoqualmie, WA. Although restoration never started, it was still intact in 1993 when its owner died. Happily he had recognized its importance as a relic of the PGE, and willed the car to the WCRA so that it could be returned to Squamish.

Arrangements for this were eventually concluded, and in October 1994 the *Clinton* was extricated, with considerable difficulty, from its damp resting place under the trees at Snoqualmie. It was moved by road to Squamish, and on October 21st it was reunited with its trucks and placed on home rails once again. Three days later, it was switched into the Museum, appropriately enough by RCS-3m No. 561, which had undoubtedly hauled it many times in past years. *Clinton* was placed in the Museum Carshop, (another link with the past as the former PGE Maintenance Shop) where the car was protected at last from the weather - though not for long, as part of the Carshop roof blew off in a gale and has not been repaired.

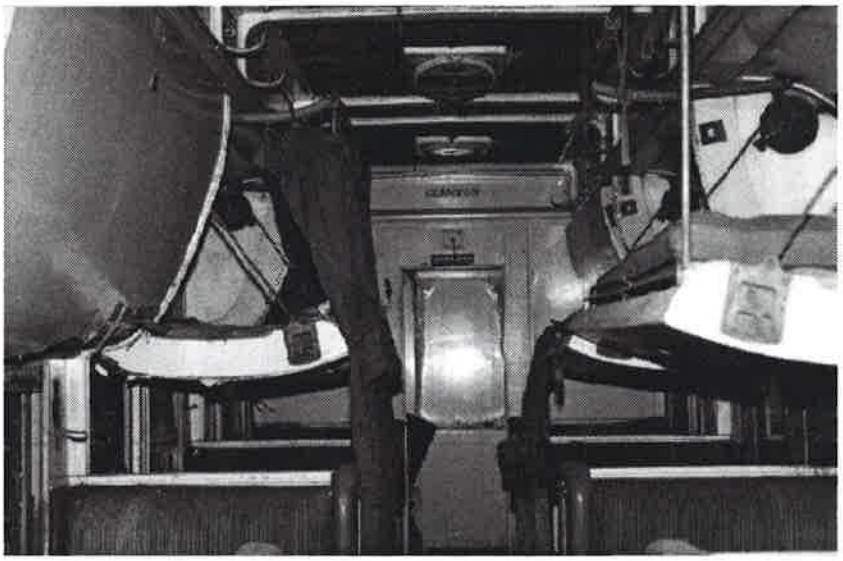
Despite its long sojourn in the damp forests of Washington, the car is in relatively good shape, with the interior remarkably intact. Although little work has so far been carried out, it is to be hoped that funds can soon be allocated to complete the restoration of this unique car to its former splendour.

References:

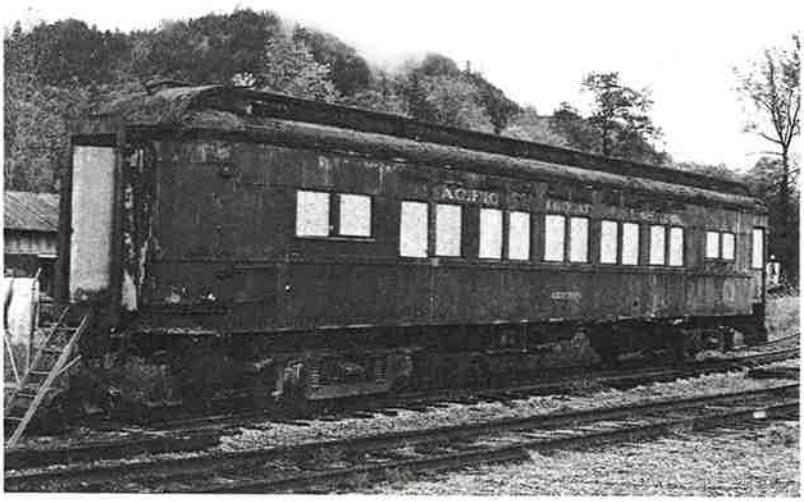
The Trainmaster, January 1990
Electric Railway Jour nal
WCRA News, (December 1994 and January 1995)

Special thanks to Patrick Hind and Grant Ferguson for coordinating source material and Gary Oliver/GTC Collectibles for allowing use of photographs from his collection.

Its a cool day in Oct 1994, as the *Clinton* is lifted from its resting place in Snoqalmie WA in preparation for its return to Squamish. Ron Anstey photo. Courtesy of Grant Ferguson.



This interior shot reveals a quartet of lowered births. The sleeper's washroom lies just beyond the bulkhead. Ron Anstey photo. Courtesy of Grant Ferguson.



Looking no worse for the wear following its trip home, the *Clinton* is seen sitting on a spur at the West Coast Railway Heritage Park on Oct. 21, 1994. Trevor Mills photo. Courtesy of Grant Ferguson.

WEATHERING WOOD CHIP HOPPERS

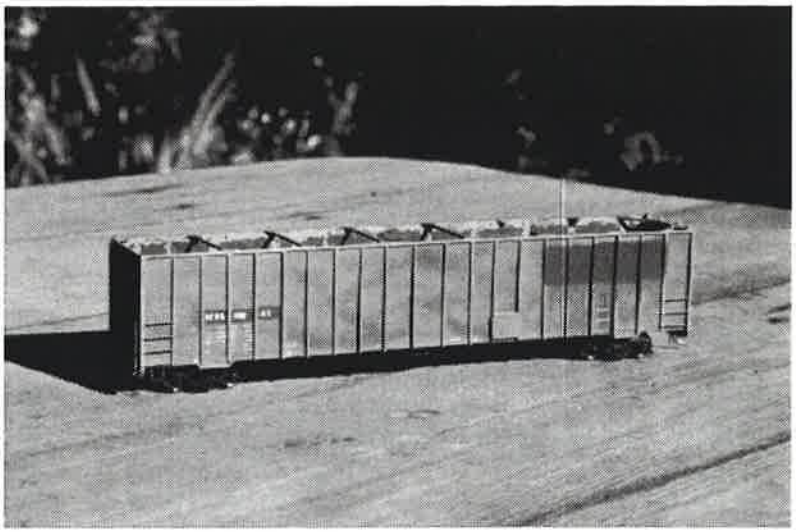
Laszlo Dora

My interest in modeling wood chip hoppers goes back several years to a time when Alpine Shops released an HO scale kit of one version of chip car used by the railway. Since then, other kits and castings have been produced, with the latest one being from Kaslo Shops. It should be pointed out that Walthers recently released a model which is appropriate for CN and BN chip cars, as frequently seen in service on BC Rail.

Upon observing and photographing chip cars, several unique characteristics became apparent. This was especially true of older cars and those painted light green in colour. In the following photo essay, I will describe how I painted some of my models to achieve realistic weathered appearances. In Issue 25 (July 1996) of *The Cariboo*, Andy Barber presented an excellent article about the history of BCR's wood chip hopper fleet, which was illustrated by many excellent photographs.

PHOTOGRAPH 1— BCOL 91119
A close up shot of the end of BCOL 91119, an example from the railway's most recent order of wood chip hoppers. The ripples on the metal panels are clearly evident. As time goes by, greater amounts of dirt and grime will accumulate on the upper portions of the ripples. Being a dark car, this weathering pattern will not be as apparent, especially once the paint fades.

PHOTOGRAPH 2 — BCOL 90828
This photograph shows the deposits of dirt and grime which highlight the rippled metal panels. The second observation is the relatively clean vertical ribs, car end, and herald board; each of which has a greater exposure to the elements. The third observation is the rusty portions of panels where there once a herald board hung. For the chip car to the left: Obviously when the car was initially painted, the panel surfaces behind the herald board were inaccessible. On other cars, this area was painted when the board was removed. The final observation is the repainting of the cars number. At present, only dark green is used, so that was the colour used when repainting the car's number.



PHOTOGRAPH 3 — BCOL 90841
Car Sides: An Alpine Shops which is no longer available. Once the car was painted and decalled (except for the car number), the ribs were masked using narrow tape (e.g., drafting or graphic artists tape). The ripples were painted on with a water-based paint mixture of Roof Brown and a bit of tan using the fine tip of my airbrush. The paint was diluted to a 50% mix using water, plus a dash of wetting agent.

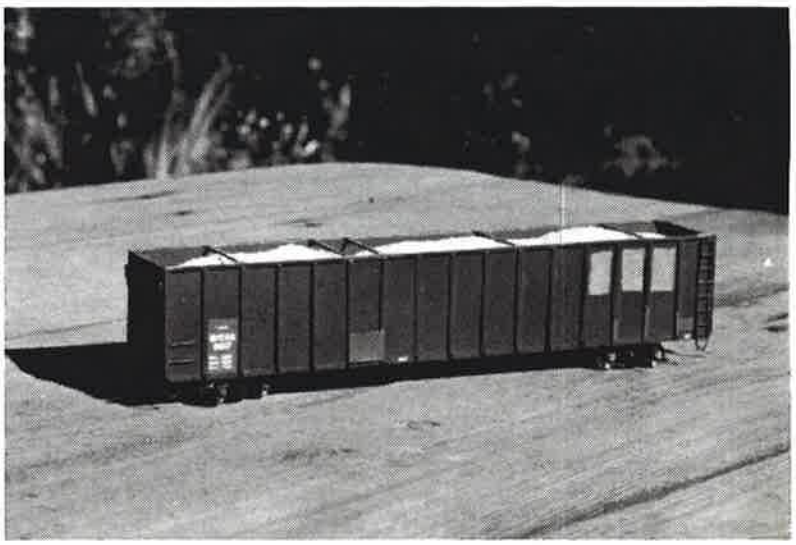
While painting, the tip of the airbrush was kept close to the model and moved in a 'zig-zag' motion. Each run of 'zig-zags' was done quickly. Otherwise the paint would have ran. Each car side received 3 to 5 passes with the airbrush. Practice prior to attempting it on the model.

With the tape removed and saved for another model, the rusty portion where the herald board once stood, was painted by hand using a mixture of Roof Brown and black. Additional streaks of rust were painted below the rusty patch using a fine brush. A patch of dark green was painted where the car number was to be located, prior to decals being applied.

Car Ends: The ends of the car were airbrushed with the same paint mix as the ripples, but to a lighter degree and, of course, evenly (i.e., no ripples).

Car Top and Interior: Photographs of the car interiors suggest the use of Primer Red. Some time later, the perimeters of the individual panels were touched up using another colour which has since faded to a lighter "pinkish-purple" hue.

Most of the panels spanned between three ribs. Here too, the interior of the model was painted using Red Primer. The touch-ups were painted by hand in a sloppy manner so as to resemble the prototype. Some of the braces were modeled to represent the damaged and missing ones observed on the prototype.



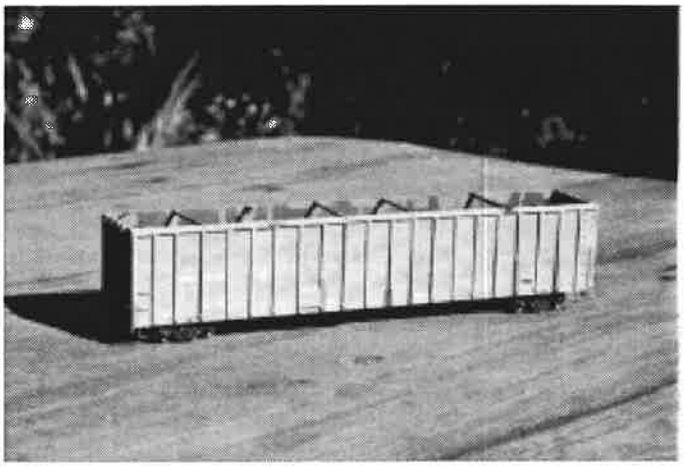
PHOTOGRAPH 4 — BCOL 9657

Car Sides and Ends: The castings for this series of car (PGE 9591-9690) were produced as a limited-run by Andy Barber. I painted this car to reflect one of the prototypes shown on page 21 of Issue 25. In my colour photographs, the car appeared to be Tuscan Red, though the prototype was probably a dirty Boxcar Red. The large PGE letters have since been covered with another colour, which in turn has faded to a "pinkish-purple" hue.

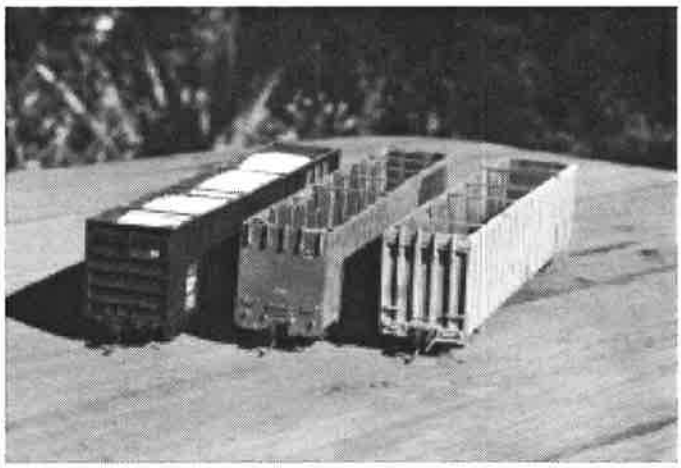
Some of the vertical ribs just below the blotted out PGE letters had been damaged and subsequently repaired and touched up with paint; though not quite as faded as the

area above. The section where the car number and loading data were repainted is another shade of faded paint, ranging between the other two in colour. I primed the model with Red Primer and painted the exterior with Tuscan Red. The patches of touch-up paint were various mixes of Tuscan Red, white, and boxcar red. Dullcoat was sprayed onto the finished car. Since the car is dark in colour, the ripples were not as visible. Therefore, the detail was not painted onto the model.

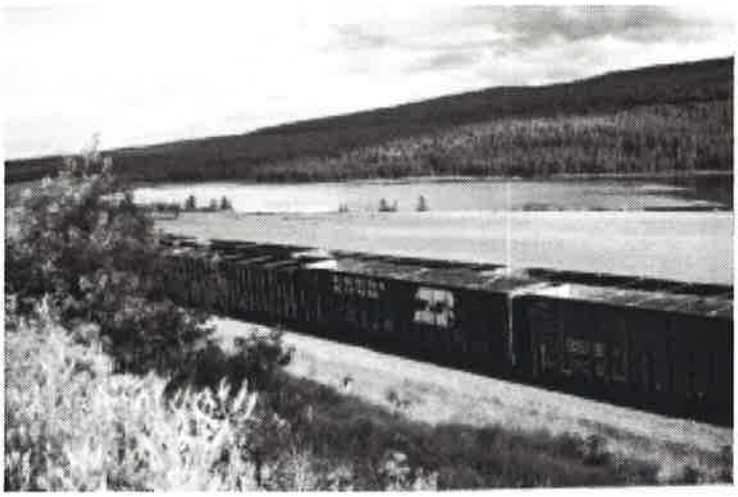
Car Top and Interior: Since I did not have any information about the colour or condition of the inside of the car, the model was left in the primer colour. Because I use saw dust for the load, the inside can easily be altered should further information become available.



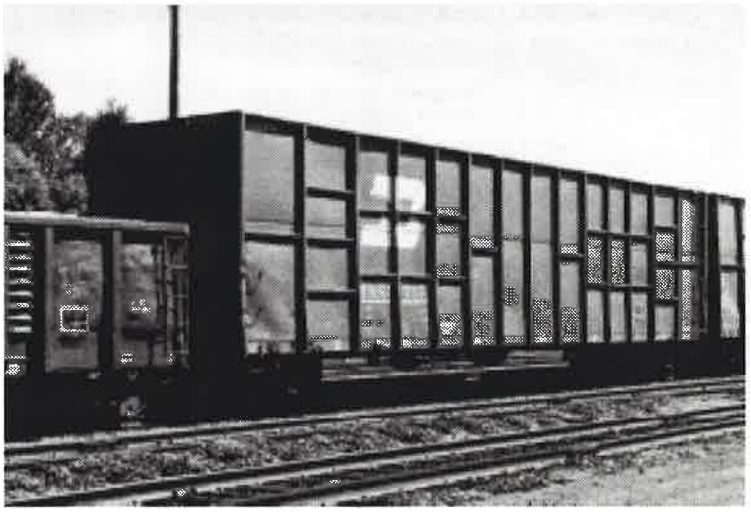
PHOTOGRAPH 5 — BCOL 90157
I produced the castings for this series (BCOL 90141-90340). This model was painted in a manner similar to BCOL 90841 except for the following: 1- White and tan were added to the BCR Light Green paint mix to resemble faded paint. 2- On the prototype, the herald board had been removed and the area underneath was painted with Light Green which had yet to fade as much as the original paint around it. To reflect this, the model was painted with a paint mix which was not as light. 3- On the prototype, some vertical ribs and upper areas had been recently repaired and painted. On the model these areas were painted with Light Green (unaltered). 4- The inside of the car was painted with faded Tuscan Red (some white and tan added). The surrounding touch-ups were hand painted with a considerably lighter mix. 5- On the prototype, several top braces were missing. Pieces of angle iron (painted with primer) were welded between two of the missing braces. 6- A bit of rust-coloured paint was added to each shaker plate.



PHOTOGRAPH 6 — THE THREE MODELS
This photograph illustrate the different door ends found on three of my models. I plan to add several more weathered models to my fleet in order to achieve the visual appearance of the prototype. Many of the older chip cars ended up wearing several paint schemes, including recent repaints in BCR Dark green. Therefore a wide range of variety of tones is acceptable for those modeling the early 1990's to the present.



PHOTOGRAPH 7 — BURLINGTON NORTHERN CARS
BN chip cars are frequently seen on BC Rail tracks. With the release of the E&C Shops and Walthers models, several versions are now possible. Andy Barber's photo shows the Walthers style car. The top has the three original braces, and the inside is painted a light Cool Gray (white mixed with a bit of black and blue). To the right, the interior of BN 687483 is painted white. On my model, I glued a length of scale 1"x6" styrene along the top of the interior wall on each side. Then I added three pieces of scale 4"x4" styrene to represent the braces, some of which were bent slightly as seen in the photograph. The model was then masked and its interior painted.



PHOTOGRAPH 8 — BN 587375
At the time that I took this picture, these cars were restricted to transporting lead zinc concentrate, which was loaded to a depth of 12 inches. E & C Shops makes a decorated kit that resembles this type of car. The extremely shallow ribs on the model do not allow for the expected shadows and as such, the model appears incorrect. Enhancing both the shadows and highlights may address the visual problem. The lettering on the decorated version is different from that shown in this photograph.

PHOTOGRAPH 9 — CN 873717
CHATTAHOOCHEE CAR
These cars are frequently seen in BC Rail's North Vancouver yard. They are used to deliver wood chips to Fibreco. E&C Shops produced a painted version of this car. The two most obvious faults with the model are its shallow ribs and shiny paint. I painted the end panels of my model with Reefer Yellow, and smudged the painted on lettering to better represent the faded and chalking condition typically seen on the prototype. Use a "Q-Tip" dipped into a little paint solvent and rub in a downward motion only until the desired effect is achieved. Then give the model generous coats of Dullcoat until all of the shine is gone. A light mist of Dust sprayed from above will help highlight the horizontal ribs. Because I have not seen the top of the car, the model was left unaltered. At some future time, should I have an opportunity to examine the car top, changes will be made.

PHOTOGRAPH 10 — CN 873639
Andy Barber's photo shows another type of CN car frequently seen at BC Rail's North Vancouver yard. It is the same type of car as seen in Photograph 7, and is available from Walthers painted for CN. Alpine Shops formerly produced a kit for this car, too. The lettering on the decorated version is fairly accurate, but will need to be weathered as described in Photograph 9. I do not know what the top is like, but would assume that the brace arrangement is similar to the BN

MOTIVE POWER NOTES

Edited by Paul J. Crozier Smith

- Three new Dash 9 upgrades were recently completed: #4606 on September 30, #4621 on October 24, and #4610 in November. This brings the number of Dash 8-40CM's upgraded to 14 of the 26 units operated.

- MK5000C #9903, on lease as a demonstrator, returned to service with the Pemberton pushers on October 21 following month-long repairs to its CAT engine.

- BC Rail received several lease units in November from Motive Power International (MPI), the Boise ID group which took over the former Morrison Knudsen locomotive rebuild business. Delivered on-site was the second MK5000C (MPEX #9902), three or four SD40s, two SD45s (MKCX #9502 and 9532), and three ex Utah RR F45s (MPEX #5525, 5527, 5529).

  Another SD45u (MPEX #9532) arrived December 2.

  Two of the ex Santa Fe F45's were spotted in the North Vancouver diesel shop on November 25.

- The latest B36-7 rebuild was #7487, which was released in December with an upgraded cab, as #3604.

- RS-18 #621 entered the Squamish rebuild shop in December for conversion to CAT power. This leaves #630 as the lone MLW unit.

INTERCHANGE

Historic Photo Service: Gary Oliver (25930 Dewdney Trunk Road, Maple Ridge, B.C. V4R 1Y4) offers an extensive stock of high quality black and white prints. Many PGE and BCOL subjects included therein.

B36-7 Info Requested: James Green (#15—39754 Government Road, Squamish, BC V0N 3G0) is seeking information regarding the General Electric B36-7 locomotives which arrived via lease on BCR during November 1995.

Photographs Wanted: Paul J. Crozier Smith (1148 Balmoral Rd, Victoria, BC V8T 1B1) is seeking photos to assist in the modeling of BC Rail's leased General Electric B23-7, B36-7, C30-7 #8084, and Dash 8-40B.

PRODUCTS OF INTEREST

Compiled by Brad Dunlop

So here we are in 1998 already. With the new year come some changes to the "old" New Products column. Commencing with this issue of *The Cariboo*, this column will be known as the Products of Interest. Items found under this banner will be a combination of the New Product and Product Review columns, in addition to information and/or reviews of items that would not fit the former criteria per se. This latter group will include additional information about items that have been around for awhile, but may be of interest to our growing SIG membership.

One example is James Green's review of Duane Karam's BC Rail Rolling Stock book which has been out of print for some time now, but which would be very useful nonetheless. I, for one, didn't know this book existed. Now that I do, I will try to lay my hands on a copy. Who knows, perhaps if there is enough interest there could be a reprint. I will be keeping a list of people interested in a reprint. Contact me if you would like to have your name added.

Jim Moore, the publisher of *The Cariboo,* has suggested a possible change in the product information platform. This change would see a product covered more thoroughly. The goal would be to, rather than simply announce a product that looks to be of interest to the BCRH&TS membership, report on how well it reflects the prototype. I'm sure we could all come up with a list of items we've parted some hard earned cash for only to discover they weren't as we'd hoped they would be. Since I'm not a "rivet counter" (no insult intended), what I may find as being personally acceptable may not be to those that are. And vice versa. Still, if we are able to provide further information than may have been previously available, I believe we will be further ahead as both a historical and a technical society. The Red Caboose and Spectrum items contributed by Jim in this issue are examples of applying this philosophy.

Now would be an appropriate time to invite all of you to consider contributing a Product Review using the above guidelines, and to thank those who have contributed to this column in the past.

Laszlo Dora, proprietor of Fraser Valley Railway (47 Taylor Drive, Toronto, ON M4C 3B4) announces the following new products:

FV-2 TRAILMOBILE HEATKING TRI-AXLE DETAIL KIT ($10.00)

This HO scale detail kit of over 20 parts will super detail an early 1980's Trailmobile 45-foot heated tri-axle highway trailer used by BCR. The kit includes the tri-axle assembly, Trailmobile landing gear, Thermo King heater and fuel tank, along with controls and gauge. Detailed instructions include information on kit bashing a trailer body. This craftsman kit is recommended for experienced modelers only.

FV-3 THERMO KING DETAIL SET WITH TRAILMOBILE LANDING GEAR ($12.00)
This HO scale detail kit includes a Thermo King heater and reefer unit as observed on the late 1980s era 45-foot Trailmobile highway trailers used by BCR. The kit includes appropriate fuel tanks, Trailmobile landing gear (2), and other details such as the controls. Instructions include information on kit bashing the trailer bodies. This craftsman kit is recommended for experienced modelers only.

FUTURE KITS

FV-4 1970s THERMO KING REEFER DETAIL KIT

FV-5 BCR 53'-6" WELDED TOFC CAR WITH 1970's 40' FREUHAUFF OUTSIDE BRACED FLAT DECK TRAILER (APRIL 1998)

This HO scale kit includes the parts for the rail car and highway trailer, appropriate decals, preformed metal parts and A-Line detail parts. Couplers and trucks not included. This craftsman kit is recommended for experienced modelers only.

Make checks payable to: Laszlo Dora. Include $3.00 per order for shipping. US orders include $.32 stamp for price information.

Railway Express Miniatures (P.O. Box 322, Sauk Rapids, MN 56379) offers a variety of N scale Maintenance-of-Way products produced in cast-pewter. Items include Track Speeders, Push-cars, Kershaw Tie Crane, Pyke Crane, and Burro Crane; all of which the PGE/BCR once had or still has in use. Send a stamped, self-addressed envelope to R.E.M. for a complete list including prices. (Ed. Note: If you purchase one or more of these items, let us know what you think. Yes I'm nagging!)

Sunshine Models (POB 4997, Springfield MO 65808-4997) has released an AAR 53-foot, 70-ton flatcar kit made of cast-resin. This kit may be a fine starting point for the PGE 1222-1469 series, many of which

remained in service with BCOL reporting marks. Price is $25 USD each less trucks and couplers. Trucks are available for $5 USD per pair. Add $4 USD shipping for up to 5 kits. (Ed Note: Refer to Issue 31 of *The Cariboo*; for Tim Horton's article on modeling the N Scale version of this car.)

Details West (P.O. Box 61, Corona CA 91718) has made the following announcement: "Coming soon, the most realistic replica of Nathan's "K" series horn on the railroad market, each in one piece brass." Included are three and five chime horns in HO scale at $2.95 USD each."

Now available is a locomotive-mounted Snow Plow (Kit #PL-257) for "BCR, CN, Canadian Roads", priced at $2.50 USD each. Send $2 USD and LSASE for their latest HO scale catalogue.

Out West Lumber Loads (2005 Oak Drive, Newberg OR 97132) announced a "real wood lumber load" (#106) for the Walther's Centerbeam Flatcar. Price $12.95 USD each plus $3 USD shipping and handling. Catalog available for $1 USD.

High Ball Productions (P.O. Box 90046, Tucson AZ 85752-0046, toll free US & Canada 1-800-345-6985) has released a BC RAIL video. Price $35.95 USD plus $3 USD shipping & handling. Mastercard and Visa. Canadian money orders accepted. Issue 33 will contain a review of this video.

Bethlehem Car Works (263 Parkview Drive, Souderton PA 18964) has released the following HO scale passenger cars kits, complete with styrene roofs and etched brass sides:
#713 Pacific Great Eastern 68-foot coach for numbers 610 & 611, and #714 Pacific Great Eastern 68-foot diner for car number 653. Priced at $59.95 USD each. Add $4.50 USD per order for S&H. (Ed Note: My *PGE Equipment Register* indicates 610 and 611 with a Length Over Buffer of 64' 0", all steel construction, 68 passenger capacity, 107100 lbs., and purchased in 1947. 610 was converted to a MOW 10-Man Bunk Car, renumbered X225 on April 30, 1964, and scrapped on June 23, 1971. I have no further information for 611. Dining Car 653 had a 66' 3" Length Over Buffer, all steel construction, 16 counter seat/14 table seat capacity, and weighed 114400 lbs. 653 was converted to a MOW Dining Car and renumbered X229 on April 30, 1964. This car was demolished on December 6, 1970 with a scrap value of $200. (Ron Tuff)

Tichy Train Group (55 Kennedy Dr., Hauppauge, NY 11788) has released a Canadian Pacific USRA-clone boxcar. Kit # 4034D includes 7/8 ends, AB brakes, and decals priced direct at $16.50 USD each. For a catalog, send two stamps. (Ed Note: This is another one of those kits which may be a place to start bashing away at in order to build some PGE/BCOL MOW equipment.)

Tomar Industries, (9520 E. Napier Ave., Benton Harbor MI 49022) has released a Train Order Board (like the upper quadrant style at Pemberton) kit #H-845. Complete with a 1.5V lamp and decals, its priced at $89.95 USD.

Micro Trains Line (351 Rouge River Parkway, P.O. Box 1200, Talent OR 97540-1200) has released a 40-foot outside-braced boxcar decorated for the Pacific Great Eastern. Kit #29080 is priced at $10.85 USD.

With the arrival of Boise Locomotive Co.'s MK5000C #9903 on BC Rail property on September 2, 1997, I began to try and see if there was a model available of the locomotive. And sure enough, there was one on the back cover of the January 1996 issue of Railroad Model Craftsman. Overland Models makes a wonderful version of the MK5000C in HO scale. You may still be able to obtain an undecorated version of the locomotive. Contact Overland at: 3808 W. Kilgore Avenue, Muncie IN 47304-4896 (phone: 1-317-289-4257). For decal information contact Microscale Industries, P.O. Box 11950, Costa Mesa CA 92627. (Phone: 1-714-434-8995) (James Green)

Product Review: *BC Rail Freight Car Roster and Pictorial*, by Duane Karam, Jr. The Society of Freight Car Historians, Monrovia CA, 1992.

Although published nearly six years ago, this book is an excellent reference for the BCR enthusiast or modeler; particularly great for modeling between the early 1960s to the late 1980s. It starts off with an introduction to the various types of freight cars on the road. Then, more than 64 color photos featuring everything from BCOL 1 (well-flat car), the boxcar/hopper cars 2126-2127 from NSC, too much of the BCR's tractor trailers, vehicles and intermodal equipment. Near the end, a four-page roster covering nearly every aspect on what you can and can't see on the railway today. However, a problem which I found with the roster was that their type (Ed Note: AAR code) and not their official name (i.e., boxcar) only identified the freight cars. This may be a little confusing to some beginners, but I would really give this monograph a good read. Twenty-eight (21 ½" x 28") pages including five 16 ½" x 26 ½" black and white photos and sixty-four 7 ½" x 12 ½" color photos. Again, this book is a great source! (James Green)

Product Review: In January, Red Caboose released a 40-foot boxcar decorated in the PGE caribou scheme (six number choices). This HO scale model is a replica of the 1937 AAR design and retails for $13.95 US.

For many PGE modelers, this car offers an opportunity to graduate from the shake-the-box syndrome. Many

parts were molded separately, including grab irons, stirrup steps, and ladders. I found all parts to be well constructed, and the kit will typically take 2-3 evenings to complete.

For the true freight car aficiendao, this kit will be disappointing. The Dreadnaught car ends are incorrect for the Canadian Car prototype. (Ed Note: Although currently out of production, the correct style ends have been offered periodically by the Canadian Railway Model Parts Guild.)

Most lettering on the model is well done, although in some instances incorrect for the PGE prototype. On my sample, the car number appears to be too large, and the final digit looks out of place. It resembles the letter "eye" more than the numeral "one". The caribou herald is the correct size, and is well produced.

Purists will surely note that the model's brakewheel and separately molded roof are also incorrect for the PGE. However, to the manufacturer's credit, the ladders are correct.

Two styles of doors (Youngstown and Superior) are included in the kit. The former is close to the PGE prototype. The only application I have seen for Superior doors on the railway was on some ex CNJ cars that were leased temporarily during a car shortage in the mid 1970s.
(Jim Moore)

Spectrum (Bachmann) has announced plans to release an HO scale Baldwin 2-8-0 Consolidation steam locomotive during the first quarter of 1998. The loco, which is expected to incorporate a revolutionary design concept, is sure to capture the interest of PGE steam modelers.

In its day, the PGE operated six light Consolidations. The first two (#51-52) were built in 1912 by Montreal Locomotive Works, and remained in service until 1953. The remaining four (#53-56) were built one year later by Canadian Locomotive Co. The last of these (#54) was retired from active duty in 1954.

According to Rail Line News, "Spectrum wanted a model that could be easily modifed to follow a specific prototype, and they wanted it to be as economical as a mass-produced diesel." Based on early production photos of the model, both goals have been achieved.

For its prototype, Spectrum chose a 1917 Baldwin engine that was typical of Consolidations used by dozens of railroads through the final days of steam. The model features 57-inch drivers, same as found on the PGE prototype. It utilizes separate parts for each of the major fixtures. This approach is sure to lend itself to easy kitbashing or customization.
Another concept introduced with this model is an entirely new drive system. The precision balanced 5-pole skew-wound can motor and flywheel deliver power to the third driver. The system is reliable and quiet, and offers a welcome departure from the antiquated worm-and-gear drive mechanisms. (Jim Moore)

Microscale Industries has released three decals sets for 75-foot centebeam flatcars (1987+). 87-1025 (HO scale) and 60-4247 (N Scale). Plus HO Minical MC-4247. Haven't seen these, so can't comment on the quality or relevance to BCR. (Jim Moore)

Life-Like Canada has announced the release of Proto 2000 HO scale BC Rail 100-ton hoppers.

Trees By Terry (7745 Wallace Drive, Saanichton B.C. V8M 1T2.) Assorted trees in several sizes, made from Pacific Northwest Plume. Trees include trunk and foliage.

Walthers has released an N scale ballast hopper with longitudinal doors. Made from styrene with cast metal underframe, includes detailed stirrups and grab irons. (Ed Note: Looks like BCOL 2800-series. Anyone care to offer a review for next issue?)

Product Review: Atlas' long awaited HO scale model of the Evans' Double Plug Door Box car was released in December. Decorated versions include British Columbia Railway and Evans Products. In acknowledging the delay in developing the car, Atlas CEO Tom Haedrich said, "The production samples of the Evans cars were not up to our standards. We weren't satisfied with the underframe and decided to rework it instead of issuing a product we didn't feel deserved the Atlas name."

Notable features on the new car include 70-ton roller bearing trucks with blackened wheels, screw attached coupler covers, a two-piece underframe, and separate brake cylinder, air reservoir, and end platforms.

Reaction to the new release has been mixed. Freight car enthusiast Jim Eager concludes that the car is "a vast improvement over the too-short Details West kit, which has the wrong roof, and is far from perfect. The oversize, molded on ladders, while easily removed from the sides, are problematic on the car ends."
"The car ends are incorrect. The two major ribs should be straight along the bottom, sort of a two-thirds thickness rib. The rib shape —at the ends— is not correct either. And the minor ribs are grossly undestated," notes Eager.

"Much of the molded detail is shallow. For instance, the locking levers in the doors just seem to disappear. The carbody appears to be different from the model shown two years ago at the MRIA show in Chicago," continued Eager. (Ed Note: This is Atlas' second or

third attempt to produce this particular car model. To its credit, the manufacturer rejected the previous attempts due to poor craftsmanship.)

"The brake wheel is OK, but the brake gear parts and arrangement are just aweful and there is no cushion underframe detail at all. The roof should have rivets around the perimeter. Not only are these missing, the surface sort of "sinks" a bit along the edge of the roof."

Jim concludes, " The paint and lettering was good news-bad news. Good since the paint was smooth and the colours looked correct. The printing is superb, even the trust stencil is legible! Bad because it looks like little effort was made to match the lettering style of the prototype."

Another modeler claims to be "appalled by the floor detail, and immediately wondered about the story that the model was delayed because of the floors. If this is the improved version, what the heck did the original look like?"

Still another said that "it is possible to take two Details West underframes and kitbash them for the Atlas underframe. Add new stirrups and see-through end platforms from Plano, and you have a much improved boxcar."

As for my two cents, I echo earlier comments concerning the font style. It just is plain incorrect. Some of the dimensional data placement is also incorrect. Overall, the lettering is crisp and the paint colour matches the prototype, including the one light green door.

Each car is protected by a plastic sheet (nice touch!), which in turn sits in a styrofoam tray. The model features molded on placards, but no ACI sticker. The dogwood herald is well replicated; however the reporting marks are light (you can see through them). All end markings are also accurate. (Jim Moore)

Red Caboose has released three HO models decorated for PGE. First is a 42-foot fishbelly-side flatcar. Caveat emptor is appropriate here as the PGE had only straight side flats with fishbelly sides in that particular car length. Later deep-sided cars were in the 50-foot range.

Just out is a beautiful silver with brown roof wood sheathed reefer. It closely reflects the prototype and is a "must buy" for anyone modeling the Caribou era. As with the flat, six numbers (low 800-series) are available.

Finally, the next run of its 40-foot AAR design boxcars will include a version with in the caribou herald. (Wendy Magnall)

MTS Imports (Middletown NY) has decided to produce the formed fluting version of the RDC. The units will all have smooth fronts without fluting, and will be built in both raised and recessed headlight versions. The brass models will be nickel plated, but otherwise undecorated and unlettered at $515 USD each.

The HO models will be handcrafted in Korea by Ajin and will feature 8-wheel drive. RDC-1, RDC-2, and RDC-3 versions will be produced. Delivery is expected this summer.

Product Review: The 42-foot flatcar recently released by Red Caboose is patterned after a USRA design of the World War One period. This HO scale model features fishbelly style side sills, and therefore is not reflective of cars within PGE series 1065-1127 (built c1914). Rather, the PGE had several 41-6 straight sill flatcars within the number ranged indicated on the model.

Fishbelly side sills became common on the railway in the mid 1950s, when the 1222-1469 series, general-service flatcars were acquired.

The Red Caboose kit is nicely done, and includes separate stirrup steps, grab irons, and stake pockets. Six different numbers are available. Each is US $9.50. Daylight Sales (4085-G Nelson Ave., Concord CA 94520, toll free (888) 557-9899) is offering a real collector's item t-shirt: a special design for the trip the Royal Hudson was supposed to make to the States with the Daylight back in 1996. Large and XL sizes remain. Special price to BCRHTS members is $7 USD plus shipping. Regular retail was $14.99, and there reportedly was a store in Squamish selling this same shirt for C$24. Mastercard/Visa. Money orders or checks in US funds only.

Prototypically accurate, limited-run HO scale decals for the Pacific Great Eastern Railway's first two diesels will soon be available. Designed for use on Spectrum's General Electric 44-ton and 70-ton diesels, the set includes black, orange, dark green, and yellow markings.

This unique set will feature enough material to decorate the as-delivered appearance of the 65-tonner, as well as the three known schemes of the 70-tonners.

Each set will retail for $11.50 USD or C$14.50. Send check or money order (payable to "Jim Moore") to BCRHTS, 25852 McBean Parkway #187, Valencia, CA 91355-3705. Allow four weeks for delivery.