



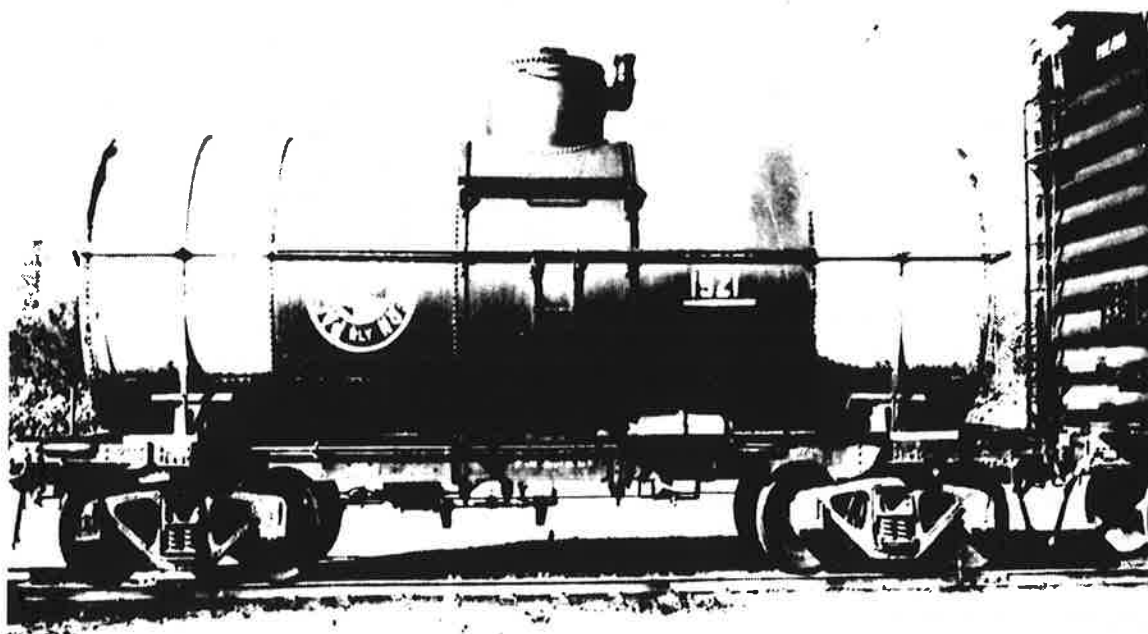
The CARIBOO



The British Columbia Railway Historical & Technical Society

Issue 35

SPRING 1999



Tank Cars of the PGE/BCR

BCR Freight Cars in N Scale Pt. 4 Tank Car

Surfing the Web - www.bcrail.com

Railwest Manufacturing Company

The Chasm Cattle Story

Photo File: PGE Ligerwood

EDITORIAL

Well, Issue #34 was a unmitigated disaster. My apologies for its tardiness and quality, or rather lack of it. I am aware of the poor photograph quality and hope this issue is better since I had the printer make PMT's from my scans. Ron Tuff was able to get me the font types and sizes that were used in previous issues so I can now have some consistency in that area.

Please note that Ray Konrath is our membership person send renewals to him. A number of you sent your renewals to me. Also please note my email address has changed, it is now pjcrozier-smith@home.com.

1999 CONVENTION

Your convention committee Timothy Horton, Convention Chairman; Brian Clogg, Registrar; Andy Barber, Treasurer have been working on our second convention. It will be held at the College of New Caledonia in Prince George from August 12 to 15, 1999.

A preliminary itinerary is as follows: guided tours of BC Rail's & CN Rail's Prince George shops and of local online industries, access to the Central BC Railway and Forest Museum, clinics on BC Rail equipment and operations, clinics on PGE/BCR modelling, HO and N scale model displays, model and photo contests, commercial tables & dis-

Dues should be paid to Ray Konrath, 2166 Lannon Way, Sidney, B.C., V8L 4K2. At the rates of \$20US for US members and \$25Can for Canadian members. Overseas members \$30US.

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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), some other compatible software, or typewritten.

All submissions are subject to editing as a condition of publication. Material will not be returned unless other arrangements have been agreed upon in advanced.

The editors encourage submission of photographs and other illustrations which help reinforce the content of the material submitted. Appropriate captions and credit should be included. Photographs maybe either B&W or colour prints, or slides.

We also accept submissions via the Internet. My address is pjcrozier-smith@home.com or by mail to 1148 Balmoral Rd., Victoria, B.C., V8T 1B1.

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Cover Photo

PGE 1921 Diesel Fuel tank car at North Vancouver in 1963. Greg Kennelly and Tim Horton have collaborated on a comprehensive article describing PGE/BCR tank cars which begins on page 3 of this issue. Photograph by William H. Hewlett from Greg Kennelly's collection.

Tank Cars Of The Pacific Great Eastern / British Columbia Railway

by
Timothy J. Horton & Greg M. Kennelly

Part I: PGE Tank Cars To 1957

Throughout its history, BC Rail and its predecessor companies have operated a fleet of tank cars dedicated to fuel oil service. During the steam era, Bunker C fuel oil was shipped north to the roundhouses at Lillooet and Williams Lake. With the arrival of diesel locomotives in 1948, these tank cars were re-assigned to the shipment of diesel fuel oil to locomotive facilities in the north, a practice which continues to this day.

Beginning in early 1914, the PGE took delivery of ten tank cars: two 8000 U.S. Gallon units purchased second-hand from the Erie Car Works and eight 10000 U.S. Gallon cars purchased from American Car & Foundry. The first four of these were listed as being second-hand. All ten cars are listed in railway records and the Official Railway Equipment Registers as being all steel. The 8000 gal. cars were listed as being 32' in length over the end sills and the 10000 gal. cars were recorded as being 32'8" over the end sills.

The two 8000 gallon cars were numbered X-51 and X-52, while the 10000 gallon cars became X-53 to X-60. The railway's records show all eight 10000 gal. cars as having a shell capacity of 8367 Imperial Gallons and a dome capacity of 166 Imperial Gallons. On June 15, 1917 all ten tank cars were renumbered into the 1900 series, the 8000 gallon cars becoming PGE 1901 and 1902; the 10000 gallon cars becoming PGE 1921-1928, presumably in order. This initiated a practice which has seen all OCS tank cars numbered in the 1900 series to the present day (see Roster #1 for details and capacities).

These tank cars were originally painted black with white lettering. Beginning in 1948 they were gradually transferred to Diesel Fuel Service and a new silver and black paint scheme incorporating the Cariboo logo was introduced. Another 10000 gallon car was added to the roster sometime prior to May 15, 1949 through the purchase of a former California Despatch Line car (CDLX 1047) which was renumbered PGE 1929. Cars 1930 and 1931 were added prior to 1950. The second of these, PGE 1931, had a capacity of approximately 9500 U.S. Gallons and was equipped with high-mounted walkways.

In 1957 the railway purchased three former British North American Oil Company tank cars numbered BAOX 280, BAOX 651 and BAOX 208. All three had the tops of the domes cut off and were placed in "Fire Service", renumbered PGE X-1935 to X-1937 respectively. X-1937 had a capacity of 5247 Imperial Gallons (6300 U.S. Gallons). X-1936 appears to have been a 10000 U.S. Gallon car.

ROSTER #1: PGE TANK CARS (1914-1957)

<u>Number</u>	<u>Capacity</u>	<u>Acq.</u>	<u>Notes</u>
PGE 1901	8000 U.S. Gal.	1914	ex-PGE X-51; purch. from Erie Car Works; origin unknown became water car X-1901 (date unknown), scrapped 9/67
PGE 1902	8000 U.S. Gal.	1914	ex-PGE X-52; purch. from Erie Car Works; origin unknown disposition and date unknown (prior to 1955)
PGE 1921	8367 Imp. Gal.	1914	ex-PGE X-53; purch. from Erie Car Works; origin unknown disposition and date unknown *
PGE 1922 (1st)	8367 Imp. Gal.	1914	ex-PGE X-54; purch. from Erie Car Works; origin unknown disposition and date unknown *
PGE 1923 (1st)	8367 Imp. Gal.	1914	ex-PGE X-55; purch. from Erie Car Works; origin unknown conv. to fire protection car, renumbered BCOL 991962 5/74
PGE 1924 (1st)	8367 Imp. Gal.	1914	ex-PGE X-56; purch. from Erie Car Works; origin unknown conv. to water car X-1902, renumbered BCOL 991902 6/73
PGE 1925 (1st)	8367 Imp. Gal.	1914	ex-PGE X-57; purch. from Erie Car Works; origin unknown conv. to fire protection car, renumbered BCOL 991961 5/74
PGE 1926 (1st)	8367 Imp. Gal.	1914	ex-PGE X-58; purch. from Erie Car Works; origin unknown disposition and date unknown
PGE 1927 (1st)	8367 Imp. Gal.	1914	ex-PGE X-59; purch. from Erie Car Works; origin unknown disposition and date unknown
PGE 1928 (1st)	8367 Imp. Gal.	1914	ex-PGE X-60; purch. from Erie Car Works; origin unknown disposition and date unknown *
PGE 1929	8367 Imp. Gal.	1949	ex-CDLX 1047; renumbered BCOL 1929 May 1974 retired and cut up for scrap May 1982
PGE 1930	8000 Gals.	c. 1950	origin unknown; became water car X-1930 disposition and date unknown
PGE 1931	8000 Gals.	c. 1950	origin unknown; became water car X-1930 became BCOL 991931 in April 1975 for Museum Train
PGE X-1932	8000 Gals.	-----	origin unknown; water tank car disposition and date unknown
PGE X-1933	8000 Gals.	-----	origin unknown; water tank car disposition and date unknown
PGE X-1934	8000 Gals.	-----	origin unknown; water tank car disposition and date unknown
PGE X-1935	unknown	1957	ex-BAOX 280; became water car for "Fire Service" disposition and date unknown
PGE X-1936	unknown	1957	ex-BAOX 651; became water car for "Fire Service" disposition and date unknown
PGE X-1937	unknown	1957	ex-BAOX 208; became water car for "Fire Service" disposition and date unknown

* One of these three cars (PGE 1921, 1922 or 1928) became fire protection car BCOL 991963 in 5/74. BCOL 991961-991963 (all ex-PGE tank cars from 1914) remain in fire protection service in 1999.



Fig. 1 PGE 1924 (1st) at Squamish circa 1957. This is one of the eight 10000 gallon cars acquired from Erie Car Works in 1914. *William H. Hewlett Photograph from the Collection of Greg Kennelly*



Fig. 2 PGE 1929 (ex-CDLX 1047) photographed on May 15, 1949 in the later Diesel Fuel Service paint scheme which was also applied to PGE 1921-1928. *Photograph from the Paterson-George Collection*

Part II: PGE Tank Cars 1958-1972

In 1958 the railway's tank car roster consisted of seven tank cars in diesel fuel oil service (PGE 1921-1926 and PGE 1929-1929) and seven water tank cars (PGE X-1930 to X-1937). With expansion northwards to Prince George and the Peace River country, the demand for diesel fuel to be shipped north increased significantly and additional cars were required.

In 1959 the railway purchased the first of what would be many second hand tank cars. These were PGE 1919 (ex-UTLX 20594) and PGE 1920 (ex-GATX 65869). During the 1960s a further 26 tank cars, some of them salvaged from wrecks on the PGE, were purchased and rebuilt for OCS Diesel Fuel Service. Of these cars, 21 were of UTLX origin and were standard non-insulated cars of riveted steel construction (see Roster #2 for details and capacities).

A notable exception was PGE 1911, which was kitbashed from an ex-PSPX welded tank and an ex-CPR boxcar underframe in 1967. This car remains in service today as BCOL 1911. Another interesting exception was PGE 1923 (2nd) which became the railway's first modern tank car with welded construction and a capacity of 17,316 Imperial Gallons. This car also continues in service today as BCOL 1923 (Lube Oil).

At least seven of the ex-UTLX cars (PGE 1910, 1914, 1926-1927 and 1930-1932) were equipped with heaters to keep their cargo of diesel fuel viscous in the cold northern climate. Between 1972 and 1974 most of the railway's tank cars received a dome platform with ladders (BCOL modification #0013).

All of the tank cars acquired between 1957 and 1972 were renumbered into the 1900 series, sometimes reusing road numbers of older cars. They were renumbered PGE 1903-1918, 1922-1928 (2nd) and 1930-1932. These cars were painted black with white lettering incorporating the Cariboo logo. Those acquired later, such as PGE 1923 (2nd), received the map herald. Most were repainted and relettered for the British Columbia Railway after April 1972, receiving dark green paint with a 20" dogwood logogram.

Although most of these cars were assigned to OCS Diesel Fuel Service, there were several exceptions. BCOL 1926 and 1928 were converted to Lube Oil Service and BCOL 1930 and 1931 were reassigned to ship tie preservative only.

Most of these cars were retired and sold for scrap during the 1980s. Some were sent north to Prince George for water service. PGE 1926 was retired in 1995 and donated to the West Coast Railway Association. It is now on display at the WCRA Heritage Park in Squamish. At least two cars, BCOL 1911 and BCOL 1923, are known to remain in service at the time of writing. PGE 1932 was reassigned to outfit fuel service in 1987.

ROSTER #2: PGE TANK CARS (1958-1972)

<u>Number</u>	<u>Capacity</u>	<u>Acq.</u>	<u>Notes</u>
PGE 1903	8300 Imp. Gal.	-----	ex-UTLX 38735; disposition and date unknown *
PGE 1904	8400 Imp. Gal.	-----	ex-UTLX 51127; retired and scrapped 11/72
PGE 1905	8400 Imp. Gal.	-----	ex-UTLX 53755; BCOL 1905 5/74; disposition unknown *
PGE 1906	8400 Imp. Gal.	-----	ex-UTLX ???; BCOL 1906 1/74; disposition unknown *
PGE 1907	8400 Imp. Gal.	-----	ex-UTLX ???; BCOL 1907 4/73; to water service 8/82 *
PGE 1908	8400 Imp. Gal.	-----	ex-UTLX ???; BCOL 1908; scrapped 6/83 *
PGE 1909	9200 Gal.	1968	ex-UTLX 27737; disposition unknown *
PGE 1910	8400 Imp. Gal.	-----	ex-UTLX 59835; BCOL 1910 4/74; WCRA Her. Park 2/99
PGE 1911	9160 Imp. Gal.	1967	ex-PSPX 17123 tank, ex-CPR box frame; BCOL 1911 4/91 *
PGE 1912	6787 Gal.	1966	ex-SHPX 4214 ins. tank; rebuilt 3/66; disposition unknown *
PGE 1913	6843 Imp. Gal.	1966	ex-UTLX wreck salvage; BCOL 1913 7/73; scrapped 8/82 *
PGE 1914	8400 Imp. Gal.	1965	ex-UTLX 57245; BCOL 1914 6/73; disposition unknown *
PGE 1915	7000 Gal.	1964	ex-UTLX 27034 and scrap parts; scrapped 5/82 *
PGE 1916	5407 Imp. Gal.	1964	ex-UTLX 7726; destroyed 5/19/76
PGE 1917	8400 Gal.	-----	ex-UTLX 34896; BCOL 1917; destroyed 6/25/75
PGE 1918	5407 Imp. Gal.	1964	ex-UTLX 20587; BCOL 1918 9/73; disposition unknown *
PGE 1919	5407 Imp. Gal.	1959	ex-UTLX 20594; scrapped 8/82 *
PGE 1920	6300 Gal.	1959	ex-GATX 65869; BCOL 1920 5/85; disposition unknown *
PGE 1922 (2nd)	8629 Gal.	1964	ex-AAMX 8005; conv. to stove oil service; destroyed 10/20/72
PGE 1923 (2nd)	17,316 Imp. Gal.	1969	ex-UTLX 235; conv. to OCS Fuel Tank 9/69; conv. to BCOL 1923 Lube Oil 11/85; in service 1999*
PGE 1924 (2nd)	6670 Imp. Gal.	1969	ex-UTLX 22368; conv. to OCS Oil Car; BCOL 1924 3/74; sold for scrap 2/84; now in use at Port Alberni *
PGE 1925 (2nd)	unknown	-----	ex-CGTX 2656; conv. to OCS Fuel Service; sold for scrap 10/84 *
PGE 1926 (2nd)	8400 Gal.	-----	ex-UTLX 59826; conv. to heater equipped OCS Diesel Fuel; BCOL 1926 Lube Oil 7/73; to WCRA Heritage Park 1995 *
PGE 1927 (2nd)	8400 Gal.	-----	ex-UTLX 59782; conv. to heater equipped OCS Diesel Fuel; BCOL 1927 4/74; disposition and date unknown *
PGE 1928 (2nd)	unknown	-----	origin unknown; BCOL 1928 Lube Oil 5/74; scrapped at Squamish 6/80 *
PGE 1930	8400 Gal.	-----	ex-UTLX 55582; conv. to heater equipped OCS Diesel Fuel; BCOL 1930 tie preservative 3/73; sold for scrap 2/84 *
PGE 1931	8400 Gal.	-----	ex-UTLX 55433; conv. to heater equipped OCS Diesel Fuel; BCOL 1931 tie preservative 8/72; to water service 8/82 *
PGE 1932	8400 Gal.	-----	ex-UTLX 59846; conv. to heater equipped OCS Diesel Fuel; BCOL 993456 Outfit Fuel Car 2/87; status unknown

* These cars are known to have received a dome platform (BCOL modification #0013) during 1972-1974.

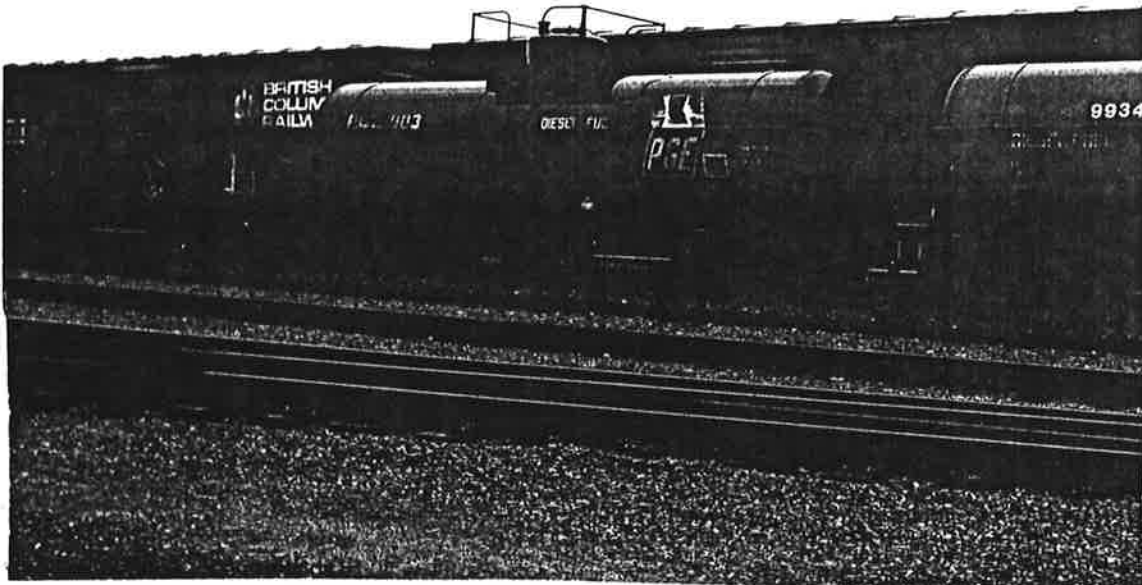


Fig. 3 PGE 1903 (ex-UTLX 38735) at Squamish in the early 1990s. Note the dome platform and the PGE map herald. Most of the ex-UTLX cars were similar. *Photograph by Trevor Mills*



Fig. 4 BCOL 1924 (2nd) (ex-UTLX 22368) photographed at Port Alberni in August 1996. This picture shows the car as repainted for the British Columbia Railway. *Photograph by Dave Wilkie*

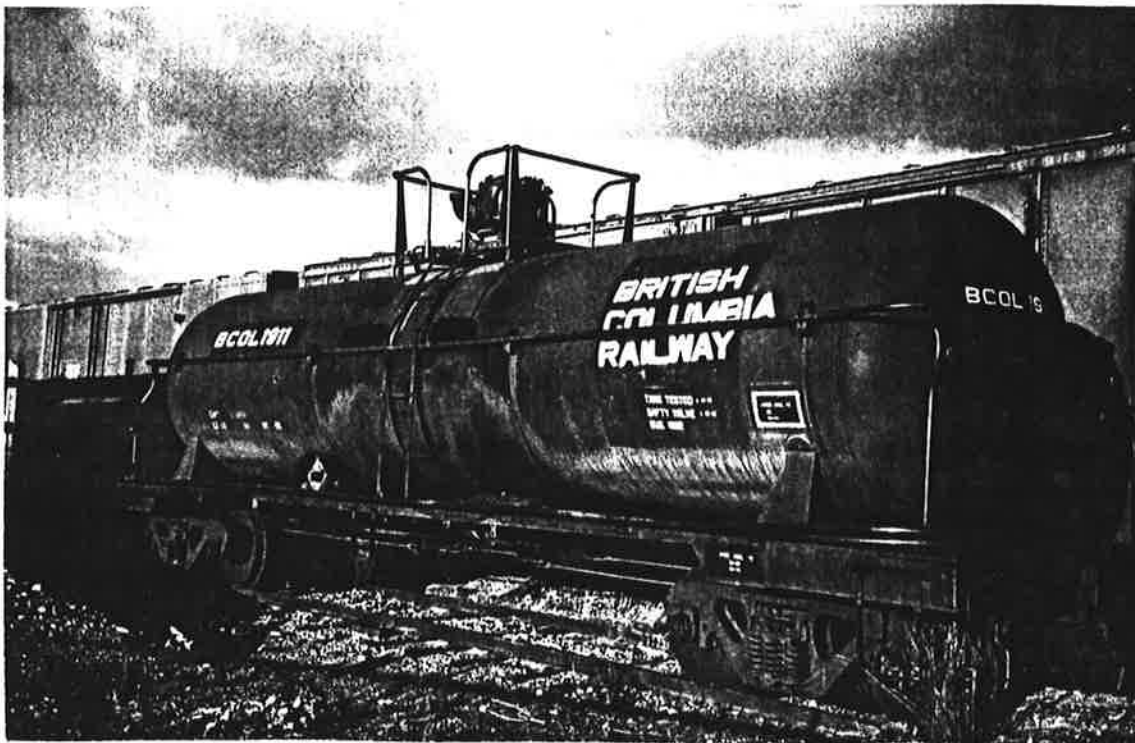


Fig. 5 BCOL 1911 was kitbashed from an ex-PSPX welded tank and an ex-CPR boxcar in August 1968. It is seen at Prince George on March 16, 1998. *Photograph by Andy Barber*



Fig. 6 BCOL 1923 (ex-UTLX 235) at North Vancouver on December 20, 1993. This was the railway's first modern tank car and originally had the PGE map herald. *Photograph by Timothy J. Horton*

Part III: BCR Tank Cars 1973 - 1999

In 1973 the British Columbia Railway acquired a further 18 tank cars of UTLX origin. All except BCOL 1950 were assigned to OCS Diesel Fuel Service and received the dome platform modification. They were repainted in dark green with a 20" dogwood logogram and were stencilled "Diesel Fuel" (see Roster #3 for details and capacities).

Of these cars, BCOL 1943 differed in having personnel guards in place of running boards. BCOL 1948 and 1949 were welded tanks. BCOL 1950 was designated as a tie preservative car and also received the dome platform modification.

In November 1976 the railway acquired its second modern tank car with the acquisition of a 17,000 Imperial Gallon tank car which had been involved in a derailment at Prince George. It was rebuilt and assigned to OCS Diesel Fuel Service as BCOL 1951 and continues in service today. BCOL 1901 and 1902 (ex-UTLX cars) were acquired in 1978.

The British Columbia Railway purchased its first new tank cars in 1981. BCOL 1960 and 1961 are 100 ton cars with a capacity of 17,236 Imperial Gallons and ride on roller bearing trucks. These two cars were painted dark green with a 40" dogwood logogram. A third car, BCOL 1962, was added in 1982. This car, also painted dark green, has a 20" logogram next to a 40" dogwood. BCOL 1960 was wrecked and later sold for scrap.

Six similar cars were purchased from Hawker Siddeley in 1983. These were numbered BCOL 1963-1968 and also have a capacity of 17,236 Imperial Gallons. They are painted dark green with a 20" dogwood logogram, although BCOL 1968 has a 20" logogram with a 40" dogwood. At least one car, BCOL 1965, is assigned to Lube Oil Service.

The last two cars to be purchased to date were BCOL 1969 and 1970, which were built by Procor in August 1984. They have a capacity of 17,236 Imperial Gallons and differ in the appearance of the tank supports and the arrangement of the top platform handrails. They are painted dark green with an interim 20" logogram consisting of an italicized *BC RAIL* next to a 20" dogwood (see Roster #4 for details and capacities of BCOL 1960-1970).

With the arrival of these modern tank cars between 1981 and 1984, the older ex-UTLX cars were retired from service. Most of the surviving cars were sold for scrap between 1982 and 1984. BCOL 1933 was converted into a training car and continues in service, repainted and relettered with the current BC Rail logogram. Three additional cars (BCOL 1934, 1942 and 1946) were sent to Prince George for water service. Of these, BCOL 1934 has since been retired and donated to the railway museum at Prince George.

BC Rail currently has an active roster of twelve modern OCS fuel and lube oil cars including BCOL 1923, 1951, and 1961-1970. Additional cars of older vintage remain in work service including outfit fuel service, outfit water service and fire protection service.

ROSTER #3: BCR TANK CARS (1973-1976)

<u>Number</u>	<u>Capacity</u>	<u>Acq.</u>	<u>Notes</u>
BCOL 1901	6800 Gal.	1978	ex-UTLX 17144; disposition and date unknown
BCOL 1902	6800 Gal.	1978	ex-UTLX 17672; disposition and date unknown
BCOL 1933	8400 Gal.	1973	ex-UTLX; converted to training car early 1990s; in service *
BCOL 1934	8394 Gal.	1973	ex-UTLX; later BCOL 993565 water car; to P.G. Museum *
BCOL 1935	unknown	1973	ex-UTLX; disposition and date unknown *
BCOL 1936	unknown	1973	ex-UTLX; disposition and date unknown *
BCOL 1937	8400 Gal.	1973	ex-UTLX; retired and sold for scrap 2/84 *
BCOL 1938	unknown	1973	ex-UTLX 17609; disposition and date unknown *
BCOL 1939	unknown	1973	ex-UTLX 28772; wrecked 3/80; sold for scrap 2/84 *
BCOL 1940	unknown	1973	ex-UTLX 26423; retired and sold for scrap 1982 *
BCOL 1941	unknown	1973	ex-UTLX 103; destroyed in derailment 10/79 *
BCOL 1942	8294 Gal.	1973	ex-UTLX 56498 tank/UTLX 43086 frame; water car 1982 *
BCOL 1943	8404 Gal.	1973	ex-UTLX 59824; disposition and date unknown *
BCOL 1944	8502 Gal.	1973	ex-UTLX 32172; disposition and date unknown *
BCOL 1945	8408 Gal.	1973	ex-UTLX 59957; retired and sold for scrap 2/84 *
BCOL 1946	unknown	1973	ex-UTLX 31820; wrecked 9/74; to water service 3/75 *
BCOL 1947	unknown	1973	ex-UTLX 76081; retired and scrapped 7/82 *
BCOL 1948	6835 Imp. Gal.	1975	ex-UTLX 43021; disposition and date unknown
BCOL 1949	6835 Imp. Gal.	1975	ex-UTLX 43022; disposition and date unknown
BCOL 1950	unknown	1973	ex-UTLX 57082; tie preservative car; sold for scrap 1982 *
BCOL 1951	17,000 Imp. Gal.	1976	wreck salvage (origin unknown); in service 1999

* These cars are known to have received a dome platform (BCOL modification #0013) during 1973-1974.

ROSTER #4: BC RAIL TANK CARS (1981-1984)

BCOL 1960	17,236 Imp. Gal.	1981	new 100 ton tank car built 7/81; wrecked and sold for scrap
BCOL 1961	17,236 Imp. Gal.	1981	new 100 ton tank car built 8/81; in service 1999
BCOL 1962	17,236 Imp. Gal.	1982	new 100 ton tank car built 9/82; in service 1999
BCOL 1963	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1964	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1965	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1966	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1967	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1968	17,236 Imp. Gal.	1983	new tank car built by Hawker Siddeley 7/83; in service 1999
BCOL 1969	17,236 Imp. Gal.	1984	new tank car built by Procor Ltd. 8/84; in service 1999
BCOL 1970	17,236 Imp. Gal.	1984	new tank car built by Procor Ltd. 8/84; in service 1999



Fig. 7 BCOL 1943 at North Vancouver On July 9, 1989. Note the personnel guards in place of the usual running boards, absence of handrail around tank, and end handrails. *Photograph by Timothy J. Horton*

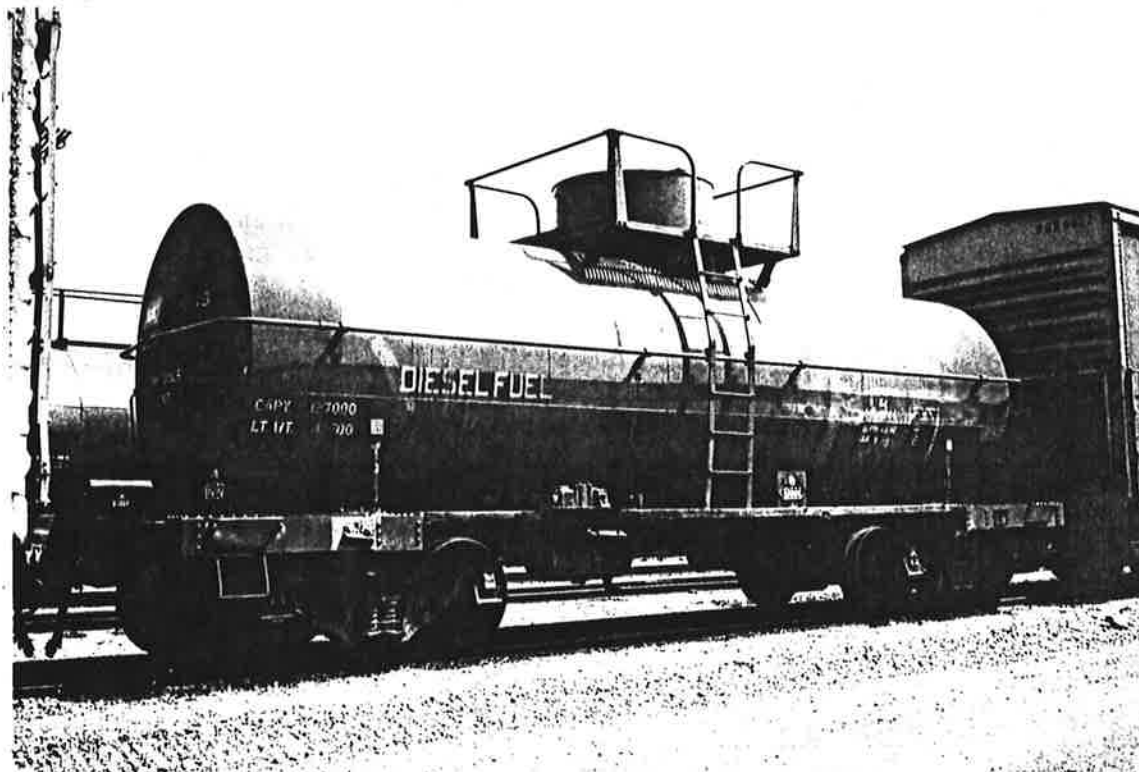


Fig. 8 BCOL 1949 (ex-UTLX 43022) at Squamish in June 1991. Note the welded tank with a capacity of 6835 Imperial Gallons. BCOL 1948 was identical. *Photograph by Andy Barber*

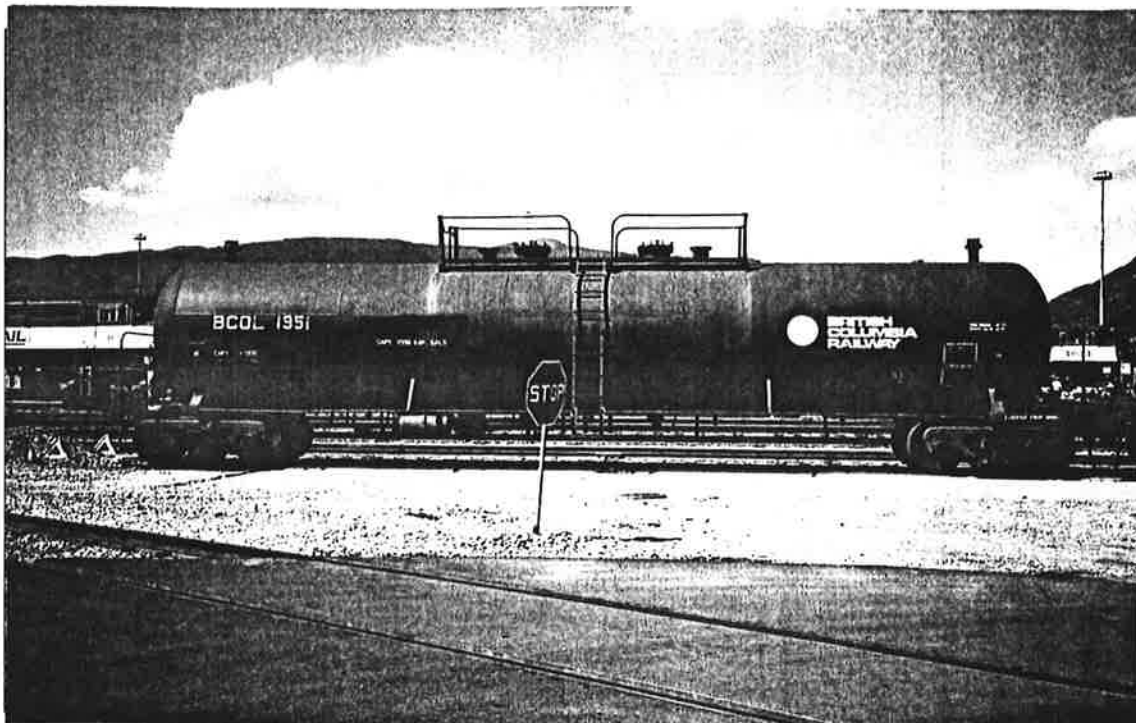


Fig. 9 BCOL 1951 at North Vancouver on August 13, 1995. Acquired in 1976, this car was rebuilt from a wreck salvage. Note the two pair of hatches and vents at each end. *Photograph by Timothy J. Horton*



Fig. 10 BCOL 1965 at North Vancouver on August 13, 1995. BCOL 1963-1968 are identical. This particular car is assigned to Lube Oil Service. *Photograph by Timothy J. Horton*

Part IV: BCR Tank Cars 1972 - 1999

In addition to the cars described above, there exists a significant number of cars in work service. These cars have a six-digit road number beginning with "99" which indicates work service.

The first group of work service cars are the fire protection cars which were used to extinguish brush fires along the right of way and to fill water barrels on major bridges. These cars had the domes cut down and plated over with a simple hatch. They were not fitted with the dome platform modification but did receive top handrails on either side of the hatch. The fire protection cars were painted red and silver with minimal red lettering. Although information on these cars is sketchy, a roster of known cars and information concerning them is provided (see Roster #5 for details and capacities).

BCOL 991972 and 991973 are modern welded tankcars built in 1963 and 1970 respectively. They kept their original black paint and were put into service with relettering only. Their capacity is approximately 8200 U.S. Gallons and are used to ship fuel oil.

BCOL 993454, 993455 and 993456 are outfit diesel fuel cars and are used to provide fuel oil for diesel generators on outfit trains. BCOL 993454 is painted black and yellow with black lettering while BCOL 993455 is an ex-BCOL OCS diesel fuel car painted dark green with a 20" dogwood logogram (see Roster #6 for details and capacities).

The last group of tank cars in work service are the water service cars, most of which are used to provide water for outfit trains. A few of these cars were retired from OCS fuel service and kept their dome platform as well as their dark green paint. The rest of these cars lacked the dome platform and were repainted yellow with black lettering which varied greatly from car to car. Information on these cars is also sketchy and a roster of known cars and information about them is provided (see Roster #7 for details and capacities).

A number of water service cars were badly damaged in 1992 when their contents froze and ruptured the tanks. These cars were sold and scrapped for use as culverts in 1992. Many of the fire protection cars and water service cars remain in service at the time of writing, offering the railfan and modeller a variety of interesting railway paint schemes.

Sources

Information for this article came from a variety of sources. The early PGE tank cars are documented in railway records and in issues of the Official Railway Equipment Register. Information on all subsequent tank cars acquired between 1959 and 1984 was obtained from railway records now held at the WCRA Heritage Park Archives. A sincere thank you is extended to archivist Trevor Mills who made these records available for reference. Additional information on many of the tank cars was obtained from photographs.

ROSTER #5: FIRE PROTECTION CARS

<u>Number</u>	<u>Capacity</u>	<u>Acq.</u>	<u>Notes</u>
BCOL 991932	8000 Imp. Gal.	-----	ex-PGE X1932?; conv. prior 1969; in service 1999
BCOL 991933	8000 Gal.	-----	ex-PGE X1933?; conv. prior 1970; wrecked 1/80
BCOL 991934	unknown	-----	ex-PGE X1934?; conv. prior 1970; disposition/date unknown
BCOL 991935	unknown	-----	ex-PGE X1935?; conv. prior 1970; wrecked 1/80
BCOL 991936	unknown	1970	built from parts of PGE 1914 (scrapped) 6/70; disp. unknown
BCOL 991937	unknown	-----	origin unknown; disposition and date unknown
BCOL 991939	8000 Gal.	-----	origin unknown; in service 1999
BCOL 991961	8400 Imp. Gal.	-----	ex-PGE 1925 (1st); BCOL 991961 5/74; in service 1999
BCOL 991962	8400 Imp. Gal.	-----	ex-PGE 1923 (1st); BCOL 991962 1/74; in service 1999
BCOL 991961	8400 Imp. Gal.	-----	ex-PGE 1921, 1922 (1st) or 1928 (1st); in service 1999

ROSTER #6: FUEL OIL CARS

BCOL 991972	unknown	-----	origin unknown; welded tank built 2/63; in service 1999
BCOL 991973	unknown	-----	origin unknown; welded tank built 3/70; in service 1999
BCOL 993454	8451 Imp. Gal.	-----	origin unknown; Outfit Diesel Fuel car; status unknown *
BCOL 993455	6722 Gal.	-----	ex-BCOL 197?; Outfit Diesel Fuel car; status unknown *
BCOL 993456	8400 Gal.	-----	ex-PGE 1932; Outfit Diesel Fuel car 2/87; status unknown

* These cars are known to have received a dome platform (BCOL modification #0013) during 1972-1974.

ROSTER #7: WATER SERVICE CARS

BCOL 993525	unknown	-----	origin unknown; conv. to water car; status unknown
BCOL 993551	8495 Imp. Gal.	-----	origin unknown; conv. to water car; in service 1999
BCOL 993553	unknown	-----	origin unknown; conv. to water car; likely in service *
BCOL 993554	unknown	-----	origin unknown; conv. to water car; in service 1999
BCOL 993555	8495 Imp. Gal.	-----	origin unknown; conv. to water car; used as culvert 1992
BCOL 993560	8495 Imp. Gal.	-----	origin unknown; conv. to water car; used as culvert 1992
BCOL 993561	8495 Imp. Gal.	-----	origin unknown; conv. to water car; in service 1999 *
BCOL 993565	8394 Imp. Gal.	-----	ex-BCOL 1934; conv. to water car; sold to P.G. Museum *
BCOL 993566	8400 Imp. Gal.	-----	ex-BCOL 199?; conv. to water car; used as culvert 1992 *

* These cars are known to have received a dome platform (BCOL modification #0013) during 1972-1974.
PGE 1907, BCOL 1942 and 1946 were relegated to water service and may correspond to above cars.



Fig. 11 BCOL 991963 at Squamish in July 1993. This car, together with BCOL 991961 and 991962 were converted from 10000 U.S. gallon cars acquired by the PGE in 1914. *Photograph by Andy Barber*

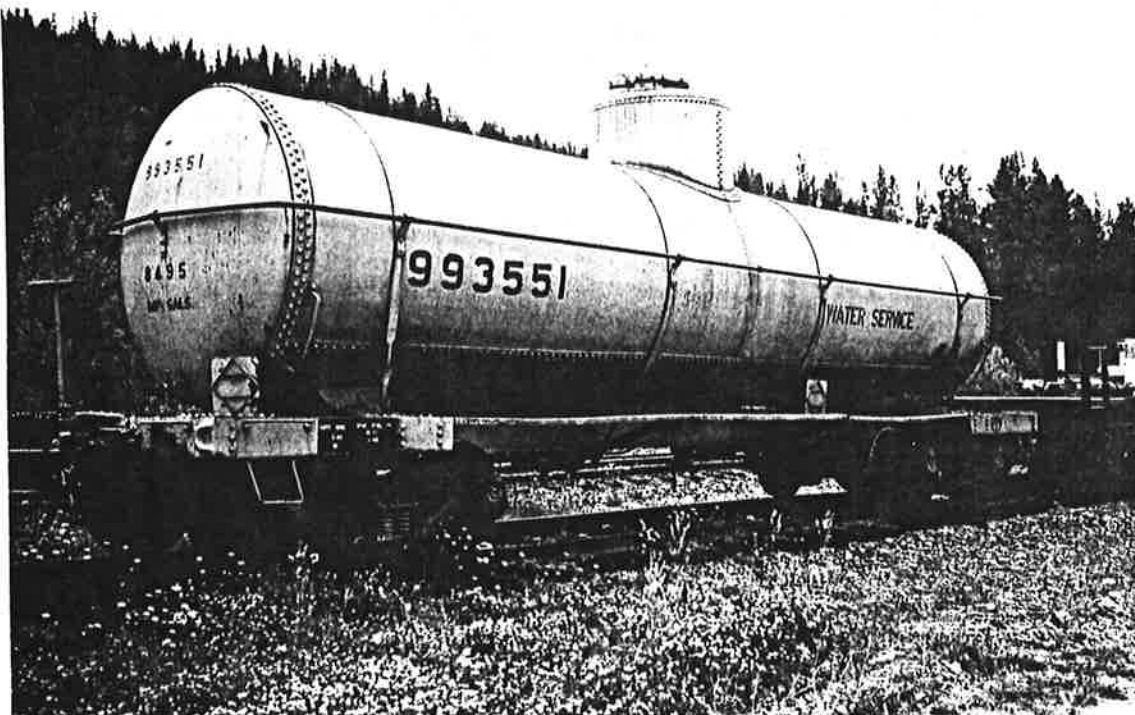
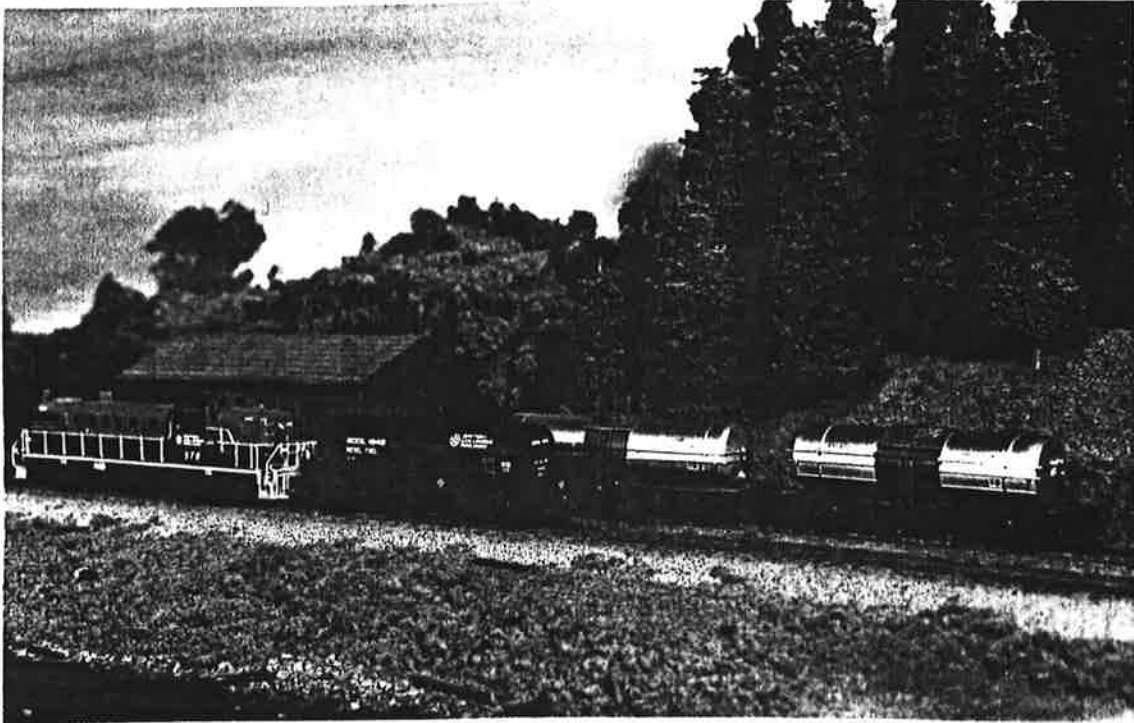


Fig. 12 BCOL 993551 is representative of the water service cars. Note the yellow paint and black lettering. The car was photographed at Kennedy in July 1995. *Photograph by Andy Barber*



BCR FREIGHT CARS IN N SCALE PART 4: THE 39'6" TANKCARS

by

Timothy J. Horton

Model Photography by Wayne Sutton

This article, the fourth in a series on modelling BCR freight cars in N scale, focuses on some of the tankcars which have been included in the railway's carfleet since the 1960s. These cars, mostly of UTLX origin, were purchased second-hand between 1959 and 1978 and were renumbered into the 1901-1950 series. The majority of these cars were rebuilt for OCS Diesel Fuel Service and were employed in the shipment of diesel fuel oil to the company's engine facilities throughout the system. At least two cars were stencilled for Lube Oil Service. Additional tankcars were obtained and rebuilt for Outfit Diesel Fuel Service, Fire Protection or Water Service.

These cars held a fascination for me as tankcars are more commonly owned by private companies, yet here was an opportunity to model tankcars in a variety of BCR paint schemes and uses.

The Prototype

The origin and history of these tankcars is reviewed in the companion article in this issue. Virtually all of the 39'6" tankcars were ex-UTLX non-insulated single dome tankcars of riveted construction, ranging in capacity from 6000 to 8500 imperial gallons. Most of them were built in the early 1920s and were acquired by the PGE/BCR between 1959 and 1978. They were numbered in the 1901-1950 series and lasted into the 1980s when many were replaced by modern cars of 20,000 gallons capacity. An example of these cars, BCOL 1926 (ex-PGE 1926) is preserved at the Railway Heritage Park in Squamish and another, BCOL 993565 (ex-BCOL 1937), is on display at the museum in Prince George.

I elected to model six cars in different schemes and selected specific prototype cars which I had observed and photographed. I learned from trackside observations that there was substantial variation in the details, painting and lettering of these cars. I wanted my models to reflect this variety and working from the photographs would permit me to finish each car in the correct scheme. The cars I wanted to model included BCOL 1926 (a lube oil car), BCOL 1933 and BCOL 1943 (diesel fuel cars), BCOL 991932 and 991939 (fire protection cars), and BCOL 993561 (a water service car).

The Model

I selected the Arnold N scale tank body and the Micro-Trains tankcar underframe for this project. The body shell resembles the prototype in overall dimensions and rivet detail. I determined that the Arnold carbody could be fitted to the Micro-Trains underframe which offered a better representation of the prototype than the Arnold frame. This would also make the installation of Micro-Trains couplers and trucks easier. The visual quality of the model could be enhanced with the addition of Gold Metal Models ladder/platform pieces.

The Carbody

The Arnold carbody is attached to its frame with two tabs underneath. Remove the carbody by pulling upwards and discard the frame. The metal handrails should be removed and set aside for safekeeping - they will be reattached later. In the case of BCOL 1943, which did not have side handrails, the locating pins for the side handrails were removed. The carbody can now be immersed in the fluid of your choice in order to remove the factory lettering. The carbody should then be washed in warm soapy water to remove any residue.

If you are modelling a diesel fuel car or water service car, the end valves and side platforms should be removed. If you are modelling a fire protection car, then the side platforms should be left in place and the end valves should be removed and reattached at the bottom of the 'A' end of the car. Trim the bottom retaining lugs on all cars to fit inside the centre channel on the Micro-Trains frame and drill two holes into the bottom of the carbody to accommodate the large locating pins on the Micro-Trains frame.

If you are modelling a fire protection car, the dome must be cut down to a height of 2" at the car's centreline. Fill the dome cavity with modelling putty, let it harden and then sand the top smooth. The hatch is 30" wide and 18" long with two hinges at the 'A' end and a grabiron at the 'B' end. Fabricate a hatch cover from .005" styrene and centre it on top of the dome. The handrails stand 30" above the dome, measure 44" between the posts and are 32" apart from each other. Bend the handrails from .010" brass wire and drill the locating holes beside the dome. Install the handrails with ACC adhesive. The chains linking the two handrails can be obtained from the Athabasca chain kit and cut to fit. Finally, the water line on the left hand side of the car and the end hoses can be fabricated from brass wire and installed below the handrails. The end hoses should hang from the water line and loop down and back up.

The Underframe

The Micro-trains tankcar underframe can be ordered separately through your local hobby shop. The first modification to the underframe is to file the bunks on top of the bolsters to accept the curvature of the tank body. When finished, the bottom of the tank body should rest just above the centre sill of the underframe. You may have to adjust the mounting holes and the retaining lugs on the tank body to ensure a good fit with the underframe. Test fit the bolster pins for the trucks and then set them aside.

Assemble a pair of #1027 couplers and mount them on the underframe following the manufacturer's instructions. Trim the screw so that it is flush with the deck. The two square openings at each end of the underframe should be filled with .020" styrene cut to fit inside. These can be scribed to represent the wood decking on many of these cars. In the case of BCOL 1943, the running boards were removed and replaced with personnel guards fabricated from brass wire to match the prototype.

If you are modelling a diesel fuel car or water car, install placards at each end and on each side to the right of the ladder. Install a vertical brakewheel at the 'B' end. If you are modelling a fire protection car, fabricate a lock box 2' x 1' x 13 1/2" high and mount it on the right side at the 'A' end. Remove the air reservoir and replace it with a Precision Scale Co. air reservoir mounted underneath the triple valve.

Attach the tank body to the underframe using ACC adhesive. The Gold Metal Models ladder/platform pieces can now be bent into the proper shape and installed. The transverse handrails will have to be trimmed slightly to fit in this application. In the case of the fire protection tankcars, the ladders should reach from the running board to the side platforms. For BCOL 1943 it was necessary to fabricate end handrails which are mounted on the end platforms.

Painting

The prototype cars were painted by the Pacific Great Eastern Railway in black with a white map herald. The British Columbia Railway repainted the diesel fuel cars in dark green with a 20" dogwood logogram. The lube oil cars were painted black without a logo and the fire protection cars were decorated in a red and silver scheme. Most of the water service cars are painted yellow with numerous lettering variations. It is recommended that you work from photographs in order to produce a correctly lettered car.

The carbody is prepared for painting by washing it in warm soapy water and scrubbing gently with an old soft toothbrush. When the car is dry, a small piece of masking tape is wrapped around the draft gear to keep paint out of the coupler box. Meanwhile the paint mix can be prepared. For BCR Dark Green I mix one part of Floquil Black, one part of Reefer Yellow and four parts of #110040 Dark Green. For BCR Yellow I mix one part of Floquil Reefer Orange and eleven parts of Floquil Reefer Yellow. The fire protection cars were painted with Humbrol #11 Silver and Testors Insignia Red. Complete the paint job by sealing it with a coat of Micro Gloss in preparation for the decals and dry transfers.

Completion

The lettering of these cars for the British Columbia Railway began with the 20" dogwood herald from the Microscale Decals locomotive set (#60-783) or caboose set (#60-931) and Hazardous Material Placards (set #60-840). Several cars I wished to model required ACI plates or black and yellow inspection dots. These were obtained from Microscale Decal sets #60-2 and #60-193 respectively. The Microscale set for Consolidated Lube Plates (#60-4126) provided lube plates for the various models. Artwork for the remainder of the lettering was created on the computer from field measurements and photographs and then converted to dry transfers. When all lettering has been applied, seal the carbody with a coat of Micro Flat or equivalent finish. Your tankcars are now ready to enter service on your layout.

Service

The railway's diesel fuel and lube oil cars were used to ship fuel and oil to the various diesel locomotive facilities along the line. These tankcars could often be seen sitting outside the diesel shop waiting to be unloaded. The fire protection cars often travelled at the head of the wayfreights and were used to fill up water barrels on bridges and near structures along the line. They are often seen in the yards waiting to be called into service. The outfit diesel fuel cars and water service cars are found in outfit trains and provide diesel fuel and water for the work gangs.

Conclusion

This project required only moderate-level kitbashing and resulted in some unique models. The technique of creating the necessary dry transfers proved to be quite successful and even the small 2" lettering is legible. The next article in this series will describe how to model the BCOL 52'6" trailer flatcars in N scale.

Acknowledgements

Prototype data and information was obtained from field measurements and photographs. The author is indebted to Eugene Daly who painted the models, Greg Kennelly and Manfred Schleger who helped create the dry transfer lettering, Andy Barber who provided additional prototype photographs and Wayne Sutton who photographed the models.

BILL OF MATERIALS
[For Two Diesel Fuel Tankcars]

Arnold	n/a	39'6" tankcar	1 per car
Evergreen	#123	.020 sheet styrene (for end platforms)	1 pkg
Gold Metal	#160-23	Detailing Set for MDC 50' and Shorty Tank Car	1 pkg
Micro-Trains	n/a	39'6" tankcar underframe	1 per car
Micro-Trains	#1027	Body Mount Short Shank Coupler (2 pair)	1 pkg
Micro-Trains	#1001	Bettendorf Trucks w/o couplers (2 pair)	2 pkg
Precision Scale	n/a	Brake Gear Set	1 pkg

Decal Sets:

Microscale	#60-783	decal set for BCR two tone green locomotives <u>or</u>	2 sets
Microscale	#60-931	decal set for PGE/BCR wide vision cabooses	2 sets
Microscale	#60-840	decal set for Hazardous Materials Placards (1984+)	1 set
Microscale	#60-4126	decal set for Consolidated Lube Plates (1985+)	1 set

ADDITIONAL MATERIALS
[For Fire Protection Cars]

Athabasca	#0103	Chains & Safety Chains (use size #28)	1 pkg
Detail Assoc.	WR2503	.010" brass wire	1 pkg



Fig. 1 BCOL 1933 outside the North Vancouver diesel shop in October 1989. Car has dark green paint; lettering includes 20" dogwood logogram, lube plate and ACI plate. *Photograph by Andy Barber*

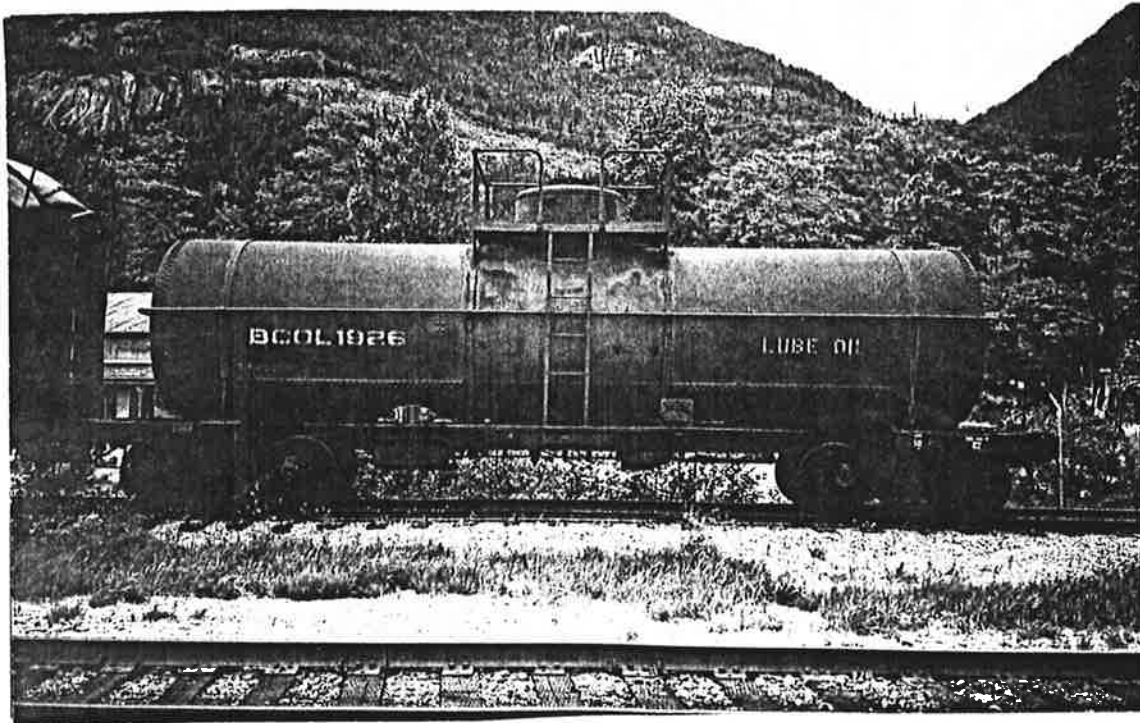


Fig. 2 BCOL 1926 stencilled for lube oil service at Squamish on June 26, 1994. This car is now on display at the West Coast Railway Heritage Park. *Photograph by Timothy J. Horton*

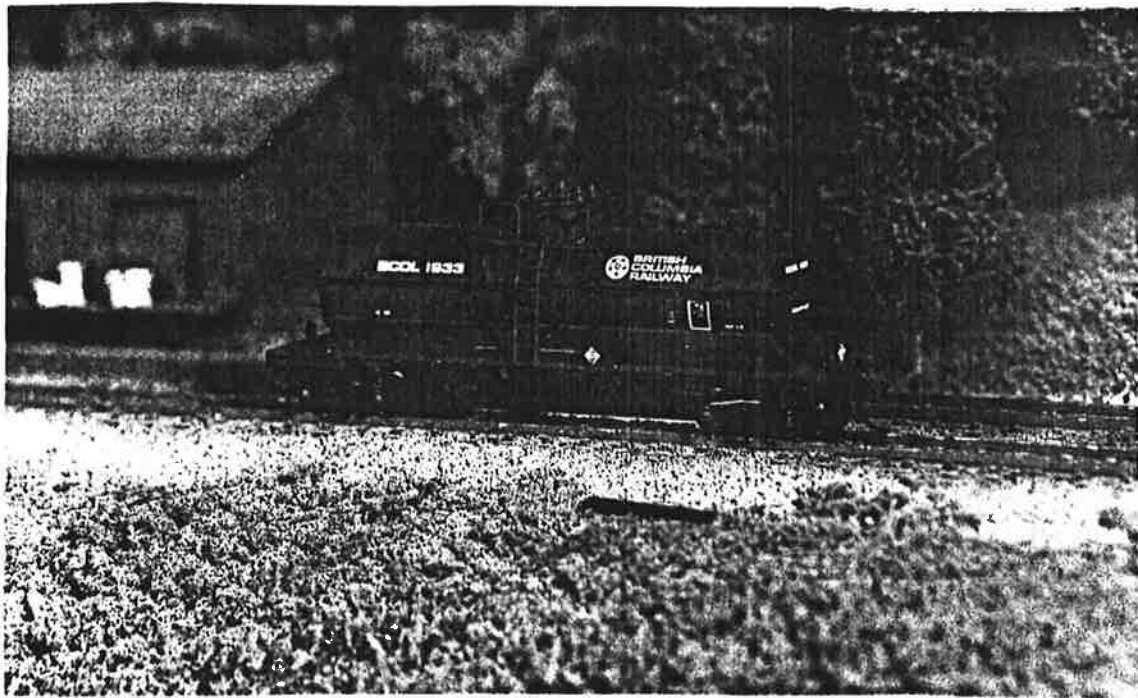


Fig. 3 N scale model of BCOL 1933 painted in BCR Dark Green. Note application of Microscale decals for 20" dogwood logogram, placards, lube plate and ACI plate. *Modelled by Timothy J. Horton*

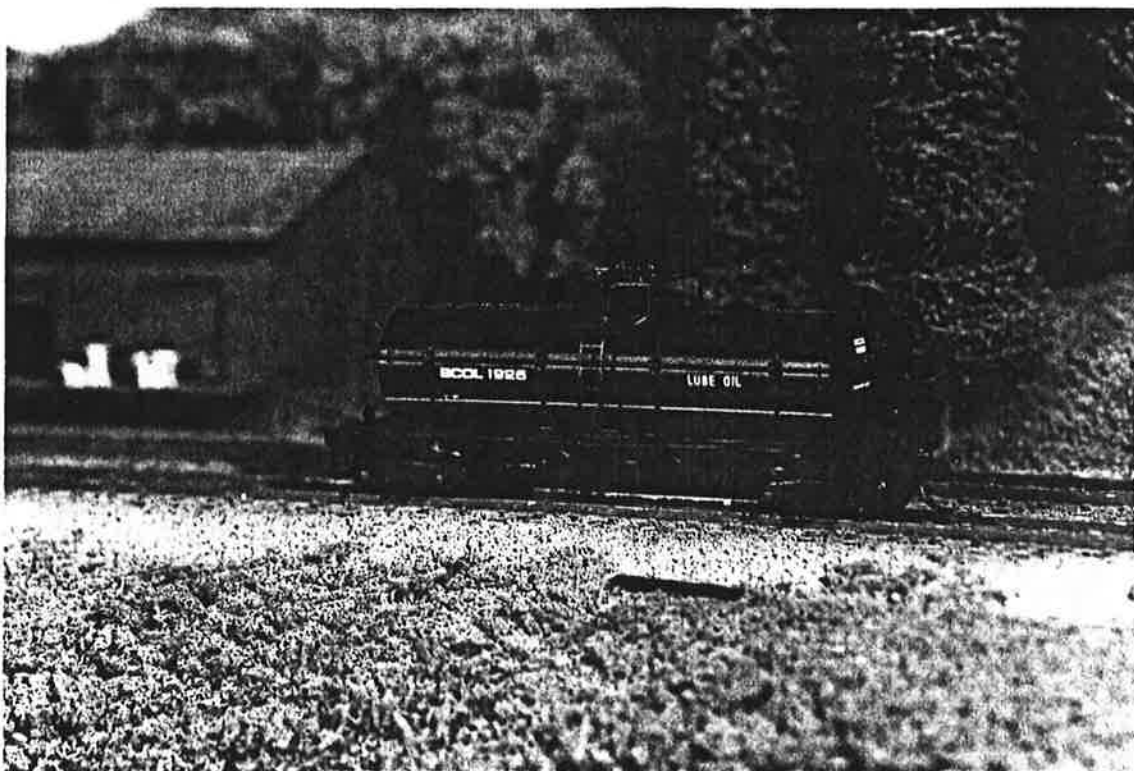


Fig. 4 N Scale models of BCOL 1926. This model was painted black and completed with dry transfers created from field measurements and original artwork. *Modelled by Timothy J. Horton*



Fig. 5 BCOL 991932 at Squamish on August 13, 1995. This view shows the arrangement of the lock box, drain valve and hose at the 'A' end of the car. *Photograph by Timothy J. Horton*



Fig. 6 BCOL 993561 at Prince George in June 1995. Most BCOL water service cars lack the dome platform. Note the flexible hose attached to this car. *Photograph by Andy Barber*

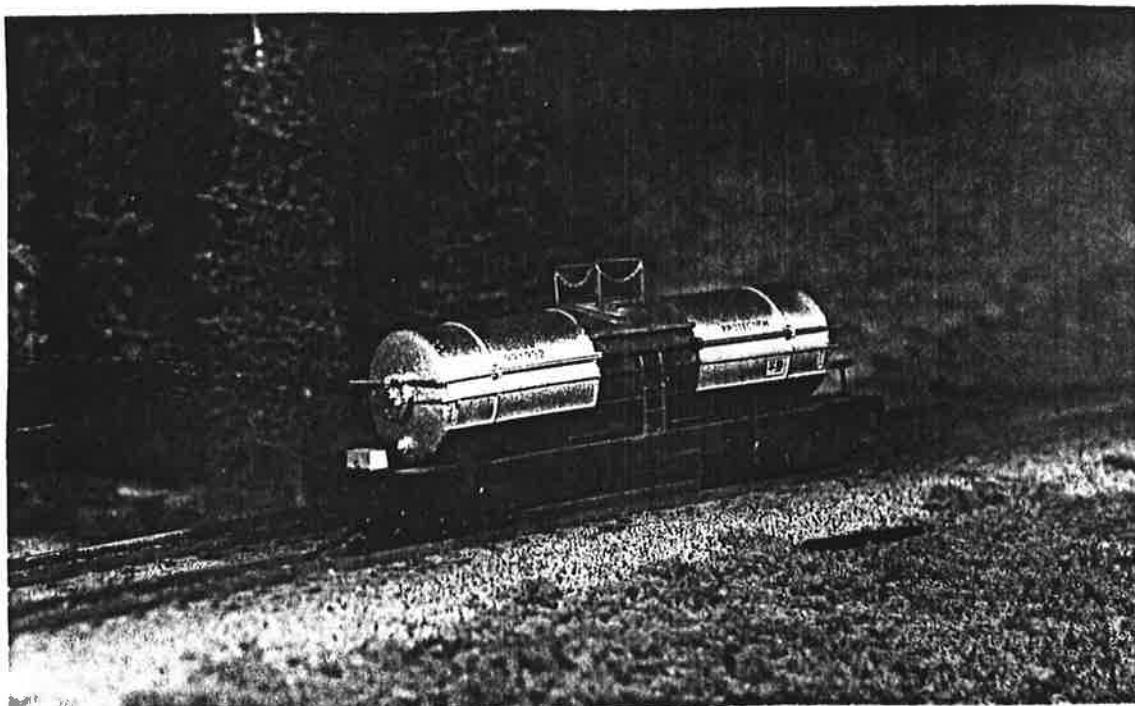


Fig. 7 N scale model of BCOL 991932 fire protection car. Note addition of airline, end hoses, hatch and handrails, and lock box at 'A' end. Car is painted red and silver. *Modelled by Timothy J. Horton*

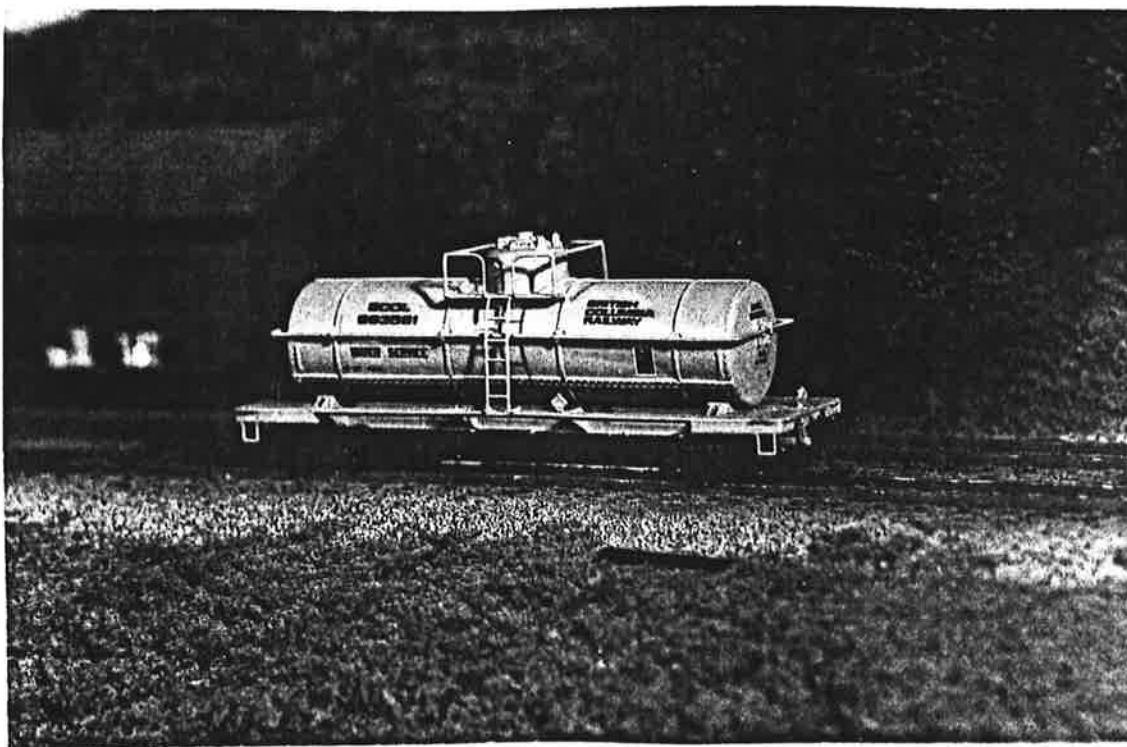


Fig. 8 N Scale model of BCOL 993561 water service car. Car is painted BCR Yellow with dry transfers created from photographs and original artwork. *Modelled by Timothy J. Horton*

Surfing the Web - www.bcrail.com

by Ron Tuff

If you have a computer connected to the World Wide Web, take a look at BC Rail's home page at www.bcrail.com. This instant, up-to-date, two way communication system has been on line since the fall of 1996.

When this was written, the home page opened into a series of pages dedicated to the BCR Group of Companies: BC Rail, BCR Properties, Vancouver Wharves, Westel Communications Ltd. and BCR Ventures. It also included a description of their operations, a vision statement and the 1996 Annual Report. Along with the usual financial information, the report also indicated that the company had \$418 million dollars in revenue, resulting in a net income of \$36 million dollars and an operating ratio of 83.3% up 3.3 points. As I browsed deeper into the rail operations, I discovered that car loadings were 202,816 during 1996, while the railway operated 124 locomotives and 9646 freight cars.

Returning to the home page, I clicked on BC Rail's operations. Again, there was a menu of choices about the

railway including; Customer Info-Flash, Our Location in North America, Would You Like to Trace a Shipment, The Royal Hudson, The Pacific Starlight Dinner Train, What's New at this Site and BC Rail Archives & Photo Gallery. The BC Rail logo also appears to move across the screen, couple together and move off the screen while artwork of a Dash 8 locomotive and tractor trailer appear in the corner.

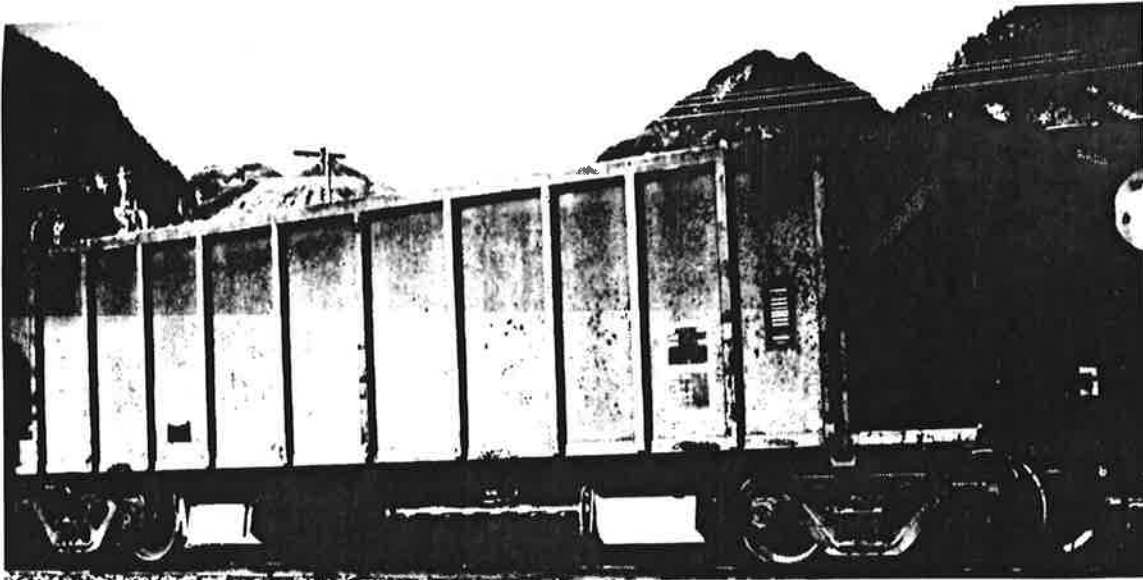
Would You Like to Trace a Shipment?

After reviewing many of the operations and enjoying the photographs and sounds available, I decided to investigate tracing a shipment. The system was originally developed by Fleet Management to focus on freeing up BC Rail equipment across the system to support customer needs. That concept was turned into a important customer service by allowing them to be proactive before a delay became a problem. It allows customers to locate a shipment, determine if it has arrived or stopped moving. The information is updated three times a day, with data coming directly from BC Rail's database system. Once the car leaves BC Rail, its location is fed by connecting carriers to the Association of American Railroads central data exchange.

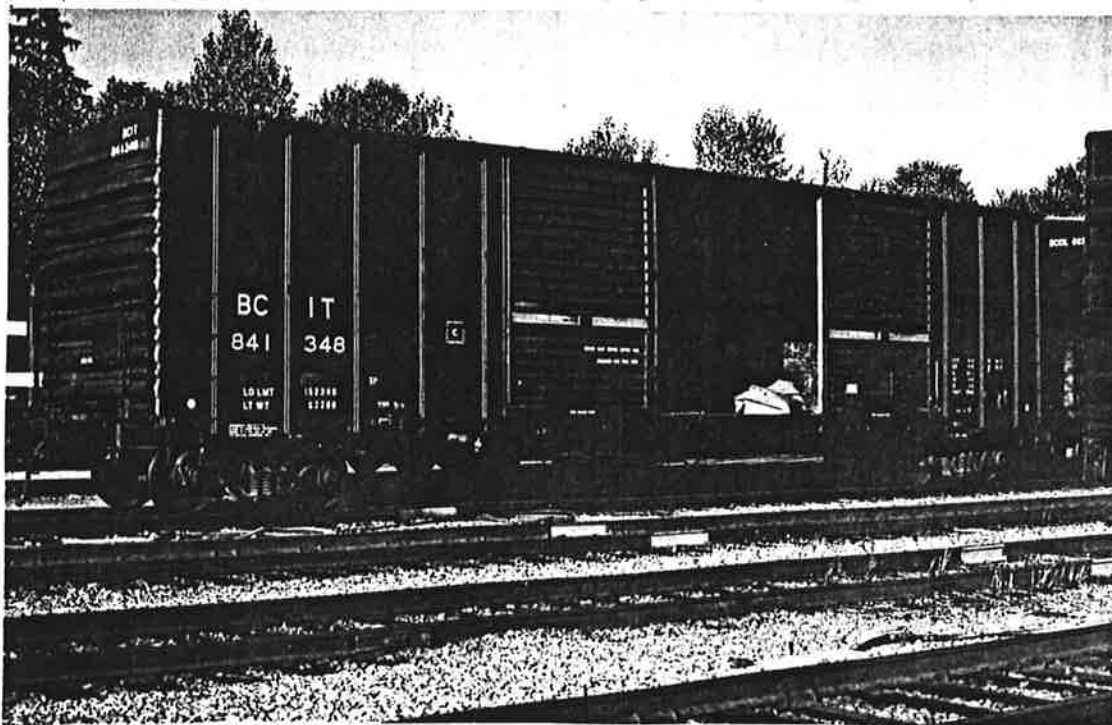
Event Codes			
ARRI	Arrive final destination	PART	Placement actual at rip track
ARIL	Arrival at in transit location	PCON	Placement constructive
BADO	Operations bad order	PFPS	Pull from patron siding
BFRM	Release from bad order	PFRS	Pull from repair siding
BOHR	Mechanical bad order reporting	REJS	Rejection shipper
CHAR	Car characteristics	REJI	Rejection interchange
DFLC	Depart from location	RHLD	Release from hold
HDRC	Hold for railway convenience	RLOD	Release loaded
HDSH	Hold shipper load hold	RMTY	Release empty
ICHD	Interchange car hire deliver	RPCN	Release from constructive placement
IDVD	Interchange delivered	RSTO	Release from storage
INB	Inbound car	STSU	Store serviceable surplus
INFO	Operations general information	STUN	Store unserviceable
IRVD	Interchange received	WAYB	Revenue waybill assigned to car
LOC	Track to track movement	WBRQ	Revenue waybill requested
OUTB	Outbound car	WHL	Wheel
PACT	Placement actual		

There are two methods of tracing a shipment. One is designed for specific customers of the railway, the second allows anyone to access the database while making multiple inquiries. I chose twenty cars based on photographs I had taken in 1996 to ensure they should be active. I accessed the database at roughly the same time each day for thirty days with interesting, mixed results. Watching the

progress of the cars was very interesting, whether it was on line traffic or across North America. The database indicated the location, date, whether the car was loaded or empty and its status, defined as event codes. These codes really tell the story and help to explain why a car may have appeared to be 'derailed' in a particular location.



BCOL 2306 4427 cubic foot covered hopper at Dawson Creek, B.C. 95-06-29. Photo by Ron Tuff



BCIT 841348 52' double door boxcar built by PC&F 75-9 or 10 at North Vancouver, B.C. 96-08-13. Photo by Ron Tuff

The following chart summarizes the more interesting car movements. Watching the car locations became a

geography lesson, as well as a refresher in railroad abbreviations and their major terminals.



BCOL 851017 50' boxcar built by NSC 80-2 at Williams Lake, B.C. 94-06-27. Photo by Ron Tuff



BCOL 90755 chip car at North Vancouver, B.C., December, 1991. Photo by Tim Horton

Twenty Sample BC Rail Shipments Traced for 30 Days

BCOL 2229 48' Press Flow Hopper CN Prince Rupert (L) ARIL, CN Whittier AK (L) ARIL
 BCOL 2306 54' Covered Hopper BCOL Dawson Creek (L) RLOD, 2 full cycles to North Vancouver and return
 BCOL 7317 53' Articulated TOFC BCOL North Vancouver (L) DFLC, 2 full cycles to P.G., 1 to Williams Lake and 1 to Quesnel

BCOL 9209 52' Gondola BCOL Clinton (E) ARRI, to Squamish (L) PCON, Squamish (E) LOC, Mons (E) ARRI
 BCOL 9363 52' Covered Gondola BCOL Gibraltar (L) DFLC, 4 full cycles to North Vancouver and return
 BCOL 9786 61' Wood Chip BCOL Bridge (L) PACT, 3 full cycles to Chetwynd, 1 to Fort St. James

BCOL 90175 61' Wood Chip BCOL Bridge (L) PACT, 4 full cycles to Chetwynd, 1 to Fort St. James
 BCOL 91064 61' Wood Chip BCOL Bridge (L) PACT, 1 cycle to Williams Lake, 1 to Fort St. John, 1 to Fort St. James

BCOL 10212 62' Log Flat BCOL Lovell (E) ARRI, 2 full cycles to Prince George, 2 cyclesto Fort Nelson
 BCOL 46014 50' Box Car-10' doorway BCOL Mackenzie (L) RLOD, 2 full cycles to North Vancouver
 BCOL 80332 50' Box Car-14' doorway BCOL Bridge (L) PFPS, 1 cycle to North Vancouver, CN Prince George (L) LOC, to CN Superior WI, to WC Schofield WI (E) ARIL

BCOL 60103 60' Box Car-16' doorway No data
 BCOL 60339 60' Box Car-16' doorway SP Brooklyn OR (E) ARIL, 2 full cycles from Exeter BC, to BNSF Tacoma WA and Seattle WA

BCOL 100390 50' Box Car-14' doorway BCOL Quesnel (L) RLOD, 1 full cycle to North Vancouver, 1 cycle to Prince George (E) RMTY

BCOL 851017 50' Box Car-10' doorway CPRS Portal ND (L) ARIL, to BRC Clearing IL (L) ICHG, to CSXT Cincinnati OH (E) ARIL, to BOCT Clearing OH (E), to CPRS Portage WI (E), to BCOL North Vancouver, to Quesnel

BCOL 730443 73' Centrebeam Flat UP Pocatello ID (E) ARIL, to Hinkle OR, to Seattle WA, to Quesnel (L) DFLC, to BNSF Pasco WA, to Alliance NE, to Fort Scott KS, to Memphis TN (E) RMTY

BCOL 873654 73' Centrebeam Flat UP Hinkle OR (E) ARIL, to Seattle Wa, to BCOL Williams Lake (L) DFLC, to North Vancouver, to BNSF Helena MT, to Birmingham AL (E) RMTY

BCOL 866599 66' Bulkhead Flat BCOL Chetwynd (L) LOC, to North Vancouver, to UP Seattle WA to UP Hinkle OR (L)

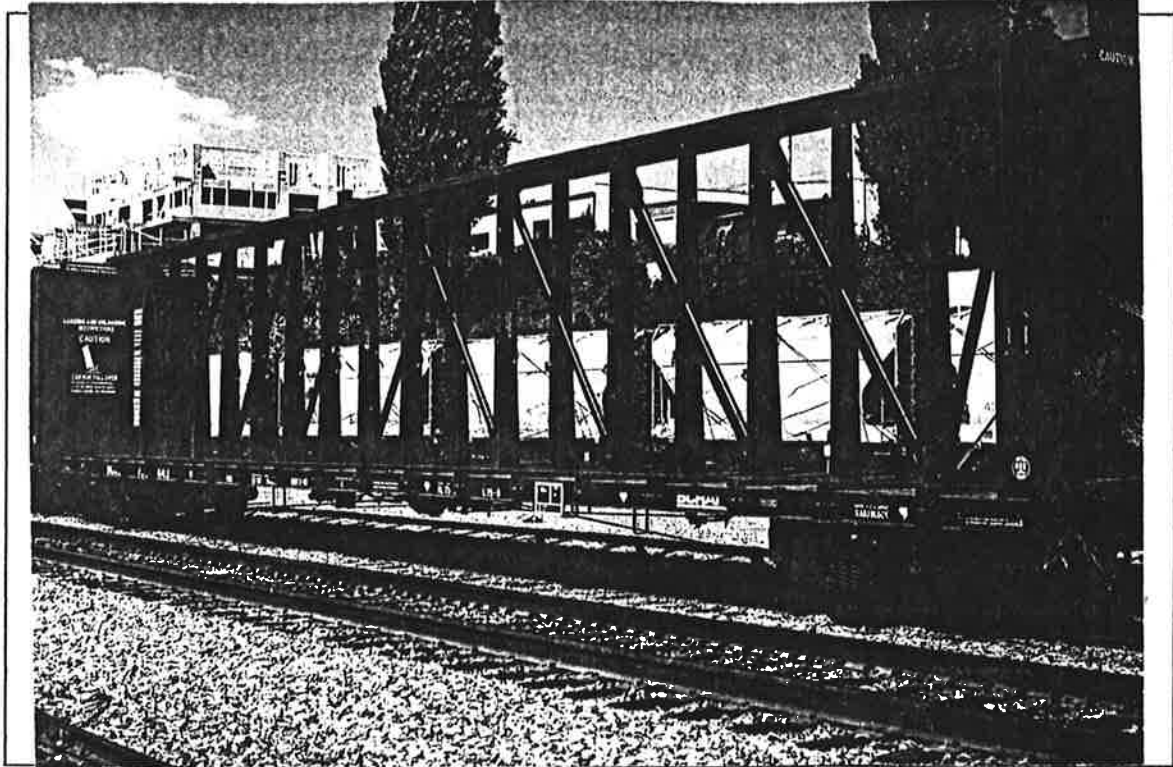
BCIT 841348 52' Box Car-16' doorway CN Melville SK (L) DFLC, to CPRS Ste. Therese PQ (E), to St. Luc PQ (E)

BCIT 841879 52' Box Car-16' doorway CSXT Middletown OH (L) PCON, to Hamilton OH (E) ARIL, CPRS Chicago IL, to BCOL North Vancouver, to Fort Nelson (L) DFLC

I was particularly intrigued by the number of cycles on-line cars made during the month. The covered hopper loaded with Peace River grain, articulated TOFC, covered gondola presumably loaded with copper concentrate, woodchip cars, and the log flat all had quick turn around times. In contrast a pressure flow hopper was car floated to

Whittier Alaska and didn't return during the following twenty-six days. A gondola also arrived at Squamish empty, was used for a load within the terminal, then headed back to Mons empty.

The lumber and paper industry shipments generally



BCOL 730443 73' centrebeam flatcar at Bellingham, Wash. 96-08-13. Photo by Ron Tuff

had good turn around times too, on the shorter trips around British Columbia or the neighbouring states. The centrebeam flats and international service box cars travelled to eastern Canada and the southern United States resulting in numerous interchange points and delays.

Many thanks to BC Rail employees Al Ward and Doug Lawson, who sorted out the mysteries of the Event Codes for this article.

Railwest Manufacturing Company

by Ron Tuff

In the spring of 1973, Premier Dave Barrett and the president of the newly named British Columbia Railway announced that a rail car manufacturing plant consisting of three buildings would be constructed at the railway's Squamish shop site. At an estimated cost of \$4.3 million, the facility would employ 200 people and produce 800-1000 cars per year, of a wide variety of designs. As well, the fledgling company would actively pursue all the domestic and foreign markets.

The project was awarded to general contractor Foundation Company of Canada and was planned to be complete by November, 1974. It would include a 7800 square foot

administration building, a 700 foot long by 100 foot wide erection building and a 350 foot long by 40 foot wide paint shop. However, due to a construction industry dispute, the main facility didn't open until March 25, 1975.

The main erection building would include nine overhead cranes, two electronic tracer flame cutting machines, several heavy duty hydraulic shears, a 440 ton hydraulic press, a four foot radial drill, submerged arc welder, two auto wire feed welders, an underframe rotator with 32,000 pound capacity and a heavy duty car rotator with 300,000 pound capacity.

The adjacent paint shop would include a warm-up oven to remove any moisture which had accumulated while cars waited to be moved back inside, an enclosed grit blasting facility to remove any rust or scale, a paint booth where a fast drying primer would be applied followed by two coats of finish paint, the second one wet-on-wet before moving into the bake oven. Finally the cars would be lettered and given a final inspection. The paint shop opened in May, 1975 and could process three cars per day.

The first car order was to build 400 wood chip cars for the British Columbia Railway. By the end of 1975, 245 cars had been built by the 220 employees. In April, 1976 a second order was placed by the railway for 500 bulkhead

flat cars to be completed by November.

To promote the new company, the marketing manager produced an eight page brochure for potential car buyers and those interested in rail car supply. It proudly proclaimed Canada's newest rail car production facility was combining modern production machinery with the most recent production techniques.

Representatives of CN and CP Rail were invited to a ceremony in Squamish for the unveiling of wood chip car BCOL 90830 (the 390th car in the order). It was painted in Railwest colours and the slogan "A Western Brand of Rail Cars" emblazoned the side, while the Dogwood herald was replaced by the Railwest Manufacturing herald (editor's note: see the cover of *The Cariboo* issue 25). This car would spend a six month trial period on each railway hauling wood chips initially for CP Rail in the Skookumchuk, Castlegar and Kamloops area of British Columbia. As production of the first 500 bulkhead flats was scheduled to begin, the British Columbia Railway again supported Railwest by increasing their order to 700 cars, and eventually 900.

On November 23, 1976, Railwest announced it would be laying off the 65 afternoon shift workers, reducing the production of bulkhead flats from five cars to three each day. Those employees would be recalled in January when the production of 100 all welded 100 ton ballast hoppers would begin for the British Columbia Railway.

In fact, production began in mid-December on the specialty order, equipped with flow control gates to improve control over the rate of ballast discharge. These cars would be used for track construction on the Dease Lake extension and the general track upgrading program on the 86 miles of mainline and sidings south of Lillooet to Alta Lake. The first ballast hopper was inspected on January 24, 1977.

In January, 1977, Railwest tendered a bid to the Canadian government to build up to 2000 grain hoppers. They felt they were competitive in quality and speed of delivery, but the cost of steel from the eastern mills resulted in an unsuccessful bid result in February. The order instead went to Hawker Siddley, Marine Industries and National Steel Car. Undaunted, Railwest bid to construct 800 bathtub coal gondolas for Canadian National and CP Rail.

With another unsuccessful bid and 260 employees, the long range outlook was far from promising. Management began to consider ways to achieve better operating efficiencies and alternate uses for the facility. The provincial government offered to subsidize a bid for 600 more ballast hoppers for the Canadian government, but the required

materials wouldn't be available until the end of the year and the cars would be required in the early spring to upgrade the prairie branch lines.

With minimal demand and excess capacity in the Canadian rail car industry, a decision was made by the Board of Directors to close Railwest Manufacturing rather than prolong the period of uncertainty for its employees. The facility closed in August, 1977 after the completion of the British Columbia Railway ballast hopper order.

Year	BCOL Series	Description	Paint Scheme
1975/6	90441-90840	Wood Chip Car	Lt. Green with Dogwood
1976/7	17650-18549	Bulkhead Flat	Dk. Green, no herald
1977	2800-2899	Ballast Hopper	Dk. Green, no herald

Today the Railwest Manufacturing facility is still used, but with a declining number of hours. The administration building is now empty as the staff have been moved to the 2nd floor of the locomotive shop. The paint shop is only used part time to assist the current car rebuild program. The old cinder block paint shop building still exists and could probably be refurbished if necessary. The erection shop was last used to modify bulkhead flats into centrebeam cars and rebuild log cars from the surplus 66" bulkhead flat cars. Much of the equipment from the shop is being relocated to the old car shop, where cars are repaired that can't be fixed on the RIP track.

Although the sale is not completed yet, the Railwest buildings may soon have a new lease on life. They are being sought after by a movie production company, Silver Peak Entertainment, who are likely to take possession later in 1999.

Thanks to Andy Barber and Trevor Mills for providing information and photos about the current Railwest Facility.

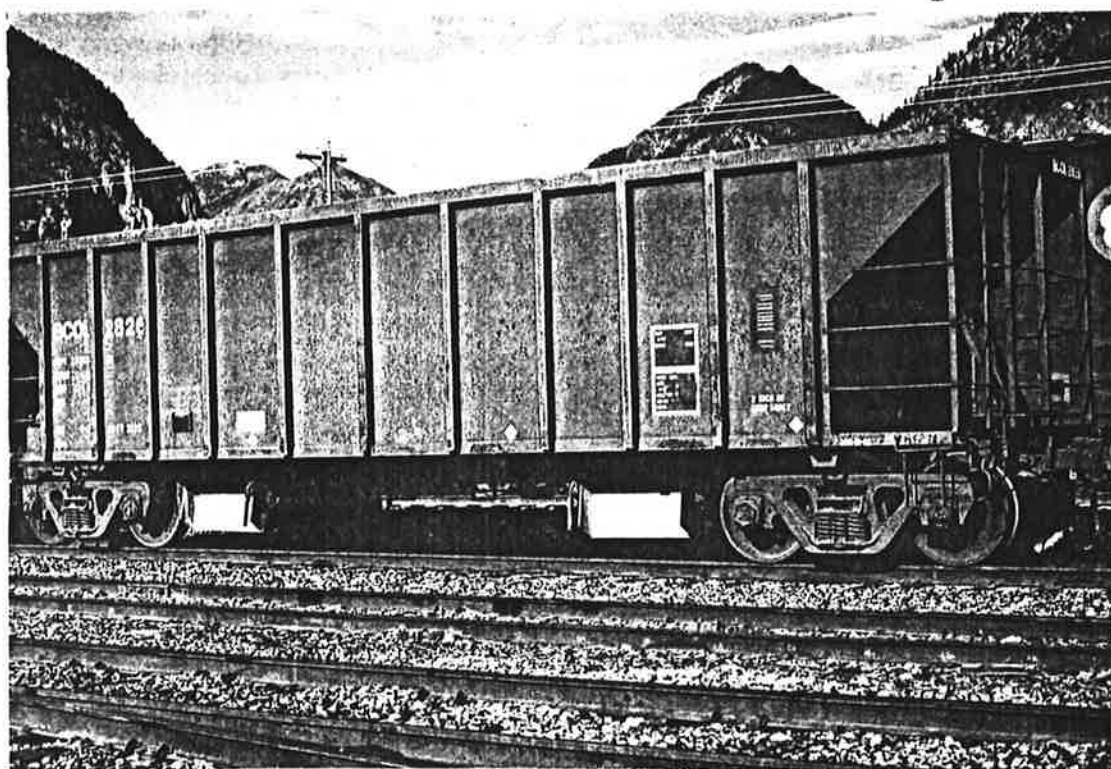
Sources: *The Coupler* various issues The British Columbia Railway; *The Cariboo* July '96 Issue #33 The British Columbia Railway Historical & Technical Society.

PRODUCT REVIEW

by Brad Dunlop



BCOL 18358, built by Railwest in March, 1977 sits in North Vancouver yards in the Spring of 1993. Photo by Andy Barber.



BCOL 2826, a 2135 cubic foot ballast hopper built in April, 1977. Photo by Ron Tuff at Lillooet on June 27, 1994.

Another year is upon us and with it will bring yet more changes to our SIG. There will be more to follow on this topic in the near future and I will only comment on the immediate task at hand for now.

There has been a nice response to the call for product reviews with BCRH&TS members Ron Tuff, Laszlo Dora and Mike Jackson leading the charge for this issue, thanks so much guys! As is always the case though, we can not rest on our laurels and a continuing supply of product reviews are required to keep this column chugging along. Anything of interest to our members is considered to be fair game for product reviews. I have a new e-mail address, which is boedunlop@home.com for those of you who wish to send your contributions via that medium (which is my personal preference).

The Kaslo Shops CN 40' Single Sheath Boxcar kit is included here as these cars were very frequently seen in PGE freight trains consist during their lifetime. The way I look at it is if the PGE ran or used a piece of equipment then it is probably going to be of interest to our SIG.

Anyone who had sent cheques or money orders has known for some time now the GE 70 Ton decal project initiated by Jim Moore has been cancelled. This cancellation was due, more than anything, to Kevin Knox releasing a PGE decal product line. As long as PGE decals are available then modelling the railway properly is a possibility for anyone, not just those who would go to the trouble and expense of having custom sets produced. I have purchased several of Kevin's fine decal sets and urge you to support him fully in this worthy endeavour. (Editor's Note: I have purchased a number of sets of decals from Kevin Knox and they are excellent.)

Another name we are likely to become more familiar with is Dan Huberman and his Pacific Western Rail Systems. Dan's company is the most probable, of any that I know, to produce an injection-molded model of a Canadian prototype freight car. PWRS is a co-operatively owned company with over 100 shareholders (of which I am one) throughout North America. It is a new idea in model railroading where they are creating a vehicle through which models that are not otherwise available will be produced. If you want to see more Canadian prototypical items on the market contact Dan. Time will tell and I wish PWRS well.

For this issue we have some interesting product releases, some great product reviews and a new department. I received an information update from BCRH&TS member Bart P. Reemeyer regarding an item previously mentioned in this space. While needing to be mentioned here it did not

really fall under the scope of Products or Product Reviews so we now have Product Updates. Thanks Bart!

PRODUCTS

Kaslo Shops Distributing (# 201-1766 Duchess Avenue, West Vancouver, B.C., V7V 1P9 Ph: 604-925-9910 e-mail: jwhitmore@pinc.com website: <http://www.com/~jwhitmore> announce a CN 40' Single Sheath Boxcar kit. Here is Kaslo's press release from John Whitmore "One of the most common boxcars of Canadian National from the late 20's through to the early 80's. This kit will be a flat cast resin kit, which will include stainless steel ladders and Intermountain Underframe Detail parts. Trucks, couplers and decals not included". This Flat Cast Kit will be available in HO scale only in two versions; Original Style & Rebuilt Style in June, 1999 at your local hobby shop. MSRP: \$29.00

Diversions (Home of Slightly Bent Models), 14422 88th Ave., Surrey, B.C., V3S 2R9 Ph: 604-930-2120 fax 604-930-2150 e-mail: kknox@axionet.com Diversion's Kevin Knox has provided us with the following announcement, "Here's what I have done to date: PGE sets for 65 Tonner, 70 Tonner, RS3's, RSC3's, RS10's and RS18's. This is the yellow, orange and green paint scheme. These decals are available in HO and N scales but other scales can be done as well. I'm also doing the all green with orange text scheme and the map logo so virtually any locomotive in PGE livery is now available. I am currently working on PGE cabooses and the newest BC Rail paint scheme (all blue). I expect to have a one decal fits all decal set available soon. PGE herald only decals are available for any unusual equipment upon request. Pricing available upon request. Decals are available through Diversions directly or Pacific Scale Rail, 612 Carnarvon St., New Westminster BC, Canada V3M 1E5, Ph: 604-524-8825 or fax 604-524-6664 and Central Hobbies, 2845 Grandview Highway, Vancouver BC, Canada V5M 2E1, Ph: 604-431-0771 or fax 604-431-9855. Regards, Kevin"

Kato U.S.A. INC., 100 Remington Road, Schaumburg, IL, 60173 <http://www.katousa.com> Kato SD40-2 HO Scale EMD SD40-2 "Early Production" model. Expected release April/May, 1999. The following is an excerpt from Kato's website, "Our initial batch of SD40-2 models will be an accurately scaled reproduction of the "Early Production" version of the prototype. We will further match the models to roadnames by recreating "with Dynamic Brakes" and "without Dynamic Brakes" units. All of the models will be powered with the traditional Kato five-pole motor with dual brass fly-

wheels and all-wheel electrical pick-up. As usual, superior Kato detailing and craftsmanship will be seen from top to bottom, front to rear. These models will also be designed for easy conversion to DCC operation. A directional headlight, blackened metal wheels, cab interior and modeller-applied handrails and grab irons will further enhance the appearance and appeal of these models. A total of nine different railroads will be produced, as well as the EMD Leasing unit and an undecorated model (expected to be supplied with both snap-on "with" and "without" Dynamic Brake Hatches). Expected release date of April/May 1999 and price of \$120 - \$125 USD each. The Undecorated Cat # 37-2700 with Dynamic Brakes, Short Nose and Early Intake Grills would be appropriate for BCR #s 736 - 742 built 11/78 (ex-Kennecott Copper #s 101 - 107 purchased 10/86) and BCR #s 743 - 750 built 09/79 (ex-Oneida & Western Railway #s 9950 - 9957 purchased 05/87) - with thanks to Timothy Horton

Pacific Western Rail Systems, 16015 - 10 Avenue Surrey, B.C., Canada, V4A 2J4 Ph: 604-531-9481 fax 604-535-7691 e-mail: info@pwrs.org Website: www.pwrs.pwcom.com Dan Huberman, President & CEO of PWRS has supplied us with the following news release; "Attention B.C. Rail Modelers - Pacific Western Rail Systems of Surrey, B.C., has announced a Special Limited Run of B.C. Rail 3 bay covered grain hoppers. The Hoppers will feature metal photo etched roof walk detail. The cars will be modeled after car series # 802350-802399. Pacific Western Rail will be using Intermountain Railway's 4750 cu. ft. PS-2 Covered Hopper. Pacific Western is producing 12 different reporting numbers in HO and in N scale. The cars will come fully assembled and shrink wrapped in groups of three. (Four sets will be available, set A, B,C,D.) Pacific Western is currently negotiating with B.C. Rail for permission to apply the B.C. Rail logo to the cars. The cars will be unveiled this summer at the convention in Prince George. There will only be 60 sets made in each scale, so reserve early. You may contact Pacific Western Rail at 604-531-9481 or Fax 604-541-9486. Pacific Western has committed itself to this run to gauge support for other B.C. Rail Cars. Pacific Western is considering the feasibility of producing in both scales, the 50 and 60 ft., B.C. Rail smooth side, and outside ribbed, combo-door lumber cars, which are common on B.C. Rail." Price TBA.

Micro-Trains® Line Co., 351 Rogue River Parkway, P.O. Box 1200, Talent, OR., 97540-1200. Website: <http://www.micro-trains.com> Micro-Trains New Releases for March 1999 include a reprint British Colum-

bia Railway Plug Door Box Car #21230 Road Number BCOL 8002 in N Scale. Built in November of 1961, this 40' standard boxcar with plug door is painted bright green with white lettering on sides and ends. The stylish multi-colored flower logo is white on an orange disk with green leaves. From a fleet of 12 cars, it is heater equipped and insulated. The black U-1 Inspection Symbol indicates that the derailment prone U-1 wheels have been replaced on this car. MSRP USD \$16.20 - with thanks to Timothy Horton

Model Expo Inc., PO Box 229140, Hollywood, FL., 33022 Ph: 800-222-3876 Mon.-Fri. 9 am-6 pm (EST) or Fax 800-742-7171 Anytime Outside US/Canada: Ph: 954-925-5551 Fax 954-925-6579 website: www.model-expo-inc.com Model Expo have announced receiving a shipment of Alco Diesel C-420 Locomotives by Rivarossi. Excerpts from Model Expo's Website are as follows; "In 1963 ALCO Products introduced its Century Series, powered by an ALCO 251 four-cycle supercharged engine. The locomotive sported a low front and V-shaped windshield for increased visibility. Rivarossi diesels are not only big on looks, they're big on performance! Eight nylon gears, turned by two solid brass worm gears, drive the eight wheels. Solid brass flywheels are connected to articulated drive shafts for in-scale power transmissions with a new Japanese five-pole motor." This model would be appropriate, with some work, for BCR #s 631-632 built 01/66 (ex-Lehigh & Hudson River # 25-26) purchased 07/72. Nickel Plate Rd. #578, Cat # RIV1873, Price: \$ 68.88 USD Ed note: Of the three roadnames available I would suggest the Nickel Plate model as the Shell, Undercarriage and Trucks are painted black and the lettering is minimal which should allow for the easiest conversion to the BCR scheme.

Norwest Kits and Castings, c/o proprietor Brian Pate, 4663 Prospect Road, North Vancouver BC, Canada, V7N 3M1 Ph: 604-987-5903 fax 604-987-5065 e-mail: bpate@interchange.ubc.ca Brian, with the assistance of BCRH&TS member Andy Barber, now has CP 2200-series First Class Coach kits available. The rigid polyurethane casting set includes the correct trucks, and all major underframe and brake system components. Couplers, paint, decals, wire, chain and other minor detail parts must be added by the modeller. The individual car kit price is \$65 CDN. These kits are appropriate for the "Royal Hudson" consist from its inception in 1974 until they began to retire in 1993. Of interest to BCR fans are the following; CP 2238 - BCR Pemberton, CP 2241 - BCR Lillooet, CP 2242 - BCR Lone Butte, CP 2252 - BCR Clinton, CP 2263 - Government of BC

Cowichan River, CP 2267 - BCR Darcy, CP 2270 - BCR Mackenzie, CP 2271 - BCR Quesnel, CP 2280 - Government of BC Kootenay River, CP 2283 - BCR Squamish, CP 2286 - BCR Alexandria, CP 2289 - BCR Shannon Falls, CP 2290 - BCR Brandywine Falls, CP 2291 - Government of BC Skeena River, CP 2296 - BCR Sundance and CP 2297 - Government of BC name unknown. Further background information prepared by Andy is available with each kit. (Ed note: Andy Barber 3718 Marine Vista, Cobble Hill BC, Canada, V0R 1L1 Ph: 250-743-3677 has custom made decal sets available for the car names mentioned above. The decals consist of "BRITISH COLUMBIA" and your request of car name in a gold colour for \$4 CDN or \$3 USD per set. Refer to the Royal Hudson Story by Lawson Little in the Cariboo Issue 24, April, 1996 for further information on these passenger cars.)

Product Reviews

BC Rail #7037-7058 TOFC Flat Car
BC Rail 1970's 40' Fruehauf Flat Bed Trailer
HO Scale, Kit #FV-5

Fraser Valley Railway, 47 Taylor Drive, Toronto, Ont., M4C 3B4, Canada

In 1965-66, the Pacific Great Eastern purchased 60 general-purpose steel 53'-6" flat cars in the 1501-1560 series. They were welded construction with wooden decks, except for the areas around the bolster and draft gear. When bulkhead flats became the shipper's car of choice for lumber products, BC Rail decided in 1986 to rebuild 22 cars into TOFC cars, numbered 7037-7058. This Fraser Valley Railway model accurately represents this series. The kit consisted of a number of flat resin castings that require an experienced modeller to assemble. Sharp custom decals prepared by Andy Barber for several different eras and printed by After Hour Graphics were included but trucks and couplers were not. No underframe brake detail was included as the manufacturer feels these details are not visible. External details like tack boards, document tubes, coupler cut lever brackets and air hose brackets were all included. Extra stake pockets were also provided, as these are very fragile parts.

The eight pages of instructions, sketches and photographs led me through the assembly while providing great tips on general construction. Tips such as only drilling one hole when installing grab irons or stirrups and cutting the other end of the wire to the exact length required, guaranteeing a perfect fit every time.

I would like to offer a few tips of my own, I discov-

ered during construction. I had difficulty gluing the side castings of the flat car straight along the deck, preventing a wave. Perhaps a 4" X 4" length of styrene glued to the side first would keep the deck in the correct alignment. I also drilled and tapped the bolster for a 2-56 screw before the centre sill was glued to the underside of the deck.

The only disappointing part of the construction was mounting the couplers. The instructions offered no instructions so I contacted Fraser Valley Railway. It was suggested that I glue the coupler pockets in place without removing the side ears. Once the trucks are installed, shave off only the portion of the ears, which interfere with the truck clearance. The ears provide an extra gluing surface and help absorb some of the shock because they rest against the end of the centre sill. This meant the coupler box could never be opened for maintenance. I was hoping that a 2-56 screw could be used, but realized the mounting hole would pierce the upper deck plate.

The finished weight of the TOFC with Kadee #5 couplers and Atlas Barber S-2 roller bearing trucks was 1.4 ounces, so I added an additional 2.0 ounces of 1/8" thick lead sheet between the underframe cross members. The 40' trailer weighed 0.7 ounces, for a total weight of 4.1 ounces. The NMRA's recommended practice for a car of this length is 4.75 ounces. Since I planned to add a load to the trailer, the remaining 0.65 ounces will be made up there.

The 40' Fruehauf trailer is also a resin casting kit with very fine detail included such as the tie down loops and winches along the trailer side. Rubber tires and plastic wheel hubs made by A-Line were also included. It went together as the instructions indicated. A groove in the side sill helped to align the deck. The kit had several suggestions for painting and finishing the trailer for different eras as well as hints about superdetailing. I added my own 2" X 6" strip wood deck material after painting and lettering was complete. This was definitely a craftsman type kit which built into a very satisfying, unique BC Rail model. Fraser Valley Railway has indicated that a standard 53'-6" flat car based on the original car may be available soon. At \$39.95 Canadian plus \$6.00 for insured shipping, it's a welcome addition to my layout. - Ron Tuff

HK - 2 50' Combination Plug Door Boxcar
HDL - 1 Custom Decal for the 50' Boxcar
HK - 2 BOXCAR KIT

Kaslo Shops Distributing, #201-1766 Duchess Avenue, West Vancouver, BC., V7V 1P9 Ph: 604-925-9910 e-mail: jwhitmore@pine.com website: <http://www.com/jwhitmore>

The National Steel Car 50'-6" combination plug door boxcar arrived on the railway in 1971 and in the following years the fleet grew in size to nearly 2000 cars, becoming the mainstream boxcar of the railway.

The initial series were PGER/BCOL 40000-40399 and PGE/BCOL 5100-5399. On these two series, the door stops for the plug door were of a rather large variety. Following this was series PGER/BCOL 40400-41084 and BCOL 5400-5799 (PGE renamed by now) and these cars had the small doorstops. These cars were painted in an assortment of schemes having either light or dark green bodies with light or dark green or combinations of both greens on the doors. The Kaslo kit represents the latter two series, which had the small doorstops.

To finish off the brief history, from 1991 until at least 1998, a rebuild program was undertaken by the railway with the majority of these boxcars receiving a replacement 'superior' door and a new car number. Based on available information and photographs, the following is concluded:

BCOL 80000-80455 (pulp service) came from 40400-41084, 5400-5799

BCOL 80800-80826 came from?

BCOL 80900-80979 came from 40000-40399, 5100-5399

BCOL 100000-100299 came from all four of the initial series

BCOL 100300-100349 (pulp service) came from 40000-40399, 5100-5399

BCOL 100350-100399 came from?

BCOL 100400-100419 came from?

Kit FV-9 by Fraser Valley Railway is ideal for those wishing to upgrade a Robins Rail boxcar to one of the above noted rebuilt cars. It also contains the large type of doorstop, which could be installed into a Kaslo boxcar body, to represent the initial series that the railway ordered. The Kaslo HK - 2 kit consisted of a number of flat resin castings, some sprues of plastic details and a small instruction sheet. Decals, trucks, couplers, brass wire (door rods) and correct ladders were not provided in the kit. It should be noted that the plastic sprues included the add-on details such as tack boards and brake gear, but the grab irons were thick and the steps were incorrect.

While the model was not difficult to assemble, a less experienced person may experience a few difficulties due to the brief instructions. Reference should be made to photographs in order to correctly position the detail parts. The instructions recommended using epoxy for assembling the main body parts but I used C.A.

Step 7 very briefly described the installation of the door actuating rod braces. These are extremely tiny parts, which must first be drilled and afterwards threaded onto the brass rods. I went to the trouble of doing it, though I know of others who simply glued the rods onto the doors.

Whether the actuating rod braces are used or not, the lowest pair is cast onto the bottom area of the plug door, and must be drilled from the underside (dimples provided for locating holes). The brass rods must be bent to correct shape and inserted through the drilled brace. If you wish to install the door braces, then without removing them from the flashing to which they are attached, do the following, one at a time:

- Drill into the dimple of the selected brace, and with the part on the drill bit, remove it from the flashing to which it was attached.

- Line up the tip of the drill bit against the end of the brass rod which was previously inserted through the lowest door brace and then slide the brace from the drill bit onto the brass rod.

- Repeat procedure and slide a second brace onto the rod.

- Position the braces in their correct locations and glue the braces to the door using C.A. glue. Then glue the rod to the braces.

- Repeat sequence for the remaining three rods.

The painted car with Atlas wheels and Kadee couplers would have come out to about 3 1/2 oz, so I added a bit of scrap metal onto the floor of the car prior to assembling the body.

HDL - 1 DECAL SHEET

With regard to decals, Kaslo is selling sheet HDL - 1, which is appropriate for the car. The decal sheet contains enough material to decorate two boxcars, one with the dogwood and one with the BC Rail herald. The decals are of fine quality, though, I found the green leaves of the dogwood flower much too dark. On my photographs and an actual dogwood herald that I own, the green is lighter. The decals were installed using Microscale's decal solutions.

I would not recommend ordering directly from Kaslo, since my order took well over a year to come. The good news is that there has been some reorganization and products are available through Central Hobbies in Vancouver or through the distributor, Kaslo Shops Distributing. - Laszlo

Dora

"Scenic Trains of BC Rail"

Greg Scholl Video Productions, P.O. Box 123, Dept. BCR
Batavia, Ohio, 45103. \$29.95 U.S. plus \$4 shipping 1998,
VHS 60 minutes

Greg Scholl Video Productions released "Scenic Trains of BC Rail" in the fall of 1998. The narrator explained that this one-hour look concentrates on the Squamish Subdivision because it is the most appealing section of the railway, offering everything from mainline diesels to rail diesel cars and even seasonal steam operations.

The stage was set with a map of North America, a map of the connecting railways around the province of British Columbia and a brief history of the Pacific Great Eastern. Each segment began with a title indicating the location and railway operation. Technical data on the locomotives was also included in the narration.

The video was shot over several days, as the same consists of locomotives were often seen travelling in the opposing direction later on. Several scenes were filmed from a considerable distance away, using a telephoto lens across large bodies of water, resulting in a music score replacing the sound of the locomotives. Segments included the four SD40-2 helpers stationed at Pemberton, being cut into a southbound freight at Darcy, a meet a Devine which included video of the entire train and the RDC's at Pemberton, McGuire, Brackendale and Porteau Cove. Special appearances included RS18 #630, still in the green lightning stripe paint scheme switching Squamish yard and 2-8-0 #3716 leading a short freight complete with a van on a break-in run south of Squamish. Royal Hudson #2860 also made a cameo appearance along Howe Sound.

The final sequences were filmed north of Lillooet as freight struggled north along the Fraser River into Pavilion, around the horseshoe curve and continued to climb the mountain in the opposite direction as the last few cars passed the videographer. The video closes with freight reflected in the dark waters of Kelly Lake. "Scenic Trains of BC Rail" documented the operations on BC Rail's Squamish Subdivision during the summer of 1997. Often videographed from a distance, the effect emphasized the beautiful scenery of the Coastal Mountain range. Patrick Hind was credited with providing special assistance to Greg Scholl, ensuring the accuracy of the narration. The result was an entertaining railfan video. - Ron Tuff

ATLAS 50 foot DOUBLE DOOR BOXCAR IN HO SCALE

Atlas Model Railroad Company, 378 Florence Avenue Hillside, NJ., 07205, USA, e-mail: atlasrr@atlasrr.com Website: <http://www.atlasrr.com/welcome.html>

Hey Modelers! Remember the HO Scale Atlas 50 foot Double Door Boxcar that we waited two years for? This was so we could have an authentic looking BCR 800xxx Boxcar on our layout only the product that Atlas released disappointed us. The side and end ladders were molded into the body and the details just did not stand out, giving the car an overall "bland" appearance. The model did have a good paint job however, so many of us went ahead and bought one, despite the shortcomings. Well, guess what people?

The second production run from Atlas of the 50 foot Double Door Boxcar has recently hit the Hobby Stores. I've seen one in the Tan and Brown livery of Northwest Hardwoods of Portland Oregon. And to say the retooled car has been improved would be a great error. It's fantastic!!!

First, those side and end ladders are now "see through" separate detail parts, installed on RTR cars at the factory. Second, the rest of the details on the car seem to be crisper, providing a more realistic overall appearance to it. Third, the paint and printing on my sample was exquisite. An 11, on a scale of 1 to 10. Even the tiny lease paragraph in the upper left corner of the car was readable under 300-power magnification! Fourth and best of all, is the addition of truck to truck Trainline Airbrake piping that can easily be seen running under the full length of the car.

It took long enough but the wait has been worth it. Atlas' second production run of the 50 foot Double Door Boxcar is the best upgrade of an existing RTR kit that I have ever seen! And at USD \$14.95 this metal wheeled Boxcar is a steal in my book. I would even pay \$20 USD and be happy for a car of this quality.

For those of you like Andy Barber and myself who have wanted to model Mountain Pine Lumber Limited USLX Double Door Boxcars for years; your wait is over! The second production run Undecorated Boxcar (stock # 1750) is the answer to your prayers; but you'll have to excuse me now as I have to go shovel out my closet to find where I put my old set of Mountain Pine decals. Bye All! - Mike Jackson (Ed note: Mike, if you are willing to pay more for your model kits all you have to do is live in Canada and buy from the United States. That will take care of it for you!)

PRODUCT UPDATES

SIG member Bart P. Reemeyer reports that "In addition to Vol. 2 of Timothy Horton's "The Pacific Great Eastern Railway, the B.R.M.N.A. can also supply Vol. 1 as photocopies of the original printing. I have recently received such a copy, and while the print quality is not up to that of an original, it is much better than I might have expected. I am very pleased with it. Volumes 1 & 2 are available at a price of \$7.00 each plus \$1.00 each for postage, and plus GST for Canadian destinations. Orders may be placed by mail as you noted in The Cariboo, and can also be placed with payment by VISA on their toll free order line 1-800-340-3108. An answering machine will take your name, address, Visa card number and expiry date and the books you wish to order. They can also be contacted via e-mail at brmna@cadvision.com or at their website www.cadvision.com/brmna, which I understand has an order form.

QUESTIONS & ANSWERS

by Brad Dunlop

As the name suggests, this new column will be dedicated to questions and answers regarding the PGE, British Columbia Railway and BC Rail. The concept is as follows: Readers of the Cariboo are invited to submit their question(s) to me at 170 Jupiter Court, Kelowna BC, Canada, V1X 5W5, e-mail: bodedunlop@home.com. I will then forward the question(s) to Mae Jeffery and Monica Eddey, the co-Editors and Publishers of The Newsie, BC Rail Pioneers' Association quarterly newsletter, for inclusion in their publication. The original question(s) along with the answer(s) received from the veterans of the railway will then be printed in this space along with any questions they may have for our members. I wish to thank Mae and Monica for their co-operation in getting this done. All we need now is to receive your questions so submit them early and submit them often! We will publish what we can as space permits with questions from BCRH&TS members receiving preferential treatment.

THE CHASM CATTLE STORY

by Brad Dunlop

As told to Brad Dunlop by my late father Archie with help from my late mother Winnie

Before we get to the Chasm portion of this story here is some valuable insight to the PGE Stock handling procedures in general.

In 1929-1930 I occasionally worked for my brother John, who was then employed by the railway on the Lillooet (old MB 120.4, new MB 157.7) Section Crew. I was still in school but most of this type of work was done in the evenings so I didn't have to play hooky or anything like that. I can't recall the exact pay arrangement I had with John, I just remember the wage was not that great and any money was appreciated and certainly earned!

Most of the time this involved loading sand in stock cars. The PGE at that time went across the Fraser River from Lillooet on the old original bridge by the mouth of Seton River and there were sand bluffs adjacent to the railway tracks on the north side of the bridge. Northbound stock cars would be spotted at the sand bluffs and the Section Crew would load sand into them as a base for whatever type of livestock, mostly cattle, that would later be loaded into the cars. Each one of us would have to throw about 40 shovelfull's of sand into each car and once this was done the cars would be picked-up by a Northbound train, our job being complete. It wouldn't be until years later that I worked on the actual loading of stock into these stock cars.

On May 1, 1939 dad was the successful bidder for the "A Man" position on the Chasm (old MB 177.4, new MB 214.7) Section Crew, which included working the stock loading operation at the Chasm stockyard. We continue with our story there.

I had my own little cabin at the 59 Mile House and would walk to work as there was no accommodation available for the crew until a bunkhouse was built around 1942. When I got there Chasm was a main cattle loading point on the railway, second only to Williams Lake in terms of volume. This was because the huge Gang Ranch, Henry Koster's Empire Valley Ranch and the Pollard Ranch, as well as other smaller operations in the area used Chasm on a regular basis. I learned the ropes of handling the stockyards at this time with Bill Hinsche, at first, then Mike Smetanuk, who were the respective Foremen. This knowledge was certainly put to use when on September 24, 1943, after a brief stint in Graham (old MB 193.3, new MB 230.6) and Clinton (old MB 165.7, new MB 203), I became the Chasm Section Foreman. Now married to Winnie (On September 29, 1940) and living in the relative comfort that came with and there was often a lot of arguing before any agreement on price took place. The going prices at that time were 4 1/2, 5 maybe 6 cents a pound and the ranchers always had to fight like hell to get what they would like. The buyers would just stonewall them by saying "No this is the going price today" so they had to really dicker in order to get a fair price.

the Section Foreman's house we would spend the next 15 years in Chasm.

Henry Koster, boy I tell ya he was pretty strict with his animals and there wasn't anything that would get by him. His sons rode with him as cow-hands and along with a couple of dogs they would drive their herd from the Dog Creek area more than 40 miles due west on the banks of the Fraser

River. George Haller and his sons from the Gang Ranch would do much the same. Upwards of 150 head of cattle, 4 to 5 cowboys and 1 or 2 dogs, it was always quite a sight too see. While cattle were the mainstays of these operations the Gang Ranch, also, occasionally shipped horses at Chasm. Sheep and Hogs also made infrequent appearances. These shipments generally occurred in the fall but it wasn't unusual to see activity in other seasons. Part of the reason for this is the local ranchers would sometimes purchase young livestock, for fattening up and/or keeping the herds bloodlines "mixed-up". These purchases would then see Chasm as a destination rather than a source for shipments.

From 1949 until 1959 Bruce Van Horlick worked on the Chasm Section Crew. Bruce also owned a few acres of property directly across the road from the stockyards and would often temporarily board the herds until the train with the stock cars arrived. This arrangement worked well for all concerned.

The stockyards were positioned on a gentle slopping hillside to the east of the mainline. As the usual practice of the day, they were regularly coated with "Whitewash", a disinfectant that gave them their distinctive white colour. (I can recall getting into trouble for climbing about the railings after a fresh coat of Whitewash had been applied while wearing some new clothes that mother had just made for me!) There were several small holding corrals on the south side before the weigh scales. A small ramp lead up to the scale platform which was totally enclosed and had a sliding gate on each end for the animals to enter and exit through. Another ramp on the exit side lead to a passage way into the main corrals in the stockyard. There was also a gate in this area to allow the animals to exit from the stockyard if there was a problem or if they were being received rather than being shipped. The main corrals allowed the herd to be separated by buyer if necessary and included water troughs. The herd would be kept here for as long as possible before loading so they wouldn't dehydrate as much while in the stock cars. Finally, there were three loading chutes, each with their own sliding gates that came to rest against the stock cars when spotted in position.

As the local Section Foreman it was my responsibility to look after the railways interest and property, and ensure the weigh scales were accurate. The Scale House

was located at the opposite side of the stockyard from the tracks and measured about 12 by 16 feet. The scale beam was about 4 feet long with counterweights and the animals would step on a platform of similar dimensions to the Scale House itself. This platform was located between the Scale House and the stockyard. Everything was loose on the Scale so when the animals stepped on it everything would shake, jiggle and move around freely.

The buyers and the cowboys were always watching the process very carefully to make sure that nobody was getting the better. Occasionally, a cowboy would try and help out the animal's weight by leaning on the scale frame and the buyers would sometimes stop the process to have the scales cleaned. After a few cow-pies appeared on the scale floor you could see their point however, since they were paying by the pound after all. Mostly though it didn't really matter how much junk was on the scale floor, what you had to do was balance your scales up so everything was just hanging even.

Tom Pollard was the Government Brand Inspector and he had to be there for all shipments but as far as the scales went there was no Government representative. I would zero the scales and the buyers and sellers would say it looks okay to them and that would be that. Depending on the size you would have 5, 6 maybe 7 head of cattle on the scale at once; it didn't really matter as long as the scales swung freely. The cows would all be kicking and moving around and I would have to set the counterweight to the correct balance then the buyers and sellers would stick their faces in there and say yes that's right. They would then deduct the amount of weight it took to balance the scales from the total and the remainder would be the weight "On the hoof". Cattle would typically weigh in at around 1000 to 1200 pounds each and I would have to record these weights on a "Scale Weigh Sheet" which would be submitted to the company (PGE). The company would then charge the ranchers for the use of the scales and stockyards on the basis of these sheets. The going rate for Steers, Heifers, Bulls and such larger animals was about 5 cents a head, for smaller animals like Sheep the rate was about 3 cents.

The buyers representing companies such as Swift Canadian, Burns and Company and Maple Leaf were generally based in Vancouver and would travel to Chasm to make their purchases. They would usually stay at one of the hotels in Clinton, about 14 miles by road to the south. They always had their chequebooks with them and once the dealing was done the ranchers would receive their payment at once. Before they would start the procedures of weigh-in there was usually a great deal of discussion regarding price between the ranchers and buyers. It would always begin with "How much are you going to give me on the hoof?"

There was a walkway for the total length of the stockyard between it and the tracks and once the first three stock cars were spotted at their respective chutes the car doors would be open. Then the moveable portion of the chute would be slide over the platform and up against the side of the car. The corral gate would then be opened and the animals would climb up a wooden ramp with cross slats on it to prevent slippage, through the chute and into the car. As soon as the car was full the door would be closed to make sure none of the animals tried to get back out.

The 22 car capacity siding was sloped toward the southbound direction to allow for moving the stock cars by gravity and allowed for up to ten cars to be loaded at a time. There was a derail located on the south end of this siding just to make sure there would be no runaway cars making it onto the mainline. Those stock cars came with the old style (Type K Brakes) brake handles up on the roof and we used a pick handle shoved through them for extra leverage, just to make sure the car stopped when we wanted it to. The first thing you'd do is get one car rolling and spotted down to the derail then apply the hand brake good and solid and you'd be safe then because there wasn't much of a chance of anything going over the derail after that. It was always safer to move the cars one at a time after that but you could move two at once if you wanted. My final duty once all of the cars were loaded was to go to the phone located in a box on the passenger platform where the Chasm flag stop was and call the dispatcher in Squamish, who would answer to 1 long ring. I would report the stock car number(s) and how many head were in each. For cattle, depending on the size this would amount to anywhere from 12 to 16 head per car. Once loaded into the cars, cattle especially could be heard bellowing all night until the arrival of their train, usually about three or four in the morning. Once the Southbound (often a Mixed train) departed quiet would again descend over this neck of the woods until the arrival of the next herd or train, depending on which came first.

The author wishes to gratefully acknowledge the following additional sources of information:

- Bruce Van Horlick
- Brotherhood of Maintenance of Way Employees Pacific Great Eastern Seniority Lists*, published January 1939, January 1942 and May 1947
- Pacific Great Eastern Railway Co. Employee Time Table No. 71*, Taking Effect June 1st, 1953 and *Time Table No. 76*, Taking effect October 20th, 1957

Recommended supplemental reading material:

- Stock Cars of the Pacific Great Eastern*, John Riddell author, The Cariboo, Issue #29, July 1997 (Pictorial Article)
- Cariboo Cowboy*, Harry Marriott author, Heritage

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(Life Story Novel)

MOTIVE POWER NOTES

by Paul J. Crozier Smith

In Issue #34 Motive Power Notes, I made reference to the made for TV movie *Atomic Train* was being filmed on BC Rail and other roads. It will be aired in May, 1999 on NBC. I am not sure of the date at this time so keep your eyes on your TV guide.

Further to the report in the last issue about the 601:2, she was released in February, 1999 with the modifications needed for her to be used on the *Pacific Starlight* dinner train. Contrary to what was reported in that issue the 601:2 will be the prime unit for the dinner train. She also received the new blue & silver paint scheme.

The two Dash 8-39BE's and Dash 8-40B were re-numbered 3901-3903, repainted and returned to service by the end of February, 1999. All three received the new blue & silver paint scheme with white Scotchlite stripes and herald.

Work on 2816 will commence in April, because of still putting 2860 back together. CPR is not very pleased with this as they have budgeted 1999 toward 2816 and expected work done by December. CPR has compressed the rebuild schedule to 52 weeks, from 59 weeks. New schedule will commence April 1st, with work completed in week 52, last week of March, 2000. They have struck a deal with CRHA for long term loan of required engine gauges.

CP is assisting BCR in obtaining the turntables from Smith Falls and Golden. There is no word as of yet where these turntables are going but one might guess that one might go to Porteau.

Leased units changed somewhat since the last issue. The Helm C30-7's 6700, 6702 and 6704 were all returned to Helm by January 23, 1999. They were replaced by five Helm SD40u's 6056, 6060, 6074, 6083 and 6518. All arrived in November, 1998 except 6083 which arrived in December. The two C30-7u's 6801 and 6803 are also still on line.

BC Rail RS-18u 630 is due out of the shops on April 30th from her Catapillar rebuild in the new blue & silver paint. B36-7 7492 is due out May 22nd as the 3609.

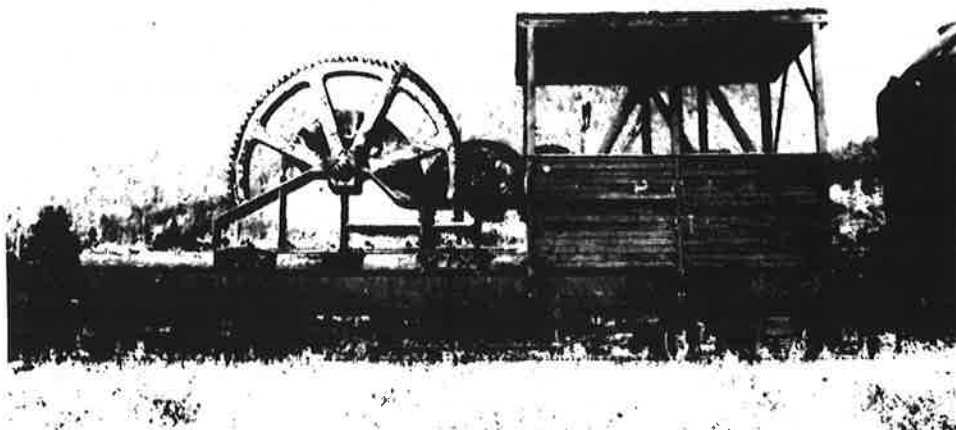
BC Rail GE C30-7u 3622 was delivered in Prince George on March 29, and is awaiting her sisters for testing before entering service. This unit is part of the BCR order from GE/Helm for six rebuilt GE C30-7u's. 3621-3626. The other five are in transit coming out on UP/BNSF.

The log haul on the Takla Subdivision finishes by end of month. This should release the remaining M640's to storage, and eventual sale. By the time the fall log haul starts, the new power will be on line.

BC Rail Dash 8-40CM's 4624 and 4626 still op-

The rush is on until end of March to get another 23 trains delivered to dockside before the price decreases substantially.

Remember the Boise Locomotive MK5000C's? Well, rumour has it that Nationwide Loco Service of North Vancouver, B.C., the new owner, has made another proposal to BCR to lease the six MK5000C's. They have a 15 year lease on the table. Looks like they will be renumbered 5000-5005, or 5001-5006, but not in order. The 9901 becomes NALX 5004. Paint is Pantone matching system (PMS) 280 blue (soft blue) on side from radiator grids down with white on top.. No information on/if delivery.



PGE Ligerwood at Lillooet, B.C., September, 1945

Photo File: P.G.E. Ligerwood
by Ron Tuff

Pacific Great Eastern #? was photographed in September 1945 by photographer Wil Whittaker while it rested at the division point of Lillooet B.C.

This piece of maintenance of way equipment was a Ligerwood Unloader, built by the Ligerwood Manufacturing Company of New Jersey. The concept of a mobile steam powered winch was developed in the late 19th century for use in the logging industry in the Pacific Northwest. Using a vertical boiler for steam, the log skidder was used to haul logs out of the woods using a series of block and tackles attached to the top of a high spar with a fixed skyline strung in between.

Railways used this mechanical advantage in a different way to unload flat cars or gondolas of earth or rock fill. Ligerwood mounted the steam powered cast

iron winchframe on a 35' steel truss rod flat car equipped with Arch Bar trucks. The operator stood inside the shelter, manipulating the Johnson Bar at the command of the Track Foreman. A steam pipe from a coupled locomotive, was split between two cylinders. On P.G.E. engines, it was often visible on the pilot beam to the left of the front coupler. The horizontal pistons located at the extreme width of the car, rotated two small flywheels mounted on either end of the first geared shaft. Through two more shafts and increasingly larger spur gears, the winch drum pulled the steel cable in.

Coupled to the Ligerwood was a train of flat cars or gondolas with removable or drop down sides. An eleven foot wide steel plow blade, weighted with three and a half tons of concrete to keep it from riding up on the earth or rock, was angled across the deck of the last car. As the winch slowly pulled the blade along the deck of each car, the material was pushed off. A steel apron between the cars allowed the plow to slide from car to car.

Thanks to the National Model Railroad Association's Kalmbach Memorial Library for researching my request on Ligerwoods, to caption this unique photo. If you can add anything further to this interesting maintenance of way operation, as it was described in the Narrow Gauge & Shortline Gazette July/August 1984 issue, please forward your comments to the editor.