

The Rail Diesel Car in Canada

Don Thomas

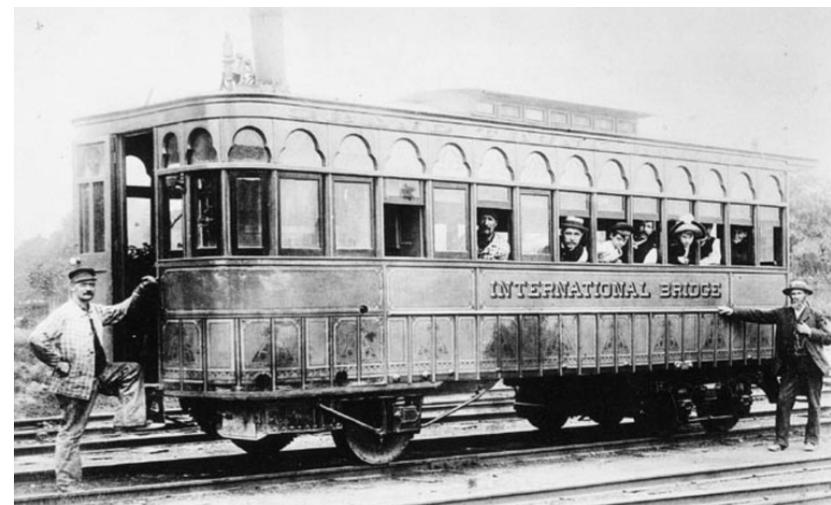
Calgary Model Railway Society Mini Meet

June 5, 2022

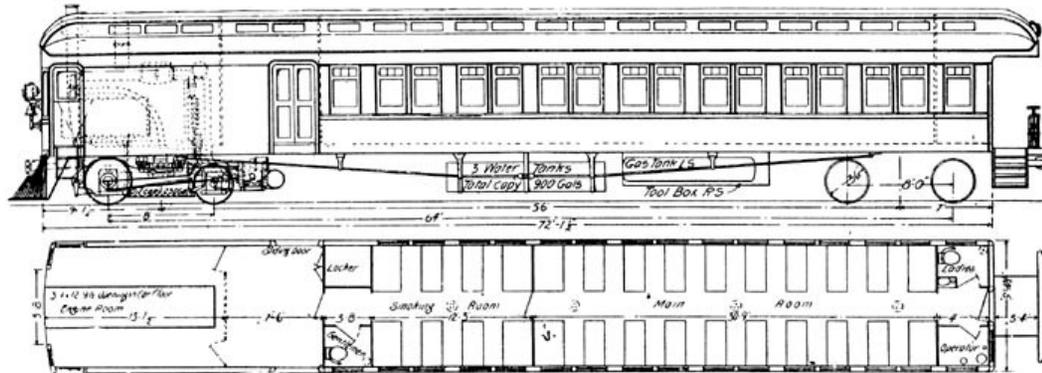
Since their earliest days, railways had sought a cheaper alternative to conventional locomotive-hauled trains for lightly-patronized local passenger runs.

Railways around the world experimented with passenger cars containing their own engines. Initially, most used steam.

The Grand Trunk Railway of Canada built steam-powered cars in the 1870s and 1880s to shuttle across the Niagara River bridge:



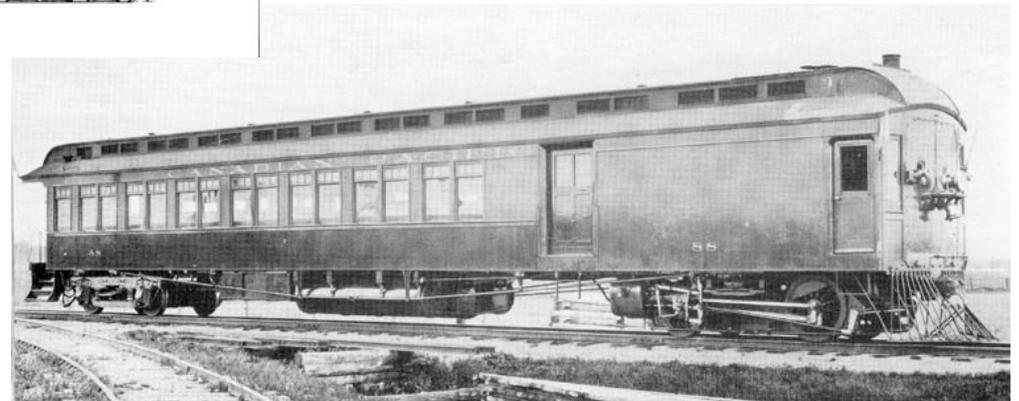
- Canadian Pacific Railway's car 88 was built in 1906 to provide additional commuter train service west of Montreal during low-traffic periods in the middle of the day.



CANADIAN PACIFIC RAILWAY STEAM MOTOR CAR—FLOOR PLAN AND SIDE ELEVATION

A small steam boiler at the front was connected to driving rods on the power truck underneath.

The car was cheaper to operate than a conventional train but was unsuccessful due to maintenance problems. It was converted to a regular passenger car.



Gas-electric and Diesel-electric Rail Cars

During the 1920s, passenger rail cars were developed with gasoline or diesel engines, and electric transmissions.

These cars could provide local passenger and express service more economically than could conventional trains. Many railroads made substantial investments in them.

However, the bulky and noisy engine and other equipment in the front compartment restricted their comfort and usefulness.

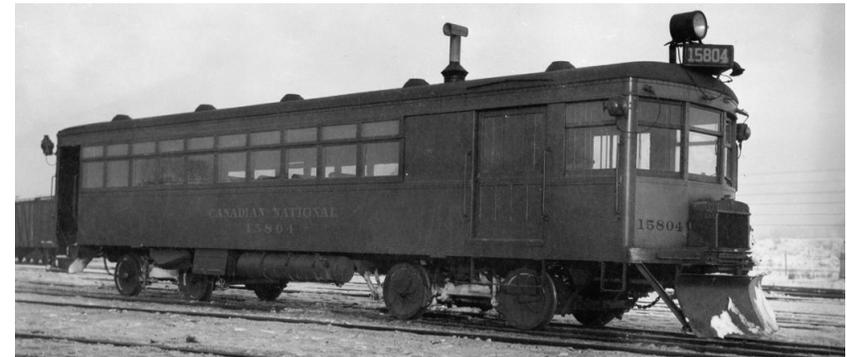
They didn't win any beauty contests either.



Since Canadian National Railways owned a large number of secondary branch lines offering limited traffic, it purchased 63 self-propelled passenger cars during the 1920s and 1930s in order to serve these lines economically.



Car 15824 at Delson is a sister of car 15820, which made a transcontinental run in 67 hours without once stopping its engine.



Railbuses were very light cars.



More powerful cars could pull one or more trailers.

Canadian Pacific Railway was more conservative and owned fewer than ten rail cars. As on most roads, space devoted to passengers and express could be adjusted for the needs of each route.



Compare seating capacity of No. 9003 seen at Fredericton, NB with No. 9008 at McAdam, NB.

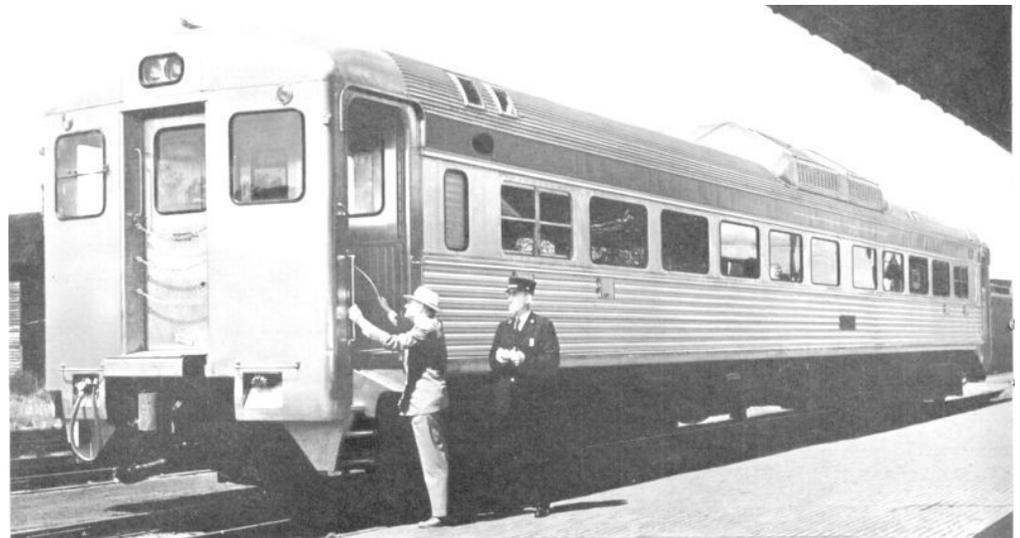


After World War 2, improved roads and increasing use of autos drained passengers from local train services.

Wartime technical advancements made possible a new vehicle that was cheaper to operate than full-size trains carrying light traffic, and more attractive to passengers.

The Budd Company of Philadelphia had pioneered lightweight, streamlined diesel-powered passenger trains in the 1930s that set new standards for passenger service.

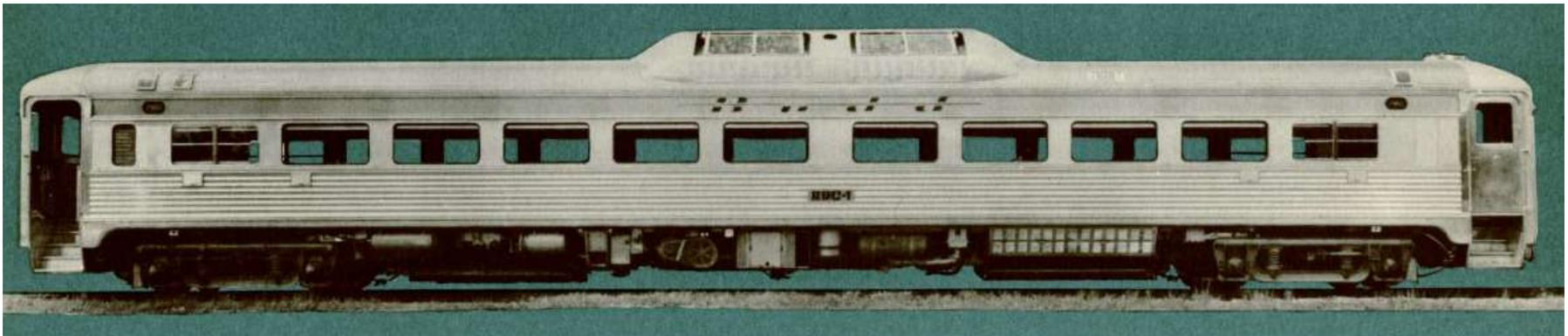
In 1949 Budd produced a prototype Rail Diesel Car to make the local passenger train market more competitive.



What was the Rail Diesel Car?

A stainless steel self-propelled rail car:

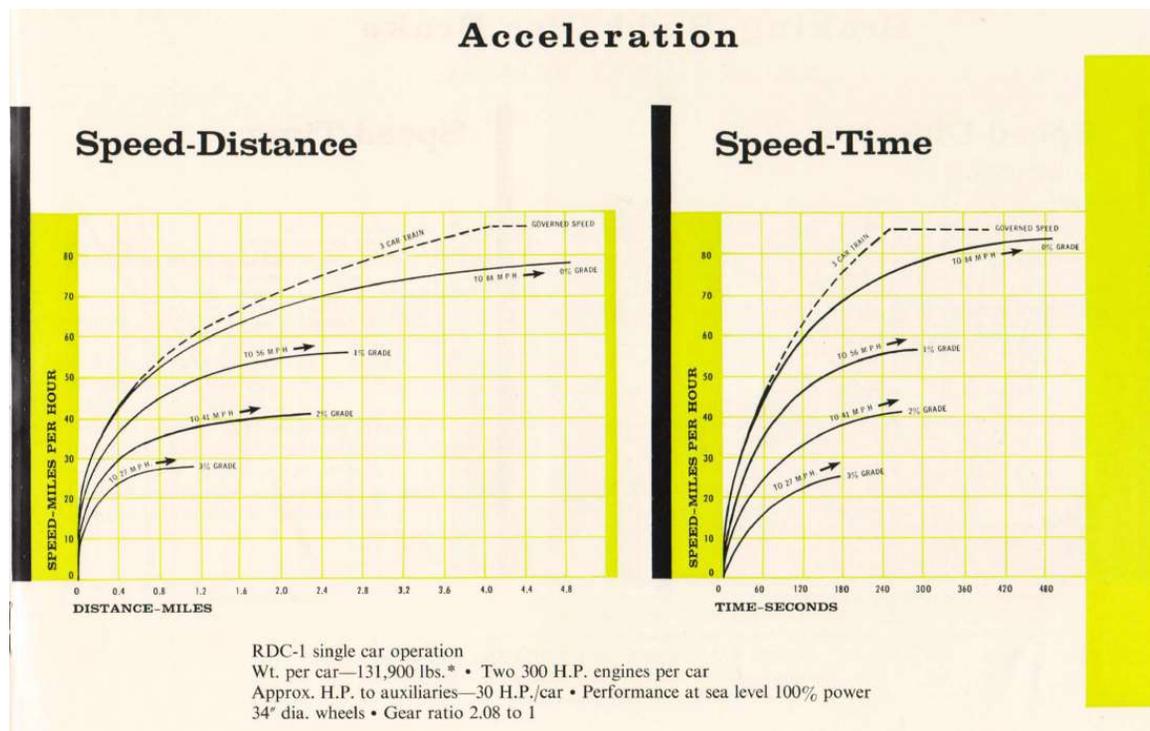
- Up to 90 passengers in 2 compartments
- Roof blister for exhaust and cooling fans
- Two underfloor diesel engines, each connected to one axle
- Maximum 83 mph on level track (CP allowed 90)
- Up to 12 cars in a train
- “B” end (left) was longer; had 8 more seats
- All or part of the “A” end could include a baggage/mail compartment
- Half-powered trailer car available
- Full baggage/mail version 11 feet shorter
- Sleeper, diner and parlor models were offered



RDC Operating Advantages

Rapid acceleration and disc braking allowed frequent stops at higher overall speeds than was possible with conventional locomotive-hauled trains.

This and the ability to reverse direction quickly allowed a train to make more runs per day, permitting increased service at reduced cost, using fewer cars and smaller crews.



Types of Rail Diesel Car

RDCs were available as full coaches; coaches with baggage and mail space; or for baggage/mail only.

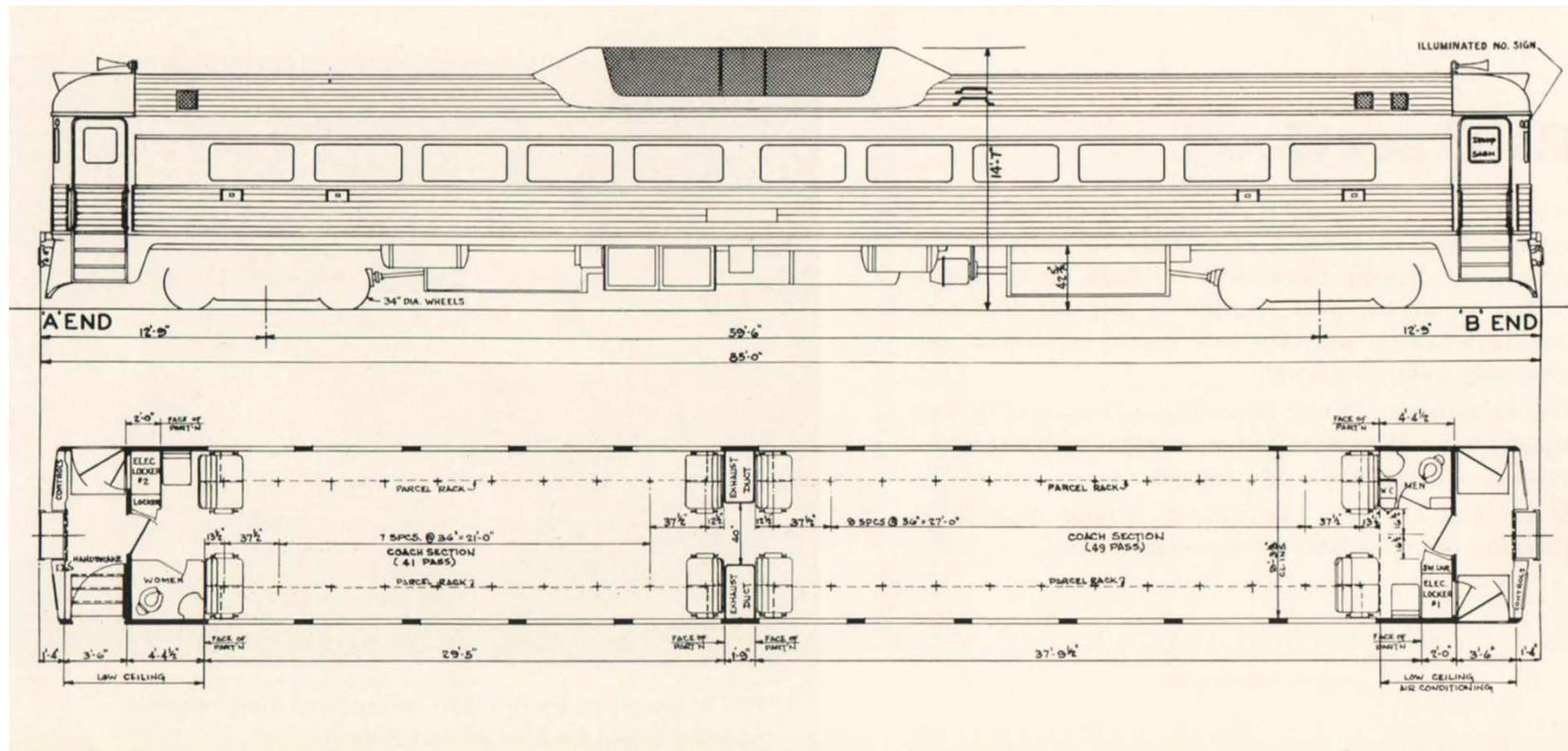
Ultimately five basic types were produced.



D II
Durki

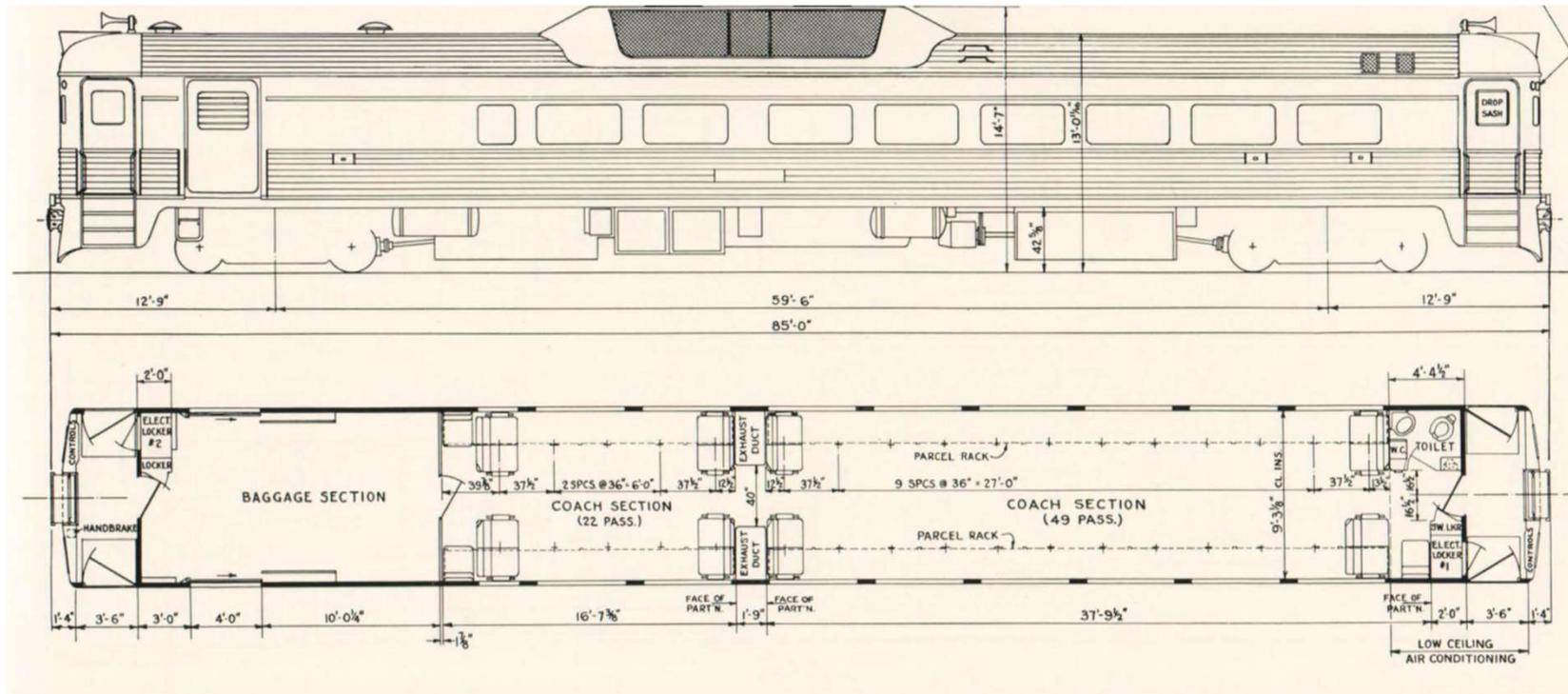
RDC-1: Full coach

- 85 feet long, seats 88 passengers (90 including 2 jump seats).
- 10 rows of seats in A end, 12 in B end. One washroom at each end.
- Engineer's side window of all models could be opened.



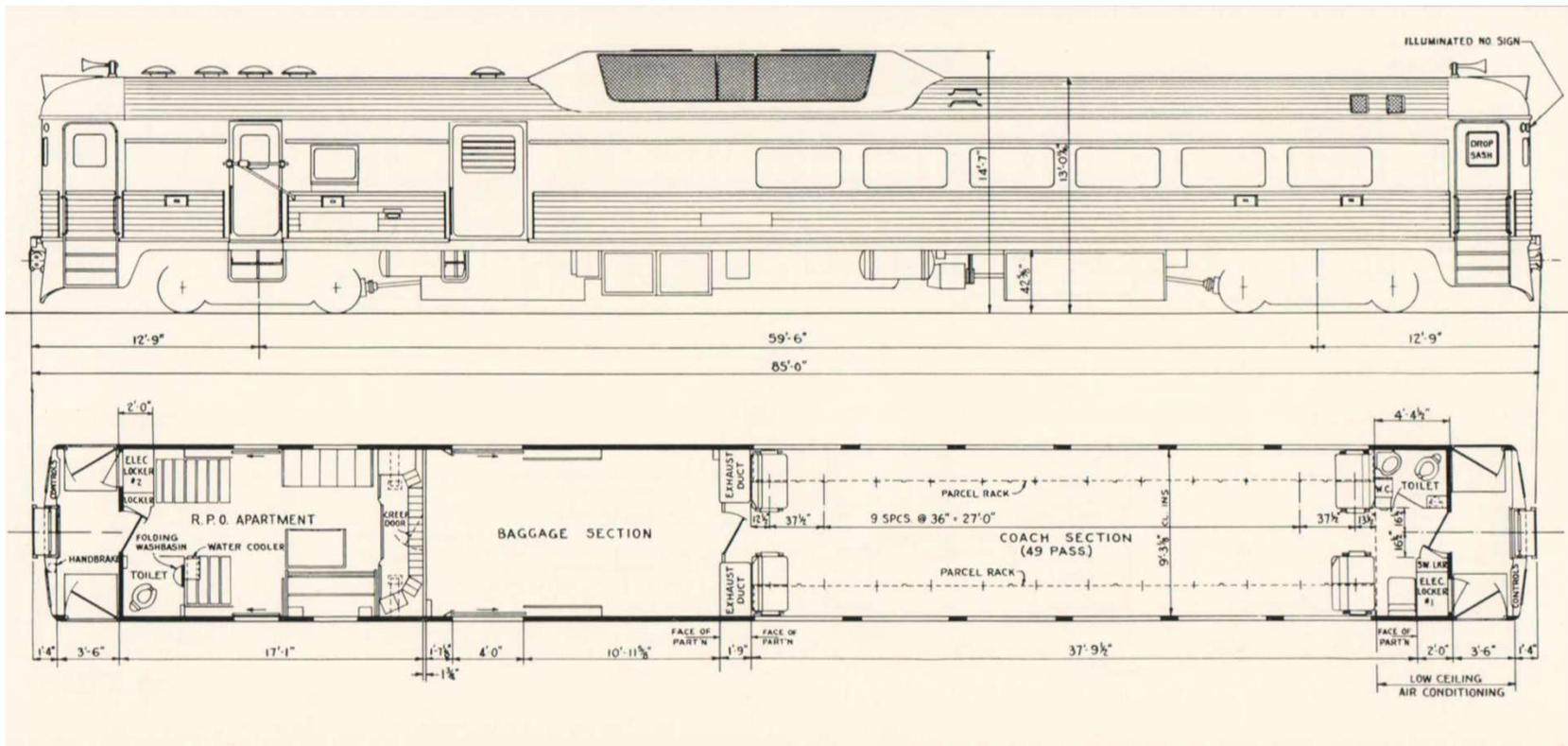
RDC-2: Car with Short Baggage Section

- 85 feet long, seats 68 passengers (71 including 3 jump seats).
- 5 rows of seats in A end, 12 in B end. One washroom in B end.
- 17 foot baggage section in A end.



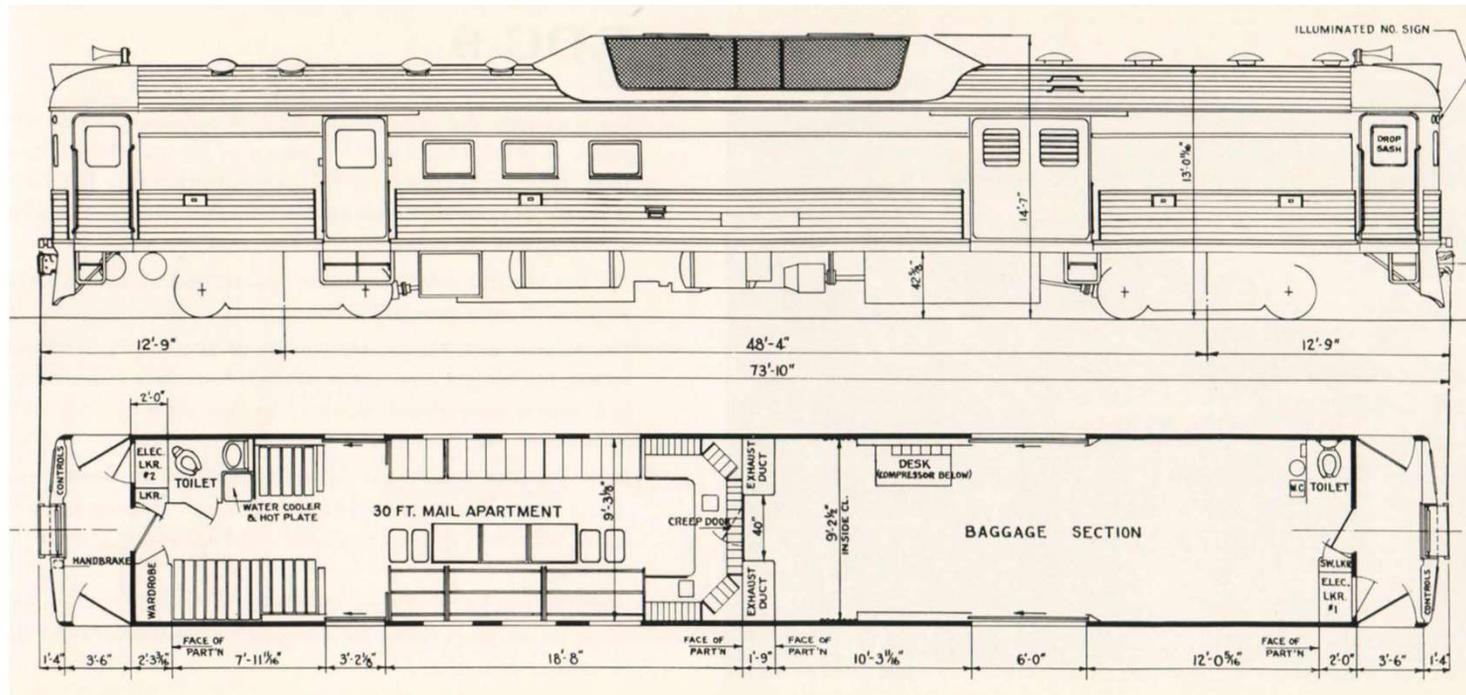
RDC-3: Coach with Baggage and Mail Sections

- 85 feet long, seats 48 passengers (49 including jump seat).
- 12 rows of seats and one washroom in B end.
- 17 foot baggage section and 17 foot railway post office apartment in A end.



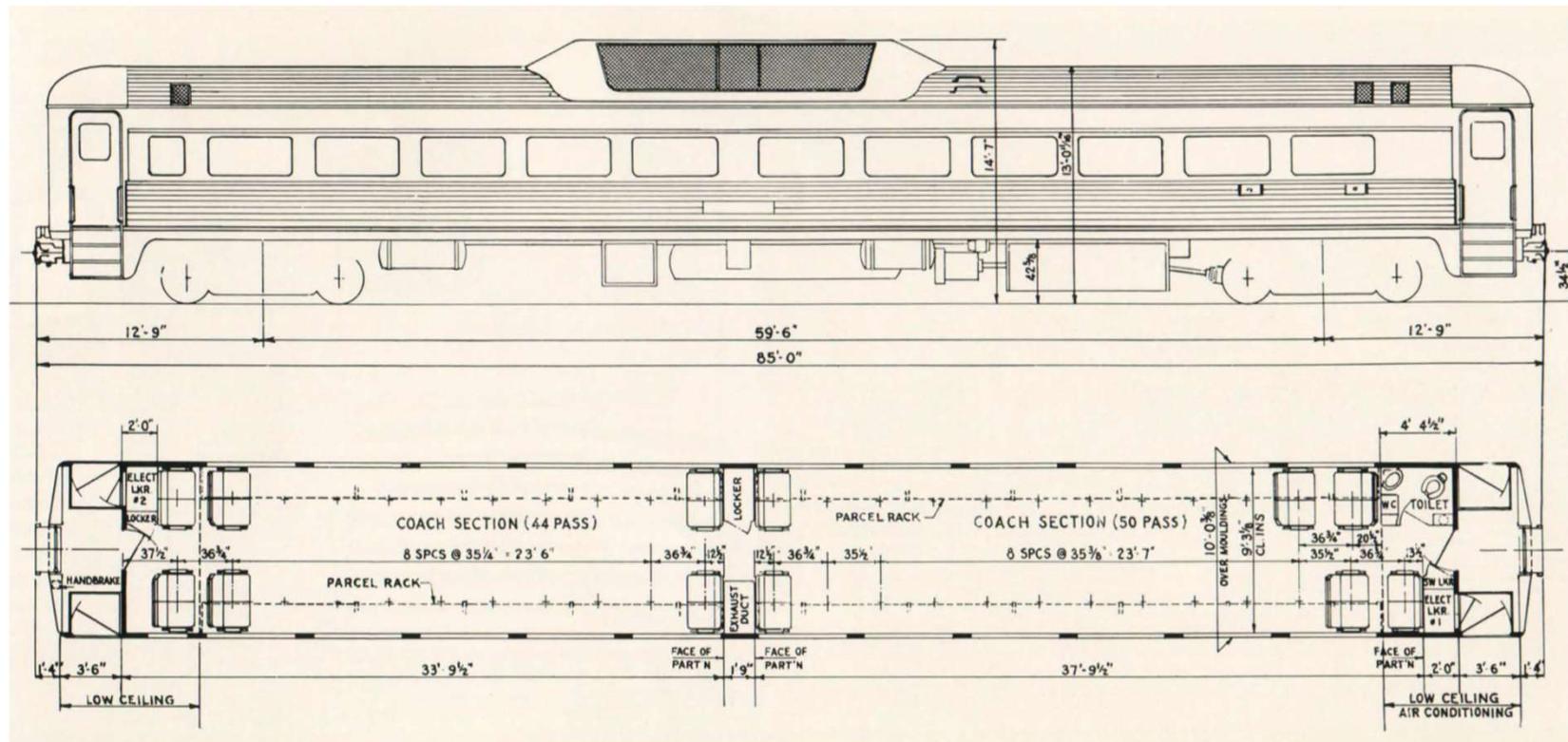
RDC-4: Baggage and Mail Car

- 73 feet, 10 inches long. Non air-conditioned.
- No vestibule stairs. Access ladders only.
- 30 foot railway post office apartment in A end; 30 foot baggage section in B end.



RDC-9: Powered Coach Trailer

- 85 feet long, seats 94 passengers.
- 11 rows of seats in A end, 13 in B end. One washroom in B end.
- One engine in B end, driving a single axle. No control cab. To be used between two standard RDCs.



Variations: As Built

Duluth Winnipeg & Pacific (later CN) car D-355 had a 32-seat passenger compartment instead of the standard 48. CN rebuilt it to a conventional RDC-3.



Baltimore & Ohio had two food service cars built with a kitchen in the A end.



Variations: Rebuilt

Santa Fe RDC-1 rebuilt after a wreck to an RDC-2 with the baggage section in the B end.

Former VIA Rail RDC-2 rebuilt with a smaller baggage compartment and extra seating.

We will see other variations...



RDC Interior

Ducts for exhaust, cooling and air conditioning divided the car into two seating sections.

Walkover seats allowed quick turnaround at terminals.

Some cars were re-equipped with larger reclining seats for longer distance service.

Others had food or snack facilities added. (Not CP!)



RDC Mechanical Features

Two 275-hp (later 300-hp) 6-cylinder 6-110 GM Detroit Diesel engines under the floor. Engines could slide out for repair or replacement.

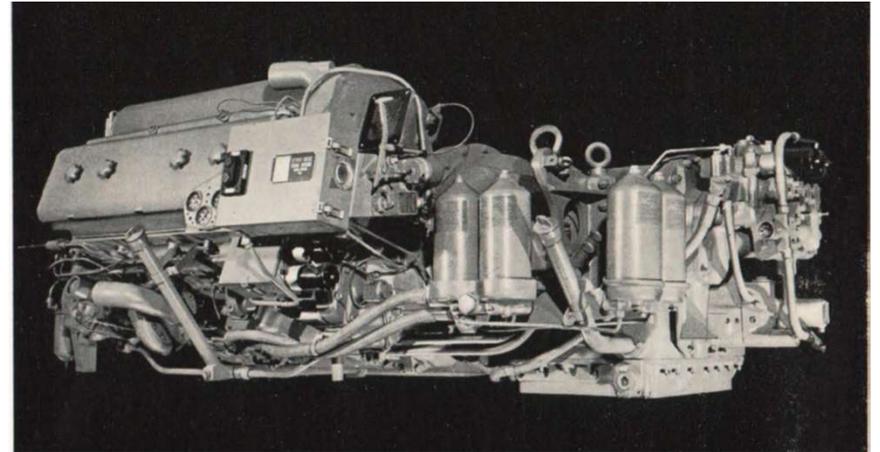
Allison hydraulic torque converter and Spicer drive, connecting each engine to an inside axle, enabled fast acceleration.

Direct mechanical drive at higher speeds.

Budd disc brakes gave quick deceleration.

Simple 4-speed controls located in each vestibule.

Empty weight 109,000 - 118,000 lbs.



RDC Mechanical Features

Two 275-hp (later 300-hp) 6-cylinder 6-110 GM Detroit Diesel engines under the floor. Engines could slide out for repair or replacement.

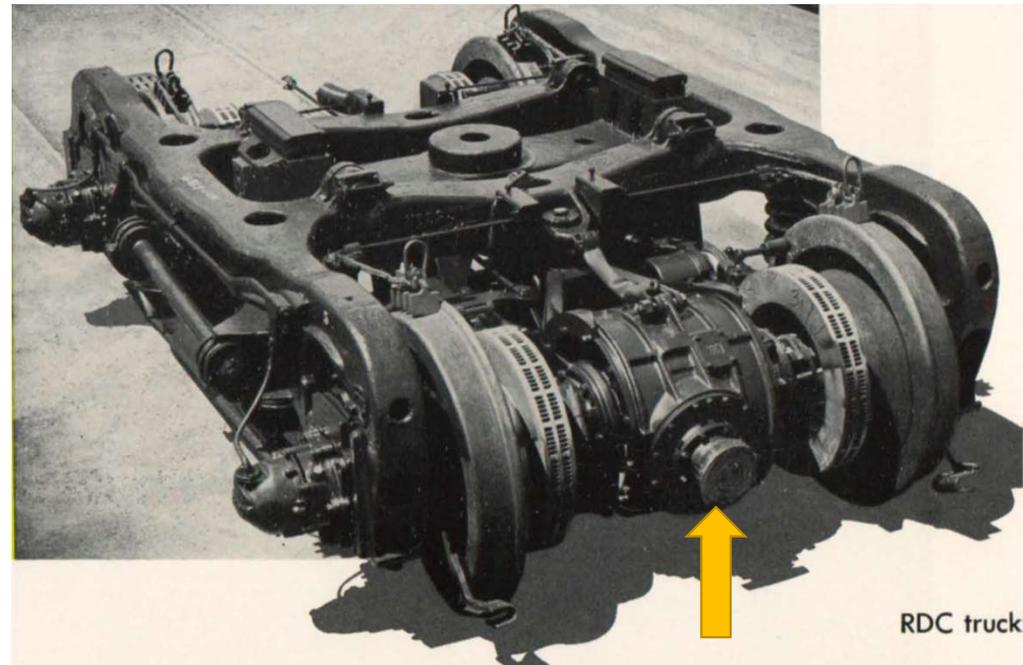
Allison hydraulic torque converter and Spicer drive, connecting each engine to an inside axle, enabled fast acceleration.

Direct mechanical drive at higher speeds.

Budd disc brakes gave quick deceleration.

Simple 4-speed controls located in each vestibule.

Empty weight 109,000 - 118,000 lbs.



RDC Mechanical Features

Two 275-hp (later 300-hp) 6-cylinder 6-110 GM Detroit Diesel engines under the floor. Engines could slide out for repair or replacement.

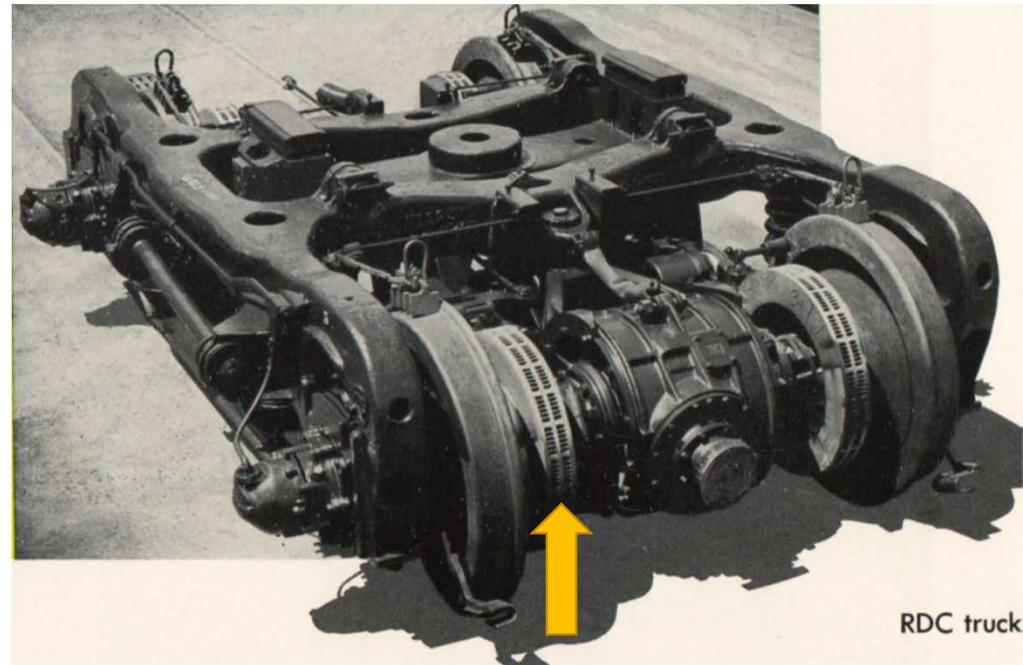
Allison hydraulic torque converter and Spicer drive, connecting each engine to an inside axle, enabled fast acceleration.

Direct mechanical drive at higher speeds.

Budd disc brakes gave quick deceleration.

Simple 4-speed controls located in each vestibule.

Empty weight 109,000 - 118,000 lbs.



RDC Mechanical Features

Two 275-hp (later 300-hp) 6-cylinder 6-110 GM Detroit Diesel engines under the floor. Engines could slide out for repair or replacement.

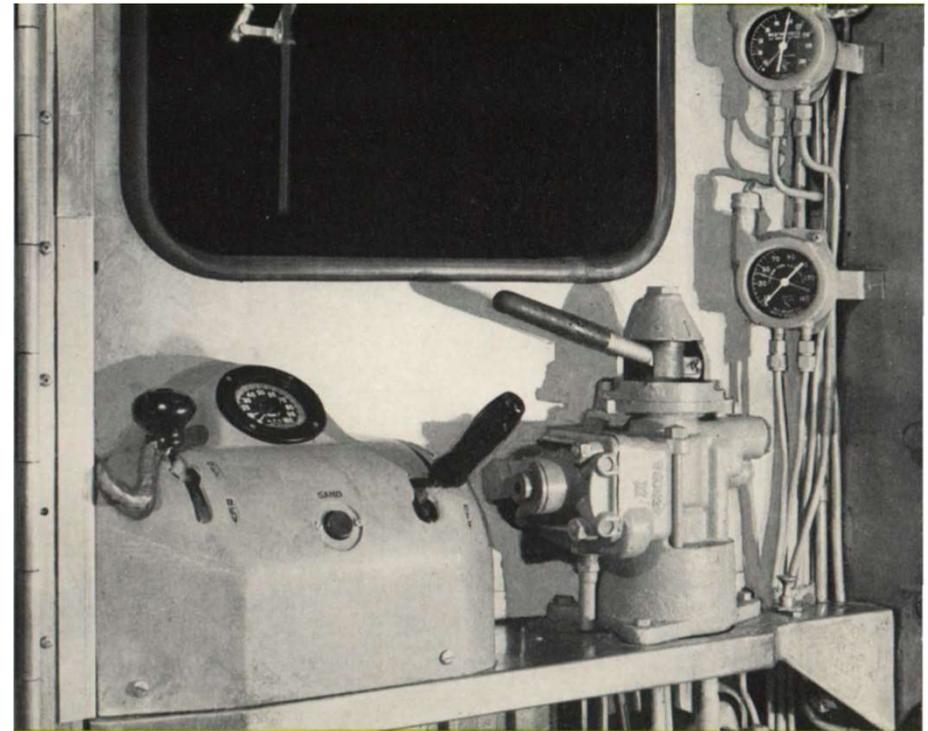
Allison hydraulic torque converter and Spicer drive, connecting each engine to an inside axle, enabled fast acceleration.

Direct mechanical drive at higher speeds.

Budd disc brakes gave quick deceleration.

Simple 4-speed controls located in each vestibule.

Empty weight 109,000 - 118,000 lbs.



How Budd presented the RDC



Single Car "Limited"

Here is the new railroad car which is a train in itself—the self-propelled, diesel-powered, all-stainless steel RDC-1. The Budd Company created it to perform a service both to railroads and their patrons, by carrying more passengers on short or long hauls at lower operating cost.

The RDC-1 seats ninety in air-conditioned comfort. With power transmitted hydraulically, from an effortless start it picks up speed like a whippet and stops in a fantastically short space . . . with the easy softness of pushing your hand against a pillow.

Railroad men foresee a wide usefulness for this car. It may be

operated as a single unit, or a number of cars can be coupled into a train, operated by one engineer.

Improvement in any field of endeavor begins with imagination. The RDC-1 is another example of Budd practice which is first to envision clearly the need and then bring to bear all the resources of inventive engineering. It follows the modern stainless steel streamliner, the all-steel automobile body, the tapered disc wheel and so many other products in which Budd has translated imagination into practical accomplishment. The Budd Company, Philadelphia, Detroit.



RDC—The Car You're Going To Ride In

The letters R D C stand for rail diesel car. It is the stainless steel, self-propelled railway passenger car, built exclusively by The Budd Company, which is rapidly establishing itself as the essential rail passenger carrying car.

All logic points in that direction.

On the Baltimore & Ohio, for example, two RDC's are doing the work of nine coaches and three locomotives—and increasing the patronage.

On the Michigan Central, one RDC has replaced a locomotive and five cars, speeded up the schedule between Bay City, Michigan, and Detroit, and enabled the railroad to restore rail service between Bay City and Midland that was abandoned 25 years ago.

Two RDC's are saving the Western Pacific \$600,000 a year (RDC's cost about \$165,000 apiece).

Eleven domestic railroads, and railroads in three foreign countries, have bought a total of one hundred

and sixteen RDC's. The New Haven Railroad alone has bought forty. All this since the first RDC was built, barely three years ago.

The car has met every demand with distinction, with spectacular performance (in Australia it cut a forty-three hour schedule to nineteen and a quarter hours), and with operational cost savings that border on the unbelievable. RDC is proving to be the most important contribution to railway passenger service since the invention of the air brake. If you're not already riding in RDC's, the day is not distant when you will be.

The Budd Company, Philadelphia, Detroit, Gary.



PIONEERS IN BETTER TRANSPORTATION



RDC—All-purpose Railway Passenger Coach

RDC, introduced a year ago, is the new all-stainless steel, self-propelled Budd rail diesel car. It is good looking, quiet, smooth riding. It is comfortable, clean and air-conditioned.

The New York Central now has two Budd RDC's operating in express service between Springfield and Boston, and a third providing local service between western Massachusetts and Albany.

Western Pacific has two RDC's covering the 924 miles which separate Oakland and Salt Lake City.

Pennsylvania-Reading Seashore Lines have just placed six RDC's in operation between Camden, Ocean City, Wildwood and Cape May. They leave Camden as a six-car train and end up as two-car trains at each of the three Jersey seashore cities.

Chicago & North Western has three RDC's in commuter service; the Baltimore & Ohio will soon have two and New York, Susquehanna & Western, four.

These varied uses to which RDC is being put cover almost every kind of service a railway passenger coach can render.

The general acceptance of the Budd all-stainless steel RDC suggests that the development of railway passenger coach equipment may be headed in a new direction.

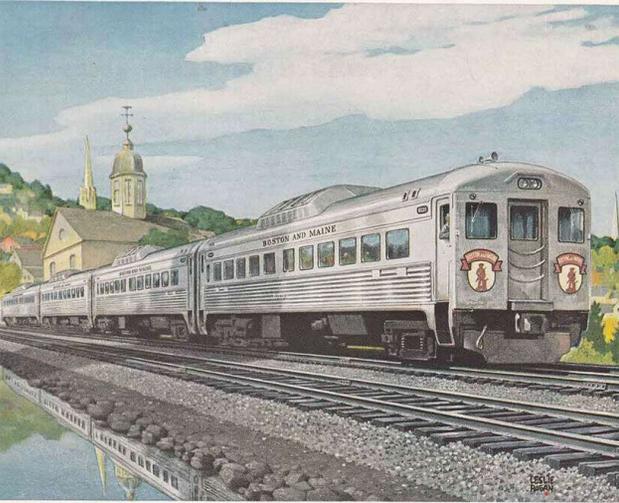
The Budd Company
Philadelphia, Detroit, Gary.



Artist: Leslie Ragan (1897-1972)

When a railroad ordered new RDC's, Budd bragged about the sale in the trade press. Beautiful artwork helped.

Manufacturers of automobile bodies, frames, wheel assemblies and brakes
 Builders of stainless steel trains and highway trailers.
THE BUDD COMPANY Advanced engineering and research. A United States Defense resource.



BUDD RDC CUTS A GORDIAN KNOT

New England's Boston and Maine Railroad had a more-than-usually difficult commuter problem. Morning trains funneled into North Station, Boston, from Fitchburg, from Lowell, from Haverhill and Portsmouth and Gloucester. And then following trains bottled them in. Everything would finally get turned around in time for the evening's outbound stampede. But meantime the railroad was glutted with idle equipment. Budd's rail diesel car—RDC—has made it possible to change all that. This air-conditioned, stainless steel car propels itself in either direction, merely by having the engine man take his control handles from one end of the car to the other. It can, and does, go into North Station and out again in five minutes. During periods of light traffic RDCs operate individually. As traffic builds up, trains of RDCs can be assembled. Any number. All controlled by one man. The Boston and Maine now operates the world's largest fleet of RDCs—64 in all. And it keeps them busy. The cars average eleven runs a day. They have replaced 67 locomotives and 245 coaches, to give New England rail service such as it never enjoyed before. Yes—the word is enjoyed.



Philadelphia Detroit Gary

Boston & Maine



RDC—Car with a Future for Canada's Future

The Canadian Pacific—world's greatest travel system—has just bought four Budd stainless steel RDCs. (The letters RDC stand for Rail Diesel Car.)

The cars were bought because of their proved ability to reduce costs, improve service and attract traffic. But also with an eye to Canada's growth, which presages an increase in the need for transportation as Canada's vast mineral, oil and natural resources are developed.

Operating experience with RDC usually reveals potentialities not originally envisioned. Nobody has yet found their limit, though RDC is now operating in a searching range of services in Australia, Cuba and Saudi Arabia, as well as on our own country's leading railroads. The Budd Company, Philadelphia, Detroit, Gary.



Automobile and Truck Bodies and Wheels, Railway Passenger Cars and Plovers

PIONEERS IN BETTER TRANSPORTATION

Canadian Pacific



The New Haven's 40 RDCs Get Busy and Business

THE New Haven Railroad now operates 40 Budd rail diesel car RDCs. And the New Haven, RDC, and New Englanders are getting along very well together. So well, for example, that when the railroad reinstated passenger service between Worcester and New London, after a lapse of twenty-eight years, it carried 82,000 passengers the first year, using one RDC Monday through Friday, and two RDCs Saturdays and Sundays. Passenger traffic in and out of Boston's South Station has increased by thousands daily. All over the non-electrified portions of the New Haven's system, scores of new schedules have been added to take full advantage of RDCs ability to provide frequent as well as pleasant service. These include many middle-of-the-day "shoppers" runs, which are proving very popular. New Englanders take pride in being a little different. But their response to RDC is typical of people everywhere, from Australia to Cuba, from New York to California. The Budd Company, Philadelphia, Detroit, Gary.



PIONEERS IN BETTER TRANSPORTATION

New Haven

Budd Company's RDC Demonstrator

Budd's first RDC toured North American railroads as a sales demonstrator for several years beginning in 1949. Later it tested new equipment for Budd.

The car visited CN in 1951 and CP in 1953, the year both companies ordered RDCs. CN later bought Budd's demonstrator in 1965.



The Budd demonstrator on the Monon RR



Budd demonstrator as CN 6110 with Pioneer 1 trucks

Trailer Cars

Budd insisted the RDC was not designed to pull unpowered trailer cars, and threatened to void the warranty of cars which were used that way. Some railroads did it anyway:

Chicago & Eastern Illinois RDC at Chicago



Rock Island RDC with blanked baggage door



Extra traffic, engine failure or a transfer could result in an RDC becoming a trailer itself.



RDC pulled by New York Central multiple unit electric cars.



Some RDCs ran solo on branch lines; then were added to main line trains as here on Rock Island.

RDC fleets

Some railroads invested heavily in RDCs.

- Others bought only a few or none.
- Boston & Maine had the most, at 109.
- Many RDCs were resold, often more than once.



CP and CN had the 2nd and 3rd largest RDC fleets, with 102 cars between them.

- 91 of their cars were eventually acquired by VIA Rail.
- 116 RDCs were owned in Canada at one time or another.

336 RDCs were built for 23 North American railroads, 62 more for overseas.

- 16 were built as shells by Budd in 1957 and completed at Canadian Car & Foundry in Montreal for CP and CN the following year. This saved on import duties.

RDC Nicknames

Many railroads gave distinctive names to their RDCs.

Beeliners: New York Central

Chessliners: Chesapeake & Ohio

Dayliners: Canadian Pacific

Highliners: Boston & Maine

Railiners: Canadian National

Shoreliners: New Haven

Speedliners: Baltimore & Ohio

Speedliners: Susquehanna

Zephyrettes: Western Pacific



Two Distinct RDC Patterns over Time:

The original design from 1949 to 1955 is informally designated Phase I.

What Budd called the New Look is Phase II, built from 1956 to 1962.



New artwork was prepared for the Phase II design.

Advertising was directed to the public, not just the railroad press.

Bodies and Wheels
for Automobiles,
Trucks, Highway Trailers,
Railway Passenger Cars
and Blue Buses;
Agricultural Implements,
Laminated Plastics,
Vulcanized Fibre and
Insulating Materials,
Nuclear Energy
Radiography Units,
Jet Engine Components.



YOU CAN'T HEAR A TREE GROW

Amid all the headlines and excitement about the radical new, experimental trains, this stainless steel, self-propelled, rail diesel car—RDC—has been revolutionizing rail passenger transportation.

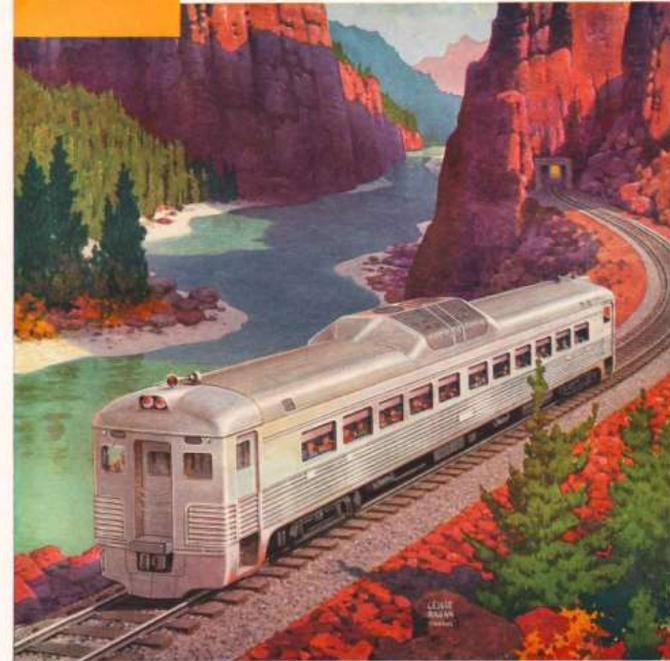
There is nothing unproved about RDC. It has traveled a hundred million miles. Twenty-nine railroads, here and abroad, have bought three hundred RDCs.

Everywhere they have provided passenger-enthusiastic service. They have proved a practical alternative

to abandonments. They have restored rail service to communities that had had none for years. They have saved their railroad owners millions of dollars.

This year we have given RDC a "new look" . . . built into it all that vast operating experience, invention and new materials have accumulated during its six brilliant years. Railroads have already ordered more than sixty of these new RDCs.

The Budd Company, Philadelphia 15.



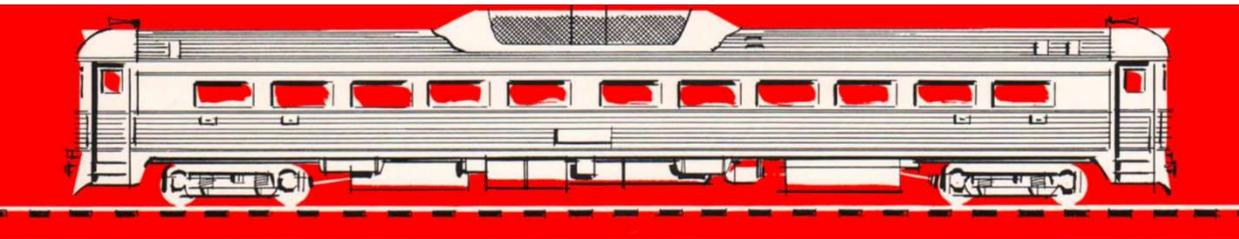
This advertisement appears in:
National Geographic—September, 1956
Time—August 20, 1956
Newsweek—August 20, 1956
Business Week—August 18, 1956

New Look: Differences

Visible changes included:

- Higher headlights
- Integral pilot flush with car end.
- Differences in windows, number boards and trim
- Cast truck frames replaced fabricated frames
- Roof blister and roof end details
- Optional stainless steel fluting on the car

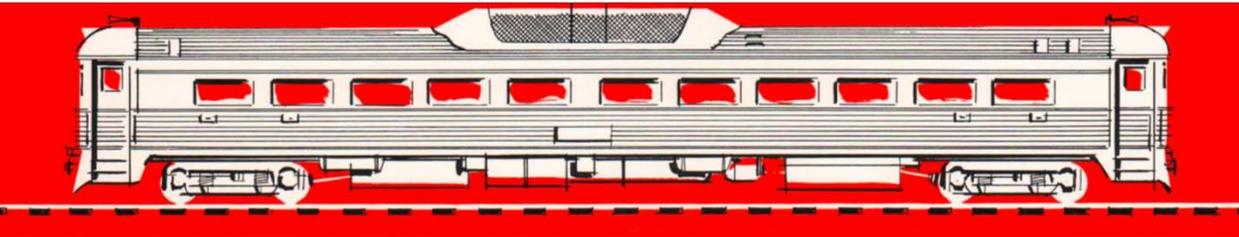
Some of these features changed over time...



New Look: Differences

Less obvious changes included:

- Horsepower increased from 550 to 600
- Wheel diameter increased from 33 to 34 inches
- More powerful air conditioning
- Greater structural strength to survive collisions



Comparison of Phase I and Phase II headlights, number board, windows and pilots.



Phase I



Phase II



Source: Rapido Trains Inc.

Headlights and Number Boards

CP Phase I:

Single number board above low headlight



CN Phase I:

Two angled number boards above low headlight



CN Phase I fitted for

Diaphragm:

Housing with two angled number boards and raised headlight



Phase II:

Headlight in raised casing, number boards inset above windows



Inset Lighted Number Boards

Phase I:

Inset number board on letterboard near vestibule.
Exact position may vary



Phase II:

Inset number boards moved from letterboard to end of car.



Pilots

Phase I RDCs (left) were built with pilots below the coupler.

Phase II pilots (right) were an integral part of the carbody.

CN retrofitted Phase II pilots to Phase I cars (middle). CP did not.



Cab Windows

Phase I (left) has tall front windows extending into the letterboard stripe.

Phase II (right) has lower cab windows, leaving room for number boards above them.

But CP9021 & CN6115 (centre) are Phase I cars rebuilt with Phase 2 windows.

The CP cars carry the standard CPR Gyrolite on the end door.

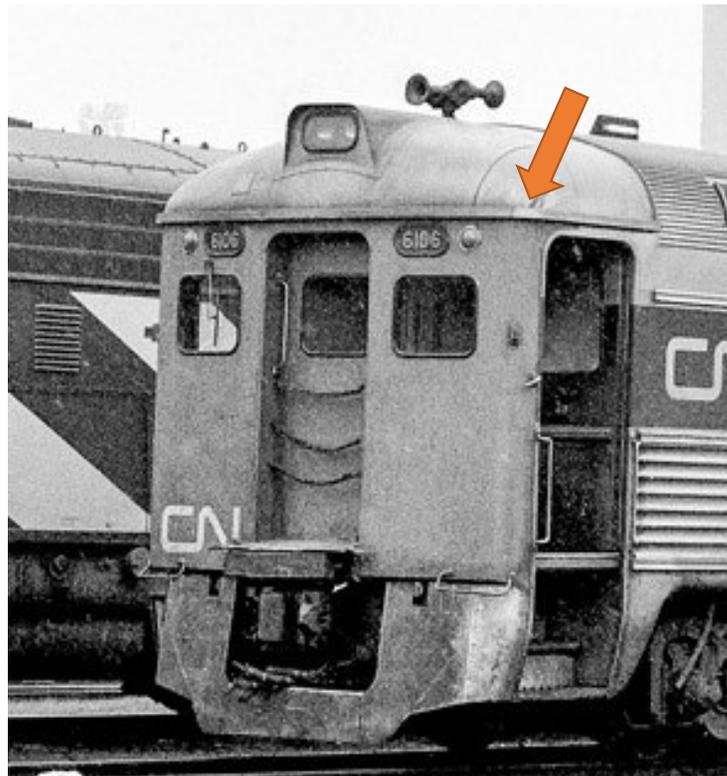


Rib around Phase II Car End

Phase I



Phase II



Phase II



“Unibrow”

Phase I & II Vestibule Roof Differences

Phase I roof end has a flat front and extends only to the edge of the vestibule door.

Phase II roof end is smoothly curved and extends beyond the vestibule.

Phase I door is wider than Phase II

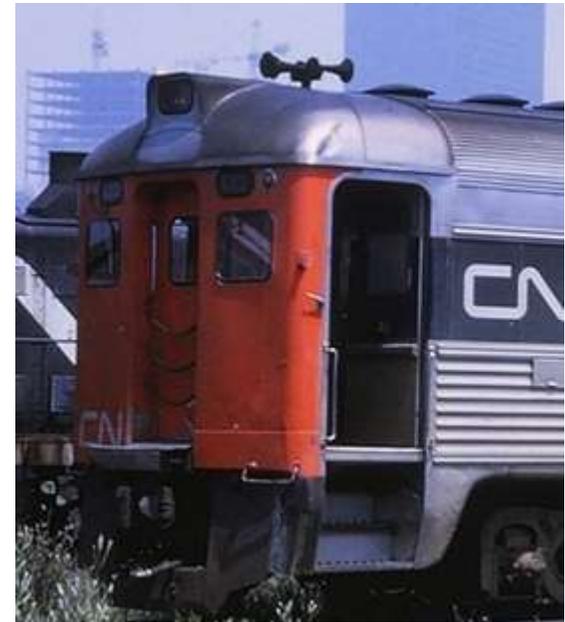


Phase I

Phase II

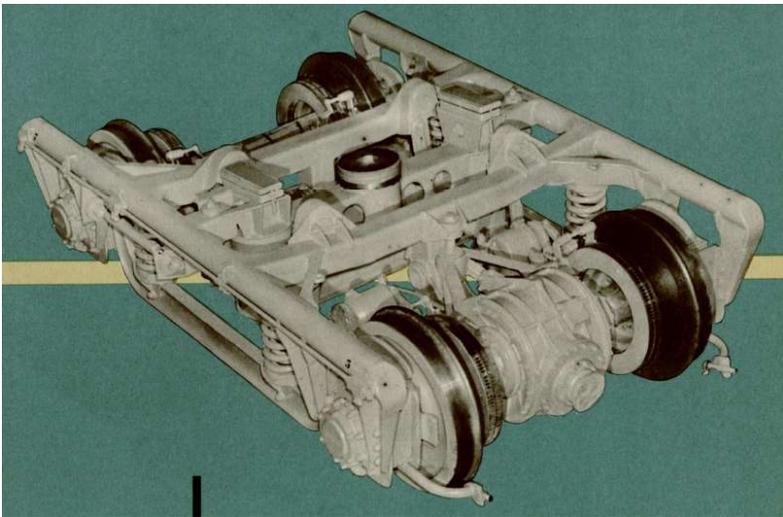
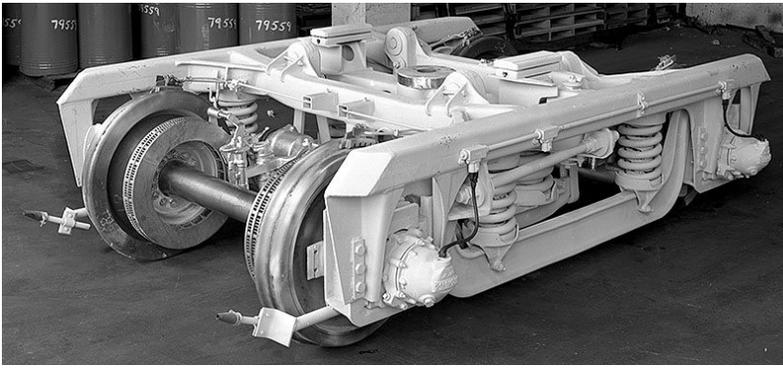


Phase I

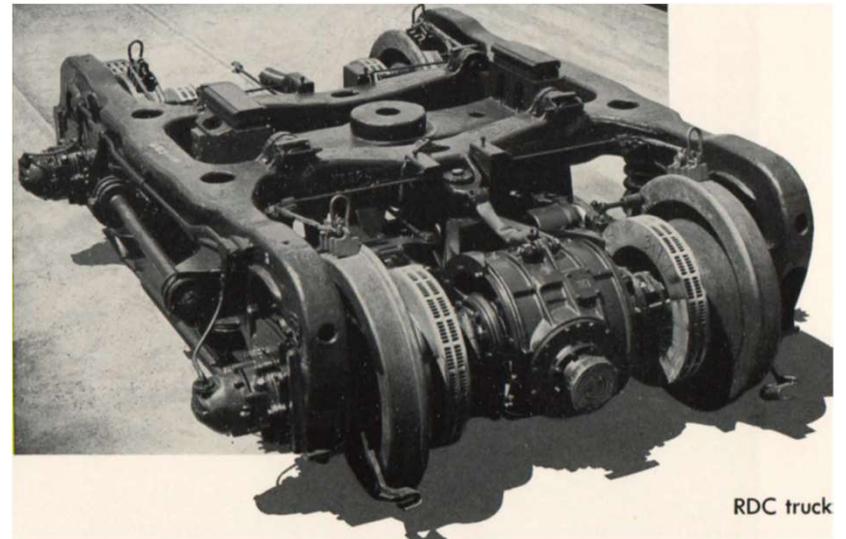
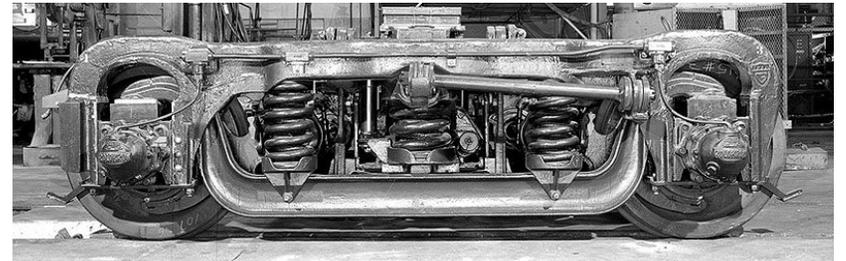


Phase II

Fabricated Truck on Most Phase I RDCs



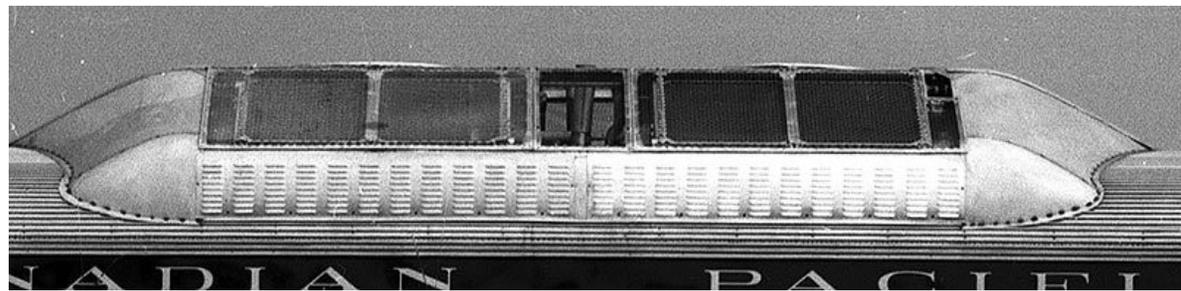
Cast Truck on Phase II RDCs



Earlier Phase I (Ia and Ib) RDCs have rows of small louvers along the base of the roof blister, except in the middle below the exhaust stack. The centre top is plated over.



On later cars (Phase Ic), louvers run the length of the blister. The opening is longer.



Louvers are absent on Phase II cars. The ends of the grill opening are angled.



RDC Grill Openings and Radiator Fans



Phase Ic



Phase II

Spadina
Yard,
Toronto

RDCs Introduced to the Canadian Travel Market

Canada's railways presented the speedy new cars informally but enthusiastically, beginning in 1953.

"New" and "Fast" were the biggest selling points.

"Comfort" and "Air Conditioned" were close behind.

CNR
now only **2 1/4 hrs.** to **SHERBROOKE**

by **RAILINER**
NEW FASTER MONTREAL - SHERBROOKE SERVICE
ON AND AFTER OCTOBER 27th

Now — Canadian National's modern stainless steel "RAILINER" brings you smart new convenience and *air-conditioned comfort*, faster daily service between Montreal - Sherbrooke and important intermediate points. Quiet, effortless starts and stops... relaxing foam rubber seats... ample express and baggage facilities... smooth-riding "Railiners" make travel *faster, smoother, more convenient!*

MORNING AND EVENING SERVICE EACH WAY

Daily (Ex. Sunday)	Daily	Daily	Daily (Ex. Sunday)
9:25 AM	8:00 PM	Lv. Montreal	Ar. 9:00 AM
9:50 AM		Beloeil	8:31 AM
10:05 AM	8:45 PM	St. Hyacinthe	8:15 AM
10:25 AM	9:05 PM	Actonville	7:55 AM
10:50 AM	9:30 PM	Ar. Richmond	Lv. 7:30 AM
10:55 AM	9:40 PM	Lv. Richmond	Ar. 7:20 AM
11:13 AM	9:53 PM	Windsor Mills	7:05 AM
11:25 AM	10:04 PM	Bromptonville	6:54 AM
11:45 AM	10:15 PM	Ar. Sherbrooke	Lv. 6:45 AM
			4:20 PM

Information as to fares and train times, UN. 6-3471 — or, Ticket Office—Travel Bureau, 384 St. James Street West.

CANADIAN NATIONAL RAILWAYS

NEW FAST "Dayliner" PASSENGER SERVICE
Another CANADIAN PACIFIC First IN CANADA

BETWEEN MONTREAL AND MONT LAURIER
STARTING NOVEMBER 9th

Now enjoy streamlined, air-conditioned travel aboard new Canadian Pacific Rail Diesel Cars—the latest type of all-stainless-steel passenger cars specially designed to give speedy, comfortable rail travel for business and pleasure.

With these Budd "RDC" cars Canadian Pacific sets a new standard of comfort and convenience in train travel in Canada, featuring:

- FAST, SMOOTH RIDING • AIR-CONDITIONED ACCOMMODATION
- TIME-SAVING SERVICE

Canadian Pacific

Time-Table of the New "Dayliners"

Read Down	Read Up
Mo. Ar. 7:05	Mo. Lv. 7:22
Tu. Ar. 7:05	Tu. Lv. 7:22
We. Ar. 7:05	We. Lv. 7:22
Th. Ar. 7:05	Th. Lv. 7:22
Fr. Ar. 7:05	Fr. Lv. 7:22
Sa. Ar. 7:05	Sa. Lv. 7:22
Su. Ar. 7:05	Su. Lv. 7:22
Mo. Ar. 7:05	Mo. Lv. 7:22
Tu. Ar. 7:05	Tu. Lv. 7:22
We. Ar. 7:05	We. Lv. 7:22
Th. Ar. 7:05	Th. Lv. 7:22
Fr. Ar. 7:05	Fr. Lv. 7:22
Sa. Ar. 7:05	Sa. Lv. 7:22
Su. Ar. 7:05	Su. Lv. 7:22

No checked baggage or other cargo that will be handled by regular train.

Effective SUNDAY, SEPTEMBER 25th, 1955

Canadian Pacific INTRODUCES
NEW, FAST "Dayliner" SERVICE
between
MONTREAL TROIS-RIVIERES, QUEBEC
AND INTERMEDIATE POINTS

On your next business or pleasure trip between Montreal, Trois-Rivieres and Quebec, take advantage of this new, convenient "Dayliner" route. You'll get there smoothly... quickly... in comfortable, air-conditioned, diesel-powered cars. The latest word in time-saving passenger service.

NO ADVANCE RESERVATIONS—ULTRA-MODERN INTERIORS

Canadian Pacific

"DAYLINER" TIMETABLE

352—Daily	349—Daily
4:55 PM Lv. Montreal	Ar. 12:10 PM
5:00 " Lv. Westmont	12:02 "
5:05 " Lv. Montreal West	11:55 AM
5:15 " Lv. Park Avenue	11:40 "
6:10 " Lv. Lacoreille	10:38 "
6:45 " Lv. Lacoreille	10:01 "
7:05 " Lv. Trois Rivieres	Ar. 9:40 "
7:15 " Lv. Trois Rivieres	Ar. 9:35 "
9:00 " Lv. Quebec	Lv. 8:00 "

Publicity became a bit more restrained over time:

**DOMINION
ATLANTIC**
FAST EVANGELINE
Dayliner
PASSENGER SERVICE



APRIL 30, 1967

**BETWEEN
HALIFAX - YARMOUTH
AND INTERMEDIATE POINTS**
Connections with Montreal, Toronto and
points west, also with New York and
other United States destinations via Dig-
by and Montreal.
(All Times subject to change without notice)

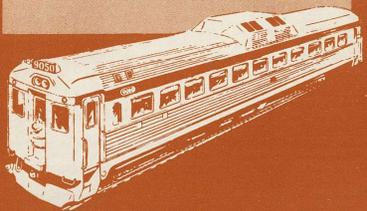
PRINTED IN CANADA

"Dayliner"

FAST
AND REGULAR
PASSENGER SERVICE

Effective April 28, 1968
to October 26, 1968

CALGARY - EDMONTON
CALGARY - LETHBRIDGE
MEDICINE HAT - LETHBRIDGE



TRAVEL
Canadian Pacific

TRAINS / TRUCKS / SHIPS / PLANES / HOTELS / TELECOMMUNICATIONS
WORLD'S MOST COMPLETE TRANSPORTATION SYSTEM

"Dayliner"

**Fast, Dependable
Passenger Service**

Between
**Victoria
Nanaimo
Courtenay**

Effective April 29, 1973

All Times Local



**CP
Rail**

Canadian Pacific RDCs

CP ordered 53 RDCs from Budd during the 1950s.

Two more were bought used in 1958.

Number series:

RDC-1: 9049-9072

RDC-2: 9100-9116; 9194-9199

RDC-3: 9020-9024

RDC-4: 9200; 9250-9251

RDC-5: * 9300-9309 (rebuilt from RDC-2s)



* Not the same as CN's RDC-5s.

CP Fleet: RDC-1s demonstrate Stripes vs the “Hockey Mask”



1. Tuscan red letterboard and safety stripes. Originally assigned to Dominion Atlantic Ry.



2. Tuscan red letterboard & orange hockey mask from early 1960s. At Ottawa West.



3. Action Red letterboard and hockey mask from 1969. At Yarmouth NS .



4. Action Red letterboard and stripes from late 1970s. At Glen Yard, Montreal.

CP Fleet: RDC-2, -3 & -4



The CP RDC-5

Baggage, express and mail traffic declined in the 1960s. A majority of CP's RDC fleet included facilities for these purposes, which was now largely wasted space.



In 1975, 8 RDC-2s in commuter service had their baggage rooms converted to passenger space with bench seating. CP classified them as RDC-5s, numbered in the 9300 series. No fluted siding was installed in the former openings.



CP RDC Assignments 1968

Over half of CP's RDCs were assigned to Montreal by 1967.

Many of them were used on commuter trains, shown here.



Dominion Atlantic Pool — 2 RDC1's
Yarmouth-Halifax — 216.9 miles — 1 RT
Kentville-Halifax — 72.4 miles — 2 RT
 Montreal Pool — 15 RDC1's, 11 RDC2's, 2 RDC3's
Montreal-Quebec — 178.3 miles — 1 RT
Montreal-Mont Laurier — 163.8 miles — 3 RT weekly
Montreal-Megantic — 175.1 miles — 1 RT
Montreal-Farnham — 43.2 miles — 1 RT
Montreal-Sherbrooke — 106.6 miles — 1 RT
Montreal-Ottawa via Ste. Therese — 125.6 miles — 2 RT
Montreal-Ste. Therese — 25.6 miles — 1 RT
Montreal-Rigaud — 40.2 miles — 2 RT
Montreal-Vaudreuil — 23.7 miles — 1 RT
Montreal-Ste. Annes — 20.4 miles — 1 RT
Montreal-Hudson — 32.1 miles — 1 RT
 Toronto Pool — 5 RDC1's, 3 RDC2's, 1 RDC3, 2 RDC4's
Toronto-Havelock — 100.8 miles — 1 RT
Toronto-Peterboro — 76.5 miles — 2 RT
Toronto-Owen Sound — 128.8 miles — 3 RT weekly
Toronto-Windsor — 226.1 miles — 2 RT
 Sudbury (Ont.) Pool — 2 RDC2's, 1 RDC3, 1 RDC4
Sudbury-White River — 300.3 miles — 3 RT weekly
Sudbury-Sault Ste. Marie — 79.3 miles — 1 RT
 Calgary (Alta.) Pool — 1 RDC1, 6 RDC2's, 1 RDC3
Calgary-Edmonton — 193.9 miles — 3 RT
Calgary-Lethbridge — 126.5 miles — 1 RT
Medicine Hat-Lethbridge — 111.6 miles — 1 RT
 Esquimalt & Nanaimo Division — 1 RDC1
Victoria-Courtenay, B. C. — 140 miles — 1 RT



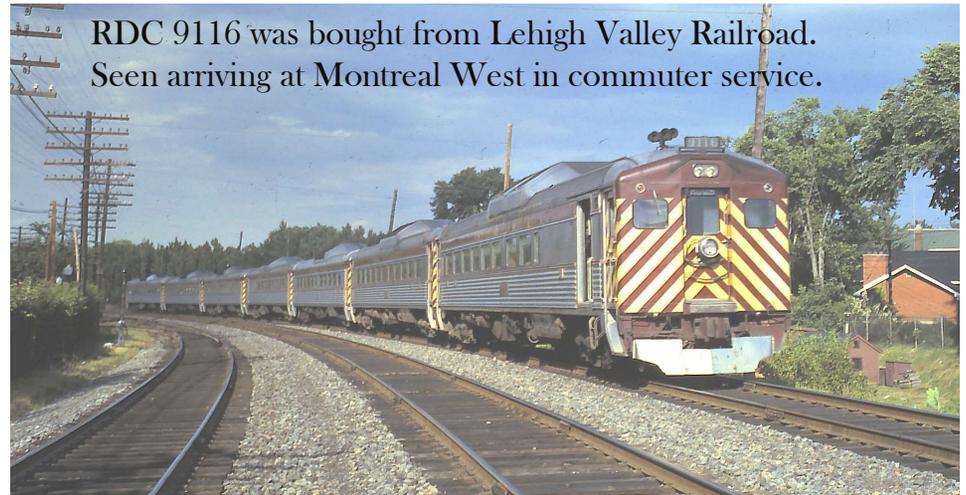
RDCs on the Temiscaming branch were introduced early, and discontinued early.



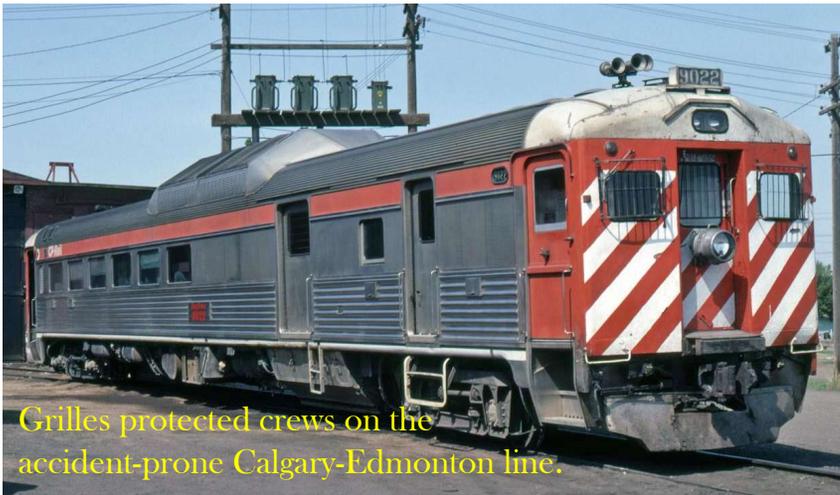
An RDC-3 and RDC-4 handling express at Moose Jaw.



RDC 9116 was bought from Lehigh Valley Railroad. Seen arriving at Montreal West in commuter service.



Grilles protected crews on the accident-prone Calgary-Edmonton line.





CP retained some RDCs as instruction cars for several years after transferring passenger service to public authorities.



Canadian National RDCs

CN ordered 28 RDCs from Budd in the 1950s.

23 more were bought used in the 1960s and 1970s.

Number series:

RDC-1: D-100s; to 6100s in 1969

RDC-2: D-200s; to 6200s in 1969

RDC-3: D-300s; to 6300s in 1969

RDC-4: D-400s; to 6400s in 1969

RDC-9: * D-500s; to 6000s in 1969



* CN classed these as RDC-5s.

CN Fleet: Early Colour Schemes



Cars delivered with Extended Roman lettering
Green and yellow striping removed after 1961



CN Fleet: New Graphics



19242 CNR BUDD RDC2 D205 (6205) W.TORONTO ONT. SEPT.1967

JIM PARKER PHOTO

Small CN logos with the railway name in block letters.

On some units the letterboard was painted over before relettering.



CN Fleet: Later Colours



Black window panels mimicked CN's passenger cars. On some cars the panels weren't fully painted.

CN modified many RDCs for diaphragms to protect passengers walking between cars. Not all cars had them installed.



CN Secondhand Purchases

CN purchased 19 RDCs from U.S. railroads between 1964 and 1966, including 16 from the Boston & Maine.

4 more came from CP in 1974.



CN 6356, former Missouri-Kansas-Texas No. 20, had stainless fluting around the car ends.

CN RDC-9 (aka RDC-5)

The RDC-9 was introduced in Phase II production.

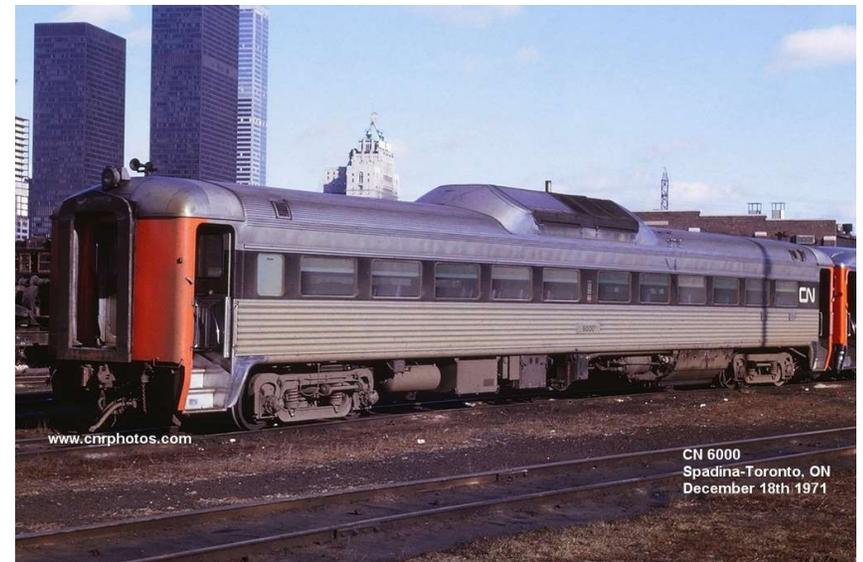
It had only one 300 h.p. engine and no control cab.

One car could be operated between two full-power RDCs at a considerable cost saving.

RDC-9 was requested by the Boston & Maine Railroad, which was converting its entire Boston commuter service to RDCs. No one else ordered it.

In 1965 CN included seven of these units in a purchase of RDCs from B&M.

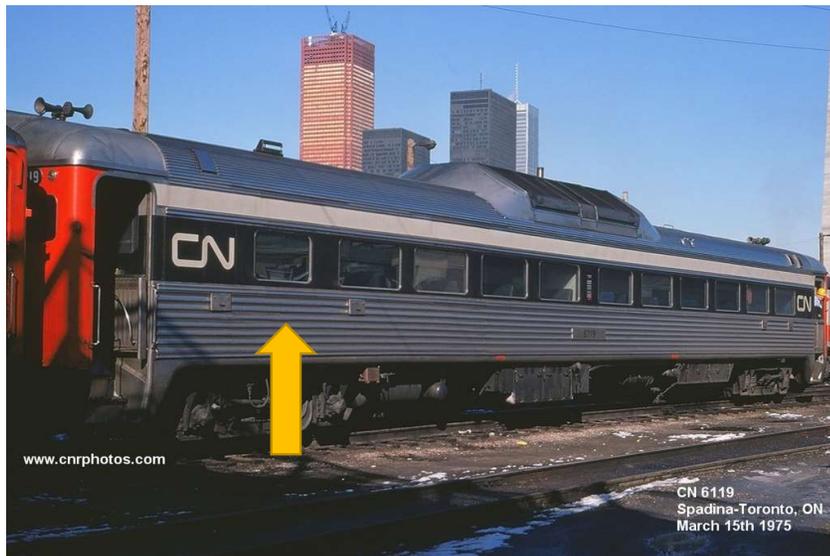
CN classified them as RDC-5s.



RDCs rebuilt by CN

CN found its RDC fleet had excess space for baggage, express and mail. It undertook a larger rebuilding program than CP did.

CN rebuilt several RDC-2s and RDC-3s to RDC-1 configuration, allowing room for more passengers. The best distinguishing feature of CN's rebuilds is the smaller window near the vestibule on the A end.



CN RDC Assignments 1968

East 20 cars

Halifax-Truro — 64 miles — car D100
Sydney-Halifax — 294.1 miles — cars D105, D200, D503
Moncton-St. John — 89.3 miles — cars D102, D450
Campbellton-Charny — 311.7 miles — cars D106, D452, D453, D501, D302, D500
Richmond-Quebec — 102.8 miles — cars D104, D108, D113, D115, D116, D355, D401, D505

Ontario 14 cars

Montreal-Belleville, Ont. — 222.2 miles — cars D109, D118, D506
Kincardine-Stratford-Goderich — 131.6 miles — car D351
Toronto-Southampton — 151.8 — cars D352, D353
Brockville-London — 327.2 miles — cars D117, D206, D504
Toronto-Stratford — 88.6 miles — cars D205, D350
Toronto-North Bay — 228 miles — cars D112, D354, D107

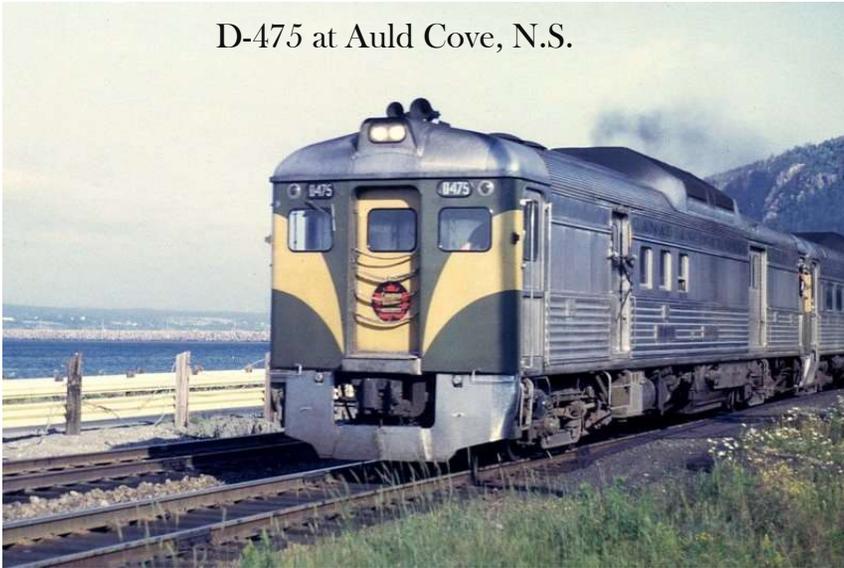


Prairies 10 cars

Prince Albert-Regina — 249.2 miles — cars D114, D201
Saskatoon-The Pas — 336 miles — cars D451, D475, D502, D203
Edmonton-North Battleford — 254 miles — car D110
Edmonton-Calgary — 232.1 miles — car D103
Edmonton-Drumheller — 180.8 miles — car D356
Edmonton-Grand Centre — 170.2 miles — car D202

Cars in shop — D101, D111, D204

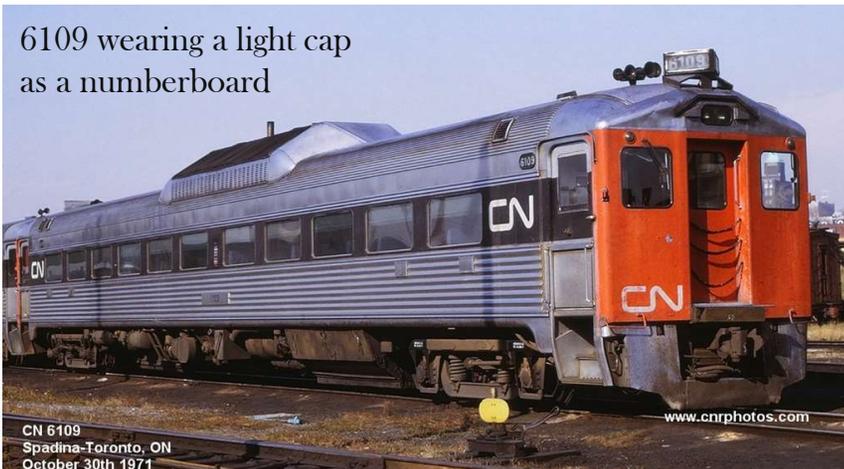
D-475 at Auld Cove, N.S.



D-452 at Saskatoon



6109 wearing a light cap
as a numberboard



6109 wearing a big top hat
as a numberboard



Pacific Great Eastern - British Columbia Railway - BC Rail

PGE received seven RDCs from Budd in 1956, with fluted stainless steel siding on car ends and vestibule doors.

Successor British Columbia Railway purchased ten used units from Canadian and American carriers, including three used for parts.

The fleet included several Phase II RDC-1s and RDC-3s, and one RDC-2.

All were sold following BC Rail's cessation of passenger service in 2002.

Anderson Lake



Cheakamus River Bridge



Pacific Great Eastern Railway



PGE received its first units in 1956.

Dark green letterboards were enhanced with gold on the car ends.



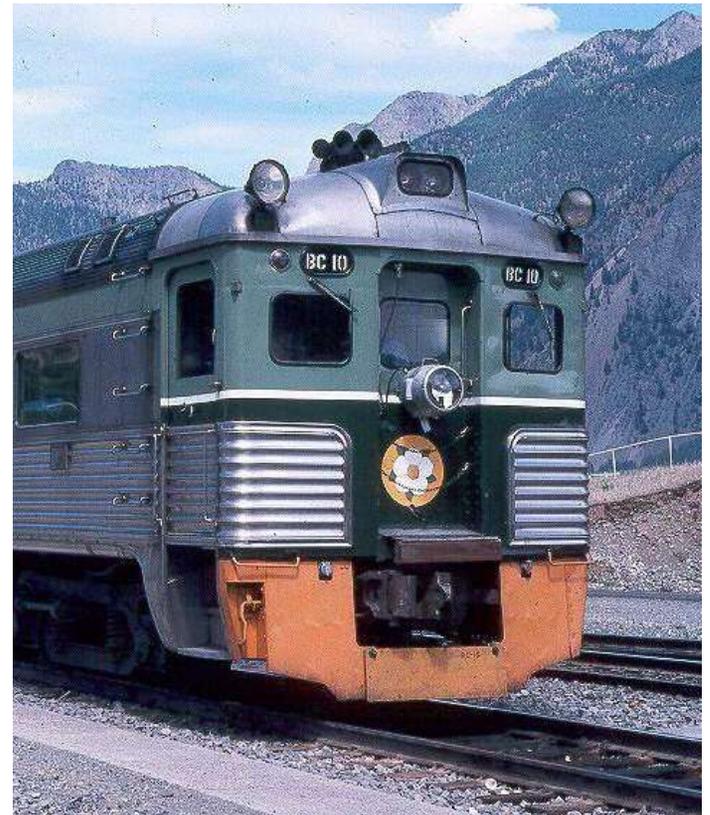
© Weston Langford

PGE BC-33 at Medicine Hat, Alberta

British Columbia Railway: Light Green

PGE became British Columbia Railway in 1972., and adopted new colours.

Light and dark green was highlighted by yellow on the provincial emblem and the pilots. Note the side nameplate.



British Columbia Railway: Dark Green

British Columbia Railway changed to dark green letterboards with green and white safety stripes on the car ends.

Dark green letterboard stripe on the RDC-3 widened on the A end.



BC Rail: Dark Green

BC Rail name replaced British Columbia Railway on the letterboard.

Initially the colours were unchanged.



In this period, all stainless steel fluting was removed from the car ends.



BC Rail: Blue

BC Rail's final colours were blue and white.

Stainless steel fluting remained on the vestibule doors.

During this period interior changes were reflected in altered windows in the B end.



BC-15 traveled far after being sold by BC Rail in 2002

Islander Touring Train Portsmouth RI



Wilton Scenic RR Massachusetts



VIA Rail Canada RDCs

VIA acquired most of CN's and CP's RDCs in 1978.

VIA retained CN's 1969 numbering scheme and renumbered CP's cars into it.

Cars rebuilt to a different type were renumbered into the appropriate series.

Number series:

RDC-1: 6100s

RDC-2: 6200s

RDC-3: 6300s

RDC-4: 6400s

RDC-9: 6000s



VIA Rail colour schemes



First scheme matched former CN smooth side cars

Later schemes resemble former CP stainless steel cars

Yellow car ends replaced CN orange and CP stripes

9105 with grey ends still in Sudbury-White River service



RDCs Rebuilt by VIA Rail

Each of these cars was rebuilt from an RDC-3 to an RDC-2.

6225 (top) has a window that 6220 lacks. Baggage door of 6220 is farther forward than normal.



RDCs Rebuilt by VIA Rail

VIA 6125 (above) was rebuilt from a CP RDC-5 to a modified RDC-1. Fluted siding was installed where the baggage door had been.



RDCs Rebuilt by VIA Rail



VIA 6204 (right) was modified with double baggage doors and a larger window for the front seats.

RDCs sold by VIA Rail to U.S. Commuter Services

Reduction in service on secondary lines in 1990 made most of VIA's RDCs surplus. Many were sold for continued use on lines in Canada, the United States and Cuba.



Three former CP units in Boston commuter service. The antique crossing gate is in Framingham, MA.



Twelve RDCs were heavily rebuilt for the Dallas, TX Trinity Railway Express. Tracks and other facilities were of similar quality.

Former VIA Rail RDCs in Canada



Above, units sold to Quebec, North Shore & Labrador Railway.

Above right, painted for Chemin de Fer des Cantons de L'Est.

Below right, on the Orford Express at Sherbrooke, Quebec. This train was discontinued in 2020 due to pandemic traffic loss.



Former VIA Rail RDCs in Canada

Waterloo Central 9114 in 2021 restored to original CP colours and number.

CP converted this car from an RDC-3 to RDC-5 9305.

VIA rebuilt it to RDC-1 6148, with diaphragms added and one of the side windows eliminated.



Industrial Rail Services

Many retired VIA RDCs were acquired for rebuilding by Industrial Rail Services Inc. at Moncton, NB.

After those plans fell through, many cars could not attract buyers and were scrapped.



CN Track Evaluation Systems Car

The Track Evaluation Systems car is the last RDC owned by a Canadian freight railway.



End of the Line?

The majority of RDCs have been scrapped.

Only a few remain in service under their own power.

Some have been de-motored to operate in conventional trains.

A number have been preserved in museums across North America.



9109 at Alberta Central Railway Museum, Wetaskiwin



9069 at Exporail, Delson



VIA Rail 6133
preserved by
Rapido Trains
Inc.

Thanks to Rapido Trains Inc and John Riddell for producing the RDC Master Class I borrowed from:

- <https://rapidotrains.com/budd-rdc-master-class>
- <https://myemail.constantcontact.com/Rapido-News-65---New-Product-Information.html?soid=1101318906379&aid=QBVz1Ro9vUQ>



Thanks also to the following sources:

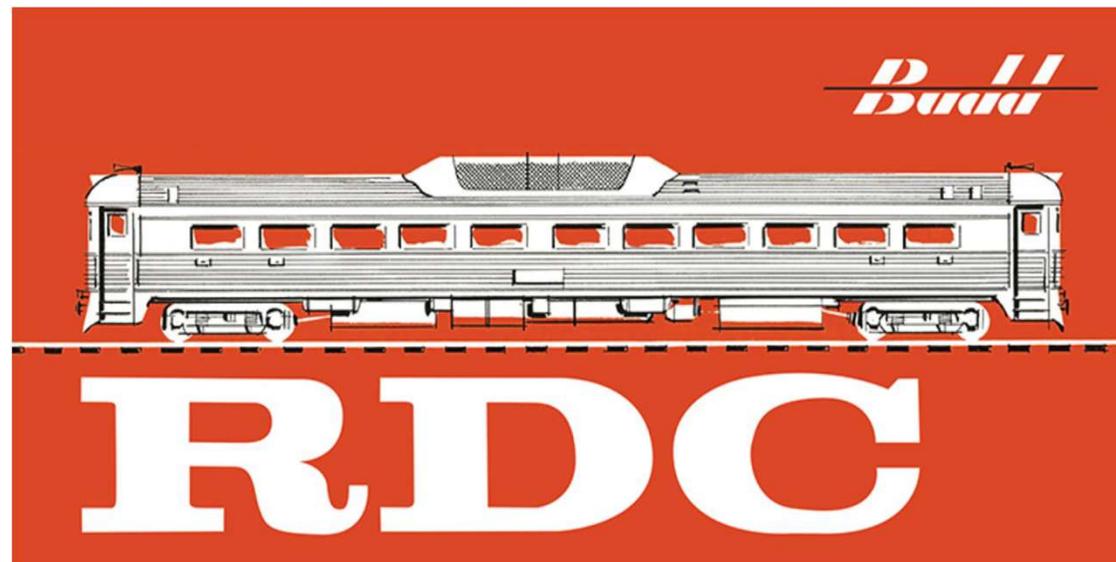
- <https://www.classicstreamliners.com/rpc-budd-rdc-1.html>
- <https://streamlinermemories.info/Budd/Budd49RDC1.pdf>
- <https://streamlinermemories.info/Budd/RDCNewLook.pdf>
- Canadian Rail No. 491, November-December 2002
- Trains Magazine, December 1968
- Self-Propelled Cars of the CNR by Anthony Clegg (Railfare DC)



Timetables showing where and when RDCs operated are available at the following sites:

- CN & CP: <https://www.dropbox.com/sh/1rriwxrhmlI3lmr/AAB5P4McatYTnsEYzbLG5kK2a?dl=0>
- VIA Rail: <https://www.dropbox.com/sh/6pzlmwfm7huiwj/AADsbVzmMEPIQyJtQjZLO7Uka?dl=0>

This is also, and finally, the end of
my presentation on the RDC.

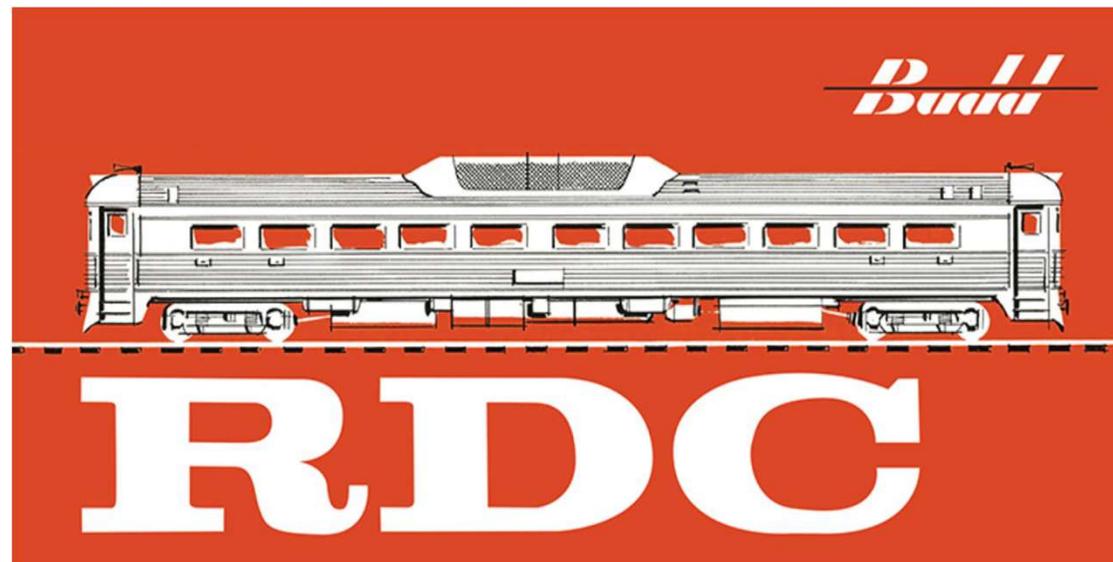


Thank you.
Questions?

Find a copy of this PowerPoint at:

<https://www.calgarymodelrailway.ca/>

> EVENTS > MINI MEETS > Mini Meet resources



Thank you.
Questions?