

Carolina Conductor



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Monthly Newsletter of the Carolina Railroad Heritage Association, Inc.

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Preserving the Past. Active in the Present. Planning for the Future.

Web Site: hubcityrrmuseum.org
Facebook: Carolina Railroad
Heritage Association

Meeting Site:
Woodmen of the World Bldg.
721 East Poinsett Street
Greer, SC 29651-6404
Third Friday of the Month at 7:00 pm

**Hub City Railroad Museum
and SOU Caboose #X3115:**
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Spartanburg, SC 29301-2330
Wednesday 10-2 and Saturday 10-2

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Articles and club news due by the
2nd Wednesday of month.

Budd Rail Diesel Cars (RDC)

The Budd Rail Diesel Car, RDC or Buddliner is a self-propelled diesel multiple unit (DMU) railcar. Between 1949 and 1962, 398 RDCs were built by the Budd Company of Philadelphia, Pennsylvania, United States. The cars were primarily adopted for passenger service in rural areas with low traffic density or in short-haul commuter service, and were less expensive to operate in this context than a traditional diesel locomotive-drawn train with coaches. The cars could be used singly or several could be coupled together in train sets and controlled from the cab of the front unit. The RDC was one of the few DMU trains to achieve commercial success in North America. RDC trains were an early example of self-contained diesel multiple unit trains, an arrangement now in common use by railways all over the world.

The self-propelled railcar was not a new concept in North American railroading. Beginning in the 1880s railroads experimented with steam-powered railcars on branch lines, where the costs of operating a conventional steam locomotive-hauled set of cars was prohibitive. These cars failed for several reasons: the

boiler and engine were too heavy, water and fuel took up too much space, and high maintenance costs eliminated whatever advantage was gained from reducing labor costs. In the 1900s steam railcars gave way to gasoline, led by the McKen Motor Car Company, which produced 152 between 1905–1917. J. G. Brill sold over 300 "railbuses" in the 1920s. Newcomer Electro-Motive Corporation, working with the Winton Motor Carriage Company, dominated the market at the end of the 1920s but had exited it completely



Budd RDC-1.

by 1932 as the Great Depression gutted rail traffic.

The Budd Company entered the market in 1932, just as EMC exited. Heretofore Budd was primarily an automotive parts subcontractor but had pioneered working with stainless steel, including the technique of shot welding to join pieces of stainless steel. This permitted the construction of cars which were both lighter and stronger. Budd partnered

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Arrivals

The Texas Returns to Atlanta

A crowd gathered Friday, April 28, to see the grand unveiling of the American Civil War-era locomotive after a lengthy cosmetic restoration at the North Carolina Transportation Museum. The controversy, critics say, comes from the Atlanta History Center's choice of a late-19th century to early-20th century all-black appearance for the locomotive instead of its bright Civil War-era colors.

Those critics say the center is trying to erase Civil War history. History center officials counter that is not the case and that they are working with the historic fabric that is available. Officials also

say they compromised by keeping the *Texas* name on the locomotive instead of using its post-war name, *Cincinnati*.

The Great Locomotive Chase of Civil War fame, in which the *Texas* chased the stolen locomotive *General* across north Georgia, was but a few hours on one day, but the locomotive had a 50-year history on the Western & Atlantic Railroad, the Atlanta History Center's Gordon Jones told the crowd gathered to witness the debut. He pointed out that the *General* is restored to its Civil War appearance and is on display where the chase began in Kennesaw, Ga. "We've already got one locomotive

telling the story of the Great Locomotive Chase," he said. "We can utilize the *Texas* to tell a different story."

The crowd that gathered Friday at the N.C. Transportation Museum to see the engine seemed oblivious to the debate over the locomotive's presentation and grateful to see the diminutive engine restored by Steam Operations Corp., a well-established contractor that also restored Norfolk & Western 4-8-4 No. 611 at Spencer. The *Texas* posed with 611 and John and Barney Gram-



The Western & Atlantic Railroad's *Texas* locomotive on display in a new livery at the North Carolina Transportation Museum on Friday, April 28 before being shipped to Atlanta.

ling's Lehigh Coal 0-6-0T No. 126 to mark 100 years of steam history, from the 1850s to the 1950s.

The *Texas* is on display with a CSX Transportation diesel, the Franklin M. Garrett, a GP38-2 No. 2702, named for the famed Atlanta historian and Atlanta History Center icon. The locomotive returns to the Atlanta History Center on a truck Tuesday, May 2, and will be installed in a new display building, where it will be visible from the outside 24-hours a day.

Departures

Continued from Page 1 - RDC

with Michelin to construct several rubber-tired stainless steel rail cars powered by gasoline and diesel engines. These saw service with the Reading Company, Pennsylvania Railroad, and Texas and Pacific Railway. The cars were underpowered, the tires proved prone to blowouts and derailments, and the cars were unsuccessful.

Budd revived its railcar concept after Diesel engines with a suitable combination of power and weight became available in 1938, albeit



with more conventional steel wheels. In 1941 Budd built the *Prospector* for the Denver and Rio Grande Western Railroad. This was a two-car diesel multiple unit. Each car had a pair of 192 horsepower diesel engines and was capable of independent operation. The cars were constructed of stainless steel and included a mix of coach and sleeping accommodations. The design was popular with the public but undone by the difficult operating conditions on the D&RGW. It was withdrawn in July 1942, apparently another failure. However, several technical advances during the Second World War encouraged Budd to try again.

The war years saw improvements in the lightweight Detroit Diesel engines and, just as importantly, the hydraulic torque converter. Budd, which by then had produced more than 2,500 streamlined cars for various railroads, took a coach design and added a pair of 275 hp 6-cylinder Detroit Diesel Series 110 engines. Each drove an axle through a hydraulic torque converter derived from the M46 Patton tank. Budd broke with the "railbus" designs of the 1920s–1930s and used a standard 85-foot

passenger car shell. The cars could operate singly, or in multiple. The result was the RDC-1, which made its public debut at Chicago's Union Station on September 19, 1949.

Budd manufactured

five basic variants of the RDC: The **RDC-1**: an 85-ft. all-passenger coach seating 90 passengers. The **RDC-2**: an 85-ft. baggage and passenger coach configuration seating 70 passengers. The baggage area was 17 ft. long. The **RDC-3**: an 85-ft. variant with a Railway Post Office, a baggage compartment and 48 passenger seats. The **RDC-4**: a 73-ft. 10-in. variant with only the Railway Post Office and baggage area. The **RDC-9**: an 85-ft. passenger trailer seating 94, with a single 300 horsepower engine and

no control cab.

Several railroads used the designation "**RDC-5**": the Canadian Pacific Railway for RDC-2s converted to full-coach configuration and the Canadian National Railway for RDC-9s it purchased from the Boston and Maine Railroad.

In 1956, Budd introduced a new version of the RDC, with several improvements. The new cars had more powerful versions of the Detroit Diesel 6-110 engines, each of which produced 300 horsepower instead of 275 horsepower. They also featured higher capacity air conditioning and more comfortable seating. The appearance changed slightly as well: the side fluting continued around to the front of the car and the front-facing windows were smaller.

The clear majority of RDCs were owned and operated by railroads in the United States. They



could be found on branch lines, short-haul intercity routes, commuter routes, and even long-distance trains. The Western Pacific Railroad used a pair of RDC-2s to operate the *Zephyrette*, a supplement to the *California Zephyr*. The two cars ran between Oakland, Califor-

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Manifest

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nia and Salt Lake City, Utah, 924 miles, three days a week. Examples of shorter intercity services were the Chicago, Rock Island and Pacific Railroad's *Choctaw Rocket* and the Baltimore and Ohio Railroad's *Daylight Speedliner*. The latter ran between Pittsburgh and Philadelphia and included full dining service. A notable example of the RDC's flexi-



Budd NYNH&H custom built "Roger Williams" RDC car.

bility occurred on the Pennsylvania-Reading Seashore Lines, where a single train would depart Camden, New Jersey and split into multiple trains to serve different destinations on the Atlantic coast.

The largest RDC fleets were in the Northeast United States. The New York, New Haven and Hartford Railroad acquired 40 RDCs, which it called "Shoreliners", in 1952-53. By 1955 these accounted for 65% of the New Haven's passenger routes. This achievement was eclipsed by the Boston and Maine Railroad, whose fleet grew to 108 by 1958. The B&M's RDCs operated 90% of the company's passenger routes, including its extensive com-

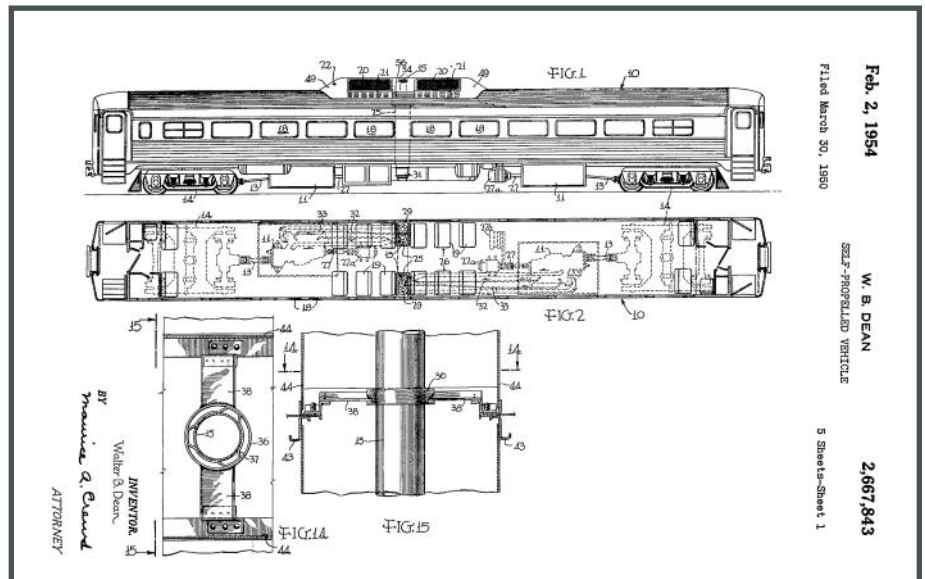
muter operations around Boston, Massachusetts.

The results in commuter service outside the B&M were mixed. Budd had not designed the RDC for commuter service and discouraged operators from using it to haul coaches. The Long Island Rail Road and Chicago and North Western Railway, which had extensive networks in Long Island and Chicago, respectively, evaluated the RDC but made few orders. Conversely, the Reading Company's 12 RDC-1s lasted on the Philadelphia-Reading and Philadelphia-Bethlehem routes well into the SEPTA era.

For several railroads the RDCs, because of their low overall cost and operational flexibility, were the last passenger trains in operation. Examples include the Duluth,

Missabe, and Iron Range Railway, the Duluth, South Shore and Atlantic Railway, the Lehigh Valley Railroad, and the Northwestern Pacific Railroad, where RDC service survived until the formation of Amtrak in 1971.

Many RDCs remained in service throughout the 1970s and 1980s. Amtrak acquired 24, mostly for use in Connecticut. The Massachusetts Bay Transportation Authority acquired the B&M's fleet and continued operating them until 1985. The Alaska Railroad acquired five RDCs, three from SEPTA and two from Amtrak between 1984-1986. These were all sold or out of service by 2009. Portland, Oregon's TriMet acquired two of these for use on its Westside Express Service. Trinity Railway Express acquired thirteen RDCs from Via Rail in 1993 for use on commuter service between Dallas and Fort Worth, Texas. The Denton County Transportation Authority leased several for A-train service.



Rare Mileage

Boston & Maine RDC Car Memories By Steve Baker

Some memories of my misspent youth: my parents moved to Concord, Massachusetts in 1950, two years before I was born. My dad worked in Boston, and commuted by rail most every day, until he re-

tired in the 1980's. As we only had one car (didn't need two), Mom and us kids would go to the train station every evening to pick Dad up. We knew the train was coming when the crossing gate bells started clanging, and the lights were flashing. There were usually 3 or 4 cars (they were never referred to as an RDC). The ground would shake, and the train bell clanged as the train came to a stop. The conductors would raise the

platform, allowing access to the stairs. The stream of men in suits, carrying briefcases filled the station platform, as they looked for their family picking them up. Before Dad was settled in the driver's seat, the conductors would lower the car platform, close the door, and the train would head west, toward Acton, MA, the terminus of the Fitchburg Division commuter trains.

The Boston & Maine Railroad owned



109 of the 404 RDCs manufactured by the Budd Company. Commuter trains departed and arrived in Boston, at North Station, and had 12 platforms (if I remember correctly). Mom would sometimes take us in to Boston to see Dad, and shop at Jordan Marsh, the big department store (before suburban malls). I was fascinated by the hubbub at North Station, streams of people, trains leaving and soon another train would arrive to fill the empty track. The

Continued on Page 6 - B&M RDC

Marker Lights



Continued from Page 5 - B&M RDC

memories of the persistent low hum of the diesel engines, the smell of exhaust, the conductor's calling "All Aboard", and the slam of the car platform are still with me.

As a teenager, I would take the train in to Boston on school holidays. I'd walk from North Station to Dad's office, heading up Tremont Street, and always stop at my favorite store, Eric Fuch's Train Store. There were always various brass HO locomotives in the window, and a Shay locomotive would always catch my eye. My lawn mowing money never accumulated enough to be able to buy one, but I'd usually buy something for my home HO layout, such as street lights, a freight car, or building.

The B&M tracks were adjacent to Walden Pond, and very close to the replica cabin of Henry Thoreau. Local legend states that Thoreau would pilfer potatoes from the railroad worker supplies, another way he was "self-sustaining". My friends and I would explore the area around Walden Pond, crossing the tracks and looking carefully for the Budd cars. They were very quiet running along the track. The engineer would blow the horn if we were near the tracks, just to make sure we knew to get clear.

The Budd cars never stopped moving for very long. There were controls for the

engineer at both ends of each car. I remember once seeing the engineer walking from the now back end of the train, to the front, with his throttle lever in hand. He would install it and be ready to depart. Passengers would always board and leave at the back end of the car. If there were multiple cars, you could walk through to the next car, while the train was stopped. There were no

diaphragms, just a stainless-steel walkway, with chains on each side.



Wanted—Articles for the Carolina Conductor

Submit an article of 200 words or more with some photos and captions and see them in print. Every one of us has some unique railroad experience that would make interesting reading for our membership. With Jim Sheppard's passing your editor needs more contributions of local railway history and news.



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