

# 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](http://hubcityrrmuseum.org)

**Facebook:** Carolina Railroad Heritage Association & Hub City RR Museum

### Meeting Site:

Fountain Inn Presbyterian Church  
307 North Main Street  
Fountain Inn, SC 29644  
Third Friday of the Month at 7:00 p.m.

### Hub City Railroad Museum and SOU Rwy Caboose #X3115:

Spartanburg Amtrak Station  
298 Magnolia Street  
Spartanburg, SC 29301-2330  
Wednesday 10-2 & Saturday 10-2

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Articles can be submitted anytime.

# Happy Holidays





## T'was the Night!

T'was the night before Christmas, and all through my pike,  
 Not a steamer was stirring, not even a Mike.  
 My yard tracks invitingly empty and bare,  
 In hopes that St. Nicolas soon would be there.  
 The diesels were nestled all snug in their sheds,  
 While visions of DCC danced in their Heads.  
 While I, in my blue and white engineers cap,  
 Had just settled down for a long winter's nap.

When down in the train room, there was such a clatter,  
 I sprang from my bed to see what was the matter.  
 Away to the basement I fly like an Ace,  
 Tripper over the cat and fell flat on my face.  
 I stifled a curse meant for Chessie the cat,  
 And I muttered to no one, "I meant to do that."  
 When what to my wondering eyes should appear,  
 But a Large-Scale sleigh and eight tiny reindeer.

With an engineer driving, so lively and quick,  
 I knew in a moment it must be Saint Nick.  
 More rapid than GG-1's, onward they came,  
 And he blew a steam whistle and called them by name:  
 "On Weaver! On Overland, Bachmann, and Walthers!  
 On Atlas, American Flyer, Lionel and others!  
 To the top of the mountains of Hydrocal plaster,  
 Now dash away, dash away, dash away faster!"

As dry leaves that behind a new Genesis fly,  
 When they meet with an obstacle, mount to the sky,  
 So in through a window the coursers they flew  
 With the sleigh full of trains, and Saint Nicholas too.  
 And then, on my roundhouse, I saw on the roof  
 The prints in the dust of each Large-Cale hoof.

As I drew a dep breath, and was turning around,  
 From beneath the benchwork, Saint Nick came with a  
 bound.

He was dressed like an engineer from head to foot,  
 And his clothes had that fine smell of ashes and soot.  
 A bundle of trains he had flung on his back,  
 And he looked like a peddler just opening his pack.

His eyes – just like marker lights! Dimples so merry!  
 His cheeks lake a Warbonnet, nose like a cherry!  
 His droll little mouth was drawn up like a bow,  
 And his beard was so white, it would please Phoebe Snow.

He puffed on a pipe as he refilled its bowl,  
 And the smoke, it smelled just like bituminous coal.  
 He had a broad face and a belly, I found,  
 That shook like a tank car with wheels out of round.

He was chubby and plump, and I wanted to shout,  
 "Yes! The man's got a route the UP can't buy out!"  
 A wink of his eye as he passed near the door,  
 Soon gave me to know I'd have freight cars galore.

He spoke not a word, but went straight to work,  
 He filled my yard tracks; then turned with a jerk,  
 And leaving an airbrush he'd found on eBay,  
 And giving a nod, he returned to the sleigh.

He pumped up the brakes, blew two blasts on the whistle,  
 And away they all flew like down of a thistle.  
 But I heard him exclaim, ere he drove out of sight,  
 "Happy Christmas to all! Keep them rolling! Good night.



### 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. Your editor always needs more contributions of railway history and news.

# Diesel Hydraulic Locomotives

This is part one of a two part series.

## Baldwin RP-210

The Baldwin RP-210 was a streamlined 1,000 hp locomotive built in 1956 by Baldwin-Lima-Hamilton, specifically to operate with the experimental, all-aluminum *Train-X* coaches that the Pullman-Standard Car Manufacturing Company built. The model represented Baldwin's attempted entry into the lightweight passenger locomotive market, but only three of the low-slung diesel-hydraulic units were produced. The first was built for the New York Central Railroad to power their Ohio *Xplorer* train between Cleveland, Columbus, and Cincinnati, and a pair was purchased by the New York, New Haven and Hartford Railroad to double-end their *Dan'l Webster*, running between New York City and Boston.

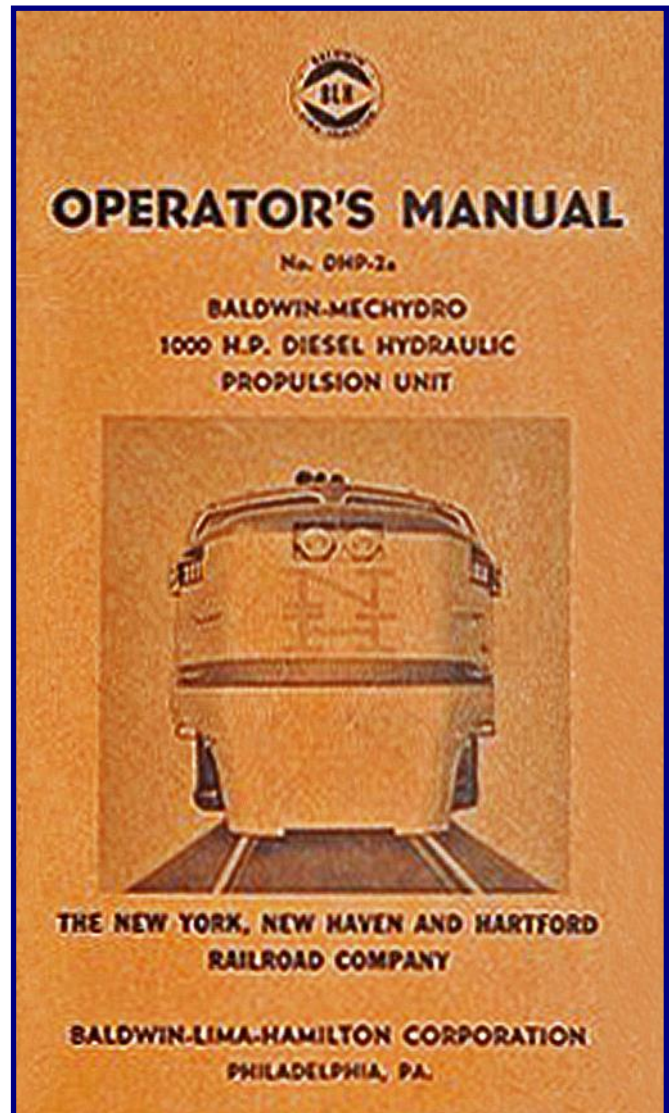
The New Haven's RP-210s, with their three independent power systems, were among the most complex railroad locomotives in America. They featured a German prime mover with a hydraulic transmission, an auxiliary-diesel and generator for on-train power, and two externally energized electric traction motors. The New York Central requested a booster unit, but none were built. The unique RP-210 was the last locomotive design to bear the BLH name. Along with the lightweight trains it powered, the RP-210 was unsuccessful in achieving stated goals and its service life was short. Baldwin-Lima-Hamilton expected to sell more to the New Haven but NH went with 60 FL9 locomotives from EMD, which proved to be everything the RP-210 was not.

## Mechanical

The New Haven and New York Central locomotives were close sisters but not physical or mechanical twins. The most obvious difference was the traditional Baldwin shark nose front to be found on the

New York Central machine. The three 99 ton units measured 58 ft 9 in long by 10 ft 6 in wide by 11 ft 0 in high, and were configured in a B-2 wheel arrangement, with only the first two axles diesel-powered and geared for 120 mph.

The RP-210's twelve-cylinder 1,000 horsepower German Maybach MD-655 main diesel engine was mounted rigidly to the Meko-dron transmission (renamed *Meko-dro* by Baldwin) on the locomotive's front truck. An auxiliary Maybach engine—turbocharged 8-cylinder MD-440 hp on the NYC unit,



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and turbo-charged 6-cylinder MD-330 hp on the New Haven units—powered the locomotives' accessories and a 480-volt generator to provide head-end power for train lighting, air-conditioning, and other ancillary loads.

Two small 150-hp (110 kW) electric-traction motors were also fitted to each New Haven locomotive. These were to draw their 660-Volt DC power from the New York Central's Third Rail (3rd-rail) system, when moving the train through the final few miles of the Park Avenue Tunnel (railroad) into New York City's Grand Central Terminal. As the track speed there is limited to 35 mph or less, the small traction motors at the front and rear of the lightweight train (a combined 600-hp) were considered adequate.

Railroad. The final 3 miles of this route was through the railroad's Park Avenue tunnel into Grand Central Terminal. Here the RP-210 locomotive was required to shut down its diesel engine and utilize electric traction motors.

To meet the need for dual-powered operation, the New Haven's Bronx-based Van Nest electrical shops initially fitted the Baldwin units with one third-rail contact-shoe per side, bolted to a reinforced journal box bracket on the lead axle of the locomotive's rear truck. This placement was necessitated by the unusually wide gap between the axles on the locomotive's front truck in the diesel-hydraulic design.

However, experience had shown that a locomotive required two power collection shoes per side, as widely spaced as possible. This allowed for one of



### Operational

The Pullman-Standard Car Manufacturing Company delivered the *Dan'l Webster* to the New Haven Railroad in early October 1956. The New Haven then began test runs on its Shoreline Route between Boston and New York. The last 12.8 miles of the west-bound trip saw trains passing through the third-rail electrified Harlem Division of the New York Central

them to fail, and also limited the possibility that (if the train was suddenly forced to stop) the locomotive's contact-shoe might be short of the next section of energized 3rd-rail. The reduced power of the RP-210's small traction motors (300-hp), having only the front or rear locomotive unit of the *Dan'l Webster* positioned to draw 3rd-rail power would have made it difficult to accelerate the train (approximately 390 tons with passengers) from a

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standing stop potentially making it necessary to start the RP-210 diesel engine to move it to the next section of available trackside power and potentially alienating passengers with the exhaust fumes.

The Van Nest engineers and mechanics therefore scrambled to design a full-length support bracket for the RP-210's lead truck and attached an unconventional contact-shoe assembly to it. They completed their work just before the pre-inaugural press run of the train, scheduled for January 7, 1956, with regular service to commence the following day. The electrical shop supervisors advised against putting the new 3rd-rail shoes into service without proper testing but were overruled by a superior.

On January 7, the *Dan'l Webster* left Boston with New Haven president, George Alpert, and about 225 reporters, promoters, politicians, and railroad managers aboard for the pressrun. Things went well enough until the train merged from New Haven's track #1 to New York Central's track #2, opposite JO tower at Woodlawn Junction in the North Bronx. There is a contact-shoe on the aft RP-210 unit misaligned with the underside of the 3rd-rail, as it passed through the switch-point. The damaged contact scraped along the energized rail, creating a ground arc of electricity which set the locomotive's truck ablaze and began to melt away the aluminum side-skirting above it.

The train then made an emergency stop on the



southbound express track at Woodlawn station. New York Police and Fire Department units were called to the scene and mainline service was disrupted for two hours. Minus the rear RP-210 locomotive and the last coach (which could not be detached, due to fire damage), the rest of the *Dan'l Webster* eventually proceeded on to Grand Central in New York City.

While being towed back to Van Nest shops by a switcher engine, the lightweight coach attached to the damaged locomotive derailed near Pelham station in Westchester County, resulting in an additional four-hour delay for evening commuters. On January 21, *Time* magazine crowned the public relations fiasco with a national news story titled, "The Devil & Dan'l Webster".

The lightweight train's inaugural service run was postponed until March 25, and the RP-210 units underwent further modifications to their 3rd-rail power contacts. A larger and more traditional mechanism, which the New Haven had regularly fastened to the journal boxes of their electric locomotives, was modified to fit the front and rear trucks. Winter testing saw some complications due to snow and icing, but this was not unexpected with 3rd-rail operations and could be viewed as abating with a change of season.

One more electric traction challenge remained. Between 47th and 59th Streets, the complexity of Grand Central's roadbed switching did not allow for an unbroken length of trackside 3rd-rail. So, when the electrification was designed in 1905, an energized overhead rail was put in place to fill these power gaps. All New Haven and New York Central electric locomotives operating into the terminal were equipped with a small spring-tension roof-pantograph, mounted on a telescoping pole which extended to the overhead power supply.

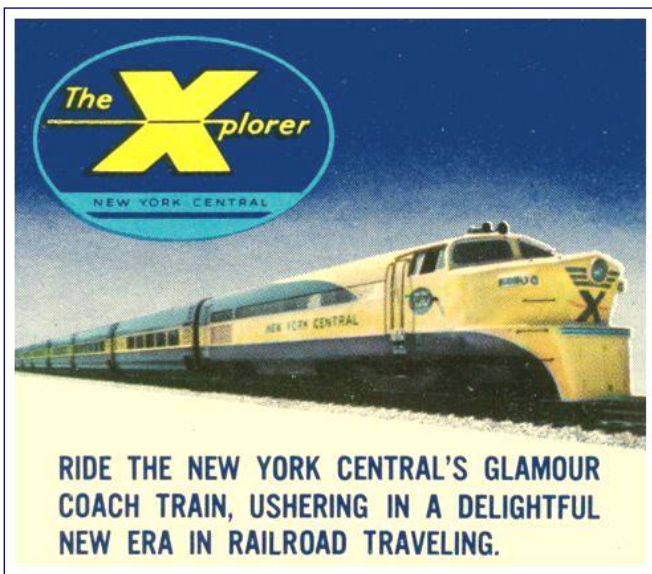
Standing only 11 feet tall (about 2 feet shorter than average), the low-slung Baldwin locomotives again presented a problem not previously encountered. The traditional roof-mounted pantograph could not telescope far enough to reach the overhead 660-volt DC power rail. New Haven's Van Nest

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engineers realized that a small diamond-style pantograph (transport) would be needed to attain the required height. They found their solution perched atop Boston's Blue Line (MBTA) *Revere Extension* subway cars.

The New York Central's *Xplorer* began a system-wide promotional tour on June 3, 1956, which included exhibition at New York's Grand Central Terminal. The train entered revenue service on July 15, 1956, as the *Ohio Explorer*, between Cleveland and Cincinnati. It continued on the route until August 17, 1957, when it was demoted to commutation runs between Chicago, Illinois, and Elkhart, Indiana, as trains #741 and #210. In late 1958, it was finally withdrawn from operation. The New Haven's *Dan'l Webster* lasted less than 15 months in service, from March 25, 1957, until June 5, 1958.



Both trains struggled with poor riding qualities and numerous mechanical issues, including transmission overheating in the Maybach diesel-hydraulic powertrain. Road mechanics were unfamiliar with the foreign prime mover, and reported having to forage for metric hardware components at local Volkswagen dealerships. The Maybach maintenance-manuals supplied for the diesel engines were only available in German.

At the New York Central's Collinwood Shops in Cleveland, where the RP-210 and its train became frequent visitors, maintenance crews first dubbed the new equipment, *Mighty Mouse*, for its relatively diminutive stature, and the whiskers-and-mouth effect suggested by the logo on the locomotive's shark-nose front. The railroad's new lightweight re-



The ill fated New York Central Xplorer trainset.



sponse to passenger service woes appeared to fit the Terrytoons character's motto, "*Here I come to save the day!*" However, numerous mechanical frustrations soon led the company's workers to re-label the train's diesel-hydraulic locomotive the *Xploder*.

On the New Haven, engine troubles were compounded by continuing difficulties in positioning and maintaining the 3rd-rail contacts. This resulted in the *Dan'l Webster* being shifted to the railroad's non-electrified Springfield Route (New Haven-Hartford-Springfield) as the winter of 1958 approached.

Baldwin-Lima-Hamilton delivered the RP-210s to the New Haven Railroad a month before General Motor's Electro-Motive Diesel (EMD) division in Illinois completed the first production model of the EMD FL-9 Electric-Diesel-Electric-Road loco-

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tive (EDER in New Haven terminology). Despite this, the New Haven classified the GM EMD unit as EDER-5 on the railroad's motive power roster, while it designated the earlier RP-210 as EDER-6.

The FL-9 would prove to be everything that the RP-210 was not. Over the next four years, the New Haven took delivery of sixty units. The railroad retired the last of these from mainline operations in 2009, after a half-century of service.

### Disposition

The New York Central's Ohio *Xplorer* train and its RP-210 diesel sat inactive until June 1963, when they were sold to *Jones Tours*, a subsidiary of the Pickens Railway, a Class-3 short-line in South Carolina, for use in passenger excursion service. The coaches and power units of the *Dan'l Webster* were moved to Cedar Hill Yards in East New Haven and parked aside the yard office building in the dead motor storage section, adjacent to the old 44-stall roundhouse. There they languished until August 24, 1964, when they were hauled away to join their New York Central cousin in this southern rail-tour enterprise.



The arrival of the *Dan'l Webster*, with its twin RP-210 diesels, represented both an opportunity for tour expansion and needed spare parts. Jones Tours purchased the trains for little more than their scrap value (the original cost of the New Haven set had been \$1,332,000.), and partially refurbished them at Pickens Railway's newly established car rebuilding plant on the property.

The Jones Tours *Xplorers* were hauled in passenger excursions, mostly between Charlotte, North Car-

olina, and Atlanta, Georgia, but ranged as far as Alabama and Florida. Pickens had a direct connection to the mainline at Easley, and to Seaboard Air Line Railroad, via the adjacent Greenville and Northern Railway.

The train was pulled by a locomotive of its Class-1 hosts (on Seaboard, usually an EMD GP-9), with in-train electricity provided by the auxiliary diesel-powered generator on board the Baldwin unit. The diesel-hydraulic prime-movers of the RP-210s remained operational for short trips over the Pickens, and the Greenville and Northern.

In 1967, *Jones Tours* (named after Pickens Railway's owner, James T. Jones of North Carolina) ended its rail-excursion service and parked both trains on a siding of the Greenville and Northern at Travelers Rest, South Carolina. From there, they were moved to the scrap yard in 1970.

Alan R. Cripe, who played a major role in the engi-



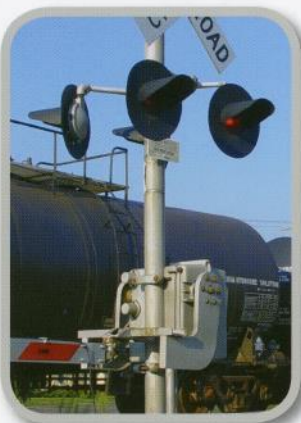
The *Xplorer* sitting in the weeds near Travelers rest.

neering development of *Train-X* under the auspices of the Chesapeake & Ohio Railroad in the early-1950s, applied for inventor's patents covering some of the technology used in its design (January 10, 1956). Cripe later involved the Jones Tours train sets in evaluation tests for the development of his UAC TurboTrain during the mid-1960s. Unlike the *Train-X* coaches, the gas-turbine powered TurboTrain utilized Cripe's car-tilting mechanics, for which he also sought a patent (May 11, 1966). These patents were granted in 1960 and 1969, respectively.

# Operation Lifesaver

## Railroad Trespassing

- **Never** walk, run, play or take pictures on the railroad right-of-way. If you are on or near the tracks, you are trespassing on private property and breaking the law.
- **Never** attempt to outrun an approaching train. It can take a train a mile or more to stop.
- **If** you're standing on the train tracks, you may not hear or feel an oncoming train in time to get away safely.
- **Only** cross the tracks at designated public crossings.
- **For** more safety tips, visit [oli.org](http://oli.org)

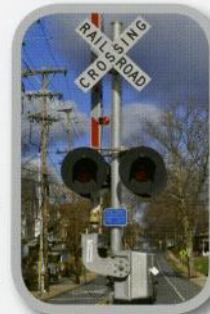


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## Grade Crossing Safety Tips

- **Never** drive or walk around lowered grade crossing gates.
- **Never** attempt to outrun an approaching train.
- **Never** stop your vehicle on a grade crossing waiting for traffic to move.
- **Never** begin to drive across the tracks unless you can get all the way across.
- **Always** call the Emergency Notification System (ENS) number 24 hours a day to report problems or obstructions at the crossing. Look for the number on the blue sign near the crossing or on the crossbuck.
- **Always** remember a train can take a mile or more to stop.
- **Always** know that the average train is three feet wider than the track on each side.
- **Always** slow down and stop your vehicle prior to train tracks when lights begin to flash.



Put the emergency telephone number for all the local railroads into your phone so you can call from anywhere.



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