Carolina Conductor

Volume 4 Number 3 **Monthly Newsletter of the Carolina Railroad Heritage Association, Inc.** March 2017

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

Web Site:
hubcityrrmuseum.org

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

Mailing Address:
Suite #129
2123 Old Spartanburg Road
Greer, South Carolina 29650-2704

Editor:
Bruce Gathman—
shaygearhead@bellsouth.net
Articles and club news due by the 2nd Wednesday of month.

Union Pacific's Double Diesels

By: John Oxlade, Salfords, Surrey, UK

Although the Union Pacific's gas turbines were considered a technical success, the rising price of the special bunker C fuel they used in the 1960s eventually made them less cost effective compared to standard diesel locomotives.

In the early 1960s the UP approached the major locomotive builders, GM, GE and ALCO, to ask them if they could offer 3 locomotive sets with a total of approx. 15,000hp. Now, UP's motive power policy was essentially "bigger is better" and the 3 manufacturers came back with custom designed locos to meet their needs. All 3 of their offerings consisted of a long chassis supporting what was essentially 2 of their "standard" locos.

GM offered UP a D-trucked cabless booster that was originally intended to be run with a normal loco (with a cab) in control. GM envisioned the new DD35 running between a pair of GP35s and produced a GP35, DD35, DD35, GP35 demonstrator set in a smart red and white livery. Although designed to UP's specific requirements the demonstrators were shown to several other roads, though only the UP and Southern Pacific bought any DD35s. The UP eventually bought all the demonstrators (the 2 GP35s and 2 DD35s). Although intended to run with GP35s, there was no reason they could not be run with any other loco in control.

The DD35 was originally intended to be built only as a "B" unit and the hood is virtually identical to that of a GP35 from the cab back, two of these placed on one chassis with the radiators towards the center. After approx. a year, UP approached GM to ask for a version of the DD35 with a cab. Although mechanically very similar, the hood of a DD35A had flared radiators in

EMD DD35 locomotives.

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Arrivals

In a hearing before the Senate Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security, Amtrak President and CEO Wick Moorman called for a new era of investment in Amtrak's infrastructure, fleet, and stations, which are critical to the operations and future growth of passenger rail.

"The time is now to invest in our aging assets," Moorman testified. "More than ever, our nation and the traveling public rely on Amtrak for mobility, but the future of Amtrak depends on whether we can renew the cars, locomotives, bridges, tunnels, stations, and other infrastructure that allows us to meet these growing demands."

Moorman noted that in fiscal year 2016 Amtrak had record ridership of more than 31 million passengers and ticket revenues of $2.2 billion. "I'm certain that we can get even better by relentlessly improving our safety culture, modernizing and upgrading our products and strengthening our operational efficiency and project delivery." Moorman stressed that Amtrak's job is to deliver the services and run the network that Congress and the Administration – the principal stakeholders – believe is worth the investment.

Noting that Amtrak's list of investment needs is long, but provides considerable benefits to the traveling public and the national economy, Moorman outlined projects that warrant significant investment including: Construction of the Portal North Bridge and new Hudson Tunnels, both parts of the larger Gateway Program that will ensure that 450 daily Amtrak and NJ Transit trains can continue to serve New York City from the south; Construction of new B&P Tunnel and Susquehanna River bridge in Maryland to expand service and improve trip-time; Expansion and improvement of Chicago and Washington Union Stations to improve accessibility, expand capacity, spur local development and enhance safety; Construction of fleet of new or rebuilt diesel locomotives to support Amtrak's National Network; and Construction of track, signaling, and other improvements to remove chokepoints on host railroads or restore service in key underserved markets, like along the Gulf Coast.

Additionally, Moorman emphasized the importance of the 21 states and various commuter agencies that Amtrak partners with to provide service on corridors across the country and on the Northeast Corridor. He noted that Amtrak is focused on identifying ways to work even more collaboratively with these states and agencies on the long list of important rolling stock, infrastructure, and funding needs.

Moorman urged Congress and the Administration to consider the many ways in which the Federal government can advance intercity passenger rail service through direct investments, public-private partnerships and innovative financing, streamlining of the environmental review process, and removal of red tape.

He added that such rail infrastructure investments not only help Amtrak better serve passengers, but also stimulate job growth in construction, manufacturing, and professional services. Rail cars, locomotives, steel, concrete, machinery, signals, and track are sourced from across the nation. "Investments in these sectors can help spur the rebirth of America's passenger rail manufacturing and supply sector," he concluded.

Departures

Continued from Page 1 - *Double Diesels*

much the same way as the prototype SD40s which were built around the same time, and the later SD45. Documents from GM clearly note that the cab-less loco was called a DD35, not a DD35B. It became necessary when the "cabbed" version came out to append an "A" to the name to differentiate those with cabs.

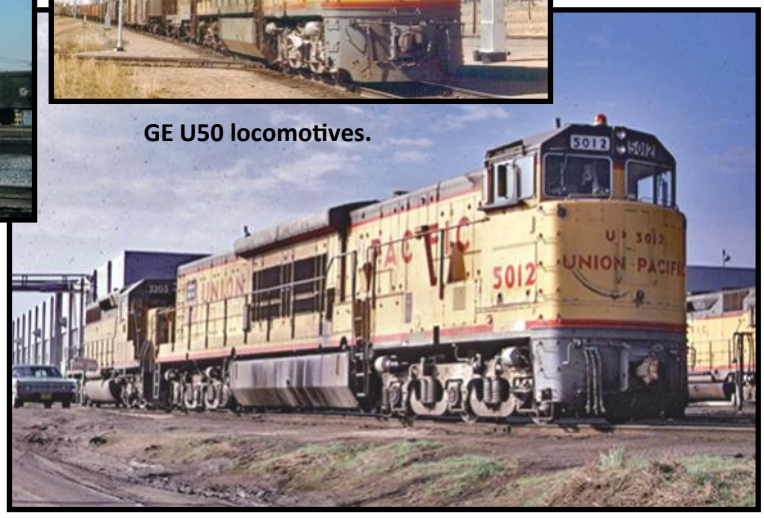
The DD35As had a standard 35 -series cab with the narrow "nose" as on contemporary GPs and SDs of the period. The new D truck was only used on the DD35 and DD35As at this point, but was also later used on the DDA40X "Centennials".

EMD DD35A locomotive.

GE's offering to UP at this time was the U50. Similar in general concept to the DD35, it was basically 2 U25Bs on one chassis with a distinctive high-mounted, blunt-nosed cab. The radiators on a U50 were however mounted on the outer ends of the hood. The U50s rode on 4 AAR type-B trucks in pairs with span-bolsters from traded-in gas turbines. The U50s B-B+B-B wheel arrangement, the blunt nose and very prominent blowers at each end of the hood make them very difficult to mistake for anything else.

Although the loco order allowed the UP to specify that the remaining locos be U25Bs, the UP was obviously satisfied enough with the first U50s as the order was filled in full. Photographic evidence confirms that it was quite common to have a U50 and a DD35 running in multiple

UP returned to GE sometime later to order a revised version of the U50 to ride on traded-in C trucks from the 8500hp gas turbines. The U50Cs had flared radiators such as those found on U36Bs and the hoods were turned around compared to a U50 such that the radiators were in the middle of the hood. The distinctive blowers from the U50 were also missing. These U50Cs were supposed to include several refinements but their downfall was in using aluminum (rather than the normal copper) wiring which tended to easily catch fire. The U50Cs were well known for suffering from electrical fires, and the entire fleet of locos enjoyed only a short service life. Some sources have used the name U50B or even U50D to differentiate between the original B-B+B-B and C-C trucked U50s, though "officially" GE only referred to them as the U50 and the later U50C.



GE U50 locomotives.

ALCO's offering was the most powerful diesel delivered up to that time in the US, and the largest loco that ALCO ever built. The Century 855 was a 5500hp loco (GM's DD35 and the GE U50s were both 5000hp) and ALCO built an A-B-A unit demonstrator set. Like the U50s, the C885s rode on 4 AAR type-B trucks with span bolsters. The Century 855s were not very reliable and these 3 locos were the only examples built.

Compared to the DD35 and U50, the C855 is a very "busy"

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Manifest

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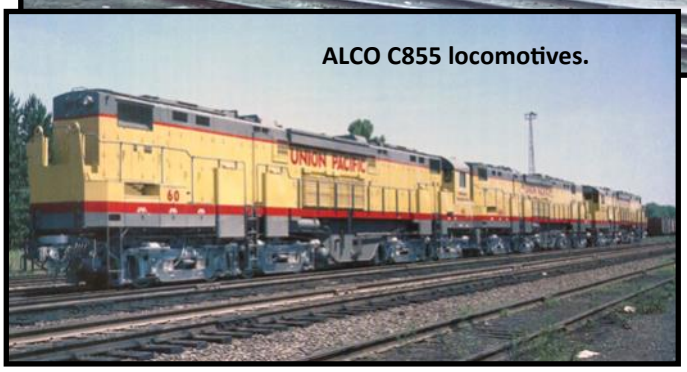


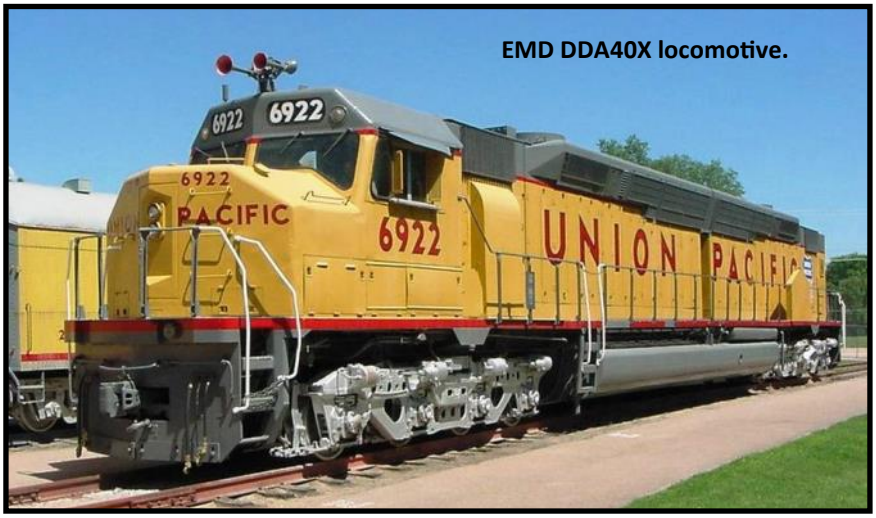
ALCO C855 locomotives.

looking loco with a design that looks as if it was cobbled together, and they had a distinctive fish-belly tank between the trucks. In comparison, the DD35 and U50 both show clean, purposeful lines. The ALCO 251 prime movers in the C855's smoked in a typical ALCO fashion, and photos frequently show them under a large plume of black exhaust. In a letter from Rory O'Connor (an ex-UP employee who worked at North Platte), he stated that the C855s were superb locos on drag freights, but that it was their mechanical reliability and the pollution they caused (when America was getting very conscious of emissions) that was their eventual downfall.

In 1968 the UP returned to GM for an improved version of the DD35A. The first example of the resulting loco was completed in record time to enable it to participate in the centenary celebrations for the driving of the Golden Spike at Promontory Point, Utah in May 1969. They were numbered in the 6900s and from that point on were frequently referred to as "Centennials".

The DDA40X had two 3300hp prime movers on a single chassis with flared radiators (as in the DD35A), but incorporates a "wide nose" cab. The name "wide cab" is misleading as the actual "cab" is always the full width of the loco, it is the short-hood that is either narrow or wide. Note: In the book "Centennials in Action", there is a copy of an EMD/GM delivery note that clearly identifies the loco as a DDA40X not DD40AX as sometimes quoted.

DDA40Xs frequently ran in pairs and often had a "fast-forty" SD40-2 between. The 8000-number series SD40-2s (fast forties) were geared to run at the same speed as the Centennials, 79mph as opposed to 69mph on other locos. This seems to have made little difference as many photographs exist of Centennials running with "other" locos, and the "fast- forties" were eventually re-geared and returned to their assigned (and reserved) number slots in the 3000 range. DDA40Xs are the only class of UP's double-diesels that have been preserved. In fact, one example is preserved by the UP and used for director's and other special trains.



EMD DDA40X locomotive.

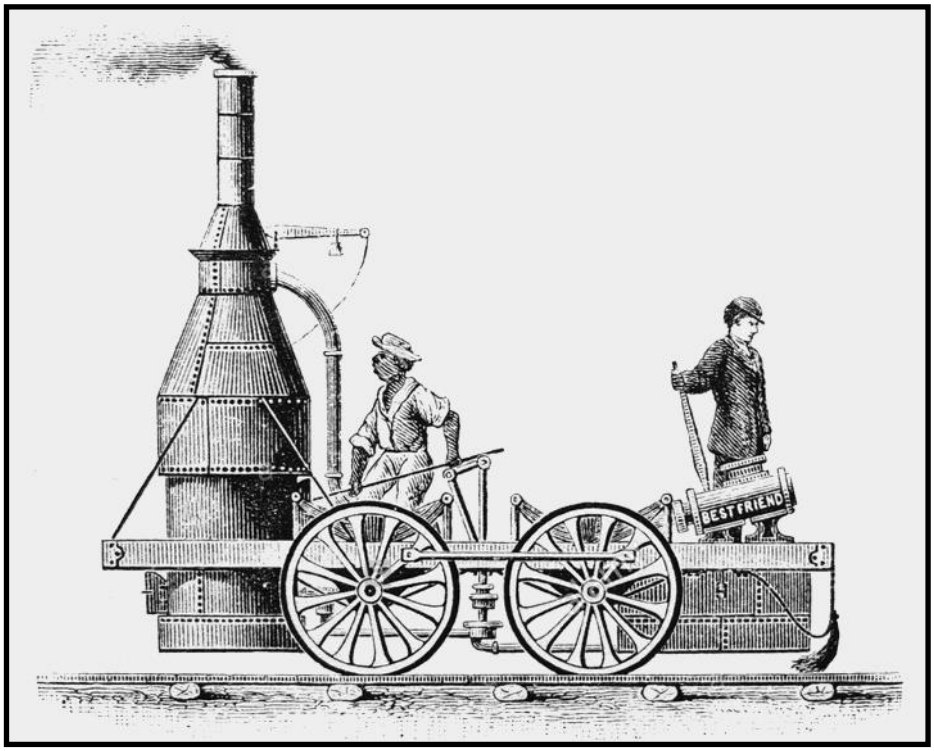
Rare Mileage

Best Friend of Charleston Locomotive

The *Best Friend of Charleston* was a steam-powered railroad locomotive. It is widely acclaimed as the first locomotive to be built entirely within the United States for revenue service. It also produced the first locomotive boiler explosion in the US.

The locomotive was built for the South Carolina Canal and Rail Road Company by the West Point Foundry of New York in 1830. Disassembled for shipment by boat to Charleston, SC, it arrived in October of that year and was unofficially named the *Best Friend of Charleston*. After its inaugural run on Christmas Day, the *Best Friend* was used in regular passenger service along a six-mile demonstration route in Charleston. For the time, this locomotive was considered one of the fastest modes of transport available, taking its passengers "on the wings of wind at the speed of fifteen to twenty-five miles per hour." The only mode of travel that was any faster was by an experienced horse and rider.

On June 17, 1831, the *Best Friend* earned a rather grisly first — it became the first locomotive in the US to suffer a boiler explosion. The blast is said to have been caused by the fireman tying down the steam pressure release valve; he had tired of listening to it whistle, so to stop the noise he closed the valve permanently (another account has the fireman placing a stout piece of lumber on the safety valve and sitting on it). Another reason may have been the fireman was trying to overpressure the boiler as the locomotive was expected to perform hard work i.e. climbing a gradient upon setting off. This was common practice and a common cause of boiler bursts until a tamper-proof safety valve was produced. The blocked valve caused the pressure within the boiler to exceed its capacity, and it exploded. The resulting blast was said to have hurled metal fragments over a wide area and killed the fireman. The locomotive's engineer Nicholas Darrell was uninjured in the explosion.



Per Centennial History of South Carolina Railroad, this wrote a new rule in the SCC&RR operating manual that engineers were to remain on station at all times, with the aid of newly hired conductors to manage cars, passengers and switches. Salvageable parts from the *Best Friend* were later used to build the *Phoenix* which seems to have run up to the time of the American Civil War. To restore passenger confidence, a flatcar piled high with protective cotton bales was placed between the locomotive and its passenger cars.

Today, an operable replica of this locomotive is in the hands of the Charleston, SC Chapter, National Railway Historical Society. This replica was built in 1928 to commemorate the centenary of the South Carolina Canal and Rail Road and was widely exhibited in the following years. On August 6, 2005, the *Best Friend* replica was lent by the City of Charleston to the Norfolk Southern Railway (NS), the

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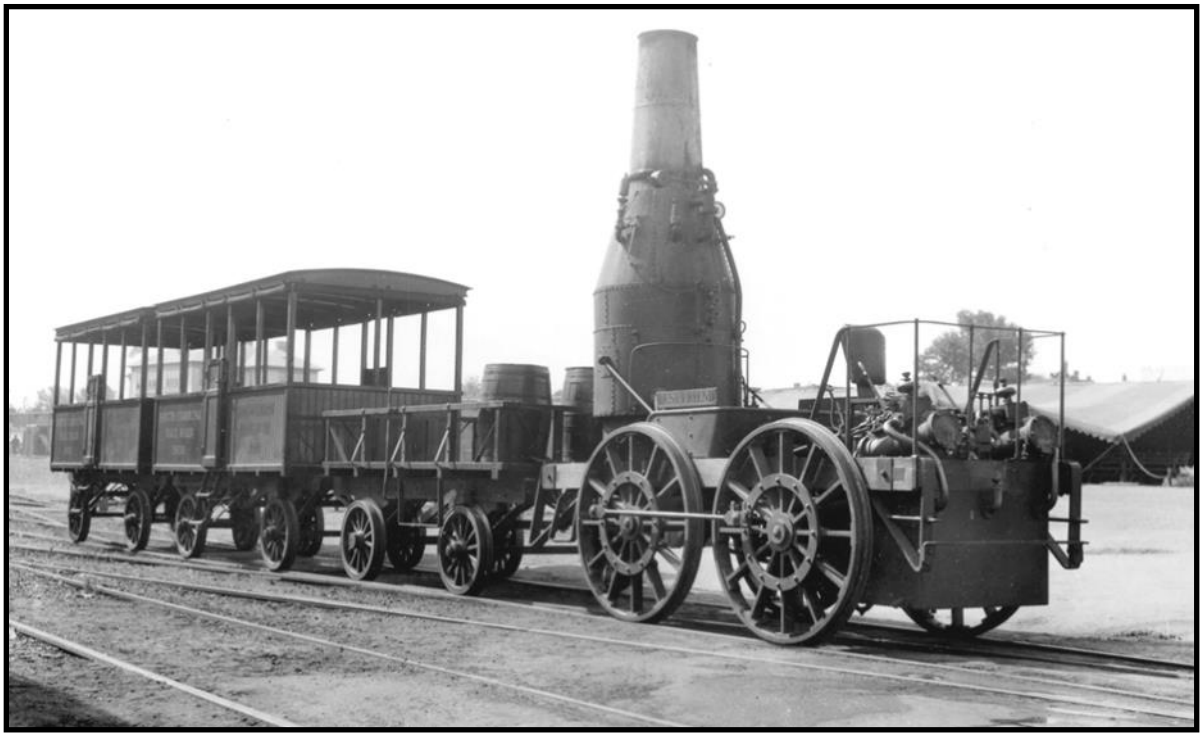
current operator of the original SCRR line, for five years. After refurbishing at NS shops in Chattanooga, NS brought the replica to New York City for display on December 12, 2005, outside the New York Stock Exchange in a ceremony commemorating 175 years of American railroad history. This replica, which was on public display at NS Atlanta headquarters at 1200 Peachtree Street in midtown Atlanta, was transported by truck in October 2013 to Charleston, SC. In May 2014, the *Best Friend of Charleston Museum* opened on 36 John Street in the Charleston Historic District behind the Charleston Visitor Center and near the Charleston Museum. Another full-size replica is on exhibit at the South Carolina State Museum, in Columbia, South Carolina.



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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