



MILESTONE OR MIS-STEP FOR EMD?

# BL2 in Review

BY STAN TRZONIEC/PHOTOS BY THE AUTHOR EXCEPT AS NOTED

**F**rom the cramped quarters of the engine room, I moved forward, up a few steps and into the cab of this weary locomotive. As I sat in the torn and frayed seat of old number 51, my mind started to wander. Looking around at the attempt to somewhat streamline the cab and its surroundings complete with a crude instrument cluster, I snapped back to reality.

Resting in the seat and looking forward over the short end of the locomotive reminded me of riding shotgun in my grandfather's old Buick. The windows were arched, weather worn and fogged in the corners. Chest high was the polished brake lever, to my left

throttle, reverse and transition levers. On the dash surrounded by peeling paint and years of grime, air gauges lay dormant. Directly above, the legendary amp meter with its critical steps highlighted in color keep the engineer alert on the pulse of the locomotive during his shift.

If this engine could only talk, I thought. The smell of old grease and fermenting diesel fuel permeated the cab and as I put my hand on the throttle I could picture myself moving down the main line looking for the next industry to lay out some cars. In addition, while all this sounds commonplace, it happened on a fall afternoon in October

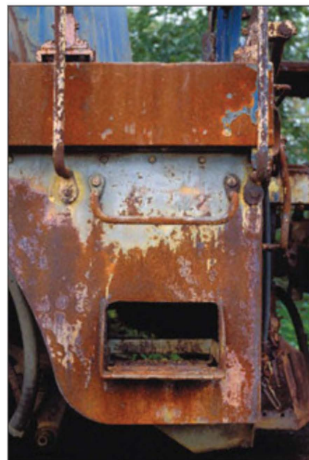
of 1989 within the confines of a very mature EMD BL2 belonging to the Bangor & Aroostook railroad sitting on the dead line near the engine house in Northern Maine Junction just outside Bangor, Maine.

In researching my latest book called *The Prime Mover*, you really cannot grasp the history or the forward movement of the diesel revolution in America until you actually embark on a lengthy project like this. While the FT, F3, F7 and F9 units paved the way for diesel locomotives in high-speed passenger and freight operations, the BL1 and BL2 were stepping stones towards developing successful road switchers

**OPPOSITE:** The years since retirement had not been kind to this Bangor & Aroostook EMD BL2 discovered on the dead line at Northern Maine Junction in 1989. For its time, all of the design features of a modern diesel were there to include m.u. connections, sealed beam headlights and a front access door for the crew to return to the cab. **ABOVE:** Still wearing its late-era Bangor & Aroostook paint, BAR 54 found a second life running excursions out of Honesdale, Pennsylvania, until these trips were suspended in 2012. PHOTO BY STEVE BARRY



**ABOVE LEFT:** A full profile from the side shows EMD's early attempt to make a dual purpose locomotive. Both sides have been somewhat relieved of sheet metal with extra windows in the cab facing rearward for switching or transfer moves. BAR 51 was discovered in repose on the dead line in 1989. **ABOVE RIGHT:** Basic steps and footboards were the hallmark of the early diesels. Take note of the inside depth of the steps allowing for plenty of footwear room even in the nastiest of winter weather conditions in northern Maine. **RIGHT:** From the rear of the engine compartment, the standard EMD 567B prime mover is indeed impressive. Quarters are tight but using a very wide angle lens makes it look like there is plenty of room for maintenance on this 1500 h.p. V16 engine. Steps lead to the cab; the back of the engineer's chair can be seen through the door.



where utility was more important than streamlined good looks.

As much as an ugly duckling as one could ask for, the BL2 was the first step in meeting the needs of a new market that was still being defined. It was no secret at the time that the popular F-units were starting to lose their popularity, as they were captive to long-haul main line service. They lacked a sufficient view to the rear, and there was no place a crew member could stand or ride while switching or setting out cars with any amount of convenience. With the introduction of the BL2 in 1948, EMD tried to answer the call by introducing a locomotive that was as comfortable in switching freight trains as it was hauling passenger runs.

To provide EMD's answer to the road switcher question, the designers started from a familiar platform as a reference point. In essence, the BL-series

was a F3 locomotive that was modified for the specific chore of light duty or frequent switching. In some ways the BL-series resembled the conventional cab unit with its full cowl body and cab. Instead of the usual "bulldog" look as made popular on the F-series, the cab on the BL was moved back allowing for a short squared-off hood. Along the flanks from the cab rearward, the carbody was downsized on its upper half and with the addition of rear windows behind the engineer and fireman or brakeman, increased visibility allowed it to be operated bi-directionally. In the beginning, a wire lattice covered the side vents along the body; later this was changed to stamped sheet metal vents or louvers except for two of the larger panels, which kept the traditional mesh covering.

Except for the venting, you could not tell any variation in the overall design

of the BL1 and BL2, as all of the differences were purely mechanical. For example, the initial prototype BL1 No. 499 was built around an air-actuated throttle, which meant it could not m.u. with other units. When this arrangement was modified to a standard electrically actuated throttle, the end result was the BL2. When the 58 production units were built, the throttle used was from the F3 series, which makes one wonder why they did not choose this in the first place.

In concert with this type of throttle, the engine of choice was the 567B. With their experience with the Winton 201-A, EMD engineers enhanced the basic design features to arrive at an engine that would be dependable, strong and be very reliable throughout its lifetime. Advancements in design were paramount with the 567B upping the ante on cylinder bore less than one full

percent from 8.0 inches to 8.5 inches. Operating speed went from 750 to 850 r.p.m. and depending upon the application, the 567B could be configured with six, eight, or 12 cylinder blocks. In the case of the BL2, this engine stretched out to 16 cylinders developing 1500 h.p. and with constant internal improvements with piston heads, main blower and the crankshaft, proved to be one of the most popular power plants of the time powering the F2, F3, F7, GP7 and the BL2 locomotives.

Nevertheless, the BL locomotive was

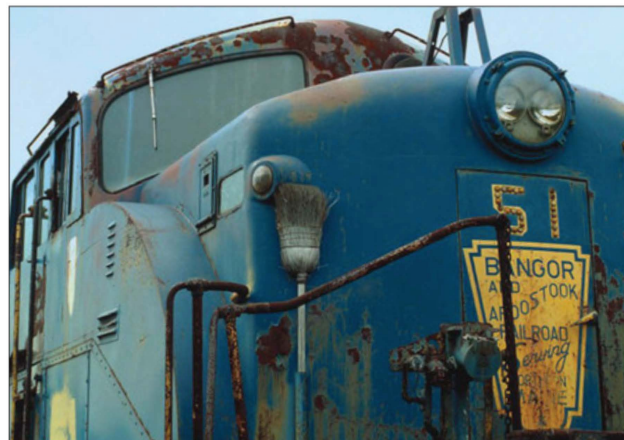
not a new idea as competitors like Alco had introduced its popular RS-1 in 1941 and the RS-2 in 1946. Alco was starting to gain ground in the field that EMD wanted to dominate with its own products. Even former steam engine manufacturer Baldwin and pump maker Fairbanks-Morse were breaking ground with new entries of their own, so although EMD was a little late the launch of the BL had made its mark.

For sure, the BL2 was trying to make not only a fashion statement, but also one of functionality. The carbody fol-

lowed the time-tested method of truss construction, similar to the F-units, which makes for a production schedule easily followed by those with prior experience on traditional cab units. With the base unit following the F's, everything from the frame and below was standard fare with a few exceptions.

Below the frame, the BL series was equipped with Blomberg trucks, which certainly eased production and stocking requirements. With 40-inch wheels and a 62:15 gear ratio, the BL's could run at 65 miles per hour while producing 56,200 lbs of tractive effort with a dry weight of around 210,000 pounds.

Even before the GP7 came to be, the BL2 was designated as a "dual purpose" locomotive and could be equipped with a steam generator for passenger use. Engines so equipped have a tall tale exhaust stack between the front windshield panes, a sign of their intended use for sure. For capacity, the steam boiler tank could hold up to 625



**LEFT:** The BL2 has many elements reminiscent of the popular F3 cab unit that preceded it, such as the unique forward window shape and cab contours. Snow brooms were standard issue for BAR locomotives, note the dedicated receptacle. **BELOW:** Looking up and out towards the front of the BL2, one takes note of the short hood through the automotive styled windshield. Horn controls are to the left; one for the front, one for the rear facing horn. Built as 551 in 1949, it was renumbered 51 in 1953, and scrapped in 1993.



gallons of water. While on the subject of volume, the BL2 had the ability of holding 1100 gallons of diesel fuel, 200 gallons of lubricating oil, 204 gallons of cooling water and 16 cubic feet of sand.

From April 1948 to May 1949, the total production run was only 59 units. This includes the original BL1 which was rebuilt and later sold to the Chicago & Eastern Illinois to follow in their numbered series from 1600 to 1602. Other customers included Bangor & Aroostook (8), Boston & Maine (4), Chesapeake & Ohio (14) (actually ordered by Pere Marquette, which became part of C&O in 1948), Chicago & Eastern Illinois (3), Monon (9), Rock Island (5), Florida East Coast (6), Missouri Pacific (8), and Western Maryland (2). While all this seemed to be a only small addition to EMD's bottom line, you have to remember this was all new to the folks at La Grange, and considering what was learned as a result, the BL project paid off in dividends.

Was the BL2 doomed from the very



**TOP:** Sold in 1986, former BAR No. 54 was the only BL2 to be painted in the late-era three-stripe design. It retained those colors throughout its career on Pennsylvania's Stourbridge Railroad excursions, seen here crossing Main Street in Honesdale. **RIGHT:** An impromptu photo session was held at Saratoga Springs, N.Y., with ex-BAR No. 52. After a brief stint on the Wisconsin & Calumet, this venerable locomotive was dragged out of mothballs and reactivated for the new Saratoga & North Creek service in 2011. Paint colors are tribute to Delaware & Hudson. **BELOW:** Half of the Western Maryland's BL2 roster is pictured below, in operation on a photo freight at the Cass Scenic Railroad in West Virginia. The other unit is preserved at the B&O Railroad Museum in Baltimore. **STEVE BARRY PHOTOS**



**ABOVE:** Saratoga & North Creek No. 52 was paired up with former Arizona & Eastern E8 during the first season of service on the North Creek Branch, making for quite the "odd couple." A second BL2 was being prepared for the S&NC, but the project was placed on the back burner while parent Iowa Pacific shuffled its motive power deck amongst its large family of railroad lines around the country. **CHRIS STILSON PHOTO** **LEFT:** Restored Monon BL2 No. 32 heads up the afternoon excursion train at the Kentucky Railway Museum in New Haven, Ky., on July 21, 2011. The Monon Railroad rostered nine of these unique diesels, and No. 32 is the only survivor of the fleet. The black-and-gold colors honor Purdue University, an Indiana institution in Monon's home territory. **CHARLES BUCCOLA PHOTO**

beginning simply because it did not have the right mix of design, engineering or mechanical features? Maybe so, but considering the contributions it made to the industry, it's hard to judge that now. Granted, it lacked full-length walkways that proved the success of the GP7/GP9 series. In talking with some of the Bangor & Aroostook rail-

roaders, they were not happy with the location of some of the heavy components within the engine compartment on the BL2 as they were hard to maintain and approach during the course of a maintenance cycle.

In the end, less than five dozen BL2s were made, which in all probability was a disappointment to many, but at the

time, few realized its influence on future generations of the diesel locomotive we see on modern railroads today. ■

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