Classic #1309 American Mallet Vintage Steam Locomotive — Full Speed Ahead

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#1309 American Mallet steam locomotive being rebuilt after sitting idle for over 60 years.

The Western Maryland Scenic Railroad met the challenges of 2016 and now looks forward to its most exciting season in history. The 2017 season has been much anticipated by staff members and railfans because the WMSR is going to offer service that no other railroad in the country can match—a ride on the classic #1309 American Mallet, a vintage steam locomotive that has been out of service for more than six decades. Make no mistake; this is a big deal for the WMSR and railroad buffs from around the world who have been hoping for the locomotive's renaissance since its arrival in Cumberland.

What makes the locomotive so special? The #1309 is one of the last steam locomotives of its type to be built in the United States. Manufactured in 1949 by Baldwin Locomotive



Works during the transition to diesel-electric power, the engine was purchased by the Chesapeake and Ohio Railway Company (C&O) for service in coal fields. A downturn in coal production coupled with the transition to diesel locomotives meant the #1309 was taken out of service within seven years, stored, and ultimately shipped to the B&O Railroad Museum in 1972. In 2014, the massive engine was formally acquired by the WMSR for restoration and operation, a process that has proven to take a great deal of time, skill, and money.

John Hankey, curator for the WMSR stated, "We were able to overcome the landslides that curtailed operations in 2016. Now we are looking forward to seeing the #1309 operating under steam for the first time in more than 60 years. It is really a new day on the Western Maryland Scenic Railroad."

John Garner, CEO, determined to get it right the first time around regarding the #1309s restoration. The locomotive underwent what is called a "return to specification" process, meaning the locomotive had to meet original specifications or superior ones before returning to operation. John Hankey uses the pins and bushings as examples of improvements on the engine. "The old bushings were egg-shaped from wear and had to be pressed

out. The new ones are case hardened and polished to a mirror finish that will reduce friction. The new ones are much better than the original equipment. In other areas we have created forced lubrication systems that will also reduce friction at critical points. The engine will be better and more reliable than it was in 1949."

The rebuild was a major undertaking. According to Hankey, "There were 300 flexible and 70 rigid bolts requiring manufacture and installation, cab and floor fabrications, new tubs and flue installations, and more. Basically, the #1309 and coal tender had to be disassembled, repaired or rebuilt, and then reassembled. This process would normally take about five years but the WMSR crew will complete the job in less than two. We estimate more than 100,000 labor



The new cab for #1309, almost ready for installation, sits alongside the old #1309 cab.

hours requiring a high degree of precision and skill on a massive scale were necessary to rebuild the engine. In many cases, craftsmen were working to one ten-thousandth of an inch tolerances. This was literally rebuilding a steam power plant on wheels."

The project proved to be a unique situation where old world technology blended with digital processes. Designed by draftsmen laboring over drawing boards equipped with pencils, the engine was labor intensive from the start. The pouring of molten steel that transformed the drawings into a living, breathing machine highlighted the best traditions of classic American manufacturing. But assembling the hundreds of components into a four square unit is something most people have no reason to reflect upon today. Think of it— how did workers square and level the massive engine parts, so they would not work against themselves!

The time tested way of squaring, called tramming, was accomplished by stretching and measuring steel wires, a time consuming process that could take weeks. By using laser technology, the WMSR crew cut the time to a couple of days. The #1309s restoration proved to be an outstanding example of traditional technology and skills being combined with state-of-the-art equipment.

An official roll-out date for the 4-6-6-2 engine has not been determined at press time. Please check the WMSR website (**wmsr.com**) or call for information.

John Garner credits community partners for seeing the railroad through difficult times in 2016. "We would like to thank our state delegation and county commissioners for putting together funding to complete the locomotive restoration and repair the landslides. Over the next year the WMSR will bring 40,000 guests to western Maryland who will support local businesses."

Guests will now have more options when boarding the train, as additional stops are planned along the Cumberland to Frostburg route. Additional summer runs will allow short layovers at the stops while year round service will offer special trains during the winter months. And more special announcements are forthcoming!

It's full speed ahead for the WMSR in 2017!



