

THE MOUNTAIN TYPE ON THE MO-PAC
by W. M. "Mike" Adams

The Mountain type locomotive (4-8-2) has a four wheel pilot truck, four pairs of coupled drivers and a two wheel trailing truck. They were designed for heavy passenger service over mountain grades and for fast freight traffic. The type was first built in April 1911 by the Richmond Locomotive Works for passenger service on the mountain grades of the Clifton Forge Division of the Chesapeake and Ohio, hence the name. There were two units on the initial order and a third delivered in 1913. They were bulky machines with 62-inch drivers and the main rod was connected to the third driver. They had cylinders with the over-square dimensions of 29x28 inches, worked on 180 lbs. steam pressure, exerted the impressive tractive effort of 58,000 lbs., and weighed in at 330,000 lbs., in working order. These engines performed beautifully in the service for which they were designed but just didn't have the speed for the more level divisions.

As near as I can determine the second user of the 4-8-2 type locomotive was the St. Louis, Iron Mountain and Southern, forerunner of the Missouri Pacific in our state. In July 1913 the Iron Mountain took delivery of seven 4-8-2's numbered 5201 through 5207. Built, as usual by the American Locomotive Company, these locomotives had 26x28 inch cylinders, 200 lbs. steam pressure, exerted 51,075 lbs. tractive force and weighed in working order 296,000 lbs. They were equipped with the then new Baker valve gear and burned soft coal. They were trim, good looking machines and were placed in passenger service on the Missouri Division between St. Louis and Poplar Bluff, Missouri. This was a heavy graded line with the two major summits, Tip Top and Gads Hill, requiring 2% plus grades to surmount. The Iron Mountain enjoyed a good passenger and mail business to and from Arkansas and Texas and the 5200's were to earn their keep on this division for several years. The late W. A. Anderson, long time Trainmaster on the Arkansas and White River divisions, was of the opinion the name of "Mountain" for the 4-8-2 type of locomotive was due to its early use on the Iron Mountain and not because of its first use on the Chessie line. In later years these engines were converted to oil and used principally between Paragould and Alexandria, Louisiana on the low grade freight line set up by President L. W. Baldwin for handling perishable trains out of Texas to East St. Louis. When I first started working for the Missouri Pacific at North Little Rock upon return from World War II, they made an occasional trip up from McGehee to North Little Rock. At a distance they greatly resembled the 1200 class 2-8-2 (Mikado) locomotives and had almost the same tractive effort. As the diesels made their inroads these engines were shuttled to the Texas Lines and served around the Kingsville area for several years before they were scrapped.

In 1914 the Seaboard Air Line took delivery of some 4-8-2's with the drivers increased to 69 inches. Shortly after this the Rock Island received the first of what was destined to become a long line of fine Mountain types. They too had 69-inch drivers. The next on the band wagon was the Norfolk and Western, another road with heavy mountain

grades to combat. This set the trend for a heavy locomotive to maintain passenger schedules on long trains of steel construction. In 1918 the United States Railroad Administration took over operation of the railroads and out of this otherwise bureaucratic chaos came the fine locomotive types designed under government auspices and designated USRA types. Among these was a so-called "light" Mountain with 27x30 cylinders, 200 lbs. pressure, 53,900 lbs. tractive effort and weighing in at 327,000 lbs. The Missouri Pacific was awarded seven of these locomotives.

Engines 5301 through 5307 were built by the American Locomotive Works and delivered in 1919. They were straight USRA and about all the Mo Pac ever did was to start the installation of Worthington SA feedwater heaters and occasionally substitute a larger tender. These engines replaced the 5200's between St. Louis and Poplar Bluff and after 1929 were used on into Little Rock and to Texarkana. They gave good service but still could not run fast enough to keep the Sunshine Special and other premier trains on time. In 1939 all seven were withdrawn from service and sent to the Sedalia, Missouri shops and completely rebuilt. The boiler was lengthened by one course and the steam pressure was raised to 225 lbs. A cast frame was installed and the drivers, of the new disc type, were increased to 75 inches and mounted on roller bearings. The cylinders were reduced to 26x30 and the tractive effort fell off to 53,720 lbs. New Delta B trailing trucks were installed and as turned out of Sedalia, they weighed 370,000 lbs. All were converted to oil and were equipped with large tenders riding on roller bearings. Re-numbered to 5321 through 5327 these locomotives had the distinction of having the highest drivers of any 4-8-2 type in the United States. Permitted to operate 90 miles per hour they handled the five hour expresses between St. Louis and Kansas City as well as the speedy "Marathon" between Kansas City and Omaha. They were good looking locomotives; the late Lucius Beebe in his book "Trains in Transition" referred to the 5321 as being "extradaordinary handsome". Upon dieselization of the Western District these racers came to the Arkansas Division. I recall riding Number 7 from Little Rock to Texarkana in 1950 with the 5324 on the head end. For some time they handled a fast merchandise train from St. Louis to North Little Rock. This was Number 69 and it was completely equipped with the famous "blue" merchandise cars of the Mo Pac and the 5321's really moved them over the road. The last regular passenger service for them was on Trains 219 and 220 between Little Rock and Memphis.

In 1921 the Missouri Pacific designed a modified USRA Mountain type with an increase in driver size from 69 to 73 inches and the addition of a Delta B cast trailing truck. Slightly heavier and faster than the USRA's these engines had 27x30 cylinders, 210 lbs. steam pressure, weighed 344,000 lbs. and exerted 53,475 lbs. tractive force. Numbered 5308 through 5316 they were used between St. Louis and Kansas City and Poplar Bluff and, after the new Baring Cross Bridge was dedicated in 1929, on to Little Rock and Texarkana. When I came to Little Rock in December 1940 they were standard heavy passenger power on the Arkansas Division. Starting in the 1930's they were equipped with the Elesco bundle type feedwater heater and basically were just an elongated 6600 class Pacific. They see-sawed back and forth from coal to oil and served out their last days working, mostly freight, all the way to New Orleans. The first one I ever saw, the 5310, handled a long

passenger extra from Kansas City to Joplin, Missouri about 1935. Too long to turn on the Joplin turntable, it was necessary to back the engine nine miles to Webb City and turn on the wye.

In 1927 the Missouri Pacific in conjunction with their old ally, the American Locomotive Company, built five enormous Mountain types which represented the highest development of the heavy passenger locomotive to that point. With 27x30 cylinders and 73 inch drivers they carried 250 lbs. steam pressure, exerted a whopping 63,665 lbs. tractive effort and weighed some 396,000 lbs. These were the famous 5335-5339 series. They were big - much larger in fact than many a later 4-8-4 type locomotive. They were fast and they were powerful. In 1930 five more engines, 5340 through 5344, were delivered, identical except for a larger, water bottom type tender. For years these beautiful locomotives were the hallmark of the Missouri Pacific out of St. Louis. They beat the Missouri Division grades down to size and kept the Sunshine Special on time for decades. During the mid and late 1930's these big bruisers handled the heavy "Missourian" between St. Louis and Kansas City and I used to see them leaving Kansas City Union Station with 16 and 18 cars and snapping along with ease. In 1943 I was returning from a visit to Carthage, Missouri and had been deposited at Newport by the White River passenger to await No. 25, The Texan, to complete the journey to Little Rock. No. 25 was about 20 minutes late that day and when it did arrive it was following the huge 5339. At this time the 5339 was burning oil. I realized this would eliminate a stop for coal at Bald Knob and figured we might go into Little Rock close to on-time. No. 25 had 11 cars that night and in one of those wartime mysteries, was carrying for the short passengers, a Nickel Plate coach. It was clean and comfortable but was not air-conditioned and the night being rather warm, the roof vents were open. We could hear the tank lid slam shut when the fireman finished taking water and then the engineer sounded off with the deep chime whistle and started the big engine moving. I believe that all the rail conscious passengers in the coach realized as soon as he got moving that we were in for a ride. The exhaust was brisk and sharp and then came the brake set-up for the restriction across the White River drawbridge. Just as soon as the bridge was crossed, out came the throttle and the exhaust rapidly became a drumming roar interspersed with wailing moans of the chime. I suppose I have ridden faster on a train - in fact I recall timing No. 8 off Gifford Hill at 95 mph with three PA's on the head end, but I have never ridden on a train when you were more aware of the high speed. The roaring exhaust was almost overpowering and the coach was permeated with the pungent smell of the oil fire - it was pure pleasure. Just 72 minutes after leaving Newport we stopped in the Little Rock depot - 83.9 miles at an average of nearly 70 miles per hour! There was no doubt in my mind or in the mind of anyone else in that coach that the 75 mph speed limit was being bandied about that night. These big babies lasted right up to complete dieselization and could handle a 30 car mail train, a 16 car Pullman train or a 125 car freight with the best of them.

You could not really call the Missouri Pacific a mountain railroad and they only had a total of 33 Mountain type locomotives. What they made up for in lack of numbers was some of the best looking, fastest and heaviest Mountain type locomotives ever built and operated in the United States.

Arkansas Railroader

4

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OUR NEXT MEETING IS SUNDAY, MARCH 12 at 2:00 p.m. in Room 305 of the Missouri Pacific Union Station, Markham and Victory Streets, Little Rock. Our program will be potluck. If you have some movies or slides you would like to share with the club, bring them along. We will have a projector for 8mm and Super 8 movies. We will also have a slide projector but you might prefer to bring your own to avoid tray problems.

PICNIC MEETING AT SCOTT SCHEDULED FOR APRIL 9. W. T. Carter & Brother 2-6-0 No. 1 and Moscow, Camden & San Augustine No. 201 (Panama Mogul) will be available for our inspection and if all goes well both will be in operation. Also on hand will be two cabooses (Graysonia, Nashville & Ashdown No. 60 and Louisiana and North West No. 214), two flatcars, a turntable, several Fairmont track speeders, a rail velocipede and our club's own railcar. The activities will start officially at 1:00 p.m. Bring your own lunch. Soft drinks and coffee will be available. The location is on Arkansas Hy. 130 about 10 miles southeast of North Little Rock. Our previous picnics have been most enjoyable. This one may well be the best yet. Make your plans now to attend.

MID-SOUTH LIVE STEAMERS TO MEET AT WHITEHALL APRIL 28-30. Off-track activities will be at the Ramada Inn in Jonesboro. On-track activities will be on the Whitehall Southern operated by Austin Barr. About fifteen to twenty operating 1½ inch scale locomotives are expected to be on hand to run over Mr. Barr's railroad which has about 3600 feet of 7½ inch gauge track.

ROCK ISLAND LINES from Bill Robbins. . . Because of a wreck at the Poteau River bridge, Rock Island trains are detouring over Kansas City Southern tracks from Howe to Poteau, Oklahoma and Frisco tracks from Poteau to Wister. . . On March 16 Rock Island crews will start making interdivisional runs under new work agreements. They will go from Little Rock to Hartshorne, Oklahoma, a distance of about 220 miles.