

# EMC SW1

## Western Pacific 501-503



By Frank Brehm

With a powerful two-cycle engine in the form of a 6-cylinder V-type configuration, the SW-1 was one of EMD's first mass produced locomotives. When purchased in 1939 Western Pacific specified a welded frame, hence the SW designation. Produced along with the SC type switchers with a cast frame the 44'-5" length would be the switcher standard until 1966. Producing 600 horsepower, the small V-6 did not fill the full length of the frame leaving room for a large sand box in front of the radiator. The exhaust stacks of these early switchers were not on the centerline of the locomotive but offset to the left. Operating at 800 RPM each engine cylinder had a bore and stroke of 8½x10" and a displacement of 567 cubic inches.

It was a habit of the builders to send new locomotives to the railroads for evaluation and testing in the hope of generating interest and purchases. When SW1 demonstrator 906 found its way to the Western Pacific for a month of trials company officials were impressed enough to order three including the 906. A lettering design was agreed on for the new switchers and two enameled medallions were sent to EMC for installation on the 502 for its official portrait by the builders' photographer. Shortly before delivery of the 502 and 503 the 906 was renumbered 501 and was lettered Western Pacific like its' two brethren. This basic black

and aluminum color scheme would last until the 1950s when the orange and silver became popular and soon adorned most of the motive power fleet.

With all gauges and controls on the left side of the cab shortly after delivery it was discovered that the fireman had relatively nothing to do except gaze out the window checking signals and switch alignment. One of the first modifications was therefore the branching of the pipe and installation of a bell ringer control on the right side of the cab for use by the fireman. Delivered with D-7A traction motors and D-4 main generators the 62:15 gearing was the standard for all freight equipment on the railroad. To assist with airflow through the radiator two cooling fans were placed behind the manually controlled shutters, which were behind the radiator. Speed of the fans was proportional to the speed of the engine. In 1954 EMD redesigned all of its switchers by incorporating the new 567C diesel engine and the V-6 600 horsepower SW600 replaced the SW1.

After finding Stockton too busy and the other yards too hilly the units settled down and spent most of their carrier in Sacramento and the Bay Area. In 1965, the diminutive units found themselves being transferred to the Sacramento Northern as numbers 401-403.

The 501 is now preserved at Portola.