

Western Pacific's Steam Locomotive Fleet - An Overview

By Phil Bronte

Comparatively speaking, the size of Western Pacific's locomotive fleet – both steam and diesel locomotives – is relatively modest in size compared to its larger neighbors, the Southern Pacific, Union Pacific, and Santa Fe railroads. The WP continues to this day to generate considerable interest within the railfan and model railroad communities. This article is intended to be an overview, rather than a detailed study of the WP's steam locomotive fleet.

When the WP was incorporated by George Gould and his associates in 1903, he arranged for the construction of the railway to be paid for largely by the Denver & Rio Grande Railroad. This resulted in the locomotives originally

built for the WP to be based on D&RG designs, which included 0-6-0, 4-6-0, and 2-8-0 wheel arrangements.

The first new locomotives for the WP were a group of twenty 2-8-0 "consolidation" type locomotives built by the Baldwin Locomotive Works in 1906 and numbered #1-20. They were used to supplant several locomotives rented from various sources for construction trains while the mainline was being constructed, as well as a small number of revenue freight trains operated prior to the completion of the mainline. WP assigned these engines to Class "C-43". The "C" stood for "Consolidation" and the "43" was for the starting tractive effort, 43,000 pounds.

As construction progressed

and the completion of the mainline grew closer, fifteen 4-6-0 "ten wheel" type locomotives arrived in 1908, built by the American Locomotive Company, commonly referred to as "ALCo". These locomotives were intended primarily for use on passenger trains, and became Class "TP-29" (ten-wheel passenger, 29,000 lbs. tractive effort) and numbered #71-85.

As construction neared completion, a second group of forty-five additional 2-8-0 locomotives were added to the roster, this time built by ALCo in 1909. They joined their Baldwin cousins in class C-43, and were numbered immediately after them, #21-65. They were similar in appearance to the Baldwin-built engines. In addition to these



WP 78 sitting in Sacramento Yard (sometime in 1948)

- Carl Allen Walker photo collection



WP 25 sitting in the Stockton Yard 4-24-1948

- Carl Allen Walker photo collection

engines, a second group of 21 ten-wheel engines were built by ALCo, near duplicates to the fifteen delivered the previous year and numbered #86-106. Switch engines were not ignored this time – a dozen 0-6-0 locomotives also arrived in 1909, also built by ALCo. These locomotives were assigned Class “S-31” (switcher, 31,000 lbs. starting tractive effort) and numbered #151-162. They were used in yard assignments from San Francisco to Wendover, Utah. Engines 151-158 were built as oil burners, with the remainder burning coal. All of the coal burning engines had been converted to oil by 1924.

In addition to these brand-new locomotives, two secondhand 4-6-0 locomotives joined the WP roster with the inclusion of the Alameda & San Joaquin Railroad in July 1903, shortly after the incorporation of the WP itself. They were built by the Richmond (Virginia) Locomotive Works in 1896 for the A&SJ – their

numbers #1 and 2, and were older than the WP itself – but not the oldest locomotive they would eventually own. They were assigned Class TF-17 and numbered #121-122, in spite of being the first locomotives WP owned.

At the time of the completion of the WP in 1909, locomotive ownership totaled 115 engines to operate the entire railroad from Salt Lake City to San Francisco. Locomotives assigned to the Western Division (Oakland to Gerlach) used oil for fuel. The Eastern Division (Gerlach to Salt Lake City) locomotives were primarily coal fired on the segment east of Winnemucca, Nevada. Both oil and coal fuel was used there, but oil was used exclusively west of that location.

Roundhouses to service and maintain these locomotives were built at crew change points. They were located at Wendover, Utah, Elko, Winnemucca, and Gerlach, Nevada, and Portola, Oroville,

Stockton and Oakland, California. A backshop (Jeffery Shops) was built adjacent to the yard at South Sacramento for heavy repairs. WP did not own any yard or locomotive maintenance facilities of its own in Salt Lake City, instead contracting with the Denver & Rio Grande to share their facilities at Roper Yard in Salt Lake City’s south side. That arrangement lasted the entire life of the WP until it was purchased by the Union Pacific. D&RG also handled all of the switching duties and no WP switch engine was ever assigned there.

The locomotive fleet remained static from this point until after the Western Pacific Railway declared bankruptcy in 1915, but the engine service facilities did not. A few small engine facilities were constructed at locations where engines were stationed for helper service and other assignments in out-of-the-way locations. A small roundhouse was built in 1909 at Knolls, Utah,

located 39 miles west of Salt Lake City to service the engine assigned to act as a helper engine for trains traversing Low Hill. When the first engine was run into the newly built roundhouse, it sank into the ground under it. According to Guy Dunscomb, it was “finally raised and recovered after much difficulty”. Further inspection determined the ground was too soft at that location to support locomotives, so the roundhouse was dismantled and never used.

In 1914, the roundhouse at Gerlach burned to the ground. A 7-stall roundhouse was built on the same site the following year, but the second roundhouse was also destroyed by fire in 1927. It was not replaced, and servicing was conducted outdoors until it was closed in 1932.

The original WP yard in Stockton was located at what was called the “Flora Street Yard”, north of the crossing of the

ATSF. A 3-stall roundhouse located there burned in 1914. It was replaced by a “temporary” roundhouse that was used until about 1925, when the WP outgrew the Flora Street location and built a replacement yard south of the ATSF crossing.

After the WP emerged from bankruptcy in 1916, several other railroads were acquired or built to increase traffic. One of these acquisitions, the Boca & Loyaltan Railroad added a few secondhand locomotives to WP’s motive power roster. Three of the B&L’s engines were added to the WP roster and the others sold or scrapped. B&L #4 began life as the Virginia & Truckee Railroad #24, who named it “Merrimac”. It was built by Baldwin in 1876 and joined the B&L in 1902. It became WP #123. It was WP’s only 2-6-0 and the sole occupant of class EF-14. This engine was scrapped in 1930.

B&L #5 was a 2-8-0 built by Baldwin in 1882 for the Cincinnati, New Orleans & Texas Pacific Railway, which became part of the Southern Railway system. It was sold to the B&L in 1905 and became WP #124, the sole occupant of Class C-23. It was used for some time on the Terminous branch and the Tidewater Southern Ry. This engine was relatively long-lived, having gone to scrap in 1949.

B&L #7 was a ten-wheeler built in 1888 for the Pittsburgh & Lake Erie Railroad by the Pittsburgh Locomotive Works. Like sister B&L #5, it too came to the B&L in 1905. It became WP #125, and the only locomotive in Class TF-21. By 1931, this engine was in need of a major overhaul. Due to an abundance of serviceable locomotives, it was set aside instead and scrapped in 1934.

In August the following year,



WP 124 sitting at Stockton Roundhouse

a pair of 1891 vintage 2-8-0 locomotives built by the Rome (New York) Locomotive Works were purchased from the D&RG, where they were D&RG #546 and 549. WP numbered them 126 and 127. The pair were assigned to Class TF-18 (126) and TF-19 (127). They were shopped and assigned to Burmester, Utah for branch line duties. Engine 126 was sold in January 1918 to the Tidewater Southern where it became TS #1. It was retired in 1946 and scrapped the following year. The 126 held the record for the shortest career as a WP locomotive.

Engine 127 was converted to use oil fuel in May 1918, and last used in late 1923. It wasn't scrapped until 1930.

In addition to adding trackage, WP also bought new locomotives. Five 2-6-6-2 mallet compound articulated locomotives were purchased from ALCo in 1917. They were numbered #201-205 and were in a new class, "M-80", for Mallet, 80,000 pounds starting tractive effort. These engines were built to use oil as fuel and were used in the Feather River Canyon between Oroville and Portola. Their arrival enabled the railroad to reduce the number of engines and crews needed to move eastbound freight trains up the canyon.

The next year, ALCo built five 2-8-2 "Mikado" (also commonly known as "Mikes") type locomotives in July 1918 for use in Nevada and Utah on the Eastern Division. They were numbered #301-305 in Class "MK-60". These engines were built to use coal as fuel.

Most of the three dozen 2-8-2s, as well as the other larger locomotives would serve their entire careers using the fuel they were built to use when constructed. Engines 301 and 303 were, however, exceptions. Late in their service lives, they were converted from coal to oil fuel in 1950 and transferred to the Western Division for the rest of their careers. Several of the 2-8-0 and 4-6-0 locomotives were converted at various times from one type of fuel to the other, probably when the engines were moved from one division to the other.

Near the end of the First World War, on July 1, 1918, the WP, along with most of the railroads in the U.S. came under the control of the United States Railroad Administration. This was practically concurrent with the arrival of locomotives #301-305 that had been ordered by WP. Later that same year, in December the U.S.R.A. assigned to WP 5 engines from a group of "light" 2-8-2s the U.S.R.A. had ordered from Baldwin. Like the 301-305, these engines were coal burners and used on the Eastern Division. WP numbered them #321-325 and assigned them to Class MK-55. These engines were not as heavy (221,500 lbs.) compared to the "heavy" Mikes #301-305 (241,500 lbs.) the WP had acquired earlier in the year. According to WP historians Guy Dunscomb & Fred Stindt, "WP did not want them". They were smaller than the Mikes WP had just received, and WP appeared to have thus far developed a preference for ALCo locomotives.

You might be wondering about now, why were the U.S.R.A. locomotives given such high numbers? Dunscomb & Stindt speculate that WP had plans, or anticipated ordering additional heavy Mikes and left numbers 306-320 vacant for those additional locomotives.

On March 1, 1920, the U.S.R.A. relinquished control of the WP back to its owners. WP had sold the unwanted #321-325 the previous month to the Wabash Railroad. In March 1920 WP purchased replacements for the light Mikes from the U.S.R.A. in the form of 5 heavy Mikes built by ALCo in June 1919 that had been assigned to the Elgin, Joliet & Eastern Railroad. These engines were also coal burners and were numbered by WP to #306-310 and assigned to the Eastern Division. They joined #301-305 in Class MK-60.

As the 1920s progressed, WP continued to purchase Mikes from ALCo. #311-315 arrived in 1921, #316-321 followed in 1923, and #322-326 in 1924. While not identical, they were very similar in appearance. Engines 311-315 were built as coal burners and spent their entire service lives as such on the Eastern Division. Engines 316-321 were built to run on oil, and they also remained so their entire service lives, running primarily between Oakland and Oroville.

Engines #322-326 were the first Mikes equipped with boosters, and were designated Class MK-60/71, designating the starting tractive effort without and with the booster. A booster is a device installed on the trailing



WP 306 in Stockton 5-30-1948

Carl Allen Walker photo collection

truck that is controlled by the engineer. It can be used from a standstill to very low speeds to turn the trailing truck into another driving wheel to provide additional tractive effort to help start heavy trains. Early in their service lives they were used between Portola and Winnemucca, and also were used frequently on passenger trains in the Feather River Canyon between Oroville and Portola. Later in their years they migrated to freight service between Oakland and Oroville.

In addition to engines 322-326, 1924 also saw the arrival of another five 2-6-6-2 mallets, #206-210. They were identical twins to their older sisters and worked alongside them in the Canyon between Oroville and Portola.

In 1921, WP completed their branch from Niles Junction to San Jose. A 4-stall roundhouse with an 80 foot turntable was built at the William Street yard in East San Jose in 1923 to service engines used on the branch.

A short respite in locomotive

acquisitions ended in 1926 with the arrival of another five Mikes from ALCo. In addition to being booster equipped, they came with larger tenders. These tenders had a water capacity of 15,000 gallons (the earlier groups of Mikes were equipped with tenders of 10,000 gallon water capacity). They spent the majority of their time on the desert between Portola and Winnemucca, but in later years were seen in a number of other locations.

The next year, WP purchased four secondhand 0-6-0 switch engines from equipment dealer United Commercial Company. These four engines had been declared surplus by the United Verde Copper Company in Arizona where they had been used in their mining operations. These engines were built by ALCo in 1915 and 1919 and became WP #163-166 and assigned to Class S-34. These engines were 7 tons heavier than the 151 class engines, and ran on coal when used by UVC, but under WP ownership they were oil burners. Dunscomb & Stindt wrote that these engines

were used frequently in Stockton for a few years in the 1930s and 1940s, and had also been seen in Portola and Wendover – but had never been sighted in Oakland, Sacramento, Oroville, Winnemucca, Elko, or Salt Lake City. Two of these engines are among the five still existing WP steam locomotives.

On the eve of the Great Depression, in May 1929, WP acquired their final group of Mikes, #332-336. They were near-duplicates of the #327-331 group, save some minor differences. They joined their older sisters running between Portola and Winnemucca.

The year 1931 brought significant changes to the Western Pacific. The “Inside Gateway”, a route from Keddie to Bieber, California to a connection with the Great Northern Railway was completed in 1931. The ten 2-6-6-2 mallets were moved from their longtime assignment in the Canyon to the “Inside Gateway” (also known as the “Highline”). A 4-stall roundhouse was built at Keddie to service the

Highline locomotives. The Great Northern built a roundhouse at Bieber to service the engines of both roads. To replace the 2-6-6-2s, WP received six 2-8-8-2 articulated locomotives from Baldwin. These engines were numbered 251-256 and given a new class, "M-137".

In 1932, the dividing point between the Western and Eastern Divisions was moved from Gerlach to Portola. The Gerlach-Portola segment was combined with the Eastern Division's First Subdivision and freight train crews began running through from Winnemucca to Portola. The Highline became the Western Division's Fourth Subdivision.

In 1936, another road's misfortune presented WP a bargain purchase of used passenger locomotives. The Florida East Coast Railway, in addition to dealing with the

Depression, fell victim to a hurricane that destroyed their line from south of Miami to Key West. A group of twenty 12-year-old ALCo-built former FEC 4-8-2 "Mountain" type locomotives were offered for sale by the Banker's Trust Company. WP purchased ten of them for \$12,500.00 each, WP's first – and only – 4-8-2 type locomotives. They were assigned Class MT-44 and numbered #171-180, and assigned to both Eastern and Western Division. All 10 were oil burning engines. With 73-inch drivers and a starting tractive effort just barely above WP's 2-8-0s, they were more runners than pullers - not at all surprising, considering they were built for FEC's water level route with a large amount of passenger train traffic. While seen occasionally on passenger trains in the Canyon, if the train was long or heavy, the 4-8-2s would run

from Oakland to Oroville where a passenger equipped Mike would take the train to Portola. At Portola an Eastern Division-assigned 4-8-2 would take the train east. They were used almost exclusively on passenger trains, though there exists a photo or two of rare occurrences when they pulled freight very late in their service lives.

As the 1930s progressed, random engines from the 1, 21, 71 and 86 classes of 2-8-0 and 4-6-0 engines that were worn out or wrecked were sent off to scrap. Two engines were scrapped in 1930, 4 more in 1934, 23 in 1937, and a final 4 in 1939. No additional engines were scrapped until after the end of the war looming on the horizon.

In 1938, the economy and traffic had improved to the point where an additional four 2-8-8-2 engines, 257-260 were built by



WP 165 sitting at Oroville Roundhouse with WP 802A

Baldwin that year. Similar, but not identical in appearance to their older sisters, they joined them pulling trains in the Canyon. The 2-8-8-2s would occasionally be seen on the Highline as well.

Also arriving in 1938 was a group of seven 4-6-6-4 "Challenger" type articulated locomotives built by ALCo. They were given numbers #401-407 and Class "M-100". These engines were set up to burn coal for their entire service lives. They were used between Salt Lake City and Elko and could pull longer trains and also run fast over the desert in Utah and Nevada. Whenever any of them needed heavy repairs, they had to be towed dead to and from Jeffery Shops due to being coal-fired.

These engines did have two occasions where they were found outside of their usual haunts.

Engine 402 appeared at the Chicago Railroad Fair in 1949, and engines 402-407 were leased to the Union Pacific in September and October 1950.

In late September and early October 1939, what probably could be considered "the beginning of the end" for WP steam locomotives took place. Electro-Motive Corporation's 600 horsepower model SW-1 diesel switching demonstrator locomotive #906 was first tested in Elko yard. Subsequent tests were made in the yards in San Francisco, Stockton, and Portola. Performance of the 906 was compared at each location with WP's steam switch engines. Performance of the 906 and comparisons had WP convinced by the end of November when WP agreed to purchase the 906 and two additional new SW-1

locomotives. 906 became WP #501, the railroad's first diesel locomotive, which today is part of the collection at the Western Pacific Museum in Portola.

In May 1940, Electro-Motive's 5400 horsepower FT locomotive #103 made a demonstration tour on the Denver & Rio Grande. Once the Rio Grande was sufficiently impressed, the locomotive was turned over to the WP for a trial period of approximately two weeks over various segments of the mainline between Oakland and Salt Lake City, as well as on the Highline between Keddie and Bieber. Needless to say, WP was very impressed with the performance of #103 compared to both the 2-8-8-2 and 4-6-6-4 type locomotives. One additional advantage the diesel had over steam besides performance was eliminating the need for water, especially east of



WP 259 sitting in Keddie Yard 6-21-1948

Carl Allen Walker collection

the Sierra Nevadas where good boiler water was difficult to find.

In early February 1941, armed with the #103 test data as well as additional data from the Santa Fe's fleet of FT locomotives, WP officials were considering two different scenarios for new locomotives. One scenario was acquiring ten 4-8-8-4 "Big Boy" locomotives as an add-on to a Union Pacific order. These engines would be used between Salt Lake City and Elko. WP's fleet of 4-6-6-4 engines would be moved from their current assignment to the Winnemucca-Portola segment. Both of these stretches of track have some significant grades, while the segment between Winnemucca and Elko follows the Humboldt River and is a near-water level grade, well within the capabilities of the Mikes being used there. This plan would also involve improvements to the engine facilities in Elko and Winnemucca, including enlarging the turntables to accommodate these engines. The 4-6-6-4s probably would have been converted from coal to fuel oil as well. But it was not to be.

Instead, the decision was made to purchase FT diesel locomotives. A dozen sets of these locomotives were acquired between 1941 and 1944. The advantages, in addition to their performance compared to the articulated locomotives, is that they would not require significant modifications to the locomotive service facilities, and they could be used anywhere they were needed. But our story does not end here.

Western Pacific management would have preferred to continue

to purchase diesel locomotives, but this was thwarted by the War Production Board, a government body that was created to evaluate and authorize material production by manufacturers, and also which entities received the equipment for maximum efficiency toward the war effort. The railroads – WP included, would get some – but never all - of what they would ask for, and sometimes got something they did not want. The WPB did authorize the WP to acquire FT diesels and ALCo diesel switch engines (which they did want). In 1945 WP asked for more ALCo switchers to cover assignments to switch the Port of Stockton later that year, but instead were assigned a quintuplet of Baldwin diesel switchers (which they did not want) by the WPB. The initially unloved Baldwins eventually developed a positive reputation among WP engineers. The late Robert R. Larson, a WP engineer and FRRS member opined that the Baldwins were great pullers and WP's best switch engines.

One final purchase of steam locomotives was made in 1943. As the war effort increased against Japan in the Pacific, the volume of rail traffic moving both material and servicemen went through the roof. WP was moving many troop trains and received authorization from the War Production Board for six new steam engines equipped to pull passenger trains. One of the WPB regulations was the requirement to use existing, proven designs – new designs were not permitted. WP wanted 4-8-4 "Northern" type locomotives. They favored a design used by the

Chesapeake & Ohio Railroad, but equipped with a centipede-type tender of a Union Pacific design. This would have made an attractive looking locomotive, but like the proposed Big Boy engines, they were never built. The C&O design engines would have been a little too heavy for some of SP's bridges on the paired track segment in Nevada. The solution was to divert six of an order of Southern Pacific's GS-6 class 4-8-4s being built by Lima Locomotive Works to WP instead. These engines were assigned to Class "GS-64" (GS stood for "General Service") and numbered 481-486. They ran on fuel oil, but roamed the railroad from Oakland to Salt Lake City. They could be seen pulling both passenger and freight trains.

In addition to WP's own locomotives, during WWII they leased at various times during the war steam locomotives from other railroads. Locomotives known to have been leased include 4-6-0, 2-8-0, 2-8-2, 2-10-2, 4-8-2, and 2-8-8-2 type locomotives from the D&RGW, 2-8-2 and 2-10-2s from the Duluth, Missabe & Iron Range, 2-8-2s from the Chicago & North Western, and a 2-6-6-2 from the Milwaukee Road. With the possible exception of the Milwaukee Road mallet, all of these engines are believed to be coal-burning engines and would thus have been used between Salt Lake City and Winnemucca.

Once WWII was concluded and the War Production Board purchase and production restrictions lifted, WP began evaluating the variety of diesel locomotives appearing on the



The FT diesel set is leading an eastbound at Rocky Point, having just departed Portola. One more curve after this one, and then the train will accelerate over the tangent track across the Sierra Valley and then through the Chilcoot Tunnel at Beckwourth Pass.

FRRS Archives - Meeker Collection

marketplace. The first postwar purchase of diesel locomotives was three sets of passenger F-units from EMD in 1947 for use on the California Zephyr. The CZ would not debut for another two years, and they were used on the Exposition Flyer in the meantime. Additional diesels for freight, passenger, and yard switching would not begin arriving until 1950.

The days were numbered for the steam locomotive fleet, but WP was not rushing into a replacement frenzy. After the end of hostilities in 1945, only 1 locomotive was retired in 1946, 15 in 1947, 1 in 1948, and 22 in 1949.

As the new diesels began arriving in 1950, 41 steam locomotives were retired that year. 20 were retired in 1951, 35 in 1952, and 25 in 1953. No steam locomotives ran east of Oroville after 1951. The last steam locomotive to run in regular service was “big tank” 2-8-2 #329 on a freight train between Oroville and Stockton in June 1953.

Two of the steam engines destined for preservation – 94 and 165 – were used in 1959 at a cannery in Escalon in stationary boiler service for two weeks. They were towed to and from the assignment, not run under their own power.

As of this writing (2022), the final five WP steam engines are still in existence. #26 continues to live in static display at Travel Town in Los Angeles’ Griffith Park. #94 and #334 both reside at the Western Railway Museum at Rio Vista Junction, CA. 94 is displayed indoors with a short passenger train consist. 334 is stored out of public view. #164 is displayed in Hewitt Park in Oroville, California near the former WP depot. Engine 165 is currently at the Western Pacific Railroad Museum in Portola, having been returned to operating condition earlier in 2022 following a multi-year restoration.

Those readers interested in more in-depth coverage of Western Pacific and subsidiary company steam locomotives are directed to the following publications;

“Locomotives of the Western Pacific – A Photo Story of Steam, by Guy L. Dunscomb & Fred A. Stindt.

Self-published in 1954. It is a ring bound horizontal format 140 page book.

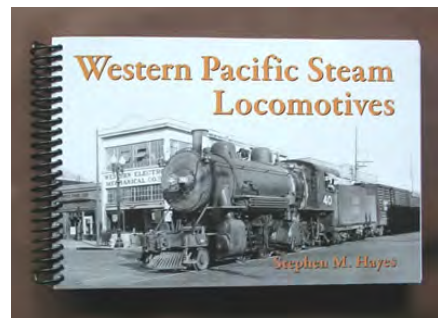
“Western Pacific Steam Locomotives, Passenger Trains and Cars” by Guy L. Dunscomb & Fred A. Stindt.

Self-published in 1980, Library of Congress Catalogue Card #80-50321. Hard cover, 376 pages. THE bible of WP steam locomotive information. Also included is roster and other info on WP’s passenger trains and non-

streamlined passenger cars.

“D-Day on the Western Pacific – A Railroad’s Decision to Dieselize”, by Virgil Staff. Interurbans Publications (Interurbans Special #81), 1982. ISBN #916374-51-3 Hard cover, 224 pages. While primarily a diesel locomotive study, there is a fair amount of information and photos of WP steam locomotives.

In closing, I would like to acknowledge that much of the information in this article came from information in Messrs. Dunscomb & Stindt’s books, as well as that of Mr. Staff. I am too young to have been able to see WP steam locomotives in service firsthand. I also used my recollection of many conversations about the WP with the late Frank P. Lowell, Jr., a longtime personal friend who



Western Pacific Steam Locomotives by Stephen M. Hayes (2010) Hayes Publishing P.O. Box 1083 Soulsbyville, Ca. 95372 <http://www.westernpacificdepotsandstations.com/>, is sold out of this book. It can be found on eBay.

grew up around the WP in the days of steam and was related to long deceased former WP employees.



WP 165 pulls freight consist for special post-convention events at the museum on Sunday, May 15th, 2022

- Photo by Michael Clawson