The Train Sheet

What the heck is an AUXILIARY GENERATOR?

From THE DIESEL LOCOMOTIVE and OPERATING MANUAL GP9 LOCOMOTIVES – WP Training Material

In a diesel-electric locomotive, the diesel engine is started by means of the direct coupled main generator which is temporarily used as a starting motor. A storage battery supplies the electric current to



rotate the generator and start the engine. When the engine is running, it supplies mechanical power through shafts and couplings to directly drive two electrical generators. In addition to the main generator, there is an auxiliary generator that charges the storage battery and supplies low voltage direct current for the control, lighting, and main generator excitation circuits. The main generator supplies high voltage direct current to the traction motors for locomotive pulling power.

For example in an EMD GP9 locomotive a 10 KW auxiliary generator is driven directly from the rear gear train of the engine through flexible couplings. If the locomotive was equipped with a steam generator, an 18 KW auxiliary generator was used.



GP9 10KW Auxiliary Generator in SP 2873, sitting on top of main generator. - photos by Greq Elems



The Whitcomb on the road out of the museum. - photo by Greg Elems

Whitcomb Engine

- Greg Elems & Paul Finnegan

In the fall of 2018, the society approved the sale of the FR&W Plymouth for operational restoration. As part of this agreement, a small engine was to be provided and set up on the east entrance to the city. A small panel track was created and the locomotive placed there. On 5/31/19, after the collapse of the agreement with the city regarding placement of the small engine at the Williams House, it was moved to the museum parking lot.¹

At the March 2020 FRRS Board Meeting, the board approved the sale of the Whitcomb parking lot locomotive for \$7,000, as is where is, with conditions as outlined in the draft sale contract.

On 5/15/20, the Whitcomb was back on the road out of the museum for its trip the San Francisco Bay Area to its new owner.

This engine started working at Blake Brothers Quarry in Richmond in the early 1900's. It was moved from San Francisco to Oroville, then to Portola. On Friday May 15th, it was loaded back onto a truck to head back to the Bay Area for display with a box car and caboose at a B&B. An interesting note, the same trucking company has made all its moves in the state since it left San Francisco.

[1] Finnegan, P. (2019, April/May/June). Williams House Display. *The Train Sheet 181*, 8.