

Pennsylvania Rail Road F-Units

Models and Commentary by Les Souder

Edited by Henry Kramer

Les Souder and Henry Kramer are members of the First State Model Railroading Club, located in Dover Delaware. During the club's Dover Days 2015 open house Les showed and describe his PRR "F" unit collection. If you have any questions or comments please feel free to send your feedback to us at FSMRRC@gmail.com.

PRR Designations:

E = Electric Motor (EMD)

A = Alco (America Locomotive Company)

B = Baldwin

F = Fairbank Morris

G = General Electric

F = Freight

P = Passenger

15 = Horse power in hundreds (1500 HP)

All PRR "F" units were 1500 HP engines. They all had dynamic brakes. The original units were delivered without antennas. Radio telephone antennas were added in 1947-1948 and were removed in 1965 when they were replaced with standard radios.

Engine Categories:

EF-15 – Were F3 engines and were EMD's classification for the first Diesels delivered after WW2. They had better reliability and were geared for a maximum speed of 69MPH.

EH-15 – These were "helper" units and were basically the same as the EF-15 engines. They had stronger traction motors and were geared for a max speed of 50MPH. When they were paired with other classes of engines they were usually the lead unit so the engineer would not exceed their speed gearing.

EF-15A – These were also known as F7s. They had the same horse power as the F3's but had heavier generators and stronger traction motors that gave it better reliability.

EFP-15 – Also known as FP7s. They were 4' longer than the EF-15's to accommodate a larger water storage tank. Units with dynamic breaking had very little water storage so they could not have steam generators. The EFP-15's had the capability of holding 1100 gallons of water.



Figure 1A – F3 Phase 2: These engines had high fans and a chicken wire grille between the portholes on the “A” units. They went into service in 1946 and were the first F3 engines that the PRR received after WW2. The models are decorated as they would have been seen in 1955.



Figure 1B – F3 Phase 2 “B” unit.



Figure 2 – F3 Phase 3: These engines have low fans and louvers between the portholes. This model is decorated as it would have been seen in 1960.



Figure 3A – In 1949 the PRR started using F7s. These engines represent PRR F7 engines as they would have been seen in 1956.



Figure 3B – This is a PRR F7 “B” unit as it would have been seen in 1956.



Figure 4A – This F7 “A” unit engine is configured as it would have looked in 1964. The difference between this unit and the one in Figure 3A is that the fuel tank skirting has been removed as well as the addition of a nose ladder. Also, MU connections on the nose were added. These changes and others were mandated by the Federal Railroad Administration (FRA).



Figure 4B – This F7 "B" unit configured as it would have looked in 1964.



Figure 4C – Note the addition of MU connections.



Figure 5A – These EH-15 engines are decorated as they would have been seen in 1957. EH-15 engines can be identified by an extra stripe on the door. This stripe was added to alert the engineer that they were lower geared engines. Normally these engines were usually in the front of a consist.



Figure 5B – Note the extra stripe on the door of this EH-15 engine.



Figure 6 – These F7 engines are decorated as they would have been seen in 1960.



Figure 7 – This F7 engine is decorated as it would have been seen in 1965. Note that the radio telephone antennas have been removed and a “DOT” has been added on its nose. This “DOT” signifies that a radio has been installed in this unit.



Figure 8 – The PRR primarily used FP-7s as freight engines. The above FP-7 engines are painted as they would have been seen when they were delivered in 1955. The PRR took delivery of six red units (two sets of ABA engines) out of the 40 engines that were delivered that year. PRR passenger engines in the 1940s were painted green with five yellow stripes. In 1952 this paint scheme was changed to red engines with five yellow stripes.



Figure 9 – F7 engines were delivered with nose coupler covers. The engine of the left has open coupler covers. When there were maintenance problems with the coupler covers rather than repairing them they were simply removed. The green unit on the right has had its coupler covers removed.



Figure 10 – This EFP-15 engine is painted as it would have looked in 1959. Note that the fuel tank skirt has been removed and the addition of a water tank. Ladders have also been added in the front and rear. The addition of a rear ladder was mandated by FRA in 1959.