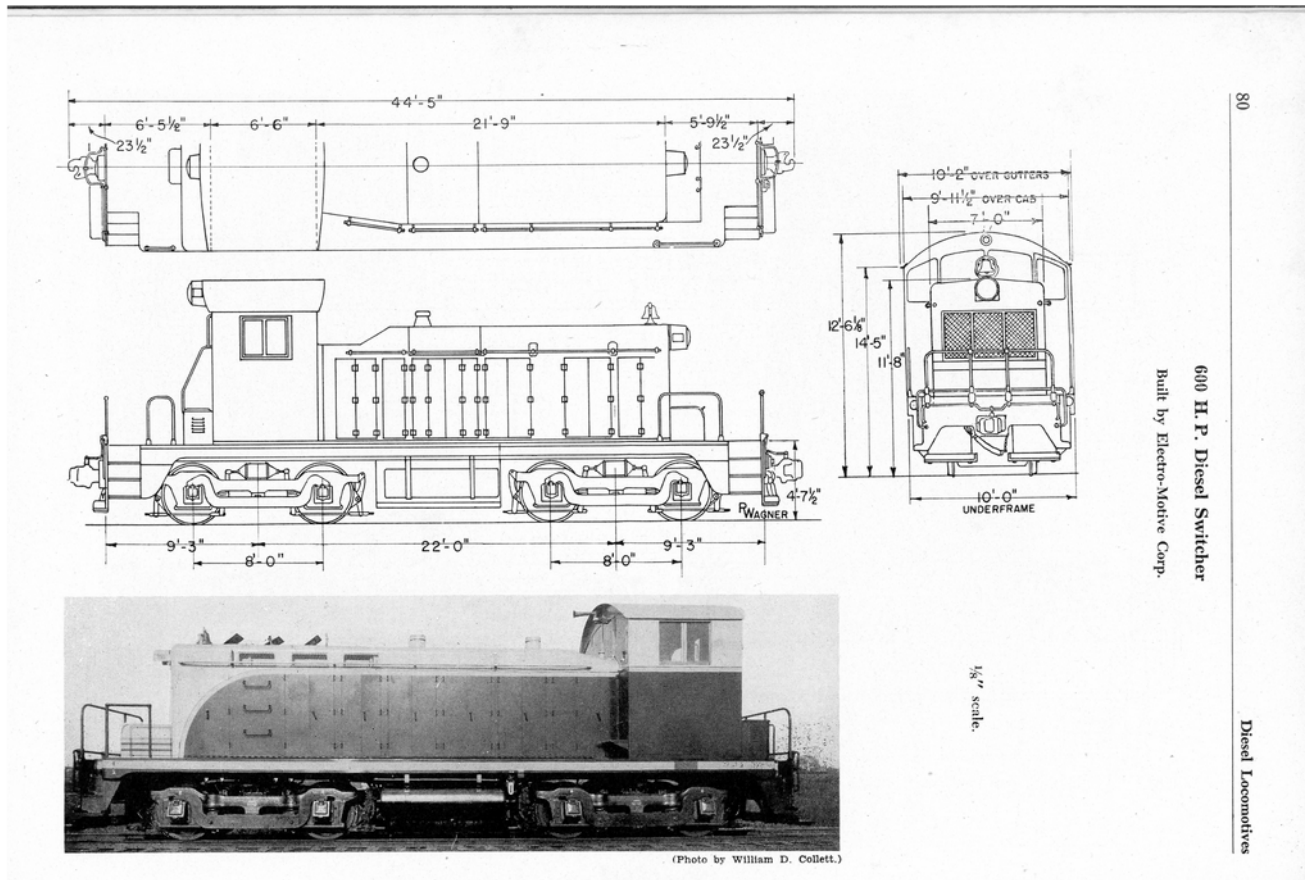


## EMC Switchers – Steam to Diesel Transition

Electro-motive Corporation (EMC) switchers were built with Winton 201-A engines. 175 were built between February 1935 and January 1939. Two pre-production units were built in February 1935. 426, was purchased by the Delaware-Lackawanna Railroad and is on display at Steamtown National Historic Site in Lackawanna Railroad colors. The straight-8 600 hp (450 kW) Winton 201-A engine moved the exhaust stacks off-center to the engineer's left. The hood on the S series is shorter, and the locomotives have a characteristic, rounded-edged "satchel" i.e. sand box in front of the radiator.



43 cast-frame SC units were built between May 1936 and January 1939. They were delivered to a wide assortment of railroads, however my interest in modeling this unit was in the fact that the Chicago Great Western took delivery of 3 locomotives, #5-7.



The Winton-engined switchers can be distinguished from later EMD 567-engined units by small louvres at the top front sides of their hoods, as well as top-of-hood ventilation through several lifting vents rather than the large top grille of those later units.

The SW series was more often depicted by models such as the All Nation 600 HP but the casting had the large top grille for venting, not the lifting vents.

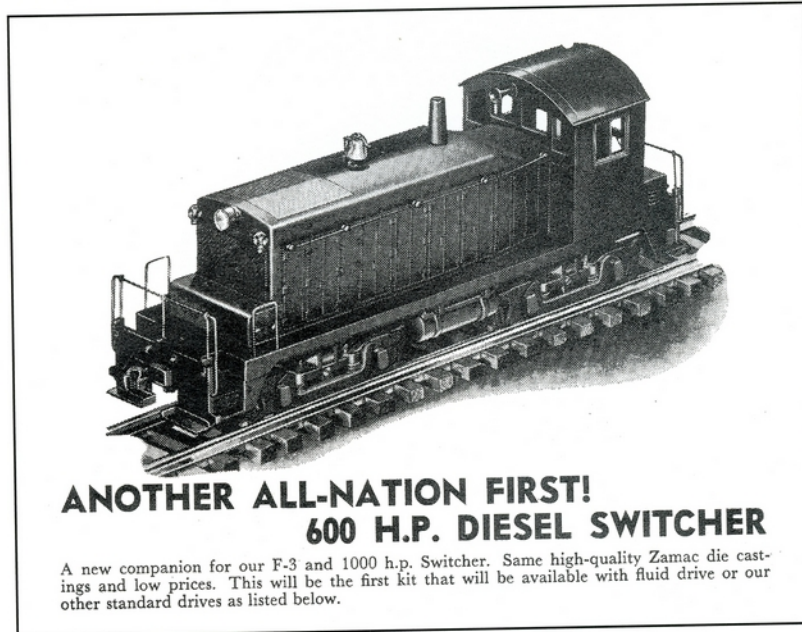


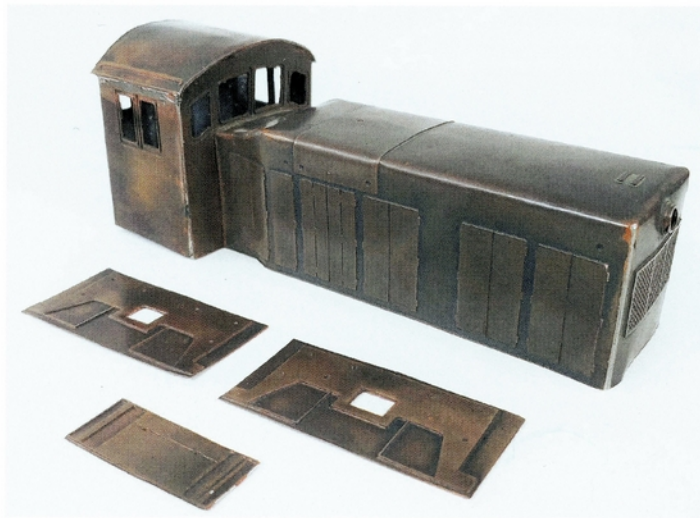
FIGURE 10: The All-Nation SW1, as listed in the 1954 Fifth Edition Catalog.

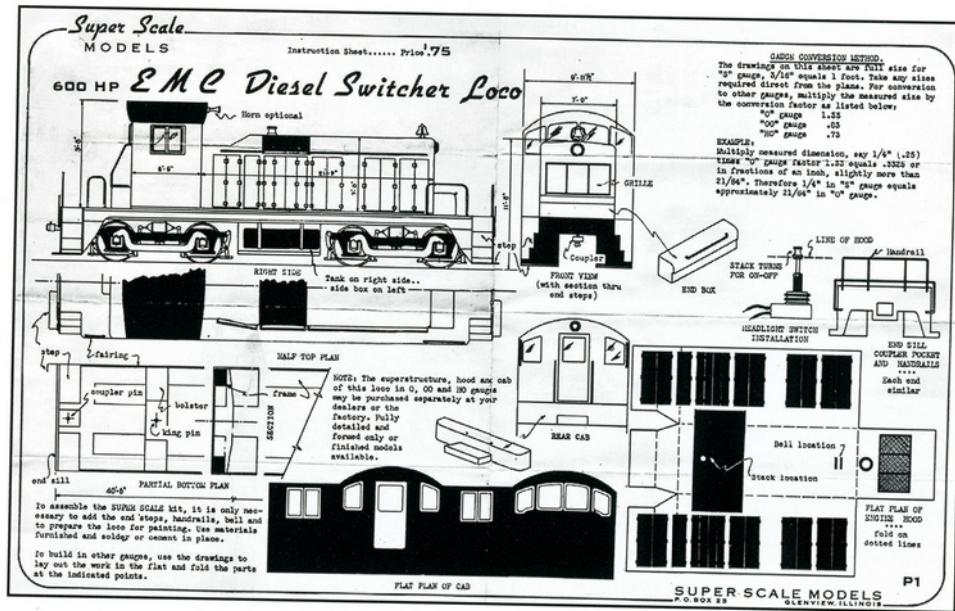


Several outfits over the years came out with similar but not necessarily accurate models. These included the following:



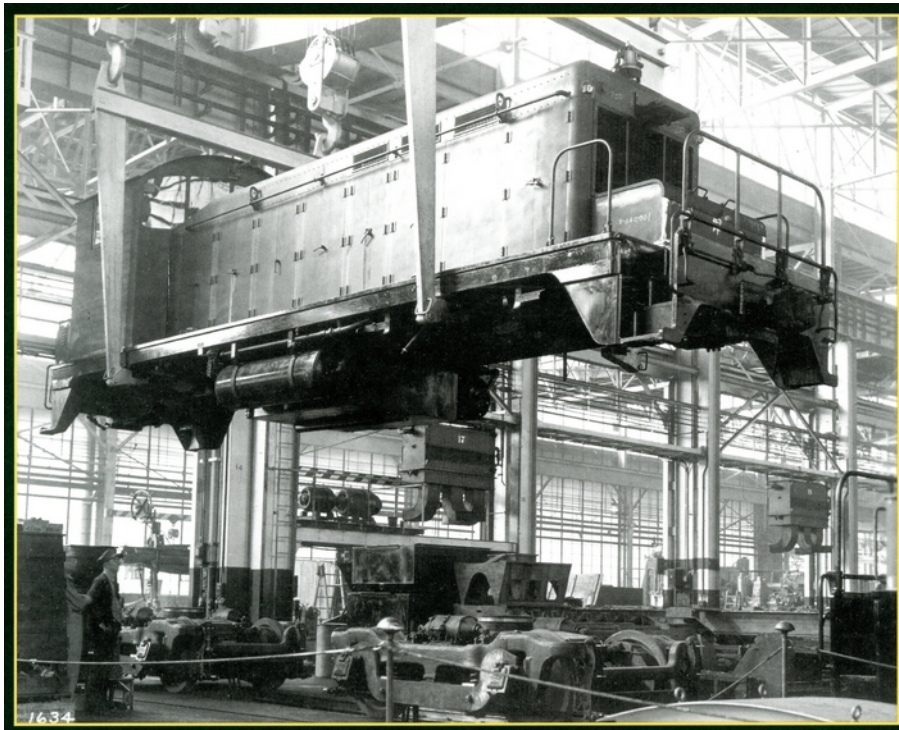
• FIGURE 4: The Hawk EMC SW/SC is a composite model — the hood, frame, and truck sideframes are cast bronze while the cab and toolboxes are formed and soldered sheet brass. No other model is known that is built in this way. The model plans show that headlights, missing here, were provided with the kit.





Fortunately enough, in the All Nation Line collection of reference models, we have what is the most accurate representation in O Scale of the EMC switcher as it was delivered to the Chicago Great Western. We have 2 castings believed to have been created by the Adams & Sons Foundry that seems to have followed these early SC production versions before Electro-Motive Division (EMD) took over the EMC company.

A photograph of the prototype in the assembly plant follows:



And here is a photograph of our reference model.



Our initial reference casting as it would have looked coming out of the foundry with the original bronze trucks illustrates what it looked like without the cab so was fabricated by the model builder.





Our second EMC casting was developed as a dummy switcher engine with cab interior and a removable roof. We decided to make this a powered operational engine. Given the fact that the cab interior had a floor, this precluded an opportunity to make this a dual powered engine because there was not enough room to house our tower drive transmissions. One of the subtle features that makes this engine unique is the fact that the hood over the prime mover was boxy and wide, noting that the perimeter platforms to service the engine from the outside were narrow without any safety railings. While this accommodated a larger motor installation in the model, there were issues with configuring a dual drive due to the shorter hood. Given the weight of this casting, it deserved a larger motor but having said that, it restricted centering the motor on the frame. Consequently, the motor was mounted forward in the body over the front truck.

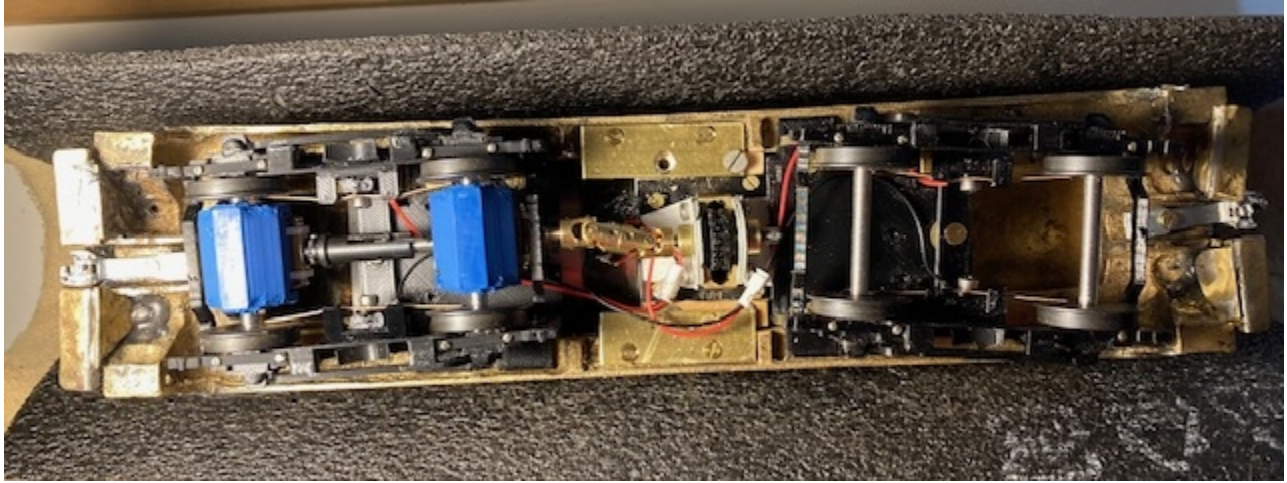
After a good amount of analysis, procrastination and sketching up possible solutions that were considered optimal given the circumstances around the metrics, we decided to develop the single front end drive without a tower transmission using a centered drop down chain drive with a power take-off to the front truck. The Pittman motor module was developed as a drop in serviceable unit.



The tension on the chain is adjustable on this unit.



Thus, when all is said and done, the underside of the engine with the motor installed and the trucks mounted illustrates the best solution given what we had to work with.



The fuel tank will cover the power take-off

In conclusion, it is always a joy to be able to restore a unique piece of model railroad equipment. With the aid of today's technology, a little 3D printing and a little innovative work, it becomes dear to the collector's heart especially when you know it was on the roster of your favorite railroad.

Before there was the EMD SW models



there was the EMC diesels, a key milestone in the transition from steam to diesel. A very rare piece that has never been manufactured in quantity for the model builder.





A few minor details left for the modeler to do, prime, paint, install the bell and windows, and decals. Totally operational for yard work on the layout.





