Jim Hediger

Prototype kitbashing is alive and well

This locomotive is a model TP56 industrial switcher built by Tractive Power Corp. in North Vancouver, B.C, Canada. It's built on an Electro-Motive Diesel Flexicoil truck with three D77 traction motors. Traction Power Corp. photo

At first glance, this powerful new industrial switcher looks like something a modeler might kitbash from a pile of assorted locomotive parts. However, this compact unit is a model TP56 industrial switcher built by Tractive Power Corp. in North Vancouver, British Columbia, Canada. This is the same builder that introduced the hybrid Green Goat (B-B) switcher in 2004.

This new TPC switcher is designed for industrial applications where cuts of cars must be shifted around to position them for loading or unloading. The locomotive shown here is fitted with a turbocharged Caterpillar 375-hp diesel engine, although other similar-sized diesel engines may be substituted to provide more power per customer request.

The locomotive rides on a refurbished three-axle Electro-Motive Diesel SD40-2 truck, which provides proven reliability and powerful performance. A trio of Electro-Motive D-77 traction motors produces 56,000 pounds of tractive effort. (Further modification allows this figure to be boosted to 70,000 pounds).

In designing the TP56, the builders stayed with proven construction methods using standard components. All of the on-board systems also use standard off-the-shelf parts readily available throughout the industry. The locomotive was also designed to make field servicing easy in remote locations. Thus, the TP56 unit requires less maintenance than competitive railcar movers.

The TP56's overall weight of 160,000 pounds gives it a decided advantage in pulling power over its competitors which only average about 63,000 pounds in weight. An electric transmission minimizes shuddering under heavy loads and reduces potential mechanical problems.

Other features include a full-sized operating cab that can be fitted with optional climate control for operator comfort. The locomotive includes sanders for additional traction when needed, especially on wet rail.

Another option that allows one man to operate the locomotive from the ground is a remote-control system. This allows him to safely spot and uncouple cars, open knuckles, and align turnouts as needed from the ground.

Modeling ideas. Building a model of the TP56 will take a bit of ingenuity, but it shouldn't be too difficult. Like the prototype, modelers can start with an EMD Flexicoil power truck from an SD40-2, which is made in most scales. In the smaller scales, the trick will be in finding a can motor to drive the power truck and still fit into the available space inside the hood. NorthWest Short Line offers a number of motor and gearbox choices that could be used.

The prototype TP56 appears to be fabricated from various body parts recycled from a Canadian SD40-2. The front of the switcher's frame has parts of the original unit's side running boards and the rear pilot. It also has a similar pilot mounted behind the cab. These recycled parts should make it relatively easy to mount the stanchions and railings.

A heavy brass chassis would need to be fabricated to fit underneath the running boards and cab. It would also need a rectangular opening to fit over the three-axle truck and support the cab and carbody assemblies.

The main hood appears to be fabricated mostly from flat sheet steel panels that are welded together. These parts could be made from .030" sheet styrene.

HO modelers should check the Walthers catalog for Cannon & Co. This firm offers a lot of EMD carbody detail parts, including cabs that could be easily modified to produce a suitable TP56 cab. It also makes a variety of pilots, steps, and other details that could come in handy.

Just be patient and good luck with the project. – *Jim Hediger, senior editor*

Locomotive specifications

Body length: 27'-10"
Overall length: (between coupler pulling faces) 32'-0"
Body width: 10'-3"
Body height: 14'-2¾"
Wheelbase: 8'-9½"
Wheel diameter: 40"
Starting tractive effort: (35-percent adhesion): 56,000 lbs.
Maximum speed: 25 mph
Minimum curve: 175-foot radius
Weight: 160,000 pounds (80 tons)

Send your questions about prototype railroading to Information Desk, *Model Railroader* magazine, P.O. Box 1612, Waukesha, WI 53187, or e-mail proto@mrmag.com. We regret we can't answer all the questions we receive.