Introduction to Nn3 Motive Power

by Ted Brandon

Before any ready-to-run Nn3 locomotives appeared on the model railroading scene, engines had to be either scratch-built or constructed from superstructure kits mounted on Märklin Z-Scale mechanisms. This meant that Nn3 was not a viable option for the majority of modelers, who otherwise might have included narrow gauge on their N-Scale layouts.

Today, there are many possibilities open to even the least-skilled among us. In the past few years, a number of ready-to-run Nn3 locomotives have appeared on the market. They include a little Colorado & Southern 2-6-0 Mogul from MicroTrains; an RGS 2-8-0, as well as K-28 and K-36 2-8-2 Mikados made by the German company Westmodel and distributed by Aspen Model; and a K-27 Mikado by LOK 14, another German firm. Recently Aspen Model has added an RTR 0-6-0T Class 48 tank loco, as well as several "Geese", those strange creations of railroad back shops, combining a passenger car body with a box, all driven by a car engine.

All the RTR locos are made of metal and are expensive. That is not necessarily a bad thing, because your narrow gauge railroad doesn't need to run a huge roster like the Class 1 roads. The RTR locos are all of high quality, although they differ greatly in their mechanisms. For example, the MT 2-6-0 rides on a stock Märklin chassis; the Lok 14 machine and the Aspen Model 2-8-0 use a modified Märklin mechanism; and the Aspen Model K-28s and K-36s have chassis designed from the rails up. The Märklin motors are all 5-pole (except on the MT 2-6-0, which still has the older 3-pole version, at least at this writing). The Aspen Model K-types all use Faulhaber coreless motors, which are renowned for smooth and quiet running, especially at the low speeds characteristic of narrow gauge operation.

For those who cannot spend a small fortune on RTR locos, there is the alternative of building your own engines, using Märklin mechanisms with superstructures provided in kit form. There is a large selection available, to fit just about every skill level. You will find detailed information on many Märklin chassis in this chapter, but I will point out a few popular combinations:

By far the easiest chassis/kit combination is the Märklin 88051 0-6-0 with the Republic Locomotive Works "Teakettle" 0-6-0T superstructure kit. This "Class 48" tank loco was a tiny switcher delivered to several narrow gauge lines. You'll find a complete "How-To" article in this chapter. The kit includes all parts required to build the loco, once you have obtained the chassis separately. The kit is entirely of white metal castings, except for the brass cab. The metal parts add weight to the loco, making for better contact with the rails, important for such a short wheelbase.

Models by Steve Schweighofer

The Märklin 8803 and 8895 mechanisms (both similar, except the 8803 is a tank engine and the 8895 comes with a 3-axle tender) are intended to go with the RLW 2-6-0 Mogul kit, which builds the same type as the MT 2-6-0, except for the large difference in price – and you will have the enjoyment of its creation. For a neat ten-wheeler, choose the 88991 mechanism and one of the RLW superstructure kits, like the Southern Pacific's #8 or #9. For something larger, try a model of the East Broad Top or the Denver & Rio Grande Western's 2-8-2s. Here you would use the Märklin 88912 US-type Mikado in Z-Scale for the mechanism.

Before making up your mind concerning a loco kit, it would be well to obtain a Märklin Z-Scale catalog. In addition to steam locos, there are a number of diesel and electric engine types available, some of which make beautiful narrow gauge diesels. By now, there should be several kits available, including an SP narrow gauge X-1 "Little Giant" diesel that will fit onto a Märklin 88690 or 88691 chassis.

While all the superstructure kits are designed to go onto Märklin mechanisms, you should expect to make some modifications to both the chassis and the kit parts. This may include some filing of flash and removing some metal to allow the top to fit properly on the chassis. There may be some drilling and tapping of holes required for the boiler and couplers. Usually, kits can be assembled with epoxy (5-minute variety works well), or with a CA glue, such as Zap-a-Gap.

Märklin loco tenders come with metal wheel sets, insulated on one side. These will fit into MT Nn3 arch bar truck frames. This combination lends itself to excellent tender pick-up, where you can use Richmond Controls axle wipers which fit into the resulting trucks. R.C. can also provide miniature connectors for the wires leading to the motor. Additional Märklin wheel sets are available under stock number 70-081 for a set of four. Good pick-up is absolutely essential for reliable operation with these small locos.

If you decide to super-detail your locos, there is a vast selection of parts available from either RLW or Detail Associates. Everything, including stacks, domes, bells, air tanks, cabs, cylinders, even complete pilots, is available. When ordering, be sure that you will be getting Nn3-sized parts, not the N-Scale standard gauge versions of those pieces.

Today, we've arrived at a point where you can choose your locomotives from a large selection, not as was the case in Nn3 in days of old. While an RTR loco will get you started quickly, you should not pass up the enjoyment to be gained from "rolling your own." Not only will you gain experience – you will gain a creator's pride. ■