

## **HOn30**

### **Introduction:**

What is HOn30? Well, simply stated, HOn30 is HO scale (1/87) narrow gauge rolling stock running on N gauge track. This makes the gauge (distance between the rails) work out to 2½ feet (or close enough). It was known at one time as HOn2½ (and still is in some quarters, 30" = 2½'), and the 30 has been adopted because of being easier to type. This combination is often called HOe ("eng" meaning narrow in German?) in other parts of the world. A related field is OO9, British OO scale of 4 mm to the foot (as opposed to HO at 3.5mm to the foot) also on 9 mm track. Due to the larger scale, an OO9 model next to a similar HOn30 piece will be noticeably larger. Some small OO9 models do mix well with HO, and mechanism parts, wheels etc. may be interchanged.

The trains are smaller than regular HO equipment because many HOn30 modelers build layouts based on the 2-foot railroads that ran in the Maine, U.S.A. These were about half the size of standard gauge trains, but they still performed a full-size job. These two-footers, as they were called, cost only half the money and real estate to get a working railroad up and running. There were, and are, 30" and 24" railroads still operating around the world, and many people model them. The techniques you'll read about here apply to all HOn30 modeling. Dave Frary and Bob Hayden started modeling the Maine two-footers in 1970 when they discovered the Minitrains line of HOn2½ models in a Woolworth's five-and-ten-cent store. These train sets were imported from Europe by Associated Hobby Manufacturers,

### **Basic Information:**

There were more products for HOn30 available in the early 1980's than is in later years, but if you were willing to dig for them, answer classified ads, and deal with other model railroaders whose hobby interests are changing, you could find what you need to build your rolling stock roster. Every now and then you could run across the old AHM Minitrains locomotives at an auction or swap meet. They were what got HOn30 started back in the mid-1960s. Today, there are more items made in this scale/gauge combination than ever before. There are some shops that specialize in this, and there are several sites on the web that can be found with a simple search of "HOn30".

### **Publications:**

If you want to learn about new 2-foot products as they are introduced, there are two important sources, both of them specialty narrow gauge publications. They are "Narrow Gauge and Short Line Gazette", and "Maine 2-Foot Quarterly". (Many products available over the years are re-sold among modelers in the classified ads of these publications.)



### **Getting Started in HOn30**

There has never been much Ready To Run (RTR) in HOn30, except for European and Japanese prototypes (and imported brass!). Most modelers build kits or kitbash using N scale and HO parts. Even many kits (at least in the U.S.) are conversions that need an N Scale loco mechanism to complete. A few locos are available as hand built models from the various conversion kits. Most modelers in HOn30 are always on the lookout for a good chassis to use in a conversion. While there were more brass pieces and especially the "caricature" engines in the 1980's, there are plenty of products for HOn30 currently available

and more coming all the time! Make no mistake, HOn30 is pretty much a builder's scale. Most hobby shops do not carry HOn30 specific products, although you will still enjoy visiting them since all the scenery, structures, figures, vehicles and detail parts used in standard gauge HO are also suitable for HOn30. Even the standard HOn30 coupler (Micro Trains 1025 N Gauge coupler) is stocked in most

shops, as are N scale trucks and even some specific HOn30 trucks. The equipment may appear expensive at first, there being no equivalent for Athearn or LifeLike. The reality is that HOn30 kits are no more expensive than the higher end HO 'craftsman' models. On the other hand, most narrow gauge railroads are smaller operations with fewer trains, so you can spend a little more time building each locomotive and car. Your railroad may even cost less, since you won't be tempted to walk out of the hobby shop with a dozen of the new road names released this month. At the end of this handout are a few suppliers who carry HOn30 products and information.



### **Theme or prototype:**

Many modelers in the U.S. use HOn30 to simulate the Maine 2 ft railroads, although other prototypes are not uncommon. Logging and mining railroads are fairly obvious. Other options include plantation lines, contractor's railroads (small Narrow-Gauge railroad with small geared or rod engines were used before trucks became prevalent). Also intra- plant switching lines in iron, paper or other large manufacturing plants, quarry lines or amusement park lines are just a few of the alternatives. I'm

surprised that the theme of a Latin American fruit or sugar line isn't more common as it is the perfect opportunity to use U.S. and European prototypes together, all with the slightly run down look many narrow gaugers fancy! Keep in mind that the error between 2 ft gauge and 30 inch is the same as between 3 ft and 30 inch, so don't think you must choose a prototype of less than 36 inches.

### **Track:**

Track can range from hand laid through specially made HOn30 track by Micro Engineering, Tillig, Bemo or Roco, Peco's OO9 track or a variety of N scale products. The Peco track is sized for OO9 so the ties are rather large as well as being made very rough and irregular. It would work best on a logging line. The matching turnouts are only 12" radius, too tight for most longer equipment but workable for small geared engines and 0-4-0s. Peco N Scale turnouts could be used to get larger radius at the cost of non-matching ties. The most common N Scale track by Atlas or Model Power is least suitable because of large rail and small, closely spaced ties. The easiest method is to use one of the HOn30 brands. N scale turnouts are often used as is, although ME and Railway Engineering make some fitted with HOn30 ties and Bemo and Tillig have turnouts in their track ranges. If you want to run large forneys or 2-6-2s like SR&RL #23, stick to 18 inch minimum radius and #6 turnouts. Turnouts with powered metal frogs are preferred even though they require some extra work (gapping the rails and running jumper wires) because of the short wheelbases and limited coasting ability of a lot of HOn30 locomotives. Get a NMRA N track gauge and use it to check your track gauge and flange ways! Don't assume that because you bought the track from a commercial supplier, it's in gauge.

### **Trucks and couplers:**

Early HOn30 modelers used N scale trucks under their cars. For the first of them, this meant cast steel "Bettendorf" style side frames since that was the only type made in N. There's a prototype for everything - the 2 ft railroad that ran in the tunnels under Chicago used cast steel Bettendorf trucks, but they were larger than N scale trucks in HO. In the late 1970s MT began producing arch bars, then Grandt Line released their SR&RL style arch bar. David Hoffman also makes HOn30 trucks. Using these or the new trucks by Chivers is recommended. If buying Grandt Line, look for the ones with metal NWSL wheels or replace the wheels with those offered by NWSL separately (P/N 37450-4). The MT trucks look and work better with MT Low Profile wheels installed. Avoid the MT trucks with

the attached couplers, they require that the car sit much too high to allow the couplers to swing, and can make pushing a car difficult. Yet another source for trucks is to convert from HOn3 trucks to get different styles. The wheels can be pushed in equally from both sides to 9 mm gauge, or square brass tubing and epoxy to put the truck back together.

For passenger cars and some cabooses you can use the Maine 2 ft style passenger trucks made by David Hoffman. These are multi-part brass kits that require some assembly. The alternative is to use the Micro Trains N scale passenger trucks. They roll well and have about the right wheel base. You can carve off or ignore the N Scale streamliner detailing on the side frame; it hardly shows in the shadows under a car anyway.

If any truck gives you problems look over the side frames and bearings for flash which can be trimmed with a sharp knife, drill or cutting bit held in the fingers, or rough ends on the axles which can be polished with a wire brush in a Dremel tool. Tolerances are tight in HOn30, so a few extra minutes checking and adjusting equipment before you put it on the layout pays big dividends.

As mentioned, couplers are pretty well standardized on Micro Trains (formerly KD) N Scale couplers. Many modelers use them at the standard height (which scales out to 21 inches in HO). A smaller number of modelers object to notching out the end sills of their cars or making them sit too high off the trucks to accommodate this, and advocate mounting them at prototype height (for Maine 2 ft) of 16 scale inches. This requires bending or cutting the metal pin. The two standards are not compatible, although a transition car with a coupler at one end matching the N standard and at the other end the scale standard will allow running together. Micro Trains has extensive listings of coupler conversions for the N Gauge locomotives used in HOn30 conversions.

#### Equipment:



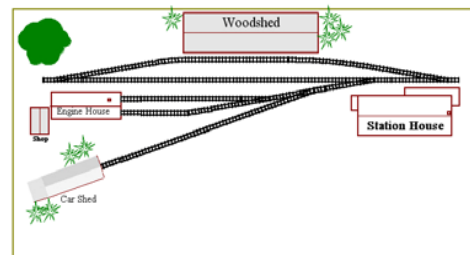
For an idea of what locomotives have been or are currently available, look at the All Time Loco List, which can be found on the Home Depot web page. As stated above, the majority are cast or etched metal kits, either complete loco kits or conversions for N Scale steam loco chassis. N Scale diesels often run better or are easier to find than steam models, so various conversions of diesel chassis to geared steam engines or small diesel "critters" are popular. Grandt Line has two small HOn3 diesels (a box cab and an end cab GE) that can be converted by squeezing in the wheels to run on 9 mm track. Much HOn3 motive power (esp. the MDC 2-8-0 and Shay) is much too large to convert. Many kits rely on the Bachmann N Scale 0-4-0 and 0-6-0 switcher kits for power. Be sure to see the Engine Building and Tuning tips section of the Home Depot for advice on getting the best

performance from the Bachmann chassis. More use could (and should) be made of some of the European and Japanese steam models. The Kato N Scale steamers of Japanese prototype are available in the U.S., are reasonably priced and run about as well as their diesels (i.e., VERY well). Rolling stock is generally built from kits, converted from HOn3 or Standard gauge pieces, or scratch built. Chivers FineLines make some styrene plastic kits which are a good bet for starters. The Grandt Line C&S boxcar can be narrowed and fitted with a new plastic roof and floor to make a nice and reasonably priced boxcar. C&D models, Funaro and Camerlengo, Weidner, Train and Trooper and Kennebunk Models all make resin kits for a variety of cars. Sandy River Carshops have some old style (wood strips and detail parts) kits available. Building one of them is a good start on learning to

scratchbuild the next one! Some modelers replace the scribed wood and stripwood trim with styrene in such kits, feeling that the styrene looks more like well maintained, painted wood in HO scale. Grandt Line and Roco make small four-wheel tipper and mine cars if that is your interest. Passenger equipment is available in brass and resin kits, and there are several passenger cars available. You may be able to cut down some of the plastic "old time" standard gauge cars by MDC, Model Power or others to approximate narrow gauge size. Milled wood roof and floor stock is available, or you can cut down the kit roofs (but trim at least some from the sides of a clearstory roof; cutting just the middle gives an odd "pinhead" look). Some cars were fairly short, but Maine prototypes were over 40' long and about 6½ feet wide.

If you would rather scratch build, look for plans in magazines or books. Keep in mind that most freight cars will be from 18 to 30 feet in length, 6 to 7 feet wide and enclosed cars 6 to 7 feet tall (body only, not from the railhead). Therefore, while you might be able to convert some open cars like gondolas or tank cars from N scale to HOn30, most other cars will not be suitable. See Bob Hayden's "All you ever wanted to know about HOn2½" page for suggestions on converting N Scale steel gons for his C&DR. Many modelers in HOn30 build to the scale width of the plans (be they two foot or three foot prototype). Consistent weight among cars and good, smooth track work are the keys to good operation.

#### Putting it all together:



You can build a small layout or a module to get your feet wet. Modules have the advantage of being able to connect with others to build a much bigger layout. See the module standards on the Home Depot. A simple layout based on a logging theme might have one geared engine like a Climax (converted from an N scale diesel) and some flat/log cars. A caboose or combine for passengers. The Huntsville and Lake Of Bays Portage and Navigation Co. operated a bit over a mile of track with one 0-

4-0, one flat, two box/baggage cars and a coach made from an old open trolley car. The prototype was 42 inch gauge but the equipment was sized right for 30 inch. A Forney and some highside gons would make a nice Louisiana sugar train. If you really want RTR to get started the little Roco diesel or critter (common term from a small industrial internal combustion loco) can pass for a U.S. prototype. Team one up with some Roco tip cars or mine cars and build a salt or gravel tram. Take the plunge, and be sure to tell us how it turns out!

#### References:

**HOn30 Home Depot:** <http://www.HOn30.org>

**B and F Hobbies:** <http://www.bnfhobby.com>

**Chivers FineLines:**  
<http://www.chiversfinelines.com>

**Parkside Dundas :**  
<http://www.scalefour.org/parkside/index.htm>

**Train & Trooper:**  
<http://www.trainandtrooper.com>

**SWRCO** <http://www.herman.rula.co.za>

