

Few things can stir the imagination of a child more than an old-fashioned toy train. And this model of a 4-4-0 "General" is no exception. Even with the advent of space travel, this century-old mainstay of American transportation still holds a certain magic that will provide hours of enjoyment for children of all ages. Most of the work on the train is mini-mass production, so build the basic 5-car version or expand it to the length you want by making extra cars. Read through all the plans before you begin. Tips and techniques are scattered throughout.

by Norm Marshall

The "General 4-4-0" Locomotive

1. Cut all parts to size for the locomotive. I used all 3/4-in. clear white pine and glued-up or resawed stock where necessary. Remember: Allow glued-up turning stock to remain clamped for 24 hours before using it. Also, use only yellow aliphatic resin glue throughout the project. Tip: While you're resawing stock, make up some extra stock to keep on hand. Note: Before cutting the cowcatcher (K) to size, see Step 4.
2. Make the base (A), by using the bandsaw to cut away stock from the bottom of the base, then remove the waste stock from the sides. Set the base aside.
3. Make the cab (D) by marking off the notches for the drive wheels and windows. Cut out the notches on the bandsaw or jigsaw. Next, shape the cab roof (F) on the belt or disc sander. Assemble and glue parts (D,E,F,G) and set aside.

4. Make the cowcatcher (K). Form the compound angles on the end of a 10-in. long piece of stock (See Fig. 1). Tilt the bandsaw table 30° and set the miter gauge at 30°. The extra length of the stock allows more control when handling. Cut the cowcatcher to length, glue on the cowcatcher crossbar (L) and set aside.

5. Turn the boiler (B) and smokestack (C) from the same piece of turning stock (see Fig. 2). Score the different sections with a skew. Next, turn the steam and sand domes (S,T) out of one piece of 3/4-in. dowel.

Cut the notch for the head lamp on the front of the boiler and the notch for the rear support (N) on the back of the boiler.

6. The front boiler support (M) is easily made out of a 3/4 x 2-1/2 x 3-in. piece of stock. The excess stock allows for easier drilling (see front boiler support detail). Lay out the dimensions, drill the required holes, then cut out the shape with the bandsaw.

Contour the head lamp case (P) on the disc sander.

7. Make the wheels (V,W) with hole saws. The drive wheels (V) are made by



Woodworking by Mark Vanner Toy Tools

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