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T.W. SNOW 25 TON COALING TOWER HRM-61 S SCALE FOOTPRINT: 2-1/4" x 5-1/2" AS USED ON THE MILWAUKEE ROAD



### T.W.Snow 25 Ton Coaling Tower General Instructions

#### Check out HRMLaserModels.com for construction photos of our kits.

This kit is a level 5 kit, meaning more difficult than the average kit. I took the time to draw step-by-step instructions so that should help you in the construction. The kit needs to be assembled in order or parts will not fit correctly and you will be taking the kit apart to make things fit – never a good thing. I will cover the high points and explain how I built mine. Check off each step as you complete them. If you check out my website you will also find some other modeling tips.

Read this sheet first, then look at the isometric drawings. Reading the instructions first will give you an overall feel for the kit, which helps a lot. The most important thing is to NOT glue in the last bent until the coal hopper is finished and inserted in the tower.

Because we are building a tiny structure, this is somewhat different than building a house because your fingers are not a scale size. Tweezers help an awful lot when positioning the smaller parts.

#### **TOOLS & CONSUMABLES**

- Hobby knife with a new blade
- Cutting surface/board (I work on the dining room table so this is a must)
- Sand paper/sanding sticks
- o Tweezers
- Rubber bands
- $\circ \quad \text{Paint or stain} \quad$
- Glue carpenter's wood glue in a small applicator bottle with a small tip.

Nice to Have

- o Weights for keeping assemblies flat while the glue dries
- o Small clamps
- Small jeweler's flat file
- Rail nippers for the brass wire in the kit.

#### **CUTTING & SANDING**

- Put a new blade in that hobby knife. A #11 blade with a fine tip works best. Carefully cut each nib (sprue) which hold the pieces to the carrier wood. I find it easier to see them from the back side.
- Do not remove the pieces until you need them. As you cut out each piece, sand the sprue nibs flush. They really stand out if you don't do this.
- Use the hobby knife to cut the parts out. Snapping them out can break parts.
- Clean up the laser char by sanding around the edges. This makes the wood easier to paint and glue. Glue has a funny habit of sticking to the char and not through to the wood and of course, the glue joint then will not hold.

#### PAINT

I paint or stain the parts before gluing anything together. You can paint it after assembly but I find it much harder to do it that way. If you paint first, when gluing, I take my hobby knife and scratch the gluing surface with the tip of the blade, if paint is on it. This helps the glue soak in the wood and grab. Stain usually is so thin I don't scrape it.

When I paint the structure side walls and trim, I used contrasting colors but it is your kit so

what ever colors you like, use. I do **NOT** recommend water based paints as the kit is made from thin wood, and wood warps.

If you do use water base paints, paint both sides at the same time so both surfaces are wet. This minimizes warping. When drying the piece, position it so air gets to both surfaces. This also helps minimize warps. I stand the piece upright and lean the piece against a box or something where the air can move around both sides of the wood.

I like to use leather dyes. I purchase black, brown and Ox Blood (red) colors and then mix to suit. I use baby food jars and fill them three quarters full of alcohol and then with an eye dropper add the stain. I use test wood to sample the shading, until I get a color I like. The ratio is about 95% alcohol to 5% stain. My first color build of this model will use black stain for the bents and beams with a deep red stain for the coal hopper and building walls.

When painting, I use rattle cans of spray paint and a spray paint booth. The solvent based paint dries quick and painting both sides isn't a must (the bare wood holds glue better if not painted). Flat primer colors look best, I think. I painted the small pieces while still attached to the carrier wood, so the little pieces don't blow away when spraying. I use the paint sparingly. Light coats are better then one heavy coat. Less paint will give you a more weathered look which I like. If I need a touch-up, I spray a little paint in the spray can top and use a small brush.

#### Assembly

- Here's a tip that is very important. Dry fit the pieces as you go to make sure you have the correct piece. This is really important when using the sticky backed trim. The sticky stuff sticks like crazy and you don't have much of a second chance to remove the piece to reposition it.
- I first assemble the foundation and weight it while gluing and drying. The concrete foundation should be painted a grey color at the top and around the edges. I use Floquil aged concrete color. I like their solvent based paints but they have stopped production of those. If you haven't stocked up you are out of luck.
- You can assemble all the small sub-assemblies in any order but the tower needs to be able to have the coal hopper inserted from one end before the last outside bent is glued on.
- I mount the door in the bucket dumping house wall before gluing the walls together.
- Next assemble the walls. The walls have the alignment fingers in the corners and they have a trick to them. Place two adjoining walls face down inner-locked together. Apply glue to just the backs of the fingers on both pieces. Stand the walls up and bring the corner together. The glue should only be on the inside of the corner, just where you need it.
- Assemble the next two walls, then when dry put the two halves together.
- For the roofs I take a black magic marker and color the edges and about 1/8" in on the top. This hides any gaps you may have when covering the roof with the rolled roofing (tar paper).
- 1/16" black string beads work well for the chute weights. I drilled a small hole in the top of the pulley for black tread to fit through. Use about 6 beads on the end of each end of the string and let them hang down between the two beams on the front.

I hope you enjoy building this kit. I enjoyed the challenge of bringing it to you.













DRAWING 6

COAL HOPPER SUB-ASSEMBLY



WHEN GLUE IS DRY, SAND BEVELED EDGES FLUSH WITH WALLS SO EVERYTHING IS SMOOTH AND HOPPER FITS IN THE BENTS.





















