

GRASSELLI TOWER



BUILD INSTRUCTIONS

About Grasselli Tower

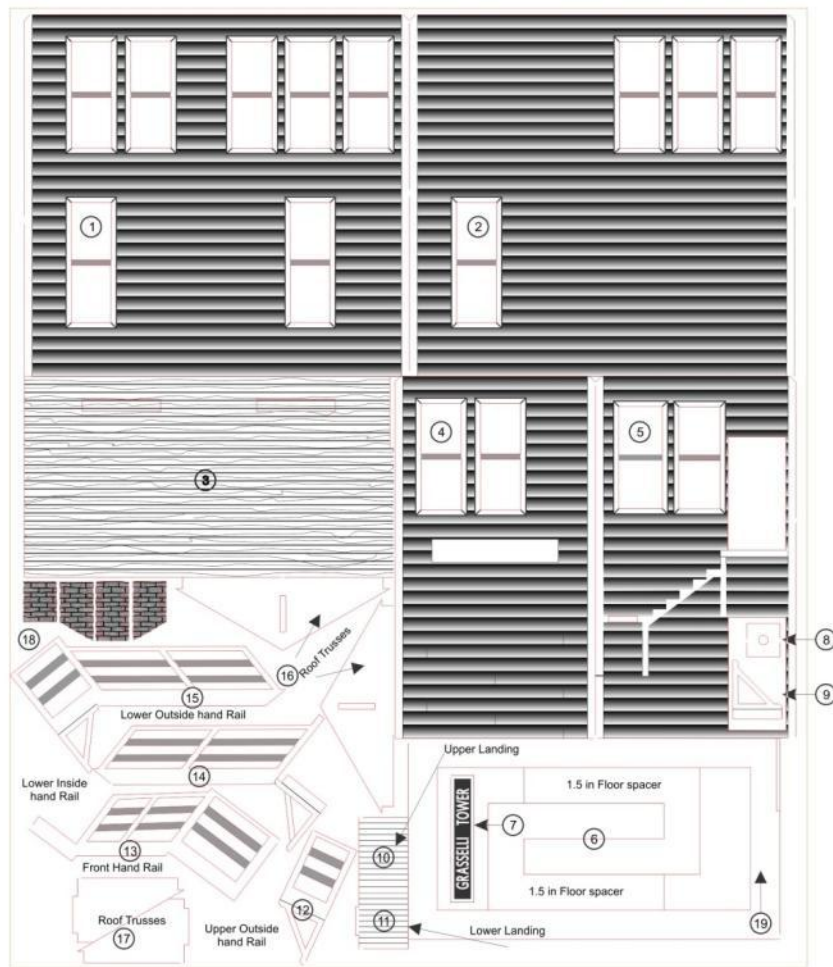
One of the last working interlocking towers in the Chicago land area was decommissioned in the late part of 2007. Grasselli Tower is located in East Chicago, Indiana and once controlled the interlocking for the Elgin, Joliet & Eastern (EJ&E), the Indiana Harbor Belt (IHB), and the B&O Chicago Terminal (B&OCT). One of the "lesser known" towers, it was long overshadowed by its bigger sister a mile north - Calumet Tower (which at this writing is still operational).

Grasselli Tower is a two story wooden structure that measures approximately 12' x 35' and consists of a 68 lever mechanical interlocking plant. Most of the levers remain, but a few were removed in recent years to make room for a new heating system. It is currently sitting along a very busy portion of the IHB's mainline and the railroad wants it moved as quickly as possible.

Research has uncovered a few details about Grasselli Tower. Grasselli may have been built as early as 1906, but is confirmed to have been in place at least in 1916. A track diagram from 1916 for the interlocking plant shows that it was originally called RA Tower. The name "Grasselli" came from a long-gone chemical plant located near the tower that was served by the IHB.

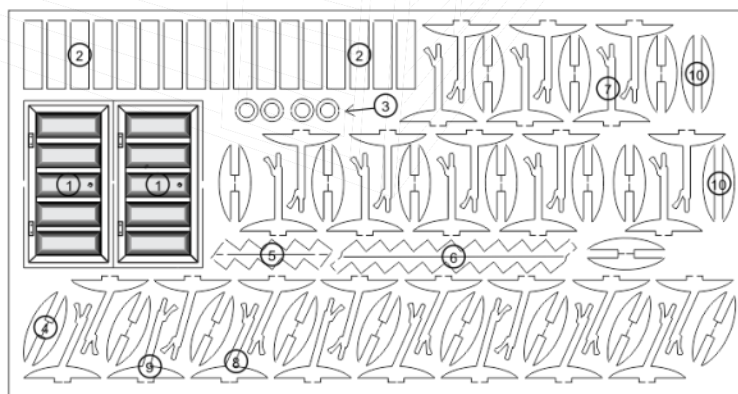
Most manually controlled railroad towers in the United States have been closed and demolished. There is a glimmer of hope for Grasselli - the IHB has donated the tower to the Hoosier Valley Railroad Museum in North Judson, Indiana. The museum intends to move the interlocking tower to the museum grounds. Unfortunately, IHB has given HVRM a very short timeframe to get the tower moved. The museum must act quickly in order to save Grasselli and we need your help!

- ① Left Side Wall
- ② Right Side Wall
- ③ Floor
- ④ Back Wall
- ⑤ Front Wall
- ⑥ 1.5" Floor Spacer
- ⑦ Grasselli Tower Sign
- ⑧ Chimney Cap
- ⑨ Upper Landing Support
- ⑩ Upper Landing
- ⑪ Lower Landing
- ⑫ Upper Hand rail
- ⑬ Front Hand rail
- ⑭ Lower, inside Hand rail
- ⑮ Lower, outside Hand rail
- ⑯ Roof Truss A
- ⑰ Roof Truss B
- ⑱ Chimney parts (4)
- ⑲ Building Base



Main building - parts list

- ① Doors
- ② Steps
- ③ Safety Rings
- ④ Half Moon spacers w/ tab
- ⑤ Short Stair Stringers
- ⑥ Long Stair Stringers
- ⑦ Straight levers
- ⑧ Backward leaning levers
- ⑨ Forward leaning levers
- ⑩ Half Moon End Caps



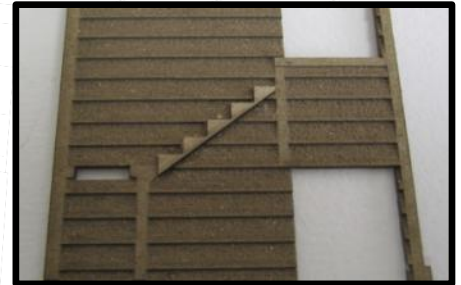
"W" prefix - Wood components parts list (includes spare parts)

Thank you for your purchase of the **RSM Grasselli Tower** HO scale model building. Extreme care and detail went into this model to give you an finely detailed and life like model. With that being said this model is designed for the advanced model builder. Many skill sets are required.

Recommended tools:

- i) Precision ground 1-2-3 blocks, or any type of metal cube (miter box, etc.)
- ii) Metal straight edge.
- iii) Razor knife.
- iv) Small tipped glue applicator, or toothpicks for applying glue.
- v) Super glue, wood glue, and/or Elmer's School Glue (white). **NOTE:** Only tiny drops of glue are necessary to assemble the parts.

1. Clean all parts with a short hair brush to remove any soot or loose debris from the laser manufacturing process. Using a sharp knife or razor remove the individual components from the sheet. Some parts may have shaken loose during shipment.

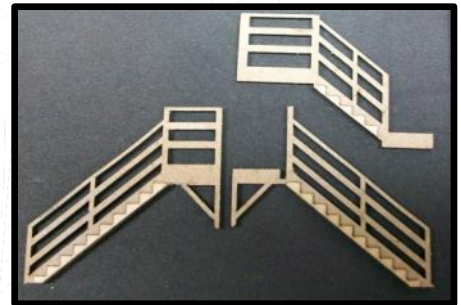


Pic 1

2. Start with the main walls and install the white paper window frames. Center to the window edges. If you intend to completely detail the interior of your Tower, or leave the doors open, you may wish to trim down the frames. They are intentionally oversized to allow ample room for glue.

3. Mount the upper and lower Doors W-1 on the inside of the Front Wall 5. Center to door openings. Door knobs should be on the left exterior.

4. Assemble the four walls, parts 1-2-4-5, around Building Base 19. Note that the longer walls overlap the corners of the shorter walls. (OPTION: You may complete the staircase on Front Wall 5, then attach the other walls. See Step 16.)



Pic 2

5. Glue the Small Stair Stringer W-5 onto Front Wall 5. Pay attention to orientation of the stringer; there is a top and bottom. (PICTURE 1)

6. Attach the other Small Stringer W-5 to Front Hand Rail 13. Attach Long Stair Stringers W-6 to Lower Hand Rails 14 and 15. (PICTURE 2)

Once the stringers have dried, begin assembling the staircase from the upper door. **For best results, test fitting is crucial before applying glue. Use tiny drops of white or wood glue to lightly secure the parts. Once you are satisfied with the fit, reinforce the joints with superglue.**



Pic 3

7. Attach Upper Landing 10 and Upper Outside Hand Rail 12 as shown in PICTURE 3. Note that the boards in both landings are perpendicular to the wall.

8. Attach Lower Landing 11 to voided area on Front Wall 5. (PICTURE 4)

9. Attach Lower Inside Hand Rail 14 beneath the landing, matching the vertical support with the voided area on the wall. (PICTURE 5)

10. Attach Front Hand Rail 13 to the upper and lower landings. The lower edge fits into the notch in 14. Check the square and alignment between all landings and handrails. (PICTURE 6)



Pic 4



Pic 5



Pic 6

11. Attach Lower Outside Hand Rail 15 to the outer edge of the lower landing. Position a step or two (W-2) in the bottom of the stringer to check the spacing and alignment of the rails. (PICTURE 7)

12. Attach Upper Landing Support 9 in voided area between the upper landing and the lower door. (PICTURE 8)



Pic 7



Pic 8

13. Place small amount of glue onto bottom side of each plywood step, and install the steps W-2 in the staircase. White glue is particularly recommended in this stage to allow for any adjustments.

14. Assemble the lever system as follows. Glue two Half-Moon Spacers W-4 into a slot in Floor 3. Install a Lever (7, 8, or 9) with the angled handle pointing towards the closest edge of the floor. (PICTURE 9) There are enough levers to create whatever configuration you desire. The sequence in each slot is: two half-moon spacers, one lever, two half-moon spacers... until the slot is full. One full run in each of the two floor slots will consist of nine levers and sixteen half-moon spacers.

15. When both runs of levers are completed, attach a non-tabbed Half-Moon End Cap (W-10) to each end, to finish off the lever assemblies. (PICTURE 10)



Pic 9



Pic 10

It is advisable to paint the floor and levers at this time, prior to installation. The levers were white, with reddish-brown grips at the top. Small safety rings were used to indicate if a section of track was out of service. Four such rings are provided as part W-3. These should be painted red, and hung over levers of your choice.

16. If you assembled the staircase first, you may now finish assembly of the four walls (1-2-4-5) around Building Base 19. (PICTURE 11)

17. Insert a Floor Spacer 6 into each end of the first floor (PICTURE 12 & 13), and bring the 2nd floor through the top of the tower, until it rests on the spacers. NOTE: The levers are on the "track side" of the building, the wall with four windows. These spacers are included for your convenience; they will keep the floor level while it's being glued, and ensure the correct position of the floor beneath the upstairs door. With the second floor glued, remove the spacers.



Pic 11



Pic 12



Pic 13

18. You may choose to paint the exterior of the building at this time, as the acetate windows must be installed before the roof can be attached.

19. Place a dot of glue at each corner of the windows, and attach the clear acetate.

20. Assemble two sets of Roof Trusses, parts 16 & 17. Using the ears of the roof trusses as location points, glue the trusses to the front and back of the Tower. (PICTURES 14 & 15)



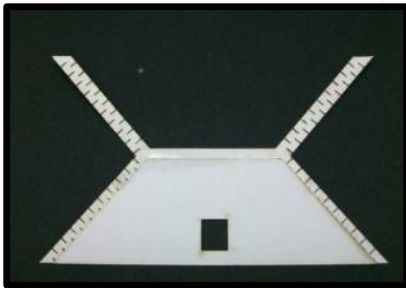
Pic 14



Pic 15

21. The roof elements are five items on a printed sheet. Cut them out, and glue the ridge cap securely to one of the large roof sections as shown in PICTURE 16.

22. When the glue is set, use flat-nose pliers to bend the ridge cap along each ridge. (PICTURE 17)



Pic 16



Pic 17

23. Attach the roof panel/ridge cap assembly to the trusses with small amount of glue. Do the same for the other three roof panels. Check the fit at each joint and each corner. Inverting the building will allow a good perspective of the corner fit. (PICTURES 18 & 19) When the roof panels are set, fold the ridge cap into place and glue it along each ridge. Trim any overhang flush with the roof edge.



Pic 18



Pic 19

24. Construct the chimney using the four parts marked 18. The longest brick panel should be positioned so that it is located closest to the roof panel edge. The interlocking edges will make it easy to assemble. Make sure the corners form a perfect 90 degree angle. After all panels are assembled add Chimney Cap 8 to the top of the chimney, and glue it into the roof. (PICTURE 20)

25. The GRASSELLI TOWER sign mounts in the void on the back wall, opposite the stairs.



Pic 20

You'll find ample photo references on the internet for painting the Tower. Earlier photos show a completely white structure that deteriorated over the years, while the renovated Tower is being painted light green with dark green trim.

