EASTERN NEW YORK KITS
WATER TANK CAR

1. Take the 1"x6" dowel and place on back of scribed wood (in a corner) and draw two circles for the tank ends and cut them out. Trim to fit dowel end.

2. Build tank wrapper by placing and gluing the 3/32" x 3/32" x 6 3/8" pieces to the wood dowel. Be sure to adjust them so the overhang is the same on each end. Also, be sure that the pieces are cemented to the dowel so the wrapper pieces are straight on the tank.

3. Take the basic floor material (2" x 7¼") and trim the width to 1 11/16" and the length to 7". Take the scribed sheathing from the opposite end and cut off two pieces. Each piece 1 11/16" wide and 3½" long. This is the floor material. Cement this to the basic floor material. When cutting scribed floor, use the plain floor as a guide for the width. Take th se two pieces and cement to the basic floor. Trim all sides flush.

4. Take the tank support material (7" x 3/16" x 3/16"). Make four pieces from this (1 11/16" long) trim each to an approximate 45° angle. Do not change length. Position two supports 1" from each end on the scribed floor. Glue in place. These two supports will be right over the truck bolsters if scale trucks are used. Locate the center of the car floor and cement the remaining two bolsters ½" from the center line on each side.

5. Mark the center line (½ of 27/16") on the top of each tank support. Cut a small notch with the "v" of the notch under the center line. Wrap fine sandpaper around tank assembly and sand out the notches in tank supports until rounded.

6. Locate the bolsters 1" from each end of the floor and cement. This should be directly underneath the end tank supports.

7. Take the side trim material (3 pieces-2 pieces ¼" x 1/32" x 7" long, one piece ¼" x 1/32" x 3½" long). Cement to the flat car with the tops flush with the scribed floor. Cut two pieces 1 3/4" long, each from the piece which is 3½" long. This is the end trim.

8. Take galvanized wire(34" piece supplied). Cut three pieces 6" long & two pieces 8" long. Take the thin wire for the tank bands. Wrap one around the center of the tank. Twist the ends together at the bottom and cut off close to the body. Do the same ½" from each end of the tank. Make sure they don't interfere with tank supports. Twist all wire at the bottom of the car so it will be hidden on the car.

9. Install the tank ends, cut out in step 1, by cementing inside the end of the tank dowel with the scribed lines running horizontally.

10. Center the tank body on the tank supports and cement.

11. Drill a hole on each side of the tank floor midway between one end support and one middle support. Drill 5/16" from the side of the flat car body. These holes are for the tank's bracing wires. The wire goes around the tank's wrappers. Trim off excess and glue end of wire (four holes are required).

    Hint: Put wire thru holes,then twist with needle-note pliers to make a snug fit for wire around body. Trim excess wire.

12. Measure 2" from each end of the car. Draw a light line across the floor of the car. Truss rod wires will have to enter the floor of the car at this point as not to interfere with the trucks. Draw another light line 3" from each end of the car. Trim each block supplied with the queen posts to the size of the queen post's bottom plate. Take the eight blocks and cement them so they are spaced equally apart with the edge facing the center line so that it is directly on the lines that were drawn 3" from the end of the car. Cement the queen posts directly on top of these blocks. (Make sure the edge facing the center line is the edge that is on the line 3" from the end of the car.)

13. Install the four wires to the queen posts by drilling eight holes (four on each line drawn 2" from each end of the car). Drill the holes so they are in line with the grooves on the queen posts and at an angle with the drill tilted towards the center line of the car. Be careful not to drill too far through the car floor. Cut four truss rod wires from wire supplied approximately 3 3/8" long each. Four pipe unions are included and can be used by slipping over the wire and glued to the wire between the queen posts.

14. Cut four pieces from the scribed sheathing 5/16" x 7/8" and another 1" x 1". These are the tank dome sides and top. Cut two pieces of the 5/16" x 7/8" so that they fit over the tank top. These are the dome ends. Glue on the 1" x 1" top to the side and end pieces. Glue assembly to the top of the tank.

15. Take the 1/16" x1/16" stripwood. Cut two pieces 1" long. Cement these on each end of the top of the flat car floor. Center them equally from each side of the car.

16. Take the 1/16" x 1/16" stock and cut four pieces 1" long. Install two of these on each end of the tank. These go on the tank ends that were cut out in step one. They should be put in vertically and will be a tight fit.

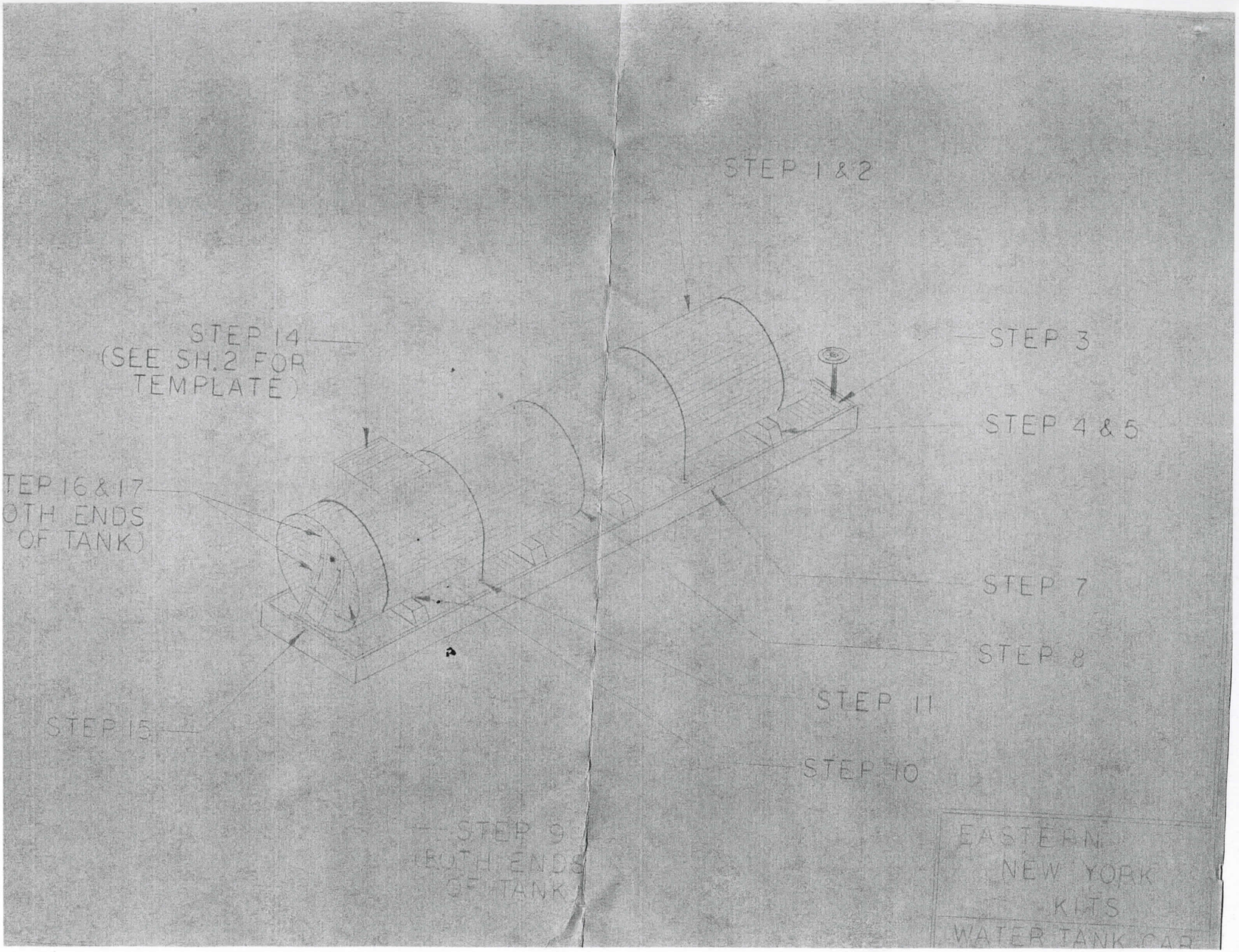
17. Take the 1/16" x 1/16" stripwood and cut four pieces 1" long. These are the tank end braces. They support the tank between the pieces installed in step 15 and the pieces installed in step 16. Cut a 45° angle on one end of these four pieces. They go from the floor and butted against the end piece installed in step 15 and with the angled end cemented to the vertical pieces installed in step 16.

18. Cut two pieces from the 1/32" x 1/32" stripwood approximately 3/8" long. Check the size required by measuring on your model the distance across the two pieces installed in step 17. Attach these pieces about midway up on the inclined end braces installed in step 17.

19. Install trucks and couplers of your choice. Ace Arch Bar trucks recommended for this car. Some trimming will be required on the end trim material installed in step 7 to allow proper mounting of couplers.

20. Painting of the model should be done upon completion of sub-assemblies. We recommend a stain of dark characteristics to reflect usage. e.g. water carrying, creosote, oil, kerosene, etc. It was used mostly for drinking water or water for cement at construction sites. Brake details should be installed before assembling truss rod wires.

21. Install grab irons and brake wheel on ends and side. See drawings for suggested locations. Nut, bolt, and washer detail can be added to the ends for the truss rods and to the angled sides of the tank supports. A latter can be made out of scrap pieces for reaching the tank dome. Scale reefer hinges can be used for door hinges on the tank dome. Use your imagination! If a woodlike finish is not desired, use a sanding sealer before painting.



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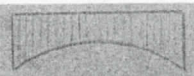
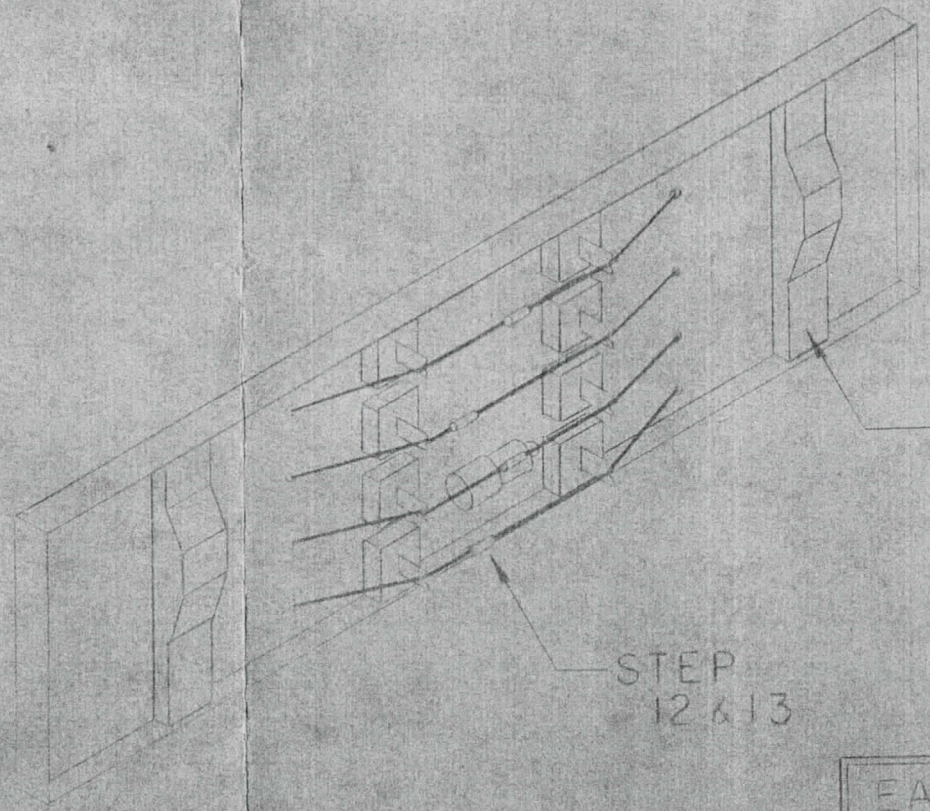


END
2 REQ'D

SIDE
2 REQ'D

TEMPLATE
OR STEP 14

TANK DOME



BOTTOM VIEW OF CAR

EASTERN
NEW YORK
KITS
WATER TANK CAP
SHEET-2