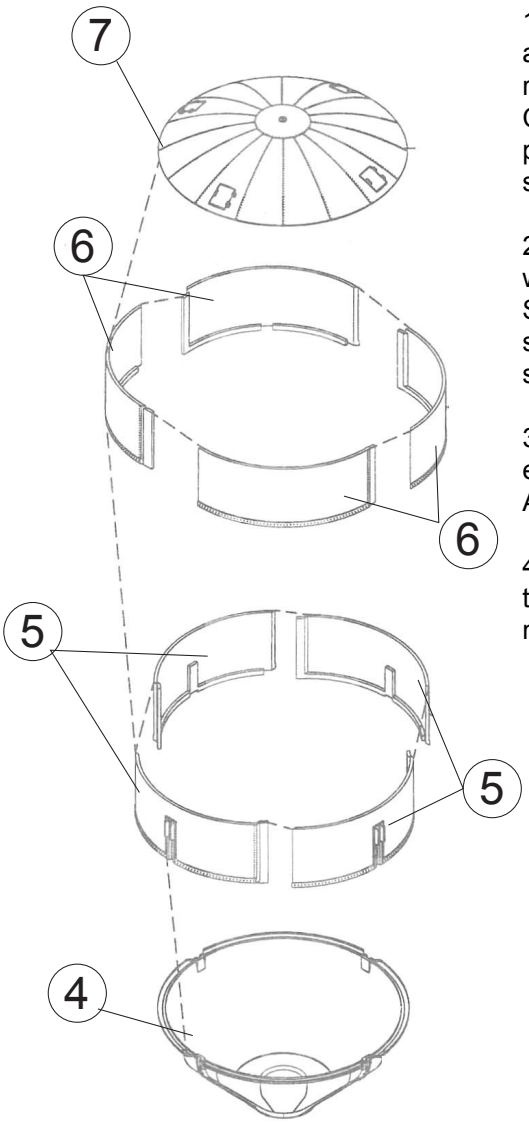
N Structure Kit

STEEL WATER TANK

933-3817

Thanks for purchasing this Cornerstone® kit. Please read these instructions and study the drawings before starting. All parts are styrene plastic, so use compatible paint and glue to finish your model.

The introduction of the 2-8-4, 4-8-4 and simple articulated steam locos in the 1920s allowed railroads to move heavier trains over longer distances, but bigger power also had a big appetite for fuel and water. Bigger tenders were used to speed schedules by eliminating station and water stops, however existing service facilities were often hard pressed to keep up. With steel becoming a common building material, it was adapted for a new generation of higher-capacity water tanks. Cheap to build and easy to maintain, most were constructed by riveting and caulking steel plates together, which also simplified repairs or a complete disassembly if the tower had to be removed. In colder areas, the underside of the roof was sometimes insulated with wood to reduce the chances of freezing. Tanks were painted to resist rust and corrosion, but dark colors also kept them warmer. As they were big, and space was often at a premium, new steel tanks were sometimes built well away fromtheir usual spot at trackside and lacked traditional spouts. Water columns were then erected wherever they were needed, each connected to the central tank by a 12" (30.4cm) diameter pipeline to deliver up to 6000 gallons (22712l) per minute. At coaling towers, the column would be placed to allow engines to take water at the same time; some had columns at each end to serve trains heading in either direction, and some yards had separate columns in different locations to serve road and switch engines. While diesels needed only a few hundred gallons of water for cooling or steam generators, steel water tanks at bigger terminals were often put to work supplying water for fire protection, wash racks and similar purposes. In use from the 1920s on, with some still standing today,your new model is ideal for detailing everything from a remote water stop, or the service tracks in a major terminal. Parts are included to build a pair of water columns, each approximately 10" (25.4cm) in diameter; the prototypes could supply about 4000 gallons (15142l) of water per minute, making them ideal for medium and large steam locos. A trackside oil column is also provided for refueling oil-burning locos. See your dealer, the current Walthers Model Railroad Reference Book or walthers.com for additional details to complete your scene.

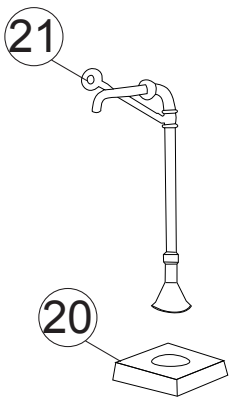


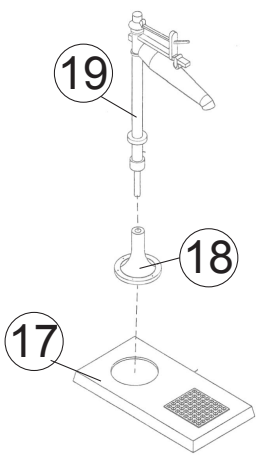
1) Glue Water Column Bases (2x 17) to Platforms (2x 18). Note the small operating levers molded on the Water Columns (2x 19) and the Oil Column (21); remove these parts carefully from sprue to avoid breakage. TheWater and Oil Columns may be inserted into their bases so they can be turned, or glued in place if desired. The finished columns can be placed at any convenient trackside location and were often some distance from the tank itself.

2) PLEASE NOTE: Align leg-mounting points on Lower Tank Sections (4x 5) with notches in Tank Bottom (4) as shown. The outside edge of each Tank Section overlaps the mounting point on the inside edge. Align and glue sections together where edges meet; align completed lower assembly as shown and glue to Tank Bottom (4).

3) PLEASE NOTE: Align Upper Tank Sections (4x 6) as shown. The outside edge of each Tank Section overlaps the mounting point on the inside edge. Align parts and glue together where edges meet.

4) For more realism, stagger the riveted joints of the upper and lower sections then glue completed Upper to Lower tank section assembly. Note correct alignment and glue Roof (7) to tank assembly.





5) Note tabs on inside of each Riser Column section (2x 2, 2x 3), align and glue at inside edges where parts meet. Glue completed Riser Column to opening in Tank Bottom.

6) With holes in upright portion facing center of Base (1) glue Footings (4x 11) to mounting points on base.

7) PLEASE NOTE: Carefully trim any sprue material from the ends of Legs (4x 9) and Flanges (4x 10). The notched end of each Flange is the bottom and aligns with the “step” in the lower part of each Leg. Align and glue parts as shown to make four supports. Grasp completed leg assemblies near the bottom, and carefully press into holes in footings until they are fully seated and upright.

8) Place the bottom of the Riser Column in the base, align the leg mounting slots on the tank with the legs and test fit – do not glue – each leg into the corresponding slot. The legs should come up to the tops of slots with the Riser fully seated in the base. Adjust so all parts are vertical and secure in place with liquid cement.

9) Carefully remove X-braces (4x 11) from sprue. Insert the short bent ends of one X-brace into the holes in the upright parts of Footings (#10); it may be necessary to trim the rounded tips off of these ends to avoid interference between adjacent braces. Lay the tower down so the upper ends of the brace rest against the legs. Apply cement to the joints at the top and the bottom. Repeat for remaining braces.

10) Align the narrow upper end of the Upper Ladder Section (14) between the triangular ends of the Roof Ladder (15) – the upper ends should not extend above the triangles – and glue together.

11) Align hole in upper end of Roof Ladder with hole in center of Roof; Roof Ladder should follow the curve of the roof, and the lower section should be vertical with the projecting tabs on the flange around the tank. Carefully glue Finial (7) into roof opening so the ladder assembly rotates freely.

12) Glue Lower Ladder (13) to one of the Legs; the ladder support brackets are offset to avoid the zigzag bracing. The top of Lower Ladder #12 should be just below the bottom of Upper Ladder #13.

13) While the location of the Water Gauge (16) is not critical, it was usually placed where it was easily seen by both engine andmaintenance crews; the small diamond-shaped piece on the outside represents the water level indicator. Align the projecting tab on the back of the Gauge underneath the flange on the tank, with the angled end resting on the roof. Apply a bit of glue at the bottom then make sure the gauge is vertical and apply a bit of glue at the top to secure it to the roof.