INTRODUCTION

This familiar car is perhaps the most long-lived and successful USRA design. Of 22,000 cars built, many were still in service into the 'sixties, and some even into the 'seventies. The basic design was adopted by the ARA, resulting in additional tens of thousands of nearly identical cars. Common variations included the popular covered hopper and the often-seen pressed steel side,
1 GENERAL ASSEMBLY

Study fig. 1 carefully, and follow our assembly sequence exactly to avoid serious problems later.

1) Test fit FRAME to BODY—fit should be firm, not tight. Relieve with a fine flat file if necessary. DO NOT CEMENT.

2) Clean WEIGHTS with a coarse flat file; cement in place with ACC. Note scribed locator lines for position of end weights.

3) Cement BRAKE CYLINDER C-3 to pad on frame.

4) Cement AIR TANK C-4 to other pad on frame.

5) Bend and install air line and trainline if desired, fig. 2. Drill #75 hole in end of cylinder.

6) Gently rotate brake clevis on cylinder to 45 degrees, install BRAKE LEVER C-11 as shown. Trim off protruding lever under frame to prevent fouling wheelsets.

7) Install BOLSTERS D-3 making sure they are square and fitted to the small notch. Let dry.

8) Insert Trainline (.020 wire) into hole in bolster; cement AIRLINE CROSSPIPE C-14 between tank and trainline with ACC. Trim .020 wire flush with back of bolster.

Note: Very little rigging shows on this car, so to go further is an option — check your references for guidance.

9) Carefully remove END C-1, trim with a fine file until fit is achieved, cement in place. Ends fit between sides, with poling pocket overlapping. Be patient, as the end is delicate. There will be a small square notch resulting at the top flange, to be covered later.

10) Repeat with end C-2, also the "B", or brake end.

11) Carefully insert frame into body, with the brake gear on the "B" end. Center into body, check and adjust fit at the coupler pocket — when all is set, cement, but do not cement the diagonal braces into the corners at this time.

12) File ends of CROSSBRACE C-7 to be an easy fit between sides, cement in place. If modeling P&LE or NYC, or a later version, you may choose instead the LARGE GUSSETS C-8 and C-9.

13) Remove two END BRACE LOCATORS D-2 from sprue. Remove END BRACES D-12 from sprue, file ends to fit, and install as shown in fig. 3. Don’t cement locating to car body.

2 DOOR DETAIL

1) Cement DOORS D-7 and D-8 in place, making sure the raised tab is in line.

2) Cement SHORT CHANNEL D-9 in place.

3) Cement LONG CHANNEL D-11 in place.

4) Cement LONG ANGLE D-10 in place.

5) Cement two PLATES D-16 in place as shown.

6) Cement one PLATE C-6 in place at the center as shown.

7) Remove SUPPORT STANDS D-1, press into each truck holder hole. This will provide a place to rest the car as we finish it up.
3 ASSEMBLY, continued

1) Slightly rounded corners of top flange to accept CORNER GUSSETS D-13. Cement in place at each corner.
2) Drill all grabiron holes #79. Trim all to 1/16" long.
3) Install all grabirons with ACC cement as follows: Straight grabs at four top corner locations, and two bottom locations. Drop style grabs are used at all other locations.
4) From .010 wire, cut four long grabs as shown.
5) Cement side pieces in notches provided with ACC.
6) Cement end pieces to notch in corner post and behind C channel at the hole provided.

.010 STRAIGHT GRABIRON

4 BRAKE DETAIL

1) Cement PLATFORM BRACKETS D-15 to B end.
2) Cement PLATFORM C-5 to brackets, noting bolt head locations.
3) Cement LOWER BRAKE STAFF SUPPORT C-10 in place.
4) Cut BRAKE STAFF from .020 wire, insert thru ratchet wheel. ACC at platform and lower support.
5) Cement MINER BRAKE OPERATOR C-12 in place at top of staff.

Note: If using the more common later version of Vertical brake staff, mount PLATFORM BRACKETS with lower leg even with bottom of vertical end panel as shown, omit MINER operator.

.020 BRAKE STAFF, MINER style

SHOWN FULL SIZE .020 BRAKE STAFF, vertical

5 FINAL ASSEMBLY

1) Cement DOOR OPERATOR D-5 to the center of each left hand slope sheet. There is no means to mark the location for you, so eyeball it.
2) Cement DOOR OPERATORS D-6 in place on the right side.
3) Cement STIRRUP STEPS D-4 in place, noting that they will push up the corner diagonals a bit, and when properly installed they will angle out from carbody.
4) Install couplers, retaining with COUPLER POCKET COVERS C-13. File each notch in cover to clear frame.
5) Install TRUCKS with self-tapping screws provided.