

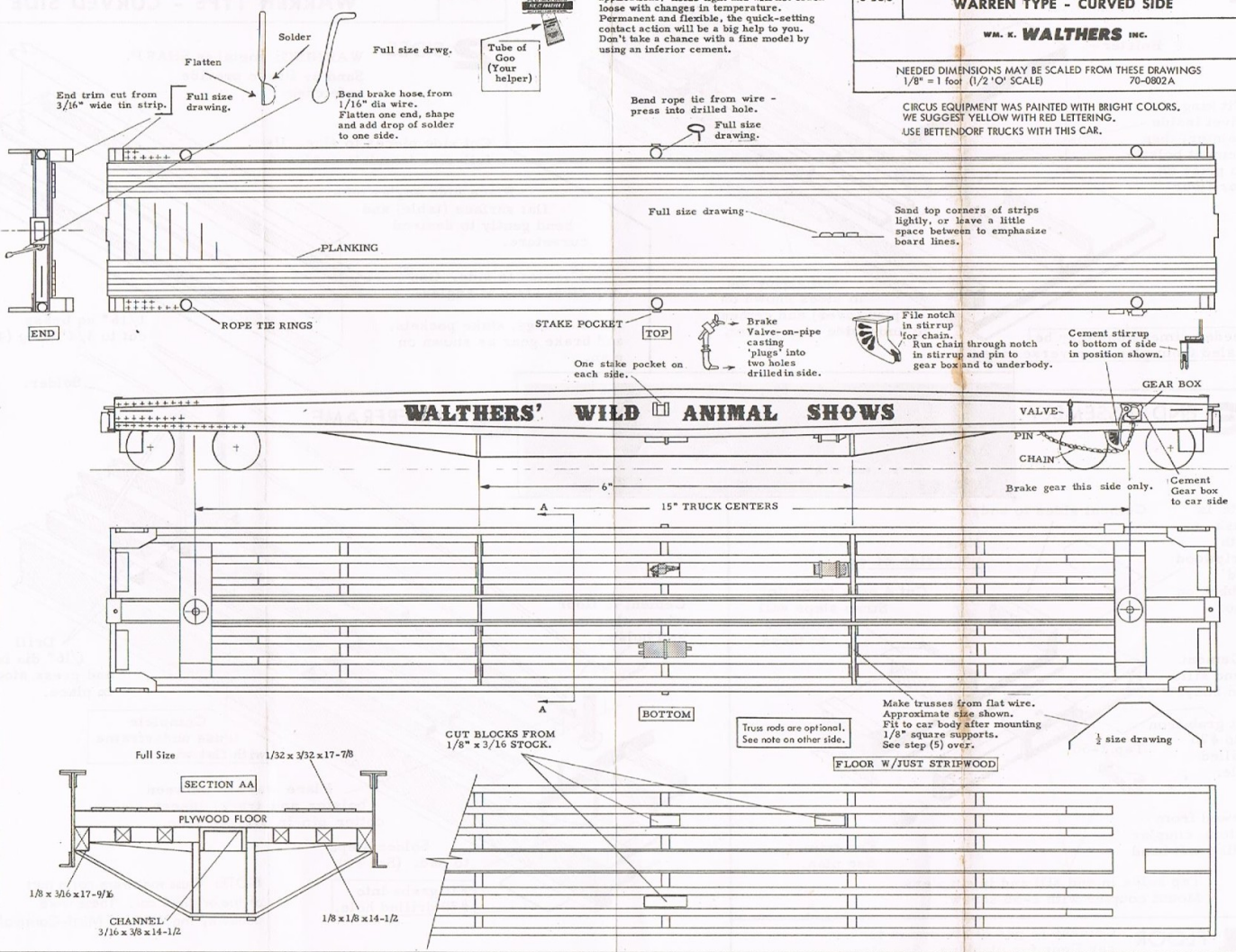
ALL DRAWINGS 1/2 O SCALE UNLESS OTHERWISE NOTED.

5409 'O' SCALE 72' CIRCUS FLAT CAR
WARREN TYPE - CURVED SIDE

WM. K. WALTHERS INC.

NEEDED DIMENSIONS MAY BE SCALED FROM THESE DRAWINGS
1/8" = 1 foot (1/2 'O' SCALE) 70-0802A

Be sure you use a good model cement. Walthers Goo® is excellent for wood-to-metal applications: holds tight and will not crack loose with changes in temperature. Permanent and flexible, the quick-setting contact action will be a big help to you. Don't take a chance with a fine model by using an inferior cement.



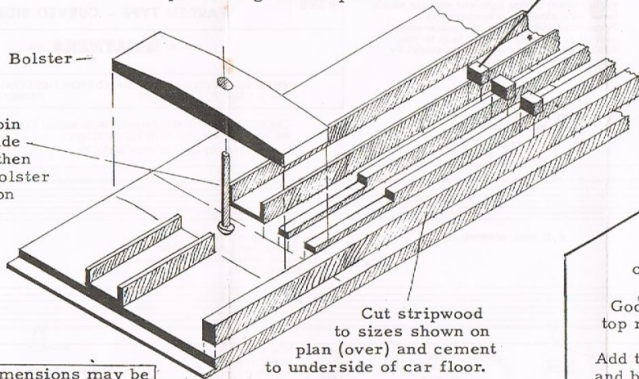
CIRCUS EQUIPMENT WAS PAINTED WITH BRIGHT COLORS. WE SUGGEST YELLOW WITH RED LETTERING. USE BETTENDORF TRUCKS WITH THIS CAR.

1 UNDERBODY

See reverse side for exact positioning of stripwood.

Cut blocks from 1/8" sq stock

Bolster
Fit king pin rivet inside bolster, then cement bolster in place on car floor



Needed dimensions may be scaled from plan on reverse side.

Cut stripwood to sizes shown on plan (over) and cement to underside of car floor.

5409

'O' SCALE 72' CIRCUS FLAT CAR WARREN TYPE - CURVED SIDE

2 SIDES

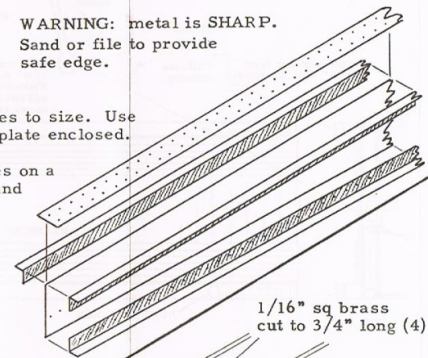
WARNING: metal is SHARP. Sand or file to provide safe edge.

Cut side pieces to size. Use full-size template enclosed.

Place side angles on a flat surface (table) and bend gently to desired curvature.

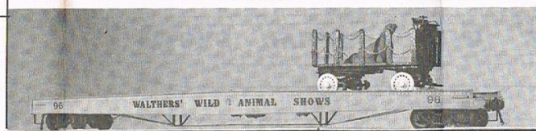
Go[®] angles to side. Go[®] top rivet strip to angles.

Add tie rings, stake pockets, and brake gear as shown on plan.



1/16" sq brass cut to 3/4" long (4)

3 END ASSEMBLY



Side is flush with stripwood and rabbet on floor.

Cement sides to body

Note: underside of car.

Cut 4 pads from tin. Strap steps will be soldered to these.

Cement end sills to body.

Fit grab iron into #70 drilled hole.

Tap 2-56

Viewed from bottom, coupler is like left hand

Tap holes in end sill and in couplers. Mount coupler with 2-56 screw.

End trim. See plan.

4 FLOOR

Cement 12 pcs of stripwood to car floor for planking. See plan.

5 UNDERFRAME

Cement to floor where channel and bolster meet.

Solder.

Drill 1/16" dia hole and press stock in place.

Complete truss underframe with flat wire.

Place washer between bolster and truck, insert cotter pin in kingpin hole.

Solder steps to pad. (See #3)

Fit grabs into #70 drilled hole.

NOTE: Truss rods were not a part of the original car. These were added by the World of Mirth Carnival.