## Tank Car Part II

But first Notes and ECNs (Engineering Change Notices) on Part I.

I found a typo in the first series of drawings. This came to my attention when I first started assembling my frame. You may notice that the access holes for the 1/4 20 shake proof nuts that hold the car bolster on are not large enough to get a socket into. Well those holes should be 5/8" not 3/8". With a 5/8" hole a thin wall socket fits into that hole, which was what was intended.

If you look at the actual work in progress that I bring with me you will notice that the car bolsters are not beveled per the drawing. This not an item to be concerned about. The story is that the set of trucks I have for this project are not from Mountain Car Co. And I have discovered that the truck bolster supports are a little further apart than on a MCC truck and the supports are not symetrical. So for the use of these weirdo trucks I did not bevel the car bolster.

Now on to NEW stuff (Part II)

## BUILDING THE DECK

## **BILL OF MATERIALS**

 QTY	DESCRIPTION
 28	#6 32 x 3/4" BUTTON HEAD SCREWS
4	CORNER CLIPS (MAKE)
2	6' 1" ANGLE
2	15 1/2" 1" ANGLE
3	15" 1" SQUARE TUBING

This section forms the walk around deck that the tank sits on. The majority of the deck is made from 1" angle stock miter cut to form a basic rectangular frame. We need to start by making up the basic pieces out of angle and tubing.

First take the two 6' pieces of 1" angle and cut the ends to a 45 degree angle. Make sure that the 45 angle is cut to the inside of the stock so the one flat surface is a full 6'long. See drawing. Once these cut to size. You will now need to drill 10 #6 clearance holes in the piece. see drawing for positions. The #6 holes will be used for assembling the deck.

Make the next two pieces of 1" angle in the same manner as the six foot pieces but these tow pieces make up the end sills. These pieces are 15 1/2" across the flat face of the 1" angle. Now these two pieces will need 4 #6 clearance holes in them. See drawing for positions.

The next to fabricate for this section is the corner pieces. These are just 1" angle cut into 3/4" long pieces. These are then drilled and tapped for #6 32 thread. See drawing for details.

Now with the outer frame parts fabricated assemble the basic frame.

Take the two six foot pieces and the two 15 1/2" pieces of angle and fit them together in a rectangle. Bolt together the corners using the corner braces that you made out of the 3/4" pieces of 1" angle. The corner pieces go on the inside of the deck frame. Attach with the #6 button head screws. Do this operation on all four corners.

Next make the 3 frame spreaders out of the 15" long 1" square tubing. These are very simple parts. The only thing that has to be done is to put a bevel on the end of the tube. This allows the sqaure tube to pull up tight to the inside of the 1" angle. This bevel must be applied to both ends of the tube. The tubes must now be drilled for 4 #6 tap holes. The simplest way to position the holes is to clamp the frame spreaders to the 1" angle of the deck frame and transfer the hole positions from the frame to the frame spreaders. The holes need to be tapped to accept a #6 32 thread. These frame spreaders will mate to the deck pieces.

Now with the basic rectangle is completed and the frame spreaders take the 1" square tubing pieces and attach them to the inside of the deck frame making sure the beveled side and the taped holes are facing the inside top of the deck frame. Attach these with the #6 Button head screws in the three places indicated in the drawings.

I have now caught up with this project and my constuction is at least one article ahead. Now ,hopefully, I can catch the minor mistakes before they propigate into the drawings or the article itself. Next time Well be forming the tank saddles and attaching the deck to the frame.







.25"

