Lines West DSDX HO Version Assembly Notes

By

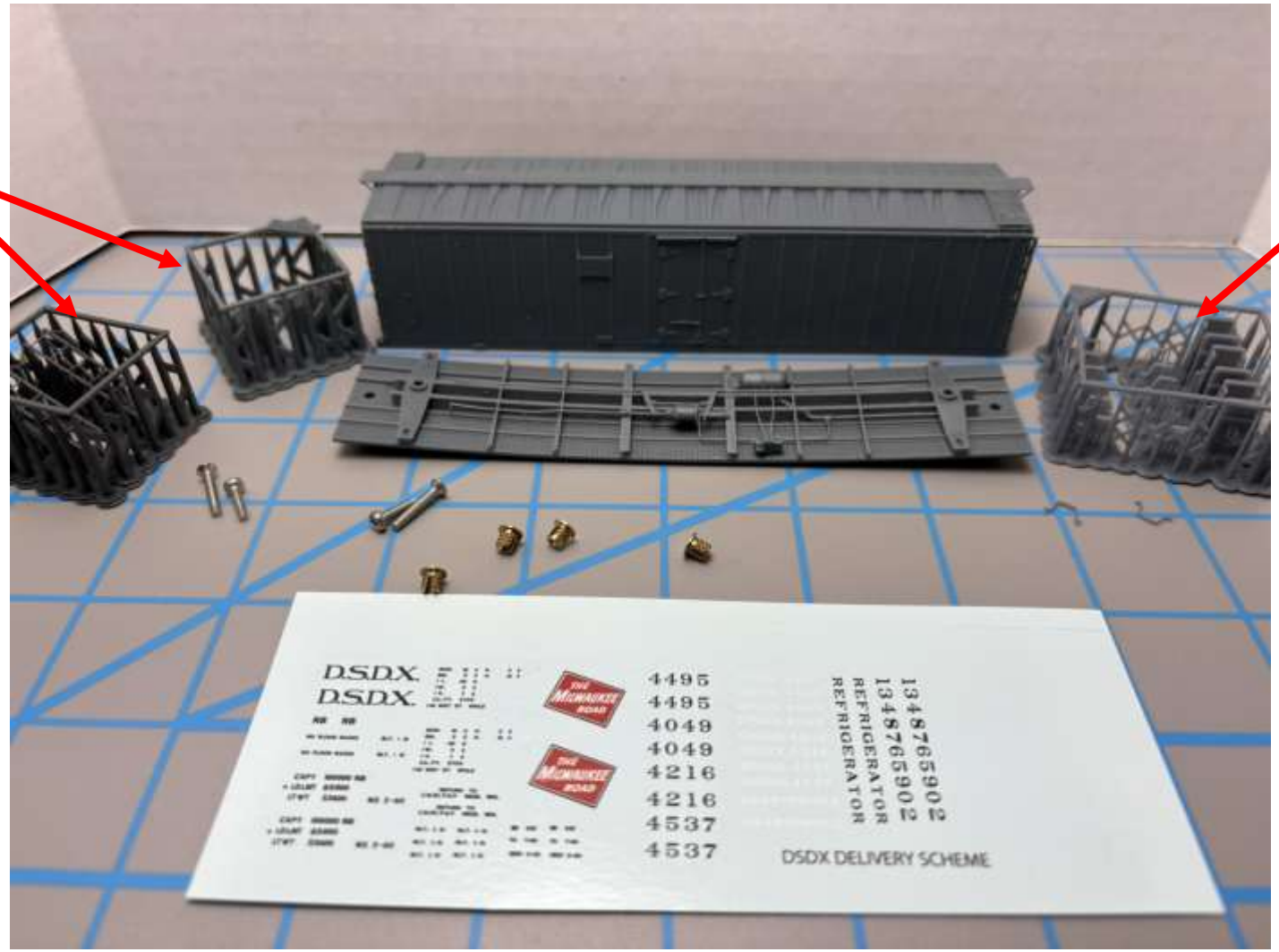
George Toman

The following are my assembly notes for the Lines West DSDX cars. This was a preproduction kit for a 4ft door version. I used this to check the build and look for defects, so your model will have some improvements and added details such as Tow Loops added to frame.

You may find different methods and tools to assemble. This is what I used for this build.

Pictured below is the Lines West HO DSDX kit contents for the as built 4ft door.
The other versions are very similar

Side Ladders protected by cages. Must be cut out.
Spares provided



Draft Gear and stirrups protected by cages. Must be cut out.
Spares provided.

Body and underframe.
Note: the bow in underframe is normal and will be removed

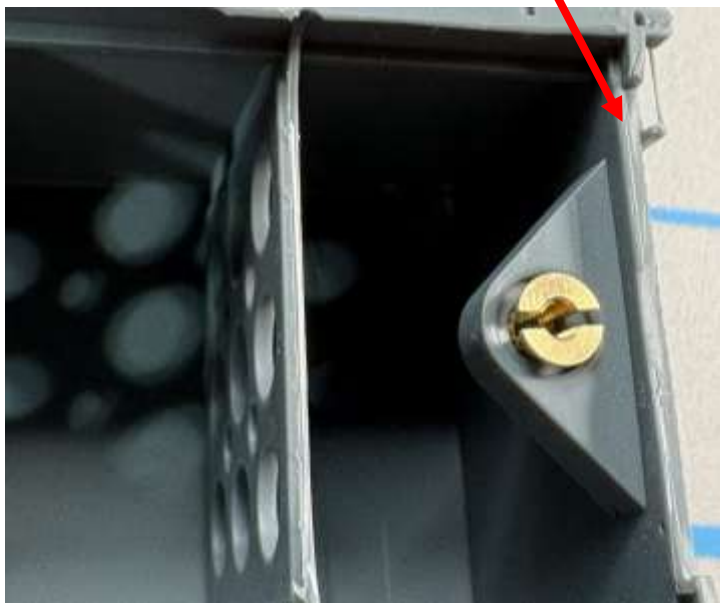
Other parts include
Decals
4 screws (2-56)
4 brass threaded insets

My assembly starts with washing the body with Dawn Power Wash spray soap and an extra soft tooth bush. You must be careful of detail like ladders and other raised parts. You may feel that washing is not necessary.

Once dry, I insert the brass threaded inserts into the body. These are a press fit and should not be forced into a too small of a hole. If I find the hole a bit too small, I use a rat tail file to enlarge.

Cleaning hole to accept brass insert to be press fit with a small rat tail file

Note the flat end sill



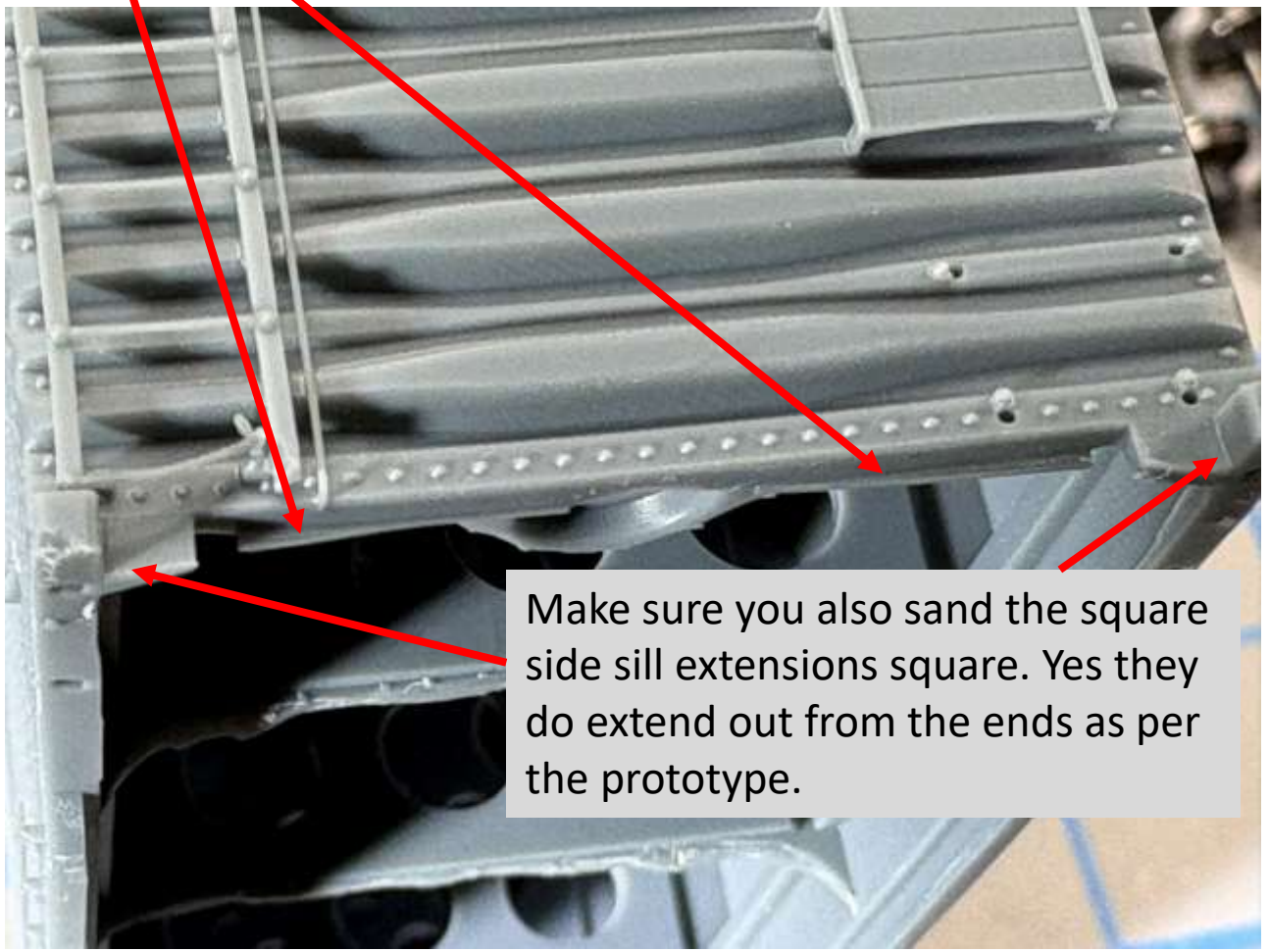
Brass insert ready to be press fit. Note the surface of insert is to be flush to resin surface or slightly below

Brass insert properly pressed/inserted in hole

I prepped the body by cleaning excess resin from the inside of the body. I used a Micro-Razor saw to cut straight down along side and then removed the excess

A sanding stick (240 grit)was used to clean the cut. Note, I cut the end of my sanding stick square to clean the sill and lip

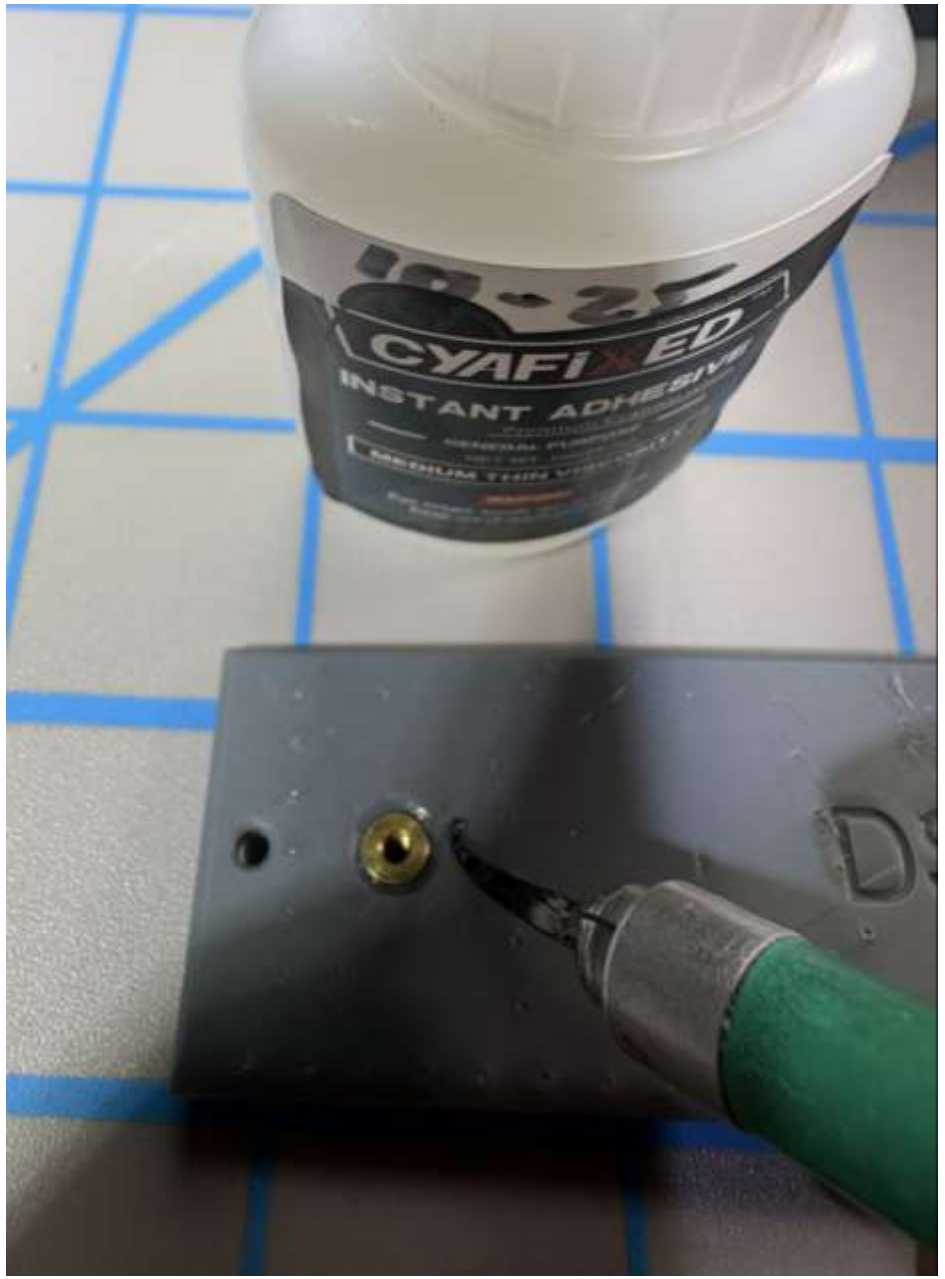
Make sure you cleanup /file the flash that may be present on the bottom of the end sill. The draft gear / coupler box may tip if you fail to make sure the end sill is flat and has this removed. Slight flash may be hard to see. Examples below of what needs to be filed flat



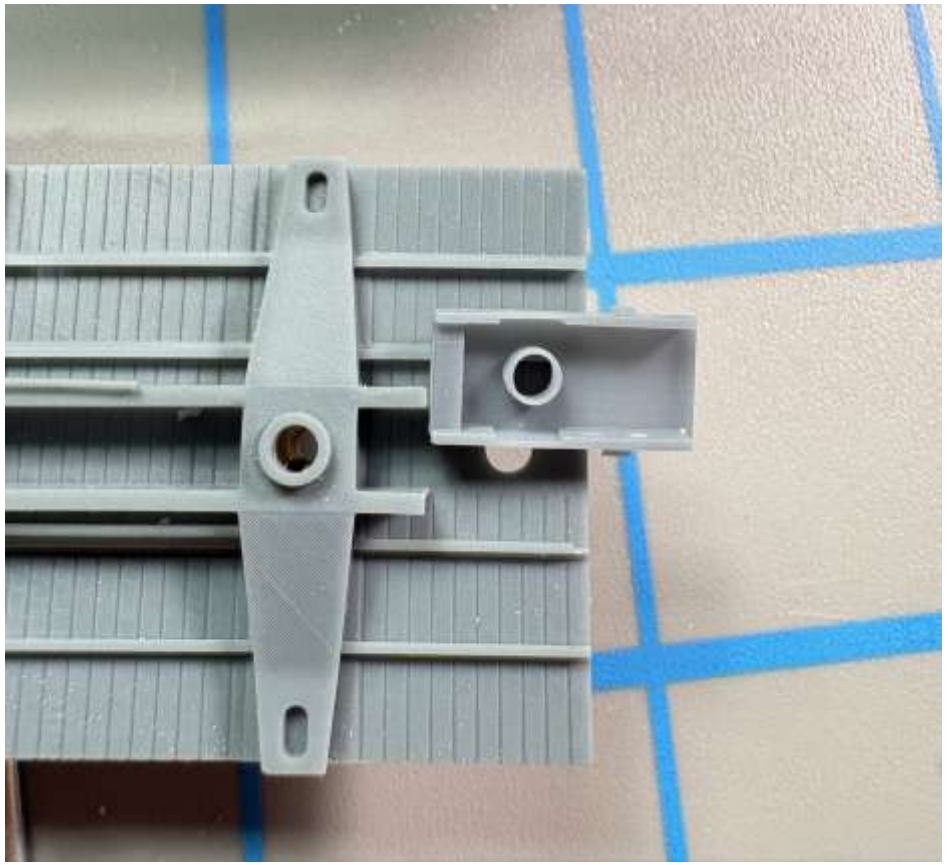
Make sure you also sand the square side sill extensions square. Yes they do extend out from the ends as per the prototype.

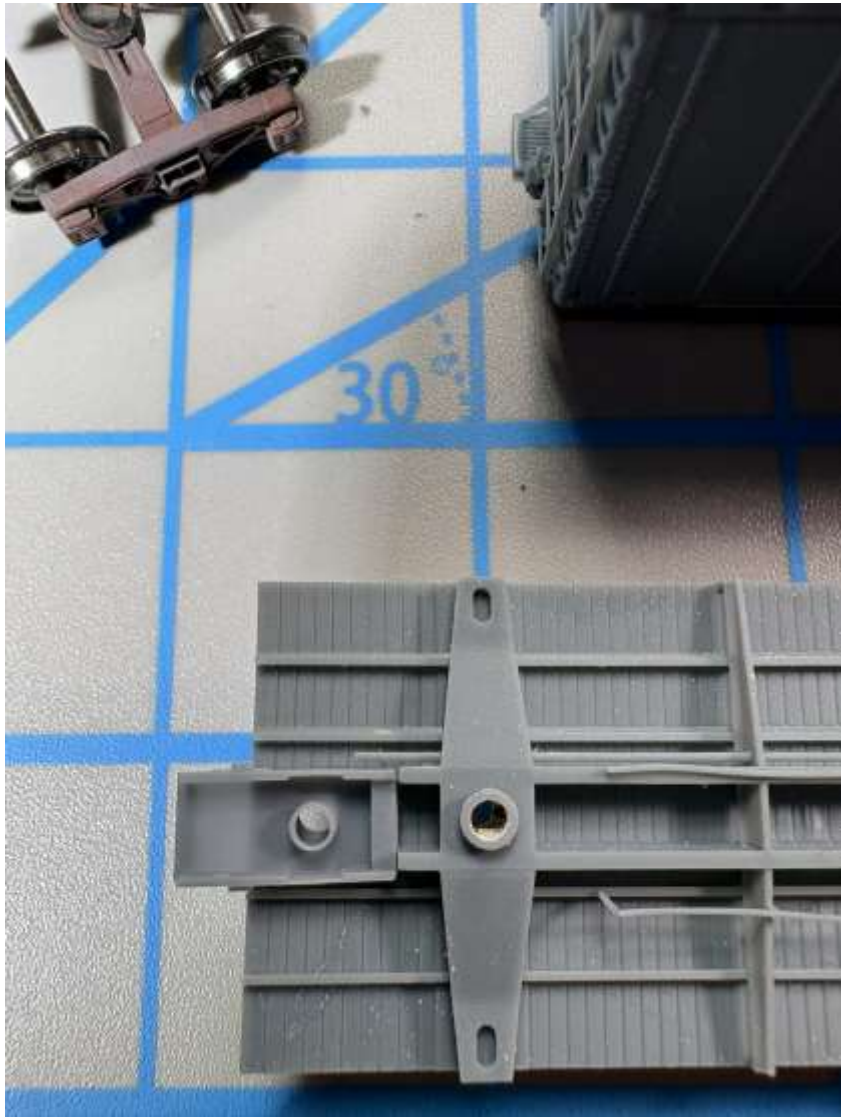
The underframe needed the bolster hole cleaned out a bit with the rat tail file for the insert.

Once I had it inserted, I added a bit of CA medium thin glue around outside. Don’t get in the threaded area



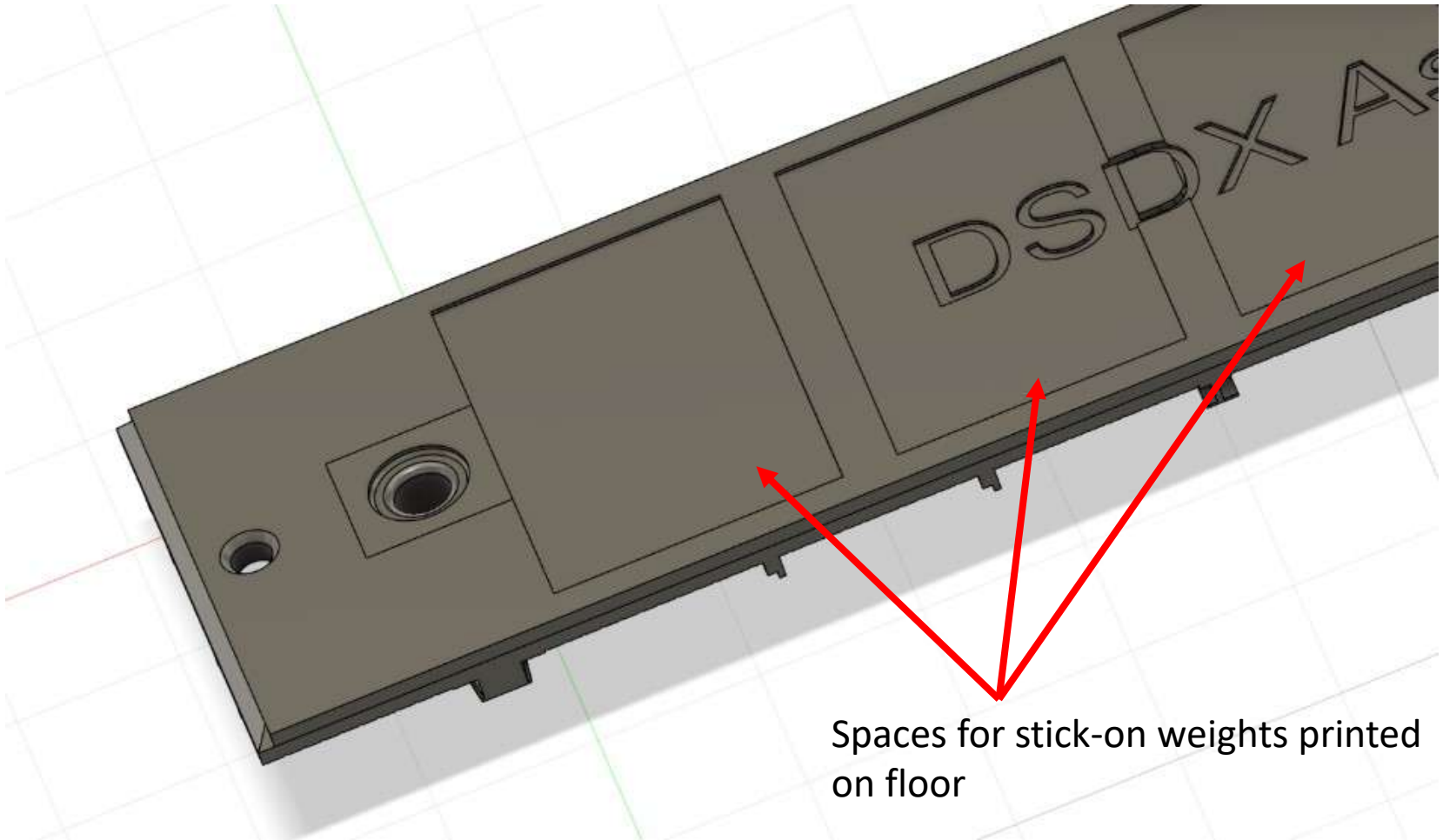
Below is the draft gear being test fit in place. I had to clean the center sill a bit to center the hole.





I used Automotive self stick tire weights. I used 1 ¾ oz and centered as seen below. Some of the interior support were cut out to make room. NOTE-This is no longer required. See below.

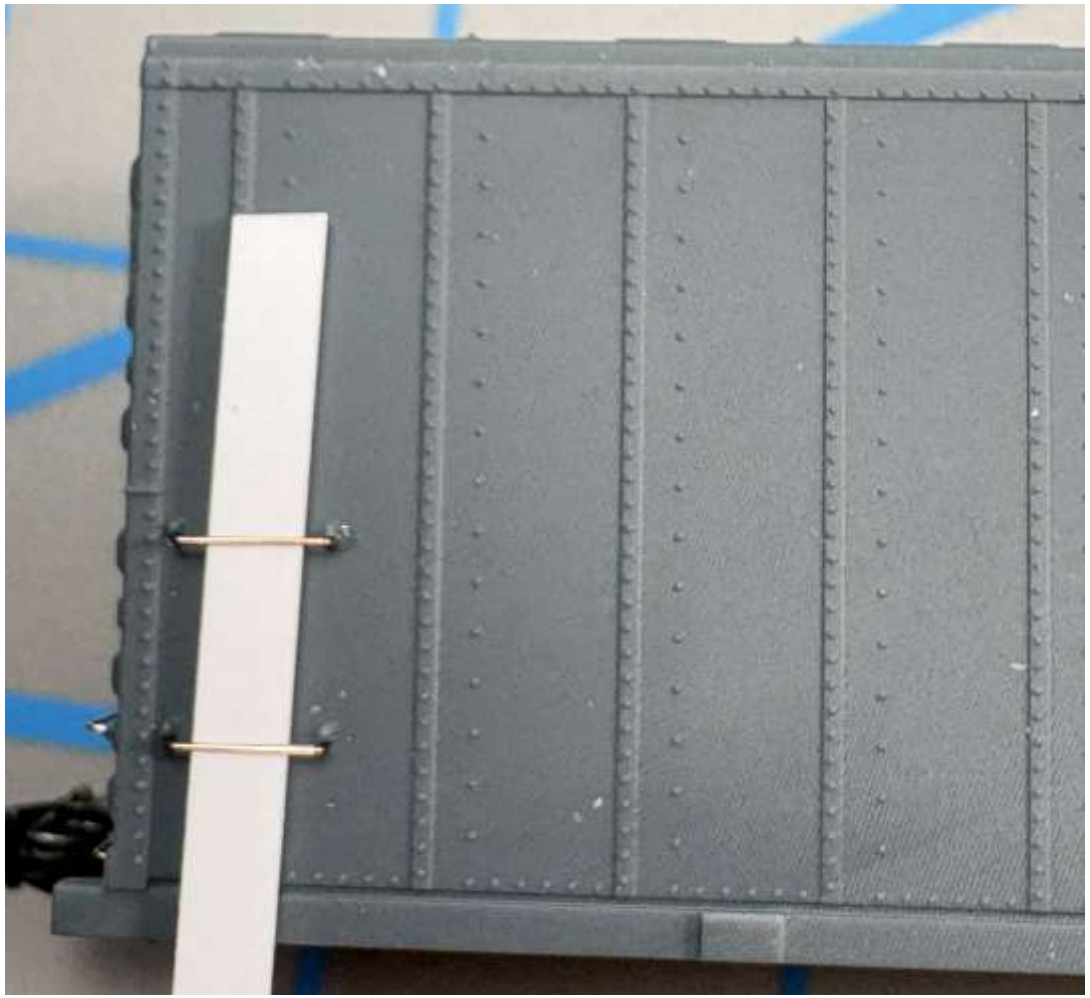
Note: Production kits will include a new style floor with spaces for the stick-on weights to be positioned. No need to modify interior shell bracing. Weights will fit between bracing.



The floor is now placed in body, draft gear with Kadee’s added and lid. The tapered head screws are now used to attach to the body. Note that the warp in the floor is removed. Note make sure your coupler boxes are parallel to floor.

Please use your own method and wire size to bend your side and end grabs. I bent my own grabs from .008 Tichy wire. My method uses a digital caliper set to .2115.

The holes are all printed. Sometimes you may have to clean one out. When using .008 wire I found I only had to clean one hole. The grabs were inserted and spaced with a .030 thick piece of styrene and glued in place with CA glue.

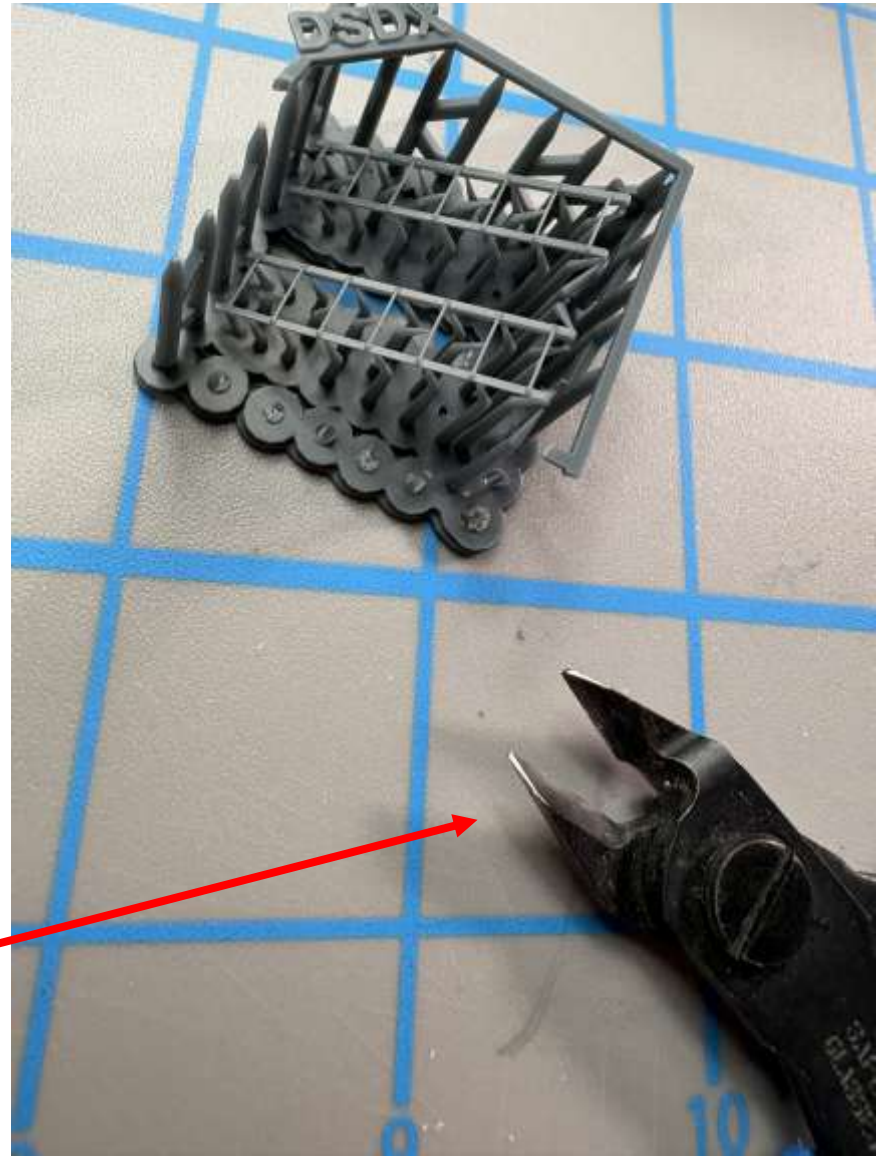


The ladders are cut from the cages and painted separately and added after painting the body . This is a help for masking the two-tone paint.

Note that the outer part of the cage is removed 1st allowing access to the finer ladder attachment supports.

You will need to also cut the corner and center steps out at this time as well. I also attach these after decals and when trucks are added

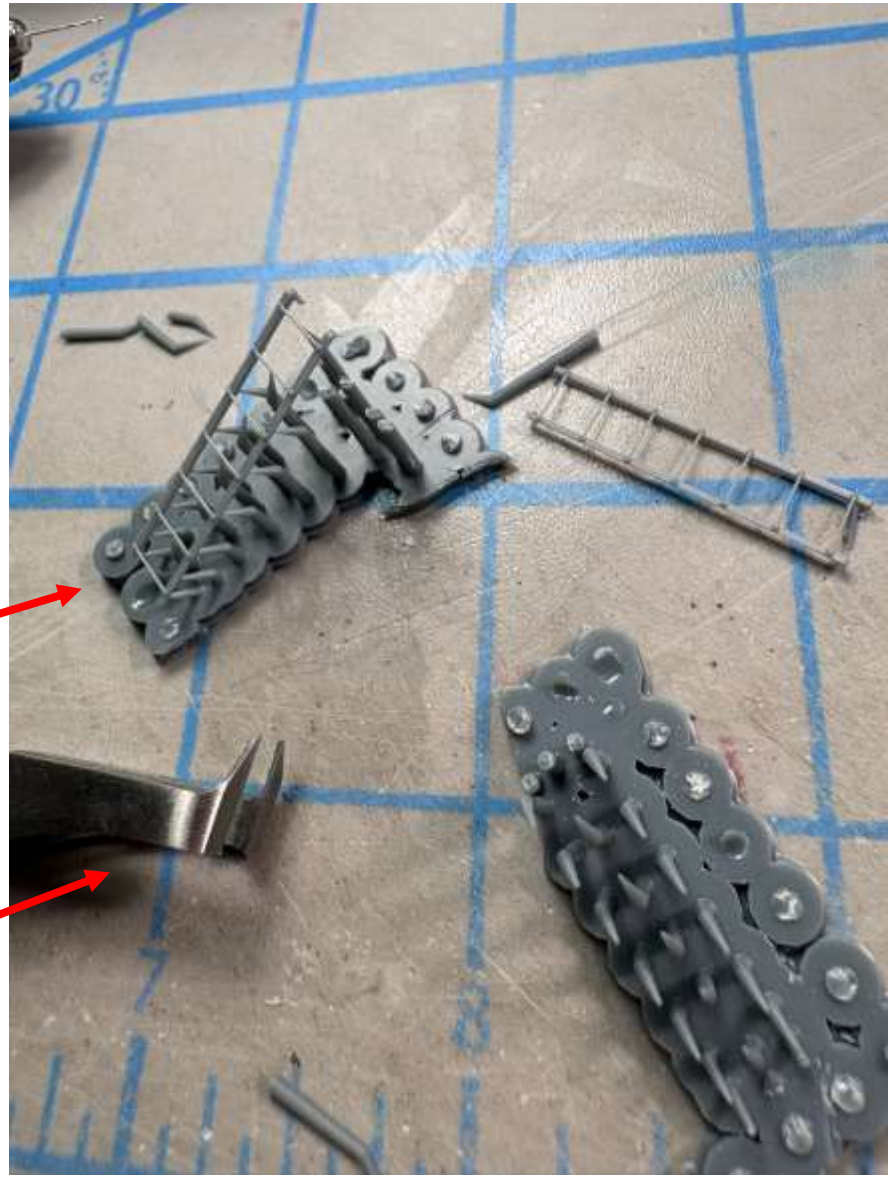
Xuron Nippers model 9200 I used to cut outer support cage



Pictured to the right is my in progress cutting of the ladders from the protective cage. The outside cage was cut first. Next, I cut the heavy bottom support between the two ladders with the heavier nippers as used on the previous page. This allows the use of P-B-L nippers or similar to cut the fine supports carefully from the ladder..

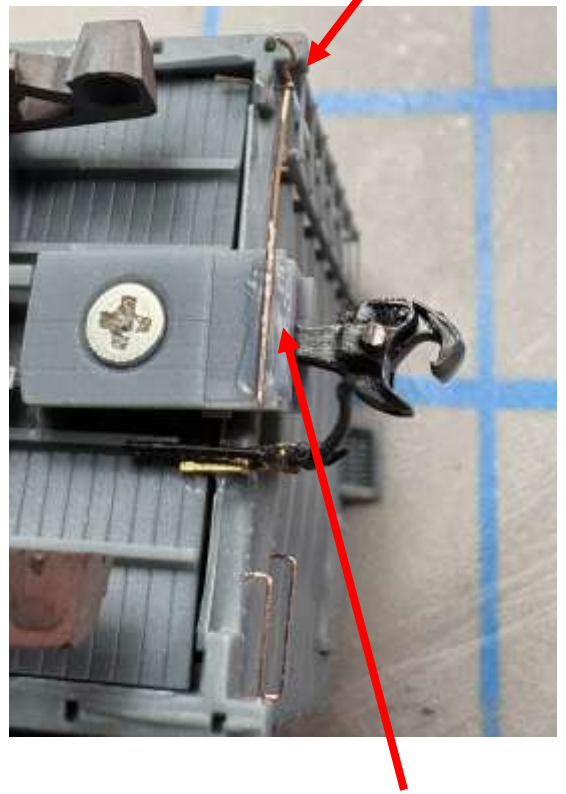
Outer support cage cut off allowing access to delicate ladder supports

P-B-L Nippers



I formed my cut levers from .0125 Tichy PE Wire as seen in the photos below. You can get an idea of size using the 1 inch cutting mat squares as a guide.

A Yarmouth (now Speedwitch) PE Eyelet was used on the corner bracket below end sill to mount the cut lever



A bead of Canopy glue was used to secure cut lever on top of coupler box cover

Running Board Corner Braces were bent from Tichy .010 PE Wire and attached the laterals by drilling (cleaning) the holes with a #80 drill bit.

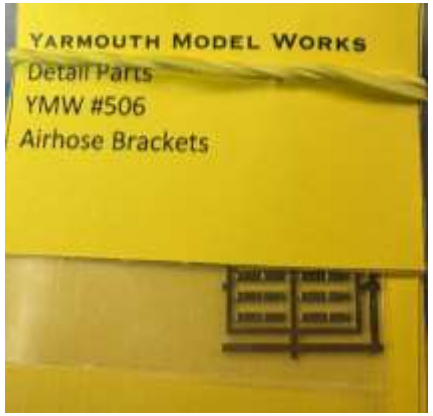
A Speedwitch Photo Etch eyelet was used to mount the corner

I set my Digital Caliper to .212 to make equal length legs bent at a right angle as seen in photo

In this photo you see how I attached the rubber airhoses using PE airhose brackets now sold by Speedwitch Media

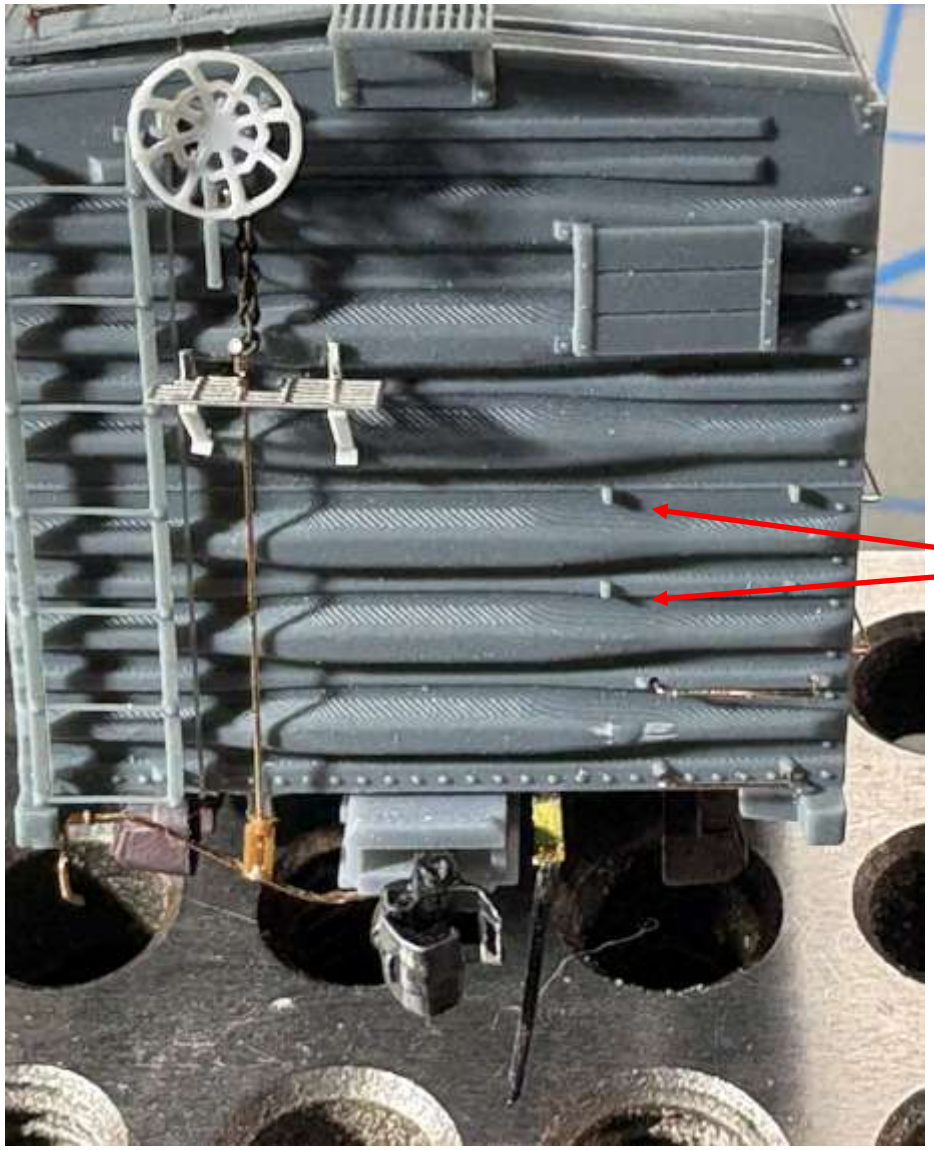
You can also see the bellcrank I used on my pre production model.

Yarmouth, now Speedwitch, PE Airhose brackets



Pictured is the **Pre production** model I used for test building and looking for errors.

I used a Tangent Ajax brake wheel, plano brake step, and brass chain to finish this model. Yours will have the brake housing, brake step, rod and bellcrank in place.



Note these four mounting brackets will be removed on your model. This 4ft door version had the high mount tack board. Different versions will used the appropriate mounting location.

Next up is to prime, paint and decal

When done I will add the trucks of your choice, steps, side ladders and brake wheel.

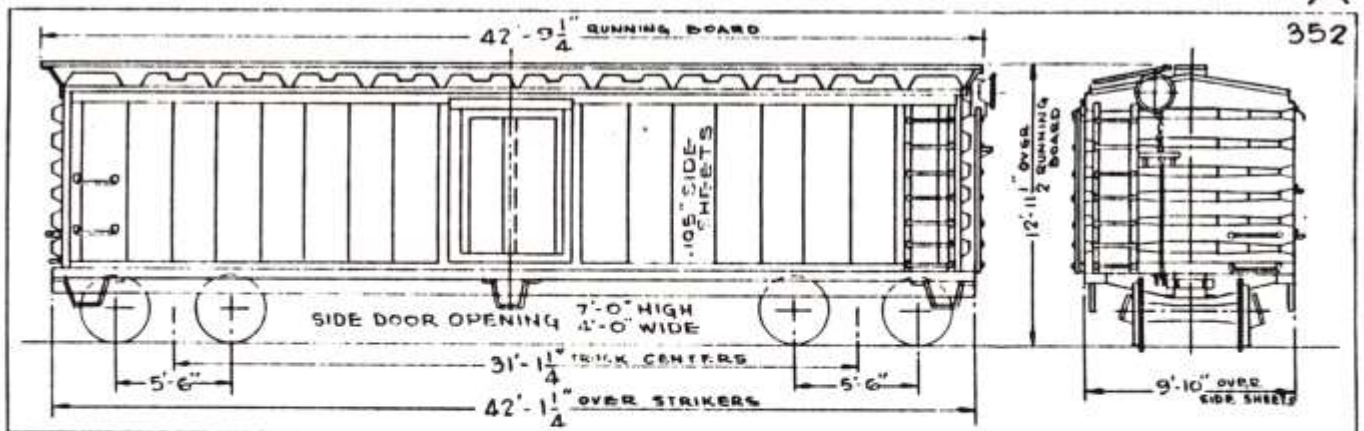
The Ladders will be attached with Canopy glue after paint , but before Decals

I add the steps with Canopy Glue right before weathering.
Canopy glue is use as if a step is broken, it is easily replaced with the spares provided

Note: I used Tahoe Barber S-2 trucks

Add weathering to you taste

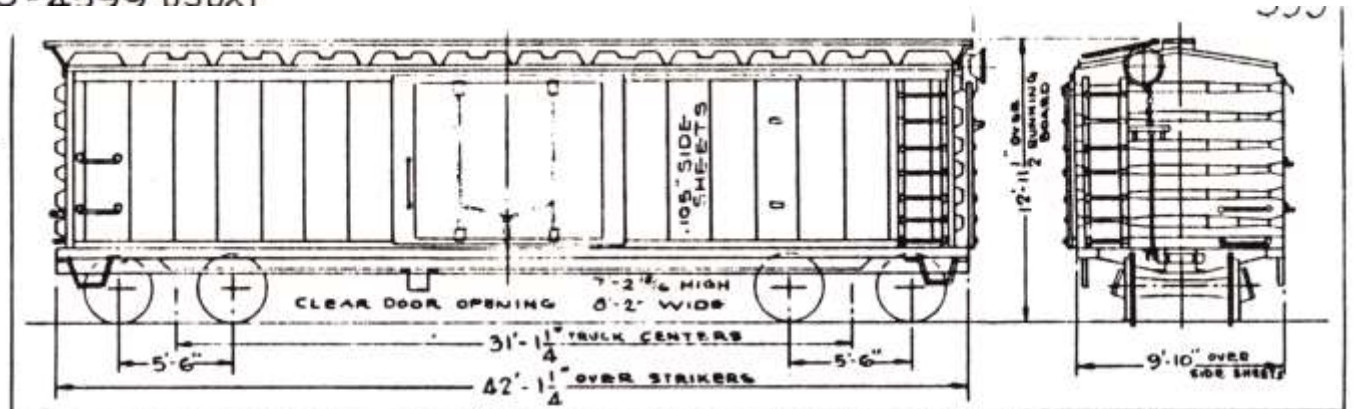
Following are a few drawing of both the original DSDX and later URTX versions when sold. These are from the Milw Road Engineering Book



LENGTH INSIDE - - - - - 40'-0"	MINER SIDE DOOR FIXTURES	*50 TON TRUCKS WITH 40 TON SPRINGS
WIDTH INSIDE - - - - - 8'-8 1/4"	DIAGONAL PANEL WELDED ROOF	BARBER STABILIZED - 2 1/2" SPRING TRAVEL
HEIGHT INSIDE - - - - 7'-5"		NOMINAL CAPACITY - - - 85,000 LBS.*
HEIGHT - EAVES - UPPER - - 12'-1 5/16"	WIDTH - EAVES - UPPER - - 9'-4 1/8"	CUBIC CAPACITY - - - 2,577 CU. FT.
HEIGHT - EAVES - LOWER - - 12'-11 1/16"	WIDTH - EAVES - LOWER - - 9'-10 3/8"	JOURNALS - - - - - - - - 5 1/2 x 10"
HEIGHT - RAIL TO FLOOR - - 4'-0 13/16" (1 3/4" FLOOR)	WIDTH - OVER SIDE SILLS - 9'-8 5/8"	LIGHT WEIGHT - - - - - 51,100 LBS
	WIDTH - EXTREME - - 10'-5 3/8"	LIMIT LOAD - - - - - - 85,000 LBS

RB REFRIGERATOR CARS

WELDED UNDERFRAME - RIVETED SIDES BUILT - MILW - 1950-1951 4000-4599 DSDX



LENGTH INSIDE - - - - - 40'-0"	"CAMEL" SIDE DOOR FIXTURES	50 TON TRUCKS
WIDTH INSIDE - - - - - 9'-2 7/8"	DIAGONAL PANEL WELDED ROOF	BARBER STABILIZED - 2 1/2" SPRING TRAVEL
HEIGHT INSIDE - - - - - 7'-5"	MODIFIED M.S. 1960	NOMINAL CAPACITY - - - 100,000*
HEIGHT - EAVES - UPPER - - 12'-1 5/16"	WIDTH - EAVES - UPPER - - 9'-4 1/8"	CUBIC CAPACITY - - - 2720 CU. FT.
HEIGHT - EAVES - LOWER - - 12'-11 1/16"	WIDTH - EAVES - LOWER - - 9'-10 3/8"	JOURNALS - - - - - - - - 5 1/2 x 10"
HEIGHT - RAIL TO FLOOR - - 4'-0 9/16" (1 1/2" FLOOR)	WIDTH - OVER SIDE SILLS - 9'-8 5/8"	LIGHT WEIGHT - - - - - 53,300 LBS
	WIDTH - EXTREME - - 10'-5 3/8"	LIMIT LOAD - - - - - - 128,700 LBS

TAKEN FROM

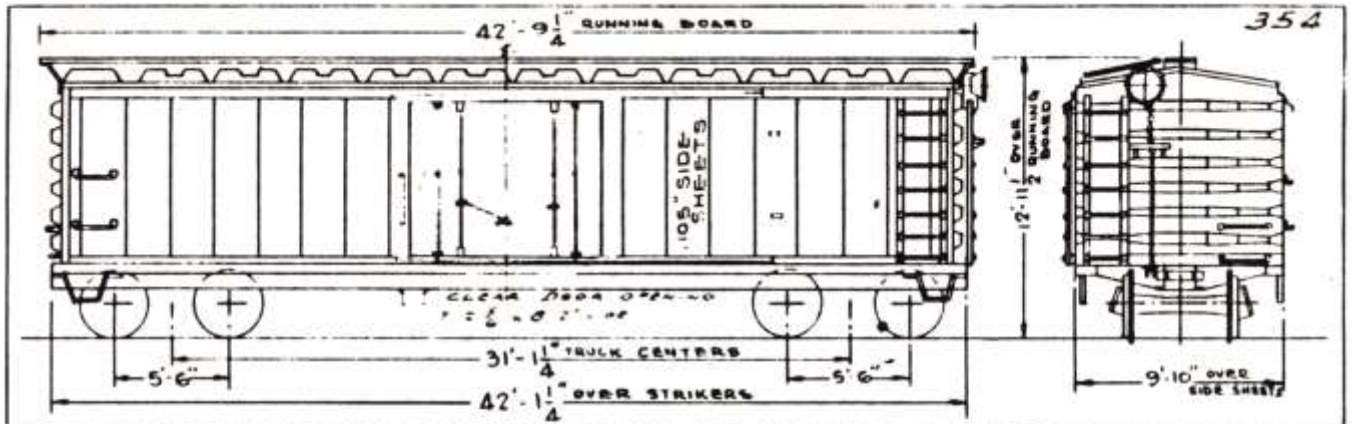
WELDED UNDERFRAME - RIVETED SIDES 4000-4599 SERIES

RB REFRIGERATOR CARS

5000-5199 DSDX

"RB"

Drawings from Milwaukee Rd
Mechanical Engineering Dept



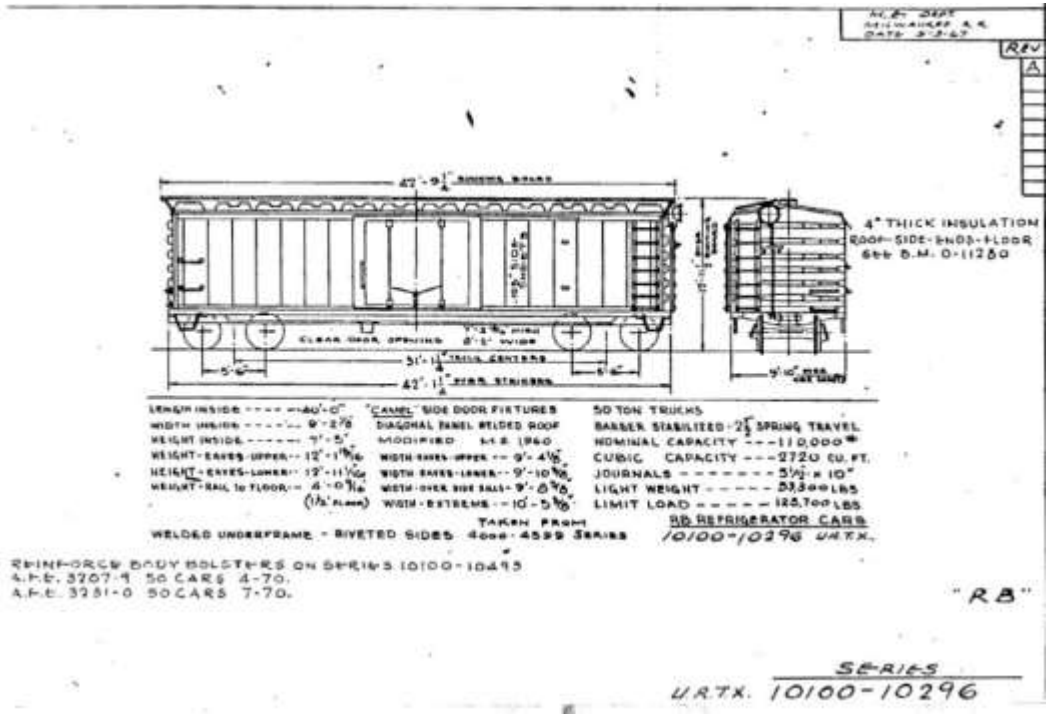
LENGTH INSIDE	40'-0"	SUPERIOR SIDE DOOR FIXTURES	
WIDTH INSIDE	9'-2 1/8"	DIAGONAL PANEL WELDED ROOF	
HEIGHT INSIDE	7'-5"	MODIFIED MILW SHOPS 1962	
HEIGHT - EAVES - UPPER	12'-1 15/16"	WIDTH - EAVES - UPPER	9'-4 1/8"
HEIGHT - EAVES - LOWER	12'-11 1/16"	WIDTH - EAVES - LOWER	9'-10 3/8"
HEIGHT - RAIL TO FLOOR	4'-0 9/16" (1 1/2 FLOOR)	WIDTH - OVER SIDE SILLS	9'-8 5/8"
		WIDTH - EXTREME	10'-5 3/8"

50 TON TRUCKS
BARBER STABILIZED - 2 1/2" SPRING TRAVEL
NOMINAL CAPACITY --- 100,000#
CUBIC CAPACITY --- 2720 CU. FT.
JOURNALS --- 5 1/2 x 10"
LIGHT WEIGHT --- 53300 LBS
LIMIT LOAD --- 237000 LBS

WELDED UNDERFRAME - RIVETED SIDES

TAKEN FROM 4000-4599 SERIES

RB REFRIGERATOR CARS
5200-5299 DSDX



DSDX after purchase from URTX
From 1973 Mechanical Engineering Department Diagram Book