2025 Naperville RPM Gift Kit

FRISO SL SF 50-ft SS Automobile Box Car Upgrade Parts for a

Prepared by George Toman

This years Gift Kit to the 1st 100 registrants consist of resin parts and decals to upgrade a Roundhouse 50-ft. SS car that has a radial roof and end doors. The resin parts are the work of Frank Hodina, casting by Tom Madden and Decal Artwork by Ken Soroos.

What follow are my construction notes to build the SL-SF car using the RCW gift kit parts. An article by Bill Welch was published on building this very car in Volume Three of Prototype Railroad Modeling published by Speedwitch Media and still available. I use some of Bill's ideas along with my own to build the car you see here.

I did not have all the resin parts and decals at the start and do not have photos of kit contents. I started with a Roundhouse kit and the new resin B end.
Pictured to the right is my starting point. Kit #2140?. Of note is that I had 2 of these 2140 kits and one had a metal plate on the right door for a Western Pacific Logo. What you want is a kit without this plate cast into the door, otherwise you will need to carve it off or replace the door.
Looks Like Kit # 2130 is what is needed see next page
Mine may have been in a wrong box or cover switched.
Jeff Helm found a 1997 Brochure from MDC.

Additional reference articles for the 7 or 8 different Roundhouse cars are

Railmodel Journals July 1989, October 1989, July 1995, July 1996 These were all written by Richard Hendrickson

Chart at the right is from a 1997 Roundhouse product page with descriptions and part numbers for all their 50 Ft SS cars.
Looks like a 213x series kit is correct

Thank you Jeff Helm for this product page.

Use the 2130 Series Kits

Single Sheath Box Cars

50' Single Door

___ 2100 Undecorated 9.98
___ 2101 Texas & Pacific 9.98
___ 2103 Milwaukee
___ 2104 Great Northern
___ 2105 Illinois Central
NEW___ 2107 Ashley Drew & Northern

50' Wood Double Door

___ 2110 Undecorated 9.98
___ 2112 Southern Pacific 9.98
___ 2113 Northern Pacific
___ 2117 Union Pacific
___ 2118 Illinois Central

50' Wood Double Door, Auto-End

___ 2120 Undecorated 9.98
___ 2121 Great Northern 9.98
___ 2122 Missouri Pacific
___ 2123 Rock Island

50' Steel Double Door, Auto-End

___ 2130 Undecorated 9.98
___ 2131 Texas & Pacific 9.98
___ 2132 Great Northern
___ 2133 Santa Fe
___ 2134 Southern Pacific

50' Steel Double Door w/plate, Auto-End

___ 2140 Undecorated 9.98
___ 2141 Western Pacific 9.98
___ 2142 Chicago, Burlington & Quincy "Burlington"

50' Steel Double Door w/plate

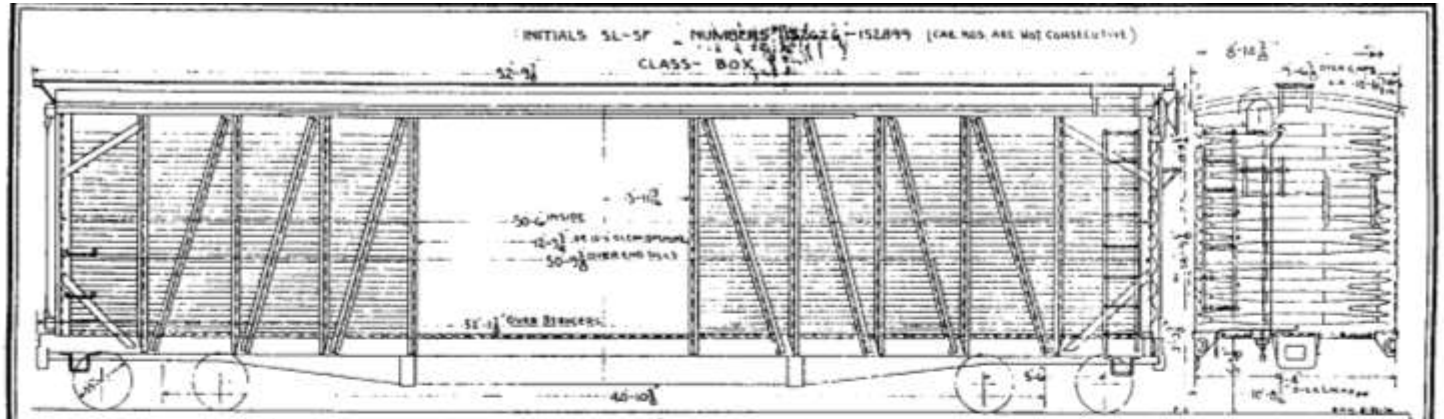
___ 2150 Undecorated 9.98
___ 2151 Western Pacific 9.98
___ 2152 Chicago, Burlington & Quincy " Burlington"

50' Steel Double Door

___ 2160 Undecorated 9.98
___ 2161 Texas & Pacific 9.98
___ 2162 Missouri Pacific
___ 2163 Southern Pacific
___ 2164 Northern Pacific
___ 2165 Great Northern
___ 2166 Union Pacific

The SL SF 50-f.t automobile cars were built in lot 2651 by General American starting in 6-1930 and numbered in the 152600-152899 series. 300 cars are listed in the 1934 ORER.
These cars had Youngstown double side doors. The B end was steel Dreadnaught of 3/3/3 configuration and the A end had a steel door of Dreadnaught design with Miner hardware. Trucks were ASF with Barber lateral motion.

To the right is a Equipment drawing for this series of cars.



BUILT	REBUILT	INSIDE			OUTSIDE					DOORS				CAPACITY		NUMBER OF CARS	AVERAGE LIGHT WEIGHT	AAR MECH. DESIG.
GEN. AMER. CAR CO. LOT 2651	—					WIDTH AT EAVES	HEIGHT FROM RAIL			SIDE		END						
DATE	DATE	LENGTH	WIDTH	HEIGHT	LENGTH		TO EAVES	TO TOP OF PLATFORM OR RUNNING BOARD	TO OVER ALL	WIDTH	HEIGHT	WIDTH	HEIGHT	CUBIC FEET	POUNDS			
6-1930	—	50-6	8-11⅛	10-2	52-1⅛	8-10⅞	14-4⅝	14-9⅝	14-10⅞	12-1	9-9 1/16	9-0¼	9-11⅞	4442	100 000		64 300	XM

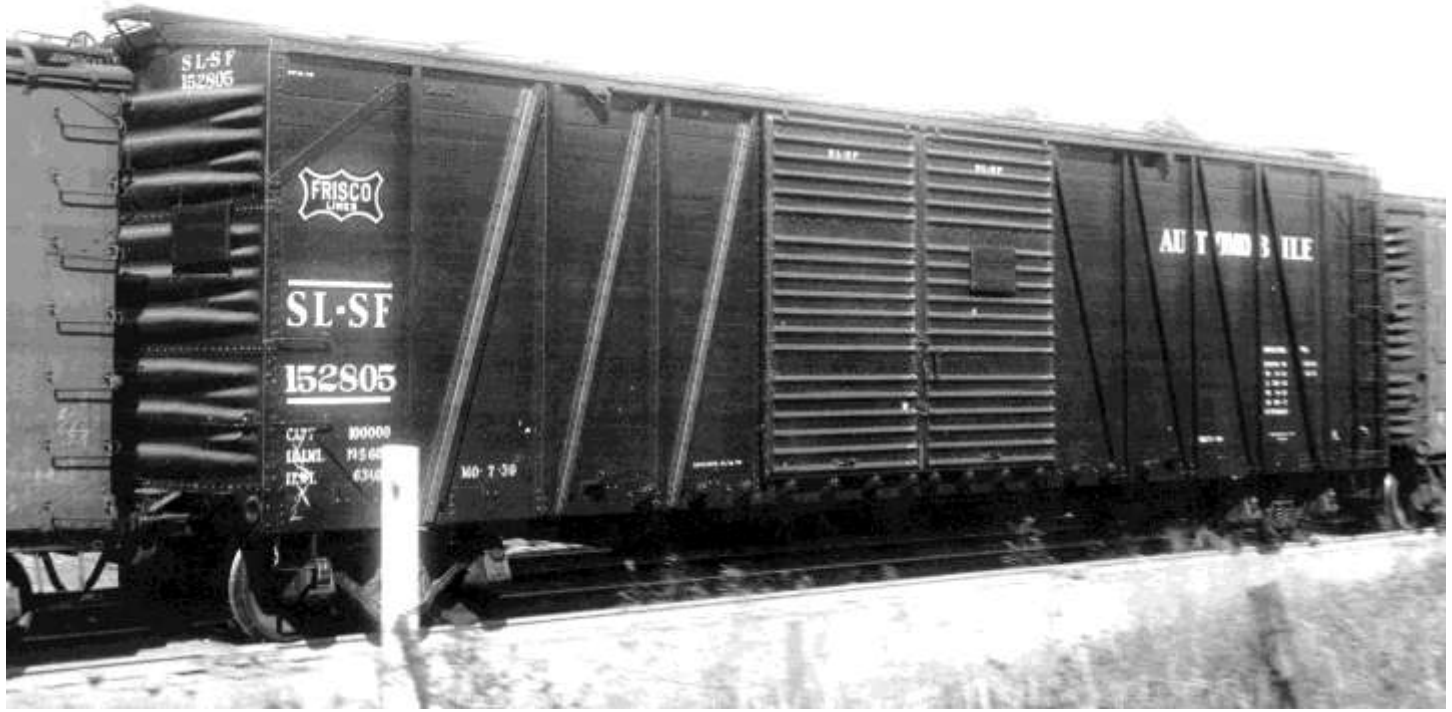
DESCRIPTION	KIND	DESCRIPTION	KIND	DESCRIPTION	KIND
Air Brakes	New York, N.Y. A.B. Co	Draft Gear Attach	Farlow 2-Key, Sym. Co	Truck Bolster	Cast Steel, Scullin S.S. Co
Angle Cock Holders	Western Ry. Dev. Co	Dust Guards	Harrison, Dust Guards Inc	Truck Side Bearings	~~Woods Roller~~ Universal
Bottom Rods	Forged W.I.	Hand Brakes	Ajax, A.H.B. Co	Truck Side Frames 5½"×10"	Bettendorf, Scullin S.S. Co
Bottom Rod Guards	Creco, C.R.E. Co	Journal Box Lids	Torsional, R.S.S. Co	Uncoupling Device	Rotary Imperial Type B, U.M.P. Co
Brake Beams	Ajax, A.S.F.	Journal Bearings	A.R.A. 5½"×10", Magnus B. Co	Wheels	A.R.A. 33" South Wheel Co
Brake Beam Supports 4 Pt.	Creco, C.R.E. Co	Journal Wedges	Top Notch, Cliff Jacobs F. Co	Brake Diagram Plate	Gustin-Bacon, G.B.M. Co
Brake Beam Hanger Supp.	Mobile Type A, I.R.E. Co	Lateral Motion Device	Barber, Stand. C.T. Co	Steel End Doors	Dreadnaught U.M.P. Co
Brake Pin Locks	——	Lock Nuts	M.F. Grip Unit & Hold	Steel End Door Fixtures	Miner, W.H.M. Co
Brake Rod Jaws	Real, Ry. Dev. Co	Pipe	National, Spellerized		
Brake Step	T-Z, Ry. Equip. Co	Pipe Clamps	G-B Gustin-Bacon M. Co / Spiral, Ry. Dev. Co		
Brake Shoes	A.R.A. Amer. B.S.&F. Co	Retainer Valve Holders	Unitary, West. R.E. Co		
Couplers (Rotary) (Top Oper.)	6"×8" A.R.A. Type D, N.M.&S.C. Co	Roof	Radial, Stand. R.E. Co		
Coupler Center Device	Union, U.M.P. Co	Side Doors (Double)	Youngstown, Y.S.D. Co		
Coupler Key Locks	A.R.A.	Side Door Fixtures	National, R.M.F. Co		
Draft Gear	Miner A-22-XB, W.H.M. Co	Steel Ends, "B" End	Dreadnaught, U.M.P. Co		

Diagram from the Collection of Frank Hodina

Lets take a look at a prototype photo.

#152842 Photo from Bill Welch and now in Ted Culotta’s collection

Photo below that I choose to model my version after and it matched the decals provided



#152805 Photo from Ted Culotta’s collection

Parts List used

Tichy AB Brakes 3013
Tichy Ladder Rungs 3062
Tichy PB Wire
Athearn Harvested Rivets
Micro Mark Resin Decal Rivets
Various sizes Evergreen Styrene
Tahoe Barber Lateral Motion Trucks #009
Moloco Rubber Air Hoses
Yarmouth Air Hose Brackets #506
Yarmouth Ladder Stiles 15 3/8” spacing #306
Yarmouth Running Board End Brackets #260
Yarmouth Eyebolts # 500
National Scale Car Tack Board Part # P1

Before I start on my notes to build this years mini-kit, I must confess to an error that went unnoticed until 1 week before the Naperville RPM and after the car was complete and I had finished with these construction notes. **I forgot to remove the large lower side sill reinforcement.**

You will see construction photos that show the large reinforcement that was not removed until after I painted and decaled the car. Therefore some photos look out of order. I made corrections the best I could.

Photo on left is the correct version

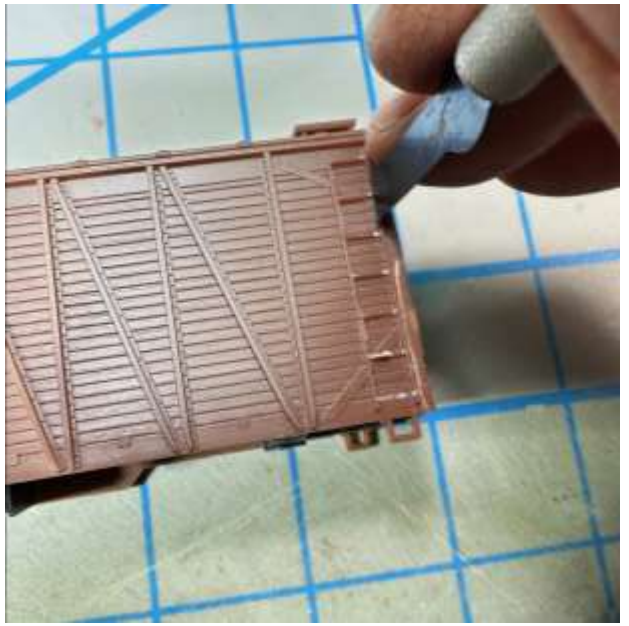
Correct with reinforcement removed

Incorrect forgot to remove reinforcement

The MDC car comes with molded on grab, ladders and some tack boards. You will need to determine if you want to carve these off and use free standing parts. I choose to carve off the side and end grabs, door handles and ladder rungs retaining the stiles.

Pictured to the right is my shell, showing the various tools I use to carve off the details.

My method to shave the ladder rungs is pictured to the right. I used a # 17 X-acto chisel blade to cut straight down next to each rung and style. Then I use the various other tools to remove the rungs and not damagethe stiles.



To the left is my work in progress removing the grabs and rungs.
Note: for the grabs, I try to leave the bolt attaching the rung to the car side or end so I do not have to add this as a separate part.

Remove rungs and grabs from the A end.

Work in progress is pictured to the right

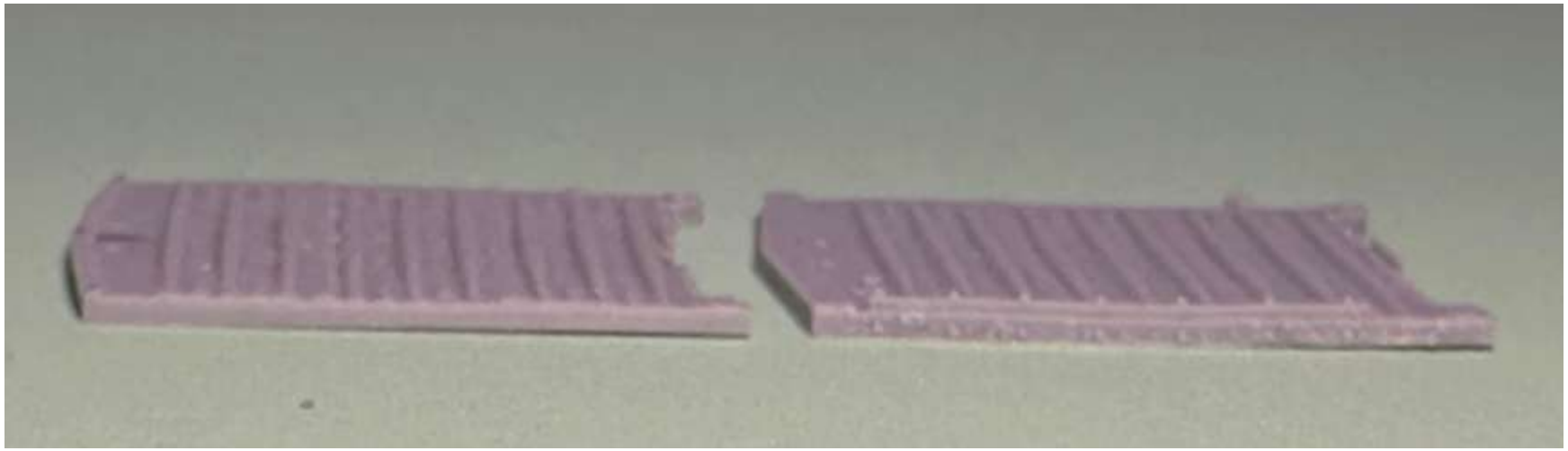
Remove 6 ladder rungs, leaving stiles in place.

Remove grabs from end sill and right lower door. I chose to leave the tack board

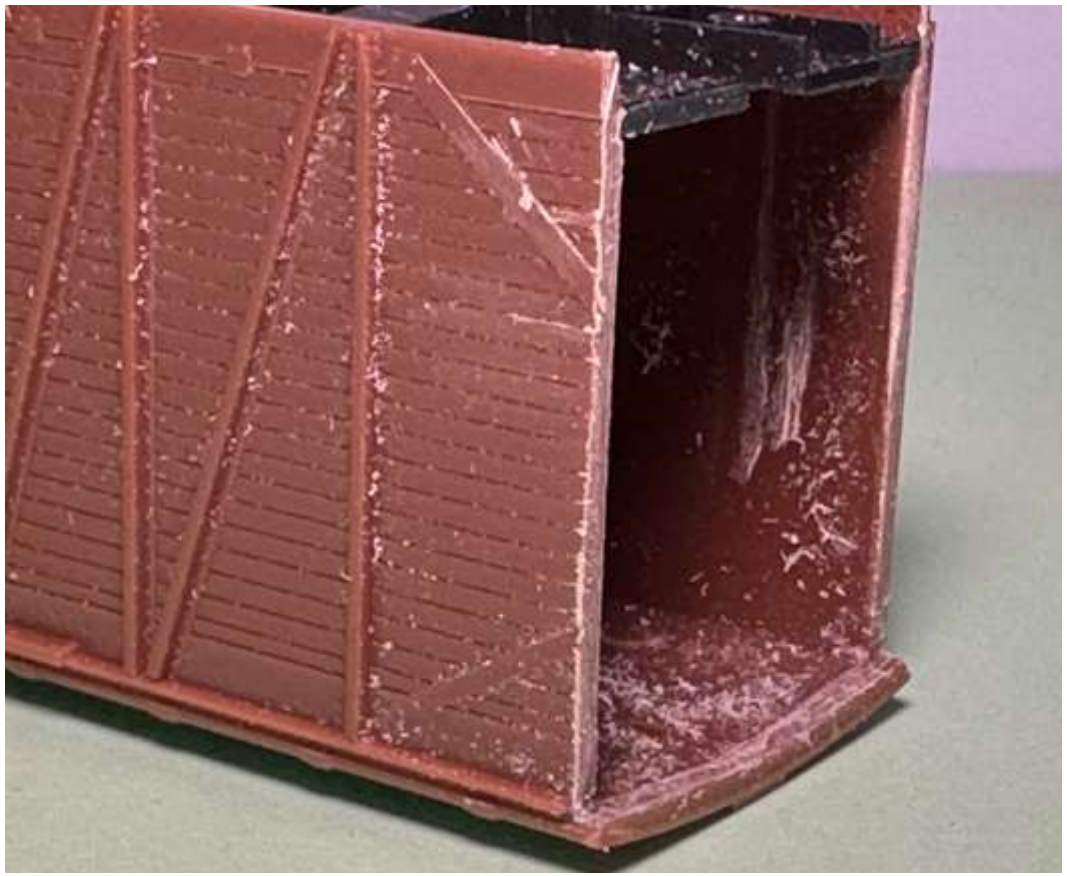
The MDC shell and the new resin end to be fitted in place

The unmodified B end of the car on the right and the modified resin end on the left

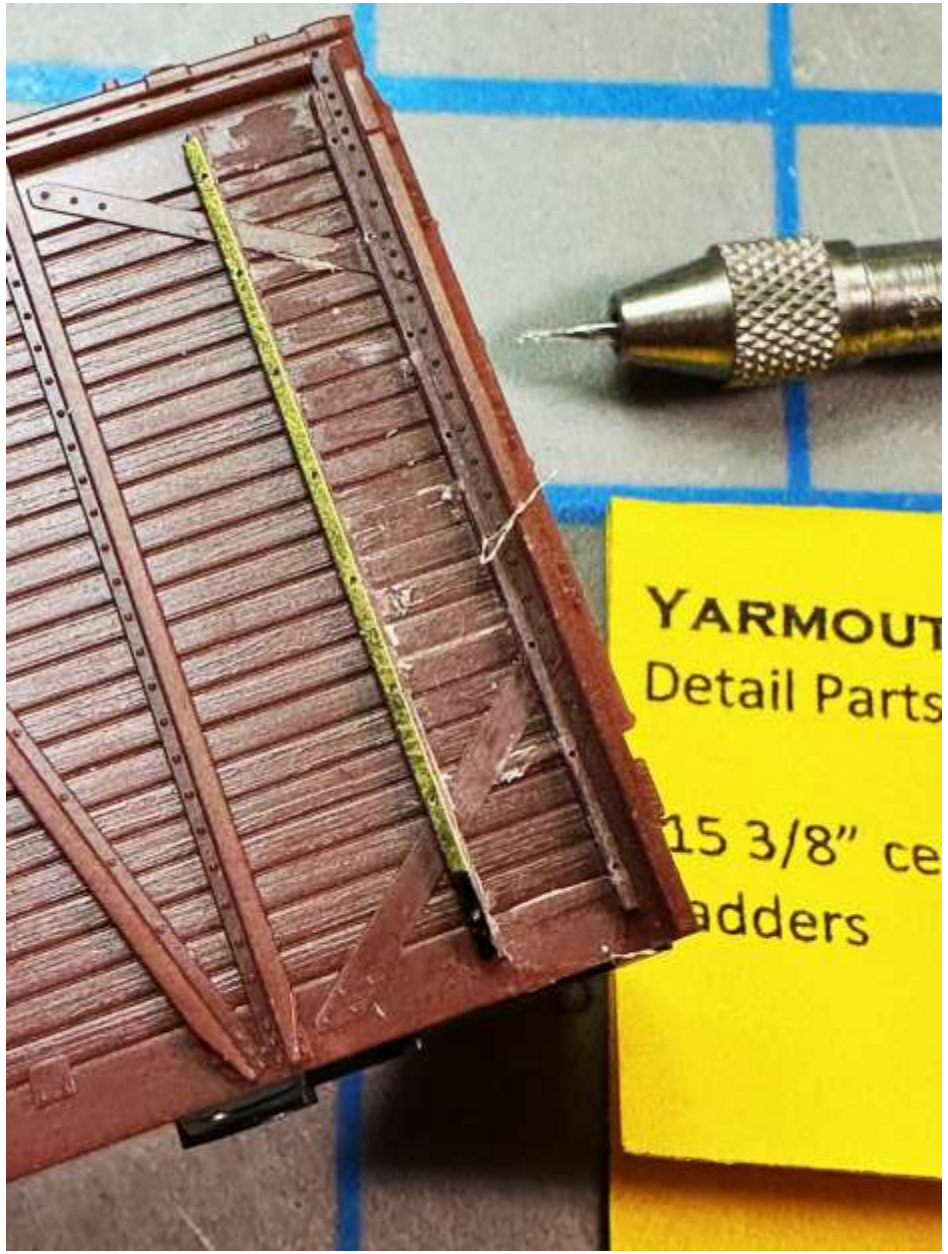
Pictured below is the new resin B end. On the left is the end with the left resin stile removed. The rivet detail was also removed as the rivet detail did not line up properly with the MDC car side details. New rivets will be added.



A Micro saw was used to cut the B end off as shown in these two photos



To the right I am marking the ladder rung holes with a #80 bit. I am using a Yarmouth stile that has 15 3/8” spacing that works out just about perfect for this car. I then use a right hand stile to mark and drill the other stile on the right.

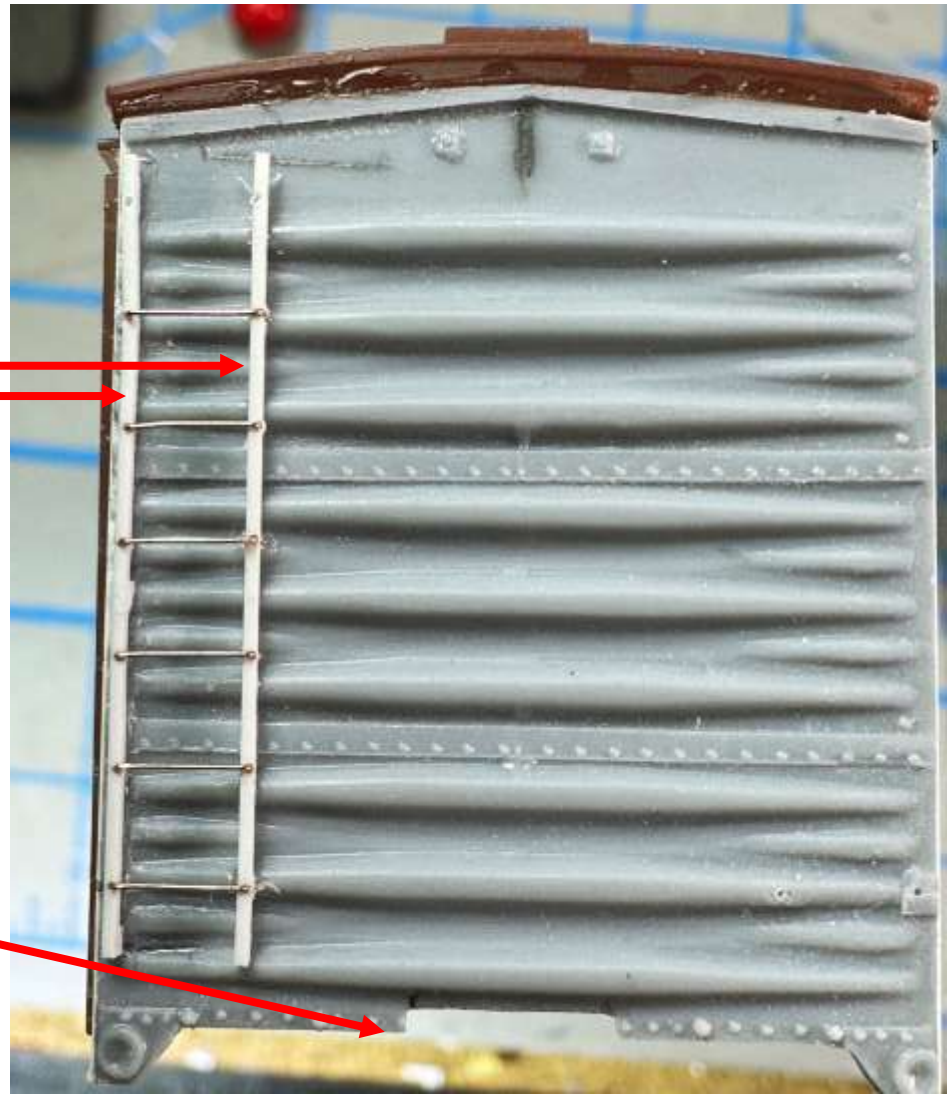


Yarmouth photo etched stile removed from fret and bent to shape. Positioned and held in place and a starter hole marked for the 8 rungs. The Yarmouth stile keeps the holes centered on the MDC cast on stile.

To the right shows the completed drilling of the MDC stiles.
Note: Final cleanup not yet completed

Here is the B end being **TEST** fitted in place.
Note that I have also added some Evergreen .020” x .030” stiles and drilled holes using the Yarmouth PE stiles as in the previous step. I also bent and added .008 PB wire from Tichy and attached to the end. Top rung to be added.

Note cutout in lower center sill to fit over draft gear

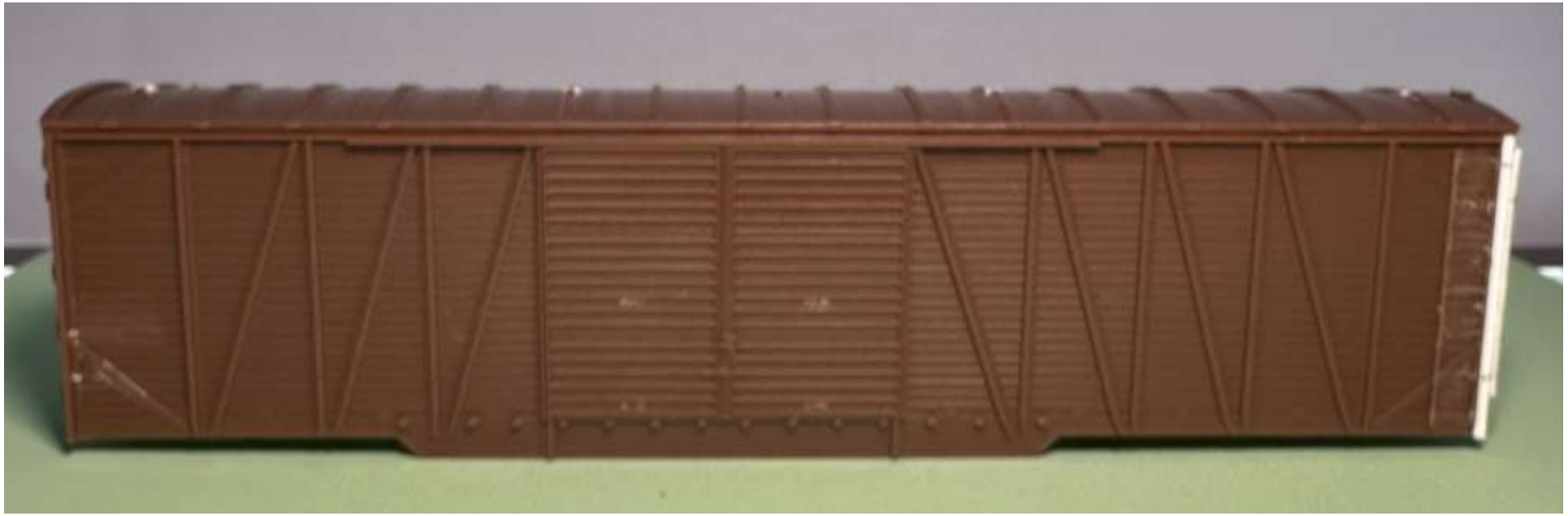


The B end is being test fitted in place. Note that the rungs on end line up with the rungs on side of car.

Also added is sone .005 styrene to the A end sides where new rivet detail will be added.

Inside view of the new B end attached to the MDC Shell

View of left and right sides of the car.
Not that the 4 door handles on each side have been removed and new holes drilled for wire replacements.



The A end has the stiles drilled. Note that the lower stiles have been extended a bit with Evergreen Styrene for the bottom rung

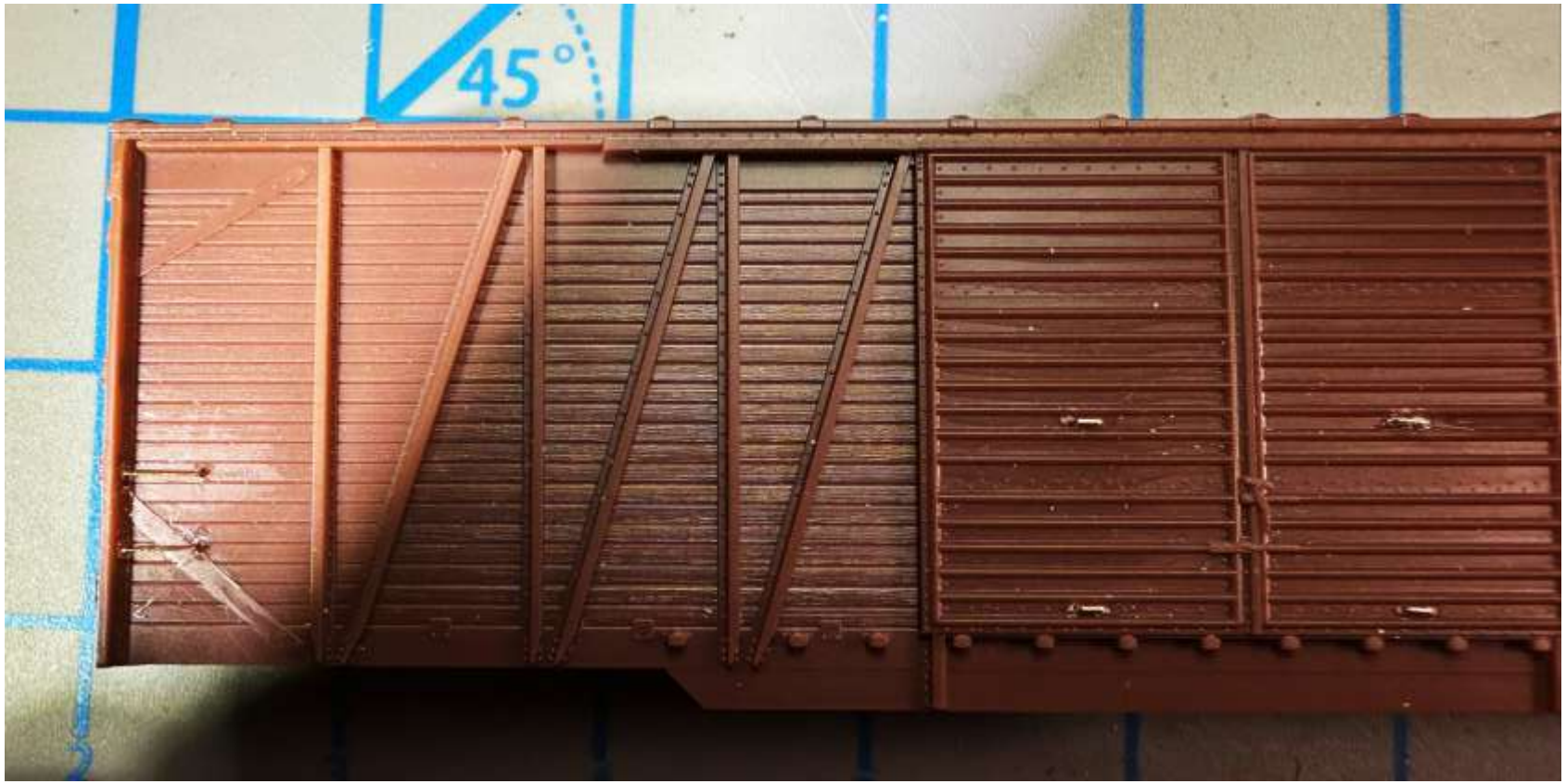
Holes for the running boards were plugged with styrene and trimmed to shape. New styrene running boards will be added

Adding detail to the B end to match MDC

.005” thick styrene was cut to the proper width and glued to the end in 2 places

Note once dry the diagonal pieces were trimmed. I use Plastic Magic 10 Sec Cement for much of my gluing .005” styrene. It is not as hot and allow for some positioning and does not deform it as much.

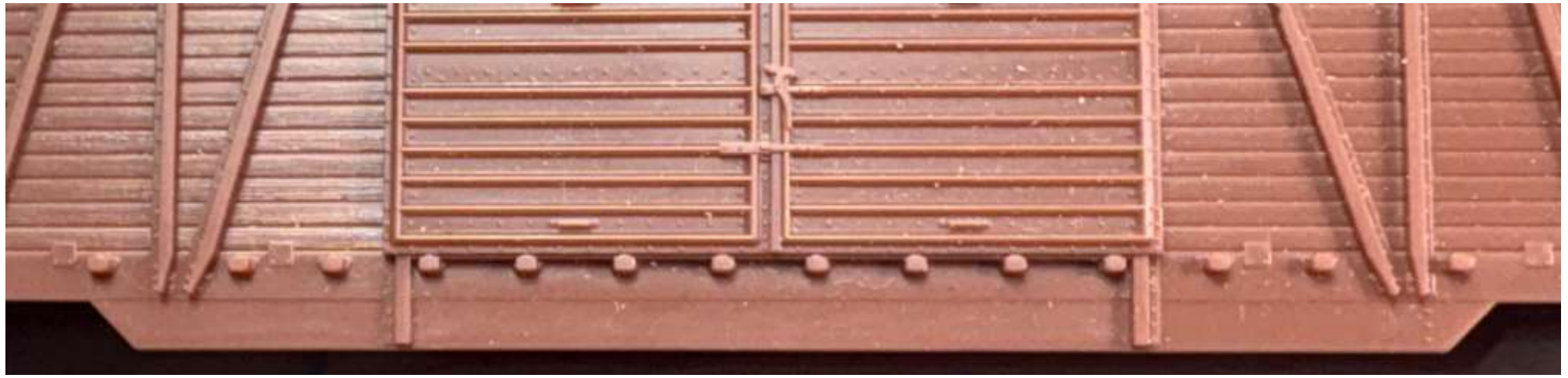
Micro Mark resin decal rivets as pictured to the right. I used the prototype photo to try to match.



Tichy .008” PB wire was bent and inserted for the side grabs

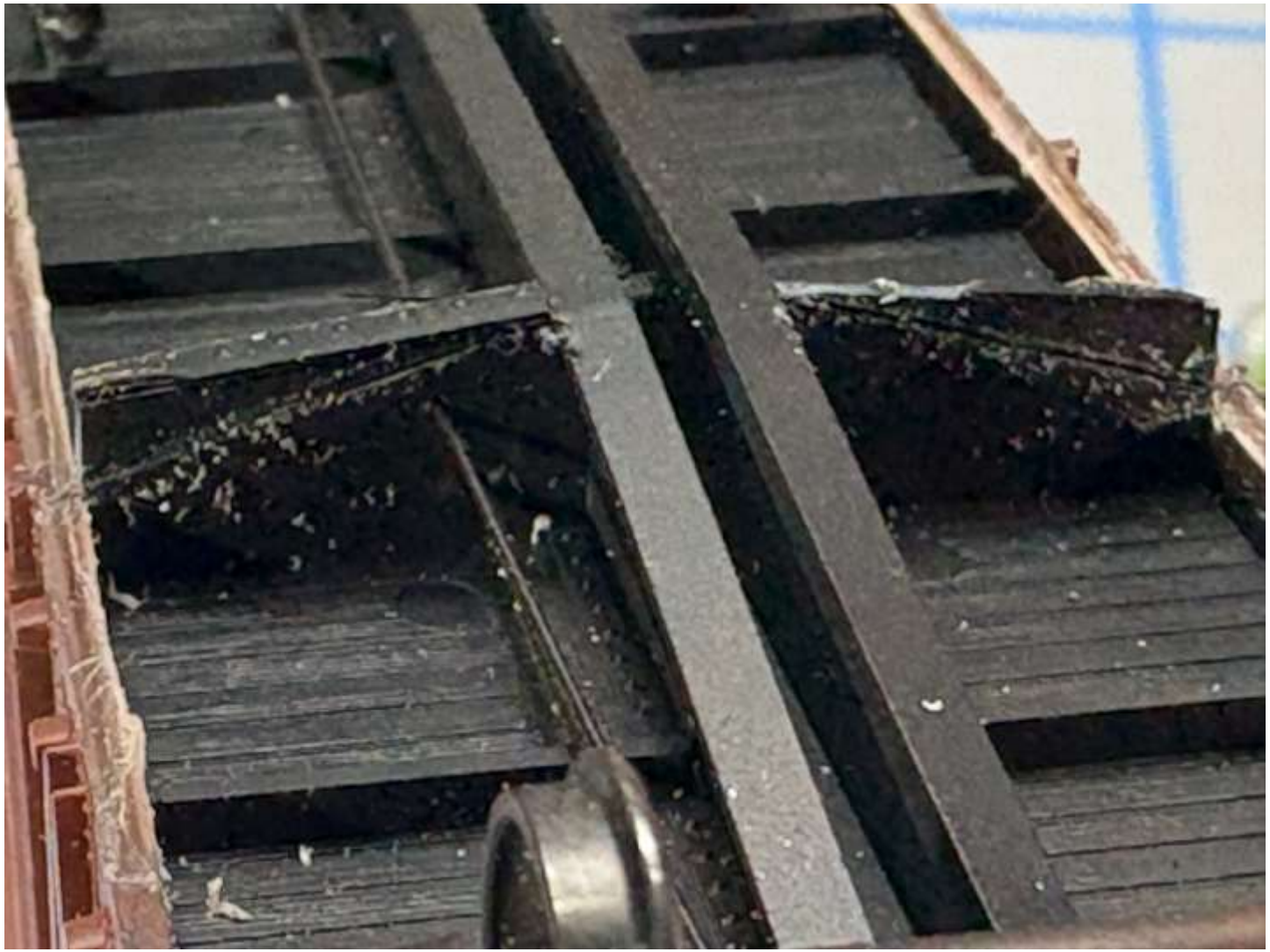
Tichy .008 PB wire was bent, flattened in the center, and inserted in place for the 4 door handles.

Side almost finished except for ladder rungs
and removal of the large sill stiffener

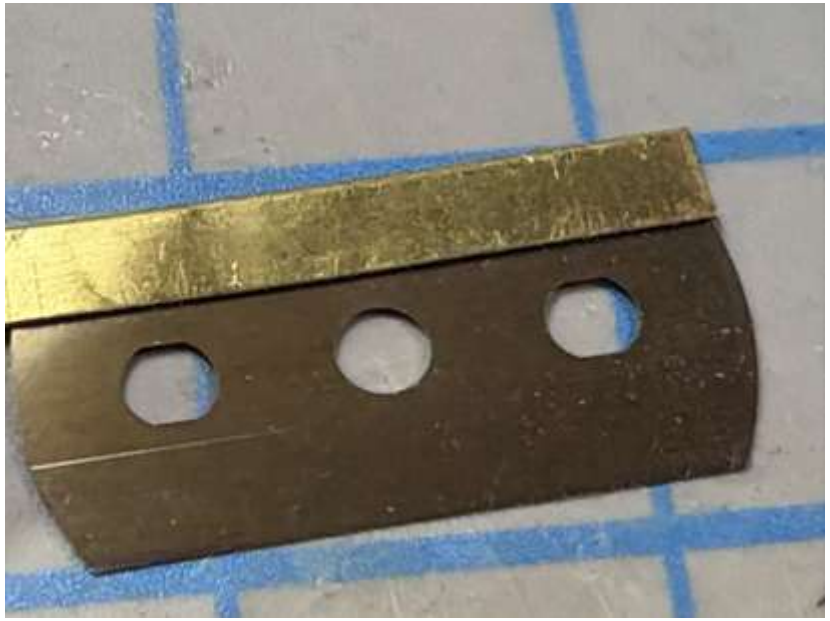


NOTE: The stiffener needs to be cut off at the line and even with the side sill
I used a Micro saw from UMM-USA to neatly cut this off. As I forgot to cut this off, I had to correct this on my finished model as seen below now with correct straight sill.

With the stiffener removed the large cross bearers also needs to be modified.
As I forgot to remove the stiffener, I had to modify mine after the car was built.



I used a modified UMM-USA micro saw blade as shown below. A brass strip was cut from .010 brass, bent over the top and peened with a hammer as seen below. This allows for close work in tight spaces as see by the angled cuts in photo

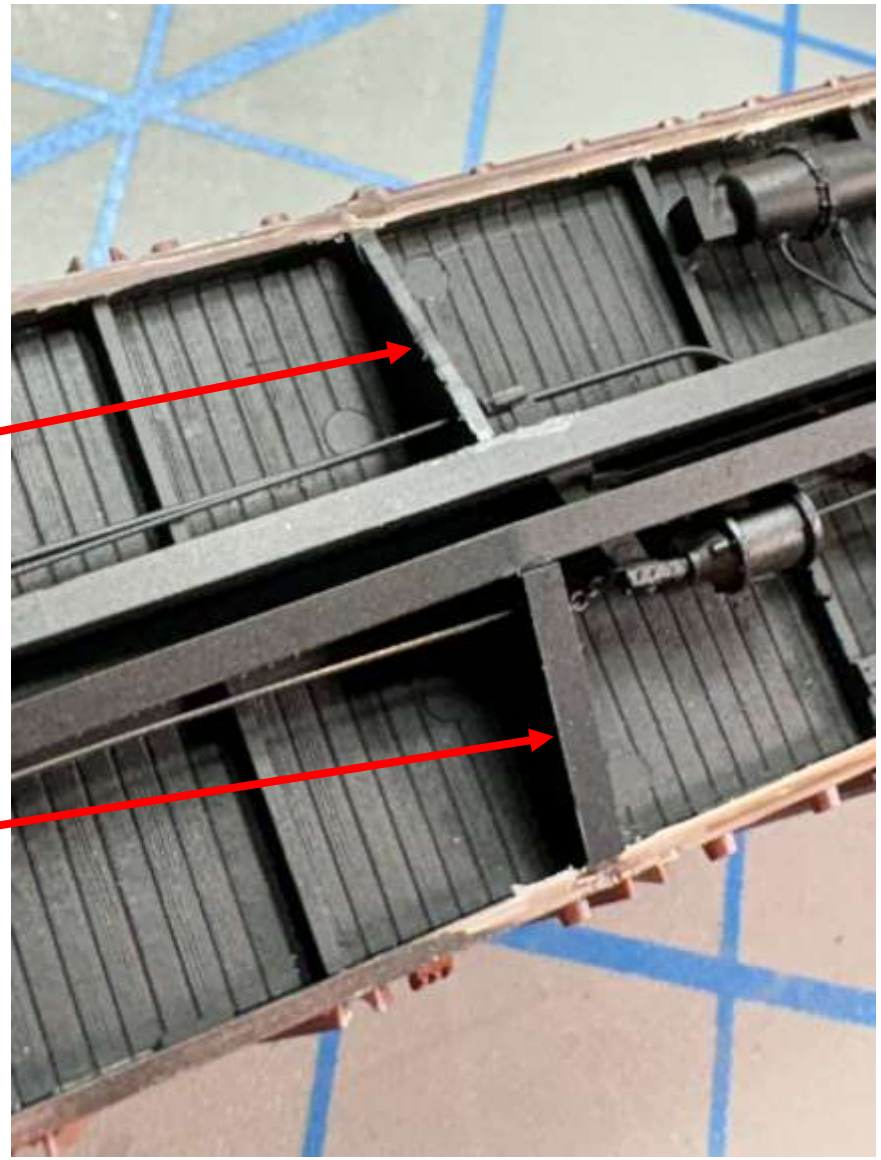


.010x.060 styrene strips were used to cap the angles as see in photo to the right.

Note: I cut my own .010x.060 from Black Evergreen styrene sheet

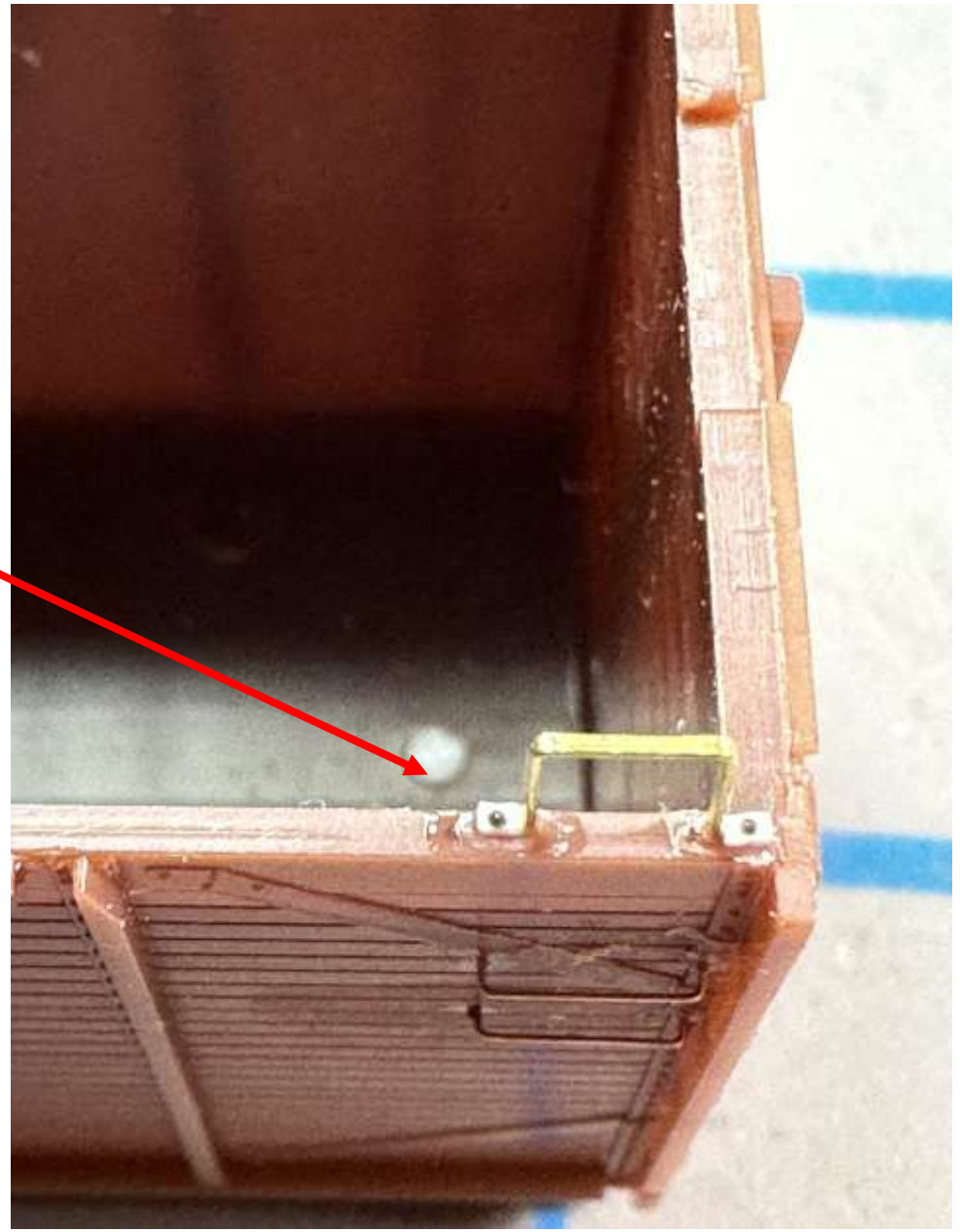
Cap not yet applied

.010x.060 Cap applied
Rivets will be added from Micro-Mark



Detail associates .010” x .018” flat wire was used to form the side steps as pictured below. You may also use A-Line

.020” holes were drilled and the brass steps glued in place. Bits of .010” x .030” styrene was added along with a harvested Athearn rivet next to each vertical.



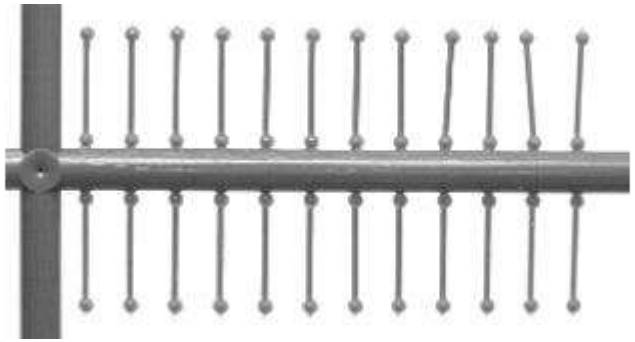
I fashioned new running boards using HO Scale 2” x 6” Evergreen styrene. I scribe my styrene with a micro saw blade using the fine tooth side. Pictured below is the center board being glued in place. Note it has not yet been cut to length,

The other 2 boards were added using 2” x 6” Evergreen styrene leaving a .010” gap between the boards. I had also added some cuts about .010” deep to simulate different board lengths.

The lateral running boards were also made from 2” x 6” Evergreen styrene and the side supports were made by cutting Yarmouth #206 steps in half. These work nicely as they have a hole that can be drilled to pin the top edge between roof and side as pictured. Note. One is shown installed

Pictured are the laterals with the L shaped grab added. A Yarmouth eyebolt was used for the corner and the cut-off ends of Tichy 3062 Ladder rungs were glued next to the grab ends.

Tichy 3062
Ladder Rungs



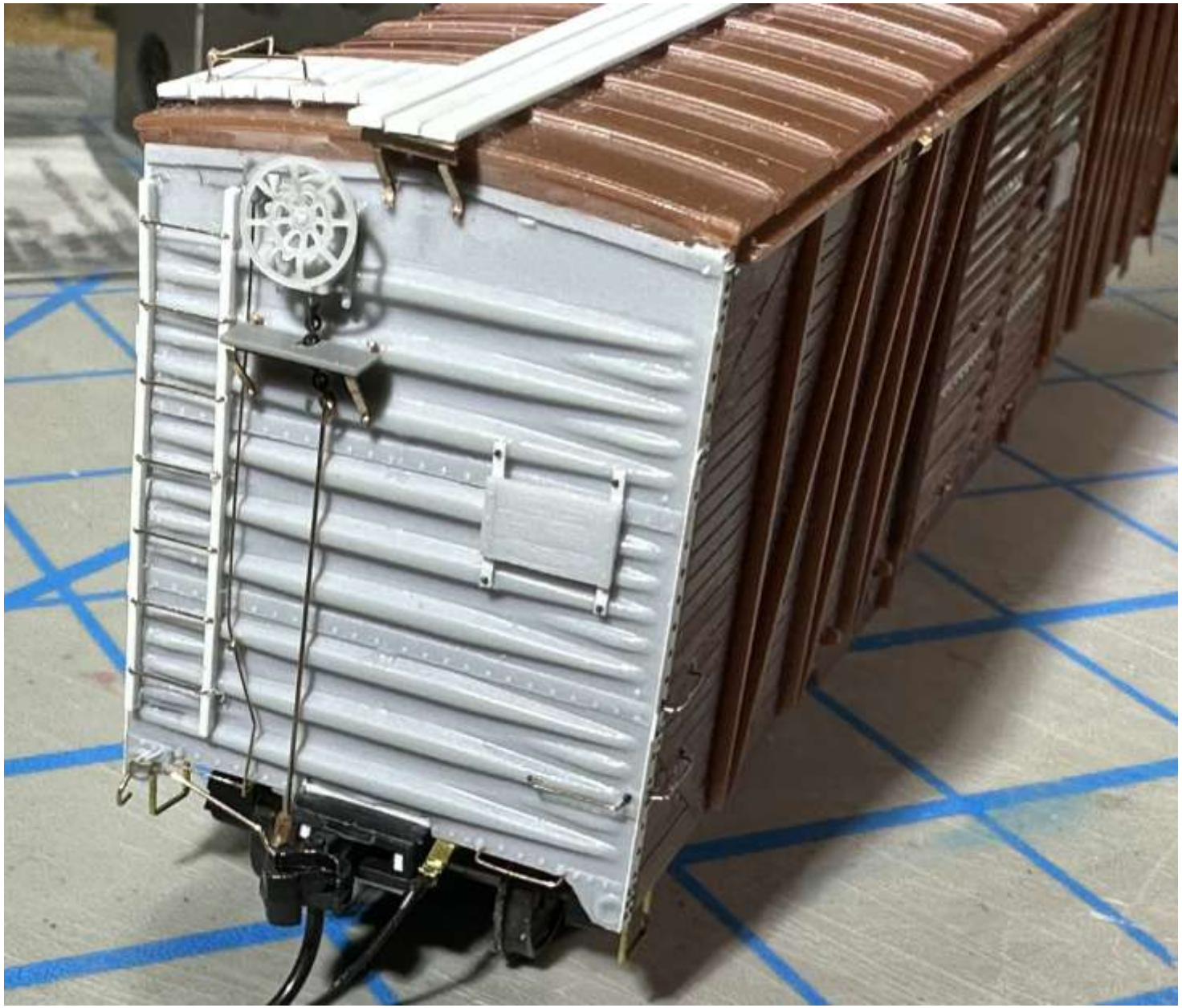
To detail the B end I used Yarmouth PE running board supports drilled and pinned with .012 wire.

Tangent Ajax brake housing and wheel
PE brake step bracket from the Yarmouth running board support kit

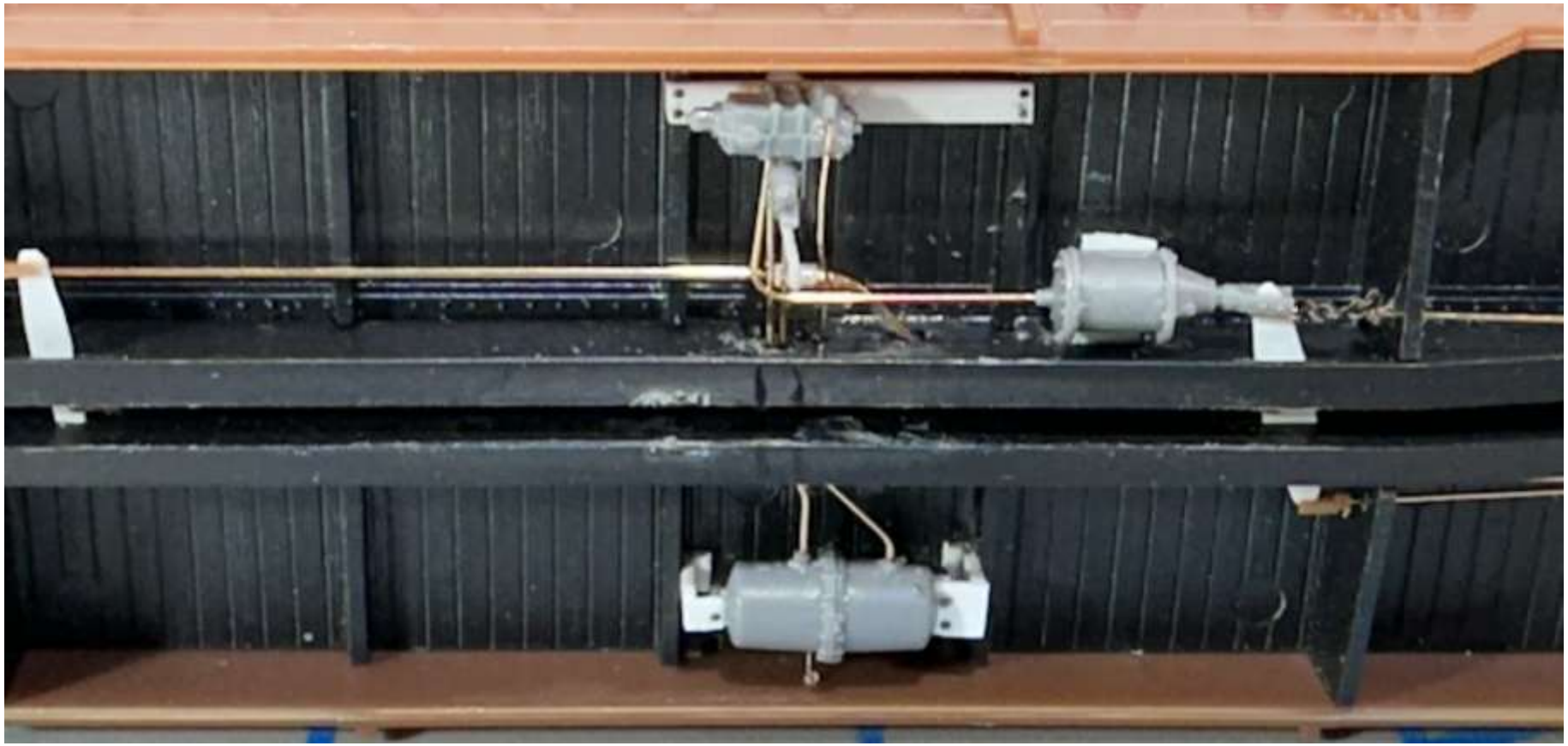
Tichy brake step from the 3013 brake set

Yarmouth PE air hose bracket and Moloco air hose

National Scale Car placard with HO 1”x2” strips added above and below.
I also added Athearn harvested rivets as seen on prototype photos



For the brakes I choose Tichy AB set #3013. I used styrene to make a mounting platform for the three-way Valve.



For the brake reservoir l shaped mounting brackets as seen. Athearn harvested rivets were also added.

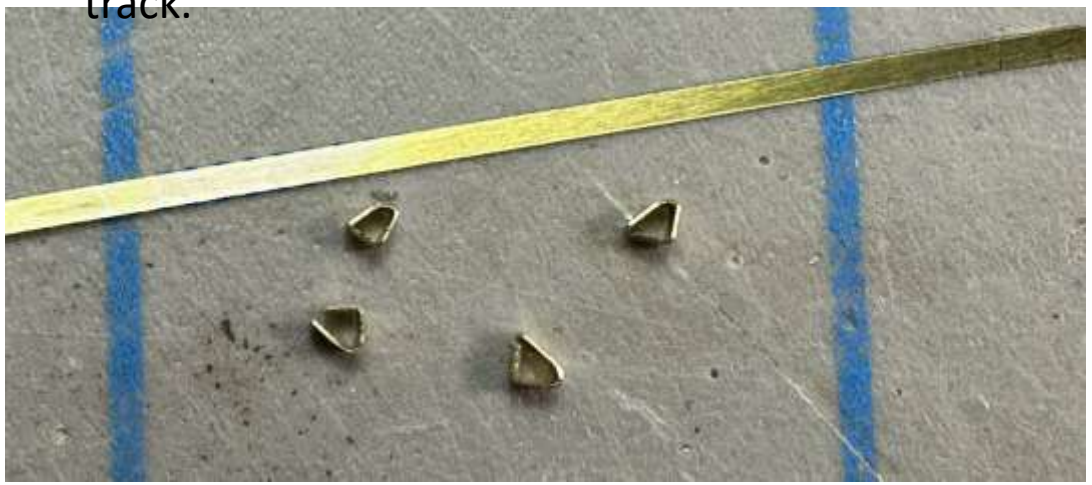
The brake cylinder was also mounted to the center sill with a bracket made from styrene.
Brake levers were cut and formed from .010 Evergreen styrene.
The three-way valve had a small eyebolt installed and .008 wire used for the release rod
You can also see the .020 airline and related piping using Tichy PB wire.

Note this photo does not show large sill stiffener yet removed

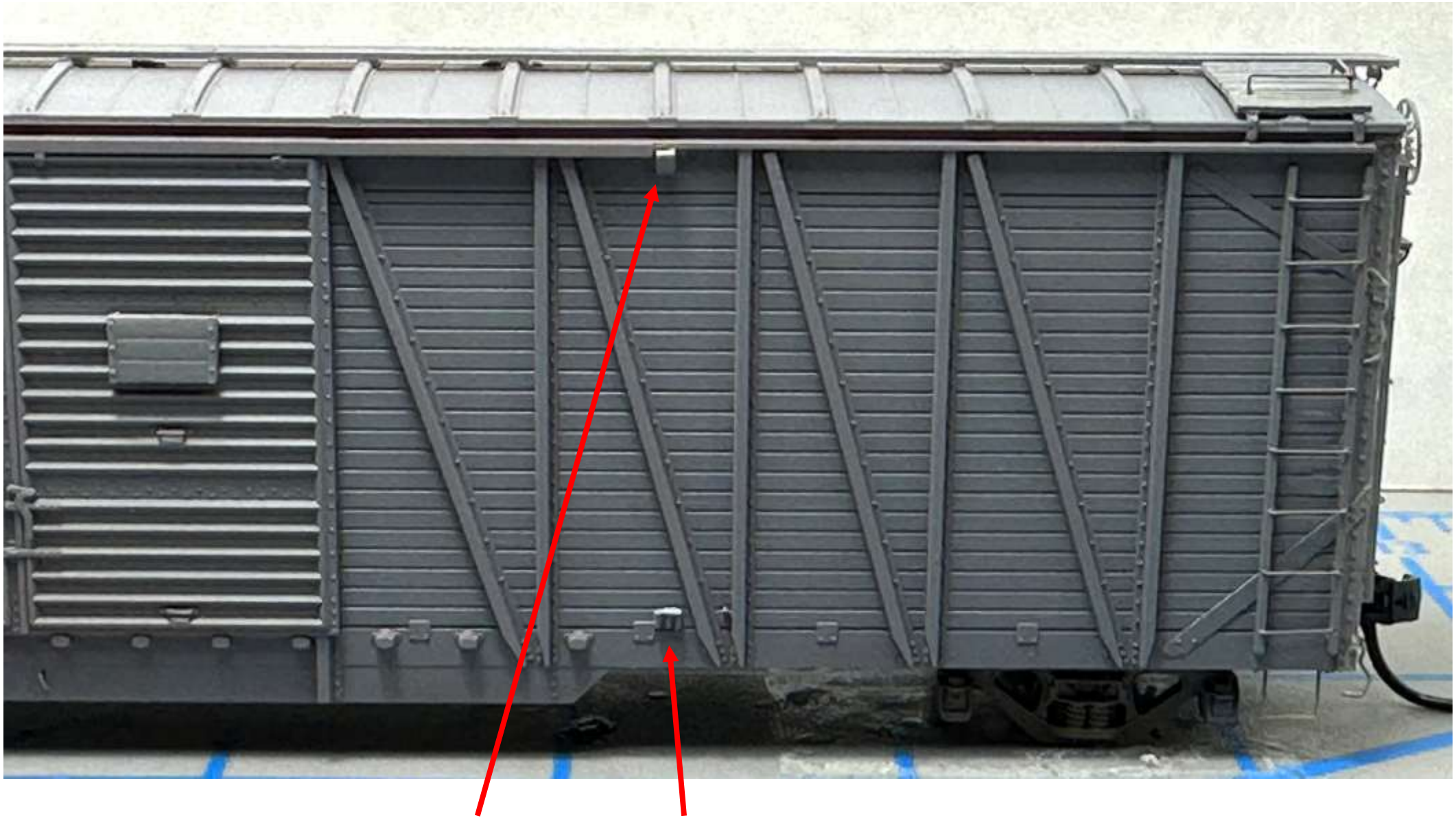
The two photos below show the underfame. Also seen on the sides and doors are the left and right lower door stops and upper door stops.

Photo showing upper and lower door stops

Upper door stops were a triangular shape (Refer to photo) I used .005” x .044” brass cut and bent as seen below. These were attached with photo etch glue on the left and right side of the upper door track.



The lower door stops were made from .020” thick styrene about .030” x .060”. Three vertical pieces .010” x .020” were glued to this and a .005” piece was glued to the top. After drying, these were trimmed and shaped to a slight taper.

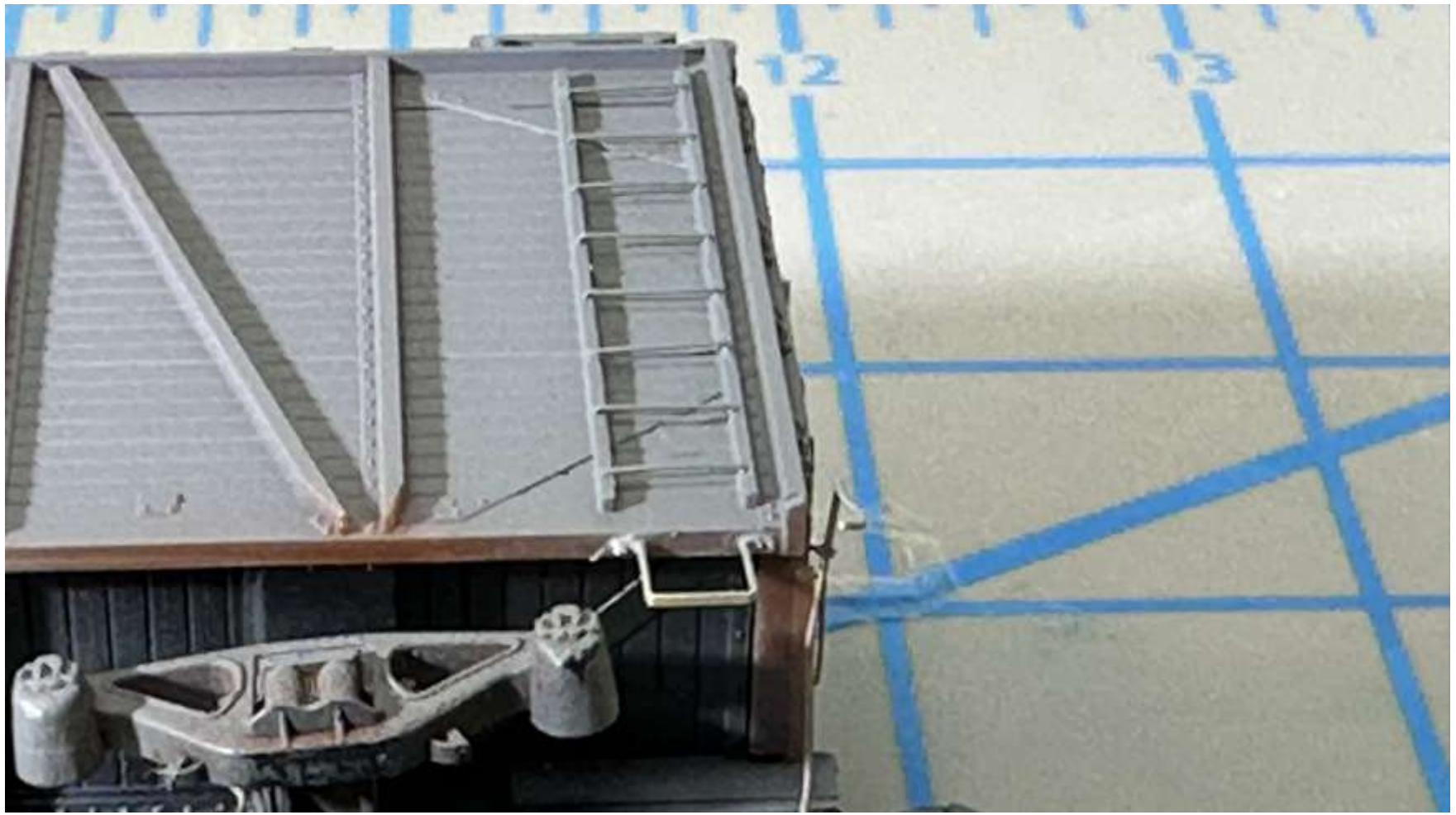


The upper and lower door stops can be seen in this photo

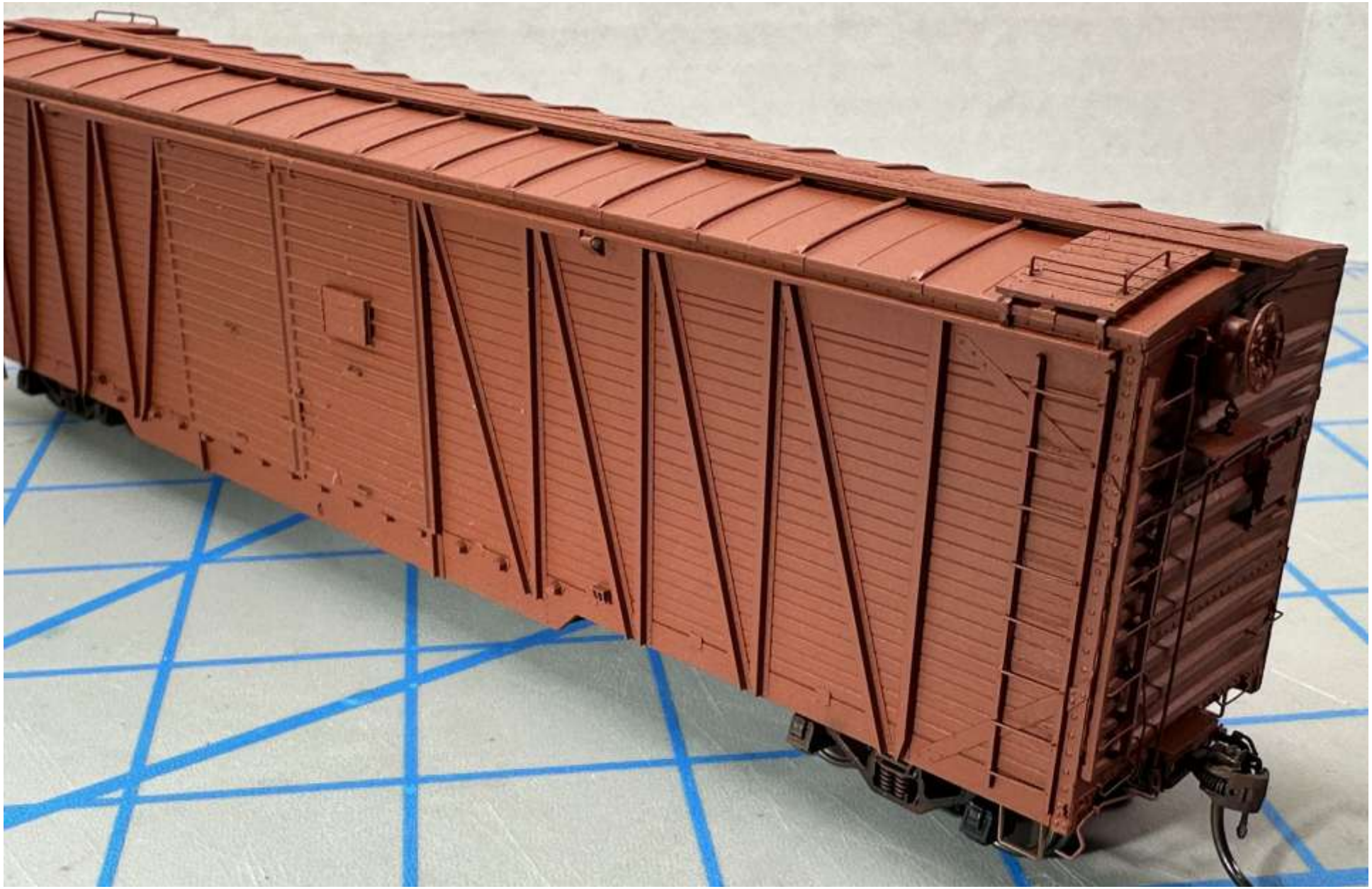
The doors had two .005” x .020” strips added to the top rib as seen in the prototype photo. Also, a .005” x .030” piece was glued between the 2 doors.

A National Scale Car tack board was used on the right side door.
You can also see the door handles made from .08 wire with the center of the handle being flattened with micro jaw smooth nose pliers

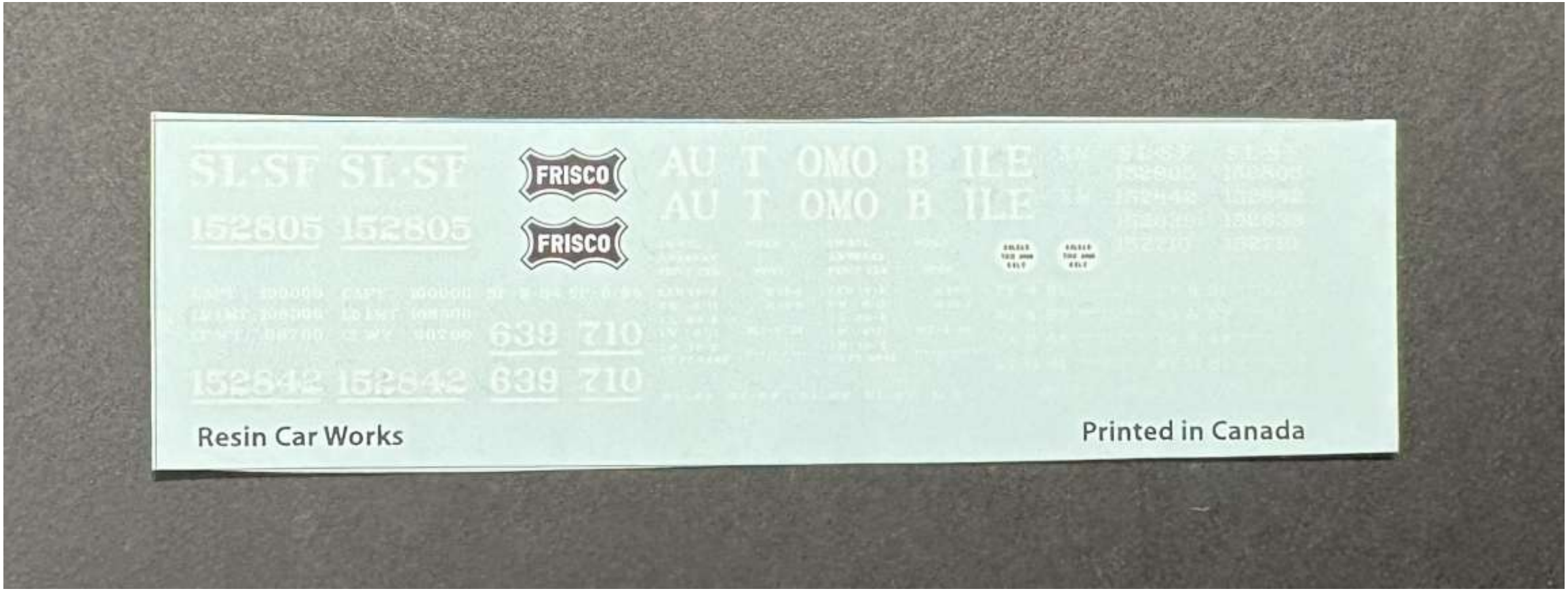
Badger Stynylrez Gray Primer was applied
The next few slide show the car in primer with detail views to assist building


12
13

The underframe was sprayed black with Vallejo Model Air and the rest of the car was sprayed Rotbraun RAL8012 from Mig Ammo.



Decals provided in mini-kit



Photos shown on next few pages have the decals applied and sealed with a flat coat on Model Master Flat. Included are Left, Right, A-end and B-end to assist in applying the decals.

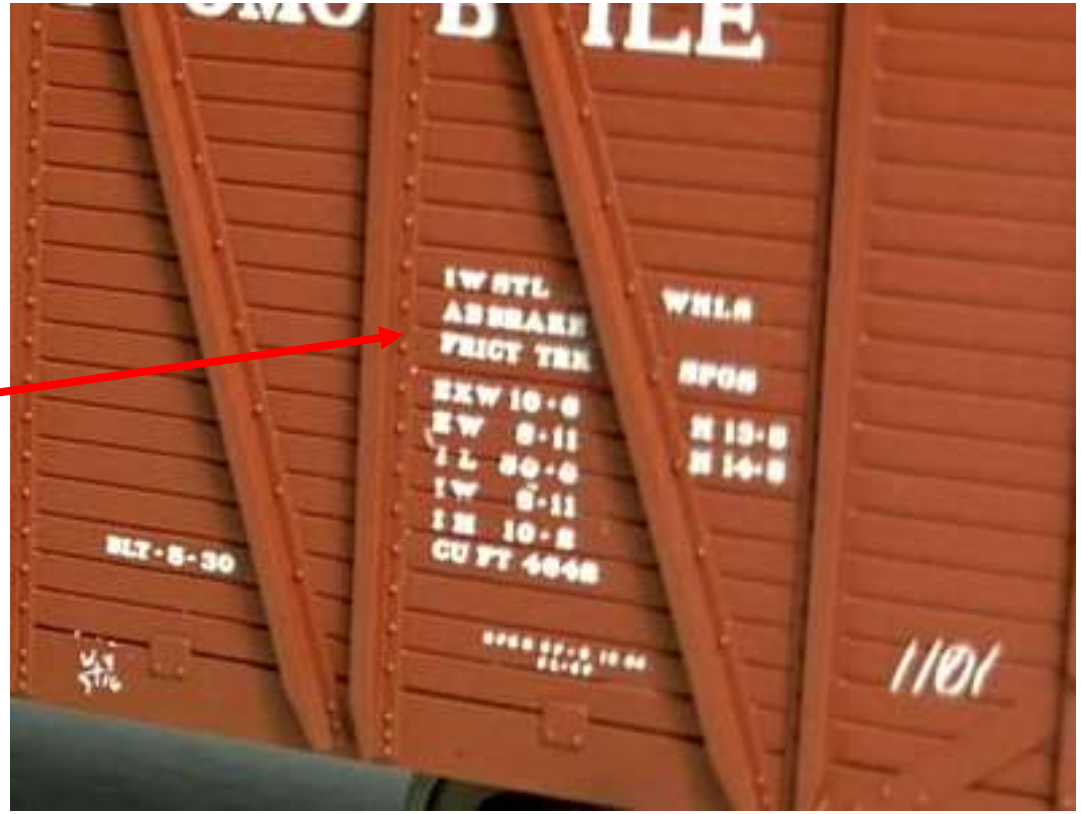
Note: All the photos from this page have the large lower side sill reinforcement removed


FRISCO
SL-SF
152805
CAPY 100000
LD LMT 198300
LT WT 80700
SP-9-54
AUTOMOBILE


SL-SF
152805


SL-SF
152805

Note the lettering above the data on the right side.




FRISCO
SL-SF
152805
CAPY 100000
LD LMT 108300
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