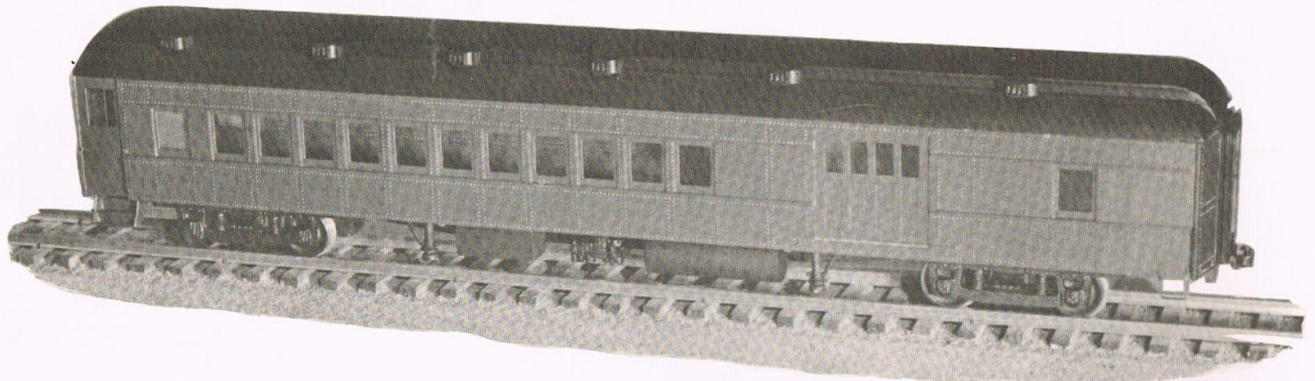


# ALL-NATION LINE

## 'O' GAUGE PASSENGER CAR KITS



Telephone: 708/682-9170



ALL NATION LINE

Manufacturer and Distributor "O" Scale Model Railroads

23W546 ST. CHARLES RD., WHEATON, IL 60188

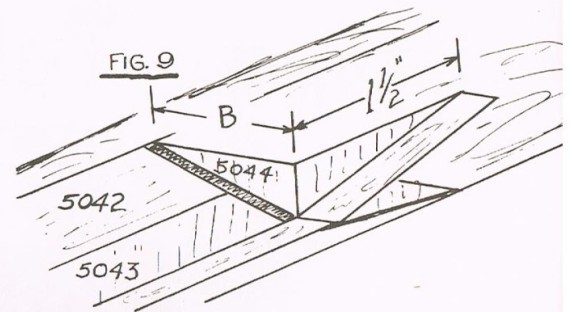
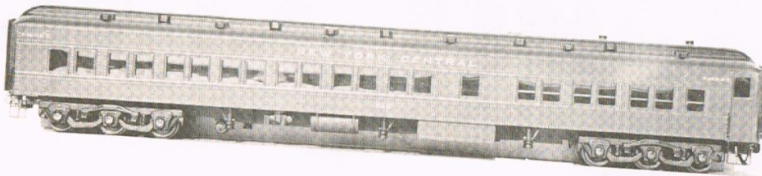
INSTRUCTIONS FOR ALL NATION'S  
COMBINE, COACHES, AND DINING CAR KITS

Please read the following instructions thoroughly before starting construction to familiarize yourself with the procedure. The result will be a beautiful car even for the beginner. The construction of the car is such that the roof is removable, which will allow you to super-detail the interior. The required tools are: razor saw, small screw driver, long nose pliers, shears, file, sand paper and we recommend Cement. Clean all flash off the castings before starting construction.

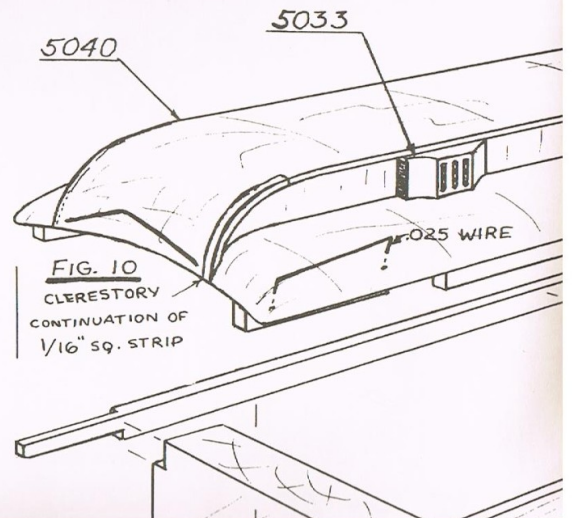
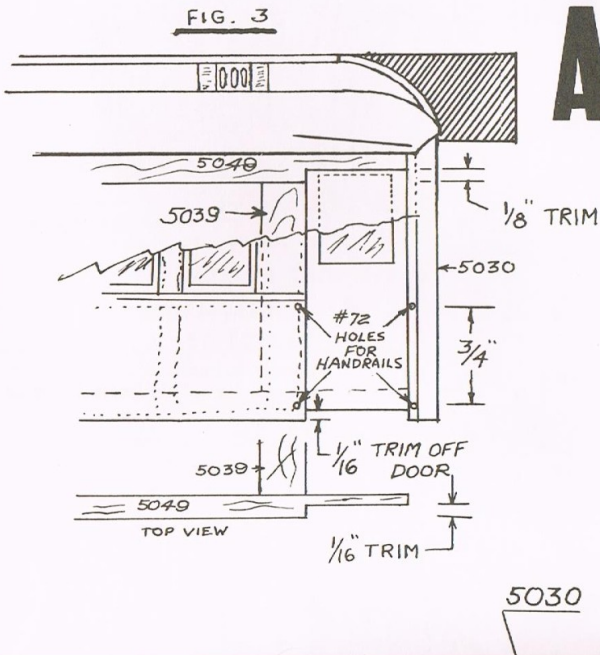
### FLOOR

For coaches take floor #5042 and draw line down center of floor bottom along the entire length. Take a square or T square, making sure that one end edge is square to the side edge of floor, and trim if necessary. Mark a line 3/4" from end with square. Measure car side between doors as marked "A" on drawing. Take same measurement from the line drawn on floor previously and do likewise with square. Then add another 3/4". Now cut off remainder of floor making sure it is square. Measure length of floor and then draw line across center. Trim area behind the doors as shown in Figure #1 and bevel as shown. This is to create the illusion of area below trap. Drill holes for screw #C-1808 with #20 drill 1-1/8" from each end of floor. For combines and dining car follow the same procedure as above, with the exception that the "A" on the combine is from the door to the end of car side. The dining car is measured on the door

BEFORE STARTING CONSTRUCTION



# ALL-NATION LINE



Take end blocks #5039 and cut notches as shown in Figure #2 with razor saw or knife on top of both sides. Cement end blocks to floor #5042 as shown in drawing using brads from bottom of floor for sturdier construction. Make sure it is square to floor. On the combine, the end blocks are placed the same way with the exception of the one by the baggage door, which is placed just forward of the baggage door as shown in Figure #4. Cut brace strip #5049 to the exact length of floor. Measure  $3/4$ " on each end for the coach and trim  $1/16$ " for clearance of doors and  $1/8$ " for door windows as shown in Figure #3. Cement in place to end blocks #5039 as per drawing. Cut two pieces the same width as the top of the end blocks and cement in between brace strip as shown in drawing for a sturdier bracing. Set aside and let dry thoroughly. When cement has set, trim floor #5042 and brace #5049 for clearance of baggage door and steps #3060 as shown in Figure #5. On dining car, also cut out behind cook's door and add step #3060 same as Figure #5.

#### SIDES

Take sides and trim the doors so that they measure  $25/32$ ". You will note that the doors extend  $1/32$ " beyond the floor. This  $1/32$ " fits into a slot on the #5030 metal ends. Trim  $1/16$ " off the bottom of the door as shown in Figure #3. On the combine and dining car sides, trim the door as above and make sure that both sides are the same length. If you are planning interior detailing, we suggest you use Stratmore or Bristle board paper for inside wall. Lay side on same and outline windows. Cut windows out with Xacto knife or any sharp knife and trim the width so that it will fit in between floor #5042 and brace strip #5049 so the windows line up with metal side windows. This is then painted to your desire and Gooed in AFTER body is painted and window glass #5050 has been Gooed in. There are interior details such as seats, wash basins, etc.

#### UNDERBODY

Sand all wood parts before cementing. Bevel main underframe #5043 as shown in Figure #9. Cement down center line making sure that the underframe is centered from each end of the floor. For cross brace #5044 measure "B" from underframe #5043 to edge of floor #5042 as shown in Figure #9. With this measurement cut four pieces and bevel as shown. Cement them in places as shown in Figure #8. Cement tanks #5045 and #5046, boxes #5047 and #5048, AB brake sets #1698A, as shown in Figure #8. Drill #48 hole for steam traps #5034 and cement them in place as shown in Figure #8.

#### METAL ENDS

Clean out slots shown in Figure #7 by deepening with razor saw and file away any of the lugs on the back side of end so that it will not interfere with floor #5042 and brace strip #5049. Be sure not to go too deep. Goo metal ends #5030 to floor and brace strip and fasten with screw #C-1801 as shown in drawing making sure bottom edge of end is flush with bottom of floor. You may have to file the sides of the end to narrow them so they will not be wider than the roof. Goo and fasten metal steps #5035 as shown in drawing with screw #C-1802.

#### ROOF

Roof Must Be Cut Out To Fit Ends  
Cut roof to length of body and allow  $1/16$ " overhang over ends #5030. Measure for the end blocks and braces and cut away the strip on the underside of roof as shown in drawing. Trim for door windows as in Figure #3. Also trim any of the strip on the underside of roof so that it does not protrude past the brace strip #5049. File top of metal ends #5030 to fit under side of roof snugly. Form the roof ends to the same shape as shaded portions shown in Figure #3. Do this with wood rasp, file and sand paper working slowly and carefully so as not to leave deep marks. Trim clerestory overhang as shown in Figure #10, using  $1/16$ " square strip. Shape and cement in place to form continuation of the clerestory. Sand roof carefully with fine sand paper and apply two or more coats of wood sealer allowing to dry thoroughly and sanding after each coat for a smooth finish. File the ventilator castings #5033 with a bevel rear edge as shown in Figure #11. Cement into the side of the clerestory as shown in drawing. Drill a  $1/8$ " hole  $1\ 3/16$ " from each end of roof about  $1/8$ " deep for the screw #C-1808 used in fastening to body.

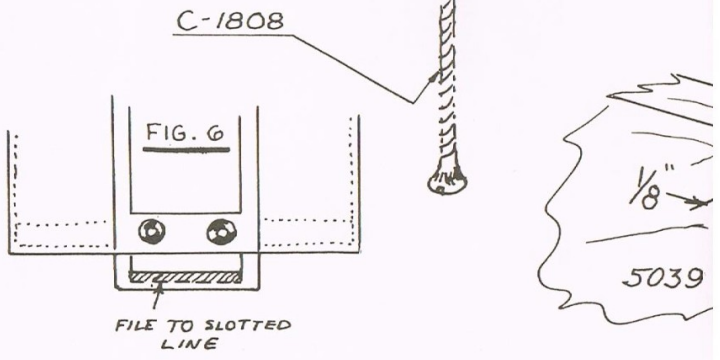
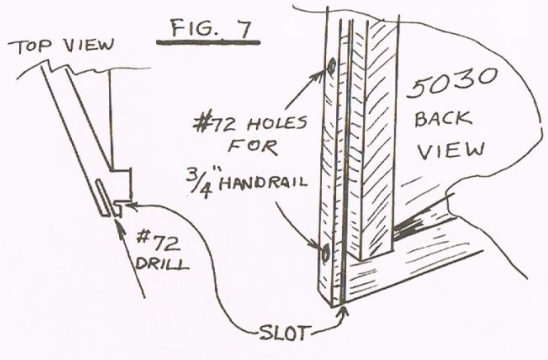
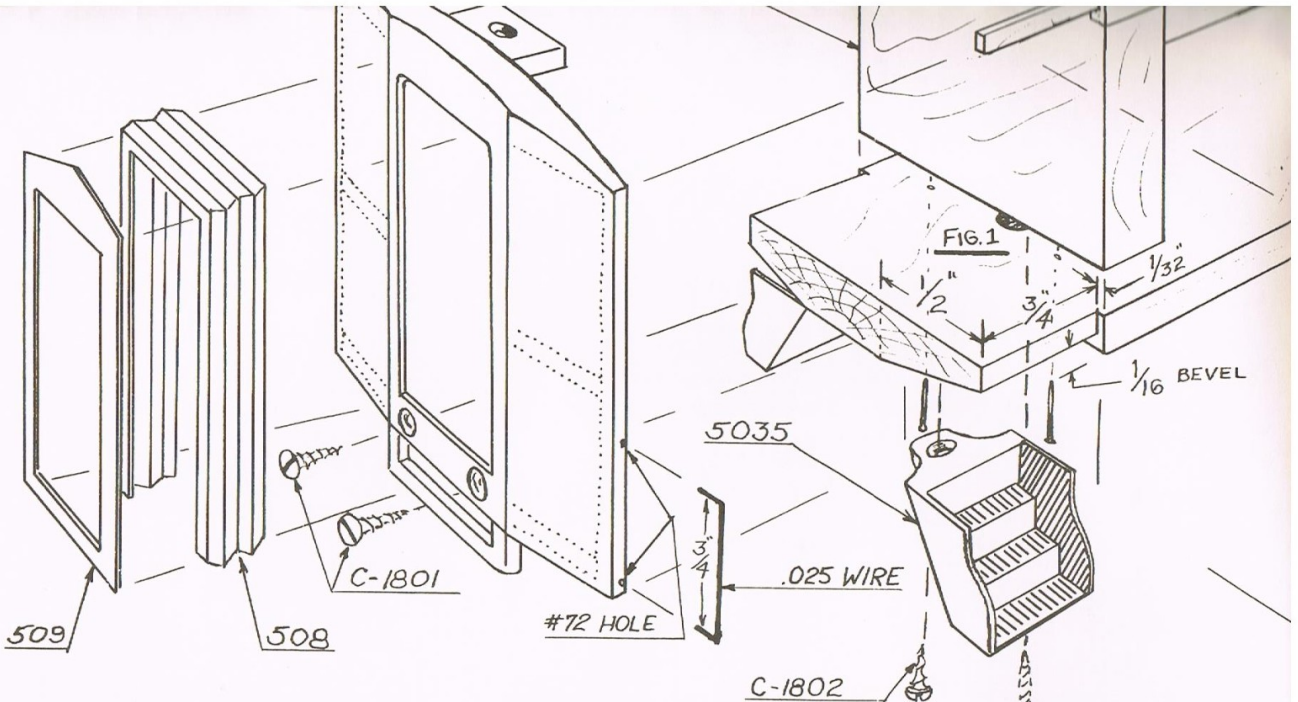
#### HANDRAILS

Temporarily lay car side on body and if it does not lay flat, trim the door just a fraction of an inch until it does. Mark for handrails as shown in Figure #3. Drill holes with a #72 drill. Holes in metal ends #5030 are drilled on an angle as shown in Figure #7. On the combine baggage door, drill hole as shown in Figure #4. Dining car has handrails on both sides of the cook's door. Form handrails from .025 brass wire as in drawing. Also use the same wire to make rain gutters on roof as shown. Sides are now ready to be attached to body. Goo the edges of floor #5042, end blocks #5039 and brace strip #5049 and lay side to mark area touching Goo. Now remove and put layer of Goo on the marked area, and another layer on the wood as mentioned. Let set for about 5 to 10 minutes. Then press on side making sure that the top edge of metal car side is flush with the top edge of brace strip #5049. Attach handrails in holes previously drilled.

#### FINISHING TOUCHES

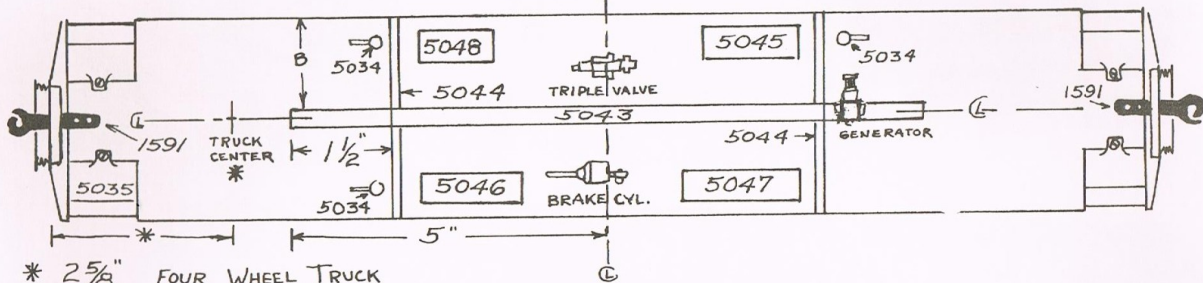
File coupler bracket on the bottom of the metal end #5030 about  $1/16$ " as shown in shaded area of Figure #6. This will make the coupler the specified coupler height. For additional exterior detailing we have sketches on the back of these instructions for the individual who wants something a little different. Suggest that you paint the body and roof before proceeding any further. We recommend spray painting. Most railroads usually painted their cars Pullman Green or Coach Green sides and ends, with black underbody and black or dark grey roof. Now add your windows by Gooing the same way as was done with the sides so as not to smear the windows. While waiting for the Goo to set, sand paper one window on each side next to end for the frosted washroom window. Fasten coupler #1591 with a washer #C-2028 in between coupler and floor with screw #229-A. Diaphragms #508 and plates #509 are now attached to metal ends #5030 with Goo. Be careful when fastening diaphragms so as not to interfere with couplers. Fasten down the roof with screw #C-1808. Attach trucks (either All-Nation new ACF 4 wheel or 6 wheel passenger trucks). You should now have a car to be admired on any layout.

NOTE: Goo Is A Glue



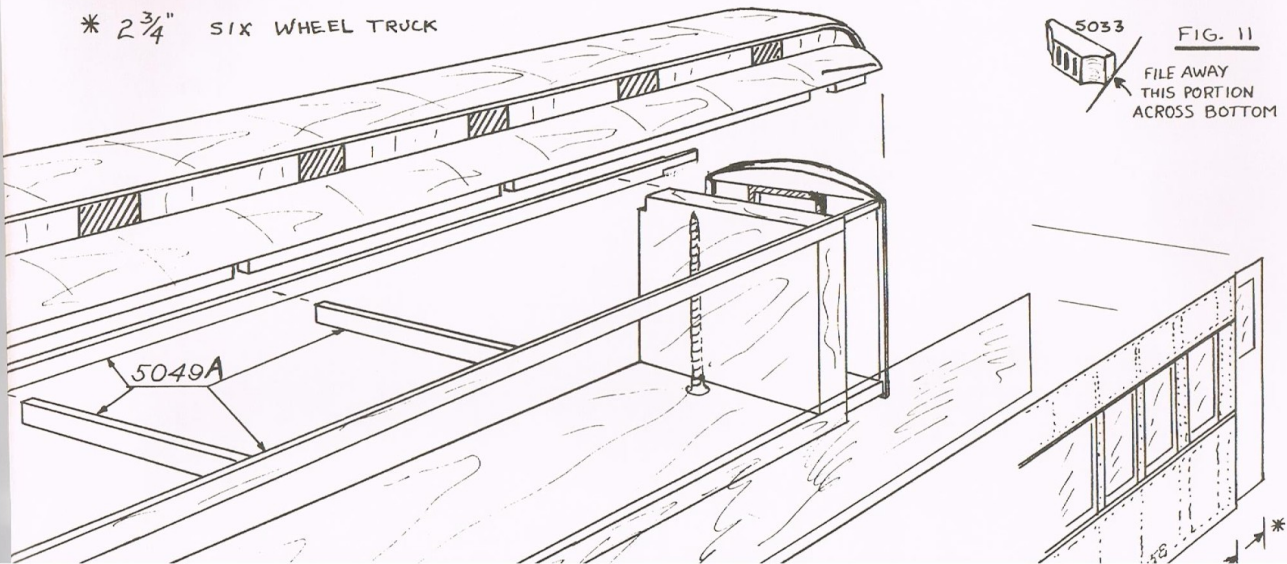
# READ INSTRUCTIONS THOROUGHLY

FIG. 8c



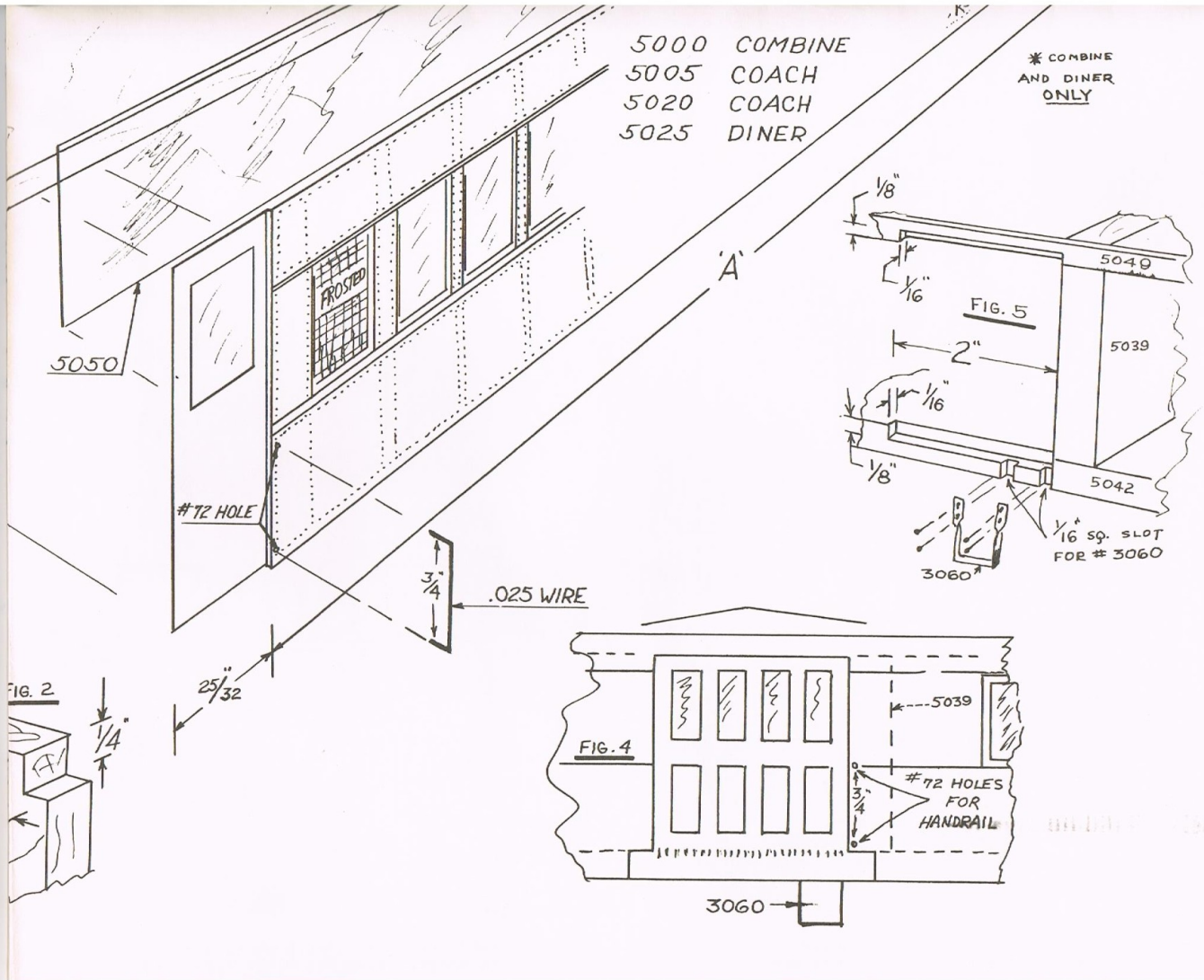
- \* 2 5/8" FOUR WHEEL TRUCK
- \* 2 3/4" SIX WHEEL TRUCK

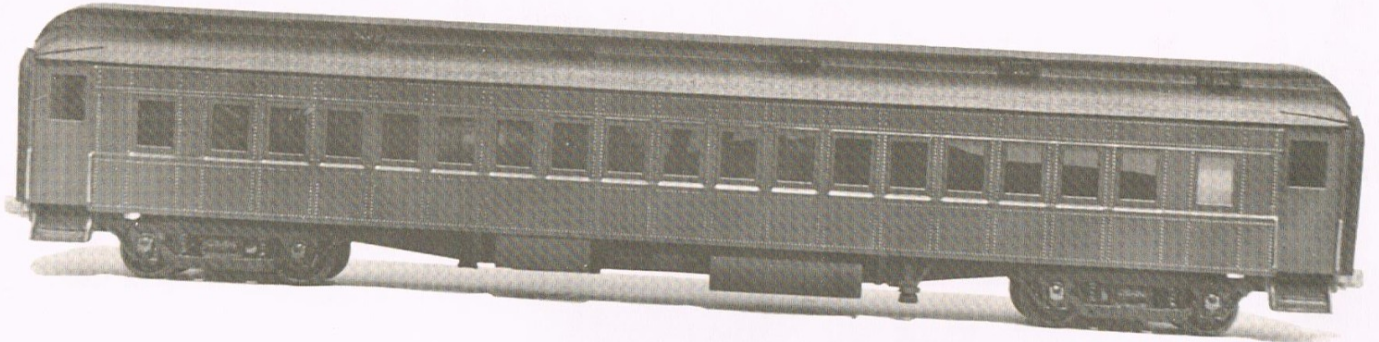
FIG. 11  
FILE AWAY THIS PORTION ACROSS BOTTOM



5000 COMBINE  
 5005 COACH  
 5020 COACH  
 5025 DINER

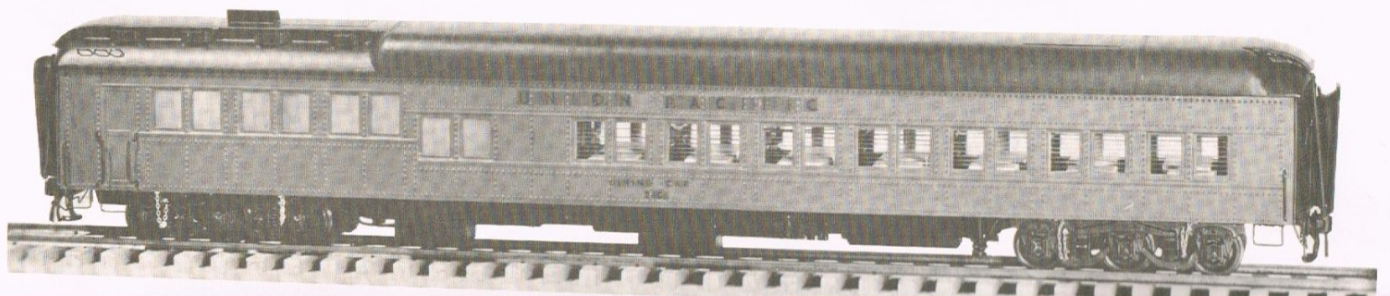
\* COMBINE  
 AND DINER  
 ONLY



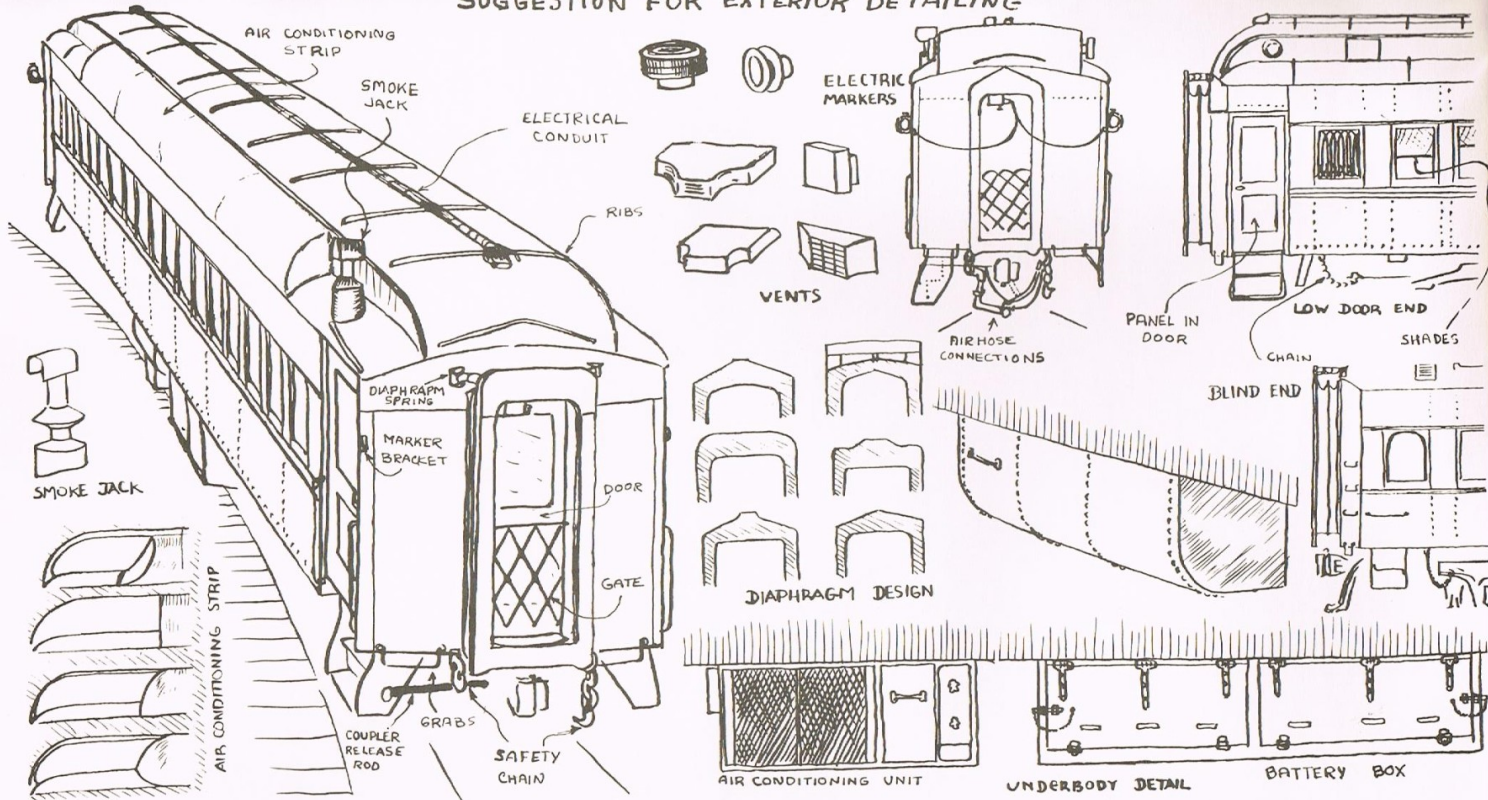


PARTS LIST

Number	Description	Quantity				Price
		#5000 Combine	#5005 Coach	#5020 Coach	#5025 Diner	
5009A	Brace Strip Wood 7/8"x3	0	0	2	2	
5030	End, pass., metal	2	2	2	2	
5033	Ventilators, metal	12	12	12	12	
5034	Steam traps, metal	3	3	3	3	
5035	Step, pass. metal	2	4	4	1	
5039	End block, wood	2	2	2	2	
5040	Roof, monitor, wood	1	1	1	1	
5042	Floor, wood	1	1	1	1	
5043	Underframe, wood 7/32"x1x10"	1	1	1	1	
5044	Crossbrace, wood 1/8"x1"x6"	1	1	1	1	
5045	Tank, wood 5/8" dia. x1 1/2"	1	1	1	1	
5046	Tank, wood 5/8" dia. x1 1/4"	1	1	1	1	
5047	Box, wood 1" sq. x1 1/2"	1	1	1	1	
5048	Box, wood 1" sq. x1 1/4"	1	1	1	1	
5049	Brace strip, wood 1/8"x1"x2 1/4"	2	2	2	2	
5050	Window, Cello. .030x1 1/4"x20"	2	2	2	2	
3151	Wire brads	12	12	12	12	
3060	Step, metal	2	0	0	1	
1698A	AB brake set, pass.	1	1	1	1	
1591	Coupler, nylon	2	2	2	2	
510	Diaphragms	1	1	1	1	
R-25	.025 brass wire 24"	1	1	1	1	
229A	Wood screw #0x5/8" Rd. Hd.	2	2	2	2	
C-1801	Wood screw #2x3/4" Fl. Hd.	4	4	4	4	
C-1802	Wood screw #2x3/8" Rd. Hd.	2	2	2	2	
C-1808	Wood screw #8x2 1/4" Rd. Hd.	2	2	2	2	
C-2018	Esc. pins #22x1 1/4"	12	0	0	6	
C-2028	Washer, #5x1"x.062	2	2	2	2	



SUGGESTION FOR EXTERIOR DETAILING

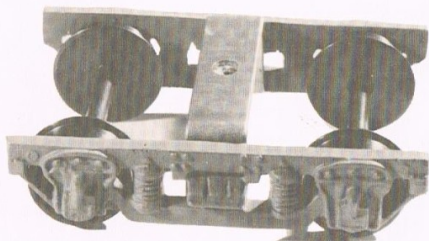


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FOUR WHEEL PASS.  
TRUCK KIT

A Bronze sandcasting with unbelievable sharp detail and includes our NEW 36" steel wheels

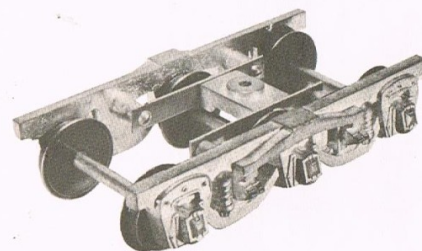


- #3814 Passenger truck kit 4-wheel scale
- #3815 Passenger truck kit 4-wheel tinplate

ALL-NATION'S  
COMMONWEALTH

SIX WHEEL PASS.  
TRUCK KIT

A Zamac die-casting with sharp details and our NEW 36" steel wheels oxidized black



- #3809 Passenger truck kit 6-wheel scale
- #3810 Passenger truck kit 6-wheel tinplate