

Illinois Central in Scale:



A guide to modeling the IC, by IC modelers

Published By Dennis Daniels

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Written by the Members of the Yahoo IC Modelers Group

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Ch 1: Tools of the Trade....

Ch 2: What's Prototypical....

Many on the board often ask what model it best to start with to do a particular locomotive. Here, I'll try to put together a list of good starting points and how to build them. Details on each model can be found in the next chapter.

Currently Manufactured Models

<u>To build a:</u>	<u>Start with a:</u>
BU1	?
Slug	?
E6	Proto 2000 E6
E7	Proto 2000 E7
E7B	?
E8	Proto 2000 E8
E8B	Proto 2000 E8B
E9	Proto 2000 E9
EMC	?
F3A	Athearn Genesis F3
NW2	?
SW1	?
SW7	Athearn SW7
SW8	Proto2000 SW8
SW9	?
SW12	?
SW13	?
SW13B	?
SW14	?
RS-1	Atlas RS-1
RS-1E	?
RS-2	Kato RS-2
RS-3	Atlas RS-3
C636	?
GP7	Proto2000 GP7 or Atlas GP7
GP8	?
GP9	Proto2000 GP9
GP10	Proto2000 GP9 or Atlas GP7
GP11	Proto2000 GP9 or Atlas GP7
GP18	Proto2000 GP18
GP28	?
GP30	Proto2000 PG30
GP35	Kato GP35
GP38	Atlas Master GP38
GP38D	?
GP38AC	?
GP38-2	Athearn GP38-2
GP40	Atlas Master GP40
GP40A	?
GP40R	?
GP40X	?
GP50	Athearn GP50
SD20	Proto2000 SD7
SD26	?
SD28	?
SD40	Kato SD40
SD40A	?
SD40X	?
SD40-2	Kato SD40-2
SD45	Proto 2000 SD45 or Kato SD45
SD70	Athearn Genesis SD70
U30B	?
U33C	Atlas U33C

Ch 3: Details, details....

Building the Models and Making them Right

The following is a basic guide of what detail parts are needed for different IC models. I'll add more as I get them:

Diesel Type	Diesel Series	Part MFG.	Part #	Description
SD40	6030-40,6100,6201	Details West155	Plow	
SD40	6030-40,6100,6201	Detail Assoc.	2206	Eye bolts (use as lift rings)
SD40	6030-40,6100,6201	Details West265	MU hoses	
SD40	6030-40,6100,6201	Details West157	Firecracker antennae	
SD40	6030-40,6100,6201	Details West267	Air hose & bracket	
SD40	6030-40,6100,6201	Overland 9005	5 chime horn	
SD40	6030-40,6100,6201	Cannon & Co.	1103	81"nose (brake wheel side)

GP9	Paducah	Details West176	Bell	
GP9	Paducah	Details West1148	Pyle Twin headlight (vertical & frog eye)	
GP9	Paducah	Details West153	Trilight (GP11 between number boards)	
GP9	Paducah	Details West142	36" Cap Fans	
GP9	Paducah	Detail Assoc.	2706	Horst Air Intake
GP9	Paducah	Detail Assoc.	2402	Exhaust Stacks
GP9	Paducah	Detail Assoc.	3002	Sand Hatch
GP9	Paducah	Detail Assoc.	1301	Sunshade
GP9	Paducah	Detail Assoc.	2604	Number board
GP7/9	Paducah	Des Plaines Hobbies 2005		Split windshield for 1st gen.
GP7/9	Paducah	Custom Finishing by 260		Horst Filter

SD20 Paducah Custom Finishing 247.225 RS-5T Five Chime horn.
 Order of bells (looking from the front of the engine) would be on the right bottom #31(2nd largest) then #25(largest) in the center. On bottom left is #37(3rd largest). On top above and between #25 & #37 is #55(smallest and reversed). Beside it, above and between #25 and #31 is #44(4th largest) also reversed.

GP38 9500 Class Details WestAH 191 or Standing in front of the loco, on the right is #37,

GP40 Late order w/dynamics Details WestWalthers # #25 in the center, #31 on the left. Above and

SD40 & SD40A's All of these IC-style Details West235.191 between #25 and #31 is #44, and beside it is #55 above and between #25 & #37.

Bell size can be figured out by th number. #25 is the largest and #55 the smallest

Also, the only difference in the S and RS horns is the S is original model, introduced in 1950, and RS is the

newer

Spiked" back cap power chambers introduced in the early '70's. Custom Finishing would be correct for the

earlier

S-5T-R if you want the finest detail.

SD20's-SD40's or any unit if moving

things around the roof Cannon & Co. HR 1751 Blank EMD roof stock

SD's Early Dash 2Cannon & Co. JP 2153 Jack Pads

SD's Late Dash 2 Cannon & Co. JP 2154 Jack Pads

GP's & SD's All Cannon & Co. TD 2156 EMD Fuel Tank details set

GP's & SD's All Overland 9052 Sinclair Antenna for FRED

GP's & SD's All Details West 275 Short Sinclair Antenna

Building an ICG GP35

Bill of Materials:

Start with a Kato GP35:

Kato's done three Phase One variations of the GP35, and GM&O had all three.

All Phase Ones have a fishbelly frame with the thicker sidesill over the trucks and the "flat-topped" fuel tank)

GM&O 601-604 Phase 1a1 (7 latched engine room doors, short inertial filter)
605-612, ph 1b1 (3 latched engine room doors, short inertial filter)
(not dead certain where the break is, but I think it's between 604 and 605)

613-622, ph 1b2 (3 latched doors, longer inertial filter)
623-624, ph 1a2 (7 latched doors, longer inertial filter)
(all Phase 1a's and 1b's have the slatted "egg-crate" radiator grilles)

625-636, ph 1c ("wire rake" radiator grilles, single louvers on the battery boxes)

All Phase Twos have a straight frame with the "sloped-top" fuel tank and the side sills are a bit thinner over the trucks.

Phase Twos look like short GP40s.

637-642, ph 2b1 (domed inertial filter hatch but still has flat inertial intake screens)
643-648, ph 2b2 (corrugated intakes on the inertial filter)
(again, I don't know for certain the dividing point)

All GM&O GP35s rode on the longer AAR-B trucks which also means there's less room for the fuel tank, so they all have 2300g tanks (2600g was standard on GP35s). On Phase Ones a flat-top 2300g tank is about 14 feet long (perhaps only 13'9"). On the Phase Twos, the sloped-top 2300g tank is shorter, at only 11'6".

When ICG obtained GM&O, they renumbered the GP35s in the 2500 series. They took the last two numbers of the GM&O number and added 1 to get the ICG number. Example....GM&O 601 became ICG 2502, GM&O 602 became ICG 2503 and so on.....

Kato's "Phase 1a" and "1b" GP35s both have the longer inertial filter, so they are closest to the Phase 1a2 and 1b2 orders. Nobody makes the shorter screen for the earlier orders, so you're on your own if you're that picky."

Extra Detail Parts Needed:
??????

Step by Step building:

Painting:
ICG had GP35's in Orange and White, Solid Orange and Orange and Gray.

Mike Kinder's method of Building a Paducah rebuild GP10

Thought I would share my experience with chopping the nose of a P2k jeep and what has worked for me. I started with a Proto phase II GP9. The cab is actually from a phase III as I wanted to include the louvers for the heater on the cab in front of the engineer. For some reason none of the phase II's I've acquired have these louvers. The Proto shells are a dream to work with! The shell comes in four pieces which helps make things easier. The plastic is thin and cuts easily but its thick enough that it isn't too flimsy. Very easy to work with. If you've ever had to work with an old Athearn shell your really going to like this.

Here is a fairly complete list of parts. Hopefully others can add to it.

Details West

176 Side mount bell
284 Speed recorder
294 MU hoses
HL-116 Gyalight (as per unit)

Detail Associates

2212 Coupler lift bars. These look much better if you make them yourself out of .012" brass wire.
3002 sand filler hatches
1301 cab sunshades. I think the Proto's come with these already?
1017 class lights. You'll need these to replace the original ones you sand off the nose. Don't bother trying to salvage the old ones!
2312 Cab deflectors. The cab is the focal point of the whole unit. Don't forget these!
101004 Dual headlight (Brass)
1501 MU stands. I think Proto includes these also.
2202 Grab irons
2206 Eye bolts

Des Plaines Hobbies

DPH-2005 Split windshield part
This is a nice part but needs some work to correctly fit a Proto unit. Also you still have to make the numberboards. I have been using the Cascade&Pacific #board part but I'm not sure if he's going to make anymore or not. Never fear though I have a great technique for making #boards out of Detail Associates 2604.

Custom Finishing

260 Horst Filter. Will require some cleanup.
247 Extended exhaust stacks. They are way too tall and require cutting down. Also the lip at the tops is too large to be realistic so I file it off.

Cannon & Co.

HD-1004 Toilet Door. Will need cutting down

Overland

9286 Oscitrol light (as per unit)
9011 3 chime airhorn. A little on the large side but it should be louder right?

A-line

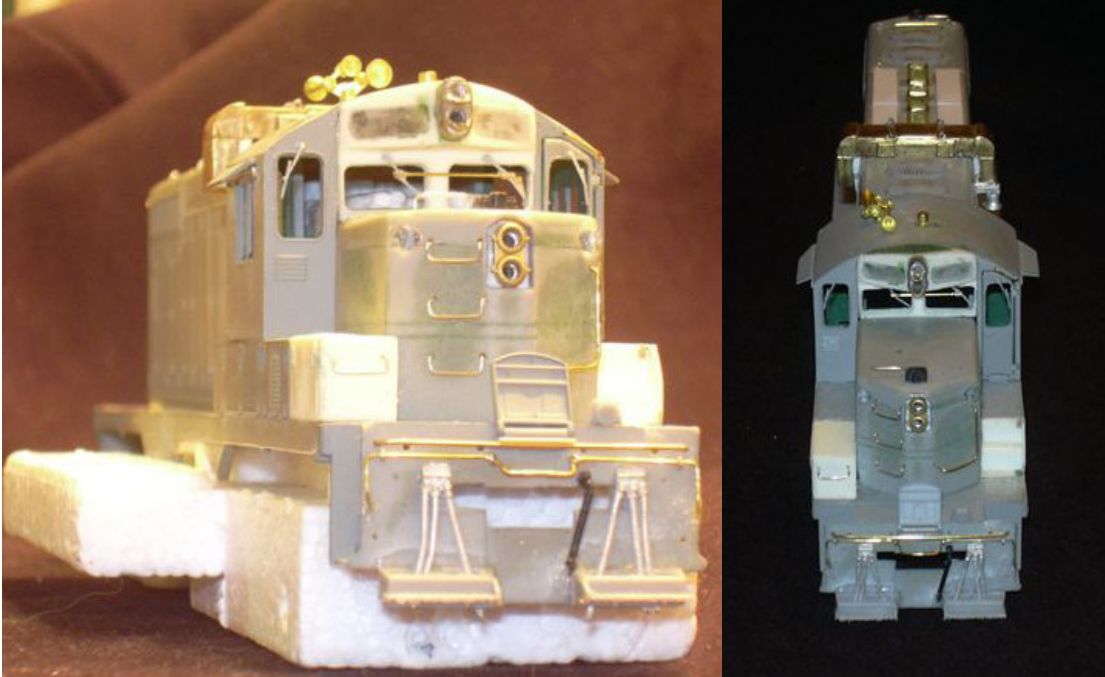
29200 Windshield wipers. They look much better than the ones molded on the glass.

Also, I've found .015X.188" (0.4X4.8mm) strip styrene perfect for the maintenance doors on top of the long hood.

I know this list isn't quite complete but it should get you going.

First off I start off removing all detail. All detail must go. You might want to start with a flat file for some of the bigger protrusions and then switch to a relatively coarse sand paper. To remove the doors on the firemans side. I'll lay the sandpaper flat on the table and hold the part to sand.

When this is done you're ready to start chopping. I do this with an Xacto saw blade that fits into the end of the hobby knife. I start just above the #boards and get as close to the top grab iron holes as I can without cutting into them. I use masking tape as my guide by masking off a straight line around the nose and saw along it. Work slow and careful and you shouldn't have any problems. When done I'll take some sand paper and clean up my cut.



To remove the center section I use the holes where the third grab iron up from the bottom would go as my guide. You'll want to mask just below these holes and make a straight line around the nose then remove the center section. There should be some tolerance and you will have to do some additional filing and sanding. The plan is that you'll use the grab iron holes left in the top portion and they should fall in place where the third grab iron holes were removed. I've never actually measured the distance between the grabs and have done this all by eyeball. Maybe I'll get around to measuring someday! At any rate if done correctly this is going to put you at the right height for the nose.

Next I'll glue the two sections together and let dry. When dry I'll sand along the joint then apply body putty such a Squadron along the joint. After this has dried a couple of days I'll re-sand. I'll switch to finer and finer sand paper and go over the whole nose until it is clean and free of any scratches.

Now we are ready to start detailing! If anyone is interested I'll be more than happy to cover that in the next installment.





Modeling an *Illinois Central* PS 4740 Cubic Foot Covered Hopper

By Keith Rafacz

I photographed CC 56843 in Waterloo, Iowa, in August of 1997. The IC reporting marks had simply been painted over, and the “CC” reporting marks of the Chicago, Central & Pacific Railroad had been painted on. (See below)



I chose to model IC 56843 as it would have appeared in my modeling period of 1980 to December 25, 1985. I intend to model the Illinois Central Gulf's Iowa Division, from Chicago's Hawthorne Yard to Freeport, Illinois' Wallace Yard once I find a house with a suitable large, dry basement!

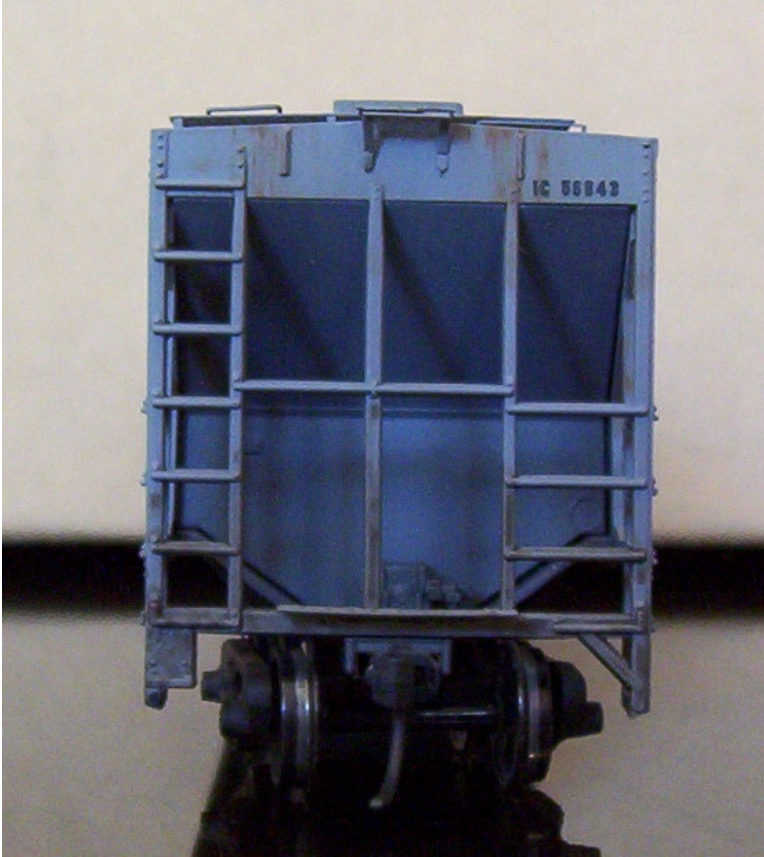
I started with an undecorated Athearn 54' Pullman Standard 4740 cubic foot covered hopper. The Athearn model shows its age when compared to a PROTO 2000 covered hopper: the grabirons on the Athearn model look like bookshelves! I wanted to improve upon the model, so I chose to add a Plano Apex roofwalk (part number 565-85), Kadee #58 semi-scale couplers, and Kadee 36" wheels.

I started by removing the kit's stock roofwalk, which was simply a matter of pushing out the mounting pins from inside the body shell. I also removed the center trough hatch in the same manner and set it aside. There are now several holes in the roof of the car which will need to be filled because of the lacy, see-through Plano roofwalk. I keep a stash of model-kit sprues on hand simply for this task. I take a good, old-fashioned pencil sharpener (like the ones screwed to the wall in your 3rd grade classroom) stick in the sprue, and sharpen it. It works! To fill the holes, I take Testor's cement (the liquid, NOT the tube) and soak both the hole and the sharpened tip of the sprue. After a few seconds, I push the sharpened sprue into the hole and let it sit overnight. Do this for each and every hole on top of the car, but NOT the holes for the center trough hatch! The next day, I take a pair of flush cutting snips and trim the sprue as close to the roof as possible. Final cleanup is done with a chisel Xacto blade, and 400/600 wet or dry sandpaper (used wet).

The Plano roofwalk kit comes with a template that is taped to the roof of the car. A push-pin accompanies the kit, and is used to mark the roofwalk support locations at the marked locations on the template. Pushing the pin through the paper template makes a small divot in the plastic, marking the drilling location for the supports and providing a good "bite" for the drill bit. Once all the holes are marked with the pin, and there are MANY, remove the template and begin the arduous task of drilling out all the holes per the Plano instructions. The next step is to fold the etched brass roofwalk supports, which is easy to do as the supports are scored at the fold lines. I would fold one at a time, then place it in its proper location on the roof. Make sure you are paying attention to the Plano instructions, as some supports are longer than others and go on certain areas of the roof. Also, one leg of the etched brass support is longer than the other, since the roof is sloped down from the centerline. Check to be sure your supports have all been placed correctly before super-gluing them from INSIDE the carbody.

Now comes the tricky part. I carefully placed a line of regular viscosity super glue across the top of each support, then laid the roofwalk in place. It took a little while for the roofwalk to bond to the supports, so watch it carefully until it has set. It could float and move off center of the car, or some of the roofwalk supports may not bond to the roofwalk, causing it to sit loosely atop the car.

I added two Details Associates 18" drop grab irons (the kind used for the long hood end of a locomotive) to the roof. You can see this grab iron in the photo below. It is visible on the upper left roof of the car. I added it by simple drilling down through the roofwalk into the plastic. I glued the grab iron with super glue on the inside of the shell.



Also visible in the above photo is the coupler platform, included in the Plano roofwalk kit! I removed the cast plastic coupler platform with a few careful passes of a sharp Xacto #11 blade, and super glued the Plano coupler platform on per the kit instructions.

The Plano roofwalk and coupler platform really dressed this car up, but they also made the stock grabirons and ladders look even more oversize! I suppose if I was adventurous enough, I could remove the stock ladders and replace them with brass wire on my next model, but that would be awfully tedious. I've seen a model railroad magazine in which a modeler used the ladders and end grab irons from a PROTO 2000 kit, but I don't have experience in that modification. Just food for thought.

Per the Athearn instructions, I mounted the various brake cylinders and secured them with a bit of Testor's plastic cement. To prepare the car for painting, I

washed it in warm, soapy water. I rinsed the car thoroughly, then set it aside overnight to dry.

I opted to paint this car with Testor's #1138 Gray (yep, the little 1/4oz bottle you bought down at the drug store as a kid). I was experimenting with different paints just to see how they would look, and I liked the idea this enamel dried to a gloss finish, perfect for decaling. This gray paint has a bluish cast to it, which matched some of the photos I have seen of similar gray IC covered hoppers.

Ch 4: It's all about the Color

Here is a recommendation on paint mixtures from John Pitts.

Passenger Orange:

Floquil and Scalecoat paints both use the same formula
Reefer orange 1/2 bottle (1 oz. size)
Reefer Yellow 7 drops using eyedropper for measuring
Engine Black 5 drops using eyedropper for measuring
Caboose Red 10 drops using eyedropper for measuring

The Caboose Red is BRIGHT Caboose Red not the regular red. The ScaleCoat # S2073 this is for plastic and # 73 for brass this is for the passenger orange. You can add less red for fresh paint or more red for a sun bleached effect. Remember that IC repainted their passenger equipment every 6 years, so the colors would not fade as severely.

Scalecoat now has New Haven Orange # S2090. If you add 30 drops of refer yellow to the New Haven Orange you will come out with a match for Illinois Central Passenger Orange. You will not have to go through all of the steps to make an IC Passenger Orange.

Chocolate Brown: (ICRR refers to this color as Rust in paint diagrams)

25 % Engine Black
75% Caboose red

Reefer Yellow:

Use Floquil Reefer Yellow for orange and brown passenger cars as this color has a tint that you can not find from any other manufacture. Remember the bottom stripe is 3 1/2 inches and the center and top stripes are 2 inches.

Mix for Floquil and Scalecoat is 30-40% thinner to paint at about 25-29 PSI with the airbrush 4-6" from the model.

Painting IC passenger cars: a guide by John Pitts

I have been getting Q. about vestibule color on IC passenger cars so here goes ... what I use is Floquil # F 110023 Flesh and to that I add 70 drops of Floquil signal red # F 110065 and then I add 50 drops of Floquil Engine Black #F110010 this is a dead nuts color. I know its a pain to sit there and count out drops but since the sun did not hit that area much the colors would not bleach that much and this will insure that all the color tints are the same when you have a large fleet of cars.

Cars such as the 1900 series Panama Limited Baggage-Dormitory's had the B-end painted tan and the A-end's painted rust brown when they were originally painted for the Panama Limited and had the O\B\Y wrapped around to the door. The reason for this was the A-end was rounded and since the E-6s were also rounded this left a large area exposed and would not have looked good if the ends of the 1900's were rust brown. So this was more pleasing to the eye than just a rust brown color. Oh and one more thing about the 1900s there was no diaphragm on the A-end either*. In later years the A-end were painted rust brown and remained that way until they were scrapped*.

I have seen a couple of the 1800 series Burnside rebuild Baggage cars that had rust brown vestibule's but this is the exception not the rule so I would say that if you are going to scratch build any 1800s, get photos of the particular car that you are going to do as all had small but definite changes on them.

Vestibule's on mid-train club cars were also painted in the tan color as well but remember that in late 66-early 67 IC started to repaint the mid train club ends solid rust brown whereas before the O\B\Y wrapped around this area but the vestibule's remained painted in the tan color as mentioned above.

* 1900 series were regular cars on the City of Miami in the 1960s.

* The SOHO Panama Limited buffer plate on the 1900s is so small so if you are going to do work on this car I would look at the drawings first and scratch build this part it as this makes a HUGE difference.

Painting the rest of the car is simple. Basically you make sure the car is clean and smooth. Paint the yellow first. After the yellow has dried you add the striping. After the tape is down and straight then you paint the orange. Cover the orange with masking tape running over the top of the striping tape. Then paint the brown. Smooth coat on sides and a drier coat on

the ends. Peel back the tape and your car is painted. Paint the underframe black and the vestibule/diaphragms with Floquil Foundation which will give you that cream color found in that area of the car. Apply gloss coat to just the sides for decaling. Decal and then flat finish the car. After the flat finish has dried you lightly sand the sides and decals with a very fine grit sand paper. This will blend the stripes and decals nicely to the paint. Then you do a final coat of Flat Finish. Lightly weather the trucks and there you have it.

Ch 5: How's the Weather

Ch 6: Trackside

Ch 7: The Real McCoy

ICG Units painted orange and gray

50-59 Slug 60" ICG, orange walkways, white numbers
459 SW9 60" ICG, gray walkways, white numbers
1303 SW13 60" ICG, orange walkways, white numbers (No ICG on long hood)
1416-1453 SW14 60" ICG, orange walkways, gray numbers
1454-1511 SW14 60" ICG, orange walkways, white numbers
2000-2009 SD20 68" ICG, orange walkways, gray numbers
2010-2014 SD20 68" ICG, orange walkways, white numbers
2015-2041 SD20 60" ICG, orange walkways, white numbers
2253 GP30 68" ICG, orange walkways, white numbers
2517, 2520 GP35 68" ICG, orange walkways, white numbers
2601, 2602 GP26 60" ICG, orange walkways, white numbers
3029 GP40 68" ICG, orange walkways, white numbers
3030, 3038 GP40 60" ICG, gray walkways, white numbers
3064 GP40 68" ICG, orange walkways, white numbers
3067, 3069 GP40 60" ICG, gray walkways, white numbers
6000 SD40 60" ICG, gray walkways, white numbers
6001 SD40 68" ICG, orange walkways, gray numbers
6002 SD40 68" ICG, orange walkways, white numbers (black stripes)
6003-6005 SD40 60" ICG, gray walkways, white numbers
6006-6011 SD40A 60" ICG, gray walkways, white numbers
6014 SD40A 60" ICG, gray walkways, white numbers
6015 SD40A 60" ICG, gray walkways, white numbers
6017 SD40A 60" ICG, gray walkways, white numbers
6018 SD40A 60" ICG, gray walkways, white numbers
6034 SD40-2 60" ICG, orange walkways, white numbers
6040-6049 SD40-2 60" ICG, orange walkways, white numbers
6051-6054 SD40 60" ICG, orange walkways, white numbers
6054-6055 SD40 60" ICG, orange walkways, white numbers
6057 SD40 60" ICG, orange walkways, white numbers
6059-6060 SD40 60" ICG, orange walkways, white numbers
6063 SD40 60" ICG, orange walkways, white numbers
6065 SD40 60" ICG, orange walkways, white numbers
6071 SD40 68" ICG, orange walkways, white numbers
8060 GP10 68" ICG, orange walkways, white numbers
8128, 8461 GP10 68" ICG, orange walkways, gray numbers
8707-8721 GP11 68" ICG, orange walkways, gray numbers
8722 GP11 68" ICG, orange walkways, white numbers
8723-8726 GP11 68" ICG, orange walkways, gray numbers
8727-8750 GP11 68" ICG, orange walkways, white numbers
8750-8753 GP11 60" ICG, orange walkways, white numbers
9512 GP38AC 68" ICG, gray walkways, white numbers
9522 GP38 60" ICG, gray walkways, white numbers
9530-9531 GP38 60" ICG, gray walkways, white numbers
9550 GP38AC 68" ICG, orange walkways, white numbers
9560, 9564 GP38-2 60" ICG, gray walkways, white numbers *
9568 GP38-2 68" ICG, orange walkways, gray numbers
9570 GP38-2 60" ICG, gray walkways, white numbers *
9614 GP38-2 60" ICG, gray walkways, white numbers *
9626 GP38-2 68" ICG, orange walkways, white numbers
9630 GP38-2 60" ICG, orange walkways, white numbers *

Both phases share the following:

Orange: Top, sides, and front of cab; top, sides, and front of nose; front deck, end plates, steps, side sills, end of rear hood, handrails.

Gray: Rear of cab, long hood sides and top, trucks, fuel tank, frame.