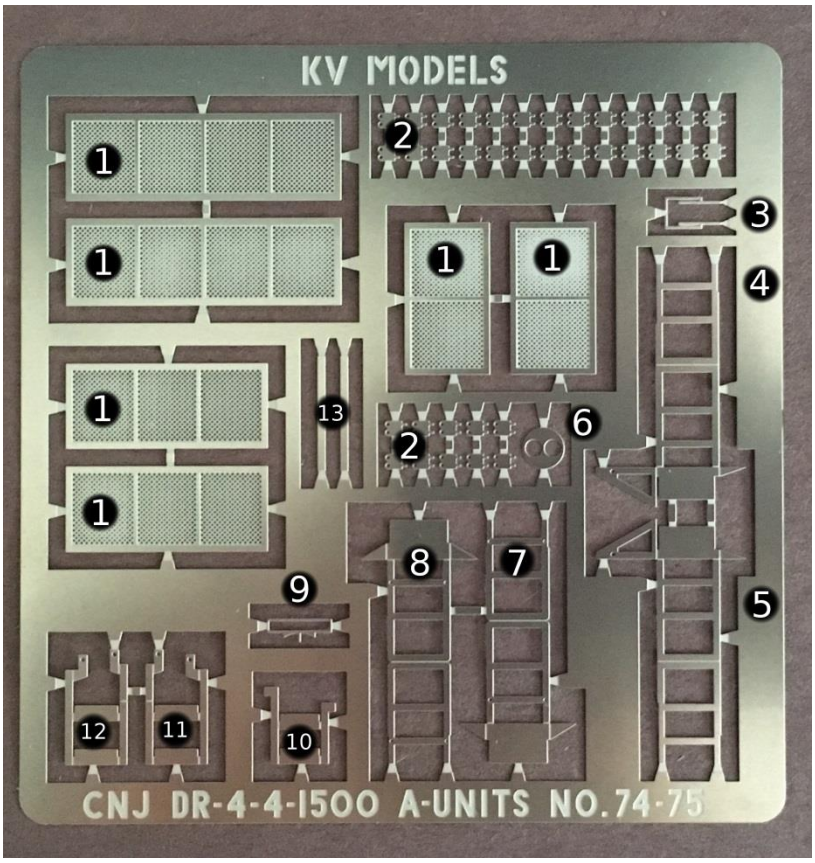
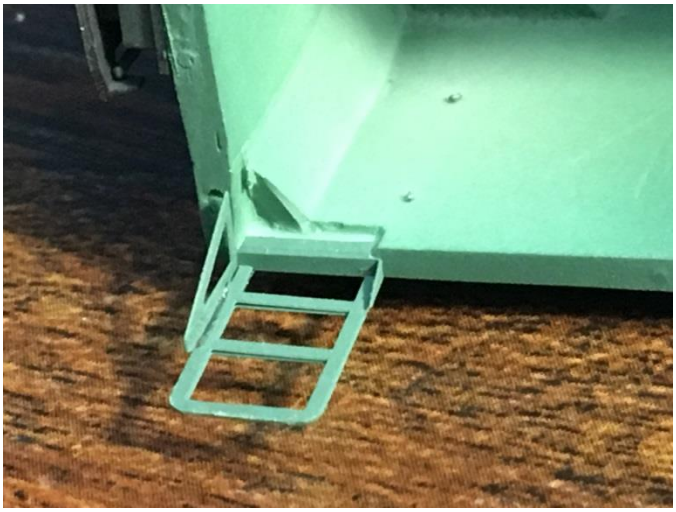


1 – Mesh Grilles (varies by engine number)
2 – Roof Rail Stanchions
3 – Windshield Wipers
4 – Rear Ladder (Fireman Side)
5 – Rear ladder (Engineer Side)
6 – Twin-Beam Headlight Plate
7 – Center Ladder
8 – Center Ladder
9 – Headlight Bug Deflector
10 – Front Ladder (Engineer Side)
11 – Front Cab Ladder (Fireman Side)
12 – Front Cab Ladder (Engineer Side)
13 – Front Pilot Stirrups

1. The mesh grilles are not a complicated affair. First, the resin grilles need to be removed from the shell. I do this by drilling holes in the corners and then cutting them out using a razor saw. The etched grilles are attached to the outside of the shell with Medium Thickness CA. There are 3 different sized grilles per side (2 section, 3 section and 4 section grilles). Their locations should be self explanatory.

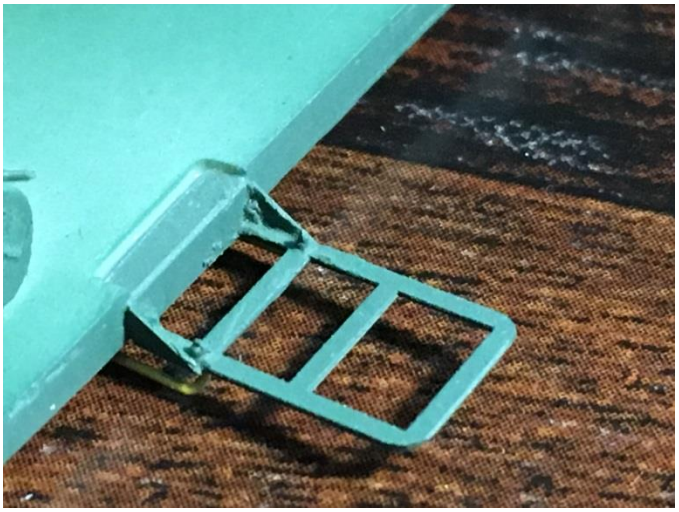
2. The roof rail stanchions are of a fold-over design. They are folded in half to build up the thickness. They include a hole for the .015" wire and also posts for the mounting holes. Medium Thickness CA is good for attaching the stanchions to the roof. A small dab of CA at the hole where the wire passes through the stanchion is sufficient for holding the wire in place.

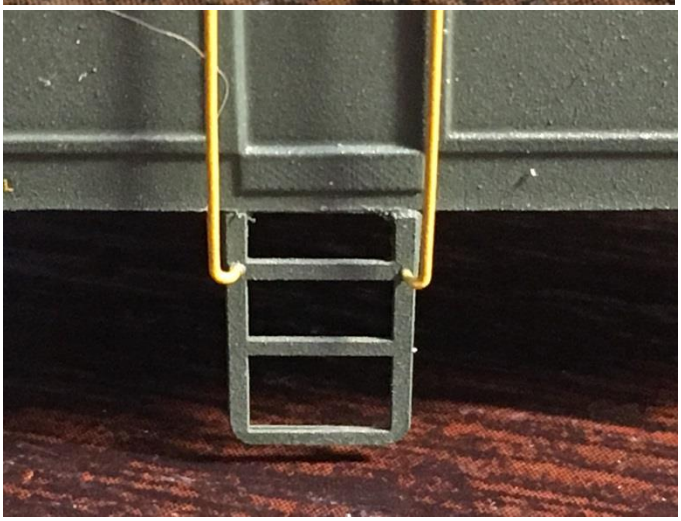
3. The windshield wipers are attached by drilling two holes above the windshield. The posts of the wipers are inserted into the holes and secured with Medium Thickness CA.



4 & 5. The Rear Ladders are folded in half to build up thickness. The ladders have two braces along each side which besides being visually correct, add to their structure. The larger brace goes along the rear of the engine under the shell. The smaller brace goes up against the underside of the shell along the side. The coupler cut lever is attached through a hole near the bottom of the larger "rear" brace. At the top of the ladder is a plate which is folded up against the bottom edge of the shell and then folded again up along the inside of the shell. The inside mounting plate might need to be trimmed along the top edge depending on which resin shell you have purchased. Some have smaller mounting recess in the resin than others. Either way, this mounting plate system works.

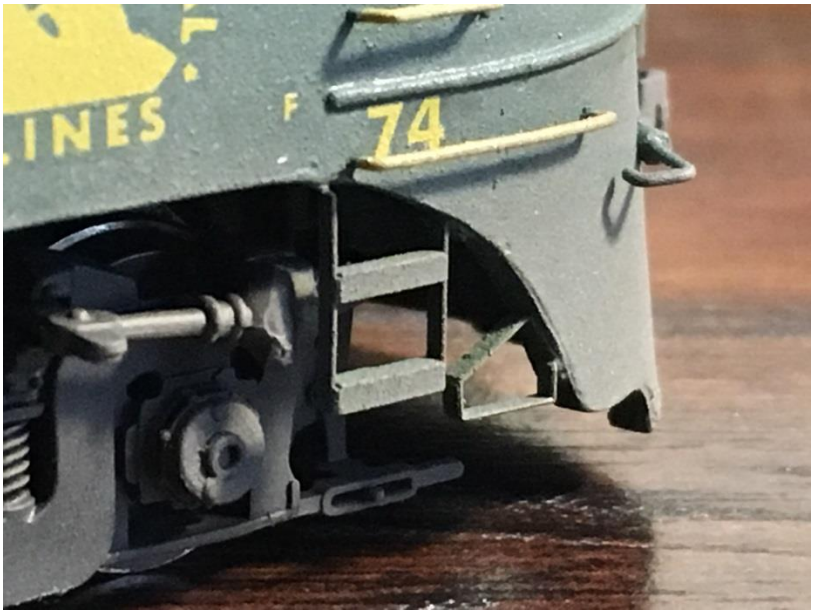
6. The twin beam headlight plate is attached to the headlight from inside the shell. The resin opening may need to be reamed out slightly with a round file to match the circumference of the plate. The plate can be attached with either Medium Thickness CA or canopy glue.

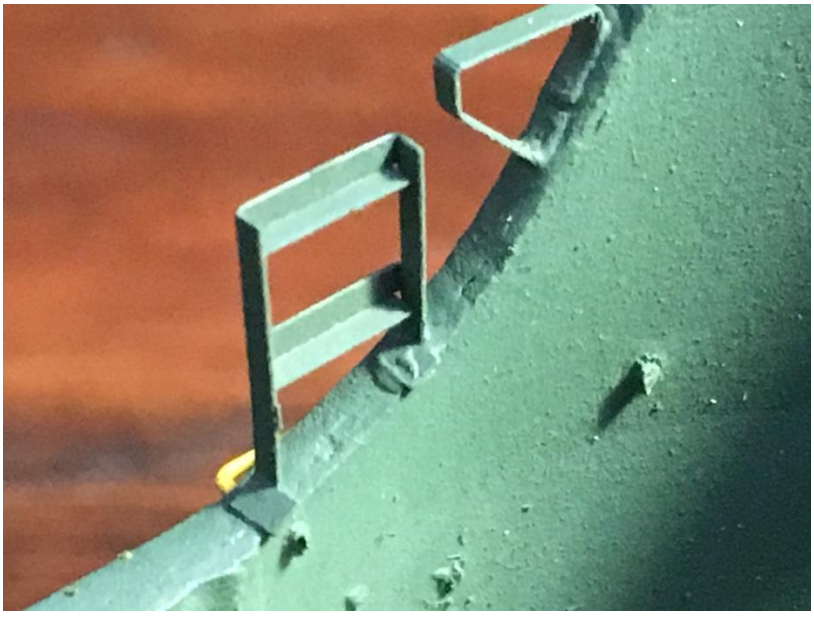


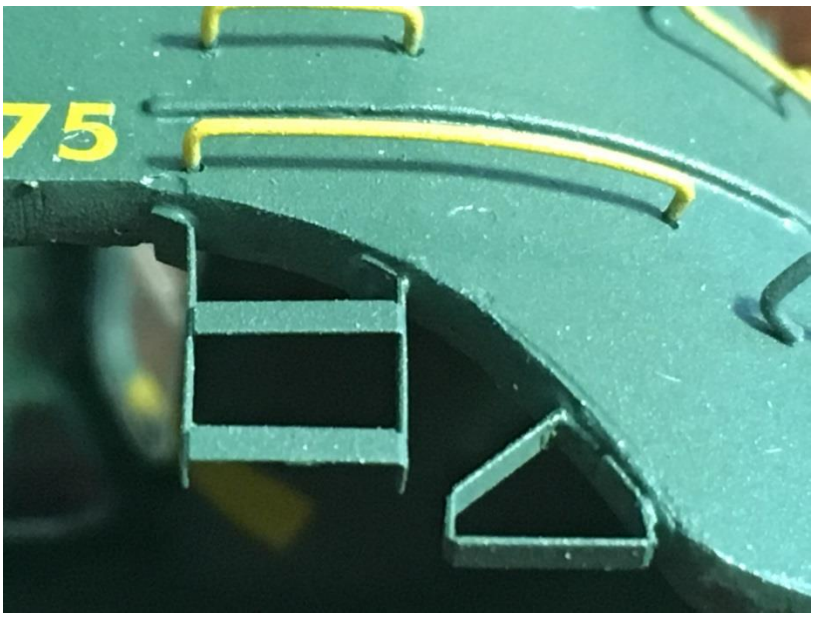


7 & 8. The center ladders are folded and mounted in a manner similar to the rear ladders. They are folded in half to increase thickness of the parts. There are two side braces which are folded inward toward the inside of the shell. These mount up against the bottom edge of the shell. The top mounting plate bends inward perpendicular to the ladder assembly. This mounts up against the bottom edge of the shell. The mounting plate inner edge folds upward and mounts along the inside of the shell. As with the rear ladders, this plate may need to be trimmed to fit the recess depending on which resin shell you have purchased. There are two holes in the ladders which are for mounting the railings. Medium Thickness CA is used for assembling and mounting the ladders. Both side ladders are the same so it doesn't matter which one goes where.

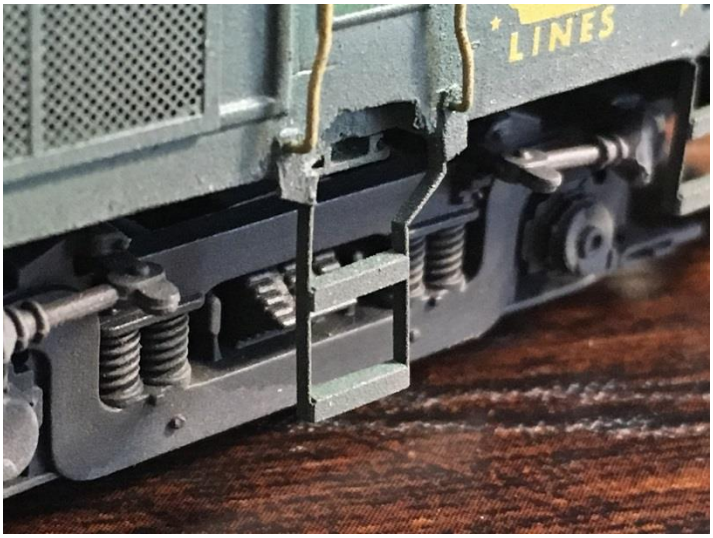
9. The headlight bug visor is attached to the top of the headlight. I drilled a hole in the top of the headlight housing and inserted the bottom mounting pin of the bug deflector into that hole. Medium Thickness CA will hold the part in place. After painting the shell I applied MicroSol Krystal Clear to simulate the glazing.

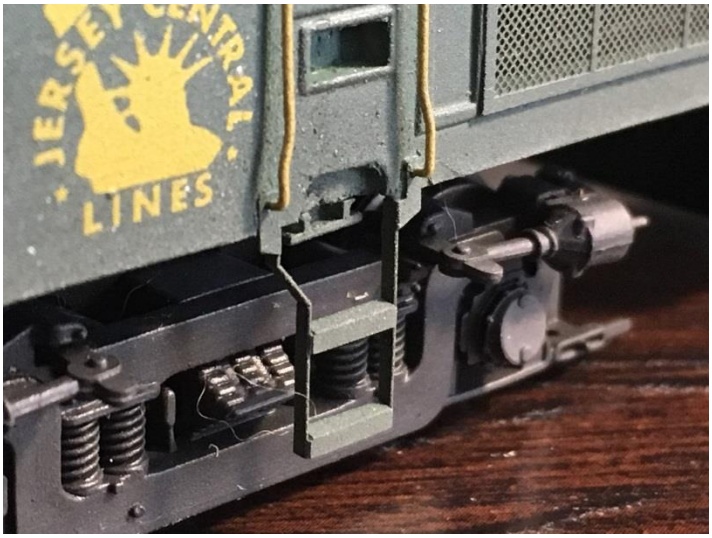


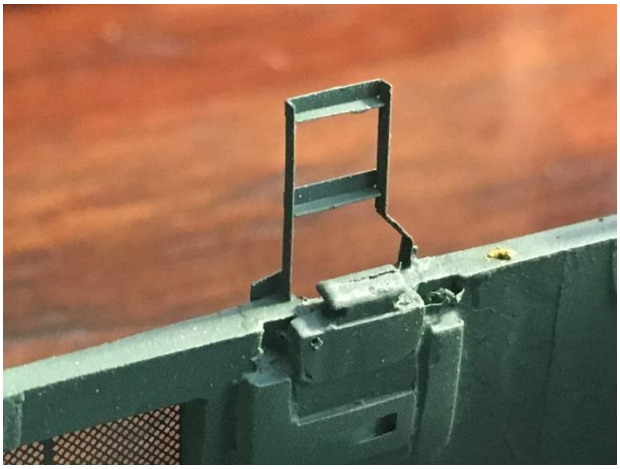


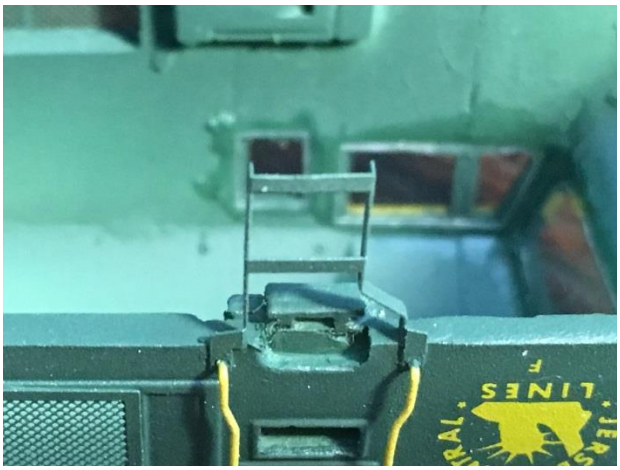


10. The Engineer Side Front Ladder was only found on the Engineer side of the locomotive just ahead of the front truck. The ladder is not built in the same manner as the center and rear ladders. This ladder has more depth and dimension to it. You will notice that one leg of the ladder is longer than the other. That is because the ladder is mounted to the underside of the shell along the curved portion leading to the pilot. Looking directly at the Engineer side of the shell, the shorter leg is on the right, longer leg on the left. The first bend I made was the two step treads. These are bend downward in toward the shell. I then bent the sides inward toward the inside of the shell. That leaves two flaps at the top of the two legs/sides. These are the mounting tabs. They are bent to an angle matching the curvature of the bottom of the shell. You can see in the second and third photo that I bent them both facing the rear of the shell. This makes the angle of the bend less acute and puts less stress on the metal. Medium Thickness CA is used to mount the tabs to the shell. Also note that I shaved part of the brake cylinder away to allow the truck to swivel. The brake cylinder will interfere with the ladder if this is not done. With the ladder in place you can't really see that the cylinder has been modified.

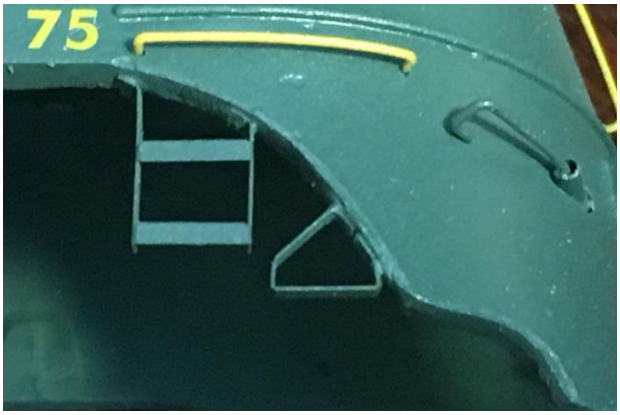








11 & 12. The Engineer and Fireman Side Cab Ladders are built the same manner as the Engineer side front ladder which was just assembled in the previous step. The only difference is that the longer leg is the front leg. That is the leg with the "kink" in it. The mounting system is also different. Brackets mount to the face of the shell. The end legs of the ladder butt up against the underside of the shell and the bracket butts against the outside face of the shell. There is a hole in the bracket for the cab railings. This goes through the bracket and into a hole drilled into the side of the shell. Medium Thickness CA is used to mount the steps to the shell and also for mounting the cab side railings.



13. The Front Pilot Stirrups are the final part to be assembled. These are folded into shape and mounted in similar fashion to the Engineer Front Ladder. The end tabs are bent to match the curvature of the pilot and attached with Medium Thickness CA. Note that the front of the stirrup has two short sections of metal while the rear of the stirrup has a long section with two short sections on either end of it. This should help orient the bends.