

24915 NYC 40'6" PACEMAKER BOXCAR

During the 40's, New York Central instituted the 'Pacemaker' less than carload lot service in and out of New York City and eventually extended to Chicago and St. Louis with second day morning delivery.

Five hundred boxcars (lot #737-B) were numbered 174000 to 174999 and painted vermilion and grey (lettering diag. #Z-35741) for this service. In 1946 additional cars #174500 to 174525 were added to this service and included dimensional data in their lettering.

Tools needed to assemble this kit are: a small saw, large and small files, an exacto knife, a small square, several grades of sandpaper, a small drill and bits #78, 75, 1/32", 50, and 3/32".

1. Unpack and inspect your kit against the parts list. Read all instructions thoroughly and familiarize yourself with the sequence of assembly. If the plastic parts are bent or warped, they may be heated until warm and soft under a 100 watt lightbulb or a hand held hair drier (blow drier). Line the piece up with a straight edge, then flatten it until cool under a heavy book. For a smooth metal-like finish, sand and seal the stripwoods. Use either a sander-sealer or an acrylic finish (Krylon) for this purpose. Sand with 00 steel wool or fine sandpaper after each coat.

2. Be sure to use a barrier coat on all plastic parts prior to assembly. This will prevent any non-compatible paints from attacking the plastic parts. Use thin layers of paint for the best finish and most detail. Do not hurry assembly. Trial fit all parts and sand to fit where necessary, before applying glue.

3. Glues: When cementing styrene sides to metal, wood to styrene, or metal to wood, use epoxy (My favorite is Devcon Plastic Steel), or a contact cement (Goo). When gluing wood to wood use white glue (Elmer's). Make certain that all plastic surfaces to be glued are free from paint.

4. Remove all flash (excess metal or plastic) from the castings with a file or emory board. Check for any air bubbles we might have missed and repair them with epoxy or a filler compound such as Squadron Green Putty.

When drilling into plastic sides or ends use sharp tools and light pressure.

5. Sides: Using a #78 drill make the four holes for the grabirons on the left end of the side. Referring to Fig. A epoxy these in place. Cut the brass ladder stock (see Fig. B) into four sill steps. Drill 1/32" holes in the edges of the casting corners for the sill steps (see Fig. A). Install.

Trim the tabs on the backs of the cast ladders so that it protrudes about 1/32" from the car side. Glue in place according to Fig. A.

6. Ends: Drill four #78 holes for grabirons (see Fig. C). Cut the grabiron so that they don't extend into the back side of the plastic casting. Glue these in place. Trim tabs on the cast ladder so that it rests on the end corrugations and is parallel to the back side of the end. Scribe line on the styrene destination boards to simulate the border and the wooden boards (see Fig. C) Mount these as shown on both ends.

Bend the tabs on the brake platform and mount the platform to the 'B' end of the car only (see Fig. C). If a tab should break off solder it back on.

7. Epoxy the end to the side of the car to form an L shape. Use the small square to insure that the pieces fit at right angle to each other. (see Fig. D). This is best done on a flat surface with the ends and side upside down. After the two 'L's are formed and cured for 24 Hours they can be trial fitted together. Check to be sure that the width of the basswood floor is correct. Epoxy the car body together (two L shapes only).

8. Roof: Epoxy the roof to the rest of the car body making sure that all edges are even. Any cracks in the glue joints can be filled. On the inside of the car body reinforce all joints with extra epoxy.

Lay the roof walk on top of the car roof. Cut 11 pieces of the 3/64" angle stock 3/8" long. Glue these to the walkway so that they will support it next to the roof ribs (see Figs. A&E). Attach the latitudinal section of the walkway to the running boards with solder or glue. Bend the tab to allow 1/32" clearance at the outside edge (see Figs. A&C). Bend the tabs on the end of the running boards to support the walkways

(Refer to Fig. A&C). Epoxy the walkway and tabs to the roof.

Add the brake platform, brake housing, and brake wheel.

9. Floor: Cut to length to fit into the car body making certain that both ends are square. Mark (on the floor) the center line, the lines for the bolster, lines for stringers, crossbraces, and crossties.

Cut the grooved centersill and glue it in place. Drill holes for the main brake line in the bolster and centersill with the #50 drill bit (see Fig. G). Glue the stringers between where the bolsters will go (use the 1/16"x1/16" red stripwood). Cut four crossbraces (Fig. F) and ten crossties (Fig. H). Use the 1/32"x3/16" stripwood for the crossties. Drill #50 holes through two crossbraces and four crossties (use temp-late F&H). Push the main brake line (thick green wire) through the grooved centersill and bend it to fit. Thread the crossbraces, crossties, and bolster on to the main brake line and glue tem in place. Install the remaining crossties and crossbraces and use the 1/16" I beam as stringers from the bolster to 1/8" beyond the end of the floor. Use 0.012"x1/8" (orange) as the crossbrace tie plate.

Use the #75 drill bit to drill holes in the brake reservoir and ABD valve for inserting the emergency reservoir pipe and the auxiliary reservoir pipe.

Cement a scrap of wood to the centersill to shim the end of the brake cylinder. After the glue dries, shave the shim down until the reservoir is level. Then cement the reservoir to the shim and to the bottom edge of the car side. Use the remaining thin wire for the auxiliary and emergency reservoir pipes.

Add all the remaining brake piping. Install the brake levers and rods. Staples can be employed for hangers for the levers and brake rod.

Use the 3/32" drill bit for the king pin holes (#4 screws) in the bolsters.

Epoxy the floor to the car body. Use sufficient epoxy to securely hold all edges. The floor should be cemented flush with the ends.

10. Painting: (Original version) Top of car sides and ends, entire door and bottom sill below door are painted bright red; bottom 54 5/8" painted grey; roof, underbody, ladders, and handholds painted black; herald and all lettering white.

It may be easiest to paint the sides, ends, and roof before assembly. Add black ladders last.

11. Dry Transfers: These were made for us by CDS Lettering, Ltd. Please take your time and be careful. It is best to use a special dry transfer burnisher (Exacto ball burnisher 1/16") because pens and pencils color over the backing so that you can not see where the transfer is incomplete.

#24915 NYC 40'6" Pacemaker Boxcar Parts List

Qty.	Part#	Description
2	T053	40'6" riveted side
1	T054	Roof 40'6" Superior
4	T033	7 Rung ladder
8	N3819	Grabirons 19" long
2	T005	Destination Board
1	L116	Miner Brake housing
1	L115	Brake wheel w/ lever
1	T035A	High Brake Platform
1	L021	Bell Crank
1	T031	Floor
1	L019	Reservoir
1	L020	AB Valve
1	L018	Brake Cylinder
1	T009	1" piping
1	T012	1 5/8" piping
1	N370	Grooved centersill
2	T055	Ends, dreadnaught
1	N103	3/64" angle stock
1	N029	1/32"x3/16" stripwood
4	N006	1/16"x1/16" (red)
1	N251	I beam 1/16"
2	N550	Bolsters
2	T-080	Roof walk material
2	T081	End platform
1	S-97	Dry transfers
1	W435-8	Sill steps
1	N034	.012x1/8" (orange)