

ALL NATION NEW "C" BOILER INSTRUCTIONS

10001 B USED ON TEN WHEELER CHASSIS
11001 B USED ON THE PRAIRIE CHASSIS

(These are identical with the exception that the Ten Wheeler has a shallower firebox.)

ALL NATION for the first time in O scale offers a completely new, die-cast metal boiler with all domes, stack, running boards, and cab integral. This beautiful, smooth casting needs practically no cleaning - just a few swipes with a fine file to clean off the parting line, and it's ready to install after drilling and tapping a few holes. This is a lead-antimony alloy, and can be soldered, filed, drilled, tapped, or even carved with a knife. No other finishing is necessary except priming and painting. It is heavy, solid, and needs no additional weight for average tractive force, altho more can be added if desired.

The first procedure is to carefully clean up the parting line with a medium, or fine file, working carefully so you don't mark up any details. You can finish this with fine emery cloth. After this drill the boiler as noted in the drawing. This boiler is soft metal so drill carefully, feeding slowly, and backing out often to clear the chips, and using kerosene, or lacquer thinner as lubricant. Check the drawing, and spot with a sharp centerpunch, and carefully drill all the #42 holes, which are the most numerous (they clear 2-56 screws). Then drill the other holes as noted - only one has to be tapped on the underside of the smokebox front. This is to hold the front of the boiler to the chassis in the usual manner. Next cut the rear cab plates to the undercurve of the cab roof, and solder them in place. The best way is to solder from the inside so it doesn't show. On this soft metal do not hold the iron too long in one spot, as the lead can be melted. Best way is to tin the brass plates first along the point of contact with the cab, then solder to the casting, using enough solder to make a good bond. Should you by mistake melt off some of the casting, just add more solder to it, and build it up again, filing off the excess.

You will note that the handrail posts positions are already spotted on the casting, so just drill these as noted, and thread your .032 brass wire thru the slots, and add a small drop of solder to the post tops to hold securely in place. If, in drilling you should get a hole in the boiler that is too loose a fit for the post, it is a simple matter to insert the post, then using a centerpunch, hit a spot right next to the post, which will drive the soft metal to a tight fit around the post. This is best done on the underside where it doesn't ever show.

The air tanks can be soldered right in place, as the body casting is designed to hold them in proper position. You can screw them onto the running board if you prefer, but this other is easier and quite adequate. After this add the power reverse casting also soldered in the same manner, adding a brass wire brace to strengthen. Then add the cross-compound air compressor, mounting first on a piece of brass plate, then soldering that in turn to the casting at the proper position as shown.

Now try the boiler assembly on the chassis, filing slightly where necessary to fit correctly. Next bend the running board extensions as shown, filing

out to fit around the cylinder steam pipes. Then solder them to the boiler and main running board, adding a bracket of strip brass as shown. Then add the .062 brass wire for piping. (Some leeway is allowed on piping, as most engines even identical class usually differed in location.) Next add the cooling coils using our bracket to hold in place as shown.

The smoke box front is a lost wax casting, drill center to take the special screw and number plate. Drill and tap the upper part to take the headlight and bracket (unless you desire a different placement for headlight). Incidentally the light can be set on top of the boiler right in front of the smokestack, or put down in the middle of the boilerfront. However most of the prototypes of this period mounted them as shown in our drawing. Then drill and tap 0-80 for the markers and brackets. Add the top details, such as the bell and bracket (1082 K) and the pop valve cluster. These, and the whistle are pressed into the muffler, which is then fastened with 2-56 screw to the boiler. File the top of the boiler flat at this point so it sets down snugly. Add the generator in the same manner in its location. Then add the cab hatches, drill the cab roof as shown, then add these using 2-56 1/8" long screw from the inside.

After the boiler is positioned on the chassis, lined up correctly and "squarely", lay out and drill the holes in the back of the lower cab so the 5-40 screws can be used to hold the rear to the chassis. Install these, also the long 5-40 screw thru the cylinder saddle into the bottom of the smokebox which holds on the front. If necessary, file the holes in the lower cab slightly to allow a slight adjustment in height.

Additional details may be added, we left these to the discretion of the builder, we furnish a "BASIC" locomotive which is complete enough to satisfy the average model railroader. We have literally dozens of lost wax castings of added details which the enthusiast can add as he sees fit to do so.

After all details are installed, wash thoroly in lacquer thinner, dry, then spray a couple thin coats of lacquer primer. After this has dried thoroly, spray a couple finish coats of lacquer, or enamel. The smokebox can be painted aluminum, or graphite, often the cab roof is painted a red oxide color, the cab window frames red or brown. Lettering to your choice by either decals or dry transfers. After it's all done we find a finish coat of spray "dullcoat" adds greatly to the appearance of the model.

ALL NATION has two tenders applicable for use with this boiler (either chassis). First is our large capacity tender #13, which is also used with our Pacific locomotive. This is a beautifully detailed aluminum castings. Secondly is our smaller one, all brass sheet formed, #4 which was used with our original 10 Wheeler, Atlantic and American. Both are excellent, both look good with this boiler just take your choice.