

## Modeling the O&W NO. 37 in a Series

### A quick tip from an “Engine Builder”

By  
Mal Houck

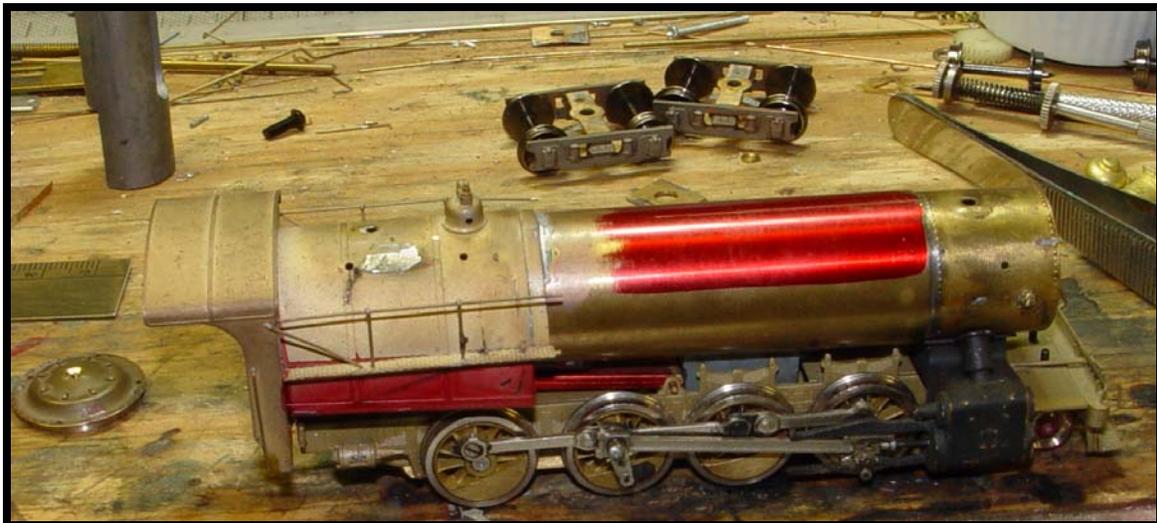
In somewhat shorter text and form than prior columns, this piece will describe a simple technique I have come across in my seeming unceasing efforts at engine building. Whereas the fabrication of scratchbuilt parts requires (ultimately) that all of them be sooner or later fabricated, melded and blended together to create a representative finished model. . . an ongoing task [and more often than not a considerable headache(!)] is the simple alignment of many parts.

For the details that make a finished model, such small parts are not an especially daunting task. . . a good eyeball is the best test. If something “looks right” then it probably is. . . at least after some fiddling and tweaking! A more difficult task is to align the larger parts of a model. . . and, in the case of a steam locomotive model where the major (and necessary visual) assemblies of boiler and running gear are being introduced to one another for the first time, getting them all lined up. . . square, plumb, level. . . can consume considerable frustrating time. . often hours!

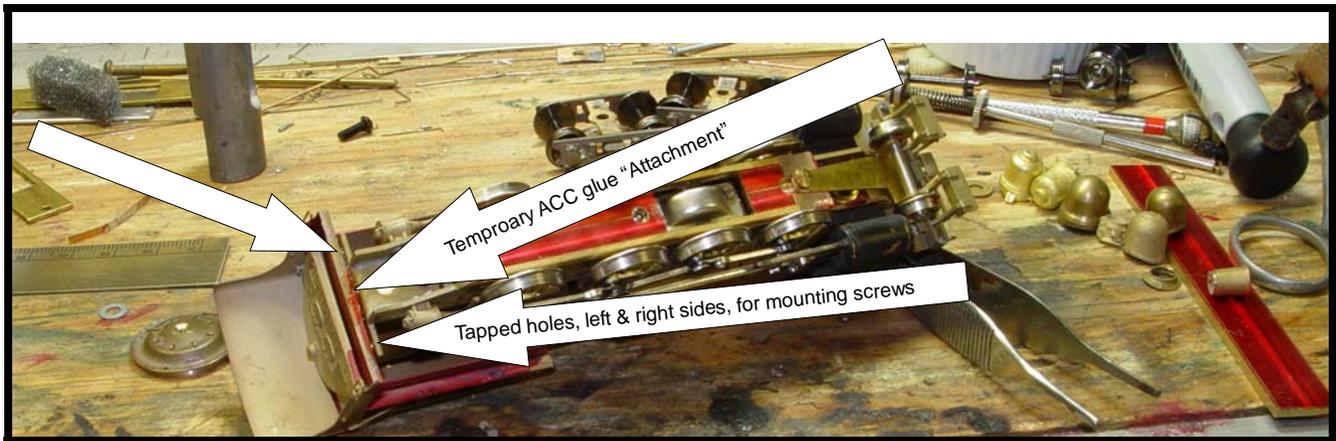
Now, in the case of a locomotive there’s a significant [modeling] difference from. . nay, difference between. . . the engine and other models. With a freight car, a passenger car. . and the “static” models of buildings, scenery and diorama. . . at the point where the model is assembled once and for all, it’s very often forever! Glue up the basic forms, glue up the details, paint – letter – weather . . . and so on, and it’s likely never to have to come apart again;- beyond perhaps replacing a coupler or a wheelset or truck on a piece of rolling stock. With a locomotive there’s the periodic disassembly (and hopefully not very often) that may be needed for replacement of parts or merely lubrication . . . and for any such purpose the boiler (superstructure) at least must be both removable and then have a capability to be restored and reassembled.

While I largely deal with locomotive models constructed of brass. . . either the traditional “imports” or those I’ve bashed and/or scratchbuilt, engine models made of plastic, cast metal(s) or composites also have the same requirements. . . some ease of possible disassembly. In some recent scratchbuilding and “brass bashing” I’ve happened upon a technique that is worth sharing.

It seems, when trying to fit parts together, there’s never enough hands, fingers or clamps when some loco superstructure has to be lined up. . leveled. . or trued up in place. This’s especially so when mounting holes have to be drilled. . . and when done line up (more or less – hopefully(!) more) with tapped or threaded hole locations where needed. My simple method is to first GLUE everything in place!



Here's recent view of a Class P 2-8-0 under construction, now with the boiler and firebox laid up for positioning. Cylinders have been changed out to sit the boiler down lower on the frame than was the case with another "trial" set of cylinders.



Rolled over on its back, the boiler has been fitted down in the cylinder saddle with a long 2mm screw. At the rear is the frame tab for mounting the rear of the boiler. This frame came to me as a "find" at the last Kingston Show. . . but only as a mechanism with superstructure; -- so I have no idea what it originally was built to represent.

At any rate, the rear of the superstructure of this Double Cab O&W Class P is now located properly so that clearance holes can be located and drilled to clear the 1.4mm screws used to secure it to the rear of the frame. The front mounting hole in the smokebox has a 2mm tapped hole through a bushing soldered in place; -- and that is "fetched up" tight before the rear of the frame is "glued" in place with ACC.

Once the ACC bond has cured I then mark the location of the clearance holes, through the tapped holes in the rear mount, with a sharp, sharp scratch awl. ACC "Debondor" (available at most good hobby shops where ACC, in varieties of formulations, are sold) will soften the ACC bond enough so that the bonded parts may be separated. Some scraping or rinsing with solvent MEK may be needed to clean the soften goeey residue that is left of the ACC. If commercial debonder can't be found, MEK or lacquer thinner will also soften and loosen the ACC.

For those folks who aren't working with brass models that is technique also works well on plastic or composite models; -- for temporary "lay up" and fitting. In those cases the use of commercial debonding agent is a must, since the more powerful solvents referenced above will surely dissolve any plastic, resin or other polymer materials!

So, this'll be it for a modeling tip I think worth filing away in the old memory bank. It may never come to have to be used. . . but I've found this technique more than worthwhile for other projects as well as just plain old engine building.

More Later.....

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