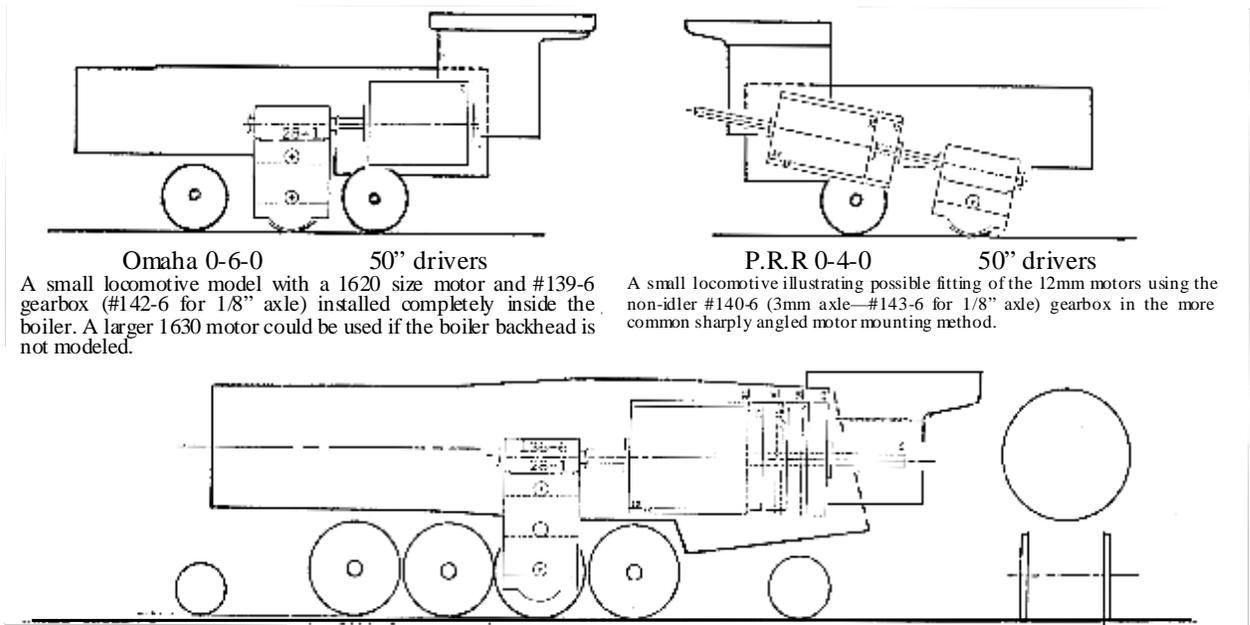


Illustrating fitting power system components to scale models

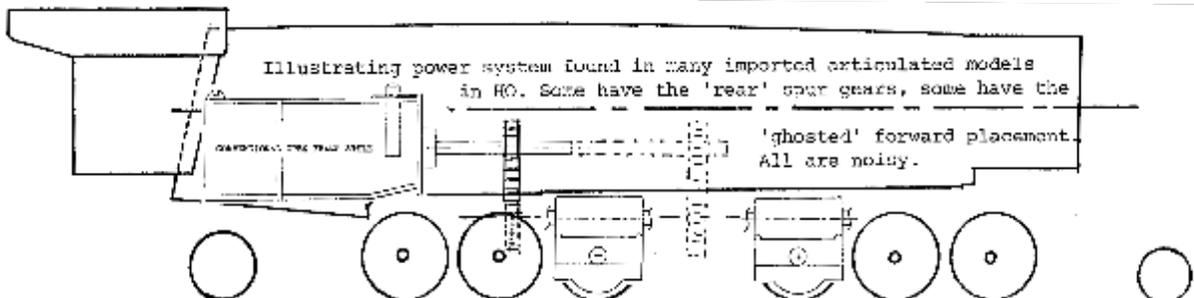
All illustrations were HO scale but have been reduced here for space fitting. As shown, the locomotive drawings do not have to be complex and fancy, you merely need the outline of the area(s) available to conceal the power system components. All illustrations here were light-box sketched direct from MODEL RAILROADER CYCLOPEDIA volume 1—STEAM LOCOMOTIVES drawings. The boiler backhead is drawn but may be omitted if not included in your finished model, thus leaving more space for motor installation. Two other considerations: 1. Scale models are sometimes manufactured overscale thereby having more space than scale drawings indicate; 2. Model construction technique will determine space efficiency, ie. Brass models have about as much space as the sketch indicates because of the thin shell, whereas a cast metal model superstructure will be somewhat thicker and more restrictive of interior space available for motor and gearing.

What if available drawings are not to your scale? You can reduce and re-draw of course, but there is an easier way in these days of inexpensive and versatile copy machines with reduction and enlargement feature at your local quick copy center, drugstore, office supply store. If you have an HO drawing but need it in 'S' scale, divide by 87 (HO is 1:87) by 64 (S is 1:64) which tells you that S is 136% of HO. Most copy machines have variable reduction/enlargement feature making exact size easy. If you can't locate a suitable drawing to represent your particular model, you still have two easy ways to proceed. You can find a drawing of a similar size locomotive, or you can measure your model and make your own sketch or more simply just lay the gearbox (the drawings in this catalog are actual size for easy fit evaluation) and motor drawings on the model and 'eyeball' them for fit!



Omaha 0-6-0 50" drivers
A small locomotive model with a 1620 size motor and #139-6 gearbox (#142-6 for 1/8" axle) installed completely inside the boiler. A larger 1630 motor could be used if the boiler backhead is not modeled.

P.R.R 0-4-0 50" drivers
A small locomotive illustrating possible fitting of the 12mm motors using the non-idler #140-6 (3mm axle—#143-6 for 1/8" axle) gearbox in the more common sharply angled motor mounting method.



POWER SYSTEM PLANNER components augmented with sketching to illustrate a drive system common to many imported brass articulated HO models/. The spur gears of this type mechanism are typically the source of much operating noise and poor operation. While some modelers have improved operation using NWSL delrin spur gear replacements, rebuilding the model to the HiLo layout shown below, not a simple installation, eliminates the problem source more completely.

