Car Carrier Construction Sequence Using Car Carrier 03 Template:

- 1) Mark cut lines and hole locations, then cut a 2 by 4 into 18 7/8" long pieces needed for each car carrier.
- 2)Use template to drill four-7/8" diameter through holes through the face of the 2 by 4...
- 3) Using template fence, drill 1/4" hole 1-1/4" deep into edge of 2 by 4.
- 4) Offset by 3/8" from previous hole, drill 19/64"hole 1-7/8" deep into edge of 2 by 4.
- (This creates hole where tractor pin engages trailer. The offset provides necessary clearance between tractor & trailer)
- 5) Round over 7/8" holes with 1/4" radius router bit while 2 by 4 is whole and easy to handle.
- 6) Set up a drill press fence 3/8" from drill center. Except car #2, drill all axle pin holes using this fence.
- (Drill size used with available pins was 7/32", however measure pins in hand and drill for press fit.)
- 7)Cut apart all pieces.
- 8) Using same fence set-up in 6), drill axle holes in car #2.
- 9)Spindle sand all concave surfaces & those that can't be sanded on a belt sander.
- 10)Belt sand all other surfaces.
- 11)Using router table and 1/4" radius bit, round over sides of all pieces.
- 12) Hand sand as necessary.
- 13)Glue & press a ¼" diameter by 1-3/4" long dowel downward into the tractor connector pin hole leaving 5/8" exposed. Alternatively you can apply glue and start the pin into the hole, then engage the pin into the trailer and press it down until the front wheels of the trailer contact the surface.
- 14) Glue and press in all wheel axles, leaving 1/32" axial clearance. Surrounding the axle with a notched 1/32" piece of shim stock will prevent axles being pressed in too far.

## George Murphy 2011

