

## **SAN JOAQUIN FINE WOODWORKERS' ASSOCIATION**

### **APPENDIX A – GENERAL TOY PRODUCTION PROCEDURE**

Association members should follow this procedure when making wooden toys. If the assembly process you plan to use is significantly different from this, please submit it to the Toy Committee for review and approval.

In order for the Association to issue a Children's Product Certificate (CPC) for a toy, we must have knowledge, and approve the toy assembly process. The toy must also pass the safety tests.

Our goal is to make safe and usable toys that meet all Federal and State legal requirements. Materials used by Association members will either be supplied or may be purchased off an approved materials list. This is especially true for any finish(s) applied to the toys (Appendix D). Natural finishes (mineral oil, bees wax, shellac, etc.) are allowed. There is always the no finish option.

Procedure:

- Step 1 - Select only wood stock supplied by or approved by the Association. For now this should be wood and not a man made product such as plywood or particle board (due to the glues and adhesives used to make the product that are untested). The use of plywood is being evaluated by CPSC and this restriction could change.
- Step 2 - Use one of the approved plans or patterns from (Appendix C) for the toy. Follow the plan carefully.
- Step 3 - Sand and refine the toy to the final shape, including inside large holes such as windows.
- Step 4 - Round over all edges and windows. The edges should be smooth and discard any toys with splinters that can't be sanded smooth or that have unacceptable knots near the edge or elsewhere in the toy.
- Step 5 - Inspect the toy to ensure all surfaces are sanded smooth and that defects in the surface do not exist. Discard any toy that doesn't pass muster.
- Step 6 – Install axles and wheels. Wheels should be 1.25-inches in diameter or larger. Any wheels less than 1.25-inches in diameter are considered a potential choking hazard if they were to break off the toy. Successful gluing of the wheels and axles are a critical step in ensuring the wheels do not come loose with use. Follow these gluing steps:

1. In most cases, the hole drilled for the axle should go through the width of the toy. If for some reason it does not, ensure the hole is at least 1/8-inch deeper than the length of the axle. This will allow extra room for excess glue and will avoid the hydraulic resistance that prevents the axle from being inserted to the correct depth. It is imperative that the axle hole be exactly the correct size for the axles you will be using. Drill test holes to be sure this is the case. Add an appropriate small amount of glue into the hole where the axle will be inserted. Note: a pipe cleaner works great for putting glue inside the axle hole without spreading glue on the outside. An occasional wipe down may be needed to prevent wheel from sticking to the toy.
2. Use at least a 1/32-inch spacer between the wheel and the toy body when gluing the axle in the toy. This spacer will ensure the wheel has adequate clearance to roll freely. A notched old credit card is useful as a spacer.
3. Ensure the correct amount of glue is used to attach the axle. Not too much and not too little. After about 30 minutes of drying time, check the wheel by giving it a slight tug to ensure it is attached firmly to the toy and check that it spins freely.

Step 7 – If a finish is to be applied, it must be listed on the Club's list of approved finishes which is a separate document (Appendix D). If the finish you wish to use is not on that list, you may submit it to the Toy Committee for approval before you use it.