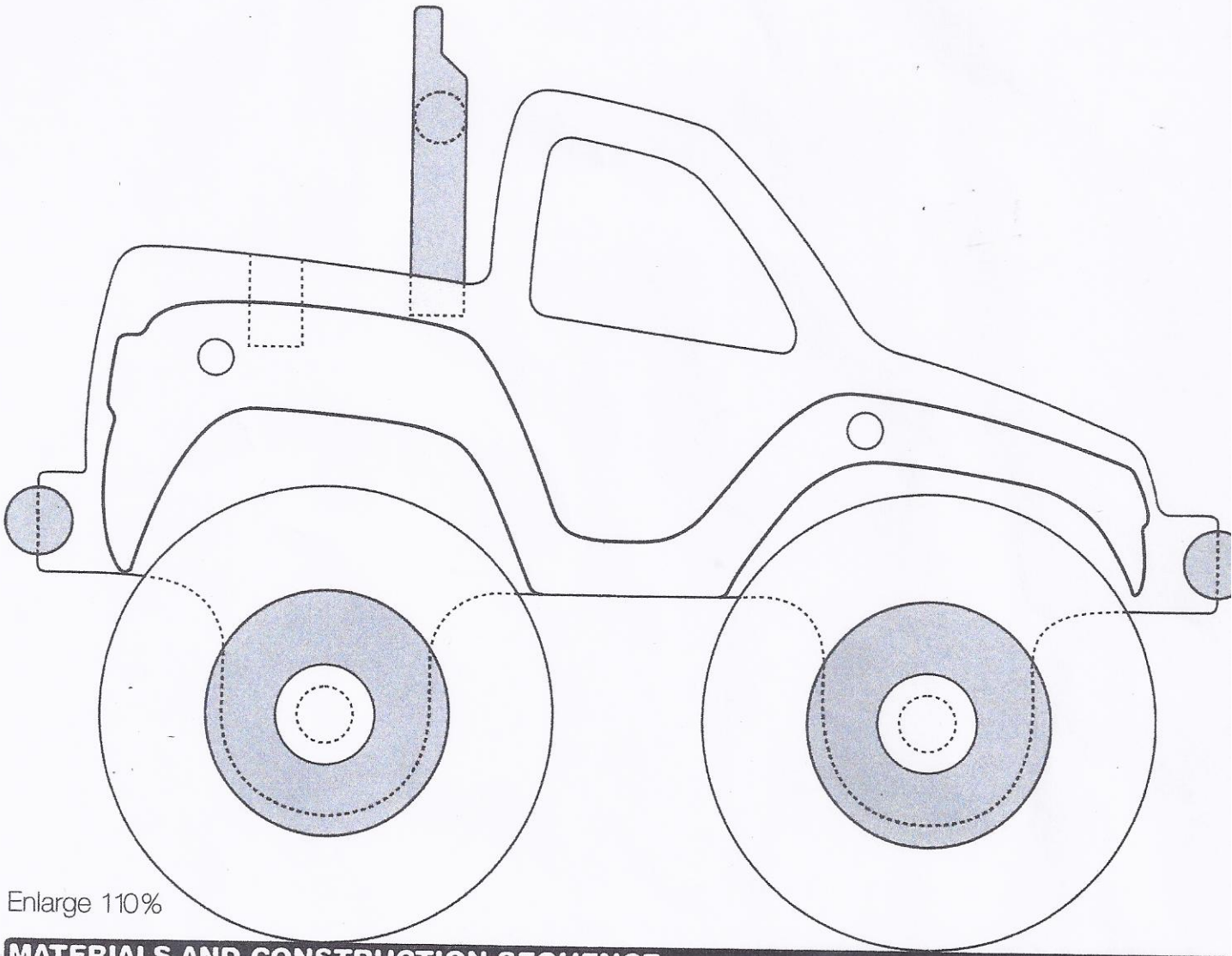
MACHO PICKUP



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MATERIALS AND CONSTRUCTION SEQUENCE

See pages 1-2 for materials and general instructions. The following explains the sequence for making the Macho Pickup. Refer to exploded view at right for visual reference.

1. Make two copies of pattern (see size above); one for truck body, the other for fenders.

2. Tack body pattern to wood. (Two pieces of 3/4" pine glued together with white glue.)

3. With drillpress, drill two 3/8" holes for axles and one into side window area for detached scroll-saw blade to pass through for window cut-out.

4. Select 3/4" wood for fenders, stick together with two-sided tape.

5. Tack pattern to wood.

6. Drill two 1/4" holes in fenders and push a 1/4" dowel into each hole. This will ensure against movement while fenders are being cut out.

7. *Cut fenders out and pull apart.*

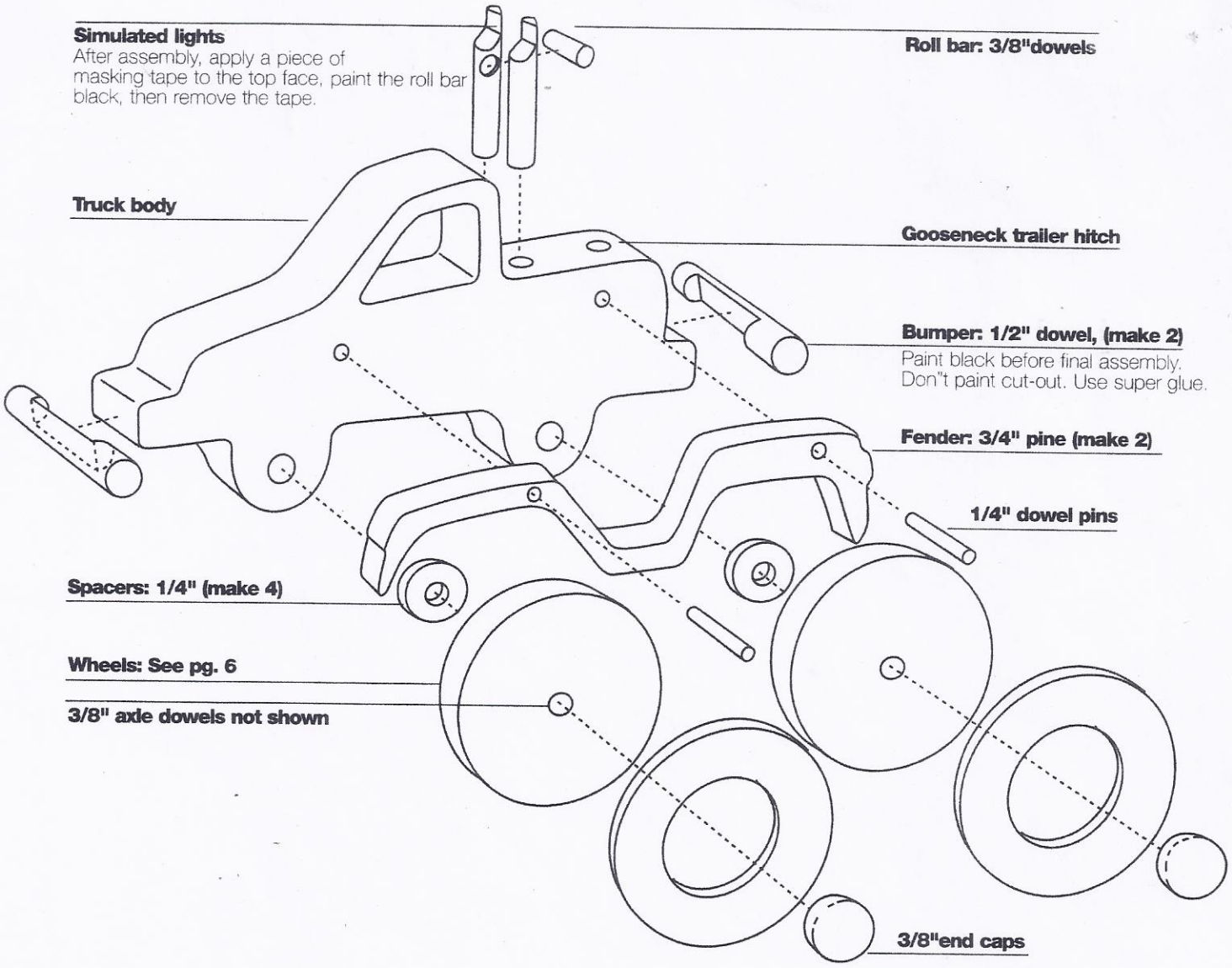
8. Place one fender on pattern for truck body.

9. Clamp or use two-sided tape to secure, then line up 1/4" bit with hole in fender pattern and drill all the way through body. Push 1/4" dowel in to guard against movement and drill the other hole.

10. Pull the fender off, and cut out body. Cut out window.

11. For spacers between body and wheels, draw four 1" circles on 1/4" plywood. Drill 3/8" holes in center of each and cut out.

12. *To build roll-bar drill two vertical* 3/8" holes into top of pickup bed, 1/8" from outside edges. If you're going to make the goose-neck trailer, (page 10) drill a third



hole in center area of bed for a hitch. (See side view of pattern.) To make simulated lights, notch ends of two 3/8" dowels. To anchor crossbar, drill shallow 3/8" holes in vertical bars. (Put dowel in clamp, to hold it while drilling on drillpress). Cut both dowels to length and push each into holes in bed. Measure and cut horizontal crossbar dowel to fit.

13. For bumpers, cut two 1/2" dowels over-size. Measure, and cut notches 1/2 way through at the same width as the body. Fit notched cutouts over bumpers as snug as possible. To determine length of bumpers, assemble spacers and wheels on axles. Secure with end caps. Trim bumper ends at an angle with the outside trailing edge even with the outside of the wheels.

14. Assemble fenders to body by inserting 1/4" dowels into fender holes. Tap them all the way through until both fenders are secure. Do not cut dowels flush with fenders at this point because it's easier to tap them out for disassembly and final finishing. You may want to leave the rear fender dowel longer as part of the hitch rigging on the goose neck trailer.

15. Fully assemble and decide how much to refine. Disassemble and proceed.

16. The need for glue is minimal during final assembly. A small amount of super glue helps avoid "squeezing out", yet holds well. Refer to page 1 for information on rounding edges, sanding and finishing.

17. On how to make wheels, refer to page 3.

INSTRUCTIONS

SCROLLSAWS AND OTHER POWER TOOLS

If you are new at scrollsawing or are interested in getting started, a little introductory education will serve you well when it's time to purchase tools and supplies. There is a nice selection of books written on scrollsaws offered by hobby shops specializing in wood working. Some home centers also carry books. Specialty shops can help you locate shows where manufacturers demonstrate their products and will let you try them out. Some dealers may offer limited demo periods. It doesn't hurt to ask. Research can be very enjoyable. You will begin to learn details such as proper blade selection and the importance of attaching and detaching blades during operation. While doing my research it became apparent I didn't need an expensive saw to match my needs. As you advance, you will be in a better position to judge when it's time to purchase a more substantial tool.

A drillpress is a must for drilling holes for axles and other pinning that requires exacting perpendicular drilling. You'll find reasonably priced models that are adequate for light work such as these toys. Similar possibilities apply to disk sanders mounted to stationary tables. A versatile tool to own is a sander that has a sanding disk plus a one inch wide sanding belt simultaneously powered by a single electric motor.

It is very gratifying to feel you've purchased the proper tools, and then allotted plenty of time to follow instructions for setup and safe operation. If you prefer to set up without reading instructions it's almost guaranteed you may miss important pointers. After all, the manufacturer knows his product better than anyone.

REFINEMENTS

You may choose to add refinements beyond the basic functional toy. A 1/8" round-over on all outside edges adds a consistent, finished look and feel and a safe edge for little hands. I use a router attached to a small table. The router, table, and 1/8" round-over bit are available at most stores that sell power tools. I also have a 1/8" round-over for my high-speed Dremel® Moto-Flex tool. Dremel offers a small table with a clamping device that lets you create a "tiny router table." The small size enables one to round corners with very tight turns.

FINISHING

I painted some of my vehicle prototypes to get a feel for how they look. My preference is leaving them natural with black accents. But if you prefer to paint your toy, there's a decision you'll need to make about the quality of the paint job. For a nice high-gloss finish you'll need to work for it. First, discuss your project with a knowledgeable paint dealer. Purchase an aerosol primer sanding sealer and a glossy oil-base aerosol in the color of your choice, 150 and 220 grit sandpaper and fine-grade steel wool. Before assembly, sand each part with 150 and 220. Spread newspapers in a well ventilated area and place each part to be painted on a scrap of wood. Spray with a light coat of primer, then sand with 220 after each coat. Be sure to let each

coat dry thoroughly after sanding. Repeat the same process with with your chosen color. Now, use only 220 paper and steel wool. Don't worry about-sanding through to the primer. Now, the tricky part. After the third coat is dried thoroughly and rubbed lightly with steel wool, hold or clamp a light beyond the piece to be painted until you see reflection off the top surface to be painted. Quickly spray on a nice thick coat at all angles until the paint is thick enough that the droplets run together. The light reflection will enable you to observe this. If you try to touch up after the paint starts to set, which is only a few seconds, the droplets will not blend with the original coat. This will leave a dull blend. I would suggest practicing on scrap material.

MATERIALS

Nearly all common, usually found in local home centers. Look to see if they have a bargain bin where damaged prime-quality pine boards are offered at a reduced price. The two exceptions are Baltic plywood, 1/4" and 1/2", 1/4" and 3/8" axle end caps. I get them from a store that supplies products for most woodworking hobbies: The Woodcraft Shop Bettendorf, IA 319 359-9684.

- **3/4" PINE**
- **1/8", 1/4", 1/2" BALTIC PLYWOOD**
- **1/2",3/8",1/4" DOWEL RODS**
- **3/8" END CAPS**
- **1/4" END CAPS**
- **CARPENTERS GLUE**
- **GELLED SUPER GLUE***
- **SPRAY GLUE**
- **1/4" ELASTIC BAND**
- **SMALL-HEAD DRYWALL SCREWS**
- **1" and 1/2" BRADS**

BEGINNING TIPS

It's important to follow the instructions in sequence while building these toys. For example, it's easier and safer to drill the axle holes in a large block of wood than it is after the vehicle body is cut out. All patterns in this book utilize the following techniques: 1. Select materials. 2. Spread carpenters glue, join and clamp blocks together. Let dry. 3. Transfer patterns with carbon paper or make a copy and tack it on the block surface with spray glue.
4. Drill any holes for axles or pegs. Brad-point bits work fine. I prefer Forstner bits for clean cutting. 5. Cut out pieces. 6. Round edges if desired. Dotted lines on patterns indicate objects that appear behind those that are closer. This guide to assembly sequence applies to each pattern where appropriate throughout this book.

*I use the gelled version of super glue by Loctight® which is a nice thick consistancy and sets up very slowly until the two surfaces to be glued are pushed together. Strong adhesion is permanent in about five seconds, so you must be organized. Because of its great holding power it can be applied in small amounts so there's no squeeze out that looks unsightly.

LET'S MAKE WHEELS

1. Select wood and determine wheel size.
2. With a compass, draw three circles on plywood: One at final wheel size, a second slightly larger, and a third about half way to center. See Fig. 1.
3. With two 1/2" brads, tack plywood to a 3/4"pine block. Leave brads part way out for removal later.
4. Drill holes for axles.
5. Cut out wheel on outside circle.(2)
6. Gently remove plywood from 3/4" block. (I use the edge of a wood chisel.)
7. Cut out center circle from plywood, Fig.2.Round-off inside edge and sand.
8. If you choose to add the black accent inside the circle, Fig. 3, you may use paint. I use vinal adhesive-backed shelf liner by Rubbermaid®. Hardware stores usually carry it.
9. Add carpenters glue near outside edge of plywood ring. Tack ring to 3/4" pine wheel. Any glue that squeezes out will be sanded off in the process explained next.
10. For setting up jig see illustration below.

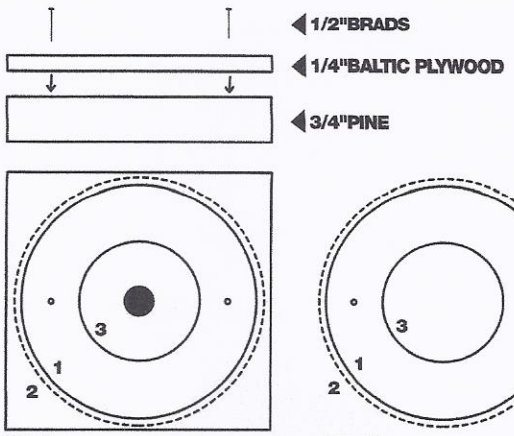


Fig. 1

Fig. 2

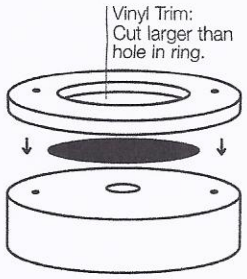
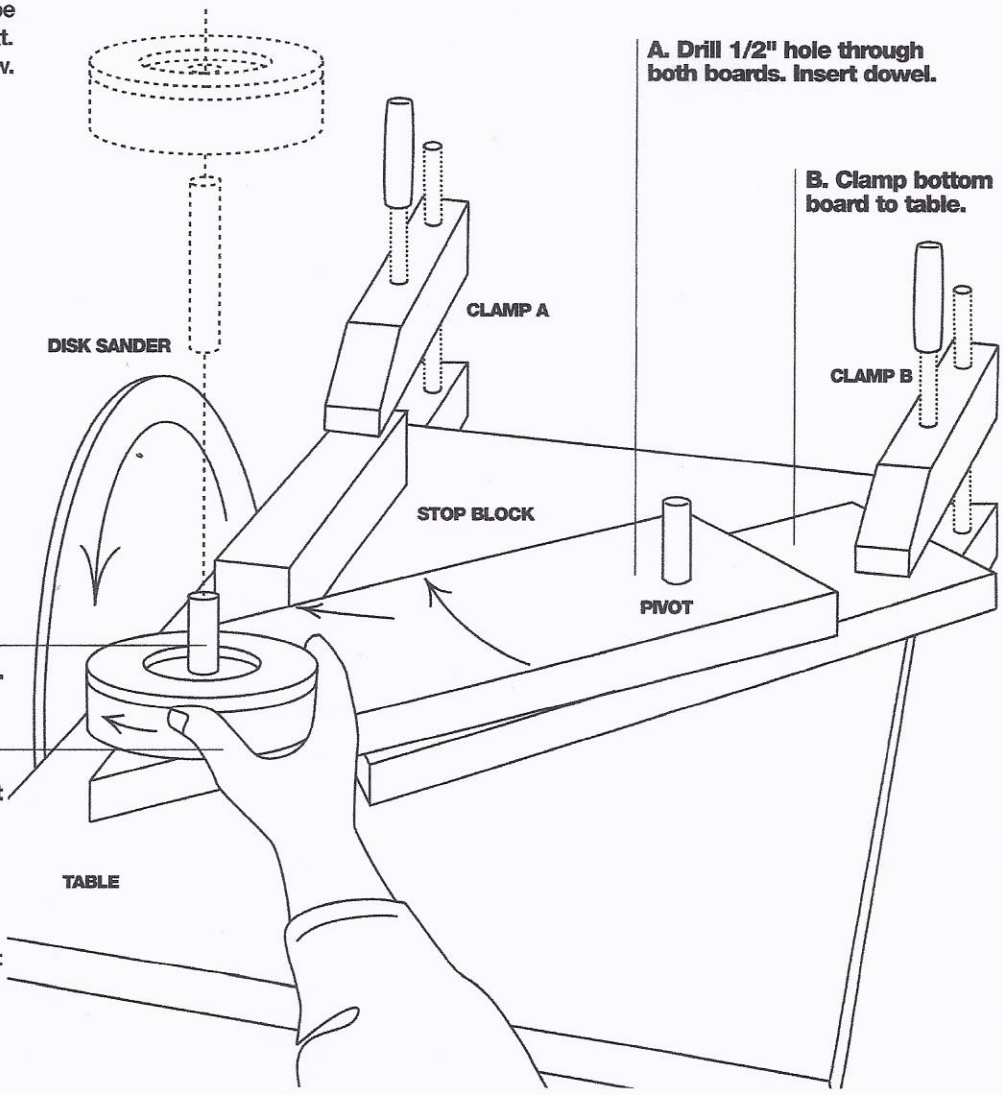


Fig. 3



C. Drill 3/8"hole in top board located so wheel will overlap end of board.

D. Set wheel with 3/8" dowel.

E. Before turning on sander, pivot wheel over to sanding disk. Adjust stop block with clamp-A. Pivot wheel away and turn on sander. With a firm grip carefully move to and turn wheel against sander until it's sanded down to the second circle (final wheel size). But first, for ease and safety, I suggest removing small amounts at a time by adjusting the stop block 2 or 3 times. (Clamp A.)

To make all wheels exactly the same size, strike a mark on the table so you can accurately return the stop-block to that point for each wheel.

See page 40 for information on how to order ready-made wheels.