

# Project 19496EZ: Rocking Horse

*A delightful “must” gift for preschoolers, our rocking horse is made from sturdy stock like maple or birch. Easy to build with optional detailing: if you don’t want to paint the horse’s head, you don’t have to, or, better yet, you could use a woodburner to put on the finishing touches.*

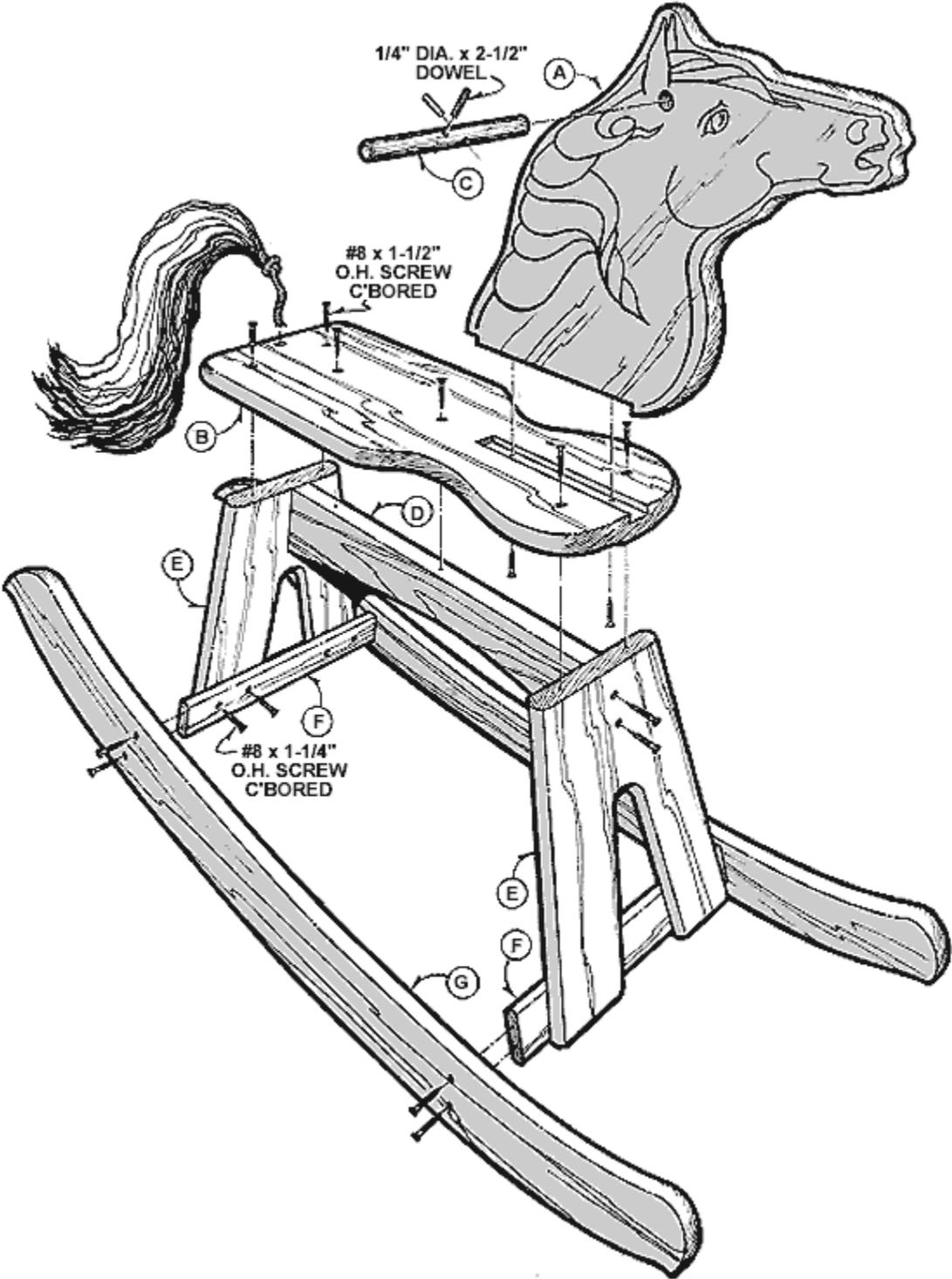


## Rocking Horse Materials List

Part	Description	Size	Number Required
A	Head	3/4" x 11-1/4" x 18"*	1
B	Seat	3/4" x 7-1/4" x 16"	1
C	Handle	3/4" dia. x 7-1/2" long	1
D	Leg Stretcher	3/4" x 3-3/8" x 13-3/4"	1
E	Leg	3/4" x 7" x 10-3/8"	2
F	Rocker Stretcher	3/4" x 1-3/4" x 7-1/2"	2
G	Rocker	3/4" x 5" x 34"*	2

\* Length and width dimensions allow extra stock.

# Rocking Horse Complete Schematic





# Rocking Horse Instructions

## Step 1: Make and Assemble the Leg Stretchers (D), Legs (E), the Rocker Stretcher (F), and the Rockers (G)

1. Refer to the materials list and the schematic to cut out the leg stretcher (D), the legs (E), the rocker stretcher (F), and the rockers (G).
2. Bevel the top edge of each leg (E) to 10 degrees.
3. Inscribe the rocker radii by making a compass: Rip a 5' length of 3/4" stock to about 1-1/4" wide, bore a hole in one end to accept a pencil point, measure the needed radius, then drive a brad for the pivot point.
4. Use your router and the 1/4" bearing-guided round-over bit to round the edges of parts D, E, F, and G that will be exposed after the project is assembled.
5. Sand the edges smooth with 220 grit once rounded.
6. Use glue and screws to assemble parts E to parts F.
7. Allow parts E and F to dry.
8. Add part D, making sure the top edges of both parts are flush.
9. Join parts G.

## Step 2: Cut the Seat

1. Cut the seat (B) to length and width from 3/4" stock.
2. Lay out and mark the location of the 3/8" deep by 5-1/4" long groove that accepts the head. **NOTE: For a proper fit, the groove width should be about 1/64" wider than the thickness of the head stock.**
3. Use a router with an edge-guide and a 3/4" diameter straight bit to cut the groove.
4. Transfer the profile of the seat from the grid pattern to the stock.
5. Cut out the seat with the band or jigsaw and smooth the edges.
6. Next, use the router and a 1/4" bearing guide round-over bit to round all the edges, both top and bottom. **NOTE that on the top, however, you should stop the bit just short of the groove.**
7. Bore the 3/8" diameter tail hole.
8. Final sand all surfaces of the seat to 220 grit.

### **Step 3: Make the Horse's Head**

1. Obtain a piece of tracing paper measuring at least 14" x 14".
2. Use a pencil and ruler to divide the tracing paper into 1" squares.
3. Refer to the grid pattern of the head (A), shown in the schematic, to transfer the profiles of the eyes, ears, nose, mouth, and mane to the tracing paper.
4. Cut 3/4" stock 11-1/4" wide x 18" long to use to make the head.
5. Sand both sides of the board you cut in the previous step.
6. Tape a piece or pieces of carbon paper, carbon surface down, to one side of the board.
7. **NOTE: Make sure that the whole surface of the board is covered.**
8. **NOTE, as shown in Figure 1, that the grain of the wood runs in relation to the profile of the head.**
9. Place the tracing paper on the carbon so that the grain is properly oriented.
10. Secure the tracing paper with a few piece of tape.
11. Carefully trace all lines (including the notched bottom edge) on the tracing paper.
12. **NOTE: Take care to bear hard enough with the pencil so that all your marks will be transferred from the carbon to the stock.**
13. Use the bandsaw or jigsaw to cut the outside profile of the head (A) that you just traced, being sure to make the cut just outside the marked line.
14. Sand the edge of the head to the marked line.
15. Place the carbon and tracing paper on the unmarked face of the stock.
16. Align the outside profile on the paper with the outside profile on the stock.
17. Tape both papers in place and trace all the lines.
18. Use a file and sandpaper, OR a router with a 1/4" bearing-guided round-over bit, to roundover—with the exception of the bottom notches—all edges on the head.
19. Use 220 grit sandpaper to final sand the rounded edges.
20. Mark the location of the handle hole and bore it out.

### **(Optional) Step 4: Decorate the Horse's Head (Optional)**

1. Use artist's acrylic paint (available at art supply stores) to paint the head.
2. Refer to the grid pattern and the color key for the location of the colors.  
**NOTE: The tongue is painted red while the eyes and teeth are white.**
3. Thin the burnt umber, raw sienna, and burnt sienna a bit with water.
4. Allow the paint to dry thoroughly.
5. Apply a wash coat of shellac to all surfaces.

6. Allow the shellac to dry thoroughly.
7. Trace over all the carbon lines with a black ink water-resistant permanent marker with a round tip that will make a line about 1/8" wide. **NOTE: The wash coat of shellac serves to keep the marker ink from bleeding into the wood fibers, which results in a fuzzy line.**

### **Step 5: Assemble and Finish**

1. Join the head to the seat with glue and a pair of countersunk #8 by 1-1/2" long ovalhead wood screws.
2. Complete the assembly by adding the seat and head unit.
3. Use 1/4" x 2-1/2" long dowels to hold the handle (C) in place.
4. Apply two coats of polyurethane to the entire project for a durable final finish.
5. Make a tail from hemp rope to complete the project.

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