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SL2045-15

CRICKET QUARTET™

ASSEMBLY



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Schacht Spindle Company 6101 Ben Place Boulder, CO 80301
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PARTS

- 2X castle sides
- 1X cross brace
- 2X rear shaft guides, holes close together
- 2X front shaft guides, holes spread out
- 1X pulley brace
- 1X lever brace
- 2X beam extensions
- 2X beater sides (left and right with grooves on inner sides)
- 1X beater top
- 1X beater bottom
- 1X beater brace
- 1X reed
- 4X shafts assembled with one fixed side and two heddle bars
- 4X shaft free sides
- 6X #8 x 3/4" Phillips pan head sheet metal screws
- 8X 10-24 barrel nuts
- 4X 10-24 x 2" Phillips truss head machine screws

- 4X #8 x 1-1/4" Phillips pan head sheet metal screws
- 4X custom .814" washers
- 4X 10-24 x 3" 3 mm hex head bolts
- 2X rubber feet
- 2X #6 x 1/2" Phillips pan head sheet metal screws
- 2X 1/4-20 x 5-1/2" hex bolts
- 2X plastic 1/4-20 thumb nuts
- 2X 10-24 x 1-1/4" Phillips truss head machine screws
- 2X #8 SAE washers
- 2X 10-24 slim lock nuts
- 4X 16-1/2" Texsolv lever cords
- 1X 3 mm hex wrench
- 3X bundles of 100 Texsolv heddles

TOOLS REQUIRED

- #2 Phillips screwdriver
- 3/8" or adjustable wrench
- paper clip or safety pin (optional)

ASSEMBLY

SET OUT THE PARTS

1. Identify all the hardware, measuring the shafts of bolts and screws to determine their size. Hardware is not drawn to scale in Figure 1.
2. Identify all the large parts (drawn to scale) in Figure 2.

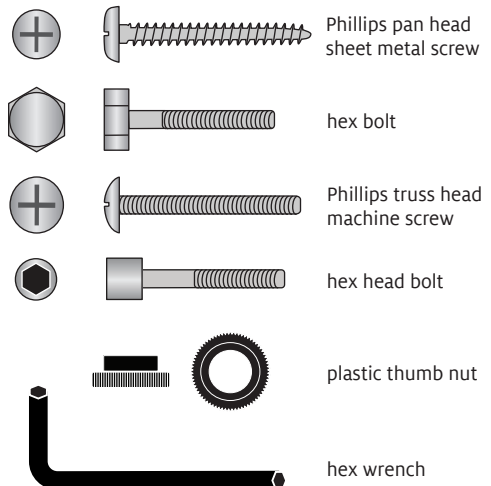
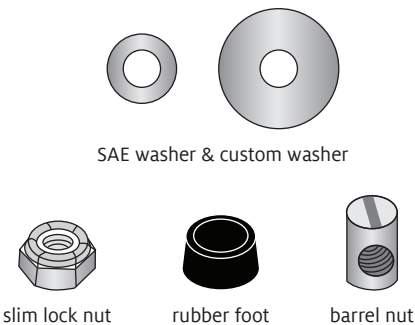


FIGURE 1: TYPES OF HARDWARE

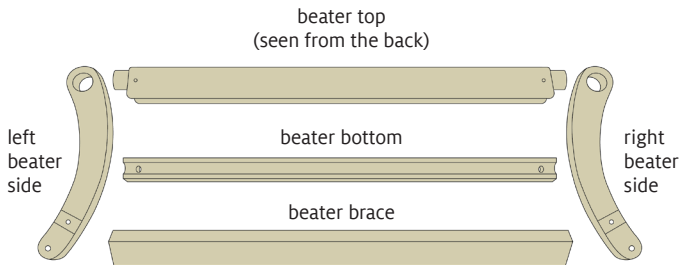
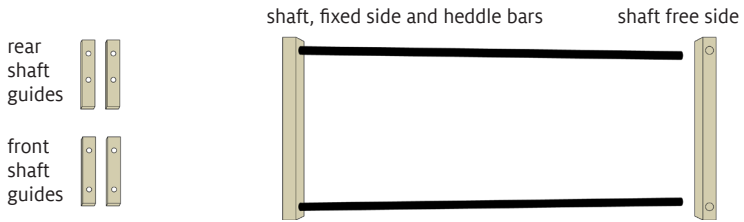
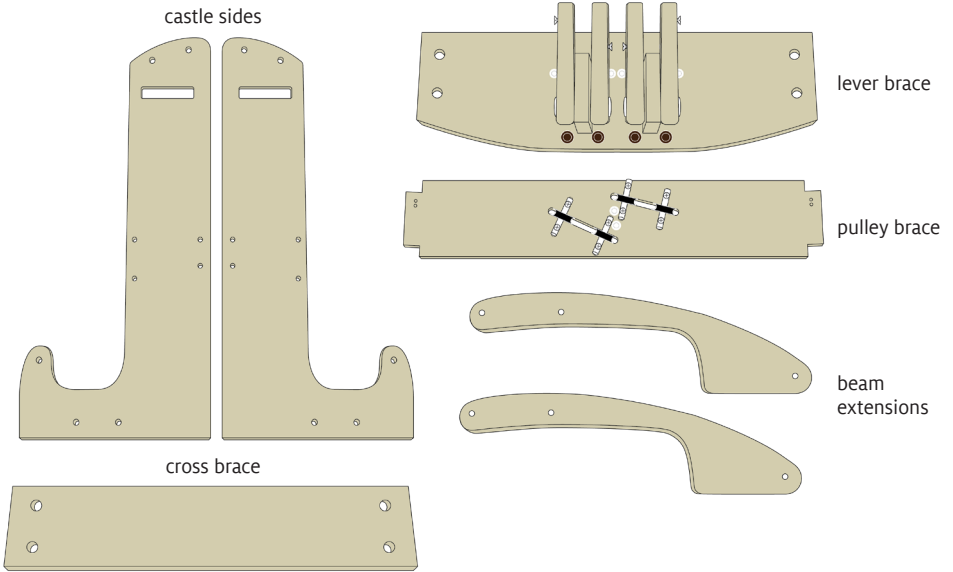
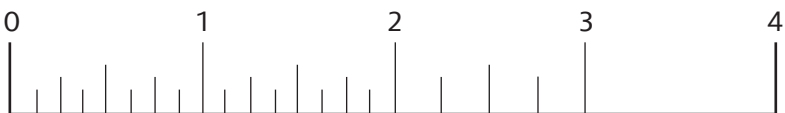


FIGURE 2: QUARTET PARTS



ASSEMBLE THE CASTLE

3. Lay the castle sides flat on a work surface so that they mirror each other. The taller straight edges will sit at the back of the loom; the shorter curved edges will sit at the front (Figure 3).

4. Place a front shaft guide on the **inner side** of a castle side. From the **outer side**, insert a #8 x 3/4" Phillips pan head sheet metal screw into the top hole of the guide. Attach the guide through **the top hole only**. Repeat for the other front shaft guide on the other castle side, as shown in Figure 5A.

5. Place a rear shaft guide on the **inner side** of a castle side, with the holes at the top of the guide as shown in Figure 3. From the **outer side** of the castle, insert a #8 x 3/4" Phillips pan head sheet metal screw into the top hole of the guide. Attach the guide through **the top hole only**. Repeat for the other rear shaft guide on the other castle side, as shown in Figure 5A.

6. Orient the pulley brace with its small holes on the upper side, facing the rear of the castle sides (Figure 4A). Orient the lever brace with its curved edge at the front of the castle sides and the levers on the upper side (Figure 4B).

7. Set the castle sides upright, with their inner sides facing each other and their front edges facing you (Figure 5A). Insert the pulley brace into the slots on the side. Set the lever brace in place between the castle sides. Using two 10-24 barrel nuts and two 10-24 x 2" Phillips truss head machine screws, loosely attach the lever brace to the rear holes of the castle sides.

8. Tilt the lever brace so the front holes align with the holes in the castle sides. Attach the lever brace to the castle sides using two 10-24 barrel nuts and two 10-24 x 2" Phillips truss head machine screws. Tighten these screws firmly, then tighten the screws in the rear holes of the castle sides (Figure 5B).

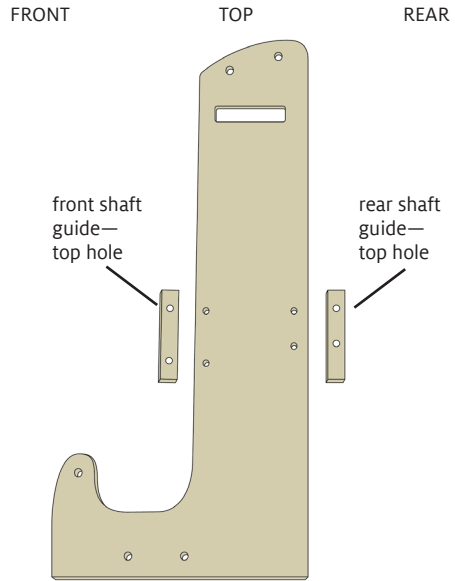


FIGURE 3: CASTLE SIDE AND SHAFT GUIDES

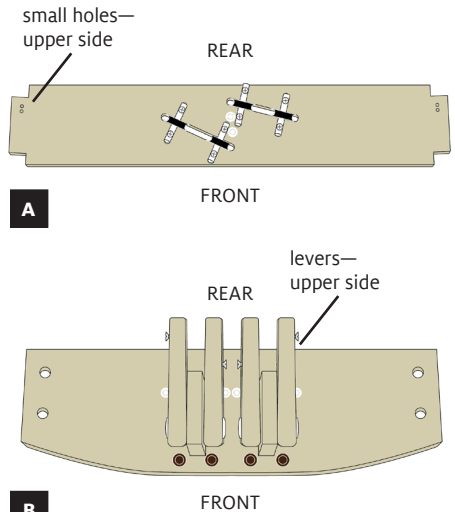


FIGURE 4: ORIENT PULLEY BRACE AND LEVER BRACE

9. Orient the beam extensions on the outer sides of the castle, with their widest edges at the back of the loom (Figure 6). Insert #8 x 1-1/4" Phillips pan head sheet metal screws into each hole in the beam extensions, then attach to the castle side and the shaft guides through the lower holes of the shaft guides.

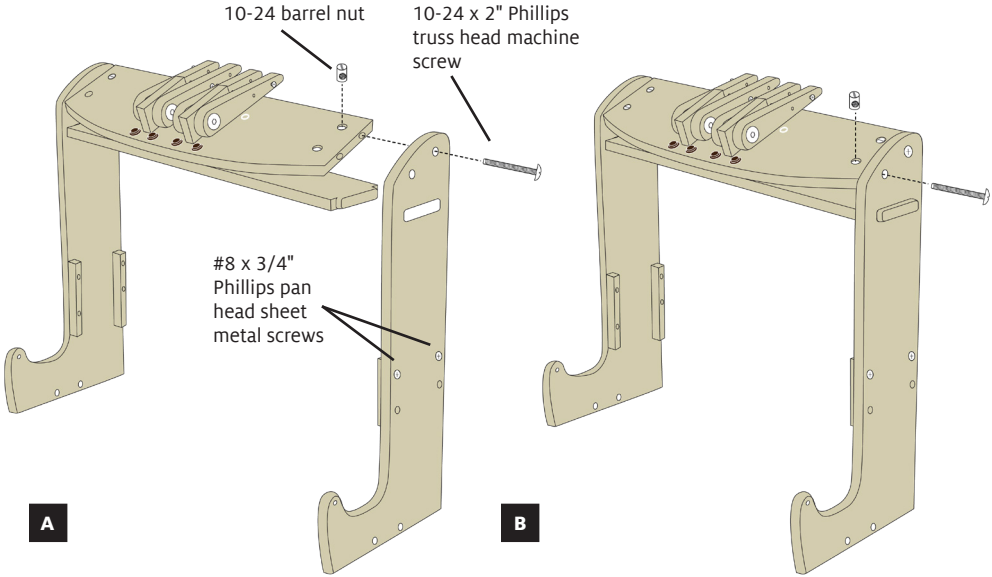


FIGURE 5: ATTACH LEVER BRACE

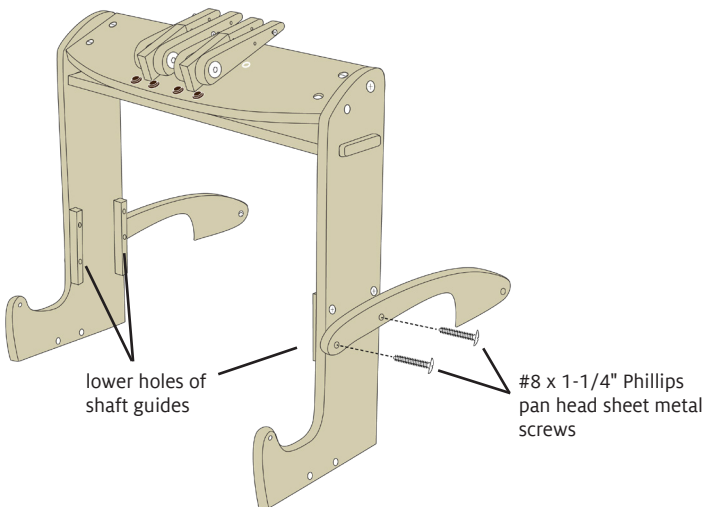


FIGURE 6: ATTACH BEAM EXTENSIONS

ASSEMBLE THE SHAFTS

Each shaft has a fixed side with heddle bars installed and a free side with a dimple on the outer edge and two larger holes on the inner side (see Figure 8B). You'll install 75 heddles on each shaft, then attach the free side and a lever cord. The heddles come in uncut bundles of 100, tied with pairs of red ties at the top and bottom (Figure 7). Don't cut apart heddles until the instructions tell you to do so.

10. Insert the heddle rods of one shaft between the pairs of red ties at the top and bottom (Figure 8A). Cut the heddles apart at top and bottom. Cut just a few loops at a time, so you don't miss any loops or cut in the wrong place.

11. Remove the red ties and count off 25 heddles. Reattach the red ties on this bundle of 25, making sure to catch all the heddles. Remove this bundle from the heddle rods. Install the free side on the shaft (Figure 8B).

12. Repeat steps 10 and 11 for two more shafts. Now install the bundles of 25 cut heddles on the fourth shaft.

13. On each shaft, divide the heddles into groups of 37 and 38, making a space between these groups (Figure 8B).

Note: If you want more heddles on a shaft, you can purchase more bundles and add them now, or you can add them when you need them. The Quartet must be unwarped: unfasten the lever cord(s) from the lever(s), remove the shaft(s), and add the desired number of heddles. Remove the lever cord from the shaft and reinstall it with half of the heddles on each side. Finally, connect the shaft(s) and levers as explained in steps 16 to 20.

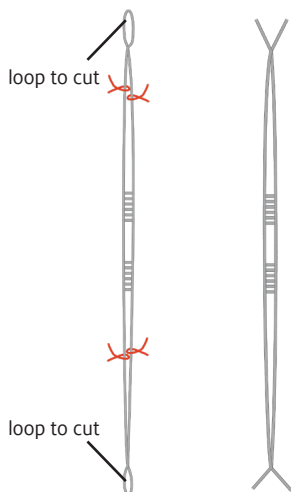


FIGURE 7: HEDDLE BUNDLE AND CUT HEDDLE

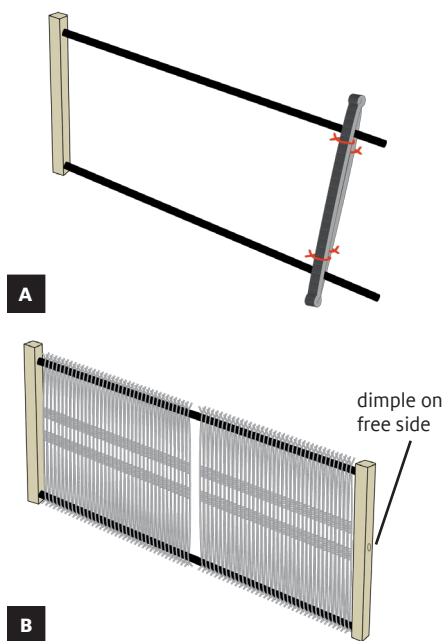


FIGURE 8: INSTALL HEDDLES

14. Install a lever cord on the upper heddle rod of each shaft: Wrap one end of the cord around the heddle rod. Find the first complete hole in this end of the cord, then run the other end through it (Figure 9). Tighten the loop around the heddle rod.

15. Orient the shafts with the free sides on the same side, with lever cords on the upper heddle rods. From the back of the castle, slide the shafts into place between the front and rear shaft guides, with the lever cord at the top of each shaft.

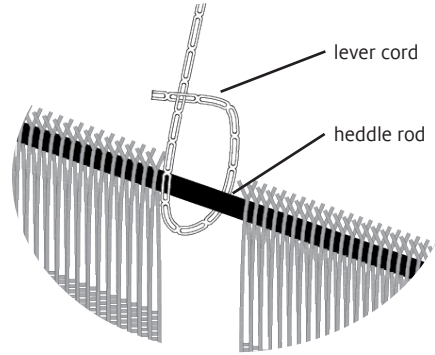


FIGURE 9: INSTALL LEVER CORDS

When you connect the shafts to the levers, work from the back of the castle.

- The shaft at the front of the castle (shaft 1) will hang from the rightmost lever and the shaft at the back (shaft 4) will hang from the leftmost lever. The lever cords for these shafts feed through the pulley slots and around pulleys, starting in the middle of the pulley brace.
- The lever cords for shafts 2 and 3 feed through holes in the middle of the pulley brace.
- If lever cords will not feed easily through the holes, use the tip of a paper clip or safety pin to push them through from underneath.

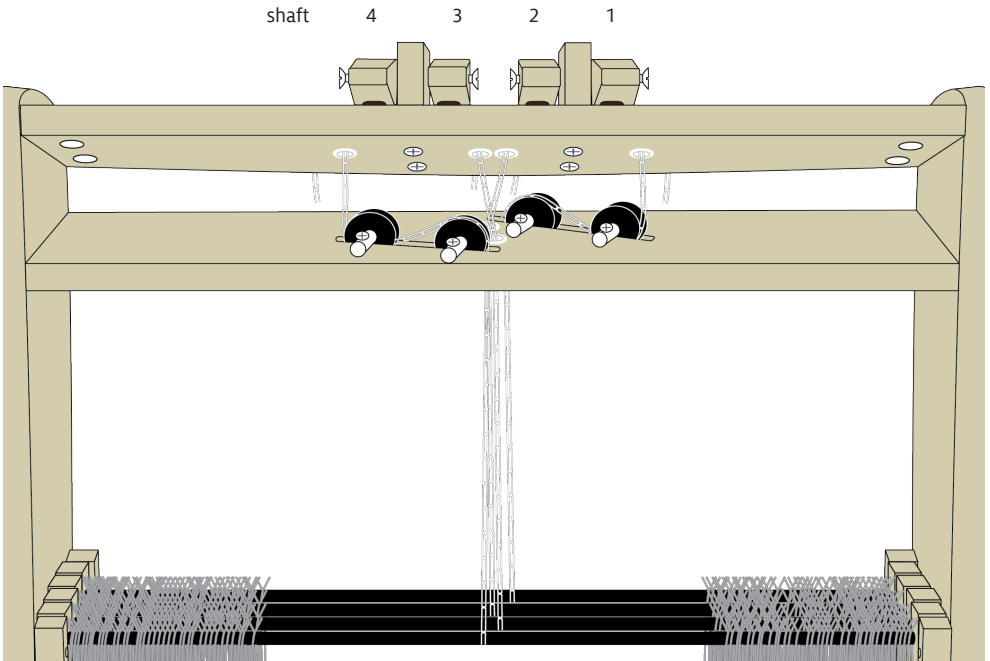
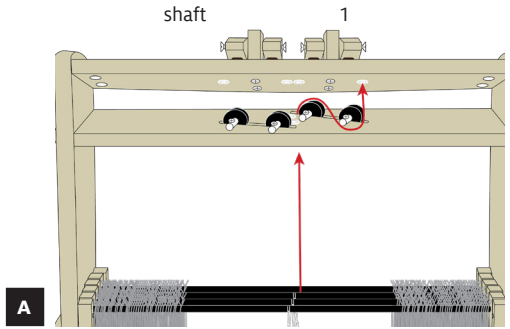


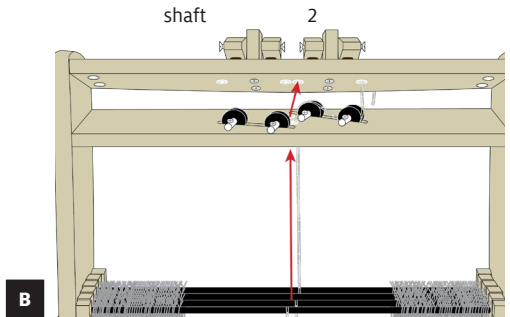
FIGURE 10: ARRANGEMENT OF LEVER CORDS

CONNECT THE SHAFTS & LEVERS

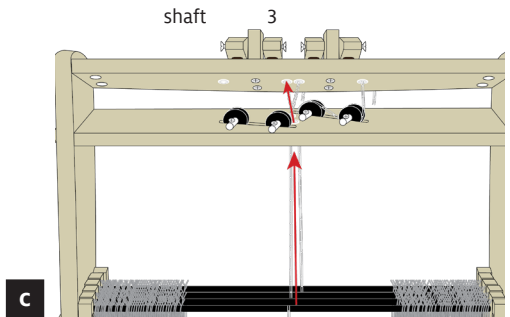
16. Feed the lever cord for shaft 1 through the slot closest to the front of the pulley brace, up and over the pulley in the middle, under the pulley to the right, and up through the slot (Figure 11A). Feed the lever cord through the rightmost hole in the lever brace. For now, let the cord dangle off the front of the lever brace, making sure it doesn't slip out of the hole.



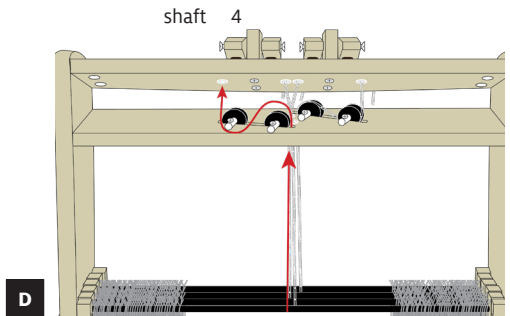
17. Feed the lever cord for shaft 2 through the frontmost hole in the pulley brace, then the second hole from the right in the lever brace (Figure 11B). For now, let the cord dangle off the front of the lever brace.



18. Feed the lever cord for shaft 3 through the rearmost hole in the pulley brace, then the second hole from the left in the lever brace (Figure 11C). For now, let the cord dangle off the front of the lever brace.



19. Feed the lever cord for shaft 4 through the slot closest to the back of the pulley brace, up and over the pulley in the middle, under the pulley to the left, and up through the slot (Figure 11D). Feed the lever cord through the leftmost hole in the lever brace.



20. Connect all lever cords to the screws on their levers (Figure 12). Push a hole in the cord over the head of the screw. Use the holes in the lever cords that set all shafts at roughly the same height, so they're about level with the tops of the shaft guides. You can adjust the height later if needed.

FIGURE 11: FEEDING LEVER CORDS

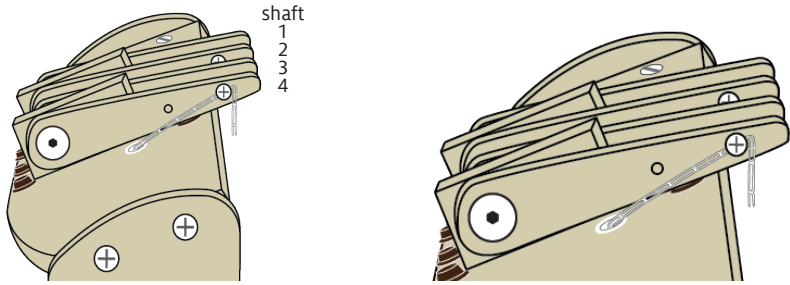


FIGURE 12: CONNECTING LEVER CORDS TO LEVERS

INSTALL THE QUARTET ON THE CRICKET

21. If your Cricket sits on a Cricket Stand, remove the loom and set it on a work surface, with the front of the loom towards you. Remove the knobs, hex head bolts, washers, and barrel nuts that attach the Cricket cross brace; remove the Cricket cross brace (Figure 13A). Store these parts safely for converting your loom back to rigid heddle weaving and reinstalling it on the Cricket Stand.

22. If your Cricket does not sit on a Cricket Stand, remove the barrel nuts and machine screws that attach the Cricket cross brace; remove the Cricket cross brace (Figure 13B). Store these parts safely for converting your loom back to rigid heddle weaving.

23. For all looms, remove the back beam as shown in Figure 13. Set aside the back beam and the two sheet metal screws for step 28.

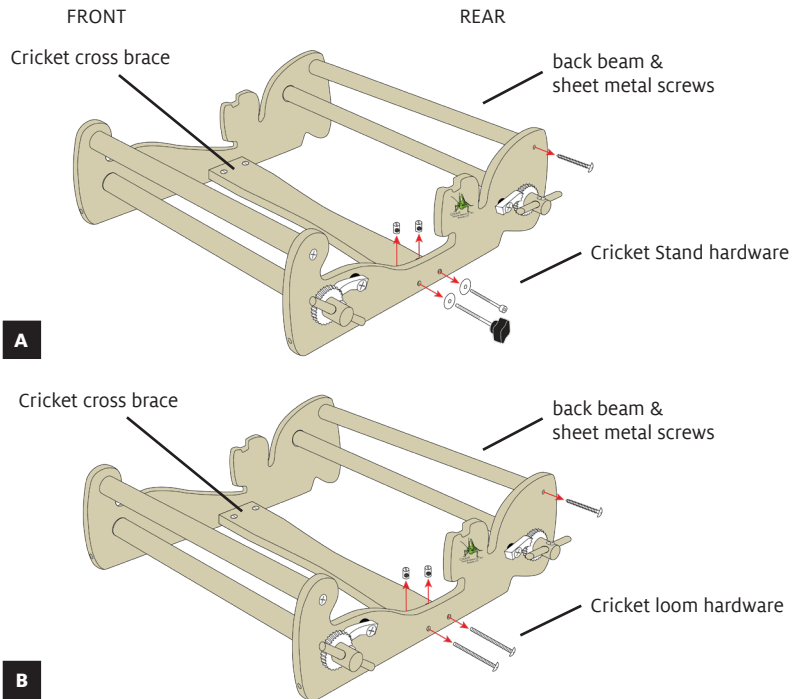


FIGURE 13: REMOVE CRICKET CROSS BRACE AND BACK BEAM

24. Set the Quartet castle inside the loom, with its front at the front of the Cricket and the beam extensions resting on the Cricket sides. Align the holes at the lower edges of the castle sides with the holes in the loom sides.

25. Add a .814" washer to each 10-24 x 3" 3 mm hex head bolt, then, from the outer side of the castle, insert the bolt all the way through the loom and through the castle side just far enough to sit in place.

26. Set the Quartet cross brace inside the castle, aligning all holes. Place one 10-24 barrel nut in each hole in the Quartet

cross brace (Figure 14). Make sure the holes of the barrel nuts are perpendicular to the short edges of the cross brace.

27. Fully insert the four 10-24 x 3" 3 mm hex head bolts into the barrel nuts. If you will not use a Cricket Stand with the Cricket and Quartet, use the 3 mm hex wrench to tighten the bolts as far as they will go. If you will use a Cricket Stand, tighten the bolts just enough to hold the cross brace in place.

28. Attach the back beam to the Quartet beam extensions, using the parts you removed in step 23 (Figure 15).

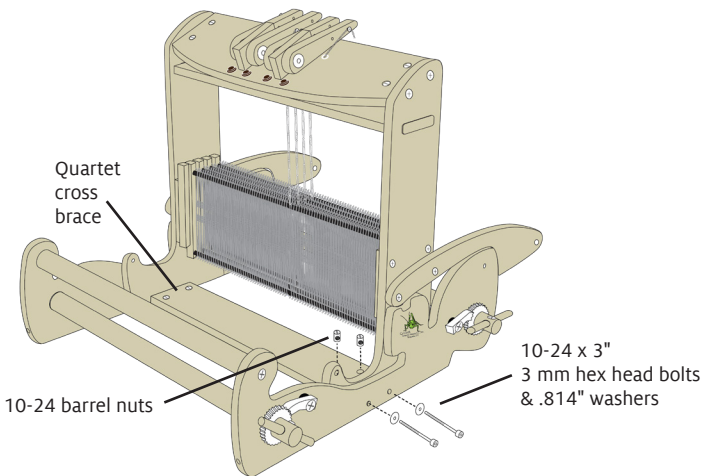


FIGURE 14: ATTACH QUARTET CROSS BRACE

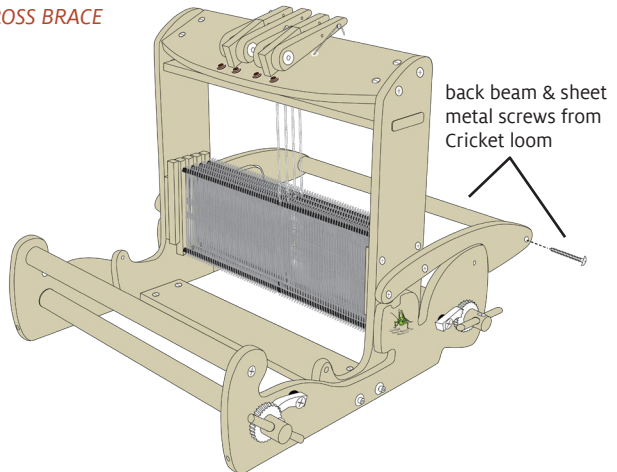


FIGURE 15: ATTACH BACK BEAM

INSTALL THE PIVOT BEATER

Before you assemble the pivot beater, refer to the cover photo and Figure 18B so you understand how it fits together. The beater sides have small holes at the bottom where they attach to the castle sides. The sides then curve back at the top, sitting right in front of the shafts. You can move the entire beater back and forth or swing only the reed and beater bottom.

29. Attach beater bumpers: The beater top has a front and a back, with holes on the back for the bumper screws (Figure 16). Using two #6 x 1/2" Phillips pan head sheet metal screws, attach two rubber feet to the back of the beater top.

30. Install the reed: Lay the beater bottom flat on a work surface. Set the reed in

its groove. Insert two 5-1/2" hex bolts through the underside of the beater bottom, then through the beater top. Secure the hex bolts, beater top, and beater bottom with two plastic 1/4-20 thumb nuts (Figure 17). The side with the rubber feet is now the back of the beater.

31. Assemble the pivot beater: Add the right and left beater sides at each side of the beater top. The grooves in the sides should face each other (Figure 18A). Align the beater brace to the beater sides: the front of the brace will be flush with the sides, and the back will extend out about 1/4" (Figure 18B). Attach the beater brace to the beater sides with two #8 x 3/4" Phillips pan head sheet metal screws.

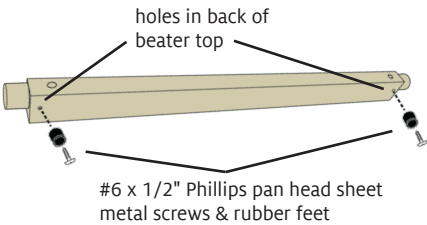


FIGURE 16: ATTACH BEATER BUMPERS

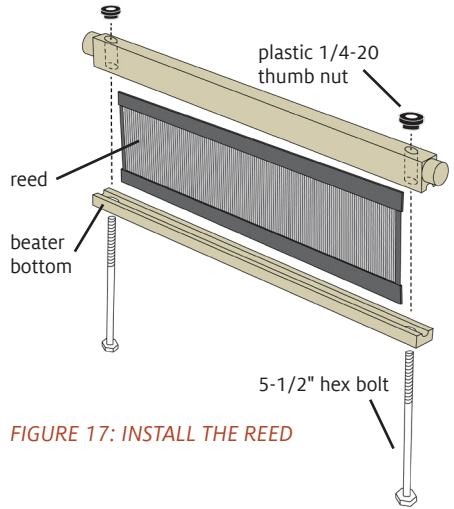
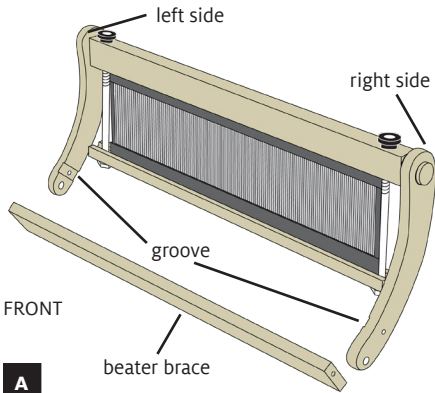
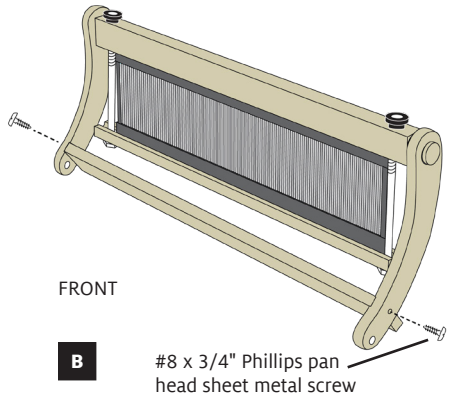


FIGURE 17: INSTALL THE REED



A



B

FIGURE 18: ASSEMBLE THE PIVOT BEATER

32. Set the pivot beater on the castle sides as shown in Figure 19, with the bumpers at the back of the beater. Align the holes in the beater sides with the holes in the castle sides. Insert 10-24 x 1-1/4" Phillips truss head machine screws through the holes, then add a #8 SAE washer and a 10-24 slim lock nut. Hold the machine screw with a screwdriver and the lock nut with the wrench to tighten. Tighten the lock nuts securely, then loosen them by a quarter turn so the beater can move freely.

33. If you're using a Cricket Stand, you can now set the Cricket and Quartet onto it. The hex head bolts attaching the cross brace will sit in the slots in the stand legs; the washers should be placed on the outer side of the stand legs. Set the loom at the angle you prefer and tighten the bolts securely into the barrel nuts in the cross brace.

CONVERTING BACK TO RIGID HEDDLE WEAVING

Repeat steps 21 through 28 in reverse order—do not remove the pivot beater.

NOTE: If you plan to switch frequently between rigid heddle and shaft weaving, you can buy an additional back beam and screws. Install one back beam on the Cricket and one on the Quartet. The Quartet with installed back beam will fit on a Cricket with installed back beam, though you may want to use thinner warp separators on the Quartet.

CHANGING REEDS

- Loosen but do not remove the plastic 1/4-20 thumb nuts from the beater top until the reed can slip out.
- Set a new reed in place, centering it in the beater. Tighten the thumb nuts.

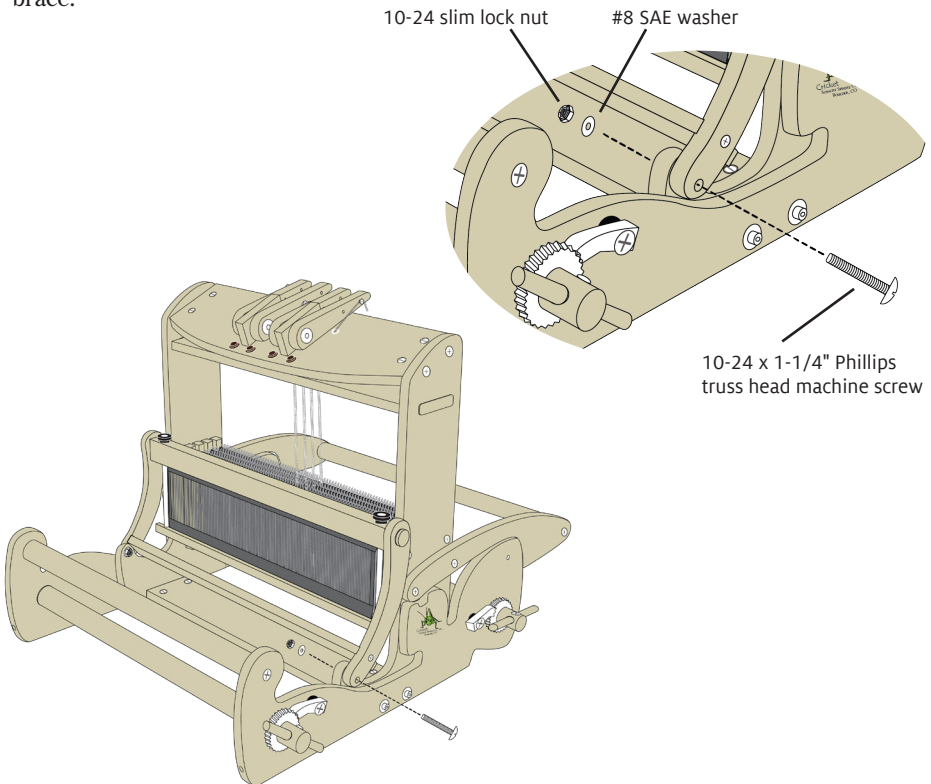


FIGURE 19: ATTACH THE PIVOT BEATER