»ASSEMBLY GUIDE ERGONOMIC WEAVING TOOL





ERGONOMIC WEAVING TOOL

The ergonomic weaving tool is specifically designed to reduce back pain and increase comfort during the weaving process. Kopernik has developed this tool with several new features while still maintaining the traditional weaving techniques that have been passed down for generations.

The traditional tension adjuster loom, which was typically placed on the weaver's back, has been replaced with a lever mechanism that is now attached to the ergonomic weaving tool. Additionally, the ergonomic weaving tool has been elevated, enabling the weaver to work comfortably while sitting on a chair, providing a more comfortable weaving position. The tool is also made of sturdy, durable materials that are easy to assemble or disassemble.

In addition to weaving, weavers can also use this tool for the neket or warping process, which is an essential initial step in preparing and warping yarn by strand based on color and pattern.



MATERIALS REQUIRED

Legend:

- 1. Y-wrench
- 2. Springs (2 units)
- 3. Knockdown fasteners (8 units)
- 4. Big bolts (2 units)
- 5. Nails
- 6. Tire rubbers (4 units)



COMPONENTS OF ERGONOMIC WEAVING TOOL





ASSEMBLY PROCESS

Before assembling the structure

Step 1

• Lean the right and left frames against opposite posts or walls.



- Each part of the weaving tool's frames has been labeled with a color and letter, with "**A**" indicating the **top** and "**B**" indicating the **bottom**.
- Connect each of the front and rear frames to the right and left frames based on the colors and letter markers.
- Secure each joint using nuts and bolts.



ASSEMBLY PROCESS

After assembling the structure

Step 1

• Attach the swing arm to the front of the frame and secure it with M14 bolts.



Step 2

• Attach the front loom bar to the front of the swing arm and secure it with tire rubbers.





- Place the springs on the left and right sides and secure the end of the wire rope to the swing's arm iron.
- To connect the wire rope, first pull it from the back to the front, then secure it with the bolt that has been installed on the swing arm. After that, test the function of the wire rope by moving the pedal.



NEKET FEATURE INSTALLATION PROCESS

Size Adjustment

This weaving tool can be used for *neket* or warping process for threads that are 80-122 cm in size which will produce woven fabric with a final length of 160-244 cm. To adjust the size of the cloth you want to warp or *neket*, all you need is a number 19 spanner wrench, which is included with the weaving tool.





• Loosen the bolts on the rotator blocks using a number 19 spanner wrench to increase ease of movement. Turn the rotator blocks in the *neket* position, which is standing upright as shown in the picture.



- Slide and position the rotator block at the desired neket size.
- For neket with a size of 80 cm, position the rotator block upright directly above the N80 mark. For neket with a size of 100 cm, position the rotator blocks upright directly above the N100 mark. For neket with a size of 122cm, position the rotator block upright directly above the N122 mark. Make sure the end of the turned rotator blocks bolt penetrates into the wood marked N80, N100, or N122
- The tool can also be used to *neket* in other sizes, with the principle that the closer the distance of the rotator blocks to the loom bar, the larger the *neket* size will be.





- Make sure the rotator blocks on the right and left sides are aligned properly. Then, use a number 19 spanner wrench to tighten the bolts on both sides of the rotator blocks.
- Also tighten the bolt connecting the top of the rotator.
- Attach the rubber and insert the rear loom bar and tie it. Don't forget to re-tighten the position of the loom bar with the rubber that has been attached.



Neket Post Installation

After installing the rotator blocks at the desired size, proceed with the installation of the *neket* post as follows:

- Attach the *neket* post on the left frame, then tighten it with a bolt.
- Place the lamp bar in the hole at the top of the *neket* post, then tighten it with a bolt.





• Insert the PVC and aluminum pipes into the hole in the lower part of *neket* post, under the yarn box. Then attach the yarn table.



Step 3

• Before the *neket* process, make sure the hinges on the top front frame are securely locked and stable. After that, the *neket* process can begin.





WEAVING PROCESS

Rotator position for weaving



Step 1

- Install the rotator blocks on the left and right frames of the weaving tool, then tighten them with bolts. While in the extended position, release the top component of the rotator.
- Before starting the weaving process, the warped yarns must be rearranged. After that, roll the cloth that has been tied on the rear loom bar.

Step 2

• Loosen the lever and wind the fabric using the rear loom bar while the lever is loose. Then keep using the rubber bands on both sides to secure the position of the rear loom bar.





- Tighten the lever mechanism and the weaving process can begin. Weaver can sit on a chair while weaving.
- The yarn table is optional. If desired, it can be used to place the weaver's accessories or other needs, such as a cell phone.





This project is implemented by:



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