

Hollandia & Spring Looms

The Parallel Countermarch System - by: Sharon Alderman

In a countermarch loom, every shaft is actively involved in each shed: each shaft is either lifted or pulled down by each pedal. Uneven sheds, for example: a satin weave shed where four shafts are lifted and one is pulled down, open cleanly every time. The warp ends on the fifth shaft do not tend to ride up as they often do with jack looms. When the shed is made, the same tension is applied to the raised ends as to the lowered ones resulting in equal tension everywhere.

Look at the diagram to help you understand how a countermarch loom works. You will see that there are two lams beneath each shaft. One of those lams is directly connected to the shaft and moves in the same direction as it does: when this lam is pulled down the shaft moves down. The other lam is connected so that it moves in the opposite way; when this lam is pulled down the shaft rises.

Each treadle is attached to one lam for each shaft, either to pull that shaft down or to lift it.

Because each treadle is tied to each shaft twice as many connections per treadle must be made, on the average, compared to other looms. Before the advent of Texsol materials, a knitted polyester cord with loops in it, the time required to tie up a countermarch loom was daunting. Once the ties were made, there were still problems as knots slipped or had to be untied to adjust the cords.

Fortunately, this drudgery is a thing of the past. The texsol cords--which neither stretch nor require knots--are simply slipped over pegs. The required cords are attached to the lams when the loom is assembled and are always ready thereafter. Changing the tie-up is simpler and faster.

A traditional countermarch loom is set up so that the lams pivot (these pivot points are marked **s** in the diagram). The closer to the pivot point the treadle is the more power is required to push the treadle down to obtain the shed. The best results are obtained with the treadles tied right at the center of the loom. When several treadles are required to weave the structure, some treadles will be harder to push and will require adjustment to obtain a shed which is neither too big or too small.

The parallel countermarch system works differently. In the first place, there is no pivot point for the lams, which means that the treadles will operate similarly over the whole width of the loom. Both the Spring and Hollandia looms can accommodate up to 14 treadles, all of which will work with equal ease. It is not possible to push a combination of treadles with a countermarch loom so having enough treadles is important.

The Warp Tensioning Device:

In designing a loom we have several wishes: we want a compact loom, a roomy well-defined shed, unvarying warp tension and treadles which require little effort to operate. When the

shed is made, extra tension is applied to the warp on an ordinary loom. Working against this extra tension is more work for the weaver and subjects the warp to additional strain.

The tensioning device on the Spring loom solved both problems. The breast beam is attached to the loom in such a way that it is free to move toward the shafts when the shed is made and then back toward the weaver when the shed is closed.

The distance between the breast beam and the warp beam actually changes in rhythm with the weaving. Thus the shed may be larger, there is a smaller tension increase on the warp and less effort is required to make the shed. The advantages of this system are especially evident as we near the end of the warp. Even when the end of the warp is close to the shafts, a good shed can be made thus saving yards and yards of wasted warp over the life of your loom.

The warp tensioning device also makes it possible to establish exactly the same warp tension each time the warp is advanced.

The Texsolv System:

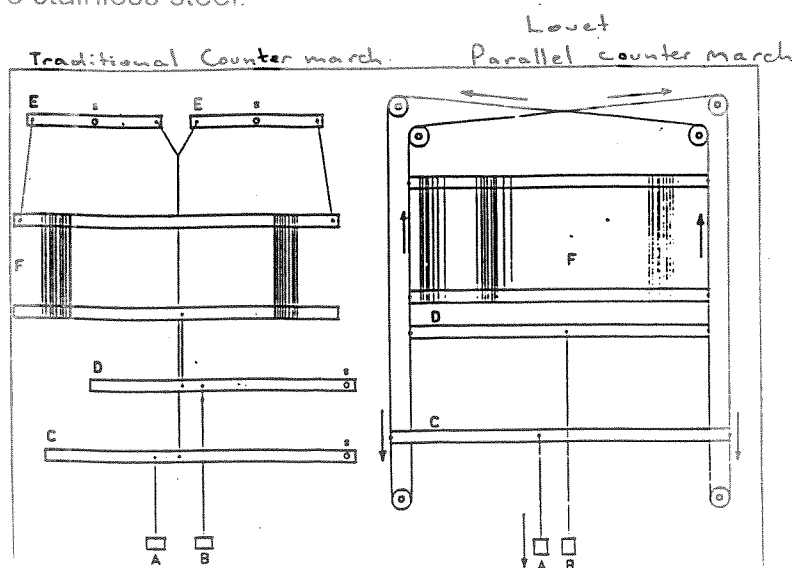
Cotton heddles have the advantage of being silent in use. Metal heddles, flat steel wire, have the advantage of having open eyes. Texsolv heddles combine these advantages. The bundles of heddles supplied with your new loom are a continuous line of 100 heddles folded into a zig zag.

Each bundle is fastened in four places. These ties make it easy to pass the heddle bars through the upper and lower loops. Do not remove the ties which form the bundles until the heddles have been slipped onto the heddle bars and the bars are installed in the loom. You will be instructed when to remove the ties.

If you need to remove heddles from the bars later, first tie them as they were originally. If you wish to cut the heddle apart, use a pair of sharp scissors.

Special Note

Please note that besides a full range of metric reeds, we now also offer conventional reeds in dents per inch. All reeds are stainless steel.



Tie-up schedule for counter marche looms

Tabby

Harnesses	Treadles					
	A	B	C	D	E	F
1	U	L				
2	L	U				
3	U	L				
4	L	U				

BASKET

1		U	L		
2		U	L		
3		L	U		
4		L	U		

Twill

1		U	L	L	L
2		L	U	L	L
3		L	L	U	L
4		L	L	L	U

Harnesses:

1-2-3-4

Treadles:

A-B-C-D-E-F

Lams:

U Upper

L Lower