

Set 3/2

The needles are guided by the cams along different paths, depending on the lock's settings (we'll get into the details soon), then they pass along the narrow base of the small triangle in the center, this is the stitch size cam.

Let's try it straight away: set the stitch size slowly towards 8 (on either lock), you will see the cam moving downwards. This means that it will be forcing the needle to go far down and make a longer stitch, this is how we get a large stitch size.

Now move the dial slowly towards stitch size one, while looking at the cam: the cam moves upwards, meaning that it will make the needle go only a little bit lower than its normal level (at normal level the head of the needle is almost level with the top of the needle bed), so it will pull only a little loop, and give us a small stitch size.

As you can see, the needle cams on both locks are identical. The operation here is totally mechanical, the electronic console does not have a thing to say in this area.

For the sake of clarity, I am going to call the first diagonal cam (the movable one on the right as you face the underneath of the locks) A, the second one (the larger one) B and the small fixed one C.

On the front lock as you move it on the machine from right to A, B and C meet the needles first.

On the left side of the lock, we'll name them A", B" and C".

We are now well organized, let us look at the settings.

Locks on N:

The foot of the needle slides along the narrow base of the triangle, then up along its left side (since cams A and B are closed it can't go anywhere else) until it reaches the top of the fixed cam C. At this point the head of the needle is at its highest level. If there is knitting on it, the loop will slide down along the needle shank, below the level of the latch. The head of the needle will catch the yarn, and as the needle moves down towards the stitch size cam it will make a new stitch.

Then the foot of the needle will leave the lock in a straight line by pressing cams A" and B" out of the way. Look for a shiny, polished mark on the cams, that is where the foot presses and slides away.

To confirm this put the front lock on the front bed, bring up 30 needles into working position (pushers are not necessary), and slide your lock very slowly from right to left. You will see the heads of the needles going up (make a mental note of the height level), then down again.

When the lock moves from left to right, it all repeats itself, A", B" and C" meet the needles first and guide them to maximum height.