

SERVICE MANUAL

FOR

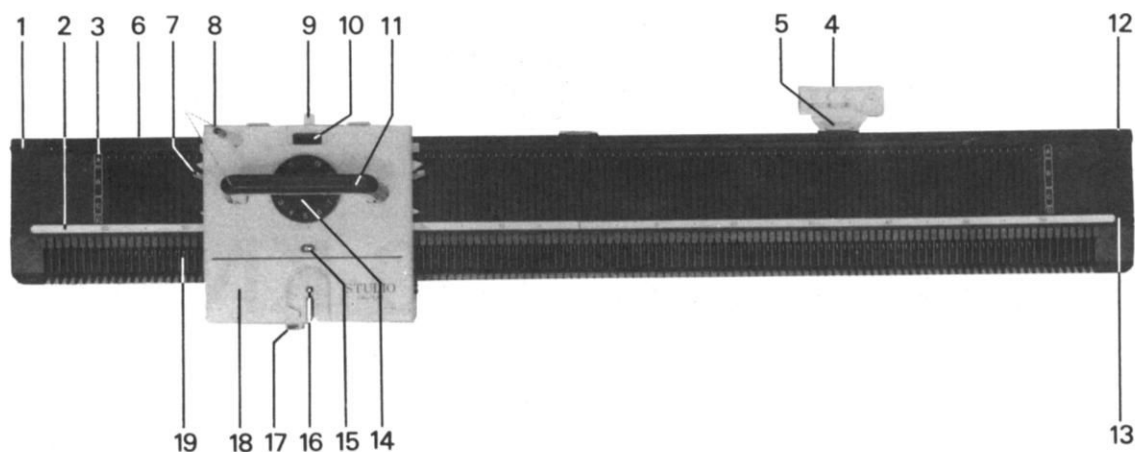
MODEL HK-100 KNITTER



1. Feature of the HK-100 Knitting Machine

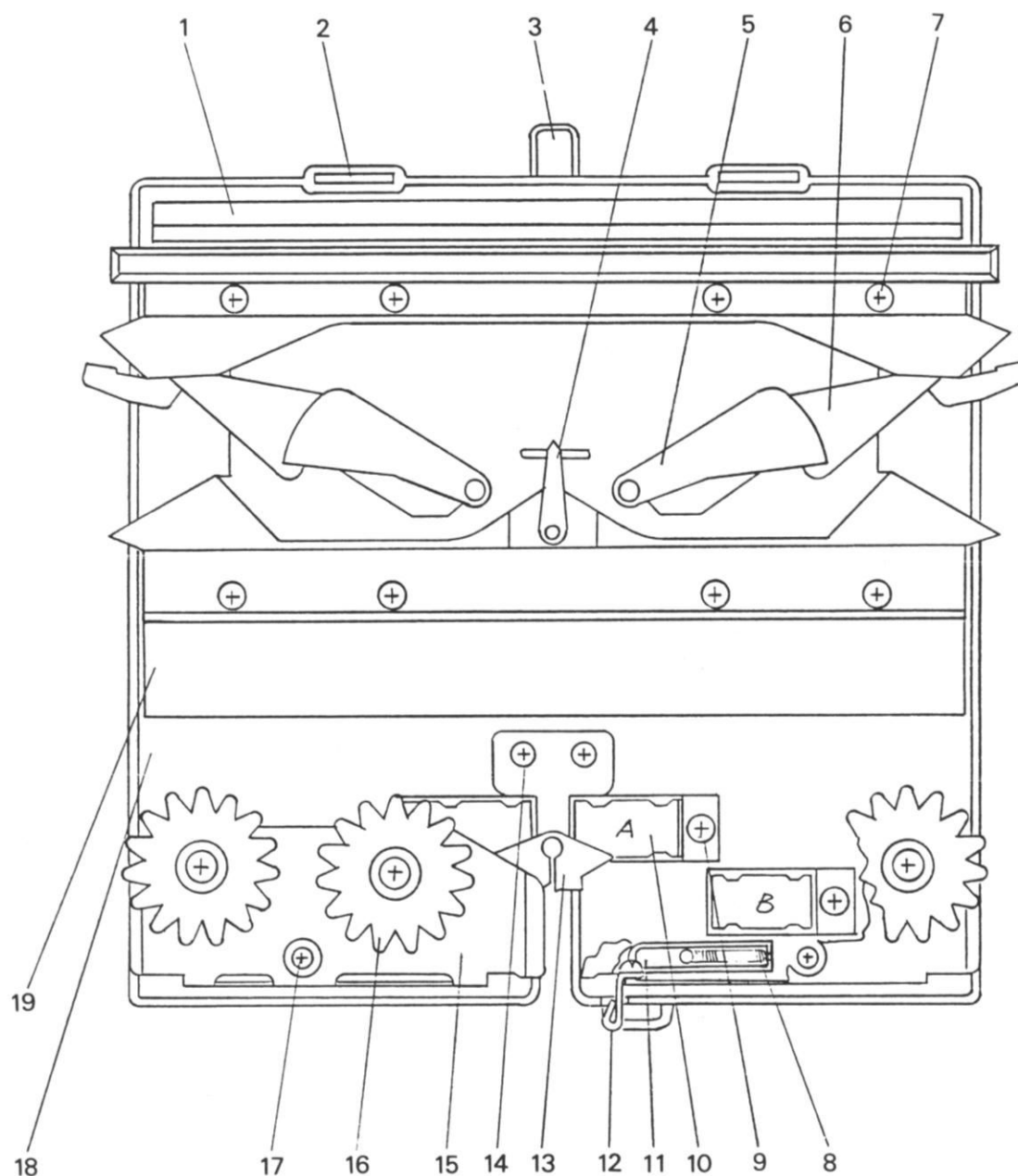
- 1) Needle Bed and the Sinkers are made of synthetic resin which serves to make the machine light in weight, safe in operation.
- 2) Mechanism is simple to maintain simple operation so that even a beginner can enjoy knitting.
- 3) Simple mechanism of the machine contributes to simplicity of repair service - no complicated adjustment is needed, but only replacing a part when damaged is required.

2. Overall view of the Knitting Machine



- | | |
|--------------------------------|-------------------------|
| 1. End Cover (L) | 11. Carriage Handle |
| 2. Needle Number Indicator (L) | 12. End Cover (R) |
| 3. Needle Position Seal | 13. Needle Retainer |
| 4. Row Counter | 14. Stitch Dial |
| 5. Row Counter Bracket | 15. Direction Indicator |
| 6. Needle bed | 16. Yarn Feeder |
| 7. Side Lever | 17. Yarn Guide |
| 8. Tension Spring | 18. Carriage |
| 9. Row Counter Lever | 19. Needle |
| 10. Lock Lever | |

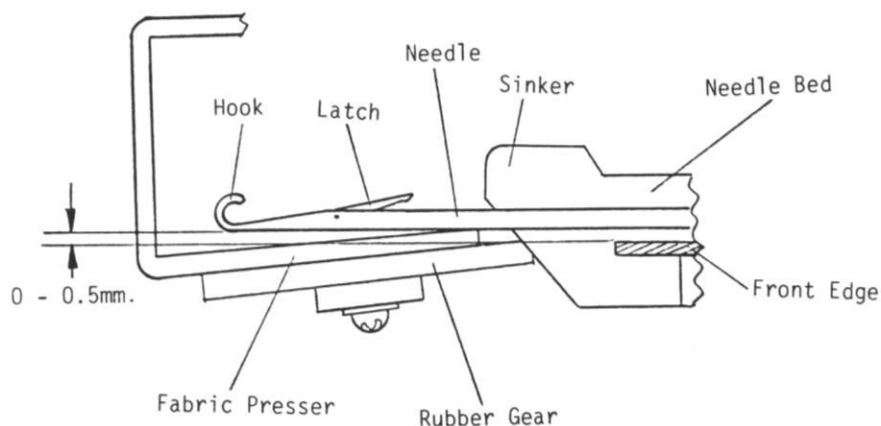
3. Underside of the Carriage



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|----------------------|------------------------|-----------------------|
| 1. Lock Lever | 9. Tapping Screw 3x8 | 17. Tapping Screw 3x8 |
| 2. KR Lever Socket | 10. S. Magnet | 18. Carriage Cover |
| 3. RC Lever | 11. Yarn Brake | 19. Carriage Plate |
| 4. Swing Cam | 12. Yarn Guide | |
| 5. Main Cam | 13. Yarn Feeder | |
| 6. Sub Cam | 14. Tapping Screw 3x8 | |
| 7. Tapping Screw 3x8 | 15. Fabric Presser (R) | |
| 8. Yarn Brake Spring | 16. Rubber Gear | |

4. P.N. Adjustment (Clearance between the Fabric Presser and the Needle.)

Push several needles at the centre of the needle bed into D position, and bring the Carriage over the needles. In this state, the edge of the Fabric Pressers must contact the bottom of the needles or lift them no more than 0.5mm.



Checking and Adjusting Method

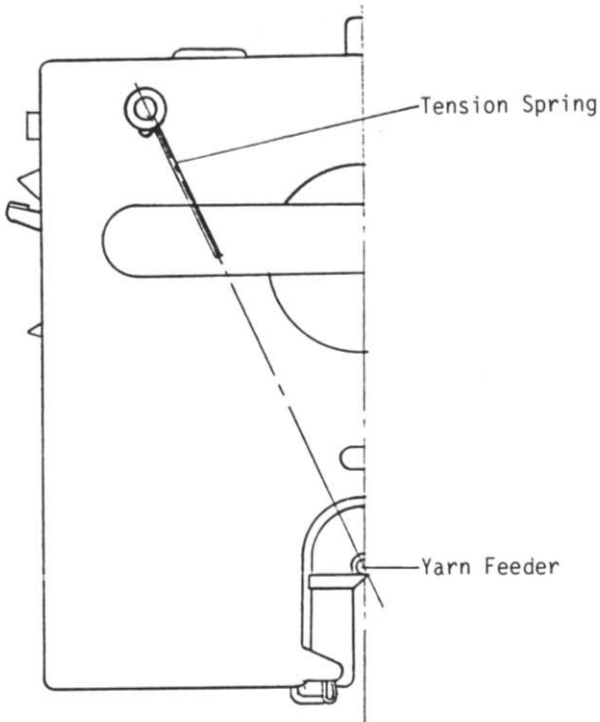
- 1) Centering the 0 on the needle bed, push up 10 needles on each side of the 0 into D position.
- 2) Move the Carriage over the needles, and check to see that the edge of the Fabric Pressers contact the bottom of the needles.
- 3) If the edge of the Fabric Pressers stay off the bottom of the needles, remove the Carriage from the needle bed and press the Fabric Presser at the underside of the Carriage with your hands.

Note) Do not apply too much force to press down the Pressers.

- 4) If the Fabric Pressers lift up the needles too much, bring the Carriage to the end of the needle bed and pull down the Pressers with your hand.

5 Cares to be taken when replacing parts

5-1 Replacing the Tension Spring



When replacing the Tension Spring, remove the Spring while turning it in the right direction, and replace while turning the Spring in the right direction as well.

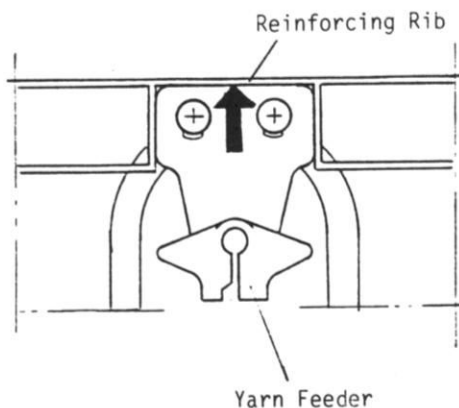
The top of the Spring must point toward the Yarn Feeder as shown.

5-2 Replacing the Lock Lever

Before removing the Lock Lever, remove the Stitch Dial by turning it in the counter-clockwise direction till it stops, and lift it up, and remove the Carriage Plate.

At this time, care should be taken to avoid losing the Lock Lever Spring, as it easily flies out.

5-3 Replacing the Yarn Feeder



Before removing the Yarn Feeder, remove the Fabric Pressers (R) and (L), four S magnets.

When fixing the new Yarn Feeder, secure it while pushing it toward the reinforcing rib (toward the Carriage Plate).

6. Troubles, possible causes, and countermeasures

Trouble: Length of the fabric at the left end is different from that of the right end.

Check points: 1. If the weights are suspended evenly on the fabric.
2. If the carriage is operated in a even speed.

Possible Causes:

1. If the weights are not suspended evenly on the fabric, the side with the heavier weight will be longer than the other side.
2. If the speed of the Carriage at the beginning of the knitting row is different from the end of the row, the size of the stitches come out different affecting the length of the fabric.

Countermeasures:

1. Suspend the weight evenly appropriate for the width of the fabric.
2. The Carriage must be operated at the even speed.

Trouble: The stitches will float at random.

Check Points: 1. If the latch of the needle is hard to open and close, or hook of the needle is bent.
2. If the appropriate number of weights are suspended on the fabric.
3. If the Stitch Dial setting is suitable for the thickness of the yarn.
4. If the PN clearance is properly adjusted.

Possible Causes:

1. If the latch of the needle is hard to open or close, or the hook of the needle is bent, stitch will not formed properly on the needle.
2. If the weight for the fabric is not sufficient, stitch will tend to float easily.
3. If the Stitch Dial setting is smaller than the number appropriate for the thickness of the yarn, the stitch on the needle will be too tight to be released from the hook for forming the next stitch.
4. If the clearance between the Fabric Pressers and needles, the pressure provided by the Fabric Pressers to the fabric will be insufficient and the stitches will tend to float.

Countermeasures:

1. Replace the damaged needle with new needle.
2. Suspend more weights on the fabric.
3. Reset the Stitch Dial appropriate to the thickness of the yarn.
4. Readjust the P.N. Clearance.

Trouble: The stitches at both ends tend to float.

Check Point: 1. If the weight are suspended at proper positions on the fabric.

Possible Causes:

1. As you knit longer, the weights on the fabric give less effect to the fabric.

Countermeasure:

1. Rehang the weights at every 10 rows of knitting.

Trouble: Stitches drop at random.

Check Points: 1. If the latch of the needle opens and closes properly.

Possible Causes:

1. If the latch of the needle is hard to open or close, stitch will not be formed on the needle and result in drop of stitch.

Countermeasures:

1. Correct the latch so that it opens and closes smoothly, or replace the needle with new one.

Trouble: Uneven course stripes appear on every other row.

Check Points: 1. If the carriage is operated in an even speed.

Possible Causes:

1. If the speed of the carriage operation is different for each row, the size of the stitches will be different.

Countermeasures:

1. Carriage must be operated in constant speed.

Trouble: The end stitches tend to become loose or drop.

Check Points:

1. If the yarn is guided through the Carriage incorrectly, or the yarn feeder is rough with burr.

Possible causes:

1. If the yarn is guided through the Carriage incorrectly, or burr is on the edge of the Yarn Feeder, the yarn will not be fed into the needles properly.

Countermeasures:

1. Guide the yarn through the Carriage correctly and made the edge of the yarn feeder smooth.

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