

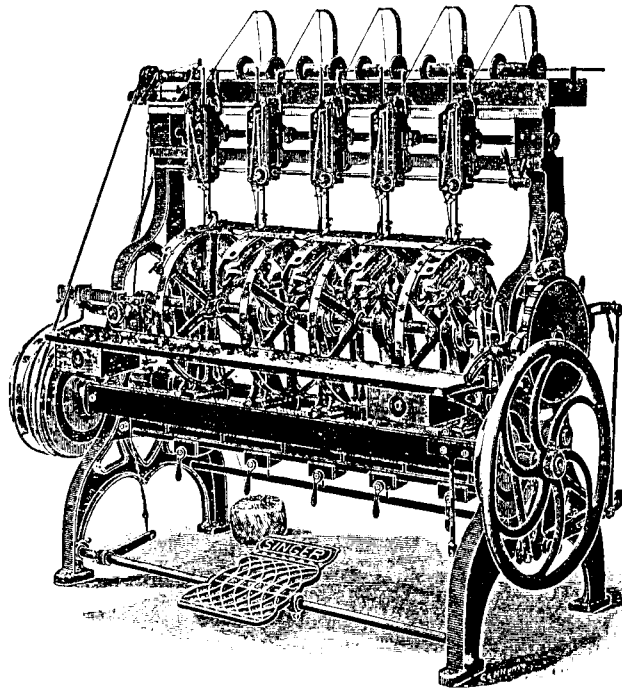
SINGER
14K9 to 14K16

INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER SEWING MACHINES

14K9 to 14K16
(MULTIPLE HEAD)



MACHINE 14K11

THE SINGER MANUFACTURING CO.

To Adjust the Shuttle Race Supporting Arms for Various Lengths of Cards.

Loosen the two handle screws which bind the supporting arm to the lower rail, at the front of the machine, and the handle screws which bind the shuttle rock shaft levers to the rock shaft at the back of machine.

With one hand support the shuttle carrier lever, and with the other move the supporting arm along the lower rail to the position required. **Be sure to retighten the screws.**

To Adjust the Feed Wheels.

Loosen the feed shaft bracket binding screws at each end of the machine, and raise or lower the feed shaft by means of the feed raising hand screws beneath the feed shaft brackets. When the necessary adjustment is attained, tighten the bracket binding screws, and make certain that the feed wheel is level with the shuttle race at the needle hole.

To Remove the Shuttle.

Bring the shuttle forward to the end of its stroke, press down the shuttle carrier latch and swing out the hinged finger. Remove the shuttle, loosen the bobbin spring centre set screw, raise the bobbin retainer and take out the bobbin by pressing it towards the spring centre.

To Wind the Bobbin.

Place the ball or bobbin of lacing cord upon the floor, at the back of machine. Pass the cord through the cord hole in the guide lever, down between the tension discs and then up into the slot at the top end of the guide lever. Holding the bobbin in the left hand, pass the end of the cord through the hole in the bobbin flange at the right hand end from the inside, back through the next hole from the outside, and out again through the following hole from the inside, leaving an end of cord of about half an inch.

Place the end of the bobbin in the winder shaft centre, so as to engage the driving pin in the hole in the bobbin flange. Push forward the bobbin winder centre, but not so tightly as to prevent the free motion of the bobbin between the centres, and then tighten the winder centre set screw.

Press in the starting spindle knob until the stop lever falls towards the bobbin. When the bobbin is full, the winder will stop automatically.

To Thread the Shuttle. (Right and Left Hand).

Hold the shuttle in the left hand with the point towards you. Support the bobbin retainer with the forefinger, place the end of the bobbin

in the spring centre, with the cord drawing off from below towards the right in the right hand shuttle, and towards the left in the left hand shuttle, spring the other end into the fixed centre and tighten the spring centre set screw.

Pass the cord between the wire rod and the inside of the shuttle (or through the slot above the rod, downwards and back again through the slot below the rod). Then down and out again through the cord hole nearest the heel of the shuttle and below the tension spring. Pull the cord towards you so that it lies under the tension spring and then push it up under the roller plate, leaving an end about eight inches long with which to commence operations.

When the machine is sent out, the shuttles are already threaded and the threading should be carefully noted before removing the bobbin.

Needles

| Class and Variety | Description | Regular Sizes |
|-------------------|---|------------------------|
| 205 × 1 | Double Groove, for small lace holes (right) | 25, 27, 28, 29, 31, 33 |
| 205 × 3 | Double Groove, for small lace holes (left) | 25, 27, 28, 29, 31, 33 |
| 205 × 5 | Single Groove, with Short Side Groove, for large lace holes (right) | 28, 29, 31, 33, 34 |
| 205 × 7 | Single Groove, with Short Side Groove, for large lace holes (left) | 28, 29, 31, 33, 34 |

Needles are marked R and L, for the right hand shuttle and left hand shuttle respectively.

It is recommended that the single groove needle be used whenever the lace hole is sufficiently large to do so.

To Set the Needle.

Insert the needle in the needle bar as far as it will go and tighten the needle clamp screw.

Single groove needles should be set with the long groove away from the point of the shuttle, and double groove needles with the recessed groove next to and parallel with the shuttle.

To Thread the Needle. (Right Hand Head).

Place the balls or bobbins of cord on the rod in the cord box, and pass the cord up through the hole at top of cord guide, then through the hole at top of face plate, downwards past the guide pin from the left side, around and between the tension discs from right to left, up through the end of the take-up lever from right to left, down through the hole in the needle clamp, and from left to right through the eye of the needle, leaving a free end about four inches long when the take-up is at its highest point.

To Thread the Needle. (Left Hand Head).

Place the balls or bobbins of cord on the rod in the cord box, and pass the cord up through the hole at top of cord guide, then through the hole at top of face plate, downwards past the guide pin from the right side, around and between the tension discs from left to right, up through the end of the take-up lever from left to right, down through the hole in the needle clamp, and from right to left through the eye of the needle, leaving a free end about four inches long when the take-up is at its highest point.

To Replace the Shuttle.

Press down the shuttle carrier latch and swing out the hinged finger, place the shuttle in the carrier, close the hinged finger (making sure that it is secured by the latch) and pass the end of the cord up through the needle hole in the shuttle race.

To Adjust the Shuttle Tension.

It is not necessary to remove the shuttle to adjust the tension, a hole in the front of the shuttle race being provided for the purpose. Bring the shuttle forward until the tension screw is opposite the hole, and screw it in to increase, and out to decrease the tension.

To Change the Feed Ratchet Wheel.

Turn the retaining and feed pawls away from the feed ratchet wheel, and take out the two screws in the face or front of the wheel. To avoid undue strain upon the wheel when replacing it bring the two screws up to their position equally. When the wheel is in position and properly secured, turn back the pawls.

Altering Adjustment of Machine for Various Lengths of Cards.

For the convenience of the customer only, the heads, feed and ratchet wheels, pawl studs, and levers are marked to correspond with the cards returned with the machine.

Machines 14K9 to 14K12, lace cards of any length from 4 inches to 26 inches, and Machines 14K13 to 14K16, from 4 inches to 42 inches.

To Commence Lacing.

Turn the balance wheel until the needles are at their highest, place the card upon the studs of the feed wheel with the ends of the cords beneath the presser feet.

Turn the feed shaft until the first line of lace holes is beneath the needle points.

The right hand needles should enter a little to the right of the centre of the lace holes, and the left hand needles a little to the left of the centre.

Turn the balance wheel by hand, making one complete stitch or lace in the card, tie the ends of the cords and commence lacing.

To Remove the Laced Cards.

Turn the balance wheel until the needles are at their highest, and raise the presser feet by means of the presser bar lifter at the right of the machine.

Catch hold of the cord between the tension discs and the take-up lever and pull down sufficient to allow the feed wheels to be turned by hand about six inches. Cut the cords and tie the ends before removing the cards from the feed wheel studs.

Remarks.

Before starting to lace pattern cards, operators should practice with blank cards, unlacing and using the same cards and cord over again, until proficiency in operating the machine is attained.

In lacing, it is desirable to have the lock of the stitch level with the top of the cards. This may be accomplished by having the upper or needle tension a little tighter than the shuttle tension.

It is **very important** that there should be an equal tension upon each line of lacing, as an uneven tension among the different heads would produce unequal spaces between the cards.

It is essential that needles of suitable size be used so that the cord may pass without difficulty through the eye. (See page 5).

If the needles break, it is because they do not enter the lace holes as directed on page 7.

See that the wood brake exerts sufficient friction upon the ratchet wheel to prevent its over-running, but not sufficient to retard the free action of the feed motion.

When changing the feed wheels to another size, or for different pitch of cards, be sure that they are brought perfectly level with the shuttle race at the needle hole. If this is not done the spacing of the cards will be unequal.

Note.—When ordering parts, state the registered number of the machine, which is stamped on the Top Rail.