

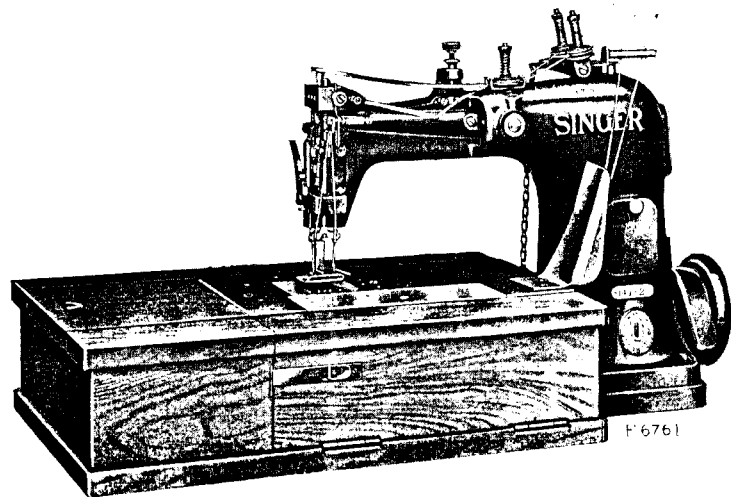
SINGER

149-2

INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER SEWING MACHINE



149-2

THE SINGER MANUFACTURING CO.

Purchasing of Parts and Needles

Supplies of parts and needles for Singer machines can be purchased at any Singer shop or ordered by mail. If orders are sent by mail, money or a post office order covering their value, including postage, should be enclosed and the order will then be promptly filled and forwarded by mail or express.

DESCRIPTION

Machine 149-2 has two needles and two loopers and simultaneously makes two parallel lines of two-thread chain stitching. It is used for stitching facings and button stays on men's shirts, and is adapted for a wide range of other work in light and medium weight fabrics.

The distance between the two needles may be from $3\frac{1}{8}$ to $1\frac{1}{2}$ inches, as ordered.

Speed

The maximum speed recommended for Machine 149-2 is 3500 per minute, depending upon the nature of the material being sewn. The machine should be run slower than the maximum speed until the parts which are in movable contact have become glazed by their action upon each other. When the machine is in operation, the balance wheel should always turn over from the operator.

Needles and Thread

Needles for Machine 149-2 are of Class and Variety 55 x 5 and are made in sizes Nos. 14, 16, 17, 18, 19, 21 and 22.

The size of the needle to be used should be determined by the size of the thread which must pass freely through the eye of the needle. If rough or uneven thread is used, or if it passes with difficulty through the eye of the needle, the successful use of the machine will be interfered with.

Orders for needles must specify the *quantity* required, the *size* number, also the *class* and *variety* numbers separated by the letter x.

The following is an example of an intelligible order:

“100 No. 16, 55x5 Needles.”

The best stitching results will be obtained when using the needles furnished by the Singer Sewing Machine Company.

To Oil the Machine

Before starting the machine, fill all oil reservoirs and oil the connecting rod and all parts which are in movable contact, also all places designated by arrows in Figs. 2 and 3. When the machine is in continuous use, it should be thoroughly oiled at least twice each day.

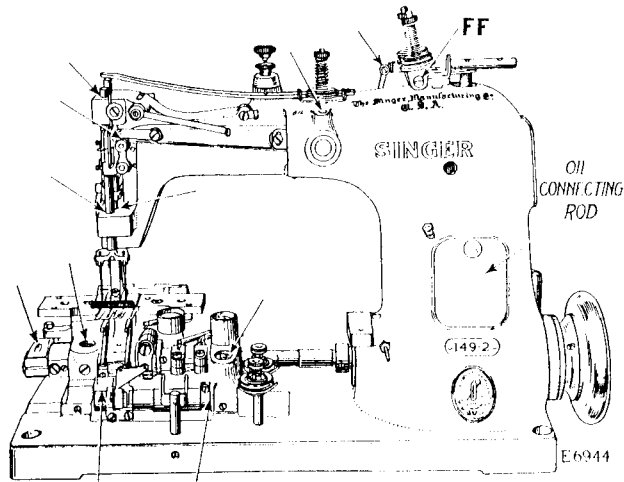


FIG. 2. OILING POINTS AT THE FRONT OF THE MACHINE

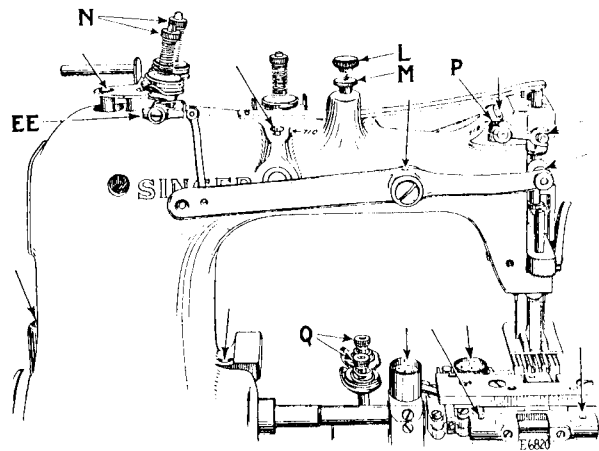


FIG. 3. OILING POINTS AT THE BACK OF THE MACHINE
ALSO ADJUSTMENTS ON THE MACHINE

To Set the Needles

Turn the balance wheel over from you until the needle bar moves up to its highest point, loosen the set screws in the needle clamp and put the needles up into the clamp as far as they will go, with the long groove of each needle toward the left, then tighten the set screws.

To Thread the Needles

(SEE FIG. 4)

To thread the right hand needle or the one nearest the upright part of the arm, pass the thread from the unwinder

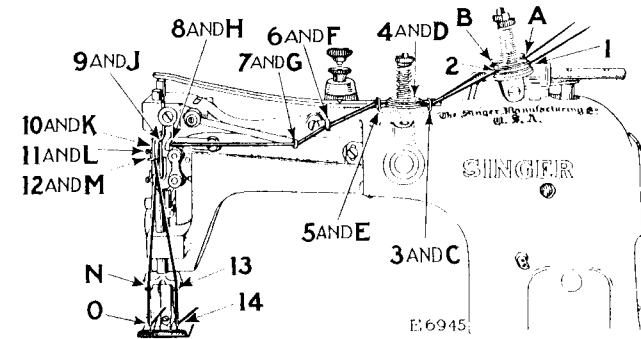


FIG. 4. UPPER THREADING OF THE MACHINE

through the hole (1) in the front tension bracket and between the front tension discs (2) at the top of the machine, through the front notch (3) in the thread nipper bracket, around the front between the nipper discs (4), into the notch (6), from right to left through the front hole in the thread guide (6) and slack thread regulator (7), through the front hole of the guide (8) and auxiliary take-up wire (9) and through the front eyelet in the take-up lever (10), down between the thread retainer spring (11) and the thread take-up lever, into the front notch of the thread guide (12), down through the right hand guide (13) in the needle clamp and from left to right through the eye of the right hand needle (14).

To thread the left hand needle or the one farthest from the upright part of the arm, pass the thread from the unwinder through the hole (A) in the rear tension bracket and between the rear tension discs (B) at the top of the machine, through the rear notch (C) in the thread nipper bracket, around the rear between the nipper discs (D), into the notch (E), from right to left through the rear hole in the thread guide (F) and slack thread regulator (G), through the guide (H) and auxiliary take-up wire (J) and through the rear thread eyelet in the take-up lever (K), down between the thread retainer spring (L) and the thread take-up lever, into the rear notch of the thread guide (M), through the left thread guide (N) in the needle clamp and from left to right through the eye of the left hand needle (O).

To Thread the Loopers

(SEE FIG. 5)

To thread the right hand looper, pass the thread from the unwinder through the left hand hole (1), down through the rear

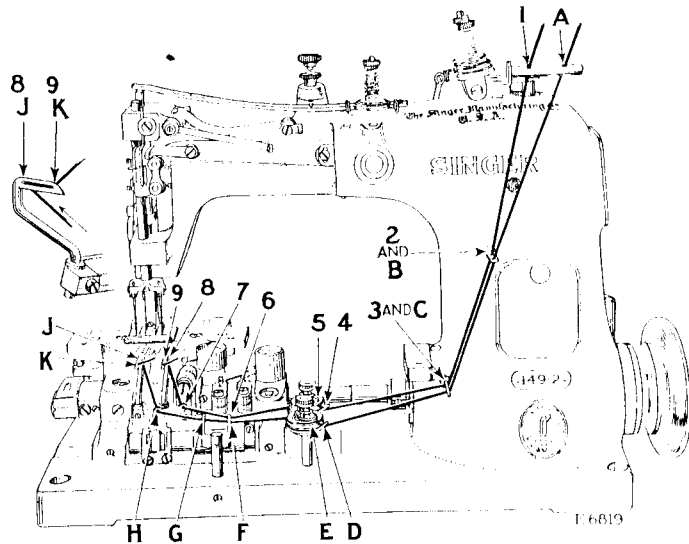


FIG. 5. LOWER THREADING OF THE MACHINE
DETAIL OF THREADING THE LOOPER AT LEFT

hole of the guides (2 and 3), to the left through the hole (4) in the rear tension bracket, around back and between the tension discs (5), through the rear hole (6), from front to back through the right hand hole (7), from right to left through the hole (8) in the heel of the looper, then from left to right through the eye (9) near the point of the looper.

To thread the left hand looper, pass the thread from the unwinder through the right hand hole (A), down through the front hole of the guides (B and C), to the left through the hole (D) in the front tension bracket, around back and between the tension discs (E), through the front hole (F), through the hole (G), from front to back through the left hand hole (H), from right to left through the hole (J) in the heel of the looper, then from left to right through the eye (K) near the point of the looper.

To Regulate the Length of Stitch

The length of stitch is regulated by the large screw (R, Fig. 6) in the feed eccentric near the left end of the rotary shaft. To lengthen the stitch, loosen the lock screw (S, Fig. 6) at the extreme left end of the rotary shaft and turn the adjusting screw (R) over to the right. To shorten the stitch, turn the adjusting screw (R) over to the left. When the desired length of stitch is obtained, securely tighten the lock screw (S).

To Regulate the Pressure on the Material

The pressure of the presser foot on the material is regulated by means of the thumb screw (L, Fig. 3) at the top of the machine. To increase the pressure, loosen the lock nut (M, Fig. 3) and turn the thumb screw (L) downwardly. To decrease the pressure, turn the thumb screw upwardly. When the desired amount of pressure is obtained, securely tighten the lock nut (M).

To Regulate the Tensions

The tension on the needle threads is regulated by the thumb nuts (N, Fig. 3) above the tension discs at the top of the machine. To increase the tension, turn these thumb nuts over to the right. To decrease the tension, turn these thumb nuts over to the left. The needle threads require sufficient tension to set the stitch properly in the goods.

The tension on the looper threads is regulated by the tension thumb nuts (Q, Fig. 3) at the base of the machine. The tension on the looper threads should be very light.

INSTRUCTIONS FOR ADJUSTERS AND MACHINISTS

To Set the Needle Bar in the Correct Position

Turn the balance wheel over from you until the points of the loopers, on their forward stroke, reach the centre of the needles.

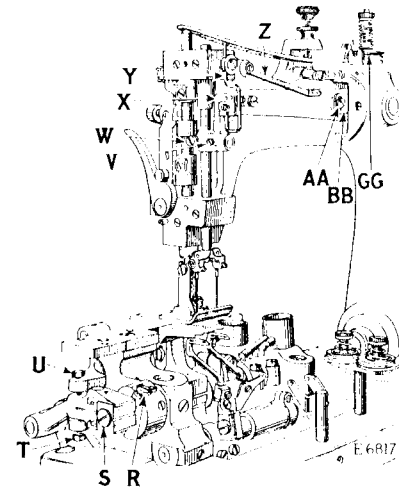


FIG. 6. ADJUSTMENTS ON THE MACHINE

At this position, the eyes of the needles should be about $\frac{1}{8}$ inch below the points of the loopers so that the eyes of the needles and eyes of the loopers will be in perfect alignment when they pass each other on the loop taking stroke. In case the needle bar is not set in the correct position, loosen the set screw (W, Fig. 6) in the needle bar connecting stud and move the needle bar up or down as required, then securely tighten the set screw (W).

For some threads, it will be necessary to set the needle bar at a height different from that required by others, owing to the differences in finish, twist, elasticity, etc. This is also true of different materials to be sewn.

To Adjust the Needle Thread Take-up and Slack Thread Regulator

The needle thread take-up (X, Fig. 6) is usually set so that the bottom of the take-up is flush with the bottom of its holder. The take-up can be raised or lowered after loosening the screw (V, Fig. 6).

The slack thread regulator (Z, Fig. 6) should be set so that when the loopers are shedding the needle loops on their backward stroke, the thread will not snap off the points of the loopers nor be drawn through the tension discs. To set the slack thread regulator, it is best to start with the regulator in a low position and then continue raising the regulator until the loopers back out of the needle loops with a little tension on the thread. To make this adjustment, loosen the clamping screw (P, Fig. 3) and raise or lower the slack thread regulator (Z), as may be required, then securely tighten the clamping screw (P).

To Adjust the Auxiliary Thread Take-up

The auxiliary thread take-up (Y, Fig. 6) at the front of the machine should be set so that it takes up the slack of the needle threads after the loopers have shed the needle loops and as the needle bar finishes its downward stroke and the stitch is set. To change the position of the auxiliary thread take-up, loosen the screw which holds it in position and raise or lower it, as required, then tighten the screw.

For some threads it will be necessary to set the auxiliary thread take-up at a height different from that required by others, owing to the differences in finish, twist, elasticity, etc.

To Time the Automatic Thread Nipper

The automatic thread nipper (GG, Fig. 6) should be timed to release the thread during the loop taking stroke of the loopers and before the loopers tighten the needle loops. To adjust the automatic thread nipper (GG) to release the thread earlier, loosen the screw (AA, Fig. 6) and raise the nipper releasing cam (BB, Fig. 6). To release the thread later, lower the nipper cam (BB). When the automatic thread nipper is correctly timed, securely tighten the screw (AA).

To Set the Loopers the Correct Distance from Centre of Needles

When the needle bar is at its lowest point, the distance from the centre of each needle to the point of its looper should be about

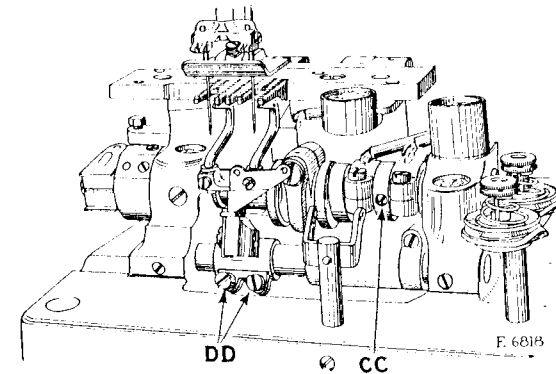


FIG. 7. ADJUSTMENTS ON THE MACHINE

$\frac{9}{64}$ inch. To set the points of the loopers the correct distance from the centre of the needles, loosen the two screws (DD, Fig. 7) and move the looper holder bracket as required, then securely tighten the two screws (DD).

To Time the Needle Avoiding Motion of the Loopers

The needle avoiding motion of the loopers should be timed so that the loopers will pass as close to the needles as possible, on their forward and backward strokes, without touching the needles. To make this adjustment, loosen the three screws in the needle avoiding eccentric (CC, Fig. 7) and turn the eccentric in the required direction, after which securely tighten the three screws.

To Adjust the Needle Thread Tension Releaser

The function of the needle thread tension releaser is to release the tension on the needle threads when the presser foot is raised. In case the tension releaser does not properly release the threads, loosen the set screw (EE, Fig. 3) and turn the shaft (FF, Fig. 2) over to the left until the correct adjustment is obtained, then securely tighten the set screw (EE).

The Looper Spreader

The purpose of the spreader (JJ, Fig. 8) on the underside of the throat plate, is to spread and hold the looper thread so as to

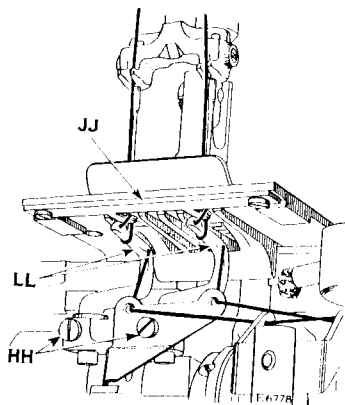


FIG. 8

permit the point of the needle on its downward stroke to enter the triangle as shown in Fig. 8.

To Set the Loopers the Correct Distance from the Spreader

The loopers (LL, Fig. 8) should be set so that there is a clearance of about .003 to .005 inch between the spreader and the loopers.

The correct distance may be obtained by loosening the two screws (HH, Fig. 8) and inserting a piece of ordinary paper between the spreader and the loopers. Raise or lower the loopers until there is a slight tension on the paper, then securely tighten the two screws (HH, Fig. 8).

To Raise or Lower the Feed Dog

The feed dog should be set so that when it is raised to its highest point by the feed rocking frame, slightly less than the full depth of the teeth will project above the top surface of the throat plate. The feed dog can be raised or lowered to the desired height after loosening the screw which holds it in position. When the feed dog is set at the required height, securely tighten the screw.

The stop screw located below the feed dog should be set to prevent the feed dog from coming into contact with the loopers.

To centre the feed dog in the slots in the throat plate, loosen the upper adjusting screw (U, Fig. 6) and tighten the lower adjusting screw (T, Fig. 6), or vice versa, as may be required.