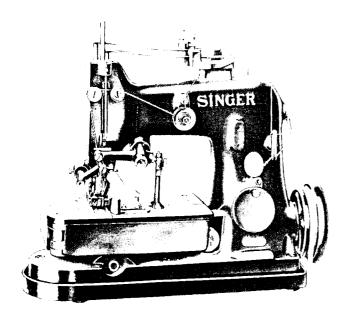
SINGER 159-2

INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER* SEWING MACHINE



159-2

THE SINGER MANUFACTURING COMPANY

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DESCRIPTION

Machine 159-2 is designed for overedging heavy burlap bags with flax, jute or hemp twine. It will overedge material up to $\frac{1}{2}$ inch in thickness. It is regularly fitted with one needle, one looper and one spreader and two independent presser bars and presser feet for making the two-third chain stitch with the needle thread drawn tight to the work, as used for bag sewing. Length of stitch 1^{1} o to 2^{2} to the inch.

The machine may also be fitted for taping and overedging felt cushions for rugs.

To Oil the Machine

When the machine is received from the factory, it should be thoroughly cleaned and oiled. Oil should be applied at each of the places shown by arrows in Figs. 2, 3 and 4. Remove the face plate and oil the needle and presser bar bearings. When the machine is in continuous use, it should be oiled at least twice each day.

Use "TYPE B" or "TYPE D" OIL, sold only by Singer Sewing Machine Company. For description of these oils, see inside front cover.

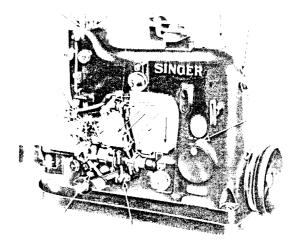


Fig. 2. Oiling Points at Front of Machine

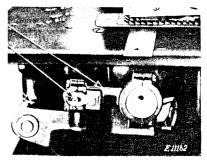


Fig. 3. Oiling Points at Left of Machine

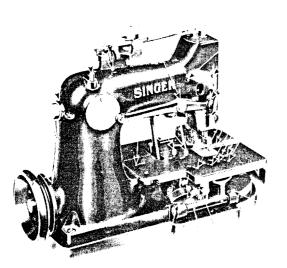


Fig. 4. Oiling Points at Rear of Machine

Speed

The maximum speed recommended for Machine 159-2 is 1600 revolutions per minute. The machine should be run slower than the maximum speed until the parts which are in movable contact have become glazed by their action on each other. When the machine is in operation, the machine pulley should turn over away from the operator.

Needles

Needles for Machine 159 2 are of Class and Variety 124 x 4 for heavy bag work, and 124 x 2 for light bag work and felt padding, etc. 124 x 4 needles are made in sizes 32 and 34. 124 x 2 needles are furnished in sizes Nos. 25, 26, 27, 28 and 29.

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 the thread 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, and the class and variety numbers separated by an x.

The following is an example of an intelligible order:

"100 No. 34, 124x4 Needles."

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

To Set the Needle

Loosen the clamping nut (M, Fig. 6) at the lower end of the needle bar and put the needle up into the bar as far as it will go, with the ground-out side at the back, or farthest from you. Then tighten the clamping nut (M).

To Thread the Needle

(See Fig. 5)

Pass the thread from the unwinder, under the presser bar springs, down through the thread guide (1), down, under and around between the tension discs (2), left through the thread guide roller cover (3), front of the thread take-up wire (4), left through the thread guide roller cover (5), down into the thread guide (6), then down and from front to back through the eye of the needle (7).

To Thread the Looper

(See Fig. 5)

Swing out the hinged sections at the front and end of the cloth plate.

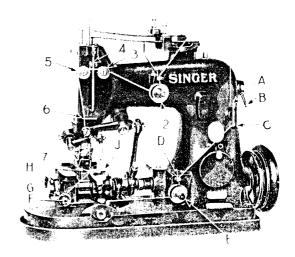


Fig. 5. Threading of Machine.

Pass the thread from the unwinder, down and from left to right through the upper eyelet (A) in the thread guide, left to right through the eyelet (B) of the thread pull-off, from right to left through the lower eyelet (C) in the thread guide, down through the eyelet (D) above the tension discs, down under and around between the tension discs (E). Take the end of the thread in the left hand and pass it under and to the left of the cloth plate, while with the right hand, guide the thread into the slot (F) in the roller thread guide; pass the thread under to the left and up

around the roller (G), and back into the slot (F); with the tweezers grip the thread about one inch from the end and pass it from left to right through the eye (H) in the heel of the looper, then from front to back through the eye (J) near the point of the looper.

To Regulate the Length of Stitch

The length of stitch is regulated by means of the stitch regulator (X, Fig. 6). Loosen the nut (Y, Fig. 6) of the feed regulator clamp screw and move the regulator upward to shorten the stitch or downward to lengthen the stitch. Then securely tighten the nut (Y).

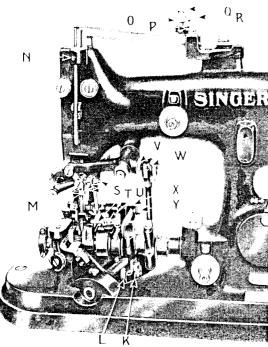


Fig. 6. Adjustments on Machine

To Regulate the Pressure on the Material

The pressure of the left hand presser foot on the material is regulated by the thumb screw (Q, Fig. 6) and the pressure of the right foot by the thumb screw (R, Fig. 6) at the top of the machine. To increase the pressure, loosen the lock nuts (O and P, Fig. 6) and turn the thumb screws (Q and R, Fig. 6) downward. To decrease the pressure, turn these screws (Q and R) upward. When the desired amount of pressure has been obtained, firmly tighten the lock nuts (O and P).

INSTRUCTIONS FOR ADJUSTERS AND MACHINISTS

To Set the Needle Bar at the Correct Height

Turn the machine pulley over from you until the needle bar has risen $\frac{1}{4}$ inch from its lowest position. The point of the looper, on its loop-taking stroke, should then be at the centre of the needle, and the eye of the needle should be about $\frac{1}{4}$ s inch below the looper point. If the needle bar is not at the correct height, loosen the two pinch screws in the needle bar connecting bracket and move the needle bar upward or downward as required, then securely tighten the two pinch screws.

To Set the Spreader in the Correct Position

When the spreader is in its extreme left-hand position, its point should be about $\frac{1}{2}$ inch to the left of the needle center, and about $\frac{1}{16}$ inch above the top of the throat plate. With this setting correct, turn the machine pulley until the spreader is at the lowest position of its movement, where the point should be about $\frac{7}{16}$ inch below the top of the throat plate. The spreader may be moved up or down in its holder after loosening the three set screws (S, Fig. 6). The top of the spreader is usually about $\frac{3}{32}$ inch above the top of the holder when the spreader is correctly set.

To set the spreader in the correct position at the left of the needle, loosen the lock nut (V, Fig. 6) and with wrench 132405, turn the eccentric ball stud (W) only part of a revolution as required, then tighten the lock nut (V).

The amount of stroke of the spreader can be varied by turning the eccentric ball stud one or more complete turns, inward to increase the length of stroke or outward to decrease the stroke. Before tightening the lock nut (V), see that the spreader is in the correct position at the left of the needle.

To Set the Looper

Turn the machine pulley over from you until the looper is at the extreme left hand position; the looper point should then be about 5% inch from the centre of the needle. To set the looper in the correct position, loosen the lock nut (L, Fig. 6) and, with wrench 132405, turn the eccentric ball stud (K, Fig. 6) only part of a revolution as required, then tighten the lock nut (L).

The amount of the stroke of the looper can be varied by turning the eccentric ball stud one or more complete turns, inward to increase the length of stroke or outward to decrease the stroke.

The looper when passing the needle on its loop-taking stroke should just clear the needle, and the spreader should just clear the looper at the recess back of the eye.

To Set the Looper Thread Controller

The looper thread controller (T, Fig. 6) should be set so that it holds the thread until just before the spreader attains its highest position. Loosen the screw (U, Fig. 6) and move the controller toward the machine pulley for a quicker release of the thread, or toward the needle to retain the thread longer, then tighten the screw (U).

The Chaining-off Finger

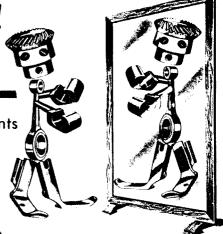
The chaining-off finger attached to the work guide should be set so as to allow the thread to slip off the finger just before the spreader has reached its highest position.

Needle Thread Take-up Stripper

The needle thread take-up stripper should be adjusted to release the thread before the eye of the needle enters the material. Loosen the screw (N, Fig. 6) and move the wire stripper to the required position, then fasten the set screw.

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