

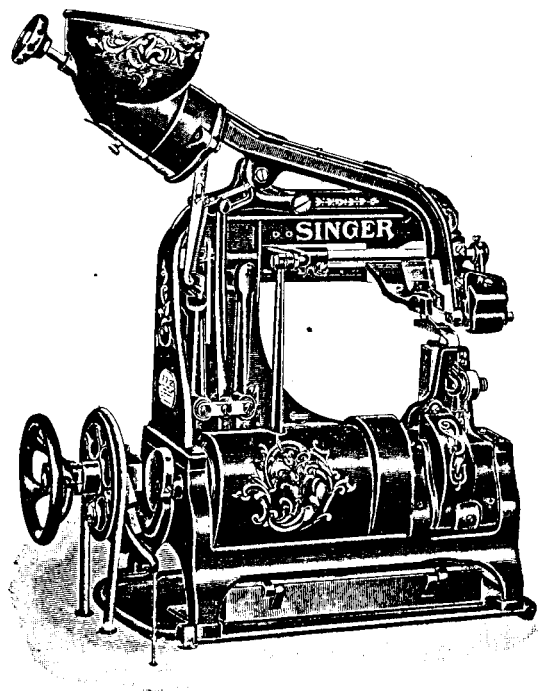
SINGER

77-2

INSTRUCTIONS

FOR USING

SINGER SEWING MACHINE



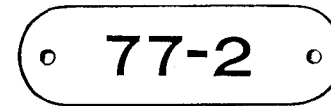
No. 77-2

WITH PRICE LIST OF PARTS

THE SINGER MANUFACTURING COMPANY

MACHINE No. 77-2

The specific designation of each Singer Sewing Machine consists of two numbers, separated by a hyphen or letter and stamped upon a number plate, which is attached to the machine, usually upon the arm.



The number before the hyphen or letter designates the *Class* to which the machine belongs, and the number after, the *Variety* of the machine in its Class.

When supplies for a machine are to be ordered and there is any uncertainty as to the correct numbers of needles or parts, the Class and Variety numbers of the machine, as shown on the number plate, should be given to ensure a correct understanding of the order.

Machine No. 77-2 is designed for sewing on shoe buttons and at the same time evenly spacing the buttons upon each shoe; a single lubricated thread is used and the operation upon each shoe is finished without stopping the machine.

SPEED

The maximum speed recommended for Machine No. 77-2 is 350 revolutions of the belt pulley per minute, at which speed 175 buttons will be sewed on. A good average would be 25000 to 30000 buttons per day of nine hours. The machine should be run slower than this at first, until the operator becomes accustomed to the work and the moving parts become glazed by their action together.

TO SET UP THE MACHINE

Choose a position having a good light in front of the machine so that the operator may see distinctly the positions for the buttons on the work, ascertain the speed of the driving shaft of the power table, select and place loosely upon it a pulley of the right diameter to drive the machine at the speed recommended.

Set the machine in position on the table and mark through the hole in the drip pan the place on the table for the hole for the chain extending down from the presser bar, also lay out the positions for the belt holes and for the treadle rod leading to the stop lever; take off the machine and bore the holes; replace the machine and fasten it by four wood screws at the corners of the drip pan; line the shaft pulley with the driving pulley on the machine, fasten it and put on the belt; attach the long upper section of the left hand treadle rod to the stop lever and the upper section of the right hand treadle to the chain leading to the presser bar; place the two treadles on the floor in such positions as will cause the treadle rods to stand as nearly vertical as convenience in operation will allow and fasten them there, attach the lower treadle rods to the treadle and connect them with the upper ones by the clamps; fasten the upper ends of the spiral springs by the screw eyes to the under side of the table near the treadle rods and the lower end of the springs to the treadle rod clamps; the springs must have sufficient tension to more than balance the weight of the front ends of the treadles so that the treadles will always stand in working position.

TO OIL THE MACHINE

The cams and other of the moving parts are protected by covers fastened by screws; there are numerous oil holes on both sides of the machine leading to moving surfaces of metal; remove the covers, oil the cam grooves, each of the oil holes and every part that is in movable contact with another; then replace and fasten the covers; the machine should be oiled at least twice every day while in use, covered when not in use, and wiped clean frequently.

NEEDLES

The needles for Machine No. 77-2 are of Class and Variety 77 x 1 for cloth or 77 x 2 for leather work, and are made in sizes 5, 6 and 7.

TO SET THE NEEDLE

Loosen the needle clamp screw; set the needle shank down into the groove in the needle bar as far as it will go, with its long groove toward the operator and so that the thread from the needle eye will point a little to the right.

TO THREAD THE NEEDLE

The thread from the spool or cop is led through a hole in the left hand end of the thread lubricator box, through the hole in the lug on the under side of the box cover, up through the post at the right hand end of the box cover using a needle to draw it through; then pass it up to and once completely around the tension over from the side nearest the operator, and in the groove, through the slot in the presser bar and the bracket in which it slides, over the roller in the needle bar frame by drawing it under the end of the spring that covers the roller, then under the roller in the left hand side of the needle clamp and from you through the eye of the needle.

THE LUBRICATOR BOX

This is placed on the drip pan under the machine and should contain sufficient lubricator to completely cover the thread when the box cover is turned down; the amount of lubricator on the thread as it leaves the box can be governed by the regulating screw in the top of the box cover; the thread stripper which is acted upon by the regulating screw will have to be renewed when it no longer strips the thread properly.

BUTTONS

The buttons are placed loosely into the hopper at the highest part of the machine; from there they pass down the inclined chute and are presented singly and

in correct position to the needle by the button carrier; only one size of buttons must be placed in the hopper at one time, and if a different size is to be used the hopper must be completely emptied before the other size is put in; to do this, remove the feed plate at the right hand inside the hopper by loosening the screw which fastens it and raising it out; now press down on the spring at the end of the slide under the hopper, draw the slide and the buttons will drop out; if buttons remain in the button feed wheel, which is usually covered by the feed plate, they must be removed, also those in the chute. Inside the neck of the hopper and surrounding the button feed wheel is a button feed ring, which governs the space between the outer periphery of the button feed wheel and the inside surface of the ring; if changing from a small button to a much larger one the ring must also be changed by removing the screws which hold the hopper in position, taking out the ring and inserting the other. The list below gives the numbers of the parts which should be used for the different sizes of buttons.

SIZES	FEED RING	BUTTON CARRIER	CAM PLATE	THROAT PLATE	CHUTE TIP
3 $\frac{1}{4}$ and 4	42753	42705	42771	42847	42764
4 $\frac{1}{4}$ " 4 $\frac{1}{2}$	42754	42707	42772	42847	42764
4 $\frac{3}{4}$ to 5 $\frac{1}{2}$	42755	42709	42773	42848	42765

SPACING THE BUTTONS

To increase the length of the spaces between buttons, turn from you the outer edge of the thumb screw that stands at the right of the needle bar, or toward you to make the spaces shorter.

TO INSERT THE WORK

Press down the right treadle, place the shoe upper between the presser foot and the throat plate and remove the foot from the treadle.

If the work is already vamped, the upper is drawn toward the operator and brought into position for attaching the lowest button; in this manner buttons can be attached to the smallest shoes.

See that there are buttons in the button chute, that the spacing is correct for the length of the upper and that the machine is threaded, then press down on the left treadle until the operation on the upper is completed.

ADJUSTMENTS

To adjust the needle forward or backward so that it will pass through the center of the button shank two adjusting screws are provided in the needle bar frame lever, one operating on the upper, the other on the under side of the projection at the lower end of the lever, to move the needle toward the operator loosen the check nuts on both upper and under screws, loosen the upper screw very slightly and tighten the lower until there is no lost motion and the needle rises in the center of the button shank, then tighten the two check nuts; reverse this operation if the needle is to be moved from the operator.

The button carrier may be moved laterally if the clamping screw in the crank at the left end of the button carrier segment shaft is loosened, this screw is near the left end of the machine at the back and must be firmly secured in correct position.

The looper may be adjusted relative to the needle by moving the looper shaft crank on the looper shaft. All cams are pinned in correct positions and cannot be adjusted.

CAUTIONS

Have the belt just tight enough to run the machine without slipping on the pulley, no tighter.

Use strong, smooth thread and buttons that are of proper shape, uniform in size and character; the thread should pass freely through the eye of the needle.

Before starting the machine draw through all the dry thread and see that the thread in the needle is lubricated.