

SINGER
142W102

USE ONLY
SINGER

“OIL FOR HIGH SPEED SEWING MACHINES
(Cloth and Leather)”

for general use

or

“STAINLESS OIL
FOR HIGH SPEED SEWING MACHINES”

where a stainless oil is desired.

These specially prepared oils are the result of extensive research. They insure freedom from lubricating trouble and give longer life to sewing machines.

**THE IMPORTANCE OF USING
SINGER NEEDLES FOR
SEWING MACHINES**

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

Singer Needles can be purchased from any Singer Shop for the Manufacturing Trade.

Genuine Singer Needles should be used
in Singer Machines.
These Needles and their Containers
are marked with the
Company's Trade Mark "SIMANCO." 1

Needles in Containers marked
"For Singer Machines"
are not Singer made needles. 2

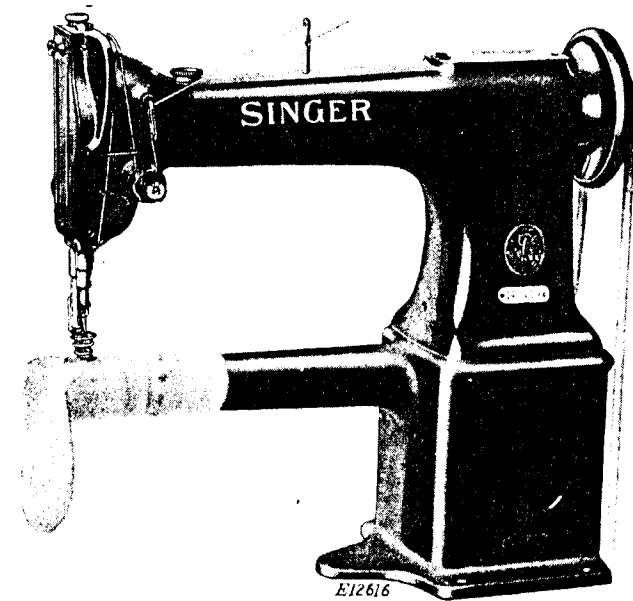
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INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER SEWING MACHINE



142w102

FOR DARNING

THE SINGER MANUFACTURING CO.

To all whom it may concern:

The placing or renewal of the name "Singer" (Reg. U. S. Pat. Off.) or any of the trade marks of The Singer Manufacturing Company on any machine that has been repaired, rebuilt, reconditioned, or altered in any way whatsoever outside a Singer factory or an authorized Singer agency is forbidden.

Purchasing of Parts and Needles

Supplies of parts and needles for Singer machines can be purchased at any Singer Shop for the Manufacturing Trade 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.

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DESCRIPTION

Machine 142w102 has one needle and a rotary sewing hook and makes the lock stitch.

It is designed for mending and darning stockings, socks, knit underwear, linen, curtains, etc., and is used in laundries, hotels, hospitals and other public or private institutions where darning equipment is required.

It has a cylinder bed which enables it to conveniently darn tubular shaped articles, the diameter of the cylinder being small enough to accommodate a baby's sock.

When desired, the machine can be instantly converted into a flat bed machine by attaching the flat work plate which will be furnished, on order, at additional charge.

The operator can freely move the work in any direction while darning as there is no feeding mechanism and the presser foot makes only a light contact with the work.

Speed

The maximum speed recommended for Machine 142w102 is 3500 stitches per minute. When the machine is in operation, the balance wheel should always turn over toward the operator.

To Oil the Machine

When the machine is received from the factory, it should be thoroughly cleaned and oiled.

Oil should be applied to the oil holes shown by arrows in Figs. 2 and 3 and all other places where there are parts in movable contact. When the machine is in continuous use, it should be oiled at least twice each day.

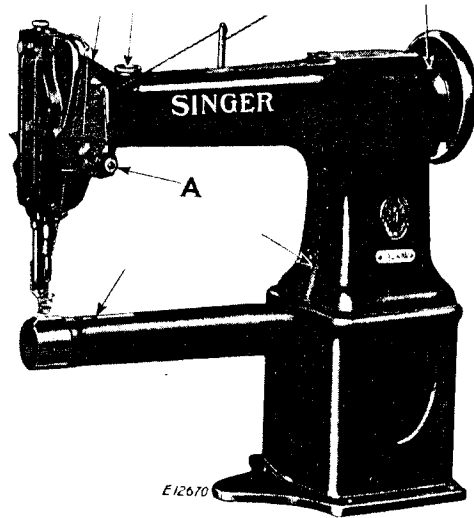


Fig. 2. Oiling Points at Front of Machine

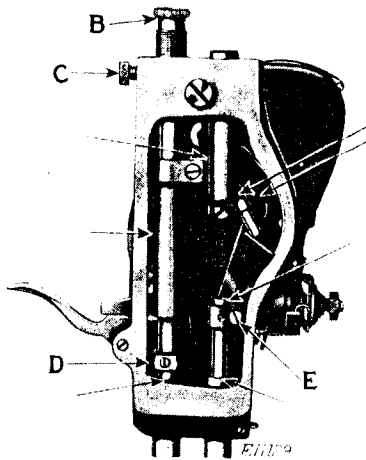


Fig. 3. End View of Machine, Showing Oiling Points Also Adjustments

Oil the bobbin case bearing in the sewing hook race each time a bobbin is replaced.

Needles

Needles for Machine 142w102 are of Class and Variety 135x1 and are made in sizes Nos. 12 and 14.

The size of the needle to be used should be determined by the size of the thread which should 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. 14, 135x1 Needles."

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

Thread

Left twist thread should be used in the needle. Either right or left twist can be used in the bobbin.

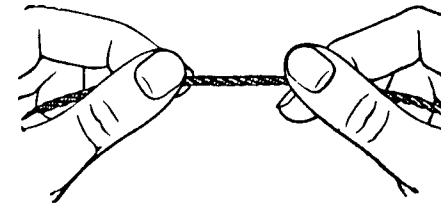


Fig. 4. How to Determine the Twist

Hold the thread as shown above. Turn the thread over toward you between the thumb and the forefinger of the right hand; if left twist, the strands will wind tighter; if right twist, the strands will unwind.

To Remove the Bobbin

Draw out the cylinder end cover. Open the bobbin case latch (F, Fig. 6) and remove the bobbin.

To Wind the Bobbin

(See Fig. 5)

Fasten the bobbin winder to the table with its driving pulley in front of the machine belt, so that the pulley will drop away from the belt when sufficient thread has been wound upon the bobbin.

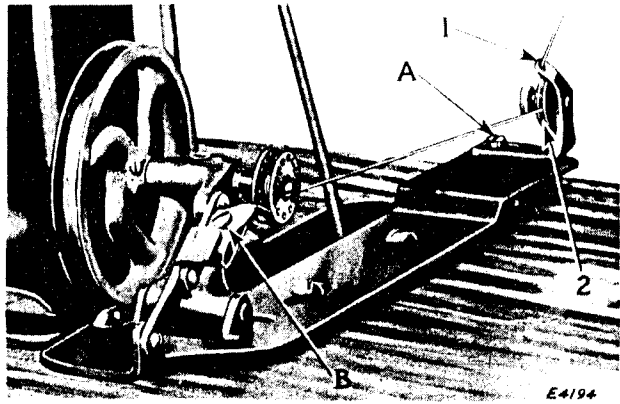


Fig. 5. Winding the Bobbin

Place the bobbin on the bobbin winder spindle and push it on as far as it will go.

Pass the thread down through the thread guide (1) in the tension bracket, around the back and between the tension discs (2). Then wind the end of the thread around the bobbin a few times, push the bobbin winder pulley over against the machine belt, and start the machine.

When sufficient thread has been wound upon the bobbin, the bobbin winder will stop automatically.

If the thread does not wind evenly on the bobbin, loosen the screw (A) in the tension bracket and move the bracket to the right or left, as may be required, then tighten the screw.

The amount of thread wound on the bobbin is regulated by the screw (B). To wind more thread on the bobbin, turn the screw (B) inwardly. To wind less thread on the bobbin, turn this screw outwardly.

Bobbins can be wound while the machine is stitching.

To Thread the Bobbin Case

Place the bobbin in the bobbin case, with the thread leading from the top toward you; hold the thread with the left hand (see

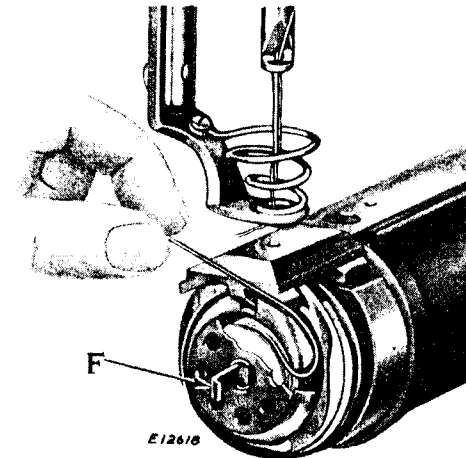


Fig. 6. Threading Bobbin Case

Fig. 6), guide it into the notch (close the latch (F, Fig. 6)) and draw the thread until it is under the spring on the bobbin case, or drawing the thread up through the needle hole in the throat plate will draw the thread under the spring as you start to sew.

To Set the Needle

Turn the balance wheel over toward you until the needle bar is at its highest point; loosen the set screw in the lower end of the needle bar and put the needle up into the bar as far as it will go with its long groove toward the right and the eye of the needle directly in line with the cylinder bed of the machine, then tighten the set screw.

Upper Threading

Pass the thread from the unwinder from back to front through the lower hole in the pin on top of the machine and from right

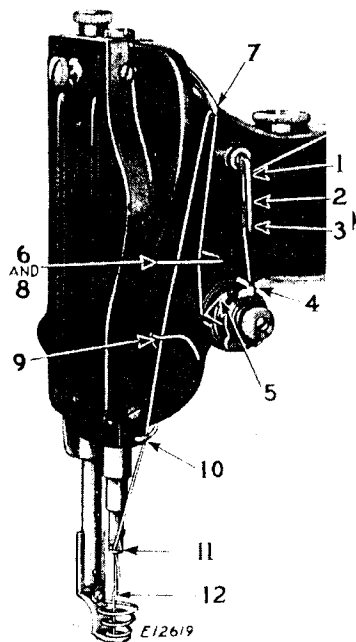


Fig. 7. Upper Threading

to left through upper hole in pin, from right to left through the top hole (1), from left to right through the centre hole (2) and from right to left through the bottom hole (3) in the thread guide at the front of the machine, down under from right to left between the tension discs (4), up into the fork (5) of the thread controller against the pressure of the thread controller spring, through the thread guide (6), from right to left through the take-up lever (7), down through the thread guide (8), through the thread guides (9 and 10), through the hole (11) in the lower end of the needle bar and from right to left through the eye of the needle (12). Draw about three inches of thread through the eye of the needle with which to commence sewing.

To Prepare for Sewing

With the left hand hold the end of the needle thread leaving it slack from the hand to the needle. Turn the balance wheel over toward you until the needle moves down and up again to its highest point, thus catching the bobbin thread; draw up the needle thread and the bobbin thread will come up with it through the hole in the throat plate. Lay the threads back under the presser foot and close the slide plate.

To Commence Darning

Place the work in the machine and lower the presser foot. Having the unworn part of the work near the hole under the

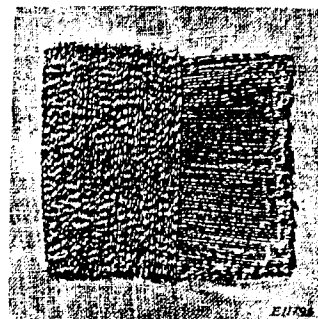


Fig. 8. Darning in Process

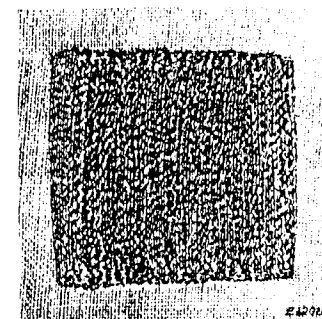


Fig. 9. Darning Finished

needle, commence the darning by making a line of stitches across the hole a little longer than the width of the hole. Continue making parallel lines of stitches across the hole, moving the work backward and forward and at the same time gradually moving the work sidewise until the hole is covered with lines of stitches running across the hole. Then commence as before and move the work lengthwise of the hole until the stitches across the hole are completely covered and the darn is finished.

When darning flat work, it is advisable to use embroidery hoops to hold the work.

To Remove the Work

Stop the machine with the thread take-up lever at its highest point, raise the presser foot and draw the work backward, cut the threads close to the goods, leaving two or three inches of thread with which to commence sewing.

To Regulate the Height of the Presser Foot

When the presser bar is lowered by the presser bar lifter, the presser foot should make only a light contact with the work. It should descend just far enough to prevent the material from rising with the needle and to permit the free movement of the work while darning.

To set the presser foot at the correct height, remove the face plate, loosen the set screw in the collar (D, Fig. 3) on the presser bar and **raise the collar for thin work** or **lower it for thick work**, until the presser foot makes light contact with the work, as instructed above.

To Regulate the Pressure on the Presser Foot

The pressure on the presser foot is regulated by loosening the screw (C, Fig. 3) and turning the thumb screw (B, Fig. 3) down to increase the pressure or up to decrease the pressure. When the desired pressure is obtained, tighten the screw (C).

Knee Lifter

The knee lifter is used for raising the presser foot by knee pressure against the knee plate, leaving both hands free to manipulate the work. If the knee lifter does not raise the presser foot satisfactorily, adjust the rod in the rock lever which connects with the rod in the arm of the machine to lift the presser foot.

Tensions

The needle and bobbin threads should be locked in the centre of the thickness of the material, thus:



Fig. 10. Perfect Stitch

If the tension on the needle thread is too tight, or if that on the bobbin thread is too loose, the needle thread will lie straight along the upper surface of the material, thus:



Fig. 11. Tight Needle Thread Tension

If the tension on the bobbin thread is too tight, or if that on the needle thread is too loose, the bobbin thread will lie straight along the under side of the material, thus:



Fig. 12. Loose Needle Thread Tension

To Regulate the Tensions

The tension on the under thread is regulated by the screw in the center of the tension spring on the outside of the bobbin case. To increase the tension, turn this screw over to the right. To decrease the tension, turn this screw over to the left. See that there is no lint or dirt under the tension spring.

Correctly made stitches, as shown in Fig. 10, can usually be obtained by regulating the upper tension only, turn the tension thumb nut (A, Fig. 2) inwardly to tighten and outwardly to loosen the tension.

Caution: Do not try to adjust the upper tension when the presser foot is up, as the tension is then released.

Work Plate

For darning flat work, such as table cloths, sheets, towels, aprons, lace curtains, etc., Work Plate complete, No. 241267 will be found very convenient and will be supplied when specified on order, at additional charge.

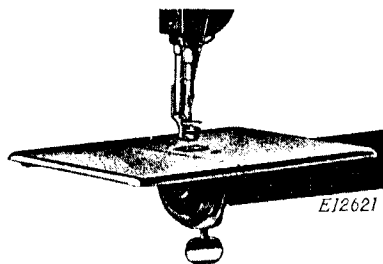


Fig. 13. Work Plate Attached to Machine

To Attach Work Plate

Remove cylinder end cover and place on holder which is located at the top of the machine on the arm cap, raise the presser foot and slide the yoke of the work plate over the cylinder end, then tighten the thumb screw enough to hold the work plate as shown in Fig. 13.

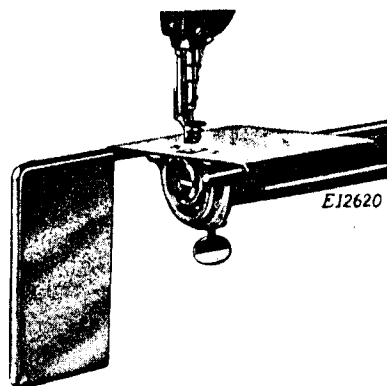


Fig. 14. Hinged Section of Work Plate Turned Back

To aid in quick replacement of bobbins, turn back the left hand portion of the work plate as shown in Fig. 14. This can be accomplished without removing the work from the machine.

INSTRUCTIONS

FOR

ADJUSTERS AND MACHINISTS

Thread Controller

The function of the thread controller spring is to hold back the slack of the needle thread until the eye of the needle reaches the goods in its descent, as without this controlling action of the spring, the slack thread or silk (more especially silk) will sometimes be penetrated by the point of the needle as the needle is descending.

To Adjust the Thread Controller

For more controller action on the thread, loosen the stop screw (N, Fig. 15) at the right of the tension and set the stop lower, and for less action, set the stop higher.

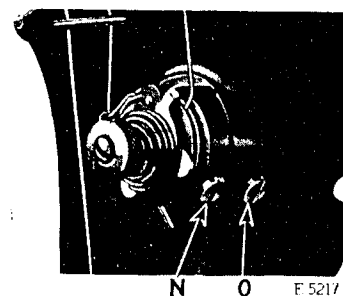


Fig. 15. Adjustments of Thread Controller

To strengthen the action of the controller spring on the thread, loosen the tension stud screw (O, Fig. 15) at the right of the stop screw and turn the tension stud slightly to the left with a screwdriver, or to lighten its action on the thread, turn the tension stud to the right and tighten the tension stud screw (O).

To See if the Needle Bar is Set Correctly

See that the needle is up in the bar as far as it will go. The needle bar which is in the machine when shipped from the factory has upon it (about $1\frac{1}{2}$ inches from the bottom) two lines $\frac{3}{32}$ inch apart.

When the needle bar is at its lowest position, the upper mark should be just visible at the end of the bushing.

To Set the Needle Bar in Correct Time. Loosen the needle bar connecting stud pinch screw (E, Fig. 3) and place the needle bar in the proper position as directed above, then retighten the screw.

To Set a Needle Bar Which Has no Mark. Set the needle bar so that when it rises $\frac{3}{32}$ inch from its lowest position the point of the hook will be at the center of the needle and about $\frac{1}{16}$ inch above the eye.

To See if the Hook is Correctly Timed

Remove the cylinder end cover and throat plate and turn the balance wheel toward you until the lower mark across the needle bar, as it is going up, is just visible at the end of the bushing; now, if the needle bar and hook are in correct time the point of the hook will be at the center of the needle and about $\frac{1}{16}$ inch above its eye.

To Time the Hook

Loosen the screws in the hook shaft connection belt pulley and turn the balance wheel toward you until the needle bar goes to its lowest position and upward until the lower mark across the needle bar is just visible at the end of the bushing, then stop turning and hold the wheel firmly; with the left hand, turn the hook until the point is at the center of the needle — $\frac{1}{16}$ inch above its eye—see that the end play to the shaft is almost eliminated, then retighten the pulley screws.

To Remove the Hook

Loosen the screws which hold the belt pulley, remove the cylinder end cover and throat plate and draw the hook and shaft out.

To Set the Hook To or From the Needle

Loosen the set screws that hold the belt pulley on the hook shaft and the set screw at the right of the hook that holds the bushing, and carefully drive the bushing to the right, to set the hook closer to the needle, or to the left, to set it farther from the needle. After carefully adjusting and timing the hook to the needle, tighten the screws that hold the bushing and the pulley. Leave the least amount of end play possible to the shaft, for lubricating purposes.

To Remove the Bobbin Case

To remove the bobbin case from the sewing hook to thoroughly clean the bobbin case, remove the screw from the gib and open the gib; turn the balance wheel until the point of the hook is toward you and remove the bobbin case. See that there is no lint or dirt under the tension spring.

When replacing the bobbin case in the sewing hook, have the position the same as when removing it. Be sure to have the notch at the top of the bobbin case entered by the stop on the throat plate, then close the gib and securely tighten the screw, being careful not to damage the head of the screw.

When replacing the throat plate to its position, be sure that the stop on the throat plate enters the notch at the top of the bobbin case.

To Remove the Belt from Within the Arm

Slide the arm shaft connection belt off the lower pulley, remove the balance wheel from the end of the arm shaft, loosen the arm shaft bushing (back) screw at the back of the arm and remove the bushing, lift the belt up through the arm cap hole as far as possible and draw it out through the space formerly occupied by the bushing.

When replacing the belt see that the sewing hook and needle are in correct time before running the belt on the lower pulley, and verify the correctness of the timing before commencing to sew.

To facilitate the replacing of the belt on the lower pulley, use belt replacer 244005 (A, Fig. 16). Rest the replacer in the loop

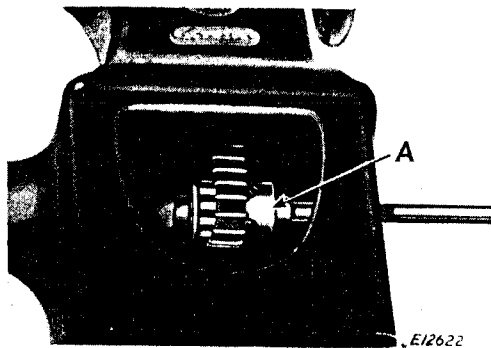


Fig. 16. Putting Belt on Lower Pulley
with Belt Replacer 244005

of the belt and slide it over the hub of the pulley, as shown in Fig. 16, having the notches in the replacer engage the two set screws in the hub of the pulley. Turn the balance wheel toward you until the belt is fully over the pulley, then remove the replacer.

Note: As belt replacer 244005 will serve for several machines, it is not regularly furnished with the machine, and must be ordered separately.

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