

Form U3292 (1281)
Part No. 543270-002

INSTRUCTIONS
FOR USING AND ADJUSTING
SINGER*
SEWING MACHINE

18U322

THE SINGER COMPANY

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DESCRIPTION

Machine 18U322 is a cylinder bed machine with the machine pulley at the left hand side. It is fitted with a hollow needle bar. The bobbin winder is attached to the table.

Machine 18U322 is designed for vamping shoes, etc., and for stitching other varieties of work in light and medium weight leathers.

A cloth plate which can be readily attached or detached is furnished at an additional charge when specified on order.

Machine 18U322 has one needle and a long beak shuttle, a roller presser and a drop feed at the left of the needle. The cylinder bed is 2-1/2 inches in diameter and 10-1/2 inches in length from the needle to the base of the arm. It is used for shoe work.

SPEED

The maximum speed recommended for machine 18U322 is 1,500 stitches per minute, depending upon the nature of the material being sewn. The machine should be run at less 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 machine pulley should always turn over from the operator.

TO OIL THE MACHINE

To ensure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling and when in continuous use, it should be oiled at least twice each day.

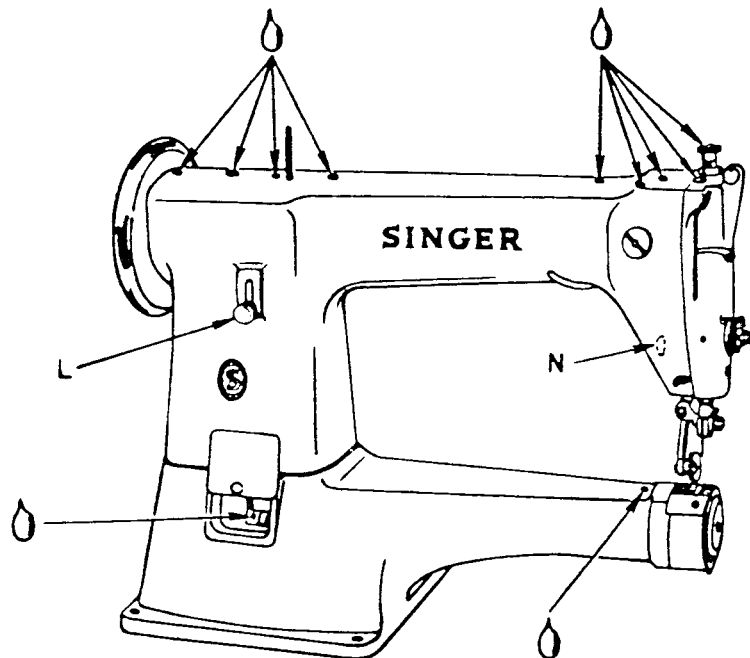


Fig. 1 Oiling Points at the Front of the Machine
Also Adjustments on the Machine

Use "TYPE B" or "TYPE D" oil, sold by the Singer Company.

Oil should be applied to all oil holes marked with red border and to all oiling places indicated by arrows in Fig. 1.

NEEDLE

Needle for Machine 18U222 is of the following class and variety number.

<u>Catalog No.</u>	<u>Class and Variety No. of Needle</u>	<u>Sizes</u>
2220	16x6	9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 21, 22, 23, 24

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. Do not use rough or uneven thread, or thread which passes with difficulty through the needle eye, as such thread interferes with the successful use of the machine.

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. 10, Catalog No. 2220, 16x6 Needles"

The best results will be obtained in using needles sold by the Singer Company.

TO SET THE NEEDLE

Turn the machine pulley over from you until the needle bar is at its highest point. Loosen the screw (A, Fig. 3) in the needle clamp at the lower end of the needle bar and insert the needle into the needle clamp as far as it will go, with the long groove of the needle toward the left or upright part of the arm, then tighten the screw (A).

THREAD

Use left twist thread for the needle, use either right or left twist thread in the bobbin.

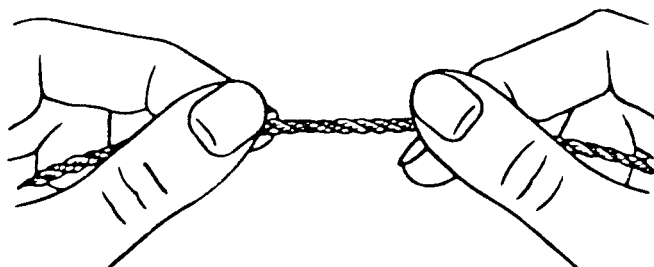
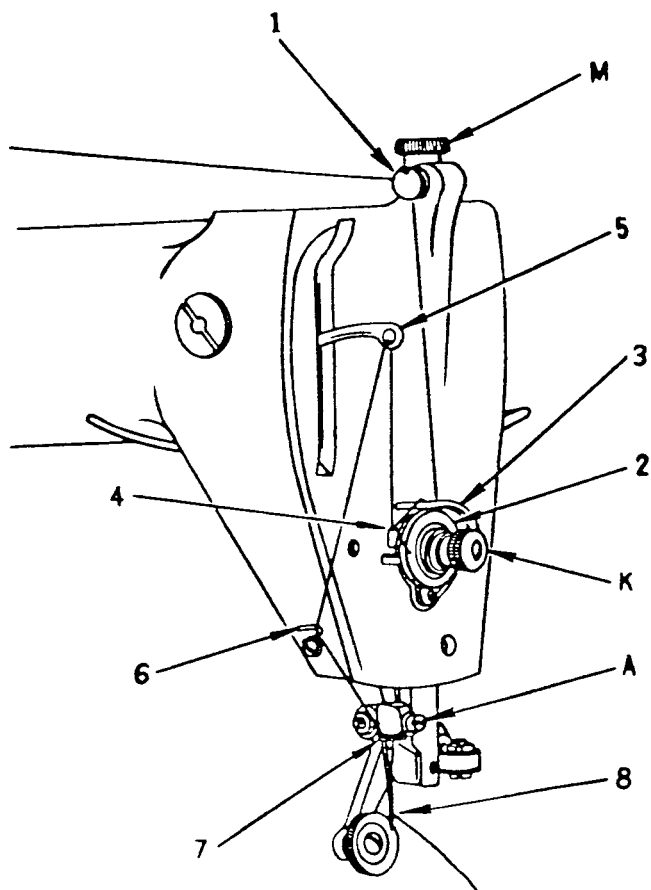


Fig. 2 How to Determine the Twist

Hold the thread as shown in Fig. 2. Turn the thread over toward you between the thumb and forefinger of the right hand; if left twist, the strands will wind tighter; if right twist, the strands will unwind.

TO THREAD THE NEEDLE OF THE MACHINE

Place the spool of thread on the spool pin on top of the machine or pass the needle thread from the unwinder through the thread hole on the spool pin, then pass the thread from the spool over between the thread retainer discs (1)



at the upper end of the face plate, down under, around between the tension discs (2), up into the tension thread guard (3), down under the thread take-up spring (4), up and from back to front through the eye (5) in the thread take-up lever, down through the arm thread eyelet (6) at the front of the machine head, into the needle clamp thread guide (7) at the end of the needle bar and from left to right through the eye (8) of the needle.

Draw about two inches of thread through the eye of the needle with which to commence sewing.

Fig. 3 Threading the Needle

TO REMOVE THE BOBBIN FROM THE MACHINE

Turn the machine pulley until the needle bar is at its highest point. Press outward on the spring (b) as shown in Fig. 8, so as to clear the screw (C, Fig. 8) and at the same time raise the back edge (D, Fig. 8) of the cap until the screw head (C) is under the spring, then pull outward on the cap and slide it from you. Turn the machine pulley over from you until the needle bar is at its lowest point, then with the thumb and forefinger of the right hand, lift out the shuttle; open the shuttle cover, turn the shuttle downward and the bobbin will drop out.

TO WIND THE BOBBIN

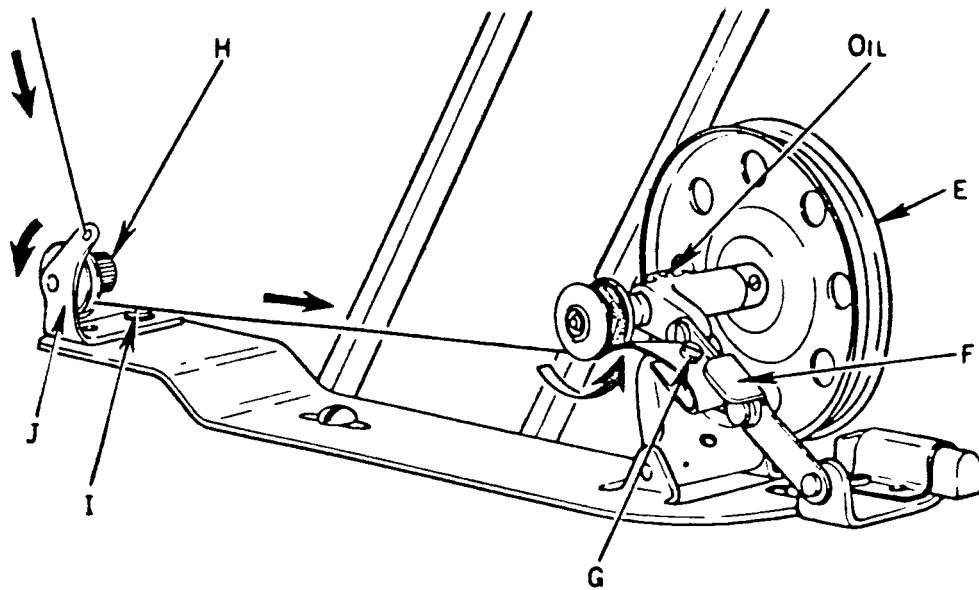


Fig. 4

Fasten the bobbin winder to the table with its driving pulley (E) in front of the machine belt, so that bobbin winder driving pulley (E) will make firm contact with the machine belt when the thumb latch (F) is pressed down and pulley will be released from contact with the belt when sufficient thread has been wound upon the bobbin.

Place the bobbin on the spindle, pushing it on as far as it will go and pass thread through threading points, as shown in Fig. 4.

Wind end of thread around the bobbin a few times. Press down on the thumb latch (F), pushing the driving pulley (E) over against the belt, as shown in Fig. 4. Start the machine.

The bobbin winder will stop automatically, when the amount of thread for which it is regulated is wound upon the bobbin. For more thread on the bobbin, turn the screw (G) inward; for less thread on the bobbin, turn the screw (G) outward.

When winding a bobbin with fine thread, a light tension should be used. Adjust the knurled nut (H, Fig. 4), to regulate the tension.

If thread winds unevenly on the bobbin, loosen the screw (I) and move the tension bracket (J) to the left or right, as required. Tighten the screw (I).

The bobbin can be wound while the machine is stitching.

Note: Occasionally apply a few drops of oil to the oil well, shown in Fig. 4, on top of the bobbin winder frame.

TO THREAD THE SHUTTLE

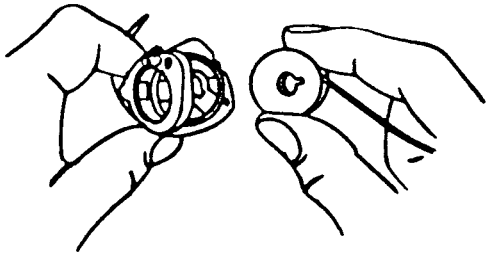


Fig. 5

Open the shuttle cover;
hold the shuttle in the
left hand with the open
side up and place the
bobbin into it.

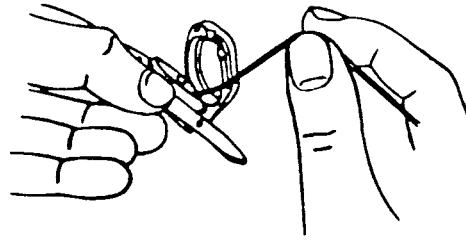


Fig. 6

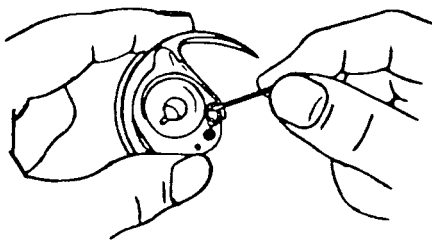


Fig. 7

Pass the thread into the slot
in the edge of the shuttle cover
(see Fig. 6) and close the cover;
then draw the thread under the
delivery eye thread guard and
into the delivery eye (see Fig. 7).

TO REPLACE THE SHUTTLE IN THE MACHINE

After threading, take the shuttle in the right hand, holding it between the thumb and forefinger with the delivery eye toward the left and the point of the shuttle pointing up and toward you.

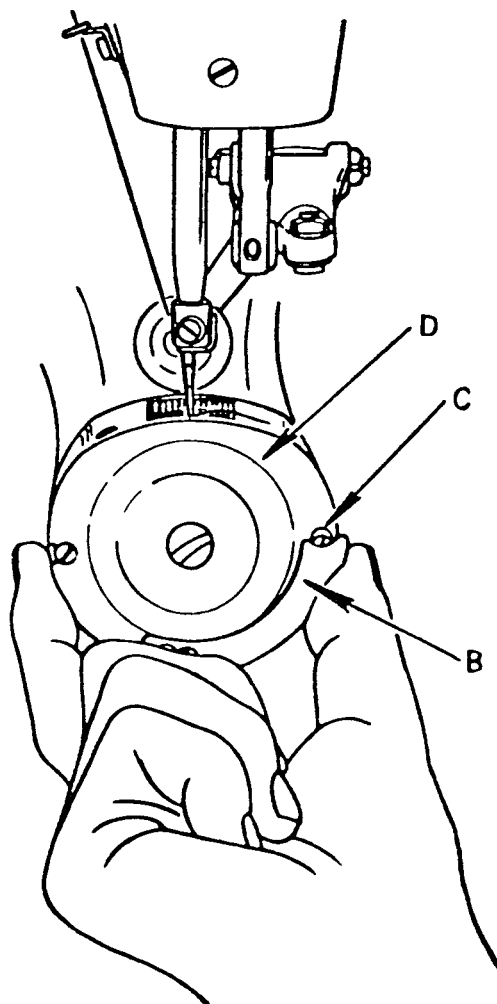


Fig. 8 Removing the Cap

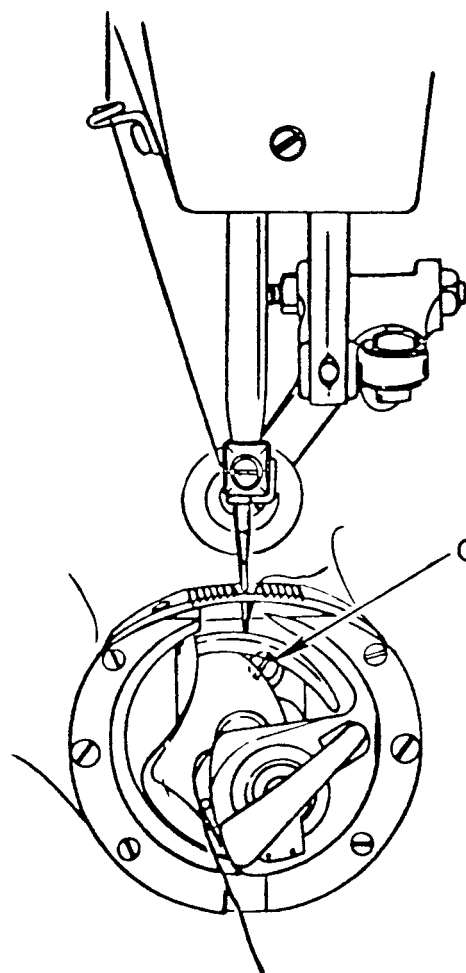


Fig. 9 Shuttle Threaded and Replaced

Insert the bottom of the shuttle into the race first, being careful that the needle bar is at its lowest point, then push the shuttle into the race as far as it will go, having the point of the shuttle above the arm of the shuttle driver. Allow about two inches of thread to hang free from the shuttle through the slot in the bottom of the race (see Fig. 9), then replace the cap.

TO PREPARE FOR SEWING

With the right hand hold the end of the needle thread leaving it slack from the hand to the needle; turn the machine pulley over from you until the needle moves down and up again to its highest point, thus catching the under thread; draw up the needle thread and the under thread will come with it through the hole in the throat plate. Lay the threads back under the roller presser.

TO COMMENCE SEWING

Place the material and the needle threads beneath the roller presser, lower the presser and commence to sew, turning the machine pulley over from you.

TO REMOVE THE WORK

Let the needle bar rest at its highest point; raise the presser bar and draw the material backward about three inches and cut the threads close to the work. Leave the ends of the threads back under the roller presser.

TENSIONS

For ordinary stitching, the upper and under threads should be locked in the center of the thickness of the material, thus:



Fig. 10 Perfect Stitch

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



Fig. 11 Tight Upper Tension

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



Fig. 12 Loose Upper Tension

TO REGULATE THE TENSIONS

The tension on the upper thread is regulated by the thumb nut (K, Fig. 3) at the right of the tension discs on the face plate. To increase the tension, turn the thumb nut over from you. To decrease the tension, turn the thumb nut over toward you.

TO REGULATE THE LENGTH OF STITCH

The length of stitch is regulated by the thumb screw (L, Fig. 1) in the slot in the front of the arm at the left. To lengthen the stitch, loosen the thumb screw (L) and move it upward. To shorten the stitch, loosen the thumb screw and move it downward. When the desired length of stitch is obtained, tighten the thumb screw (L).

TO REGULATE THE PRESSURE ON THE MATERIAL

The pressure on the material is regulated by the thumb screw (M, Fig. 3). To increase the pressure, turn the thumb screw (M) downward. To decrease the pressure, turn the thumb screw upward. The pressure should be only heavy enough to enable the feed to move the work along evenly.

INSTRUCTIONS FOR ADJUSTERS AND MACHINISTS

TO SET THE NEEDLE BAR AT THE CORRECT HEIGHT

Turn the machine pulley over until the needle has reached its lowest point and has risen until the point of the shuttle is at the center of the needle. The eye of the needle should then be .035 - .040 inch below the point of the shuttle. If the needle bar is not set at the correct height, insert a screwdriver in the hole (N, Fig. 1) and loosen the screw in the needle bar connecting stud, then move the needle bar upward or downward as required. After the needle bar is set at the correct height, securely tighten the set screw.

TO RAISE OR LOWER THE FEED DOG

The feed dog should be set so that when it is raised, slightly less than the full depth of the teeth will project above the throat plate. To raise or lower the feed dog, loosen the screw (O, Fig. 9) and raise or lower the feed dog as required, then tighten the screw (O).