SINGER

18-22,18-23,18-25,18-26,
18-27,18-35,18-36,18-37

USE ONLY SINGER OILS and LUBRICANTS

They insure freedom from lubricating trouble and give longer life to sewing equipment

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"Singer Oil for High Speed Sewing Machines"
(Cloth and Leather)

For all manufacturing sewing machines except where a stainless oil is desired.

"Singer Stainless Oil for High Speed Sewing Machines"

For all manufacturing sewing machines where a stainless oil is desired.

"Singer Motor Oil"

For oil-lubricated motors, power tables, transmitters and machinery in general.

"Singer Stainless Thread Lubricant"

For lubricating the needle thread of sewing machines for stitching fabrics or leather where a stainless thread lubricant is required.

NOTE: All of the above oils are available in 1 quart, 2 quart, 1 gallon and 5 gallon cans or in 55 gallon drums, and can also be supplied in customer's containers.

"Singer Gear Lubricant"

This specially prepared grease is recommended for gear lubrication on manufacturing sewing machines.

"Singer Ball Bearing Lubricant"

This pure grease is specially designed for the lubrication of ball bearings and ball thrust bearings of motors and electric transmitters, ball bearing hangers of power tables, etc.

NOTE: The above greases are furnished in ¼ lb. tubes and 1 lb. and 4 lb. tins.

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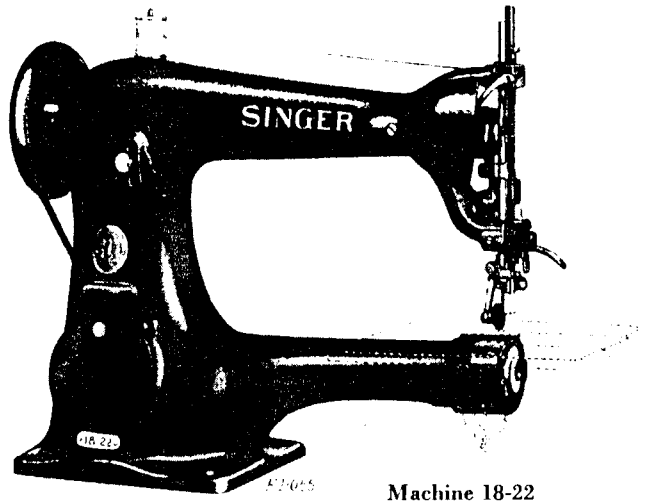
INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER SEWING MACHINES



Machine 18-22

18-22, 18-23, 18-25, 18-26, 18-27, 18-35, 18-36 AND 18-37

THE SINGER MANUFACTURING CO.

DESCRIPTION

The Class 18 Machines, described in the following list, are each provided with cylinder bed, disc balance wheel at left hand side, hollow needle bar, and swing back type of bobbin winder for attachment to table.

They are designed for vamping shoes, etc., and for stitching other varieties of work in light and medium weight leathers.

A flat work plate which can be readily attached or detached is furnished when specified on order.

Machine 18-22 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 2½ inches in diameter and 10½ inches in length from the needle to the base of the arm. It is used for shoe work.

Machine 18-23 has one needle and a long beak shuttle, a roller presser and wheel feed at the left of the needle. The cylinder bed is 2½ inches in diameter and 10½ inches in length from the needle to the base of the arm. It is used for shoe vamping and other work in leather.

Machine 18-25 has two needles and two long beak shuttles, a roller presser and drop feed at the left of the needles. The cylinder bed is 2½ inches in diameter and 10½ inches in length from the left hand needle to the base of the arm. The distance between the two needles may be from $\frac{1}{32}$ to ¼ inch as desired. It is used for shoe vamping and other work in leather.

Machine 18-26 has two needles and two long beak shuttles, a roller presser and wheel feed at the right of the needles. The cylinder bed is 2½ inches in diameter and 10½ inches in length from the left hand needle to the base of the arm. The distance between the two needles may be from $\frac{1}{32}$ to $\frac{1}{8}$ inch. It is used for shoe vamping and other work in leather.

Machine 18-27 has one needle and a central bobbin shuttle, a roller presser and drop feed at the left of the needle. The cylinder bed is 2 inches in diameter and 10½ inches in length from the needle to the base of the arm. It is used on children's shoes and other articles having a small opening.

Machine 18-35 has one needle and a long beak shuttle, a roller presser and drop feed at the left of the needle. The cylinder bed is 2½ inches in diameter and 5½ inches in length from the needle to the base of the arm. It is used for general work in leather.

Machine 18-36 has two needles and two long beak shuttles, a roller presser and drop feed at the left of the needle. The cylinder bed is 2½ inches in diameter and 5½ inches in length from the left hand needle to the base of the arm. The distance between the needles may be from $\frac{1}{32}$ to ¼ inch, as desired. It is used for vamping shoes and other work in leather.

Machine 18-37 has one needle and a long beak shuttle, a roller presser and wheel feed at the left of the needle. The cylinder bed is 2½ inches in diameter and 5½ inches in length from the needle to the base of the arm. It is used for general work in leather.

Speed

The maximum speed recommended for these Class 18– Machines is 1800 revolutions 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 machines are in operation, the balance wheel 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.

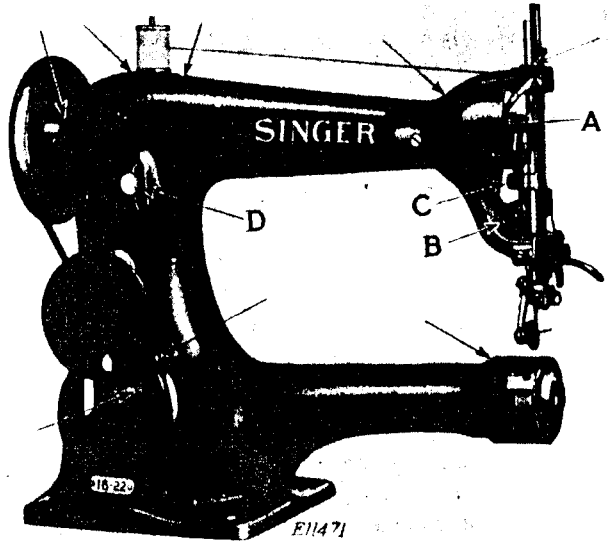


FIG. 2. OILING POINTS AT THE FRONT OF THE MACHINE ALSO ADJUSTMENTS ON THE MACHINE

Oil should be applied to all oil holes marked "Oil" and to all oiling places indicated by arrows in Fig. 2. Arrow (A, Fig. 2) points to the take-up lever hinge screw which is concealed in Fig. 2 by the arm side cover at the front end of the machine. This oiling point is reached through the open end of the arm side cover as indicated by arrow (A).

Needles

Needles for Machines of Class 18– are of the Class and Variety as given in the following table:

MACHINES	CLASS AND VARIETY NOS. OF NEEDLES	SIZES OF NEEDLES
18-22 18-23 18-25 18-26 18-35 18-36 18-37	16 x 2	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24 and 25.
18-27	16 x 71	7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24 and 25.

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. 14, 16x2 Needles"

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

To Set the Needle

Machines 18-22, 18-23, 18-27, 18-35 and 18-37. Turn the balance wheel over from you until the needle bar is at its highest point. Loosen the screw (J, Fig. 4) 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 (J).

Machines 18-25, 18-26 and 18-36. Turn the balance wheel over from you until the needle bar is at its highest point. Loosen screws (U and V, Fig. 5) and insert the needles as far as they will go up into the needle bar, and with the long grooves of the needles facing each other. Then tighten screws (U) and (V). Note that it is necessary to swing the roller presser (W, Fig. 5) upward in order to make the clamping screw (V) accessible.

Thread

For Machines 18-22, 18-23, 18-27, 18-35 and 18-37 use left twist thread for the needle—use either right or left twist thread in the bobbin.

For Machines 18-25, 18-26 and 18-36, use right twist thread for the left hand needle and left twist thread for the right hand needle. Use either right or left twist thread in the bobbin.

Hold the thread as shown below. Turn the thread over toward you between the thumb and forefinger of the right hand; if left

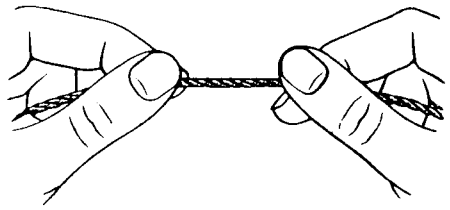


FIG. 3. HOW TO DETERMINE THE TWIST

twist, the strands will wind tighter; if right twist, the strands will unwind.

To Thread the Needles of Machines 18-22, 18-23, 18-27, 18-35 and 18-37

Pass the thread from the unwinder or from the spool on the spool pin into the thread guide (1) at the top of the machine, down

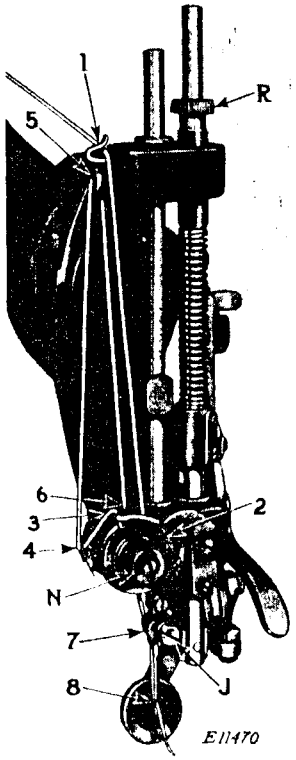


Fig. 4

under, around between the tension discs (2), up into the thread guide (3), down under the take-up spring (4), up and from front to back through the eye (5) in the take-up lever, down through the hole (6) in the machine head, into the 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.

To Thread the Needles of Machines 18-25, 18-26 and 18-36

To thread the outside needle or the one farthest from the balance wheel, pass the thread from the spool on the spool

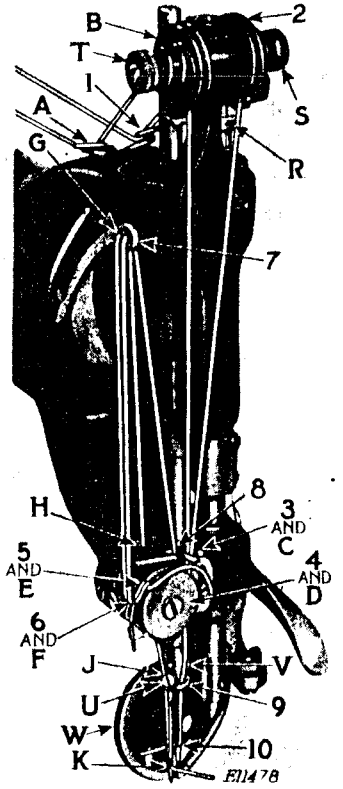


Fig. 5

pin through the guide (A), over, around and between the tension discs (B), down into the guide (C), around and under the roller (D), over the thread guard (E), into the thread take-up spring (F), up and from front to back through the inner hole (G) of the take-up lever, down through the hole (H), through the hole (J) at the lower end of the needle bar, then from left to right through the eye (K) of the outside needle.

To thread the inside needle or the one nearest the balance wheel, pass the thread from the spool on the spool pin through the guide (1), over around between the tension discs (2), down into

the guide (3), around under the roller (4), over the thread guard (5), into the take-up spring (6), up and from front to back through the outer hole (7) of the take-up lever, down through the hole (8), through the guide (9) at the lower end of the needle bar, then from right to left through the eye (10) of the needle.

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

To Remove the Bobbin from Machines 18-22, 18-23, 18-27, 18-35 and 18-37

Turn the balance wheel until the needle bar is at its highest point. Press outward on the spring (M) as shown in Fig. 10, so as to clear the screw (L, Fig. 10) and at the same time raise the back edge (K, Fig. 10) of the cap until the screw head (L) is under the spring, then pull outward on the cap and slide it from you. Turn the balance wheel 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 Remove the Bobbin from Machines 18-25, 18-26 and 18-36

Turn the balance wheel over from you until the needle bar is at its lowest position, turn the cover (F, Fig. 12) aside as shown in Fig. 12. Lift the spring (H, Fig. 12) and lower the shuttle race, the shuttles will be lowered from their positions into the race as shown in Fig. 12. After opening the race, by pulling the hinged portion downward, lift out each shuttle, open the shuttle covers and when the shuttles are turned downward, the bobbins will drop out.

To Wind the Bobbin

Attach the bobbin winder to the table in front of the machine driving belt so that the pulley will engage the belt when bobbins are to be wound.

The bracket (N) with the spool pin and tension discs should be attached to the rear side of the table so that the tension discs (O) are in line with the bobbin when the bobbin is pushed as far as it will go onto its spindle on the bobbin winder.

Fig. 6 shows the complete bobbin winder properly attached to the table in connection with Machine 18-22.

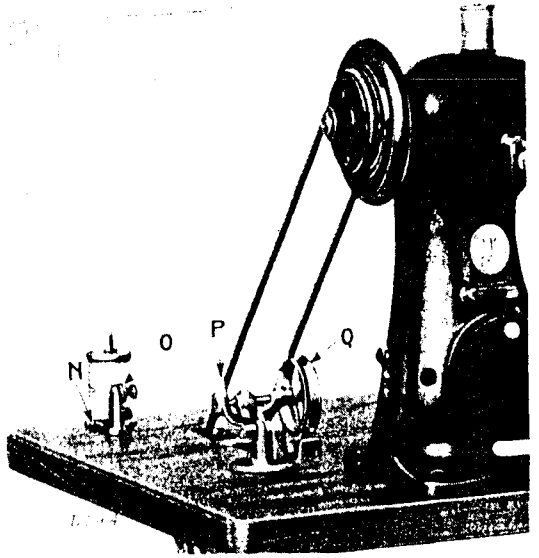


FIG. 6.
WINDING THE BOBBIN

Push the bobbin as far as it will go onto the bobbin winder spindle. Place the spool of thread on the spool pin and pass the thread through the guide immediately below the tension discs (O) and then back and up and between the tension discs and so to the bobbin. Wind the end of the thread around the bobbin a few times. Push the bobbin winder pulley (Q) against the machine driving belt by lifting up and pushing the latch (P) against the bobbin until the pulley is held in place against the belt. Operate the machine and, when the bobbin is fully wound, the pulley will be automatically disengaged from the machine driving belt, thus stopping the winding of the bobbin.

To Thread the Shuttle

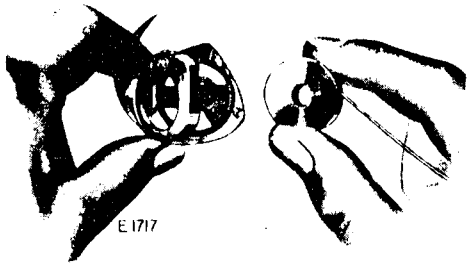


FIG. 7

Take the bobbin in the right hand with the thread drawing on top from the left toward the right (see Fig. 7).

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

FIG. 8

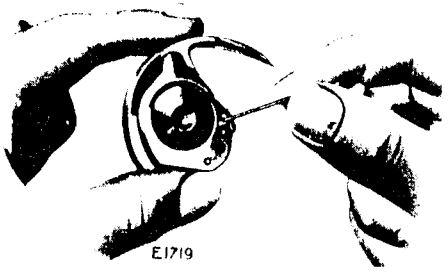


FIG. 9

Pass the thread into the slot in the edge of the shuttle cover (see Fig. 8) and close the cover; then draw the thread under the delivery eye thread guard and into the delivery eye (see Fig. 9).

To Replace the Shuttle in Machines 18-22, 18-23, 18-27, 18-35 and 18-37

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.

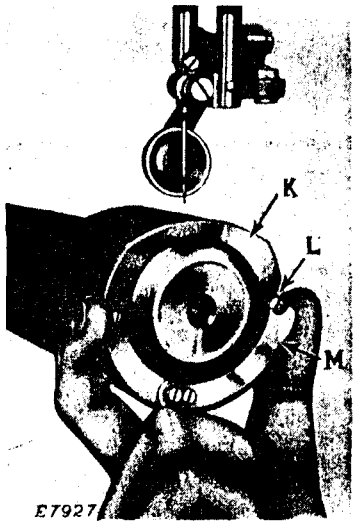


FIG. 10. REMOVING THE CAP

FIG. 11. 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. 11), then replace the cap.

To Replace the Shuttles in Machines 18-25, 18-26 and 18-36

Place the shuttles in the shuttle race with the point of each shuttle even with the edge of the race, and with the thread delivery eye of each shuttle toward the right as shown in Fig. 12.

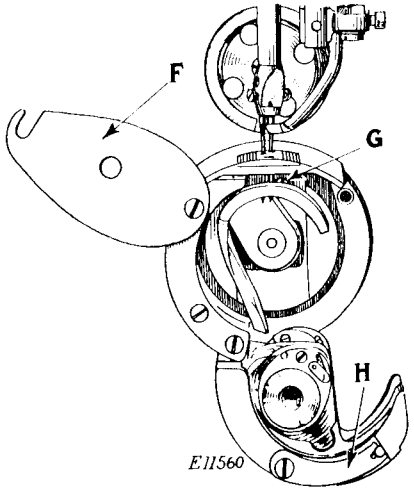


Fig. 12

Pass the thread from the inside shuttle into the slot in the left side of the shuttle race and allow the end of the thread from the outside shuttle to hang free. See that the needle bar is at its lowest point, then close the race and replace the cover.

To Prepare for Sewing

With the right hand hold the ends of the needle threads leaving them slack from the hand to the needles; turn the balance wheel over from you until the needles move down and up again to their highest point, thus catching the under threads; draw up the needle threads and the under threads will come with them through the holes 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 balance wheel over from you.

To Remove the Work

Let the needle bar rest at its highest point; press the knee lifter or press down the presser bar lifting lever 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 centre of the thickness of the material, thus:

Fig. 13. 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. 14. 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 underside of the material, thus:

Fig. 15. Loose Upper Tension

To Regulate the Tensions Machines 18-22, 18-23, 18-27, 18-35 and 18-37

The tension on the upper thread is regulated by the thumb nut (N, Fig. 4) at the right of the tension discs on the side of the machine head. 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 Tensions Machines 18-25, 18-26 and 18-36

Thread for the outside needle or the one farthest from the balance wheel—turn thumb nut (T, Fig. 5) to the right to increase thread tension, or to the left to decrease the tension.

Thread for the inside needle or the one nearest the balance wheel—turn thumb nut (S, Fig. 5) to the right to increase thread tension, or to the left to decrease the tension.

Under thread tension for all of the above machines is regulated by the screw near the delivery eye on the outside of the shuttle. To increase the tension, turn the screw to the right. To decrease the tension, turn the screw to the left.

To Regulate the Length of Stitch

The length of stitch is regulated by the thumb screw (D, Fig. 2) in the slot in the front of the arm at the left. To lengthen the stitch, loosen the thumb screw (D) 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 (D).

To Regulate the Pressure on the Material

The pressure on the material is regulated by the thumb screw (R, Figs. 4 and 5). To increase the pressure, turn the thumb screw (R) 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 balance wheel over until the needle has reached its lowest point and has risen until the point of the shuttle is at the centre of the needle. The eye of the needle should then be about $\frac{1}{16}$ inch below the point of the shuttle. If the needle bar is not set at the correct height, insert a screwdriver in the hole (B, Fig. 2) and loosen the screw (C, Fig. 2) in the needle bar clamp, then move the needle bar upward or downward as required. After the needle bar is set at the correct height, securely tighten the clamp screw (C).

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 (G, Fig. 12) and raise or lower the feed dog as required, then tighten the screw (G).

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.

THE IMPORTANCE OF USING GENUINE SINGER PARTS AND NEEDLES IN SINGER MACHINES

The successful operation of Singer machines can only be assured if genuine Singer parts and needles are used. Supplies are available at all Singer Shops for the Manufacturing Trade and mail orders will receive prompt attention.

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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