

Form K2012

This Book should be carefully
preserved for reference.

INSTRUCTIONS

FOR USING

SINGER SEWING MACHINES

Class 45K

(FLAT BED)



THE SINGER MANUFACTURING CO.

1920

THE IMPORTANCE OF GOOD OIL
for
SEWING MACHINES.

Few things connected with a Sewing Machine better illustrate the proverb "the best is the cheapest" than the small but important item of OIL.

Knowing, from many years' experience, the great importance of Good Oil, we supply an Extra Quality Heavy Machine Oil

**SPECIALLY PREPARED FOR
HIGH-SPEED SEWING MACHINES**
for Manufacturing Purposes.

—: o :—

**THE IMPORTANCE OF
GOOD NEEDLES.**

You cannot expect to get the best stitching results from your sewing machine if it is fitted with an inferior needle

As our interest is to maintain the reputation of our Machines, it is evident that we will always supply the best. Therefore, to avoid trouble, be sure and purchase your needles from a Singer Shop or Singer Salesman.

Form K2012
April, 1920
Sup'des K200

INSTRUCTIONS

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CLASS 45K

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THE SINGER MANUFACTURING CO.

A rectangular brass plate with rounded ends, featuring two circular holes on the left and right sides. The number "45K1" is printed in the center in a bold, sans-serif font.

45K1

A brass plate is fastened upon each Singer Sewing Machine for Manufacturing purposes, similar in shape to the above illustration. This plate is usually at the right hand upon the arm, and bears the two numbers that designate the machine to which it is attached. As Class 45K Machines are furnished in a number of varieties, each of which differs in details from all others, it is necessary when ordering parts or supplies (unless the correct number of each part is known) to state the class and variety of the machine, as shewn on the brass plate, and so prevent misunderstanding and delay in filling orders

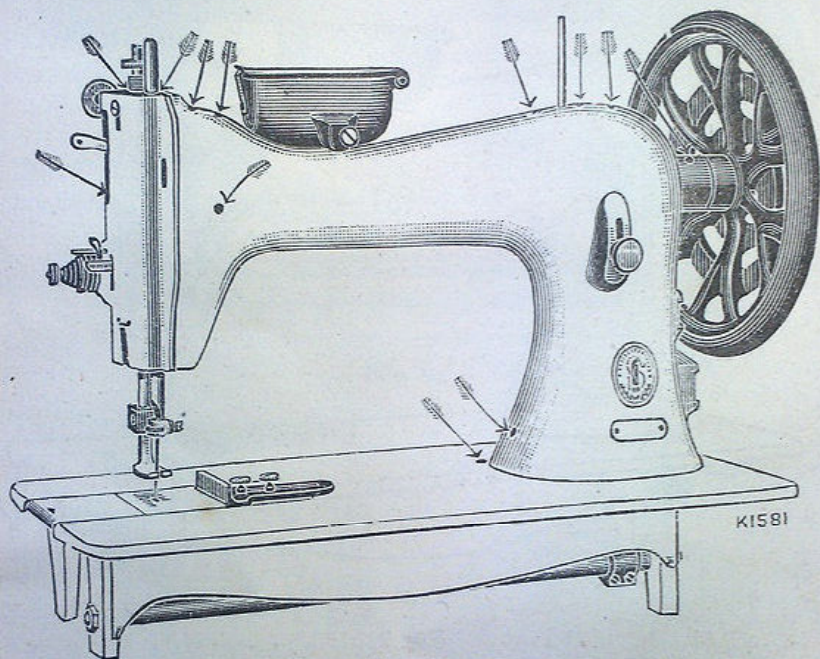


Fig. 1.

To Oil the Machine and Stand.

To ensure easy and quiet working of the machine, it is absolutely necessary that all moving parts in contact with each other should be regularly and carefully oiled at the places indicated by arrows in Figs. 1, 2 and 3. If the machine is in constant use, it should be oiled daily, one drop of oil at each oiling place being sufficient at a time. Loosen the thumb screw at the back of the machine to raise the round cover plate and oil the bearings which are thus exposed; then replace the cover plate. A little oil should also be applied to the shuttle.

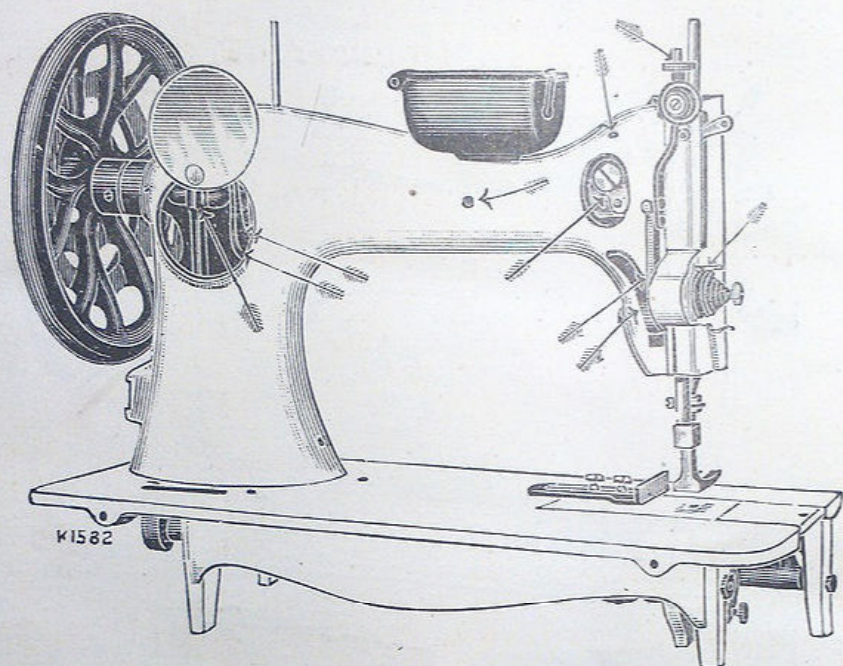
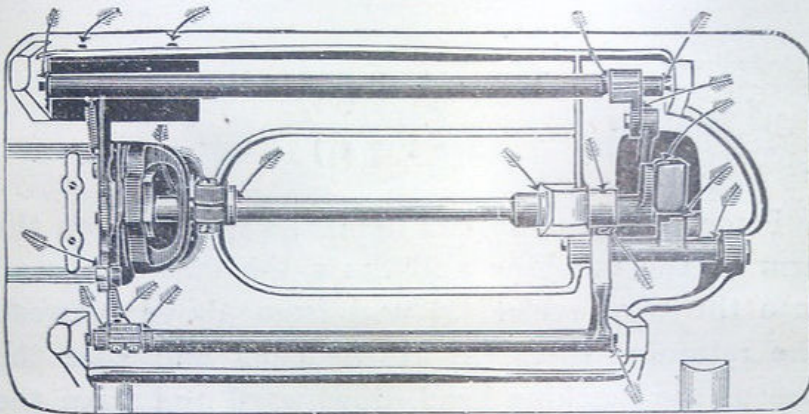


Fig. 2.

After oiling, run the machine for a few moments (with the presser foot up) so as to work the oil into the bearings, then carefully wipe off the surplus oil. If, after oiling, the machine works hard it is certain that some place has been overlooked.

If the machine runs hard after standing for some time, use a little paraffin or benzine at the oiling points, run quickly and wipe clean, then oil with our extra quality machine oil, which should always be used.

To oil the stand, apply a drop of oil to the centres upon which the band wheel and treadle work, and to both ends of the pitman rod which connects the treadle with the band wheel.



K1583

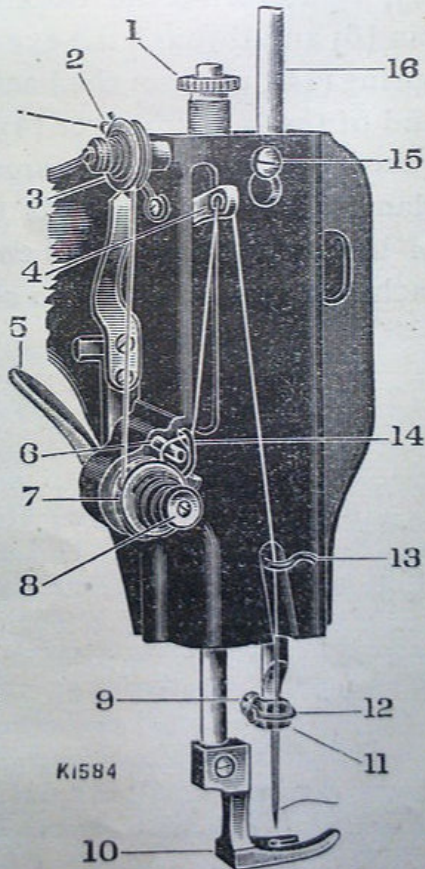
Fig. 3.

To Set the Needle.

(See Fig. 4.)

Raise the needle bar (16) to its highest point and loosen the needle clamp screw (9). Insert the shank of the needle up into the needle clamp as far as it will go with its long groove to the left and the eye directly in line with the arm of the machine, then tighten the screw.

The needle will usually require no further adjustment, but if the loop of thread for the shuttle to pass through does not stand at a right angle to the line of motion of the shuttle, the needle should be turned slightly to bring the loop into this position.



K1584

Fig. 4.

To Thread the Needle.

(See Fig 4.)

Place a spool of thread upon the spool pin on the arm of the machine and draw the end of thread into the wire eyelet (2) and from above between the retaining discs (3) at the back and near the top of the machine head, downward and from the back once completely around the tension wheel (7), up and from the back over the tension thread pin (6) and through the eye of the thread controlling spring (14), up from the back through the hole in the end of the take-up lever (4), down through the wire guard (13), behind the thread guard on the needle clamp (12), and from left to right through the eye of the needle, leaving an end of thread about three inches long with which to commence sewing.

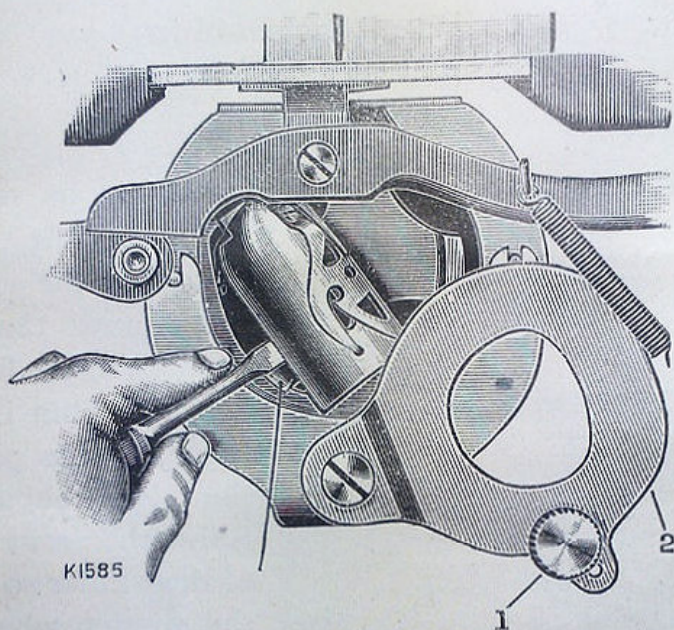


Fig. 5.

To Remove the Shuttle Bobbin.

(See Fig. 5.)

Turn the balance wheel towards you from above until the needle descends to its lowest point, and draw out the slide in the bed plate of the machine; then, with the left hand beneath the table, take hold of the knob (1), pulling it slightly towards you in order to release the shuttle guard ring (2), and push it downwards as far as it will go. Insert the blade of a screw driver between the shuttle cylinder and the shuttle latch spring, as shewn in Fig. 5. Press the screw driver handle from you to cause the cylinder to come forward and the bobbin to drop into the hand.

To Wind the Bobbin.

(See Fig. 6.)

With the left hand press the bobbin on to the winder spindle and hold, then with the right

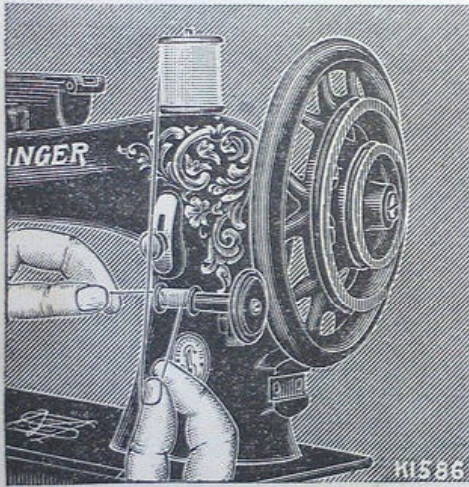


Fig. 6.

hand turn the winder wheel until the slot in the right flange of the bobbin is engaged by the pin in the spindle shoulder. Raise the front part of the winder so that the winder wheel is in contact with the balance wheel of the machine; place the reel of shuttle thread

upon the reel pin on top of the machine arm and pass the end of thread, from the inside, through the hole in the left flange of the bobbin. With the left hand hold the end of thread, at the same time guiding the thread between the reel and the bobbin with the index finger of the right hand (as shewn in the illustration) and operate the machine by turning the balance wheel towards you, taking care that the bobbin is wound evenly and not too full; then remove the bobbin from the winder spindle and lower the front part of the bobbin winder.

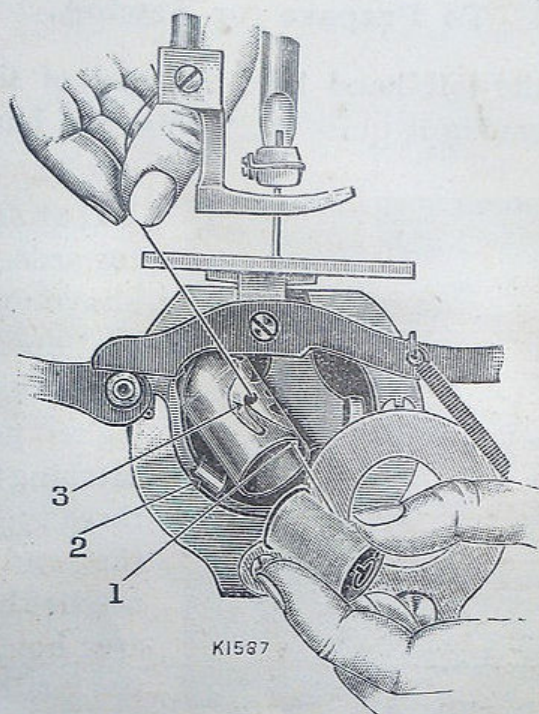


Fig. 7.

To Replace the Bobbin and Thread the Shuttle.

(See Fig. 7.)

Take the bobbin between the thumb and forefinger of the left hand with the thread drawing off from the under side towards the right, as illustrated above. Place the bobbin in the cylinder as far as it will go, draw the thread into the slot (1) in the cylinder and beneath the tension spring until the thread enters the delivery eye (3), then push back the shuttle cylinder into position, leaving an end of thread about four inches long with which to commence stitching. Be sure that the cylinder is firmly secured by the latch spring (2) before sewing.

To Prepare for Sewing.

With the left hand hold the end of the needle thread, leaving it quite slack from the hand to the

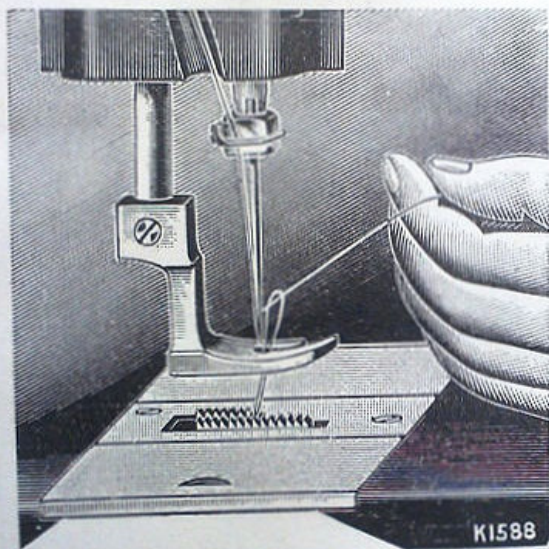


Fig. 8.

needle. Turn the balance wheel towards you from above until the needle moves down and up again to its highest point, thus catching the under thread; then pull the end of the needle thread you are holding and the under thread will be brought up with it through

the needle hole in the throat plate, as shewn in Fig. 8.

Lay both ends of thread back under the presser foot.

To Remove the Work.

When the take-up lever (4, Fig. 4) is at its highest point, take hold of the thread just below the take-up lever and draw down about three inches of slack; raise the presser foot by means of the presser bar lifter (5, Fig. 4) and draw the material back and to the left about three inches, then cut the threads close to the goods.

To Regulate the Tensions.



Correct Stitch

The tension on the upper and under threads should be equal and just sufficiently strong to lock both threads in the centre of the work, as shewn in the above illustration.

If either tension is stronger than the other, imperfect stitching will be the result, thus:—

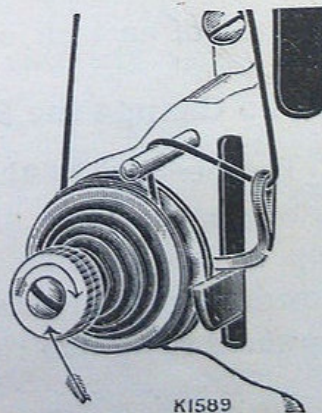


Needle Thread Tension
too strong.



Needle Thread Tension
too weak.

A correct stitch can usually be obtained by varying the tension on the needle thread. To increase this tension, turn the thumb nut (Fig. 9) in the direction shewn by the arrow, or, to lessen the tension, turn the nut in the opposite direction. If the thread slips in the groove of the tension wheel when turning it, slightly increase the pressure of the thread retaining discs by turning from above to the left the screw nut (3, Fig. 4).



Thumb Nut.

Fig 9.

Should it be found necessary to alter the tension on the shuttle thread, slightly tighten the shuttle tension screw near the top of the shuttle cylinder to increase the tension, or loosen it to lessen the tension.

To Alter the Length of Stitch.

The length of stitch is regulated by the large thumb screw in the slot in the front of the arm of the machine (see Fig. 10). Loosen this screw and move it downwards in the slot to lengthen, or upwards to shorten the stitch. When the required length of stitch is obtained, tighten the screw. The stitch may be adjusted up to three-



Fig. 10.

eighths of an inch in length.

To Change the Pressure on the Material.

The pressure of the presser foot on the material is regulated by the thumb screw (1, Fig. 4) on the top of the machine. Give this screw a few turns downwards to increase the pressure, or a few turns upwards to lighten the pressure.

To Turn a Corner.

Stop the machine when the needle is at its lowest point, raise the presser foot and turn the work as desired, using the needle as a pivot; then lower the presser foot.

To Regulate the Automatic Thread Controller.

The object of the thread controller is to allow the thread take-up spring (14, Fig. 4) to automatically adapt itself to varying thicknesses of material. This device is carefully adjusted before the machine leaves the factory and will seldom, if ever, require to be altered. To readjust it, remove the face plate by loosening the screw (15, Fig. 4) and slipping the face plate up over the screw head, then loosen the screw which attaches the thread controller to the presser bar bracket and raise or lower it as may be necessary to such a position that will allow the thread take-up spring which rests upon it to leave the thread slightly slack when the eye of the needle in its descent is about one eighth of an inch from the surface of the work. If the thread controller be too low, this will cause the thread to be cut in the eye of the needle in its descent. If the controller be too high, the stitching will probably lie loose upon the surface of the material.

To Regulate the Thread Take-up Spring.

The function of this spring is to retain the needle thread taut until the point of the needle in its descent has entered the material and also to assist in setting the upper thread between the upper and under surfaces of the goods being stitched. The action of the spring is governed by the automatic thread controller, as explained in the preceding paragraph.

The pressure of the spring upon the needle thread should be sufficiently strong to keep the thread taut until the point of the needle enters the goods, when the spring should drop upon the arm of the thread controller, allowing the thread to become slightly slack when entering the goods. The pressure of the spring should never, however, be so great as to more than counterbalance the effect of the tension upon the thread.

To increase the pressure of the spring, loosen the tension stud set screw at the back of the machine and turn the tension stud from above towards you. To decrease the pressure of the spring, turn the tension stud from you. After adjusting the spring, be careful to secure the stud by tightening the set screw.

Twist, Linen and Cotton Thread.

Do not use poor thread. Any good thread will work well, but a poor rough thread will not make a smooth, even stitch.

The best results are obtained by using Left Hand twist in the Needle, and Right Hand twist in the Shuttle.

Needles.


Sewing Machine Needles are divided into two general classes, viz.: "Cloth" and "Leather."


The term "Cloth" applied to a needle always means a round point.


Leather needles are sub-divided into a variety of classes suitable for the conditions they may be subjected to, and principal among which are the—"Twist," "Reverse Twist," "Reverse 'C' Twist," "Wedge," "Cross," "Spear," and "Reverse Spear" points.





The following table will explain these subdivisions.

(The line of the needle eye is indicated by the arrow.)

"Twist" cuts thus:  is recommended for general leather work, especially that upon which it is desirable to draw the stitch well into the leather.

"Reverse Twist" cuts thus:  is also recommended for general leather work, and particularly the heavier grades of work where a well drawn-in seam is desired.

"Reverse 'C' Twist" cuts thus:  and is intended for leather work. Its use permits the thread to be drawn still further below the surface than either the "Twist" or "Reverse Twist."

- “Wedge” cuts thus:  and is specially adapted for the finer grades of boot and shoe work requiring a short stitch, purl or fancy stitching, flowering, etc.
- “Cross” cuts thus:  and is used upon that class of leather work which requires the stitch to be sunken still further below the surface than is possible with any of the above styles.
- “Twist Spear” cuts thus:  and is intended principally for book stitching. It may also be used for leather.
- “Reverse Twist Spear” cuts thus:  and is intended for heavy leather work, especially with waxed thread. It may also be used for book stitching.

Twist and Reverse Twist needles are flattened to cut at an angle of 45° from the line of eye.

Reverse “C” Twist needles are flattened to cut at an angle of $67\frac{1}{2}^\circ$ from the line of eye.

Spear Twist and Reverse Spear Twist needles cut at an angle of 45° from the line of eye.

It is possible, however, to slightly turn these leather needles in either direction (5° to 15°) thereby materially changing the appearance of the stitch, and at the same time adapting them more readily to variations of thread and material. The limit to such adjustment will be indicated by the appearance of missed stitches.

Though any style of needle point may be used in the Class 45K Machines, we would recommend the use of the Reverse Twist Point Needles for general leather work.

Relative Sizes of Needles and Threads.
(SILK, COTTONS AND LINEN.)

New Sizes of Needles.*	Old Sizes of Needles.*	LINEN.	COTTON.	SILK.
16	1 } 2 } 3 }	50 to 70	10 to 20	10 to 20
18				
19				
21	4 } 5 }	25 to 40, 3-cord	Very coarse	—
22				
23	6 } 7 }	18, 3-cord to 18, 4 cord	—	—
24				
25	8 } 9 }	18, 5-cord to 18, 6 cord	—	—
26				
27	10 } 11 } 12 }	18, 6-cord to 18, 8 cord	—	—
28				
29				

* Cloth and Leather Points use the same sizes of threads.



**This Trade Mark Embossed in Brass
is on the Arm of every
Singer Sewing Machine.**