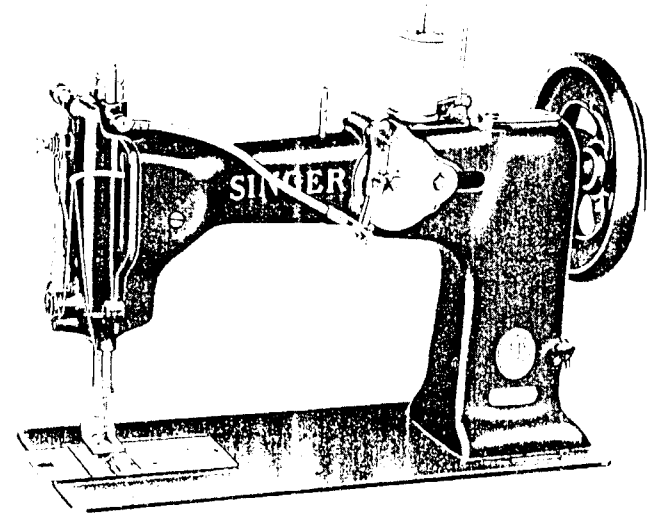


**SINGER**  
17W15

1067w  
Rev. (257)

INSTRUCTIONS  
FOR USING AND ADJUSTING  
**SINGER**  
SEWING MACHINE  
17w15



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**DESCRIPTION**

**Machine 17w15** has a vibrating needle and a transverse rotary sewing hook on a horizontal axis and makes the lock stitch.



It is used for tacking (seizing) the ends of small and medium size ropes and electric lamp cord from 1/8" to 1/4" in diameter. It is also used for making loops (eye seizing) at the ends of ropes and for tacking ropes.

The sideways throw of the needle is adjustable up to 1/4".

**Fig 2**  
**Rope Tacking**  
**Produced on**  
**Machine 17w15**

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**SPEED**

The maximum speed recommended for Machine 17w15 is 1000 stitches per minute. The top of the machine pulley turns over toward 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.

Use "TYPE B" or "TYPE D" OIL, sold by THE SINGER COMPANY.

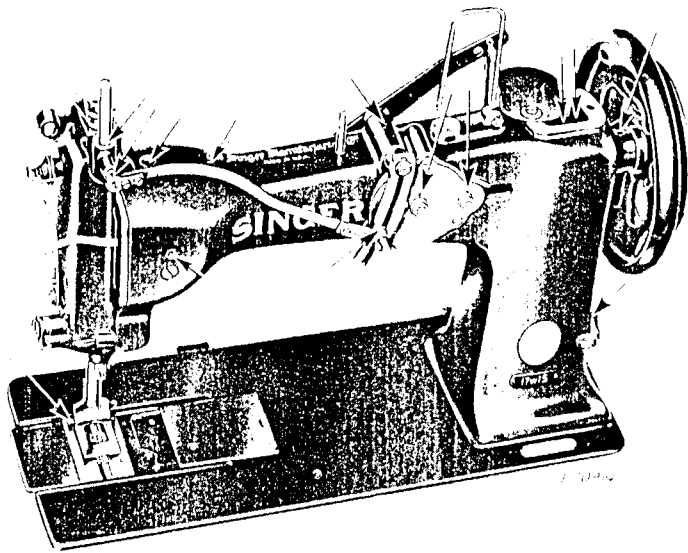


Fig. 3. Front View of Machine, Showing Oiling Points

Oil should be applied at the places designated by arrows in Figs. 3 and 4. Swing back the cover which is on the top of the machine at the right, and oil the bearings which are thus uncovered, then replace the cover.

Remove face plate occasionally and oil needle bar connecting link and all movable parts. The needle bar frame hinge screws (lower and upper) can be oiled without removing the face plate.

Apply a few drops of oil to the sewing hook race two or three times a day if the machine is in constant use and slightly oil stud for bobbin case in center of rotating hook.

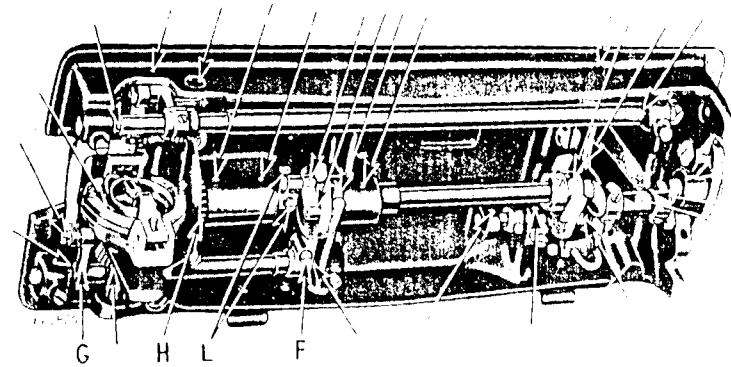


Fig. 4. Oiling Points Underneath Machine

### TO REMOVE FACE PLATE

Turn machine pulley until take-up lever is about half way up, then lower presser bar lifter, remove large screw near tension and one near bottom of face plate, draw lower end of face plate outward and slide it down until free. When replacing face plate, raise presser bar lifter until tension release stud enters slot in face plate, and replace both face plate screws.

## NEEDLES AND THREAD

Needles for Machine 17w15 are of **Class** and **Variety** 134x1 and are made in sizes 10, 12, 14, 16, 18, 20, 22, 23, 24, 25 and 26.

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. 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, 134x1 Needles"

The best results will be obtained in using the needles sold by THE SINGER COMPANY.

### TO SET THE NEEDLE

Turn machine pulley over toward you until needle bar moves up to its highest point; loosen set screw in needle bar and put needle up into bar as far as it will go, with its long groove toward front of machine, the eye of needle being directly in line across bed of machine, then tighten set screw.

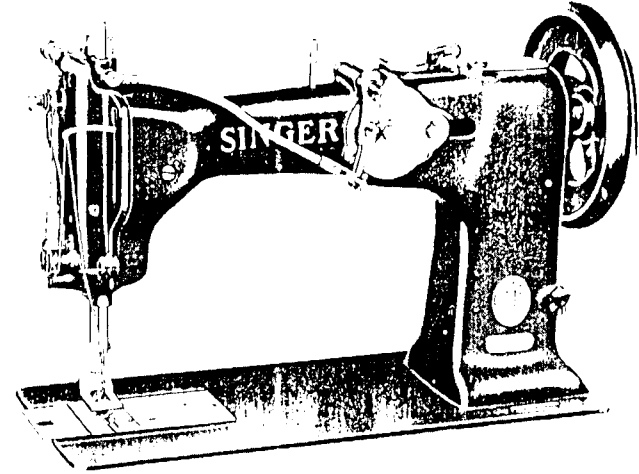


Fig. 5. Upper Threading

### TO THREAD NEEDLE

Pass thread from spool, through thread eyes in post and wire guide on top of machine, into thread guide at top of face plate, down into thread retainer and between tension discs, under thread controller, up and through take-up lever, down through thread guides on face plate and needle bar and from front to back through eye of needle.

### TO REMOVE THE BOBBIN

Have the thread take-up lever at its highest point; reach under the bed of the machine with the right hand, press the latch **A**, **Fig.**

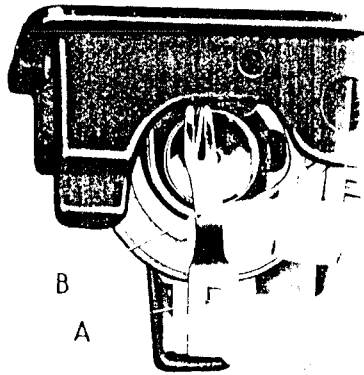


Fig. 6. Removing the Bobbin

**6** with the thumb and lay back the fork **B**, then remove the bobbin case with the forefinger of the left hand as shown in **Fig. 7**. Turn the open side of the bobbin case downward and the bobbin will drop out.

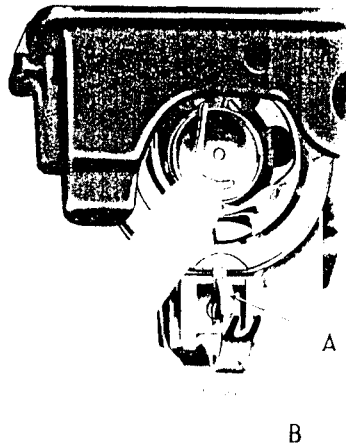


Fig. 7. Removing the Bobbin

### TO WIND THE BOBBIN

See Fig. 8

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.

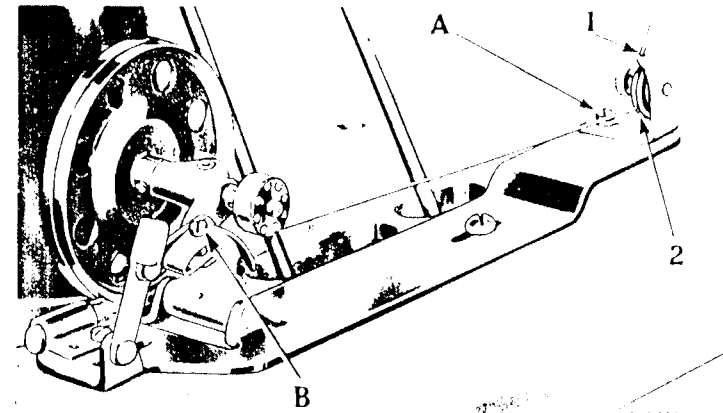


Fig. 8. Winding the Bobbin

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.

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.

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

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 the screw outwardly.

Bobbins can be wound while the machine is stitching.



Fig. 9

With the left hand hold the bobbin case as illustrated, see Fig. 9, the slot in the edge being at the top, and place the bobbin into it.

### TO THREAD THE BOBBIN CASE

Take the bobbin in the right hand, the thread leading on top from the left toward the right.



Fig. 10

Then pull the thread into the slot in the edge of the bobbin case, see Fig. 10, draw the thread to the left under the tension spring and into the delivery eye at the end of the tension spring, see Fig. 11.



Fig. 11

### TO REPLACE THE BOBBIN CASE

After threading, take the bobbin case between the thumb and forefinger of the left hand and place it on the center stud of the rotating hook, with the position finger on the bobbin case pointing upwards, then close the bobbin case stop or fork. See that the bobbin case stop is held firmly by the spring latch.

### TO COMMENCE SEWING

With the left hand take hold of the needle thread, leaving it slack between the hand and the needle, turn the machine pulley toward you until the needle moves down and the take-up lever rises to its highest point, thus catching the bobbin thread; draw up the needle thread and the bobbin thread with it through the needle hole in the throat plate and lay both threads back across the feed dog; then place the material beneath the needle, lower the presser foot upon it, carefully hold the ends of the threads, turn the machine pulley toward you and commence to sew.

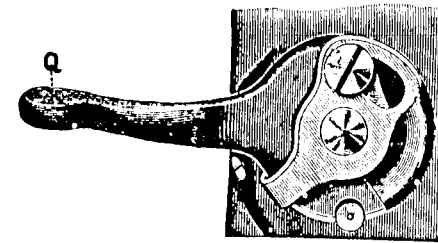


Fig. 12

### TO REGULATE THE LENGTH OF THE FORWARD STITCH

Raise feed regulating handle Q to shorten and lower it to lengthen the stitch. If the stitch changes length while the machine is running, tighten the screw which shows under handle Q.

### TO REGULATE THE VIBRATION OF THE NEEDLE

The needle bar, which is carried in a pivoted frame, has vibratory or bight stitch motion that can be varied for wider or narrower bight stitches. The amount of vibration is regulated by changing the position of the right hand end of the pitman connection in the slotted lever which gives it motion on the front of the machine. The lower the thumb nut is set in the slotted lever the wider will be the bight stitch.

## TENSIONS

The tension on the under thread is changed by a very slight turn of the bobbin case tension regulating screw in the center of the bobbin case, turning it to the right tightens and to the left loosens the under tension.

Correctly made stitches can usually be obtained by regulating the upper tension only; turn the tension thumb nut, on front of the face plate, toward you to tighten and from you to loosen the tension.

**CAUTION:** Do not try to adjust the upper tension when the presser foot is up, as the tension is then loose.

## THE PRESSURE ON THE MATERIAL

The pressure of the presser foot should be only heavy enough to assure an even length of stitch and to prevent the work from rising with the needle; if too heavy it will make the machine run harder and be of no benefit.

The pressure is regulated by turning the presser bar thumb screw at the top of the arm head through which the presser bar passes.

## TO REMOVE THE WORK

Have the take-up lever at its highest point, raise the presser foot, draw the work back and to the left about three inches, then cut the threads near the work.

For convenience in taking out the work, the tension of the upper thread is released by raising the presser foot with the lifter, but is not released by thick goods or seams passing under the presser foot.

# INSTRUCTIONS FOR ADJUSTERS and MECHANICS

## THREAD CONTROLLER

The function of the thread controller spring is to hold back the slack of the upper thread until the eye of the needle reaches the goods in its descent.

The thread controller stop is in the form of a crescent; push on the upper end of the stop for less controller action and on the lower end for more controller action on the thread.

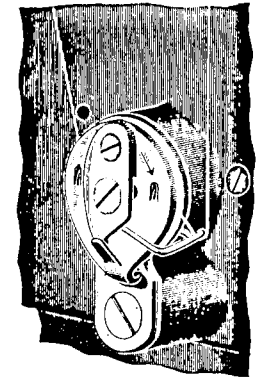


Fig. 13

It may be found advisable to increase the tension of the spring for coarse thread, or to lessen it for fine thread.

To vary the tension of the thread controller spring, remove the face plate and loosen the small set screw, see **Fig. 13**, at the right of the controller, which sets the thread controller stud, then from the inside turn the stud forward or backward as required, and re-tighten the set screw. In any case when an unusually light tension is used, the tension on the spring should be correspondingly light. The coils of the spring should be oiled occasionally.

**To Place a New Thread Controller in Position.** Remove the entire thread controller by taking out the largest screw, see **Fig. 13**, and release the spring by removing the middle screw. **Be careful not to lose the small roller.** Place the new spring, roller and screw in their positions. Next put the entire thread controller on the face plate, taking care to slide the little tail, on the coil of the spring, into the notch in the stud over which the coil slides.

Oil the small roller occasionally.



### TO RAISE OR LOWER THE FEED DOG

Tip the machine back and turn the machine pulley toward you until the feed dog is at its highest position; loosen screw **F**, see **Fig. 4**, move rock shaft **G**, **Fig. 4** up or down until the feed dog is at the desired height and retighten screw **F**. The feed does not require adjusting except in case of its having become worn or for some unusual kind of work.

### NEEDLE AND NEEDLE BAR

Time adjustments can be tested or made only when the needle bar frame is held stationary for straight-away stitching. If a straight needle does not run in the center of the needle hole in the throat plate, lengthen or shorten the needle bar frame pitman at the connection near the needle bar frame regulator until it does.

### TO SET THE NEEDLE BAR

The needle bar which is in the machine when shipped from the factory has upon it (about two inches from the bottom) two lines  $1/8$  inch apart.

When the needle bar is at its lowest position the upper mark should be just visible at the bottom of the needle bar frame.

**To Set a New Needle Bar Which Has no Mark.** Set the needle bar so that when it rises  $1/8$  inch from its lowest position, the point of the hook will be at the center of the needle and about  $3/32$  inch above the eye.

After changing the throw by making the pitman longer or shorter, it is sometimes necessary to retime the hook.

### TO TIME THE HOOK

**First**—Move needle bar frame pitman connection slide wing nut up until there is no vibration of the needle bar.

**Second**—Tip the machine back and loosen the screws in hook driver shaft crank **L**, see **Fig. 4** at the right of the hook so that the hook can be moved by turning hook driving bevel gear-shaft **H**, **Fig. 4** with the fingers.

**Third**—Turn the machine pulley toward you until the needle bar has passed its lowest point and risen so that the lower mark on it is even with the needle bar frame.

**Fourth**—With your fingers turn hook driving bevel gear-shaft **H**, see **Fig. 4** in its regular direction until the point of the hook passes the needle about  $1/4$  inch, then carefully and slowly push the hook backwards until the point of the hook is at the center of the needle and  $3/32$  inch above its eye and fasten screws **L**, **Fig. 4** firmly, provided neither the needle bar nor hook has moved since stationed as directed, as there must be no lost motion between the heel of the hook and the hook driver when the machine stands correctly timed.

### TO REMOVE THE HOOK FROM THE MACHINE

Remove the hook race cap spring screw and spring from each side of the hook bracket and remove the hook.

The point of the hook should run as close to the needle on its widest throw, without touching it, as careful adjustment will permit.

### TO SET THE HOOK SO THAT THE POINT WILL RUN CLOSER TO THE NEEDLE ON ZIGZAG MACHINES

Tip the machine back and remove the bobbin case. Turn the machine pulley and look through the hook for three hook bracket adjusting screws near the top of the hook bracket and two near the bottom; slightly loosen the large lower and upper screws, then carefully tighten the two small upper screws, drawing the hook as close to the needle as desired and tighten both large screws firmly. Be careful that the hook bracket is moved out squarely so that the hook will be as close to the needle when entering the inside loop as it is when entering the outside loop; if it is not, loosen one of the small upper screws and tighten the other to bring the hook bracket out squarely.

### TO SET THE POINT OF THE HOOK FARTHER FROM THE NEEDLE

Loosen the small upper screws and the large lower one, then turn the large upper screw slightly inward until the point of the hook is the desired distance from the needle and tighten the screws which were loosened.

### HOOK OPENINGS

To increase the openings between the hook driver and the hook to allow the thread to pass easily between them, loosen slightly the large upper and lower screws, turn inwardly the small lower screw and tighten both the large upper and lower screws. To reduce the openings, turn outwardly the small lower screw and tighten the large lower and upper screws. Verify the correctness of the timing before commencing to sew.

### TO REMOVE THE ARM SHAFT

Through the oil hole near the needle bar loosen the set screw and remove the check and position screws from the take-up cam, remove the arm shaft bushing front position screw from the back of the arm, remove the set screws from the needle bar frame driving cam and detach the arm shaft connections, remove the machine pulley, the needle and presser bars, insert a light flexible rod through the large hole over the arm shaft connections, drive out the front bushing and draw out the arm shaft. When replacing the bushing, see that the oil hole for oiling the shaft is in line with the oil hole on the arm and return the bushing position screw to its place.

When a new bushing is used, drill the oil hole through into the shaft hole after the bushing is set in the arm. When setting the take-up cam, be sure to replace the position screw in the hole nearest to the presser bar when the screw holes are uppermost and tighten the position screw firmly down into the shaft, and replace the check screw over it. The end play of the arm shaft is taken up by means of the screw in the end of the shaft at the machine pulley.

**Machine Pulley.** When attaching the machine Pulley to the shaft, the screw farthest from the operator should enter the groove in the shaft, when both screws are uppermost; otherwise the wheel will be out of balance and cause the machine to shake.