Your New SINGER® 212W145 Machine

is an advanced, dependable, smooth running machine. It will give you top quality two-needle lock stitching—and is ideal for stitching medium weight fabrics such as shirts, smocks, underwear, etc.

It starts fast and will maintain speeds up to 4000 revolutions per minute.

Its modern styling, pleasing color combination, light knee lifter action and easy to reach oiling points were planned to make sewing easier and more pleasant for you.
Before you do anything else

OIL YOUR MACHINE! FOR BEST RESULTS, use SINGER "TYPE A" or "TYPE C" OIL.

1. Remove the two oil gauges E, Fig. 2, and fill the two oil reservoirs to the full mark on the gauges. Keep the oil level to the full mark on the gauges.
2. Apply oil at least twice daily to the two oil holes F, Fig. 2.

Fig. 2. Gauges for Oil Reservoirs

3. Fill oil reservoir at J, Fig. 3 to high mark on the oil sight H, Fig. 3. Push down and turn oil plunger G, Fig. 3 until it locks in down position. Release plunger if machine is to be left idle for more than an hour.

Fig. 3. Oil Reservoir in Top of Machine

CAUTION: Oil control plunger G must be locked in down position before starting machine.

4. When machine is in continuous use, the oil level in the three reservoirs must be checked TWICE DAILY.

5. Apply a drop of oil to the bobbin winder spindle every few weeks. See Fig. 5.

At the beginning of each working day

Check the oil level on the oil gauges and oil the machine, as instructed above. Never allow the oil level to drop below the low mark on the gauges.

When starting
Your new 212W145

Your new machine will run at speeds up to 4000 revolutions per minute—but it is advisable to run it at half speed for the first 5 minutes to allow time for the oil to reach all the moving parts.

What you should know about needles

The needles you choose can make a big difference in the ease and quality of your work. That is why it is so important that they be just right for the machine and thread you are using. Your floor lady or mechanic knows that your new 212W145 will give the best sewing results when SINGER 155x7 needles are used and they will supply you with these needles. Whether you use size 12 or any size up to 21, in either nickel or chrome finish, the correct size will permit the thread to pass freely through the eye of the needle and avoid strain and breaking.

A bent needle will cause your machine to skip stitches, you will be unable to keep a perfectly even margin and, in many cases, a run-off will take place.

A hook or burr on the needle point will result in a finish that looks blurred and when short stitches are used (20 to 22 per inch) some materials may be cut. Check needles often to make sure that these defects are not present.

Fig. 4. Determining Thread Twist

—And about thread

In the 212W145, use only left twist thread in the needles. Either right or left twist thread can be used in the hobbins. To determine the thread twist, hold the thread between the thumb and first finger of each hand, as shown above. Then, with the right hand, roll the thread over toward you. If the strands of the thread wind tighter, the thread is left twist, if the strands unwind or separate, the thread is right twist.
To take out the bobbins

Turn the machine pulley over toward you until the needle moves up to its highest position. Draw out the slides in the bed of the machine, raise the bobbin case latches K, Fig. 6 and lift out the bobbins.

To wind the bobbin

Place the bobbin on the bobbin winder spindle D, Fig. 5 and push it on as far as it will go. Now pass the thread through the thread guide 1 in the tension bracket and around the back of and between the tension discs 2. Then wind the thread around the bobbin a few times in the direction of the arrow. (When winding a fine thread, use a light tension.) Tension can be adjusted by turning the nut C. 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 and move the tension bracket to the right or left as may be required, then tighten the screw A. The amount of thread wound on the bobbin is determined by the screw B. To wind more thread, turn the screw in; for less thread, turn the screw out. When enough thread has been wound on the bobbin, the winder will stop automatically. Bobbins can be wound while the machine is stitching.

To replace and thread the bobbin cases

The following instructions apply to both bobbin cases:

Hold the bobbin between the thumb and forefinger of the right hand, so that the thread end comes from the bottom of the bobbin out to the right. Place the bobbin on the center stud of the bobbin case, then push down the latch K, as shown in Fig. 6. Pull the thread into the slot 1 in the edge of the bobbin case and back of the projection 2. Leave a loose end of thread about two inches long above the slides. When closing the slides, leave just enough space for the threads to pass through.

To set the needles

Turn the machine pulley over toward you until the needle bar moves up to its highest position. Loosen the set screws in the needle holder and put the needles up into the holder as far as they will go with the long grooves facing each other and the eyes of both needles directly in line with the arm of the machine. Then tighten the set screws.

It is wise to clean out the needle holder cleanout hole now and then by pushing a needle shank through it. This removes lint and other waste which could prevent the needle from seating properly.
Thread the machine

To thread the left needle or the one farthest from the upright part of the arm, pass thread from left spool on spool stand, through left guide at top of spool stand, down through hole 1 then through hole 2 in thread guide on top or arm, downward through holes 3 and 4 in thread guide at front of machine, over from right to left between tension discs 5 down under from right to left around thread controller 6, up into fork 7 of thread controller against the pressure of wire controller spring, up through thread guide 8, up and from right to left through upper hole 9 in end of thread take-up lever, down through thread guide 8 again and through two thread guides 10 and 11, down through left hole 12 in needle holder and from right to left through eye of left or outside needle 13.

discs E, down under from right to left around thread controller F, up into fork G of thread controller against the pressure of wire controller spring, up through thread guide H, up and from right to left through lower hole J in end of thread take-up lever, down through thread guide H again and through two thread guides K and L, down through right hole M in needle holder and from left to right through eye of right or inside needle N.

Draw about three inches of thread through the eye of each needle with which to begin sewing.

Get set

Hold the ends of the needle threads with the left hand, leaving them slack from the hand to the needles. Then turn the machine pulley over toward you slowly until the needles move down and up again to their highest point. Pull on the needle threads and the bobbin threads will come up through the holes in the throat plate, as shown in Fig. 8. Lay the threads back under the presser foot and close the slides.

Fig. 7. Upper Threading

Fig. 8. Drawing up Bobbin Threads

Go

You are now ready to sew—quickly, smoothly, easily. Just place the material under the presser foot, lower the foot—and go.
To remove the work

Stop the machine when the needle bar has just started to come down, because in this position the upper threads will be free of the sewing hooks and the take-up will not pull the threads out of the needles when the machine is started again. Raise the presser foot, draw the work back behind the presser foot, and cut the threads close to the work. Lay the ends of the threads back under the presser foot.

Watch your tensions

RIGHT

Normally—and probably for all the sewing you will do—tension on the needle and bobbin threads should be balanced so that if you cut straight down through the center of a line of stitching and then look at it from the side it would appear with the needle and bobbin threads locked in the center of the thickness of the material like this:

![Fig. 9. Perfect Stitch](image)

WRONG

If there is too much tension on the needle threads or not enough on the bobbin threads, the needle threads will not be pulled down into the material and poor stitching will result with the needle threads lying on top of the material like this:

![Fig. 10. Too Tight Needle Thread Tension](image)

WRONG

If there is too much tension on the bobbin threads and not enough on the needle threads, you will get the reverse of the condition shown in Fig. 10, but the stitching is just as poor. The bobbin threads will lie on the bottom of the material like this:

![Fig. 11. Too Loose Needle Thread Tension](image)

What to do about tensions

Needle threads—First, regulate the needle thread tensions only when the presser foot is down! To increase the tension, turn the thumb nuts L, Fig. 12 over to the right. To reduce the tension, turn the thumb nuts over to the left.

![Fig. 12. To Regulate Needle Thread Tensions](image)

Bobbin threads—Once the tension on the bobbin threads has been properly adjusted, you seldom have to change it because the correct stitch can usually be obtained by adjusting the tension on the needle threads. The tension on the bobbin threads is adjusted by the screw M, Fig. 13 in the tension spring on the outside of each bobbin case. To increase the tension, turn this screw over to the right. To reduce tension, turn this screw over to the left.

![Fig. 13. To Regulate Bobbin Thread Tensions](image)
To regulate presser foot pressure

Correct presser foot pressure helps feed the work properly. You can regulate the amount of pressure by means of the screw N, Fig. 14, at the back of the machine. To increase the pressure, turn this screw downward. To reduce the pressure, turn this screw upward. Your pressure is correct when the work moves steadily and smoothly without stalling.

![Fig. 14. Pressure Regulating Screw]

Dos and Don'ts

**DO**

Oil your new 212W145 regularly.

When turning the machine pulley, always turn it over toward you.

Always keep the bed slides closed when the machine is in operation.

Clean out any lint or other waste around the hooks and be tween the feed rows on the under side of the throat plate.

**DON'T**

Don't try to 'help' machine by pulling fabric. If machine is operating properly it will feed the work through itself. Pulling fabric may bend or break needles.

Don't press knee lifter while machine is running.

Don't ever touch stitch regulator stud while machine is running.

Don't run machine when threaded unless there is material under presser foot.

When you want to change the stitch length

It is easy—just hold down the stud O, Fig. 15, in the bed of the machine and turn the machine pulley slowly over toward you until the stud enters the notch in the eccentric (you will hear it click). Then, still holding the stud, turn the machine pulley until the number indicating the number of stitches per inch you want is opposite the mark P, Fig. 15. Then release the stud O. A setting of 6 stitches per inch is shown in Fig. 15 although you can set the machine to make as few as 6 or as many as 30 stitches to the inch.

**CAUTION:** Never press the stud O, Fig. 15 while the machine is running!

![Fig. 15. To Change Stitch Length]
Why it is important to use
only SINGER parts and needles
in SINGER machines

As you know, any machine—from a washing machine to an automobile
—will operate better and more dependably when you use accessories, fit-
tings or replacement parts made by the original manufacturer. This is true
—and perhaps even more true—with SINGER machines. That is why you
should always be sure that you get SINGER parts and that all needles and
their containers are marked with this SINGER trademark:

"SIMANCO"

Needles in containers marked "For Singer Machines" are NOT made
by SINGER.

To all whom it may concern:

The improper placing or renewal of the trademark "SINGER" or any
other of the trademarks of The Singer Manufacturing Company (all of
which are duly Registered Trademarks) 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.