



Instructions

SINGER Sewing Machine/Model 223



What's new for tomorrow is at SINGER today!



Congratulations!

As the owner of a SINGER* Sewing Machine/Model 223, you are about to enter a wonderful new world of sewing! From the moment you begin to sew on your Model 223, you will be delighted with its easy, dependable operation.

- Perfect straight stitching.
- Zig-zag stitching in a variety of widths and stitch lengths.
- Blind stitching at the flip of a switch.

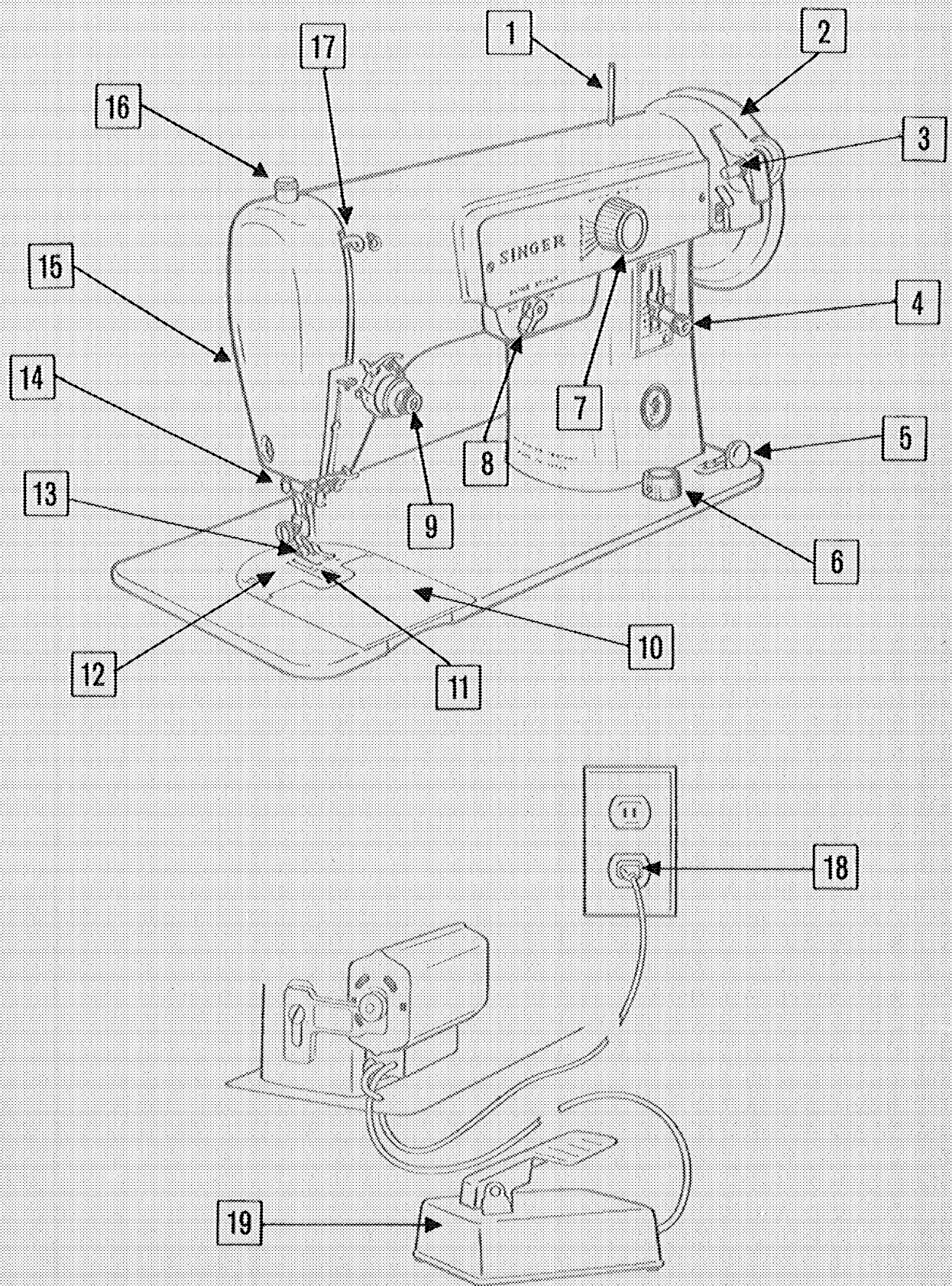
May we recommend that, before you begin to sew, you discover all the many advantages of your Model 223 by going through this instruction book step by step while seated at your machine.

SINGER* service is always close at hand. If your sewing machine should need servicing, call your local SINGER CENTER to be sure of warranted SINGER parts and service. You will find the address under THE SINGER COMPANY in the classified telephone directory.

Contents

Principal Parts of Sewing Machine/ Model 223	2
How to Thread the Machine	4
The Bobbin Thread	4
The Needle Thread	8
Raising the Bobbin Thread	9
Straight Stitching	10
How to Adjust the Machine for Your Fabric ..	10
Fabric, needle, thread, and stitch length table	11
Stitch length	12
Pressure	13
Thread tension	14
How to Sew a Seam	16
How to Sew Darts	19
Zig-Zag Stitching	20
Plain Zig-Zag Stitching	20
Stitch length	21
Needle-thread tension	21
Seams	22
Buttonholes	24
Blind Stitching	26
Free-Motion Work	27
Darning	27
Monograms and Script Lettering	28
How to Take Care of Your Sewing Machine . . .	29
Throat plate	30
Shuttle	30
Belt tension	32
Light bulb	32
Guarantee	33

Principal parts of SINGER



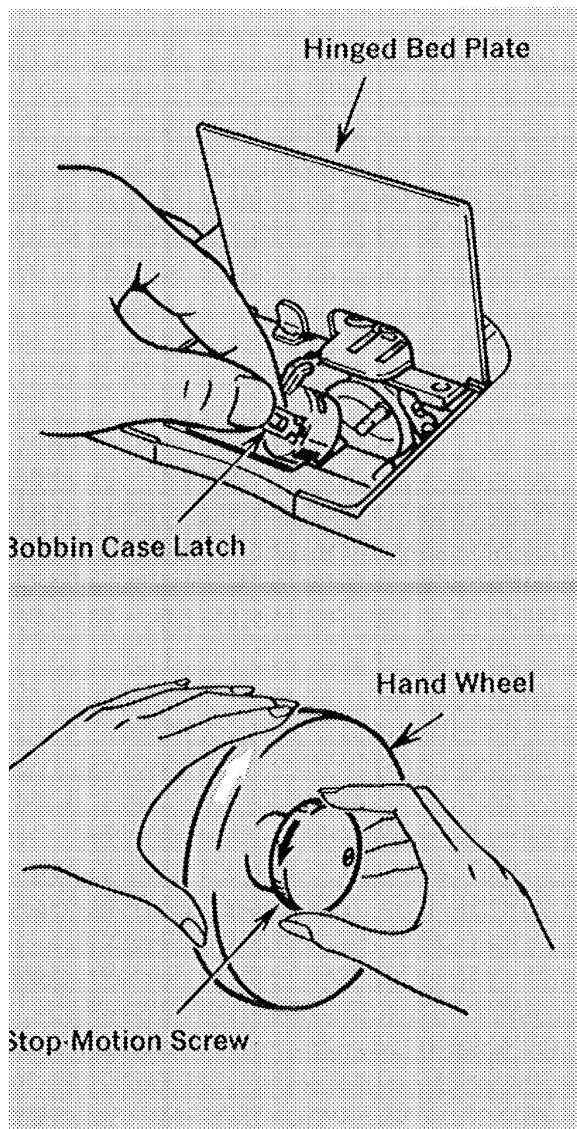
sewing machine/model 223...

and what they are called

- 1 Spool Pin.
- 2 Hand Wheel—Controls movement of take-up lever and needle. Always turn it *toward you*.
- 3 Bobbin Winder Spindle—Holds bobbin for winding.
- 4 Stitch Length Lever—Lets you stitch forward and in reverse. Numbers indicate number of stitches per inch.
- 5 Bobbin Winder Tension Bracket—Regulates thread tension for bobbin winding.
- 6 Feed Lowering Dial—Used for free-motion work. Drops feed dog below throat plate and thus allows *you* to control feeding of fabric.
- 7 Stitch Width Dial—Setting 0 is for straight stitching; numbers indicate stitch width for zig-zag stitching.
- 8 Blind Stitch Lever.
- 9 Needle-Thread Tension Dial—Numbers allow for exact, easy-to-duplicate settings.
- 10 Hinged Bed Plate—Swings up for removal and replacement of bobbin.
- 11 Feed Dog—Feeds fabric as it is being stitched.
- 12 Throat Plate—Numbered guidelines help you keep seams straight.
- 13 Presser Foot—Holds fabric against feed dog.
- 14 Thread Cutter—Cuts thread conveniently and safely.
- 15 Presser Foot Lever—At back of machine, raises and lowers presser foot.
- 16 Pressure Regulating Screw—Regulates degree of pressure exerted on fabric by presser foot.
- 17 Take-Up Lever.
- 18 Plug—Before plugging in the machine, be sure that the voltage and number of cycles stamped on the plate under the hand wheel are within the range marked on the electric power meter installed by your power company.
- 19 Electrical Foot Controller—Controls speed of the machine; the harder you press, the faster it will sew.

How to thread the machine

Like all sewing machines that produce what is called a “lockstitch”, your sewing machine sews with two threads. The upper thread comes from the spool and is threaded through the eye of the needle. The lower thread comes from the bobbin, which is simply a small spool that you wind yourself, using the machine. On the 223 machine it is best to wind the bobbin before threading the needle.



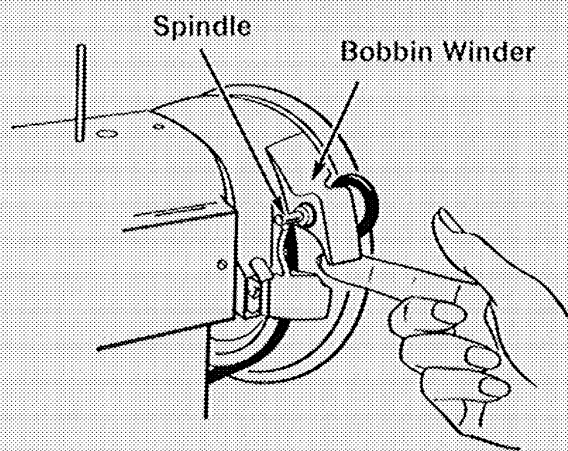
the bobbin thread

TO REMOVE THE BOBBIN

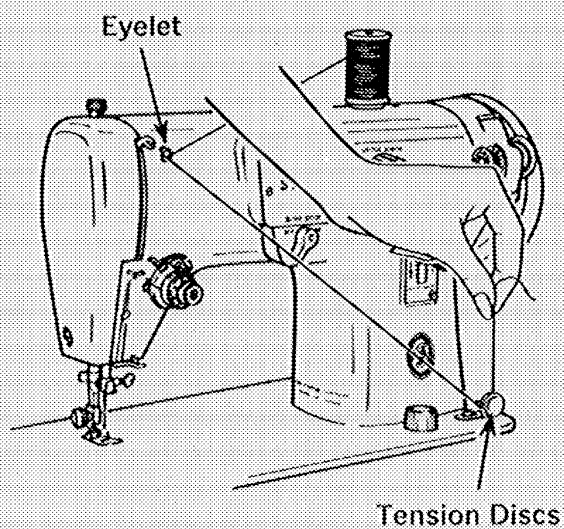
- 1 Turn hand wheel toward you until needle is at its highest position.
- 2 Raise hinged bed plate.
- 3 Reach down with left hand, open bobbin case latch, and lift out bobbin case.
- 4 Release latch and remove bobbin from bobbin case.

TO WIND THE BOBBIN

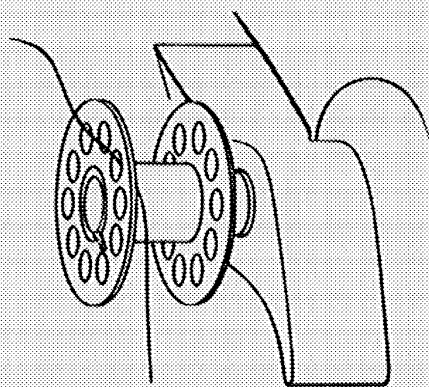
- 1 Stop motion of needle by loosening stop-motion screw. Hold hand wheel with left hand while turning stop-motion screw toward you with right hand.



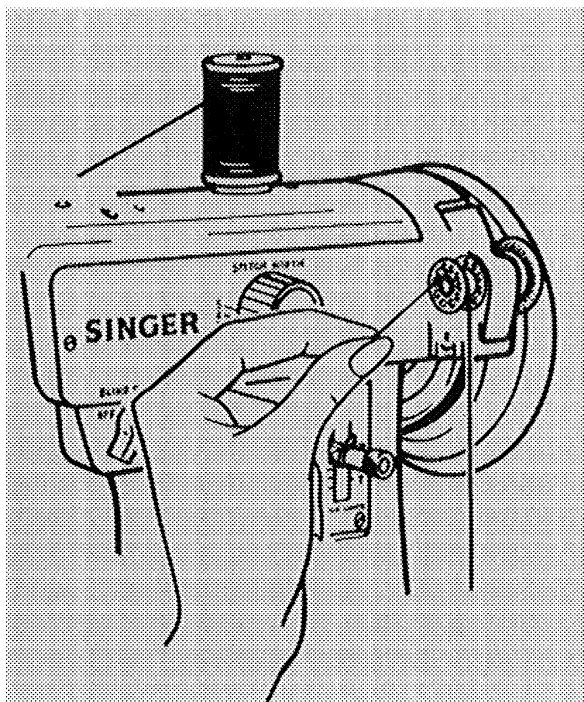
- 2 Lift bobbin winder away from hand wheel and place bobbin on spindle.



- 3 Place spool of thread on spool pin, pass thread through eyelet, and around tension discs.



- 4 Draw thread, from the inside, through a hole in the left side of the bobbin.



TO WIND THE BOBBIN

- 5 Press bobbin winder down against hand wheel, making sure that the sides of the bobbin straddle the bobbin winder stop (metal strip).
- 6 Hold thread end as shown and start the machine. Thread end will break off after a few coils have been wound.
- 7 Do not guide or hold thread while winding bobbin—let the machine do the work. Winding will stop when bobbin is full.
- 8 Raise bobbin winder away from hand wheel, remove bobbin, and cut thread. Then retighten stop-motion screw by turning it away from you with the right hand, while holding the hand wheel with the left hand.

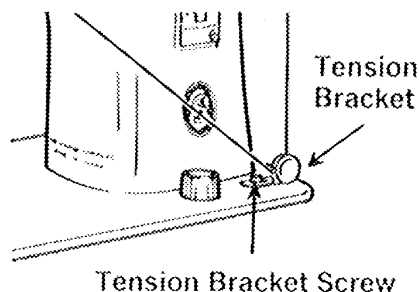
IF BOBBIN DOES NOT WIND EVENLY

Loosen screw that holds tension bracket.

—If bobbin winds high on left, move bracket to right.

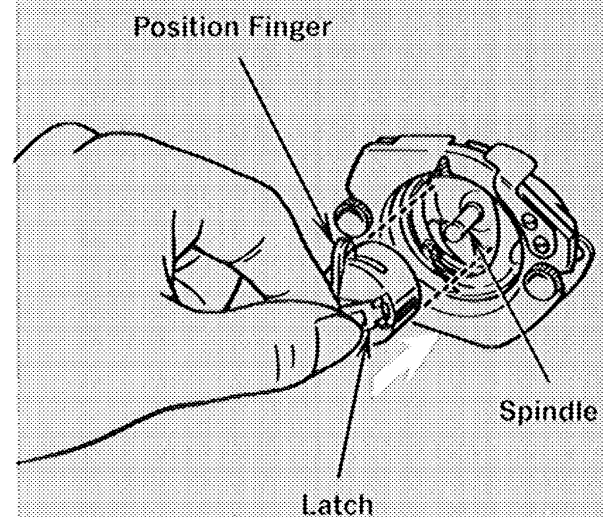
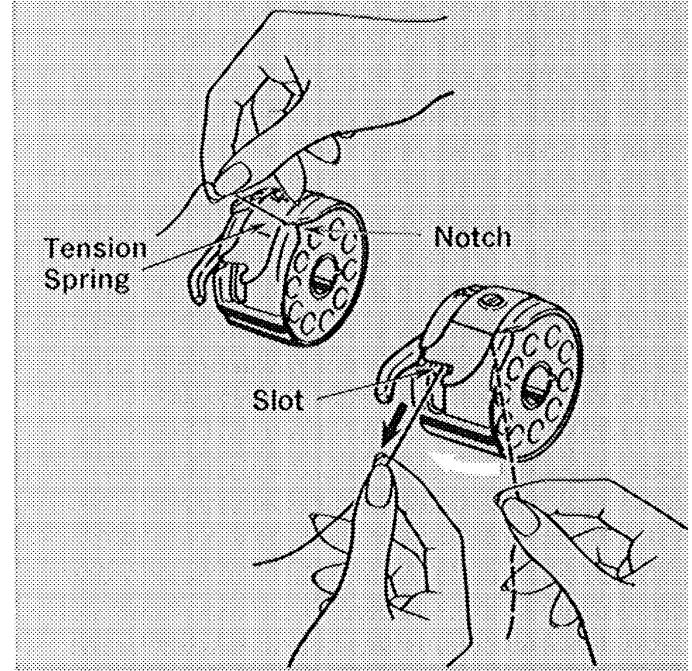
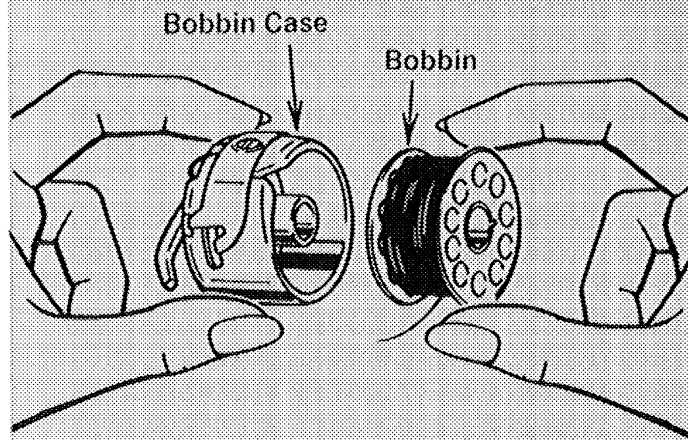
—If bobbin winds high on right, move bracket to left.

Retighten screw.

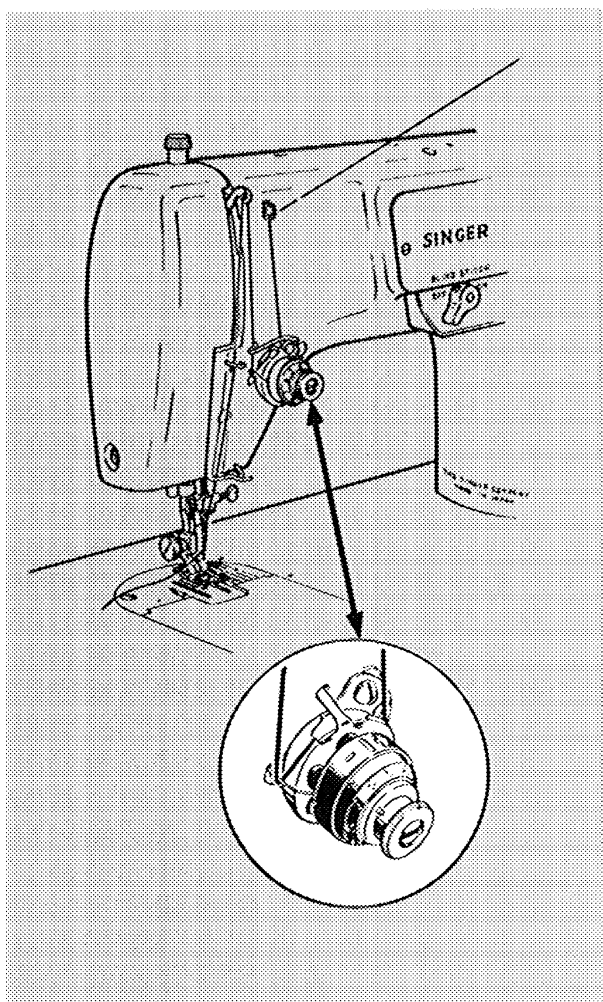


TO REPLACE THE BOBBIN

- 1 Hold bobbin so that thread unwinds in the direction shown, and put bobbin in bobbin case.
- 2 Pull thread into notch, draw it under tension spring, and into slot. Allow about 3" of thread to hang freely from bobbin case.
- 3 Hold bobbin case by latch and place it on spindle of shuttle body so that position finger enters notch at top of shuttle. Release latch and press bobbin case until it clicks in place.
- 4 Close hinged bed plate.



the needle thread

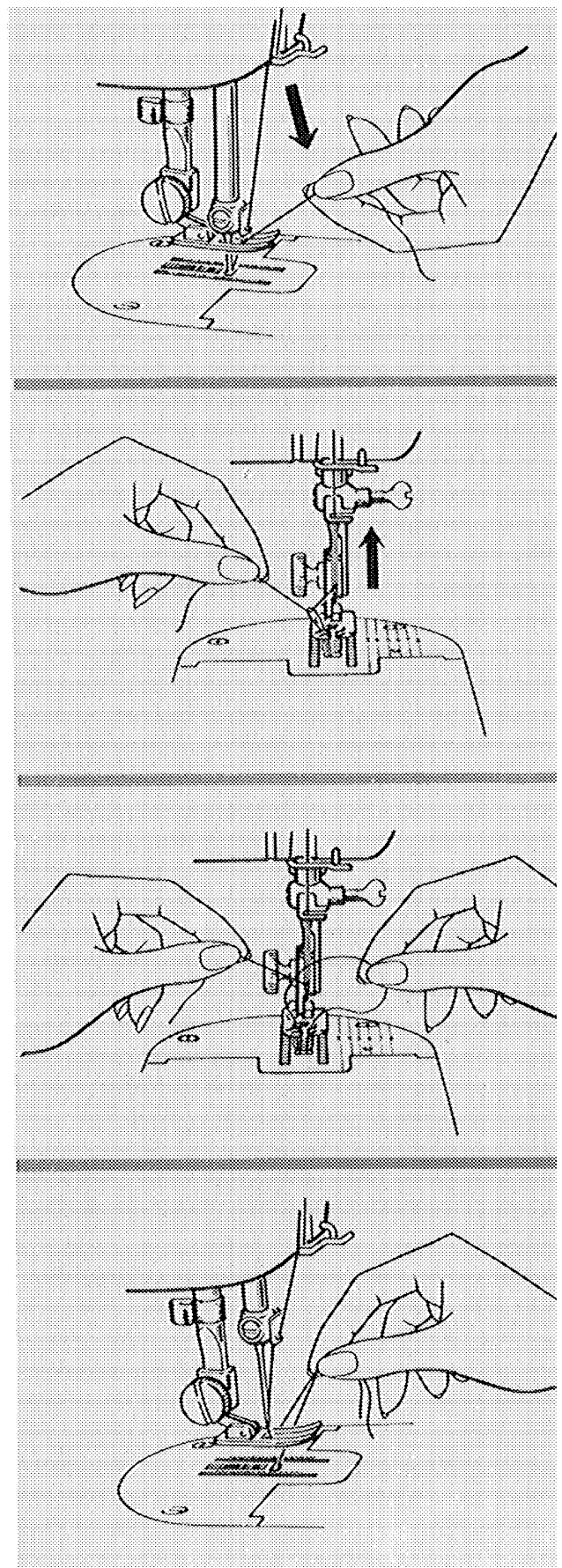


- 1 Place spool of thread on spool pin at top of machine.
- 2 Turn hand wheel toward you to raise take-up lever to its highest position.
- 3 Lead thread through threading points shown. Thread the needle from front to back (the arrow on the throat plate will remind you).
- 4 Draw about 3" of thread through eye of needle.

RAISING THE BOBBIN THREAD

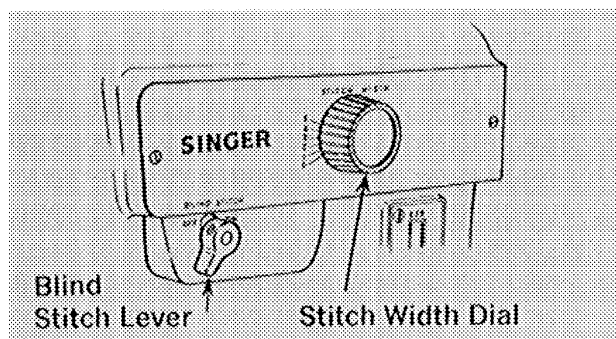
Now that you have wound the bobbin and threaded the needle, you will need to raise the bobbin thread through the hole in the throat plate.

- 1 Hold needle thread *lightly* with left hand and turn hand wheel slowly toward you so that needle enters throat plate.
- 2 Continue turning hand wheel and holding needle thread until needle rises and brings up bobbin thread in a loop.
- 3 Undo the loop with your finger.
- 4 Place both needle and bobbin threads under presser foot and lay them diagonally to the right.



...You are now ready to sew

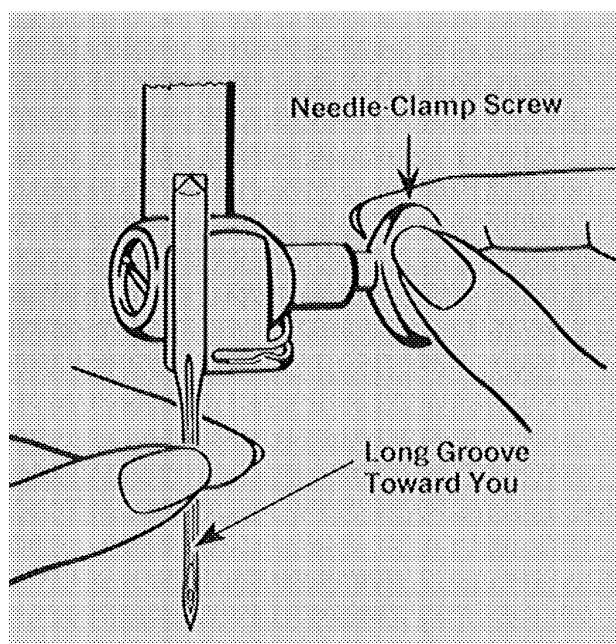
Straight stitching



Before you begin to straight-stitch, set the Stitch Width Dial at 0 and the Blind Stitch Lever at OFF.

how to adjust the machine for your fabric

As you get ready to sew, take advantage of the flexibility of your sewing machine. With a choice of needle sizes and three easy-to-set selectors for stitch length, pressure, and needle-thread tension, you can adjust the machine to stitch perfectly on a wide variety of fabrics.



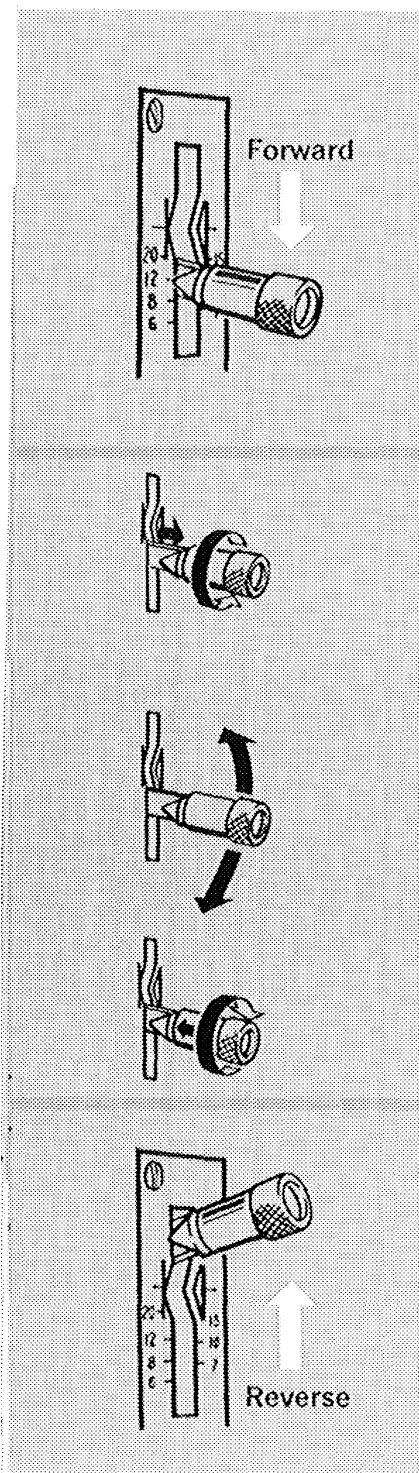
TO CHANGE THE NEEDLE

- 1 Raise needle bar to highest position by turning hand wheel toward you.
- 2 Loosen the needle-clamp screw and remove the needle.
- 3 Insert new needle in clamp, with flat side of needle to the back and *long groove toward you*; push it up as far as it will go.
- 4 Tighten needle-clamp screw.

This machine uses needle Catalog 2020 (15 x 1), available in sizes 9, 11, 14, 16 and 18.

FABRIC, NEEDLE, THREAD, AND STITCH LENGTH TABLE

FABRICS	THREAD SIZES	NEEDLE SIZES	STITCH LENGTH SETTING
DELICATE — tulle, chiffon, fine lace, silk, organdy, fine tricot	Fine Mercerized, 100 to 150 Cotton, Synthetic Thread	9	15 to 20
LIGHTWEIGHT — batiste, organdy, jersey, voile, taffeta, silk, crepe, chiffon velvet, plastic film	50 Mercerized, 80 to 100 Cotton, "A" Silk, Synthetic Thread	11	12 to 15 (8 to 10 for plastic)
MEDIUM WEIGHT — gingham, percale, pique, linen, chintz, faille, satin, fine corduroy, velvet, suitings, stretch fabric	50 Mercerized, 60 to 80 Cotton, "A" Silk, Synthetic Thread	14	12 to 15
MEDIUM HEAVY — gabardine, tweed, sailcloth, denim, coatings, drapery fabrics	Heavy Duty Mercerized, 40 to 60 Cotton	16	10 to 12
HEAVY — overcoat-ings, dungaree, upholstery fabrics, canvas	Heavy Duty Mercerized, 20 to 40 Cotton	18	6 to 10



TO ADJUST STITCH LENGTH

The Stitch Length Lever does two jobs: it controls the number of stitches per inch, and it lets you sew either forward or in reverse.

The numbers on either side of the lever represent the number of stitches per inch: the higher the number, the shorter the stitch. As the Stitch Length Lever is moved up in the FINE area, stitch length diminishes to the vanishing point. (The FINE area is used for zig-zag stitching only.) Generally, shorter stitches are best for lightweight fabric; longer ones for heavy fabric.

To set stitch length:

- Loosen thumb nut by turning to left.
- Position lever for desired stitch length.
- Tighten thumb nut by turning to right.

For reverse stitching, simply raise lever as far as it will go. Do not loosen the thumb nut to reverse.

TO ADJUST PRESSURE

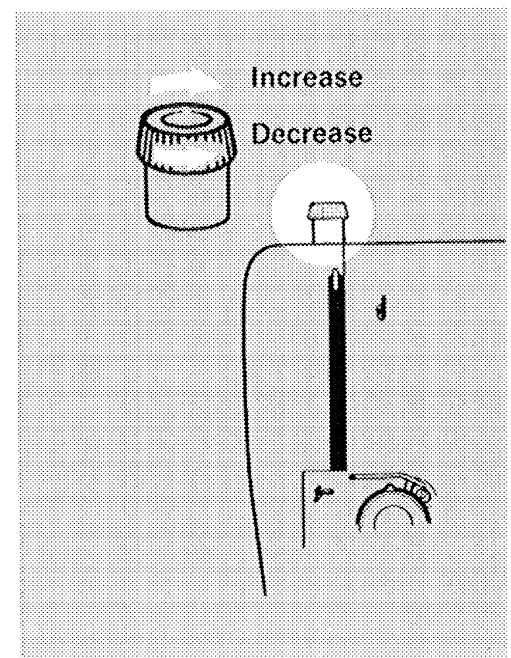
The pressure screw regulates the pressure that the presser foot exerts on the fabric.

Correct pressure is important because it means that the fabric feeds smoothly, evenly, without being marred. Generally, heavy fabric requires heavy pressure; lightweight fabric, light pressure. But fabric texture must also be considered. Soft fabrics, for example, require less pressure than crisp fabrics in order to feed smoothly. If the fabric is spongy or has a pile (velvet, for example), use fairly low pressure to prevent crushing.

—*To increase* pressure, turn screw downward.

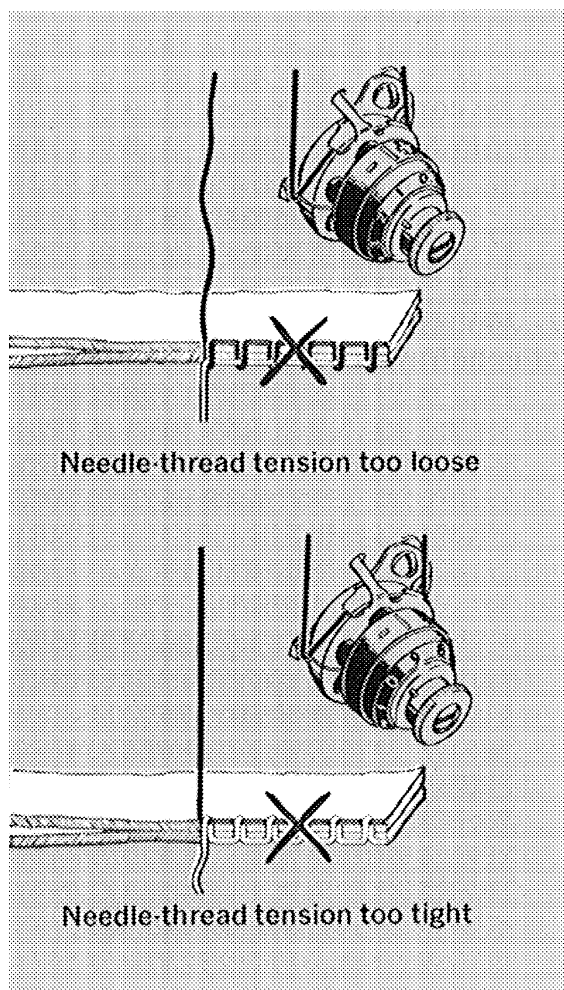
—*To decrease* pressure, turn screw upward.

Note: Pressure on fabric can also be decreased by lowering the feed dog slightly. (The Feed Lowering Dial is described on page 27.)



TO ADJUST THREAD TENSION

The Tension Dial regulates the degree of tension on your needle thread and lets you select just the right setting for your fabric and thread. The numbers eliminate guesswork in duplicating settings. Correct tension is important because too much or too little will weaken your seams. To determine the correct tension, make a test on a small sample of your fabric.



NEEDLE-THREAD TENSION

If the fabric puckers, decrease needle-thread tension. If the stitches look loose, increase tension.

—*To increase* tension, turn dial to higher number.

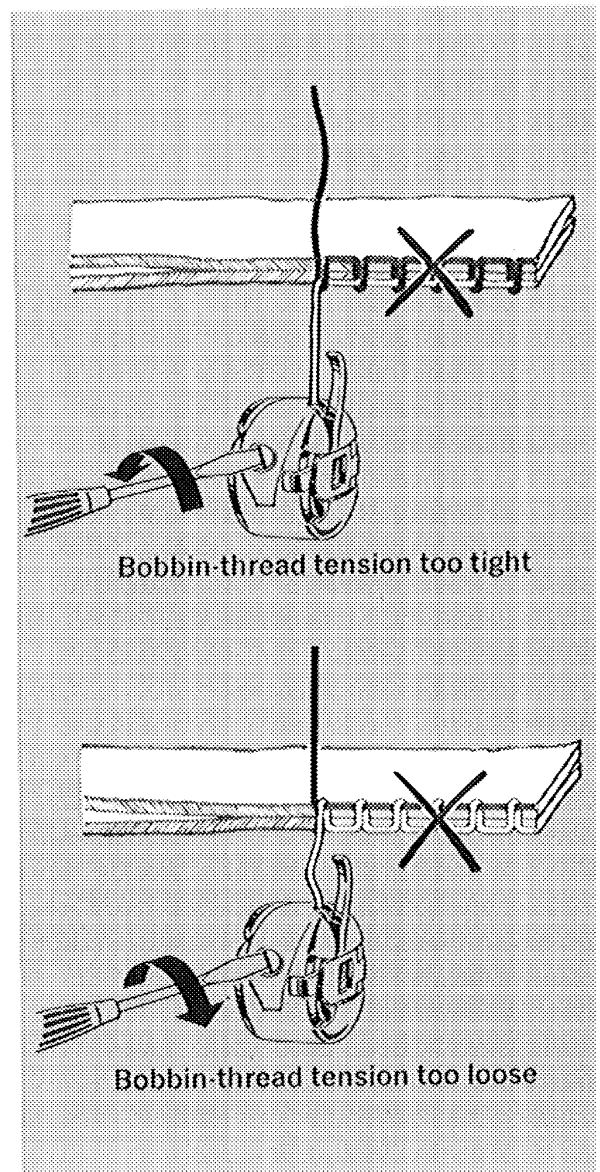
—*To decrease* tension, turn dial to lower number.

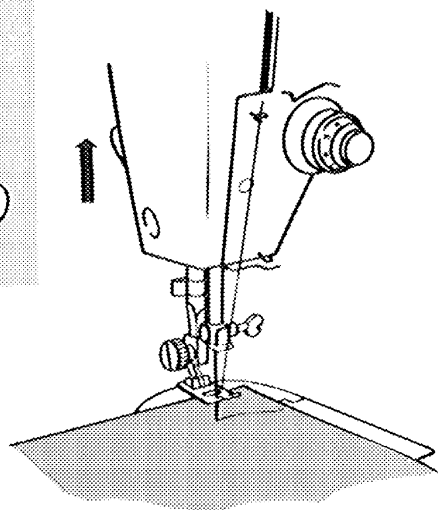
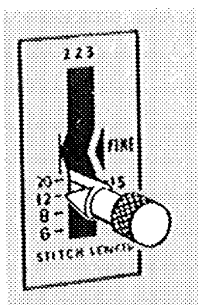
BOBBIN-THREAD TENSION

You will seldom need to adjust bobbin-thread tension. Usually it is possible to obtain a balanced stitch by adjusting the needle-thread tension alone. Should it be necessary to regulate bobbin-thread tension, you can do so by turning the screw on the bobbin case.

- If bobbin-thread tension is *too tight*, correct by turning screw counterclockwise.
- If bobbin-thread tension is *too loose*, correct by turning screw clockwise.

A very slight turn of the screw will produce a noticeable change in bobbin-thread tension.

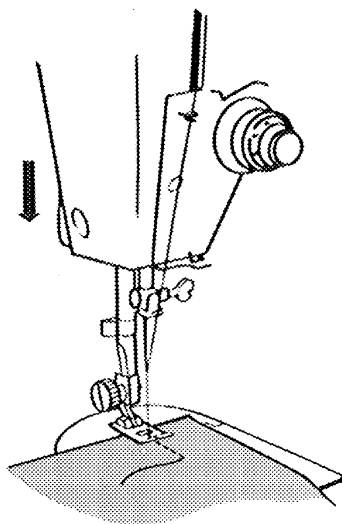
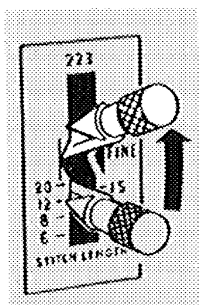




how to sew a seam

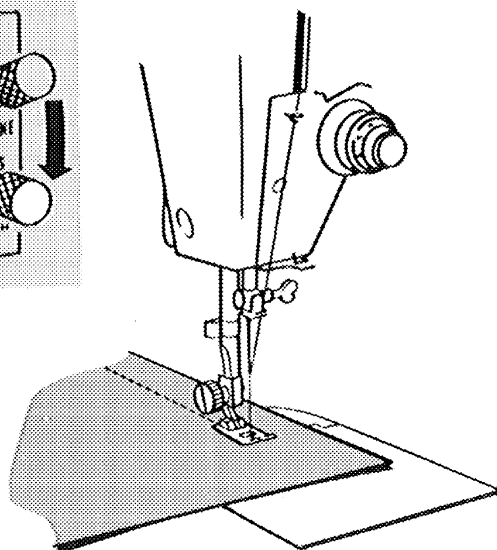
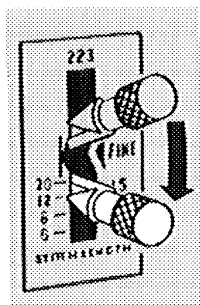
TO START A SEAM

- 1 Set Stitch Length Lever for desired number of stitches per inch.



- 2 With presser foot up, align fabric with appropriate seam guide line on throat plate (as described on the following page). Position needle in fabric about $\frac{1}{2}$ " from the edge.

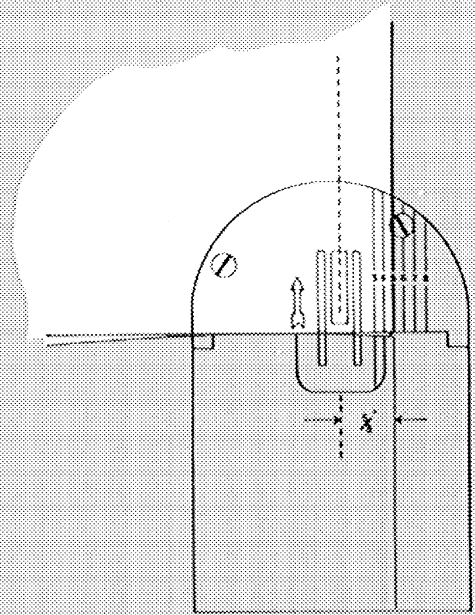
- 3 Lower presser foot and raise Stitch Length Lever to reverse.



- 4 Backstitch to edge of material for reinforcement.
- 5 Lower Stitch Length Lever for forward stitching, and stitch.

TO KEEP THE SEAM STRAIGHT

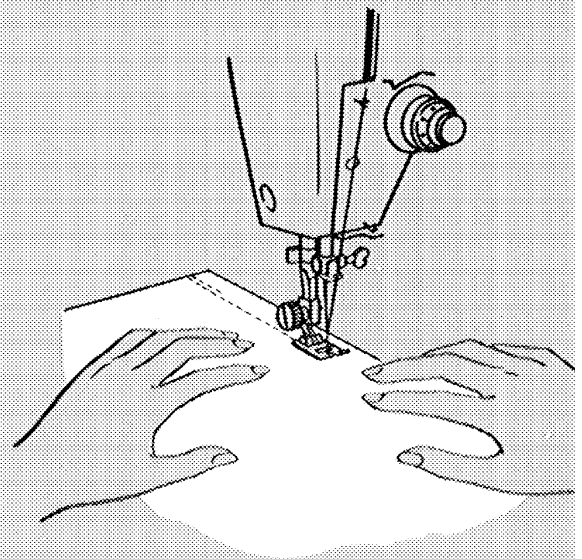
Use one of the numbered lines on the throat plate as a guide to keep the seam straight. Numbers indicate distance, in $\frac{1}{8}$ ths of an inch, from the needle. If you want a $\frac{5}{8}$ " seam, for example, line up your fabric with line 5.



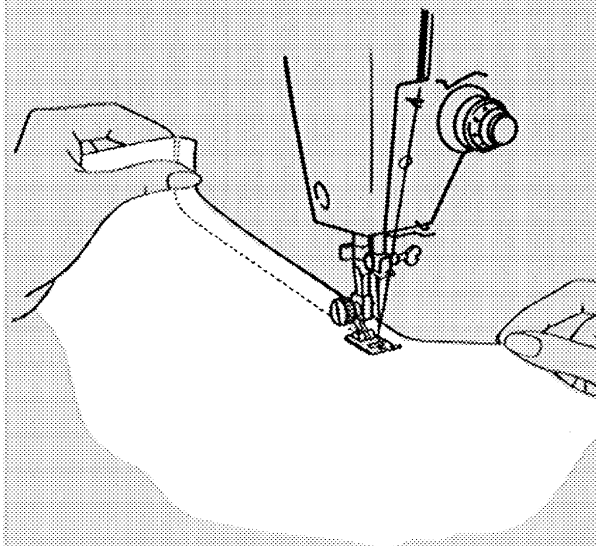
TO GUIDE AND SUPPORT FABRIC

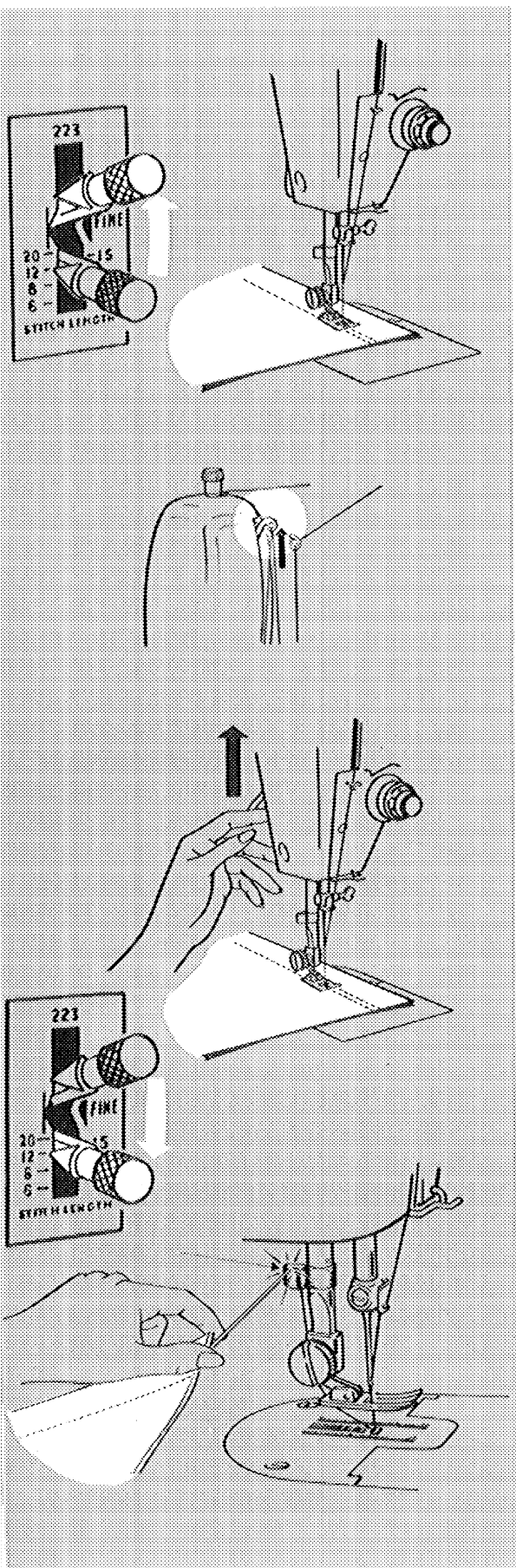
Most fabrics need to be guided in front of the presser foot only, as shown at right. Some fabrics, however, require support while being stitched:

—For filmy sheers, knits, tricot, etc., apply *gentle* tension by holding seam in front and back of the presser foot.



—For stretch fabrics, apply *firm* tension front and back when stitching in the same direction as the stretch. For seams not on the stretch direction, stitch in conventional manner, guiding fabric in front of presser foot.





TO END A SEAM

- 1 Stitch to the fabric edge. Raise Stitch Length Lever as far as it will go, and back-stitch to reinforce end of seam.
- 2 Turn hand wheel to bring take-up lever to its highest point.
- 3 Raise presser foot and remove fabric.
- 4 Cut threads on thread cutter at rear of presser bar. Lower Stitch Length Lever for forward stitching.

how to sew darts

Darts can be made by either of two methods: "regular" and "continuous thread."

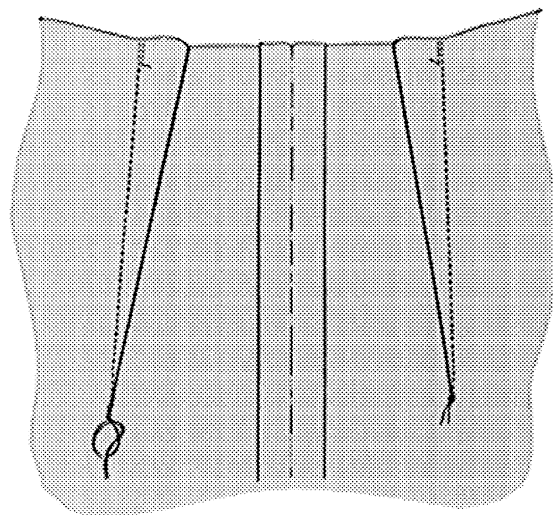
REGULAR DARTS

- 1 Stitch from the seam edge, tapering gradually to the point.
- 2 Stitch beyond the fabric to form a thread chain $\frac{1}{2}$ " to $\frac{3}{4}$ " long.
- 3 Tie the thread ends into a single knot close to the stitching.

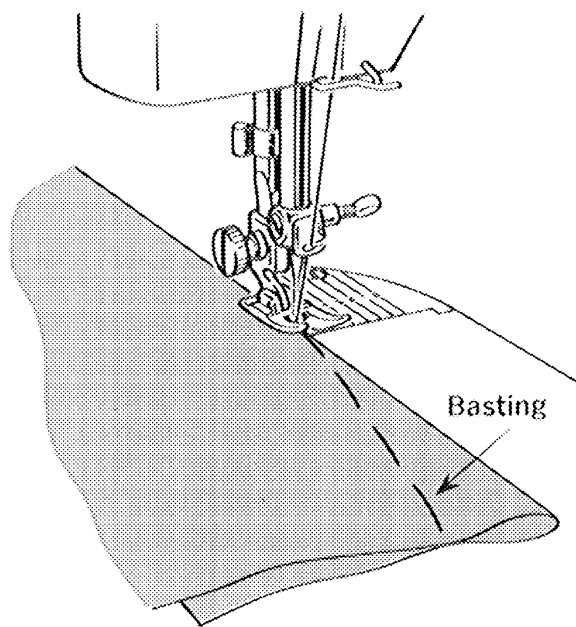
CONTINUOUS-THREAD DARTS

The continuous-thread method is particularly useful for darts in sheer fabrics, where transparency requires a neat, clean finish. It is also useful for darts made on the outside of a garment as a styling detail.

- 1 Unthread the needle. Pull up the bobbin thread and draw it through the needle from back to front.
- 2 Tie bobbin and upper threads together, and draw knot through threading points toward spool until enough of the bobbin thread has passed the thread guide nearest the spool to complete stitching the full length of the dart. Make sure that there is no slack thread between spool and bobbin.
- 3 Stitch from point of dart toward edge of garment, and backstitch to reinforce.



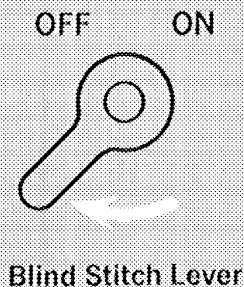
Regular Darts



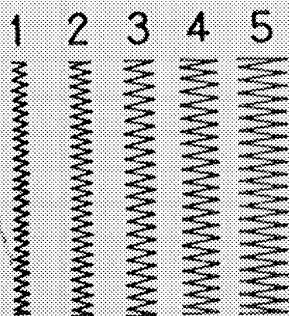
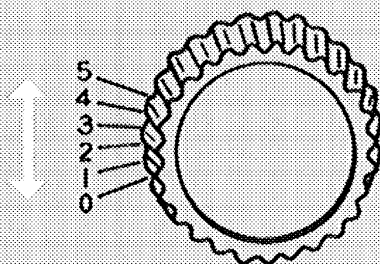
Start of Continuous-Thread Dart

Zig-Zag stitching

With your SINGER sewing machine Model 223, you can do two kinds of zig-zag stitching: plain zig-zag and blind stitching.



Stitch Width Dial



plain zig-zag stitching

Before you begin zig-zag stitching, set the Blind Stitch Lever at OFF and choose a stitch width. Numbers 1 through 5 at the side of the Stitch Width Dial indicate the width of the stitch; the higher the number, the wider the stitch. Settings between the numbers can also be used.

Raise needle above fabric before changing stitch width.

When you are preparing to do zig-zag stitching, make a test sample first so that you can adjust stitch length and needle-thread tension properly. If you need to adjust pressure, see page 13.

TO ADJUST STITCH LENGTH

For *open* zig-zag stitching, choose any stitch length from 6 through the bottom of the FINE area, depending on how open you wish the stitches to be.

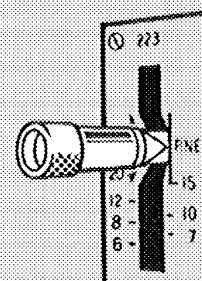
If you wish a closely packed *satin* stitch:

- 1 Move Stitch Length Lever to bottom of FINE area.
- 2 Run machine at slow speed.
- 3 Gradually tighten thumb nut by turning it to right, until stitches are closely spaced and form a smooth surface.

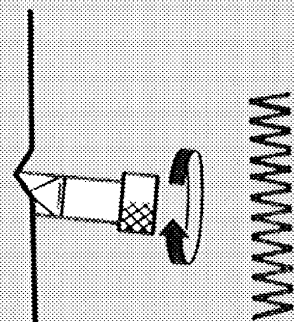
TO ADJUST NEEDLE-THREAD TENSION

All zig-zag stitching requires less tension than straight stitching; and satin stitching requires even less than open zig-zag stitching. Furthermore, the wider the satin stitch, the lighter the tension on the thread must be. Thus, stitch width 5 requires the least tension; narrower satin stitching requires somewhat more.

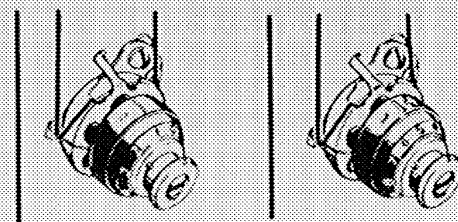
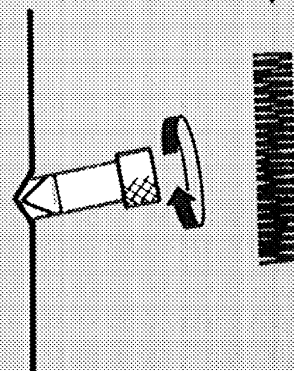
Notice the stitching on your sample. If the stitching looks too taut, or if the fabric is puckering, lower the needle-thread tension by turning the Tension Dial to a lower number.



Stitch Length Lever
In FINE Area

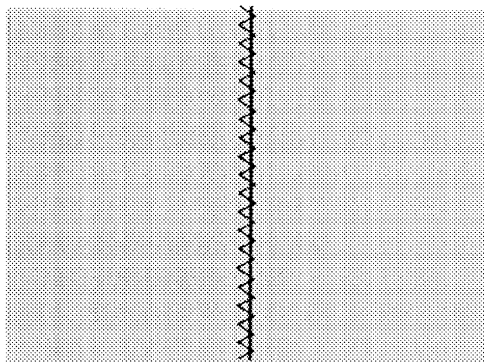


As the Lever Is Raised,
Stitches Close Up

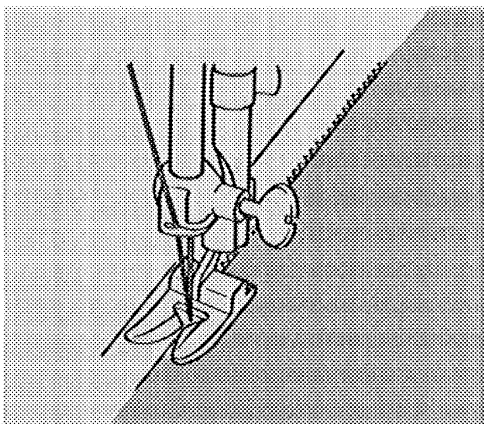


Correct

Incorrect



Open Plain Zig-Zag Stitching



Seam Finished with
Open Plain Zig-Zag Stitching

LINGERIE SEAMS

Dainty lingerie seams can be made durable with plain zig-zag stitching.

- 1 After straight-stitching seam on the wrong side, press both seam allowances in the same direction.
- 2 From the right side, top-stitch with a fine zig-zag setting (width 2), letting the needle alternately enter the seam line and the seam thickness.

SEAM FINISHES

Seam edges support the garment and should be given a durable finish if the fabric is likely to ravel.

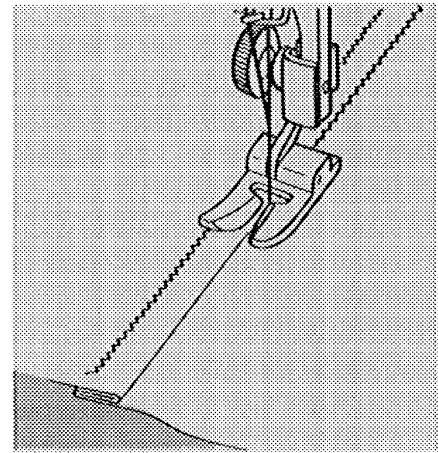
- 1 Set Stitch Width Dial at 4 or 5.
- 2 Trim seam edges evenly.
- 3 Place stitching near the edge of the seam allowance or over the raw edge, as illustrated.

Seams can also be finished with a blind stitch (described on p. 26).

FLAT FELLED SEAMS

Zig-zag stitching gives strength and durability to flat felled seams.

- 1 Set stitch width at 3.
- 2 Form the seam on right side of fabric, taking full seam allowance.
- 3 Press the seam to one side, keeping the right side of the zig-zag stitch uppermost.
- 4 Trim half the under-seam allowance. Then turn the upper seam edge evenly over the trimmed seam, and top-stitch.



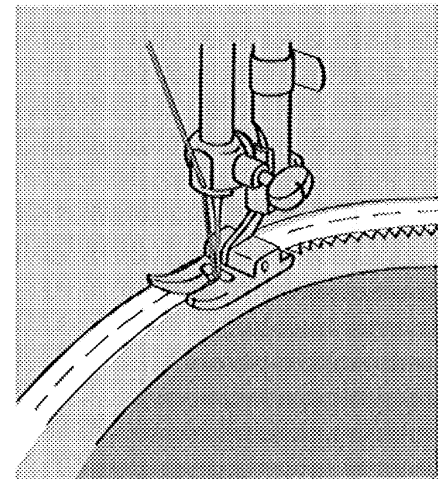
Flat Felled Seam with
Open Plain Zig-Zag Stitching

KNIT FABRIC SEAMS

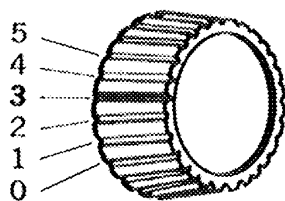
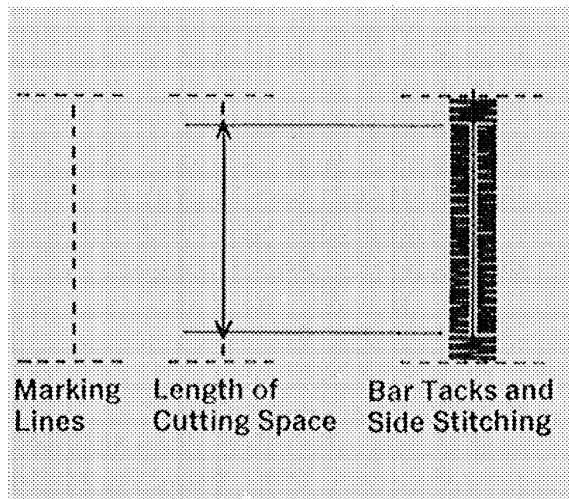
A fine zig-zag stitch is ideal for seaming knit fabrics. It is particularly desirable for underarm seams where elasticity and give are needed.

For neckline and waistline seams, where a stay is needed to prevent undue stretching, this same stitch can be used to apply seam tape. To stay a knit seam:

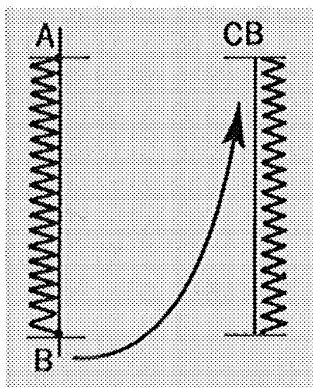
- 1 Set stitch width at about 2.
- 2 Set stitch length at about 20.
- 3 If seam is curved, preshape tape to fit by steam pressing.
- 4 Baste tape in place.
- 5 Stitch, allowing needle to enter seam tape and seam allowance alternately.



Curved Seam in Knit Fabric



Stitch Width
Dial at 3



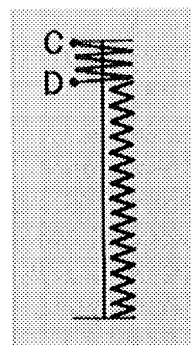
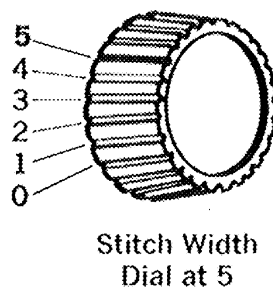
BUTTONHOLES

For buttonholes, use a satin stitch as described on page 21. You will need two stitch width settings, one for side stitching and one for the bar tacks. Depending on the size of the buttonhole, you can use either stitch width 2 and 4 or 3 and 5.

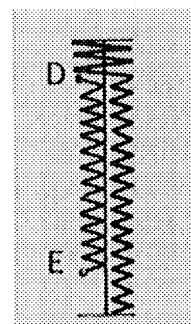
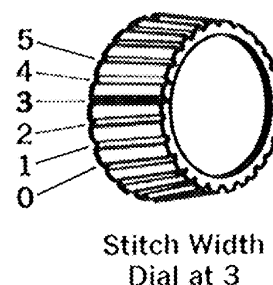
Always make a test buttonhole on a sample of your fabric. Be sure to duplicate the thickness of the garment and include interfacing if appropriate.

- 1 Mark button length on garment. Add at least $\frac{1}{8}$ " ($\frac{1}{16}$ " for each bar tack).
- 2 For the *side stitching*, set stitch width at 2 (or 3). Position needle in fabric at point A, lower presser foot, and stitch down to point B. Leave needle in fabric. Raise presser foot and pivot work on needle. Lower foot and take one stitch. Leave needle in fabric at point C.

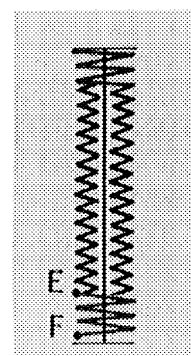
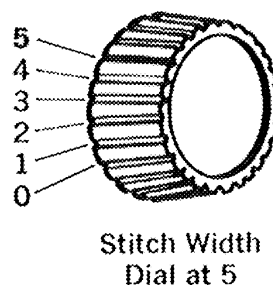
- 3 For the *bar tack*, with needle in fabric, lift presser foot, and set stitch width at 4 (or 5). Lower presser foot and take approximately six stitches to complete tack. Leave needle in fabric at point D.



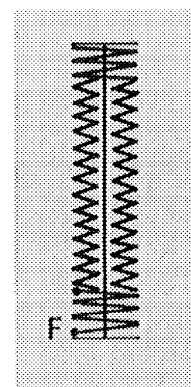
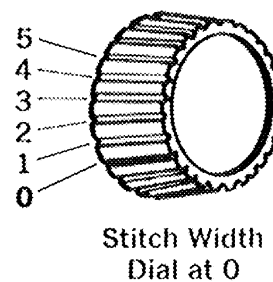
- 4 For *side stitching*, with needle in fabric, lift presser foot and reset stitch width at 2 (or 3). Lower presser foot; stitch to point E. Leave needle in fabric.



- 5 For *final bar tack*, with needle in fabric, lift presser foot and set stitch width at 4 (or 5). Lower presser foot and duplicate tack previously made. Leave needle in fabric at point E.



- 6 For the fastening stitch, lift presser foot and set stitch width at 0; lower foot and take approximately 3 stitches.



- 7 Remove work, draw threads to wrong side, and trim. Cut opening for button with a pair of sharp embroidery scissors.

blind stitching

Set the Blind Stitch Lever at ON and choose a stitch width. Set stitch length as desired. Adjust thread tension as described on page 21. If necessary, adjust pressure as described on page 13.

BLIND STITCH HEMS

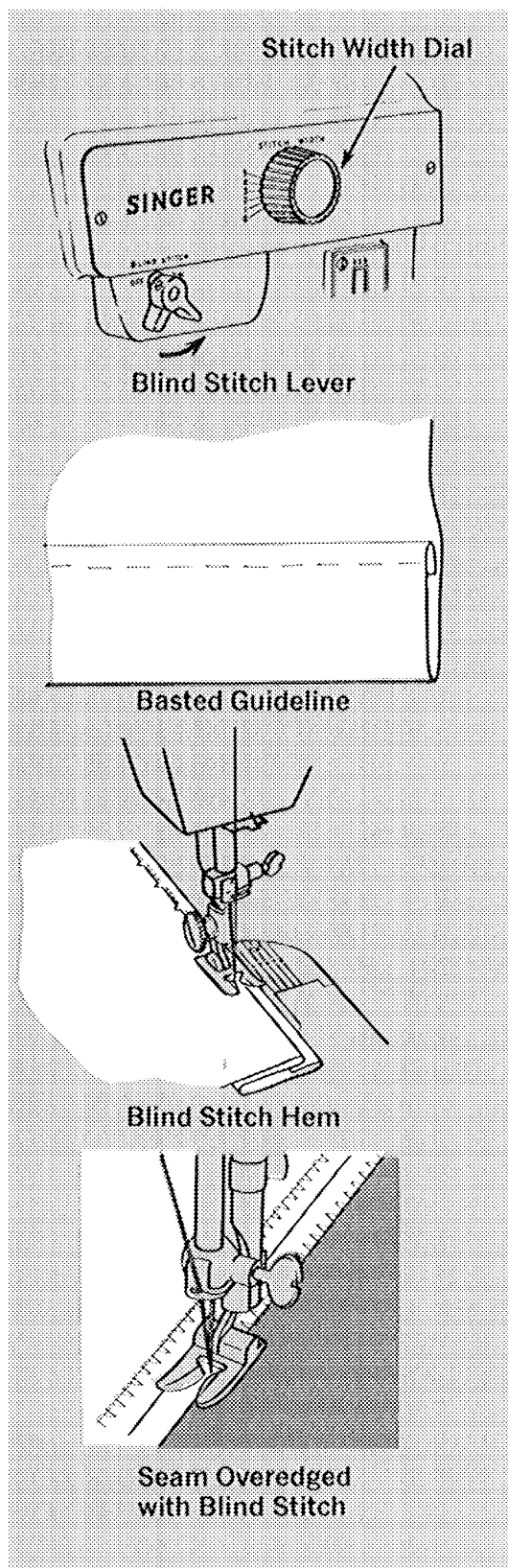
Blind stitching provides a durable hem finish that is invisible and is comparable to hand sewing. It is best suited to straight and slightly curved hems. Taped, bound, turned, or unfinished hem edges can be blind stitched with equal ease. Blind stitching takes a little practice, however, so make a test sample first.

- 1 Mark, turn, and press hem in the usual way.
- 2 Baste a guideline $\frac{1}{4}$ " from the top of the hem edge.
- 3 Place hem edge over the feed of the machine, turning bulk of fabric to the left and thus creating a soft fold.
- 4 Stitch so that straight stitches fall on hem edge and sideward stitches pierce the soft fold.

OVEREDGED SEAM FINISH

For an overedged seam the blind stitch makes a durable, bulkless finish. It is particularly suitable for lengthwise seams.

- 1 Trim seam edges evenly.
- 2 Form the stitch over the raw fabric edge.



Free-motion work

To prepare for free-motion work—either darning or monograms—set the Blind Stitch Lever at OFF, and turn Feed Lowering Dial clockwise to lower the feed dog. Then remove the presser foot.

TO REMOVE PRESSER FOOT:

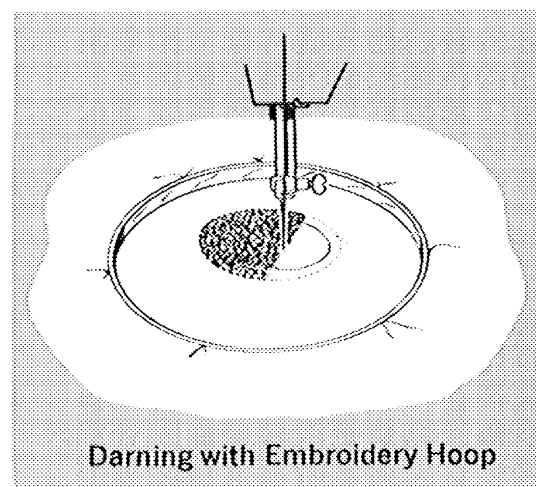
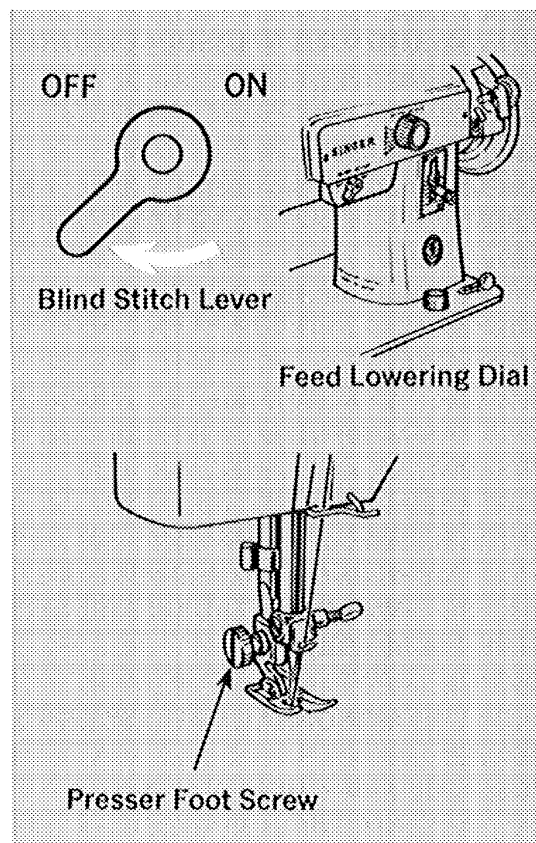
- 1 Raise the presser foot.
- 2 Loosen the presser foot screw. (You do *not* need to remove the screw.)
- 3 Remove presser foot.

TO REPLACE PRESSER FOOT:

- 1 Hook presser foot around presser bar.
- 2 Tighten presser foot screw.

DARNING

- 1 Trim ragged edges from area to be darned.
- 2 Center worn section in embroidery hoops.
- 3 Set Stitch Width Dial at 0 and Stitch Length Lever in FINE area.
- 4 Position work under needle and lower presser bar to engage tension.
- 5 Hold needle thread loosely with left hand, turn hand wheel toward you, and draw bobbin thread up through fabric. Hold both thread ends and lower needle into fabric.
- 6 Outline area to be darned with running stitches for reinforcement. Place stitches $\frac{1}{4}$ " from edge of open area.



- 7 Stitch across opening, moving hoops under needle at a slight angle from lower left to upper right. Keep lines of stitching closely spaced and even in length.
- 8 When opening is filled, turn work 90 degrees and continue stitching until darn is completed.

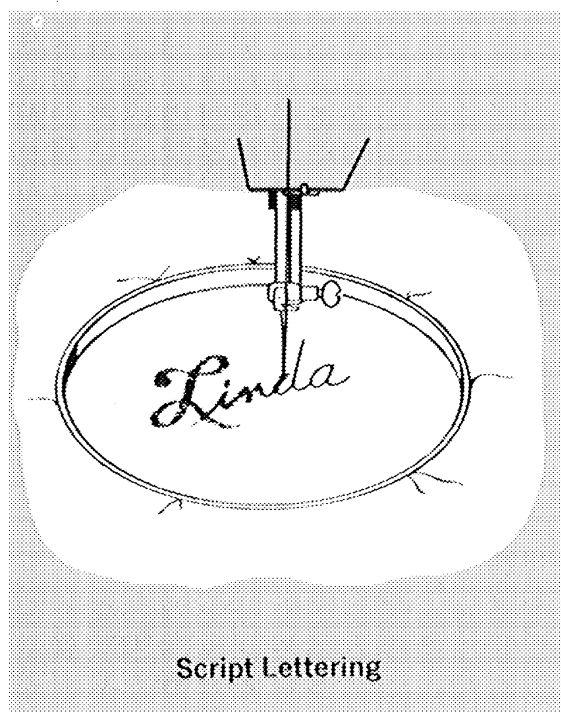
Run machine at moderate speed and control hoops with a steady, continuous movement. Slow movement of hoops will produce a short stitch; more rapid movement lengthens the stitch.

Fairly long stitches are best for knit and tricot fabrics; short stitches are best for cottons and linens, as they approximate weave of fabric and are strong enough to withstand many launderings.

MONOGRAMS AND SCRIPT LETTERING

You can buy designs for monograms or script lettering—or create them yourself. Always make a sample first, to find the right stitch settings and spacing.

Set stitch length in FINE area and set Stitch Width Dial between 2 and 5. Blind Stitch Lever should be at OFF.



- 1 Transfer the design (by tracing, usually) to right side of fabric.
- 2 If the fabric is soft or loosely woven, baste a backing of lawn or organdy onto the wrong side.
- 3 Place work in embroidery hoop. Be sure fabric is held taut.
- 4 Position work under needle; lower presser bar to engage tension.
- 5 Turn hand wheel toward you to bring bobbin thread up through fabric at start of design; hold both threads as you start stitching.
- 6 Stitch, following the outline of the lettering. Move the hoops slowly and maintain an even rate of speed so that stitches are uniformly spaced.
- 7 After stitching, trim the backing close to the stitching.

How to take care of your **SINGER** sewing machine

Your sewing machine is a fine yet sturdy precision instrument, and it will serve you perfectly for many years if you take a few simple steps to keep it in good condition. How often you will need to clean, oil, and lubricate the machine will depend on how often you use it and where you keep it. The following general guidelines assume that you will be sewing two or three times a week. But if you use the machine continuously, clean and oil it daily. Or, if you keep it in a very warm or damp place, oil and lubricate it more frequently than the guidelines suggest.

every week or so—

Remove lint and fluff from exposed parts. (As a matter of fact, you will be able to see the lint and fluff gathering on these parts, and we recommend that you remove them as they accumulate.)

With a soft cloth, clean :

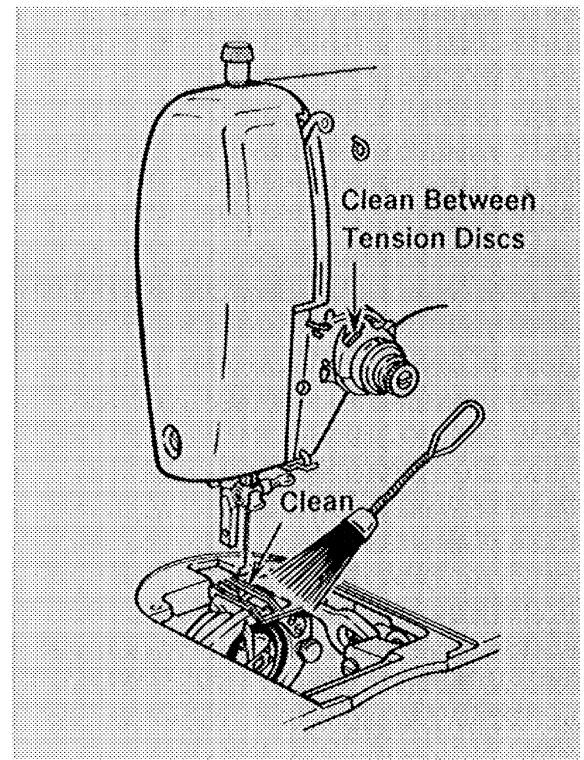
- Tension discs
- Take-up lever and thread guides
- Presser bar and needle bar
- Machine surface (arm and bed).

If necessary, dampen the cloth to clean the machine surface. *Do not use detergents.*

With a lint brush, clean :

- Feed dog
- Rotating hook
- Shuttle (for instructions on removal, see page 30)
- Area under throat plate (for instructions, see page 30)

After each cleaning, apply a drop (but no more than a drop) of SINGER* oil to the areas shown. Then sew a line of stitching on a scrap of material to remove excess oil.

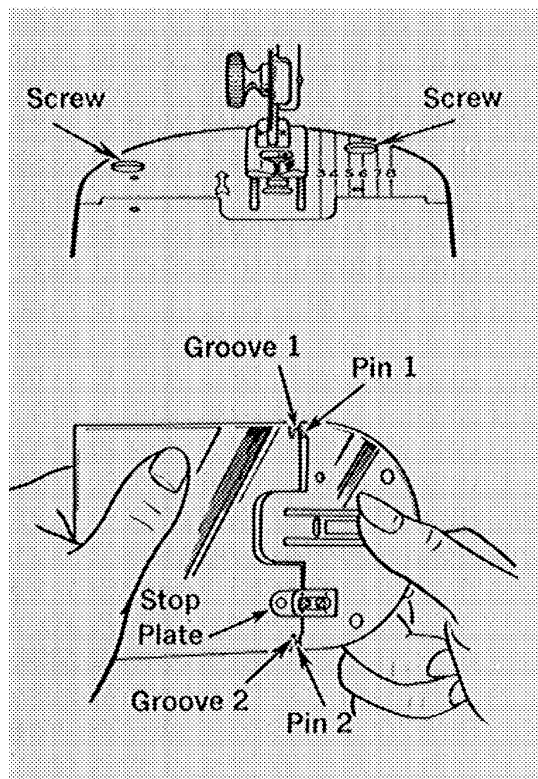


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to remove and replace throat plate

TO REMOVE

- 1 Remove two screws and remove the throat plate and bed plate as a unit.
- 2 Hold the throat and bed plate bottom side up and press throat plate downward in order to disengage it. Slide throat plate to the right and disengage bed plate.



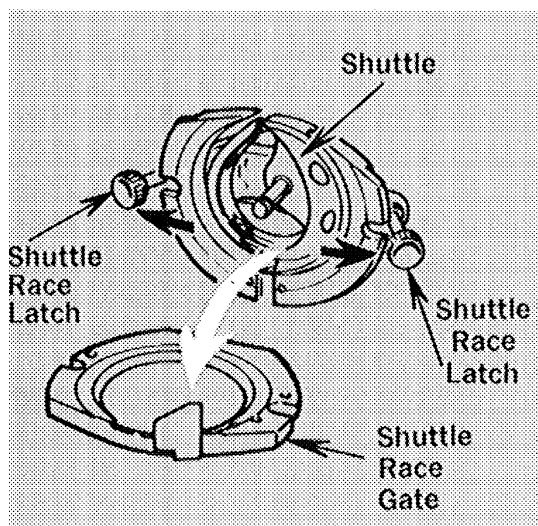
TO REPLACE

- 1 Fit pin 1 on the underside of the bed plate over groove 1 in the throat plate.
- 2 Press throat plate down toward bed plate while assembling stop plate of bed plate to spring of throat plate.
- 3 Fit pin 2 of bed plate to groove 2 of throat plate.

to remove and replace shuttle

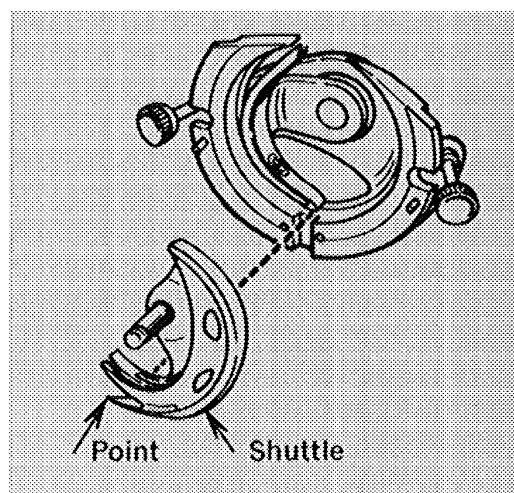
TO REMOVE

- 1 Tilt machine back.
- 2 Turn hand wheel until needle bar is at its highest point.
- 3 Remove bobbin case.
- 4 Push shuttle race latches out toward left and right, then open shuttle race gate. The shuttle can now be easily removed.
- 5 Clean and apply oil to shuttle area.



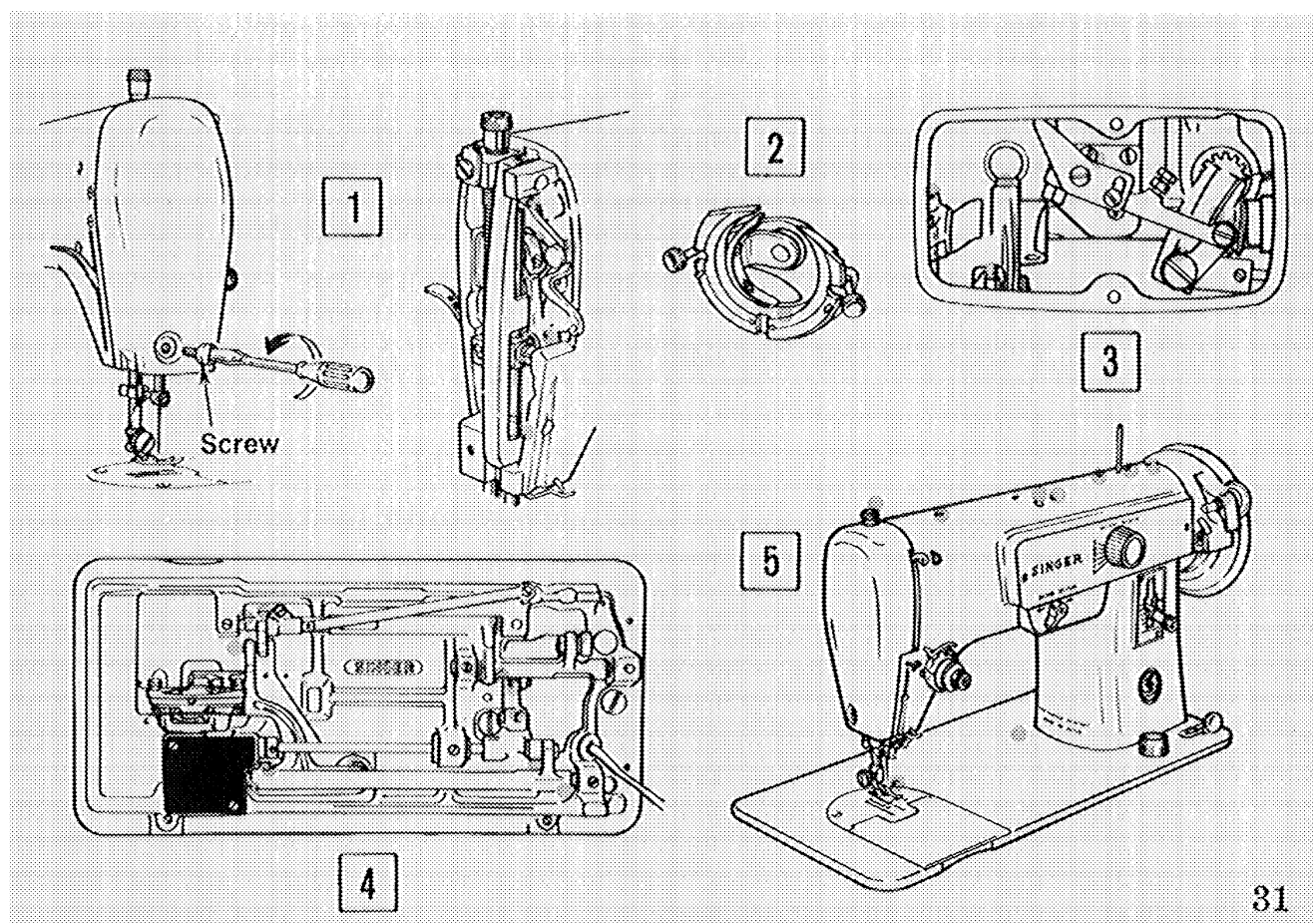
TO REPLACE

- 1 Turn hand wheel until needle bar is at its highest point.
- 2 Replace shuttle with its point in position shown in illustration. Close shuttle race gate and lock in position by pushing latch back into slot.
- 3 Replace bobbin case.



every few months—

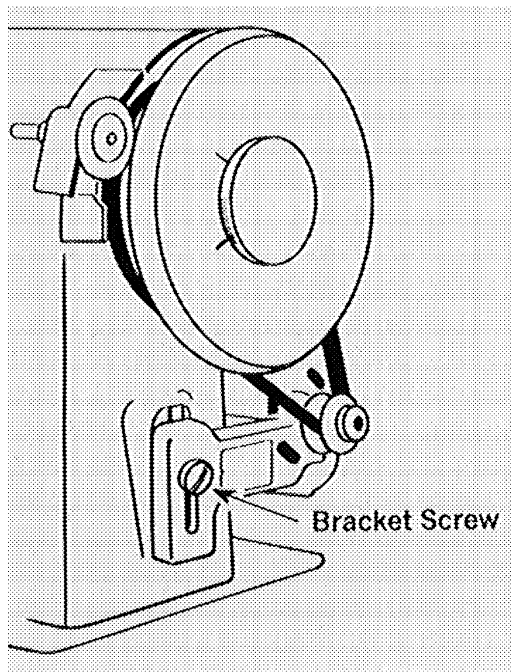
- 1 Clean and oil area behind face plate:
 - Loosen screw on face plate and remove face plate.
 - Oil the places indicated.
 - Replace face plate.
- 2 Raise hinged bed plate and apply a drop of oil to the shuttle raceway.
- 3 Remove plate at back of machine by loosening thumb screw. Apply a drop of oil to each point indicated. Replace plate.
- 4 Tilt machine back and oil each of the places indicated on bottom of machine.
- 5 Apply a drop of oil to each place indicated on top of machine and on bed.



How to take care of your sewing machine (*continued*)

IF THE MACHINE IS TO BE STORED—

- 1 Clean all exposed parts and area behind face plate.
- 2 Swab all exposed metal parts and parts behind face plate with lint brush saturated with SINGER oil, to protect against rust.

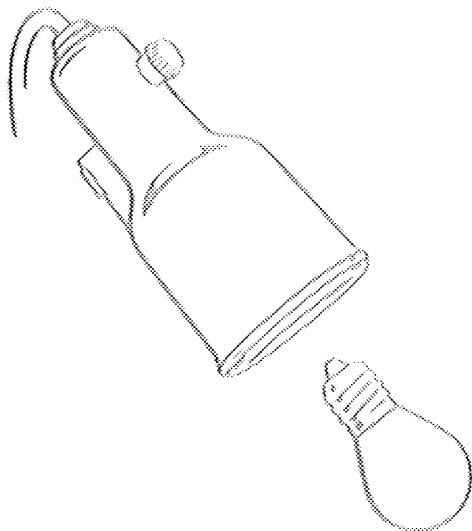


to adjust belt tension

On rare occasions, you may find it necessary to adjust the tension on the motor belt. Tension on the belt should be just strong enough to keep the belt from slipping. If the belt is too tight, the machine will run slowly. This will overload and possibly damage the motor.

TO ADJUST

- 1 Loosen bracket screw a full turn.
- 2 Allow weight of motor to supply correct belt tension.
- 3 Tighten bracket screw.



to replace light bulb

- 1 Turn off light.
- 2 Unscrew bulb by turning it away from you.
- 3 Screw new bulb into socket by turning bulb toward you.

Enjoy sewing! If you have any questions, please write to:
Singer Educational Department, 30 Rockefeller Plaza, New York, N. Y. 10020

SINGER GUARANTEE

WE GUARANTEE that each SINGER* sewing machine has been carefully manufactured and is in perfect operating condition on delivery. When subject to normal family use and care, any parts requiring replacement at any time due to defects in material or workmanship will be replaced without charge.

THIS GUARANTEE does not apply to parts requiring replacement due to natural wear or to abuse or negligence of the user or in the event the machine is serviced by other than a SINGER representative or Approved Dealer or with parts other than those supplied by The Singer Company.

IN ADDITION to the above guarantee of parts, each machine will be inspected and adjusted whenever necessary without charge for labor for a period of one year from date of purchase.

THIS GUARANTEE is effective only with respect to the person making the purchase from The Singer Company or one of its Approved Dealers. The original Sales Agreement, or Cash Receipt, must be presented to obtain the benefits of the guarantee.

AGREEMENTS inconsistent with the foregoing shall be void and of no effect.

THE SINGER COMPANY

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FREQUENCY CONTOURED* Compact stereo phonograph with two balanced speakers for rich, true tone. Fully transistorized. In beautiful oiled-walnut finish.

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