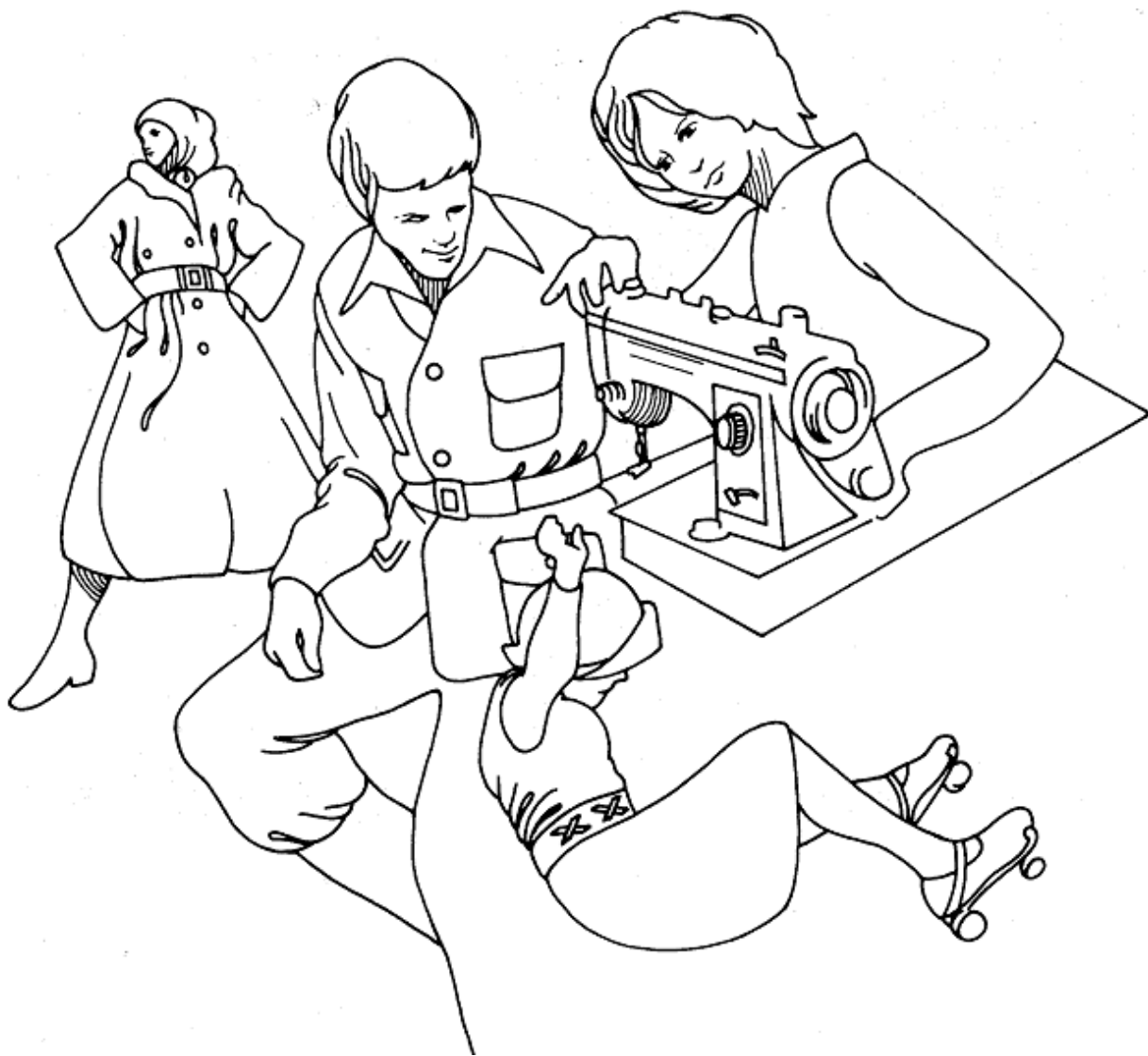


Brother 681B-UG



CAUTION

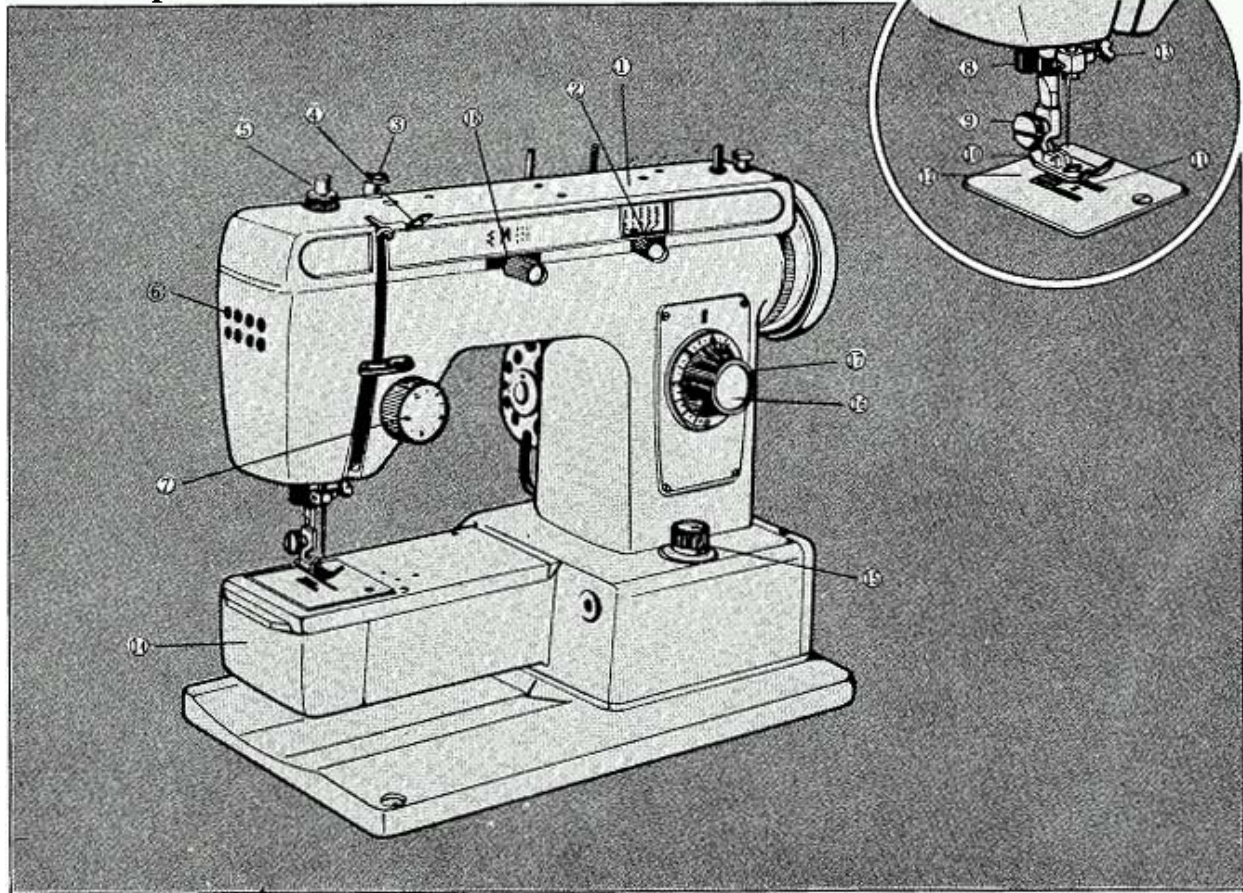
WHEN CHANGING NEEDLE, BOBBIN OR LIGHT BULB, OR
WHEN SEWING MACHINE IS NOT IN USE, IT IS
RECOMMENDED THAT ELECTRICAL SUPPLY IS
DISCONNECTED TO AVOID ELECTRICAL HAZARDS.

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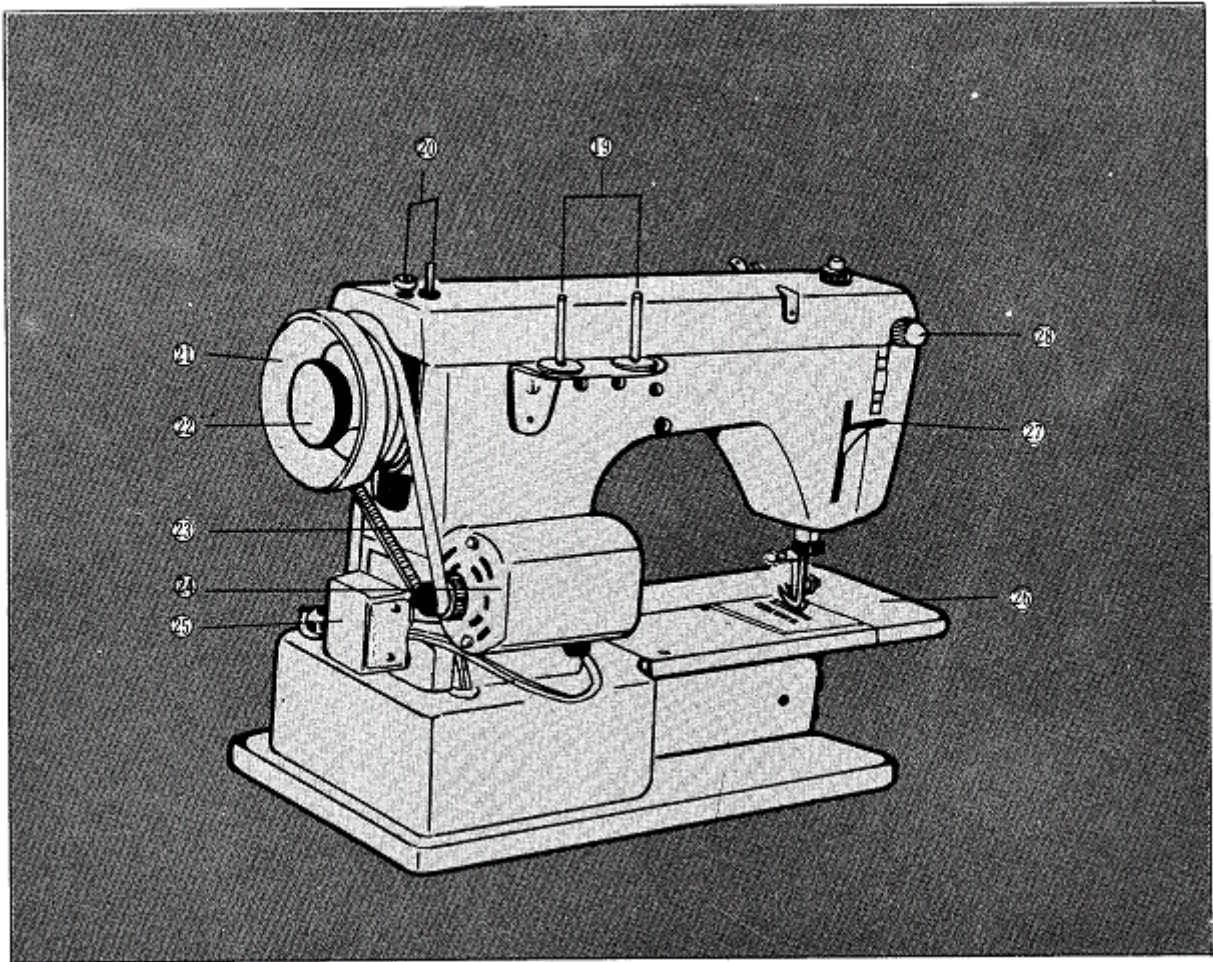
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1. Knowing Your Sewing Machine

Principal Parts



1. Top Cover
2. Zigzag Width Lever
(See page 12)
3. Upper Thread Guide and Bobbin Winder
Tension Disc
4. Front Thread Guide
5. Pressure Adjuster (See page 13)
6. Face Plate
7. Thread Tension Dial (See page 15)
8. Thread Cutter
9. Presser Foot Screw
10. Presser Foot (Zigzag)
11. Feed Dog (See page 14)
12. Needle Plate
13. Needle Clamp Screw
14. Shuttle Race cover
15. Drop Feed Knob (See page 14)
16. Reverse Sewing Button (See page 14)
17. Stitch Length Dial
By turning this dial, you can control the
length of the stitch.
The higher the number, the longer
the stitch (See page 12)
18. Blind Stitch & Stretch Stitch Lever
19. Spool Pins
20. Bobbin Winder Device
21. Balance Wheel
22. Stop Motion Knob



23. Motor Belt

24. Motor

25. 3-pin Socket

26. Extension table

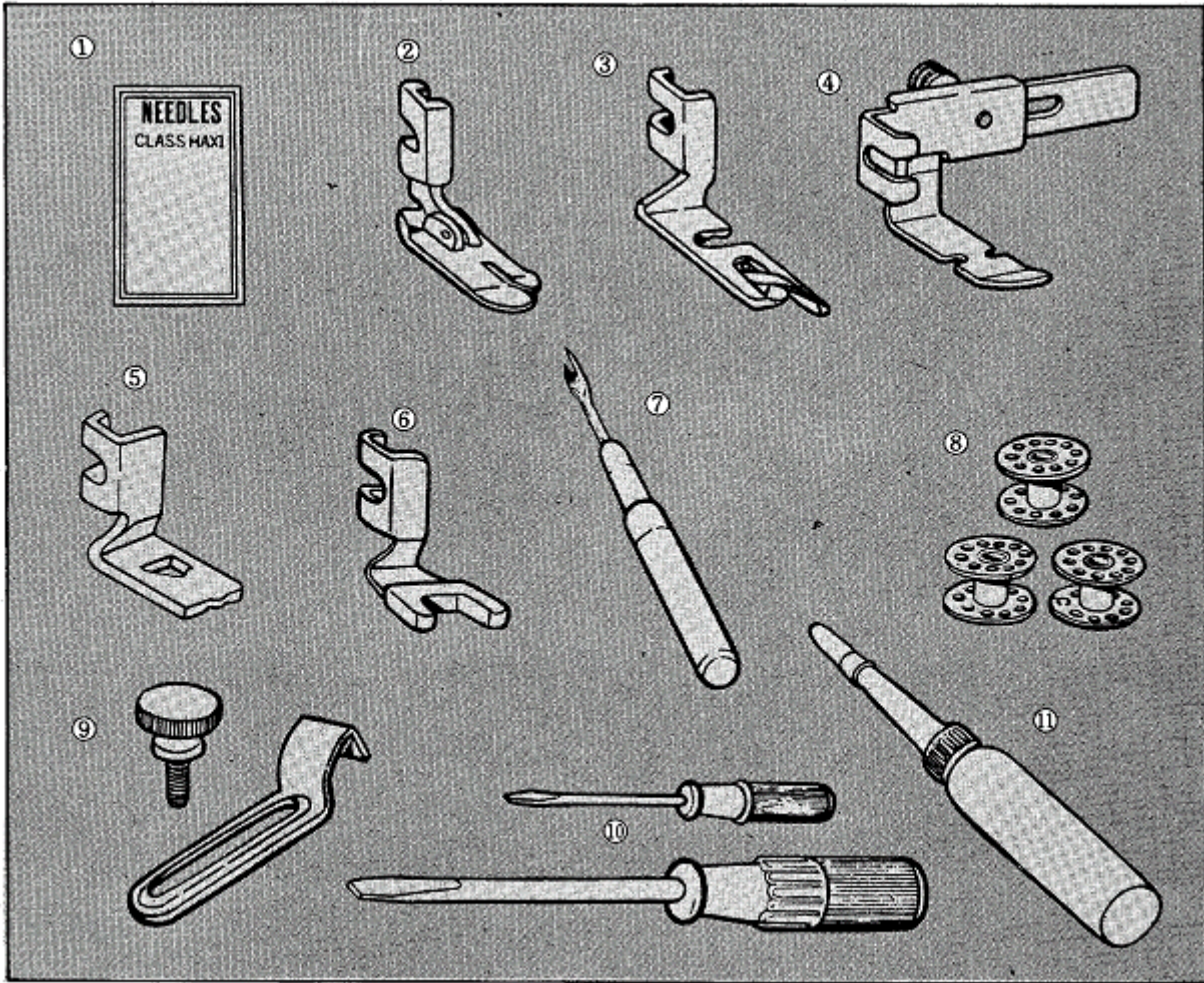
27. Presser Foot Lifter

When the presser foot is at the highest position, the tension on the upper thread is released.

28. Sew-light Switch

Turn this knob in any direction to switch light on and off.

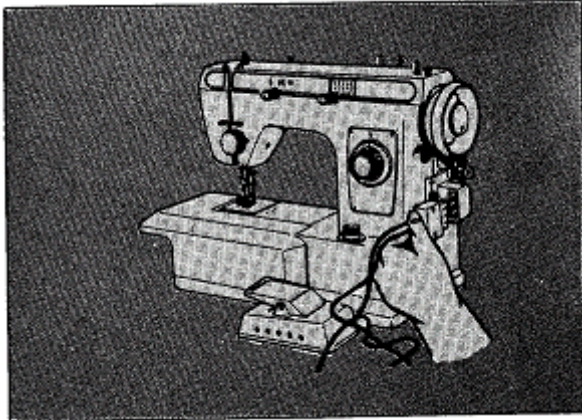
Accessories



1. Needles
Single Needle No.14 (3 pcs.)
2. Straight Stitch Foot
3. Narrow Hemmer foot
4. Zipper Foot
5. Buttonhole Foot
6. Button Sewing Foot
7. Seam Ripper
8. Bobbin (3 pcs.)
9. Cloth Guide with Screw
10. Screw Drivers (Large & Small)
11. Oiler

Operating Your Sewing Machine

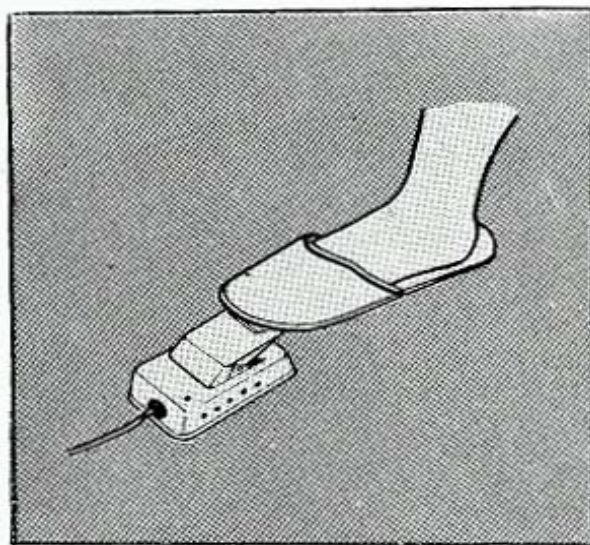
CONNECTING PLUGS



1. First connect three-prong plug in socket.
2. Then connect electric supply plug into wall.

CAUTION

When changing needle, bobbin or light bulb, or when sewing machine is not use, it is recommended that electrical supply plug is disconnected to avoid electrical hazards.



Place foot on control pedal as shown in illustration at left.

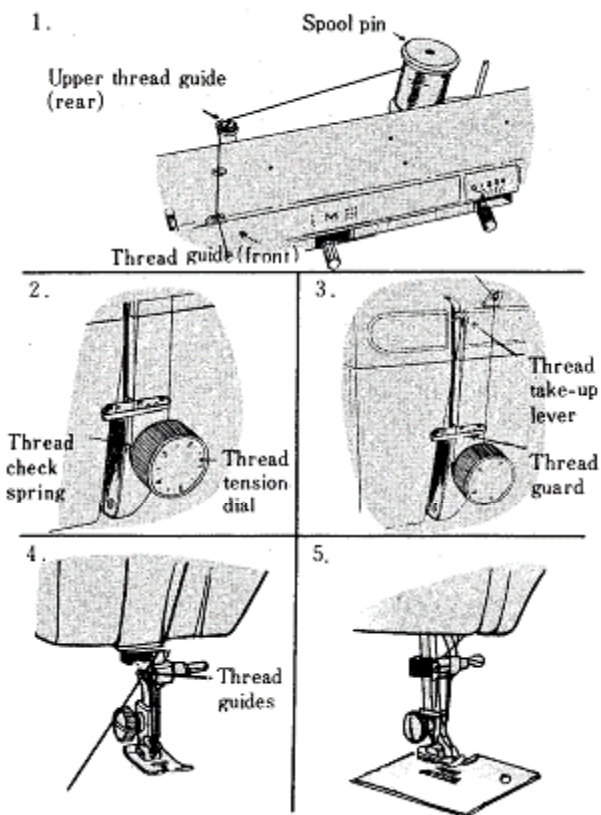
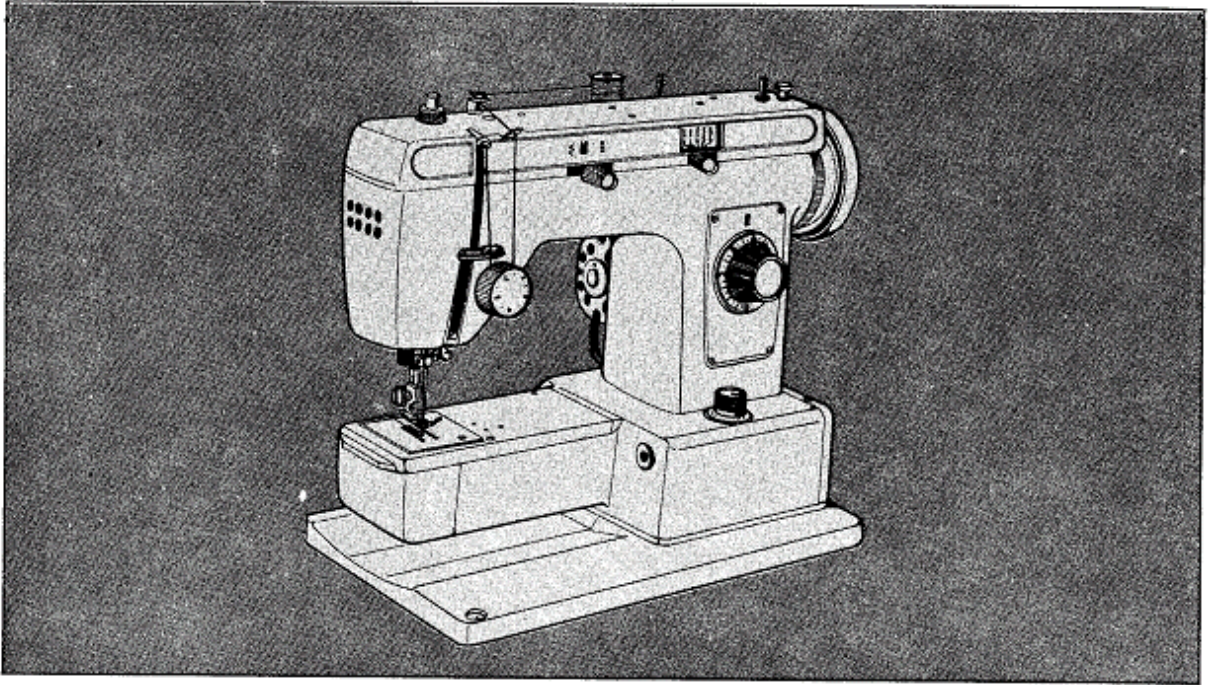
When foot controller is pushed down lightly, machine will run at a low speed.

When pressure on foot is increased, sewing machine will pick up speed.

When foot controller is released the sewing machine will stop.

NOTE: Care should be taken that nothing is placed on foot controller when sewing machine is not in use.

Upper (Needle) Thread



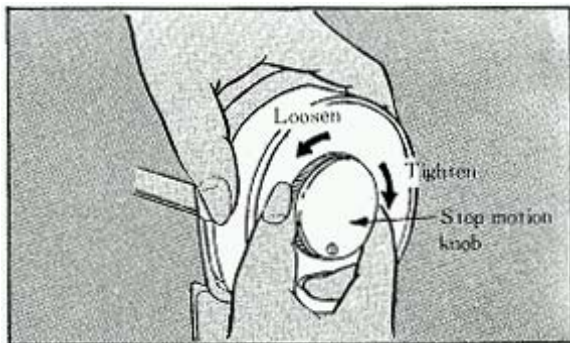
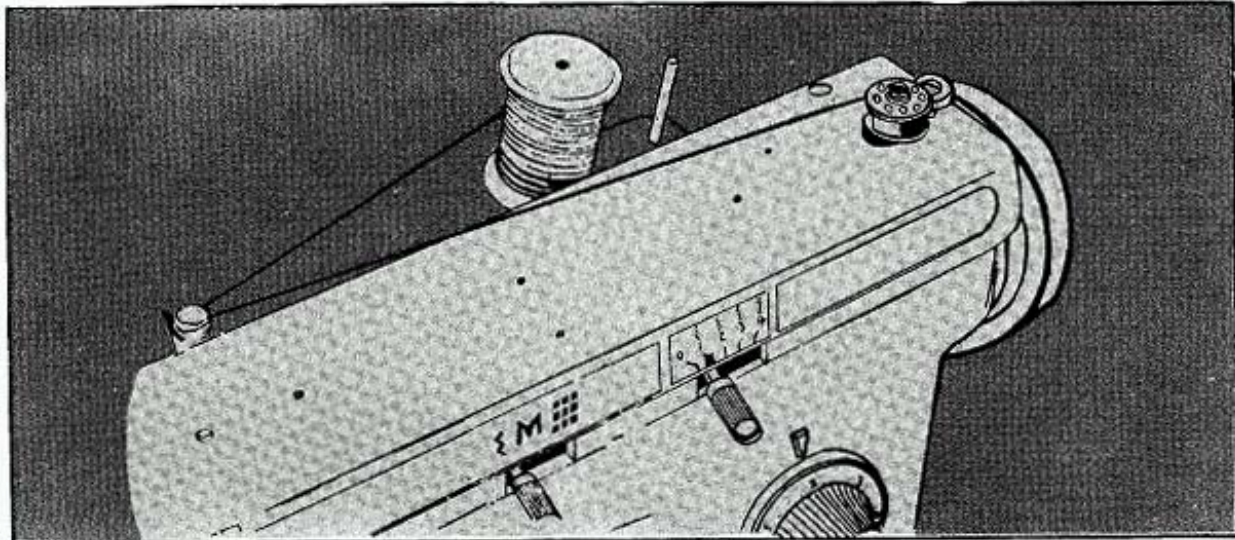
Before threading, make sure to raise presser foot and take-up lever to the highest position. Then place spool of thread on the spool.

1. Pass thread through the upper thread guide, (rear) and thread guide (front).
2. Now bring thread down and up through thread tension dial from right to left so that thread picks up thread check spring.
3. Pass thread into the eyelet of the thread take-up lever from right to left. And bring down again and pass through the thread guard.
4. Bring down and pass through the thread guides.
5. Thread needle from left to right and draw the thread out about 15 cm (6 inches).

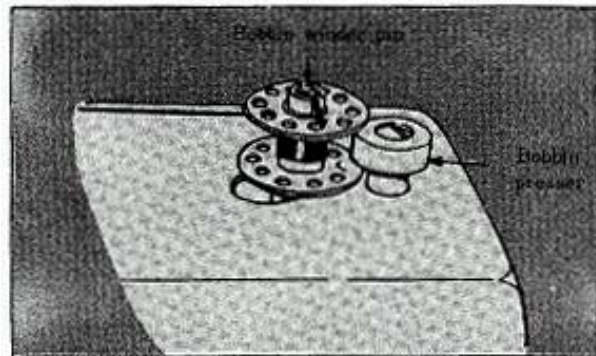
NOTE: If the threading order is not correct, thread breakage, stitch skipping, wrinkling of fabric will occur.

Lower (Bobbin) Thread

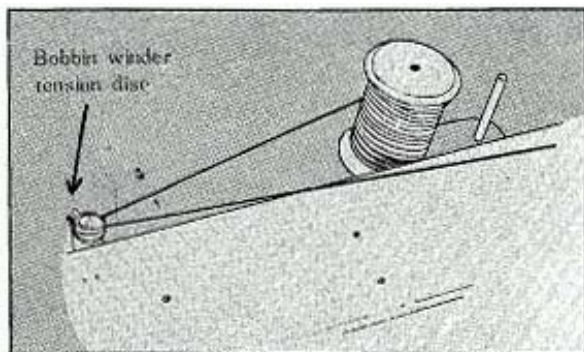
HOW TO WIND BOBBIN



1. Loosen stop motion knob by turning it toward you.



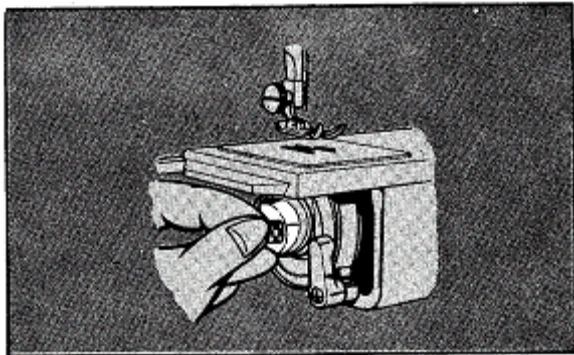
2. Place an empty bobbin on the bobbin winder pin.



3. Place thread spool on the spool pin and take thread through bobbin winder tension disc.

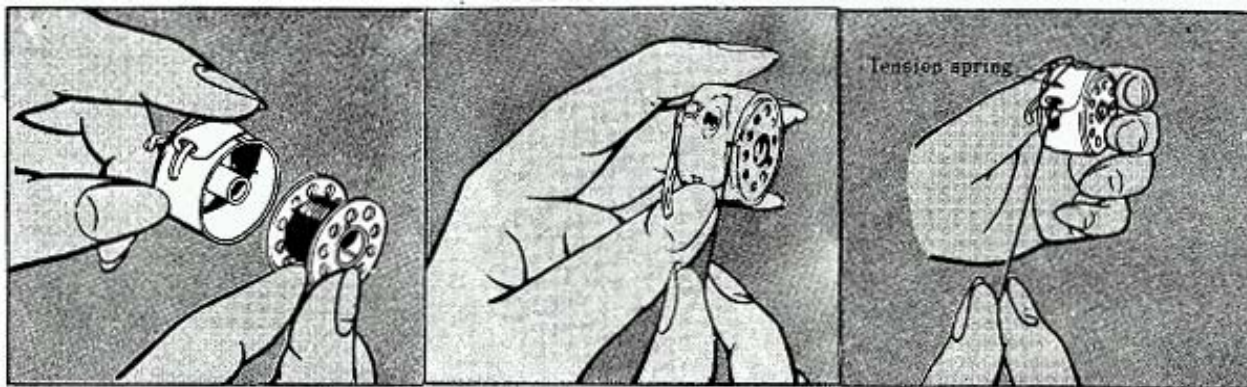
4. Wind the thread a few times around the bobbin clockwise and push the bobbin toward bobbin presser. Start the machine gently.
5. Bobbin stops winding when full.
6. Push the bobbin to the left and remove it. Tighten stop motion knob securely.

HOW TO REMOVE BOBBIN CASE

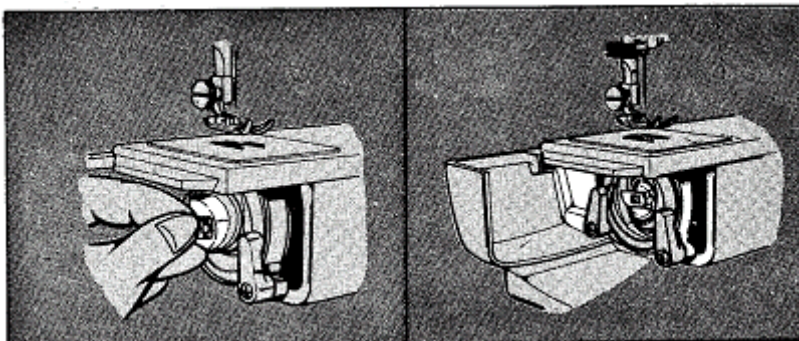


1. Raise needle to its highest position.
2. Open the shuttle cover.
3. Pull and open the latch of bobbin case.
4. Pull out bobbin case from the shuttle.

HOW TO THREAD AND INSERT BOBBIN CASE



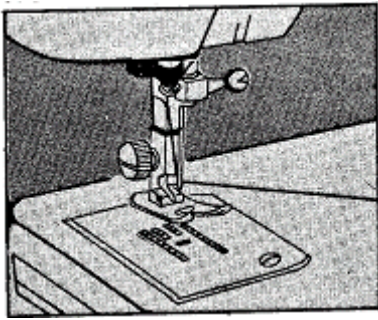
1. Unwind about 8 cm (3- inches) of thread from the bobbin. Insert wound bobbin into
2. Pull trailing thread into the slot case.
3. Pull thread to the left under the tension spring until thread enters into delivery eye.



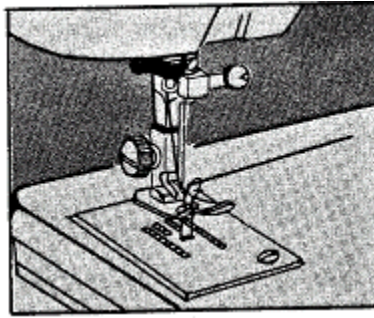
4. Holding case latch with the metal finger of case pointing up, fit it into the notch at the top of the shuttle race.
5. Release latch and push case to the right making sure the case is in the proper position. Close the Shuttle Cover.

NOTE: The thread drawn out of the case is to be left hanging below the race. Leave about 15 cm (6 inches) hanging.

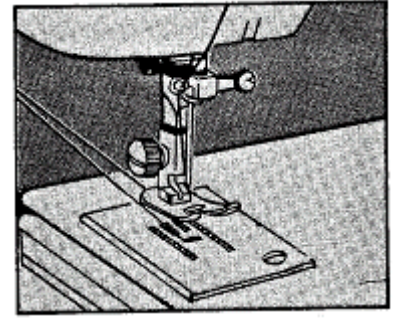
HOW TO PULL UP LOWER THREAD



1. Raise needle and presser foot to the highest point. With left hand, hold the end of upper thread and with right hand, turn balance wheel toward you until the needle moves down and up again to its highest position.



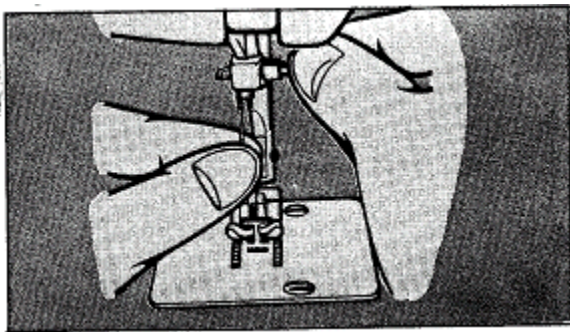
2. Now upper thread catches the lower thread in a loop. Pull upper thread toward you so that lower thread will come up in a large loop from the presser foot.



3. Pull both threads under the toes of presser foot and place them to the rear leaving about 10 cm (4-inches).

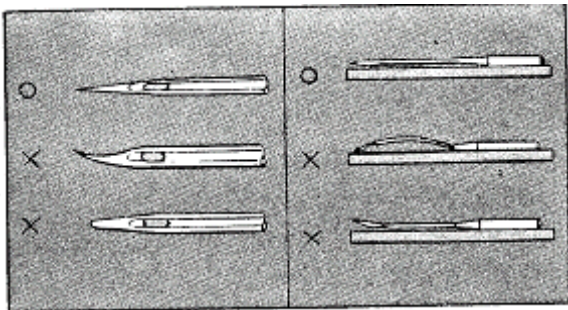
Needle

HOW TO CHANGE THE NEEDLE



1. Raise needle to its highest position.
2. Loosen needle clamp screw and remove old needle.
3. Insert new needle up into needle clamp hole as far as it will go against the needle stop. Make sure the flat side of needle faces toward the right side and the long groove toward left.
4. Tighten needle clamp screw securely.

HOW TO CHECK THE NEEDLE



For smooth sewing, needle must be straight and sharp.

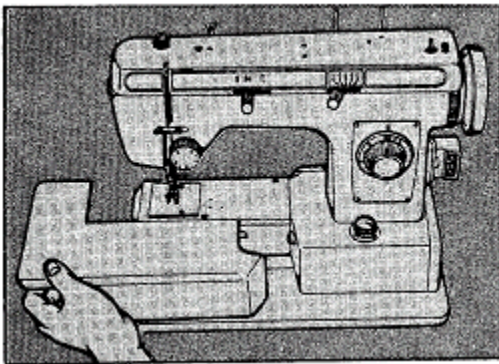
To check if the needle is bent, place the flat side of the needle down on slide plate as shown in illustration.

Relative Chart of Sewing Material, Needle and Thread

SEWING MATERIAL		NEEDLES SIZES	THREAD SIZES
VERY THIN	Fine tricot, Fine Lace, Thin linen, Silk, Tulle, Chiffon	9	Cotton: 80~120 Synthetic Fine Mercerized Cotton
LIGHT WEIGHT	Organdy, Jersey, Voile, Taffeta, Synthetics, Silk Batiste	11	Cotton: 60~80 Silk: "A" Synthetic Mercerized 50
MEDIUM	Cotton, Gingham, Poplin, Percale, Pique, Satin, Velvet, Lightweight wool, Fine corduroy, Suitings.	14	Cotton: 50~60 Silk: "A" Synthetic Mercerized 50~60
HEAVY	Denim, Gabardine, Tweed, Corduroy	16	Cotton: 40~50 Mercerized Heavy Duty
VERY HEAVY	Canvas, Overcoatings, Upholstery	18	Cotton: 30~40 Mercerized Heavy Duty

NOTE: The same size thread should be used for upper and lower threads.

Extension Table

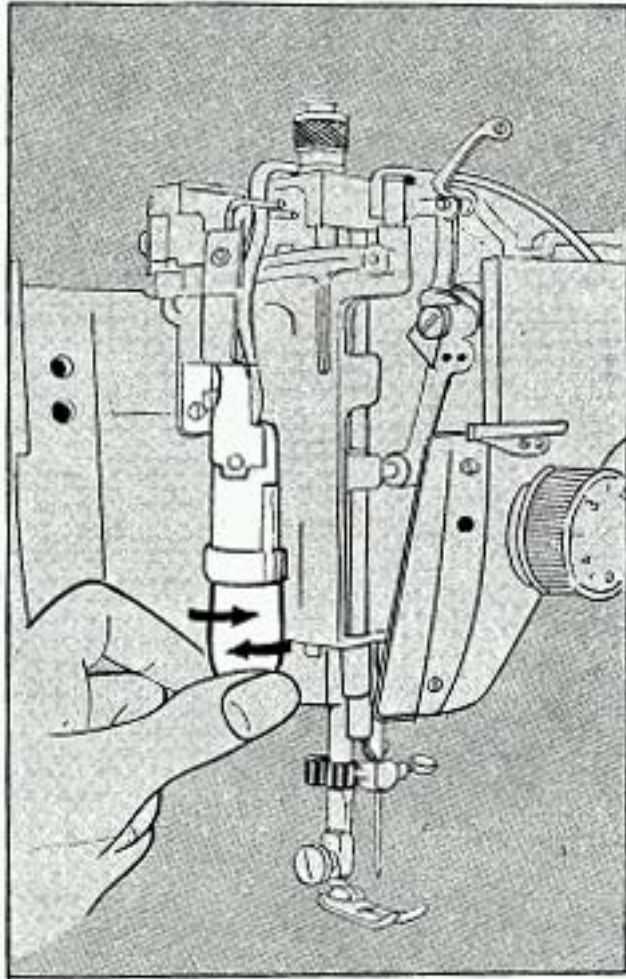


This sewing machine has an extension table which converts it into a flat-bed machine.

To insert the extension table:

1. Slide the extension to the right as shown in illustration.
2. To remove extension table, just pull it to the left.

Sew-Light



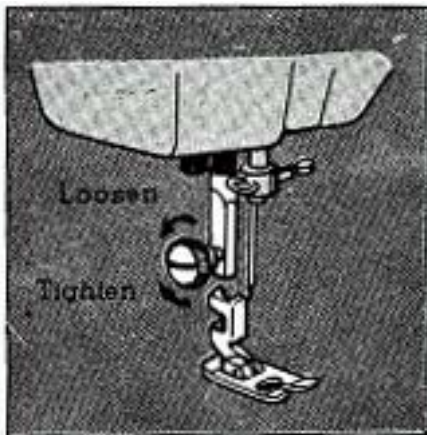
To change the bulb:

1. Swing open face plate.
2. Remove bulb by turning counter-clockwise.
3. After replacement, close the face plate.

NOTE:

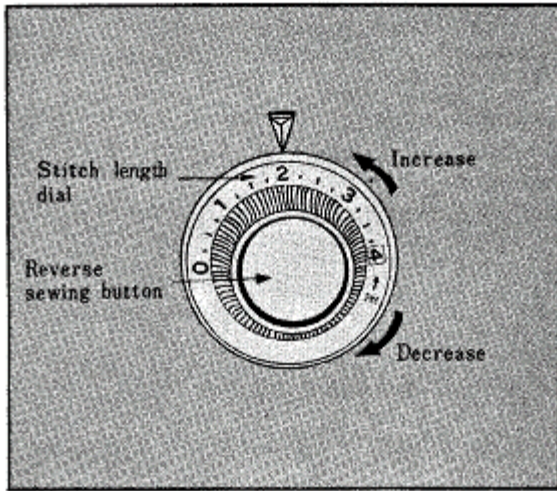
1. Make sure new bulb is the same specification as old one.
2. Make sure to switch off the light and pull out supply plug when you replace the bulb in order to avoid electric hazards.

Presser Foot



To remove the presser foot;

1. Raise needle to its highest position.
2. Raise presser foot.
3. Loosen presser foot thumb screw and remove presser foot.
4. To attach the presser foot, place grooved side of the foot against the flat of the presser bar.
5. Tighten thumb screw.



STITCH LENGTH

The stitch length is regulated by turning the stitch length dial.

Numerals on the dial represent the stitch length.

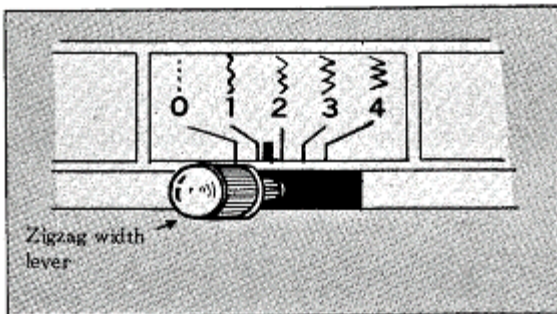
THE HIGHER THE NUMBER, THE LONGER THE STITCH.

To increase the stitch length, turn stitch length dial counter-clockwise to larger number on the dial.

To decrease the stitch length, turn dial clockwise to smaller on the dial.

NOTE:

1. The "0" on the dial means that the material is not being fed.
2. Always set at 4 when you sew triple stretch stitch (See page 21).



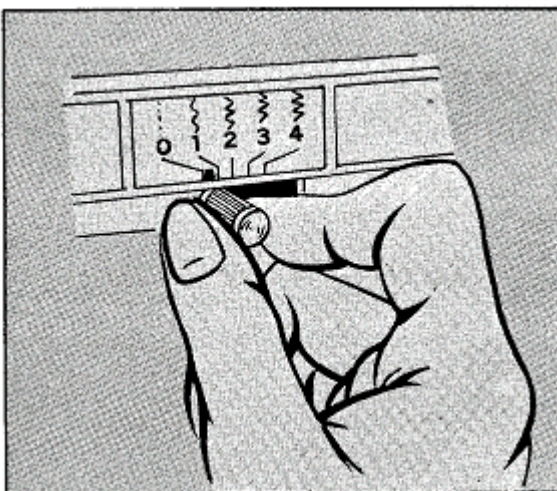
ZIGZAG WIDTH

The zigzag width is regulated by operating the zigzag width lever.

Numerals above the lever represent the width of stitch.

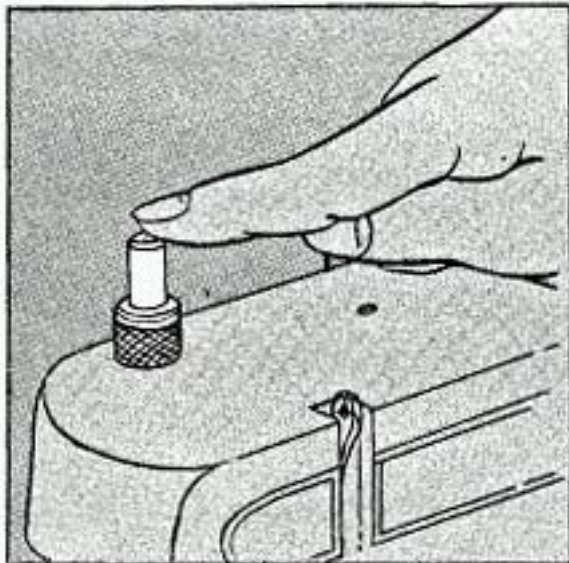
THE HIGHER THE NUMBER, THE WIDER THE STITCH.

The "0" means straight stitch only.



NOTE: Do not move the lever while the needle is in the material.

PRESSURE ADJUSTER












Correct pressure on presser foot is important to obtain the smooth sewing.

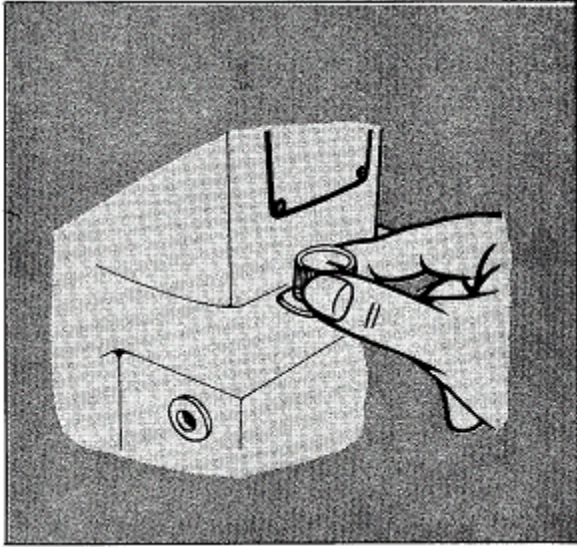
Regulate presser according to type and thickness of the materials to be sewn.

1. To regulate the pressure, lower presser foot.
2. Push outer ring of pressure adjuster down, and inner pin will spring up to its highest position. In this position, pressure is completely released from the presser foot.
3. To increase pressure, push inner pin down with your finger.

NOTE: You will be able to select the correct combination by referring to the table below.

Drop Feed Knob	Height of Feed dog	Pressure Adjuster	
 DOWN	 DOWN	 UP	Darning Embroidering Monogramming
 UP	 UP	 MIDDLE	Mending Normal use and lighter material such as silk and nylon
 UP	 UP	 DOWN	Thick and heavier materials

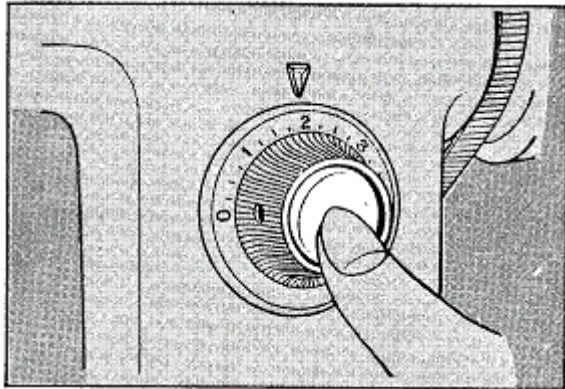
FEED DOG



Proper use of Feed Dog is necessary for correct sewing.

1. "DOWN" is used for special sewing such as darning, embroidery, etc.
2. "UP" is used for general sewing.

REVERSE STITCH



Push the Reverse Sewing Button in as far as it will go to sew in reverse position.

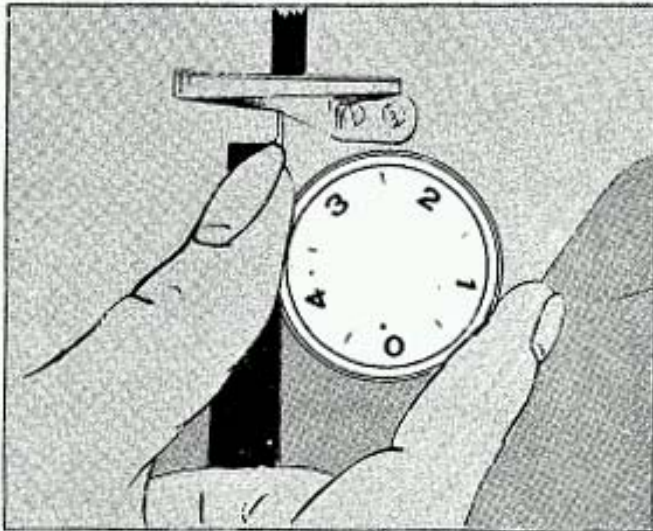
Release Reverse Sewing Button and you are back to sewing in a forward position. Reverse sewing is used for tacking and reinforcement.

THREAD TENSIONS

It is important that tension of upper and lower threads be equal to prevent puckering of material or other problems.

It is recommended that a test sample be made before starting to sew.

UPPER THREAD TENSION



To regulate upper thread tension, merely turn thread tension dial with your thumb after lowering the presser foot.

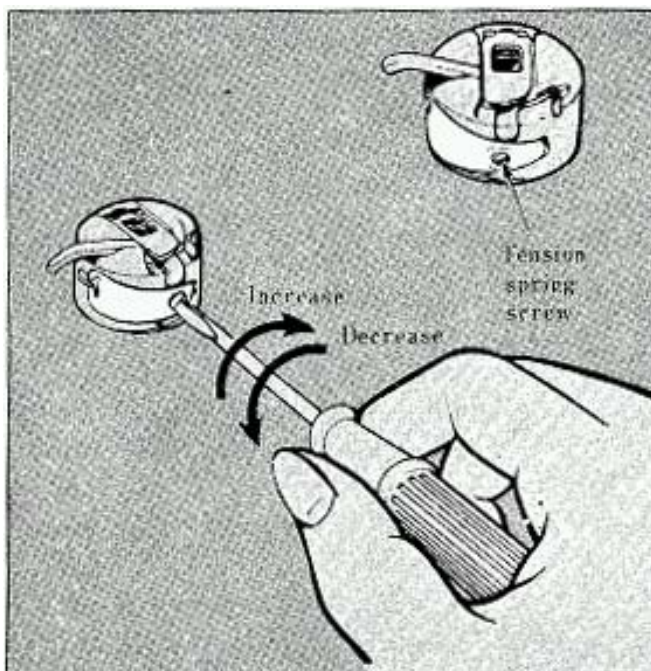
THE HIGHER THE NUMBER, THE TIGHTER THE TENSION.

To increase tension: Turn dial to right to larger number.

To decrease tension: Turn dial to left to smaller number.

NOTE: The zigzag stitch requires less upper tension than the straight stitch.

LOWER THREAD TENSION



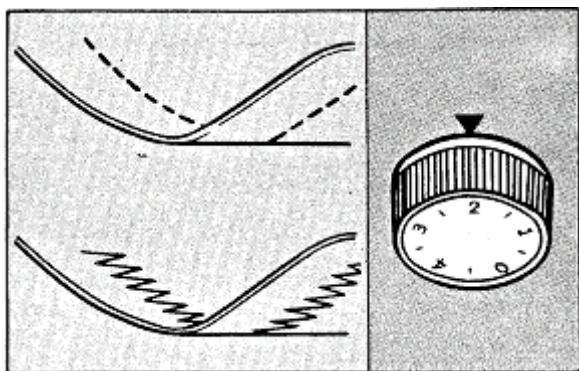
Although lower thread tension has already been adjusted at the factory, when sewing very thin or heavy materials it may have to be readjusted.

To regulate the lower thread tension, turn small screw on the tension, spring of the bobbin case with the small screw driver.

To increase tension: Turn the small screw clockwise very slightly.

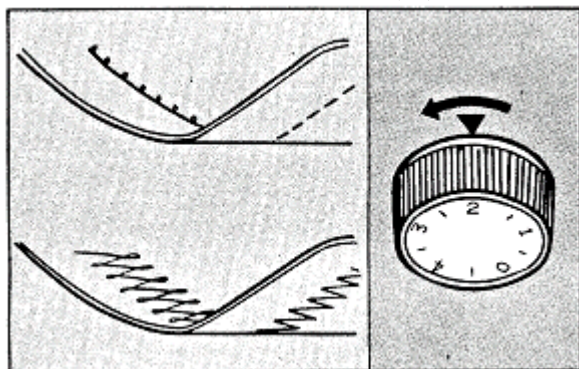
To decrease tension: Turn the screw counterclockwise very slightly.

PERFECT STITCHING



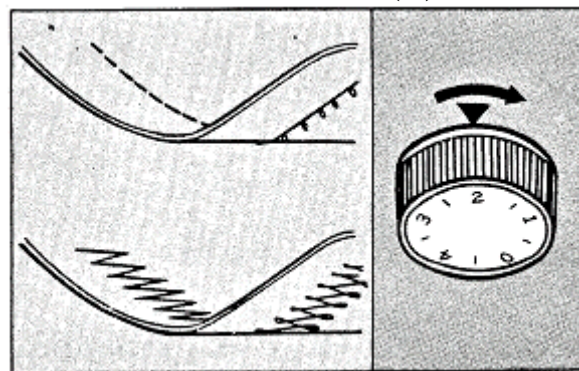
Tension of upper and lower threads should be equal, just sufficiently strong to lock both threads in material. Perfect stitching appears flat with no puckering of material.

INCORRECT STITCH (A)



When the upper thread lies on the surface of the material by pulling the lower thread up as shown. This is caused by tight tension on the upper thread or loose tension on the lower thread. To correct this, turn the upper thread tension dial to a lower number. If perfect stitching cannot be obtained by adjusting upper thread tension, adjust bobbin tension.

INCORRECT STITCH (B)




When the lower thread lies on the under surface of the material by pulling upper thread down as shown. This is caused by loose tension on the upper thread or tight tension on the lower thread. To correct this, turn the upper thread tension dial to a higher number. If perfect stitching cannot be obtained by adjusting upper thread tension, adjust bobbin tension.

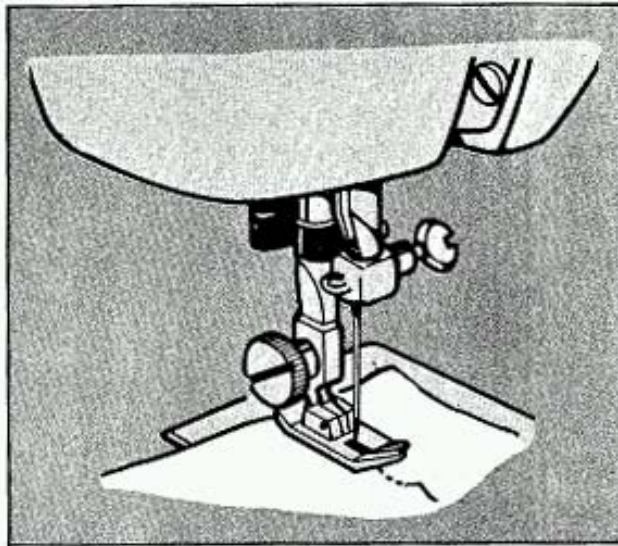
NOTE: It is recommended that a test sample is made before starting to sew.

2. Straight Stitching

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1-4	0	Zigzag or Straight Stitch	UP	According to the material

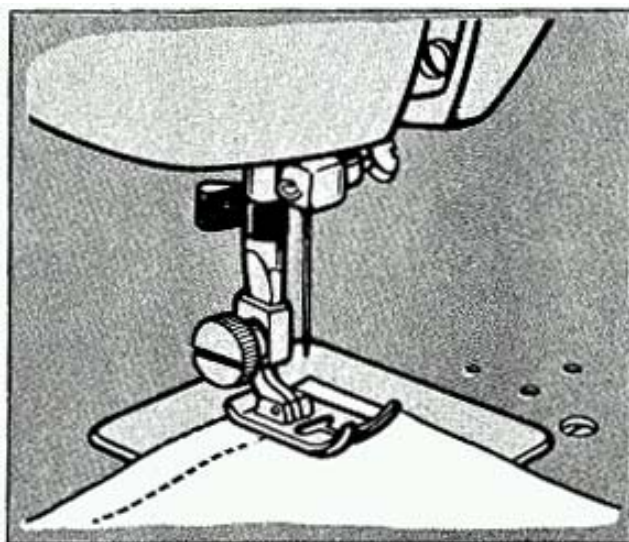
HOW TO START SEWING



1. Raise needle to its highest position and lift presser foot.
2. Place material under presser foot and position needle about one half inch (10mm) from material edge.
3. Lower presser foot.
4. For reverse sewing push Reverse Sewing button sewing is used wherever reinforcement is needed.
5. Release Reverse Sewing Button and start sewing in forward position.

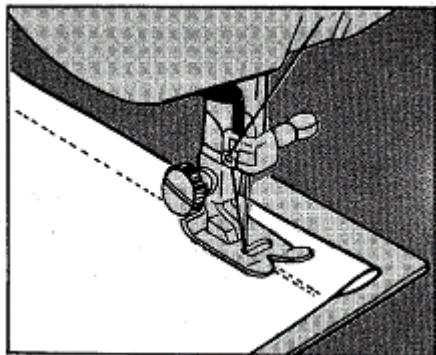
NOTE: Do not pull the material. Let the machine do the work. Merely guide the material with your fingers. If you pull the material, your needle might either bend or break.

HOW TO CHANGE THE SEWING DIRECTION



1. Stop machine at the turning point while the needle is in the material.
2. Raise the presser foot and turn the material to the new direction while the needle acts as the axis.
3. Lower presser foot and sew in new direction.

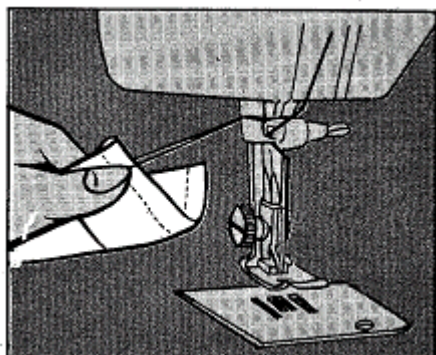
HOW TO FINISH YOUR SEWING PROJECT (REVERSE STITCHING)



Reverse stitching is used to reinforce stitches near the edge of material or wherever reinforcement is needed.

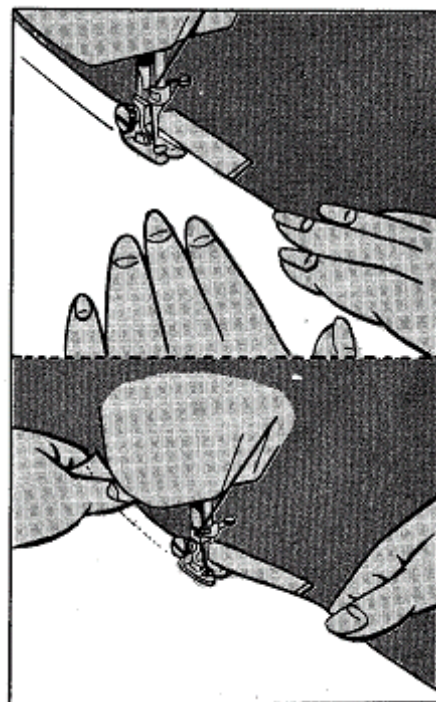
1. That is done by stitching to the material edge... then stopping.
2. Push Reverse Sewing Button and stitch backwards for ½ inch (10mm) from material edge.

HOW TO REMOVE FINAL SEWING FROM MACHINE



1. Stop the machine.
2. Raise needle to its highest position and make sure that the thread take-up lever is in the highest position also.
3. Lift presser foot and pull out the material gently to the left side diagonally.
4. Cut both threads on the thread cutter.
5. Leave 4 inches (10cm) of thread between the presser foot loose while the thread take-up lever is at highest position. You are ready to sew.

HOW TO GUIDE AND SUPPORT MATERIAL








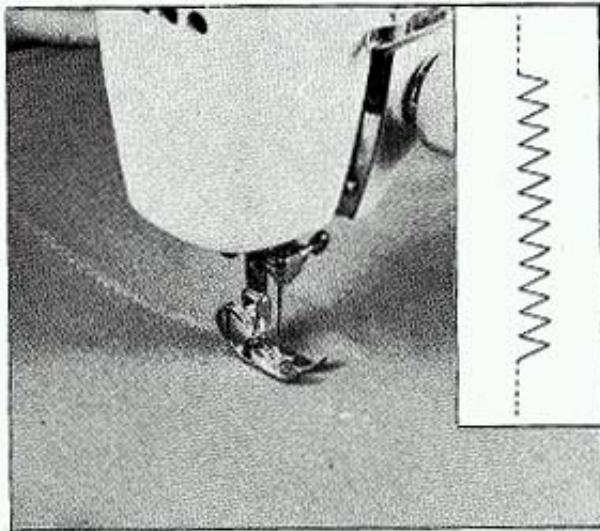
Generally it is enough to guide the material in front of the presser foot as shown in the upper illustration.

However, in case of special materials such as tricot, crepes, knits, etc., we recommend you to support the material both in front and back of the presser foot with gentle tension as shown in the lower illustration.

3. Zigzag Stitching

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1-4	1-4	Zigzag	UP	According to the material

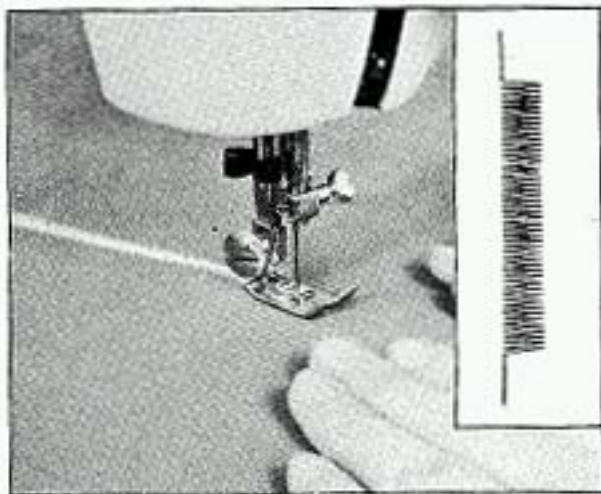


SIMPLE ZIGZAG STITCH

Set the Stitch zigzag, sew about 1-4 to obtain simple zigzag stitch.

1. Before stitching zigzag, sew about 5-6 Straight stitches with stitch length between for reinforcement.
2. Set zigzag width lever to your desired width and commence to sew.
3. Before removing work from machine, reset the zigzag lever to "O" and sew 5-6 stitches for reinforcement.

NOTE: Generally, zigzag stitch requires less upper thread tension than the straight stitches.



SATIN STITCH

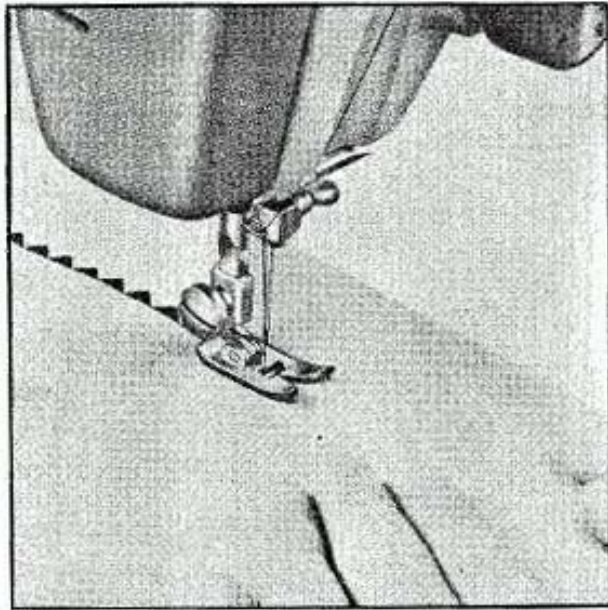
When the Stitch Length Dial is set between the "SATIN STITCH" is produced. This is used to make buttonholes and various decorative stitches.

NOTE: It is recommended that a test sample is made before starting to sew.




DECORATIVE STITCHES

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
Satin stitch	See table below	Zigzag	UP	According to the material








Using the "SATIN STITCH" various decorative stitches are produced by using the zigzag width lever as follows:

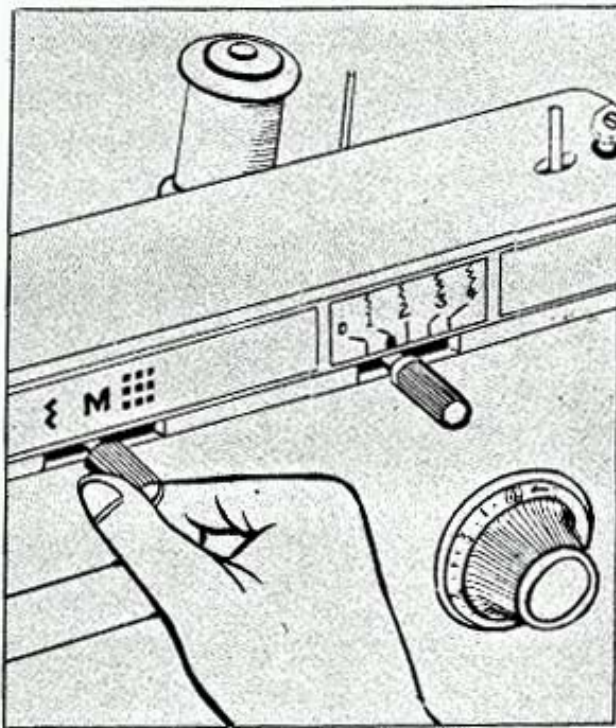
Patterns to be sewn	How to move lever
	At an even speed from 0 to 4 and from 4 to 0. Repeat.
	At controlled speed moving from 0 to 4 and from 4 to 0 will produce this uniform curve. Repeat.
	At slow speed from 0 to 4 and quickly back to 0. Repeat.


4. Using Built-in Patterns

TRIPLE STRETCH STITCH

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

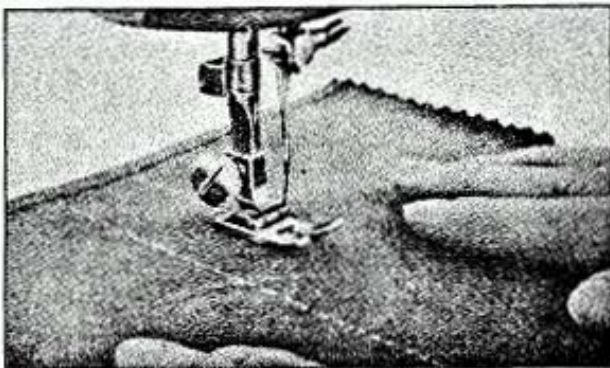
Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
4	0-4	Zigzag	UP	According to the material



Set Blind Stitch and Stretch Stitch Lever at  as shown in illustration at left.






The “Triple Stretch Stitch” is used for any stretch material such as knitted fabric, tricot, etc. This stitch is three times the strength of a regular stitch and gives elasticity to seams which prevents breakage of thread.

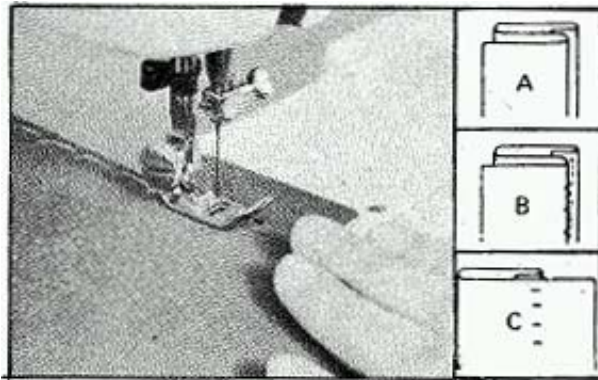
NOTE: With zigzag width lever set at 4, a triple zigzag stitch is produced which can be used as a decorative stitch.



BLIND STITCH

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1.5-2	0	Zigzag	UP	According to the material







SET BLIND STITCH AND STRETCH STITCH LEVER AT \approx .

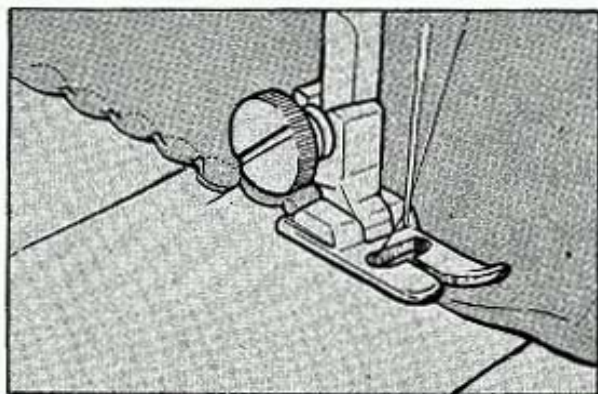
1. Fold material to size of hem desired and then fold back as shown in Figure A, leaving $\frac{1}{4}$ inch (6mm) overlap at edge.
2. Sew on fold as in Figure B.
3. When material is unfolded you will have a blind stitched hem as in Figure C.

NOTE: Thread used should be the same color as material used.

SHELL STITCH

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1.5-2	0	Zigzag	UP	According to the material








This can be used for sewing a picoted edge on a light material.

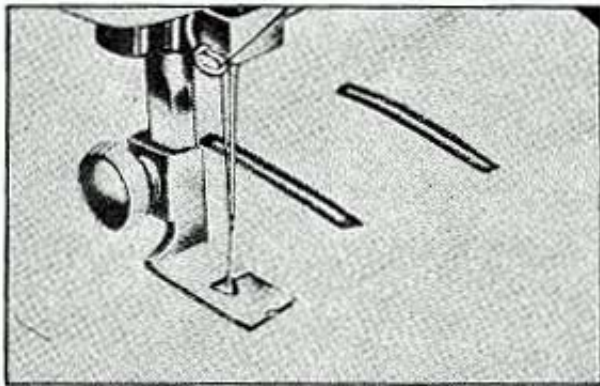
1. Set the machine as for blind stitch.
2. Sew material on bias, placing material under the presser foot so that straight stitches are sewn on seam line and zigzag stitches are sewn slightly over seam edge.
3. The "SHELL STITCH" requires a little tighter upper thread tension than normal.
4. Sew at slow speed.
5. Edge of material becomes picoted.

5. Various Other Stitches

BUTTONHOLE

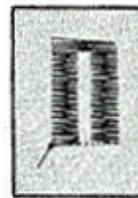
SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.



Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
Satin stitch	See instruction below	Buttonhole foot	See instruction below	According to the material



- Commence to sew 5 to 6 stitches and stop the machine when the needle is in the material at the left side of the row.

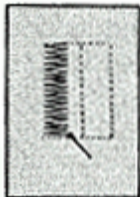
Step C:





Zigzag Width	Drop Feed
	
2	UP

- Lift the presser foot slightly and set the feed dog knob to Up.
- Raise the needle and set the zigzag width lever to 2.
- Sew row to predetermined length.
- Stop the machine when the needle is in the material at the left side of row.

Step A:





Zigzag Width	Drop Feed
	
2	UP

- Set zigzag width lever to 2.
- Set drop feed to Up.
- Lower presser foot and commence to sew predetermined length.
- Stop machine when the needle is in the material at the right side of row.

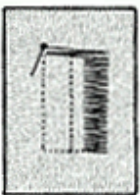
Step D:





Zigzag Width	Drop Feed
	
4	DOWN

- Raise the needle and set the feed dog knob to Down.
- Set the zigzag width lever to 4.
- Sew 5-6 stitches across to finish buttonhole, then turn material 90 degrees clockwise and sew 5-6 straight stitches to secure stitching.
- Lift presser foot and remove work from

Step B:



Zigzag Width	Drop Feed
	
4	DOWN






- Lift the presser foot and run material 180 degree while the needle acts as the axis.
- Lower the presser foot and raise the needle from material by turning balance wheel toward you.
- Set zigzag width lever to 4 and drop feed knob to Down.

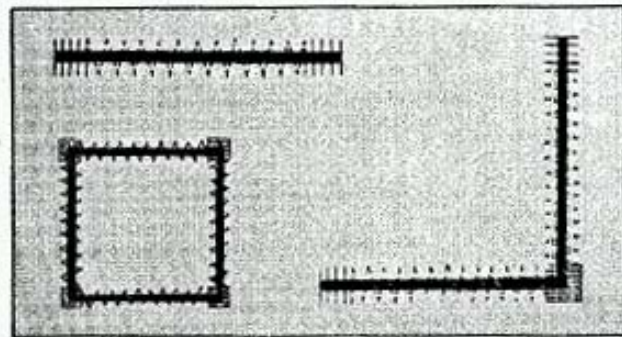
NOTE:

- It is recommended that a sample buttonhole be made starting to sew.
- Use tailor's chalk to mark length of buttonhole.

MENDING

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.






Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1-3	3-4	Zigzag	UP	According to the material

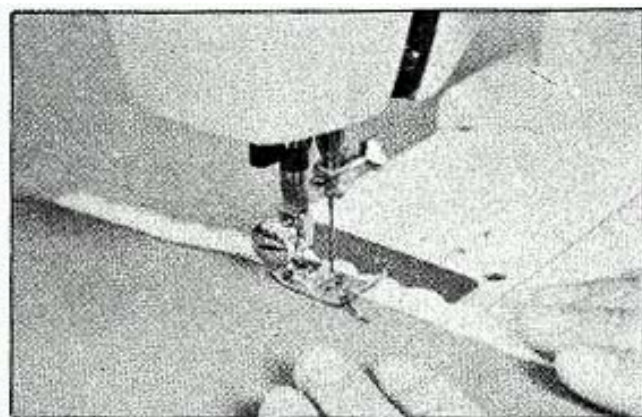


1. Place reinforcement material under material to be repaired.
2. Sew both edges of tear together.
3. Use satin stitch to strengthen and secure ends of tear as in illustrations.

ATTACHING LACE

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.






Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
2-4	0	Zigzag	UP	According to the material

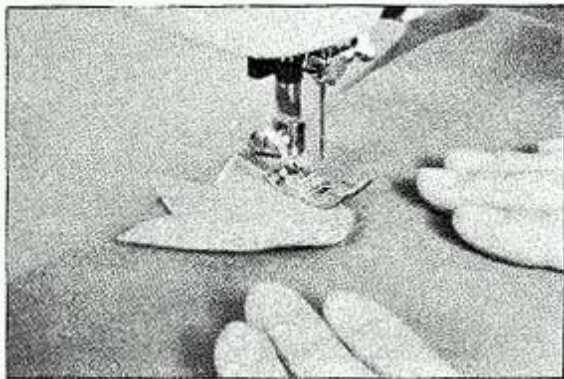


1. Place lace under material edge letting it overlap ¼ inch (6 mm).
2. Place under presser foot and sew.

APPLIQUÉING

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.






Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1/2-1	1-3	Zigzag	UP	According to the material

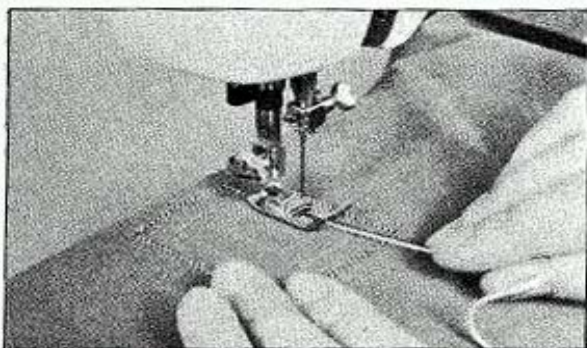


1. Baste cut design to the material.
2. Following the design, commence to sew carefully.
3. Cut away the surplus material close to the design.
4. Remove basting.

CORDING

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

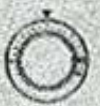
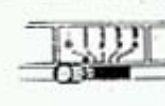



Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
1/2-1	1-3	Zigzag	UP	According to the material

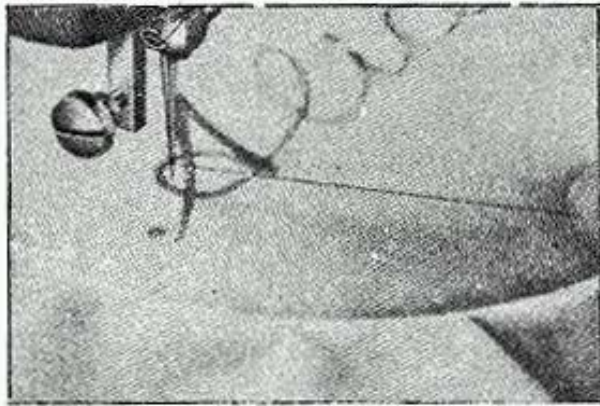


1. In accordance with thickness of cord being used, set zigzag width lever.
2. Place cord on fabric to be sewn.
3. Lower presser foot and sew using zigzag stitch. Guide cord by hand to where you desire it.

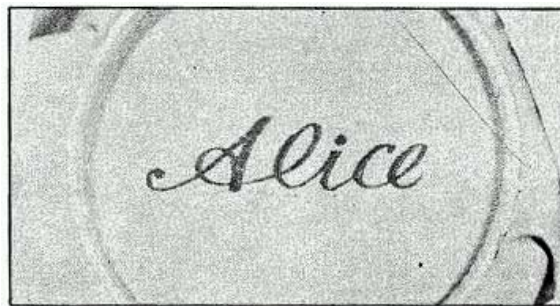
MONOGRAMMING, USING EMBROIDERY HOOP

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
	0-4		DOWN	Up








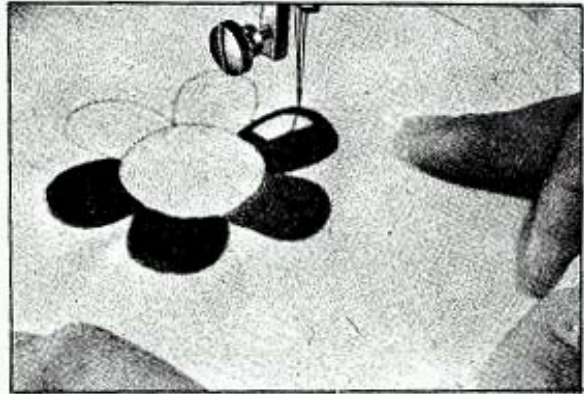
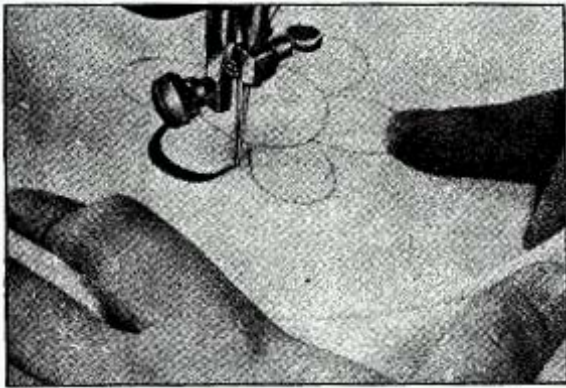
1. Remove presser foot.
2. Draw lettering on the right side of the material.
3. Stretch work between embroidery hoops as firmly as possible.
4. Place the work under the needle and lower presser bar.
5. Pull lower thread up through the material at starting position by turning balance wheel and holding both threads.
6. Hold the hoop with thumb and forefinger of both hands while pressing the material with middle and third fingers and supporting the outside of hoop with smaller finger.
7. Start sewing, moving hoop lightly along the lettering with even rate of speed while controlling zigzag width lever with your right hand.



EMBROIDERING, USING EMBROIDERY HOOP

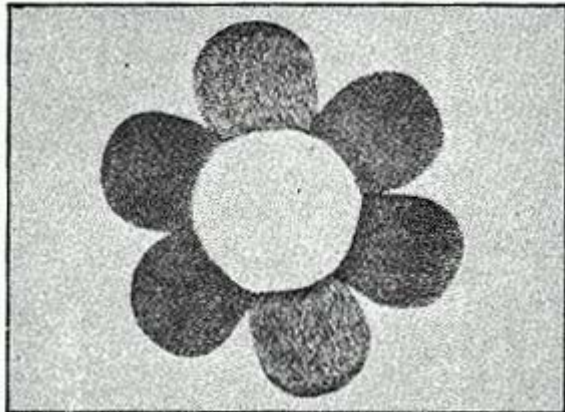
SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
	0-4		DOWN	Up



1. Remove presser foot.
2. Draw design on the material.
3. Use embroidery hoop as you would for monogramming.
4. Position the hoop under the needle and lower presser bar.
5. Pull lower thread up through material.






6. Stitch outline of design by removing embroidery hoop accordingly.
7. To fill in design stitch from outline of design to inside and from inside to edge of outline alternately until design is completely filled in. Keep stitching close together.

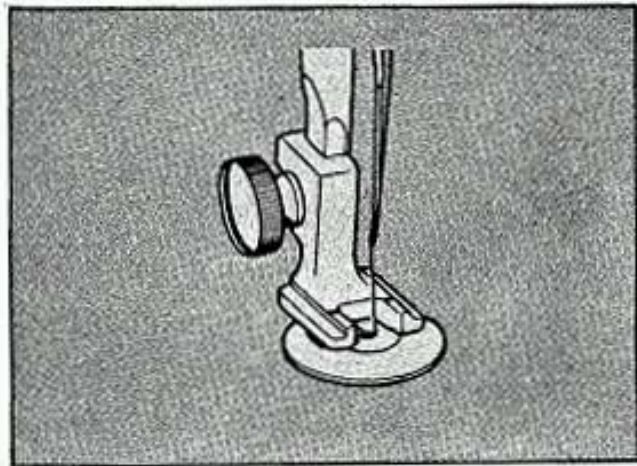


NOTE: A long stitch is made by removing embroidery hoop rapidly and a short stitch is made by moving it slowly.

BUTTON SEWING

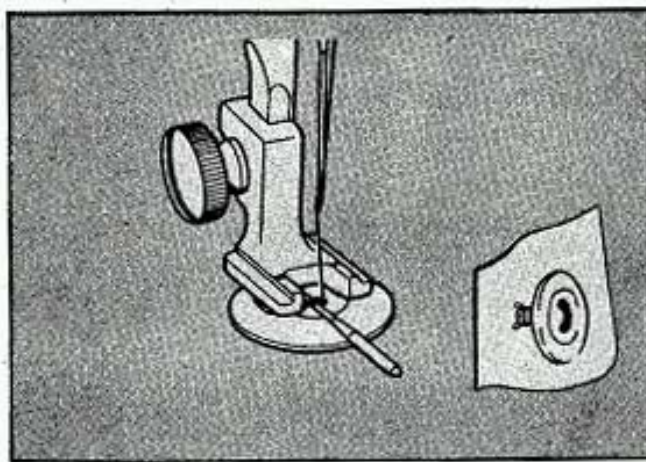
SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
	Depending on the distance of holes	Button sewing foot	DOWN	½ way down



1. Put button in place on material to be sewn.
Place under presser foot.
2. Set zigzag width control to regulate distance of stitch between the holes in the button.
3. Lower presser foot and check to see that needle enters holes in button properly.
4. Slowly sew approximately 10 stitches.
5. Stop machine and raise needle from the Material.
6. Turn zigzag width lever to 0.
7. Sew approximately three stitches in one of the holes in the button to secure it.
8. Remove work and cut threads.

BUTTON SEWING WITH THREAD SHANK








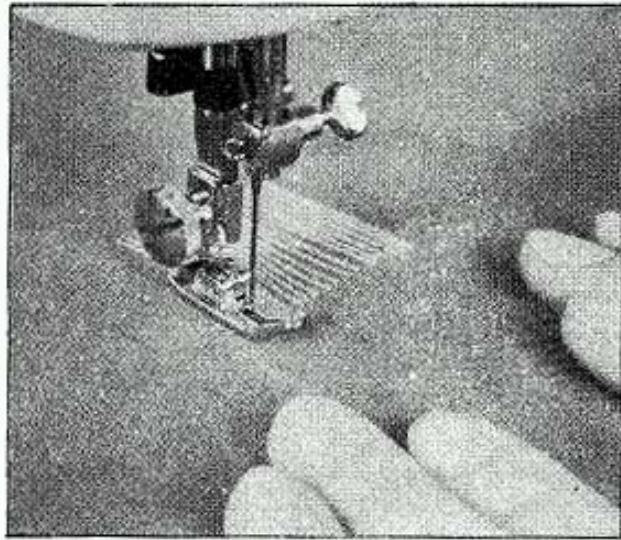
For heavier material use the following method to sew on buttons:

1. Place a needle on the button as shown in illustration and then sew on button as you would regularly. (see above)
2. When removing work from machine leave a long upper thread to be used to form a thread shank.
3. Pull the upper thread through the hole of button between button and material to form thread shank.
4. With normal sewing needle sew in thread ends.

DARNING

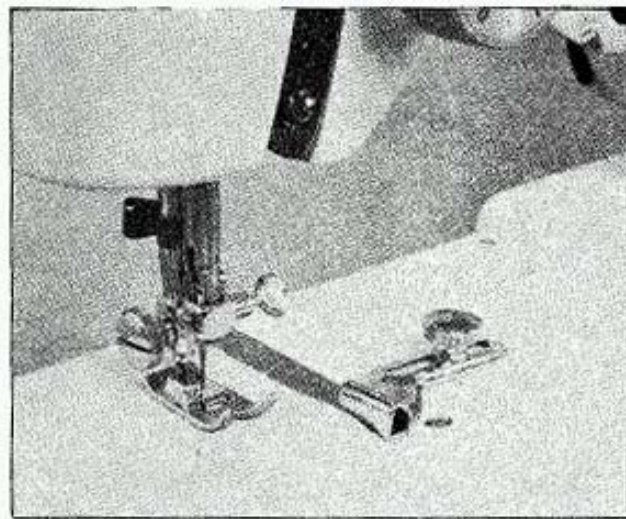
SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
	0	Straight	DOWN	Up



1. Place portion to be darned under the presser foot.
2. Lower presser foot.
3. Sew alternately drawing the work gently away from you and pulling it toward you.
4. Repeat this motion until the portion to be darned is filled with parallel lines of stitching.

CLOTH GUIDE



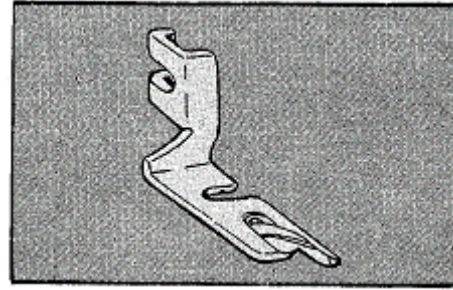
The cloth guide helps to make straight and parallel stitches follow the edge of the material.

To attach the cloth guide, place it over two holes to the right of the needle plate in the sewing machine bed.






Place thumb screw through the guide slot, adjusting the guide for the desired distance and fasten it securely.

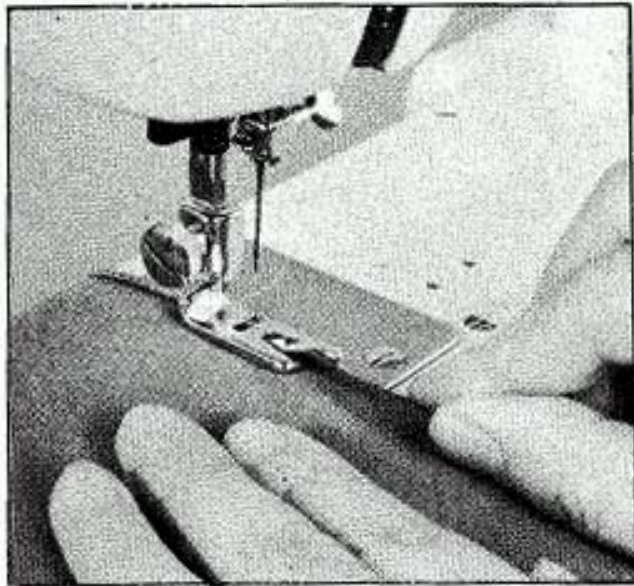
NARROW HEMMING

By using narrow hemmer foot a neat scroll type hem is made.



SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

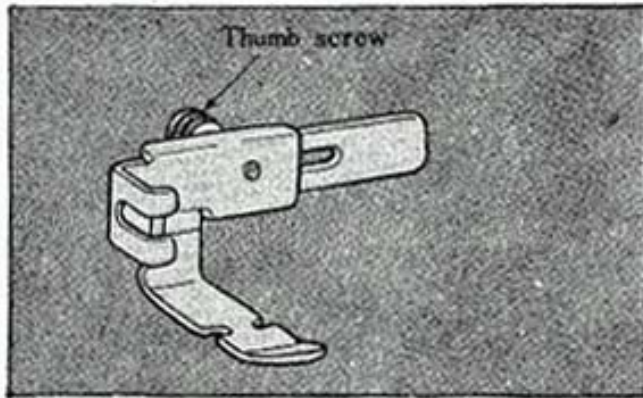
Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
				
2-3	0	Narrow hemmer foot	UP	According to the material



1. Cut top corner of the material about 0.3cm (1/8").
2. Place material wrong side up and insert cut off angle into foot opening.
3. Pull material by hand from the back of the presser foot.
Make sure the needle is positioned over material.
Lower presser foot.
4. Make sure upper and lower threads are placed behind presser foot.
5. Sew at medium speed. Guide the material by hand through the presser foot opening.

NOTE: With zigzag width lever set a 3, zigzag narrow hemming can be done following the above procedure.

ZIPPER INSERTION



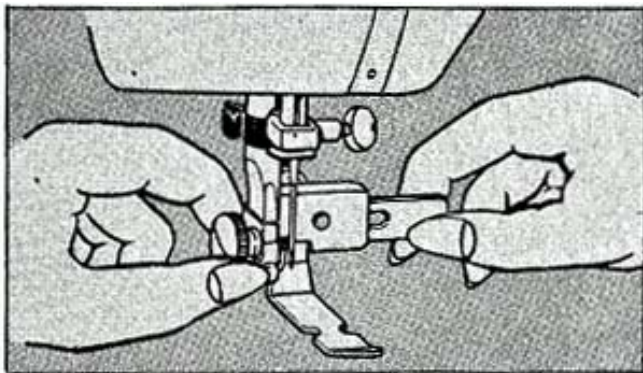
Zipper foot is used to sew various types of zippers and can easily be positioned to right or left side of needle.

When zipper is being sewn at left side of needle, position zipper foot by loosening thumb screw and sliding zipper foot to right.

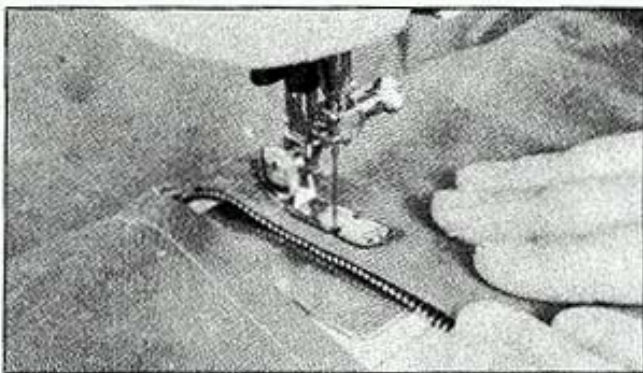
When zipper is being sewn at right side of needle, position zipper foot by loosening thumb screw and sliding zipper foot to left.

SET YOUR SEWING MACHINE AS PER FOLLOWING TABLE.

Stitch Length	Zigzag Width	Presser Foot	Drop Feed	Pressure Adjuster
2-3	0	Zipper foot	UP	According to the material



1. Lower needle into side notch located on presser foot. (right or left)
2. Tighten thumb screw to lock presser foot into position.
3. Fold edge of material $\frac{3}{4}$ inch (2cm) and place zipper under folded portion.
4. By guiding zipper foot along the zipper teeth you will stitch close to edge of zipper in correct position.
5. To sew opposite side of zipper, loosen thumb screw and position zipper foot. (right or left)

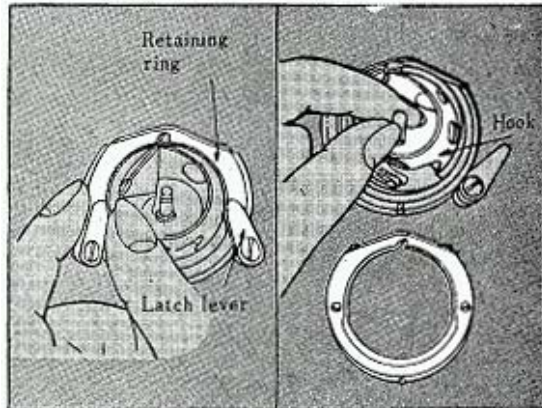


6. Maintenance and Care of Your Machine

Cleaning

The sliding parts of the shuttle race body and the hook must be cleaned regularly so that lint does not accumulate.

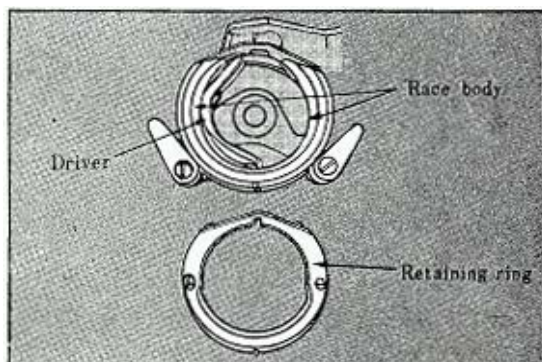
REMOVING SHUTTLE HOOK



1. Raise needle to its highest position.
2. Open the shuttle race cover.
3. Take out bobbin case.
4. Push latch levers down and remove retaining ring.
5. Remove hook by grasping center post of hook.

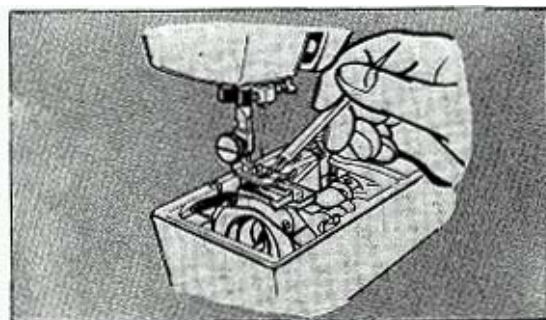
NOTE: When needle is lowered, hook cannot be removed.

CLEANING SHUTTLE RACE



1. Remove accumulated lint and thread from the retaining ring, hook, driver and race body with brush.
2. A cloth dampened with machine oil should be used to wipe shuttle race clean.
3. Clean shuttle hook in the same manner as above.
4. Reassemble.

CLEANING FEED DOG

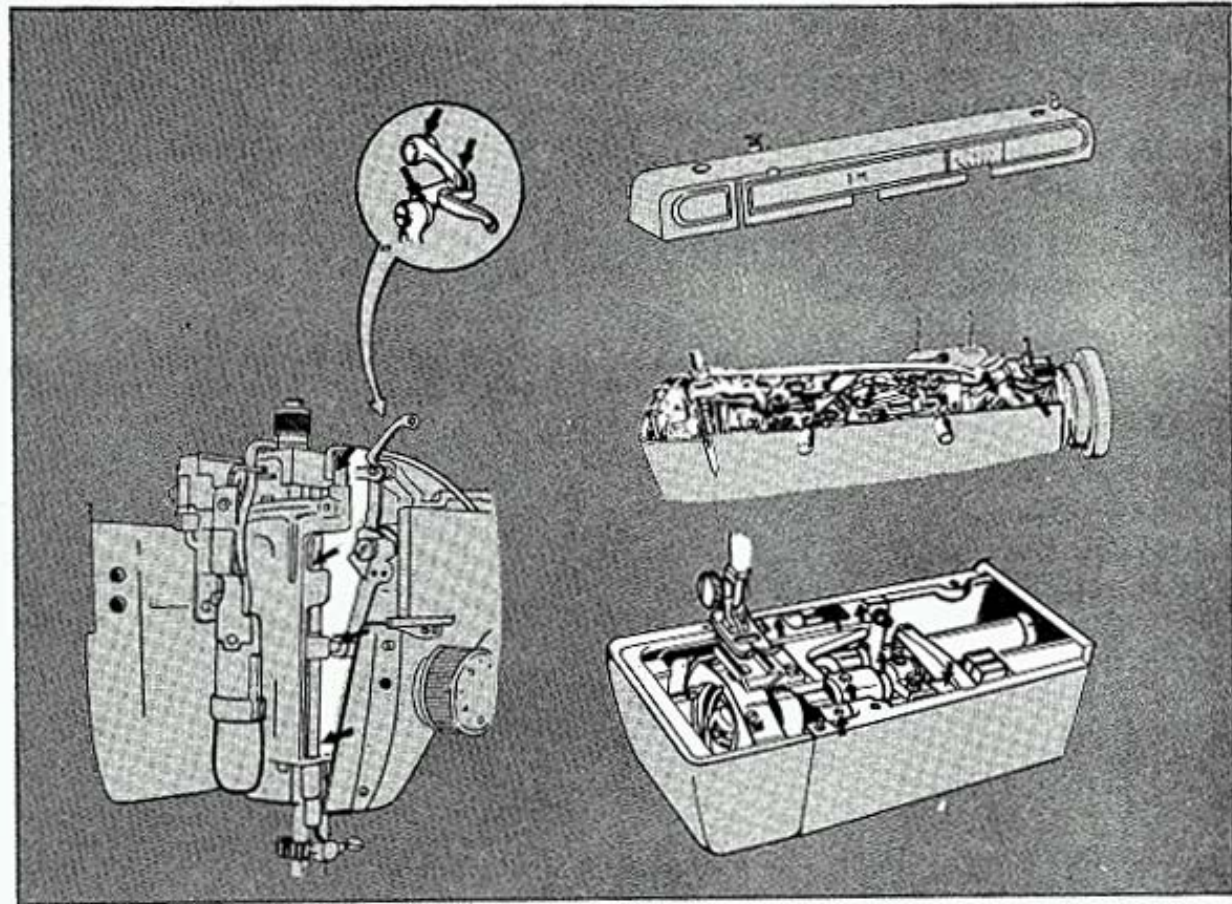


1. Take out free arm upper plate by loosening the screw on it.
2. Clean upper part of feed dog and shuttle race body with brush.

Oiling

For smooth and silent operation the moving parts of the machine should be oiled periodically. (see diagram below)

OIL ONCE A WEEK IF MACHINE IS USED MORE THAN ONE HOUR. PER DAY. IF MACHINE IS USED MORE OFTEN OIL EVERY DAY.



NOTE: If machine has not been used for long period of time, oil tends to coagulate and operation of machine will not be smooth. To ensure best operation in such a case, apply a small amount of benzine to oiling points as noted in diagram. For motor; One or two drops of oil twice a year is recommended.

Check List for Better Sewing

Check this list if you are having the following problems:

IF MATERIAL IS NOT FED

1. Feed dog is down .
2. Stop motion knob is loose.
3. Stitch length regulator is at 0.

IF NEEDLE BREAKS

1. Needle is inserted incorrectly.
2. Needle clamp screw is loose.
3. Bent needle is used.
4. Upper threading is not correct.
5. Upper thread tension is too tight.
6. Wrong needle and thread for cloth being sewn are used.
7. Material pulled excessively.

IF LOOPS FORM ON FABRIC

1. Tension of upper or lower thread is wrong.

IF MATERIAL SHOULD PUCKER

1. Thread tension is too tight.
2. Threading is not correct.
3. Thread is caught by something.
4. Lower thread is unevenly wound on bobbin.

IF UPPER THREAD BREAKS

1. Upper threading is not correct.
2. Upper thread is too large for needle eye.
3. Upper thread tension is too tight.
4. Needle is inserted incorrectly.

IF LOWER THREADS BREAKS

1. Lower thread is entangled in shuttle.
2. Lower thread tension is too tight.
3. Lower threading is not correct.

IF MACHINE SKIPS STITCHES

1. Needle is not sharp and straight.
2. Needle is inserted incorrectly.
3. Wrong needle and thread for cloth being sewn are used.
4. Upper threading is not correct.
5. Lint is clinging to under-side of needle plate.



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May 2006