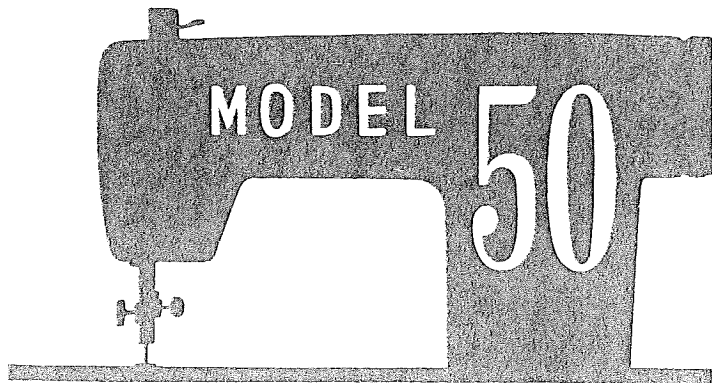


Kenmore

I N S T R U C T I O N S

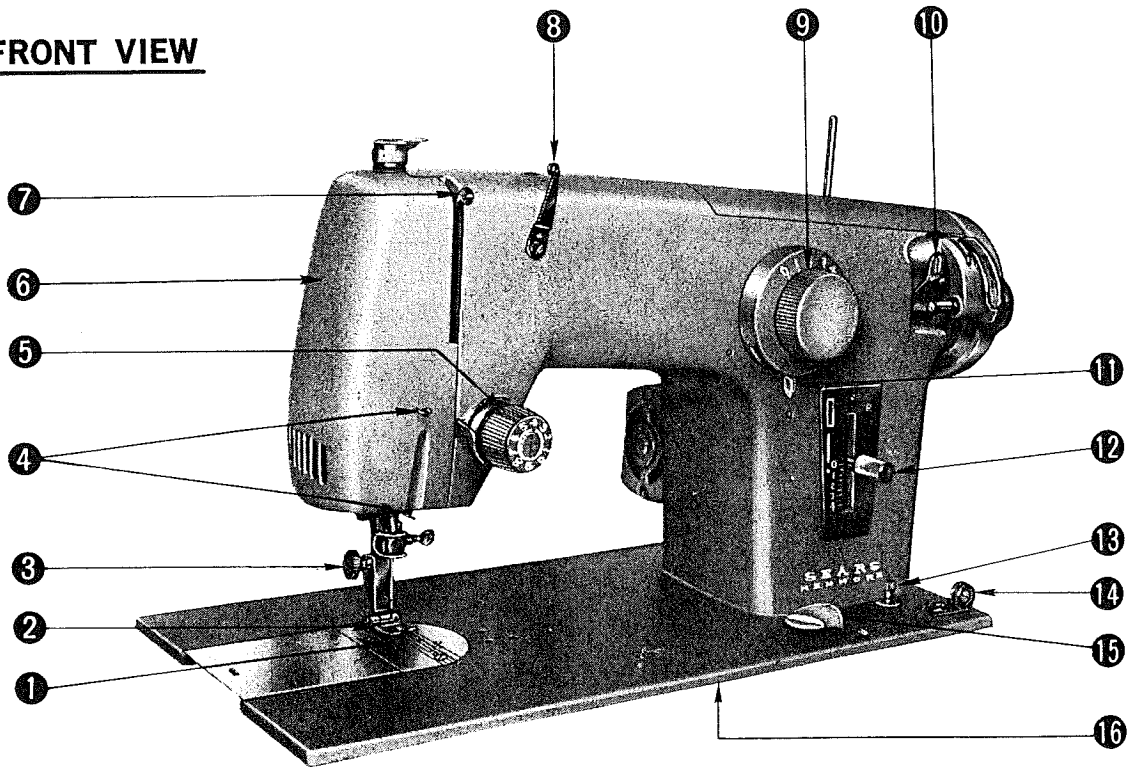


ZIG-ZAG SEWING MACHINE

**TABLE OF
CONTENTS**

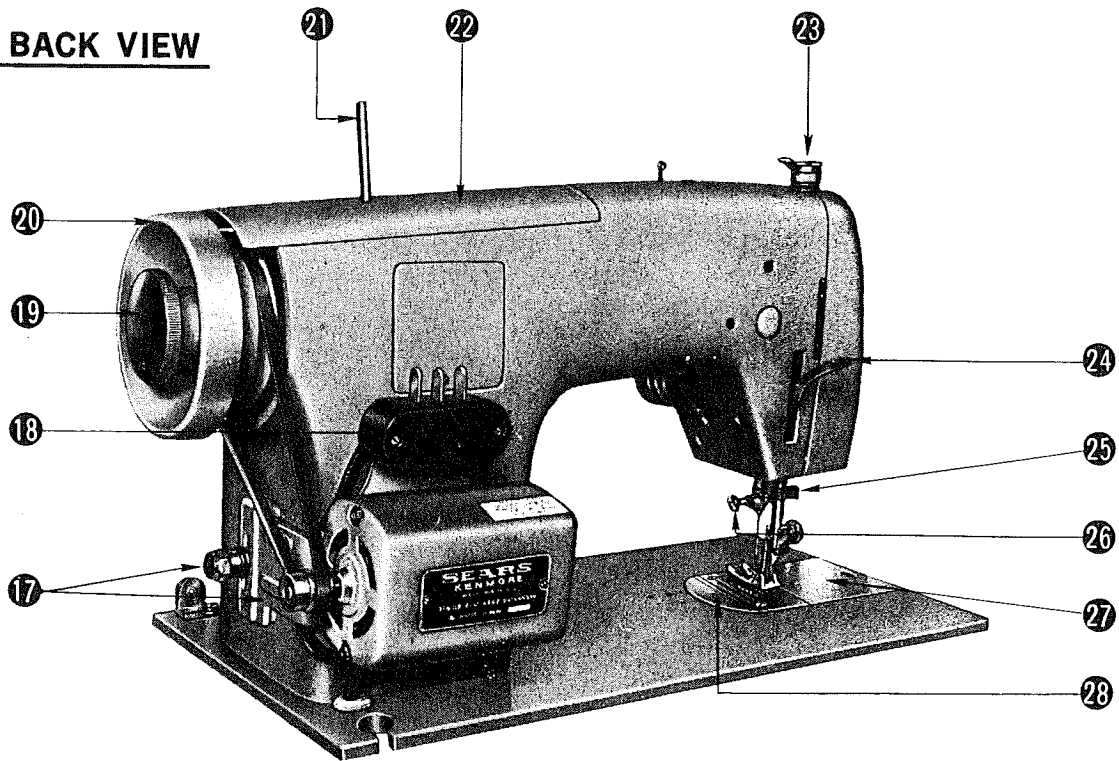
Adjusting for Good Stitches	24	Needle & Thread Table	5
Adjusting Pressure of Presser Foot.....	10	Needle Size	5
Adjusting Tensions	12 - 13		
Blind Stitching	19	Oiling Machine.....	21
Buttonholes	17	Overcasting	19
Buttons.....	17	Picking up Bobbin Thread	10
		Placement of Needle.....	5
Changing the Presser Feet.....	15	Removing Bobbin Case	
Connecting Machine	4	from Shuttle	6
		Removing Lint	20
Darning	16	Replscement of Belt	20
		Reverse Stitching	11
Fastening a Seam	11	Setting Stitch Length.....	11
Feed Dog Control	15	Setting Stitch Width	18
		Sewing Light	4
Identification - Head Parts	2 - 3	Threading Upper Machine	9
Inserting Bobbin into Bobbin Case.....	8	Turning a Corner	15
Inserting & Removing Material.....	14		
Installing Machine Head	4	What to Do	22 - 23
		Winding the Bobbin	7
Locking Stitch Width	18		

FRONT VIEW



- | | | |
|-----------------------------|------------------------------|---------------------------------|
| 1. Feed Dogs | 7. Thread Take-up | 12. Stitch Length Control Lever |
| 2. Presser Foot | 8. Upper Thread Guide | 13. Light Switch |
| 3. Presser Foot Thumb Screw | 9. Stitch Width Control Dial | 14. Bobbin Winder Tension Disc |
| 4. Thread Guides | 10. Bobbin Winder Assembly | 15. Feed Dog Control Knob |
| 5. Thread Tension Assembly | 11. Stitch Width Lock Lever | 16. Nomenclature Plate |
| 6. Face Cover Plate | | |

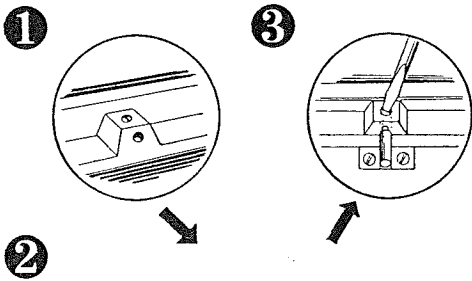
BACK VIEW



- 17. Motor Mounting Bracket and Screw
- 18. Three Prong Connector
- 19. Clutch Knob
- 20. Hand Wheel

- 21. Thread Spool Pins
- 22. Arm Cover Plate
- 23. Presser Foot Knob
- 24. Presser Foot Lever

- 25. Thread Cutter
- 26. Needle Clamp Screw
- 27. Hand Hole Cover Plate
- 28. Needle Plate



INSTALLING MACHINE HEAD IN PORTABLE AND CABINET

Loosen the two hinge screws under holes in the rear edge of the machine bed (1). Raise hinge pins in the cutout (2). Slip machine head onto the pins and tighten hinge screws securely (3). Lower machine head to front flap.

Lay the plastic discs over the spool pin hole on the arm cover plate. Screw pins in place. Discs and pins are packed in accessory box.

When head is in place for sewing, there will be a small open space between the edge of the sewing head and the cabinet. This space is reserved for the convenient plastic accessory tray which fits therein.

SEWING LIGHT

The sewing light is placed inside the face cover plate as shown. It may be turned on or off by pushing light switch. To change bulb, open the face cover plate by swinging it open, twist old bulb away from you and remove. Then insert new bulb.

CONNECTING MACHINE

Push the plug onto three prong connector over the machine motor. Plug machine cord into any 110-120V wall outlet.

NEEDLE AND THREAD TABLE

THREAD SIZE	NEEDLE SIZE	FABRIC
Cotton 80 - 100 Synthetic Silk A	9	Chiffon, Fine Silks, Nylon Tricot, Power net.
Cotton 80 - 100 Synthetic Silk A	11	Batiste, Dimity, Organdy, Light weight Velvet and Taffeta, Fine Lace, Light weight Knits, Satin.
Cotton 60 - 80 Synthetic Mercerized 50 - 60	14	Cotton, Cotton Blends, Poplin, Percalé, Gingham, Shantung, Pique, Seersucker, Velveteen, Double Knits, Light weight Wool, Linen, Leather, Fake Furs, Vinyls.
Cotton 40 - 60 Mercerized 50 Mercerized Heavy Duty	16	Heavy Cotton such as Corduroy, Denim, Decorator Fabrics, Wool, Coating and Suiting.
Cotton 30 - 50 Mercerized Heavy Duty	18	Heavy Twills, Denims, Coatings.

NEEDLE SIZE

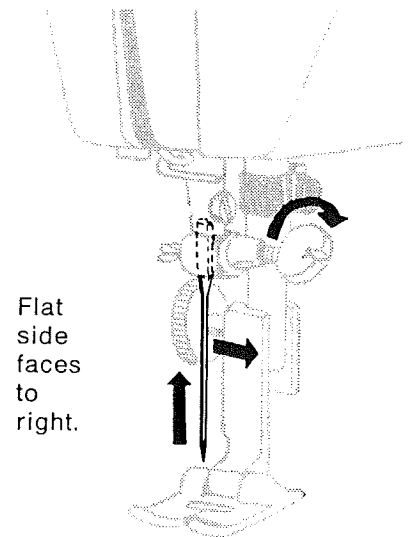
Use KENMORE needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing. Never use a bent needle nor one with a blunt point.



This is the exact length of the needle to be used in your machine. Comparison with this illustration will determine whether the needle you have is the correct one for your machine.

PLACEMENT OF NEEDLE

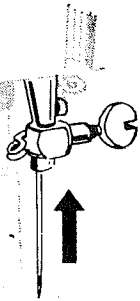
Raise needle bar to its highest position by turning hand wheel toward you. Loosen needle clamp screw. Hold the needle so that the flat side is to your right. Slip blunt end of needle as far as it will go into needle clamp. Tighten needle into place with needle clamp screw.



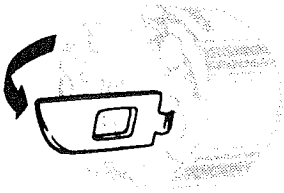
Flat side faces to right.

REMOVING BOBBIN CASE FROM SHUTTLE

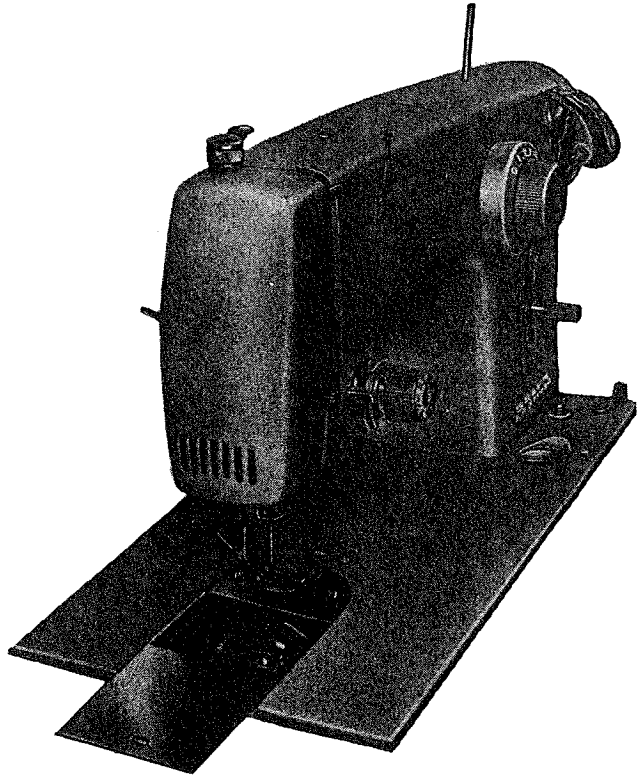
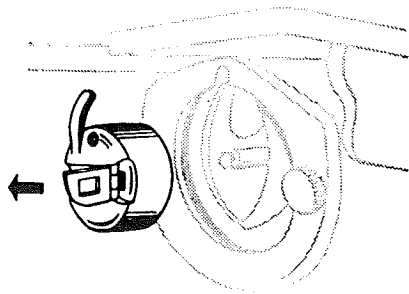
Needle at its highest position.



Pull out latch.



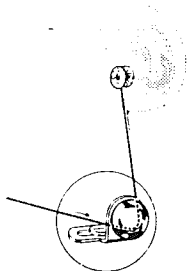
Pull bobbin case straight out.



WINDING THE BOBBIN

1

Place thread on spool post. Draw thread as shown.



2

Wind thread around bobbin a few times. Place bobbin onto bobbin winder shaft.



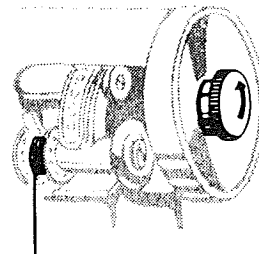
3

Press bobbin winder lever down.



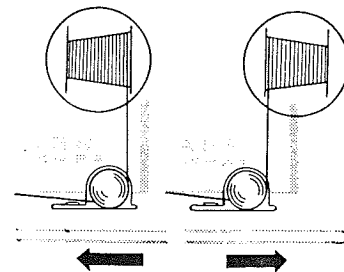
4

Release clutch by turning clutch knob toward you.



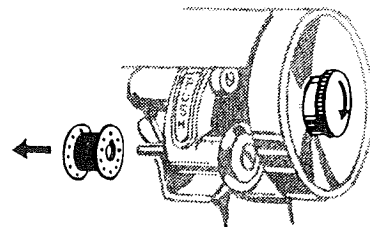
5

Bobbin winder thread guide is adjustable. If bobbin winds as illustrated, slightly move thread guide to an arrow direction to correct this situation.



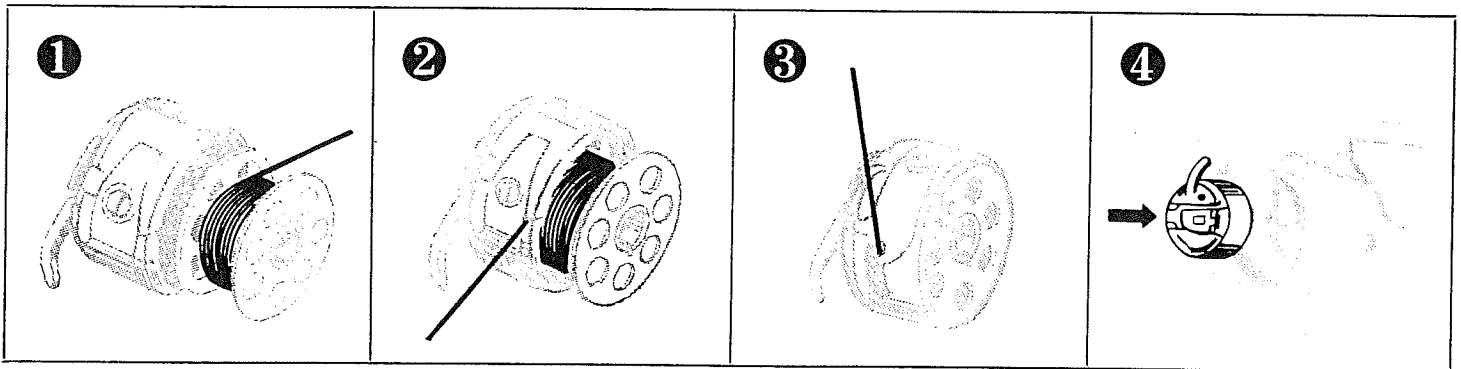
6

Tighten clutch knob and remove bobbin.

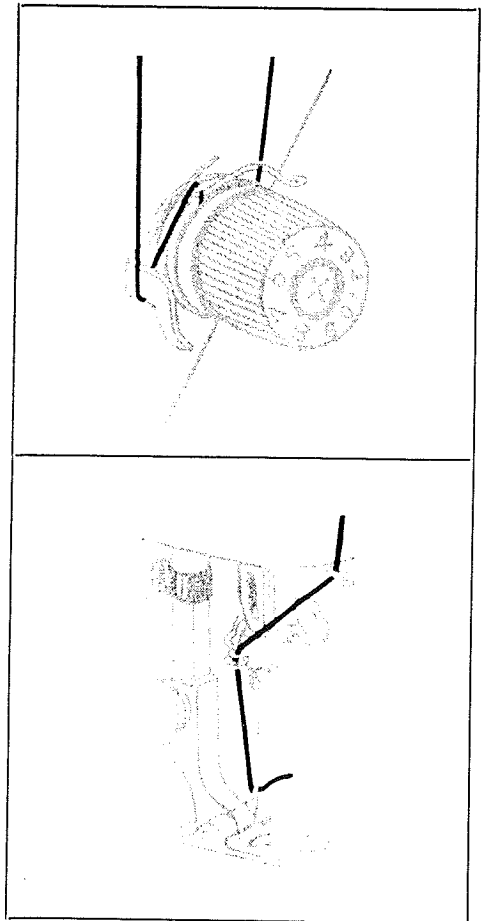
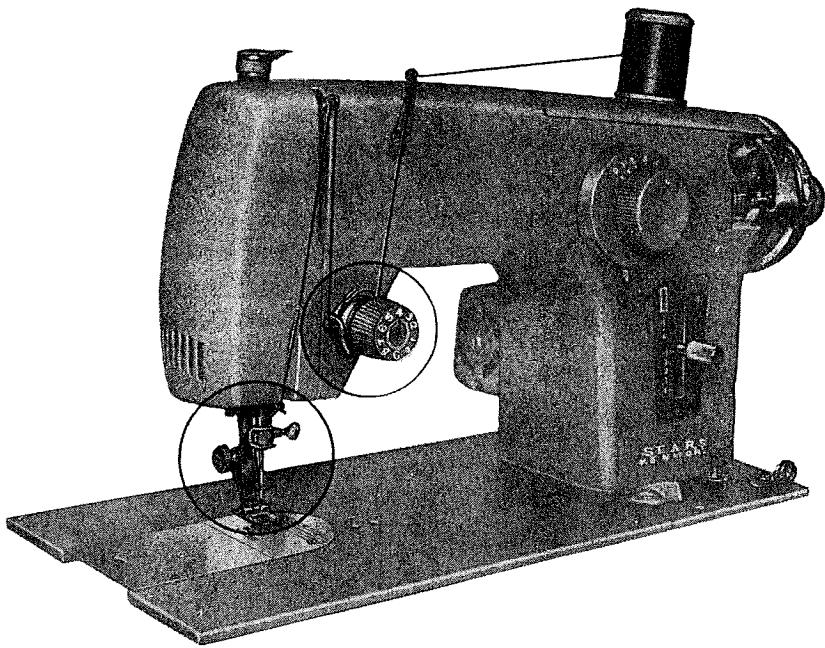


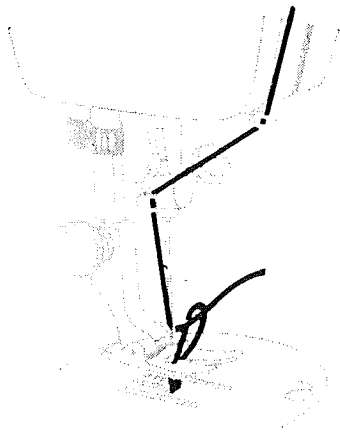
INSERTING BOBBIN INTO BOBBIN CASE CASE INTO SHUTTLE

- ① Guide bobbin onto center pin of bobbin case.
- ② Pull thread through slot.
- ③ Pull thread under tension spring.
- ④ Holding latch, position case into shuttle, release latch.



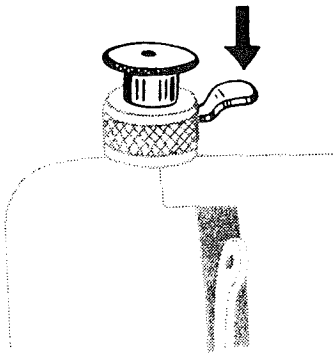
THREADING UPPER MACHINE





PICKING UP BOBBIN THREAD

Raise presser foot lever.
 Hold needle thread loosely in left hand and rotate hand wheel toward you one complete turn.
 Bring bobbin thread up by pulling upper thread.
 (See illustration).
 Place threads back under presser foot.



ADJUSTING THE PRESSURE OF THE PRESSER FOOT

Push down latch of presser foot knob (See illustration). This will release pressure of presser foot.
 To increase pressure, push down round top of presser foot knob until suitable pressure is obtained.

When sewing multiple thickness or heavy material, you may prefer less pressure on the presser foot.
 When sewing on sheer fabrics, more pressure may be desired.

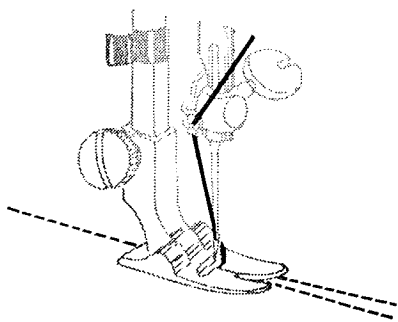
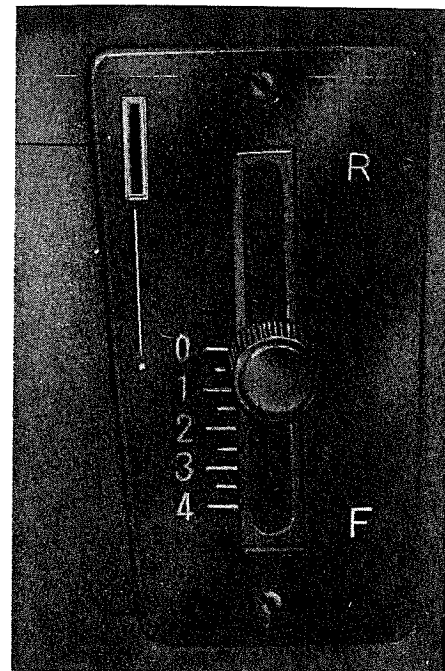
SETTING STITCH LENGTH

The stitch regulator controls the stitch length. Set lever to any desired stitch length position between 0 and 4, and set by turning knob clockwise until it stops. At No. 4 the longest stitch is obtained. The size of stitch selected will depend on fabric you are sewing. To lengthen stitch, turn the knob counter clockwise until the lever can be lowered to the position desired.

REVERSE STITCHING

Raise lever for reverse stitching. Lower lever for forward stitching.

It is best to begin and end most seams with reverse stitching often called back tacking.



FASTENING A SEAM

Lower needle into fabric. Lower presser foot and move lever up for reverse stitching. Turn hand wheel toward you and stitch until needle reaches beginning of seam. Push lever down and complete seam. Fasten end of same. Cut thread with cutter.

ADJUSTING TENSIONS

1

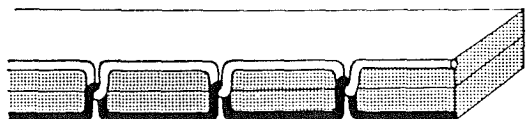


Fig. 1

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom. (Refer to page 24)

PROBLEM

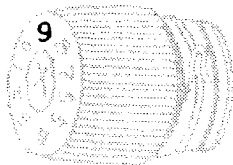
REMEDY

2

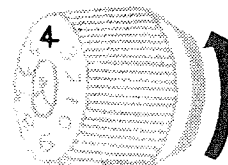
Upper thread too tight



Fig. 2



Decrease Tension



3

Upper thread too loose

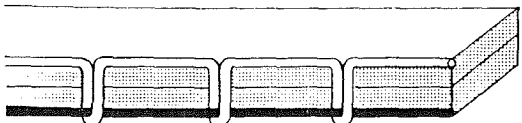
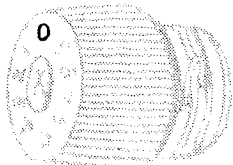
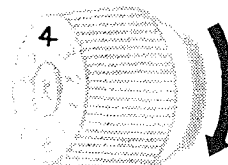


Fig. 3



Increase Tension

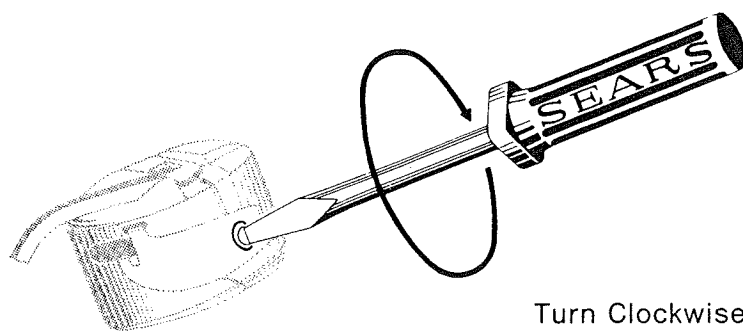


When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension requires adjustment less frequently than the upper thread tension.

When stitch is satisfactory, as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted. (See page 24)

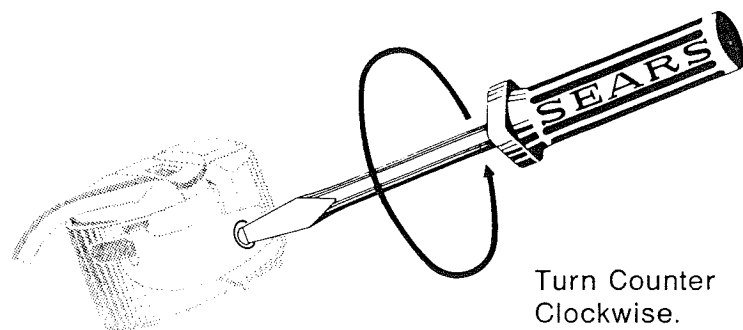
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver. (See page 24)

INCREASE TENSION



Turn Clockwise.

DECREASE TENSION



Turn Counter
Clockwise.

INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart on page 5.

Before placing the material on the machine, see that:

- * The presser foot and needle clamp screws are both tight.
- * The sizes of needle and thread suit the kind of work to be done.
- * The needle and take-up lever are at their highest position.
- * The ends of the threads have been drawn about 4 inches to the rear of the machine.
- * The feed dogs are up.
- * Stitch length and width controls are set at desired settings.

Experiment by sewing on the fabric to be used to determine tension adjustment and correct stitch settings.

Place material under the presser foot, insert the needle into the material by turning the hand wheel toward you, lower presser foot and start sewing.

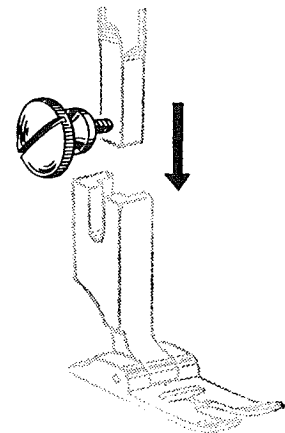
To remove the work, first turn hand wheel toward you until needle is at its highest position, then raise the presser foot, draw material to the rear and cut off excess thread with the thread cutter located on the presser bar.

IMPORTANT: Always turn the hand wheel toward you! When machine is not being used, place a piece of material over the feed dog and lower the presser foot. Always have fabric under the presser foot when operating the machine. Operating threaded machine without fabric will cause it to jam by forcing thread into the shuttle. See page 20.

CHANGING THE PRESSER FEET

The various attachment feet available for certain kinds of work are to be fastened to the presser bar.

To attach the foot, raise the presser bar to its highest position by raising the presser foot lever. Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Tighten the screw using the large screw driver and make sure that the foot is secure.

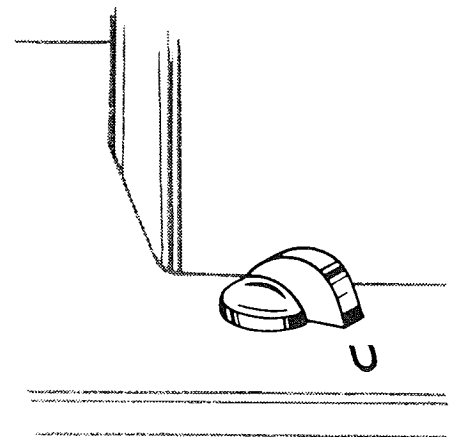


TURNING A CORNER

Stop sewing machine with needle in fabric. Raise presser foot. Turn fabric. Lower presser foot and continue stitching.

FEED DOG CONTROL

The drop feed control knob is situated on the right front of machine bedplate. When knob is turned to the left, feed dog drops and does not pull material. This allows the operator freedom of movement of material, as for darning. For regular sewing, turn knob to the right.



DARNING

WITH PRESSER FOOT :

1. Turn feed dog control to left.
2. Press down outer ring of presser foot knob, see page 10. With presser foot knob in this position, mending, darning, monogram work, etc. may be done.
3. Stretch fabric tightly between two spring embroidery hoops and place under needle.
4. Lower presser bar so thread will have some tension. When you start to darn, move fabric back and forth to cover darning area. Then turn fabric and continue sewing at right angles to the previous stitching. Use medium machine speed. You can make any length stitches desired. Slow movement of fabric will make short darning stitches. Fast movement will make long stitches.
5. When you finish darning, raise presser foot and remove fabric. Increase pressure for general sewing by pressing down inner pin of the presser foot knob. Turn feed dog control to right.

WITHOUT PRESSER FOOT :

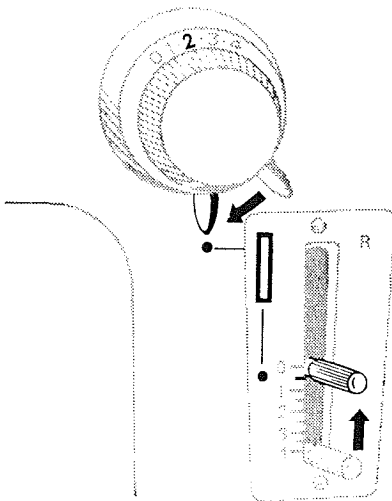
1. Turn feed dog control to left.
2. Remove presser foot.
Proceed as directed under steps 3 and 4 above.
3. When you finish darning, raise the presser foot lever and remove fabric. Replace presser foot, and increase pressure for general sewing. Turn feed dog control to right.

BUTTONS AND BUTTONHOLES

BUTTONHOLES

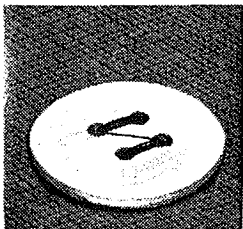
1. Set stitch width lock lever and stitch length control lever just on each dot as illustrated.
2. Stitch forward until desired length for buttonhole is obtained. Stop with needle on the right side of stitching. Raise presser foot and turn material. Lower presser foot and take one stitch to the left.
3. Turn stitch width control dial to 4, drop feed dogs and bartack. Bartacking should be completed with needle on the left side. Raise feed dogs, return stitch width control dial to the set position and sew back to other end of buttonhole.
4. Stop, with needle on the left side. Turn stitch width control dial to 4. Drop feed dogs and bartack.

It is recommended that tailor's chalk be used to determine length of buttonhole before sewing. For a firm buttonhole the stitching can be repeated over the same area - then cut buttonhole opening.



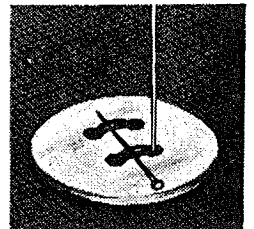
BUTTONS

Feed dog Left



1. Place needle into left hole of button, and lower presser foot.
2. Set stitch width control lever at width between holes of button. Test width by turning handwheel slowly. Take several zigzag stitches to sew on button, ending with needle on left side.
3. Set stitch width control lever at 0. Take a few stitches in left hole of button to lock threads. Pull threads to wrong side.

NOTE: To make a small thread shank when sewing on a flat button, place a straight pin or needle between the holes of the button.



ZIGZAG CONTROL



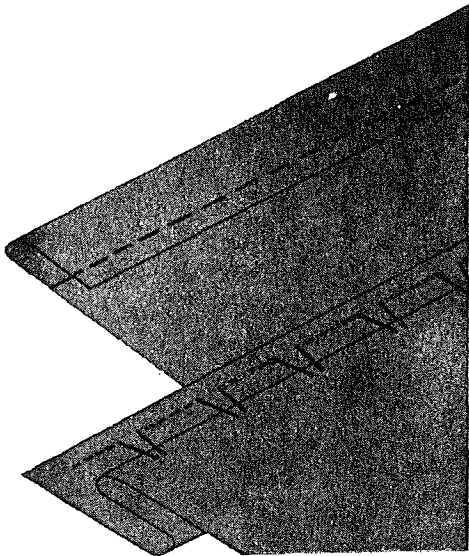
SETTING STITCH WIDTH

1. Push in lock lever. Change stitch setting and release lever.
2. Move stitch width dial to desired position between 0 and 4 on the stitch width indicator dial.

Zigzag stitch width increases from 0 to 4.
Straight stitching is possible only with control on 0.

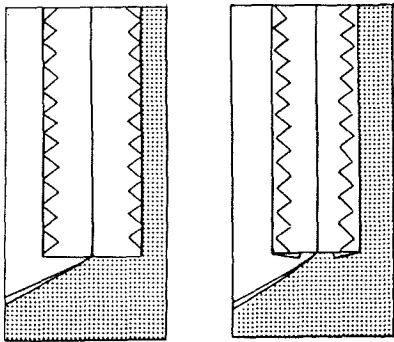
LOCKING STITCH WIDTH

Push in lock lever. Change stitch setting and release lever.



BLIND STITCHING

Fold and baste hem. Turn back so that edges of hem project beyond fold. Set sewing machine for straight stitching and stitch along fold of hem for approximately $\frac{1}{2}$ inch. Then zigzag one stitch using stitch width set on 2, catching the right side of the material. Continue straight for $\frac{1}{2}$ inch and repeat process until hem is completed.



OVERCASTING

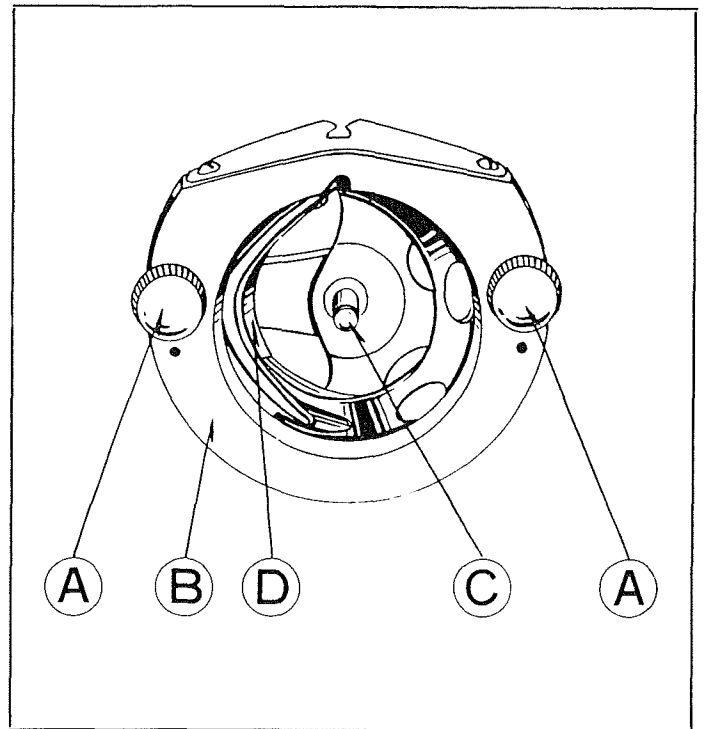
Set stitch width to 4. Set stitch length at 4. Zigzag stitch around raw edge of fabric to completely cover the edge.

REPLACEMENT OF THE BELT

To replace a worn belt, loosen motor bracket set bolt and remove belt by reducing the distance between motor pulley and hand wheel. Install new belt and adjust the distance between the motor pulley and hand wheel. To provide proper tension, allow the belt to support the weight of the motor and then firmly tighten the motor bracket set bolt.

REMOVING LINT

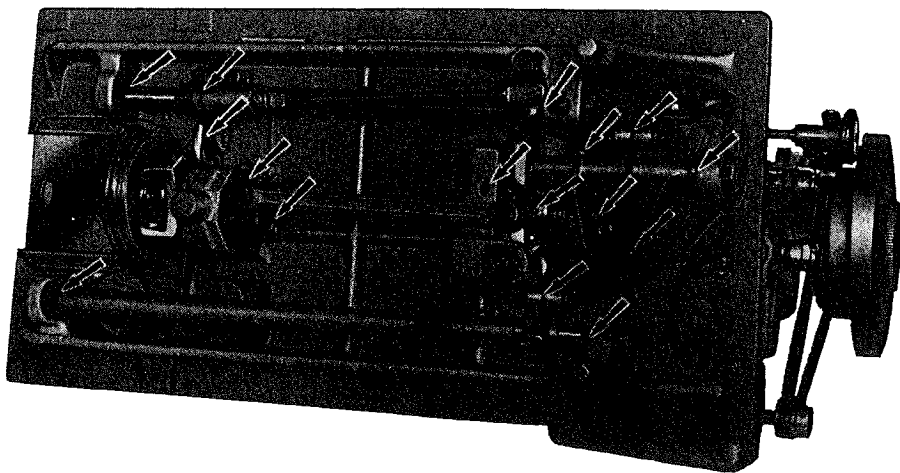
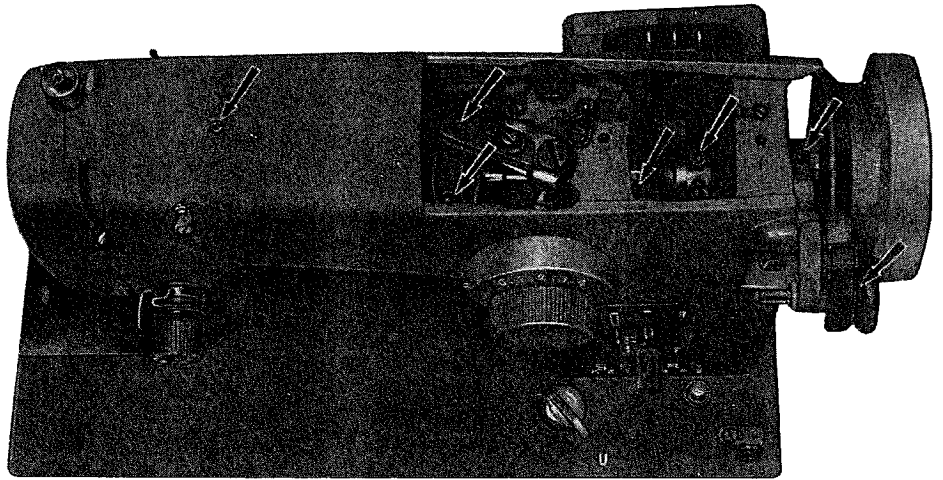
1. Turn hand wheel toward you until needle is at its highest position. Remove bobbin and bobbin case.
2. Push buttons (A) sideways.
3. Remove shuttle race cover (B). Then pull out shuttle (C) by grasping axle.
4. Remove accumulated lint and thread from all parts of shuttle race.
5. Replace shuttle in race body, with axle facing out, forming a perfect circle with driver (D).
6. Replace shuttle race cover (B), then insert bobbin and bobbin case.
7. Do not attempt to force any of the above operation.
8. Occasionally remove the needle plate and clean feed dog with a soft brush.



OILING MACHINE

Keep the moving parts free from dust and thread for quiet and efficient operation. Cleaning should be done with a small brush.

When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated.



Tilt machine head back to oil points indicated on underside of machine head.

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular Stitches	Incorrect size needle. Improper threading. Loose upper thread tension. Pulling fabric. Light pressure on presser foot. Loose presser foot. Unevenly wound bobbin.	Choose correct size needle for thread and fabric (page 5). Rethread machine (page 9). Tighten upper thread tension (page 12). Do not pull fabric; guide it gently. Increase pressure on presser foot (page 10). Reset presser foot (page 15). Rewind bobbin (page 7).
Breaking Needle	Pulling fabric. Incorrect size needle. Incorrect setting of needle. Loose presser foot.	Do not pull fabric; guide it gently. Choose correct size needle for thread and fabric (page 5). Reset needle (page 5). Reset presser foot (page 15).
Bunching of Thread	Upper and lower threads not drawn back under presser foot. Feed dog down.	Draw both threads back under presser foot (page 10). Raise feed dog (page 15).
Puckering	Incorrect thread tension(s). Light pressure on presser foot. Using two different sizes or kinds of thread. Bent or blunt needle. Loose presser foot. Fabric too sheer or too soft.	Reset thread tension(s) (pages 12, 13). Increase pressure on presser foot (page 10). Upper thread and bobbin thread should be same size and kind. Insert new needle (page 5) Reset presser foot (page 15). Use underlay of tissue paper or tarleton when stitching.

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	Incorrect size needle. Bent or blunt needle. Incorrect setting of needle. Tight upper thread tension. Light pressure on presser foot.	Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5). Reset needle (page 5). Loosen upper thread tension (page 12). Increase pressure on presser foot (page 10).
Breaking Upper Thread	Starting to stitch too fast. Improper threading. Tight upper thread tension. Incorrect size needle. Sharp eye in needle.	Start to stitch at a medium speed. Rethread machine (page 9). Loosen upper thread tension (page 12). Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5).
Breaking Bobbin Thread	Improper bobbin case threading. Tight bobbin thread tension. Lint in bobbin case or shuttle.	Check bobbin case threading (page 8). Loosen bobbin thread tension (page 13). Clean bobbin case and shuttle (page 20).
Fabric not Moving	Feed dog down. Light pressure on presser foot. Threads knotted under fabric.	Raise feed dog (page 15). Increase pressure on presser foot (page 10). Place both threads back under presser foot before beginning to stitch.
Machine Jamming (Knocking Noise)	Thread caught in shuttle.	Disassemble and clean shuttle (page 20).

ADJUSTING YOUR SEWING MACHINE FOR GOOD STITCHES

When your sewing machine does not sew a properly locked stitch, check the following:

1. Insert a new needle of the correct size for the thread and fabric you are using. Consult chart on page 5 for needle size.
2. The upper and bobbin thread should be matched in size and type.
3. Check threading carefully. See page 9.
4. Check the thread tension balance. Use mercerized thread, and a correct size needle for the fabric you are using. Do not try this test with synthetic thread as it will not break.

Begin with a full bobbin, properly threaded into the case. Set the stitch length at about 12 stitches per inch. Fold a 6" square of your fabric in half diagonally, forming a triangle. Make a line of stitching $\frac{1}{2}$ " from fold.

- a. If seam is puckered - both tensions are too tight.
- b. If the bottom thread lays on the fabric - tighten upper thread tension, and repeat test. See page 12, Figure 3.
- c. If the top thread lays on the fabric - loosen upper thread tension, and repeat test. See page 12, Figure 2.

Grasp the stitching and pull with a snap to make threads break.

- a. If both threads break - tensions are balanced.
- b. If neither thread breaks - both tensions are too loose.
- c. If upper thread breaks - loosen upper tension.
- d. If lower thread breaks - tighten upper tension.

Both threads do not have to break at the same place, but they should break on the same snap. Bobbin tension may be reset by the following procedure. Start with a loose bobbin thread tension. Tighten the spring screw gradually until bobbin case and full bobbin can be gently lifted from your hand by the end of the bobbin thread.

SEWING MACHINE

Now that you have purchased your Sewing Machine, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. or Simpsons-Sears Limited Stores. Be sure to provide all pertinent facts when your call or visit.

The model number of your Sewing Machine will be shown on your nomenclature plate on the front side of bedplate of your Sewing Machine. See page 2 for location.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

***MODEL NUMBER *NAME OF ITEM *PART DESCRIPTION**

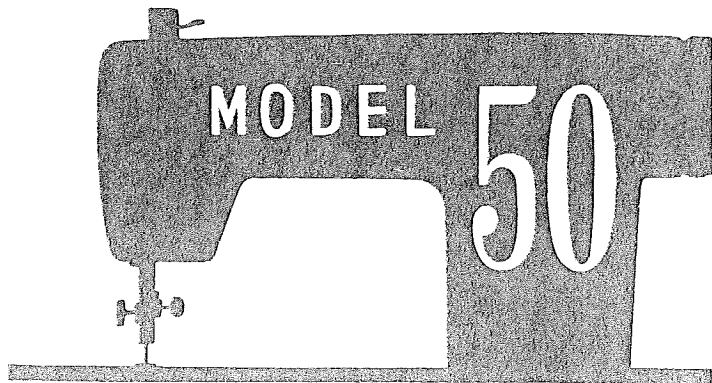
If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

**SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A. and
SIMPSONS-SEARS LIMITED, Toronto, Ontario, Canada**

Part No. 4300 B

Kenmore

I N S T R U C T I O N S

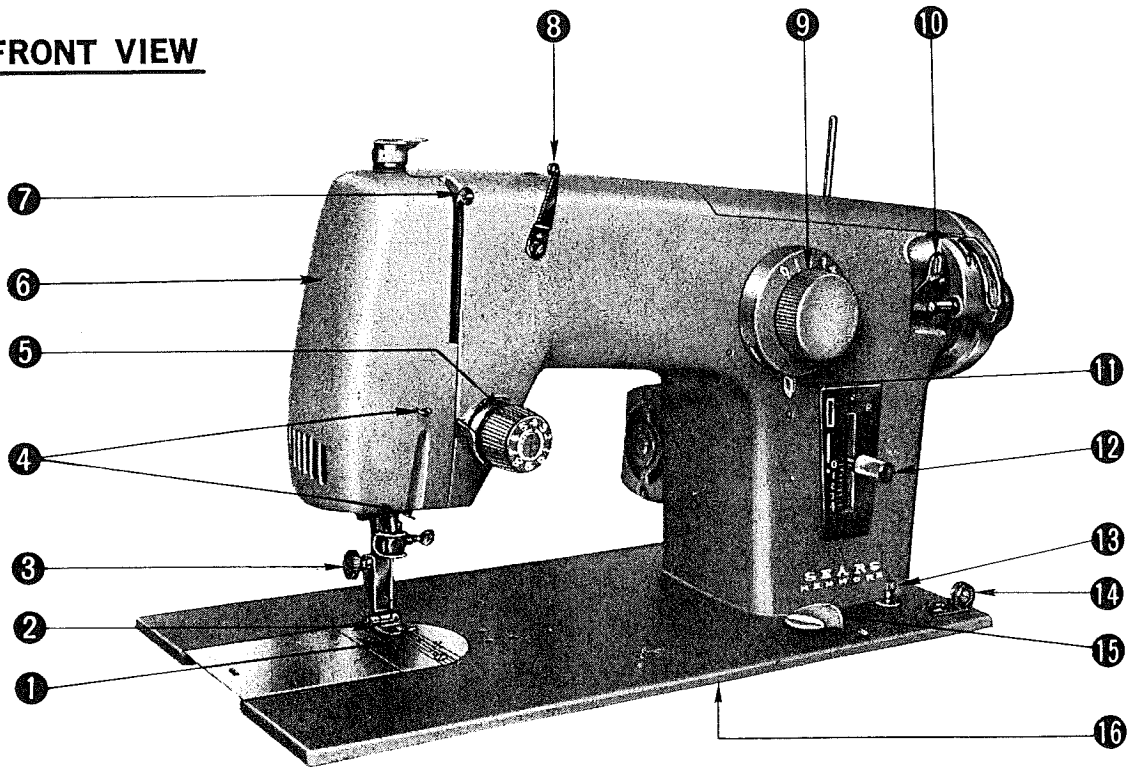


ZIG-ZAG SEWING MACHINE

**TABLE OF
CONTENTS**

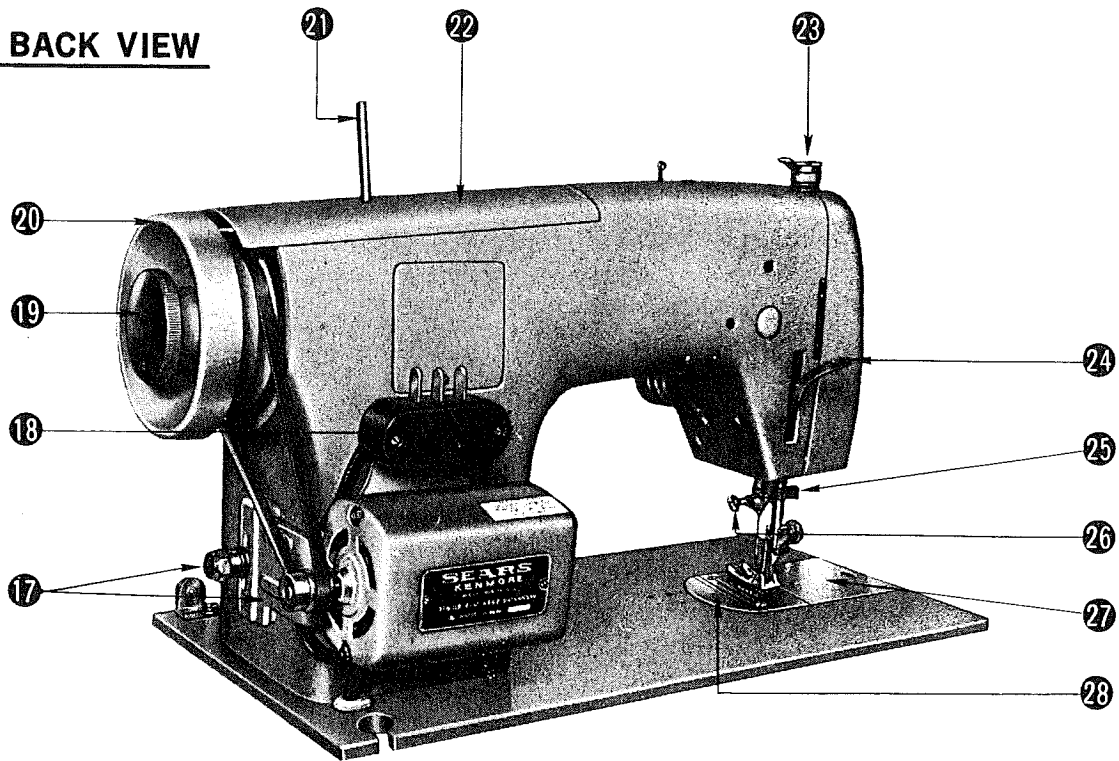
Adjusting for Good Stitches	24	Needle & Thread Table	5
Adjusting Pressure of Presser Foot.....	10	Needle Size	5
Adjusting Tensions	12 - 13		
Blind Stitching	19	Oiling Machine.....	21
Buttonholes	17	Overcasting	19
Buttons.....	17	Picking up Bobbin Thread	10
		Placement of Needle.....	5
Changing the Presser Feet.....	15	Removing Bobbin Case	
Connecting Machine	4	from Shuttle	6
		Removing Lint	20
Darning	16	Replscement of Belt	20
		Reverse Stitching	11
Fastening a Seam	11	Setting Stitch Length.....	11
Feed Dog Control	15	Setting Stitch Width	18
		Sewing Light	4
Identification - Head Parts	2 - 3	Threading Upper Machine	9
Inserting Bobbin into Bobbin Case.....	8	Turning a Corner	15
Inserting & Removing Material.....	14		
Installing Machine Head	4	What to Do	22 - 23
		Winding the Bobbin	7
Locking Stitch Width	18		

FRONT VIEW



- | | | |
|-----------------------------|------------------------------|---------------------------------|
| 1. Feed Dogs | 7. Thread Take-up | 12. Stitch Length Control Lever |
| 2. Presser Foot | 8. Upper Thread Guide | 13. Light Switch |
| 3. Presser Foot Thumb Screw | 9. Stitch Width Control Dial | 14. Bobbin Winder Tension Disc |
| 4. Thread Guides | 10. Bobbin Winder Assembly | 15. Feed Dog Control Knob |
| 5. Thread Tension Assembly | 11. Stitch Width Lock Lever | 16. Nomenclature Plate |
| 6. Face Cover Plate | | |

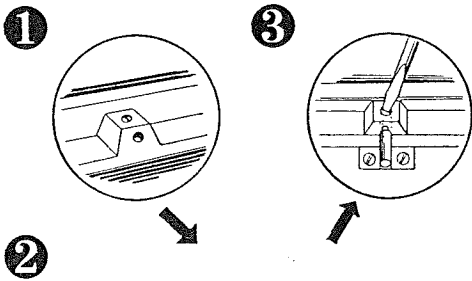
BACK VIEW



- 17. Motor Mounting Bracket and Screw
- 18. Three Prong Connector
- 19. Clutch Knob
- 20. Hand Wheel

- 21. Thread Spool Pins
- 22. Arm Cover Plate
- 23. Presser Foot Knob
- 24. Presser Foot Lever

- 25. Thread Cutter
- 26. Needle Clamp Screw
- 27. Hand Hole Cover Plate
- 28. Needle Plate



INSTALLING MACHINE HEAD IN PORTABLE AND CABINET

Loosen the two hinge screws under holes in the rear edge of the machine bed (1). Raise hinge pins in the cutout (2). Slip machine head onto the pins and tighten hinge screws securely (3). Lower machine head to front flap.

Lay the plastic discs over the spool pin hole on the arm cover plate. Screw pins in place. Discs and pins are packed in accessory box.

When head is in place for sewing, there will be a small open space between the edge of the sewing head and the cabinet. This space is reserved for the convenient plastic accessory tray which fits therein.

SEWING LIGHT

The sewing light is placed inside the face cover plate as shown. It may be turned on or off by pushing light switch. To change bulb, open the face cover plate by swinging it open, twist old bulb away from you and remove. Then insert new bulb.

CONNECTING MACHINE

Push the plug onto three prong connector over the machine motor.

Plug machine cord into any 110-120V wall outlet.

NEEDLE AND THREAD TABLE

THREAD SIZE	NEEDLE SIZE	FABRIC
Cotton 80 - 100 Synthetic Silk A	9	Chiffon, Fine Silks, Nylon Tricot, Power net.
Cotton 80 - 100 Synthetic Silk A	11	Batiste, Dimity, Organdy, Light weight Velvet and Taffeta, Fine Lace, Light weight Knits, Satin.
Cotton 60 - 80 Synthetic Mercerized 50 - 60	14	Cotton, Cotton Blends, Poplin, Percale, Gingham, Shantung, Pique, Seersucker, Velveteen, Double Knits, Light weight Wool, Linen, Leather, Fake Furs, Vinyls.
Cotton 40 - 60 Mercerized 50 Mercerized Heavy Duty	16	Heavy Cotton such as Corduroy, Denim, Decorator Fabrics, Wool, Coating and Suiting.
Cotton 30 - 50 Mercerized Heavy Duty	18	Heavy Twills, Denims, Coatings.

NEEDLE SIZE

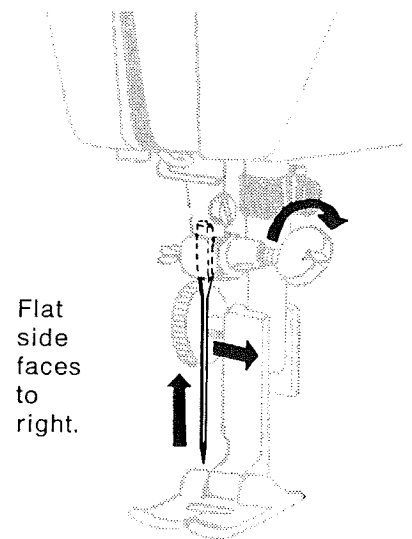
Use KENMORE needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing. Never use a bent needle nor one with a blunt point.



This is the exact length of the needle to be used in your machine. Comparison with this illustration will determine whether the needle you have is the correct one for your machine.

PLACEMENT OF NEEDLE

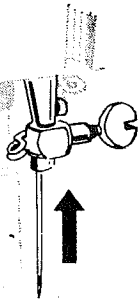
Raise needle bar to its highest position by turning hand wheel toward you. Loosen needle clamp screw. Hold the needle so that the flat side is to your right. Slip blunt end of needle as far as it will go into needle clamp. Tighten needle into place with needle clamp screw.



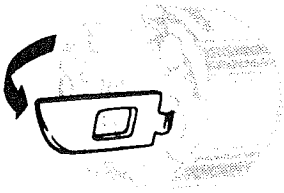
Flat side faces to right.

REMOVING BOBBIN CASE FROM SHUTTLE

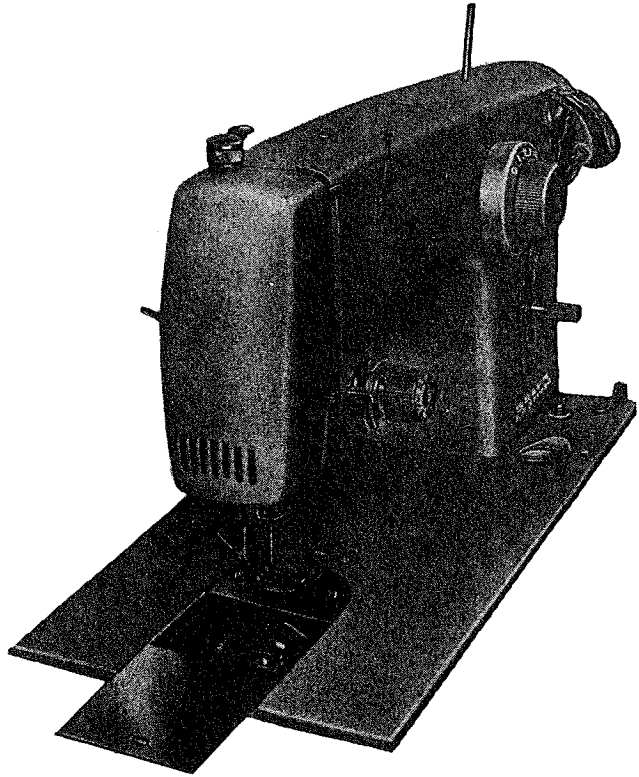
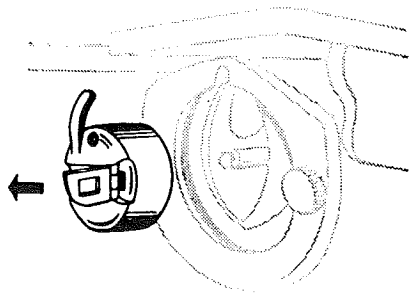
Needle at its highest position.



Pull out latch.



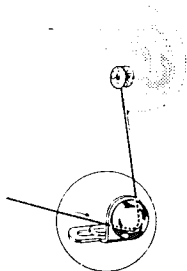
Pull bobbin case straight out.



WINDING THE BOBBIN

1

Place thread on spool post. Draw thread as shown.



2

Wind thread around bobbin a few times. Place bobbin onto bobbin winder shaft.



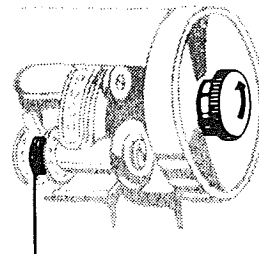
3

Press bobbin winder lever down.



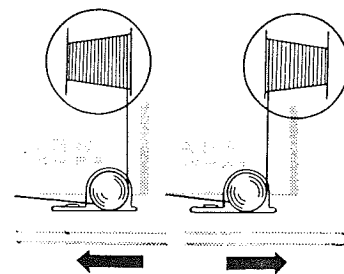
4

Release clutch by turning clutch knob toward you.



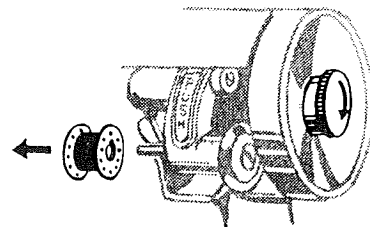
5

Bobbin winder thread guide is adjustable. If bobbin winds as illustrated, slightly move thread guide to an arrow direction to correct this situation.



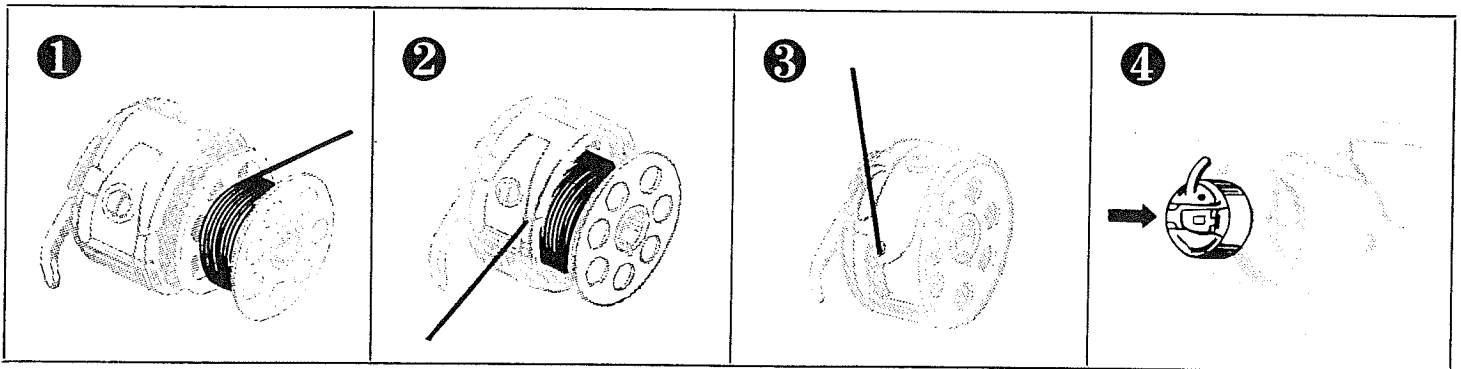
6

Tighten clutch knob and remove bobbin.

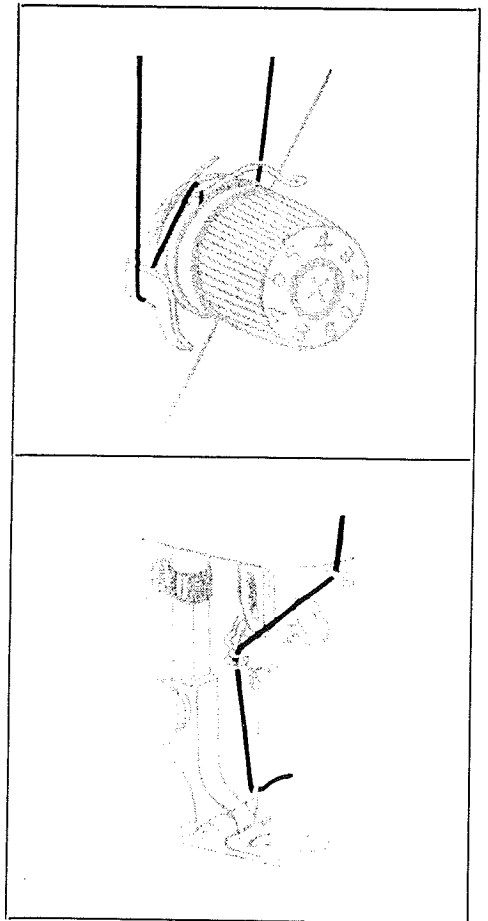
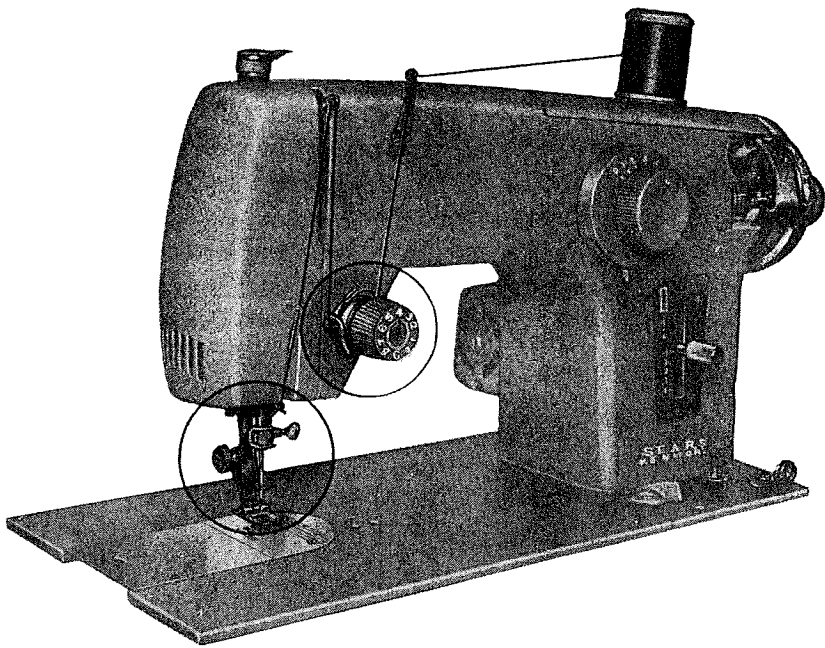


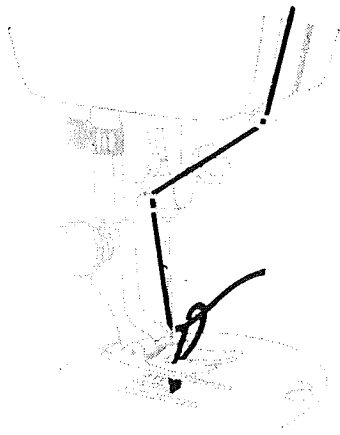
INSERTING BOBBIN INTO BOBBIN CASE CASE INTO SHUTTLE

- ① Guide bobbin onto center pin of bobbin case.
- ② Pull thread through slot.
- ③ Pull thread under tension spring.
- ④ Holding latch, position case into shuttle, release latch.



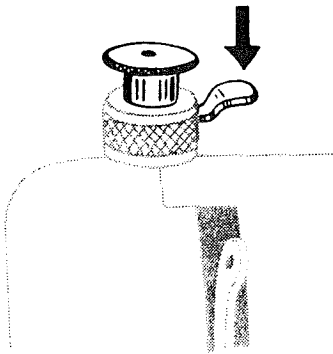
THREADING UPPER MACHINE





PICKING UP BOBBIN THREAD

Raise presser foot lever.
 Hold needle thread loosely in left hand and rotate hand wheel toward you one complete turn.
 Bring bobbin thread up by pulling upper thread.
 (See illustration).
 Place threads back under presser foot.



ADJUSTING THE PRESSURE OF THE PRESSER FOOT

Push down latch of presser foot knob (See illustration). This will release pressure of presser foot.
 To increase pressure, push down round top of presser foot knob until suitable pressure is obtained.

When sewing multiple thickness or heavy material, you may prefer less pressure on the presser foot.
 When sewing on sheer fabrics, more pressure may be desired.

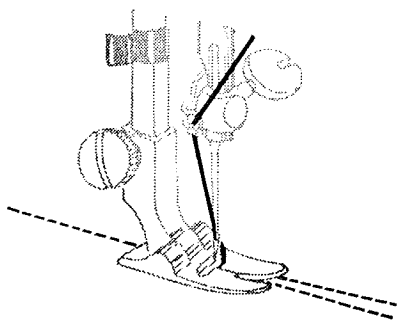
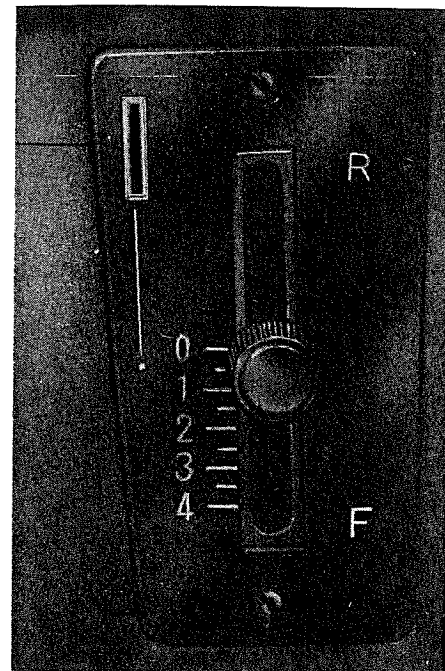
SETTING STITCH LENGTH

The stitch regulator controls the stitch length. Set lever to any desired stitch length position between 0 and 4, and set by turning knob clockwise until it stops. At No. 4 the longest stitch is obtained. The size of stitch selected will depend on fabric you are sewing. To lengthen stitch, turn the knob counter clockwise until the lever can be lowered to the position desired.

REVERSE STITCHING

Raise lever for reverse stitching. Lower lever for forward stitching.

It is best to begin and end most seams with reverse stitching often called back tacking.



FASTENING A SEAM

Lower needle into fabric. Lower presser foot and move lever up for reverse stitching. Turn hand wheel toward you and stitch until needle reaches beginning of seam. Push lever down and complete seam. Fasten end of same. Cut thread with cutter.

ADJUSTING TENSIONS

1

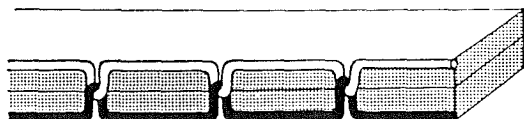


Fig. 1

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom. (Refer to page 24)

PROBLEM

REMEDY

2

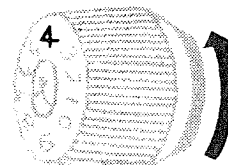
Upper thread too tight



Fig. 2



Decrease Tension



3

Upper thread too loose

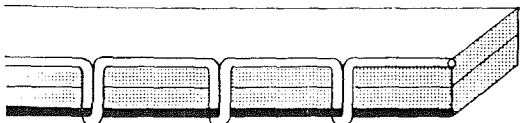
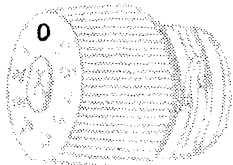


Fig. 3



Increase Tension

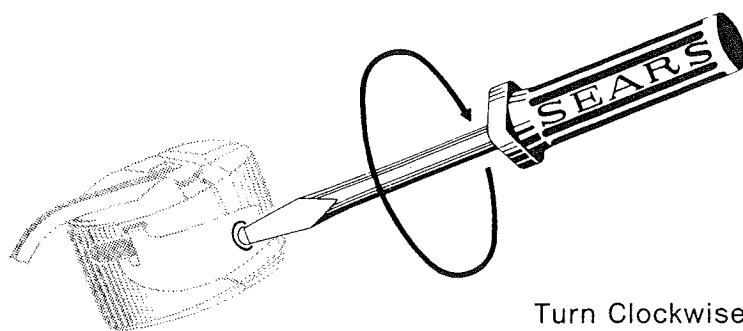


When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension requires adjustment less frequently than the upper thread tension.

When stitch is satisfactory, as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted. (See page 24)

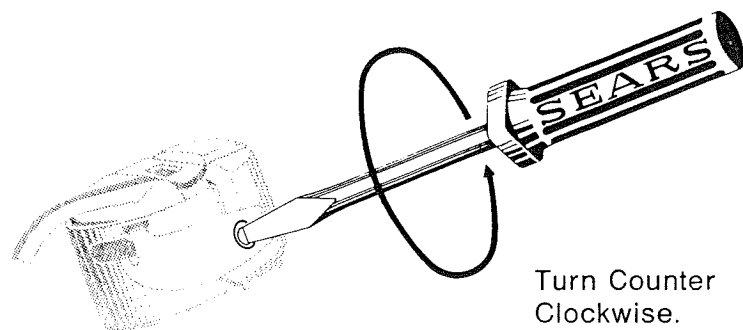
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver. (See page 24)

INCREASE TENSION



Turn Clockwise.

DECREASE TENSION



Turn Counter
Clockwise.

INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart on page 5.

Before placing the material on the machine, see that:

- * The presser foot and needle clamp screws are both tight.
- * The sizes of needle and thread suit the kind of work to be done.
- * The needle and take-up lever are at their highest position.
- * The ends of the threads have been drawn about 4 inches to the rear of the machine.
- * The feed dogs are up.
- * Stitch length and width controls are set at desired settings.

Experiment by sewing on the fabric to be used to determine tension adjustment and correct stitch settings.

Place material under the presser foot, insert the needle into the material by turning the hand wheel toward you, lower presser foot and start sewing.

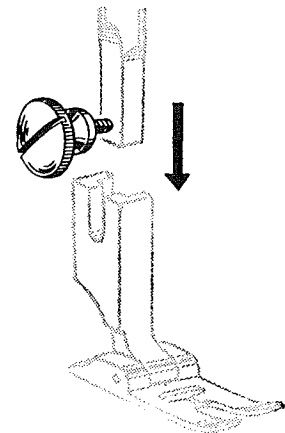
To remove the work, first turn hand wheel toward you until needle is at its highest position, then raise the presser foot, draw material to the rear and cut off excess thread with the thread cutter located on the presser bar.

IMPORTANT: Always turn the hand wheel toward you! When machine is not being used, place a piece of material over the feed dog and lower the presser foot. Always have fabric under the presser foot when operating the machine. Operating threaded machine without fabric will cause it to jam by forcing thread into the shuttle. See page 20.

CHANGING THE PRESSER FEET

The various attachment feet available for certain kinds of work are to be fastened to the presser bar.

To attach the foot, raise the presser bar to its highest position by raising the presser foot lever. Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Tighten the screw using the large screw driver and make sure that the foot is secure.

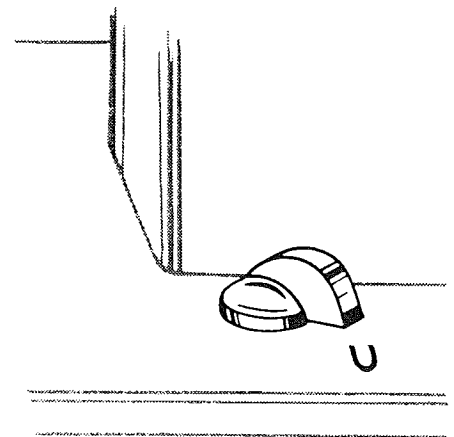


TURNING A CORNER

Stop sewing machine with needle in fabric. Raise presser foot. Turn fabric. Lower presser foot and continue stitching.

FEED DOG CONTROL

The drop feed control knob is situated on the right front of machine bedplate. When knob is turned to the left, feed dog drops and does not pull material. This allows the operator freedom of movement of material, as for darning. For regular sewing, turn knob to the right.



DARNING

WITH PRESSER FOOT :

1. Turn feed dog control to left.
2. Press down outer ring of presser foot knob, see page 10. With presser foot knob in this position, mending, darning, monogram work, etc. may be done.
3. Stretch fabric tightly between two spring embroidery hoops and place under needle.
4. Lower presser bar so thread will have some tension. When you start to darn, move fabric back and forth to cover darning area. Then turn fabric and continue sewing at right angles to the previous stitching. Use medium machine speed. You can make any length stitches desired. Slow movement of fabric will make short darning stitches. Fast movement will make long stitches.
5. When you finish darning, raise presser foot and remove fabric. Increase pressure for general sewing by pressing down inner pin of the presser foot knob. Turn feed dog control to right.

WITHOUT PRESSER FOOT :

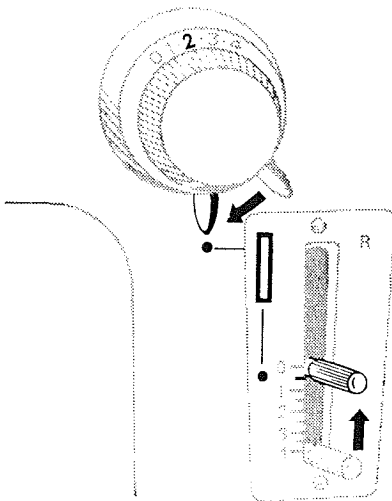
1. Turn feed dog control to left.
2. Remove presser foot.
Proceed as directed under steps 3 and 4 above.
3. When you finish darning, raise the presser foot lever and remove fabric. Replace presser foot, and increase pressure for general sewing. Turn feed dog control to right.

BUTTONS AND BUTTONHOLES

BUTTONHOLES

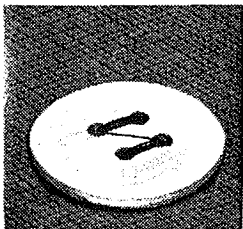
1. Set stitch width lock lever and stitch length control lever just on each dot as illustrated.
2. Stitch forward until desired length for buttonhole is obtained. Stop with needle on the right side of stitching. Raise presser foot and turn material. Lower presser foot and take one stitch to the left.
3. Turn stitch width control dial to 4, drop feed dogs and bartack. Bartacking should be completed with needle on the left side. Raise feed dogs, return stitch width control dial to the set position and sew back to other end of buttonhole.
4. Stop, with needle on the left side. Turn stitch width control dial to 4. Drop feed dogs and bartack.

It is recommended that tailor's chalk be used to determine length of buttonhole before sewing. For a firm buttonhole the stitching can be repeated over the same area - then cut buttonhole opening.



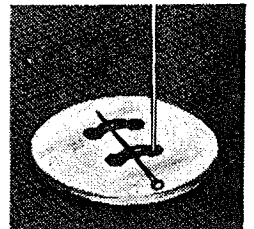
BUTTONS

Feed dog Left



1. Place needle into left hole of button, and lower presser foot.
2. Set stitch width control lever at width between holes of button. Test width by turning handwheel slowly. Take several zigzag stitches to sew on button, ending with needle on left side.
3. Set stitch width control lever at 0. Take a few stitches in left hole of button to lock threads. Pull threads to wrong side.

NOTE: To make a small thread shank when sewing on a flat button, place a straight pin or needle between the holes of the button.



ZIGZAG CONTROL



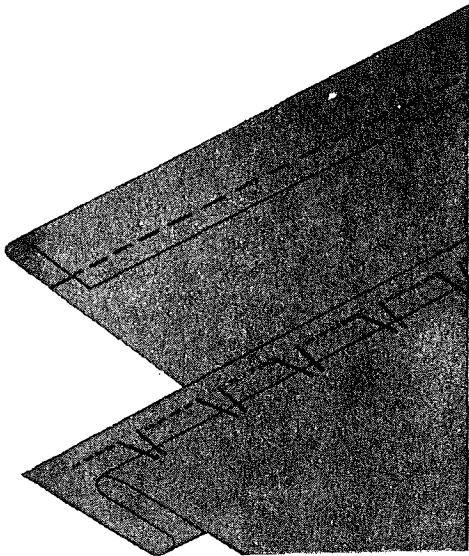
SETTING STITCH WIDTH

1. Push in lock lever. Change stitch setting and release lever.
2. Move stitch width dial to desired position between 0 and 4 on the stitch width indicator dial.

Zigzag stitch width increases from 0 to 4.
Straight stitching is possible only with control on 0.

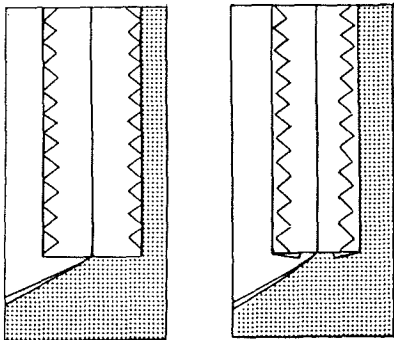
LOCKING STITCH WIDTH

Push in lock lever. Change stitch setting and release lever.



BLIND STITCHING

Fold and baste hem. Turn back so that edges of hem project beyond fold. Set sewing machine for straight stitching and stitch along fold of hem for approximately $\frac{1}{2}$ inch. Then zigzag one stitch using stitch width set on 2, catching the right side of the material. Continue straight for $\frac{1}{2}$ inch and repeat process until hem is completed.



OVERCASTING

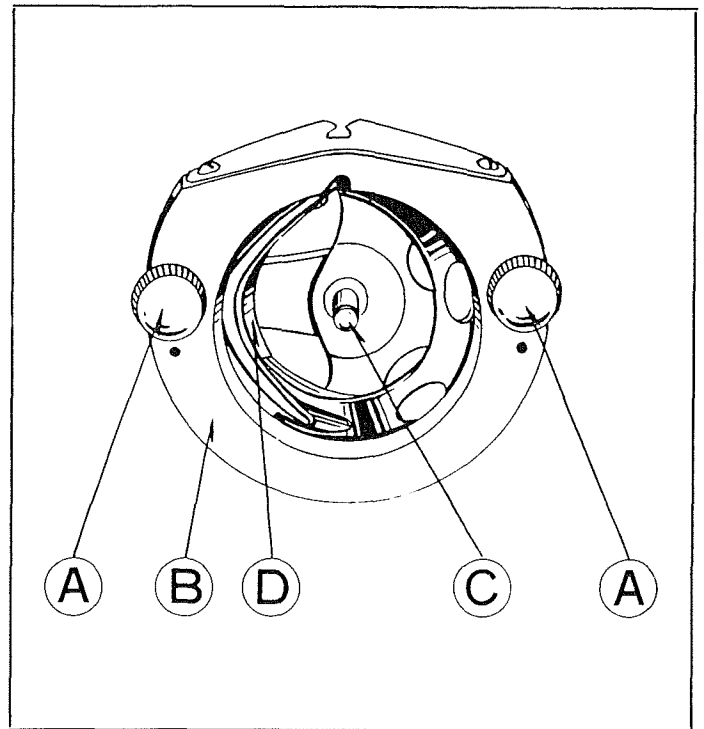
Set stitch width to 4. Set stitch length at 4. Zigzag stitch around raw edge of fabric to completely cover the edge.

REPLACEMENT OF THE BELT

To replace a worn belt, loosen motor bracket set bolt and remove belt by reducing the distance between motor pulley and hand wheel. Install new belt and adjust the distance between the motor pulley and hand wheel. To provide proper tension, allow the belt to support the weight of the motor and then firmly tighten the motor bracket set bolt.

REMOVING LINT

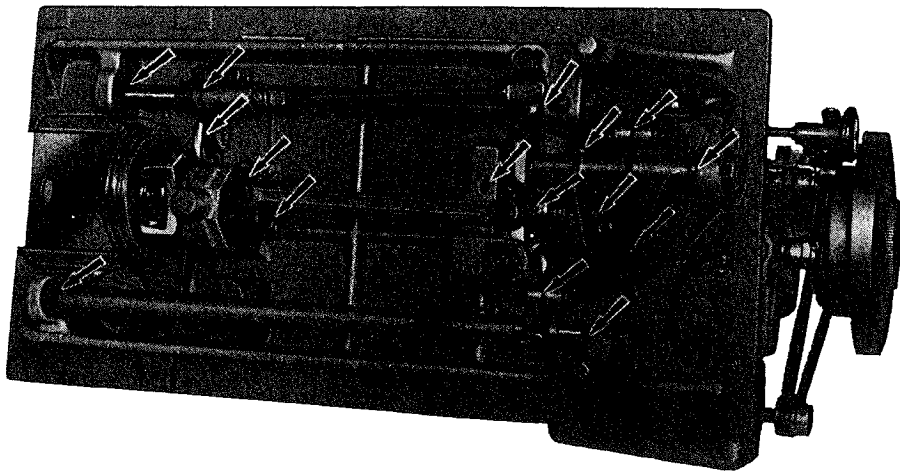
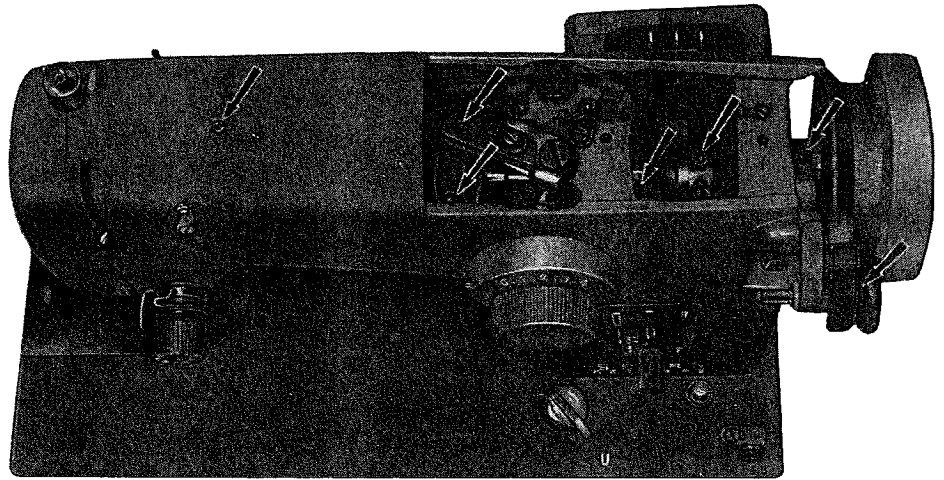
1. Turn hand wheel toward you until needle is at its highest position. Remove bobbin and bobbin case.
2. Push buttons (A) sideways.
3. Remove shuttle race cover (B). Then pull out shuttle (C) by grasping axle.
4. Remove accumulated lint and thread from all parts of shuttle race.
5. Replace shuttle in race body, with axle facing out, forming a perfect circle with driver (D).
6. Replace shuttle race cover (B), then insert bobbin and bobbin case.
7. Do not attempt to force any of the above operation.
8. Occasionally remove the needle plate and clean feed dog with a soft brush.



OILING MACHINE

Keep the moving parts free from dust and thread for quiet and efficient operation. Cleaning should be done with a small brush.

When machine runs hard or makes excessive noise, place a drop of KENMORE sewing machine oil at the points indicated.



Tilt machine head back to oil points indicated on underside of machine head.

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular Stitches	Incorrect size needle. Improper threading. Loose upper thread tension. Pulling fabric. Light pressure on presser foot. Loose presser foot. Unevenly wound bobbin.	Choose correct size needle for thread and fabric (page 5). Rethread machine (page 9). Tighten upper thread tension (page 12). Do not pull fabric; guide it gently. Increase pressure on presser foot (page 10). Reset presser foot (page 15). Rewind bobbin (page 7).
Breaking Needle	Pulling fabric. Incorrect size needle. Incorrect setting of needle. Loose presser foot.	Do not pull fabric; guide it gently. Choose correct size needle for thread and fabric (page 5). Reset needle (page 5). Reset presser foot (page 15).
Bunching of Thread	Upper and lower threads not drawn back under presser foot. Feed dog down.	Draw both threads back under presser foot (page 10). Raise feed dog (page 15).
Puckering	Incorrect thread tension(s). Light pressure on presser foot. Using two different sizes or kinds of thread. Bent or blunt needle. Loose presser foot. Fabric too sheer or too soft.	Reset thread tension(s) (pages 12, 13). Increase pressure on presser foot (page 10). Upper thread and bobbin thread should be same size and kind. Insert new needle (page 5) Reset presser foot (page 15). Use underlay of tissue paper or tarleton when stitching.

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	Incorrect size needle. Bent or blunt needle. Incorrect setting of needle. Tight upper thread tension. Light pressure on presser foot.	Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5). Reset needle (page 5). Loosen upper thread tension (page 12). Increase pressure on presser foot (page 10).
Breaking Upper Thread	Starting to stitch too fast. Improper threading. Tight upper thread tension. Incorrect size needle. Sharp eye in needle.	Start to stitch at a medium speed. Rethread machine (page 9). Loosen upper thread tension (page 12). Choose correct size needle for thread and fabric (page 5). Insert new needle (page 5).
Breaking Bobbin Thread	Improper bobbin case threading. Tight bobbin thread tension. Lint in bobbin case or shuttle.	Check bobbin case threading (page 8). Loosen bobbin thread tension (page 13). Clean bobbin case and shuttle (page 20).
Fabric not Moving	Feed dog down. Light pressure on presser foot. Threads knotted under fabric.	Raise feed dog (page 15). Increase pressure on presser foot (page 10). Place both threads back under presser foot before beginning to stitch.
Machine Jamming (Knocking Noise)	Thread caught in shuttle.	Disassemble and clean shuttle (page 20).

ADJUSTING YOUR SEWING MACHINE FOR GOOD STITCHES

When your sewing machine does not sew a properly locked stitch, check the following:

1. Insert a new needle of the correct size for the thread and fabric you are using. Consult chart on page 5 for needle size.
2. The upper and bobbin thread should be matched in size and type.
3. Check threading carefully. See page 9.
4. Check the thread tension balance. Use mercerized thread, and a correct size needle for the fabric you are using. Do not try this test with synthetic thread as it will not break.

Begin with a full bobbin, properly threaded into the case. Set the stitch length at about 12 stitches per inch. Fold a 6" square of your fabric in half diagonally, forming a triangle. Make a line of stitching $\frac{1}{2}$ " from fold.

- a. If seam is puckered - both tensions are too tight.
- b. If the bottom thread lays on the fabric - tighten upper thread tension, and repeat test. See page 12, Figure 3.
- c. If the top thread lays on the fabric - loosen upper thread tension, and repeat test. See page 12, Figure 2.

Grasp the stitching and pull with a snap to make threads break.

- a. If both threads break - tensions are balanced.
- b. If neither thread breaks - both tensions are too loose.
- c. If upper thread breaks - loosen upper tension.
- d. If lower thread breaks - tighten upper tension.

Both threads do not have to break at the same place, but they should break on the same snap. Bobbin tension may be reset by the following procedure. Start with a loose bobbin thread tension. Tighten the spring screw gradually until bobbin case and full bobbin can be gently lifted from your hand by the end of the bobbin thread.

SEWING MACHINE

Now that you have purchased your Sewing Machine, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. or Simpsons-Sears Limited Stores. Be sure to provide all pertinent facts when your call or visit.

The model number of your Sewing Machine will be shown on your nomenclature plate on the front side of bedplate of your Sewing Machine. See page 2 for location.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

***MODEL NUMBER *NAME OF ITEM *PART DESCRIPTION**

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A. and
SIMPSONS-SEARS LIMITED, Toronto, Ontario, Canada

Part No. 4300 B