

PEAFF[®] 18

INSTRUCTION BOOK

Foreword

Your dream has come true. You are now the proud owner of a Pfaff sewing machine which will enable you to master all ordinary sewing, embroidering and darning jobs that may come up in a home.

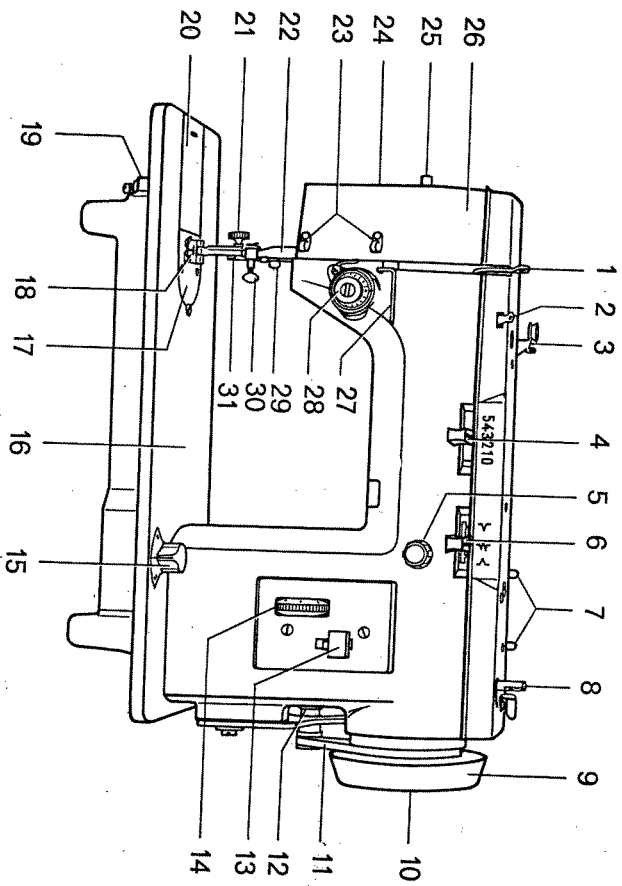
This instruction book has been compiled in order to help you understand your sewing machine and its operation and to acquaint you with the most important sewing jobs. Even if you are an experienced seamstress, you will find this book a valuable guide to easy sewing. Follow these simple instructions and sewing will become a lasting pleasure.

If you have any sewing problems, please feel free to contact your Pfaff dealer who will be glad to help you at any time.

G · M · PFAFF A G
Karlsruhe-Durlach Branch

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Essential Parts of Machine

- | | | | |
|----|---|----|--|
| 1 | Take-up lever | 16 | Bedplate |
| 2 | Thread guide | 17 | Needle plate |
| 3 | Thread retainer
(for bobbin winding) | 18 | Sewing foot |
| 4 | Stitch width limiting button | 19 | Shuttle |
| 5 | Stitch width limiting lever | 20 | Bed slide |
| 6 | Needle position lever | 21 | Sewing foot thumb screw |
| 7 | Spool pins
(on back of machine arm) | 22 | Needle bar |
| 8 | Bobbin winder | 23 | Thread guides |
| 9 | Balance wheel | 24 | Presser bar lifter
(on back of machine) |
| 10 | Stop motion knob | 25 | Light switch |
| 11 | Driving belt | 26 | Face cover |
| 12 | Motor (on back of machine) | 27 | Thread guide |
| 13 | Reverse feed control | 28 | Needle thread tension |
| 14 | Stitch length control | 29 | Thread cutter |
| 15 | Drop feed control | 30 | Needle set screw |
| | | 31 | Presser bar |

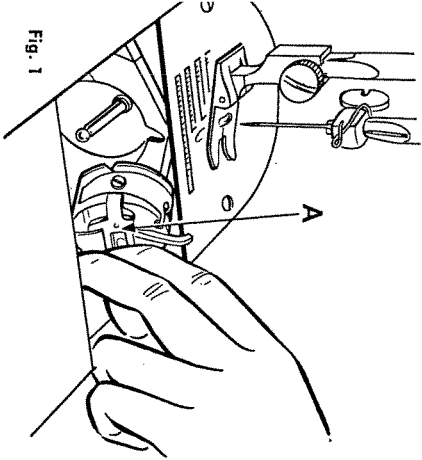


Fig. 1

Removing the Bobbin Case

Turn the balance wheel toward you until the needle bar is at its highest point. Open the bed slide so that you can see the shuttle. Lift latch **A** (Fig. 1) with thumb and forefinger and take the bobbin case out of the machine. Release the latch so that the bobbin drops out.

Disengaging the Sewing Mechanism

Hold the balance wheel with your left hand and, with your right hand, turn the stop motion knob toward you (see arrow in Fig. 2). To engage the sewing mechanism, tighten the stop motion knob by turning it over from you.

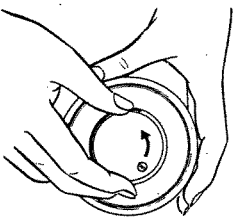


Fig. 2

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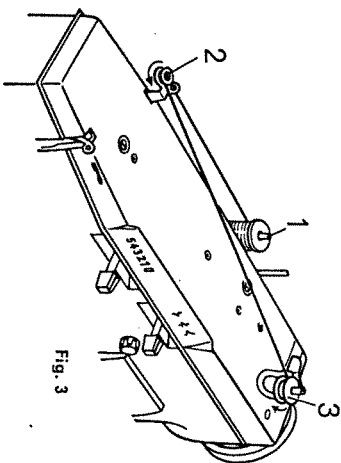


Fig. 3

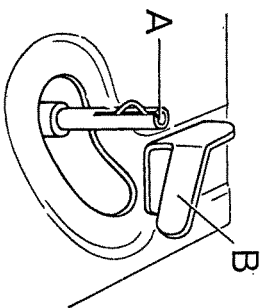
Winding the Bobbin

Select the proper thread size from the Needle and Thread Chart on page 23. Disengage the sewing mechanism and place a spool of thread on one of the spool pins (Fig. 3). Pass the thread through the thread guide and between tension discs 2 (see arrow). Wind the end of the thread several times around bobbin 3 in the direction indicated by an arrow. Place the bobbin on spindle **A** (Fig. 4) and press button **B**. Start the machine. The bobbin winder will stop automatically when the bobbin is full. Remove the full bobbin.

If only a limited amount of thread is to be wound on the bobbin, push the bobbin away from the stop when the desired amount of thread has been wound on it.

If the thread piles up on one side, loosen the set screw on the bobbin winder tension bracket on the back of the machine, set the bracket higher or lower, as required, and tighten the screw securely.

Fig. 4



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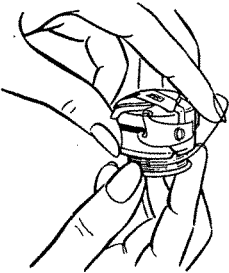


Fig. 5

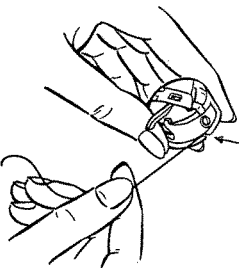


Fig. 6

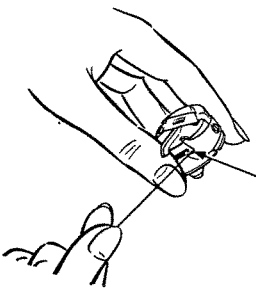


Fig. 7

Threading the Bobbin Case

Pull about four inches of thread from the bobbin. Take the bobbin case in your left hand and insert the bobbin into the bobbin case, as shown in Fig. 5. Pull the thread into the bobbin case slot (Fig. 6) and draw it to the right, pulling it under the tension spring and into the delivery eye (Fig. 7).

Inserting the Bobbin Case

Raise the needle bar to its highest point. Lift latch **D** (Fig. 8) to keep the bobbin from dropping out of its case. Place the bobbin case on stud **A**, making sure position finger **C** is opposite notch **B**. Release latch **D** and press against the bobbin case until it snaps into place with a click.

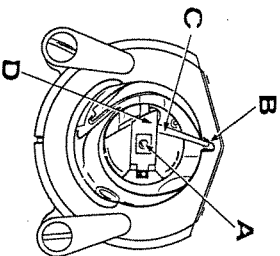


Fig. 8

Changing the Needle

Turn the balance wheel toward you to bring needle bar **A** (Fig. 9) to its highest point. Loosen needle set screw **B** and take out the old needle. Insert the new needle **C** into the opening of the needle clamp and push it up as far as it will go. Make sure the flat side of its shank faces toward the right and tighten needle set screw **B**.

Use system 130 R needles only. Select the proper needle size from the Needle and Thread Chart on page 23.

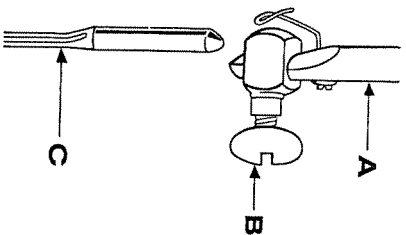


Fig. 9

Upper Threading

Bring take-up lever 7 (Fig. 10) as high as it will go and place a spool of thread on one of the spool pins. Pass the thread through thread guides 1 and 2, down through thread guide 3, clockwise around and between tension discs 4, and into loop 5 of the thread check spring. Pull the thread up so that it will drop into thread guard 6. Then pass the thread up through thread guide 3, from right to left through the hole in take-up lever 7, and down through thread guides 8, 9 and 10. Thread needle 11 from left to right and pull about four inches of thread through the needle eye.

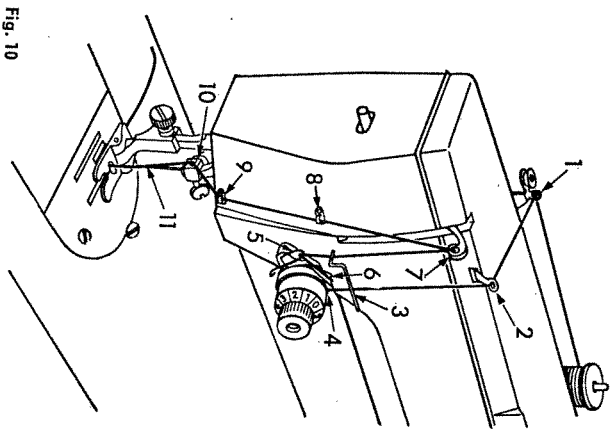


Fig. 10

Drawing Up the Bobbin Thread

Hold the end of the needle thread in your left hand. Turn the balance wheel toward you until the needle moves down and up again and the take-up lever reaches its highest position. Lightly pull the needle thread to draw the bobbin thread up through the needle hole (Fig. 11). Place both thread ends (about four inches long) back under the sewing foot.

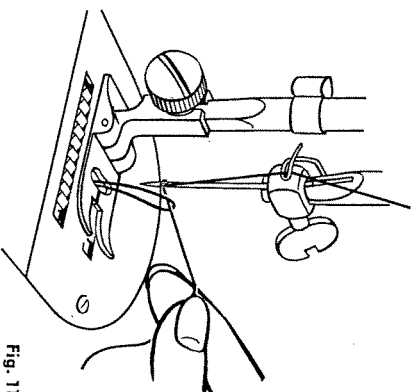
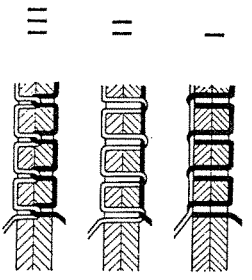


Fig. 11

Fig. 12



Regulating the Thread Tensions

If the tensions are not balanced correctly, imperfect stitching will result, as illustrated in Fig. 12.

- I — Upper tension too loose or lower tension too tight.
- II — Upper tension too tight or lower tension too loose.
- III — Both tensions balanced correctly.

Lower Tension

The lower tension is regulated by the small screw shown in Fig. 14. To increase the tension, turn this screw clockwise, and to decrease it, counter-clockwise, using a small screwdriver for this purpose.

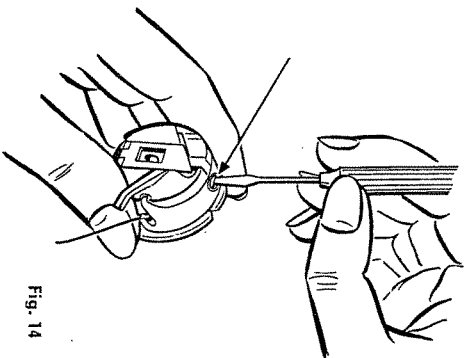
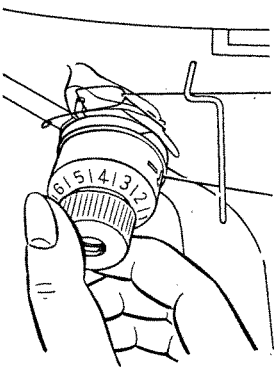


Fig. 14

Fig. 13



Upper Tension

For ordinary sewing, the upper tension should be set between 4 and 6 on the tension dial (Fig. 13). To increase the tension, turn the tension knob toward +, and to decrease the tension, toward —.

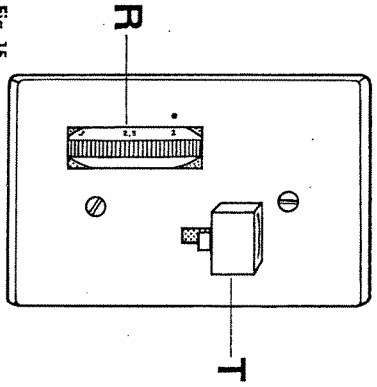


Fig. 15

Stitch Length Regulation and Reverse Sewing
Stitch length control **R** regulates the stitch length.

The numbers on the control indicate the stitch length (the higher the number, the longer the stitch). When the control is set on "0", the machine ceases feeding; maximum stitch length is 6 to the inch (4 mm). To regulate the stitch length, turn the control until the desired number is opposite the dot on the left-hand side of the slot.

To sew in reverse, simply press finger-tip control **T** down. When the control is released, the machine resumes forward sewing.

Setting the Needle Position

The needle position lever is used to move the needle from the center to the right or left of the needle hole in straight stitching. When the machine is set for zigzag stitching, it moves the starting point of the needle vibration to one of these positions.

Positions of needle position lever (Fig. 16):
 ~ = left; ~ ~ ~ = center; ~ ~ ~ ~ = right.

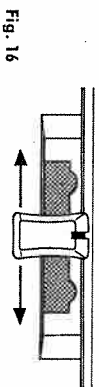


Fig. 16

Regulating the Stitch Width

Set stitch width lever **C** (Fig. 17) to the desired stitch width (0 to 5). The numbers on the scale indicate the stitch width in millimeters.

Stitch Width Limiting Button

The stitch width can be limited by means of button **A**. To do this, proceed as follows: Set stitch width lever **C** on "2", for instance, and hold it there. Turn button **A** counter-clockwise. This action causes stop **B** to move to the left until it contacts lever **C**. Tighten button **A** by turning it clockwise.

To release the stitch width lever, turn button **A** counter-clockwise, return lever **C** to "0", and tighten button **A** by turning it clockwise.

This feature is particularly useful for sewing buttonholes.

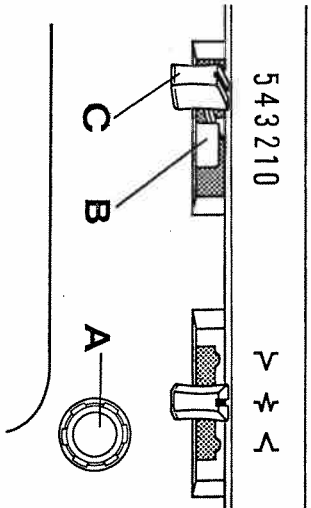


Fig. 17

Important
Raise the needle out of the fabric before you change the stitch width.

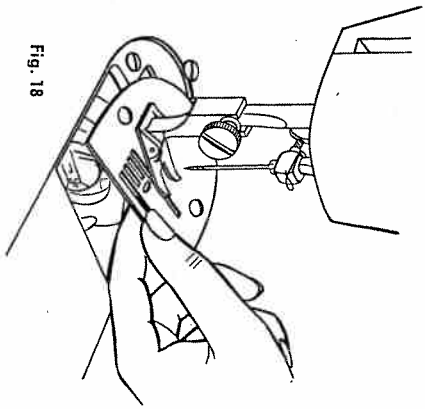


Fig. 18

Removing the Needle Plate

Lift both the needle and presser bars to their highest positions. Push the bed slide to the left. Lift the needle plate by its straight edge and tilt it out (Fig. 18). From time to time, clean the machine feed with a soft brush.

As you replace the needle plate, make sure its far end slips under the head of the rear screw before you push it down over the guide screws.

Changing the Sewing Foot

Raise both the presser and needle bars to their highest positions. Loosen the sewing foot thumb screw and remove the sewing foot. Attach another sewing foot and tighten the thumb screw securely.

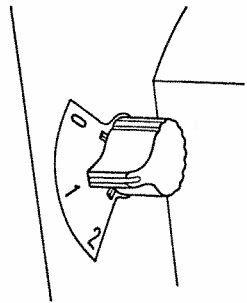


Fig. 19

Dropping the Machine Feed

The machine feed can be set to three different positions by means of the drop feed control (Fig. 19).

- 0 = Machine feed dropped completely for embroidering, darning and button sewing.
- 1 = Machine feed dropped partway for sewing delicate fabrics.
- 2 = Machine feed raised for sewing medium and heavy-weight fabrics.

Fundamentals of Machine Operation

Always turn the balance wheel toward you. Never run a threaded machine unless you have fabric under the sewing foot. Place both threads back under the sewing foot before you begin sewing. Raise the take-up lever before you begin and after you have completed a seam.

Straight and Zigzag Sewing

Check to see that the stop motion knob is tightened securely.

Straight Sewing

The machine sews straight stitches when stitch width lever **C** (Fig. 17) is set on "0".

Zigzag Sewing

The machine sews zigzag stitches when stitch width lever **C** is set on any number other than "0".

Button Sewing

Raise the needle bar to its highest position and exchange the normal sewing foot for the button sewing foot (Fig. 20). Drop the machine feed, flick the needle position lever to left, and set the stitch width lever on "0".

Place a button on the fabric under the raised button sewing foot. Make sure the needle is centered exactly over the left hole in the button (Fig. 21 a). Lower the presser bar lifter and set the stitch width (usually about $3\frac{1}{2}$) so that the needle enters the right hole in the button as you turn the balance wheel (Fig. 21 b). Slowly sew about ten stitches (Fig. 21 c), flick the stitch width lever to "0", and make two or three tying stitches.

Four-hole buttons are sewn on as shown in Fig. 22.

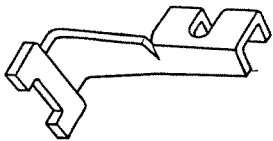


Fig. 20

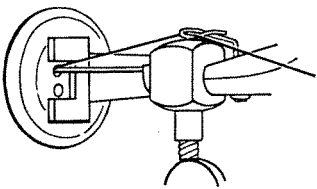
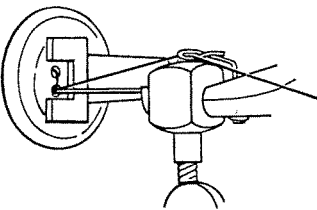
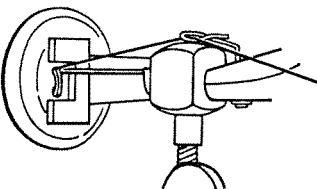


Fig. 21 a



21 b



21 c



Fig. 22

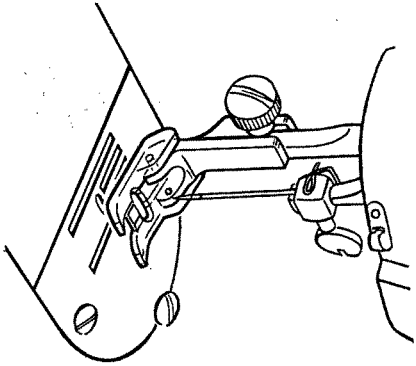


Fig. 23

Sewing Buttonholes with or without filler thread

Attach the clear-view buttonhole foot (Fig. 23). Mark the position and length of the buttonhole on the material with tailor's chalk. Set the stitch width lever on "2" and limit the stitch width, as instructed on page 13. Set the machine for satin stitching (turning the stitch length control usually to 0.2). Flick the needle position lever to left. Place the fabric under the buttonhole foot and sew the first seam from point **A** to point **B** (Fig. 24). Leave the needle in the fabric on the right side of its throw, lift the foot, and turn the fabric half a turn. Lower the foot again and raise the needle. Flick the stitch width lever to "4" and sew 6 to 8 bartacking stitches to point **C**. Push the stitch width

lever against the stop at "2", and sew the second seam up to point **D**. Flick the stitch width lever to "4" again and sew 6 to 8 bartacking stitches to point **E**. Turn the stitch width limiting button counter-clockwise (see p. 13), flick the stitch width lever to "0", and make a few tying stitches.

If a wider spacing is desired between both buttonhole seams, particularly on heavier fabrics, set the stitch width lever on "2 1/4" before you resume sewing at point **B**, and sew the bartacks with the stitch width lever set on "4 1/2".

To sew narrower buttonholes on lightweight fabrics, such as shirting, reduce the stitch width to "1 1/2" for the seams, and to "3" for the bartacks.

Open the buttonhole cautiously with a seam ripper. Be careful not to injure the bartacks. Remember to raise the needle out of the fabric before you change the stitch width.

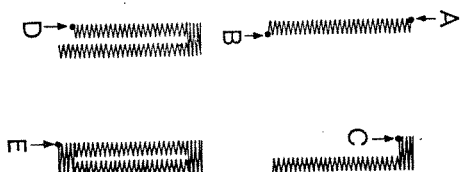


Fig. 24

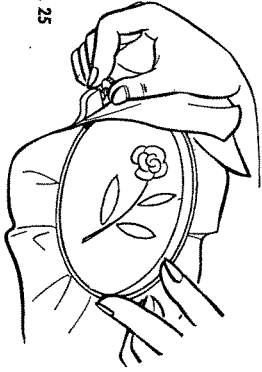


Fig. 25

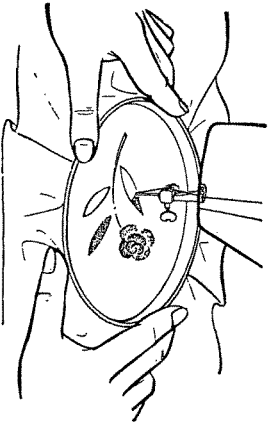


Fig. 26

Embroidering and Darning

Remove the sewing foot and drop the machine feed. Place the material into darning hoops (Fig. 25) and put it under the needle. Lower the presser bar lifter. Hold the darning hoops with both hands (Fig. 26) and move the work back and forth under the needle while the machine runs at high speed. Be sure to keep your fingers out of the path of the needle. Before you begin to embroider, increase the lower tension slightly so that the bobbin thread will not be pulled to the surface of the material. This setting will greatly enhance the appearance of the finished embroidery work.

Darning is done in the same way. Darn the damaged area with close stitches. Rips may be darned with the normal sewing foot by operating the reverse feed control.

Hemming

Raise the needle and attach the hemmer foot (Fig. 27). Flick the needle position lever to center. Fold back the edge of the material about $\frac{1}{8}$ inch, then fold it over again for a length of about two inches. Insert this folded end into the scroll of the hemmer foot, and pull the fabric back and forth until the hem forms itself in the scroll. Then pull the fabric toward you until the beginning of the hem is just below the needle. Lower the hemmer foot, and sew the hem with a straight stitch or a medium-wide zigzag stitch. Guide the fabric into the hemmer foot while sewing (Fig. 28).

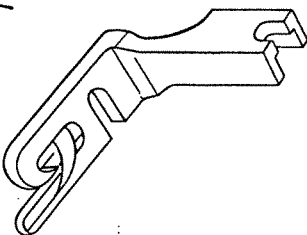


Fig. 27

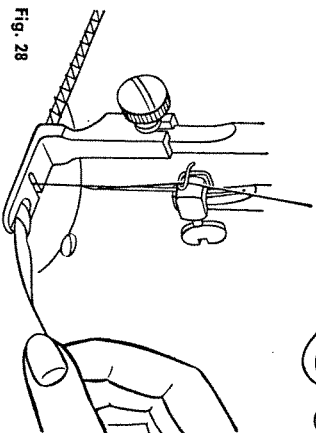


Fig. 28

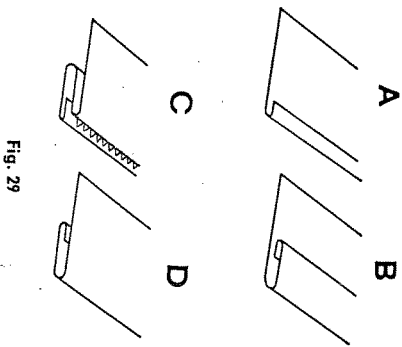


Fig. 29

Blindstitch Hemming

Flick the needle position lever to right. Turn the fabric wrong side up and fold back its edge about 1/2 inch (Fig. 29 A). Then fold the material to the desired width of hem, as shown in Fig. 29 B, and baste. Fold the hem down so that its bottom edge protrudes about 1/8 inch (Fig. 29 C). Set both the stitch length and stitch width controls on "3" and sew the hem, as illustrated in Fig. 29 C, making sure that the needle penetrates the fold on its left just lightly. Unfold the material — and you will have a blindstitched hem. The hem is perfect if no stitches show on the right side of the material (Fig. 29 D).

Removing the Work

Raise both the needle and presser bars to their highest positions and pull the work back out of the machine. Cut the threads with the thread cutter, leaving ends about four inches long with which to start the next seam.

Needle and Thread Chart

Types of Fabrics	Mercerized Cotton	Silk	Needle Size
Fine Fabrics such as georgette, chiffon, batiste, voile, lawn, silk.	80 to 100	0 to 000 twist	60 or 70
Lightweight Fabrics such as dress silks and cottons, sheer woolens, shirting, draperies.	70 to 80	A & B twist	80
Medium Fabrics such as lightweight woolens, madras, muslin, brocades, heavy silks and rayon, gabardine.	50 to 70	B & C twist	90
Heavy Fabrics such as coating, denim, corduroy, slipcover fabrics, bed tickings, lightweight canvas.	40 to 50	C & D twist	100
Synthetics, Rayon, Acetate including nylon, orlon, dacron, plastics, etc.	Determined by weight of fabric 40 to 50		Determined by thread size 60 to 80

Machine Care

Oiling

All bearings of moving parts of the needle bar end and under the bedplate of the machine should be oiled occasionally. In addition, there are a number of oilholes on the top cover of the machine.

From time to time, remove the bobbin case and put a drop of oil into the shuttle race. Use only a high-grade sewing machine oil for this purpose.

After oiling, run the machine for about a minute to work the oil into all bearings.

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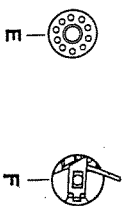
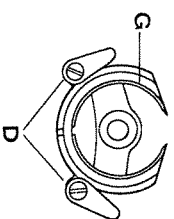
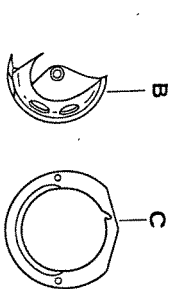


Fig. 30

Cleaning the Shuttle Race

Raise the needle bar and take out bobbin case **F** with bobbin **E** (Fig. 30). Swing latches **D** away and remove shuttle race ring **C**. Carefully take the shuttle out of its race (be careful that you do not drop it). Clean shuttle race **G** with a soft brush. Replace the shuttle and the shuttle race ring and lock them in place with latches **D**.

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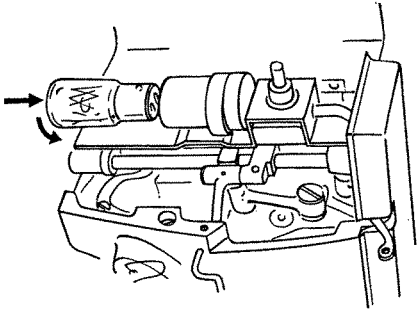


Fig. 31

Changing the Light Bulb

Remove the face cover. Push the bulb up into its socket, turn it left and pull it out. When inserting a new bulb (Fig. 31), be sure to slide the bulb pins into the bayonet socket slots. Press the bulb in and turn it right (see arrows in Fig. 31).

Trouble Shooting

The needle thread breaks

Cause :

1. The needle is not threaded correctly.
2. Thread tension too tight.
3. Something is wrong with the needle.
4. The thread used is too heavy for the needle.
5. The needle is inserted improperly.
6. The needle plate, the shuttle or the sewing foot is damaged.

Remedy :

- Thread the needle correctly.
- Loosen it.
- Replace it.
- Use a finer thread.
- Insert it correctly.
- Replace the damaged part.

The bobbin thread breaks

Cause :

1. When the bobbin thread is not wound correctly, it gets entangled.
2. The bobbin thread has slipped out from under the tension spring of the bobbin case.

Remedy :

- Wind it properly.
- Draw it back under the tension spring.

The needle breaks

Cause :

1. The needle is bent.
2. The needle is not attached properly.
3. The material is too thick or heavy.
4. The material is pulled by the operator.
5. The needle is of inferior quality.

Remedy :

- Insert a new needle.
- Attach it correctly.
- Use the correct needle for the material.
- Don't pull on the fabric.
- Replace it with a high-quality needle.

The machine skips stitches

Cause :

1. The needle is not attached to the needle bar correctly.
2. The needle is either blunt or bent.
3. The needle is damaged.

Remedy :

- Attach it properly.
- Replace it.
- Replace it.

Looping of stitches

Cause :

1. The thread tension is not properly adjusted.

Remedy :

- Adjust the upper and lower thread tensions, as instructed.

2. The needle is not threaded correctly or the bobbin is not wound properly.
3. The weight of the material and the size of the thread are not in accord.
4. The needle thread is not inserted between the tension discs correctly.

Thread the needle or wind the bobbin correctly.

Consult the Needle and Thread Chart on page 23 to select the correct thread size.

Raise the sewing foot and insert the needle thread between the tension discs.

Irregular stitching

Cause :

1. The needle and bobbin threads are of inferior quality.
2. The bobbin is wound unevenly.

Remedy :
Use high-quality threads only.

Rewind the bobbin, as instructed.

The machine works heavily and is noisy

Cause :

1. The machine lacks oil.
2. Dust and pieces of thread have accumulated in the shuttle race.
3. The machine is clogged by inferior oil.
4. The belt tension is too tight.

Remedy :
Oil the machine, as instructed.

Clean the shuttle race and the shuttle, as instructed.

Clean and oil the machine thoroughly, using a high-quality sewing machine oil.

Adjust the motor bracket to reduce the belt tension.

Puckered seams

Cause :

1. The thread tension is too tight.
2. The machine feed is set too high.

Remedy :

Adjust both tensions, as instructed.

Lower the machine feed, as instructed on page 15.



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