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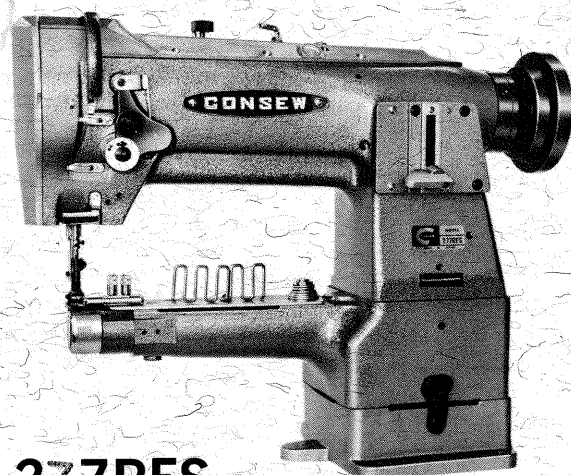
CONSEW

OPERATING INSTRUCTIONS

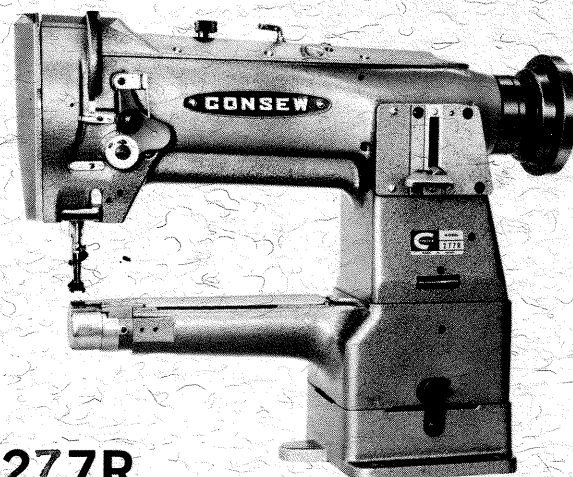
FOR

277RFS

277R



277RFS



277R



CONSOLIDATED SEWING MACHINE CORP.

INSTRUCTIONS FOR CONSEW MODEL 277 TYPE INDUSTRIAL SEWING MACHINES

This is a guide to use of CONSEW model 277 type industrial sewing machines under the best condition.

CONSEW 277 series are a single needle, lock-stitching, compound feed & walking foot, semi-automatic lubrication system, narrow (46 ϕ) cylinder bed sewing machine.

Please read this guide thoroughly so that you may expect good performance.

SPECIFICATIONS

MAXIMUM SPEED: 3,000 s.p.m. (277RFS)

2,400 s.p.m. (277R)

NEEDLE: DPx17, #11-#23 Standard Needle #16 (277RFS)
#18 (277R)

NEEDLE POSITION: 9 mm (available 7 mm on order) from the left end
of cylinder bed. . . 277RFS
7 mm from the left end of cylinder bed . . . 277R

NEEDLE BAR STROKE: 33.2 mm

HOOK & BOBBIN: Rotating hook, 22 ϕ x 8.9 mm

STITCH LENGTH: Maximum 5 mm

FEED MECHANISM: Drop and Needle feed, and walking foot. With reverse stitch.

PRESSER FOOT: Alternating pressers

PRESSER BAR STROKE: 7 mm (by hand), 10 mm (by knee lifter)

THREAD TAKE UP: Slide motion type

DIAMETER OF CYLINDER BED: 46 ϕ

LUBRICATION: Semi-automatic lubrication

LUBRICATION OIL: White spindle oil

WORKING SPACE: 258 mm x 110 mm

WEIGHT: 29 KGS. (with BASE)

MOTOR: 1/3 HP or 1/2 HP Clutch motor. 2P

THREAD: Synthetic #50-#8

USE: All kinds of work in the clothing, footwear, upholstery, leather industry such as shoe, canvas products, dress shields, sleeve, sandals, gloves, sports goods, especially, Model 277RFS is suitable for various kinds of tape stitching with a edge binder which is interchangeable without having any alteration to any other parts.

— INDEX —

CONTENTS

	Page
Setting up the machine	2
Oiling	2 — 3
Oil adjustment	3
Needle	4
Thread	4
Winding bobbin	5
Adjustment of the bobbin winder	5
Inserting and removing the bobbin	6
Threading the machine	7
Regulating the thread tension	7
Regulating the pressure on goods	8
Adjusting the stitch length and reverse stitch	9
Adjusting the lift of the alternating presser feet	9
Instructions for 277RFS only	10

INFORMATION FOR ADJUSTMENT

Adjusting the height of the feed dog	11
Adjusting the timing of the needle plate, needle and feeder	11 — 12
Adjusting the height of the needle bar	12
Timing between the needle and the hook	13
Timing between the needle and the feeder	14
Adjusting the height of the presser feet	14 — 15
Timing of the vibrating presser foot	15
Adjusting the thread controller spring	16

2

SETTING UP THE MACHINE (Fig. 1)

* Before setting up the machine on the table, attach the relative parts to the table.

- | | | |
|------------------|------------------------------|------------------|
| (1) Stand | (2) Motor | (3) Treadle |
| (4) Cotton stand | (5) Tape stand (only 277RFS) | (6) Machine head |
| (7) Knee lifter | and Machine base | (8) Chain |
| (9) V shape belt | (10) Bobbin winder | |

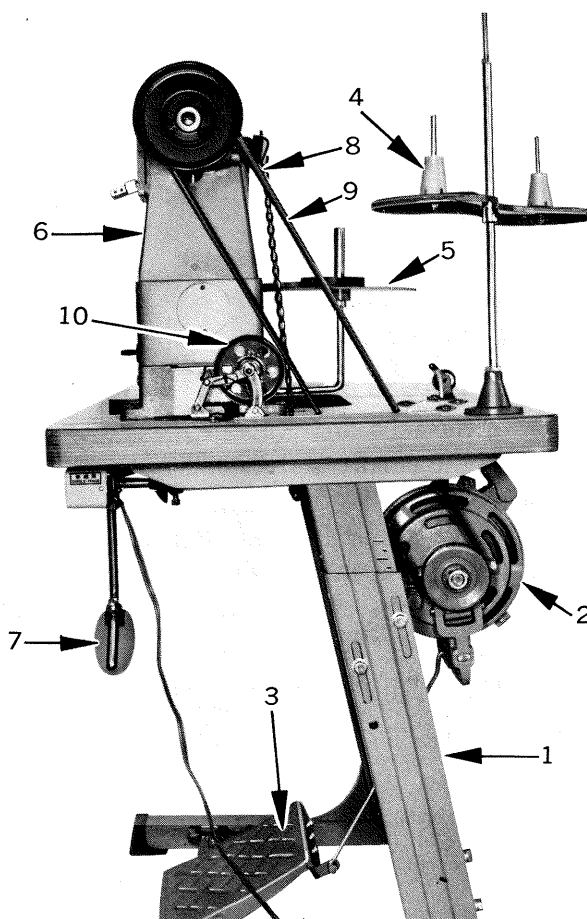


Fig. 1

OILING AND ITS ADJUSTMENT (Fig. 2)

* Do not operate the machine, even if for testing, unless it has been properly oiled.

To fill the oil reservoir on the top of the machine, pour oil through the oil filler hole (A), until oil level reaches to the upper reference line (B).

* Oiling is automatically made by the vibration of the machine while sewing operation through the oiling wicks in the machine, and oil flow stops automatically when the operation of the machine ends.

* When starting the machine initially and after kept away for a long time without using at all, make sure the oil volume through oil level indicator (B), and oil sufficiently to respective necessary parts before starting operation and try pre-running.

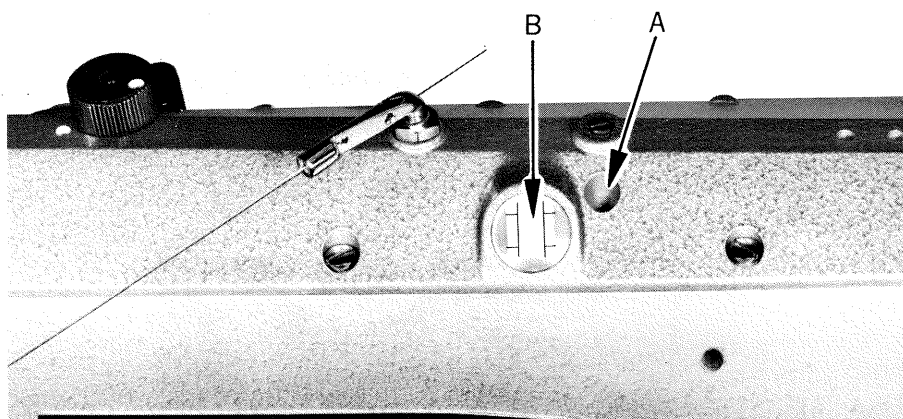
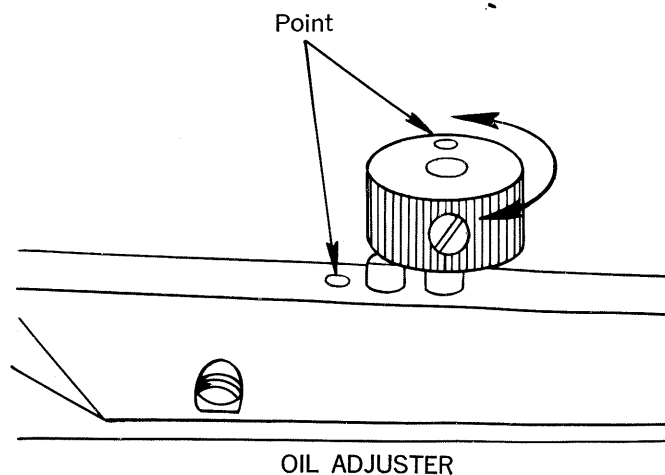


Fig. 2

OIL ADJUSTMENT

* While operating the machine, the lubrications to each spot of the machine are made.

When the machine is in continuous operation, stop oiling for a while at your option. In that case, turn the dial until two points fit together as per the following picture, then the dial comes down and the lubrications are stopped perfectly.



4

NEEDLE (Fig.3)

* The size of the needle to be used should be determined by the size of the thread, which must pass freely through the eye of the needle.

HOW TO ATTACH THE NEEDLE

1. Turn the machine pulley over toward you until the needle bar (1) moves up to it's highest point.
2. Loosen the needle set screw (2) and put the needle (3) up into the needle bar as deeply as it will go, with the long groove of the needle faces the left.
3. Tighten the needle set screw securely.

THREAD

* Cotton, synthetic or silk thread can be used according to your purpose, the thickness of thread is up to #8

* Always use left twisted thread for upper thread, but you can use either right or left twisted thread for lower thread.

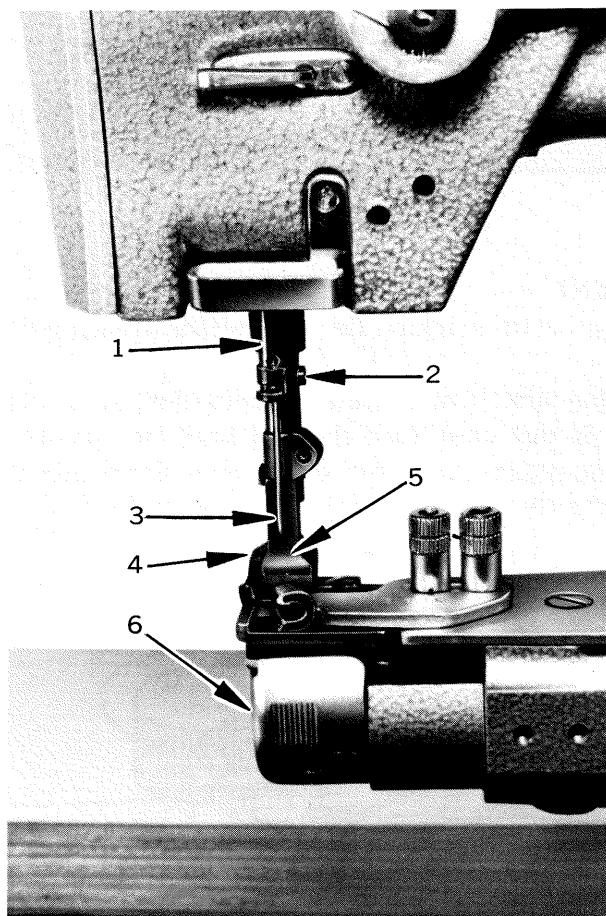


Fig. 3

WINDING THE LOWER THREAD ON THE BOBBIN (Fig. 4)

1. Push a bobbin on the bobbin winder spindle (1) as far as it will go.
2. Pass the thread from the thread stand downward through the eye (7) in the tension bracket, then between and around the back of the tension disc.
3. Bring the thread forward toward the bobbin and wind from below in clock-wise direction several times around the bobbin.
4. Push the lever (3) toward the other side so that the pulley (2) and V belt (9, Fig. 1) will engage and then start the machine.
5. The pulley (2) will automatically be free from the belt and stopped after the bobbin is filled with thread.

THE ABOVE OPERATION CAN BE DONE WHILE SEWING.

ADJUSTMENT OF THE BOBBIN WINDER (Fig. 4)

* IN CASE OF UNEVEN WINDING

If the thread does not wind evenly on the bobbin, loosen the screw (4) in the tension bracket and move the bracket to the right or left as may be required, then tighten the screw.

* WINDING AMOUNT OF THREAD

Adjustment screw (5) can be turned in or out to increase or decrease the amount of thread wound on the bobbin.

* WINDING STRENGTH

Strength of the winding can be adjusted with nut (6).

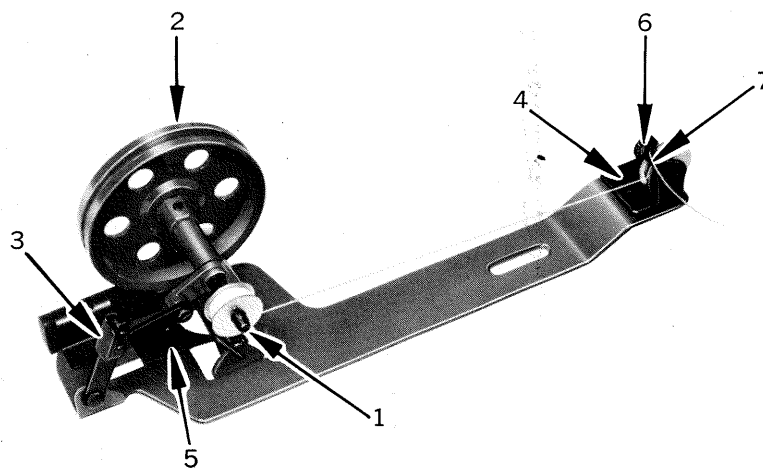


Fig. 4

6

INSERTING AND REMOVING BOBBIN (Fig. 5 and 6)

1. Raise the needle bar to its highest point. Draw out the end cover (6, Fig. 3)
2. Pull up the latch (1, Fig. 5) and draw out the bobbin from the bobbin case.
3. To insert a full bobbin (Fig. 6), hold it pulling out the end of thread by about 5 cm, and insert the bobbin into the bobbin case.
4. Lead the end of thread pulled out through the slot of the bobbin case, and under the tension spring (1, Fig. 6) and then the thread guide.
- * **THREAD WINDING DIRECTION** when fitting the bobbin into the bobbin case. Check the thread winding direction as shown Fig. No. 6.
5. Draw out about 5 cm of the end of thread, pull up the latch (1, Fig. 5) keeping the slot of the bobbin case faces upper side. And fit the bobbin case into the hook as deeply as it will go, and push down the latch securely.
6. Close the end cover, but leave sufficient space for passage of the thread.

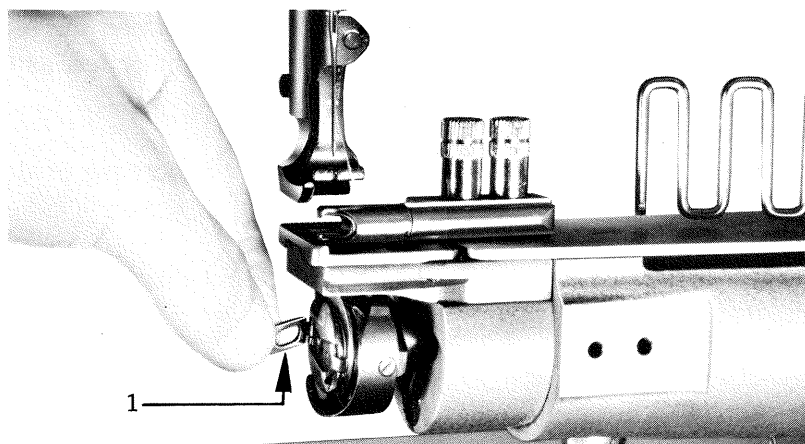


Fig. 5

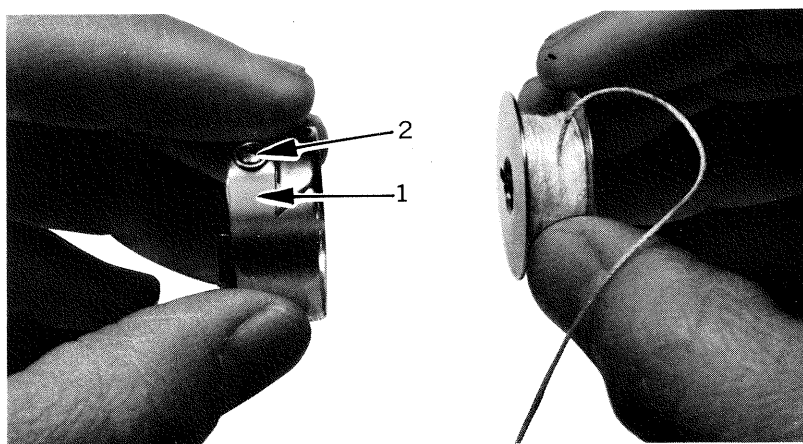


Fig. 6

THREADING THE MACHINE (Fig. 7)

1. Raise the needle bar to its highest point and lead the thread from the thread stand the following order:

From the thread stand, lead the thread to the thread guide (1) on the top of the machine arm, down to the upper guide hole of the thread guide (2) from right to left. Pass the thread in weaving fashion through the other two holes in (2) and from right to left over and between the tension discs (3). Now pull the thread downward from right to left beneath and around thread controller (4), continue to pull the thread upward through the fork in the thread controller and against the check spring (5) and through the thread guide (6), pull the thread upward through the eye in the take-up lever (7) down through the thread guide (6) again and then through the thread guide (8), (9) and (10), and from left to right through the eye of the needle.

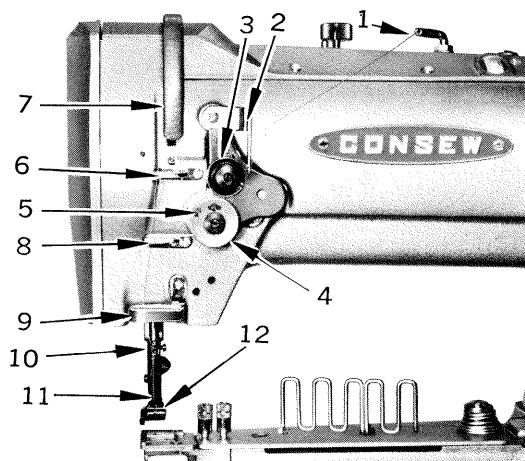


Fig. 7

2. After the above threading, hold the end of thread with your left hand, and turn the pulley with your right hand so that bobbin thread may be picked up by needle thread. And put their ends of thread on the other side bed through under the presser foot for starting operation.

REGULATING THE THREAD TENSIONS

* For ordinary stitching, the tension of the upper and lower threads should be equal so as to lock both threads in the center of the fabric. If the tension on either thread is stronger than on the other, imperfect stitching will be the result.

* If the tension on the upper thread is stronger than that on the lower thread, it will be straight along the upper surface of the fabric.

* If the tension on the lower thread is stronger than that on the upper thread, the lower thread will lie straight along the underside of the fabric.

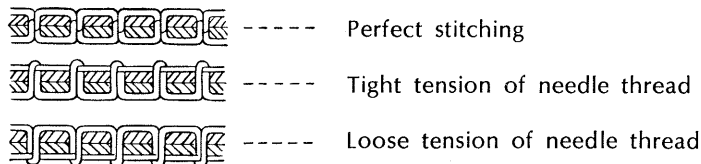


Fig. 8

8

HOW TO REGULATE THE THREAD TENSION (Fig. 9)

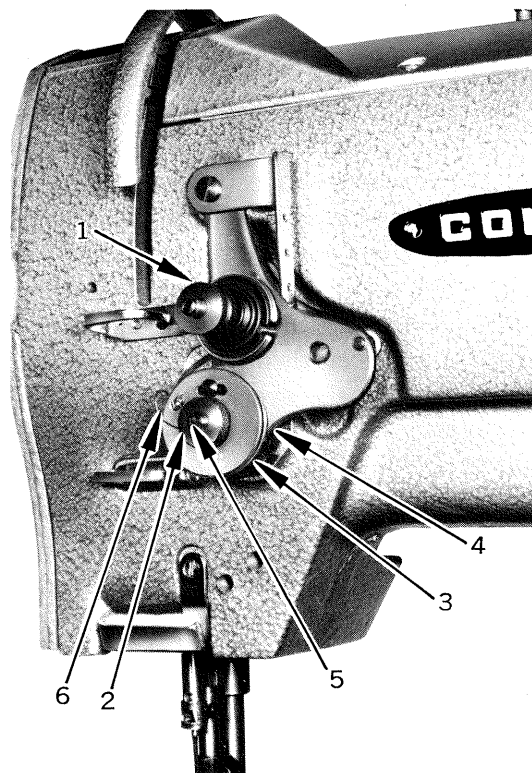


Fig. 9

1. TENSION OF THE UPPER THREAD

To adjust the tension of the upper (needle) thread, turn the serrated nut (1) to the right for increasing tension. If you desire to decrease it, turn the nut to the left.

2. TENSION OF THE BOBBIN THREAD

To increase the tension, turn the screw (2, Fig. 6) to the right, and to decrease it, turn the screw to the left by a screw driver.

ADJUSTMENT OF THE PRESSURE ON GOODS (Fig. 10)

The pressure of the presser feet is regulated by the adjusting screw (1).

- * To increase the pressure, turn the screw to the right.
- * To decrease it, turn the screw to the left.

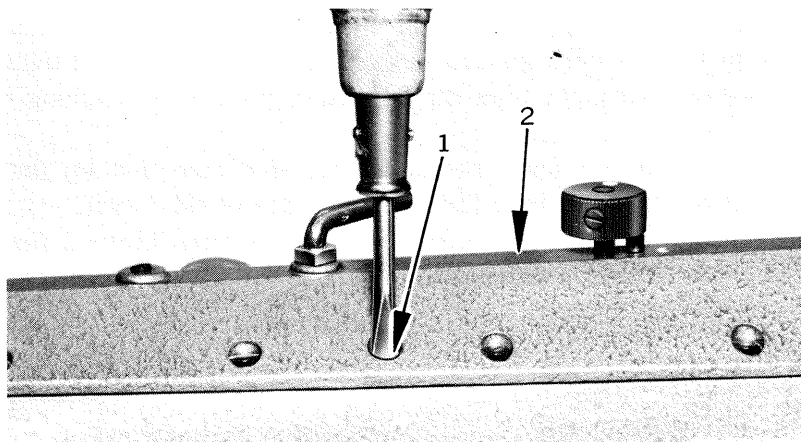


Fig. 10

ADJUSTING THE STITCH LENGTH (Fig. 11)

Stitch length is adjusted by turning the serrated nut (11) so that the reference mark on the collar (3) comes in line with the desired number of stitch length on the plate (2).

* If you desire to decrease the stitch length, turn the serrated nut to the right.

* When you desire reverse stitch, push the lever (4) up as far as it will go.

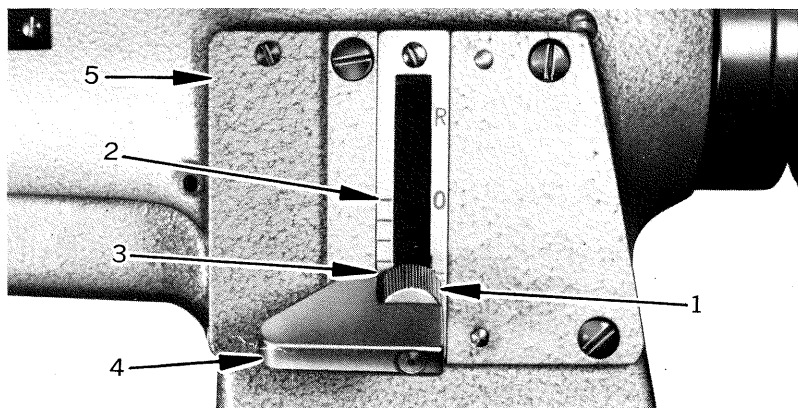


Fig. 11

ADJUSTING THE LIFT OF THE ALTERNATING PRESSER FEET (Fig. 12)

The thickness of the material sewn should control the height of the lift of the alternating presser feet.

It should normally be just high enough for clearance of the material. With normal adjustment both feet lift to equal height.

* To adjust the lift, loosen the wing nut (1), move up the nut to raise the lift, and push down this nut to lower the lift.

* When altering the lift of the lifting presser foot (4, Fig. 3) unequally against that of the vibrating presser foot (5, Fig. 3) or vice versa, see the instructions "ADJUSTING THE HEIGHT OF THE PRESSER FEET".

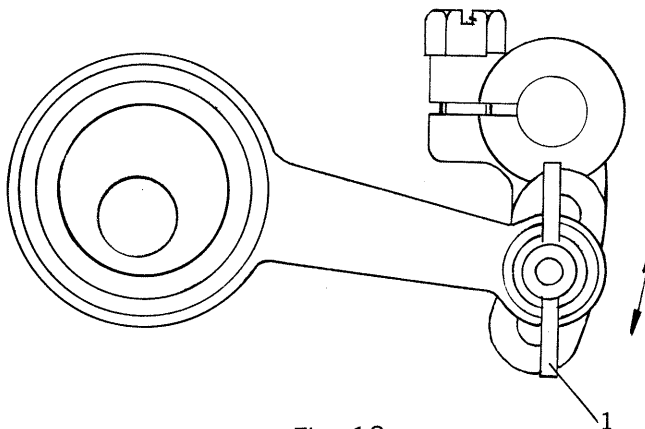


Fig. 12

10

INSTRUCTIONS FOR THE MACHINE WITH SYNCHRONIZED BINDER TAPING (Fig. 13)

HOW TO SET THE TAPE

1. Lift the serrated two nuts (1) slightly and open the plate (2) toward you.
2. Pass the tape (3) alternately as indicated in the Fig. 28 through the tape guide (4).
3. Cut obliquely the edge of the tape and pass it through the binder (5) and draw it out about 2 cm.
- * If the tape has the right and wrong side, pass the tape the wrong side up.
4. Then, close the plate (2).

ADJUSTING THE BINDER (Fig. 13)

The setting position of the binder depends on the shape of the binder, tape width and thickness of goods.

Accordingly, it is determined through actual sewing test.

* To adjust this, loosen the nut (1), move the binder to the right or left to get proper position. Then, tighten the nut.

* AVAILABLE various kinds of binder

Binders, two-fold, three-fold and four-fold, are interchangeable without having any alteration to any other parts. Any kinds of binder will be available on order.

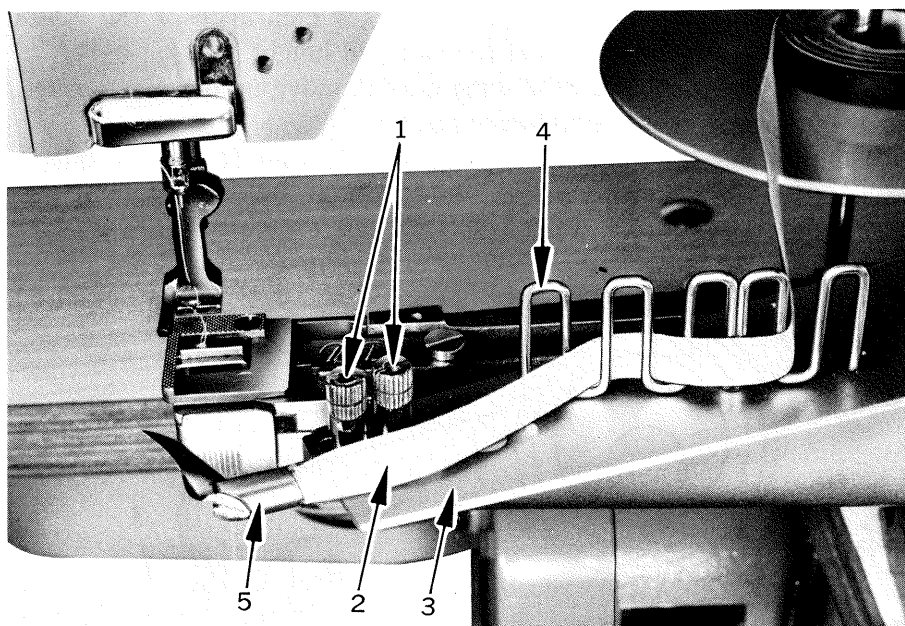


Fig. 13 277RFS

ADJUSTING THE HEIGHT OF THE FEED DOG (only Model 277R)

The maximum height of the feed dog (1, Fig. 15) from the surface of the needle plate (2, Fig. 15) is normally 1 mm.

* To adjust this height;

1. Lay down the machine head toward the other side, and turn the hand wheel so as to raise the feed dog to its highest point.
2. Loosen the set screw (1, Fig. 14)
3. Adjust the height of the feeder by raising or lowering it.
4. Securely tighten the screw.

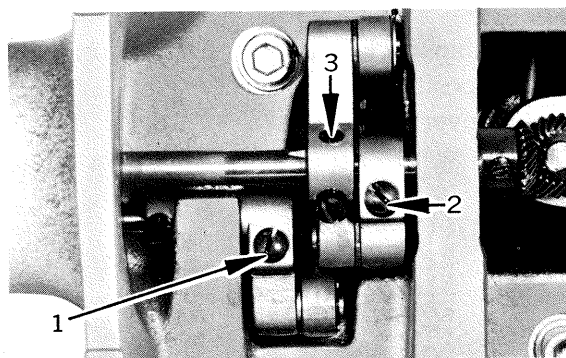


Fig. 14 277R

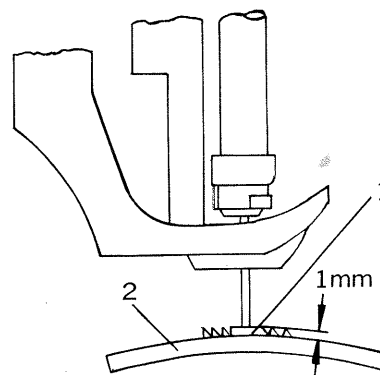


Fig. 15

ADJUSTING THE TIMING OF THE NEEDLE PLATE, NEEDLE AND FEEDER

1) RELATIVE POSITION OF THE FEEDER TO NEEDLE PLATE (277RFS)

1. Lay down the machine head toward the other side, and check that the screw (2, Fig. 16) is securely tightened on the V ditch (1, Fig. 16).
2. Adjust the feed motion to the maximum and loosen the screw (2, Fig. 19) with a hexagon wrench (standard accessories).
3. Set the position of the feeder so that both clearances between feeder and needle plate are equal before starting feed motion and after finishing the feed.
4. Securely tighten the screw (2, Fig. 19)

(277R)

1. Lay down the machine head toward the other side, and loosen the screw (2, Fig. 14)
2. Adjust the feed motion to the maximum and set the position of the feeder so that both clearances between feeder and needle plate are equal before starting feed motion and after finishing the feed.
3. Securely tighten the screw.

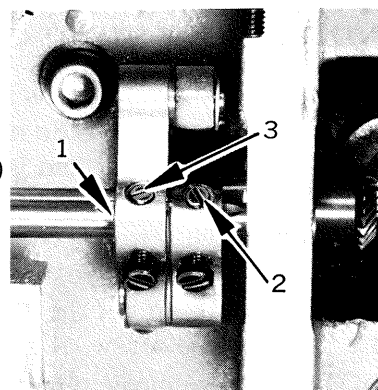


Fig. 16 277RFS

12

2) THE POSITION OF THE NEEDLE AND NEEDLE HOLE OF THE FEEDER

- * To adjust this, turn the hand wheel to raise the needle bar to its highest point and put a perfect needle.
- * Turning the hand wheel to lower slowly the needle bar, check whether the needle descends to the center of the needle hole of the feeder or not.
- * If the needle does not enter into the center of the hole,
 1. Lay down the machine head toward the other side, and check the screw (3, Fig. 14, Fig. 16) is securely tightened on the V ditch (1, Fig. 16).
 2. Remove the cover (5, Fig. 11)
 3. Loosen the screw (1, Fig. 17)
 4. Holding the bottom of the needle bar rock frame (1, Fig. 18), move it as may be required to get the correct position to the feeder.
 5. Tighten the screw and close the cover.

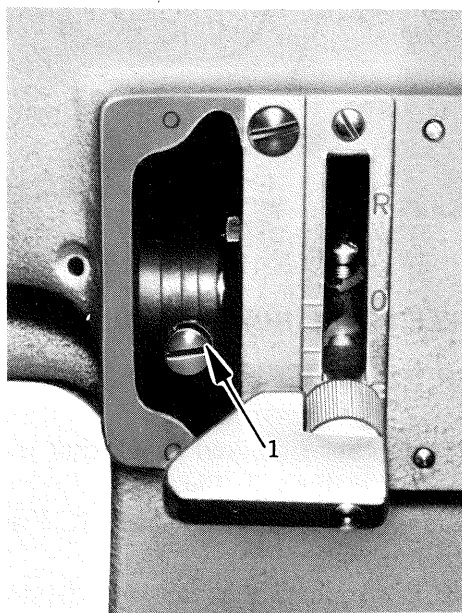


Fig. 17

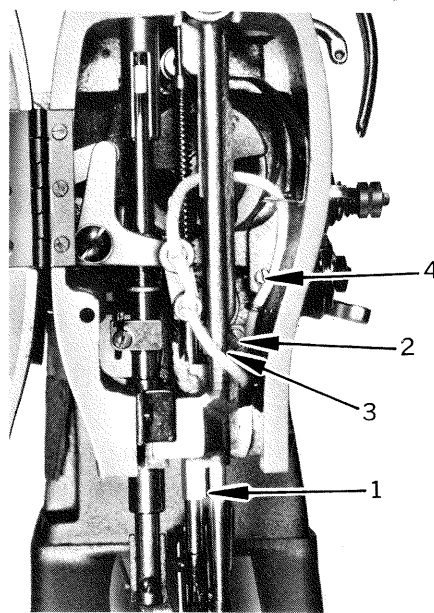


Fig. 18

ADJUSTING THE HEIGHT OF THE NEEDLE BAR

- * When the needle bar is at its lowest point, normally the measurement between the surface of the needle plate and the upper end of the needle eye is 12.6 mm (277RFS) and is 12.8 mm (277R).
- * To adjust this,
 1. Loosen the screw (2, Fig. 18)
 2. Move the setting position of the needle bar and needle bar connecting stud (3, Fig. 18) to get the correct position.
 3. Tighten the screw.

NOTE: These measurements are approximate standard, accordingly, following final adjustments, **TIMING BETWEEN THE HOOK AND THE NEEDLE**, are recommended.

TIMING BETWEEN THE HOOK AND THE NEEDLE

* After setting the needle bar height, confirm as follows:

Set the stitch length to 0, turn the hand wheel to lower the needle bar to its lowest point, turn the hand wheel toward you.

When the needle raises 2 mm from the lowest point of its travel, normally the hook point comes at the center line of the needle and the measurement between the hook point and the upper end of the needle eye should be 2 mm, further the clearance between the hook point and the needle hollow should be about 0.05 to 0.1 mm.

* **TIMING AND THE CLEARANCE ADJUSTMENT (Fig. 19)**

1. Loosen the two screws (1).
2. Adjust the timing. If require earlier, turn the hook toward the direction of its revolution.
3. Also adjust the clearance by means of movement of the hook to the right or to the left as may require.
4. After adjustment, securely tighten the screws.

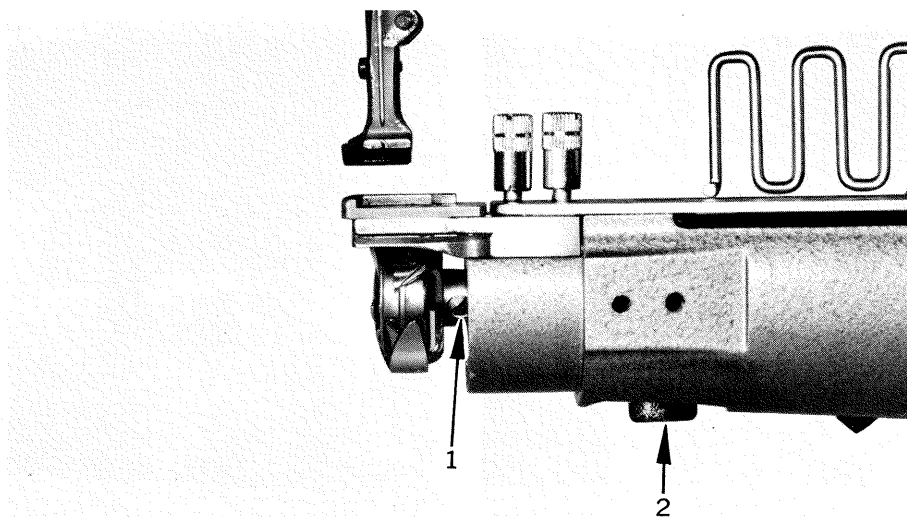


Fig. 19

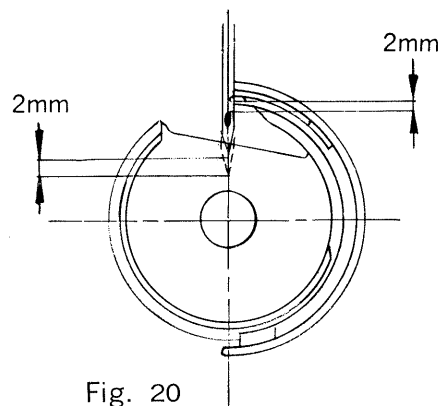


Fig. 20

14

TIMING BETWEEN NEEDLE AND FEEDER

* During the feeder feeds the material, the needle also moves together with the feeder and feeds the material.

* To adjust this,

1. Remove the top cover (2, Fig. 10)
2. Loosen the screws (1, Fig. 21) and move the cam (2, Fig. 21)

HOW TO ADJUST

1. Turn the hand wheel toward you to the point of the needle and the point of hook crossed.
2. Pushing the stitch length regulating lever (4, Fig. 11) up and down, turn the cam (2, Fig. 21) and set at the point both the needle and the feeder rest.
3. Tighten the screws securely and close the top cover.

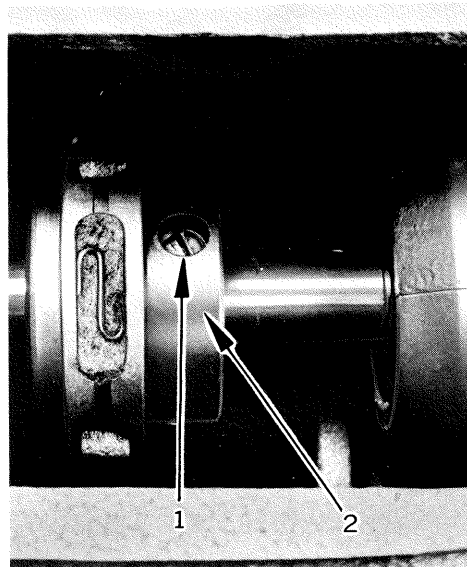


Fig. 21 277RFS

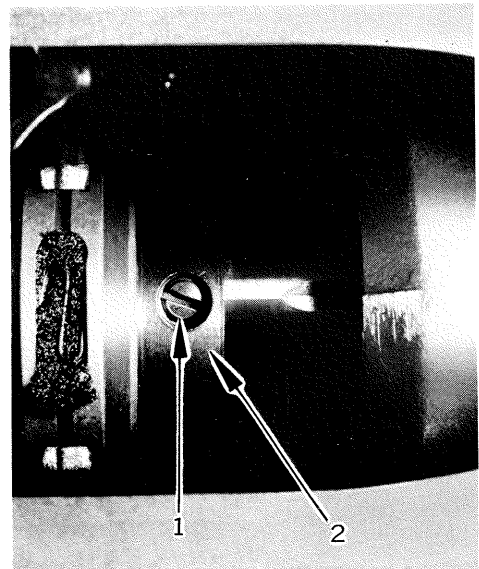


Fig. 21 277R

ADJUSTING THE HEIGHT OF THE PRESSER FEET

* ADJUSTMENT BY THE PRESSER BAR LIFTER

1. Loosen the screw (1, Fig. 10) sufficiently.
2. Raise the presser bar lifter and loosen the set screw (1, Fig. 22).
3. Move the lifting presser foot (4, Fig. 3) up or down as may be required so as to get the correct height.
4. Tighten the screws securely.

* **ADJUSTING THE LIFT OF ALTERNATING PRESSER FEET**

If the height of the lifting presser foot changes, the momentums of the lifting and vibrating presser foot vary, thus the height of the vibrating presser foot must be adjusted.

HOW TO ADJUST:

1. Lower the presser bar lifter, holding the vibrating presser foot (5, Fig. 3)
2. Loosen the hexagon screw (2, Fig. 22) and move the presser foot up or down as may be required.
3. After setting the position, tighten the screw.

TIMING OF THE VIBRATING PRESSER FOOT

* This is the normal timing when, turn the hand wheel toward you, after lowering the presser bar lifter, the vibrating presser foot should reach the feeder earlier than the needle eye comes to, and when the needle raises, the vibrating presser foot should leave the feeder after the needle eye has left the feeder.

This is due to the reason that the vibrating presser foot must tightly hold the goods while the needle is passing the goods for avoiding irregular stitches.

* To adjust this,

1. Set the lift of the alternating presser feet to equal.
2. Loosen the two screws (3, Fig. 22) and adjust the rotating position of the cam (4, Fig. 22) faster or slower as may be desired.
3. Tighten the screws.

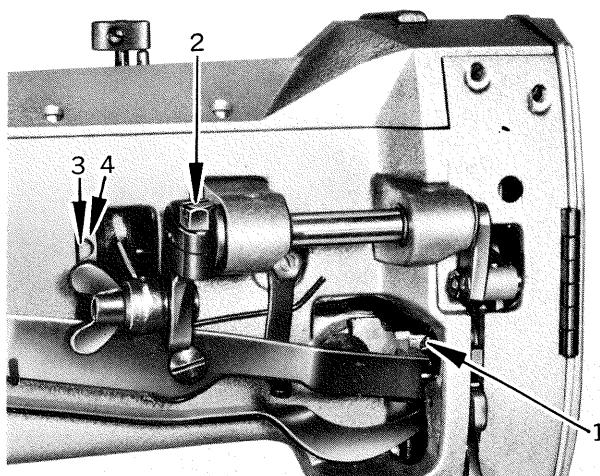


Fig. 22

16

ADJUSTING THE THREAD CONTROLLER SPRING

* Normally, the thread controller spring (2, Fig. 9) should hold slack of the upper thread until the needle reaches to the goods, and it should pause while raising of the needle and passing of the upper thread through the bobbin case.

* For more controller action on the thread

1. Loosen the stop screw (3, Fig. 9)
2. Move the stop (4, Fig. 9) to the right. (For less action, move it to the left)
3. Tighten the screw.

* HOW TO ADJUST THE TENSION OF THE SPRING

1. Loosen the serrated nut (5, Fig. 9) slightly.
2. Loosen the screw (4, Fig. 18) slightly.
3. Turn the tension stud (6, Fig. 9) slightly to the left to strengthen the tension (to lighten the tension, turn to the right) with a screw driver.
4. Tighten the screw and the nut.

