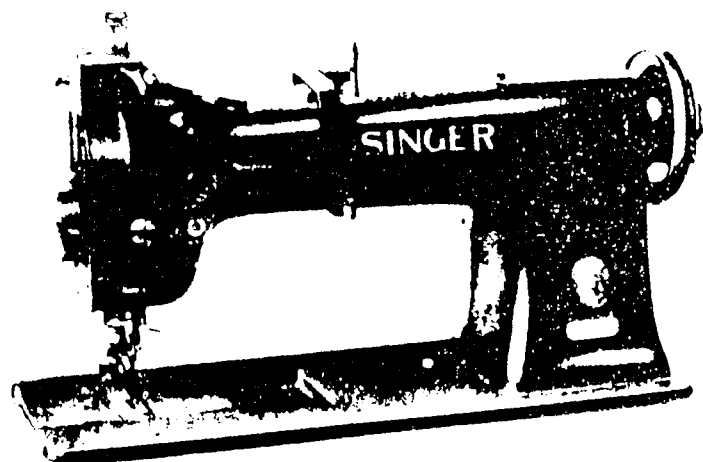


SINGER
111W141

2482w

INSTRUCTIONS
FOR USING AND ADJUSTING
SINGER SEWING MACHINE



111w141

THE SINGER MANUFACTURING CO.

DESCRIPTION

MACHINE 111w141 has one needle and a belt driven rotary hook, and is equipped with a vertical trimmer. It is designed for stitching and trimming heavy leather work.

The trimming margin may be either .045, .060 or .085 inch, depending on the throat plate used. The machine is regularly fitted to make .060 inch trimming margin unless otherwise ordered.

The machine has a drop feed and a ball-bearing roller presser which is irreversible. A safety clutch prevents damage to the hook in case of any unusual strain.

Speed

Maximum speed recommended for Machine 111w141 is 2500 stitches per minute, depending upon the nature of material being sewn. The machine should be run slower than the maximum speed until the parts which are in movable contact have become glazed by their action upon each other. When the machine is in operation, the balance wheel should always turn over toward the operator.

Needles

Needles for Machine 111w141 are of Class and Variety 128x22, and are made in sizes 9, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22 and 23.

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. If rough or uneven thread is used, or if it passes with difficulty through the eye of the needle, the successful use of the machine will be interfered with.

Orders for needles must specify the quantity required, the size number, also the class and variety numbers separated by the letter x.

The following is an example of an intelligible order:
"100 No. 20, 128x22 Needles".

The best results will be obtained in using the needles furnished by the Singer Sewing Machine Company.

Thread

Use left twist thread for the needle. Either left or right twist thread may be used for the bobbin.

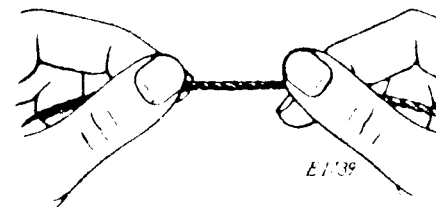


Fig. 2. How to Determine the Twist

Hold the thread as shown above. Turn the thread over toward you between the thumb and forefinger of the right hand; if left twist, the strands will wind tighter; if right twist, the strands will unwind.

The Relative Sizes of Needles and Thread

The following sizes of needles and thread are recommended:

Sizes of Needles	Cotton	Silk
14	60, 70	O, A
16	40 to 60	A, B
18	30 to 40	B, C
20	24, 30	D
22	20, 24	D, E

To Remove the Bobbin

Draw out the slide plate at the right of the needle. Turn the balance wheel over toward you until the take-up lever moves to its highest point. Place the thumb or finger under the projection (C, Fig. 7) on the side of the bobbin case cap, lift out the cap and remove the bobbin.

To Wind the Bobbin

Fasten the bobbin winder to the table with its driving pulley in front of the machine belt, so that the pulley will drop away from the belt when sufficient thread has been wound upon the bobbin.

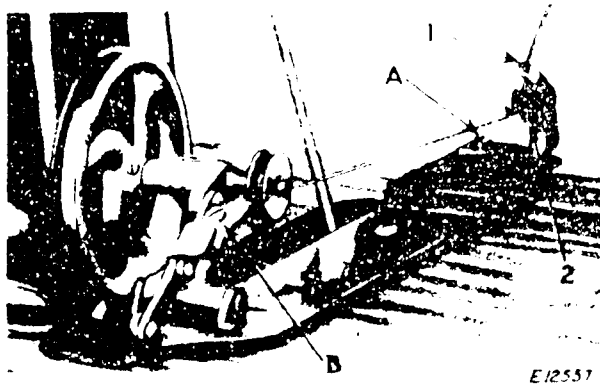


Fig. 3. Winding the Bobbin

Place the bobbin on the bobbin winder spindle and push it on as far as it will go.

Pass the thread down through the thread guide (1) in the tension bracket, around the back and between the tension discs (2). Then wind the end of the thread around the bobbin a few times, push the bobbin winder pulley over against the machine belt and start the machine.

When sufficient thread has been wound upon the bobbin, the bobbin winder will stop automatically.

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

The amount of thread wound on the bobbin is regulated by the screw (B). To wind more thread on the bobbin, turn the screw (B) inwardly. To wind less thread on the bobbin, turn the screw outwardly.

Bobbins can be wound while the machine is stitching.

To Thread the Bobbin Case Cap

Hold the bobbin between the thumb and forefinger of the right hand, the thread drawing on top from the left toward the right.



Fig. 4

With the left hand hold the bobbin case cap as illustrated (see Fig.4), and place the bobbin into it.



Fig. 5

Then pull the thread into the slot in the edge of the bobbin case cap (see Fig.5), and under the tension spring as shown in Fig.6.



Fig. 6

To ensure the correct tension, draw the thread under the tension spring once or twice; this will remove any lint which may become lodged under the spring.

To Replace the Bobbin Case Cap

After threading, take the bobbin case cap in the right hand, holding the bobbin in the cap with the forefinger, and place it

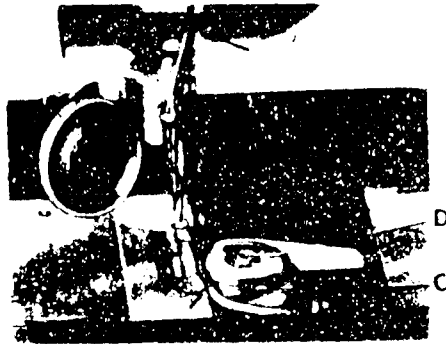


Fig. 7. Bobbin Case Cap Threaded and Replaced

on the center stud of the bobbin case, having the thread at the left of the projection (C) as shown above. Push down the latch (D) and close the slide plate, leaving just enough space for the thread to pass through.

To Set the Needle

Turn the balance wheel over toward you until the needle bar moves up to its highest point; loosen the set screw in the lower end of the needle bar and put the needle up into the bar as far as it will go, with the long groove of the needle toward the left and the eye of the needle directly in line with the arm of the machine, then tighten the set screw.

To Adjust the Thread Lubricator

To ensure satisfactory results, Singer Thread Lubricant should be used in the thread lubricator which is attached to the face plate.

When replenishing the lubricant supply, fill the reservoir (A, Fig. 8) to about 1/8 inch below the filler hole (B, Fig. 8).

The amount of lubrication of the thread is controlled by raising or lowering the felt pad holder (12, Fig. 8) above or below the level of the lubricant. For more lubricant, lower the felt pad holder. For less lubricant, raise the felt pad holder.

To Thread the Needle

Pass the thread from the unwinder from front to back through the lower hole (1) in the pin on top of the machine and from

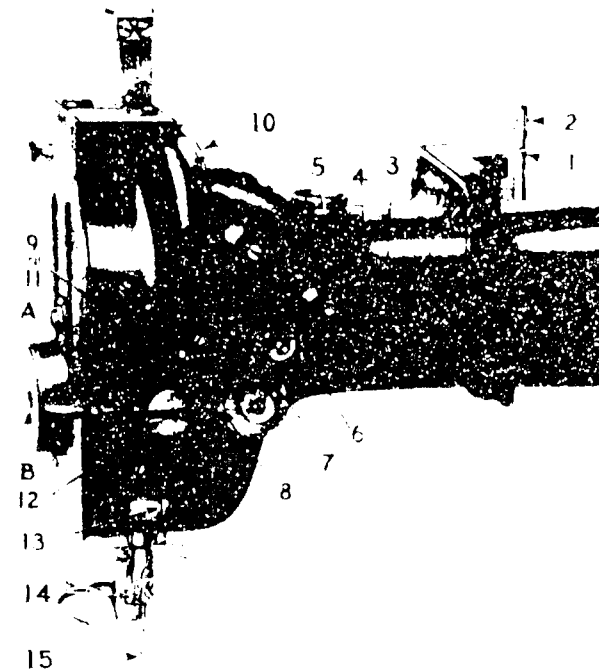


Fig. 8. Threading the Needle

right to left through the upper hole (2) in the pin, down through the hole (3), up through the hole (4) and down through the hole (5) in the thread guide at the front of the machine, over from right to left between the tension discs (6), down, under from right to left around the thread controller (7), into the thread controller spring (8) and up through the thread guide (9), from right to left through the hole (10) in the thread take-up lever, down through the thread guide (11), between the felt pad and felt pad retainer finger (12), into the thread nipper (13), through the thread guide (14) at the bottom of the needle bar and from left to right through the eye of the needle (15).

To Prepare for Sewing

With the left hand hold the end of the needle thread, leaving it slack from the hand to the needle. Turn the balance wheel

over toward you until the needle moves down and up again to its highest point, thus catching the bobbin thread; draw up the needle thread and the bobbin thread will come up with it through the hole in the throat plate. Draw about three inches of thread through the throat plate with which to commence sewing.

To Commence Sewing

Place the material beneath the roller presser, lower the roller presser and commence to sew, turning the balance wheel over toward you.

To Remove the Work

Have the thread take-up lever at the highest point, raise the roller presser, draw the work back and cut the threads close to the goods.

Tensions

The needle and bobbin threads should be locked in the center of the thickness of the material, thus:



Fig. 9. Perfect Stitch

If the tension on the needle thread is too tight, or if that on the bobbin thread is too loose, the needle thread will lie straight along the upper surface of the material, thus:



Fig. 10. Tight Needle Thread Tension

If the tension on the bobbin thread is too tight, or if that on the needle thread is too loose, the bobbin thread will lie straight along the under side of the material, thus:



Fig. 11. Loose Needle Thread Tension

To Regulate the Tensions

The tension on the needle thread is regulated by the thumb nut (R, Fig. 20) at the front of the tension discs on the front of the machine. To increase the tension, turn this thumb nut over

to the right. To decrease the tension, turn this thumb nut over to the left.

The tension on the bobbin thread is regulated by means of the screw nearest the center of the tension spring on the outside of the bobbin case. To increase the tension, turn this screw over to the right. To decrease the tension, turn this screw over to the left.

To Regulate the Length of Stitch

The length of stitch is regulated by the thumb screw (A, Fig. 12) at the right of the balance wheel.

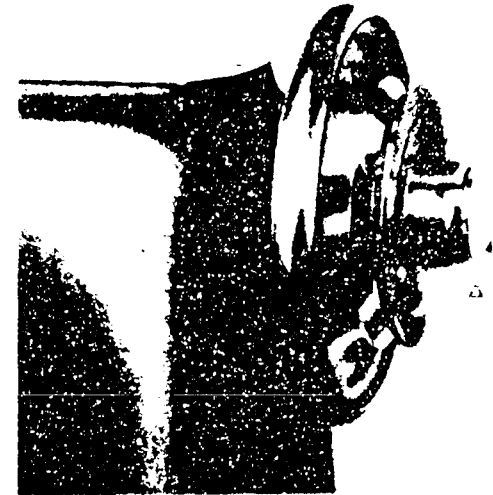


Fig. 12. Stitch Regulator

There is a notch in the hub of the balance wheel, as shown in Fig. 12, and the number appearing in the notch shows the number of stitches to the inch that the machine is ready to make.

To lengthen the stitch, turn the thumb screw (A) over toward you. To shorten the stitch, turn this thumb screw over from you.

To Regulate the Pressure on Material

To increase the pressure, turn screw (F, Fig. 14) at the back of the machine, downwardly. To decrease the pressure, turn this screw upwardly.

The pressure on the material should only be sufficient to enable the feed to move the work along evenly.

To Oil the Machine

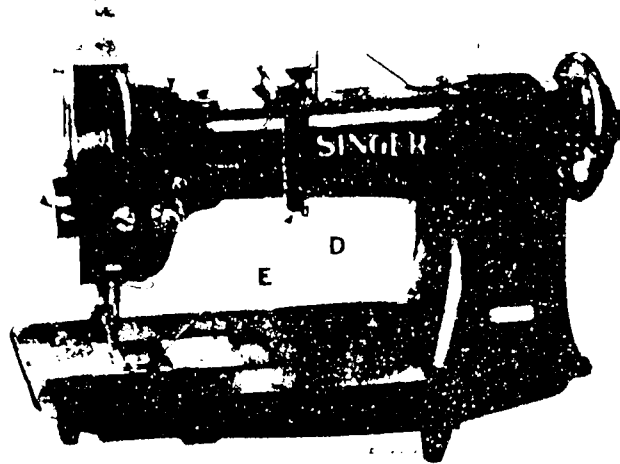


Fig. 13. Front of Machine, Showing Oiling Points

To ensure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling, and when in continuous use, it should be oiled at least twice each day.

Oil should be applied at the places designated by arrows as shown in Figs. 13, 14, 15 and 16. Swing back the cover which is on the top of the machine at the right, and oil the bearings which are thus uncovered, then replace the cover.

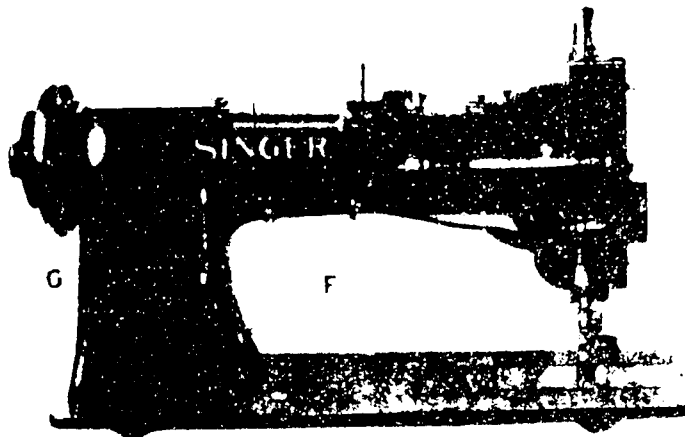


Fig. 14. Rear View of Machine, Showing Oiling Points

Loosen the thumb screw in the upper end of the face plate, turn the face plate upward and oil the wick and bearings which are thus uncovered, then turn down the face plate and tighten the thumb screw.

Turn the machine back on its hinges and apply oil at the places designated by arrows as shown in Fig. 16, and all other places where there are parts in movable contact, then bring the machine forward into place.

Oil the bobbin case bearing in the sewing hook race each time a bobbin is replaced.

When the machine is received from the factory, half fill the oil pan (J, Fig. 16) with Singer Manufacturing Sewing Machine Oil. This oil should be changed at least once each week to ensure proper lubrication. Oil should also be applied at the top of the hook saddle from whence it will drop into the oil pan to lubricate the gears and shaft.

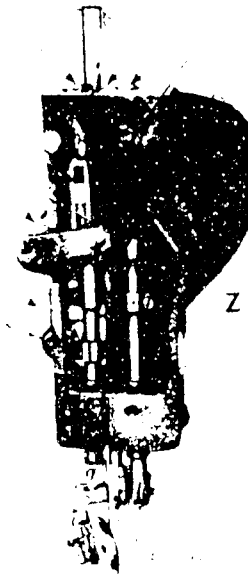
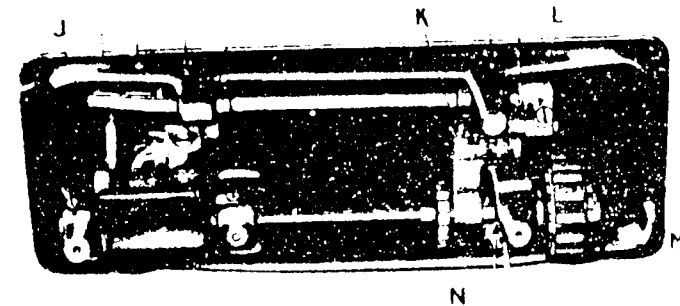
Fig. 15
End View of Machine
Showing Oiling Points

Fig. 16. Base of Machine, Showing Oiling Points

To Adjust the Trimmer

The knife (KK, Fig. 17) should be set so that its cutting edge resses against the cutting edge of the throat plate to ensure making a shear cut.

The sidewise adjustment of the knife is obtained by loosening the two screws (EE and FF, Fig. 17) and moving the knife holder to the right or left, as may be required.

To adjust the knife to the correct height, loosen the two screws (HH and JJ, Fig. 17) and move the knife up or down on the knife holder, after which the two screws should be securely tightened.

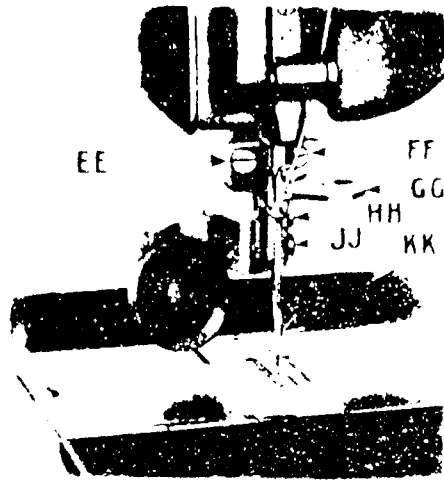


Fig. 17. Adjustments on Trimmer

To disengage the knife, press the lever (E, Fig. 13) to the left. To re-engage the knife, press down on the handle (GG, Fig. 17).

To Change the Trimming Margin

The distance from the trimmed edge to the line of stitching is determined by the throat plate used, each throat plate being adapted for but one trimming margin.

The trimming margin is measured from the center of the needle hole to the cutting edge of the throat plate.

To change the machine from one trimming margin to another, it is only necessary to change the throat plate and adjust the knife.

Machine 111w141 can be furnished with throat plates for making .045, .060 or .085 inch trimming margin, as desired, for trimming abreast of the needle. Orders for the machine should specify the trimming margin required. Unless otherwise ordered, the machine will be fitted for making the trimming margin .060 inch.

To Sharpen the Knife

When it is necessary to resharpen the knife (EK, Fig. 17), loosen the two screws which fasten the knife to the knife holder and remove the knife. Knife hone 259367 should be used to sharpen the knife. As one hone can be used for several machines, it should be ordered separately.

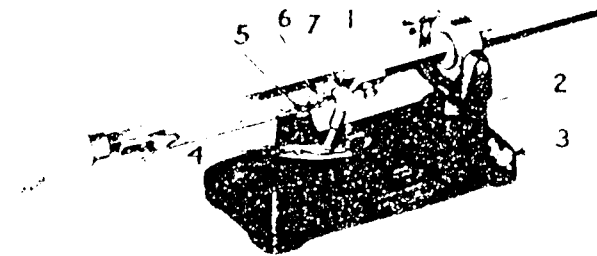


Fig. 18. Knife Hone Set at Proper Angle

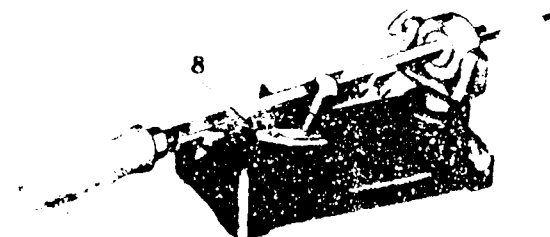


Fig. 19. Knife Hone with Knife in Position Ready to Sharpen

To set the hone at the proper angle, loosen the wing screw (1, Fig. 18), rest the stone (6, Fig. 18) on the flat of the leveling surface (5, Fig. 18), then tighten the wing screw.

Loosen screw (7, Fig. 18) and slide knife (4) into position as shown in Fig. 18, then tighten screw (7).

Loosen the adjusting screw (3, Fig. 18), raise or lower the guide yoke (2, Fig. 18) to get the bevel desired on the knife (4, Fig. 18), then securely tighten the adjusting screw (3).

Place hone in position as shown (8, Fig. 19) and proceed to hone knife. Care should be taken not to press down too heavily on the knife. Sharpen the cutting edge of the knife on the beveled side only, and remove as much from the projection as from the cutting edge so as to maintain their relative proportions, and to prevent the projection from striking the hook.

INSTRUCTIONS

FOR

ADJUSTERS AND MACHINISTS

Thread Controller

The function of the thread controller spring is to hold back the slack of the needle thread until the eye of the needle nearly reaches the goods in its descent, as without this controlling action of the spring, the slack thread or silk (more especially silk) will sometimes be penetrated by the point of the needle as the needle is descending.

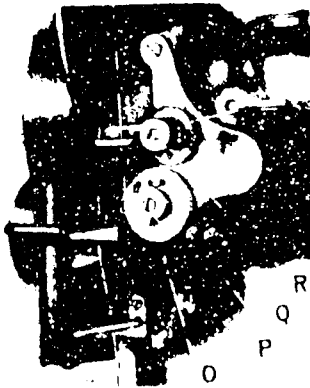


Fig. 20. Adjustment of Thread Controller

For more controller action on the thread, loosen the stop screw (P, Fig. 20) at the right of the tension and set the stop lower, and for less action set the stop higher.

To strengthen the action of the controller spring on the thread, loosen the tension stud screw (Q, Fig. 20) at the right of the stop screw and turn the tension stud (O, Fig. 20) slightly to the left with a screwdriver, or to lighten its action turn to the right and retighten the tension stud screw.

To Set the Needle Bar

See that the needle is up in the bar as far as it will go. There are two lines across the needle bar about two inches above the lower end. When the needle bar is at its lowest position, the upper mark should be just visible at the end of the needle bar frame.

In case the needle bar is not correctly set, loosen the needle bar connecting stud pinch screw (Z, Fig. 15) and place the needle bar in correct position as directed above, then retighten the screw (Z).

TO SET A NEEDLE BAR WHICH HAS NO MARK. Set the needle bar so that when it rises $7/32$ inch from its lowest position, the point of the sewing hook will be at the center of the needle and about $1/16$ inch above the eye.

To Raise or Lower the Feed Dog

Usually when the feed dog is at its highest position, it should show a full tooth above the throat plate.

Remove the throat plate; clean the lint and dust from between the feed points and replace the throat plate; tip the machine back and turn the balance wheel towards you until the feed dog is at its highest position; loosen screw (T, Fig. 21) in the feed lifting cam fork on the feed bar and raise or lower the feed dog, as may be required, and retighten the screw (T).

When raising or lowering the feed dog, be careful that its underside does not drop low enough to strike the sewing hook.

To Time the Sewing Hook

Set the feed regulating spindle head to indicate eight stitches to the inch.

Remove the throat plate and turn the balance wheel over toward you until the lower mark across the needle bar is just visible at the end of the needle bar frame on the upward stroke of the needle bar. If the needle bar and sewing hook are correctly timed, the point of the hook will be at the center of the needle and about $1/16$ inch above the eye.

In case the sewing hook is not correctly timed, turn the balance wheel over toward you until the needle bar has descended to its lowest point and has risen until the lower timing mark across the needle bar is just visible at the end of the needle bar frame.

Loosen the two set screws in the hub of the hook driving gear (Fig. 21) and tap this gear to the right on the hook driving shaft for an earlier hook timing, or to the left for a later hook timing. When the correct timing is obtained, securely tighten the two set screws in the hub of the gear.

To Set the Sewing Hook to or from the Needle

To prevent the point of the hook from dividing the strands of the thread, it should run as close to the needle (within the scarf) as possible.

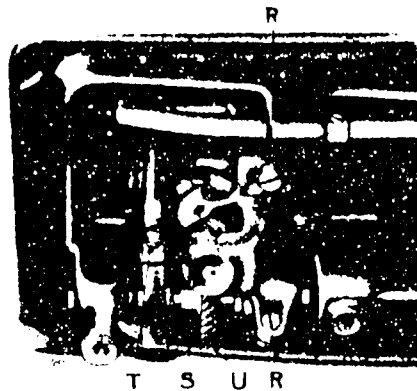


Fig. 21. Adjustment of Hook Saddle

Turn the balance wheel over toward you until the point of the sewing hook is at the center of the needle. Loosen the two screws (R, Fig. 21) underneath the bed of the machine and move the hook saddle to the right or left, as may be required, until the point of the hook is as close to the needle as possible without striking it, then securely tighten the two screws (R).

The needle guard washer (V, Fig. 22) which is attached to the bottom of the sewing hook, should be sprung until it prevents the needle from striking the hook in case the needle is deflected towards the hook.

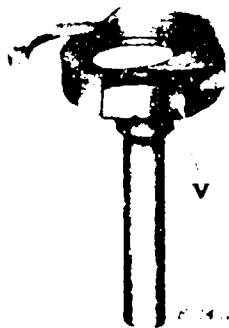


Fig. 22. Sewing Hook Removed from Machine Showing Hook Washer

To Remove the Sewing Hook from the Machine

Remove the throat plate, feed dog and the bobbin case opening lever. Then take out the two screws from the hook shaft gear (S, Fig. 21) and lift out the sewing hook.

Adjustment of Feed Regulating Spindle Head

The figures on the feed regulating spindle head (DD, Fig. 23), showing through the notch in the balance wheel, indicate the

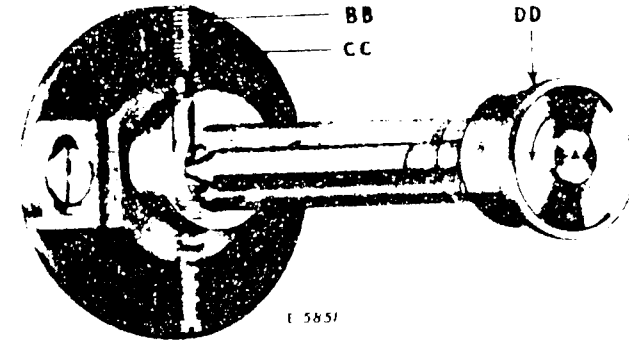


Fig. 23. "X-Ray" View of Feed Driving Eccentric Regulating Bracket and Shaft, Showing the Feed Regulating Spindle and Adjusting Screw (CC) which Comes in Contact with the Cone of the Spindle to Gauge the Length of Stitch

number of stitches to the inch which should be made. If more or less stitches are made, adjust as follows: Remove screw (BB, Fig. 23), set the indicator at 3 and the feed dog at its highest point, a full tooth showing above the throat plate, then adjust screw (CC, Fig. 23) until eight stitches to the inch is the result and replace check screw (BB) firmly.

By making this adjustment with the stitch indicator set at 8 stitches, the full range of the stitch regulator is automatically taken care of so that the number appearing in the notch in the balance wheel will always indicate the correct number of stitches to the inch that the machine is ready to make.

TO SET THE FEED REGULATOR SO THAT A STITCH LONGER THAN THE ONE DESIRED CANNOT BE MADE. Turn the spindle head (DD, Fig. 23) as far as possible in the direction indicated by the arrow in Fig. 23, remove check screw (BB) and adjust screw (CC) until the machine makes the desired number of stitches to the inch, then turn screw (BB) down tightly on screw (CC) as a check. The stitches may then be changed by turning the stitch regulator (DD) for shorter stitches, but operators cannot make a longer stitch than that limited by the above adjustment.

To Re-engage the Safety Clutch

The hook driving shaft and the shaft of the sewing hook are splined to prevent the hook from getting out of time. The safety clutch located in the lower belt pulley prevents damage in the event of any strain on the sewing hook by releasing the locking lever in the pulley from the notch (D1, Fig. 25) in the collar of the hook driving shaft.

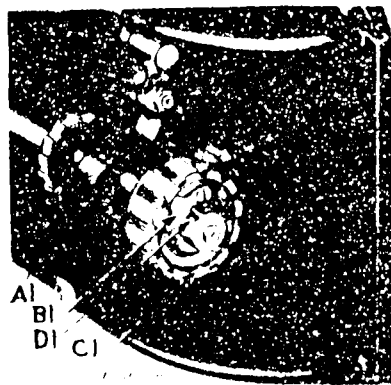
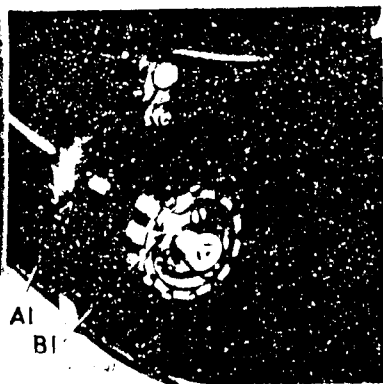


Fig. 24. Safety Clutch Disengaged Fig. 25. Operating Position

To re-engage the clutch, press down the lock stud (D, Fig. 13) near the base of the arm to engage the hook driving shaft lockatchet (A1, Fig. 24) which will prevent the hook driving shaft from turning backward. Turn the balance wheel away from you until the locking lever (B1) snaps into the notch (D1, Fig. 25) in the shaft collar as shown in Fig. 25, then release the lock stud.

Draw back the bed slide, turn the balance wheel back and forth slightly, and remove the material that may be jamming the lock.

To Adjust the Safety Clutch

The small screw (C1, Fig. 25) in the perimeter of the belt pulley controls the amount of force necessary to release the safety clutch. This adjustment is correctly made at the factory and should not be disturbed. If the screw is turned in too far, the safety clutch may not release until damage has been done to the foot or the hook. However, if the clutch releases too easily without the hook being jammed, the screw (C1) may be turned in just enough to keep the clutch from releasing during ordinary sewing.

To Remove the Arm Shaft Connection Belt from Within the Arm

Slide the connection belt off lower pulley (M, Fig. 16); remove the feed regulating spindle head and balance wheel; loosen the arm shaft bushing screw (G, Fig. 14) at the back of the arm and remove the bushing; lift the belt up through the arm cap hole as far as possible and draw it out through the space normally occupied by the bushing.

Owing to the fact that the sewing hook makes two revolutions to one revolution of the hook shaft, and that the feed lifting eccentric is on the hook shaft, it is possible to have the sewing hook correctly timed without having the feed correctly timed. To overcome this, the plate (K, Fig. 16) is attached to the underside of the bed of the machine. This plate is marked with an arrow at its lower end and directly alongside of the plate is the collar (N, Fig. 16) mounted on the hook shaft, which is also marked with an arrow. When replacing the belt, replace the arm shaft bushing and securely fasten it in position by the screw (G, Fig. 14) at the back of the machine; replace the feed regulating spindle head and the balance wheel, and place the belt on the upper pulley, and then turn the balance wheel over toward you until the thread take-up lever is at its highest point. Then turn the hook shaft with the fingers until the two arrows, one on plate "K" and the other on collar "N", are directly in line. Now, without disturbing either the arm shaft or the hook shaft, slip the belt over the lower pulley (M, Fig. 16). The feed will then be correctly timed with the needle bar.

To facilitate the replacing of the belt on the lower pulley, use belt replacer 265058 (A, Fig. 26). Rest the replacer in the loop of the belt as shown in Fig. 26, having the notches in the replacer engage the two set screws in the hub of the pulley. Turn the balance wheel toward you until the belt is fully over the pulley, then remove the replacer.

NOTE: As belt replacer 265058 will serve for several machines, it is not regularly furnished with the machine, and must be ordered separately.

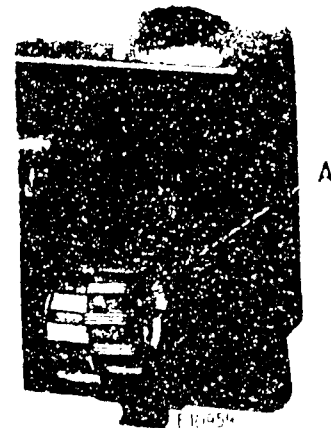


Fig. 26. Putting Belt on Lower Pulley with Belt Replacer 265058