

Form U3061 (578)  
Part No. 543290-002

INSTRUCTIONS

FOR USING

**SINGER\***  
SEWING MACHINES

**17U241**  
**17U242**

THE SINGER COMPANY

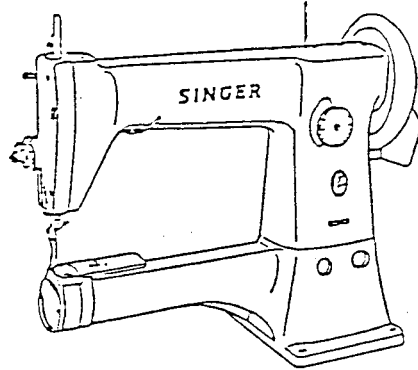
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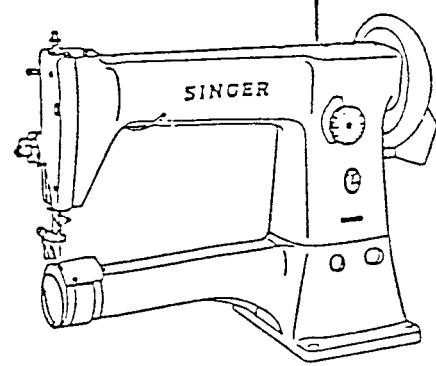
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## DESCRIPTION



17 U 241



17 U 242

Machines 17U241 and 17U242 described in this book, have a long beak shuttle and a cylinder bed and are successfully used in the manufacture of shoes and a large variety of articles made of leather, which are irregularly shaped, such as horse boots, saddles, suitcases, fine leather bags, portfolios, pocket books, music rolls, trusses, etc., all of which are conveniently handled on the cylinder bed.

Machine 17U241 has a drop feed across the cylinder and is fitted with a narrow presser foot. It also has a reversible feeding mechanism which makes it possible to feed the work forward or backward, as desired, enabling the operator to tack the ends of seams, etc. It is designed for use in the manufacture of portfolios, pocketbooks, caps and other irregularly shaped leather articles which cannot be conveniently stitched on a flat bed machine.

Machine 17U242 has a reversible drop feed across the cylinder. It is designed for stitching the quarter over the vamp of shoes, and is also used for stitching leather waist belts, music rolls, footballs, etc. It has a drop feed across the cylinder at the left of the needle. It is also fitted with a roller presser.

## SPEED

The following list gives the maximum speed recommended for the individual Machines of Class 17U:

<u>Machine</u>	<u>Stitches per minute</u>
17U241	1,800
17U242	1,800

These machines 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 machines are in operation, the machine pulley should always turn over toward the operator.

## TO OIL THE MACHINE

When the machine is received from the factory, it should be thoroughly cleaned and oiled. Apply oil to all oil holes and all parts which are in movable contact. Use "TYPE B" or "TYPE D" OIL, sold by The Singer Company.

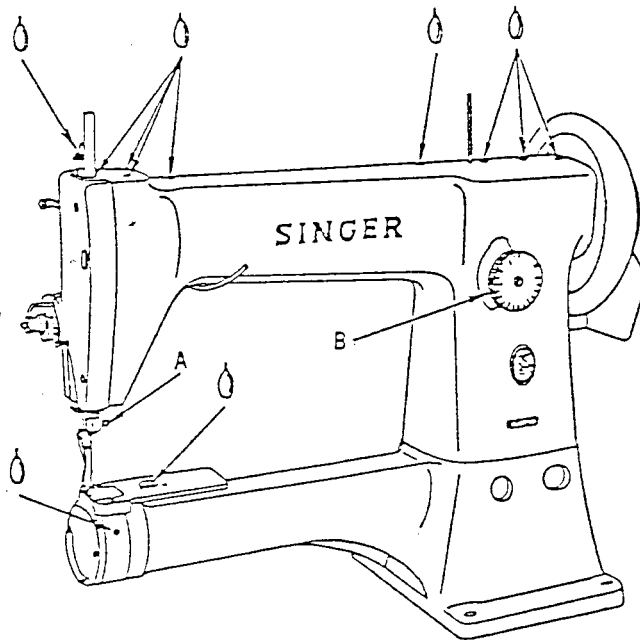


Fig. 1 Oiling Points at the Front of the Machine  
Also Adjustments on the Machine

When the machine is in continuous use, it should be oiled at least twice each day.

There are oil holes in the arm as follows: Seven in the upper surface, three of them near the arm head, three near the spool pin and one near the machine pulley. There is a hole in the face plate through which the ends of the needle bar link can be oiled, but it is advisable to take off the face plate occasionally and to clean out the space inside and oil the parts with fresh oil. The square cover on the back of the arm should be turned up and parts inside lubricated.

There is an oil hole near the left hand end of the cylinder bed for oiling the bearings of the oscillating shaft, and two large holes and one square opening with cover in the base through which to oil the bearings of the parts located inside.

Apply a drop of oil to the shuttle bearing in the shuttle race each time a bobbin is replaced.

## NEEDLES

Needles for Machines of Class 17U are of the following Class and Variety Nos.:

<u>Machines</u>	<u>Catalog No.</u>	<u>Class and Variety Nos. of Needles</u>	<u>Sizes</u>
17U241	2083	16X2	8, 9, 10, 11, 12, 15, 14, 15, 16, 17,
17U242	2083	16X2	18, 19, 21, 25.

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. Do not use rough or uneven thread as such thread interferes with the successful use of the machine.

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

The following is an example of an intelligible order:

"100 No. 19, Catalog 2083 16X2 Needles"

The best results will be obtained in using needles sold by The Singer Company.

### RELATIVE SIZES OF NEEDLES AND THREAD

#### Wedge Point Needles for Leather Work

9	.....	000 and 0 Silk
11	.....	A and B Silk
14	.....	C and D Silk
16	.....	40 to 60 Cotton D and E Silk
18	.....	40 to 60 Linen EE Silk
19	.....	35 to 40 Linen
21	.....	24 to 35 Linen

## THREAD

Left twist thread should be used in the needle. Either right or left twist can be used in the bobbin.

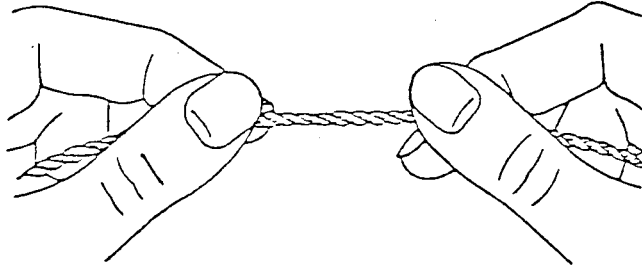


Fig. 2 How to Determine The Twist

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.

## TO REMOVE THE BOBBIN

Slightly raise the back edge of the cover at the end of the cylinder bed so that it can be slipped over the head of the screw, then let the cover hang by the hinge screw, as shown in Fig. 3. Turn the machine pulley over toward you until the needle bar is at its lowest point. Pull out the hinged portion of the shuttle and remove the bobbin.

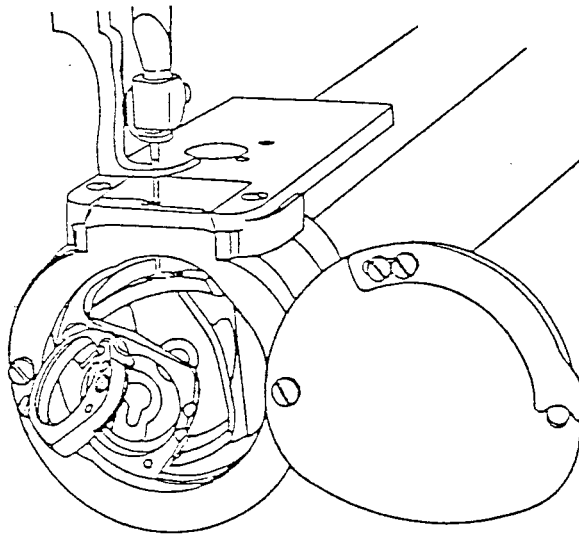


Fig. 3 Bobbin Removed from Machine

## TO WIND THE BOBBIN

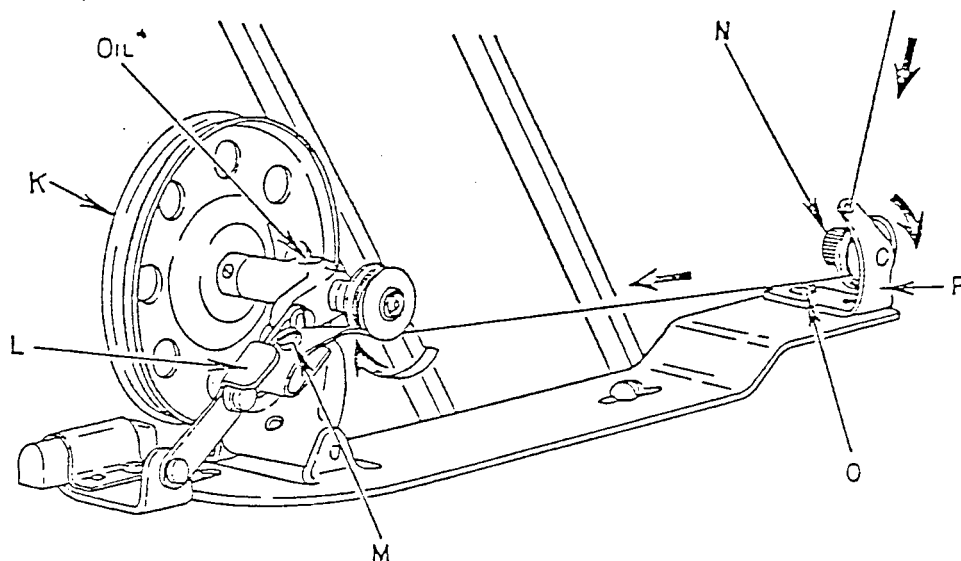


Fig. 4

Fasten the bobbin winder to the table with its driving pulley in front of the machine belt (see Fig. 4), so that bobbin winder driving pulley (K) will make firm contact with the machine belt when the thumb latch (L) is pressed down and the pulley will be released from contact with the belt when sufficient thread has been wound upon the bobbin.

Place the bobbin on the spindle, pushing it on as far as it will go and pass thread through threading points, as shown in Fig. 4.

Wind end of thread around the bobbin a few times. Press down on the thumb latch (L), pushing the driving pulley (K) over against the belt, as shown in Fig. 4. Start machine.

The bobbin winder will stop automatically, when the amount of thread for which it is regulated is wound upon the bobbin. For more thread on the bobbin, turn the screw (M) inward; for less thread on the bobbin, turn the screw (M) outward.

When winding a bobbin with fine thread, a light tension should be used. Adjust the knurled nut (N, Fig. 4), to regulate the tension.

If thread winds unevenly on the bobbin, loosen the screw (O) and move the tension bracket (P) to the left or right, as required. Tighten the screw (O).

The bobbin can be wound while the machine is stitching.

Note: Occasionally apply a few drops of oil to the oil well, shown in Fig. 4, on top of the bobbin winder frame.

### TO REPLACE THE BOBBIN AND THREAD THE SHUTTLE

With the needle at its lowest point, open the shuttle cover, hold the bobbin in the right hand, the thread drawing on the bottom from the left toward the right and place the bobbin in the shuttle cover, then close the shuttle cover. Draw the thread into the slot in the edge of the shuttle cover and into the delivery eye, as shown in Fig. 5. Allow about three inches of thread to hang free from the shuttle.

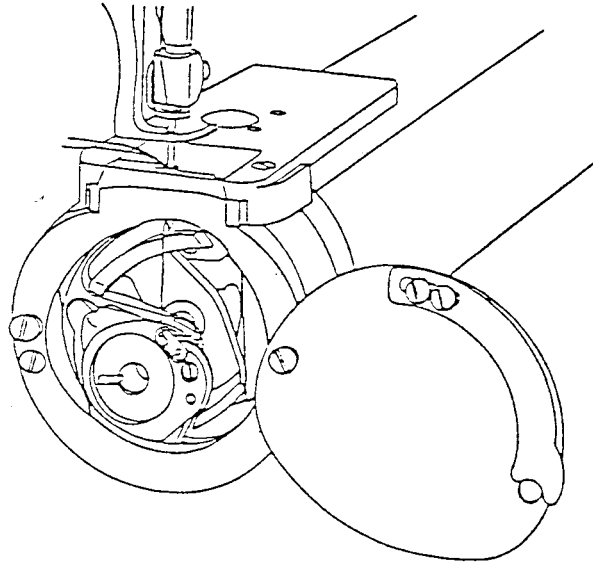


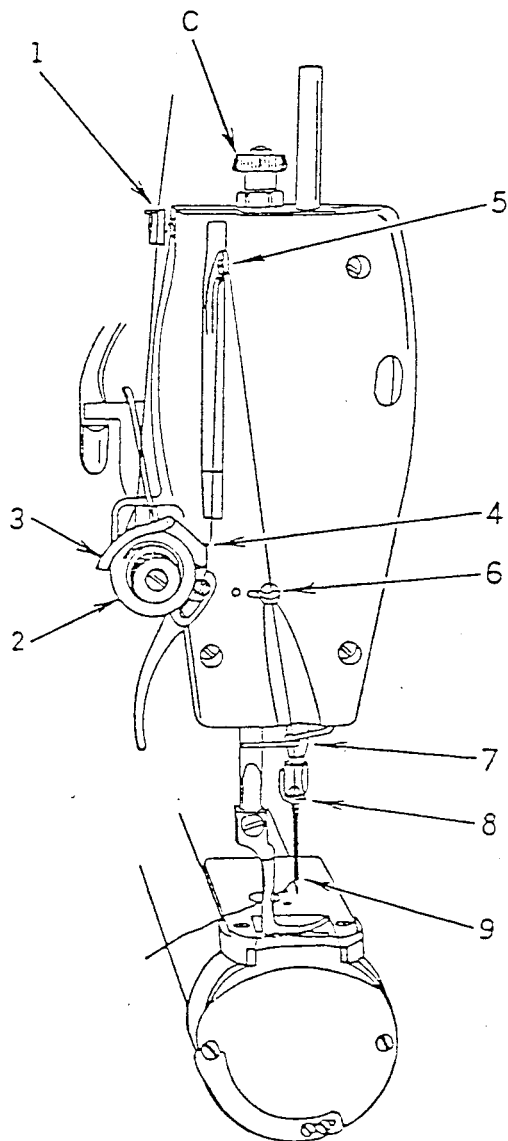
Fig. 5 Bobbin Replaced and Shuttle Threaded

### TO SET THE NEEDLE

Turn the machine pulley over toward you until the needle bar moves up to its highest point. Loosen the screw (A, Fig. 1) in the needle clamp and put the needle up into the clamp as far as it will go, with the long groove toward the left and the eye of the needle directly in line with the cylinder bed, then securely tighten the needle clamp screw (A, Fig. 1).



TO THREAD THE NEEDLE  
(See Fig. 6)



Place the spool of thread on the spool pin on top of the machine or pass the needle thread from the unwinder through the thread hole on the spool pin, then pass the thread from the spool over between the thread retaining discs (1) at the rear of the upper end of the face plate, down under from back to front between the tension discs (2) at the front of the face plate, over the tension thread guard (3) above the tension discs, into the hook of the thread take-up spring (4), up and toward you through the hole in the end of the thread take-up lever (5), down through the face plate thread guard (upper) (6) at the front of the face plate, down through the face plate thread guard (lower) (7) at the lower of the face plate, into the needle clamp thread guide (8) at the lower end of the needle bar and from left to right through the eye of the needle (9). Draw about two inches of thread through the eye of the needle with which to commence sewing.

Fig. 6 Threading the Needle

## 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 machine pulley 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. Lay both threads back under the presser foot or roller presser.

## TO COMMENCE SEWING

Place the material beneath the roller presser or presser foot, lower the presser bar and commence to sew, turning the machine pulley over toward you.

## TO REMOVE THE WORK

Let the take-up lever rest at its highest point, raise the presser bar, draw the work back and cut the threads close to the goods, leaving about three inches of thread with which to re-commence sewing.

## TENSIONS

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



Fig. 7 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. 8 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. 9 Loose Needle Thread Tension

#### TO REGULATE THE TENSIONS

The tension on the needle thread is regulated by the thumb nut at the front of the tension discs at the front of the face plate. To increase the tension, turn this thumb nut over toward you. To decrease the tension, turn this thumb nut over from you.

The tension on the bobbin thread is regulated by the screw near the delivery eye on the outside of the shuttle. To increase the tension, turn this screw over toward you. To decrease the tension, turn this screw over from you.

When the tension on the bobbin thread has been once properly adjusted, it is seldom necessary to change it as a correct stitch can usually be obtained by varying the tension on the needle thread.

#### TO REGULATE THE LENGTH OF STITCH

The length of stitch is regulated by the feed regulating stud head (B, Fig. 1) on the front of the upright portion of the arm. To lengthen the stitch, turn the feed regulating stud head to the left. To shorten the stitch, turn to right.

#### TO REGULATE THE PRESSURE ON THE MATERIAL

The pressure on the material is regulated by the thumb screw (C, Fig. 6) on the top of the machine. To increase the pressure, turn this thumb screw over to the right. To decrease the pressure, turn the thumb screw over to the left. The pressure should be only heavy enough to enable the feed to move the work along evenly.

## TO REVERSE THE DIRECTION OF FEED

Fix the small treadle for reverse feeding to the right hand side of the large treadle for controlling the speed of clutch motor. Fasten one end of the feed reverse lever chain to the hook (D, Fig. 10) on the feed reverse lever pitman which is located inside the upright portion of the arm, and the other end to the upper hole (E, Fig. 10) in the small treadle. See Fig. 10.

Press down on this small treadle for reverse feeding.

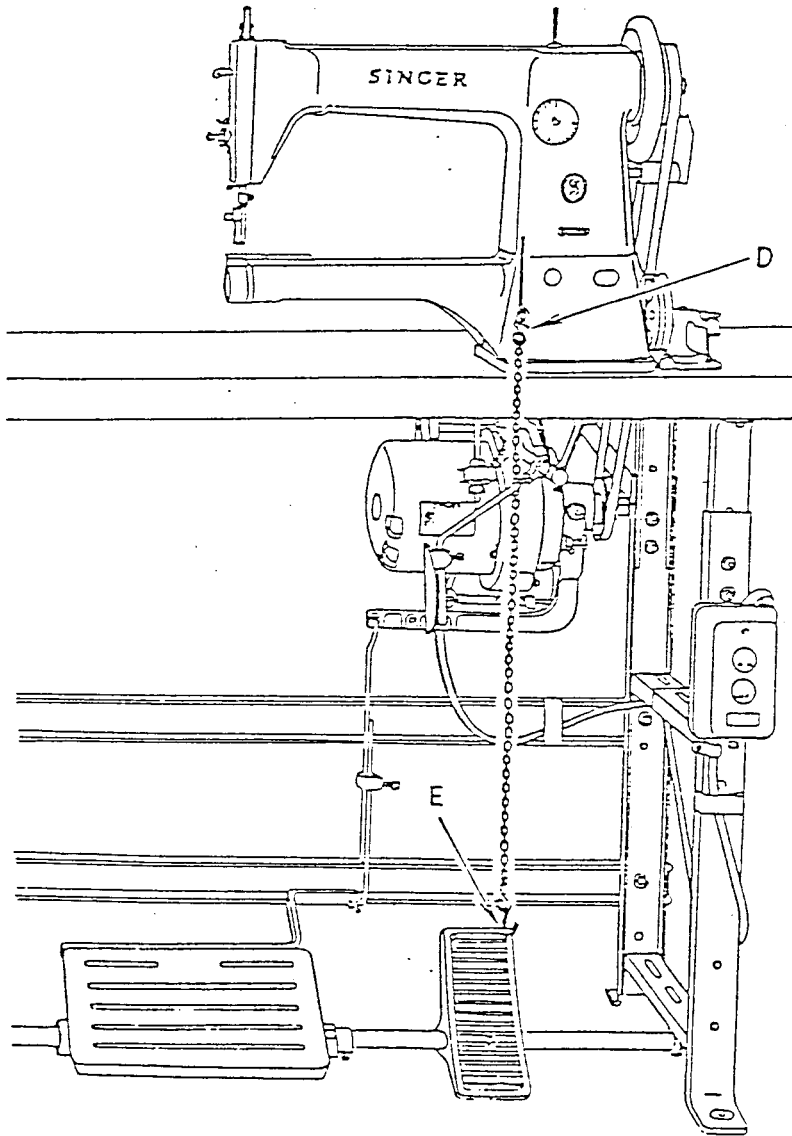


Fig. 10