

SINGER
CLASS 69

USE SINGER* OILS and LUBRICANTS

They insure freedom from lubricating trouble and give longer life to sewing equipment

The following are the correct lubricants for this machine:

TYPE B — MANUFACTURING MACHINE OIL, HEAVY GRADE

When an oil is desired which will produce a minimum of stain on fabrics, even after a long period of storage, use:

TYPE D — MANUFACTURING MACHINE OIL, HEAVY GRADE

OTHER SINGER LUBRICANTS

TYPE E — THREAD LUBRICANT

For lubricating the needle thread of sewing machines for stitching fabrics or leather where a thread lubricant is required.

TYPE F — MOTOR OIL

For oil lubricated motors and plain bearings in power tables and transmitters.

NOTE: All of the above oils are available in 1 quart, 1 gallon and 5 gallon cans.

GEAR LUBRICANT

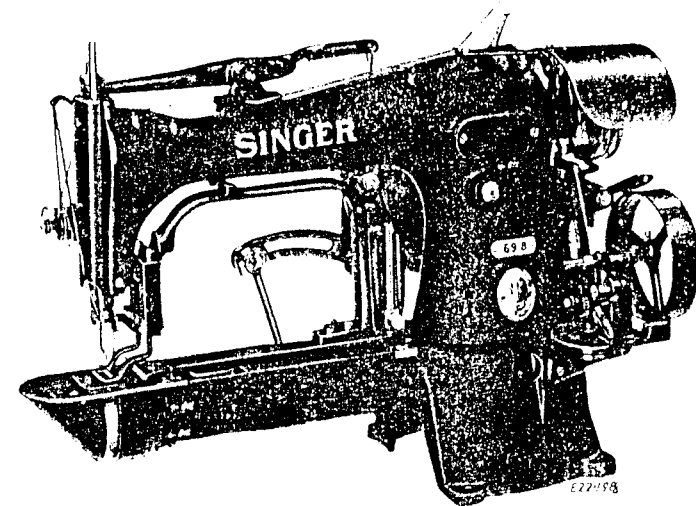
This specially prepared grease is recommended for gear lubrication on manufacturing sewing machines.

BALL BEARING LUBRICANT

This pure grease is specially designed for the lubrication of ball bearings and ball thrust bearings of motors and electric transmitters, ball bearing hangers of power tables, etc. Furnished in 1 lb. and 4 lb. tins.

8396

INSTRUCTIONS FOR USING SINGER* SEWING MACHINES



OF
CLASS 69

THE SINGER MANUFACTURING COMPANY

*A Trade Mark of THE SINGER MANUFACTURING COMPANY

TO ALL WHOM IT MAY CONCERN:

The improper placing or renewal of the Trade Mark "SINGER" or any other of the Trade Marks of The Singer Manufacturing Company (all of which are duly Registered Trade Marks) on any machine that has been repaired, rebuilt, reconditioned, or altered in any way whatsoever outside a SINGER factory or an authorized SINGER agency is forbidden.

THE IMPORTANCE OF USING SINGER* PARTS AND NEEDLES IN SINGER MACHINES

The successful operation of SINGER machines can only be assured if SINGER parts and needles are used. Supplies are available at all SINGER Shops for the Manufacturing Trade, and mail orders will receive prompt attention.

SINGER Needles should be used
in SINGER Machines
These Needles and their Containers
are marked with the
Company's Trade Mark "SIMANCO.*" 1

Needles in Containers marked
"FOR SINGER MACHINES"
are NOT SINGER made needles. 2

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DESCRIPTION

Machine No. 69-5 is intended for sewing flat buttons on knee pants, coat sleeves and other garments. It makes crossed stitches in four hole buttons and can be adjusted for two hole and bar buttons. Eighteen cross stitches and three tying stitches are made for each button sewn on.

Machine No. 69-6 is designed for sewing two or four hole or bar buttons of small size on shirts, waists, underwear, etc. It makes crossed stitches in four hole buttons. Eleven cross stitches and three tying stitches are made for each button sewn on.

Machine No. 69-7 is used for tacking shoes. It makes tacks up to $\frac{3}{8}$ inch in length. Each tack consists of twenty-one stitches, comprising two staying, nine long, seven cross and three tying stitches.

Machine No. 69-8 is designed for barring pockets in clothing. It makes a bar from $\frac{1}{8}$ to $\frac{5}{8}$ inch in length. Each bar consists of forty-two stitches, comprising twelve staying, twenty-seven covering and three tying stitches.

Machine No. 69-9 is intended for barring buttonholes in fine work and for tacking bows or other ornaments upon shoes or garments. It makes a bar from $\frac{1}{8}$ to $\frac{1}{4}$ inch in length. Each bar consists of twenty-one stitches, comprising seven staying, eleven covering and three tying stitches.

Machine No. 69-11 is used for sewing straps upon underwear and other garments. It makes a bar from $\frac{3}{8}$ to $\frac{7}{8}$ inch in length. Each bar consists of forty-two stitches, comprising three staying, thirty-six covering and three tying stitches.

Machine No. 69-14 is especially adapted for tacking Blucher shoes. It makes a tack from $\frac{3}{2}$ to $\frac{1}{6}$ inch in length. Each tack consists of eighteen staying stitches in two parallel lines, and three tying stitches.

Machine No. 69-15 is designed for sewing large buttons upon coats, cloaks, overcoats, etc. It makes crossed stitches in four hole buttons and can be adjusted for two hole and bar buttons. Eighteen cross stitches and three tying stitches are made for each button sewn on.

Machine No. 69-16 is the same as Machine No. 69-14 with the exception that it has a long beak shuttle which particularly adapts it for use on the heavier shoes.

Machine No. 69-17 is designed for sewing two hole or four hole grooved buttons on men's and boys' clothing. It makes two separate bars in four hole buttons, there being no cross stitches between the bars. Eighteen stitches including three tying stitches are made for each bar.

Machine No. 69-18 is designed for sewing two hole or four hole grooved buttons on men's and boys' clothing. It makes two separate bars in four hole buttons, there being no cross stitches between the bars. Nine stitches including three tying stitches are made for each bar.

Machine No. 69-20 is used for making the fern leaf design at the upper end of the clocking "stem" on hosiery. It makes forty-two stitches in each complete design.

Machine No. 69-21 makes the arrow head design at the upper end of the clocking "stem" on hosiery. It makes thirty-six stitches in each complete design.

Machine No. 69-22 is designed for sewing Cash's marking tags or similar strip identification tags on articles to be laundered. It is also used for tacking Blucher shoes. The machine sews the four sides of each tag, making a rectangular tack $\frac{3}{4}$ inch by $\frac{1}{4}$ inch, consisting of twenty-one lock stitches, including three fastening stitches. There are six stitches in each of the upper and lower rows of stitches and three stitches in each end.

Machine No. 69-23, for laundry tags, is the same as Machine 69-22, except that there are five stitches in each of the upper and lower rows of stitches on the tag and four stitches in each end.

Machine No. 69-24 is used for stitching back stays in oxfords. It makes a single line tack $\frac{5}{8}$ inch long, consisting of twenty-one stitches including three tying stitches.

Machine No. 69-26, for barring, is the same as Machine No. 69-8 except that it makes eight staying, seventeen covering and three tying stitches.

Machine No. 69-27 fastens safety pin tubes and truss buckles to clothing. It makes thirty-nine covering and three tying stitches covering $\frac{3}{8}$ inch to $\frac{7}{12}$ inch in length.

Machine No. 69-28, for ornamental tacking makes a fern-leaf-shaped tack, $\frac{3}{8}$ inch to $\frac{5}{8}$ inch long, on leather coats, suits and skirts and on knit underwear, etc., using forty-two stitches, including three fastening stitches.

Machine No. 69-29 is designed for tacking and ornamenting fine underwear. It makes a triangular tack consisting of forty-two stitches.

Setting Up

The machines should be set with the end of the cylinder bed toward the edge of the table nearest the operator.

An opening should then be cut in the table immediately at the rear of the machine for the machine belt and the chain to connect with the treadle for starting the machine. A hole should be bored in the table at the left of the machine for the chain to connect with the treadle for operating the clamp.

The idler bracket furnished with the machine for guiding the belt from the shaft pulley to the machine pulley should now be fastened into position on the under side of the table.

The two treadles furnished with the machine, one for operating the clamp and one for starting the machine, should then be fastened to the floor and the pitman rods connected to each treadle. The pitman rods should be adjusted to properly operate the clamp and start the machine when the toe edge of each treadle is depressed.

Speed

The maximum speed recommended for Machines of Class 69 is 1000 stitches per minute. When the machines are in operation the driving pulley should always turn over toward the right.

Thread

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

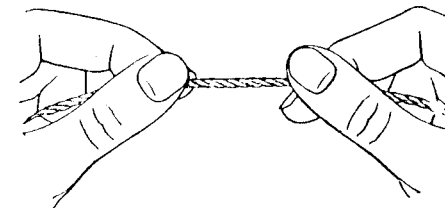


FIG. 2. HOW TO DETERMINE THE TWIST

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.

Needles

Needles for Machines of Class 69 are of the Class and Variety numbers given in the following table:

MACHINES	CLASS AND VARIETY NOS. OF NEEDLES	SIZES OF NEEDLES
69 5 } 69 6 }	68 x 3	11, 14, 16, 17, 18, 19.
69-7	16 x 77	11, 13, 14, 16, 17, 18, 19.
69 8 } 69 9 }	68 x 5	11, 14, 16, 17, 18, 19.
69-11	68 x 7 for light weight goods or	14, 16, 18, 19.
	68 x 5 for heavy goods or leather	11, 14, 16, 17, 18, 19.
69 14	16 x 74	8, 9, 10, 11, 13, 14, 16, 17, 18, 19.
69 15	68 x 11 or	16, 18, 19.
	68 x 13	16, 18, 19.
69-16	16 x 74	8, 9, 10, 11, 13, 14, 16, 17, 18, 19.
69 17 } 69 18 }	68 x 3	11, 14, 16, 17, 18, 19.
69 20	68 x 7	14, 16, 18, 19.
69 21	16 x 1	7, 8, 9, 10, 11, 13, 14, 16, 17, 18, 19.
69 22 } 69 23 }	68 x 1	14, 16, 17, 18, 19.
69 24 } 69 26 }	68 x 5	11, 14, 16, 17, 18, 19.
69 27 } 69 29 }	68 x 5	11, 14, 16, 17, 18, 19.
69 28	16 x 74	8, 9, 10, 11, 13, 14, 16, 17, 18, 19.

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. The use of rough or uneven thread or thread which passes through the eye with difficulty will interfere with the proper formation of the stitch.

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. 16, 68x3 Needles."

The best stitching results will be obtained with the needles sold by Singer Sewing Machine Company.

To Set the Needle

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 you and its eye directly in line with the cylinder bed of the machine, then tighten the set screw.

To Remove the Bobbin

For machines having central bobbin, reach under the bed of the machine with the thumb and forefinger of the left hand, open the bobbin case latch with the forefinger and lift out the bobbin case. While the latch remains open the bobbin is retained in the bobbin case. Release the latch, turn the open end of the bobbin case downward and the bobbin will drop out.

For machines having long beak shuttle, reach under the bed of the machine with the left hand and open the shuttle, pulling the hinged portion downward and toward you, then remove the bobbin.

To Wind the Bobbin

Place the bobbin on the bobbin winder spindle and push it up closely against the shoulder, having the small pin in the shoulder enter the slot in the bobbin. Place the spool of thread on the pin on the spool stand. Pass the thread from the spool up through the thread unwinder at the top of the spool stand, down through the thread guide at the top of the machine, and between the discs on the tension bracket, then wind the end of the thread around the bobbin a few times and push the bobbin winder driving pulley over against the machine belt. When sufficient thread has been wound upon the bobbin, the bobbin winder will stop automatically. Bobbins can be wound while the machine is stitching.

To Thread the Bobbin Case

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

With the left hand hold the bobbin case so that the slot in the edge of the case is near the top, and place the bobbin into it.

Then pull the thread into the slot in the edge of the bobbin case, draw the thread down under the tension spring and into the delivery eye at the end of the tension spring.

To Thread the Long Beak Shuttle

Hold the bobbin between the thumb and forefinger of the left hand, the thread drawing on top from the right toward the left, and place it into the shuttle cap. When the thread is drawn from the bobbin, the bobbin should turn over toward the left.

Close the cap and draw the thread into the slot in the edge of the cap, then into the delivery eye of the shuttle. Allow about three inches of thread to hang free from the shuttle.

To Thread the Needle

Pass the thread from the unwinder down through the thread guide in the upper end of the face plate, down under from left to right between the tension discs at the front of the face plate, over the wire thread guide above the tension discs, into the hook of the thread take-up spring, up and from left to right through the hole in the thread take-up lever, down through the wire thread guide at the front of the face plate, into the thread nipper near the lower end of the needle bar and from front to back or from the long groove side through the eye of the needle. Draw about two inches of thread through the eye of the needle with which to commence sewing.

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

On machines having central bobbin, the tension on the bobbin thread is regulated by the screw in the bobbin case tension spring. To increase the tension, turn this screw over to the right. To decrease the tension, turn the screw over to the left.

On machines having long beak shuttle, 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 the screw over to the right. To decrease the tension, turn the screw over to the left.


To Regulate the Throw of the Clamp Lengthwise the Machine

The throw or amount of travel of the clamp lengthwise the bed of the machine is regulated by means of the sliding block which is fastened into position by a thumb screw in the upright slot at the extreme rear of the clamp arm. To increase the throw or movement of the clamp lengthwise the bed of the machine loosen the thumb screw and move the sliding block downward in the slot. To decrease the throw of the clamp move the sliding block upward. When the sliding block is at its highest point in the slot there will be no movement of the clamp lengthwise the bed of the machine. Care should be taken to see that when the needle descends it will enter the centre of the holes in the button. After the desired throw of the clamp has been obtained tighten the thumb screw.

To Regulate the Throw of the Clamp Across the Machine

The throw or amount of travel of the clamp across the bed of the machine is regulated by means of the movable stud which is fastened into position by a hexagon nut in the slot at the left of the machine. To increase the throw of the clamp across the bed of the machine, loosen the hexagon nut and move the stud toward you in the slot. To decrease the throw of the clamp move the stud away from you in the slot. Care should be taken to see that when the needle descends it will enter the centre of the holes in the button. When the desired throw of the clamp across the bed of the machine has been obtained tighten the hexagon nut.

To Adjust the Button Clamp for Different Sizes of Buttons

The button clamp which holds the button into position while it is being sewn on can be readily adjusted to accommodate different sizes of buttons by means of the thumb screw and lever located on the upper surface of the clamp arm. 

To adjust the clamp for the size of button to be sewn on, loosen the thumb screw and raise the button clamp. Then open the clamp by means of the lever and insert the button into the clamp, pushing it as far back as it will go. When the button is

properly placed into position in the button clamp, move the lever from you until it touches the screw stud, then securely fasten the thumb screw.

To Adjust the Machine for Sewing on Two Hole or Four Hole or Bar Buttons

To adjust the machine for sewing on two hole or bar buttons, loosen the thumb screw in the sliding block in the upright slot at the extreme rear of the clamp arm and move the sliding block up to the highest point in the slot, then tighten the thumb screw. The throw of the clamp across the bed of the machine can then be adjusted as instructed on page 9, so as to bring the needle in the centre of each of the holes in the button.

For sewing on four hole buttons it will be necessary to adjust the throw of the clamp across the bed of the machine and lengthwise the bed of the machine according to the distance between the holes in the button being sewn on. See page 9.

To Oil the Machine

To ensure easy running and prevent unnecessary wear of the machine, the parts which are in movable contact should be regularly oiled. When the machine is in continuous use oil should be applied at least twice each day.

Use "TYPE B" or "TYPE D" OIL, sold by Singer Sewing Machine Company. For description of these oils, see inside of front cover.

To Adjust the Cam Wheel

Feed cams are so cut as to make the number of stitches specified in the description of each variety of machines of Class 69, and to stop the machine automatically when these stitches are completed; thus, the cam for Machine No. 69-9 is cut for forty-two stitches but stops twice in each revolution making twenty-one stitches in each group, and the one for Machine No. 69-11 makes forty-two stitches in one group before stopping.

The cam wheel has two cam grooves in its outside face, one for the roller on the "feed across" lever, the other for the roller for the thread cutter lever; also a cam groove on the inside face for the roller for the "feeding lengthwise" lever; depressions are made in the edge of the cam wheel that operate the nipper lever.

When the machine stops automatically the cam wheel has an overthrow that operates the thread cutting device; when placing a cam wheel on its shaft and replacing the levers operated by it, the machine should be set in the exact position at which it stops automatically when in use; that is, the interlocking rod at the rear of the machine must be engaged with the notch in the stop cam; then place the cam wheel on its shaft, attach the levers, and turn the cam wheel so that the wedge shaped end of the nipper lever is in the exact position it would occupy if the machine had been automatically stopped, or so that the end of the nipper lever will just drop into the first of the two depressions in the edge of the cam wheel, but will not be raised in the least by its overthrow; fasten the cam wheel firmly in this position.

A cam wheel made for a specified number of stitches cannot be used with a driving worm and worm wheel designed for a different number, nor is it advisable to attempt to change a machine so as to make a different number of stitches at each complete revolution of the cam wheel, except at the factory.

The nipper is adjusted by changing the length of the nipper rod by means of the stud and nut on the rod near the nipper lever; the nipper should be adjusted so as to prevent the withdrawal of the thread from the eye of the needle by the action of the thread controlling spring, when the machine stops automatically.

When the machine is started and the needle has descended to the goods, the nipper is released to allow the thread to pass freely down the side of the needle; and while on the upward movement of the needle the eye is practically free, the nipper again holds the

thread, which is drawn back by the continued upward motion of the needle bar, and again released by the nipper to allow the take-up lever to withdraw the balance of the thread which has passed around the shuttle.

Part of the thread drawn by the shuttle beneath the throat plate must pass under the end of the barbed holding spring C, which should lie flat against the under side of the throat plate so as to control the thread with a light pressure but not hold it with sufficient strength to cause the take-up lever to draw thread through the tension discs.

The above description of the action of the nipper, etc., applies only to the later style of the machines of Class 69 that have two depressions for the nipper lever at each stopping place in the edge of the cam wheel, and a raised portion between the depressions; in the older machines there is but one depression for the nipper lever at the time of stopping, and no release of the thread until the final one; for very heavy or firm work with machines of this style it is necessary to use double grooved needles.

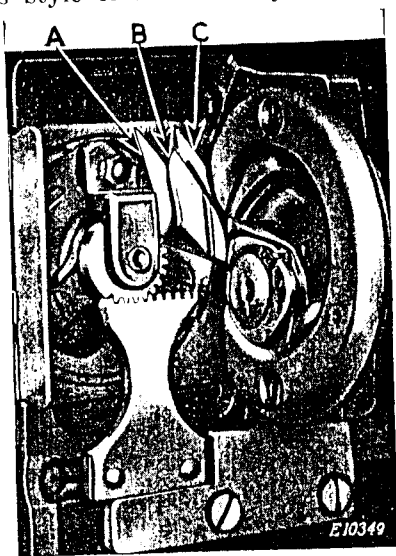


FIG. 3

Fig. 3 shows the position of the thread cutting knives A and B, and the barbed spring C, at the instant of cutting the threads; A is the shuttle thread knife and B the needle thread knife;

there is an immediate slight retraction from this cutting position, owing to the recovery by the parts from the overthrow which causes the knives to cut the threads.

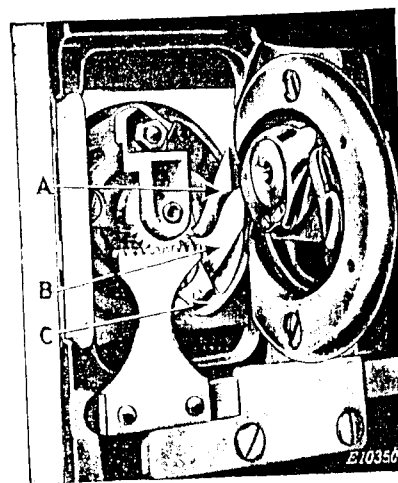


FIG. 4

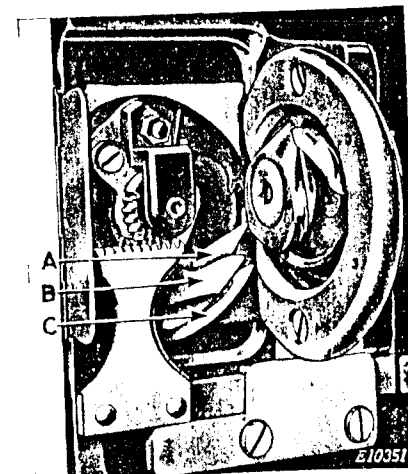


FIG. 5

After the first puncture of the goods by the needle, the knives are retracted to the position shown in Fig. 4, the barbed spring C, taking the loose end of the upper thread and holding it while three stitches are made, after which the parts are still further retracted to the position shown in Fig. 5, in which position they remain until moved forward for the succeeding cutting operation.

The knives must be kept sharp, the teeth in the knife holder pinion and the rack properly meshed together and the knife holder bracket firmly secured in place; at the final puncture of the needle before stopping, the knives should have moved forward and stopped in such position that a gentle pressure on the knife bar will cause the needle thread knife to clear the needle one thirty-second to one-sixteenth inch, so that the needle will not strike the knife in the last puncture.

This position is secured by means of adjustment provided for the knife bar. In machines of Class 69 the rear end of the bar is connected so that adjustment can readily be made; when the position is correct the time of the knives can be adjusted as fol-

lows: The shuttle thread knife must engage the thread about midway of the shield on the shuttle, where it will be sufficiently spread.

In machines of Class 69 the adjustments for the "feed across" motion and for the lateral position of the clamp are provided for by moving toward or from you the stud in the upper end of the upright lever near the back end of the clamp; the motion of the clamp lengthwise the bed plate is regulated by moving the feed regulating thumb screw up or down.