

# **SINGER**

## **86K60,K61**

# 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 A—Manufacturing Machine Oil, Light Grade**

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

**TYPE C—Manufacturing Machine Oil, Light 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:** The above oils are available in 1 quart and 1 gallon  
tins and 5 gallon drums.

**Ball Bearing Lubricant**

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

## INSTRUCTIONS

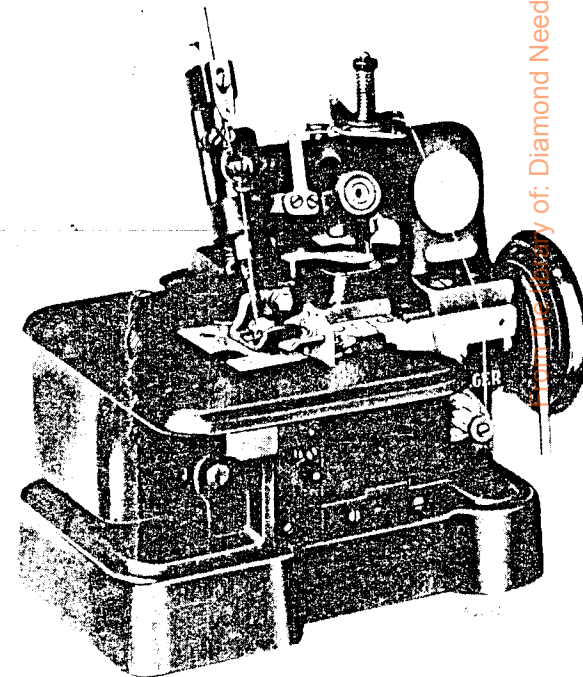
FOR USING AND ADJUSTING

# SINGER\*

## SEWING MACHINES

### 81K60 AND 81K61

### HIGH SPEED



Property of Diamond Needle Corp

THE SINGER MANUFACTURING COMPANY

## DESCRIPTION

MACHINES 81K60 and 81K61 are designed for overedging rugs, carpets, felt pads, blankets, etc. up to 5/16 inch in thickness. They can also be fitted for folding and overedging net laundry bags

### Fittings

The machines are regularly fitted for carpet work, unless otherwise ordered.

Machine	Work	Guide	Feed Dog	Presser Foot	Throat Plate
81K60	Carpets, Rugs, Blankets etc.	42238	132885	132744	132887
81K61	Carpets, Rugs, Blankets etc.	42238	137266	137269	137272
81K60 and 81K61	Folding Edges of Laundry Bags	121502	132885	132919	132887

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NOTE. The machines are regularly fitted for making the three-thread chain stitch but can be changed to make the two-thread chain stitch by substituting spreader 42250 for the right hand looper.

These machines are automatically oiled by means of a series of wicks which convey the oil from the reservoirs to the principal bearings.

### Speed

These machines can be driven up to a maximum speed of 3600 revolutions per minute.

From the library of Eastmond Needle Corp

## To Set Up the Machine

Line up the machine on the table so that the belt groove of the machine pulley is in line with the belt groove of the driving pulley.

**TO INSTALL BASE 132704:** By means of a template or other method, spot and drill five holes in the table before the base is fastened to the table. The diameters of these holes are  $\frac{3}{8}$ " for the three machine base bolts,  $\frac{3}{4}$ " for the machine base thumb screw, and  $1\frac{1}{4}$ " for the oil drain pipe.

Fasten the base to the table by means of the three bolts. Then screw the drain pipe, from the underside of the table, into the drain hole in the machine base.

Be sure the felt cushions are in place, including the centre cushion, then set the machine on the base. Place the spring and washer over the machine base thumb screw, put this screw through the centre hole in the base from the underside of the table, and securely tighten the screw.

**TO INSTALL LOWERED BASE 132705:** For the cut-out in the table, lay the base right side up on the table and outline the base with pencil. Cut the hole  $\frac{1}{8}$ " larger than the pencil outline so that the base will not touch the plank.

Remove the three screw pins from the base, and with a centre-punch, through the screw pin holes, make a spot mark for the centre of the bit. A bit  $\frac{5}{8}$ " diameter should be used and the three holes should be of such a depth that the three rubber cushions will extend  $\frac{1}{8}$ " above the top of the table. Replace the screw pins, and when placing the base in position, have each pin enter the hole in the centre

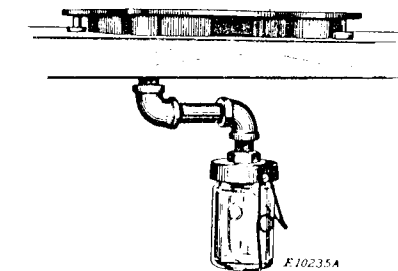


Fig. 3

of the rubber cushions as shown. Then press the base down until it rests on the cushions. The oil drain jar should be located out of the operator's way. Then fasten the machine to the base as instructed above.

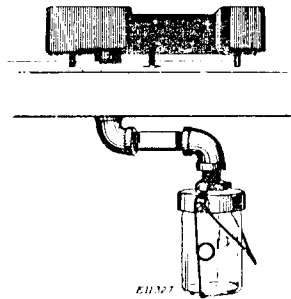


Fig. 2

## Oiling

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

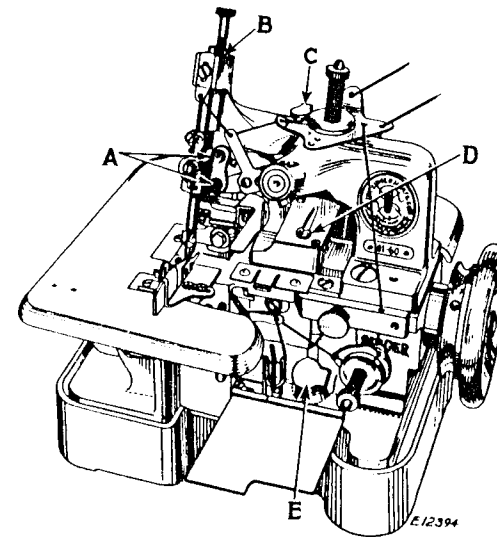


Fig. 4. Front View, Showing Oiling Points.

**Before Starting the Machine:** Apply oil to the hole (D, Fig.4) and oil cup (E, Fig.4) until the reservoirs are full. Fill the oil cup (C) at the top of the machine and thoroughly saturate the wick through the hole (B) in the casting near the top of the needle bar. Then oil the needle bar link connection (A) at the front of the machine. Also apply oil to the presser lever bearings (F, Fig.5) at the back of the machine.

**THEREAFTER,** replenish the oil supply in the reservoirs about once each day, or often enough to keep them filled. Twice a day apply oil to the remainder of the oiling points.

The surplus oil drips into the cast iron base and this oil should be occasionally drained by turning the tap which is provided in the base for this purpose.

**CAUTION:** A machine new from the factory, or one that has not been used for some time, should not be operated until about three hours after filling the reservoirs. Failure to heed this caution may result in serious damage to the mechanism of the machine.

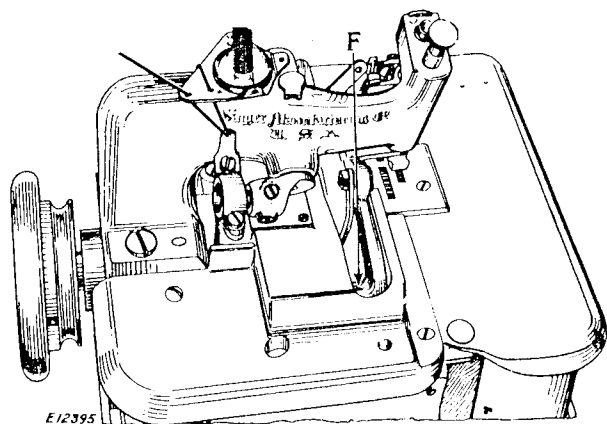


Fig. 5. Rear View, Showing Oiling Point

### Needles and Thread

These machines are regularly fitted with needles, Catalogue 1227 (75x53) size 23, for carpet work.

When fitted for overedging net laundry bags, needles, Catalogue 1230 (81x5) size 14 are used.

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 with difficulty through the needle eye, will interfere with the proper operation of the machine.

Orders for needles must specify the QUANTITY required, the SIZE number and also the Catalogue number.

The following is an example of an intelligible order:

"100 No. 23, Catalogue 1227 Needles."

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

### To Set the Needle

Loosen the clamping nut (G, Fig.6) at the lower end of the needle bar and put the needle up into the bar as far as it will go, with the clearance above the eye at the back, or farthest from you. Then tighten the clamping nut (G).

### Needle Threading

Pass the thread from the unwinder down through the hole (1) in the tension bracket, from back to front through the lower hole (2),

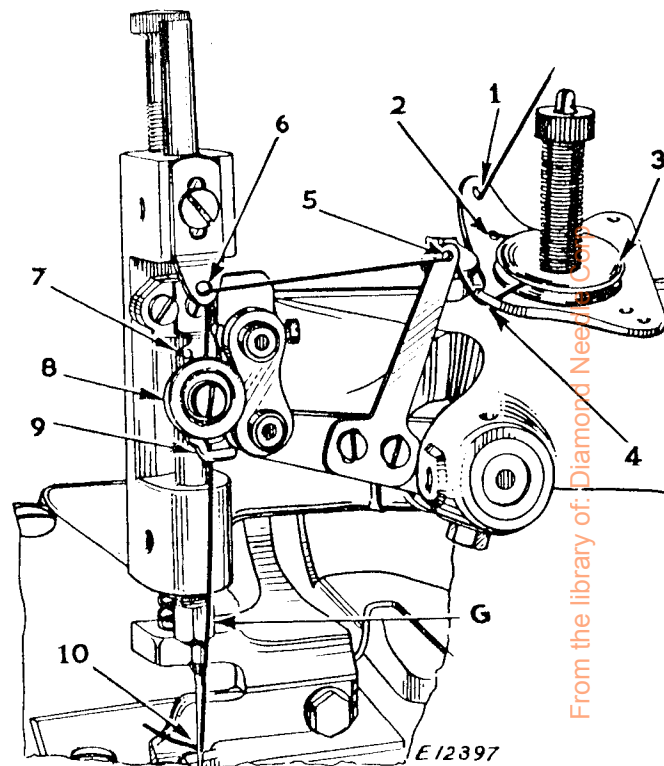


Fig. 6. Threading the Needle

around the front between the tension discs (3), through the hole (4), from back to front through the hole (5) in the take-up, and from front to back through the hole (6) in the needle thread eyelet, down to the right of the pin (7), around the left side between the retainer discs (8), down into the guide (9), and from front to back through the eye of the needle (10).

### To Thread the Left Hand Looper

(Operator at Front of Machine)

Pass the thread from the unwinder down through the hole (1, Fig.7) in the frame top cover, and from back to front through the

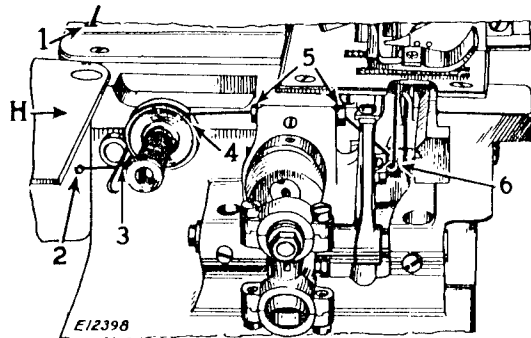


Fig. 7

hole (2) in the cloth plate extension. Swing cloth plate (H) to the left, then pass the thread up through the hole in the thread eyelet (3), over between the tension discs (4), and with the threading wire, supplied with the machine, draw the thread through the tube (5), down and from right to left through the thread guide (6, Figs.7 and 8), up and through the hole (7, Fig.8) in the heel of the left hand looper, and from front to back through the eye (8) of the left hand looper.

### To Thread the Right Hand Looper

(For Three-Thread Stitch)

Pass the thread from the unwinder, down through the hole (1, Fig.8) in the tension bracket, from back to front through the

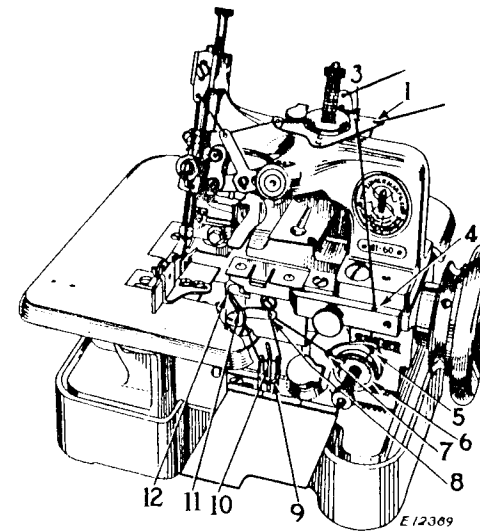
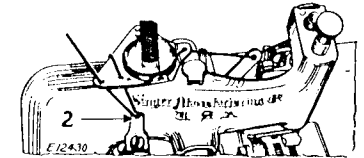


Fig. 8. Threading the Right Hand Looper

pull-off (2) at the back of the machine, up through the hole (3), down through the hole (4), through the hole (5), under between the tension discs (6), through the hole (7), from back to front through the take-up (8), down under the loop (9) of the staple then, with the forefinger, slide the thread up and over the prong (10), so that the thread rests in back of the prong, up and from back to front through the hole (11) in the heel of the right hand looper, and from front to back through the eye (12) of the right hand looper.



### To Regulate the Pressure on the Material

The pressure on the material is regulated by means of the thumb screw (J, Fig. 9). To increase the pressure, turn this thumb screw downwardly. To decrease the pressure, turn the thumb screw upwardly.

### To Regulate the Length of Stitch

The length of stitch is regulated by means of the adjusting screw (L, Fig. 9) in the feed eccentric. This screw faces directly outward.

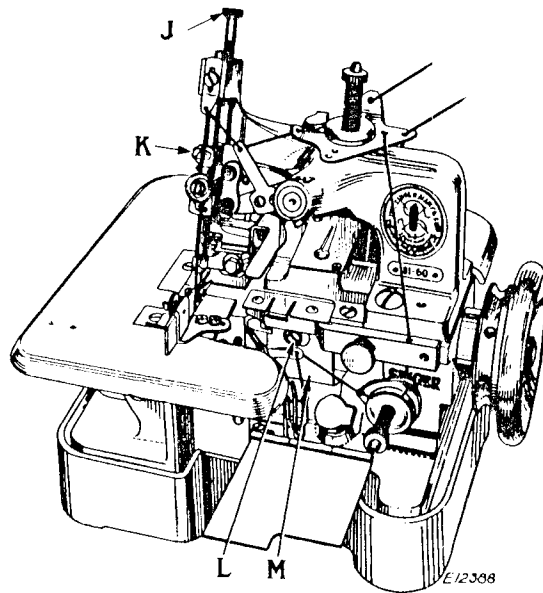


Fig. 9. Adjustments on the Machine

To change the length of stitch, turn the machine pulley until the lock screw in the feed eccentric appears in the hole of the cover (M, Fig. 9). This screw faces slightly downward. Loosen the lock screw. Then turn the machine pulley until the adjusting screw (L) is visible through the hole in the cover (M). Turn the adjusting screw (L) over to the right for a long stitch. Turn this screw over to the left for a short stitch. Then turn the machine pulley over until the lock screw appears and securely tighten this screw.

## INSTRUCTIONS FOR ADJUSTERS AND MACHINISTS

### To Set the Needle Bar at the Correct Height

Remove the throat plate in order to obtain a clear view of the needle and looper.

Now turn the machine pulley over from you until the needle bar has risen  $\frac{3}{32}$  inch from its lowest position. The point of the left hand looper, on its loop taking stroke, should then be at the centre of the needle, and the eye of the needle should be about  $\frac{1}{16}$  inch below the looper point. If the needle bar is not at the correct height, loosen the pinch screw (K, Fig. 9) and move the needle bar upward or downward as required, then securely tighten the pinch screw (K).

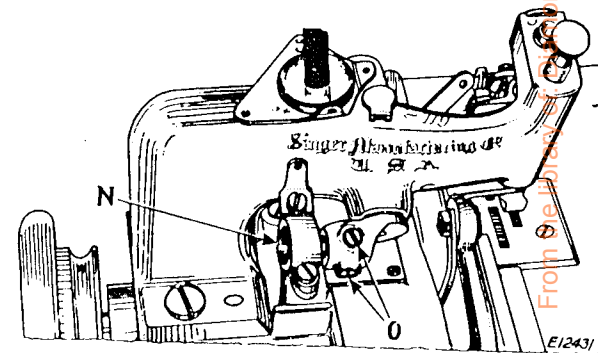


Fig. 10. To Change the Needle Bar Stroke

### To Change the Stroke of the Needle Bar

A variation in the amount of needle bar stroke can be obtained by adjusting the ball stud (N, Fig. 10). To lengthen the stroke, loosen the two set screws (O, Fig. 10) in the needle bar crank and move the ball stud inwardly or toward the crank. To shorten the stroke of the needle bar, move the ball stud outwardly or away from the crank, then securely tighten the set screws (O).

### To Set the Left Hand Looper

Turn the machine pulley over from you until the needle bar is in its lowest position. At this position, the looper point should be about  $1/32$  inch to the left of the needle. Now turn the machine pulley until the needle bar has risen  $3/32$  inch from its lowest position and the point of the looper should be at the centre of the needle. (Some threads and materials require more needle loop, in which case the looper point can be set  $1/16$  inch from the needle).

The left hand looper should be set in the looper carrier so that the point of the looper, on its loop-taking stroke, passes as close as possible to the needle without striking it. The point of the right hand looper or spreader should pass at the recess back of the left hand looper eye as close as possible without touching it.

### To Regulate the Looper Motion

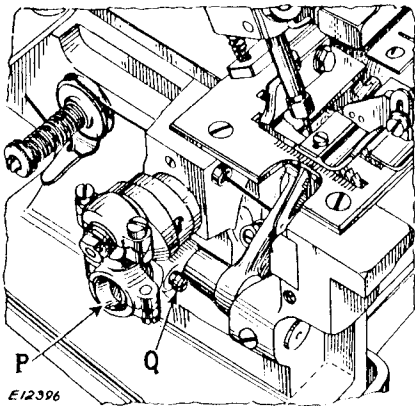


Fig. 11.

### To Set the Needle Guard

The needle guard should be set so that it just touches but does not bend the needle, nor interfere with the needle loop.

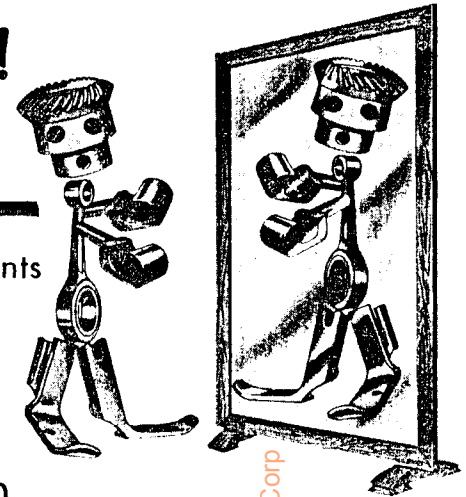
Note the small countersunk screw beneath the throat plate, directly in line with the needle, at the front of the machine. The end of this screw is screwed into the needle guard, and any upward or downward movement of this screw causes a similar movement of the needle guard. Therefore, to change the setting of the needle guard, loosen the countersunk screw and move it upward, closer to the needle, or downward, away from the needle. Then securely tighten the screw.

A variation in the amount of the looper motion can be obtained by adjusting the ball stud (P, Fig. 11). To increase this motion, loosen the set screw (Q) in the looper lever and move the ball stud (P) inward, or toward the looper lever. To decrease the motion, move the ball stud outward, or away from the looper lever.

After the desired motion has been obtained, securely tighten the set screw.

# The Same!

To get replacements that are the same as parts in new machines...



BUY PARTS AND  
NEEDLES MADE BY **SINGER**\*

TO BE DOUBLY SURE...

of new machine performance, make sure that all replacement parts and needles are precisely identical to those in new SINGER machines.

Look for the trademark

**SINGER** or **SIMANCO**

- ① on every package or container
- ② on the needle or numbered part

Needles in containers marked "For Singer Machines" are NOT made by SINGER.

TO ALL WHOM IT MAY CONCERN:

The improper placing or renewal of the Trademark "SINGER" or any other of the Trademarks of The Singer Manufacturing Company (all of which are duly Registered Trademarks) 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.