SINGER
114-21
USE ONLY 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 a stainless oil is desired, use:

**TYPE D** — MANUFACTURING MACHINE OIL, STAINLESS, HEAVY GRADE

**OTHER SINGER LUBRICANTS**

**TYPE E** — STAINLESS THREAD LUBRICANT
For lubricating the needle thread of sewing machines for stitching fabrics or leather where a stainless 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 or in 55 gallon drums.

**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.

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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

DESCRIPTION

Machine 114-21 makes the single thread chain stitch and is especially designed for automatically tacking bands and bows on soft felt or straw hats. Each tack consists of six stitches, including one fastening stitch, and the machine is readily adjusted to make tacks up to $\frac{1}{4}$ inch in length.

To Set Up the Machine

Machine 114-21 is set so that its face plate is nearest the operator, as shown below.

Fig 2. Machine 114-21 Set Up on Power Table
A hinged base plate is furnished with each machine. Fasten this plate to the top of the table with the front portion of the plate flush with the front edge of the front table plank, as shown in Fig. 2. Then firmly fasten the machine to the hinged base plate by means of four screws.

An oblong belt hole, as shown in Fig. 3, should be bored in the table directly below the machine driving pulley, and the belt guide (A, Fig. 3) fastened to the underside of the table, as illustrated above. The machine belt should then be passed around the driving pulley of the machine, around the two belt guide pulleys and around the large pulley on the driving shaft below.

Two treadles are furnished with each machine, one for raising and lowering the presser foot and the other for starting the machine. Fasten the treadles to the floor, as shown in Fig. 2, page 3, and connect the pitmans to the inside edge of each treadle.

A hole should be bored in the table for the chain to connect the left treadle with the lever (N, Fig. 6, page 9) for lifting the presser feet.

The pitman connecting the right treadle with the starting lever (F, Fig. 5, page 8) should be passed through the belt hole in the table, as shown in Fig. 3, page 4.

**Speed**

The maximum speed recommended for Machine 114-21 is 600 stitches per minute. When the machine is in operation, the driving pulley on the machine should always turn over toward the right.

**Needles and Thread**

Needles for Machine 114-21 are of Class and Variety 108 x 1 and are made in sizes 14, 16, 18 and 19.

The size of the needle to be used should be determined by the class of material to be sewn and 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 an x.

The following is an example of an intelligible order:

"100 No. 16, 108 x 1 Needles"

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

**To Set the Needle**

Loosen the set screw in the lever end of the needle bar and put the needle up into the bar as far as it will go, with its long groove toward you and the eye of the needle directly in line with the arm of the machine, then tighten the set screw.
To Thread the Needle

(See Figs. 2 and 4)

Pass the thread from the spool on the thread unwinder into the wire guide (1, Fig. 2, page 3) at the top of the unwinder, into

the hole (2, Fig. 4) in the thread nipper bracket on top of the machine, around the left and between the thread nipper discs (3), into the eyelet (4), into the wire thread guide (5), over between the tension discs (6), through the slot (7), under the thread controller spring, toward you over the thread take-up roller (8) at the top of the needle bar, down into the thread guide (9) at the front of the face plate, around the left side into the thread retainer (10), down through the thread guide (11), around the left side into the thread retainer (12), down through the thread guide (13), through the hole (14) at the lower end of the needle bar and from front to back through the eye of the needle (15). Draw about two inches of thread through the eye of the needle with which to commence sewing.

To Adjust the Hat Guide

Loosen the screw (M, Fig. 5, page 8) and slide the hat guide (L, Fig. 5) away from you or toward you as desired, then tighten the screw (M). When desired, the hat guide can be swung aside out of the way.

To Lower the Hat Support

The hat support (G, Fig. 5, page 8) is hinged so that it can be turned down out of the way when desired. To lower the hat support, push back the lock (H, Fig. 5) and swing the hat support downwardly.

To Regulate the Pressure on the Presser Feet

The pressure on the presser feet is regulated by the thumb screw (C, Fig. 5, page 8) and lock nut (D, Fig. 5). To increase the pressure on the presser feet, loosen the lock nut (D) and turn the thumb screw (C) over to the right or downwardly. To decrease the pressure, turn this thumb screw over to the left or upwardly. When the required pressure on the presser feet is obtained, firmly tighten the lock nut (D, Fig. 5).

To enable the operator to have a clear view of the work when it is in the machine, either one or both of the presser feet can be turned up out of the way as desired.

To Regulate the Length of Tack

The length of tack is controlled by the throw or amount of travel of the clamp lengthwise the bed of the machine. To increase the length of the tack, loosen the thumb screw (K, Fig. 5) and increase the throw of the clamp by moving the sliding block (J, Fig. 5) downwardly in the upright slot of the feed regulator. To decrease the length of the tack, decrease the throw of the clamp by moving the sliding block (J) upwardly. When the sliding block is at its highest point in the slot, there will be no movement of the clamp. When the desired throw of the clamp is obtained, firmly tighten the thumb screw (K, Fig. 5).


To Regulate the Tension

The tension should be as tight as possible without breaking the thread. To increase the tension on the thread, turn the thumb nut (B, Fig. 5) over from you. To decrease the tension on the thread, turn this thumb nut over toward you.

The thread nipper (E, Fig. 5) is automatic and requires no adjustment.

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 at the places shown by arrows in Figs. 5, 6, 7 and 8.

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

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**FIG. 5. OILING POINTS AT THE RIGHT OF THE MACHINE**

B. Thumb Nut for Regulating Tension on Thread
C. Thumb Screw for Regulating Pressure on the Presser Feet
D. Thumb Nut for Locking Thumb Screw (C) in Position
E. Automatic Thread Nipper
F. Lever for Starting the Machine
G. Hat Support
H. Lock for Hat Support (G)
J. Sliding Block for Regulating Length of Tack
K. Thumb Screw for Holding Sliding Block (J) in Position
L. Hat Guide
M. Screw for Holding Hat Guide (L) in Position

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**FIG. 6. OILING POINTS AT THE LEFT OF THE MACHINE**

Also Adjustment on the Machine

N. Lever for Raising and Lowering the Presser Feet

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**FIG. 7. OILING POINTS AT END OF THE MACHINE**

Take out the screw at the upper end of the face plate, remove the face plate and oil the places shown in Fig. 7.
To reach the parts underneath the bed of the machine, take out the two front screws in the machine base, then turn the machine back on its hinges and remove the cover on the underside of the cylinder. The place to be oiled is indicated by the arrow in Fig. 8.

**NOTICE TO OPERATOR**

*NEVER REST FOOT ON STARTING TREADLE.* As soon as machine is "tripped" this treadle must be completely released in order to operate efficiently. Failure to observe this caution may result in severe damage to machine.