SINGER
32-64

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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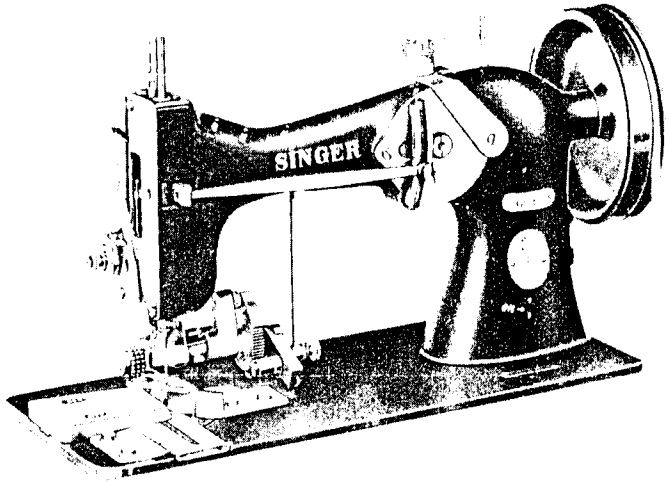
INSTRUCTIONS

FOR USING AND ADJUSTING SINGER*

32-64



FOR SERGING AND ATTACHING BINDING TO CARPETS

* A TRADE MARK OF

THE SINGER MANUFACTURING CO.

DESCRIPTION

SINGER 32-64 Zigzag Lock Stitch Machine has a vibrating needle and an oscillating shuttle, and is especially designed for serging and attaching binding to carpets in one operation.

This machine is equipped with upper wheel feed; also with special guides to provide for various depths of bight and to conform to various thicknesses of carpets. Tape up to 2 inches in width can be handled.

Speed

The maximum speed recommended for Machine 32-64 is 1200 stitches per minute, depending upon the nature of the material being sewn.

The machine should be operated at less 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.

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.

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

To Oil the Machine

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

To insure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling. When in continuous use, the machine should be oiled twice daily.

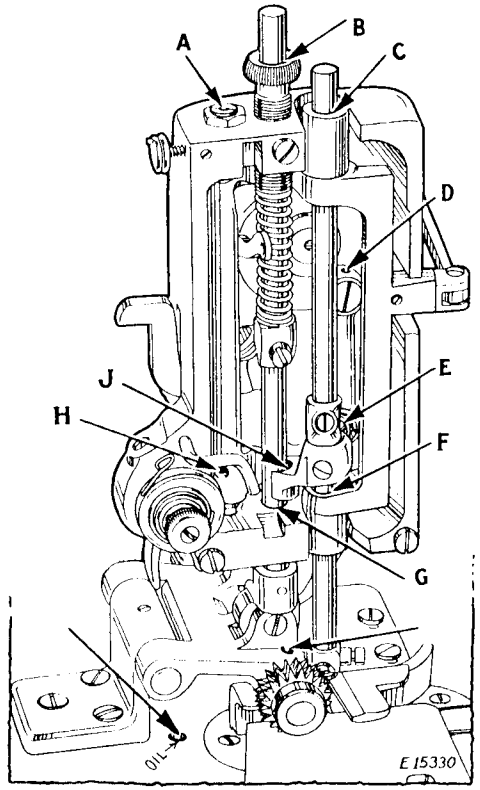


Fig. 2. Oiling Points at the Face (Left Hand End) of Machine

Remove the three screws (K,Fig.3) and remove the face plate.

Apply a drop or two of oil at (A,Fig.2) for the upper end of the needle bar frame; at (B) where the presser bar is in contact with the upper bushing; at (C) where the needle bar passes through the upper bushing; to the oil hole at (D) at the upper end of the needle bar connecting link; at (E) where the lower end of the needle bar link is attached to the needle bar connecting stud; at (F) where the needle bar passes through the lower bushing; at (G) where the lower end of the presser bar passes through the machine casting; to the oil hole (H) at the lower end of the needle bar frame, and at (J) where the fork of the needle bar connecting stud slides on the presser bar.

Also apply a drop or two of oil at each of the other oil holes indicated by the unlettered arrows in Figs. 2, 3 and 4.

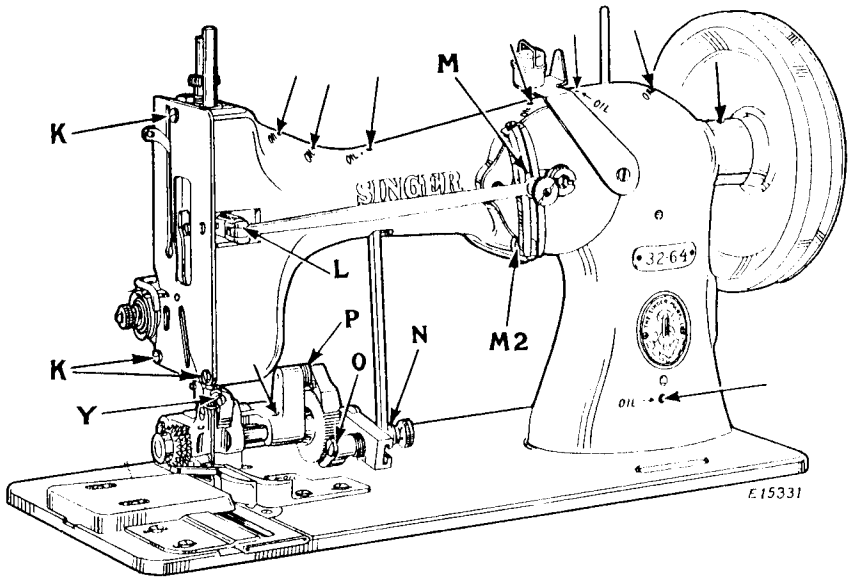


Fig. 3. Oiling Points at Front of Machine

Apply a drop of oil at (L,Fig.3) for the hinge screw at the left hand end of the needle bar frame pitman; at (M) where the sliding block, at the right hand end of the pitman, slides in the groove of the needle bar frame regulator; at (M2) for the hinge at the lower end of the needle bar frame regulator; at the hinge screw (N) at the lower end of the feed connecting rod; at (O) the feed ratchet pawl hinge screw, and at (P) the feed ratchet retaining pawl hinge screw.

Apply a few drops of oil at (F3,Fig.4) for the felt oil pad in back of the shuttle race for lubricating the bobbin thread and shuttle race.

Occasionally apply a drop of oil at (Q,Fig.4, page 5) where the lower end of the presser bar is joined to the feed wheel frame; at (R) where the frame is connected to its bracket, and at (S) at the side of the ratchet wheel.

NOTE - Be sure to wipe off any excess of oil - to prevent soiling of the work.

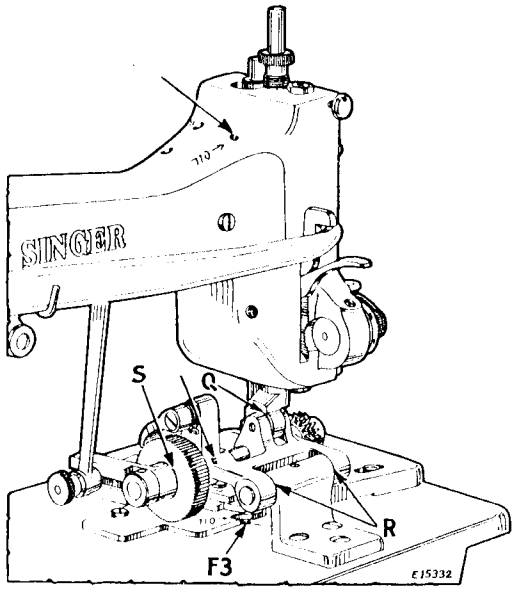


Fig. 4. Oiling Points at Rear of Machine

To reach the parts at the under side of the machine bed, lay the machine back on its rear side and apply a drop or two of oil

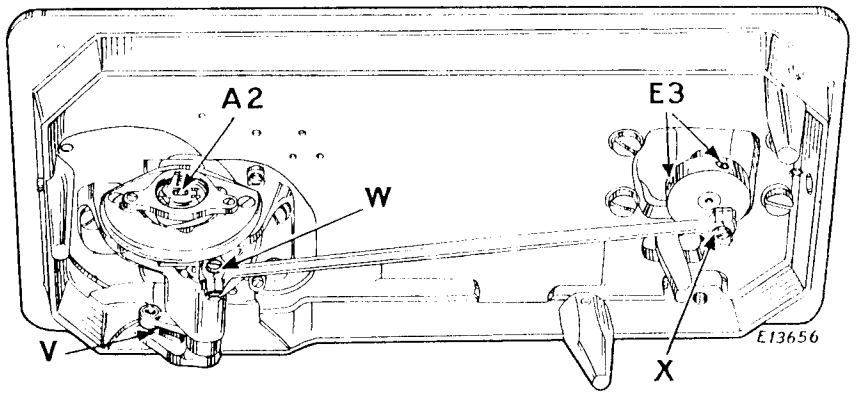


Fig. 5. Oiling Points at the Under Side of Machine Bed

at (V,Fig.5) where the roller of the oscillating shaft crank moves in the oscillating rock shaft fork; to the head of the ball joint screw at (W) at the left hand end of the shuttle pitman, and at (X) to the head of the ball joint screw at the right hand end of the shuttle pitman.

Needles and Thread

Needles for Machine 32-64 are of Class and Variety 16 x 263 and are made in the following sizes:

21, 22, 23 and 24

The size of the needle to be used is determined by the size of the thread which must pass freely through the needle eye. The use of rough or uneven thread, or thread which passes with difficulty through the eye of the needle, will interfere 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. 22 16x263 Needles"

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

To Set the Needle

Turn the balance wheel over toward you until the needle bar is at its highest position; loosen the set screw (Y,Fig.3), in the needle clamp at the lower end of the needle bar, and insert the needle up into the clamp as far as it will go and with the long groove of the needle toward you, then tighten the set screw (Y).

Upper Threading

Pass the thread from the unwinder from right to left through the upper hole (1) in the spool pin, around and from right to left through the lower hole (2) in the spool pin, then through the eye (3), through slot (4), under spring (5) and out through slot (6) of the oil cup, into the thread retainer (7), down and from back to front around, under and between the tension discs (8), into the wire take-up spring (9), under the take-up spring

staple (10), up and from back to front through the eye (11) of the take-up lever, down into the opening of the face plate (12),

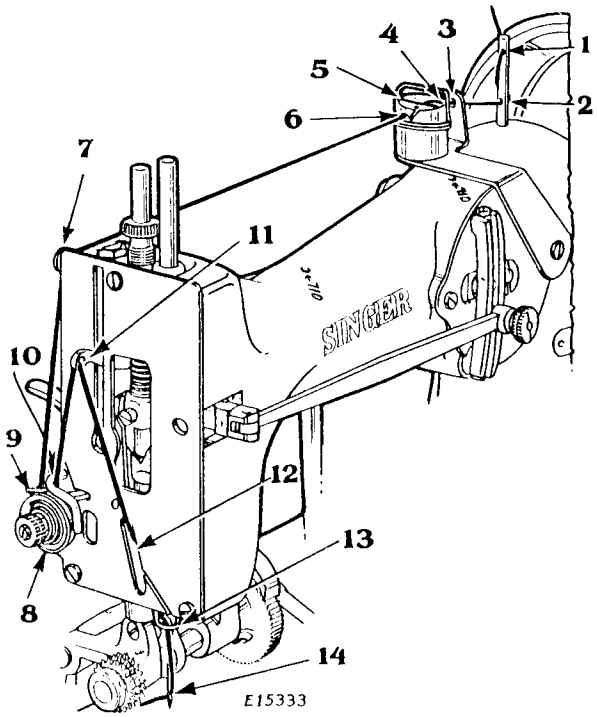


Fig. 6. Threading the Needle

into the guide (13) at the lower end of the needle bar, then from front to back through the eye (14) of the needle.

Draw about two inches of thread through the eye of the needle with which to commence sewing.

To Remove the Bobbin

Lay the machine back on its hinges; turn the balance wheel over toward you until the needle bar moves up to its highest position. Lift the left hand end of the latch on the front of the bobbin case and withdraw 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.

To Wind the Bobbin

(See Fig. 7)

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.

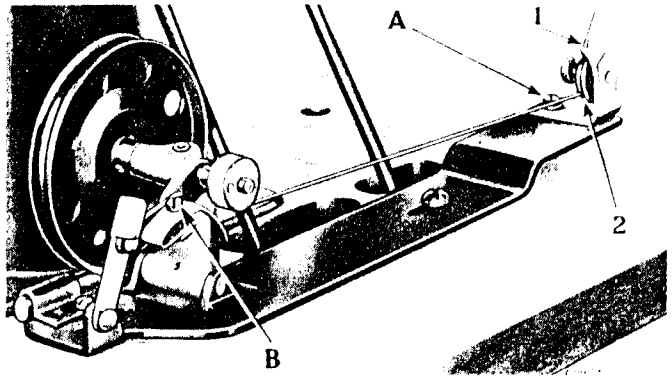


Fig. 7. Winding the Bobbin

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 of, 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 this screw outwardly.

Bobbins can be wound while the machine is stitching.

To Thread the Bobbin Case

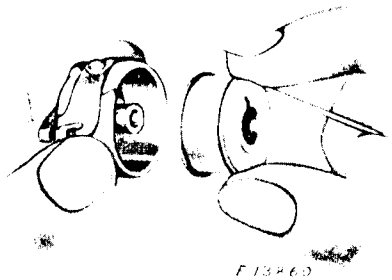


Fig. 8.

Hold the bobbin between the thumb and forefinger of the right hand, as shown in Fig.8, the thread drawing on the top from the left toward the right.

With the left hand, hold the bobbin case as shown in Fig.9, the slot in the edge being near the top, and place the bobbin into it.

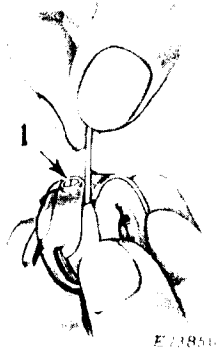


Fig. 9.

Fig. 10.

Then pull the thread into the slot in the edge of the bobbin case as shown in Fig.9; draw the thread under the tension spring and into the delivery eye at the end of the tension spring. (See Fig.10).

To Replace the Bobbin Case

After threading, take the bobbin case by the latch and place it on the center stud (A2, Fig.5, page 5) of the bobbin case holder, release the latch and press the bobbin case back until the latch catches the groove near the end of the stud, and the position finger enters the slot at the top of the shuttle race. Allow about two inches of thread to hang free with which to commence sewing.

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 position 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 feeding mechanism.

To Commence Sewing

With the presser bar raised, put the binding in the tape guide and place a scrap piece of carpet in the carpet guide,

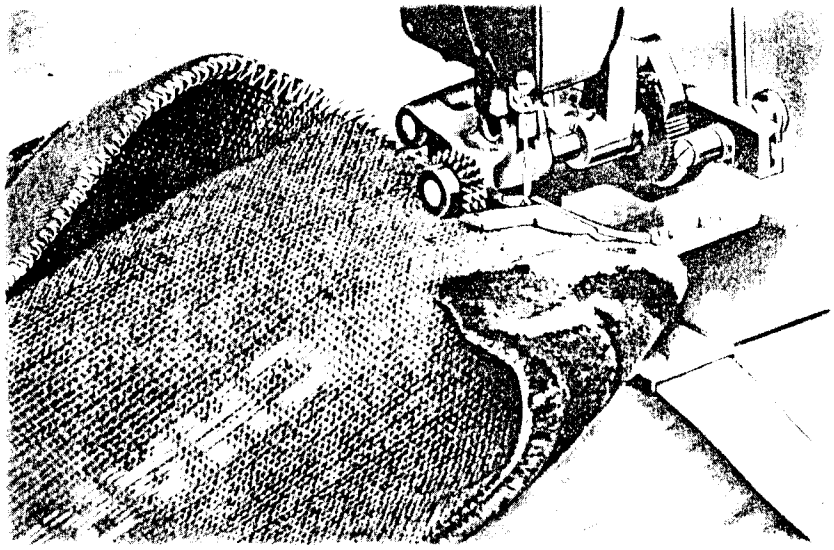


Fig. 11. Serging and Attaching Binding in One Operation

lower the presser bar and commence stitching the scrap piece to the tape. As the scrap piece is stitched and passes from the

carpet guide, insert the carpet in the carpet guide in such manner as to insure that the stitching will continue uninterrupted from the scrap piece onto the carpet. This method insures that

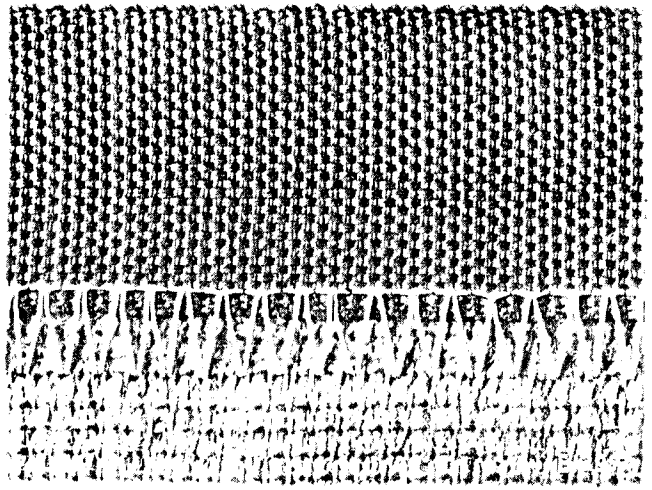


Fig. 12. Reverse Side of Carpet - Showing, in detail, the Zigzag Lock Stitching by which Binding is Attached to Carpet

the stitching of the tape to the carpet will begin at the very edge of the carpet. This method of starting the stitching also

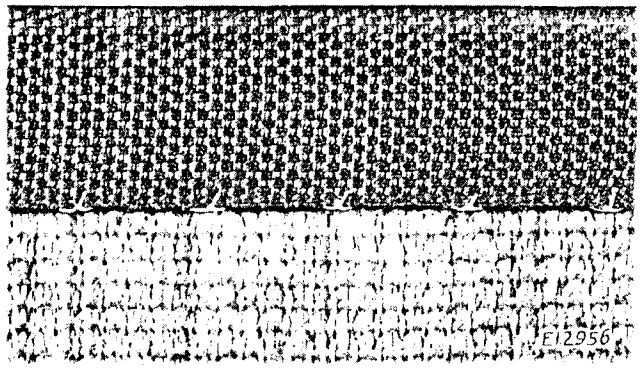


Fig. 13. Binding Turned Back and Stitched, by Hand, to the Under Side of the Carpet (Work Completed)

prevents damage to the work plate and to the teeth of the upper wheel feed. After the stitching is completed, as shown in Fig. 12, the binding is turned back smoothly and evenly onto the under

side (the reverse side) of the carpet and then, by hand, stitched to the under side of the carpet as shown in Fig.13 on page 11.

The right side (the upper side) of the carpet and binding is shown in Fig. 14, below.

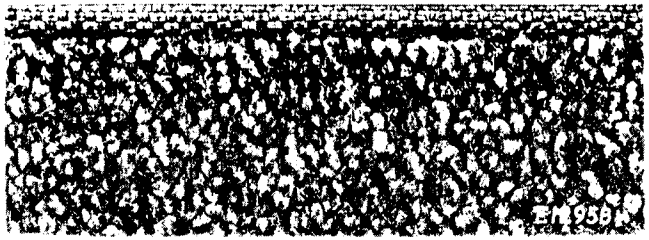


Fig. 14. Right (Upper) Side of Carpet
Showing Binding Properly Attached

When the binding is properly attached, as shown in Figs. 11 to 14, inclusive, no stitching is visible at the upper side of the completed work. See Fig. 14.

NOTE - If preferred, prepared (adhesive) tape can be used instead of the tape shown in these illustrations. In such case the tape is pasted back to the under side of the carpet instead of being stitched back as shown in Fig. 13.

To Remove the Work

With the needle at its highest position, raise the presser bar, then draw the work back and cut the threads close to the goods.

Tensions

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

Fig. 15. 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. 16. 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 surface of the material, thus:

Fig. 17. Loose Needle Thread Tension

To Regulate the Tensions

The tension on the needle thread should be regulated only when the presser bar is down. Having lowered the presser bar, turn the small thumb nut (C2,Fig.18, page 14), at the front of the tension discs, over toward the front side of the machine to increase the tension. To decrease the tension, turn this thumb nut over toward the rear side of the machine.

The tension on the bobbin thread is regulated by the larger screw (1,Fig.9, page 9) in the tension spring on the outside of the bobbin case. To increase the tension, turn this screw over toward the right. To decrease the tension, turn this screw over toward the left.

To Regulate the Pressure on the Material

The pressure on the material is regulated by the thumb screw (B2,Fig.18). To increase the pressure, turn this thumb screw down. To decrease the pressure, turn this thumb screw up.

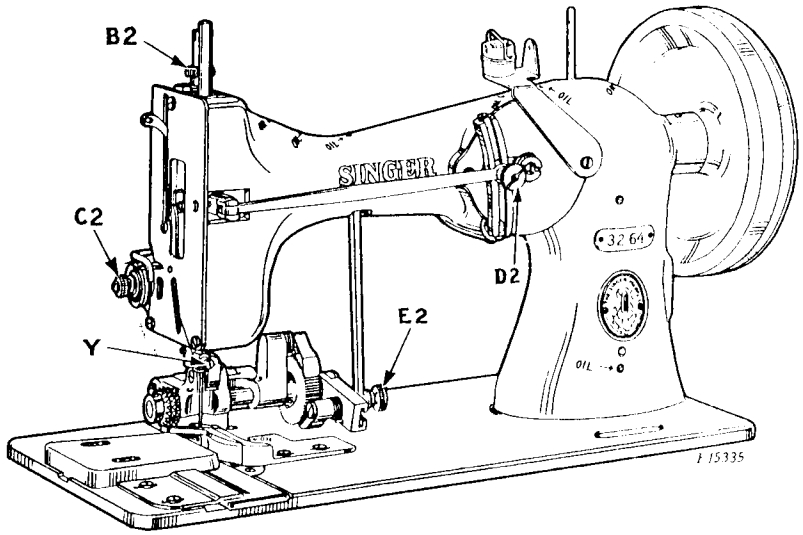


Fig. 18. Adjustments at Front of Machine

To Regulate the Depth of Bight

Loosen the thumb nut (D2,Fig.18) and move it downward for a shorter bight, or move this thumb nut upward for greater bight, then tighten the thumb nut (D2).

To Regulate the Length of Stitch

Stitch length is controlled entirely by the upper feeding mechanism. To lengthen the stitch, loosen the thumb nut (E2, Fig.18) and move it backward (away from the operator). To shorten the stitch, move the thumb nut forward (toward the operator), then tighten the thumb nut (E2).

INSTRUCTIONS

FOR

ADJUSTERS AND MACHINISTS

To Set the Needle Bar at the Correct Height

Set the needle bar frame pitman clamp (D2,Fig.20,page 18) in its lowest position so that there is no vibration of the needle

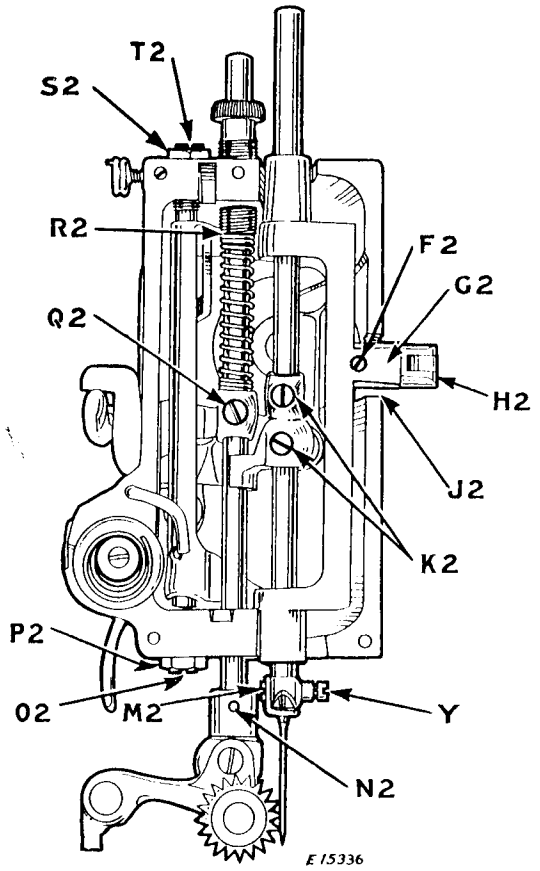


Fig. 19. Adjustments at Face of Machine

bar frame, the needle bar then being in non-vibrating position. Turn the balance wheel over toward you until the point of the shuttle, on the loop-taking stroke, is at the center of the needle; the center of the eye of the needle should then be about 1/16 inch below the point of the shuttle.

If the needle bar is not set at the correct height, loosen the set screws (K2,Fig.19) in the needle bar connecting stud and raise or lower the needle bar as may be required, then securely tighten the set screws (K2).

To Set the Wheel Feed at Correct Height

Before the machine leaves the factory, the wheel feed is set at correct height for positive feeding of the work and, in general, there should be no necessity for readjustment. However, should a change in the setting later become advisable, loosen the set screw (Q2,Fig.19) and move the presser bar up or down until the desired clearance, beneath the wheel feed, is obtained, then tighten the set screw (Q2).

To Remove and Replace the Needle Bar Frame

TO REMOVE THE NEEDLE BAR FRAME, disconnect the presser bar by driving the pin (N2,Fig.19) out from the left hand side of the frame connection, then loosen the presser bar lifting bracket set screw (Q2) and remove the presser bar. Loosen the screws (Y and M2) in the needle clamp, and remove the needle and needle clamp. Loosen the needle bar set screws (K2) and remove the needle bar. Loosen the set screw (F2) and, after removing the thumb nut (D2, Fig.20,page 18), remove the stud (H2,Fig.19) by withdrawing it toward the front side of the machine; loosen the two lock nuts (S2 and P2) and loosen the two needle bar frame screw centers (T2 and O2), then remove the needle bar frame.

TO REPLACE THE NEEDLE BAR FRAME, place the needle bar frame in position and tighten the upper and lower screw centers (T2 and O2,Fig.19) being sure to have the stud projection (G2) in the center of the slot (J2). NOTE - Do not have the screw centers too tight, as this would bind the needle bar frame. When these screw centers are correctly adjusted, tighten the lock nuts (S2) and (P2).

Replace the presser bar, making certain that the little washer (R2) is between the presser bar spring and the pressure regulating thumb screw. Attach the feeding mechanism by means of the pin (N2), lower the presser bar lifter and, when the presser bar is set to give the required clearance beneath the wheel feed, tighten the feed lifting bracket set screw (Q2). Place the forked portion of the needle bar connecting stud in engagement with the presser bar and place the ball end of the connecting stud into the needle bar link. Replace the needle bar and set it for correct height as instructed on page 16, then tighten the screws (K2).

Replace the needle clamp and needle, and tighten the screws (M2 and Y).

Replace the pitman stud (H2) and tighten the set screw (F2), and replace the thumb nut (D2,Fig.20, page 18).

To Remove and Replace the Needle Bar Frame Cam

Remove the back cover plate, and mark the gears (A3 and B3, Fig.21) by punch marking one of the teeth of the gear (A3) and the space of the gear (B3) in which the marked tooth meshes.

TO REMOVE THE NEEDLE BAR FRAME CAM, remove the stop screw (U2,Fig.20) at the top of the regulator, lift the needle bar

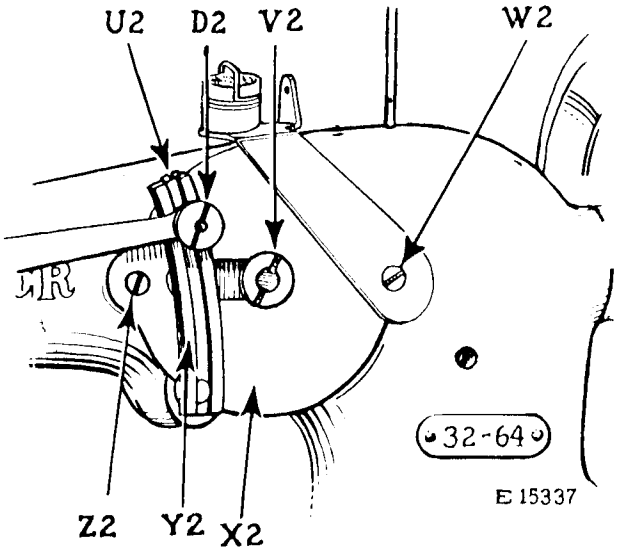


Fig. 20.

frame pitman clamp (D2,Fig.20) out of the regulator slot (Y2,Fig. 20), loosen the set screw (C3,Fig.21) in the regulator shaft collar at the back of the machine and remove the collar, remove the regulator and shaft by drawing it toward the front. Remove the two screws (W2 and Z2,Fig.20) holding the cover plate (X2, Fig.20) in position, and remove the cover plate thus exposing the needle bar frame cam. Remove the cam fastening screw (V2,Fig.20) and remove the cam by drawing it toward the front.

TO REPLACE THE NEEDLE BAR FRAME CAM, place the cam in position and firmly tighten its fastening screw (V2). Replace the cover plate and firmly tighten it in position. Replace the regulator and regulator shaft, also the regulator shaft collar, then securely tighten the shaft collar set screw (C3,Fig.21). Replace the needle bar frame pitman clamp in the slot of the regulator, and replace the stop screw (U2) at the top of the regulator.

To Time the Vibrating Motion of the Needle

Remove the back cover plate by removing the thumb screw and fastening screw, at the back of the machine, which hold the cover plate in place.

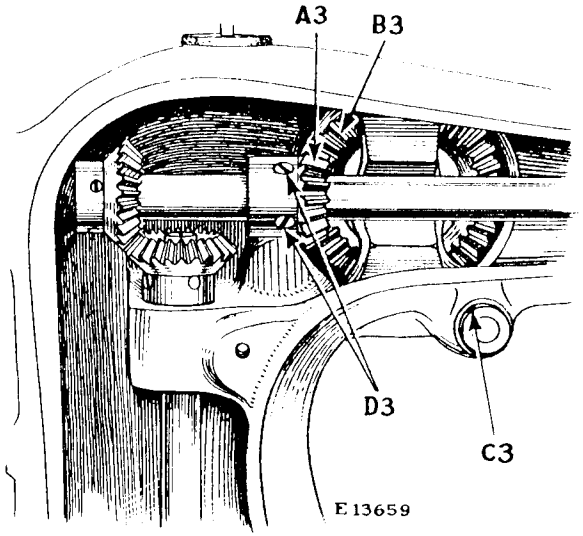


Fig. 21.

Loosen the two screws (D3, Fig.21) in the cam gear, and turn the gear on the shaft until the vibrating motion of the needle bar starts immediately after the needle leaves the goods and finishes before the needle bar commences its downward stroke, so that the needle enters the goods in a straight line. After the cam is set in the correct position, securely tighten its two set screws (D3).

To Time the Feed

The feed should be timed so that it starts its feeding movement just before the needle reaches its highest position, and should finish its feeding movement just before the needle enters the goods on its downward stroke.

To time the feed, loosen the two set screws (E3,Fig.5, page 5) in the feed cam and turn the cam on the shaft until the above condition prevails, then securely tighten the two set screws in the cam.

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