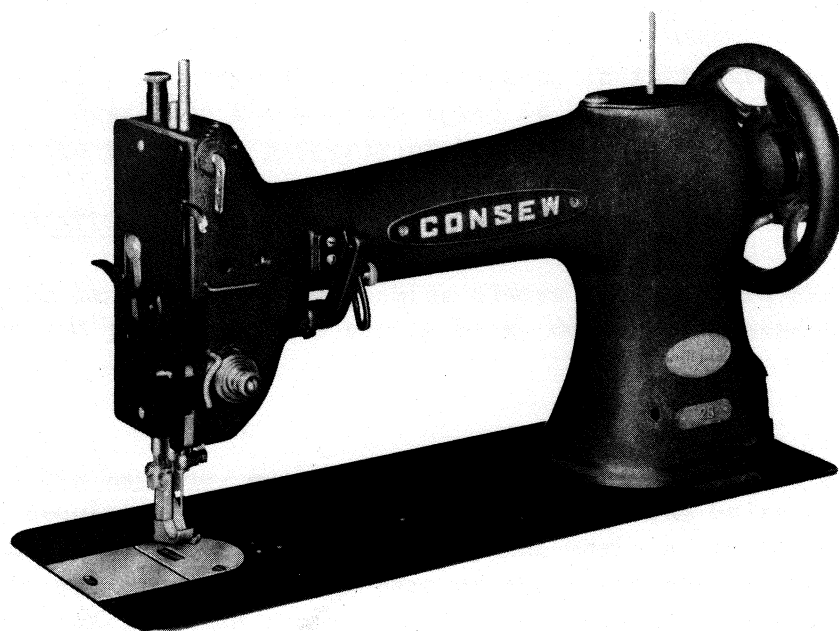


OPERATING INSTRUCTIONS

FOR

CONSEW



MODEL

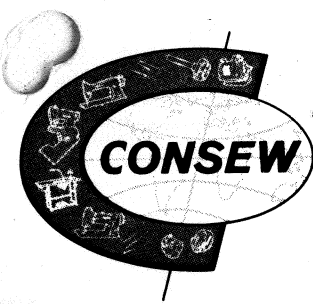
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SEWING MACHINE

CONSOLIDATED SEWING MACHINE



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OPERATING INSTRUCTIONS CONSEW MODEL 28

SETTING UP THE MACHINE

Carefully unpack machine from packing case and make sure that all small parts and accessories are removed from packing material.

Wipe machine clean of protective grease and lubricate oil holes with a good grade of sewing machine oil (see below).

CAPACITY AND SPEED

Maximum operating speed after a break-in period is 16000 stitches per minute depending, of course, on the type of material being sewn, its thickness and that of the seams being crossed.

To assure durability and trouble free operation, it is imperative that for the first several weeks of operation the maximum speed is held to not more than 1200 RPM in order to allow the parts to become properly broken in.

DIRECTION OF ROTATION

In operation, the handwheel of the machine always turns toward the operator. To avoid tangled threads and jamming of the sewing hook, do not turn handwheel otherwise.

OILING

Do not operate the machine, even if only for testing, unless it has been properly oiled at every spot requiring lubrication. These spots are the holes at the arm and bed of the machine which are identified with red paint markers. In addition, place one or two drops of oil at all places where one part of the machine is in movable contact with another. Occasionally, also remove the face plate, remove the accumulated lint from the mechanism and distribute oil thoroughly, but in small quantities to all moving parts.

Also swing back the arm top cover, located to the left of the handwheel, and lubricate the bearing of the connecting rod on the main shaft. Turn machine head back on its hinges and lubricate the left hand shuttle shaft bearing as well as the sliding block connected to the crank at the right end of the shuttle shaft.

Oiling must be done at least twice daily when the machine is in continuous operation to assure free running and durability of the operating parts.

NOTE: During the break-in period a new machine should be oiled more frequently.

NEEDLES

The machine uses needle style 29 x 3 (Cat. 3741) in sizes 9 through 24. Needle style 135 x 17 (cat. 3355) can likewise be employed. The size of the needle should be determined by the size of the thread, which must pass freely through the eye of the needle.

THREAD

Use only LEFT twist thread for the needle. For the bobbin either left or right twist thread may be used.

SETTING THE NEEDLE

Turn handwheel toward you until needle bar has reached its highest point. Loosen the needle clamp screw, remove old needle and insert a new one into its place. Push needle upward into needle clamp as far as it will go. Be sure long groove of needle is to the left and the eye of the needle aligned with the arm of the machine. Be sure to tighten needle clamp screw to prevent needle from slipping or turning.

THREADING THE NEEDLE

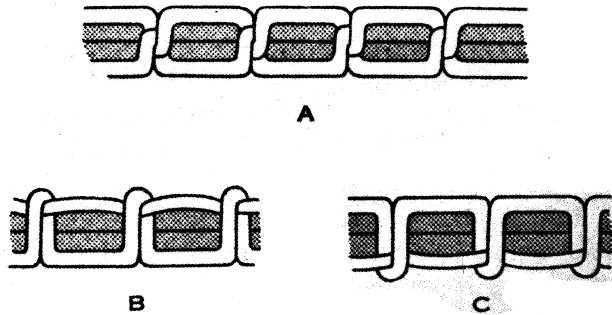
To thread the machine, follow the points in the order in which they are numbered.

- (1) Pass the thread through the hole in the spool pin on top of the machine arm cover.
- (2) From right to left through the top hole of the thread retainer with the three holes.
- (3) From left to right through the bottom hole of this thread retainer.
- (4) Down between the tensions discs, with the thread running from right to left under the tension controller stud.
- (5) Over the hook of the thread take-up spring.
- (6) Under the slack thread regulator.
- (7) Up and from right to left through the hole in the end of the thread take-up lever.
- (8) Down through the eyelet on the faceplate.
- (9) Down through the eyelet on the needle bar thread guard.
- (10) From left to right through the eye of the needle. Leave about 4 inches of thread through the eye of the needle.

THREAD TENSIONS

a. Correct Tension. For ordinary stitching, the bobbin and needle threads should be locked in the center of the thickness of the material, as illustrated in A, Figure 1. If the tension on the needle thread is too tight, or if that on the bobbin thread is too loose, the needle thread will be straight along the upper surface of the material, as illustrated in B, figure 1. If the tension of the bobbin thread is too tight, or if that on the needle thread is too loose, the bobbin thread will be straight along the under side of the material, as illustrated in C, figure 1. If both threads are too tight, the material will be puckered and drawn together by the stitches, and the threads will break.

b. Bobbin Thread Tension. The tension on the bobbin thread is regulated by the bobbin case tension spring. To increase the tension, turn the screw to the right. To decrease the tension, turn the screw to the left. When the tension on the bobbin thread has been properly adjusted, it is seldom necessary to change it, because a correct stitch can usually be obtained by varying the tension on the needle thread.



- A. Perfect stitch.
- B. Tight needle thread tension.
- C. Loose needle thread tension.

Figure 1. Effect of tension on stitch.

c. Needle Thread Tension. The tension on the needle thread is controlled by the tension regulating thumb nut on the tension controller. To change the needle thread tension, proceed as follows:

- (1) Lower the presser foot so that it rests upon throat plate. The tension discs, if correctly adjusted, will then be closed. The tension should be regulated only when the presser foot is down.
- (2) To increase the tension, turn the thumb nut to the right. To decrease the tension, turn the thumb nut to the left.

REMOVING BOBBIN

- a. Turn the balance wheel toward you until the needle moves up to its highest point.
- b. Draw out the slide (view plate) in the bed of the machine.
- c. Reach under the stand top. With the thumb and forefinger of the left hand, open the latch on the bobbin case and, holding the bobbin case by the latch, lift it to the left and out of the shuttle race.
- d. As long as the latch is held open, a sliding lug inside the bobbin case holds the bobbin inside the case. When the bobbin case is turned open-side down, and the latch is released, the bobbin will drop out. Do not try to force the bobbin out of the case while the latch is open.

WINDING BOBBIN

To wind thread on bobbin, proceed as follows:

- a. Place the bobbin on the bobbin winder spindle and push it on as far as it will go.
- b. Pass the thread from the bobbin thread cone on the thread stand down through the thread hole in the tension bracket and down between the bobbin winder tension discs.
- c. Pull the thread from the lower side of the tension discs to the bobbin.
- d. Pass the thread around the bottom side of the bobbin, wind the end of the thread around the bobbin a few times, push the bobbin winder pulley over against the machine belt by pressing on the stop latch thumb lever and see that the automatic stop latch catches and holds the pulley against the driving belt.

e. The bobbin may be wound while the machine is stitching. However, if no fabric is under the needle, see that the needle thread is pulled out of the eye of the needle and lock the presserfoot in the raised position by raising the hand lifting lever. The needle thread should be pulled from the needle to prevent its catching the bobbin thread and balling up under the throat plate; and the presserfoot should be raised to prevent undue wear.

f. Run the machine until the bobbin is full. If the bobbin winder is properly adjusted, the automatic stop latch will operate and throw the bobbin winder pulley away from the machine belt when the bobbin is full.

g. If the thread fails to wind evenly on the bobbin, or piles up on one side of the bobbin, loosen the screw which holds the tension bracket and move the bracket to the right or left as required. Then tighten the screw.

THREADING BOBBIN CASE

a. Figure 2 shows the relative positions of the bobbin case, bobbin and thread when the bobbin is put into the bobbin case. The thread should draw over the top of the bobbin and from left to right just before the bobbin is slipped into the case.

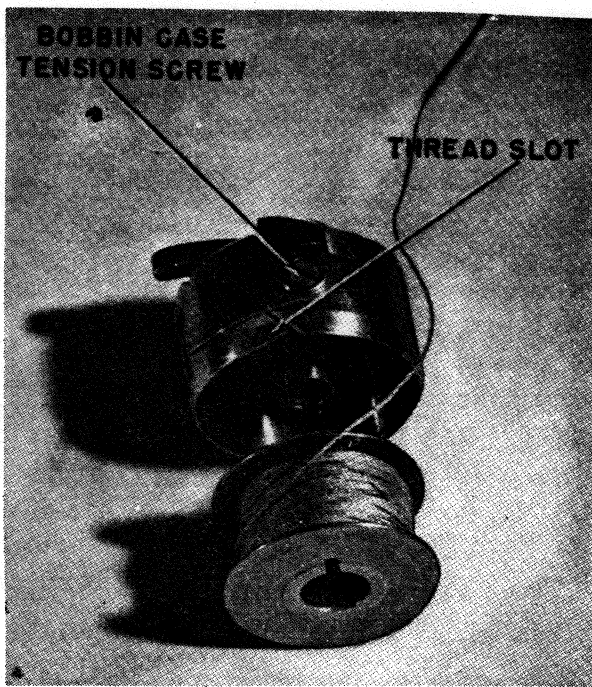


Figure 2. Bobbin case with bobbin ready to be slipped in

b. To thread the bobbin case, hold it in the left hand, as shown in A, figure 3, the slot in the edge being near the top, and place the bobbin in the case so that the thread pulls over the top of the bobbin and away from you.

c. Pull the thread into the bobbin case thread slot, as in B, figure 3, draw the thread down under the bobbin case tension spring and into the delivery eye at the end of the tension spring, as in C.

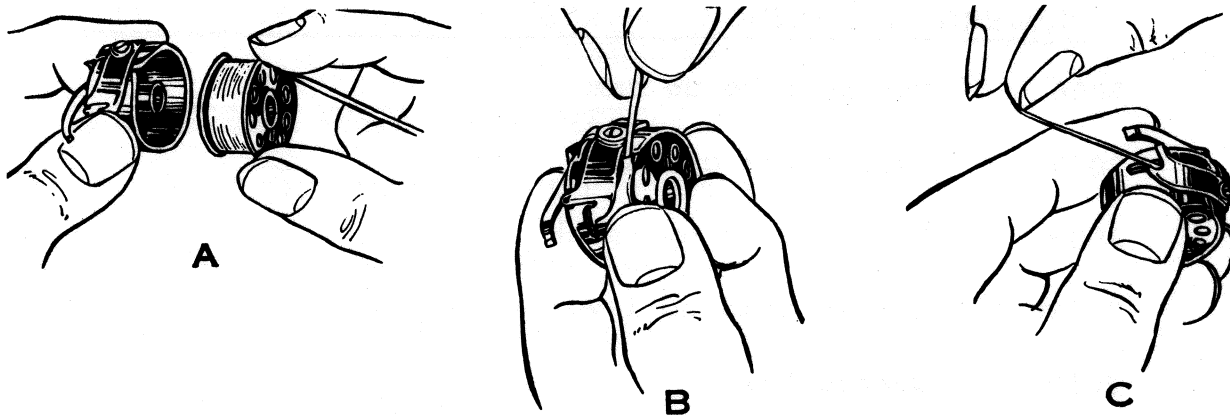


Figure 3, Threading Bobbin Case

REGULATING THE LENGTH OF STITCH

Upon the arm, facing the operator, is a pivoted lever that is fastened in position by a thumb screw, movable in a slot; to change the length of the stitch, have the needle bar up, loosen the thumb screw and move the end of the lever down to make the stitch longer, or up to make it shorter; then tighten the thumb screw.

TO BEGIN SEWING

With the left hand take hold of the needle thread, leaving it slack between the hand and the needle, turn the balance wheel toward you until the needle moves down and up again to its highest point, thus catching the shuttle thread; draw up the needle thread and the shuttle thread with it through the hole in the throat plate, and lay both threads back from you; then place the material beneath the presserfoot, lower the presserfoot and commence to sew, turning the balance wheel over toward you.

PRESSERFOOT PRESSURE ADJUSTMENT

Pressure on the material is regulated by the thumb screw which forms the upper bearing of the presser bar. This seldom requires changing for ordinary work.

KNEE LIFTER

The presserfoot can be raised by operating the knee lifter to the right. This knee lifter connects with a knee lifting lever on the bottom of the head of the machine. A knee lifting lever push rod runs up and behind the arm of the machine to the presserfoot.

HAND LIFTING LEVER

The presserfoot may also be lifted and locked in its raised position by raising the hand lever to its highest position. After the presserfoot has been locked in its raised position, it may be released by pressing the knee lifter to the right.

REMOVING WORK FROM MACHINE

Let the take-up lever rest at its highest point; raise the presserfoot and draw the fabric back and to the left and cut the threads close to the goods.

NUMERICAL LISTING OF PARTS FOR CONSEW MODEL #28

2006 Thread take up cam

2007 Needle bar crank

2008 Thread take up crank

2009C Thread take up lever complete

2010 Needle bar

2011 Feed forked connection

2012C Feed regulating crank w/roller

2013 Feed regulating lever shaft

2014 Feed regulating lever

2015 Feed regulating lever clamp plate

2017 Feed bar socket joint

2018 Needle bar connecting stud

2019 Feed bar bell crank bracket

2020 Feed bar bell crank bracket set screw

2021 Lifting presser bar connecting link

2022 Feed bar guide bracket

2023 Lifting presser bar (hollow)

2024 Lifting presser bar spring

2025 Lifting presser bar spring pin

2026 Presser regulating thumb screw

2027 Lifting presser bar lifting bracket

2028 Lifting presser bar lifting bracket set screw

2029 Feed bar bell crank

2030 Feed bar bell crank gap screw washer

2031 Lifting presser bar connecting link cap screw

- 2032 Tension releasing lever
- 2033 Feed bar socket joint cap plate
- 2034 Feed bar guide bracket cap plate w/pin
- 2035 Feed bar guide bracket slide block
- 2037 Feed bar bell crank
- 2038 Tension Releasing lever connecting extension
- 2039 Tension releasing lever connection
- 2040 Tension releasing lever connection screw
- 2041 Tension releasing lever connection screw washer
- 2042 Feed regulator lever segment
- 2043 Feed regulator lever segment screw
- 2044 Shuttle race upper spring screw
- 2045 Shuttle race upper spring
- 2046 Arm shaft bushing (front)
- 2047C Race body complete
- 2048 Arm shaft
- 2049 Shuttle bobbin case position plate
- 2050 Knee lifter lifting lever
- 2051 Lifting presser bar lifter
- 2052 Lifting presser bar lifter pin
- 2053 Thread Guard (large)
- 2054 Thread take up spring regulator (tension bushing)
- 2055 Needle plate (medium hole)
- 2056 Needle plate thread guard
- 2057 Thread take up spring reg. spring

- 2058 Feed reg. lever shaft set screw
- 2059C Face plate complete
- 2060 Pulley (hand wheel)
- 2061C Arm top cover complete
- 2062 Arm top cover screw
- 2063 Arm top cover washer
- 2064 Spool pin
- 2065 Spool pin washer
- 2066 Arm oil tube (long)
- 2067 Arm oil tube (short)
- 2068 Knee lifter lifting lever pin
- 2069 Face plate thread guard
- 2070 Face plate thread guard rivet
- 2080 Needle plate (large hole)
- 2081 Lifting presser foot)
- 2082 Feeding hinged presser foot))
- 3007 Arm shaft bushing (back)
- 3011 Thread take up cam screw (large)
- 3012 Thread take up cam screw (small)
- 3015 Thread take up lever hinge pin
- 3016 Thread lever counter screw
- 3028 Knee lifter lifting lever link
- 3029 Knee lifter lifting lever link hinge screw
- 3033 Tension releasing lever pin
- 3034 Crank connecting rod

3036C Crank connecting rod hinge screw w/nut
3037 Oscillating rock shaft crank
3038 Oscillating rock shaft pipe
3039 Oscillating shaft crank
3040 Face plate set screw
3041 Lower shaft/
3042 Shuttle driver
3047 Bobbin case
3060 Knee lifter lifting bar
3065 Thread retainer
3066 Thread retainer set screw
3069 Tension screw stud
3070 Tension check spring
3071 Tension releasing disc
3073 Tension releasing pin
3076 Shuttle body (hook)
3077 Thread take up lever hinge pin set screw
6007 Lower shaft crank slide block
6011 Shuttle race back
6012 Shuttle race spring
6013 Shuttle race spring screw
6024 Feed lifting rocker shaft crank roller
6025 Feed lifting rocker shaft crank set screw
6031 Needle plate screw
6033 Slide plate
6034 Slide plate spring

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6035 Slide plate spring screw

6038C Knee lifter bell crank complete

6041 Knee lifter bell crank spring

6042 Knee lifter bell crank set screw

6322C Thread take up crank pipe w/screw

6359 Lifting lever connecting joint

6361 Lifting lever connecting set screw

6363 Upper shaft screw

7018 Oscillating shaft crank set screw

7035 Needle plate thread guard

8007 Balance wheel set screw

8009 Rear bushing

8020 Shuttle driver pin

8029 Needle clamp

8030 Needle bar thread guide

8039 Presser bar

8040 Presser bar screw

8077 Tension disc

8078 Tension spring

8079 Tension nut

8086 Knee lifter lifting lever hinge screw

8091 Shuttle Race set screw

8093 Feed reg. lever clamp thumb screw