



CONSOLIDATED SEWING MACHINE CORP.

— INDUSTRIAL SEWING & CUTTING EQUIPMENT

INSTRUCTION MANUAL

2040-DSM

Foreword

This instruction manual will help you to operate, adjust and maintain the machine. In order to avoid any malfunctions, please read this manual carefully before using the machine, and conducted by trained-operators.

1. Brief introduction

This machine designed with newly turned-needle, cam thread take-up and large shuttle hook, which developed 14 kinds of ornamental stitches with single and double needle. The moving direction of shuttle hook and material feeding are vertical to sewing direction. This machine has reverse function manually, operated by the handle. It is manual lubrication.

2. Application

It mainly used in heavy and extra heavy weight materials, such as sofa, cushion, shoes etc to make ornamental stitches in the thick thread.

3. Specifications

Model	2040-DSM
Max. sewing speed	800SPM
Max. stitch length	10mm
Presser foot lift	12mm by hand
	15mm by pedal
Needle	DYx3
Needle gauge	8mm,10mm
Shuttle hook	KSP-204N
Clutch Motor	550W,1400RPM

4. Machine maintenance

- 4.1. The machine is carefully checked before the delivery, but it may cause some parts loosen in the long distance transportation. So before using the machine, turn the handwheel to check whether there is any obstruction, resistance or abnormal sound. If not, it can test the machine.
- 4.2. The places which the thread across, such as shuttle bed, feed dog, thread tension regulator etc, have to be cleaned regularly.
- 4.3. During cleaning, check carefully of the part whether it is wearing or not, and running well. If found the part worn, it needs to repair or change. And clean the whole machine annually at least.
- 4.4. After cleaned, well lubricate the whole machine.
- 4.5. If to sew different material and thread, and change the easy broken parts, it required the trained-operator to adjust the machine.

Warning:

Before cleaning and lubricating the machine, must turn off the power, and keep your foot away of the pedal in order to avoid any accidents if step on it carelessly.

5. Pre-sewing

5.1 Needle installation

The machine is equipped the needle of DYx3. The needle has to be changed depends on the different material and thread. Usually, the heavy weight and thick thread need the large size needle or the small size needle for the light material. Turn the handwheel to raise the needle bar to its highest position, loosen the needle setscrews, and insert the needles to the bottom in the hole of the needle bars, and get the needle long groove face to the operator, tighten the needle setscrew.

5.2. Taking out the bobbin

Turn the handwheel to raise the thread take-up lever to its highest position, using left hand to push the hook latch, and the bobbin case is open, then take out the bobbin.

5.3. Winding the bobbin

Install the bobbin winder on the table aside the right of the machine. Put the bobbin on the winding lever, pass the thread to bobbin winder in order of coil, bracket, the hole of upper winding board, then wind the thread some turns to the bobbin counterclockwise manually, and tighten the bobbin to start winding. When it is filled up, the winding lever will automatically release the bobbin and stop.

5.4. Threading the shuttle hook

Pull a length of the bobbin thread off, then put the bobbin in the bobbin case, press

the thread end under the thread pressing plate, pass the thread from the notch of bobbin case to the eye of thread out, then pull the thread out about 50mm. At last, push the bobbin case to the shuttle base in place.

5.5. Threading

Pull the two threads out, according to parts book, in order of, P2-No.15, P18-No.7, P18-No.4, P18-No.8, P18-No.12, P18-No.14, P18-No.24, then through the hole of needle bar to the eyelet.

6. Machine Adjustments

6.1. Stitch length adjustment

Pull the stitch regulator(P14-13.14) down to increase the stitch length, pull it in the middle, the stitch length is zero. When in reverse stitch, pull it above the zero.

6.2. Needle turning adjustment

The machine can sew patterns is because the needles turning alternately and feeding time continuously. It is very important on needle turning to make beautiful seam.

6.2.1 Turn the two needles 180°, it requires no much clearance when turning the needles. It can be adjusted the position of the screw(refer to the parts book P6-19 right) in the lower part of the long slot(refer to the parts book P22-2). Move downwards, the clearance increase, and upwards, the clearance decrease.

6.2.2 Two pinpoints are vertical to sewing direction and parallel with the slot of needle plate. Turn the needle bar(P6-5) to get the needles at the right position.

6.2.3 Time of needle turning: When needle bar at the highest position, two needles turn 90°, parallel with sewing direction and vertical to the slot of needle plate.

The time is adjusted by the gear wheel(Part:P22-12).

6.3. Thread tension adjustment

The tension of upper thread and bobbin thread must coordinate with material and stitch. Adjust the tension of upper thread: turn the thread tension nut(P18-1) clockwise to increase the tension; on the contrary, decrease the tension. Adjust bobbin thread tension: turn the pressing board screw on bobbin case, clockwise is increase the tension; on the contrary, decrease the tension.

6.4. Feed dog adjustment

6.4.1 The feed dog is in the middle of the needle plate. Its position is adjusted by the lower feeding front crank(P12-3).

6.4.2 Set max.stitch length, turn the handwheel and it is about 1.5mm when the feed dog is close to the needle plate. It is adjusted by the lower feeding back crank. (P12-32)

6.4.3 The feed dog is about 1.5-2.2mm above the needle plate. Adjustment: turn the handwheel until the feed dog to its highest position, loosen the screw(Part:P12-25), and turn the shaft(Part:P12-16), turn it upwards to raise the feed dog; on the contrary, to reduce the feed dog. After adjusted, tighten the screw.

6.4.4 The needle movement must coordinate with the feeding time. When needles

are at the highest position and start to move down, the feed dog begins to move forward. Adjustment: To adjust the relative position of the upper feeding cam (P4-12) and upper shaft.

6.4.5 When start feeding, the feed dog must be at the highest position. Adjustment: to adjust the position of the roller bushing(Part: P24-5) and the outer roller shelf(Part: P24-4).

6.5. Pressure of presser foot adjustment

The pressure is adjusted by the pressure regulator screw(Part:P16-10), clockwise the screw to increase the pressure; on the contrary, to decrease the pressure. Under the requirement of feeding condition, it is best to decrease the pressure, in order to avoid the material rumpled and reduce the vibration.

6.6. Timing of hook and needle adjustment

.6.6.1 Turn the handwheel, when the needles at the lowest position, then lift 5.5-6.0mm, the shuttle tip is just in the middle of two needles. Loosen the eccentric sleeve screw to adjust it.

6.6.2 When shuttle tip moves to the center of left needle, the shuttle tip is at 1.5-2.0mm above the pinhole. Adjust the height of the needle bar.

6.6.3 When needles are at highest position, the shuttle oscillated to the most right position, the thread loosing outlet is 1.5mm left the center hole of needle plate, and the thread outlet is 2-3mm.

(Note: It is well adjusted before delivery. If it changed, the machine can not sew normally, it needs to be adjusted by trained-operator or technician)

7. Changing cams

One cam has one pattern. If require the different patterns, it will change the cams. Open the cover(Part:P22-15), loosen the setscrew and take off the cam. It is easy to get out the roller(Part:P22-4) when take off the cam, if it is out, please put it back on the screw(Part:P22-5). Then change the required cam, set it on the shaft(Part: P22-9), the small hole in the cam aligns with the pin(Part:P22-8), and the roller sleeve aligns with curved slot. At last, set the washer(Part:P22-16), tighten the setscrew and close the cover.