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> Sister Speedway SW-810 Industrial Post-Bed Lockstitch Sewing Machine User Manual

## Sister SW-810

# Sister Speedway SW-810 Industrial Post-Bed Lockstitch Sewing Machine User Manual

## 1. INTRODUCTION AND OVERVIEW

This manual provides essential instructions for the safe and efficient operation, assembly, and maintenance of your Sister Speedway SW-810 Industrial Post-Bed Lockstitch Sewing Machine. The SW-810 is a one-needle, heavy-duty machine designed for consistent stitching with a roller feed mechanism. Key features include an adjustable stitch length, a spring-loaded reverse lever, and a smooth knee-lifter mechanism for the presser foot. This machine is suitable for sewing materials up to 1/8 inch (approximately 3.2 mm) thick.



## 2. SAFETY INSTRUCTIONS

Read all instructions carefully before operating the machine. Failure to follow safety guidelines may result in injury or damage to the machine.

- Always disconnect the power supply before cleaning, servicing, or making any adjustments to the machine.
- Keep hands and fingers away from the needle area and moving parts during operation.
- Wear appropriate eye protection when operating the machine.
- Ensure the machine is placed on a stable, level surface.
- Do not operate the machine if any parts are damaged or missing.
- Keep the work area well-lit and free of clutter.
- Only use recommended needles (DPx5 #14) and accessories.

## 3. PACKAGE CONTENTS

Your Sister Speedway SW-810 machine package includes the following components:

- SW-810 Sewing Machine Head
- Industrial Sewing Machine Table (unassembled)
- Electronic DC Servo Motor (3/4 H.P, 1 PHASE, 110 VOLT, 0 ~3300 RPM)
- Drawer
- Drive Belt
- Tools for assembly and maintenance
- LED Lamp
- Instruction Manual (PDF version available)

## 4. ASSEMBLY INSTRUCTIONS

Professional assembly is recommended for this industrial sewing machine. The machine comes packed in sealed boxes and requires complete assembly of the table, motor, and machine head.

### 4.1. Assembling the Table Stand

Begin by assembling the industrial table stand. Ensure all bolts and nuts are securely tightened for stability.



Figure 2: Industrial sewing machine table 'L' legs, showing adjustable height and width.

#### **4.2. Mounting the Motor**

Attach the Electronic DC Servo Motor to the underside of the table. Connect the drive belt between the motor pulley and the machine head pulley. Ensure the belt has appropriate tension.



Figure 3: Electronic DC Servo Motor mounted beneath the sewing machine table.

### 4.3. Installing the Tabletop

Place the tabletop onto the assembled stand. The tabletop has pre-cut openings for the machine head and other components. Secure it to the stand.



Figure 4: Sewing machine tabletop with specific cutouts for the machine head and accessories.

#### **4.4. Mounting the Machine Head**

Carefully place the SW-810 machine head into the designated opening in the tabletop. Secure it using the provided hardware. Connect the drive belt to the machine's handwheel.

#### **4.5. Installing the LED Lamp**

Attach the LED lamp to the machine or table as desired for improved visibility of the sewing area. Connect its power supply.



Figure 5: Flexible LED lamp with power switch for illuminating the sewing area.

## 5. OPERATING INSTRUCTIONS

### 5.1. Powering On/Off

Connect the machine's power cord to a 110-volt power outlet. Use the power switch on the Electronic DC Servo Motor to turn the machine on or off.

### 5.2. Threading the Machine

Follow the threading path indicated on the machine head. Ensure the thread passes through all tension

discs and guides correctly before threading the needle. The machine uses a single needle system.



Figure 6: Close-up view of the needle bar, presser foot, and roller feed mechanism.

### 5.3. Needle Type

The recommended needle type for the SW-810 is DPx5 #14 (Standard).

### 5.4. Adjusting Stitch Length

The stitch length can be adjusted between 1 to 8 mm (approximately 6-16 stitches per inch) using the stitch length dial located on the machine head.



Figure 7: Stitch length adjustment dial with numerical markings.

### 5.5. Reverse Stitching

To sew in reverse, engage the spring-loaded reverse lever. Release the lever to resume forward stitching.

### 5.6. Presser Foot Lift

The presser foot can be lifted by hand up to 1/4 inch (7 mm) or by using the knee-lifter mechanism up to 1/2 inch (10 mm).

## 5.7. Material Thickness

The SW-810 is designed to comfortably sew materials up to 1/8 inch (approximately 3.2 mm) thick.

## 6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your sewing machine.

- **Cleaning:** Regularly clean lint and dust from the bobbin area, feed dogs, and tension discs using a brush or vacuum.
- **Oiling:** Refer to the machine's oiling points (usually marked with red dots or specific instructions in the PDF manual) and apply appropriate sewing machine oil as directed.
- **Needle Replacement:** Replace the needle frequently, especially when sewing heavy materials or if you notice skipped stitches or thread breakage. Always use DPx5 #14 needles.
- **Belt Tension:** Periodically check the drive belt tension and adjust if necessary.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter. For more complex problems, consult a qualified technician.

Problem	Possible Cause	Solution
Skipped Stitches	Incorrect needle, bent needle, improper threading, incorrect tension.	Replace needle (DPx5 #14), re-thread machine, adjust tension.
Thread Breakage	High tension, damaged needle, poor quality thread, incorrect threading.	Reduce tension, replace needle, use quality thread, re-thread.
Uneven Stitches	Incorrect tension, worn feed dogs, improper stitch length setting.	Adjust tension, clean feed dogs, verify stitch length setting.
Machine Not Starting	No power, motor issue, safety switch engaged.	Check power connection, ensure motor switch is on, consult technician.

## 8. SPECIFICATIONS

- **Model:** SW-810
- **Brand:** Sister
- **Machine Type:** One Needle Post-Bed Lockstitch Machine
- **Stitch Length:** 0-4mm (adjustable 1-8mm)
- **Presser Foot Lift (Hand):** 1/4" (7 mm)
- **Presser Foot Lift (Knee):** 1/2" (10 mm)
- **Post Height:** 7" (178 mm)
- **Maximum Sewing Speed:** 3000 s.p.m.
- **Application Needle:** DPx5 #14 (Standard)
- **Motor:** Electronic DC Servo Motor, 3/4 H.P, 1 PHASE, 110 VOLT, 0 ~3300 RPM
- **Power Source:** AC/DC
- **UPC:** 880392761976

## 9. WARRANTY AND SUPPORT

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For warranty information, technical support, or to inquire about replacement parts, please refer to the documentation provided at the time of purchase or contact your seller directly. Keep your purchase receipt as proof of purchase.