INSTRUCTION MANUAL

FOR

SINGER

MACHINES

457A  105
     125
     135
     143A

THE SINGER COMPANY
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APPLICATION

High-speed single needle lock stitch zigzag machine.
High-speed single needle lock stitch zigzag machine with automatic thread trimmer.

NOTES ON SAFETY

The machine must only be commissioned in full knowledge of the instruction manual and operated by persons with appropriate training.

Before putting into service also read the safety notes and the instructionsmanual of the motor supplier.

The machine must be used only for its purpose intended. Use of the machine without the safety devices swinging to it is not permitted.

When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin), threading, when the workplace is left, and during service work, the machine must be isolated from the mains by switching off the main switch or disconnecting the mains plug.

On mechanically operated clutch motors without start inhibitor it is necessary to wait until the motor has stopped.

General servicing work must be carried out only by appropriately trained persons.

Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.

For service or repair work on pneumatic systems the machine must be isolated from the compressed air supply system. Exceptions to this are only adjustments and function checks made by appropriately trained technicians.

Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.

Work on parts and systems under electric current is not permitted, except as specified in regulations EN50110.

Conversions or changes to the machine must be made only on adherence to all safety regulations.

For repairs, only replacement parts approved by us must be used.

Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC regulations.

Meanings of the symbols:

⚠️ DANGER! Items requiring special attention

⚠️ DANGER! Items of injury to operative or service staff. Be sure to observe and adhere to these safety notes!

COMMISSIONING

⚠️ To avoid disturbances or damages it is absolutely necessary to observe the following instructions:

Before you put the machine into operation for the first time clean it thoroughly, and oil it well (see page 2).

Have the machine check whether the motor can be used with existing mains voltage or not, and that junction box is correctly connected. Do not start the machine of the voltage is not correct!

When the machine runs, the balance wheel must rotate toward the operator. If it does not, have the electrician change the wires on the motor.

OILING

![Fig.1](HIGH)

![Fig.2](ADD-OIL)

⚠️ Switch off the machine.

Set sewing head upright again using both hands.

Danger of crushing between sewing head and table top.

Tip machine back on its hinges and fill the oil reservoir a HIGH mark as illustrated in Fig.1.

Correct lubrication is indicated by a continuous stream of oil passing the oil flow window A while machine is running, as shown in Fig.2. Should this oil flow become erratic, STOP the machine and check the reservoir oil level, fill if needed.

At least once each month, check the oil level in the reservoir. Never allow the oil level to drop below add oil mark, shown in Fig.1.

Only use oil with a viscosity of 20.0 mm²/sec at 35°C and a density of 0.885g/cm³ at 15°C. We recommend SINGER C-oil.

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NEEDLE AND THREAD

Size of needle should be determined in accordance with the size of thread used and type of material being sewn. A correct size needle will permit the thread to pass freely through the eye of the needle and avoid strain and breaking. A bent needle will cause your machine to skip stitches. A hook or bent on the needle point will result in a stitch that looks blurred and uneven. Short stitches on heavy Denim materials may also be cut. Therefore, to obtain best sewing results, use SINGER needles.

<table>
<thead>
<tr>
<th>Application of thread</th>
<th>For light-weight materials</th>
<th>For medium-weight materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. thread (metric)</td>
<td>120 - 100</td>
<td>100 - 60</td>
</tr>
<tr>
<td>Max. synthetic</td>
<td>80 - 60</td>
<td>60 - 30</td>
</tr>
<tr>
<td>Needle size (SINGER)</td>
<td>P - #10</td>
<td>#12 - #0</td>
</tr>
<tr>
<td>Metric</td>
<td>50 - 70</td>
<td>80 - 100</td>
</tr>
<tr>
<td>Catalog No. (Needle system)</td>
<td>1906-06 (135123535)</td>
<td>1906-07 (135123530)</td>
</tr>
</tbody>
</table>

* or an equivalent size of other type of thread

WINDING THE BOBBIN (See Fig. 4)

Winder spindle (1) rotates in the direction of arrow (A). Pull thread (2) in the direction of arrow (B) to wind the bobbin. To adjust amount of thread on bobbin, loosen set screw (3) in lever (2) and move lever (2), as required. Securely tighten set screw (3).

Adjust the thumb nut (4) to replace the tension bar on bobbin winding. If thread winds correctly on bobbin, loosen screw (5) and move bobbin winding tension (6) up or down, as required, and tighten screw (5).

THREADING THE BOBBIN CASE

INserting THE NEEDLE (See Fig. 3)

1. Set the needle bar at its higher point. Loosen needle set screw (1). (See Fig. 3) Insert the needle in the needle bar and push it up as far as it will go. Make sure its long groove here toward the feed. Tighten needle set screw (1) securely.

Fig. 3

Switch off the machine. Do not operate without finger guard (3). (See Fig. 3) Danger of injury!

Fig. 5

Hold bobbin so that thread will unwind in the direction shown in Fig. 5 and place the bobbin into bobbin case. Pull the thread into slot (1) and under the tension spring (2) and set lever (3) as shown in Fig. 6. Then draw thread into delivery eye (A or B), as shown in Fig. 6. Use delivery eye (A) for sewing light-weight material, as shown in Fig. 7. Use delivery eye (B) for sewing medium weight material.

Fig. 6

Fig. 7

Use cat No. 1906-01 (135 x 53), 1906-07 (135 x 53 M Ball) needles only. (See table page.)
TO REMOVE THE BOBBIN CASE

Switch off the machine.
Do not operate machine with throat plate left open.

Open latch (1) and remove bobbin case from sewing hook.
(Fig. 8)

THREADING THE MACHINE

Check and make sure no thread is wound in the rotary take-up before threading the machine.

CAUTION: Be careful not to injure your fingers with the thread cutter (1), Fig. 9, on the face plate when threading the rotary take-up.

Pass the thread from the unwinder through threading point A(Fig. 9), B(Fig. 10), C(Fig. 12), and D(Fig. 13) in the order shown.

NOTE: When passing thread through threading point C (Fig 12), wind thread around rotary tension wheel (1) once.
Regulate needle thread tension with tension regulating thumb-nut (1) as shown in Fig. 14.

Regulating the Pretension

Fig. 15

Tension thumb nut (2) should be adjusted so that the needle thread will rotate the rotary tension wheel (1) without slippage. (Fig. 15)

Regulating the Bobbin Thread Tension

Fig. 16

Regulate bobbin thread tension with tension regulating screw (1) as shown in Fig. 16.

Regulating the Take-up Spring

Using a large screw-driver in slot of stud (1), regulate take-up spring tension by turning stud (1), as required. To adjust the amount of take-up spring movement, loosen screw (2), Fig. 17, and set take-up spring height by turning the entire take-up assembly (3) toward left or right, as required. Securely tighten screw (2).

Regulating the Presser Foot Pressure

To regulate the presser foot pressure, turn located thumb screw (1), Fig. 18, toward left or right as required.
To regulate stitch length for forward feed, turn stitch length regulating screw clockwise to shorten the stitch length and counterclockwise to lengthen the stitch length.

To regulate stitch length for reverse feed, turn stitch length regulating screw counterclockwise (2), Fig.19, clockwise to shorten the stitch length and counterclockwise to lengthen the stitch length.

To change the direction of feed for back tacking, depress feed reverse lever (3) quickly to lowest position and hold lever (3) in this position until back tack is completed. The machine will return to forward feed when lever (3) is released.

**SELECTING THE NEEDLE POSITION**

To select desired needle position, loosen thumb screw (1) and move lever (2) to desired needle position & tighten thumb screw.

A. Left needle position
B. Centre needle position
C. Right needle position

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The width of zigzag stitch is regulated with lever (1), Fig.21

<table>
<thead>
<tr>
<th>Model</th>
<th>Range</th>
</tr>
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<tbody>
<tr>
<td>457A 125</td>
<td>0-5mm</td>
</tr>
<tr>
<td>457A 105/135</td>
<td>0-8mm</td>
</tr>
</tbody>
</table>

**SETTING THE STITCH WIDTH**

To regulate the width of zigzag stitch, loosen thumb screw (1), Fig.22, and set lever (2) to desired setting.
To regulate the amount of oil flow to sewing hook, tip machine back on its hinges, loosen nut (1) and turn oil flow regulating screw (2) as shown in Fig. 23.

To increase the amount of oil flow, turn screw (2) counterclockwise. To increase the amount of oil flow, turn screw (2) clockwise.

NOTE: If oil supply to sewing hook is still not sufficient even when oil flow regulating valve (2) is adjusted to maximum, loosen nut (1), Fig. 24 and turn oil flow regulating screw (2) in the direction of arrow (A).

(Oil flow regulating screw (2) is adjusted to approximately 7.5mm when machine leaves the factory.)

Switch off the machine.
Set sewing head upright again using both hands. Danger of crushing hand, sewing head and table top.
Do not run machine without belt guard!
Danger of incautious!

Above table surface
Fasten belt guard (1) and (2) to machine head with belt guard screws (3) and (4) and screw with nut (5) as shown in Fig. 25.
Then fasten belt guard (6) to table with wood screws (8) making sure it will not interfere with belt guard (1) and (2), and so that the V-belt will not touch the belt guard slide (7) when machine is tipped back on its hinges.

When installing belt guard for machines with thread trimmer, remove piece of "A" from belt guard (2).
When installing belt guard for machines with touch back system remove piece of "A" and "B" from belt guard (1) and (2).

Below table surface
Install belt guard so that motor pulley and V-belt will rotate freely without interference.
SPECIFICATIONS
Stitch type: see table page 8
Variety: see table page 8
Machine pulley: 74mm effective dia. for v-belt
Needle catalog No.: see table page 8
Needle grt: see table page 8
Fabric clearance: 6.2mm
Workspace height: 120mm
Bed dimensions: 477x170mm
Max. stitch length: see table page 8
Max. sewing speed: see table page 8
Subject to alterations in design and dimensions.

MACHINE CARE

Switch off the machine.
Set sewing head upright again using both hands. Danger of crushing between sewing head and table top.

When the machine is in regular use, remove the lint and dust from around sewing hook area once a day.
A machine in frequent use should be cleaned and oiled more frequently.

<table>
<thead>
<tr>
<th>Max. sewing speed</th>
<th>Variety</th>
<th>Stitch type</th>
<th>Max. sewing speed in s.p.m</th>
<th>Max. needle height</th>
<th>Max. stitch length</th>
<th>Needle catalog No. (Needle system)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>105L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>125M</td>
<td>304 (zigzag stitch)</td>
<td>5,000</td>
<td>8.0 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>125L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>125M</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>135L</td>
<td>321 (3 step zigzag)</td>
<td>8.0 mm</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>143L</td>
<td></td>
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<tr>
<td></td>
<td>143M</td>
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▲ Depending on material and operation.