1. To fill the oil reservoir on top of the machine, pour oil through the oil filler hole, until oil level reaches to the upper reference line. Oiling is automatically made by the vibration of the machine while sewing operation through the oiling wicks in the machine and oil flow stops automatically when the operation of the machine ends.

2. When starting the machine initially and after kept away for a long time without using at all, oil sufficiently to respective necessary parts before starting operation and try pre-running.

---in sizes determined by size of thread and type of material being sewn.

**OIL ADJUSTER**

* While operating the machine, the lubrications to each spot of the machine are made. When the machine is in continuous operation, stop oiling for a while at your option. In that case, turn the dial until two points fit together as per the above picture, then the dial comes down and the lubrications are stopped perfectly.

**NEEDLES**

Move needle bar to highest point

Loosen screw

Insert needle up as far as possible

Scarf

Scarf

**BOBBIN REMOVAL**

Lift up the cap with a screw driver as shown picture, then bobbin case comes out.

**BOBBIN CASE REPLACEMENT**

Insert threaded bobbin into bobbin case, and set the bobbin case into the hook and latch down.
**THDING THE BOBBIN**

- Place bobbin on spindle as far as it will go.
- Press down for drive then start machine.

**THREADING BOBBIN CASE**

- Thread pulled down through slot(1) and in numerical order.

**THREADING NEEDLE**

- Move thread take-up lever to highest point and guide thread from cotton stand and in numerical order as shown picture.
* ADJUSTING TAKE-UP SPRING TENSION
1. Slightly loosen nut(4) and also screw(5). Adjust the tension of the rear thread take-up spring(1) first. Turn take-up spring shaft(6) with a screw driver to the left to tighten the tension and to the right to loosen same. After the desired tension has been determined, tighten set screw(5).

2. Then adjust the tension of the front spring(7), loosen two screws(9) in collar(8), turn the same(8) to the left to tighten and to the right to loosen it. Upon determining the desired tension of this spring, tighten set screws(9) and also nut(4).

---

* ADJUSTING THE THREAD CONTROLLER SPRING
1. FRONT THREAD CONTROLLER SPRING(7):
   Loosen set screw(11) and turn spring stop(10) to the left to increase the action of thread take-up spring(7) and to the right to reduce the action of this spring. After the desired setting of the spring has been established, tighten set screw(11).

2. REAR THREAD CONTROLLER SPRING(1):
   Loosen set screw(2), turn thread controller spring stop(3) to the right for more action (for less action, turn the stop to the left). Upon completion of adjustment, tighten the screw(2).

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REGULATING THE THREAD TENSIONS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⧿ ⧿ ⧿ ⧿ ⧿ ⧿ ⧿</td>
<td>Perfect stitching</td>
</tr>
<tr>
<td>⧿ ⧿ ⧿ ⧿ ⧿ ⧿</td>
<td>Tight tension of needle thread</td>
</tr>
<tr>
<td>⧿ ⧿ ⧿ ⧿ ⧿ ⧿</td>
<td>Loose tension of needle thread</td>
</tr>
</tbody>
</table>

BOBBIN THREAD

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NEEDLE THREAD

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Adjusting the Presser Foot Pressure

More
Less

Adjusting the Stitch Length

Press down the button and by simultaneously turning the handwheel slowly toward you. Plunger will enter into a notch in the feeding mechanism. Hold the plunger down and continue to turn the handwheel, either forward or rearward, until the marking with the desired number of stitches on the handwheel. Release the plunger. The number on the pulley shows a number of stitches per inch.

Reverse Stitching
Press down the lever as far as it will go when you require reverse stitching.

Change Over Lever for Needle Bar

Put the lever "L"...Left needle bar stops
Put the lever "R"...Right needle bar stops
Push release lever...Both needle bar move

How to Re-set Safety Clutch Mechanism
The sewing hooks and its mechanism are protected by a safety clutch.

Open the slide plate above the hook and remove any foreign matter which may have lodged in the hook. Depress the button and turn the handwheel away from you until the locking mechanism re-engages the drive shaft beneath the bed of the machine. When remove foreign matter, do not use any sharp-edged tools, etc. lest the hook be damaged.