# INSTRUCTION MANUAL

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### Detailed Specification
Industrial Sewing Machine

#### Model | Gauge (Needle width) | Feed type | Standard accessories | S.P.M. | Needle
--- | --- | --- | --- | --- | ---
A - 1101 (One needle) | | Composite feed system (Top feed) | Feed dog Needle plate Presser foot (inner) Presser foot (outer) | 4,000 |
A - 1101.F (One looper) | | Composite feed system with gear drive front feed device | Feed dog Needle plate Presser foot (inner) Presser foot (outer) | 4,000 | Unless specially ordered, the seam is set to 5 S.P.M.
A - 1102 (Two needles) (Two loopers) | | Needle feed | Refer to the attached sheet (Table A). | 4,500 | Unless specially ordered, the seam is set to 5 S.P.M.
A - 1103.F Same as A-1102 | | With gear drive front feed device | Same as A-1102 | 4,500 |
A - 1104 | Needle distance at both ends 3/4" (19.0mm) to 2" (50.0mm) | Needle feed | Refer to the attached sheet (Table C). | 4,500 |
A - 1104.F Same as A-1104 | With gear drive front feed device | Same as A-1104 | 4,500 |

### Standard accessories
Industrial Sewing Machine

#### A - 1101

<table>
<thead>
<tr>
<th>Gauge (Needle width)</th>
<th>Feed dog Needle plate Presser foot</th>
<th>A - 1101 - 2</th>
<th>Table (B)</th>
<th>Gauge (Needle width)</th>
<th>Feed dog Needle plate Presser foot (inner) Presser foot (outer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; (6.35mm)</td>
<td>1/2&quot; (12.7mm)</td>
<td>5/8&quot; (15.9mm)</td>
<td>3/4&quot; (19.0mm)</td>
<td>1-1/4&quot; (31.0mm)</td>
<td>1-1/2&quot; (38.0mm)</td>
</tr>
</tbody>
</table>

* Unless specially ordered, each gauge is set to that marked with * in Tables (A), (B), and (C).

#### A - 1104

<table>
<thead>
<tr>
<th>Gauge (Needle width)</th>
<th>Feed dog Needle plate Presser foot</th>
<th>A - 1104 - 2</th>
<th>Table (C)</th>
<th>Gauge (Needle width)</th>
<th>Feed dog Needle plate Presser plate foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; (6.35mm)</td>
<td>3/4&quot; (19.0mm)</td>
<td>5/16&quot;-3/8&quot;-1/2&quot; (7.9mm)</td>
<td>5/8&quot;-3/8&quot;-3/8&quot; (12.7mm)</td>
<td>1-1/2&quot;-1/2&quot; (38.0mm)</td>
<td>1-1/2&quot; (38.0mm)</td>
</tr>
</tbody>
</table>

(Note: Explanation on separate accessories)
1. **LOOPER THREADING**

Open front table section, remove bed slide and turn machine pulley over toward operator until needle bar is at highest point.

Pull rods outward as far as possible.

After threading the looper return to sewing position.

Draw approximately two inches of thread through looper eye with which to start sewing.
2. THREAD TENSIONS

Needle Thread Tension

Regulate needle thread tension only when presser foot is down. Tension on threads should be as light as possible while still sufficient to set stitch in material.

Looper Thread Tension

Open front cover plate to reach looper thread tension thumb screws.

3. STITCH LENGTH REGULATION

Puller feed:
See service manual.
When in notch, twist clockwise 1/4 turn.

Turn wheel up for shorter stitch down for longer stitch.

1. Stop machine.
2. Depress knurled plunger on top of machine arm.
3. Turn machine pulley toward you slowly.
4. Until plunger drops into notch
5. Twist knurled plunger clockwise 1/4 turn locking it in position.
6. Depress button in bed to engage notch.
7. Then turn machine pulley to desired stitch length and release button in bed and knurled plunger on top of arm by twisting it 1/4 counter-clockwise.

Never depress button or plunger while machine is running.
Make certain both are disengaged before starting machine.
4. PRESSER FOOT PRESSURE

Pressure on material should be as light as possible, while still sufficient to insure correct feeding. Adjustments for machines having alternating presser feet should be made by your serviceman. (See form )

When correct feeding pressure is attained, tighten lock-screw to retain adjustment.

5. LUBRICATION

Use KANSAI SPECIAL OIL TYPE A or TYPE B. Use TYPE C when an oil is desired which will produce minimum stain on fabrics even after long period of storage.

Oiling points

Oil daily
6. LUBRICATION (cont'd)

- Push spring cover to left.
- Pressure oil can
- Inject 1 shot twice daily.
- Close cover after oiling.

Filling bed shaft reservoir

Fig. 9

Oiling points
(Rear view)

Fig. 10

Alternating presser machines
Fig. 11

Oil

Filling arm shaft reservoir

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7. TIMING LOOPER DRIVING CRANK

When the looper driving crank is properly timed, the point of the looper will pass above the eye of the needle at the same distance on both the forward and backward strokes of the looper.

To adjust when point of looper passes higher on forward stroke, loosen looper driving crank set screw (Fig. 12), loosen looper crank timing screw (left) approximately 1/8 turn, and tighten looper crank timing screw (right). Continue to adjust until correct adjustment is made. Then securely tighten set screw.

When point of looper passes higher on backward stroke, reverse the adjustment by loosening timing screw (right) and tightening timing screw (left).

8. SETTING THE NEEDLE GUARDS

When needle guards are properly set, they should pass as close as possible to the needles without touching. To adjust, turn machine pulley over toward operator until the points of the loopers are about to pass the needles on their forward strokes. At this point, the looper timing mark LT on the machine pulley should be approximately 1/8 inch above the arrow on machine arm. Loosen needle guard set screw (Fig. 13). Turn needle guards as close to the needles as possible without touching. Tighten set screw. Check by springing the needles to the left and turning the machine pulley to make certain that the looper points do not stroke the needles.
9. **POSITIONING SPREADER**

Sidewise and height setting:

When looper on its forward stroke is passing spreader:

The point of the spreader should be exactly opposite top of thread groove at left side of looper.

The clearance between spreader point and looper should be approximately the double thickness of ordinary paper.

Fig. 16

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To adjust, loosen the two spreader holder set screw. (Fig. 16)
Move spreader and holder to correct position.
Hold in position and tighten set screws.

10. **CHANGING MOVEMENT OF SPREADER**

The sidewise movement of the spreader may be adjusted for sewing under abnormal conditions. Under normal conditions, maximum spreader movement is generally used. To adjust, tilt machine back on its hinges, loosen the two spreader driving eccentric screws (Fig. 17), and the two spreader driving eccentric flange screws. Move eccentric to left to increase movement or to right to decrease movement. When correctly positioned, tighten the two spreader driving eccentric screws first, hold flange against strap and tighten flange screws. Then refer to preceding information regarding positioning of spreader.

Caution: When increasing sidewise movement, allow sufficient clearance between spreader driving rock shaft (Fig. 17), and left side of eccentric ball stud is in its highest position.
11. TO SET FEED BAR AT CORRECT HEIGHT

When the feed bar is set at the correct height, the feed lift link clamp will be aligned with the rock shaft timing flat. To adjust, make certain that the feed lifting crank timing screw (Fig. 18) engages shaft spot correctly. Loosen clamp screw and move the feed lift clamp link to correct position. Then tighten clamp screw.

12. CENTRALIZING FEED DOG

Sidewise setting:

Needle should enter needle hole of feed dog with the same clearance between the needle and left or right side of hole. To adjust, loosen feed dog screws (Fig. 19). Move feed dog until correct clearance is attained. Hold in position, and tighten feed dog screws.

Additional adjustment, if necessary, may be attained by loosening the four rock shaft collar set screws, the two rock shaft crank clamp screws (Fig. 19), and feed lifting clamp screw (Fig. 18). Move complete assembly to required position and tighten screws.
13. **Lengthwise setting**

The feed dog should clear the ends of the feed slots in the throat plate equally at both ends of feed travel. To adjust, set feed for desired stitch length. Loosen the two rock shaft crank clamp screws (Fig. 19). Move feed rocker forward or backward until correct positioning is attained. Then tighten the two clamp screws.

14. **SETTING FEED DOG AT CORRECT HEIGHT**

When the feed dog height is set correctly, approximately the full depth of the teeth will show above the throat plate. To adjust, loosen lock nuts (Fig. 20) and slightly loosen feed dog clamping screw. To raise feed dog, turn jack screw clockwise. To lower, turn jack screw counterclockwise and tap feed dog down. When correct setting is attained, tighten the clamping screws and lock nuts.