DDL-9000C Series
Direct-drive, high-speed, lockstitch sewing system
with automatic thread trimmer

Inspire the Knowledge in Sewing Adjustment
Epoch-making Sewing Systems in history
Creation of "sewing"

Direct-drive, high-speed, lockstitch sewing system with automatic thread trimmer

**DDL-9000C Series**

A state-of-the-art sewing system that revolutionizes the perfection for “sewing”. Succeeding the traditionally required experience and instincts, digitalized setting capability in JUKI’s all new DDL-9000C digital sewing system presents the best sewing conditions everywhere and anywhere.

**DDL-9000C Series**

This series comes in three different types. These three types of the DDL-9000C Series are environmentally friendly sewing machines that prevent the material from being stained with oil.

**FD Fully-dry head type**

DDL-9000C-D Max. sewing speed : 4,000sti/min

The machine prevents the material being sewn from being stained with oil.

The DDL-9000C-D is the comfort sewing machine that prevents oil stains on the material during sewing. It totally supports the improvement of finished seam quality.

**FM, SM Semi-dry head type**

DDL-9000C-M Max. sewing speed : 5,000sti/min

Sewing work free from oil stains by means of our leading-edge dry-head technology.

With the advanced dry technology of enabling operation without being lubricated, a frame which does not need lubrication has been developed. It is provided with not only a high-speed sewing capability, but also a safety feature for preventing oil stains.

**FS, SS Minute-quantity lubrication type**

DDL-9000C-S Max. sewing speed : 5,000sti/min

The sewing speed of 5000sti/min, which is the highest speed of any direct-drive lockstitch machines, contributes to increased productivity. The DDL-9000C-S is the standard model developed with the emphasis on durability. It produces seams with consistency when run at speeds which falls in the range of the highest sewing speeds.

* "sti/min" stands for "Stitches per Minute."
Vertically- and horizontally-driven digital feed mechanism

Thanks to the world’s first vertically-driven digital feed mechanism, the feed dog height can be adjusted with ease according to the material fabric of product to be sewn, thereby improving seam quality. Thanks to this digital feed mechanism, thread trimming is carried out with the feed dog lowered in the case the shorter-thread remaining thread trimming function is enabled. As a result, the clearance provided between the throat plate and the material is eliminated, thereby stabilizing the length of thread remaining after thread trimming.

The feed dog does not protrude the top surface of throat plate when the sewing machine stops with its needle bar up, thereby facilitating placement/removal of the material on/from the top surface of throat plate and preventing the material from being damaged by the feed dog.

Various kinds of feed locus can be selected.

Digital functions which accentuate excellent "seam" quality

<table>
<thead>
<tr>
<th>Standard</th>
<th>Front Up (reduce thread tension)</th>
<th>Rear Up (prevent needle bending)</th>
<th>Box Feed (for multi-layered section)</th>
</tr>
</thead>
</table>

1. Adoption of the needle-thread active tension

Needle tension is digitally controlled

Needle thread tension which matches sewing conditions given can be set on the operation panel and stored in memory. The needle thread tension adjustment needs experience. However, for this sewing machine, thread tension data stored in memory is reproducible, thereby reducing the setup time when the product to be sewn is changed.

Example: Needle-thread active tension demonstrates its effectiveness in the topstitching process.

For sewing shoulders of a difficult-to-sew material, uniform stitches can be produced continuously by appropriately changing the sewing conditions even if the right and left material fabric differ in texture grain.

2. Active presser foot pressure mechanism

The presser foot pressure is digitally controlled

Digital control system controls the presser foot pressure. Under the automatic mode, the multi-layered section detection function detects changes in material thickness to increase/decrease the presser foot pressure accordingly.

Under the manual mode, the presser foot pressure control function is assigned to the hand switch to enable operation with the hand switch.

3. Needle thread clamp

The device clamps the needle thread and draws it under the material at the beginning of sewing. The needle thread clamp device works to reduce the size of thread tangling in on the wrong side of the material. This expands the area around the needle entry, thereby allowing the use of various gauge components.

Remaining thread at the end of sewing reduced to 3 mm

Double-edge driven rotary knife system is adopted. The double edges of the knife intersect with each other directly under the needle entry point to trim the threads. Achievement of thread length remaining on the material after thread trimming as short as 3 mm.

The grooved cam system is adopted to enable forcible release of the thread trimmer even if the thread trimmer locks.

The picker device is also adopted. The picker device secures a sufficient length of needle thread, as well as it stabilizes the length of thread remaining on the material.

Functions necessary for sewing machine operation can be used with the hand switch

Functions of two hand switches can be set through the operation panel. Since the reverse-feed stitching lever is provided as standard, added functions can be customized. 20 different functions (needle-up/down correction sewing, reverse-feed correction sewing, 1-time reverse-feed stitching cancellation function, etc.) are available. Highly convenient operation is enabled by setting the functions which match the sewing process in combination.

The hand switches have been factory-assigned respectively with Touch-back switch and Custom switch (to be set by the customer) at the time of shipment. The customer may assign other functions to these two hand switches.

Hand switch (in the case it is assigned with the multi-layered section changeover function)

- Detect Multi-layered section of material and automatically carry out the changeover of multi-layered section <Automatic mode>
- Manually carry out the changeover of multi-layered section at an arbitrary timing with the hand switch <Manual mode>
- Set thread tension, presser foot pressure, pitch, feed locus and feed dog height separately for the normal section and multi-layered section of material
- Digitally control presser foot pressure

Digital type
- Manually carry out the changeover of multi-layered section at an arbitrary timing with the hand switch
- Set thread tension, presser foot pressure, pitch, feed locus and feed dog height separately for the normal section and multi-layered section of material

Auto-lifter AK-154 Full-digital type

Newly-developed auto-lifter device comes with a stepping motor. This not only increases the amount of lift of the presser foot from 8.5 mm to 13.5 mm at the maximum but also reduces the operating noise.

After the thread cutting of the sewing machine, thanks to the feature of the world’s first top and bottom drive electronic feed mechanism to prevent the feed dog from protruding the top of throat plate, the material can be placed under presser foot and removed from there with ease and is not easily damaged.

<table>
<thead>
<tr>
<th>Full-digital type</th>
<th>Digital type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDL-9000C Series</td>
<td>Conventional product</td>
</tr>
</tbody>
</table>

To lift the presser foot to its maximum amount of lift, it is necessary to set the amount of lift in two stages.

For the full-digital type model, the auto-lifter function is provided as standard.
Commitment to seam quality "Reverse-feed stitching function by means of the reverse feed lever" is provided as standard.

The operator carries out fine adjustment of correction sewing (within the stitch length of 1 pitch) using the reverse feed lever, thereby achieving "further improved seam quality".

LED light

The LED light illuminates the needle entry area in the just-under direction from the right and left sides of the needle bar. In comparison with the single-direction illumination, this LED light helps the operator carry out sewing more easily. Illuminance of the LED light is adjustable in five levels. It can also be used as an auxiliary lamp for working.

OPTIONS

- Non-lubricated hook
  22890206
- Non-lubricated hook(with a needle guard)  22890404

- Non-rotary bobbin
  Hook : 27003557  Bobbin case : 27003755
  Bobbin : 27003805

- Non-rotary bobbin

  The non-rotary bobbin eliminates irregular stitches which have a tendency to occur at some sewing speeds and bobbin-thread tension fluctuations which have a tendency to occur according to the bobbin thread remaining on the hook. Since the bobbin thread is fed without rotating the bobbin, the bobbin never idles.

  ★The non-rotary bobbin requires an exclusive hook, bobbin and bobbin case.

- Auto-lifter AK-154 (foot-pedal type)

  40174617  [DEL/INS]

  Newly-developed auto-lifter device comes with a stepping motor. This not only increases the amount of lift of the presser foot from 8.5 mm to 13.5 mm at the maximum but also reduces the operating noise.

  ★To lift the presser foot to its maximum amount of lift, it is necessary to set the amount of lift in two stages.

  ★For the full-digital type model, the auto-lifter function is provided as standard.

- Electric-fan hook cooling device

  40065571

SPECSIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DDL-9000C-FDS</th>
<th>DDL-9000C-FMS</th>
<th>DDL-9000C-FSH</th>
<th>DDL-9000C-SMS</th>
<th>DDL-9000C-SSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Full Digital Type</td>
<td>Digital Type</td>
<td>Digital Type</td>
<td>Digital Type</td>
<td>Digital Type</td>
</tr>
<tr>
<td>Application</td>
<td>Medium-weight</td>
<td>Heavy-weight</td>
<td>Medium-weight</td>
<td>Heavy-weight</td>
<td>Heavy-weight</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Fully-dry head type</td>
<td>Semi-dry</td>
<td>Minute-quantity lubrication</td>
<td>Semi-dry</td>
<td>Minute-quantity lubrication</td>
</tr>
<tr>
<td>Max. sewing speed</td>
<td>4,000sti/min</td>
<td>5,000sti/min*</td>
<td>4,000sti/min*</td>
<td>5,000sti/min*</td>
<td>4,000sti/min*</td>
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<tr>
<td>Hand switch</td>
<td>Provided as standard (At the time of shipment: Hand switches are assigned respectively with the touch-back switch function and the one-touch changer switch function.) 5mm</td>
<td></td>
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<tr>
<td>Max. stitch length</td>
<td>5mm</td>
<td></td>
<td></td>
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<tr>
<td>Thread tension</td>
<td>Active tension</td>
<td></td>
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<tr>
<td>Presser foot pressure</td>
<td>Electronic control</td>
<td></td>
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<tr>
<td>Lift of the presser foot</td>
<td>Built-in head (provided with the bobbin thread retaining plate)</td>
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<tr>
<td>Lubricating oil</td>
<td>JUKI New Defrix Oil No. 1 or JUKI CORPORATION GENUINE OIL 7 (equivalent to ISO VG7)</td>
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<tr>
<td>Machine head</td>
<td>Compact AC servomotor (400W) that is directly connected to the main shaft (direct-drive system)</td>
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<tr>
<td>Power consumption</td>
<td>500VA</td>
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<tr>
<td>Net weight</td>
<td>Machine head : 40.5kg(with AK-154)</td>
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</tbody>
</table>

WHEN YOU PLACE ORDERS

Please note when placing orders, that the model name should be written as follows

- Machine head
  DDL9000C

- Electronic specifications
  Machine head : Full digital type
  Sewing specifications : Medium-weight
  Code : FDS

- Control box
  Code : SC95
  Code : PSCB