Direct-drive, High-speed, Needle-feed, Lockstitch Machine with Automatic Thread Trimmer

DLN-9010

BIG-90000

DNL-9010SS-WB/CP-160D
This is a needle-feed type DDL-9000 Series sewing machine, that has been highly applauded as the top-of-the-line lockstitch machine with a thread trimmer. It has inherited the advanced features of the DDL-9000 Series, such as the direct-drive system, semi-long arm and elimination of the oil pan. In addition, it comes with a highly reliable needle feed mechanism. The needle feed mechanism, which is widely recognized as offering outstanding efficiency of feed and effectively preventing uneven material feed, responds to a wide range of applications such as the sewing of outerwear, runstitching of men’s shirts, etc. and the attaching of various parts to garment bodies.

The machine incorporates a newly developed needle-feed mechanism.

- Thanks to the needle-feed mechanism which offers excellent efficiency of feed, the machine ensures accurate stitch pitches (stitch length) as well as preventing slippage of the upper cloth. The bottom feed's locus has been improved to match the needle feed motion, thus the machine produces beautiful seams without stitch gathering, even when it is used for sewing slippery and difficult-to-feed material or for handling a difficult process.
- The needle feed mechanism is a so-called "dry type", which does not require oiling. With this mechanism, a highly reliable machine structure, free from oil leakage troubles, has been achieved. The frame, which requires only a minute quantity of lubricating oil, is structured to eliminate oil leakage.
- The machine can be easily changed over from a needle feed machine to a bottom feed machine easily, through a simple adjustment and gauge replacement. It is a useful feature for those users who also want to use the machine simply as a regular bottom feed type machine in accordance with applications and processes.

The machine no longer uses an oil pan. With this oil pan-less structure, the machine helps create a clean work environment.

- The machine has been configured to eliminate the oil pan, and supplies a minute quantity of lubricating oil to the hook and needle bar, thereby contributing to the creation of a clean work environment.
- The machine saves you the time and trouble of removing the knee-lifter and cover. This means that the machine head can be tilted for cleaning and maintenance without the inconvenience of removing the knee-lifter and cover.
- Even if you tilt the machine head while the power is still ON, the safety switch will disable the machine. This means the machine won't start running when the head is tilted even if you press the foot pedal.
The machine is provided with various easy-to-operate functions for increased operability.

**Bobbin thread winder**
The bobbin thread winder is built-in at the top surface of the machine head. The built-in bobbin winder ensures easy replacement of the bobbin thread. The bobbin winder also incorporates a thread cutting knife for cutting the thread after the completion of bobbin winding, as well as a bobbin thread quantity adjusting function.

**Distance from needle to machine arm 300mm**
With its wider area under the arm (300mm), the machine permits easy handling of the sewing material for improved operability.

**Micro-lifter**
The machine is equipped as standard with a micro-lifter. It works to constantly float the presser foot above an elastic material or other difficult-to-sew ones, thereby helping effectively reduce material slippage as well as damages made by the presser foot on the material.

**Compact AC servomotor**
In the machine's newly introduced direct-drive system, a compact AC servomotor is directly connected to the main shaft. This motor demonstrates quick start-up, upgraded stop accuracy, and excellent responsiveness.

**Automatic reverse feed function**
The machine has a push-button-type reverse feed switch. The automatic reverse feed switch can be re-positioned to best match the operator.

**Presser foot**
The maximum lift of the presser foot is increased to 15mm. By using the higher-lift of the presser foot in combination with the machine's needle-up stopping feature, easier placement of a heavy-weight material on the machine is ensured.

**Automatic thread trimmer mechanism**
The machine is provided with a well-proven horizontal-type thread-trimming mechanism that ensures speedy and reliable thread trimming.

**Attachment-mounting seat**
Installation of an attachment-mounting seat improves operability when replacing the attachment and increases the durability of the machine bed surface.

**Hinge**
The hinge has been moved 10cm from behind the needle entry point. Thanks to the improvement in the hinge's location, the material will no longer be caught by the hinge, thus contributing to upgraded workability.

**Newly developed control box**

**SC-910**
- SC-910 model control box is resistant to voltage fluctuations. It comes with a compact and energy-saving type switching power supply system that does not use a transformer. This contributes to improved reliability.
- The number of revolutions can be selected from among three different types (standard, slow and fast) according to the preference of the operator. In addition to this feature, the control box incorporates many different functions for upgraded workability.

**IP-100B**
- The operation panel has been provided with a large user-friendly LCD. A pictograph and set values are shown on the same screen, which promises improved operability of the panel.
- The operation panel has been provided with a variety of communication and maintenance control features and is able to store data on a SmartMedia or personal computer.
- The features of the operation panel can be updated without the need for changing the PWB/ROM.

**CP-160D**
- Four different kinds of pattern sewing are possible: automatic reverse stitching, constant-dimension sewing, rectangle-shape sewing, and multi-layer stitching. The maximum number of stitches that can be set for automatic reverse stitching (single or double) is 19.
**OPTIONS** With its full array of options, the machine further increases productivity.

- **Auto-lifter**
  
  AK118 (pedal-driven)

- **Micro-lifter (asm.)**
  
  (Part No.: 236-11056)

  This device can be installed on the back of the face plate. It is very convenient for frequent use.

- **Optional switch**
  
  (Part No.: 400-00380)

  Various functions* can be controlled through hand switches, which are effective when operating the machine in a standing position.

  * Half-stitch correction, a-stitch correction, reverse-stitch correction, auto-lifter, thread trimming, and the cancellation of one cycle of repetitive stitching.

- **Remaining bobbin thread detector AE-8**
  
  (Part No.: GAE-080000A0)

  When the amount of remaining bobbin thread reaches the setting, the buzzer will sound to warn the operator not to press on the front part of the foot pedal. With this function, the operator doesn’t have to look away from the sewing work to check the bobbin thread.

  * To retrofit the AE-8 to your existing machine, I/O unit A (part number: 400-06080), which is separately available, is required.

- **Material edge sensor ED-4**

  When the sensor detects a material edge, it immediately stops the sewing machine and actuates the thread trimmer. This enhances productivity by allowing the operator to conduct sewing work without running to look out for missing stitches.

### **SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model name</th>
<th>DLN-9010S</th>
<th>DLN-9010SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>For light- to medium-weight materials</td>
<td>For heavy weight materials</td>
</tr>
<tr>
<td>Max. sewing speed</td>
<td>5,000rpm</td>
<td>4,000rpm</td>
</tr>
<tr>
<td>Max. stitch length</td>
<td>4.5mm *</td>
<td>33mm</td>
</tr>
<tr>
<td>Needle bar stroke</td>
<td>33mm</td>
<td>33mm</td>
</tr>
<tr>
<td>Lift of the presser foot</td>
<td>By hand: 5.5mm, By knee: 15mm(max.), Auto: 10mm</td>
<td>By hand: 5.5mm, By knee: 15mm(max.), Auto: 10mm</td>
</tr>
<tr>
<td>Needle (at the time of delivery)</td>
<td>DB [1] (Nm1) #9 — #18</td>
<td>DB [1] (Nm1) #02 — #23</td>
</tr>
<tr>
<td>Hook</td>
<td>Automatic-lubricating full-rotary hook</td>
<td></td>
</tr>
<tr>
<td>Lubrication</td>
<td>Minute-quantity lubrication to needle bar and hook</td>
<td></td>
</tr>
<tr>
<td>Lubricating oil</td>
<td>JUKI New Defrix Oil NO.1 (equivalent to ISO VG7)</td>
<td></td>
</tr>
<tr>
<td>Distance from needle to machine arm</td>
<td>300mm</td>
<td></td>
</tr>
<tr>
<td>Size of bed</td>
<td>517mm x 178mm</td>
<td></td>
</tr>
<tr>
<td>Bobbin thread winder</td>
<td>Built-in the machine head</td>
<td></td>
</tr>
<tr>
<td>Micro-lifter screw</td>
<td>Provided as standard</td>
<td></td>
</tr>
<tr>
<td>Machine head drive</td>
<td>Compact AC servomotor that is directly connected to the main shaft (direct-drive system)</td>
<td></td>
</tr>
<tr>
<td>Automatic reverse feed function</td>
<td>Provided as standard (built-in solvent type)</td>
<td></td>
</tr>
<tr>
<td>Power requirement/Power consumption</td>
<td>Single-phase 100V—120V, 200—240V, 3-phase 200—240V / 650VA</td>
<td></td>
</tr>
<tr>
<td>Total weight</td>
<td>87kg</td>
<td>67kg</td>
</tr>
</tbody>
</table>

* The maximum sewing speed is 4,000 rpm or less in cases where the maximum stitch length is 3.5 mm or more.

### **WHEN YOU PLACE ORDERS**

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

- **Machine head type Code**
  
  Standard: S

- **Application Code**
  
  For light- to medium-weight materials: S
  
  For heavy weight materials: H

- **Wiper and automatic reverse feed function**
  
  Wiper: Not provided, Provided
  
  Automatic reverse feed function: 0B, WB

- **Device and attachment Code**
  
  Auto-lifter (pedal-driven): AK118

### **PSC box**

- **Control box**
  
  Code

  - Standard: S
  - Provided with built-in I/O board: A

  - Control box provided with built-in I/O board (Code A) should be selected for the machine head equipped with the remaining bobbin thread detector (AE-8).

### **SC910**

- **Operation panel**
  
  Code

  - IP-100B: IP100B
  - CP-160D: CP160D

* Specifications and appearance are subject to change without prior notice for improvement.

* Read the instruction manual before putting the machine into service to ensure safety.

* This catalogue prints with environment-friendly soy ink on recycle paper.

JUKI CORPORATION HEAD OFFICE
The environmental management system to promote and conduct the technological and technical research, the development and completion of products in which the environmental impact is reduced, the control of the energy and resource consumption, and the recycling in the research, design, production, distribution, sale and consumption of all the products, and the recycling and recovery of the products at the end of their life. The management system is based on the JAB-001 Environmental Management System and JAB-002 Environmental Management System, and is also certified by the ISO 14001:1996 system, and in the sale and maintenance service of the data entry system and in the purchase, distribution and sale of the household commodities including the healthcare products.

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