LH-3500A Series
Semi-dry head, 2-needle Lockstitch Machine

LH-3528A / LH-3528A-7
LH-3578A / LH-3578A-7
(with organized split needle bar)
LH-3568A / LH-3568A-7
LH-3588A / LH-3588A-7

Adoption of the direct-drive mechanism promises energy-saving and increased workability.

The LH-3500A Series which improves 2-needle sewing machine's seam quality is now launched.
Adoption of the direct-drive mechanism enhances energy conservation and workability, and increases the needle's material penetrating force.

**Energy-saving**
*Reduced by 21%*
Adoption of a compact motor for the direct-drive mechanism and the newly developed control box (SC-920A*) decrease power consumption by approximately 21%.

**Operability**
Adoption of the direct-drive mechanism improves stop accuracy and responsiveness, leading to increased working efficiency.

**Material penetrating force**
*Increased by 32%*
Adoption of a high-torque type 550W motor promises added material penetrating force when the sewing machine sews multi-layered parts of heavy-weight material.

* DD

Direct-drive sewing machine with automatic thread trimmer

- **Standard hooks**
  - LH-3528A-7
  - LH-3568A-7

- **Large hooks**
  - LH-3578A-7
  - LH-3588A-7

* With organized split needle bar

* The newly-developed control box SC-920A is the first control box to come with a power saving mode for the sewing machine and to withstand voltage fluctuations, noise and vibration.
The LH-3500A Series has made further progress. This is the cutting-edge model 2-needle sewing machine which comes with substantially enhanced mechanisms such as the direct-drive mechanism, semi-dry head, new thread tension control mechanism and improved oiling system.

A semi-dry head is now installed in all of the models of the LH-3500A Series.

All models of the LH-3500A Series are provided with a semi-dry head to eliminate staining with oil from the frame (the needle bar part).

The sewing machine with organized split needle bars is the only sewing machine in the industry that comes with the semi-dry head. It helps reduce poor-quality products due to oil stains even in the case of product items which have corner stitching sections.

The "large-hook type" uses a hook 1.7 times larger than standard. This increase in size reduces the frequency of bobbin-thread changes.

The sewing machine has been designed to eliminate waste time and the operator’s stress.

The drive method is the V-belt method by means of an externally-mounted motor.

Many different models are prepared according to the type of materials:

- A type (light-weight)
- S type (medium-weight)
- F type (foundation)
- G type (jeans and heavy-weight)

From a wide variety of models, the best-suited model can be chosen according to your sewing items, ranging from light- to heavy-weight materials.

JUKI ECO PRODUCTS

This sewing machine reduces power consumption by 21% as compared with the conventional models.
The sewing machine satisfies the requirements stipulated in the "Juki Group Green Procurement Guidelines". And it certainly complies with the RoHS Directive.
The LH-3528A-7 uses more common parts than the conventional models. In addition, the total number of parts has been reduced by 4%.
As compared with the conventional models, the new LH-3528A-7 Series has reduced its weight by 11% and its packing material weight by 18%.

For details of JUKI ECO PRODUCTS, refer to: http://www.juki.co.jp/eco_e/index.html

The aforementioned description applies to the LH-3528A-7 (direct-drive sewing machine with automatic thread trimmer, Large-hooks type). Other LH-3500A-7 series (i.e., LH-3568A-7/3578A-7/3588A-7) and the LH-3500A series (without thread trimmer such as LH-3528A/3568A/3578A/3588A) are also JUKI ECO PRODUCTS certified products.
A thread tension control mechanism has been developed for each type of sewing machine in order to achieve the best-suited thread tension for its purpose. The sewing machine for jeans and heavy-weight materials (G type) produces well-tensed seams by the optimization of the feed mechanism. Furthermore, the G type machine comes with the new thread trimmer mechanism which promises increased reliability.

The best-suited thread tension is achieved according to the sewing specifications

Two different types of thread tension controllers have been developed.

The needle tension controller comes in two different mechanisms according to the type of sewing machine. For the A and F types, seam quality free from puckering and irregular stitches is promised. For the S and G types, the sewing range has been broadened to produce well-tensed seams even when thick thread is used.

A and F type
- Independent right and left needles type thread tension controller

S and G type
- Standard type thread tension controller

Highly reliable thread-trimming mechanism

Our direct-acting thread trimmer mechanism, which spreads thread without fail, has been further improved. The thread trimmer trims the needle thread and bobbin thread without fail even when thick thread is used. In addition, the thread trimmer’s bobbin thread retaining force has been increased.

Wire type and round-hole type needle bar thread guide

Two different kinds of needle bar thread guides (needle clamps), the wire type and round-hole type, have been developed according to the type of sewing machine. The wire-type needle bar thread guide has been adopted for the A and F types which require the sewing capability to sew light-weight materials and foundations without puckering or irregular stitches. The round-hole type needle bar thread guide has been adopted for the S and G types which sew materials requiring well-tensed seams. In addition, the G type is provided as standard with the presser foot with guide which is effective for the topstitching process.

A and F type
- Soft-seams using the wire type needle bar thread guide

S and G type
- Well-tensed seams using the round-hole needle bar thread guide

Material-friendly micro-lifter mechanism

The presser foot can be lifted by a minute amount by adjusting the eccentric pin located in the presser lifter lever section. When sewing shaggy and elastic fabrics, the load applied to the material is reduced by slightly lifting the presser foot. Materials are handled more easily and are finished without sacrificing the inherent texture of the material.
The internal mechanism of the sewing machine has been thoroughly re-investigated to achieve further improvement of maintainability and workability. JUKI does not cut corners on the quality of those parts which are normally invisible, such as in the internal section of the sewing machine. This represents JUKI’s craftsmanship.

The feed method can be easily changed over

The location of the oil tank has been changed to the inside of the sewing machine through our re-investigation of the lubricating method. As a result, space is secured under the bed surface to facilitate changeover of the feed method between the "needle feed" and "bottom feed" and changeover of the feed timing (re-placement of the timing belt).

Changeover between the needle feed and bottom feed

For the process of sewing light-weight materials or the like, puckering has to be prevented. In this case, the feed method can be changed over to the bottom feed through an easy adjustment and change of the gauge. In comparison with the needle feed, the bottom feed works to prevent puckering and enables sewing with a lower thread tension.

Eco-oil method (circulation type)

The oil dropped from the hook and its surrounding sections into the under-cover is filtered to remove dirt and dust and is then returned to the oil tank. This method saves the effort of oiling and reduces oil consumption.

Clean oil method

The oil dropped from the hook and its surrounding sections into the under-cover is not returned to the oil tank, but only clean oil is supplied to the hook at all times.

Gauge for tape attaching (corresponding attachment classification code "T" for tape attaching; LH-3528A-F: Only the sewing machine for foundation)

The LH-3528A supports, as standard, the feed type change-over function between the needle feed and bottom feed; the feed type change-over function between the needle feed and bottom feed. Contact JUKI for information on the models other than the LH-3528A.

Gauge for tape attaching

The sewing machine is provided as standard with the gauge for tape attaching which is best-suited to the process for attaching tape to foundation. The gauge for tape attaching consists of the throat plate for tape attaching, presser foot with guide and bed slide. The sewing machine with the standard gauge can be changed to the tape attaching type sewing machine by changing the gauge with the gauge for tape attaching.

Changeover between the needle feed and bottom feed

For the process of sewing light-weight materials or the like, puckering has to be prevented. In this case, the feed method can be changed over to the bottom feed through an easy adjustment and change of the gauge. In comparison with the needle feed, the bottom feed works to prevent puckering and enables sewing with a lower thread tension.

The LH-3528A supports, as standard, the feed type change-over function between the needle feed and bottom feed. Contact JUKI for information on the models other than the LH-3528A.

Guide presser

The throat plate is designed with a hollow on the side facing the operator. This hollow helps smooth the feeding of tape.

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The production support function actually consists of three different functions (six different modes), which are the output control function, operation measuring function and bobbin counter function. Each with its own production support effect. An appropriate function (mode) can be selected as required. The parameter setting can be done on the panel located on the top of the sewing machine, thereby helping reduce operator fatigue during setup changing.

- **Target No. of products display mode**
  Under the target No. of products display mode, the target number of products and the actual number of products produced according to the work hours are displayed.

- **Target-actual result difference display mode**
  In the under target-actual result difference display mode, the difference between the target number of products and the actual number of products produced is displayed.

Since operators are able to work while checking their actual number of products on the panel at all times, they can strengthen their sense of purpose of achieving the target, thereby increasing productivity. Operators can visually check the progress of their work in real time, leading to the early detection of any problems and the execution of early corrective measures.

- **Sewing machine availability display mode**
  Under the sewing machine availability display mode, the average sewing machine availability in the previous cycle and the current cycle is displayed.

- **Pitch time display mode**
  Under the pitch time display mode, the average process machining time in the previous cycle and the current cycle is displayed.

- **Average speed of stitch display mode**
  Under the average speed of stitch display mode, the accumulated speed of stitch in the previous cycle and the current cycle is displayed.

Since the sewing machine operation status, pitch time (process machining time), can be automatically measured, process analysis, line arrangement and confirmation of facility efficiency can be obtained with ease. As a result, the man-hours required for production control are reduced.

- **Bobbin counter display mode**
  The operator is notified that the bobbin needs to be replaced before the bobbin thread runs out.

Since the operator is notified of the time to replace the bobbin, the operator is no longer required to carry out the re-sewing of seams sewn without bobbin thread, thereby increasing working efficiency. In addition, the operator carries out his/her work under a stress-free environment without worrying about needle-hole damage to the material, which is likely to be made when sewing without bobbin thread.

The operation panels CP-18A and CP-180A are provided with a production support function.
WHEN YOU PLACE ORDERS

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

* Only the seam application "G" is available for the LH-3578A-7 and LH-3588A-7.

* Feed system "B" (bottom feed) is applicable to all models LH-3528A-A (for light-weight materials) and LH-3528A-F (for foundation) is only applicable to the needle gauge system "B", "D" or "F".

* The AK device is applicable only when "0B" is selected from the classification menu by the wiper and one-touch type reverse feed mechanism.

* "T" represents the presser foot with guide, throat plate of sewing tape and bed slide for sewing tape, and only applies to the LH-3528A-F (for foundation).

* The AK device is applicable only when "0B" is selected from the classification menu by the wiper and one-touch type reverse feed mechanism.

* "0B" is only applicable to the LH-3528A-F (for foundation).

* When the "0B" is selected, the sewing machine comes with the direct-drive motor.

* A gauge designed for factory-installation at delivery.

* A gauge available as a part.

* Refer to the Parts List for details.

* To order, please contact your nearest JUKI distributor.

* A gauge designed for factory-installation to the bottom feed model at delivery.

* A gauge available as a part.

* Refer to the Parts List for details.

* "V" represents the presser foot with guide, throat plate of sewing tape and bed slide for sewing tape, and only applies to the LH-3528A-F (for foundation).

* The AK device is applicable only when "0B" is selected from the classification menu by the wiper and one-touch type reverse feed mechanism.

* To order, please contact your nearest JUKI distributor.
### SPECIFICATIONS

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<tbody>
<tr>
<td>Application</td>
<td>Light-weight</td>
<td>Foundation</td>
<td>Medium-weight</td>
<td>Jeans and heavy-weight</td>
<td>Medium-weight</td>
<td>Jeans and heavy-weight</td>
<td>Jeans and heavy-weight</td>
<td>Jeans and heavy-weight</td>
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<tr>
<td>Organized split needle bar mechanism</td>
<td>Not provided</td>
<td>Provided as standard</td>
<td>Not provided</td>
<td>Provided as standard</td>
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<tr>
<td>Hook</td>
<td>Vertical axis regular hook</td>
<td>Vertical axis 1.7 times large hook</td>
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<tr>
<td>Lubrication</td>
<td>Semi-dry / hook section: minute-quantity lubrication (tank system)</td>
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<tr>
<td>Max. sewing speed</td>
<td>3,000sti/min*</td>
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<tr>
<td>Distance from needle to machine arm</td>
<td>120mm (H) × 266mm (W) × 87mm (height of jaw part)</td>
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<tr>
<td>Feed system</td>
<td>Changeover between the needle feed and bottom feed</td>
<td>Needle-feed</td>
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<tr>
<td>Max. stitch length</td>
<td>5mm</td>
<td>4mm</td>
<td>5mm</td>
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<tr>
<td>Needle bar stroke</td>
<td>33.4mm</td>
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<tr>
<td>Thread take-up</td>
<td>Independent right and left needles type (lockstitch type)</td>
<td>Slide type</td>
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<tr>
<td>Tensioner</td>
<td>Standard type</td>
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<td>Thread winder</td>
<td>Built-in the machine head</td>
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<td>Lift of the presser foot</td>
<td>7mm (by hand), 13mm (by knee)</td>
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<tr>
<td>Oiling method</td>
<td>Eco-oil method (circulation type), Clean oil method</td>
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<tr>
<td>Tank capacity</td>
<td>280cm³</td>
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<tr>
<td>Lubricating oil</td>
<td>JUKI New Defrix Oil No.1 (equivalent to ISO VG7)</td>
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<td>Needle</td>
<td>DP×5(#9)</td>
<td>DP×5(#10)</td>
<td>DP×5(#14)</td>
<td>DP×5(#21)</td>
<td>DP×5(#14)</td>
<td>DP×5(#21)</td>
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<td>#9—#16</td>
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<td>#16—#23</td>
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<tr>
<td>Outside dimensions of package (mm)</td>
<td>LH-3528A/3568A/3578A/3588A: 718mm (H) × 341mm (W) × 744mm (L)</td>
<td>LH-3528A-7/3568A-7/3578A-7/3588A-7: 768mm (H) × 341mm (W) × 744mm (L)</td>
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*“sti/min” stands for “Stitches per Minute.”*

### MOTOR BELT SELECTION TABLE (for sewing machines without thread trimmer)

<table>
<thead>
<tr>
<th>Sewing speed (sti/min)</th>
<th>Motor pulley</th>
<th>Belt</th>
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<td></td>
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<tr>
<td>50Hz</td>
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<tr>
<td>3,000</td>
<td>—</td>
<td>75</td>
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<tr>
<td>2,790</td>
<td>—</td>
<td>70</td>
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<tr>
<td>2,580</td>
<td>3,000</td>
<td>65</td>
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<tr>
<td>2,370</td>
<td>2,740</td>
<td>60</td>
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★ The table shown above represents the case of the clutch motor with an output power of 400W (2P). The V belt should be used with the clutch motor.