The LH-3500A Series which improves 2-needle sewing machine’s seam quality is now launched.

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

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.

LH-3500A series
Adoption of the direct-drive mechanism enhances energy conservation and workability, and increases the needle’s material penetrating force.

**Energy-saving**

*Reduced by 15%*

Adoption of a compact motor for the direct-drive mechanism and the newly developed control box (SC-920A*) decrease power consumption by approximately 15%.

**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.

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*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 semi-dry head sewing machine with organized split needle bars is only available from JUKI.

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.

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

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.

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

JUKI ECO PRODUCTS

The LH-3500A is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment.

- This sewing machine reduces power consumption by 15% 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-3500A uses more common parts than the conventional models. In addition, the total number of parts has been reduced by 3%.
- As compared with the conventional models, the new LH-3500A Series has reduced its weight by 7% 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 RoHS Directive is an EU Directive limiting the use of 6 hazardous substances (lead, hexavalent chromium, mercury, cadmium, PBb and PBB) in electrical and electronic equipment. The Juki Green Procurement Guidelines is the voluntarily established criteria to eliminate not only the aforementioned 6 substances, but also other ones which also adversely affect the environment.

* The aforementioned description applies to the LH-3500A-7 (direct-drive sewing machine with automatic thread trimmer). The LH-3500A (without thread trimmer) is also a JUKI ECO PRODUCTS certified product.
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 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.

A and F type

S and G type

Responsive to materials has been thoroughly investigated to improve "seam" quality.

© 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.

© Thread tension controller for the LH-3528A-A and F

© Thread tension controller for the LH-3528A-S and G

© Soft-seams using the wire type needle bar thread guide

© Well-tensed seams using the round-hole needle bar thread guide

Material-friendly micro-lifter 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.

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.

**Two selectable new-method oiling mechanisms**

1. **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.

2. **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.
   - The oiling method can be changed over as desired.

**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.

**Options**

**Throat plate for tape attaching**

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

<table>
<thead>
<tr>
<th>inch</th>
<th>mm</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>3.2</td>
<td>22628002</td>
</tr>
<tr>
<td>3/16</td>
<td>4.8</td>
<td>22628200</td>
</tr>
<tr>
<td>7/32</td>
<td>5.6</td>
<td>22628309</td>
</tr>
</tbody>
</table>

**Slide plate (this side) : Part No. 23206709**

This reduces the height when the tape-attaching holder is fixed on the machine.
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.
When the “0B” is selected, the sewing machine comes with the direct-drive motor.

LH35 A

to the needle gauge system “B”, “D” or “F”.

* Feed system “B” (bottom feed) is applicable to all
  models LH-3528A. The model designation beyond the
  classification by feed type only apply to the LH-3528A.

Control box

SC920A

Panel

CP180A

CP18A

Without automatic thread trimmer

LH35 A

Feed system

Organized split needle bar, standard hook

Medium-weight

Jeans and heavy-weight

Needle-feed

Bottom-feed

B*

* The model designations beyond the
  classification by feed type only apply to the LH-3528A.

* Feed system “B” (bottom feed) is applicable to all
  models LH-3528A. The model designation beyond the
  classification by feed type only apply to the LH-3528A.

* “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.

* “0B” is only applicable 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.

WHEN YOU PLACE ORDERS

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

With automatic thread trimmer

LH35 A

Wiper One-touch type reverse feed Code

Provided Provided WB

Auto-lifter Code

Not provided

Provided AK135

Power supply Code

Single-phase 100~120V S

3-phase 200~240V D

Single-phase 200~240V (for General Export) K

Single-phase 200~240V (for CE) N

Single-phase 200~240V (for China) U

Without automatic thread trimmer

LH35 A

Machine head Code

Standard hook 28

Organized split needle bar, standard hook 68

Seam application

Medium-weight S

Jeans and heavy-weight G

Wiper and one-touch type reverse feed Code

Wiper One-touch type reverse feed provided 00

Not provided Not provided 0B*

Seam application

Light-weight A

Foundation F

Medium-weight S S

Seam application

Code

Needle gauge

LH-3528A-7 LH-3568A-7

inch mm S G S G

A 3/32 2.4
B 1/8 3.2
C 5/32 4.0
D 3/16 4.8
E 7/32 5.6
F 1/4 6.4
G 9/32 7.1
H 5/16 7.9
K 3/8 9.5
W 7/16 11.1
L 1/2 12.7
M 5/8 15.9
N 3/4 19.1
P 7/8 22.2
Q 1 25.4
R 1-1/8 28.6
S 1-1/4 31.8
T 1-3/8 34.9
U 1-1/2 38.1

Needle gauge

LH-3528A LH-3568A

inch mm S G S G

A 3/32 2.4
B 1/8 3.2
C 5/32 4.0
D 3/16 4.8
E 7/32 5.6
F 1/4 6.4
G 9/32 7.1
H 5/16 7.9
K 3/8 9.5
W 7/16 11.1
L 1/2 12.7
M 5/8 15.9
N 3/4 19.1
P 7/8 22.2
Q 1 25.4
R 1-1/8 28.6
S 1-1/4 31.8
T 1-3/8 34.9
U 1-1/2 38.1

Attachment Code

Standard S

For tape attaching T*

Auto-lifter Code

Not provided

Provided AK135*

* 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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Without organized split needle bar</td>
<td>With organized split needle bar (separately driven needle bars)</td>
<td>Light-weight</td>
<td>Foundation</td>
<td>Medium-weight</td>
<td>Jeans and heavy-weight</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Semi-dry / hook section: minute-quantity lubrication (tank system)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. sewing speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,000sti/min*</td>
</tr>
<tr>
<td>Distance from needle to machine arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>120mm (H) × 266mm (W) × 87mm (height of jaw part)</td>
</tr>
<tr>
<td>Feed system</td>
<td>Changeover between the needle feed and bottom feed</td>
<td>Needle-feed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. stitch length</td>
<td>5mm</td>
<td>4mm</td>
<td>5mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needle bar stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.4mm</td>
</tr>
<tr>
<td>Thread take-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Slide type</td>
</tr>
<tr>
<td>Tensioner</td>
<td>Independent right and left needles type (lockstitch type)</td>
<td>Standard type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thread winder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Built-in the machine head</td>
</tr>
<tr>
<td>Lift of the presser foot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard hook: 7mm (by hand), 13mm (by knee)</td>
</tr>
<tr>
<td>Oiling method</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eco-oil method (circulation type), Clean oil method</td>
</tr>
<tr>
<td>Tank capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>280cm³</td>
</tr>
<tr>
<td>Lubricating oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JUKI New Defrix Oil No.1 (equivalent to ISO VG7)</td>
</tr>
<tr>
<td>Needle</td>
<td>DP×5(#9) #9→#16</td>
<td>DP×5(#10) #9→#16</td>
<td>DP×5(#14) #9→#16</td>
<td>DP×5(#21) #16→#23</td>
<td>DP×5(#14) #9→#16</td>
<td>DP×5(#21) #16→#23</td>
</tr>
<tr>
<td>Outside dimensions of package (mm)</td>
<td>LH-3528A/3568A : 718mm (H) × 341mm (W) × 744mm (L)</td>
<td>LH-3528A-7/3568A-7 : 768mm (H) × 341mm (W) × 744mm (L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine head weight (including the package)</td>
<td>LH-3528A/3568A: 48kg, LH-3528A-7/3568A-7: 61kg (with AK: 63kg), LH-3528A-F-0B: 50kg (with AK: 52kg)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*st/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>
</tr>
</thead>
<tbody>
<tr>
<td>50Hz 60Hz Outside diameter (mm)</td>
<td>Part No.</td>
<td>Length (inch)</td>
</tr>
<tr>
<td>3,000 — 75</td>
<td>MTKP0070000</td>
<td>43</td>
</tr>
<tr>
<td>2,790 — 70</td>
<td>MTKP0065000</td>
<td></td>
</tr>
<tr>
<td>2,580 3,000 65</td>
<td>MTKP0060000</td>
<td>42</td>
</tr>
<tr>
<td>2,370 2,740 60</td>
<td>MTKP0055000</td>
<td></td>
</tr>
</tbody>
</table>

★ 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.