LH-3500A Series

Semi-dry head, 2-needle Lockstitch Machine

JUKI ECO PRODUCTS

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

•LH-3568A-SF-7-WB/CP-18A

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.

DD

Direct-drive

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

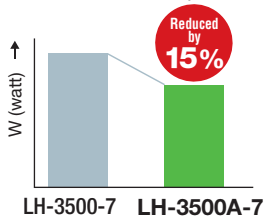
Adoption of the direct-drive mechanism improves stop accuracy and responsiveness, leading to increased working efficiency.

Material penetrating force

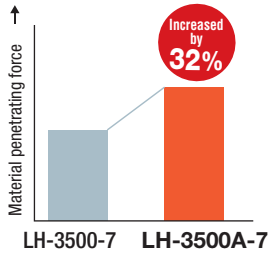
Increased by 32%

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.

Power consumption



*When the sewing machine availability factor is 25%.



* 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.

DD

Direct-drive sewing machine with automatic thread trimmer

•LH-3528A-SF-7-WB/CP-180A

LH-3528A-7

•LH-3568A-SF-7-WB/CP-180A

LH-3568A-7

With organized split needle bar

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.

Unique to 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.

Without thread trimmer

•LH-3528A-SF **LH-3528A**

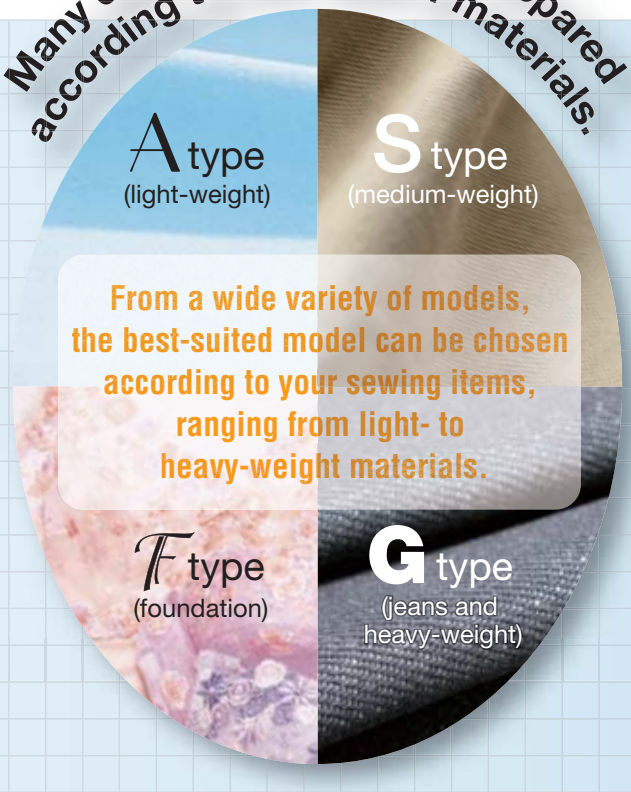
LH-3568A

With organized split needle bar

•LH-3568A-SF

★ 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.



JUKI ECO PRODUCTS	The LH-3500A is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment.
JUKI ECO PRODUCTS	●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 PBDE) in electrical and electronic equipment. The Juki Green Procurement Guideline is the voluntarily established criteria to eliminate not only the aforementioned six 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.

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

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

Unique to JUKI

◎ 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

Thread tension controller for the LH-3528A-A and -F (independent right and left needles type)

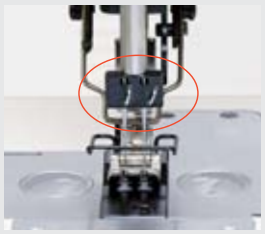
S and G type

Thread tension controller for the LH-3528A-S and -G (standard type)

◎ 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.

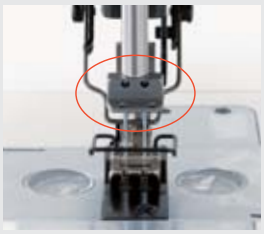
A and F type



LH-3528A-A and F

Soft-seams using the wire type needle bar thread guide

S and G type



LH-3528A-S and G

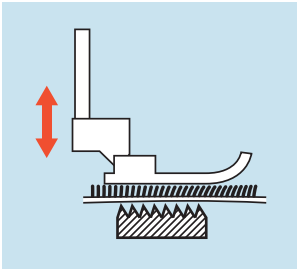
Well-tensed seams using the round-hole needle bar thread guide

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.

Material-friendly micro-lifter mechanism

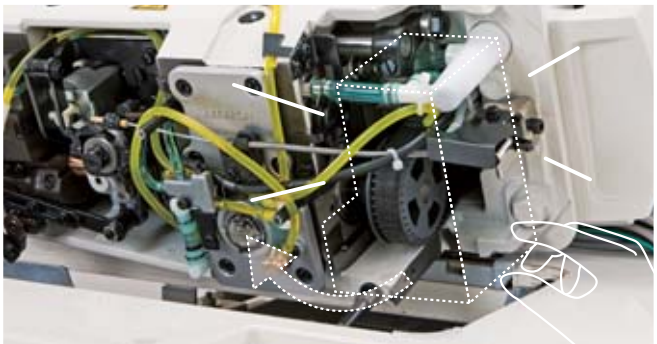
The presser foot can be lifted by a minute amount by adjusting the eccentric pin located in the presser lifter lever section. When sewing shaggy and elastic fabrics, the load applied to the material is reduced by slightly lifting the presser foot. Materials are handled more easily and are finished without 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.

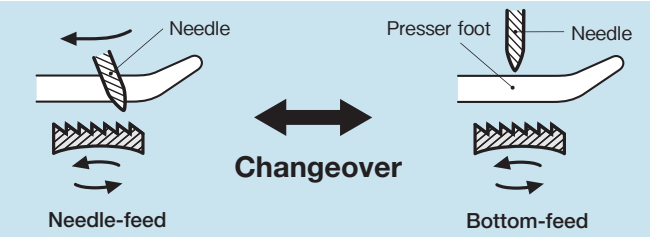
The feed method can be easily changed over

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.



★ The LH-3528A supports, as standard, the feed type change-over function between the needle feed and bottom feed.
The gauge for the bottom feed is required separately.

Two selectable new-method oiling mechanisms

Unique to JUKI

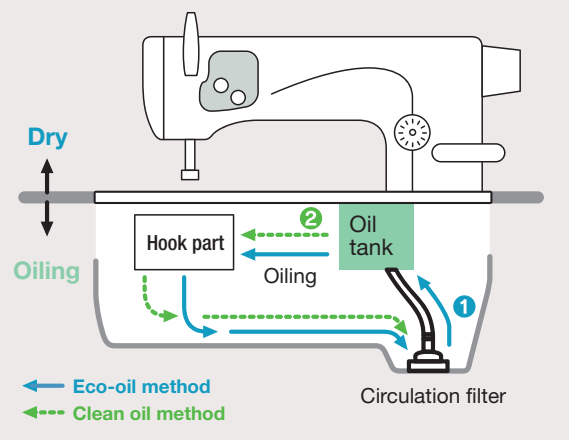
❶ Eco-oil method (circulation type)

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.

❷ 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.

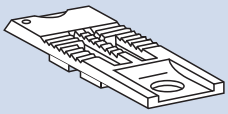
★ The oiling method can be changed over as desired.



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)

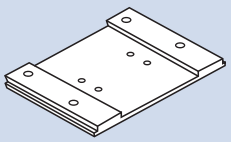


inch	mm	Part No.
1/8	3.2	22628002
3/16	4.8	22628200
7/32	5.6	22628309

inch	mm	Part No.
1/4	6.4	22628408
9/32	7.1	22628507
5/16	7.9	22628606

Slide plate (this side) : Part No. 23206709

This reduces the height when the tape-attaching holder is fixed on the machine.



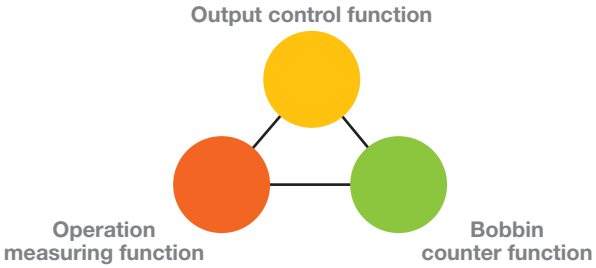
Production support function

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

CP-18A

CP-180A

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.



Three different functions

(Six different modes)

Output control function

• 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.

Operation measuring function

• 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 function

• 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 YOU PLACE ORDERS

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

With automatic thread trimmer

Machine head	Code
Standard hook	28
Organized split needle bar, standard hook	68

Seam application	Code
Medium-weight	S
Jeans and heavy-weight	G

LH35 □□ A □□ 7WB □□□□□

Wiper	One-touch type reverse feed	Code
Provided	Provided	WB

Auto-lifter	Code
Not provided	
Provided	AK135

Code	Needle gauge		Seam application			
			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				

○ : A gauge designed for factory-installation at delivery.
△ : A gauge available as a part.

Control box

SC920A□

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

Panel

CP180A
CP18A

Without automatic thread trimmer

Machine head	Code
Standard hook	28
Organized split needle bar, standard hook	68

Seam application	Code	
	LH-3528A	LH-3568A
Light-weight	A	—
Foundation	F	—
Medium-weight	S	S
Jeans and heavy-weight	G	G

LH35 □□ A □□□□□□□□□□□

Code	Needle gauge		Seam application					
			LH-3528A				LH-3568A	
	inch	mm	A	F	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			△	△		

○ : A gauge designed for factory-installation at delivery.
△ : A gauge designed for factory-installation to the bottom feed model at delivery.
■ : A gauge available as a part.
★ The needle gauge up to 47.0mm is applicable.

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

Wiper and one-touch type reverse feed		Code
Wiper	One-touch type reverse feed	
Not provided	Not provided	00
Not provided	Provided	0B*

* "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.

Attachment	Code
Standard	S
For tape attaching	T*

* "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).

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

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

*"sti/min" stands for "Stitches per Minute."

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

Sewing speed (sti//min)		Motor pulley		Belt	
50Hz	60Hz	Outside diameter (mm)	Part No.	Length (inch)	Part No.
3,000	—	75	MTKP0070000	43	MTJVM00430A
2,790	—	70	MTKP0065000		
2,580	3,000	65	MTKP0060000	42	MTJVM00420A
2,370	2,740	60	MTKP0055000		

★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.

JAB CM001 | JSA EMS ISO14001:2004 REG.NO.JSAE389 | UKAS ENVIRONMENTAL MANAGEMENT 089

JUKI CORPORATION HEAD OFFICE

Juki Corporation operates an environmental management system to promote and conduct the following as the company engages in the research, development, design, sales, distribution, and maintenance of industrial sewing machines, household sewing machines, industrial robots, etc., and in the provision of sales and maintenance services for data entry systems:

①The development of products and engineering processes that are safe to the environment
②Green procurement and green purchasing
③Energy conservation (reduction in carbon-dioxide emissions)
④Resource saving (reduction of papers purchased, etc.)
⑤Reduction and recycling of waste
⑥Improvement of logistics efficiency (modal shift and improvement of packaging, packing, etc.)

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✻ 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 soyink on recycle paper.

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