

JUKI®

DDL-9000A Series

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



DDL-9000A Series

High-end model of JUKI 1-needle lockstitch machines

A genuine sewing machine which makes the best out of professional sewing machine operators

What is satisfactory seam quality?

Which is the best performance or design to achieve ease-of-use?

JUKI is continually making efforts to pursue genuine quality to find the answers to these questions, which have ultimately led to the development of the DDL-9000A, JUKI's top-end lockstitch machine.



DDL-9000A Series

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

JUKI's direct-drive lockstitch machines have been evolving toward improved quality.

Now, the DDL Series line-up has been renewed by adding a "semi-dry head" type to make the DDL-9000A Series.

DDL-9000A-S

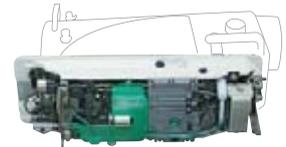
Minute-quantity lubrication head type Max. sewing speed: 5,000rpm

The sewing speed of 5,000rpm, which is the highest speed of any direct-drive lockstitch machines, contributes to increased productivity.

The DDL-9000A-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.



· The needle bar and thread take-up components are lubricated with the minimum required quantity of oil.



· For the hook section, the standard method of lubrication is employed.

DDL-9000A-M

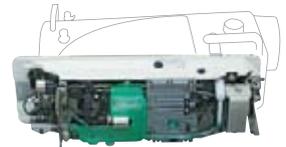
Semi-dry head type Max. sewing speed: 5,000rpm

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

A newly added high-performance model of the DDL Series. It is provided with not only a high-speed sewing capability, but also a safety feature for preventing oil stains.



· The needle bar and thread take-up components are not lubricated.



· For the hook section, the standard method of lubrication is employed.

DDL-9000A-D

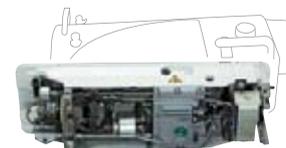
Fully-dry head type Max. sewing speed: 4,000rpm

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

As its designation indicates, the dry-head type machine ensures convenience of use by totally preventing the oil from staining the material being sewn. The machine wholly contributes to improved quality of finished products.



· The needle bar and thread take-up components are not lubricated.



· The hook part is not lubricated.

DDL-9000A-MS

Do you know what the six major elements (mechanisms) for "sewing" are? The DDL-9000A Series machines have been developed through a thorough review of these six major elements to achieve a quality which more than satisfies our customers.



Increase in the "efficiency of feed", broadening of the "sewing range" and prevention of sewing troubles such as "stitch gathering" and "thread flapping or slackening" are some of the challenges to contribute to an upgrade of the six major elements of a sewing machine.

JUKI has gone back to the basics to perform a thorough review of the six major elements of a sewing machine, which has ultimately lead to the development of the DDL-9000A Series machines, with a quality that will more than satisfy our customers.

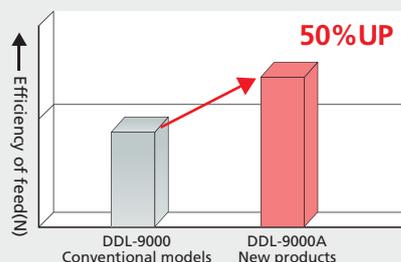
Six elements

Feed

The efficiency of feed has increased by **50%** as compared with the conventional models.



The difference in efficiency of feed is particularly apparent when using a special-purpose gauge such as the compensating foot, presser foot for hemming or binding foot.

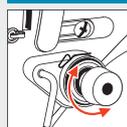


Comparison of efficiency of feed with conventional models

*Example: When a turret presser foot is used (4,000rpm)

Thread tension

The machine has a range of sewing capabilities which is **30%** broader than that of the conventional models.



The machine produces uniformly-tensed seams with consistency without any adjustments, even when it is used for a sewing process consisting of steps which handle different materials or different-in-thickness materials. As a result, the machine not only upgrades the basic seam quality, but also reduces the time required by adjusting the machine at setup changing.



© Cross-sectional view of stitches: Thread knots are located at the center of stitches, with no thread-tension adjustments, regardless of whether light-weight or heavy-weight material is used.

Presser foot

Stitch-gathering is reduced under an extra-low presser foot pressure.



For example, when an extra-light weight material is used, the machine is able to sew the material from its edge and to perform reverse stitching at the end of a seam, thereby reducing stitch-gathering and maintaining the correct stitch length.

Thread take-up lever

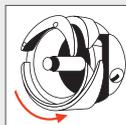
The thread take-up lever reduces thread flapping or loosening, which otherwise results in stitching failures.



The thread take-up lever has been designed specifically for the respective seam specifications.

Hook

The DDL-9000A Series is provided with a hook which is interchangeable with that for the conventional models.



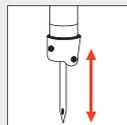
The hook for the DDL-9000A Series models is interchangeable with that for the conventional models. This means no spare hooks are required to be prepared. In addition, consumable parts such as moving-knife, counter-knife are compatible with conventional models.

*Exclusive parts are required only for the H-type counter knife.

● Special-purpose hooks are listed in the option column.

Needle bar

Three different types of needle bar strokes are readily available.



The needle bar stroke is set ideal to reduce fabric damage for light-weight materials and to increase penetrating force for heavy-weight materials.

| | Needle bar stroke | Thread take-up lever stroke |
|------------------|-------------------|-----------------------------|
| A: Light-weight | 29.0mm | 110mm |
| S: Medium-weight | 30.7mm | 110mm |
| H: Heavy-weight | 35.0mm | 113mm |



A sewing machine developed with the emphasis on ease-of-use for the customers. The machine places the highest priority on ease of setup and maintainability.



JUKI has aimed to achieve "Quick, comfortable and simple operation" in the course of the development of the DDL-9000A Series machines. The results of our endeavor are evident in the machine's user-friendly shape, in the materials used in the construction, and in a structure and arrangement, designed for good viewability and easy adjustment.

The machine provides stress-free maintenance to achieve ease of use.

The machine pulley is a larger one which is easy to turn. (with thread tangle prevention mechanism)

The machine no longer uses the higher/lower needle-position adjusting magnet. The needle bar position is now electronically controlled. In addition, the machine arm has notches to achieve an easy-to-carry and slip-resistant shape.



Maintainability of parts which are frequently removed and attached for adjusting the presser foot have been further improved.

The frame's rubber cap is frequently removed and reattached during maintenance to adjust the presser foot or the needle-bar height. Now, the rubber cap is designed to ensure easy removal/reattaching. The rubber cap has been improved primarily because of its frequent use.



A steplessly adjustable stitch dial has been adopted to enable stitch-length setting with added accuracy.

The conventional click-type stitch dial is now provided with a stepless adjustment feature. This stitch dial enables fine stitch-length setting with added accuracy. In addition, the dial has a new mechanism which prevents the dial from shifting from the set position even when the machine is being operated for a long time.



The machine adopts a new picker mechanism and a bobbin-friendly material for the picker tip.

The picker tip of the newly-designed picker mechanism is now made from a bobbin-friendly softer material so as to protect the bobbin against flaws due to the picker. In addition, the picker provides dramatically-increased durability.



The micro-lifter screw is located on the front of the operation panel. This allows the operator to frequently adjust the micro-lifter by adjusting the screw without ever moving from his or her seat.

The micro-lifter works to prevent damage to the material or a slip between two plies when sewing a shaggy or elastic material. For the DDL-9000A Series, the micro-lifter screw is located on the front of the operation panel to allow the operator to frequently adjust the screw without standing up.



Simple lubrication keeps the operator's hands clean.

Oil can be filled with ease from the front of the machine. The ability to view the quantity of oil in the tank is also improved.



*D-type head does not need oiling.

*A very convenient micro-lifter which permits adjustments without needing a tool is also available. (See option for more information)



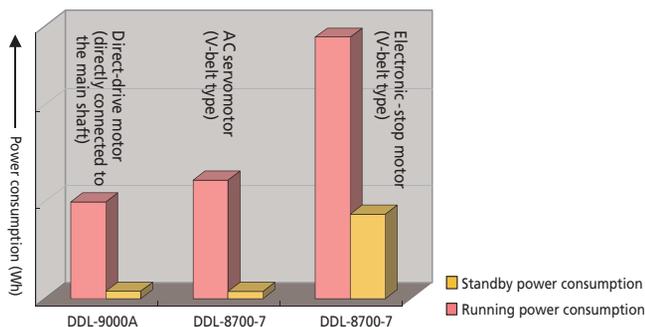
What is the greatest benefit in using a direct-drive motor?



The "direct-drive motor", which transfers the motor power to the machine with no energy loss, not only offers economical benefits due to the power reduction, but also reduces the machine's vibration and operating noise, thereby helping reduce operator fatigue.

Comparison of power consumption by motor

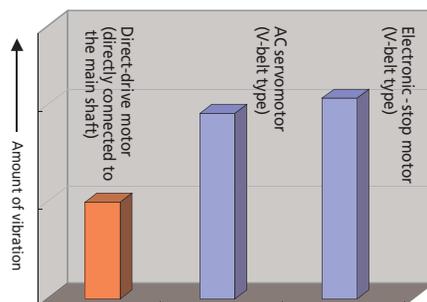
Since the direct-drive motor transfers the motor power to the machine with no energy loss, a significant reduction in power consumption is achieved, offering remarkable economical benefits.



*Conditions for comparison (running speed: 5,000rpm)

Comparison of the amount of vibration by motor

The direct-drive motor is a compact servomotor which is directly coupled with the main shaft. The motor is housed inside the machine and has no mechanisms, such as a V-belt, which transmit vibrations and noise. Thus, the motor runs without vibration and noise helping reduce operator fatigue if the machine is used for a long period of time.



*Conditions for comparison (running speed: 5,000rpm)

OPTIONS

Optional switch: 23632656

The switch is mounted above the reverse feed switch. With this handy switch, the operator is able use various functions with ease. The switch is helpful especially in standing work.

* With the option switch, the operator can select one of various optional features, which include the needle up/down compensation, 1-stitch compensation, reverse-stitch compensation, auto-lifter, thread trimming, and cancellation of automatic reverse stitching at the starting and ending of sewing.



Auto-lifter AK138 (foot-pedal type): 40056719

The auto-lifter is a device for automatically lifting the presser foot (by the knee). It is helpful also in standing work.



Non-rotary bobbin

The non-rotary bobbin eliminates the irregular stitches prone to occur at certain sewing speeds and the fluctuations in bobbin-thread tension resulting from the amount of bobbin thread remaining in 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.



Lubricated hook K: 23621303

The hook is effective when used in processes for sewing rigid parts of fabric with a thin needle (e.g., the sewing process for foundation garments.) The hook has a hard blade point which is provided with a needle guard. (applicable needle size: #8 to #10)

Micro-lifter: 40056622

The micro-lifter works to prevent damage to the material or a slip between two plies when sewing a shaggy or elastic material. The micro-lifter is finely adjustable in its height without using a tool.



JUKI grease A: 40006323 (The tube capacity is 20g.)

JUKI grease A, large tube type: 23640204 (The tube capacity is 100g for a substantial saving.)

It is JUKI's exclusive grease for maintenance.



Non-lubricated hook: 22890206

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

The hook is used with the lubrication stopped, thereby preventing oil stains. The non-lubricated hook has a lace made of special plastic. (The non-lubricated hook is equipped as standard for the dry-head type sewing machines.)

* The following two parts must be added to enable use of the non-lubricated hook in semi-dry type machines or minute-quantity lubrication type machines.

Hook driving shaft stop-plug screw: 11079506
O-ring: RO036080200



Non-lubricated hook



Lubricated hook C

Lubricated hook C: 11141355

As compared with the regular hook, the lubricated hook C has a structure which has been designed giving a higher priority to the high-speed sewing capability. The hook has a shaper blade point which is provided with a needle guard.

DDL-9000A-DS/PBN Fully-dry type

Direct-drive, High-speed, Lockstitch Machine with Automatic Thread Trimmer (bird's nest prevention type)



The "bird's nest prevention type" model has been newly added.

The newly-developed model totally eliminates "bird's nests at the starting of sewing", which have been a conventionally inevitable factor when using machines with a thread trimmer.

The length of thread remaining at the end of sewing is shortened. With these two capabilities, the machine demonstrates its improved performance in the sewing of parts in which the starting and end points of a seam are visible, such as in the case of sewing name labels, topstitching and counterstitching collar bottoms.

The machine eliminates the "bird's nest" at the starting of sewing!

The machine starts sewing with the needle thread clamped and held with its unique air & ball type clamp. High-quality seams, thereby, are promised without leaving bird's nests (thread tangling) on the wrong side of the material.



Starting of sewing (Wrong side of material: With reverse stitching)

[Conventional lockstitch machine with automatic thread trimmer]



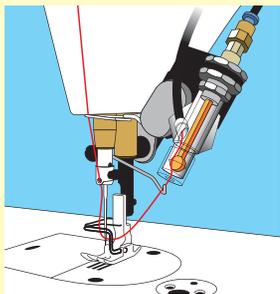
[Bird's nest prevention type]



* For the seam samples shown in the above pictures, the machine performed reverse stitching.

Air & ball type clamp system securely clamps the thread.

The machine comes with a new clamp system where the needle thread wiped by the wiper after thread trimming is sucked by air and clamped by the ball. This system achieves consistent clamping of thread without requiring adjustments of the thread grasping mechanism even when the type or count of thread is changed.



The material is no longer damaged during trimming of the needle thread.

Since the knife which is used for trimming the needle thread is built into the hinging presser, it does not damage the material. The machine adopts a ceramic knife which provides upgraded reliability and durability.



*Needle thread waste produced by the trimming action is sucked in the clamp and automatically put into the dust bag.

Only 4 mm long thread is left on the material at the end of sewing.

The machine adopts a new thread trimming method where the newly-developed thread trimming mechanism trims the thread directly below the throat plate while the last stitch (or two stitches) at the end of sewing is (are) sewn with a smaller stitch length using condensation stitching. As a result, the length of thread remaining on the material is shortened, thereby eliminating thread nipping work.

End of sewing (Wrong side of material: With reverse stitching)

[Conventional lockstitch machine with automatic thread trimmer]



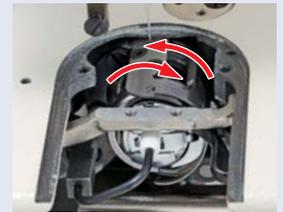
[Bird's nest prevention type]



* For the seam samples shown in the above pictures, the machine performed reverse stitching.

Rotary knife trimming system is adopted.

Two movable knives, which move in such a manner as to wrap around the hook, intersect directly under the needle entry to trim the thread. The length of the remaining thread is, thereby, shortened to 4 mm or less on average.



To further shorten the length of the remaining thread after thread trimming

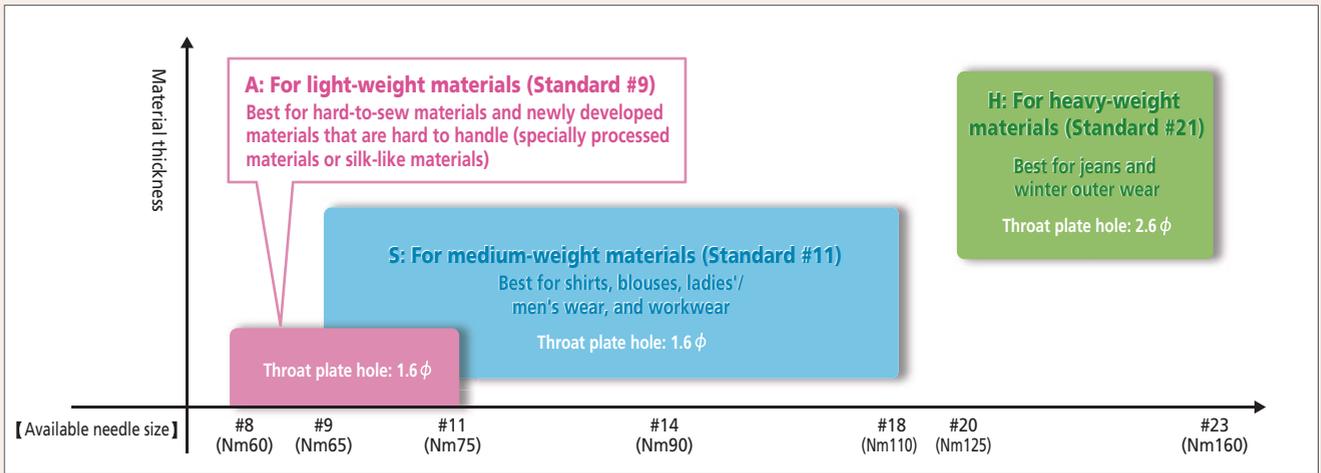
The length of the remaining thread after thread trimming can be further shortened to 3 mm by exchanging the knife unit with the optional shorter-remaining-thread type knife unit and by exchanging other related parts with those which match the optional knife unit.

Replacement parts

| Description | Part No. | |
|--|-----------|----------|
| Shorter-remaining-thread type knife unit | 40067412 | |
| Throat plate | For 4-row | 11497203 |
| | For 3-row | 11417615 |
| Feed dog | For 3-row | 11417714 |
| Pressure regulating spring | | 11162104 |

*The feed dog is required to be changed only in the case of 3-row.

ADAPTABLE RANGE OF SEWING

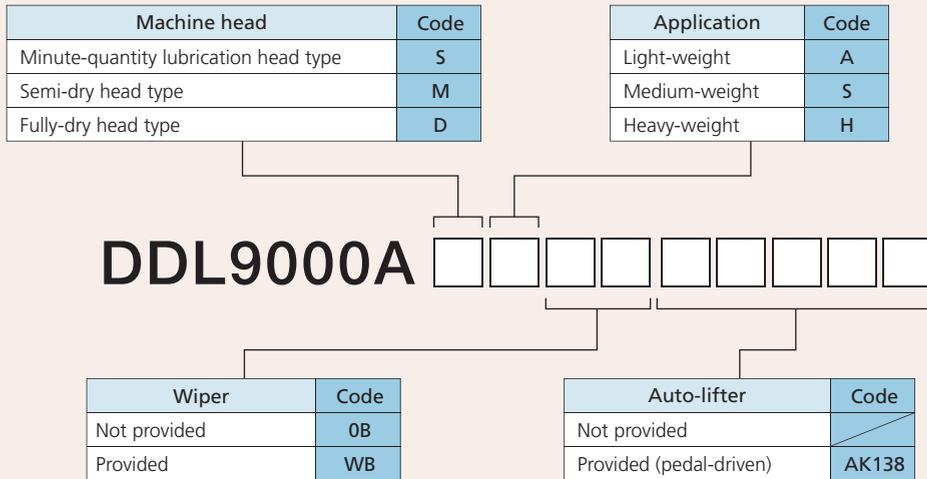


[The sewing range in which the machine can sew with the factory-attached standard gauge]

WHEN YOU PLACE ORDERS

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

[Standard type]



[Bird's nest prevention type]



● To order, please contact your nearest JUKI distributor.

SPECIFICATIONS

[Standard type]

| Model name | DDL-9000A-MA | DDL-9000A-DS DDL-9000A-MS DDL-9000A-SS | DDL-9000A-SH |
|------------------------------------|---|--|-----------------------|
| Application | A: Light-weight | S: Medium-weight | H: Heavy-weight |
| Lubrication system | S: Minute-quantity lubrication type, M: Semi-dry type, D: Dry type | | |
| Lubricating oil | JUKI New Defrix Oil No.1, D-type head does not need oiling | | |
| Max. sewing speed | DS: 4,000rpm, SH: 4,500rpm, MA/MS/SS: 5,000rpm | | |
| Max. stitch length | MA: 4mm | DS/MS/SS/SH: 5mm* | |
| Needle bar stroke | 29mm | 30.7mm | 35mm |
| Feed dog height | 0.8mm | | 1.2mm |
| Needle | DBx1 (#9) #8~11 | DBx1 (#11) #9~18 | DBx1 (#21) #20~23 |
| | 134 (Nm65) Nm60~75 | 134 (Nm75) Nm65~110 | 134 (Nm130) Nm125~160 |
| Lift of the presser foot | By hand: 5.5mm, By knee: 15mm, Auto: 8.5mm | | |
| Size of bed | 517×178mm (distance from needle to machine arm: 300mm) | | |
| Bobbin thread winder | Built-in the machine head | | |
| Machine head drive | Compact AC servomotor (450W) that is directly connected to the main shaft (Direct-drive system) | | |
| Automatic reverse feed function | Provided as standard | | |
| Power consumption | 400VA | | |
| Net weight (machine head only) | 43.5kg, 46.5kg (with AK138) | | |
| Gross package weight | 52kg, 56.5kg (with AK138) | | |
| Outside dimensions of package (mm) | 713×313×677 (0.151m ³), 713×378×677 (0.182m ³) (with AK138) | | |

*The max. sewing speed should be set at 4,000rpm or less when the machine is used with a stitch length of more than 4mm.

[Bird's nest prevention type]

| Model name | DDL-9000A-DS-WB/PBN |
|------------------------------------|---|
| Application | Medium-weight |
| Lubrication system | Fully-dry type (No lubrication is required) |
| Max. sewing speed | 4,000rpm |
| Max. stitch length | 4mm |
| Needle bar stroke | 30.7mm |
| Feed dog height | 0.8mm |
| Needle | DBx1 (#11) #9 ~ 18 |
| | 134 (Nm75) Nm65 ~ 110 |
| Presser foot | Hinging presser with a knife |
| Lift of the presser foot | By hand: 5.5mm, By knee: 15mm, Auto: 8.5mm |
| Size of bed | 517×178mm (distance from needle to machine arm: 300mm) |
| Bobbin thread winder | Built-in the machine head |
| Machine head drive | Compact AC servomotor (450W) that is directly connected to the main shaft (Direct-drive system) |
| Hook | Hook with special plastic race |
| Automatic reverse feed function | Provided as standard |
| Wiper | Crosswise wiping method (ratchet type) |
| Thread trimming device | Rotary knife trimming system |
| Thread retaining device | Fixed type using an air-cylinder & ball |
| Condensation stitch | Selection of one to nine stitches with the setting switch |
| Remaining-thread suction device | Ejector type |
| Compressed air | 0.4MPa |
| Air consumption | 1.2dm ³ /min (ANR) |
| Power consumption | 350VA |
| Net weight (machine head only) | 54kg, 58.5kg (with AK) |
| Gross package weight | 45.5kg, 48.5kg (with AK) |
| Outside dimensions of package (mm) | 713×313×677 (0.151m ³), 713×378×677 (0.182m ³) (with AK) |

* The machine is not able to sew heavy-weight materials such as jeans.

* The thread trimmer is able to trim thread as thick as #30. Any thread which is #20 or lower should not be used.

* An air hose inner diameter of which is 8 mm or larger should be used.

* Do not finish sewing with idling stitches.

JUKI[®]
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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.



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:

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