

>> Easy Control Panel

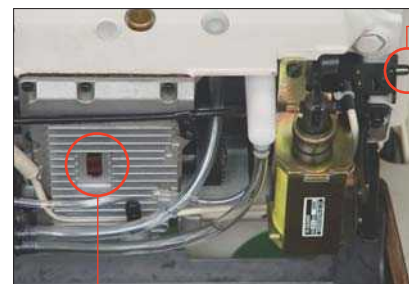


- ▶ **Easy to Set Function Keys**
Diverse function keys on the control panel can be easily set, causing no inconvenience in use at all.
- ▶ **Easy to Set the up/down Stop Position of Needle Bar**
The up/down stop position of the needle bar can be easily set with simple operation on the control panel.
- ▶ **Max. Speed Change with Simple Key Operation**
The arrow keys on the right side of the control panel (speed keys) can be used to easily change the max. speed.

>> Next-G Control Fortuna IV

- ▶ **Modern Look and Practical Design for Easy Attachment**
The sleek control box can be easily attached to the sewing machine. Without the control panel, basic functions can be set, boosting convenience in use.
- ▶ **Less Noise and Low Vibration**
The optimized control system has effectively reduced electrical noises and vibration. It helps formulate more pleasant working environment.
- ▶ **Speed-Up/Down Function and Accurate Stop**
It can accelerate or slow down the speed. The ability to stop the machine accurately is outstanding. The machine is sensitive to users pedal movement. After using the machine, you can immediately tell the difference between the machine and the existing belt-drive sewing machines.

>> Easy Maintenance



- ▶ **Easy to Check Oil Volume in Gear Box**
The oil window makes it easy to check remaining oil in the gear box. Timely oil supply is possible.
- ▶ **Lubrication-free (KM-2300F□)**
Full-dry type uses special hoods, which don't require oil supply. As the needle bar and the hook don't use oil, maintenance is not needed.
- ▶ **V-Belt Removal**
As V-belt has been removed, installing the machine is much easy. During high-speed operation, belt-generated noises and vibration don't occur. In addition, the problem of tainting sewing materials by V-valve dust is not caused any longer. You don't need to worry about belt slip which happens often when the belt is used for a long time.

▶ **Safe Maintenance**
Thanks to safety switch, during repair or maintenance work, the machine is not activated when its pedal is accidentally stepped on. Safety accidents are preventable.

Optional Devices

- ▶ **Automatic Knee Lifter**



Compact-type automatic knee lifter solenoid attached directly to the machine head in the back minimize loss of power.

- ▶ **The delicate presser foot lifter**



The delicate presser foot lifter is installed on the front side. It makes frequent adjustment of the height of presser foot much easier.

KM - 2300 **KM - 2310**

Code	Lubrication Type
F	Full Dry Type
S	Semi-Dry Type
M	Micro Lubrication Type

Code	Application
A	Light materials
G	General materials
B	Heavy materials*

* Only for "M" type machine

Code	Application
G	General materials
B	Heavy materials

• For the application code "B" (for heavy materials) only used for "M" (micro-lubrication) type machine is available.

Specifications

Model	Full-dry Type		Semi-dry Type		Micro Lubrication Type			Auto Lubrication Type	
	KM-2300FA	KM-2300FG	KM-2300SA	KM-2300SG	KM-2300MA	KM-2300MG	KM-2300MB	KM-2310G	KM-2310B
Application	Light	General	Light	General	Light	General	Heavy	General	Heavy
Lubrication	No Lubrication		Hook-Lubrication		Hook-Lubrication, Needle bar Micro Lubrication			Auto Lubrication	
Max. Sewing Speed	3,500 spm	4,000 spm	4,000 spm	5,000 spm	4,000 spm	5,000 spm	4,500 spm	5,000 spm	4,500 spm
Max. Stitch Length	4 mm	5 mm	4 mm	5 mm	4 mm	5 mm		5 mm	
Needle Bar Stroke	29 mm	30.7 mm	29 mm	30.7 mm	29 mm	30.7 mm	33.4 mm	30.7 mm	33.4 mm
Thread Take-Up Stroke	60.8 mm								
Height of Feed Dog	0.75-0.85 mm						1-1.2 mm	0.75-0.85 mm	1-1.2 mm
Height of Presser Foot	5.5 mm (By Hand) / 15 mm (By Knee) / 15 mm (Automatic, Option)								
Hook	No-Lubrication Hook				Auto-Lubrication Hook				
Needle	DB x 1 SF(N) #11 (#9-#11)	DB x 1 #H4 (#H1-#H8)	DB x 1 SF(N) #11 (#9-#11)	DB x 1 #H4 (#H1-#H8)	DB x 1 SF(N) #11 (#9-#11)	DB x 1 #H4 (#H1-#H8)	DB x 1 #H2 (#H9-#H23)	DB x 1 #H4 (#H1-#H8)	DB x 1 #H2 (#H9-#H23)
Sewing Area	300 mm								
Bed Size	517 mm x 178 mm								
Bobbin Thread Winder	Built-in the Machine Head								
Thread Wiper	Provided								
Automatic Back-tack Device	Provided								
Automatic Thread Trimmer	Provided								
Motor	500W Direct Drive AC Servo Motor								
Power	1-Phase : 100-240V, 3-Phase : 200-240V, 50/60 Hz								

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

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Direct Drive, High-speed, 1-needle Lock Stitch Machine with an Automatic Thread Trimmer

KM-2300 Series



SunStar

KM-2300 Series

Direct Drive, High-speed, 1-needle Lock-Stitch Machine with an Automatic Thread Trimmer

SunStar Next Generation High-speed Lock Stitch Machine

- ▶ Direct drive Next-G Control Fortuna IV
- ▶ Innovative lubrication mechanism(Full-dry, Semi-dry, Micro-lubrication)
- ▶ Improved sewing quality

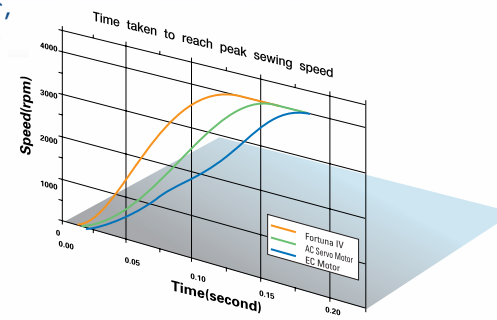


Direct Drive



Equipped with 500W AC Servo Motor, the sewing machine can powerfully handle heavy materials.

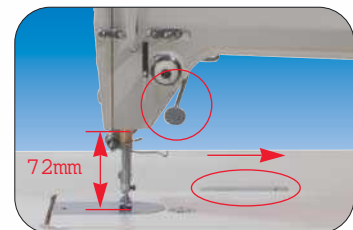
Compared with competitors, more stable motor capability is offered (patent filing under way). Based on 3-D CFD & FEM interpretation, it produces less noises and low vibration. The sewing machine can make accurate stop, and its prompt and smooth responsiveness leads to productivity enhancement.



Ease to Use



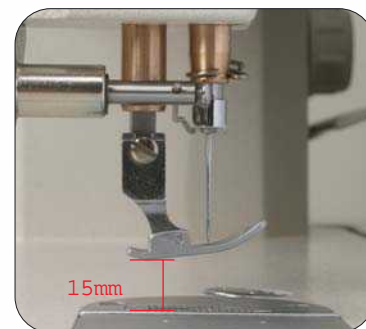
▶ **Easy to Use Bobbin Winder**
The device to wind lower thread is installed on the top of the machine. The thread volume control and lower thread winding are much more convenient.



▶ **Smooth Sewing**
The hinge is placed at the right-hand side not to interrupt sewing materials during sewing.

▶ **Reverse Switch**
The reverse switch is located at the easily reachable position during sewing, boosting working efficiency.

▶ **Wider Visibility**
The height of the lower part of the sewing machine is increased to 72mm. Therefore sewing conditions can be easily checked during work.



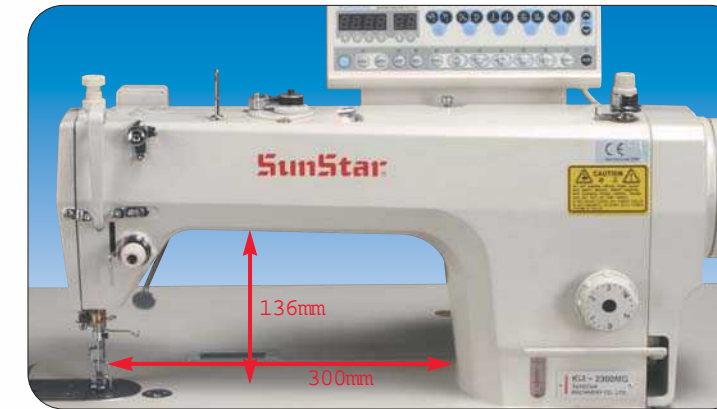
▶ **Max. Height of Presser Foot Lift: 15mm**
The presser foot can be lifted up to 15 mm. As such, sewing heavy materials can be conducted conveniently.



▶ **The Feed Dog Can be Easily Adjusted.**
The feed dog's height, tilt and timing are easily adjustable.

Spacious Working Area

Compared to the existing belt-drive sewing machines, KM-2300 Series can secure more space for sewing. As such, even large sewing materials can be easily handled.



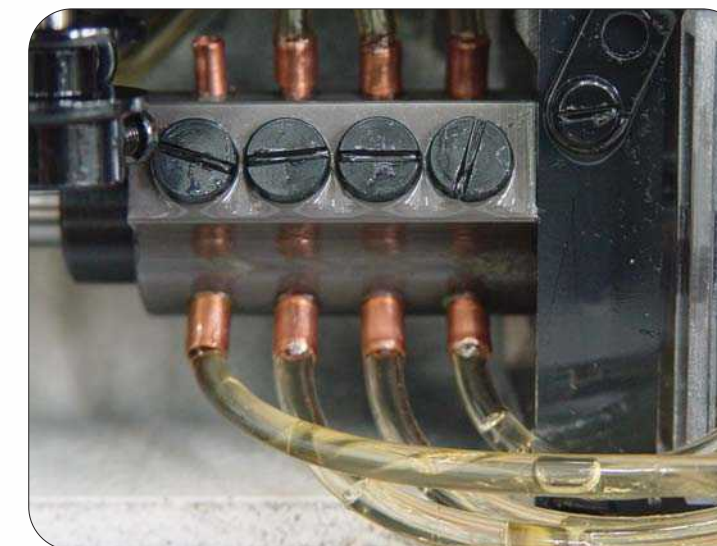
Automatic Oil Supply (KM-2310)

▶ **Low noises and low vibration at the maximum speed**
-Abrasion-resistant thanks to the forced supply of sufficient oil to each moving part
- Shaft vibration reduced with the support from the bushing instead of the bearing
Resolution of bearing's structural problems such as bearing scratch, crack or abnormal attrition, when used in bad conditions.

- Reliable as much as the existing automatic oil supply sewing machine
-No need of maintenance: no need to make regular exchange of grease at each oiled moving part of the dry head machine

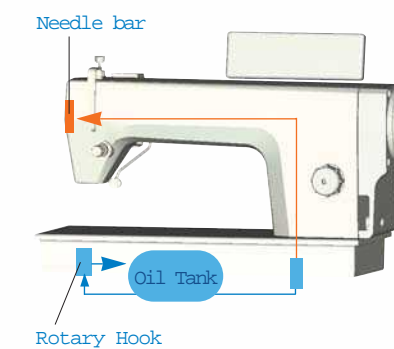
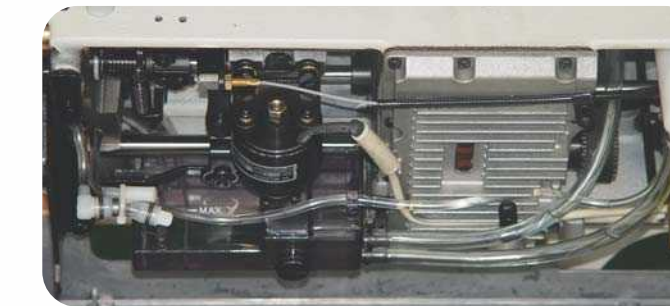
▶ **Enhanced machine durability** ◀ Suppression of temperature increase at each oiled moving part

▶ **Especially Suitable for Heavy Materials**
Since sufficient oil is applied to each oiled moving part, the machine is suitable for sewing heavy materials where load on the machine is created at the highest level.
-Searching structure designed for heavy materials sewing + 500W AC Servo Motor + four corners feed dog motion + large sewing space

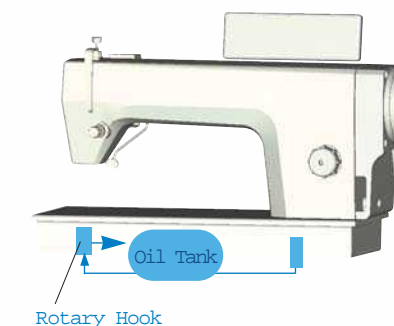


Oil Stain-free Sewing

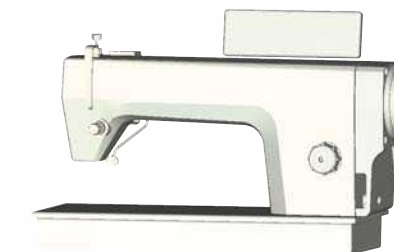
The low-volume lubrication or no lubrication technology of SunStar is leveraged to remove oil from the inside of the sewing machine. It resolves the problem of tainting sewing materials.



▶ **Micro-lubrication Type (KM-2300M□)**
The oil tank supplies oil to hook with the oil circulation method. Very tiny volume of oil is provided to needle bar, enhancing productivity and minimizing the sewing material tainting

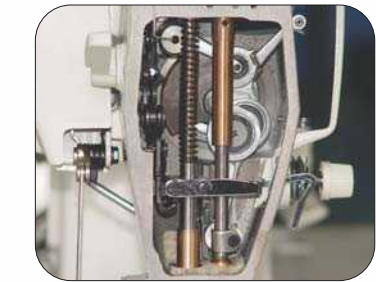


▶ **Semi-dry Type (KM-2300S□)**
The oil circulation system involving oil tank is used to supply oil through hook only. Oil has been completely removed from the needle bar and the thread take-up.



▶ **Full-Dry Type (KM-2300F□)**
The oil-free hook is applied. Oil has been completely removed from the needle bar and the hook. No oil smudging problems occur.

Improved Sewing Quality



▶ **Enhanced Seaming Mechanism**
Newly developed light thread take-up and various transfer devices are applied depending on sewing materials. Forward sewing materials movement is superior, and high-quality sewing can be achieved.



▶ **Stable Thread Trimmer**
Thread trimmer boasts stable function. The rotary thread trimmer can be easily adjusted depending on the thickness of sewing materials. Remnant thread can be minimized.



▶ **Fine Presser Foot Lifter**
When dealing with elastic or hairy materials, the presser foot can be slightly lifted for effective sewing.

Energy Efficiency

SunStar's Direct Drive AC Servo Motor directly sends power to the upper shaft. This optimal design minimizes energy loss. Compared with existing AC Servo motors, it consumes much less energy.

