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The computer-controlled cycle machine with an input function "AMS-210EN Series" is launched with the industry's highest sewing speed and incorporating a newly-adopted feed control system that promises energy saving and higher seam quality.



JUKI is launching its computer-controlled cycle machine with an input function "AMS-210EN" Series on the first day of this coming December. The new AMS Series substantially reduces power consumption and promises higher productivity and seam quality.

The AMS-210EN Series is a partly-changed model of the AMS-210E, which was launched on the market in July, 2005. The new model has been improved with respect to productivity, energy-saving ability, seam quality, operability and memory capacity as compared with the conventional model.

The AMS-210EN Series comes in three types as listed below which differ in sewing area.

130 mm (width) x 60 mm (length) (AMS-210EN1306)

150 mm (width) x 100 mm (length) (AMS-210EN1510)

220 mm (width) x 100 mm (length) (AMS-210EN2210)

◆Features

●Productivity

- The sewing machine achieves a sewing speed of 2,800 sti/min, which is the highest sewing speed in the sewing machine manufacturing industry (for a stitch length of 4 mm or less).

- The newly-adopted main-shaft direct-drive system enables instantaneous acceleration at the beginning of sewing and instantaneous deceleration at the end of sewing, offering excellent responsiveness of the motor. The maximum sewing speed is reached at the 2nd stitch from the beginning of sewing and is maintained until immediately before thread trimming.
- The thread trimming mechanism controlled by a stepping motor has been adopted for improved thread trimming. This thread trimming mechanism enables high-speed thread trimming without fail.
- Due to the newly adopted feed mechanism which contributes to increased sewing speed and the increase in speed of operating section of the sewing machine, the cycle time is reduced by approximately 15 % as compared with that of the conventional model.
(For the stitch length of 4 mm)

●Energy saving

- A direct-drive mechanism by means of a compact AC servomotor which achieves excellent energy transfer has been adopted to control the main shaft of the sewing machine. The encoder-control system adopted for the X-Y drive of the feed mechanism, which feeds the material, drives the stepping motor with a minimum power supply according to the material weight and stitch length. With these new control systems, the AMS-210EN Series reduces power consumption by approximately 30 % as compared with JUKI's conventional model.

●Seam quality

- A newly-developed encoder-controlled stepping motor system has been adopted for the X-Y feed mechanism.
With this new system, the feeding frame position can be observed during sewing. As a result, the accuracy of the feed is remarkably improved to produce higher quality seams with increased accuracy while preventing deformations of the sewing shape
- With JUKI's unique active tension, which has been well received in the market, and the programmable intermediate presser height control, the sewing machine flexibly responds to various materials to provide higher seam quality, and ultimately promising higher seam quality.

●Active tension

- The needle thread tension is adjustable on a stitch-by-stitch basis during sewing. As a result, setting of the needle thread tension corresponding to the material thickness and correction of thread tension, which differs in accordance with the direction of sewing, can be easily carried out by inputting data on the operation panel. Since the needle thread tension is reproducible under a broad range of sewing conditions, the time required for setup changing at the time of process changeovers can be reduced.

●Programmable intermediate presser

- The lowest dead point height of the intermediate presser can be changed steplessly during sewing. As a result, the intermediate presser securely holds material which has multi-layered sections.
(Standard: 0 to 3.5 mm; Max.: 0 to 7 mm)

- Since the intermediate pressure securely holds the sewing material, sewing troubles such as stitch skipping and thread breakage can be prevented. In addition, damage to the sewing material is prevented by maintaining the intermediate presser height in accordance with the material thickness. (The stroke of the intermediate presser is adjustable in a range from 0 mm to 10 mm.)

●Semi-dry head

- The frame (needle bar and thread take-up lever section) is lubricated with grease and the hook is lubricated with a minute quantity of oil from the oil reservoir. This lubricating system reduces oil stains on apparel products. With our advanced dry-head technology, which has already been adopted for many JUKI sewing machine models, the AMS-210EN Series protects customer products against oil stains.

●Operation panel with input functions

- The sewing machine is provided as standard with a large color LCD touch sensitive operation panel which has been developed pursuing ease of use. The operator is able to carry out the inputting and editing of sewing data while visually checking the needle entry points, thereby dramatically increasing efficiency.
- The operation panel supports 14 different languages for display.
- The memory storage capacity of the sewing machine has been substantially increased. The memory storage capacity of the main body of the sewing machine is 500,000 stitches and 999 patterns at the maximum (max. 50,000 stitches/pattern).
- In addition to the CompactFlash card slot which has been provided as standard for the conventional operation panel, the new operation panel is provided as standard with a USB connector. Sewing data can be input from various media. The memory storage capacity of each medium is 50,000,000 stitches and 999 patterns at the maximum.

For more information on this Release, please contact:

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