November 15, 2017

JUKI launches its new semi-dry head, high-speed, unison-feed sewing system with vertical-axis large hook and thread trimmer "LU-2828V-7" which digitalizes adjustment values for sewing and reduces preparation time through utilization of the ICT (information and communications technology).

JUKI launches its new sewing system "LU-2828V-7" on the 1st of November (for overseas market). This new model digitalizes adjustment values required for sewing and easily transfers them to the main body of sewing machine by means of the ICT.

This sewing system is the flag ship model of sewing machines that are specifically developed for sewing heavy-weight materials for car seats and sofas such as leather, artificial leather and heavy-weight fabric. Five adjustment values (stitch length, presser foot height, pressure foot pressure, alternate vertical movement amount of the walking foot and needle thread tension) required for sewing are digitalized.

In sewing factories, experts working at sample rooms or those in charge of equipment maintenance adjust the sewing machines to the optimum state while checking the finished seam balance of each sewing machine. For the "LU-2828V-7", adjustment values can be set only by inputting numerical values that are best-suited to the material on the main-body operation panel.

This model, additionally, is able to transfer the adjusted values to NFC-compatible Android tablets. Setup of adjustment values of another sewing machine can be completed only by bringing the data-containing Android tablet to its operation panel. As a result, the time required for setting up sewing machines in a factory can be substantially reduced, while eliminating differences in adjustment values for sewing. For the customers who

globally market their products, transmission, communization and management of data is facilitated, leading to global stabilization of product quality.

Furthermore, since the information on sewing machines' operation are displayed real time on tablets, entire-factory improvement activities would be enabled by analyzing the data. (By means of JUKI Smart APP)

JUKI is going not only to expand its sales of the "LU-2828V-7" that contributes to stabilized product quality through substantial reduction in preparation time and data communization but also to help our customers to establish "smart" factories through the pursuit of solutions that enable digital evolution from the ICT to IoT (Internet of Things).

◆Features

●New design improves view ability and operability

・The LU-2828V-7 is changed in coating color to new color that matches the flagship model. The newly-designed operation panel is placed at the center of machine arm to improve view ability and operability.

●Increased productivity

・The LU-2828V-7 achieves the maximum sewing speed of 3,500 sti/min. It comes with a high-torque direct-drive motor that supports sewing of heavy-weight materials, thereby demonstrating faster startup as well as further accurate stopping. This motor ensures improved seam quality when sewing multi-layered sections of material with its strong penetrating power.

●Seam quality and workability

・Since both the "thread clamp device" that works at the beginning of sewing and the "shorter-thread remaining function" that works at the end of sewing so as to shorten the length of thread remaining on the material after thread trimming to the industry's minimum of 5 mm, manual thread nipping work is reduced. These features also contribute to the production of higher-quality seams on the wrong side of material, thereby lending the products a premium feel.

・Since the LU-2828V-7 is installed with JUKI's largest 2.7-fold capacity hook, frequency of bobbin changing is reduced, workability is improved. In addition, the degree of contact of the hook needle guard with the needle can be easily adjusted with the screw. This helps prevent stitch skipping and wear of the hook blade tip.

●Various digitalized functions

・Management of sewing performance and sewing machine by the utilization of IoT (Internet of Things)
Data on sewing machine adjustments made according to the product to be sewn can be transferred to a commercially-available Android tablet in contactless mode. This enables quick check for uniform settings as well as confirmation of conditions of sewing machines in a sewing line, thereby facilitating setup changes. The operation panel is also provided as standard with a USB port. Data management and software update can be carried out with ease using a USB thumb drive.
＊Android OS Version 6.0 is recommended to use JUKI Smart APP.

・Needle tension is digitally controlled
Needle thread tension which matches sewing conditions given can be set on the operation panel and stored in memory. The needle thread tension adjustment needs experience. However, for this sewing machine, thread tension data stored in memory is reproducible, thereby reducing the setup time when

the product to be sewn is changed.

・Active presser foot pressure mechanism

Digital control system controls the presser foot pressure. Under the automatic mode, the multi-layered section detection function detects changes in material thickness to increase/decrease the presser foot pressure accordingly. Under the manual mode, the presser foot pressure control function is assigned to the hand switch to enable operation with the hand switch.

・Multi-functional 6-string switch

The sewing data (stitch length, needle thread tension, amount of alternate vertical movement, presser foot pressure and sewing speed) can be changed easily with the one-touch changeover switch to obtain the ones that have been elaborated according to sewing conditions.

・The operator is able to turn the main shaft (for moving the needle bar up and down) only with the jog dial without stretching his/her arm to the handwheel. When the jog dial is pushed, it can be used as 1/2 needle-stitch correction switch (one touch function).

・Multi-layered part detection function

Multi-layered parts of material which occur in the case two or more plies of material are sewn or different kinds of material are sewn can be detected by the multi-layered part detection function to change over the stitch length, thread tension, presser foot presser and amount of alternate vertical movement to those that have been predetermined for sewing those parts of material.