

Computer-controlled, High-speed, Single-thread Chainstitch, Button-neck-wrapping Machine

# AMB-289



AMB-289 (Table stand is optionally available.)

### The machine comes with a newly developed AMB-239 active-tension system ideal for the careful sewing of beautiful seams.

# This single machine can also sew flat buttons, shank buttons, marble buttons and stay buttons (counter buttons).

- The stay button (counter button) sewing capability is a vital addition to the impressive application range of the AMB-289.
- Sewing methods and sewing shapes can be easily reset on the operation panel.
- In combination with the independent-drive needle-throwing method, the adoption of the Y-feed on the body side and X-Y feed on the button-sewing side enables the AMB-289 to sew patterns with variable numbers of buttonholes (such as four-holed front buttons and two-holed stay buttons).



Flat button





Marble button



The AMB-289 performs button-sewing and neck-wrapping in a single cycle





(with the neck-wrap sewing unit installed)

# The cycle time has been reduced to bolster productivity.

- The sewing speed has been enhanced to dramatically increase productivity.
- As compared with manual button sewing, the AMB-289 achieves productivity as high as 5 times.

#### Comparison of productivity

(Condition) 4-holed button sewing Button sewing: 8 stitches × 2 Neck wraps: 10 stitches Hours of work: 8 hours Allowance rate: 25 %



| AMB-289<br>Normal sewing speed<br>Button sewing speed 1,000rpm<br>Neck wraps speed 1,500rpm                   | The number of buttons<br>to be sewn / 8h<br><b>1,986 pieces</b><br>Cycle time 7.6 sec/1 piece+Material picking/placing action: 4 sec |
|---|--|
| Conventional machine<br>AMB-189NR<br>Normal sewing speed<br>Button sewing speed<br>Neck wraps speed<br>740rpm | The number of buttons<br>to be sewn / 8h<br>1,704 pieces<br>Cycle time 9.5 sec/1 piece+Material picking/placing action: 4 sec        |
| Manual button sewing  | The number of buttons<br>to be sewn / 8h<br>417 pieces<br>Cycle time 55 sec/1 piece (including the material picking/placing action)  |

# The AMB-289 promises upgraded-quality neck-wrapping.

The AMB-289 finishes four-holed buttons with a hand-stitched appearance (V-shape stitching) by fixing the tucking position at a preset location. This results in the sewing of a neat seam on the wrong side of the garment and neck-wrap knots at a single location. Seam quality is further enhanced as a result.



The neck-wrap data can be finely adjusted via the entry screen of the operation panel to enhance the sewing quality. The distribution of neck wraps on the upper and lower parts of the button neck, a crucial point in determining the quality of neck-wrapping, can be adjusted to prevent buttons and button necks from becoming unstable and tilting.

The neck-wrapping height can be adjusted by up to 10mm.





## Newly developed active tension (electronic thread tension control system)

- The newly introduced active tension system further improves responsiveness and allows delicate tension setting when the user changes fabrics.
- Thread tensions for button sewing and neck wrapping can be separately set on the operation panel.
- The machine stores sewing conditions in memory on a pattern-bypattern basis. Required sewing conditions can be exactly reproduced for every pattern.



# Superb functions for improving seam quality

- The remaining length of needle thread can be adjusted according to the type of material or thread to be used. It effectively prevents thread from slipping off the material at the start of sewing.
- The AMB-289 does not require the use of exclusive thread intended for button sewing. General-purpose cotton threads and spun threads are both applicable, depending on the type of material. A full range of thread counts from #60 to #30 can be applied. This ensures use for diverse processes.
- The thread-trimming position is set to reduce the remaining length of thread on the material to a minimum.
- The machine incorporates a thread-fray prevention function that ensures the tying of strong and reliable knots at the last stitch.
- The number of stay stitches, which increases strength of button sewing stitches, can be set on the operation panel within the range of 0 and 3 stitches.
- The tucking depth is increased to 5mm to ensure a consistent tucking depth in soft materials such as knits.
- The feed accuracy is as high as 0.1mm. This promises an accurate needle entry position and tucking depth.

# Cycle sewing

- The machine sews buttons on a double-breast suit, a garment that requires the sewing of different types of buttons, in a continuous manner.
- Cycle sewing data can be set/edited with the sewing item graphically displayed on the operation panel (the number of buttons, button sewing locations, and sewing order of buttons).
- The button loader can feed two types of buttons in a single sewing cycle.







Cycle sewing Data entry screen

Button loader



# The machine comes with new functions to improve workability.

#### Dramatically reduced oil stains

- As the machine requires no lubrication, oil spatters and all other lubrication-related troubles are eliminated. Sewn garments have dramatically fewer oil stains as a result.
- \*Periodical greasing is required for some of the mechanical structures.

#### Dramatically reduced vibration and noise

The adoption of the needle-throwing mechanism dramatically reduces the vibration and noise usually produced during the neckwrapping procedure.

# The machine is provided as standard with a button loader.

- The machine is provided as standard with a button feeder that lets the operator place the next buttons to be sewn during overlappingstyle work.
- The button-delivery position between the button loader and button chuck can be easily adjusted on the operation panel. No tools are required.



Setting of longitudinal and lateral adjustments of button chuck.

#### LED now adopted

The AMB-289 is provided as standard with an LED-type handy light and marking light. The sewing area is now brighter and more viewable than it would be under the incandescent light of a conventional machine. LED light also offer the advantage of a longer service life. The machine is optionally provided with a marking light for sewing flat buttons directly to cloth.

#### **Convenient handy pulley**

The handy pulley is mounted on the top of head. This makes it easy to check the needle entry point.

# The button loader gauge for the conventional model can also be used with the AMB-289.

- The set pins and four-holed and two-holed button carriers used with the AMB-189NR (the conventional model provided with a button loader) can also be used with the AMB-289.
- \*The AMB-289 requires dedicated set pins for shank buttons, marble buttons, and metallic buttons (optional).

#### Safety design

- The safety-first design makes it impossible to start the machine without buttons set on the button chuck.
- If the machine head tilts while the power ON, the safety switch automatically shuts down the machine even when the pedal or knee switch is pressed.

# The color panel IP-200D provides excellent operability.

- The operation panel is a touch-sensitive type LCD. The clear graphical displays make it much easier for the operator to set or modify sewing data.
- A SmartMedia card can be used to store and transfer sewing data. This makes it possible for sewing machines at one or more factories to share data.



#### Applicable button requirements





| bec | ecifications for counter buttons |                              |  |  |  |  |  |  |  |  |  |  |
|-----|----------------------------------|------------------------------|--|--|--|--|--|--|--|--|--|--|
|     | А                                | Buttonhole diameter          | Needle: $\phi$ 1.5mm or more when using #12 $\sim$ #16<br>Needle: $\phi$ 2mm or more when using #12 $\sim$ #18 |  |  |  |  |  |  |  |  |  |
|     | В                                | Distance between buttonholes | 2.0~5.0mm  |  |  |  |  |  |  |  |  |  |
|     | С                                | Buttonholes                  | All holes must be located equidistant from the center of each button   |  |  |  |  |  |  |  |  |  |
|     | D                                | Outside diameter             | Min. ¢8mm<br>Max. ¢25mm<br>Line height within ±0.25mm  |  |  |  |  |  |  |  |  |  |
|     | Εı                               | Button with a around edge    | R(roundness) of button edge must be a 2mm radius or less   |  |  |  |  |  |  |  |  |  |
|     | E2                               | Button with an angular edge  | The thickness must be 5mm or less  |  |  |  |  |  |  |  |  |  |
|     |                                  |                              |  |  |  |  |  |  |  |  |  |  |

2mm or less

5mm or less

Must be smooth

#### List of button carrier

| For 4-holed button |          |        |            |      |                      |        |            |      |          | For 2-holed button |            |      |                      |        |            |      |          |        |            |
|--------------------|----------|--------|------------|------|----------------------|--------|------------|------|----------|--------------------|------------|------|----------------------|--------|------------|------|----------|--------|------------|
| 1 2                |          |        |            |      |                      |        | 3          |      |          | 4                  |            |      |                      | 5      |            |      |          |        |            |
| ¢b                 |          |        |            |      |                      |        |            | ¢b   |          |                    |            | ¢b   |                      |        |            |      |          |        |            |
| Mark               | Part No. | Dimer  | ision(mm)  | Mark | Part No.             | Dimen  | sion(mm)   | Mark | Part No. | Dimen              | sion(mm)   | Mark | Part No.             | Dimen  | sion(mm)   | Mark | Part No. | Dimen  | sion(mm)   |
| А                  | 17856600 | a<br>b | 2.0<br>1.0 | D    | 17856907             | a<br>b | 2.8<br>1.2 | к    | 17857608 | a<br>b             | 4.0<br>1.4 | м    | 17858002             | a<br>b | 2.0<br>1.0 | U    | 17858705 | a<br>b | 4.0<br>1.4 |
| в                  | 17856709 | a<br>b | 2.4<br>1.2 | Е    | 17857004             | a<br>b | 2.8<br>1.4 | К1   | 17857707 | a<br>b             | 4.0<br>1.8 | N    | 17858101             | a<br>b | 2.4<br>1.2 | v    | 17858804 | a<br>b | 4.2<br>1.4 |
| С                  | 17856808 | a<br>b | 2.6<br>1.2 | F    | 17857103             | a<br>b | 3.0<br>1.2 | L    | 17857806 | a<br>b             | 5.0<br>1.8 | Р    | 17858200             | a<br>b | 2.6<br>1.2 | w    | 17858903 | a<br>b | 4.4<br>1.4 |
|                    |          |        |            | Fl   | 17857202             | a<br>b | 3.0<br>1.4 |      |          |                    |            | Q    | 17858309             | a<br>b | 2.8<br>1.2 | х    | 17859000 | a<br>b | 4.6<br>1.4 |
|                    |          |        |            | G    | 17857301             | a<br>b | 3.2<br>1.4 |      |          |                    |            | R    | 17858408             | a<br>b | 3.0<br>1.2 | Y    | 17859109 | a<br>b | 4.8<br>1.4 |
|                    |          |        |            | н    | Standard<br>17857400 | a<br>b | 3.4<br>1.4 |      |          |                    |            | S    | 17858507             | a<br>b | 3.2<br>1.4 | z    | 17859208 | a<br>b | 5.0<br>1.4 |
|                    |          |        |            |      | 17857509             | a<br>b | 3.6<br>1.4 |      |          |                    |            | т    | Standard<br>17858606 | a<br>b | 3.4<br>1.4 |      |          |        |            |

Height of button edge

Thickness

Area around buttonholes

F

G

н

Provided as standard

#### Specifications

| Мос  | del name             | AMB-289   |  |  |  |  |  |
|--|----------------------|---|--|--|--|--|--|
| Stitch type  |                      | Single-thread chainstitch   |  |  |  |  |  |
| Sewing speed Max. sewing speed Normal sewing speed |                      | 1,800rpm (neck-wrapping), 1,200rpm (button sewing)  |  |  |  |  |  |
|  |                      | 1,500rpm (neck-wrapping), 1,000rpm (button sewing)  |  |  |  |  |  |
| Application  |                      | Sewing of various button types (buttons to be sewn by machine)  |  |  |  |  |  |
| Button size  |                      | Sewing button without neck-wrapping : $\phi \approx \phi 38$ mmSewing button with neck-wrapping: $\phi \approx \phi 32$ mmCounter button: $\phi \approx \phi 25$ mm   |  |  |  |  |  |
| Display scree<br>shape-setting                     | n for setting basic  | Distance between buttonholes:<br>$1.5\sim6.0$ mm (in increments of 0.1mm)<br>Height of neck-wrap:<br>$0, 1.5\sim10.0$ mm (in increments of 0.1mm)<br>Number of cross-over stitches:<br>$2\sim64$ (in increments of 2) |  |  |  |  |  |
| Needle   |                      | ORGAN SM×332EXTLG-NY (standard needle),<br>(at the time of delivery #14) #12~#18  |  |  |  |  |  |
| Thread   |                      | SPUN #60~#30, Cotton thread #60~#30   |  |  |  |  |  |
| Thread take-u                                      | qu                   | Needle thread take-up   |  |  |  |  |  |
| Needle bar st                                      | roke                 | 60.0mm  |  |  |  |  |  |
| Needle throw                                       | ing system           | Stepping motor  |  |  |  |  |  |
| Feed system  |                      | Stepping motor  |  |  |  |  |  |
| Auto-lifter  |                      | Stepping motor  |  |  |  |  |  |
| Cloth feeding                                      | system               | Pneumatic   |  |  |  |  |  |
| Thread trimm                                       | ing system           | Pneumatic   |  |  |  |  |  |
| Thread tensic                                      | on adjustment        | Active tension<br>(Newly developed electronic thread tension control system)  |  |  |  |  |  |
| Number of da                                       | ta that can be input | Max. 99 patterns  |  |  |  |  |  |
| Number of cy                                       | cle stitch patterns  | The number of registered patterns:<br>20 (30 patterns for one cycle)  |  |  |  |  |  |
| Operation par                                      | nel                  | Color LCD touch panel: IP-200D  |  |  |  |  |  |
| Button loader                                      |                      | Provided as standard  |  |  |  |  |  |
| Product coun                                       | t                    | Provided as standard (up/down system)   |  |  |  |  |  |
| Lubrication  |                      | No lubrication<br>* Periodic greasing is required.  |  |  |  |  |  |
| Power require<br>and power co                      |                      | Single-phase 200~240V, 3-phase 200~240V/400VA   |  |  |  |  |  |
| Compressed<br>and air consu                        |                      | 0.5MPa(5kgf/cm <sup>2</sup> ), 11dm <sup>3</sup> /min   |  |  |  |  |  |
| Dimensions   |                      | 600mm(W)×600mm(D)×400mm(H)  |  |  |  |  |  |
| Weight   |                      | Machine head: 65kg, Control box: 13kg   |  |  |  |  |  |

#### Options

|  | Part No. | Description                       |  |  |  |  |  |
|--|----------|-----------------------------------|--|--|--|--|--|
|  | 40021446 | Marking light asm.                |  |  |  |  |  |
|  | 40021447 | Counter button B asm. (gauge set) |  |  |  |  |  |
|  | 40024087 | Movable safety plate asm.         |  |  |  |  |  |

#### Button set pins (options)



#### Button chuck

| Part No. | Description                         | Outside diameter of button that can be used | Remarks                   |
|----------|-------------------------------------|---|---------------------------|
| 40020932 | Button chuck (small)                | <i></i> ¢8∼¢16mm                            | Accessories               |
| 40020931 | Button chuck (medium)<br>(standard) | ¢14∼¢25mm                                   | Installed on machine head |
| 40020930 | Button chuck (large)                | <i>∳</i> 25∼ <i>∲</i> 38mm                  | Accessories               |

#### When you place orders

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

[Control box]



• To order, please contact your nearest JUKI distributor.

| MC640 IP200D |   |      |                     |        |  |  |  |  |  |  |  |
|--------------|---|------|---------------------|--------|--|--|--|--|--|--|--|
|              | Power supply  | Code | Operation panel     | Code   |  |  |  |  |  |  |  |
| 3-phase      | 200~240V  | E    | IP-200D for AMB-289 | IP200D |  |  |  |  |  |  |  |
|              | 200~240V  | К    |                     |        |  |  |  |  |  |  |  |
| Single-phase | EU(CE) 200~240V<br>(not provided with power switch) | N    |                     |        |  |  |  |  |  |  |  |



considered, Zhe conservation of the energy and resources, and the recycling, in the research, development, design, distribution, sale and maintenance service of the industrial aswing machines, household sewing machines and industrial-use robots, etc. and in the purchase, distribution and sale of the household commodilies including the heathcare products.

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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 catalog is printed on recycle paper.