

# LH4-B814Mark II

## Lockstitch Button Holer



### Specifications

| Model                             | LH4-B814MK II                                    |  |  |                   |
|-----------------------------------|--|--|--|-------------------|
| Subclass                          | -2   | -3   | -4   | -5                |
| Main use                          | General materials<br>(shirt, blouse, dress etc.) | Knitted materials<br>(Knit underwear etc.) | Knitted materials<br>(sweater, cardigan,<br>jacket etc.) | General materials |
| Max. sewing speed                 | 3,600 rpm  |  | 3,200 rpm  | 2,800 rpm         |
| No. of stitches per<br>buttonhole | 60-360   |  | 147-360  | 60-360            |
| Feed system                       | Upper and lower feed                             |  |  | Upper feed        |
| Buttonhole length                 | 10-32 mm   |  | 10-32 mm   | 32-48 mm          |
| Buttonhole width                  | 2-6mm  |  |  |                   |
| Max. sewing<br>thickness          | 4 mm   | 3.5 mm                                     | 6 mm   | 5 mm              |
| Max. clamp lift                   | 13 mm  | 12.5 mm                                    | 13 mm  | 12 mm             |
| Needle bar stroke                 | 35.7 mm  |  |  |                   |
| Needle                            | DP × 5 #14                                       | DP × 5 #11                                 | DP × 5 #14   | DP × 5 #14        |
| Lubrication                       | Automatic  |  |  |                   |
| Tape winder                       | Option parts                                     |  |  |                   |
| Ruler                             | Option parts                                     |  |  |                   |

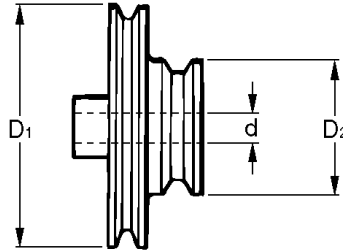
# LH4-B814- Mark II

| Subclass | Applicable items                                 |          |
|----------|--|----------|
| -2       | General materials shirt, blouse, dress etc.      | General  |
| -3       | Knitted materials knit underwear etc.            | General  |
| -4       | Knitted materials sweater, cardigan, jacket etc. | Gimp     |
| -5       | General materials                                | Big hole |

## Different parts

| Parts                   | Subclass | -2                  | -3-                 | -4                  | -5                  |
|-------------------------|----------|---------------------|---------------------|---------------------|---------------------|
| Needle DP × 5           |          | 107415-014<br>(#14) | 107415-011<br>(#11) | 107415-014<br>(#14) | 107415-014<br>(#14) |
| Cutter 5/8              |          | 107205-001          | 107205-001          | 107205-001          |                     |
| Cutter 3/8              |          | 109837-001          | 109837-001          | 109837-001          |                     |
| Cutter 3/4              |          | 107207-001          | 107207-001          | 107207-001          |                     |
| Cutter 1                |          | 107210-001          | 107210-001          | 107210-001          |                     |
| Cutter 48               |          |                     |                     |                     | 147941-001          |
| Change gear 28 (Q'ty:1) |          |                     |                     |                     | 141375-000          |
| Change gear 30 (Q'ty:1) |          | 141376-000          | 141376-000          |                     | 141376-000          |
| Change gear 32 (Q'ty:1) |          |                     |                     | 141377-000          |                     |
| Change gear 34 (Q'ty:1) |          |                     | 141378-000          |                     | 141378-000          |
| Change gear 36 (Q'ty:1) |          | 141379-000          | 141379-000          | 141379-000          |                     |
| Change gear 38 (Q'ty:1) |          | 141380-000          |                     | 141380-000          |                     |
| Change gear 40 (Q'ty:1) |          | 141381-000          | 141381-000          | 141381-000          |                     |
| Change gear 42 (Q'ty:1) |          |                     | 141382-000          |                     | 141382-000          |
| Change gear 44 (Q'ty:1) |          |                     |                     | 141383-000          |                     |
| Change gear 46 (Q'ty:1) |          | 141384-000          | 141384-000          |                     | 141384-000          |
| Change gear 48 (Q'ty:1) |          |                     |                     |                     | 141385-000          |

## Motor pulley and V- belt selection



| Machine speed | Frequency  | Motor pulley            |           |             | High speed V-belt | Low-speed V-belt |
|---------------|------------|-------------------------|-----------|-------------|-------------------|------------------|
|               |            | Outside diameter        | Core      | Parts No.   |                   |                  |
| 3,600         | 50Hz       | D1 = 187.5<br>D2 = 79   | d = 14    | S33007-002* | S18707-144 (M44)  | S18707-141 (M41) |
|               |            |                         | d = 15.88 | S33008-002* |                   |                  |
|               | 60Hz       | D1 = 152.8<br>D2 = 56   | d = 14    | S31131-002  | S18707-142 (M42)  | S18707-140 (M40) |
| d = 15.88     | S33009-002 |                         |           |             |                   |                  |
| d = 19.05     | S33010-002 |                         |           |             |                   |                  |
| 3,200         | 50Hz       | D1 = 160<br>D2 = 81     | d = 14    | 141707-002  | S18707-143 (M43)  | S18707-142 (M42) |
|               |            |                         | d = 15.88 | 145781-002  |                   |                  |
|               | 60Hz       | D1 = 134.2<br>D2 = 69.5 | d = 14    | 141709-002  | S18707-141 (M41)  | S18707-141 (M41) |
| d = 15.88     | 145780-002 |                         |           |             |                   |                  |
| d = 19.05     | 159830-002 |                         |           |             |                   |                  |
| 3,000         | 50Hz       | D1 = 152.8<br>D2 = 73.4 | d = 14    | S42051-002  | S18707-142 (M42)  | S18707-140 (M40) |
|               |            |                         | d = 15.88 | S42052-002  |                   |                  |
|               | 60Hz       | D1 = 127.6<br>D2 = 62.2 | d = 14    | S33254-002  | S18707-140 (M40)  | S18707-140 (M40) |
| d = 15.88     | S33255-002 |                         |           |             |                   |                  |
| d = 19.05     | S33256-002 |                         |           |             |                   |                  |
| 2,800         | 50Hz       | D1 = 134.2<br>D2 = 69.5 | d = 14    | 141709-002  | S18707-141 (M41)  | S18707-141 (M41) |
|               |            |                         | d = 15.88 | 145780-002  |                   |                  |
|               | 60Hz       | D1 = 119.5<br>D2 = 69.5 | d = 14    | 143890-002  | S18707-141 (M41)  | S18707-140 (M40) |
| d = 15.88     | 145782-002 |                         |           |             |                   |                  |
| d = 19.05     | 159831-002 |                         |           |             |                   |                  |

\*For 3,600 rpm in 50Hz areas, use the motor spacer set (S33043-001).

## Change gear

| No. of stitches | Change gear L  | Change gear R  | No. of stitches | Change gear L  | Change gear R  |
|-----------------|----------------|----------------|-----------------|----------------|----------------|
| 360             | (54)141388-000 | (22)141372-001 | 133             | (36)141379-000 | (40)141381-000 |
| 319             | (52)141387-000 | (24)141373-001 | 119             | (34)141378-000 | (42)141382-000 |
| 283             | (50)141386-000 | (26)141374-000 | 107             | (32)141377-000 | (44)141383-000 |
| 252             | (48)141385-000 | (28)141375-000 | 96              | (30)141376-000 | (46)141384-000 |
| 226             | (46)141384-000 | (30)141376-000 | 86              | (28)141375-000 | (48)141385-000 |
| 203             | (44)141383-000 | (32)141377-000 | 77              | (26)141374-000 | (50)141386-000 |
| 182             | (42)141382-000 | (34)141378-000 | 68              | (24)141373-001 | (52)141387-000 |
| 164             | (40)141381-000 | (36)141379-000 | 60              | (22)141372-001 | (54)141388-000 |
| 147             | (38)141380-000 | (38)141380-000 |                 |                |                |

# Gauge parts list

## Cutter

|                   |                   |                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <p>109837-001</p> | <p>107204-001</p> | <p>107200-001</p> | <p>S03278-001</p> | <p>107205-001</p> | <p>S25641-001</p> |
| <p>107207-001</p> | <p>S25642-001</p> | <p>109838-001</p> | <p>107210-001</p> | <p>151837-001</p> | <p>151838-001</p> |
| <p>151839-001</p> | <p>S03279-001</p> | <p>151840-001</p> | <p>151841-001</p> | <p>153340-001</p> | <p>159722-001</p> |
| <p>S30294-001</p> |                   | <p>143780-001</p> |                   | <p>147987-001</p> |                   |
| <p>147941-001</p> |                   | <p>147233-001</p> |                   |                   |                   |

# Gauge parts list

- \*1 Work clamp assy, W/F-G
- \*2 Work clamp assy
- \*3 Work clamp

| < For "-2" >                               |                             |                             |
|--|-----------------------------|-----------------------------|
| *1 S37125-001                              | *1 S37124-001               | *1 S37117-001               |
| *2 150763-001 (16 mm)                      | *2 147112-001 (16 mm)       | *2 150764-001 (25 mm)       |
| *3 145146-001 (With rubber)                | *3 147113-001               | *3 144498-001 (With rubber) |
|  |                             |                             |
| < For "-2" >                               |                             | < For "-3" >                |
| *1 S37127-001                              | *1 S37118-001               | *1 S37126-001               |
| *2 144493-001 (25 mm)                      | *2 150765-001 (32 mm)       | *2 150767-001 (16 mm)       |
| *3 144494-001                              | *3 144575-001 (With rubber) | *3 145136-001 (With rubber) |
|  |                             |                             |
| < For "-3" >                               |                             | < For "-4" >                |
| *1 S37119-001                              | *1 S37120-001               | *1 S37129-001               |
| *2 1510768-001 (25 mm)                     | *2 150769-001 (32 mm)       | *2 147721-101 (16 mm)       |
| *3 144630-001 (With rubber)                | *3 144632-001 (With rubber) | *3 147722-001 (With rubber) |
|  |                             |                             |
| < For "-4" >                               |                             |                             |
| *1 S37121-001                              | *1 S37128-001               | *1 S37122-001               |
| *2 150770-001 (25 mm)                      | *2 147719-001 (25 mm)       | *2 150771-001 (32 mm)       |
| *3 145362-001                              | *3 147720-001 (With rubber) | *3 145375-001               |
|  |                             |                             |
| < For "-4" > Light-weight materials        |                             | < For "-5" >                |
| *1 S37130-001                              | *1 S37123-001               |                             |
| *2 151610-101 (16 mm)                      | *2 150766-001 (50 mm)       |                             |
| *3 151611-001                              | *3 147230-001               |                             |
|  |                             |                             |
| < For "-2" > Option parts (For Shin-gosen) |                             |                             |
| S35762-001 16 mm <Option>                  | S35763-001 25 mm <Option>   | S35764-001 32 mm <Option>   |
| 159761-001 (S)                             | 159762-001 (S)              | 159763-001 (S)              |
|  |                             |                             |

# Gauge parts list

## Needle plate

|      |                                       |                             |                              |                   |
|------|---------------------------------------|-----------------------------|------------------------------|-------------------|
| <-2> | 147312-001 1.2 mm                     | 151612-001 1.2 mm           | 145244-001 1.4 mm            | 147314-001 1.6 mm |
| <-4> | 147313-001                            | 151613-001                  | 145246-001                   | 147315-001        |
|      |                                       |                             |                              |                   |
|      | Needle plate (O)<br>151842-001 1.2 mm | Plastic plate<br>151843-001 | Base plate (U)<br>145245-001 |                   |
|      |                                       |                             |                              |                   |

|      |                                   |                             |                          |
|------|-----------------------------------|-----------------------------|--------------------------|
| <-3> | 144633-001 1.2 mm                 | 144636-001 1.4 mm           | 144638-001 1.6 mm        |
|      | 144635-001                        | 144637-001                  | 144639-001               |
|      |                                   |                             |                          |
|      | Needle plate<br>156611-001 1.2 mm | Plastic plate<br>156612-001 | Base plate<br>144634-001 |
|      |                                   |                             |                          |

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Needle plate 1.4 mm<br>141536-001 | Needle plate 1.4 mm<br>147234-001 |
| <-3>                              | <-5>                              |
|                                   |                                   |

## Option parts

|                      |                             |                      |
|----------------------|-----------------------------|----------------------|
| S35993-001(S) 1.2 mm | S35759-001(S) 1.2 mm        | S35760-001(S) 1.4 mm |
|                      |                             |                      |
| S35761-001(S) 1.6 mm | Plastic plate<br>S01270-001 |                      |
|                      |                             |                      |