

Swing-type gathering device

S159 • S160

S161 • S162

INSTRUCTION MANUAL

No.03
29114915

Read safety instructions carefully and understand them before using.
Retain this Instruction Manual for future reference.



CAUTION :

This Instruction Manual is intended for the S159/S160/S161/S162. Read and fully understand the instructions given under "IMPORTANT SAFETY INSTRUCTIONS" in the Instruction Manual the MO-3000, MO-6000 series before putting the machine into service when this device is installed to the MO-3000, MO-6000 series.

In addition, to emphasize the S159/S160/S161/S162, some illustrations of the MO-3000, MO-6000 series are simplified. Also, illustrations of the safety devices are partially omitted.

1. Name

Swing-type gathering device for the MO-3000, MO-6000 series of overlock/safety stitch machine

S159 : Swing-type gathering device for safety stitch machines (pedal-operated)

S160 : Swing-type gathering device for safety stitch machines (lever-operated)

S161 : Swing-type gathering device for overlock machines (pedal-operated)

S162 : Swing-type gathering device for overlock machines (lever-operated)

2. Applicable models

MO-3 △ 04E-0E6

MO-3 △ 04E-0F6

MO-6 △ 14-BE6

MO-3 △ 12E-DF6

MO-3 △ 14E-BE6

MO-6 △ 16-DE4

MO-3 △ 14E-BD6

MO-3 △ 16E-DE4

MO-6 △ 16-FF6

MO-3 △ 14E-BF6

MO-3 △ 16E-FF6

MO-3 △ 16E-DD4

MO-3 △ 43E-FBD6

MO-3 △ 16E-DF6

MO-3 △ 16E-RH6

3. Specifications

Application	For continuous gathering and partial shirring on light-weight materials including knitted fabric, light-weight knits and broadcloth.
Sewing speed	Up to 7000 rpm
Differential feed ratio	Overlock machines 1 : 3 Safety stitch machines 1 : 3 (Adjust appropriately in accordance with the type of material to be used.)
Lift of the presser foot	Overlock machine : 6 mm Safety stitch machine : 6 mm (5 mm only for RH6)

4. Parts to be replaced when the gathering device is used with the overlock/safety stitch machine

To operate an overlock/safety stitch machine in combination with the S159, S160, S161 or S162 gathering device, the gauge components need to be changed accordingly. Choose the appropriate parts from among those listed in the table below.

(1) Safety stitch machines (MO-3 △ 16E, 3 △ 43E, 6 △ 16) S159 or 161


Gauge size Name	DD4	DE4	DF6	FF6	RH6	FBD6
Presser joint	12154654	12154654	12154753	12154852	12154951	11975950
Main feed dog	12170700	12170700	12170809	12170908	12170908	11884806
Differential feed dog	12172904	12172904	12173407	12173407	12173407	11885902
Throat plate	R4508J0DD0B	R4508J6ED0B	R4608J0FD0A	R4612J6FD0A	R4617J0HD0A	R4612J0DE02
* Gathering foot	—	—	—	—	* MAS0510800A	—

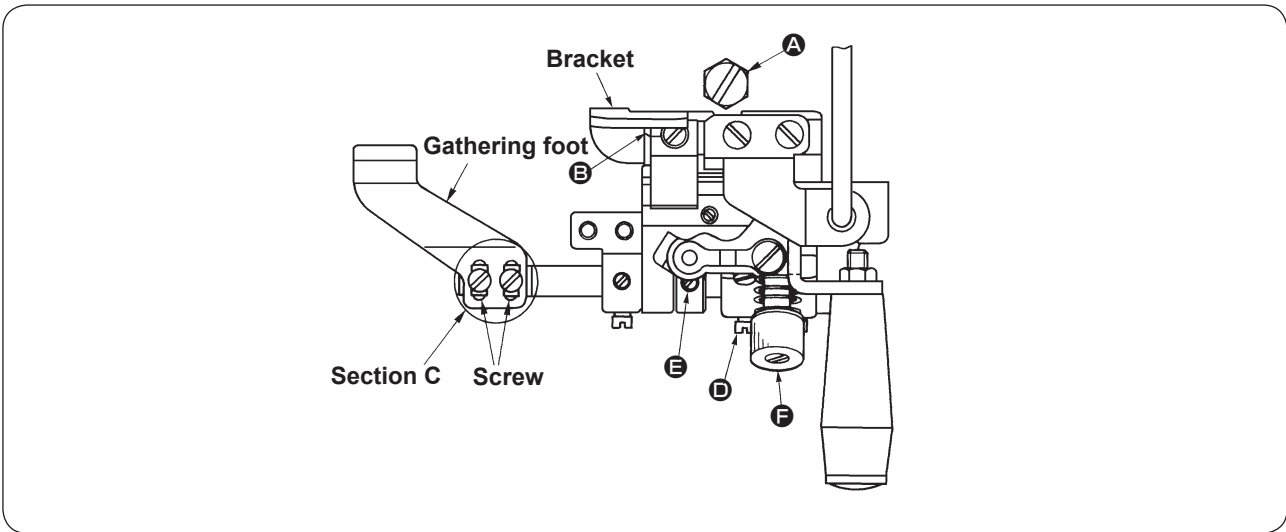
* Use the gathering foot only when the RH6 gauge set is used.

(2) Overlock machines (MO-3 △ 04E, 3 △ 14E, 6 △ 14) S160 or 162

Gauge size	0E6	0F6	BD6	BE6	BF6	DF6
Name						
Presser joint	11878857	11974250	11879350	11879350	12153052	11974052
Main feed dog	11883402	11883402	11883402	11883402	11883402	11884608
Differential feed dog	12171807	12171807	12171807	12171807	12171807	12171906
Throat plate	R4300J0EE0B	R4300J0FE0A	R4305J0DE0A	R4305J6EE0A	R4617J0HD0A	R4308J0FE00

5. Adjusting the gathering foot

WARNING :
 So as to prevent accidents caused by abrupt start of the machine, start the job after turning OFF the power to the machine and confirming that the sewing machine will not run even by depressing the start pedal.



Good

Gathering foot
 Throat plate
 The gathering foot comes in parallel contact with the throat plate.

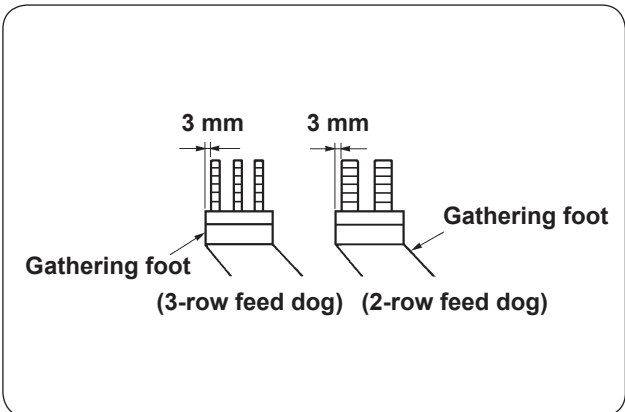
Not good

Adjust the gathering foot by pressing down section C.

Adjust the gathering foot by pressing up section C.

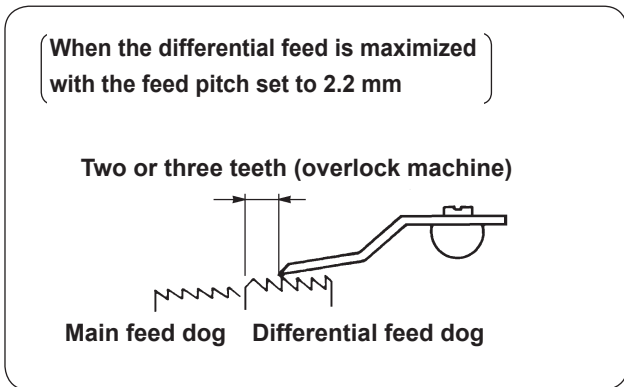
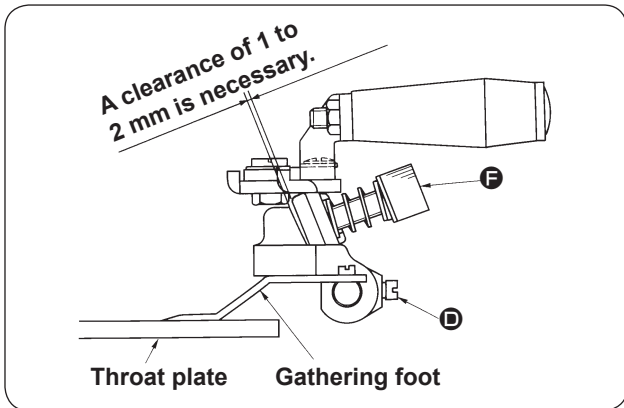
(1) Adjust the gathering foot so that it comes in parallel contact with the top surface of the throat plate over the length.

- a. Temporarily tighten screw **A**, loosen screw **B**, and adjust the parallelism between the gathering foot and the throat plate.
- b. After the completion of sewing, tighten screw **B** and screw **A**.



(2) Adjusting the vertical position and the lateral position of the gathering foot

- a. Loosen two screws **D** and screw **E** in the thrust collar, and adjust the position of the gathering foot, in the lateral direction, so that it is 3 mm spaced from the edge of the feed dog.




(3) Adjusting the longitudinal position of the gathering foot

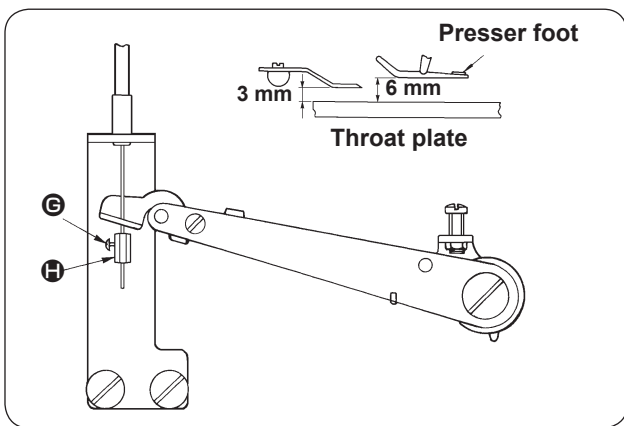
As the standard longitudinal position of the gathering foot, the gathering foot must reach the 2nd or 3rd tooth of the differential feed dog of the overlock machine or the 1st or 2nd tooth of the feed dog of the safety stitch machine when the differential feed dog completes feeding action. The size of gathers is changed by moving the gathering foot back or forth. Adjust the longitudinal position of the gathering foot in accordance with the material to be used.

(4) Adjusting the pressure of the gathering foot

- Standard pressure of the gathering foot, as measured at the top end of the gathering foot, is 14.7 N. However, adjust it properly in accordance with the material to be used. (Adjust the pressure using adjusting knob **F**.)

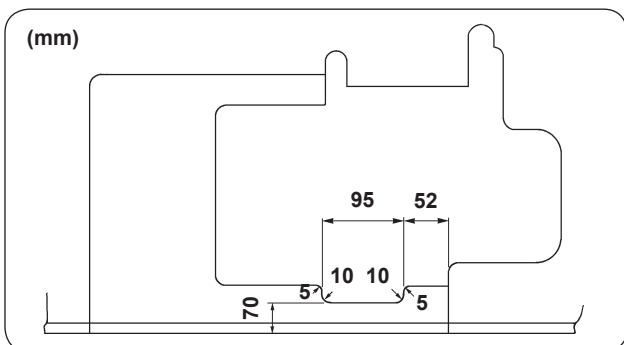
6. Adjusting the lifting amount of the gathering foot (S159, S160)

WARNING :
 So as to prevent accidents caused by abrupt start of the machine, start the job after turning OFF the power to the machine and confirming that the sewing machine will not run even by depressing the start pedal.



- Loosen screw **G**, and adjust the lifting amount of the gathering foot by moving **H** up or down. The standard lift of the gathering foot is 3 mm.

7. Modifying the table (fully-sunken type)



When using the S159 or S160 with a fully-sunken type table, modify the dimensions of the table as indicated in the figure on the left.

8. Installing the knee lifter



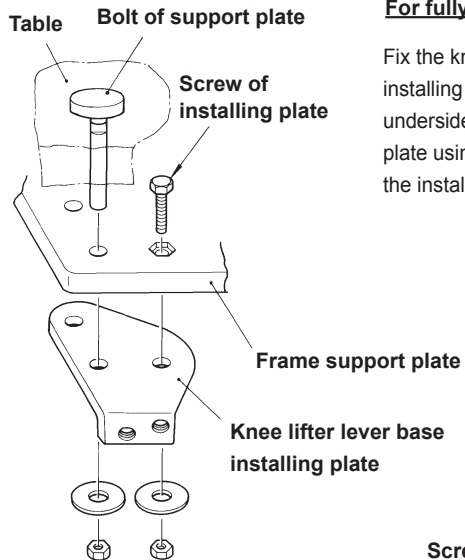
WARNING :

So as to prevent accidents caused by abrupt start of the machine, start the job after turning OFF the power to the machine and confirming that the sewing machine will not run even by depressing the start pedal.

(1) Attach the knee lifter installing plate in place as illustrated below.

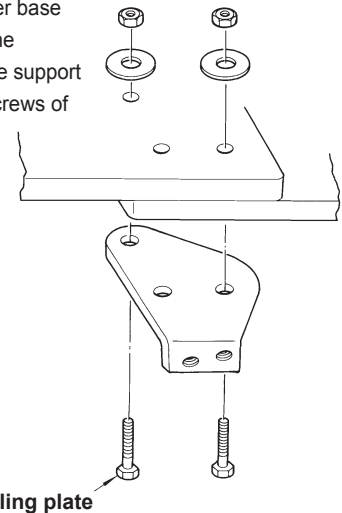
For the semi-sunken type table

Fix the knee lifter lever base installing plate onto the underside of the frame support plate using the bolt of the support plate and the screw of the installing plate.

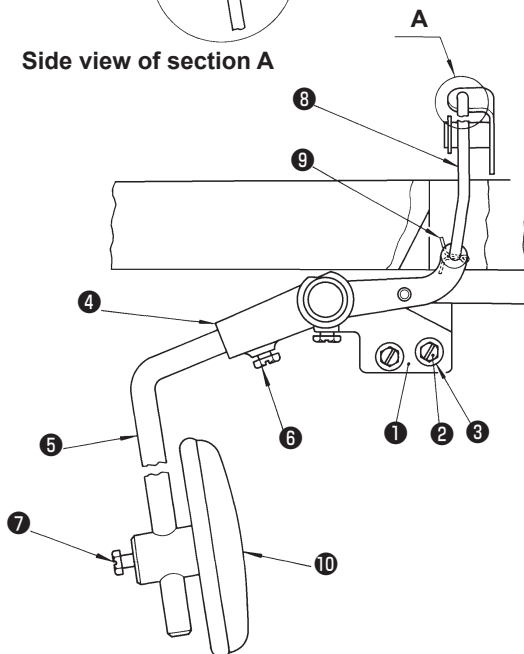


For fully-sunken type table

Fix the knee lifter lever base installing plate onto the underside of the frame support plate using the two screws of the installing plate.



Side view of section A



(2) Attach the knee lifter unit to the knee lifter lever base installing plate.

- 1) Attach knee lifter lever base ① to the frame support plate using screw ② and washer ③ .
- 2) Put shaft ⑤ into knee lifter lever ④ , and tighten screw ⑥ .
- 3) Put knee lifter connecting rod ⑧ into the hole in the differential feed adjusting lever from this side, insert one end of the rod into the hole ④ in the lever and secure it with cotter pin ⑨ so that the rod will not come off.
- 4) Properly position knee pad ⑩ to allow the operator to operate the knee lifter with ease. Then fix the pad at that position using screw ⑦ .

- 4 -

JUKI®

JUKI CORPORATION

INDUSTRIAL SEWING MACHINE DIVISION
2-11-1, TSURUMAKI, TAMA-SHI,
TOKYO, 206-8551, JAPAN
PHONE : (81)42-357-2371
FAX : (81)42-357-2274
<http://www.juki.com>

Please do not hesitate to contact our distributors or agents in your area for further information when necessary.
* The description covered in this instruction manual is subject to change for improvement of the commodity without notice.