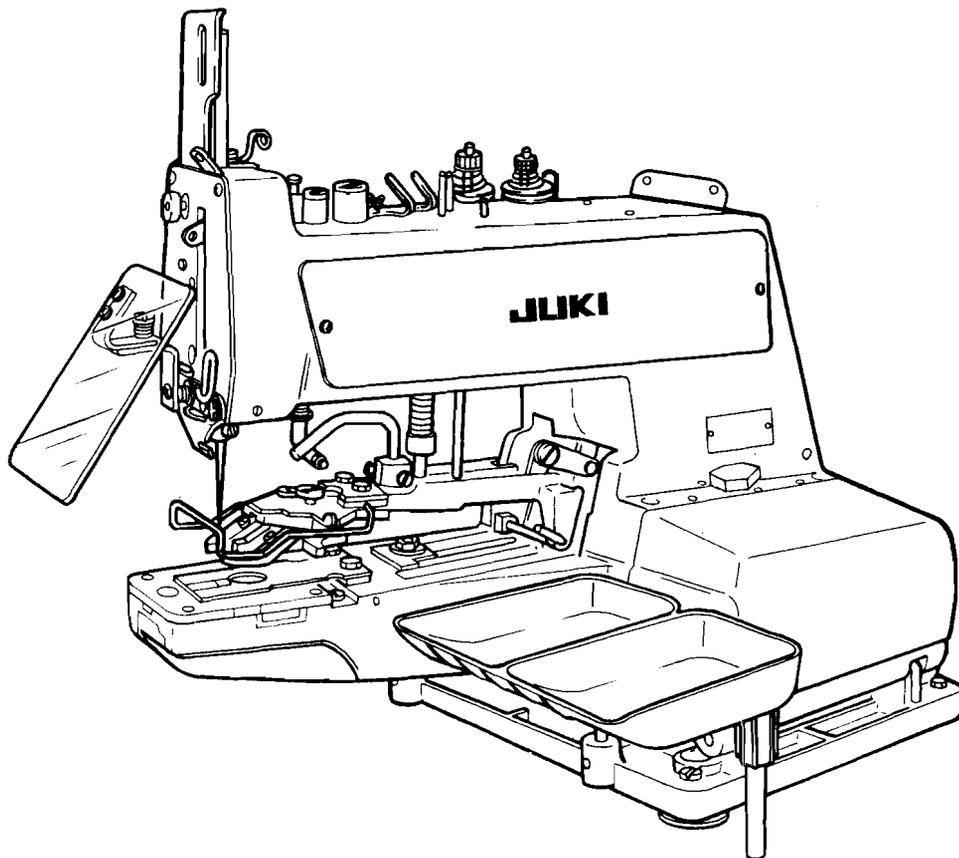


JUKI®

MB-372 MB-373

**INSTRUCTION MANUAL
BETRIEBSANLEITUNG
MANUEL D'UTILISATION**

**MANUAL DE INSTRUCCIONES
MANUALE D'ISTRUZIONI**



No.03

29184207

IMPORTANT SAFETY INSTRUCTIONS

Putting sewing systems into operation is prohibited until it has been ascertained that the sewing systems in which these sewing machines will be built-in conform with the EC Council Directives Machinery. Technical service for those sewing systems is also prohibited.

1. Observe the basic safety measures, including, but not limited to the following ones, whenever you use the machine.
2. Read all the instructions, including, but not limited to this Instruction Manual before you use the machine. In addition, keep this Instruction Manual so that you may read it at anytime when necessary.
3. Use the machine after it has been ascertained that it conforms with safety rules/standards valid in your country.
4. All safety devices must be in position when the machine is ready for work or in operation. The operation without the specified safety devices is not allowed.
5. This machine shall be operated by appropriately-trained operators.
6. For your personal protection, we recommend that you wear safety glasses.
7. For the following, turn off the power switch or disconnect the power plug of the machine from the receptacle.
 - 7-1 For threading needle(s), looper, spreader etc. and replacing bobbin.
 - 7-2 For replacing part(s) of needle, presser foot, throat plate, looper, spreader, feed dog, needle guard, folder, cloth guide etc.
 - 7-3 For repair work.
 - 7-4 When leaving the working place or when the working place is unattended.
 - 7-5 When using clutch motors without applying brake, it has to be waited until the motor stopped totally.
8. If you should allow oil, grease, etc. use with the machine and devices to come in contact with your eyes or skin or swallow any of such liquid by mistake, immediately wash the contacted areas and consult a medical doctor.

9. Tampering with the live parts and devices, regardless of whether the machine is powered, is prohibited. Permissible exceptions are described in the "explanation of application" in standard sheet EN50110.
10. Repair, remodeling and adjustment works must only be done by appropriately trained technicians or specially skilled personnel. Only spare parts designated by JUKI can be used for repairs.
11. General maintenance and inspection works have to be done by appropriately trained personnel.
12. Repair and maintenance works of electrical components shall be conducted by qualified electric technicians or under the audit and guidance of specially skilled personnel.

Whenever you find a failure of any of electrical components, immediately stop the machine.
13. Before making repair and maintenance works on the machine equipped with pneumatic parts such as an air cylinder, the air compressor has to be detached from the machine and the compressed air supply has to be cut off. Existing residual air pressure after disconnecting the air compressor from the machine has to be expelled. Exceptions to this are only adjustments and performance checks done by appropriately trained technicians or specially skilled personnel.
14. Periodically clean the machine throughout the period of use.

15. Grounding the machine is always necessary for the normal operation of the machine. The machine has to be operated in an environment that is free from strong noise sources such as high-frequency welder.
16. An appropriate power plug has to be attached to the machine by electric technicians. Power plug has to be connected to a grounded receptacle.

17. The machine is only allowed to be used for the purpose intended. Other used are not allowed.
18. Remodel or modify the machine in accordance with the safety rules/standards while taking all the effective safety measures. JUKI assumes no responsibility for damage caused by remodeling or modification of the machine.

19. Warning hints are marked with the two shown symbols.



Danger of injury to operator or service staff



Items requiring special attention

FOR SAFE OPERATION



1. To avoid electrical shock hazards, neither open the cover of the electrical box for the motor nor touch the components mounted inside the electrical box.



1. To avoid personal injury, never operate the machine with any of the belt cover, finger guard, eye protection cover or safety devices removed.
2. To prevent possible personal injuries caused by being caught in the machine, keep your fingers, head and clothes away from the handwheel, V belt and the motor while the machine is operation. In addition, place nothing around them.
3. To avoid personal injury, never put your hand under the needle when you turn "ON" the power switch or operate the machine.
4. To avoid possible personal injuries, be careful not to allow your fingers in the machine when tilting/raising the machine head.
5. To avoid possible accidents because of abrupt start of the machine, turn OFF the power to the machine when tilting the machine head or removing the belt cover and the V belt.
6. If your machine is equipped with a servo-motor, the motor does not produce noise while the machine is at rest. To avoid possible accidents due to abrupt start of the machine, be sure to turn OFF the power to the machine.
7. To avoid electrical shock hazards, never operate the sewing machine with the ground wire for the power supply removed.
8. To prevent possible accidents because of electric shock or damaged electrical component(s), turn OFF the power switch in prior to the connection/disconnection of the power plug.

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BEFORE OPERATION

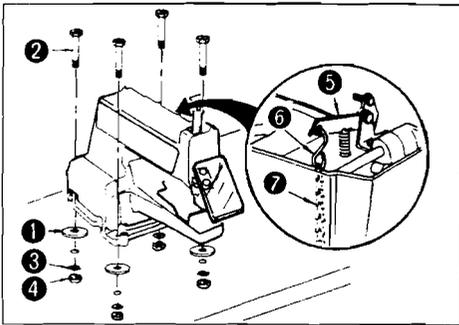


CAUTION:

To avoid malfunction and damage of the machine, confirm the following.

- Before you put the machine into operation for the first time after the set-up, clean it thoroughly.
- Remove all dust gathering during transportation and oil it well.
- Confirm that the voltage has been correctly set.
- Confirm that the power plug has been properly connected to the power supply.
- Never use the machine in the state where the voltage type is different from the designated one.
- Confirm that the direction of rotation of the motor pulley is correct.
- Before applying power, release the stop-motion mechanism and turn by hand the needle driving pulley in order to ensure that the machine is in order.
- To install the machine, the frame support bar has to be firstly inserted into the table.

1. INSTALLATION OF MACHINE HEAD



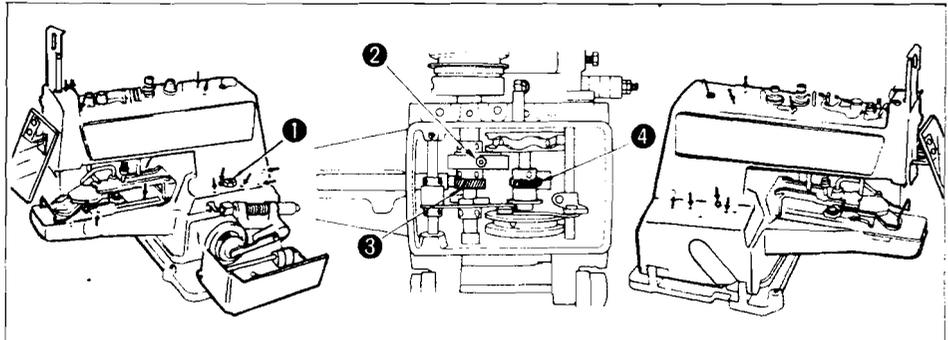
Put rubber cushion ① on the table, place the machine head on the rubber cushion and fix it to the table using screws ②, plain washers ③ and nuts ④. Attach "S" chain hook ⑤ and chain ⑥ to stop motion trip lever ⑦.

2. LUBRICATION



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



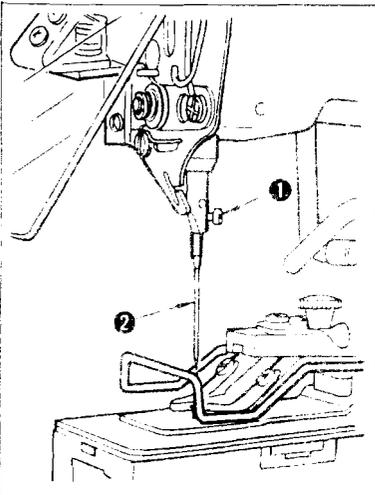
1. Apply JUKI New Defrix Oil No. 1 to the components shown by the arrows. (Once or twice a week)
2. Loosen connecting screw ①, tilt the head backward and apply some grease to driving worm gear ④ and gear ③.
3. Check, approximately once a week, that oil amount is sufficient to reach the top of the oil felt placed inside the bed mounting base. If the amount of oil is insufficient, add an adequate amount of oil. At this time, also apply oil to crank rod ②.

3. ATTACHING THE NEEDLE



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



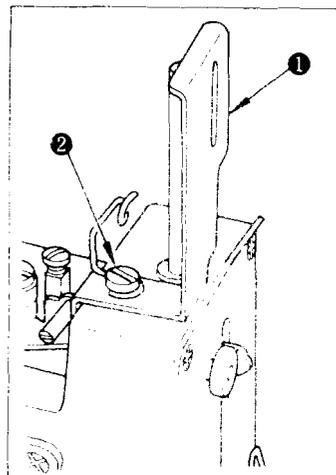
- ★ Turn OFF the power to the motor.
 - ★ Use a standard needle of TQx7 #16 for MB-372 and TQx7 #20 for MB-373.
1. Loosen screw ①.
 2. Insert needle ② up into the needle hole in the needle bar until it comes in contact with the deepest end of the needle hole.
 3. Tighten screw ① tightly.

4. ATTACHING THE NEEDLE BAR GUARD



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



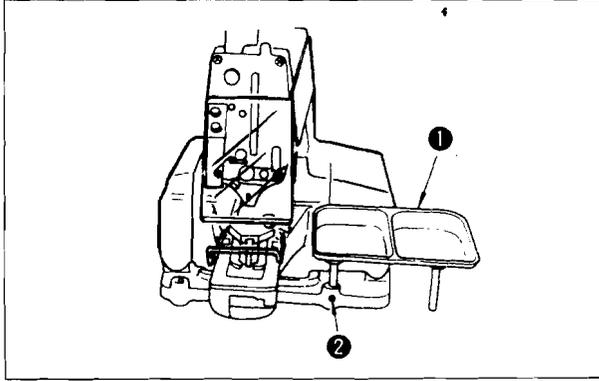
1. Loosen screw ② and remove the thread guide No. 2.
 2. Place needle bar guard ① under the thread guide No. 2.
 3. Fix the thread guide No. 2 and needle bar guard ① together using screw ②.
- (Notes) If your machine has a wiper magnet, attach the needle bar guard on to the wiper magnet base.

5. ATTACHING THE BUTTON TRAY ASSEMBLY



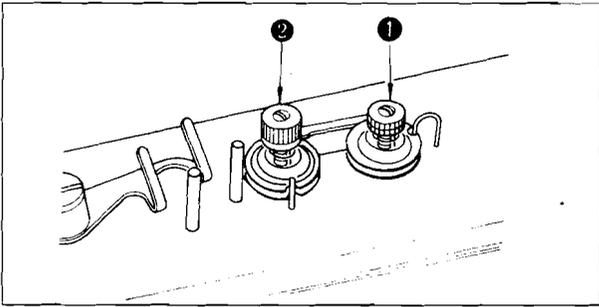
WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Insert the posts of button tray ① in hole on the right of the machine sub-base and tighten each setscrew ②. You may use also the installation hole on the left if the operator wants.

7. THREAD TENSION ADJUSTMENT



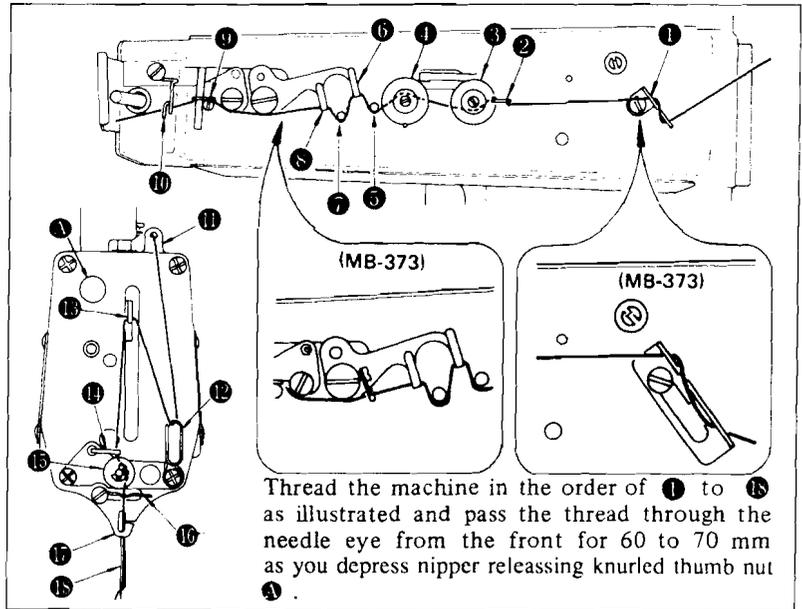
Tension post No. 1 ① is used to adjust the thread tension to sew on the button and a relatively low tension will be enough. Tension post No. 2 ② is used to adjust the thread tension applied to the root of the button sewing stitches. This tension must be determined according to the type of thread, fabric and thickness of the button and must be higher than that of tension post No. 1 ①. Turn the tension nuts clockwise to increase or counterclockwise to reduce the thread tension. Turn the adjusting nut clockwise to increase or counterclockwise to reduce the tension.

6. THREADING THE MACHINE



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



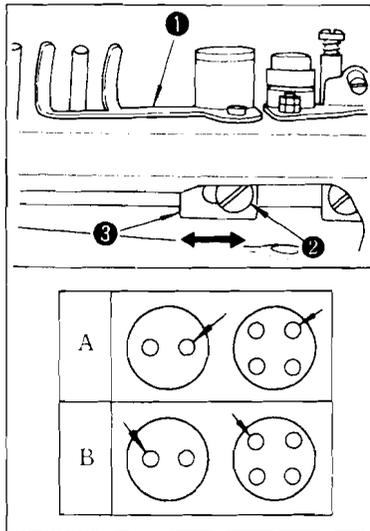
Thread the machine in the order of ① to ⑮ as illustrated and pass the thread through the needle eye from the front for 60 to 70 mm as you depress nipper releasing knurled thumb nut ⑮.

8. ADJUSTMENT OF THE THREAD PULL-OFF LEVER



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

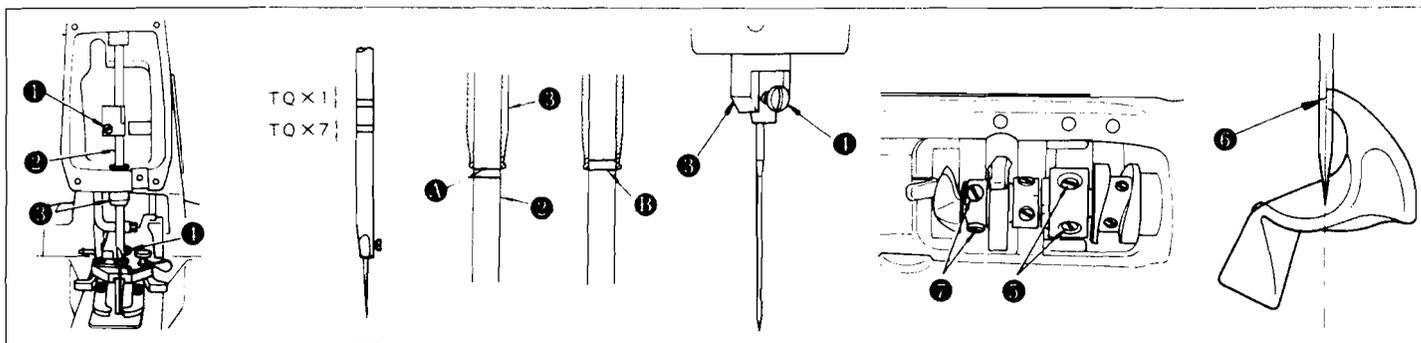


Adjustment of the thread pull-off lever ①, insert a screw driver through an opening in the machine arm side cover (left), loosen screw ② and adjust the position of nipper bar block (rear) ③ to the left or the right.

If the end of thread is drawn from arrow hole A in the button after sewing, change the position of nipper bar block (rear) ③ to the left. Move the lever to the right when the thread end comes out from arrow hole B.

9. NEEDLE-TO-LOOPER RELATION

WARNING: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



★ **Adjust the needle-to-looper relation as follows;**

1. Depress the pedal fully forward, turn the needle driving pulley in the normal sewing direction to bring down the needle bar to the lowest point of its stroke and loosen screw ①.

(Adjusting the needle bar height)

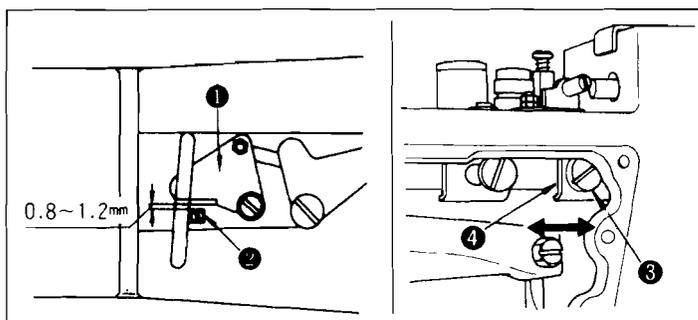
2. Adjust the height of the needle bar using top two lines engraved on the needle bar for the TQx1 needle and using the bottom two lines for the TQx7 needle. Align the upper line ④ with the bottom end face of needle bar bushing (lower) ③ and tighten screw ① in the way that needle clamp screw ① rests in the slot of the needle bar bushing (lower) ③.

(Looper position)

3. Loosen screws ⑤ and turn by hand the needle driving pulley until lower line ⑥ of two lines aligns with the bottom end face of needle bar bushing (lower) ③.
4. By keeping the machine in this state, align looper blade ⑥ with the center of the needle and tighten screws ⑤.
5. Loosen screw ⑦ and provide a 0.05 to 0.1 mm clearance between the looper and the needle. Tighten screw ⑦.

10. ADJUSTMENT OF THE NIPPER

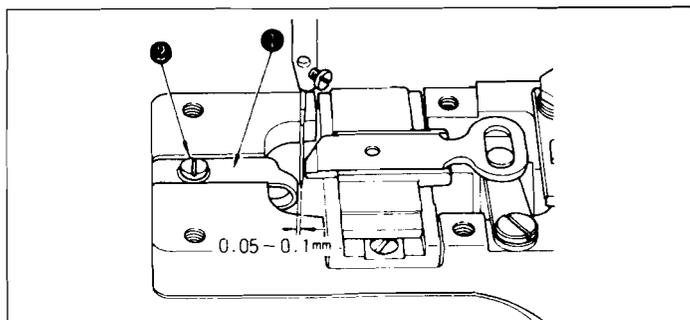
WARNING: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Provide a 0.8 to 1.2 mm clearance between nipper ① and nipper block ② to prevent the nipper from nipping the thread while stitching. Loosen screw ③ and move nipper bar block ① to the left or the right.

11. POSITION OF THE NEEDLE GUIDE

WARNING: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



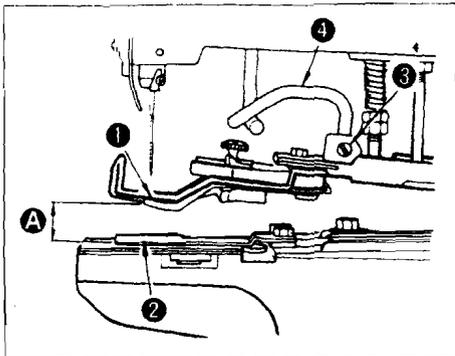
Loosen screw ② and provide a 0.05 to 0.1 mm clearance between the needle guide ① and the needle by moving the needle guide ① to the left or the right when the needle is in the lowest position.

12. HEIGHT OF THE BUTTON CLAMP



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



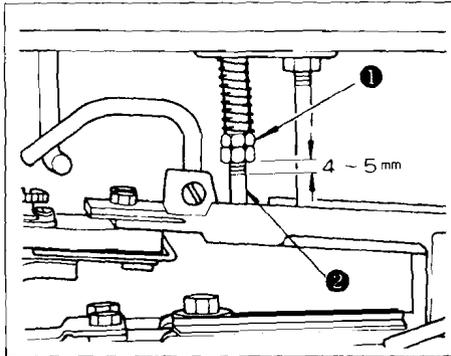
The standard clearance **A** between the bottom face of button clamp jaw lever **1** and the top face of feed plate **2** is 12 mm for MB-373 and 9 mm for MB-373. Loosen screw **3** and adjust the height of button clamp lifting hook **1**.

13. WORK PRESSING FORCE



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



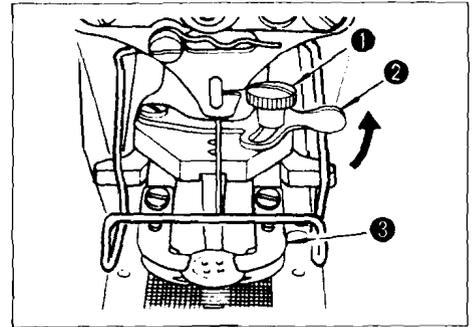
The standard work pressing force is obtained by providing a 4 to 5 mm clearance between the bottom face of nut **1** and the bottom end of the screw of pressure adjusting bar **2**.

14. ADJUSTMENT OF THE BUTTON CLAMP STOP LEVER



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



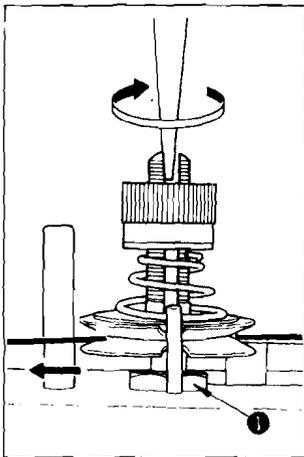
Set the machine for stop-motion state, loosen clamp screw **1**, place a button correctly in the sewing position and adjust button clamp stop lever **2** to permit the button properly to rest on button clamp jaw levers **3**. Tighten clamp screw **1** after determining the distance between the left and right jaw levers **3**.

15. TIMING OF THREAD TENSION RELEASE



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Turn the needle driving pulley as you draw the thread in the direction of the arrow as illustrated, and you will find a point at which the tension disc on the tension post No. 2 release the thread. At this moment, the standard distance from the top end of the needle bar down to the top end of the needle bar bushing (upper) is 54 to 56 mm. Relation of the needle bar height (above-mentioned distance; 54 to 56 mm) to the timing of thread tension release is adjustable by turning the tension post No. 2; loosen nut **1**, insert the blade of a screw driver to the top slot of the tension post No. 2 and turn it in the direction of the arrow to

lower the needle bar, (to reduce the said distance), and vice versa.

Your adjustment is required when the following troubles are frequency;

1. When the stitch made on the wrong side of the workpiece is too loose; ----Make the needle bar slightly higher.
2. When the thread is broken at the time of stop-motion; ----Make the needle bar slightly higher.
3. When the thread is broken frequently; ----Make the needle bar slightly lower.

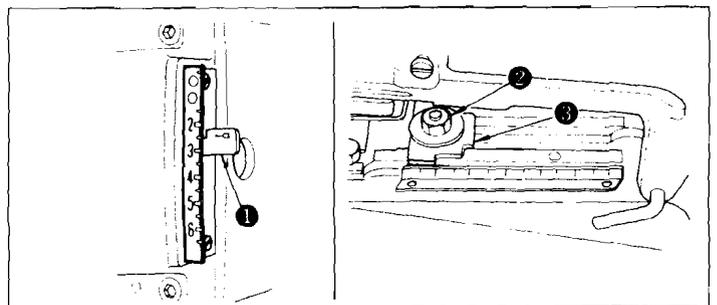
16. SETTING FOR 2-OR 4-HOLE BUTTONS



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

Measure the distance between two holes in a button and set equally crosswise and lengthwise feed regulators for 4-hole buttons.



★ Lengthwise feed

Push down lengthwise feed adjusting lever **1** and set it to "0" for 2-hole buttons or a corresponding amount for 4-hole buttons.

★ Crosswise feed

Crosswise nut **2** and set pointer **3** to a corresponding amount indicated by the crosswise feed graduation plate. Tighten firmly nut **2**.

(Caution) Before operating the machine, ensure that the needle enters the center of each hole in the button.

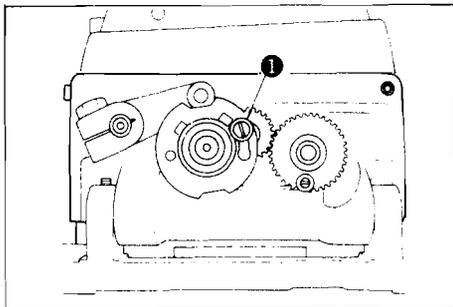
17. SETTING A NUMBER OF STITCHES



WARNING:

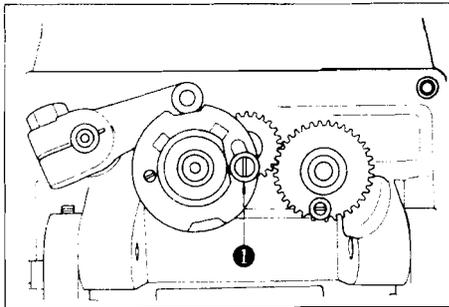
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

To change the number of stitches, open the left-hand side cover and change the number of stitches using stitch number adjusting knob ① and stitch number adjusting lever ④ (optional). The illustration gives the machine with the auxiliary stop device removed. The number of stitches can be changed with ease with the auxiliary stop device attached.



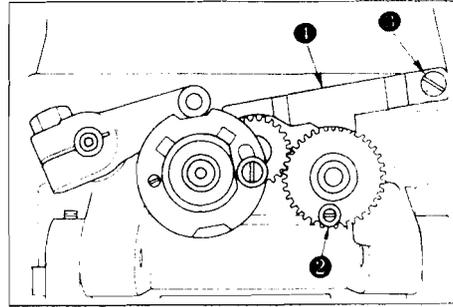
★ **8 stitches (6 stitches)**

Pull stitch adjusting cam knob ① and set it as shown in the illustration.



★ **16 stitches (12 stitches)**

When stitch cam knob ① being set for "8 stitches" has arrived at the right end as illustrated, set knob ① in the illustrated position.



★ **32 stitches (24 stitches)**

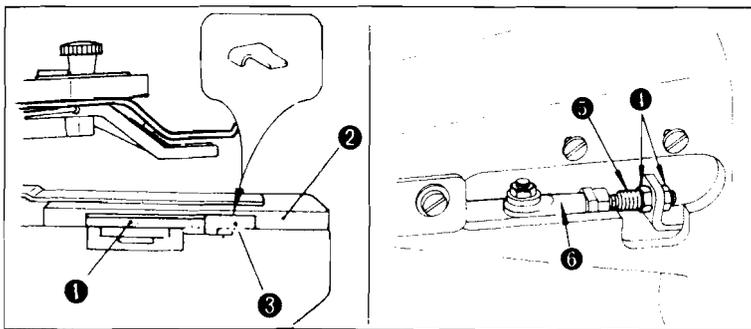
When the number of stitch is set to 16, move stitch number adjusting gear roller ② to the lower position. Now, attach stitch number adjusting lever ④ (optional) in position using screw ③ (optional).

18. AUTOMATIC THREAD TRIMMER (EXCLUSIVE FOR MB-373)



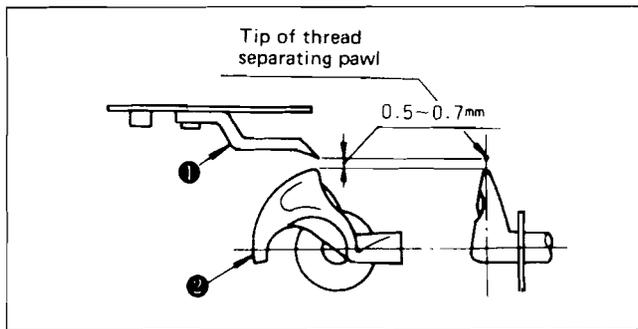
WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



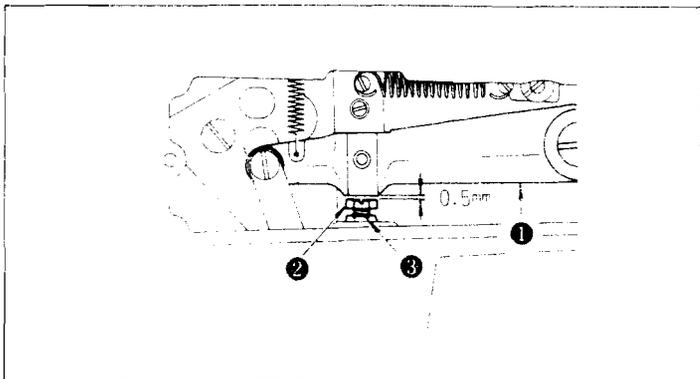
★ **Position of the moving knife**

When the machine stops in the state of "stop-motion" and its button clamp assembly rests in the highest position, there must be a standard clearance of 12.5 mm between thread trimming connecting link (front) ① and the end face of the slit in throat plate ②. This clearance is determined gauge ③ which is stored in the accessory box; tilt the head backwards, remove the bed oil shield, loosen two nuts ④ and adjust the clearance by moving connecting screw ⑤ in the axial direction. When you tighten two nuts ⑥, ensure that joint ⑥ stays in the horizontal position.



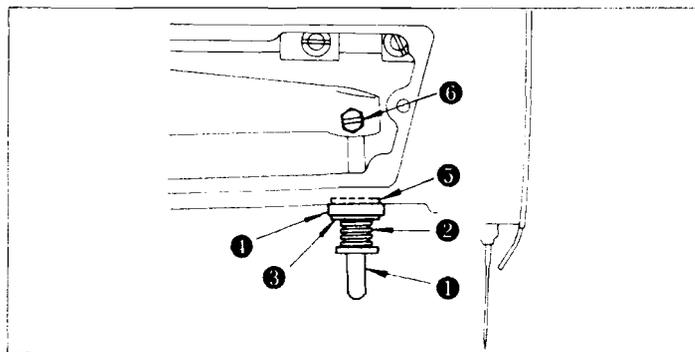
★ **Height of the moving knife thread separation nail**

There must be a 0.5 to 0.7 mm clearance between looper blade point ② and thread separation nail ①. If nail ① does not provide the necessary clearance, bend the nail slightly and adjust the clearance.



★ **Clearance between the button clamp lifting lever and the adjusting screw**

Provide a 0.5 mm clearance between button clamp lifting lever ① and adjusting screw ② and then tighten nut ③.



★ **How to set the L-shaped lifting rod**

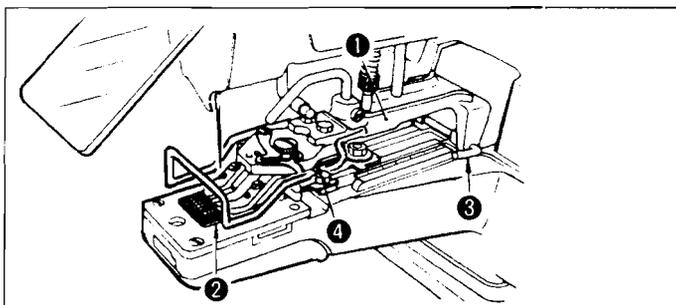
Put moving knife push-back spring ②, stop-motion rubber cushion ③ and stop-motion rubber cushion washer ④, in this order, to L-shaped lifting rod ①. After making sure that the stop motion mechanism has engaged completely, fix the L-shaped lifting rod by tightening screw ⑤ in the way that the end face of the stop-motion rubber cushion washer comes into close contact with the jaw of the machine arm.

19. SUBCLASS MODELS

| | | | | |
|----------------------|------------------------|--------------------------------------|----------------------------------|------------------------|
| MB-372 MB-373 | MB-372-4 MB-373-4 | MB-372-5 MB-373-5 | MB-372-10 MB-373-10 | MB-372-11 MB-373-11 |
| 8, 16, 32 stitches | 6, 12, 24 stitches | 6, 12, 24 stitches | 8, 16, 32 stitches | 8, 16, 32 stitches |
| | | | | |
| MB-372-6 MB-373-6 | MB-372-12 MB-373-12 | MB-372-16/Z010-B MB-373-16/Z040-B | MB-372-15/Z016 MB-373-15/Z046 | MB-372-14 MB-373-14 |
| 6, 12, 24 stitches | 8, 16, 32 stitches | 8, 16, 32 stitches | 16, 32 stitches | 8, 16, 32 stitches |
| | | | | |

20. ATTACHMENTS

| Use | Flat buttons | | Shank buttons | | Snaps |
|-------------------|---|---|---|--|--------------------------|
| | Large-size | Medium-size | General | Luis type | |
| MB-372 | Z001 | Z002 | Z003 | Z010 | Z007 |
| MB-373 | Z031 | Z032 | Z033 | Z040 | Z037 |
| Schematic drawing | | | | | |
| Remarks | Button size: A: 3~6.5mm B: ϕ 20~28mm | Button size: A: 3~5mm B: ϕ 12~20mm | Button diameter: Less than 16mm Shank size: Thickness: 6~5mm Width: 3~2.5mm | Button size: Same as Z003 (Z033), but possible to sew buttons hav- ing some variations of shank in shape. | Snap size: A: 8mm |
| Use | Wrapped-around buttons | | Metal buttons | | Labels |
| | First process | Second process | General | Stay button | |
| MB-372 | Z004 | Z005 | Z008 | Z009 | Z014 |
| MB-373 | Z004 | Z035 | Z038 | Z039 | Z044 |
| Schematic drawing | | | | | |
| Remarks | Thread shank height: A: 5.5mm | | | Common to Z004 | Stitch width: 3~6.5mm |

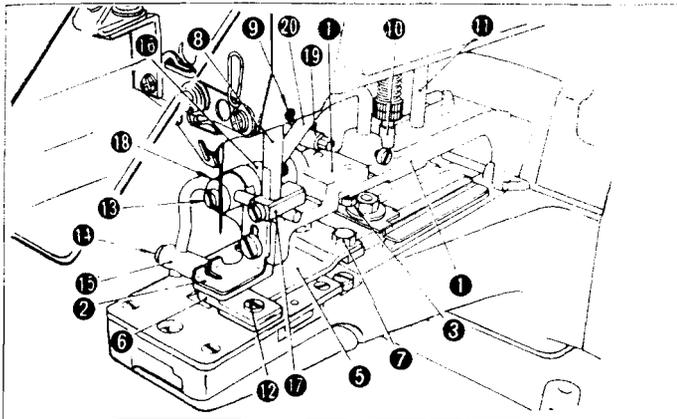


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

In order to install the attachment on the machine, you may have to remove the button clamp mechanism ① or feed plate ②. Dislocate a snap ring from button clamp installing stud ③, and you will be able to remove button clamp mechanism assembly ①. Loosen setscrews ④, and you can remove feed plate ②.

★ Attachment for shank buttons (Pearl buttons) (Z003, Z010, Z033, Z040)



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

(INSTALLATION)

Remove both the button clamp mechanism assembly and the feed plate from the machine and install attachment ① in place. Loosen screws ③ and adjust button clamp bracket ① to permit the needle to come down in the middle of the needle slot in shank button adaptor ②. Attach button clamp feed plate ⑤ using screws ⑦ in the way that it permits the needle to come down in the middle of the needle slot in feed plate ⑥. Insert the top end of button clamp stud ⑧ into an opening in the jaw of the machine arm and fasten it by screw ⑨.

(When attaching Z010 or Z040, you must change also button clamp pressure adjusting bar ⑩ and button clamp stopper pin ⑪ at the same time.)

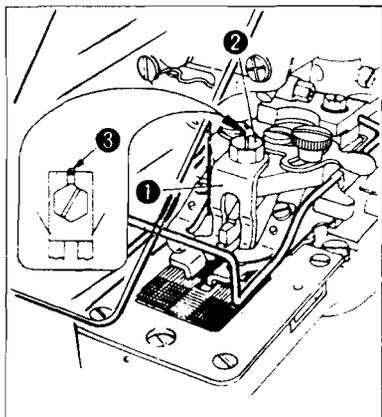
(ADJUSTMENT AND OPERATION)

1. Loosen screw ⑫, let feed plate ⑥ recedes 0.5 to 1.0 mm from the left end of button clamp jaw lever ② and retighten screw ⑫.
2. Set a button in place, loosen screws ③ and ④ and align shank button holding clamp ⑮ with the center of the button.
3. Shank button holding clamp ⑮ must give proper pressure to the button so that the button stays steadily in position while being sewn. Loosen a setscrew in thrust collar ⑯ and rotate the thrust collar until shank button holding clamp ⑮ provides proper pressure.
4. You may fix button clamp block ⑰ in a convenient position for operation.

(Caution) 1. When you fix the thrust collar, ensure that button clamp rotating shaft ⑬ does not play axially in its bracket.

2. Adjust lifting hook ⑱ and stopper pin ⑪ so that L-shaped lifting rod roller ⑭ does not come in contact with button clamp bracket ①.

★ Attachment for the first process of wrapped-around buttons (Z004)



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

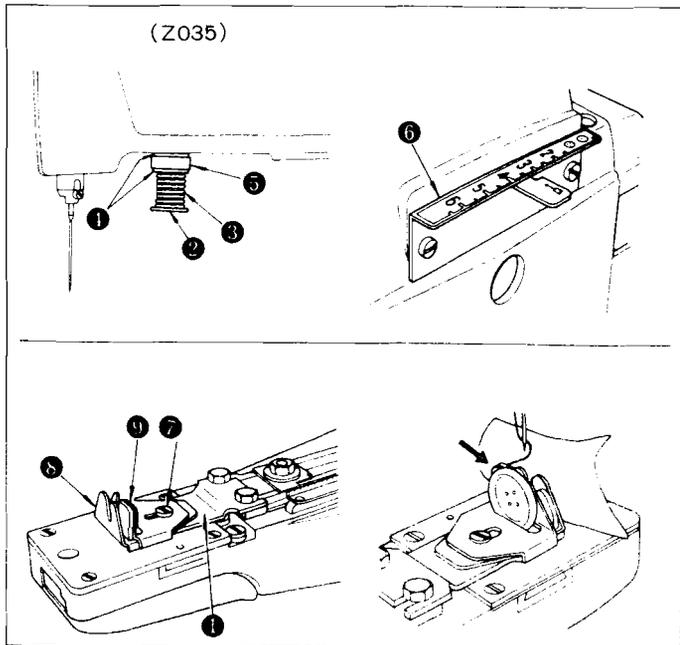
(INSTALLATION)

Attach wrapped-around button foot ① to the ordinary button clamp jaw levers using screw ② and guide pin screw ③. Align foot ① with the jaw levers so that they permit a button to rest in the middle.

(ADJUSTMENT AND OPERATION)

Adjustment and operation is almost same as those for the flat buttons, but you must adjust the thread pull-off lever to provide more amount of thread in order to make the thread loose below the button for thread shank formation. (See 8. Adjustment of the thread pull-off lever).

★ Attachment for the second process of wrapped-around buttons (Z005, Z035)



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

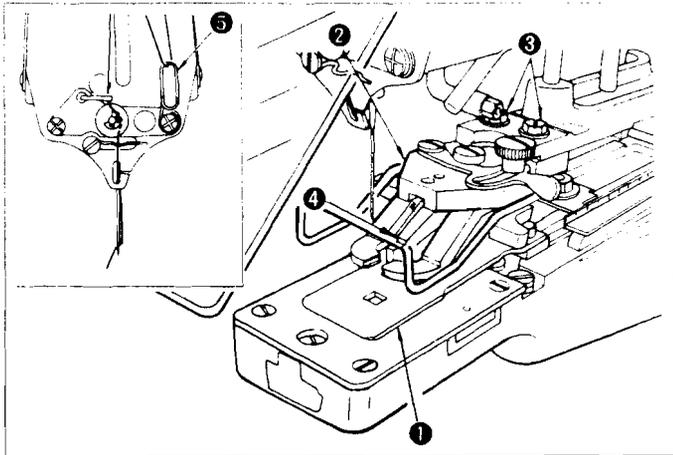
(INSTALLATION)

Remove the button clamp mechanism assembly, button clamp pressure adjusting bar and feed plate from the machine and install attachment for the second process of wrapped-around buttons ①. When you install a Z035 attachment, you must remove also the L-shaped lifting rod. Insert moving knife push-back spring ③, washer ①, cushion ⑤ and washer ④ in spring guide shaft ② in this order. Make certain that the stop-motion mechanism has completely engaged, and install the attachment assembly in place in the way that cushion ⑤ comes into close contact with the surface of the machine arm without play. Then, replace lengthwise feed graduated plate ⑥.

(ADJUSTMENT AND OPERATION)

1. Loosen screw ⑦ and adjust the thread shank length by moving guide (large) ⑧ and guide (small) ⑨ in line with the point of needle entry.
2. Set a button (tilt it slightly for easy insertion) and pass the thread as the arrow shows.
3. Set the lengthwise feed "0".
When you sew 16 stitches with Z035, set it "1.5mm" instead of "0".

★ Attachment for snaps (Z007, Z037)



WARNING:

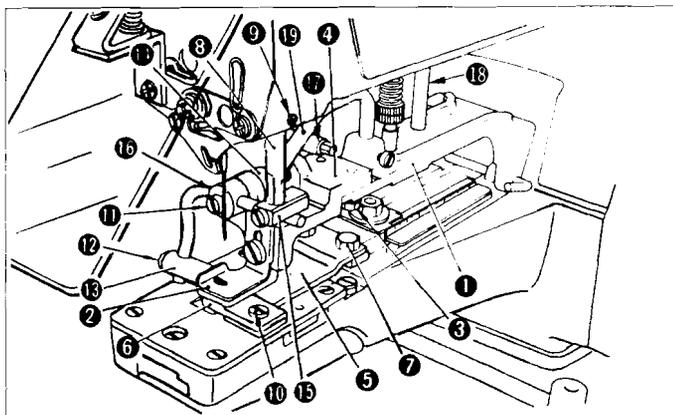
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

(INSTALLATION)

Remove the button clamp mechanism assembly and the feed plate. Set both the crosswise feed and lengthwise feed graduated plate to "4 mm". Install snap clamp feed plate ① in the way that the needle drops evenly at four corners of its square opening. Install snap attachment assembly ② on the machine, place a snap on the snap clamp jaw levers and make sure that the needle drops accurately in each hole in the snap. If necessary, loosen hex head screws ③ and adjust the position accurately.

Lastly, make sure that the concave section on the bottom face of snap clamp slide guide ④ accurately matches the convex section on snap clamp feed plate ①. Replace thread guide No. 3 ⑤.

★ Attachment for metal buttons (Z008, Z038)



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

(INSTALLATION)

Remove both the button clamp mechanism assembly and the feed plate from the machine and install attachment ① in place. Loosen screws ③ and adjust button clamp bracket ④ to permit the needle to come down in the middle of the needle slot in metal button adaptor ②. Attach button clamp feed plate ⑤ using screws ⑦ in the way that it permits the needle to come down in the middle of the needle slot in feed plate ⑥. Insert the top end of button clamp stud ⑧ into an opening in the jaw of the machine arm and fasten it by screw ⑩.

(ADJUSTMENT AND OPERATION)

1. Loosen screw ⑩, let feed plate ⑥ recede 1.0 to 1.5 mm from the left end of button clamp jaw lever ② and retighten screw ⑩.
2. Set a button in place, loosen screws ⑪ and ⑫ and align metal button holding clamp ⑬ with the center of the button.

3. Metal button holding clamp ⑬ must give proper pressure to the button so that the button stays steadily in position while being sewn. Loosen a setscrew in thrust collar ⑭ and rotate the thrust collar until metal button holding clamp ⑬ provides proper pressure.

4. You may fix button clamp block ⑮ in a convenient position for operation.

(Caution) 1. When you fix the thrust collar, ensure that button clamp rotating shaft ⑯ does not play axially in its bracket.

2. Adjust lifting hook ⑰ and stopper pin ⑱ so that L-shaped lifting rod roller ⑲ does not come in contact with button clamp bracket ①.

21. SPECIFICATIONS

| | MB-372 | MB-373 |
|--------------------|--|---------------------------|
| Sewing speed | Max. 1,500 s.p.m. | |
| Number of stitches | 8, 16 and 32 stitches (6, 12 and 24 by changing the cam) | |
| Amount of feed | Crosswise feed: 2.5 ~ 6.5 mm, Lengthwise feed: 0 ~ 6.5 mm | |
| Button size | 10 ~ 28 mm in diameter | |
| Needle | TQ x 7, TQ x 1, #16 (#18, #20) | TQ x 7, TQ x 1, #20 (#18) |
| Lubricating oil | JUKI New Defrix Oil No. 1 | |
| Noise | Workplace-related noise at sewing speed n = 1,500 min ⁻¹ : L _{PA} ≤ 84 dB (A) Noise measurement according to DIN 45635-48-A-1. | |

22. MOTOR PULLEY AND BELT

(1) For this machine a single-phase or 3-phase 200 watts (1/4 HP) induction motor is used.

(2) A round leather belt (φ7 x 650 mm) is used.

(3) The sewing speed depends on the diameter of the motor pulley as listed below;

| Frequency | Sewing speed | Motor pulley Part No. | Motor pulley outer diameter |
|-----------|--------------|-----------------------|-----------------------------|
| 50Hz | 1,500 s.p.m. | B7101372000 | 71 mm |
| | 1,250 | B7102372000 | 59.2 |
| 60Hz | 1,500 | B7102372000 | 59.2 |
| | 1,300 | B7103372000 | 51.3 |

★ The effective diameter of motor pulley is obtained by subtracting 1 mm from its outer diameter.

★ The motor must revolve in the counterclockwise direction when viewed from the motor pulley side. Take care not to let it run in the reverse direction.

23. TROUBLES AND CORRECTIVE MEASURES

| TROUBLES | CAUSES | CORRECTIVE MEASURES |
|--|--|---|
| 1. Thread breakage. | <ol style="list-style-type: none"> (1) The yoke slide does not move in the correct way. (2) The thread tension post No. 2 fails to release the thread at correct timing. (3) The thread nipper catches the thread. (4) The needle does not enter the center of the holes in the button. (5) The needle is too thick for the diameter of the hole in the button. | <ul style="list-style-type: none"> ○ Adjust the timing of the motion of the yoke slide at each end. ○ Make the thread release timing slightly earlier. ○ Adjust the position of the nipper bar block ○ Adjust the button clamp jaw lever holder ○ Replace the needle by a thinner one. |
| 2. Buttons are not sewn tightly. | <ol style="list-style-type: none"> (1) The yoke slide does not move in the correct way. (2) The thread tension post No. 2 fails to release the thread at correct timing. (3) The thread tension post No. 2 does not give sufficient tension. (4) The needle does not enter the center of the holes in the button. (5) The work pressing force is too high or too low. | <ul style="list-style-type: none"> ○ Adjust the timing of the motion of the yoke slide at each end. ○ Make the thread release timing slightly later. ○ Tighten the tension nut of tension post No. 2. ○ Adjust the button clamp jaw lever holder. ○ Adjust the work pressing force properly. |
| 3. The first stitch trails relatively long thread from the right side of the button. | The thread pull-off lever does not work properly. | <ul style="list-style-type: none"> ○ Adjust the thread pull-off lever by the nipper bar block (rear). |
| 4. Thread trimming failure in the state of stop-motion. | <ol style="list-style-type: none"> (1) The thread tension post No. 2 fails to release the thread at correct timing. (2) The needle hits the edge of the holes in the button. (3) The button clamp assembly does not rise to the necessary height. (4) The thread nipper fails to press the thread. (5) The work pressing force is too high. | <ul style="list-style-type: none"> ○ Make the thread release timing slightly later to give more tension to the stitches. ○ Adjust the button clamp jaw lever holder. ○ Provide a 12 mm clearance between the feed plate and the button clamp jaw levers when risen. ○ Adjust the nipper bar block. ○ Adjust the work pressing force by the pressure adjusting nut. |

ONLY FOR MB-373

| TROUBLES | CAUSES | CORRECTIVE MEASURES |
|--|---|---|
| 1. Thread trimming failure. | <ol style="list-style-type: none"> (1) The moving knife does not separate the thread on the fabric with its separation nail. (2) The needle does not enter the center of the holes in the button. (3) The last stitch skips. (4) The moving knife separation nail is too high or too low. | <ul style="list-style-type: none"> ○ Adjust the position of the moving knife. ○ Adjust the button clamp jaw lever holders. ○ Adjust the looper. ○ Adjust the height of the moving knife thread separation nail. |
| 2. The needle thread is cut in two places on the wrong side of the fabric. | <ol style="list-style-type: none"> (1) The moving knife is set in wrong place. (2) The moving knife thread separation nail is too high or too low. | <ul style="list-style-type: none"> ○ Adjust the position of the moving knife when the machine is in the stop-motion state. ○ Adjust the height of the thread separation nail. |
| 3. Buttons trials too long thread after thread trimming. | <ol style="list-style-type: none"> (1) Timing of the moving knife motion is wrong. (2) The button clamp assembly rises too much. | <ul style="list-style-type: none"> ○ Adjust the position of the moving knife. ○ Reduce the button clamp lift down to 9 mm. |