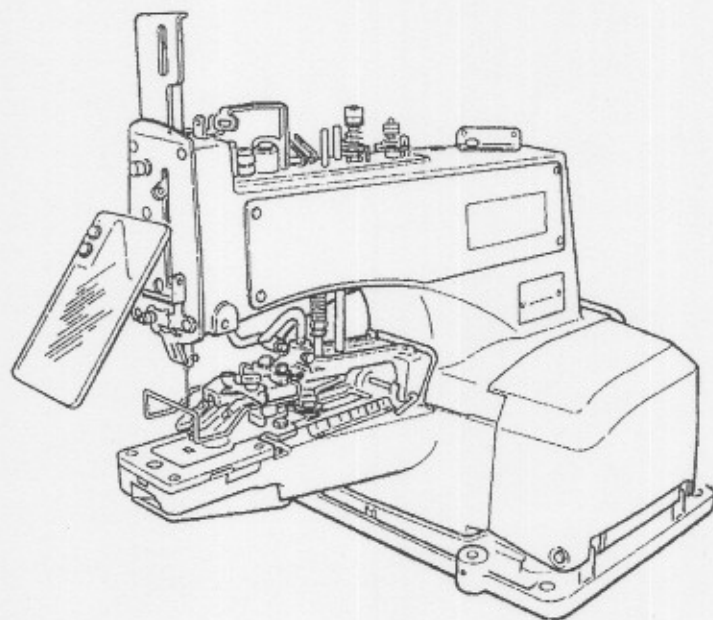


GLOBAL



BS 377

Single Thread Chainstitch Button Sewer

INSTRUCTION / OPERATING MANUAL
PARTS MANUAL

WEBSITE :

WWW.IMCA.NET

E-MAIL :

INFO@IMCA.NET

CAUTIONS FOR SAFETY

Further safety instructions for this machine will be found in the instruction manual. Read the instruction manual before you use the machine. The instruction manual is available in other languages.

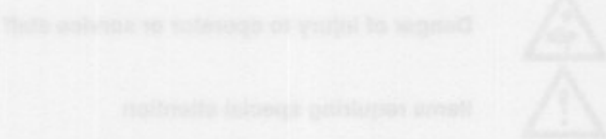
1. Observe the basic safety measures including, but not limited to the following ones, whenever you use the machine.
2. Read all the instructions, including, but not limited to the instruction manual before you use the machine. In addition, read the instruction manual on the way you use it & replace when necessary.
3. Use the machine after it has been examined that it conforms with safety requirements valid in your country.
4. All safety devices must be in position when the machine is used for work or in operation. The operation without the specified safety devices is not allowed.
5. The machine shall be operated in accordance with the instruction manual.
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 handling material, loading, unloading and unloading parts.
 - 7-2 For replacing parts to make pressure and force, such as: replace rollers and feed rollers, roller guide, roller guide and roller.
 - 7-3 For your work.
 - 7-4 When leaving the working place or when the working time is interrupted.
 - 7-5 When using safety devices without applying power. It may be in contact with the roller stopped freely.
8. If you should show off, ground, get used with the machine and device to come in contact with your eyes or skin to avoid any of your light of danger. Immediately wash the concerned area and consult a medical doctor.

9. Tampering with the safe and change, including, but not limited to the machine is prohibited.
10. Repair, installation and adjustment work must only be done by appropriately trained technicians or specially skilled personnel. Only spare parts designed by this can be used for repair.
11. General maintenance and inspection work must be done by appropriately trained personnel.
12. Repair and maintenance work of electrical components shall be conducted by qualified electric technicians or under the supervision of specially skilled personnel.
13. Whenever you find a defect or any of electrical components, immediately stop the machine. Before making repair and maintenance work on the machine equipped with pressure coils such as an cylinder, the air compressor has to be checked from the machine and the compressor air supply has to be cut off. Before the repair or maintenance work, the compressor has to be emptied. Excess air in the compressor has to be released and pressure coils must be replaced only trained technicians or specially skilled personnel. Immediately clean the machine throughout the period of use.

14. Operating 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-pressure water.
15. An appropriate power plug has to be attached to the machine in electric technician. Power plug has to be connected in a grounded receptacle.

16. The machine is only allowed to be used for the purpose intended. Other uses are not allowed.
17. Repair or modify the machine in accordance with the safety requirements with being in the effective safety measures. This assumes no responsibility for damage caused by tampering or modification of the machine.

18. Warning labels are marked with the two signs provided.



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 into, have conformed with the safety regulations in your country. 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. used 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.
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

← ①

← ②

← ③



① →

② →

← ③

- ① • There is the possibility that slight to serious injury or death may be caused.
- There is the possibility that injury may be caused by touching moving part.
- ② • To perform sewing work with safety guard.
- To perform sewing work with safety cover.
- To perform sewing work with safety protection device.
- ③ • Turn OFF the power and perform "threading", "replacement of bobbin or needle", "cleaning", "adjustment" and "lubrication".

FOR SAFE OPERATION

| | |
|---|---|
|  | <ol style="list-style-type: none">1. To avoid personal injury, never put your fingers under the needle when you turn ON the power switch or operate the sewing machine.2. To avoid personal injury, turn OFF the power switch when you tilt the machine head.3. To prevent possible personal injury caused by being caught in the machine, keep your fingers, head and clothes away from the handwheel and the thread take-up while the sewing machine is in operation. In addition, place nothing around it.4. Never operate the machine with the safety devices such as needle bar cover, finger guard, eye guard cover, etc. removed.5. To avoid personal injury, be careful not to allow your fingers in the machine when tilting the machine head. |
|  | <ol style="list-style-type: none">1. For the safety, never operate the sewing machine with the ground wire for the power supply removed.2. Be sure to turn OFF the power switch in prior when connecting/disconnecting the power plug.3. When thunders occurs, stop the work for the safety and disconnect the power plug.4. When the sewing machine is suddenly moved from a cold place to a warm place, there is a case where dew condensation may occur. Turn ON the power after there is no worry of the drop of water.5. To prevent fires, periodically draw out the power plug from the plug socket and clean the root of the pins and the space between pins. |

CAUTION BEFORE OPERATION



WARNING :

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

- Use the oil adaptable to the machine specifications.
- Clean the sewing machine thoroughly before using it for the first time.
- Remove all dust collected on the sewing machine during the transportation.
- Confirm that the voltage and phase are correct.
- Confirm that the power plug is properly connected.
- Never use the sewing machine in the state where the voltage type is different from the designated one.
- The direction of rotation of the sewing machine is clockwise as observed from the handwheel side. Be careful not to rotate it in reverse direction.
- 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.
- When operating the sewing machine, turn ON the power switch after properly setting the head on the table.
- Operate the handwheel after the sewing machine has totally stopped.

INSTRUCTION MANUAL

| | |
|----|--|
| 1 | 1. SPECIFICATIONS |
| 2 | 2. PREPARATION OF THE SEWING MACHINE |
| 2 | 2-1. Installation |
| 2 | 2-2. Lubrication |
| 2 | 2-3. Attaching the needle |
| 2 | 2-4. Attaching the needle bar cover |
| 2 | 2-5. Attaching the button foot assembly |
| 2 | 2-6. Threading the machine |
| 3 | 3. ADJUSTMENT OF THE SEWING MACHINE |
| 3 | 3-1. Thread tension adjustment |
| 3 | 3-2. Adjustment of the thread cut-off lever |
| 3 | 3-3. Adjusting the tension lever |
| 3 | 3-4. Adjusting the zigzag |
| 3 | 3-5. Adjusting the thread tension guide on the face plate |
| 3 | 3-6. Needle-to-needle relation |
| 3 | 3-7. Position of the needle guide |
| 3 | 3-8. Height of the button clamp |
| 3 | 3-9. Work pressing force |
| 3 | 3-10. Adjustment of the button clamp stop lever |
| 3 | 3-11. Timing of thread tension release |
| 3 | 3-12. Setting for 2- or 4-hole buttons |
| 3 | 3-13. Setting a number of stitches |
| 3 | 3-14. Adjusting the position of the stop motion |
| 3 | 3-15. Automatic thread trimmer |
| 3 | (1) Adjusting the position of the moving knife |
| 3 | 3-16. Clearance between the button clamp lifting lever and the adjusting screw |
| 3 | 3-17. How to set the L-shaped timing rod |
| 3 | 3-18. Knot-tying mechanism |
| 10 | (1) Adjusting the knot-tying connecting pin |
| 10 | (2) Adjusting the knot-tying arm release |
| 10 | (3) Adjusting the knot-tying notch |
| 11 | (4) Checkover of withdrawn knot-tying |
| 11 | 4. MAINTENANCE, SUBCLASS MODELS AND ATTACHMENTS |
| 11 | 4-1. How to connect the metal fittings on the belt |
| 11 | 4-2. Subclass models |
| 11 | 4-3. Attachments |
| 12 | (1) Attachment for elastic buttons (E002) |
| 12 | (2) Attachment for the first process of wrap-around buttons (E041) |
| 12 | (3) Attachment for the second process of wrap-around buttons (E042) |
| 14 | (4) Attachment for snaps (E057) |
| 14 | (5) Attachment for metal buttons (E066) |
| 15 | 4-4. Motor pulley and belt |
| 16 | 5. TROUBLESHOOTING AND CORRECTIVE MEASURES |

CONTENTS

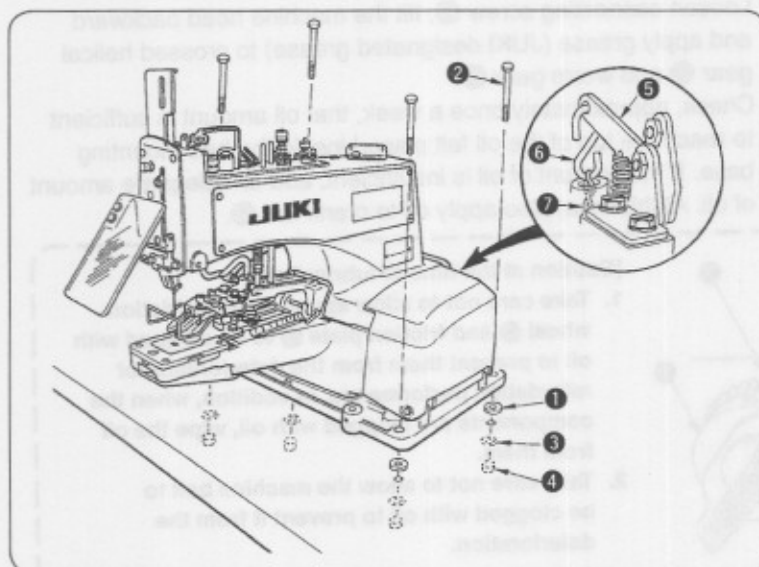
| | |
|--|-----------|
| 1. SPECIFICATIONS | 1 |
| 2. PREPARATION OF THE SEWING MACHINE | 1 |
| 2-1. Installation | 1 |
| 2-2. Lubrication..... | 2 |
| 2-3. Attaching the needle | 2 |
| 2-4. Attaching the needle bar cover | 3 |
| 2-5. Attaching the button tray assembly | 3 |
| 2-6. Threading the machine..... | 3 |
| 3. ADJUSTMENT OF THE SAWING MACHINE | 4 |
| 3-1. Thread tension adjustment..... | 4 |
| 3-2. Adjustment of the thread pull-off lever | 4 |
| 3-3. Adjusting the tension lever | 4 |
| 3-4. Adjusting the nipper | 5 |
| 3-5. Adjusting the thread tension guide on the face plate..... | 5 |
| 3-6. Needle-to-looper relation | 5 |
| 3-7. Position of the needle guide | 6 |
| 3-8. Height of the button clamp..... | 6 |
| 3-9. Work pressing force | 6 |
| 3-10. Adjustment of the button clamp stop lever | 6 |
| 3-11. Timing of thread tension release | 7 |
| 3-12. Setting for 2- or 4-hole buttons..... | 7 |
| 3-13. Setting a number of stitches | 8 |
| 3-14. Adjusting the position of the stop-motion..... | 8 |
| 3-15. Automatic thread trimmer | 9 |
| (1) Adjusting the position of the moving knife | 9 |
| 3-16. Clearance between the button clamp lifting lever and the adjusting screw | 9 |
| 3-17. How to set the L-shaped lifting rod | 9 |
| 3-18. Knot-tying mechanisms | 10 |
| (1) Adjusting the knot-tying connecting plate..... | 10 |
| (2) Adjusting the knot-tying arm stopper..... | 10 |
| (3) Adjusting the knot-tying notch | 10 |
| (4) Changeover of with/without knot-tying | 11 |
| 4. MAINTENANCE, SUBCLASS MODELS AND ATTACHMENTS | 11 |
| 4-1. How to connect the metal fittings of the belt | 11 |
| 4-2. Subclass models | 11 |
| 4-3. Attachments..... | 12 |
| (1) Attachments for shank buttons (Pearl buttons) (Z033) | 13 |
| (2) Attachment for the first process of wrapped-around buttons (Z041) | 13 |
| (3) Attachment for the second process of wrapped-around buttons (Z035) | 14 |
| (4) Attachment for snaps (Z037)..... | 14 |
| (5) Attachment for metal buttons (Z038)..... | 15 |
| 4-4. Motor pulley and belt | 15 |
| 5. TROUBLES AND CORRECTIVE MEASURES | 16 |

1. SPECIFICATIONS

| | MB- 373 | MB- 377 |
|--------------------|---|--|
| Sewing speed | Normal 1,300 rpm (Max. 1,500 rpm) | |
| Number of stitches | 8, 16 and 32 stitches | |
| Feed amount | Lateral feed 2.5 to 6.5mm Longitudinal feed 0, 2.5 to 6.5mm | Lateral feed 2.5 to 6.5mm Longitudinal feed 0, 2.5 to 4.5mm |
| Button size | 10 to 28 mm | |
| Needle used | TQx1 #16 (#14 to #20) TQx7 #16 (#14 to #20) | |
| Lubricating oil | JUKI New Defrix Oil No. 1 | |
| Noise | Workplace-related noise at sewing speed $n = 1,500 \text{ min}^{-1}$: $L_{pa} \leq 84 \text{ dB(A)}$ Noise measurement according to DIN 45635-48-B-1. | |

2. PREPARATION OF THE SEWING MACHINE

2-1. Installation



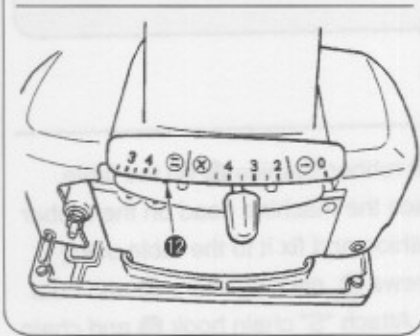
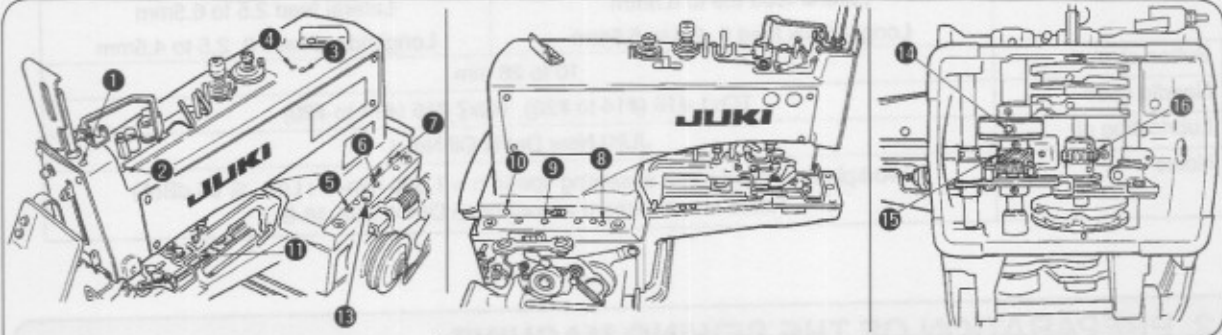
Put rubber cushion **1** on the table, place the machine head on the rubber cushion and fix it to the table using screws **2**, plain washers **3** and nuts **4**. Attach "S" chain hook **6** and chain **7** to stop motion trip lever **5**.

2-2. Lubrication

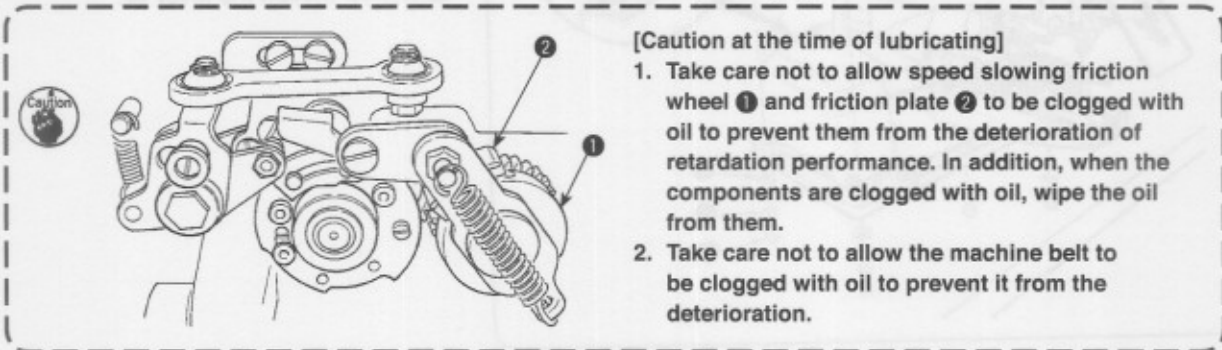


WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Open the side cover, and apply JUKI New Defrix Oil No. 1 to the portions shown by the red marks ① to ⑫ (⑦ : MB-1377 only). (Apply approximately 1 cc of oil to the respective lubricating places one to two times a week.)
- 2) Loosen connecting screw ⑬, tilt the machine head backward and apply grease (JUKI designated grease) to crossed helical gear ⑮ and worm gear ⑯.
- 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 ⑭.



[Caution at the time of lubricating]

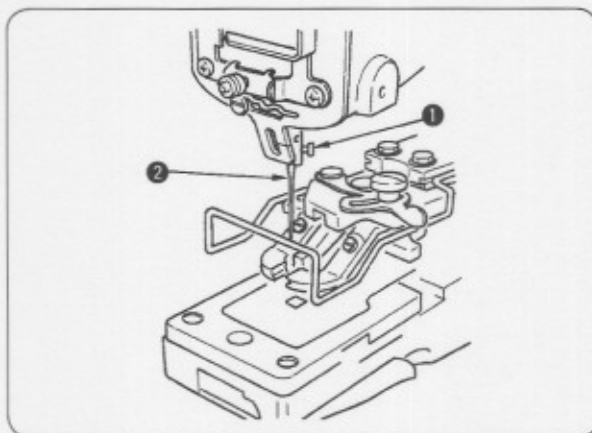
1. Take care not to allow speed slowing friction wheel ① and friction plate ② to be clogged with oil to prevent them from the deterioration of retardation performance. In addition, when the components are clogged with oil, wipe the oil from them.
2. Take care not to allow the machine belt to be clogged with oil to prevent it from the deterioration.

2-3. Attaching the needle



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



★ Use a standard needle of TQx1 #16.

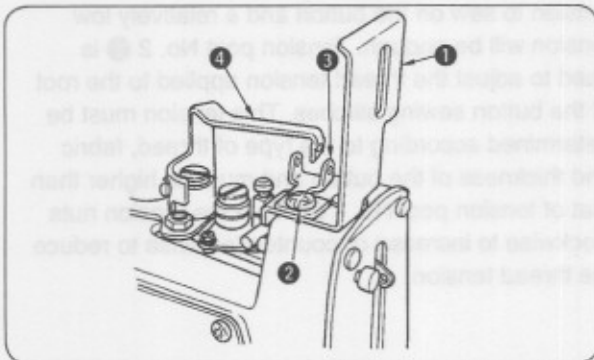
Loosen setscrew ① and hold needle ② with the long groove facing toward you. Then fully insert it into the hole in the needle bar, and tighten setscrew ①.

2-4. Attaching the needle bar cover



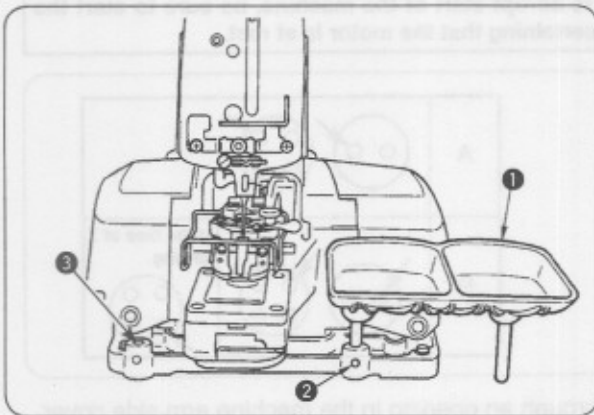
WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Loosen screw ② and remove thread guide ③.
- 2) Place needle bar guard ① under thread guide ③ and attach thread guide ③ so that lever ④ comes to the center of it at the start of the machine.
- 3) Fix the cover with screw ②.

2-5. Attaching the button tray assembly



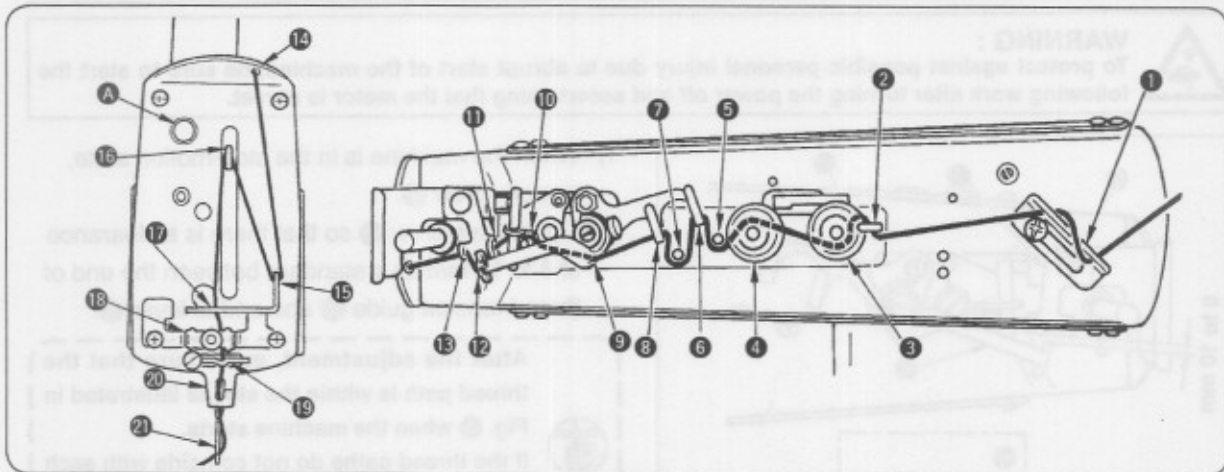
Insert the posts of button tray ① in hole on the right of the machine sub-base and tighten each setscrew ②. If it is difficult for the operator to pick up the buttons on the right side, change it to hole ③ on the left side.

2-6. Threading the machine



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

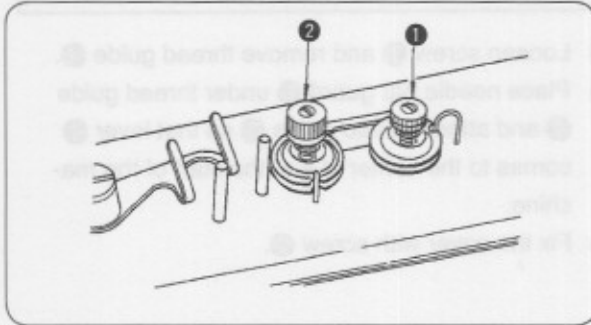


Thread the machine head in the order of ① to ⑳ as shown in the illustration given above. Then, pass the thread through the needle eye from the front for approximately 60 to 70 mm as you depress nipper releasing knurled thumb nut A.

* Standard needle is TQ X 1 #16.

3. ADJUSTMENT OF THE SAWING MACHINE

3-1. Thread tension adjustment



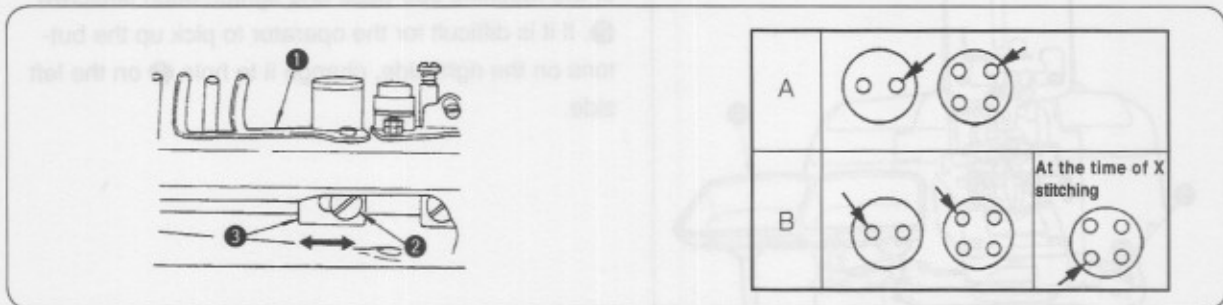
Tension post No. 1 ① is used to adjust the thread tension to sew on the button and a relatively low tension will be enough. Tension post No. 2 ② is used to adjust the thread tension applied to the root of the button sewing stitches. This tension must be determined according to the type of thread, fabric 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.

3-2. Adjustment of the thread pull-off lever



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



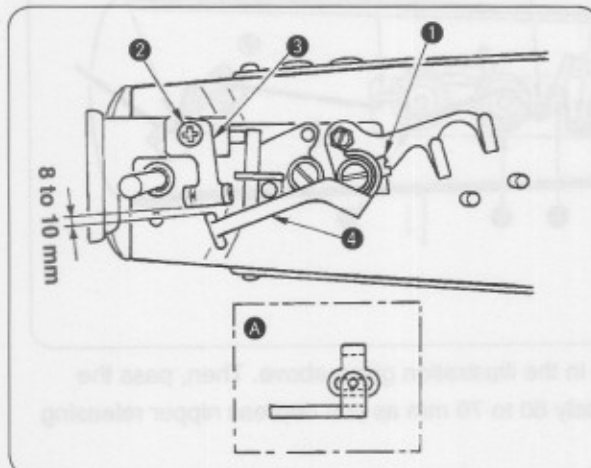
To adjust the thread pull-off lever ①, insert a screwdriver through an opening in the machine arm side cover (left), loosen screw ② and adjust the position of nipper bar block (rear) ③ to the left or the right. If the end of thread is drawn from arrow hole A in the button after sewing, change the position 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.

3-3. Adjusting the tension lever



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) When the machine is in the stop-motion state, loosen screw ①.
- 2) Tighten setscrew ① so that there is a clearance of 8 to 10 mm as a standard between the end of thread tension guide ③ and end of lever ④.

After the adjustment, make sure that the thread path is within the slot as illustrated in Fig. A when the machine starts.



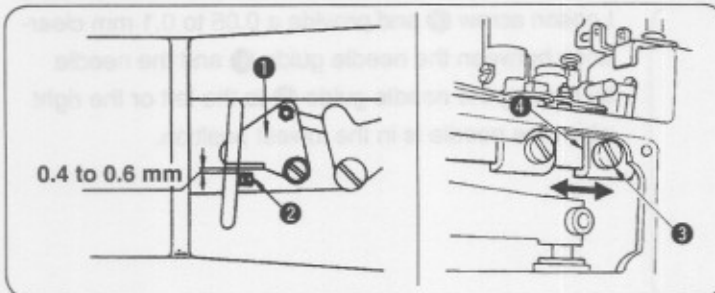
If the thread paths do not coincide with each other, loosen screw ② in the tension thread guide and adjust it properly.

3-4. Adjusting the nipper



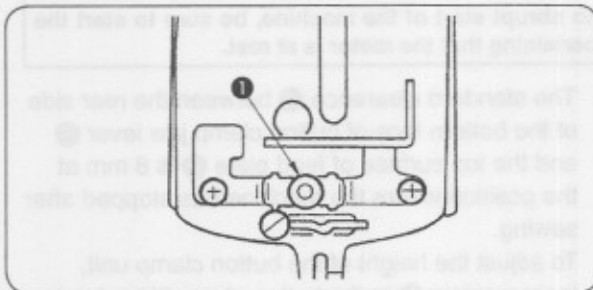
WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Provide a 0.4 to 0.6 mm clearance between nipper block ② and nipper ① to prevent the nipper ① from holding the thread while the machine is in operation.
- 2) Loosen screw ③ and move nipper bar block ④ to the right or the left.

3-5. Adjusting the thread tension guide on the face plate



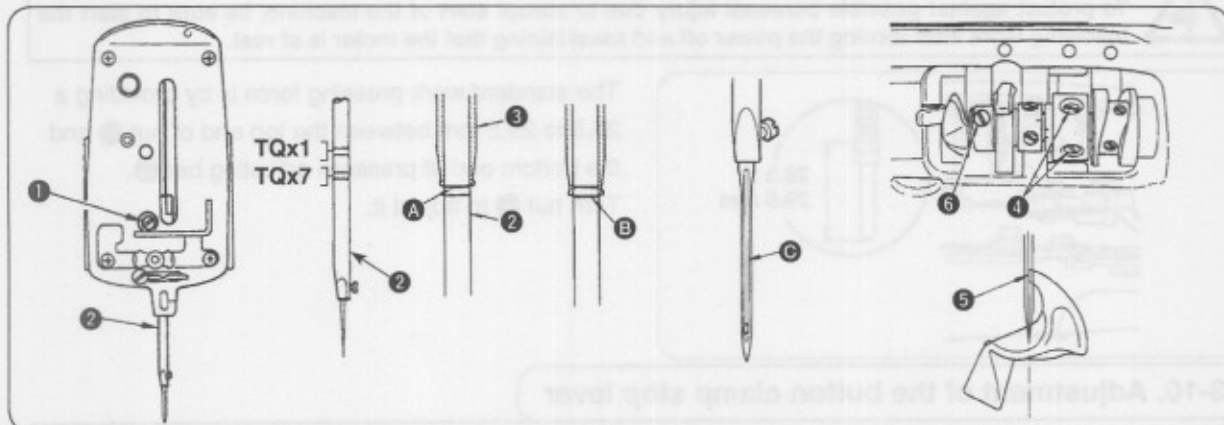
If the formation of seams at the start of sewing is failed and the seams are formed on the way even when the thread pull-off lever is adjusted, turn thumb nut ① (double nut) to decrease the thread tension.

3-6. Needle-to-looper relation



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



★ Adjust the needle-to-looper relation as follows :

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

(Adjusting the needle bar height)

- 2) Adjust the height of the needle bar using the top two lines engraved on the needle bar ② for the TQx1 needle and using the bottom two lines for the TQx7 needle. Align the upper line A with the bottom end face of needle bar bushing (lower) ③ and tighten screw ①. At this time, tighten the screw so that groove C of the needle faces the front.

(Looper position)

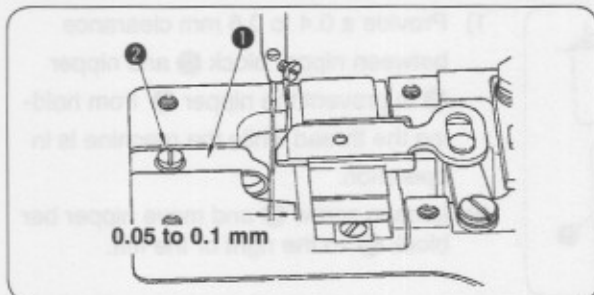
- 3) Loosen screws ④ and turn by hand the needle driving pulley until lower line B of two lines aligns with the bottom end face of needle bar bushing (lower) ③.
- 4) By keeping the machine in this state, align looper blade ⑤ with the center of the needle and tighten screws ④.
- 5) Loosen screws ⑥ and provide a 0.01 to 0.1 mm clearance between the looper and the needle. Tighten screws ⑥.

3-7. Position of the needle guide



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



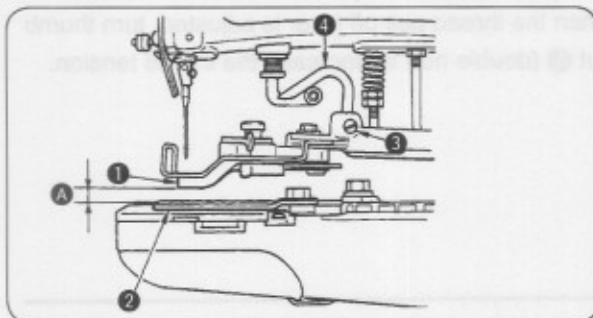
Loosen screw ② and provide a 0.05 to 0.1 mm clearance between the needle guide ① and the needle by moving the needle guide ① to the left or the right when the needle is in the lowest position.

3-8. Height of the button clamp



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



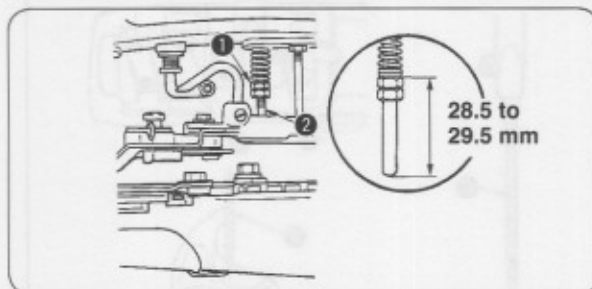
- 1) The standard clearance **A** between the rear side of the bottom face of button clamp jaw lever ① and the top surface of feed plate ② is 8 mm at the position where the machine has stopped after sewing.
- 2) To adjust the height of the button clamp unit, loosen screw ③ in the button clamp lifting hook and move button clamp lifting hook ④ up or down.

3-9. Work pressing force



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



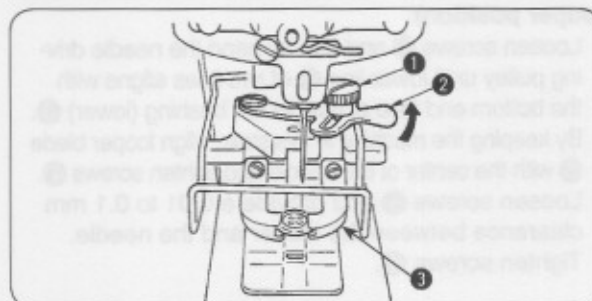
The standard work pressing force is by providing a 28.5 to 29.5 mm between the top end of nut ① and the bottom end of pressure adjusting bar ②. Turn nut ① to adjust it.

3-10. Adjustment of the button clamp stop lever



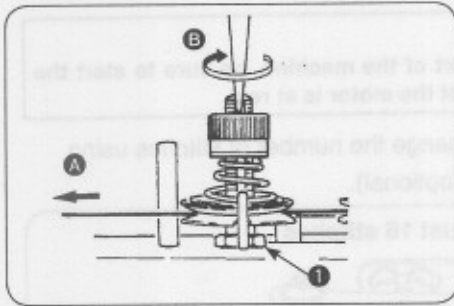
WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



When clamp screw ① is loosened in the state of stop-motion, button clamp jaw levers ③ opens/closes with button clamp stop lever ②. Set a button to the correct position and fix button clamp stop lever ② at the position where taking in and out of the button is easily performed with clamp screw ①.

3-11. Timing of thread tension release



Turn the needle driving pulley as you draw the thread in the direction of arrow mark **A** and you will find a point at which the tension discs on the tension post No. 2 release the thread. At this moment, the standard distance from the top end of the needle bar bushing (upper) to the top end of the needle bar is 44 to 47 mm (in case of the needle of TQ X 7, 54 to 57 mm).

Perform the following adjustments especially when the undermentioned troubles occur frequently.

Loosen nut **1**, insert the blade of a screwdriver to the top slot of the tension post No. 2 and turn it in the direction of arrow mark **B** to lower the height of the thread floating bar and in the opposite direction to raise the height.

| Phenomenon | Height of thread floating bar |
|---|--------------------------------------|
| 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 lower. |
| 3. When the thread is broken frequently ; | Make the needle bar slightly lower. |

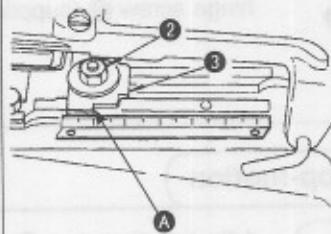
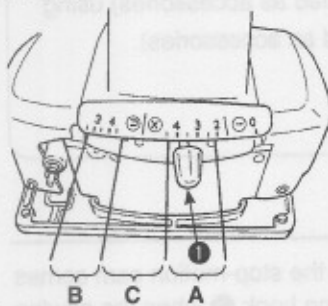
3-12. Setting for 2- or 4-hole buttons



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

MB-1377



Perform the adjustment after confirming that the sewing machine is located at the position of the stop-motion (refer to "3-14. Adjusting the position of the stop-motion", p.8).

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

[In case of MB-1373]

★ 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

Loosen nut **2** and set section **A** of pointer **3** to a corresponding amount. Then tighten nut **2**.

[In case of MB-1377]

★ 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 by the respective procedures below according to the sewing methods.

X stitch : Set the lengthwise feed adjusting lever to the position corresponding to the amount for the button within the range of **A**.

U-sharp stitch : Set the lengthwise feed adjusting lever to the position corresponding to the amount for button within the range of **B**.



When setting the lengthwise feed adjusting lever to the position of **C** (outside of range of setting the lever), not only the sewing cannot be performed but also trouble will be caused. Do not set the feed adjusting lever at the position of **C**.

★ Crosswise feed

Loosen nut **2** and set section **A** of pointer **3** to a corresponding amount. Then tighten nut **2**.



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

3-13. Setting a number of stitches

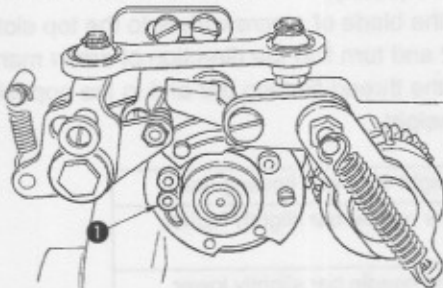


WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

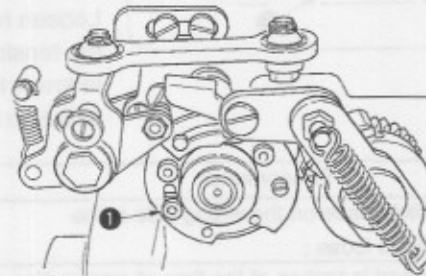
To change the number of stitches, open the left-hand side cover and change the number of stitches using stitch number adjusting screw ❶ and stitch number adjusting lever ❷ (optional).

★ How to adjust 8 stitches



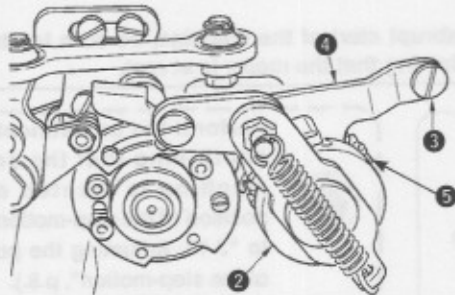
To make 8 stitches, loosen stitch number adjusting screw ❶ and fix it to the position as shown in the illustration.

★ How to adjust 16 stitches



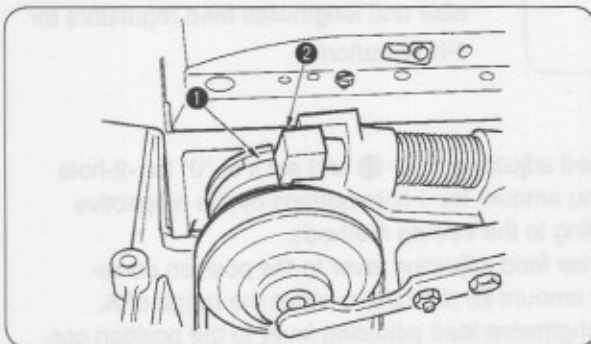
When stitch number adjusting screw ❶ being set for "8 stitches" has arrived at the left end, loosen stitch number adjusting screw ❶ and fix it to the position as shown in the illustration.

★ How to adjust 32 stitches



In the state of 16 stitches, stitch number adjusting gear roller ❷ which is attached to the large gear ❺ comes to the lower side, assemble stitch number adjusting lever ❹ (supplied as accessories) using hinge screw ❸ (supplied as accessories).

3-14. Adjusting the position of the stop-motion



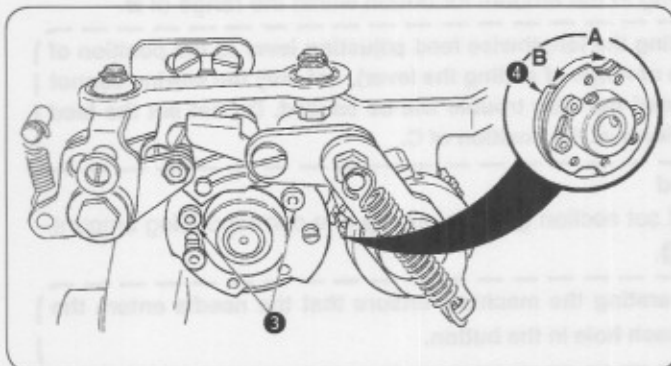
Adjust so that claw ❶ of the stop-motion cam comes in contact with stop-motion hook ❷ when the sewing machine completes the sewing and stops.



When replacing the motor pulley and changing the sewing speed from 1,300 rpm to 1,500 rpm, and vice versa, be sure to re-adjust the position of the stop-motion.

[Adjusting procedure]

- When the stop-motion hook comes in contact with the stop-motion cam and rebounds, (When there is a clearance between claw ❶ and stop-motion hook ❷) loosen two stop-motion position adjusting screws ❸, turn stop-motion adjusting cam ❹ in the direction of A, and fix stop-motion position adjusting screws ❸.
- When the stop-motion hook stops before it comes in contact with the stop-motion cam claw Loosen two stop-motion position adjusting screws ❸, turn stop-motion adjusting cam ❹ in the direction of B, and fix stop-motion position adjusting screws ❸.



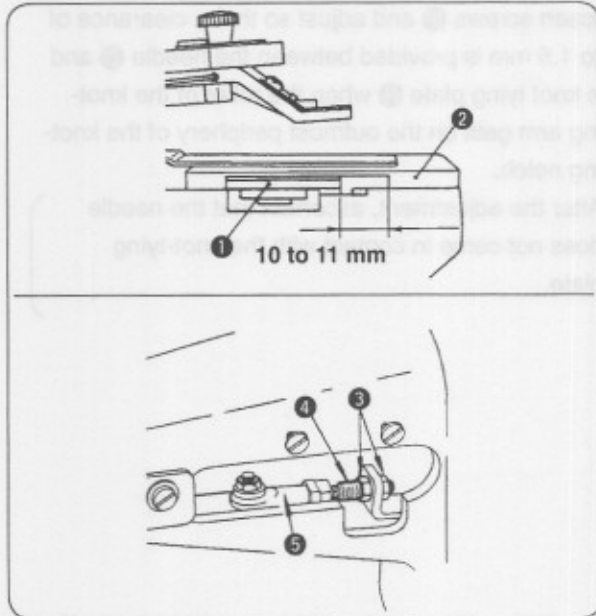
3-15. Automatic thread trimmer

(1) Adjusting the position of the moving knife



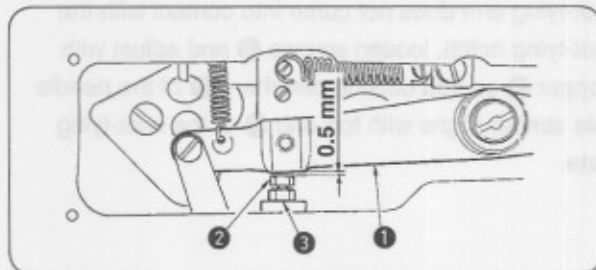
WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



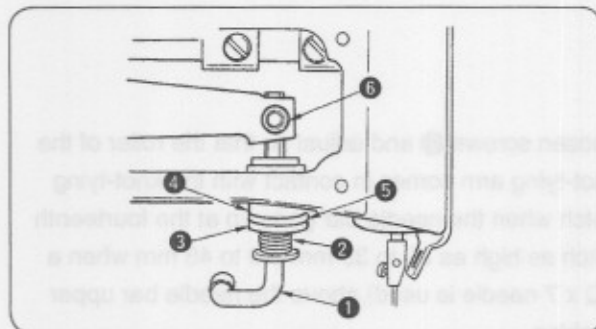
When the presser has completely lifted at the stop-motion position (refer to "3-14. Adjusting the position of the stop-motion", p.8), it is the standard that the clearance between thread trimming connecting plate (front) ① and the end face of the slit of throat plate ② is 10 to 11 mm. To adjust the aforementioned clearance, tilt the machine head, remove the oil shield, loosen two nuts ③ and move connecting screw ④ back or forth. When you tighten nuts ③, ensure that joint ⑤ stays in the horizontal position.

3-16. Clearance between the button clamp lifting lever and the adjusting screw



Provide a 0.5 mm clearance between the end face of button clamp lifting lever ① and adjusting screw ② at the stop-motion position (refer to "3-14 Adjusting the position of the stop-motion", p.8) and tighten with adjusting screw nut ③.

3-17. How to set the L-shaped lifting rod



Put moving knife push-back spring ②, stop-motion rubber cushion washer ③, stop-motion rubber cushion ④ and stop-motion rubber cushion washer ⑤, in this order, to L-shaped lifting rod ①. Make the jaw of the machine arm come into close contact with the end face of the stop-motion rubber cushion washer at the stop-motion position (refer to "3-14 Adjusting the position of the stop-motion", p.8) and set the L-shaped lifting rod without a play. Then tighten it with screw ⑥.

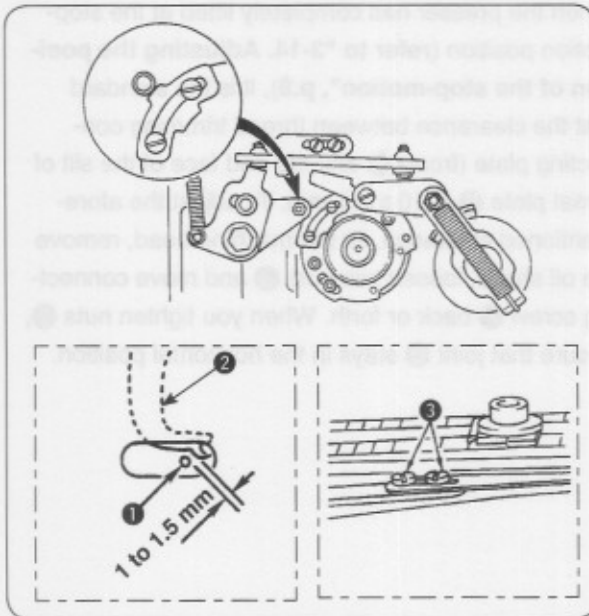
3-18. Knot-tying mechanisms



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

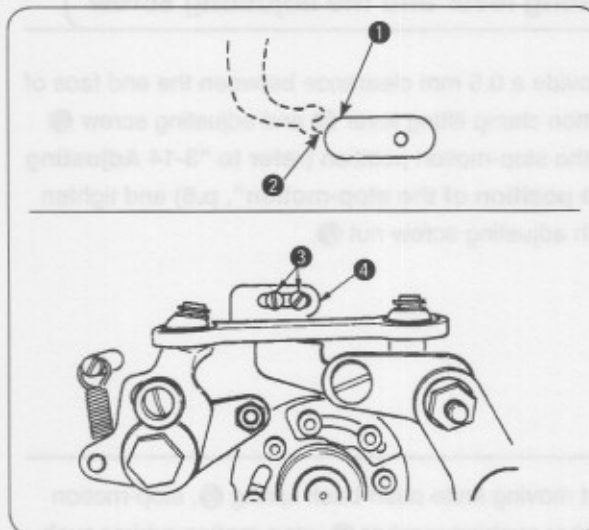
(1) Adjusting the knot-tying connecting plate



Loosen screws ① and adjust so that a clearance of 1 to 1.5 mm is provided between the needle ② and the knot-tying plate ③ when the roller of the knot-tying arm gets on the outmost periphery of the knot-tying notch.

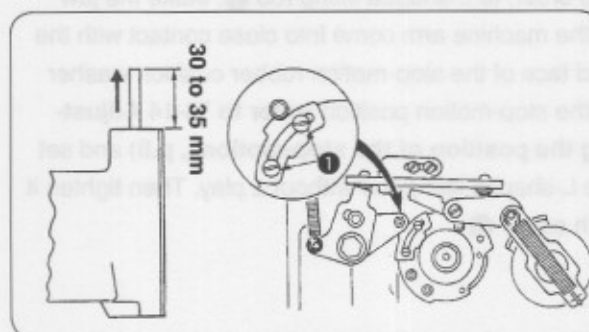
(After the adjustment, ascertain that the needle does not come in contact with the knot-tying plate.)

(2) Adjusting the knot-tying arm stopper



When starting the sewing machine and the roller of knot-tying arm does not come into contact with the knot-tying notch, loosen screws ③ and adjust with stopper ④ so that outside periphery ① of the needle hole almost aligns with top end ② of the knot-tying plate.

(3) Adjusting the knot-tying notch

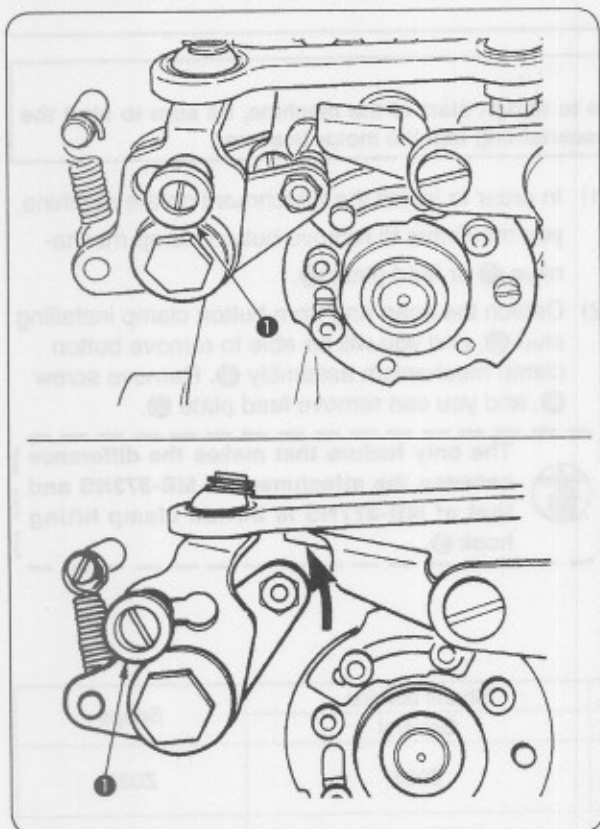


Loosen screws ① and adjust so that the roller of the knot-tying arm comes in contact with the knot-tying notch when the needle bar goes up at the fourteenth stitch as high as 30 to 35 mm (40 to 45 mm when a TQ x 7 needle is used) above the needle bar upper bushing.



If two knot-tying notches are to be installed (without crossover stitch), make the aforementioned adjustment at the 6th and 14th stitches.

(4) Changeover of with/without knot-tying

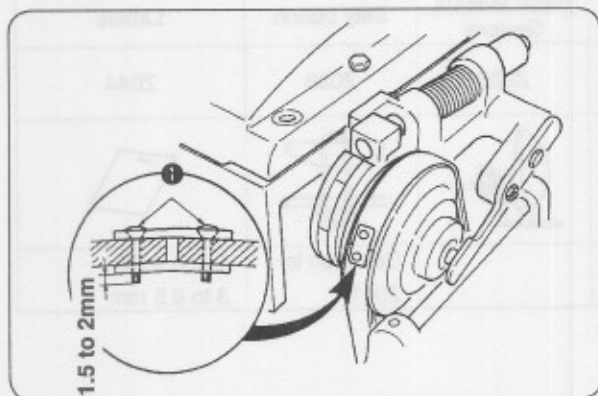


To make "with knot-tying", pull knot-tying changeover knob ❶ toward the front and place it to the position in the figure.

To make "without knot-tying", pull knot-tying changeover knob ❶ toward the front and place it to the position in the figure.

4. MAINTENANCE, SUBCLASS MODELS AND ATTACHMENTS

4-1. How to connect the metal fittings of the belt

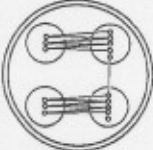



Tighten connecting screws ❶ of the belt so that the screws protrude approximately 1.5 to 2 mm from the reverse side as the standard.

Caution
1. When assembling the belt to the pulley and rotating the motor after closing the side cover, confirm that the side cover does not interfere with the metal fitting of the belt.

2. Take care not to allow the belt to be clogged with oil when assembling it.

4-2. Subclass models

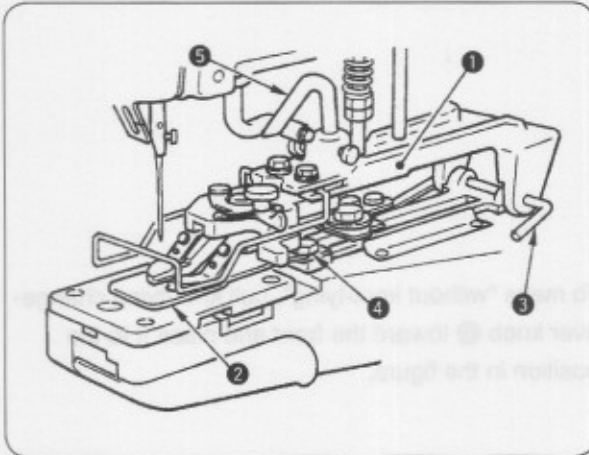
| MB- 373 | MB- 373-11 |
|---|---|
| 8, 16, 32 stitches | 8, 16, 32 stitches |
|  |  |

4-3. Attachments



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) In order to install the attachment on the machine, you may have to remove button clamp mechanism ① or feed plate ②.
- 2) Detach the snap ring from button clamp installing stud ③, and you will be able to remove button clamp mechanism assembly ①. Remove screw ④, and you can remove feed plate ②.

The only feature that makes the difference between the attachment of MB-373NS and that of MB-377NS is button clamp lifting hook ⑤.

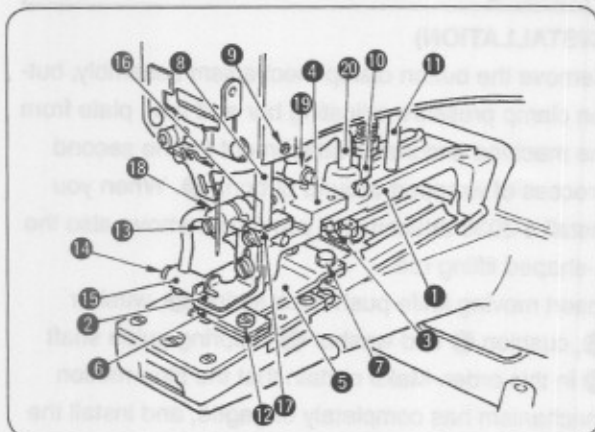
| Use | Flat buttons | | Shank buttons | | Snaps |
|--------------------|---|---|---|-------------------|-------------------------------|
| | Large-size | Medium-size | General | | |
| MB-1373 MB-1377 | Z201 | Z202 | Z033 | | Z037 |
| Schematic drawing | | | | | |
| Remarks | Button size : A : 3 to 6.5 mm B : ø20 to ø28 mm | Button size : A : 3 to 5 mm B : ø12 to ø20 mm | Button diameter : Less than 16 mm Shank size : Thickness : 6 to 5 mm Width : 3 to 2.5 mm | | Snap size : A : 8 mm |
| Use | Wrapped-around buttons | | Metal buttons | Stay button | Labels |
| | First process | Second process | General | | |
| MB-1373 MB-1377 | Z041 | Z035 | Z038 | Z039 | Z044 |
| Schematic drawing | | | | | |
| Remarks | Thread shank height A : 5.5 mm | | | Common to Z041 | Stitch width : 3 to 6.5 mm |

(1) Attachments for shank buttons (Pearl buttons) (Z033)



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



(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 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.

(ADJUSTMENT AND OPERATION)

- 1) Loosen screw 12, let feed plate 6 recede 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 13 and 14 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.



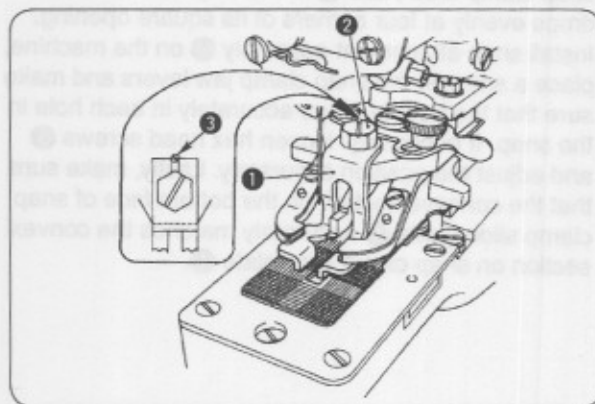
1. When you fix the thrust collar, ensure that button clamp rotating shaft 18 does not play axially in its bracket.
2. Adjust lifting hook 20 and stopper pin 11 so that L-shaped lifting rod roller 19 does not come in contact with button clamp bracket 4.

(2) Attachment for the first process of wrapped-around buttons (Z041)



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



(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)

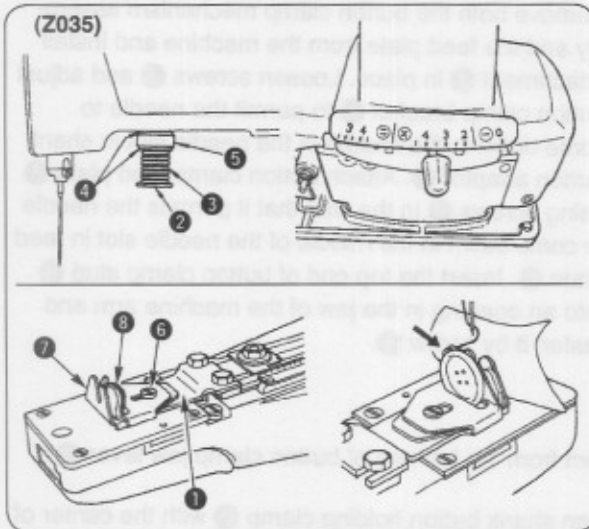
Adjustment and operation are almost same as those for the flat buttons, but you must adjust the thread pull-off lever to provide more amount of thread in order to make the thread loose below the button for thread shank formation. (refer to "3-2. Adjustment of the thread pull-off lever", p.4)

(3) Attachment for the second process of wrapped-around buttons (Z035)



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



(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 ④, 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 in close contact with the surface of the machine arm without play.

(ADJUSTMENT AND OPERATION)

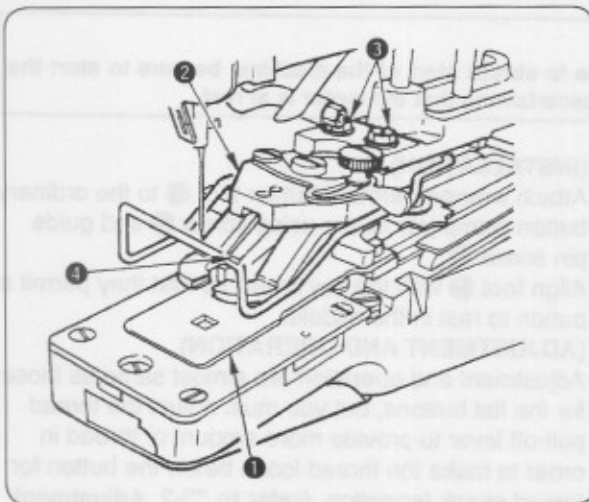
- 1) Loosen screw ⑥ and adjust the thread shank length by moving guide (large) ⑦ and guide (small) ⑧ in line with the point of needle entry.
- 2) Set a button (tilt it slightly for easy insertion) and pass the thread as the arrow shows.
- 3) Set the lengthwise feed to "0".

(4) Attachment for snaps (Z037)



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



(INSTALLATION)

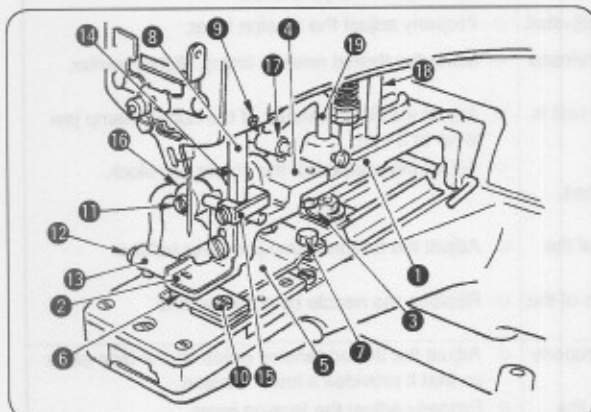
Remove the button clamp mechanism assembly and the feed plate. Set both the crosswise feed and lengthwise feed graduated plates to "4 mm". Install snap clamp feed plate ① in the way that the needle drops evenly at four corners of its square opening. Install snap attachment assembly ② on the machine, 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.

(5) Attachment for metal buttons (Z038)



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



(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 ⑨.

(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.



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 ⑰ does not come in contact with button clamp bracket ④.

4-4. Motor pulley and belt

- 1) For this machine a single-phase or 3-phase 200 watts (1/4 HP) induction motor is used.
- 2) Use a V belt.
- 3) The sewing speed depends on the diameter of the motor pulley as listed below ;

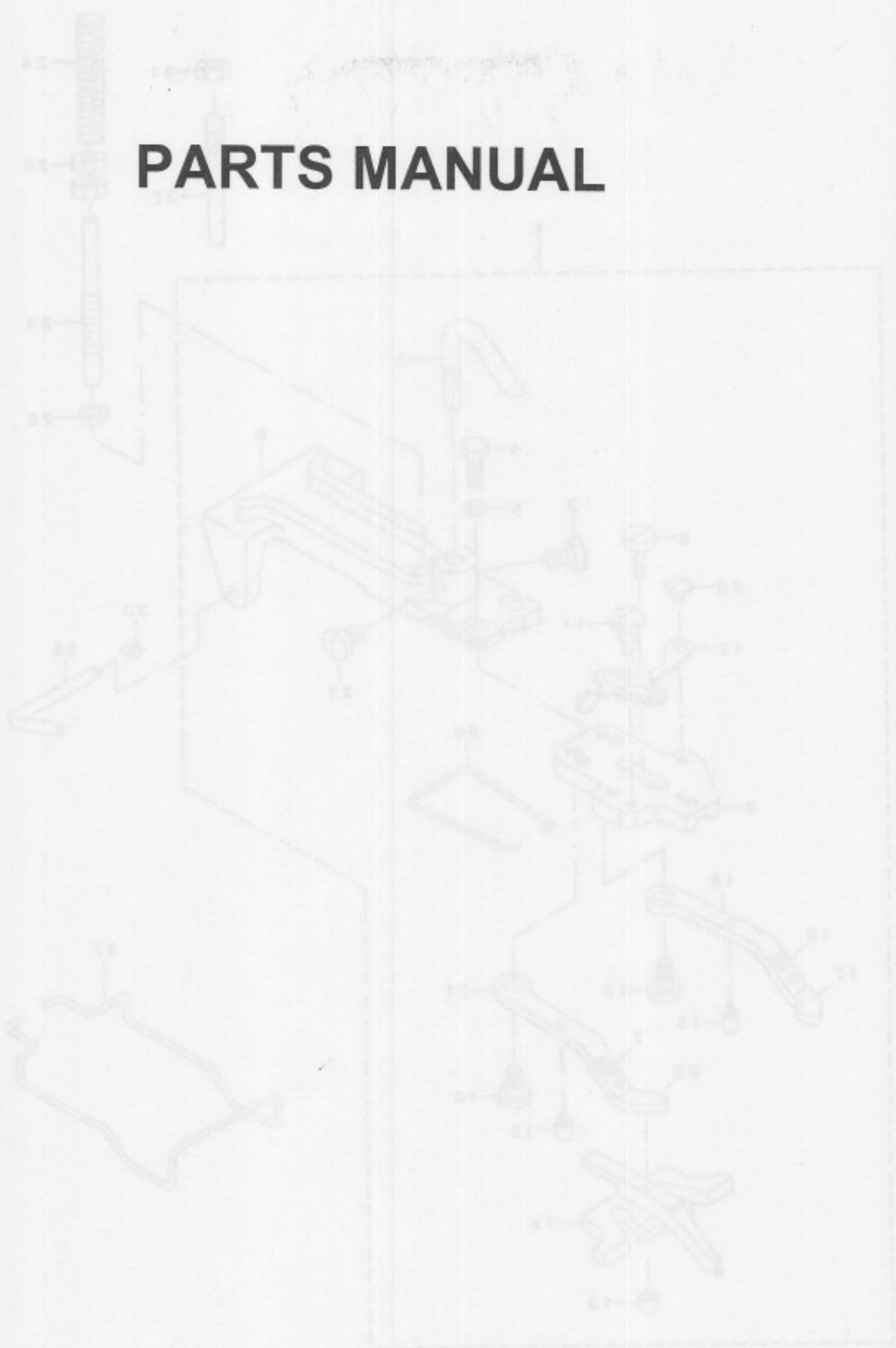
| Hz | rpm | Motor pulley part No. | mm  |
|----|------|-----------------------|---|
| 50 | 1500 | 40038291 | ø 76 |
| | 1300 | 40038298 | ø 64.5 |
| 60 | 1500 | 40038298 | ø 64.5 |
| | 1300 | 40042229 | ø 57 |

- ★ The pulley of 50Hz and 1,300 rpm is in common with that of 60Hz and 1,500 rpm.
- ★ The rotating direction of motor is counterclockwise when viewed from the motor pulley side. Be careful not to rotate in reverse direction.
- ★ When replacing the motor pulley and changing the sewing speed from 1,300 rpm to 1,500 rpm and vice versa, be sure to re-adjust the position of the stop-motion. (Refer to "3-14. Adjusting the position of the stop-motion", p.8.)

5. TROUBLES AND CORRECTIVE MEASURES

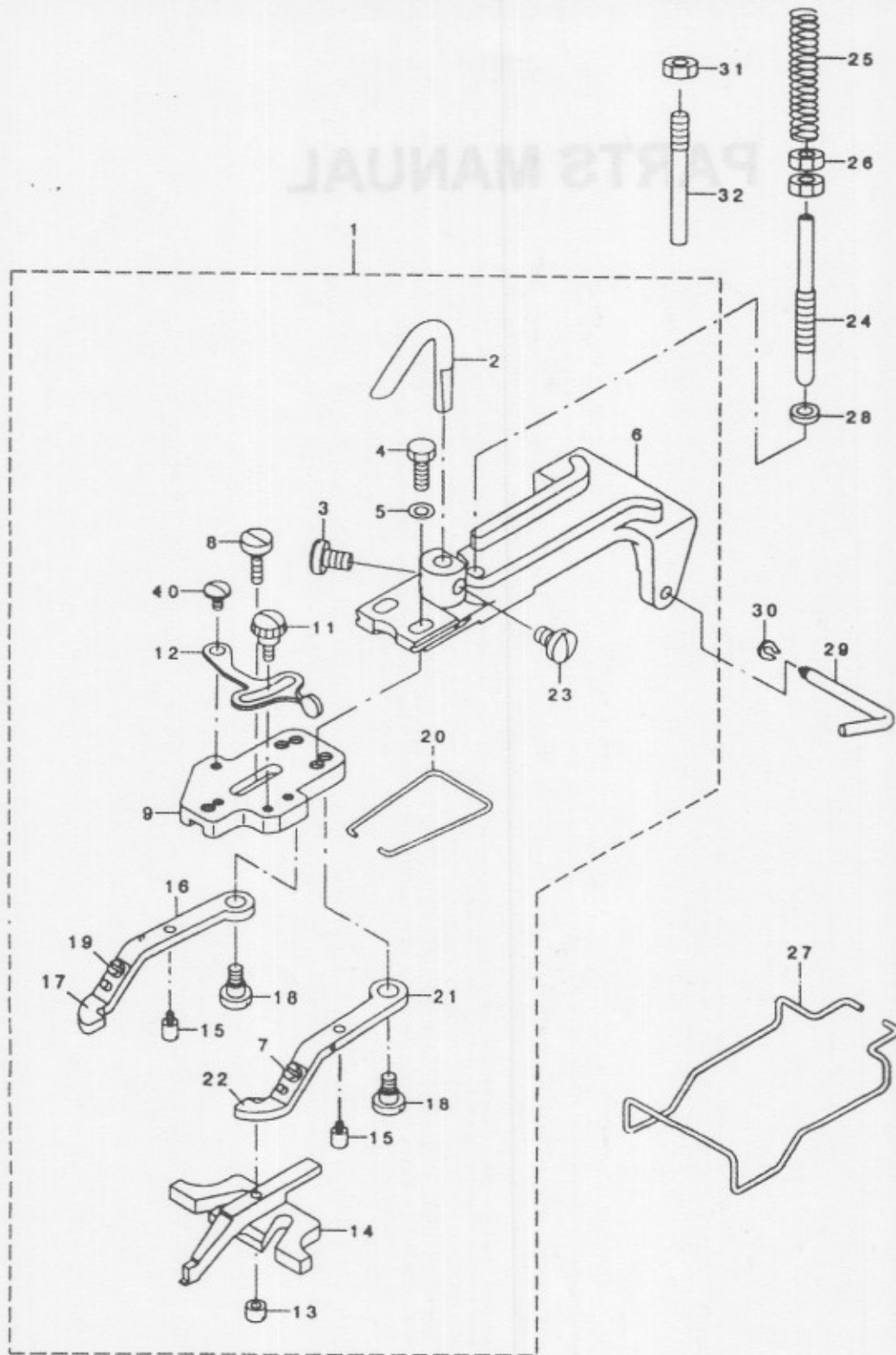
| TROUBLES | CAUSES | CORRECTIVE MEASURES |
|--|---|---|
| 1. Thread breakage | <ul style="list-style-type: none"> ① The yoke slide does not move in the correct way. ② The tension lever has been improperly adjusted. ③ The thread tension post No. 2 fails to release the thread at correct timing. ④ Lifting amount of the button clamp jaw unit is excessive. ⑤ The thread nipper catches the thread. The nipper has been improperly adjusted. (The clearance is too small.) ⑥ The needle does not enter the center of the holes in the button. ⑦ The needle is too thick for the diameter of the hole in the button. | <ul style="list-style-type: none"> ○ Adjust the timing of forward, backward and sideways of the yoke slide. ○ Properly adjust the tension lever. ○ Make the thread release timing slightly earlier. ○ Adjust the lifting amount of the button clamp jaw lever to 8 mm. ○ Adjust the position of the nipper bar block. ○ Adjust the button clamp jaw lever holder. ○ Replace the needle by a thinner one. |
| 2. The machine forms a seam after it has run for a while instead of forming it from the start of sewing. | <ul style="list-style-type: none"> ① The thread pull-off lever has been improperly adjusted. ② Tension of the thread tension guide on the face plate is excessive. | <ul style="list-style-type: none"> ○ Adjust the thread tension guide on the face plate so that it provides a lower tension. ○ Properly adjust the tension lever. |
| 3. Buttons are not sewn tightly | <ul 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. |
| 4. The last back-tack stitch is poorly tensed. | <ul style="list-style-type: none"> ① The tension lever has been improperly adjusted. ② Timing of the knot-tying plate is incorrect. ③ The nipper has been improperly adjusted. (The clearance is too large.) | <ul style="list-style-type: none"> ○ Properly adjust the tension lever. ○ Advance the timing of the knot-tying plate. (Adjustment of the knot-tying notch) ○ Adjust the nipper with the nipper bar block. |
| 5. The first stitch trails relatively long thread from the right side of the button. | The thread pull-off lever does not work properly. | ○ Adjust the thread pull-off lever by the nipper bar block (rear). |
| 6. Thread trimming failure in the state of stop-motion | <ul 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 thread nipper fails to press the thread. ④ 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. ○ Adjust the nipper bar block. ○ Adjust the work pressing force by the pressure adjusting nut. |
| 7. Thread trimming failure | <ul 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 thread 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. |
| 8. The needle thread is cut in two places on the wrong side of the fabric. | <ul 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. |
| 9. Button trails too long thread after thread trimming. | <ul style="list-style-type: none"> ① Timing of the moving knife motion is wrong. ② Lifting amount of the button clamp jaw unit is excessive. | <ul style="list-style-type: none"> ○ Adjust the position of the moving knife when the machine is in the stop-motion state. ○ Adjust the lifting amount of the button clamp jaw lever to 8 mm. |
| 10. Length of thread remaining, after thread trimming, on the wrong side of the material varies. | <ul style="list-style-type: none"> ① Position of the moving knife is not correct. ② Lifting amount of the button clamp jaw unit is excessive. | <ul style="list-style-type: none"> ○ Adjust the position of the moving knife when the machine completes stop-motion. (10 to 11 mm) ○ Adjust the lifting amount of the button clamp jaw lever to 8 mm. |

PARTS MANUAL



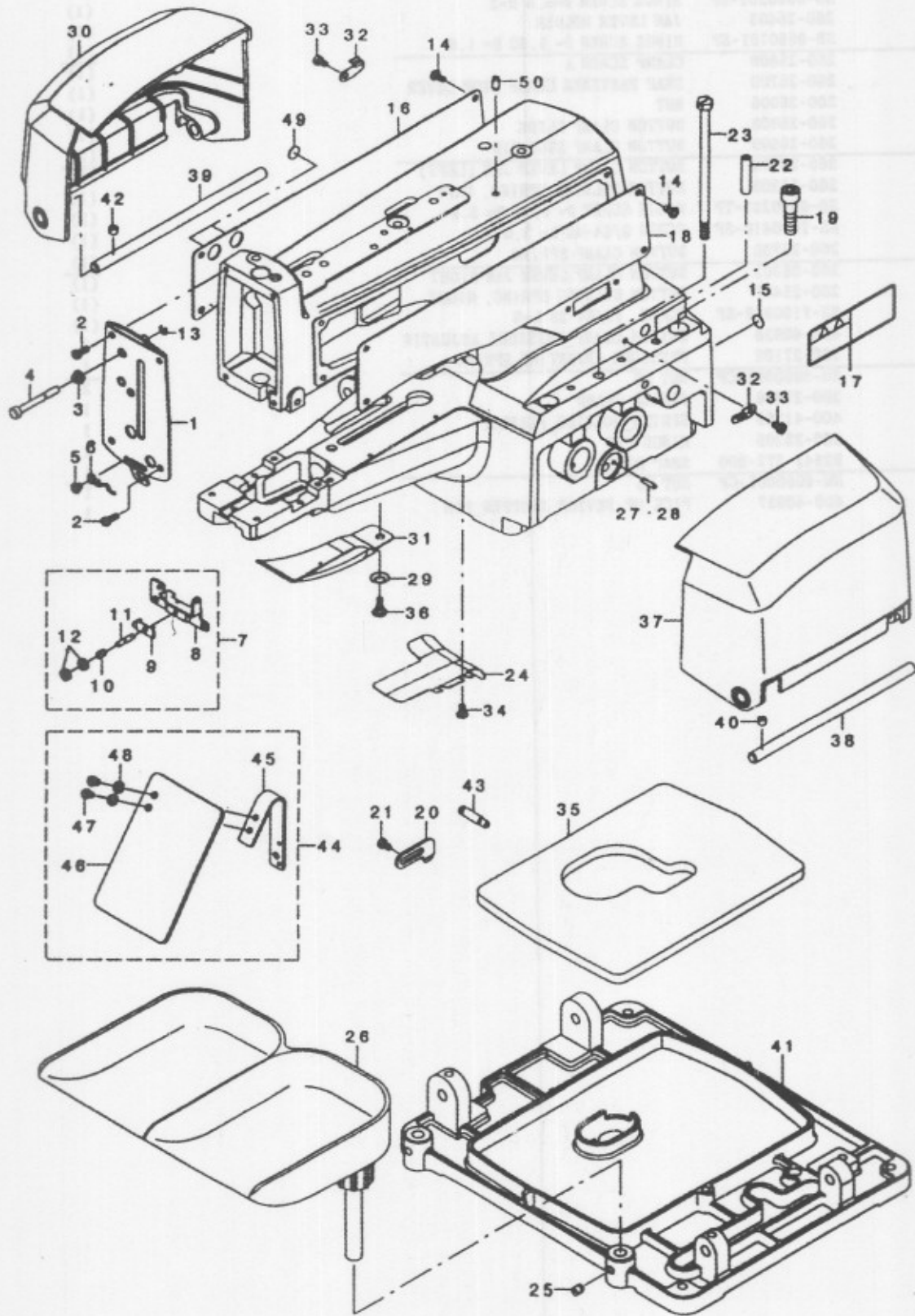
101

1. BUTTON CLAMP MECHANISM COMPONENTS



| REF. NO. | NOTE | PART NO. | DESCRIPTION | Qty |
|----------|------|---------------|--------------------------------|-----|
| 1 | | 260-26856 | PICK-UP DEVICE ASM. | 1 |
| 2 | | 400-41058 | BUTTON CLAMP LIFTING HOOK | (1) |
| 3 | | SS-7150940-SP | SCREW 15/64-28 L=9 | (1) |
| 4 | | SS-9621413-SP | SCREW 3/16-32 L=13.5 | (2) |
| 5 | | WP-0501016-SD | WASHER 5X10.5X1 | (2) |
| 6 | | 260-25502 | BUTTON CLAMP HOLDER | (1) |
| 7 | | SS-7090410-SP | SCREW 9/64-40 L= 3.5 | (1) |
| 8 | | SD-0550301-SP | HINGE SCREW D=5.5 H=3 | (1) |
| 9 | | 260-25403 | JAW LEVER HOLDER | (1) |
| 10 | | SD-0550181-SP | HINGE SCREW D= 5.50 H= 1.8 | (1) |
| 11 | | 260-25809 | CLAMP SCREW A | (1) |
| 12 | | 260-25700 | SNAP FASTENER CLAMP STOP LEVER | (1) |
| 13 | | 260-26005 | NUT | (1) |
| 14 | | 260-25908 | BUTTON CLAMP SLIDE | (1) |
| 15 | | 260-26609 | BUTTON CLAMP STOP PIN | (2) |
| 16 | | 260-26104 | BUTTON CLAMP LEVER JAW (LEFT) | (1) |
| 17 | | 260-26203 | BUTTON HOLDING SPRING, LEFT | (1) |
| 18 | | SD-0640391-TP | HINGE SCREW D= 6.35 H= 3.9 | (2) |
| 19 | | SS-7090410-SP | SCREW 9/64-40 L= 3.5 | (1) |
| 20 | | 260-26708 | BUTTON CLAMP SPRING | (1) |
| 21 | | 260-26302 | BUTTON CLAMP LEVER JAW RIGHT | (1) |
| 22 | | 260-26401 | BUTTON HOLDING SPRING, RIGHT | (1) |
| 23 | | SS-7150940-SP | SCREW 15/64-28 L=9 | (1) |
| 24 | | 400-40938 | BUTTON_CLAMP_PRESSURE_ADJUSTIN | 1 |
| 25 | | 260-27102 | PRESSURE ADJUSTING SPRING | 1 |
| 26 | | NW-6060001-CP | NUT M6 | 2 |
| 27 | | 260-27409 | FINGER GUARD | 1 |
| 28 | | 400-41069 | SPRING_HOLDING_PLATE... | 1 |
| 29 | | 260-25205 | HINGE PIN | 1 |
| 30 | | B2541-372-000 | SNAP RING | 1 |
| 31 | | NW-6060001-CP | NUT M6 | 1 |
| 32 | | 400-40937 | PICK_UP_DEVICE_STOPPER_PIN | 1 |

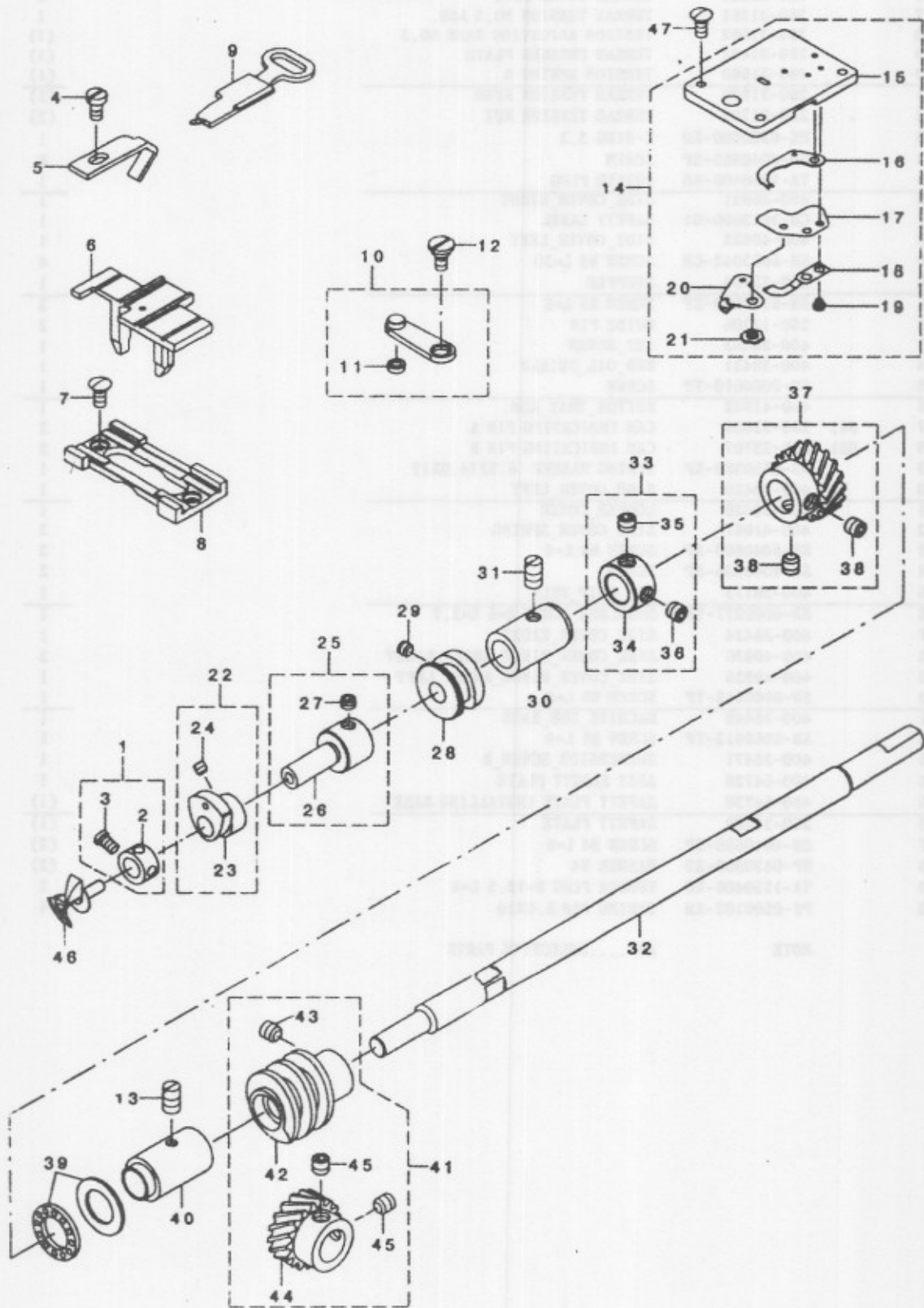
2. ARM & MISCELLANEOUS COVERS COMPONENTS



| REF. NO. | NOTE | PART NO. | DESCRIPTION | Qty. |
|----------|------|---------------|------------------------------|------|
| 1 | | 400-38426 | FACE_PLATE_COMPL. | 1 |
| 2 | | SM-4040855-SP | SCREW | 4 |
| 3 | | 260-21600 | TENSION SPRING | 1 |
| 4 | | 260-32003 | NIPPER RELEASING STUD | 1 |
| 5 | | SM-6040650-TP | SCREW | 1 |
| 6 | | 260-31203 | THREAD GUIDE NO.4 | 1 |
| 7 | | 260-31351 | THREAD TENSION NO.3 ASM. | 1 |
| 8 | | 260-31302 | TENSION ADJUSTING BASE NO.3 | (1) |
| 9 | | 260-31401 | THREAD PRESSER PLATE | (1) |
| 10 | | 260-31500 | TENSION SPRING B | (1) |
| 11 | | 260-31609 | THREAD TENSION STUD | (1) |
| 12 | | 260-31708 | THREAD TENSION NUT | (2) |
| 13 | | RE-0320000-KO | E-RING 3.2 | 1 |
| 14 | | SM-4040855-SP | SCREW | 8 |
| 15 | | TA-2050406-RO | RUBBER PLUG | 1 |
| 16 | | 400-40931 | SIDE_COVER_RIGHT | 1 |
| 17 | | CM-3013000-01 | SAFETY LABEL | 1 |
| 18 | | 400-40932 | SIDE_COVER_LEFT | 1 |
| 19 | | SM-6083042-CH | SCREW M8 L=30 | 4 |
| 20 | | 260-33704 | STOPPER | 1 |
| 21 | | SM-6050800-SP | SCREW M5 L=8 | 2 |
| 22 | | 260-11205 | GUIDE PIN | 2 |
| 23 | | 400-38483 | SET SCREW | 1 |
| 24 | | 400-38431 | BED_OIL_SHIELD | 1 |
| 25 | | SM-8060610-TP | SCREW | 1 |
| 26 | | 400-41022 | BUTTON_TRAY_ASM. | 1 |
| 27 | #01 | 260-22608 | CAM INDICATING PIN A | 2 |
| 28 | #01 | 260-22707 | CAM INDICATING PIN B | 2 |
| 29 | | WS-0650389-KP | SPRING WASHER 6.5X14.0X17 | 1 |
| 30 | | 400-38425 | SIDE_COVER_LEFT | 1 |
| 31 | | 400-38430 | LOOPER_COVER | 1 |
| 32 | | 400-41067 | SIDE_COVER_SPRING | 2 |
| 33 | | SM-6040600-SP | SCREW M4 L=6 | 2 |
| 34 | | SM-4040855-SP | SCREW | 2 |
| 35 | | 400-38173 | OIL_DRIP_FELT | 1 |
| 36 | | SD-0600277-TP | SHOULDER SCREW D=6 H=2.7 | 1 |
| 37 | | 400-38424 | SIDE_COVER_RIGHT | 1 |
| 38 | | 400-40936 | SIDE_COVER_HINGE_SHAFT_RIGHT | 2 |
| 39 | | 400-40935 | SIDE_COVER_HINGE_SHAFT_LEFT | 1 |
| 40 | | SM-8060612-TP | SCREW M6 L=6 | 1 |
| 41 | | 400-38446 | MACHINE_SUB_BASE | 1 |
| 42 | | SM-8060612-TP | SCREW M6 L=6 | 1 |
| 43 | | 400-38471 | SUSPENSION SCREW_B | 1 |
| 44 | | 400-54729 | ASSY SAFETY PLATE | 1 |
| 45 | | 400-54730 | SAFETY PLATE INSTALLING BASE | (1) |
| 46 | | 260-37200 | SAFETY PLATE | (1) |
| 47 | | SM-4040655-SP | SCREW M4 L=6 | (2) |
| 48 | | WP-0430800-SD | WASHER M4 | (2) |
| 49 | | TA-1250406-RO | RUBBER PLUG D=12.5 L=4 | 2 |
| 50 | | PS-0500102-KH | SPRING PIN 5.0X10 | 1 |

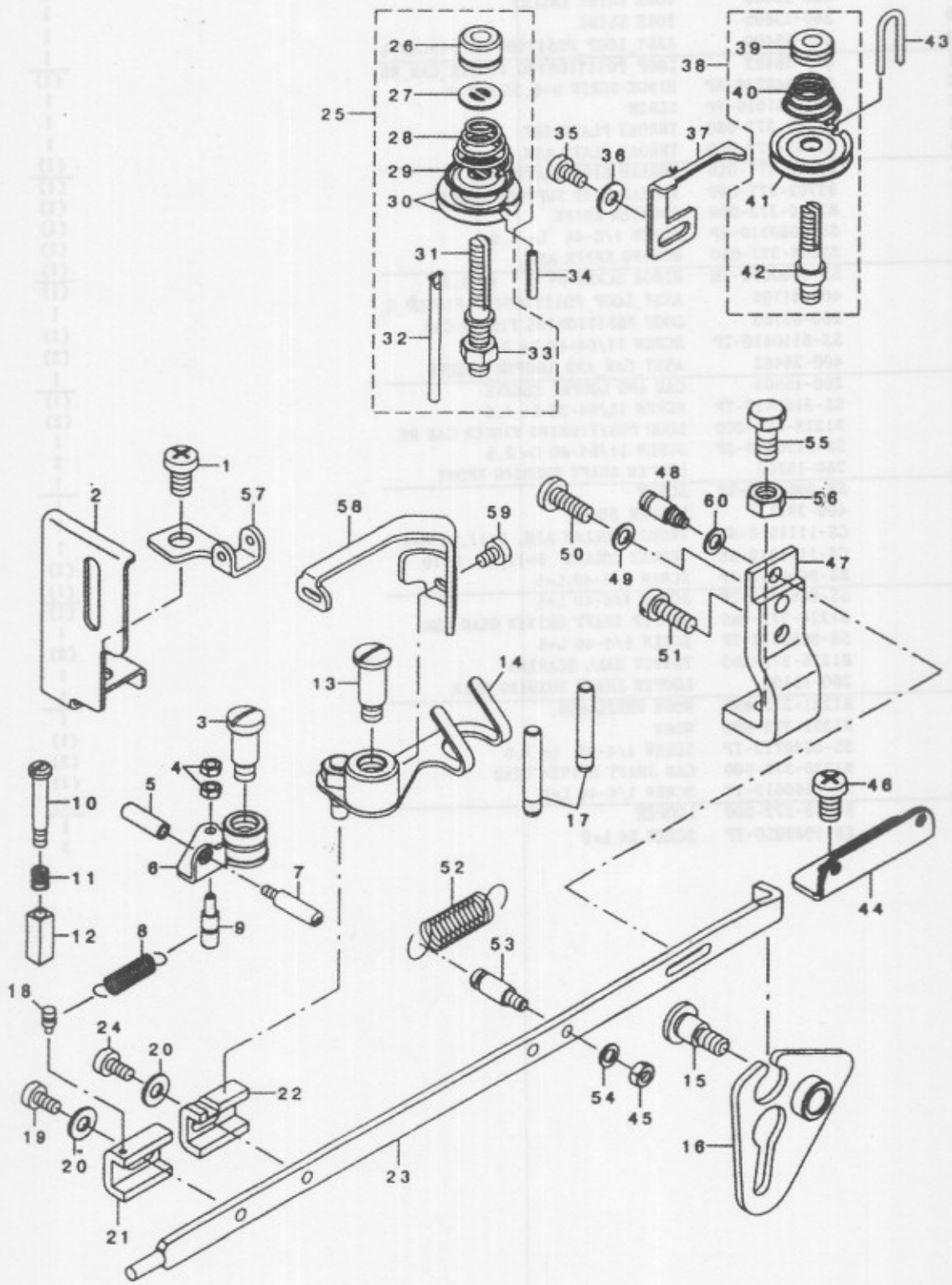
NOTE #01...SELECTIVE PARTS

3. LOOPER SHAFT MECHANISM COMPONENTS



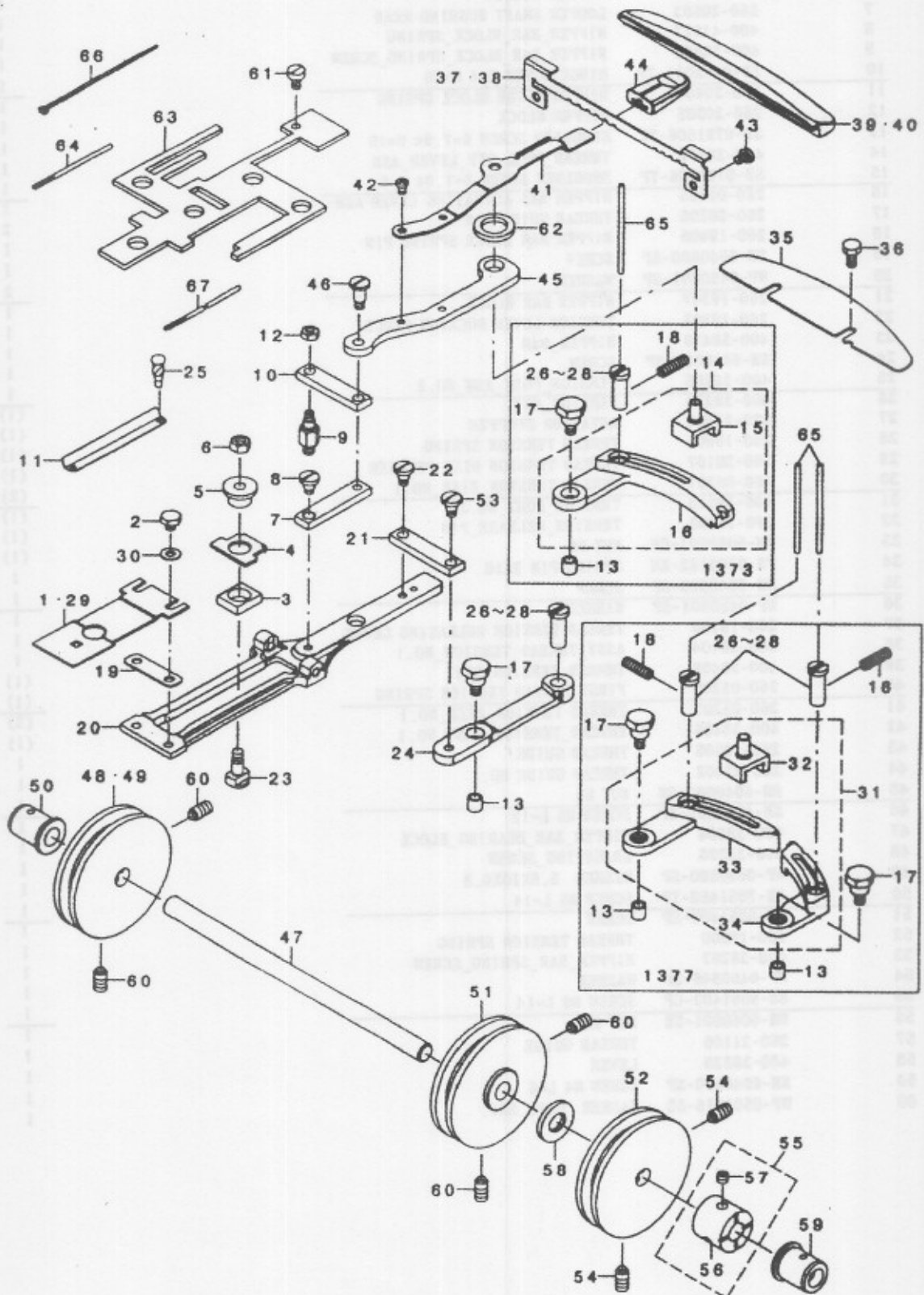
| REF. NO. | NOTE | PART NO. | DESCRIPTION | QTY. |
|----------|------|---------------|--------------------------------|------|
| 1 | | CS-079072A-TH | THRUST COLLAR ASM. | 1 |
| 2 | | CS-0790721-TH | THRUST COLLAR D=7.94 W=7 | (1) |
| 3 | | SS-7090620-TP | SCREW 9/64-40 L=6.1 | (1) |
| 4 | | SM-6040800-SP | SCREW | 1 |
| 5 | | 400-38484 | NEEDLE GUARD | 1 |
| 6 | | 260-13607 | POSITIONING FINGER YOKE SLIDE | 1 |
| 7 | | SM-1040950-TP | SCREW 11/64-40 L=7 | 2 |
| 8 | | 260-13409 | YOKE SLIDE INSERT | 1 |
| 9 | | 260-13805 | YOKE SLIDE | 1 |
| 10 | | 400-38400 | ASSY_LOOP_POSITIONING FINGER L | 1 |
| 11 | | 400-38403 | LOOP_POSITIONING FINGER_CAM_RO | (1) |
| 12 | | SD-0640246-SP | HINGE SCREW D=6.35 H=2.4 | 1 |
| 13 | | SM-8061010-TP | SCREW | 1 |
| 14 | | B1241-377-0B0 | THROAT PLATE SET | 1 |
| 15 | | B1241-377-0A0 | THROAT PLATE ASM. | (1) |
| 16 | | B2703-377-0A0 | THREAD BIND PLATE ASM. | (1) |
| 17 | | B2702-377-000 | THREAD BIND SUPPORT PLATE | (1) |
| 18 | | B2410-373-000 | COUNTER KNIFE | (1) |
| 19 | | SS-7080310-SP | SCREW 1/8-44 L= 3.0 | (2) |
| 20 | | B2406-373-0A0 | MOVING KNIFE ASM. | (1) |
| 21 | | SD-0600095-TH | HINGE SCREW D= 6 H= 0.85 | (1) |
| 22 | | 400-41106 | ASSY_LOOP_POSITIONING FINGER_C | 1 |
| 23 | | 260-03103 | LOOP POSITIONING FINGER CAM | (1) |
| 24 | | SS-8110410-TP | SCREW 11/64-40 L= 3.5 | (2) |
| 25 | | 400-38482 | ASSY_CAM_AND LOOPER SLEEVE | 1 |
| 26 | | 260-15503 | CAM AND LOOPER SLEEVE | (1) |
| 27 | | SS-8150410-TP | SCREW 15/64-28 L= 4.0 | (2) |
| 28 | | B1228-372-000 | LOOP POSITIONING FINGER CAM RE | 1 |
| 29 | | SS-8110310-SP | SCREW 11/64-40 L= 2.8 | 2 |
| 30 | | 260-15305 | LOOPER SHAFT BUSHING FRONT | 1 |
| 31 | | SM-8061010-TP | SCREW | 1 |
| 32 | | 400-38111 | LOOPER_SHAFT | 1 |
| 33 | | CS-111101K-SH | THRUST COLLAR ASM. D=11.11 W=1 | 1 |
| 34 | | CS-1111019-SH | THRUST COLLAR D=11.11 W=10 | (1) |
| 35 | | SS-8660512-TP | SCREW 1/4-40 L=5 | (1) |
| 36 | | SS-8660512-TP | SCREW 1/4-40 L=5 | (1) |
| 37 | | B1224-372-0A0 | LOOPER SHAFT DRIVEN GEAR ASM. | 1 |
| 38 | | SS-8660612-TP | SCREW 1/4-40 L=6 | (2) |
| 39 | | B1215-372-A00 | THRUST BALL BEARING | 1 |
| 40 | | 260-13102 | LOOPER SHAFT BUSHING REAR | 1 |
| 41 | | B1221-373-NA0 | WORM WHEEL ASM. | 1 |
| 42 | | B1221-373-NO0 | WORM | (1) |
| 43 | | SS-6660712-TP | SCREW 1/4-40 L= 7.0 | (2) |
| 44 | | B1220-372-000 | CAM SHAFT DRIVEN GEAR | (1) |
| 45 | | SS-8660612-TP | SCREW 1/4-40 L=6 | (2) |
| 46 | | B1239-372-000 | LOOPER | 1 |
| 47 | | SM-1040950-TP | SCREW M4 L=9 | 3 |

4. NIPPER & THREAD TENSION PARTS COMPONENTS



| REF. NO. | NOTE | PART NO. | DESCRIPTION | Qty. |
|----------|------|---------------|--------------------------------|------|
| 1 | | SM-4061255-SP | SCREW M6 L=12 | 1 |
| 2 | | 400-38205 | NEEDLE BAR GUARD | 1 |
| 3 | | SD-0791276-TP | SHOULDER SCREW | 1 |
| 4 | | NW-6030001-SM | NUT | 2 |
| 5 | | 260-20602 | NUT | 1 |
| 6 | | 260-00950 | NIPPER COMPL. | 1 |
| 7 | | 260-20503 | LOOPER SHAFT BUSHING REAR | 1 |
| 8 | | 400-41077 | NIPPER_BAR_BLOCK_SPRING | 1 |
| 9 | | 400-38492 | NIPPER_BAR_BLOCK_SPRING_SCREW | 1 |
| 10 | | SD-0402001-TP | HINGE SCREW D=4 H=20 | 1 |
| 11 | | 260-20404 | NIPPER SLIDE BLOCK SPRING | 1 |
| 12 | | 260-20305 | NIPPER BLOCK | 1 |
| 13 | | SD-0791506-TP | SHOULDER SCREW D=7.94 H=15 | 1 |
| 14 | | 400-38476 | THREAD PULL OFF LEVER ASM | 1 |
| 15 | | SD-0790806-TP | SHOULDER SCREW D=7.94 H=8 | 1 |
| 16 | | 260-00455 | NIPPER BAR ACTUATING LEVER ASM | 1 |
| 17 | | 260-20206 | THREAD GUIDE PIN | 2 |
| 18 | | 260-19406 | NIPPER BAR BLOCK SPRING PIN | 1 |
| 19 | | SM-6040800-SP | SCREW | 1 |
| 20 | | WP-0450801-SP | WASHER | 2 |
| 21 | | 260-19307 | NIPPER BAR BLOCK | 1 |
| 22 | | 260-19208 | TENSION LEVER ROCKING PIECE | 1 |
| 23 | | 400-38479 | NIPPER_BAR | 1 |
| 24 | | SM-6040800-SP | SCREW | 1 |
| 25 | | 400-38208 | TENSION_POST_ASM_NO.2 | 1 |
| 26 | | 400-38214 | TENSION_NUT | (1) |
| 27 | | 229-21407 | ROTATION STOPPER | (1) |
| 28 | | 260-19901 | THREAD TENSION SPRING | (1) |
| 29 | | 260-20107 | THREAD TENSION DISK PRESSER | (1) |
| 30 | | 260-05207 | THREAD TENSION DISK NO.1 | (2) |
| 31 | | 400-38210 | TENSION_POST_NO.2 | (1) |
| 32 | | 260-19802 | TENSION_RELEASE_PIN | (1) |
| 33 | | NW-6060001-CP | NUT M6 | (1) |
| 34 | | PS-0300162-KH | SPRING PIN 3X16 | 1 |
| 35 | | SM-6040800-SP | SCREW | 1 |
| 36 | | WP-0450801-SP | WASHER | 1 |
| 37 | | 260-19109 | THREAD TENSION RELEASING LEVER | 1 |
| 38 | | 400-38404 | ASSY_THREAD_TENSION_NO.1 | 1 |
| 39 | | 400-38408 | THREAD_TENSION_NUT | (1) |
| 40 | | 260-05306 | FIRST_THREAD_TENSION_SPRING | (1) |
| 41 | | 260-05207 | THREAD_TENSION_DISK_NO.1 | (2) |
| 42 | | 400-38405 | THREAD_TENSION_POST_NO.1 | (1) |
| 43 | | 260-19505 | THREAD GUIDE | 1 |
| 44 | | 260-21402 | THREAD GUIDE NO.1 | 1 |
| 45 | | NW-6040002-SM | NUT M4 | 1 |
| 46 | | SM-4061255-SP | SCREW M6 L=12 | 1 |
| 47 | | 400-38396 | NIPPER_BAR_BEARING_BLOCK | 1 |
| 48 | | 400-38206 | ADJUSTING_SCREW | 1 |
| 49 | | WP-0550800-SP | WASHER 5.5X10X0.8 | 1 |
| 50 | | SM-7051460-TP | SCREW M5 L=14 | 1 |
| 51 | | SM-6051400-SP | SCREW | 1 |
| 52 | | 260-19000 | THREAD TENSION SPRING | 1 |
| 53 | | 400-38207 | NIPPER_BAR_SPRING_SCREW | 1 |
| 54 | | WP-0450846-SP | WASHER | 1 |
| 55 | | SM-9061403-CP | SCREW M6 L=14 | 1 |
| 56 | | NW-6060001-SE | NUT M6 | 1 |
| 57 | | 260-21105 | THREAD GUIDE | 1 |
| 58 | | 400-38320 | LEVER | 1 |
| 59 | | SM-6040600-SP | SCREW M4 L=6 | 1 |
| 60 | | WP-0501016-SD | WASHER 5X10.5X1 | 1 |

5. FEED PLATE COMPONENTS



| REF. NO | NOTE | PART NO. | DESCRIPTION | QTY. |
|---------|------|-----------------|--------------------------------|------|
| 1 | | B2529-373-000 | FEED PLATE, SMALL BUTTON | 1 |
| 2 | | SS-9120643-TP | SCREW 3/16-28 L=6 | 2 |
| 3 | | 260-24604 | INDICATOR PIN BEARING BLOCK | 1 |
| 4 | | 260-24901 | CROSSWISE FEED INDICATOR | 1 |
| 5 | | 260-24703 | CROSSWISE FEED INDICATOR PIN | 1 |
| 6 | | NH-6060001-CP | NUT M5 | 1 |
| 7 | | 400-38498 | SLIDE PLATE CONNECTING LINK | 1 |
| 8 | | SD-0640481-SP | HINGE SCREW D= 6.35 H= 4.8 | 1 |
| 9 | | 400-38499 | STUD | 1 |
| 10 | | 260-24208 | INTERMEDI CONNECTING LINK | 1 |
| 11 | | 400-41052 | CROSSWISE_FEED_GRADUATED_PLATE | 1 |
| 12 | | NH-6050001-SP | NUT M5 | 1 |
| 13 | | 260-23200 | CAM ROLL | 2 |
| 14 | | 400-41030 | LENGTHWISE_FEED_LEVER_ARM_A373 | 1 |
| 15 | | 400-38439 | LENGTHWISE_FEED_LEVER_SLIDE | (1) |
| 16 | | 400-41029 | FEED LEVER 1373 | (1) |
| 17 | | 400-38496 | CAM ROLL SCREW STUD | 2 |
| 18 | | SH-8061212-TP | SCREW M6X12 | 1 |
| 19 | | 260-25106 | SPACER PLATE | 1 |
| 20 | | B2522-373-000-A | FEED PLATE | 1 |
| 21 | | 260-24208 | INTERMEDI CONNECTING LINK | 1 |
| 22 | | SD-0640481-SP | HINGE SCREW D= 6.35 H= 4.8 | 1 |
| 23 | | 400-38221 | HINGE SCREW FOR CROSSWISE FEED | 1 |
| 24 | | 400-38453 | CROSSWISE_FEED_LEVER | 1 |
| 25 | | B1161-227-000 | RIVET | 2 |
| 26 | #03 | 400-41055 | FEED STUD A | 1 |
| 27 | #03 | 400-41056 | FEED STUD B | 1 |
| 28 | #03 | 400-41057 | FEED STUD C | 1 |
| 29 | | B2529-373-B00-A | FEED PLATE, SMALLBUTTON | 1 |
| 30 | | WP-0501016-SD | WASHER 5X10.5X1 | 2 |
| 31 | #01 | 400-38489 | LENGTHWISE_FEED_LEVER_ARM | 1 |
| 32 | | 400-38439 | LENGTHWISE_FEED_LEVER_SLIDE | (1) |
| 33 | | 400-38432 | FEED LEVER L | (1) |
| 34 | | 400-38433 | FEED LEVER R | (1) |
| 35 | | 400-41061 | FEED KNOB GUIDE PLATE | 2 |
| 36 | | SH-9050813-SE | SCREW M6X8 L=8 | 1 |
| 37 | #02 | 400-42279 | PLATE_BASE_(1373) | 1 |
| 38 | #01 | 400-38436 | PLATE_BASE_(1377) | 1 |
| 39 | #02 | 400-38313 | GRADUATE_PLATE(1373) | 1 |
| 40 | #01 | 400-38314 | GRADUATE_PLATE(1377) | 1 |
| 41 | | 400-42281 | HANDLE AND INDICATOR SPRING | 1 |
| 42 | | SH-4040655-SP | SCREW #4 L=6 | 2 |
| 43 | | SH-4050855-SP | SCREW | 2 |
| 44 | | 400-38442 | KNOB | 1 |
| 45 | | 400-40965 | INDICATOR SPRING CONNECTING LI | 1 |
| 46 | | SD-0840976-TP | SHOULDER SCREW D=6.35 H=9.7 | 2 |
| 47 | | 400-38444 | CAM SHAFT | 1 |
| 48 | | 400-41032 | LENGTHWISE_FEED_CAM(X) | 1 |
| 49 | #02 | B2506-373-000-A | LONGITUDINAL FEED CAM | 1 |
| 50 | | 260-22509 | CAM SHAFT BUSHING LEFT | 1 |
| 51 | | 400-41033 | LATERAL FEED CAM | 1 |
| 52 | #01 | 400-41025 | LONGITUDINAL FEED CAM_A | 1 |
| 53 | | SD-0640486-TP | SHOULDER SCREW D=6.35 H=4.8 | 1 |
| 54 | #01 | SS-8681412-TP | SCREW 9/32-28 L=13.5 | 2 |
| 55 | #02 | 400-40964 | THRUST COLLAR ASSY | 1 |
| 56 | | 400-40961 | THRUST COLLAR | (1) |
| 57 | | SH-8060552-TP | SCREW #6 L=5 | (2) |
| 58 | #01 | 400-42081 | SPACER | 1 |
| 59 | | 260-22400 | CAM SHAFT BUSHING RIGHT | 1 |
| 60 | | SS-8681412-TP | SCREW 9/32-28 L=13.5 | 4 |
| 61 | | SH-8050800-SP | SCREW #5 L=8 | 1 |
| 62 | | 400-41045 | OIL RETAINING FELT | 1 |
| 63 | | 400-41044 | FEED SHOULDER_SCREEN_FELT | 1 |
| 64 | | CQ-2520000-00 | OIL WICK | 0.06 |
| 65 | | CQ-3000000-00 | OIL FELT | 0.06 |
| 66 | | EA-9500801-00 | CABLE BAND | 4 |
| 67 | | CQ-2520000-00 | OIL WICK | 0.3 |

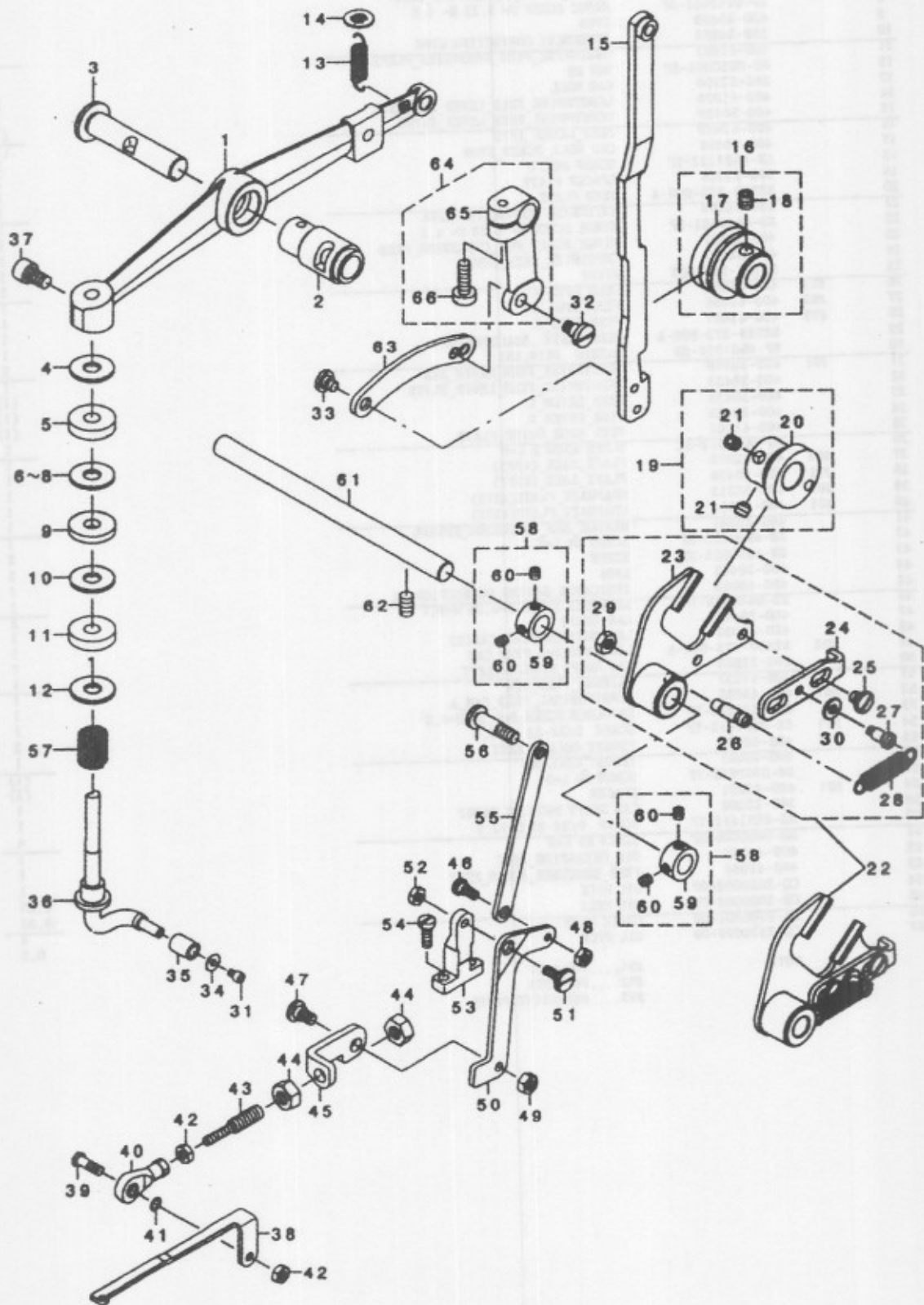
NOTE

#01.... FOR 1377

#02.... FOR 1373

#03.... SELECTIVE PARTS

6. BUTTON CLAMP LIFTER COMPONENTS

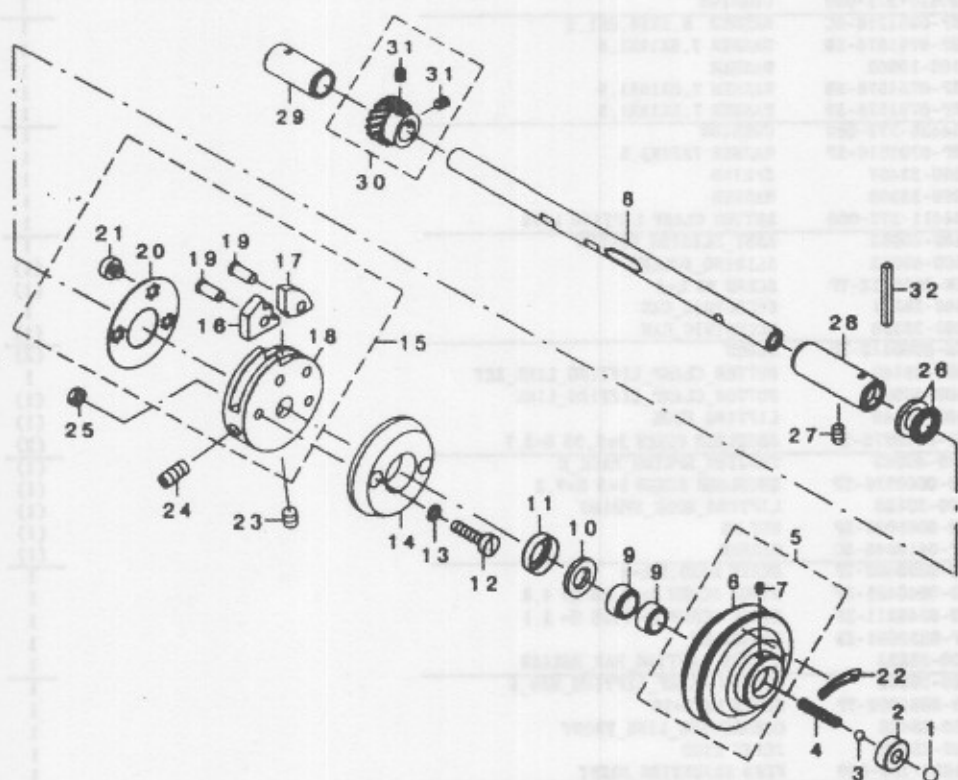


| REF. NO | NOTE | PART NO. | DESCRIPTION | Qty. |
|---------|------|---------------|-------------------------------|------|
| 1 | | 400-38119 | LIFTING LEVER | 1 |
| 2 | | 260-18101 | BUSHING | 1 |
| 3 | | 400-38116 | NEEDLE BAR LEVER | 1 |
| 4 | | WP-0851216-SC | WASHER 8.5X18.0X1.2 | 1 |
| 5 | | B4420-373-000 | CUSHION | 1 |
| 6 | #01 | WP-0851216-SC | WASHER 8.5X18.0X1.2 | 1 |
| 7 | #01 | WP-0751576-SD | WASHER 7.5X19X1.5 | 1 |
| 8 | #01 | 105-10808 | WASHER | 1 |
| 9 | | WP-0751576-SD | WASHER 7.5X19X1.5 | 1 |
| 10 | | WP-0751576-SD | WASHER 7.5X19X1.5 | 1 |
| 11 | | B4420-373-000 | CUSHION | 1 |
| 12 | | WP-0703516-SP | WASHER 7X20X3.5 | 1 |
| 13 | | 260-33407 | SPRING | 1 |
| 14 | | 260-33308 | WASHER | 1 |
| 15 | | B4411-372-000 | BUTTON CLAMP LIFTING LINK | 1 |
| 16 | | 400-40882 | ASSY SLIDING ROLLER | 1 |
| 17 | | 400-40853 | SLIDING ROLLER | (1) |
| 18 | | SN-8060612-TP | SCREW M5 L=6 | (1) |
| 19 | | 400-38321 | ECCENTRIC CAM | (1) |
| 20 | | 400-38398 | ECCENTRIC CAM | (1) |
| 21 | | SN-8060412-TP | SCREW | (2) |
| 22 | | 400-38146 | BUTTON CLAMP LIFTING LINK SET | 1 |
| 23 | | 400-40866 | BUTTON CLAMP LIFTING LINK | (1) |
| 24 | | 400-38149 | LIFTING BOOK | (1) |
| 25 | | SD-0848278-TP | SHOULDER SCREW D=6.35 H=2.7 | (2) |
| 26 | | 400-40883 | YERSTON SPRING BACK B | (1) |
| 27 | | SD-0800728-TP | SHOULDER SCREW D=5 H=7.2 | (1) |
| 28 | | 400-38150 | LIFTING BOOK SPRING | (1) |
| 29 | | NH-8050001-SP | NUT M5 | (1) |
| 30 | | WP-0410846-SC | WASHER | (1) |
| 31 | | SN-8030402-TP | SCREW M3X0.5 L=4 | 1 |
| 32 | | SD-0640481-SP | HINGE SCREW D= 6.35 H= 4.8 | 1 |
| 33 | | SD-0640211-SP | HINGE SCREW D= 6.35 H= 2.1 | 1 |
| 34 | | WP-0330501-SD | WASHER M3 | 1 |
| 35 | | 400-38283 | L TYPE LIFTING BAR ROLLER | 1 |
| 36 | | 400-38502 | BUTTON CLAMP LIFTING ROD A | 1 |
| 37 | | SN-8061002-TP | SCREW M6 L=10 | 1 |
| 38 | | 400-38428 | CONNECTING LINK FRONT | 1 |
| 39 | | 260-22202 | JOINT STUD | 1 |
| 40 | | B1632-180-000 | FEED ADJUSTING JOINT | 1 |
| 41 | | WP-0810518-SD | WASHER 8.1X7.5X0.5 | 1 |
| 42 | | NH-8050001-SP | NUT M5 | 2 |
| 43 | | 400-38219 | CONNECTING SCREW | 1 |
| 44 | | NH-8080021-SP | NUT M8 TYPE1 | 2 |
| 45 | | 400-38429 | CONNECTING LINK REAR | 1 |
| 46 | | SD-0840323-TP | HINGE SCREW D= 6.35 H= 3.2 | 1 |
| 47 | | SD-0790402-TP | HINGE SCREW D= 7.94 H= 4 | 1 |
| 48 | | NS-8620310-SP | NUT 3/16-32 | 1 |
| 49 | | NS-8150310-SP | NUT 15/64-28 | 1 |
| 50 | | 400-38397 | THREAD TRIMMING LEVER | 1 |
| 51 | | SD-0790316-TP | SHOULDER SCREW D=7.94 H=3.1 | 1 |
| 52 | | NH-8050001-SP | NUT M5 | 1 |
| 53 | | 400-38495 | THREAD TRIM LEVER BASE | 1 |
| 54 | | SN-7051460-TP | SCREW M5 L=14 | 2 |
| 55 | | 260-21709 | THREAD TRIMMING LINK | 1 |
| 56 | | SD-0641322-TP | HINGE SCREW D=6.35 H=13.2 | 1 |
| 57 | | 260-33617 | SPRING | 1 |
| 58 | | CS-0950810-SH | THRUST COLLAR ASM. D=9.5 W=8 | 2 |
| 59 | | CS-0950816-SH | THRUST COLLAR D=9.5 W=8 | (1) |
| 60 | | SS-8110410-TP | SCREW 11/64-40 L= 3.5 | (2) |
| 61 | | 400-38445 | LEVER SHAFT | 1 |
| 62 | | SN-8061010-TP | SCREW | 2 |
| 63 | | 260-32508 | LIFTING LINK | 1 |
| 64 | | 400-38414 | LIFTING PLATE GUIDE ROD ASM | 1 |
| 65 | | 400-38413 | LIFTING PLATE GUIDE ROD | (1) |
| 66 | | SN-8051600-SP | SCREW M5 L=16 | (1) |

NOTE

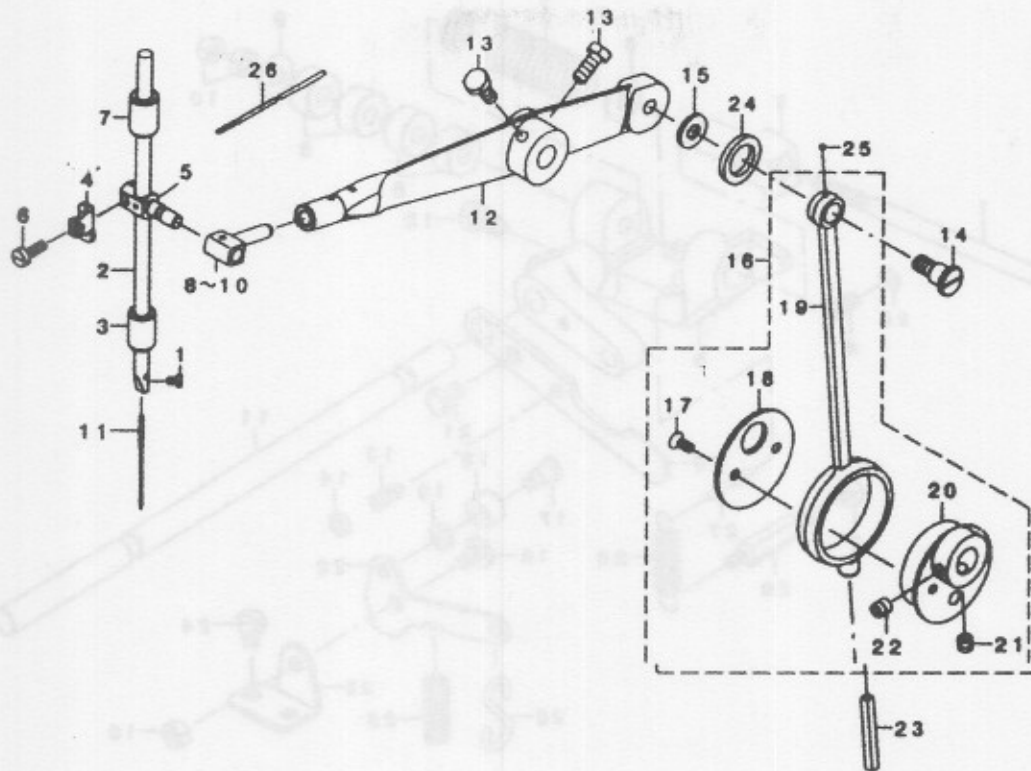
#01... SELECTIVE PARTS(USE OF ONE PARTS)

7. NEEDLE DRIVING PULLEY SHAFT COMPONENTS



| REF. NO | NOTE | PART NO. | DESCRIPTION | Qty |
|---------|------|---------------|--------------------------------|-----|
| 1 | | B1203-372-000 | BALL LARGE | 1 |
| 2 | | 260-12401 | PULLEY INSERT | 1 |
| 3 | | 400-38203 | BALL SMALL | 1 |
| 4 | | 260-12500 | SPRING | 1 |
| 5 | | 400-38169 | DRIVING PULLEY ASM. | 1 |
| 6 | | 400-38175 | DRIVING PULLEY | (1) |
| 7 | | SM-8040612-TP | SCREW #4 L=6 | (1) |
| 8 | | 400-38449 | NEEDLE DRIVING PULLEY SHAFT | 1 |
| 9 | | B1243-372-000 | NEEDLE BEARING | 2 |
| 10 | | 260-12609 | GREASE RETAINING WICK | 1 |
| 11 | | 260-12708 | RETAINING WASHER | 1 |
| 12 | | SM-6062450-TP | SCREW #6 L=23.5 | 2 |
| 13 | | WP-0621026-SP | WASHER 6.2X9.5X1 | 2 |
| 14 | | B1208-372-000 | NEEDLE DRIVING PULLEY CLUTCH D | 1 |
| 15 | | 400-38137 | STOP MOTION DISC ASM. | 1 |
| 16 | | 400-38135 | STOP MOTION DISC LATCH A | (1) |
| 17 | | 400-38136 | STOP MOTION DISC LATCH B | (1) |
| 18 | | 400-38138 | STOP MOTION DISC | (1) |
| 19 | | 400-38139 | STOP MOTION PART SHAFT | (2) |
| 20 | | 400-38140 | STOP MOTION DISC WASHER | (1) |
| 21 | | SM-6060550-TP | SCREW #6 L=4.5 | (1) |
| 22 | | CM-5002000-01 | DIRECTION LABEL | 1 |
| 23 | | SM-8080812-TP | SCREW #8X8 | 1 |
| 24 | | SM-8081752-TP | SCREW #8 L=17 | 1 |
| 25 | | NH-6060003-SP | NUT #6 TYPE3 | 2 |
| 26 | | B1215-372-000 | THRUST BALL BEARING | 1 |
| 27 | | SM-8061010-TP | SCREW | 1 |
| 28 | | 400-38461 | PULLEY SHAFT BUSHING RIGHT | 1 |
| 29 | | 400-42148 | PULLEY SHAFT BUSHING LEFT | 1 |
| 30 | | B1217-372-08A | DRIVING GEAR (A) ASM. | 1 |
| 31 | | SS-8840612-TP | SCREW 1/4-40 L=6 | (2) |
| 32 | | 260-18309 | OIL WICK | 1 |

8. NEEDLE BAR DRIVING MECHANISM COMPONENTS

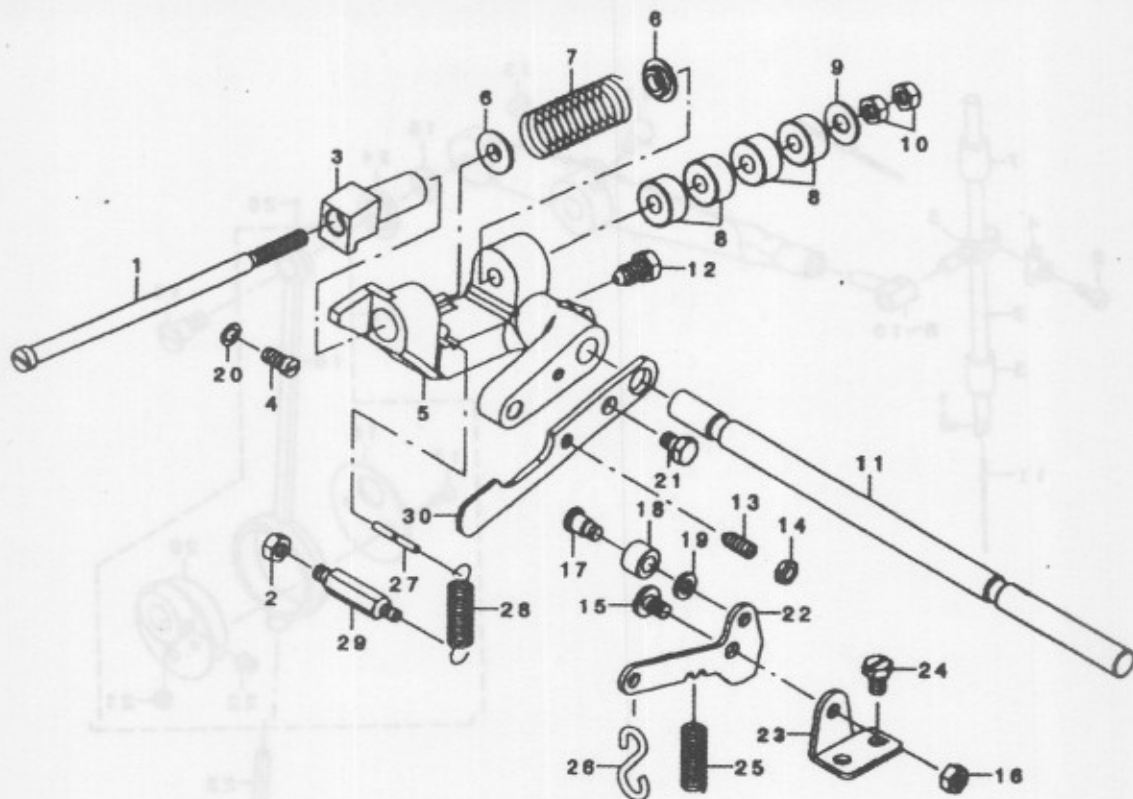


| REF. NO. | NOTE | PART NO. | DESCRIPTION | QTY. |
|----------|------|---------------|---------------------------|------|
| 1 | | SS-7080610-TP | SCREW 1/8-44 L=4.5 | 1 |
| 2 | | 146-06107 | NEEDLE ROD | 1 |
| 3 | | 260-17707 | NEEDLE BAR BUSHING LOWER | 1 |
| 4 | | 400-40951 | NEEDLE BAR BALANCE | 1 |
| 5 | | 400-40952 | NEEDLE BAR CLAMP | 1 |
| 6 | | SH-6041200-SP | SCREW #4 L=12 | 1 |
| 7 | | 400-38142 | NEEDLE BAR BUSHING UPPER | 1 |
| 8 | #01 | 400-38120 | NEEDLE BAR SLIDE BLOCK A | 1 |
| 9 | #01 | 400-38121 | NEEDLE BAR SLIDE BLOCK B | 1 |
| 10 | #01 | 400-38122 | NEEDLE BAR SLIDE BLOCK C | 1 |
| 11 | | NTQ-10081600 | NEEDLE TQX 216 | 1 |
| 12 | | 400-38117 | NEEDLE BAR DRIVING LEVER | 1 |
| 13 | | SH-9061403-CP | SCREW #6 L=14 | 2 |
| 14 | | SD-0950804-TP | SHOULDER SCREW D=9.53 H=8 | 1 |
| 15 | | 260-18706 | WASHER | 1 |
| 16 | | 260-18457 | CRANK ROD ASW. | 1 |
| 17 | | SS-2110920-TP | SCREW 11/64-40 L=8.5 | (2) |
| 18 | | 260-18606 | THRUST HOLDER | (1) |
| 19 | | 260-18408 | CRANK ROD | (1) |
| 20 | | 260-18507 | ECCENTRIC CAM | (1) |
| 21 | | SS-8660612-TP | SCREW 1/4-40 L=6 | (1) |
| 22 | | SS-8660942-TP | SCREW 1/4-40 L= 8.5 | (1) |
| 23 | | 260-18309 | OIL WICK | 1 |
| 24 | | 400-41045 | OIL RETAINING FELT | 1 |
| 25 | | CQ-2500000-F0 | OIL WICK | 0.01 |
| 26 | | CQ-2020000-00 | OIL WICK | 0.1 |

NOTE

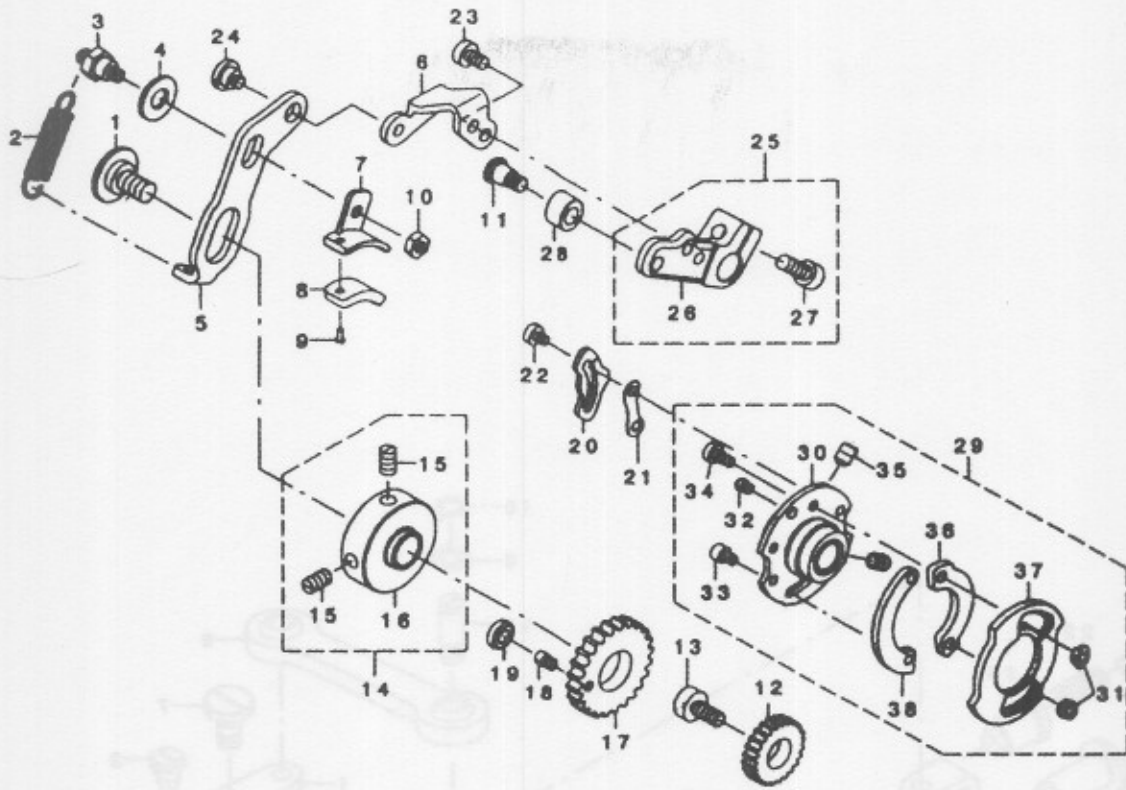
#01... SELECTIVE PARTS

9. STOP MOTION MECAHNISM COMPONENTS



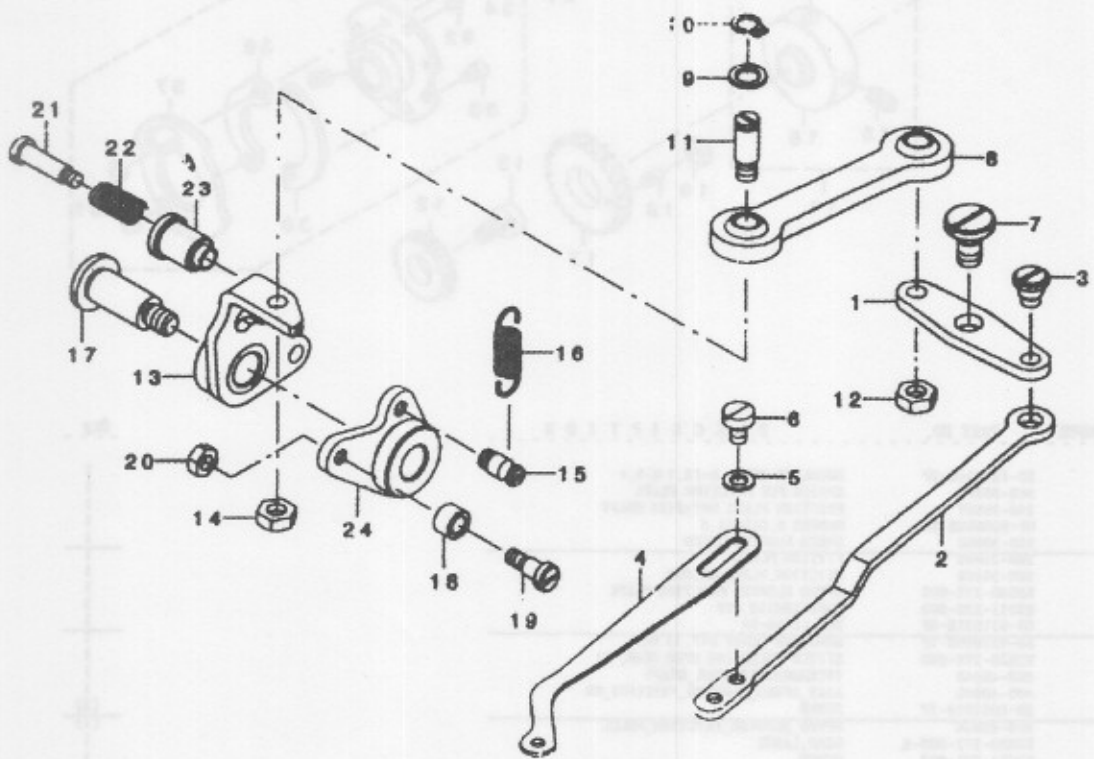
| REF. NO | NOTE | PART NO. | DESCRIPTION | QTY. |
|---------|------|-----------------|--------------------------------|------|
| 1 | | 260-27806 | STOP MOTION PLUNGER ROD | 1 |
| 2 | | NH-6060003-SP | NUT M6 TYPE3 | 1 |
| 3 | | 400-38118 | CROSSING_HOOK | 1 |
| 4 | | SH-6061150-TP | SCREW M6 L=11 | 1 |
| 5 | | B2602-372-000-A | STOP MOTION PLUNGER LEVER | 1 |
| 6 | | 282-28104 | WASHER | 2 |
| 7 | | 400-38110 | STOP MOTION_SPRING | 30 |
| 8 | | B2608-280-000 | RUBBER CUSHION | 4 |
| 9 | | 260-30601 | WASHER | 1 |
| 10 | | NS-6680410-SP | NUT 9/32-28 | 2 |
| 11 | | 400-38448 | STOP MOTION_SHAFT | 1 |
| 12 | | 400-42437 | SCREW | 1 |
| 13 | | SS-8151870-SP | SCREW 15/84-28 L=15.0 | 1 |
| 14 | | NS-6150310-SP | NUT 15/84-28 | 1 |
| 15 | | SB-0680276-TP | SHOULDER SCREW D=6.8 H=2.7 | 1 |
| 16 | | NH-6060001-CP | NUT M4 | 1 |
| 17 | | SB-0710706-TP | SHOULDER SCREW D=7.14 H=7 | 1 |
| 18 | | 260-29207 | STITCH ADJUSTING ROLLER | 1 |
| 19 | | WP-0612066-SP | WASHER 6.1X11X2 | 1 |
| 20 | | 260-19604 | WASHER | 1 |
| 21 | | SH-6061003-CP | SCREW M6 L=10 | 1 |
| 22 | | 400-38160 | STOP MOTION TRIP LEVER | 1 |
| 23 | | 260-28308 | STOP MOTION TRIP LEVER BRACKET | 1 |
| 24 | | SH-9061250-TP | SCREW M6 L=12 | 2 |
| 25 | | 229-24906 | OIL REGULATOR SCREW SPRING | 1 |
| 26 | | 131-60304 | S SHAPED HOOK | 1 |
| 27 | | 260-28001 | STOP MOTION LEVER SPRING PIN | 1 |
| 28 | | 400-38410 | STOP MOTION LEVER_SPRING | 1 |
| 29 | | 400-40940 | SCREW_STUD | 1 |
| 30 | | B2611-373-N00 | PRESSURE APPLYING LEVER | 1 |

10. STITCH SELECTING PARTS COMPONENTS

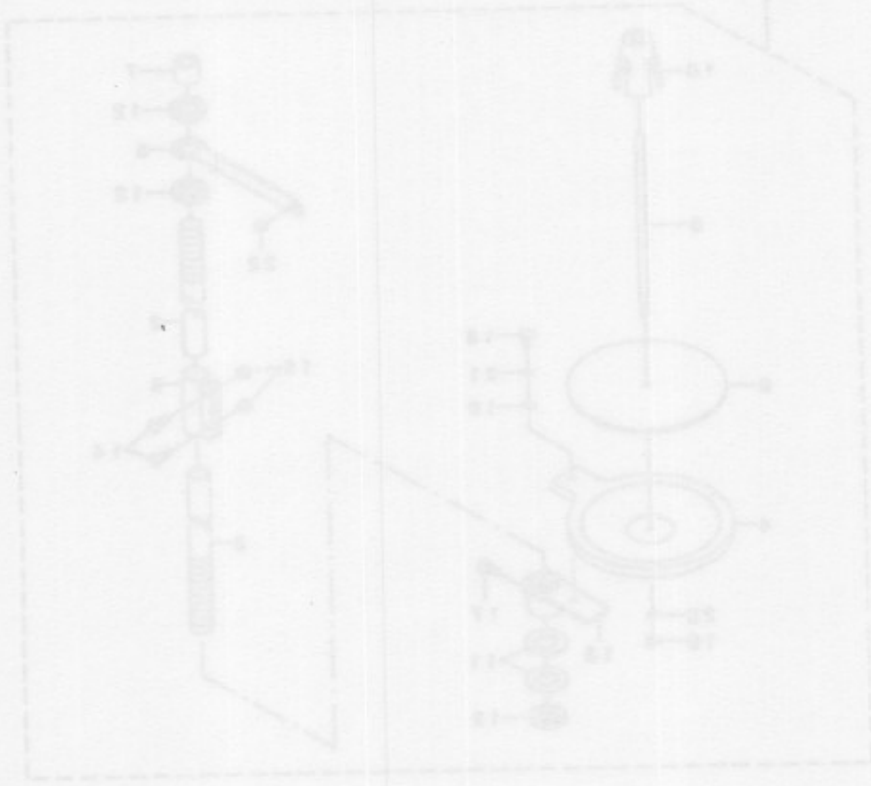


| REF. NO. | NOTE | PART NO. | DESCRIPTION | QTY. |
|----------|------|-----------------|--|------|
| 1 | | SH-1270346-TP | SHOULDER SCREW 9-12.7 8-3.4 | 1 |
| 2 | | 300-30304 | SPRING FOR FRICTION PLATE | 1 |
| 3 | | 360-30007 | FRICTION PLATE ROTATING SHAFT | 1 |
| 4 | | WP-0000001-SP | WASHER 8, 5X18X1.6 | 1 |
| 5 | | 300-30908 | SPEED SLOWING LEVER | 1 |
| 6 | | 300-31006 | FITTING PLATE | 1 |
| 7 | | 300-30108 | FRICTION PLATE HOLDER | 1 |
| 8 | | 82640-372-000 | SPEED SLOWING FRICTION PLATE | 1 |
| 9 | | 83211-232-000 | POSITIONING PIN | 2 |
| 10 | | 82-6110310-SP | NUT 11/84-60 | 1 |
| 11 | | SH-0710706-TP | SHOULDER SCREW 9-7.14 8-7 | 1 |
| 12 | | 82629-372-000 | STITCH SELECTING SPUR GEAR, M1 | 1 |
| 13 | | 400-40043 | INTERMEDIATE GEAR SHAFT | 1 |
| 14 | | 400-40042 | ASST. SPEED SLOWING FRICTION WH. SCREW | (2) |
| 15 | | SH-0001010-TP | SCREW | (1) |
| 16 | | 400-00044 | SPEED SLOWING FRICTION WHEEL | (1) |
| 17 | | 82630-372-000-A | GEAR, LARGE | 1 |
| 18 | | 82631-372-000 | SCREW | 1 |
| 19 | | 82632-372-000-A | ROLLER | 1 |
| 20 | | 400-00045 | THREAD BIND NOTCH | 1 |
| 21 | | 300-30009 | SPACER | 1 |
| 22 | | SH-0040000-TP | SCREW M4X0.5 L=4.5 | 2 |
| 23 | | SH-0050000-SP | SCREW M5 L=8 | 1 |
| 24 | | SH-0000341-SP | RING SCREW 9-8 8-3.4 | 1 |
| 25 | | 400-38269 | STITCH ADJUSTING ARM ASSY. | (1) |
| 26 | | 400-38271 | STITCH ADJUSTING ARM | (1) |
| 27 | | SH-0061002-TH | SCREW M6 L=16 | (1) |
| 28 | | 300-29207 | STITCH ADJUSTING ROLLER | 1 |
| 29 | | 400-41040 | STITCH ADJUSTING CAR A ASSY. | (1) |
| 30 | | 400-41064 | STITCH ADJUSTING CAR A ASSY. | (1) |
| 31 | | 400-41050 | NUT | (2) |
| 32 | | 400-38204 | SCREW | (1) |
| 33 | | SH-0040902-TP | SCREW M4X0.7 L=5 | (1) |
| 34 | | SH-0040000-SP | SCREW | (2) |
| 35 | | SH-0000012-TP | SCREW M6 L=6 | (2) |
| 36 | | 400-41043 | SPACER | (1) |
| 37 | | 400-41049 | STITCH CAR A | (1) |
| 38 | | 400-41051 | STOP NOTION CAR SHOE | (1) |

11. THREAD BIND NOTCH COMPONENTS (FOR 3 7 7)

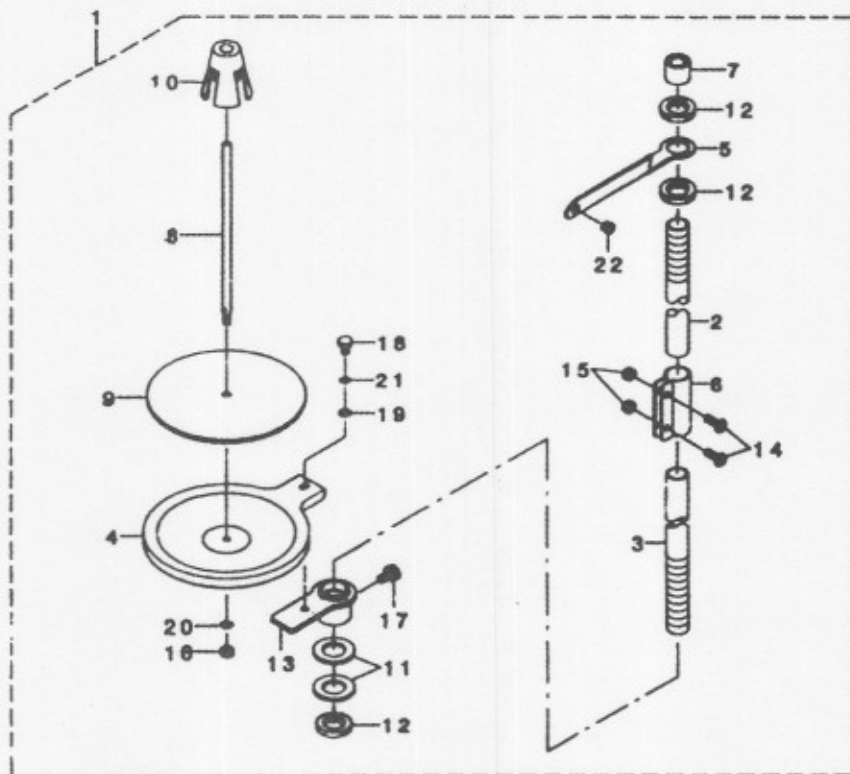


| REF. NO. | NOTE | PART NO. | DESCRIPTION | Qty. |
|----------|------|---------------|-----------------------------|------|
| 1 | | 400-38488 | THREAD_BIND_LEVER | 1 |
| 2 | | 400-38452 | CONNECTING_PLATE_LARGE | 1 |
| 3 | | SD-0640328-TP | SHOULDER SCREW D=6.35 H=3.2 | 1 |
| 4 | | 400-38486 | CONNECTING_PLATE_SMALL | 1 |
| 5 | | WP-0430800-SD | WASHER M4 | 2 |
| 6 | | SH-6040650-TP | SCREW | 2 |
| 7 | | SD-0720336-SP | SHOULDER SCREW | 1 |
| 8 | | D2509-282-A00 | WORK CAMP FOOT BALL LINK | 1 |
| 9 | | 400-38489 | THREAD_BIND_LINK_SHAFT | 2 |
| 10 | | WP-0621026-SP | WASHER 6.2X9.5X1 | 2 |
| 11 | | RC-0560711-KP | RETAINING RING | 2 |
| 12 | | NH-6050001-SP | NUT M5 | 1 |
| 13 | | 400-38456 | THREAD_BIND_ARM_B | 1 |
| 14 | | NH-6050001-SP | NUT M5 | 1 |
| 15 | | 400-38494 | THREAD BIND_ARM_SPRING RAC | 1 |
| 16 | | 260-17103 | SPRING | 1 |
| 17 | | SD-0901806-TP | SHOULDER SCREW | 1 |
| 18 | | 260-17301 | ROLLER | 1 |
| 19 | | SD-0460576-TP | SHOULDER SCREW D=4.6 H=5.7 | 1 |
| 20 | | NH-6040001-SP | NUT M4X0.7 | 1 |
| 21 | | SD-0481456-TP | SHOULDER SCREW D=4.8 H=14.5 | 1 |
| 22 | | 400-38306 | SPRING | 1 |
| 23 | | 400-38305 | STITCH_ADJUSTING_CAM_KNOB | 1 |
| 24 | | 400-38455 | ASS_THREAD_BIND_ARM_A | 1 |

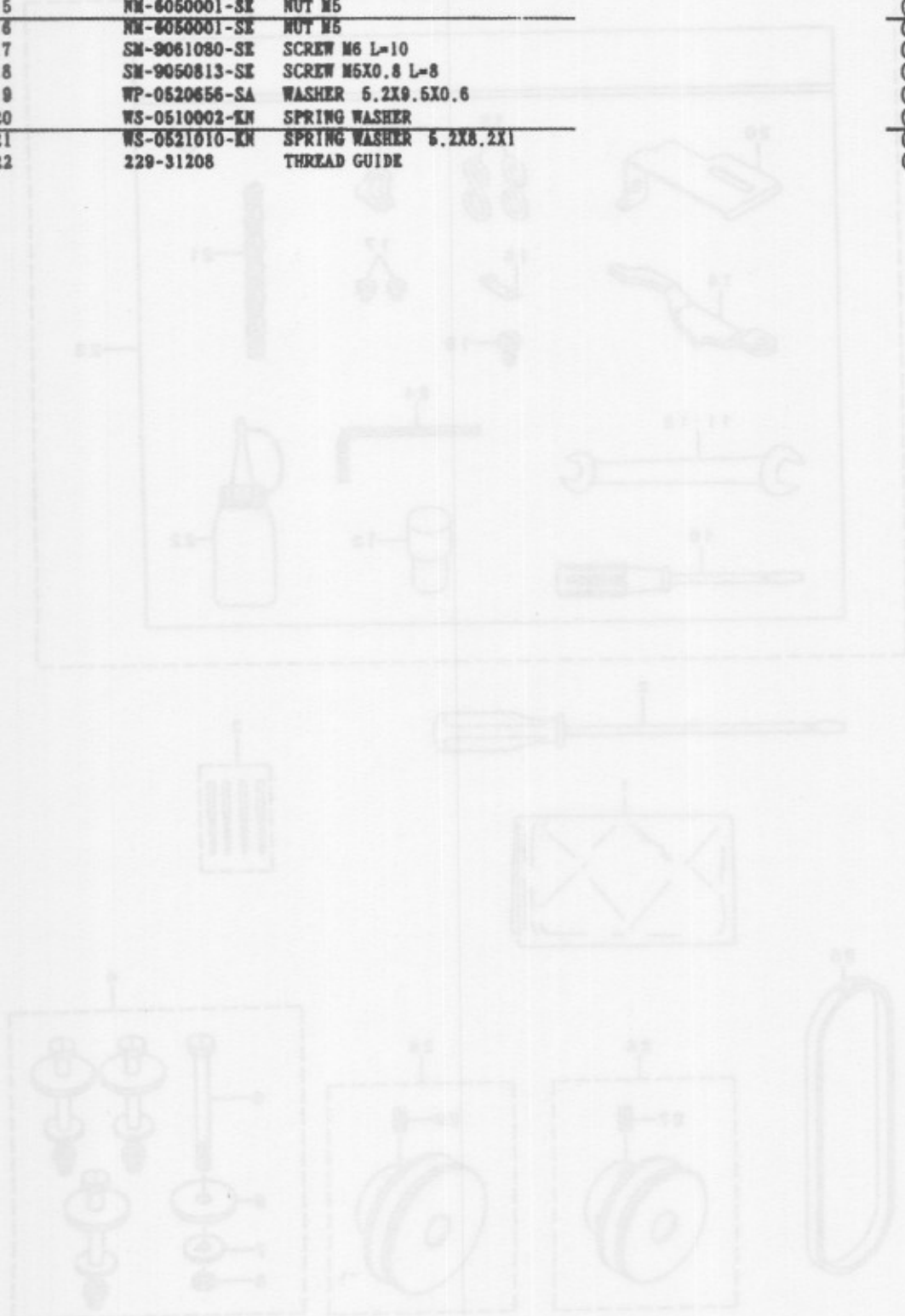


12. THREAD STAND COMPONENTS

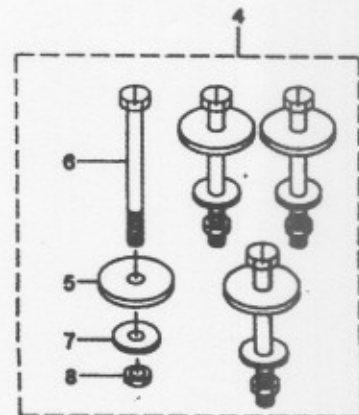
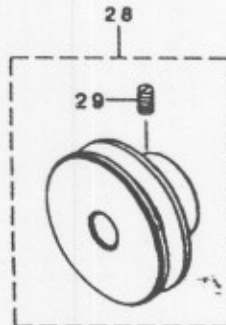
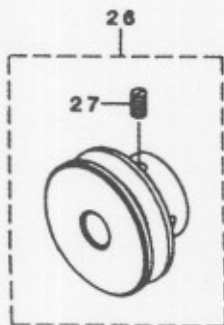
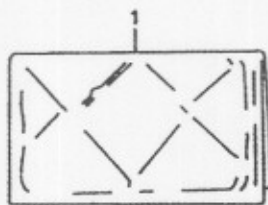
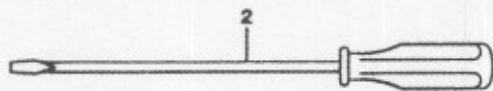
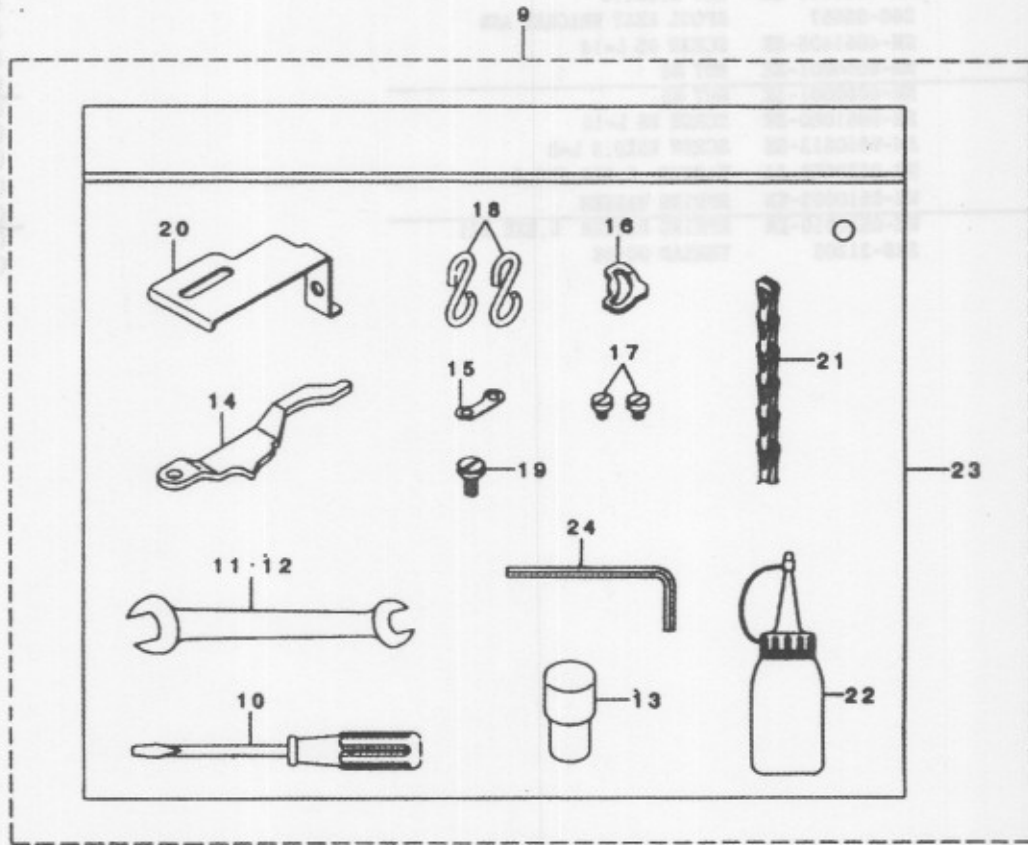
| DESCRIPTION | QTY | REF. NO. |
|---------------------------|-----|----------|
| SMALL BALL BEARING | 2 | 10 |
| SMALL BALL BEARING | 2 | 11 |
| 2.5-6.35 3-4 BALL BEARING | 1 | 12 |
| SMALL BALL BEARING | 1 | 13 |
| SMALL BALL BEARING | 1 | 14 |
| SMALL BALL BEARING | 1 | 15 |
| SMALL BALL BEARING | 1 | 16 |
| SMALL BALL BEARING | 1 | 17 |
| SMALL BALL BEARING | 1 | 18 |
| SMALL BALL BEARING | 1 | 19 |
| SMALL BALL BEARING | 1 | 20 |
| SMALL BALL BEARING | 1 | 21 |
| SMALL BALL BEARING | 1 | 22 |



| REF. NO. | NOTE | PART NO. | DESCRIPTION | QTY. |
|----------|------|---------------|-------------------------------|------|
| 1 | | 260-08359 | THREAD STAND ASM. | 1 |
| 2 | | 229-30408 | SPOOL REST ROD, UPPER | (1) |
| 3 | | 229-30309 | SPOOL REST ROD, LOWER | (1) |
| 4 | | 260-08300 | THREAD STAND HOLDER PLATE | (1) |
| 5 | | 260-08409 | THREAD RAISING THREAD GUIDE A | (1) |
| 6 | | 229-31307 | SPOOL REST ROD JOINT | (1) |
| 7 | | 229-31406 | SPOOL REST ROD RUBBER CAP | (1) |
| 8 | | 229-31000 | SPOOL PIN | (1) |
| 9 | | 229-30903 | SPOOL REST CUSHION | (1) |
| 10 | | 229-31109 | SPOOL RETAINER | (1) |
| 11 | | WP-1612816-SE | WASHER 16X30X2.6 | (2) |
| 12 | | NM-6160511-SE | NUT M16X1.5 | (3) |
| 13 | | 260-08557 | SPOOL REST BRACKET ASM | (1) |
| 14 | | SM-4051405-SE | SCREW M5 L=14 | (2) |
| 15 | | NM-6050001-SE | NUT M5 | (2) |
| 16 | | NM-6050001-SE | NUT M5 | (1) |
| 17 | | SM-9061080-SE | SCREW M6 L=10 | (1) |
| 18 | | SM-9050813-SE | SCREW M6X0.8 L=8 | (1) |
| 19 | | WP-0520656-SA | WASHER 5.2X9.5X0.6 | (1) |
| 20 | | WS-0510002-KN | SPRING WASHER | (1) |
| 21 | | WS-0521010-KN | SPRING WASHER 5.2X8.2X1 | (1) |
| 22 | | 229-31208 | THREAD GUIDE | (1) |



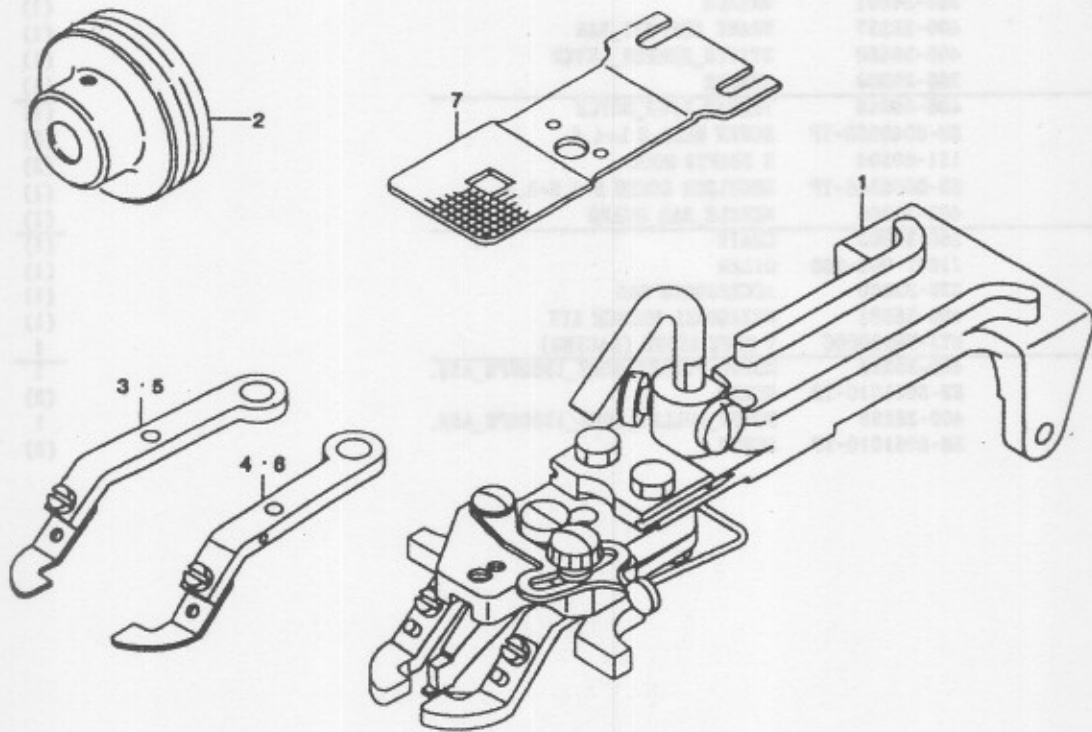
13. ACCESSORIE PARTS COMPONENTS



| REF. NO. | NOTE | PART NO. | DESCRIPTION | Qty. |
|----------|------|---------------|--------------------------------|------|
| 1 | | 229-33303 | VINYL COVER | 1 |
| 2 | | 229-33006 | SCREW DRIVER, LARGE | 1 |
| 3 | | HTQ-100B1602 | NEEDLE TOX1 #16-2 | 1 |
| 4 | | 400-41072 | BASE_SCREW_SET | 1 |
| 5 | | 400-38174 | RUBBER CUSHION | (4) |
| 6 | | SS-9158830-SP | SCREW 15/64-28 L=68 | (4) |
| 7 | | WP-0612056-SD | WASHER 6.1X18.5X2 | (4) |
| 8 | | NS-6150310-SP | NUT 15/64-28 | (4) |
| 9 | | 400-41073 | ACCESSORIE BAG_ASM. | 1 |
| 10 | | 229-33105 | SCREW DRIVER, MIDDLE | (1) |
| 11 | | 260-34702 | WRENCH | (1) |
| 12 | | 260-34801 | WRENCH | (1) |
| 13 | | 400-33327 | FRAME_SUPPORT_BAR | (1) |
| 14 | | 400-38459 | STITCH_NUMBER_LEVER | (1) |
| 15 | | 260-30809 | SPACER | (1) |
| 16 | | 400-40848 | THREAD_BIND_NOTCH | (1) |
| 17 | | SM-6040560-TP | SCREW M4X0.5 L=4.5 | (2) |
| 18 | | 131-60304 | S SHAPED HOOK | (2) |
| 19 | | SD-0600346-TP | SHOULDER SCREW D=6 H=3.4 | (1) |
| 20 | | 400-38205 | NEEDLE BAR_GUARD | (1) |
| 21 | | 260-37903 | CHAIN | (1) |
| 22 | | J1087-000-000 | OILER | (1) |
| 23 | | 229-32800 | ACCESSORIE BAG | (1) |
| 24 | | 400-55591 | HEXAGONAL WRENCH KEY | (1) |
| 25 | | HTJ-VH00000C | V ROPE 820MM (LACING) | 1 |
| 26 | | 400-38286 | MOTOR_PULLEY_60HZ_1300RPM_ASM. | 1 |
| 27 | | SM-8061010-TP | SCREW | (2) |
| 28 | | 400-38285 | MOTOR_PULLEY_50HZ_1300RPM_ASM. | 1 |
| 29 | | SM-8061010-TP | SCREW | (2) |

229-33303 VINYL COVER 1
 229-33006 SCREW DRIVER, LARGE 1
 HTQ-100B1602 NEEDLE TOX1 #16-2 1
 400-41072 BASE_SCREW_SET 1
 400-38174 RUBBER CUSHION 4
 SS-9158830-SP SCREW 15/64-28 L=68 4
 WP-0612056-SD WASHER 6.1X18.5X2 4
 NS-6150310-SP NUT 15/64-28 4
 400-41073 ACCESSORIE BAG_ASM. 1
 229-33105 SCREW DRIVER, MIDDLE 1
 260-34702 WRENCH 1
 260-34801 WRENCH 1
 400-33327 FRAME_SUPPORT_BAR 1
 400-38459 STITCH_NUMBER_LEVER 1
 260-30809 SPACER 1
 400-40848 THREAD_BIND_NOTCH 1
 SM-6040560-TP SCREW M4X0.5 L=4.5 2
 131-60304 S SHAPED HOOK 2
 SD-0600346-TP SHOULDER SCREW D=6 H=3.4 1
 400-38205 NEEDLE BAR_GUARD 1
 260-37903 CHAIN 1
 J1087-000-000 OILER 1
 229-32800 ACCESSORIE BAG 1
 400-55591 HEXAGONAL WRENCH KEY 1
 HTJ-VH00000C V ROPE 820MM (LACING) 1
 400-38286 MOTOR_PULLEY_60HZ_1300RPM_ASM. 1
 SM-8061010-TP SCREW 2
 400-38285 MOTOR_PULLEY_50HZ_1300RPM_ASM. 1
 SM-8061010-TP SCREW 2

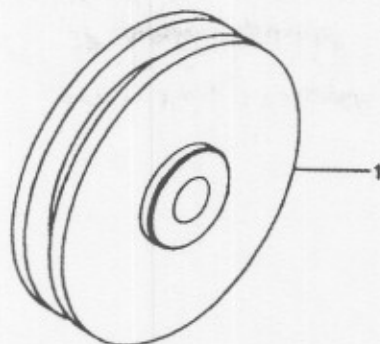
14. SPECIAL ORDER SPEC COMPONENTS



| REF. NO | NOTE | PART NO. | DESCRIPTION | Qty |
|---------|------|-----------------|--------------------------------|-----|
| 1 | | MAZ-201010A0 | PICK-UP DEVICE ASM, L BUTTON | 1 |
| 2 | | 400-38290 | MOTOR_PULLEY_50HZ_1500RPM_ASM | 1 |
| 3 | | B2556-372-0AA | BUTTON CLAMP JAW LEVER ASM., L | 1 |
| 4 | | B2558-372-0AA | BUTTON CLAMP JAW LEVER ASM., R | 1 |
| 5 | | D2556-372-CAA | BUTTON CLAMP JAW LEVER ASM., L | 1 |
| 6 | | D2558-372-CAA | BUTTON CLAMP JAW LEVER ASM., R | 1 |
| 7 | | D2529-373-C00-A | FEED PLATE, LARGE BUTTON | 1 |

15. SUBCLASS COMPONENTS (FOR 373-11)

3 7 3 - 1 1



| REF. NO. | NOTE | PART NO. | DESCRIPTION | QTY. |
|----------|------|-----------|------------------------|------|
| 1 | | 400-41032 | LENGTHWISE_FEED_CAM(X) | 1 |