

# **MACHINE SETUP INSTRUCTIONS**

## **SINGLE HEAD MACHINE**

**(TMBR-SC, TMBP-SC)**

**(TFMX-C, TWMX-C)**

### **[IMPORTANT]**

**To handle the machine correctly and safely,  
perform operations according to the procedure  
described in this manual.**





# User's Manual / Parts List

User's manual / Parts list are stored as the PDF file in the accessory CD.

Please read the contents thoroughly and then use the machine or the optional device.

To see the PDF file, "Adobe Acrobat Reader" is necessary.

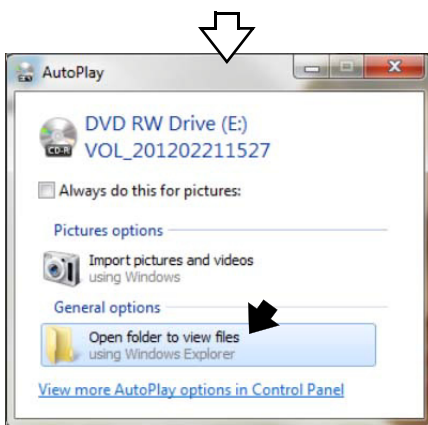
User's manual, parts list of the optional devices you have not purchased are included in this CD.  
Please note beforehand.

[How to open the CD]

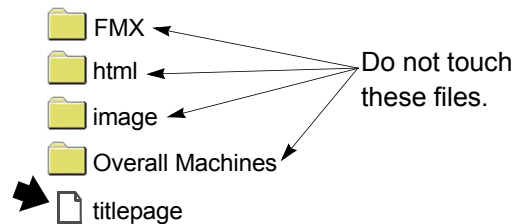
1. Insert a CD into the personal computer.



Since the following pop-up window will be displayed automatically, select "Open folder to view files" (indicated by the arrow).



2. Double-click left "titlepage".



3. Select displaying language.



4. Select "User's Manual" or "Parts List", and then select the title you desire.



The figure above is an example selecting "English (Multiple Languages)" in the above 3.

## Foreword

This manual introduces the procedure for setup of TAJIMA single head embroidery machine TMBR-SC, TMBP-SC, TFMX-C and TWMX-C. Please read this manual thoroughly and operate the machine after you understand the contents.

This manual may contain discrepancies in detailed specification as compared with the actual production. If you have any question about this manual, consult your TAJIMA distributor.

Regarding the optional device, refer to the USER'S MANUAL for the device (separate volume) .

Please keep this manual with care near the machine for quick reference.

Tokai Industrial Sewing Machine Co., Ltd.

## SAFETY PRECAUTIONS

To prevent any harm or damage to the person who use this product or other person, we describe items that must be surely followed as below.



Indicates that there is a lot of danger of death or serious injuries [\*1] if handled by mistake.




Indicates that there is a likelihood of death or serious injuries [\*1] if handled by mistake.





Indicates a potentially hazardous situation which may result in minor or moderate injury [\*2] or property damage if handled by mistake.

\*1: A condition caused by electric shock, injury, fracture of a bone, etc., that leads to aftereffects, or an injury that necessitates hospitalization or visits to a hospital over a long period.

\*2: An injury that does not necessitate hospitalization or visit to a hospital over a long period.

: Prohibited items

: Items that may cause electric shock if not observed

: Items that must be followed carefully to ensure safe operation

## Chapter 1 Carrying

- 1. Installation environment..... 1
- 2. How to carry..... 3

## Chapter 2 Installation

- 1. When the stand (option) is not attached ..... 5
  - 1-1. TFMX-C, TWMX-C ..... 5
  - 1-2. TMBR-SC, TMBP-SC ..... 5
- 2. When the stand (option) is attached ..... 6
  - 2-1. TFMX-C ..... 6
  - 2-2. TWMX-C ..... 8
  - 2-3. TMBR-SC, TMBP-SC ..... 10

## Chapter 3 Detaching, attaching

- 1. Detaching..... 12
  - 1-1. Stopper ..... 12
- 2. Attaching..... 13
  - 2-1. Thread course..... 13

## Chapter 4 Level adjustment

- 1. Level adjustment..... 15
  - 1-1. When the stand (option) is not attached ..... 15
  - 1-2. When the stand (option) is attached ..... 16

## Chapter 5 Connection of power cord

- 1. Important safety instructions ..... 17
- 2. Power cord..... 19
  - 2-1. TFMX-C, TWMX-C ..... 19
  - 2-2. TMBR-SC, TMBP-SC ..... 20

## Chapter 6 Checking


<b>1.</b>	Needle locating position .....	21
<b>1-1.</b>	TMBR-SC .....	21
<b>1-2.</b>	TMBP-SC, TFMX-C, TWMX-C .....	22
<b>2.</b>	Parameter setting .....	24
<b>3.</b>	Lubrication .....	25
<b>3-1.</b>	Rotary hook .....	25
<b>3-2.</b>	Inside of arm and cylinder bed .....	26
<b>4.</b>	Idling, jump .....	29
<b>5.</b>	Threading .....	30
<b>5-1.</b>	TMBR-SC, TMBP-SC .....	30
<b>5-2.</b>	TFMX-C, TWMX-C .....	32
<b>5-3.</b>	Test sewing .....	34


## Chapter 7 Adjustment

<b>1.</b>	Bevel gear .....	35
<b>2.</b>	Lower dead point .....	36
<b>2-1.</b>	TMBR-SC .....	36
<b>2-2.</b>	TMBP-SC, TFMX-C, TWMX-C .....	39
<b>3.</b>	Upper dead point .....	42
<b>3-1.</b>	TMBR-SC .....	42
<b>3-2.</b>	TMBP-SC, TFMX-C, TWMX-C .....	43
<b>4.</b>	Needle and rotary hook .....	44

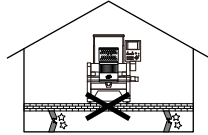

# Chapter 1 Carrying

## 1. Installation environment




**CAUTION**

-  Install the machine on a sturdy floor.

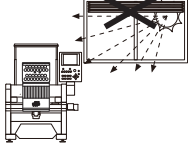

The floor structure must be strong enough to bear the machine weight (indicated on the spec. plate). If the floor is supported by steel frames, place the machine stand on the steel beams as long as possible.


-  Control the operation noise in the environment.

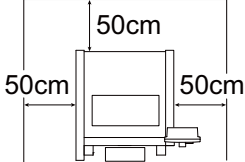

This machine is designed to reduce noise during operation. To improve the sound insulation performance in the factory still more, use the interior finish materials which show high sound insulating performance for the walls, ceiling, and floor of the factory.


-  Avoid direct sunlight.

If the machine is exposed to direct sunlight over an extended period of time, the machine body may be discolored or deformed. Put curtains or shades to the sight to prevent the machine from direct sunlight.

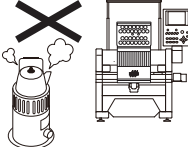

-  Provide enough space for maintenance.

Taking account of operability when maintaining and inspecting the machine, provide working space of 50 cm or more to right and left, and 50 cm or more to rear directions for the machine against obstacles such as walls.


-  Avoid dust and moisture.

Since dust and moisture lead to dirt and rust on the machine, use the machine in an environment of facility of air conditioner, and clean the working place periodically. Use caution not to expose the machine to direct wind from the air conditioner so that embroidery threads do not become disheveled.

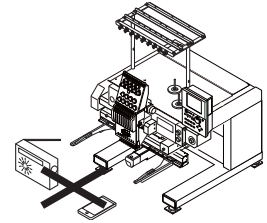
Degree of pollution: 2 or less  
 Humidity: 30 to 95%RH (relative humidity) without condensation  
 Ambient temperature: 5 to 40°C (during operation), -10 to 60°C (during storage)



**CAUTION**

- ! Pay attention to interference of radio wave.

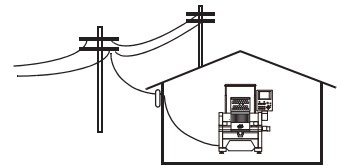
Although the machine is designed not to apply radio wave to other equipment, there could be cases where it causes radio wave interference depending on operation environment and type of equipment. If such problems arise, install the equipment as apart from the machine as possible.



- ! Pay attention to power supply style.

When supplying the power, meet the following requirement.

- Excess voltage category: III



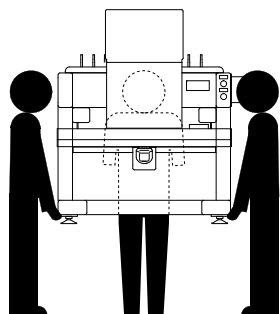
- ⊘ Do not use the machine in such a place where a strong electric field or magnetic field occurs by such a high-frequency welder of large output power.

## 2. How to carry

### **WARNING**

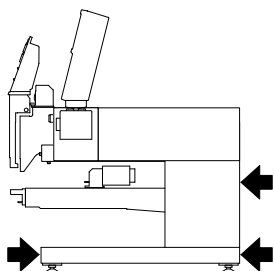
[TMBR-SC, TMBP-SC]

- ❗ Carrying of this machine should be performed by three or more persons. Dropping could cause injury or breakdown.

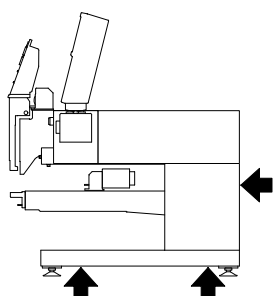


- ❗ When carrying the machine, hold the correct spots. Dropping could cause injury or breakdown.

**(1)** When the stand (option) is attached (→p.11)



**(2)** When the stand (option) is not attached

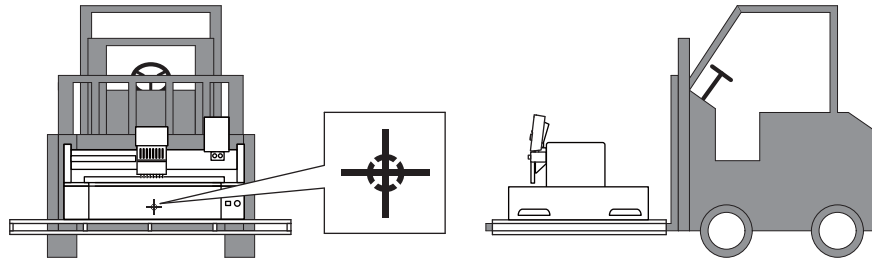




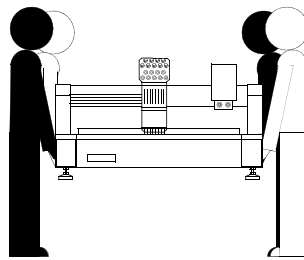
**! WARNING**

[TFMX-C, TWMX-C]

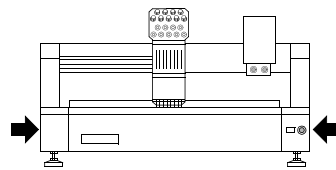
- ! When using a forklift, pay attention to "Gravity center mark" that indicates the center of right and left balance of the machine. (Gravity center mark is for TFMX-C only.)



- ! Carrying of this machine should be performed by four or more persons. Dropping could cause injury or breakdown.



- ! When carrying the machine, hold the correct spots. Dropping could cause injury or breakdown.

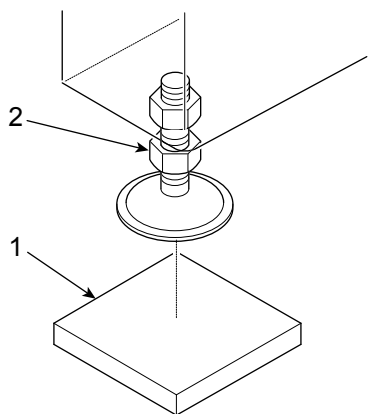


## Chapter 2 Installation

### 1. When the stand (option) is not attached

#### 1-1. TFMX-C, TWMX-C

- (1) Place this machine on the vibration-preventive rubber 1.
- (2) Adjust the adjuster 2 so that load is applied equally.

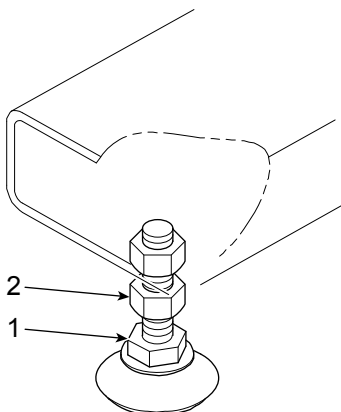


Vibration-preventive rubber (accessory)



#### 1-2. TMBR-SC, TMBP-SC

- (1) Adjust the adjuster 1 so that load of the machine is applied equally, and fix by using the nut 2.



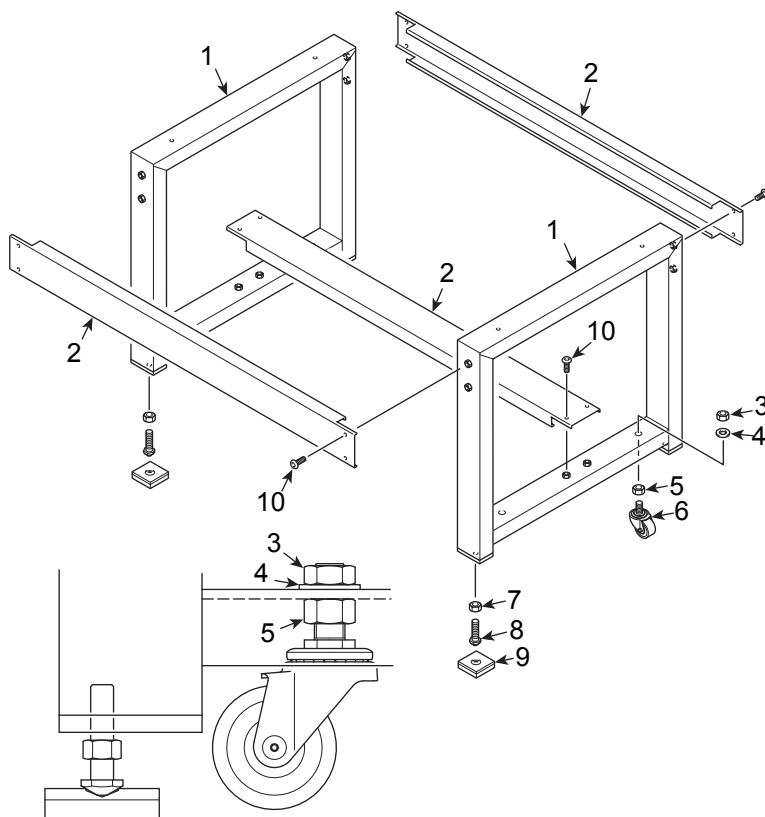
## 2. When the stand (option) is attached

### ! WARNING

! Workers should understand the procedure thoroughly, and then start working. Unexpected action could cause injury.

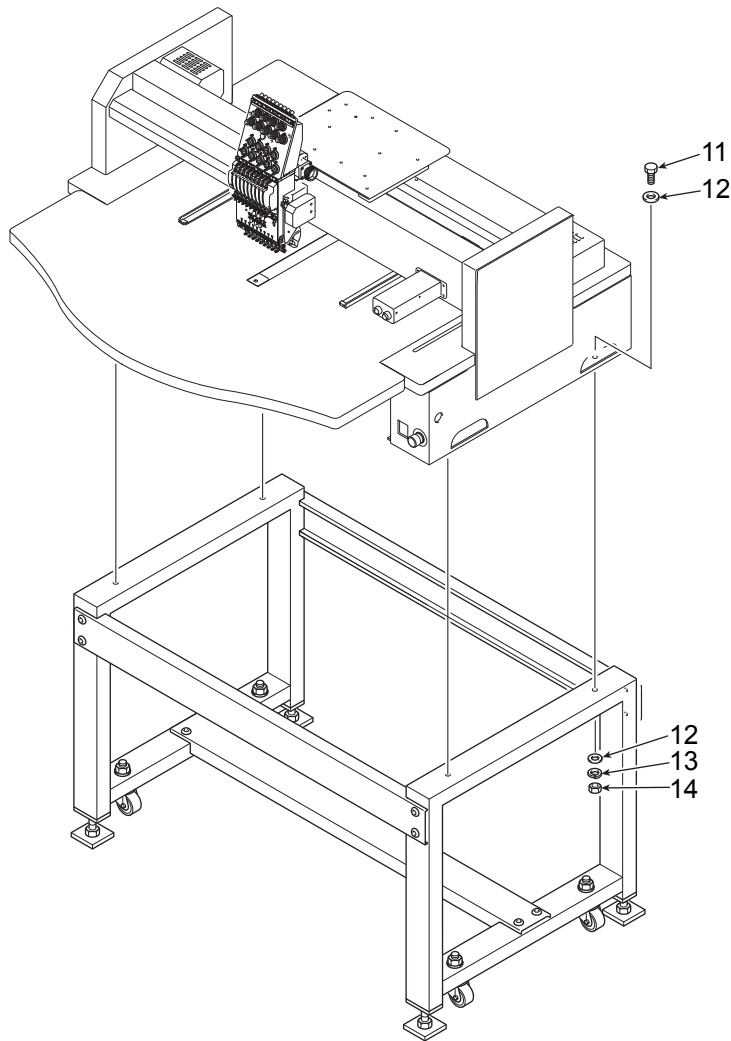
### 2-1. TFMX-C

(1) Assemble the stand.



1. Stand base
2. Stand base joint
3. Hexagon nut M16 (Type 3)
4. Plain washer M16 x 32
5. Hexagon nut M16 (Type 1)
6. Caster
7. Hexagon nut M12 (Type 1)
8. Leveling bolt M12 x 50
9. Vibration-preventive base
10. Hexagon socket head button screw M8 x 15

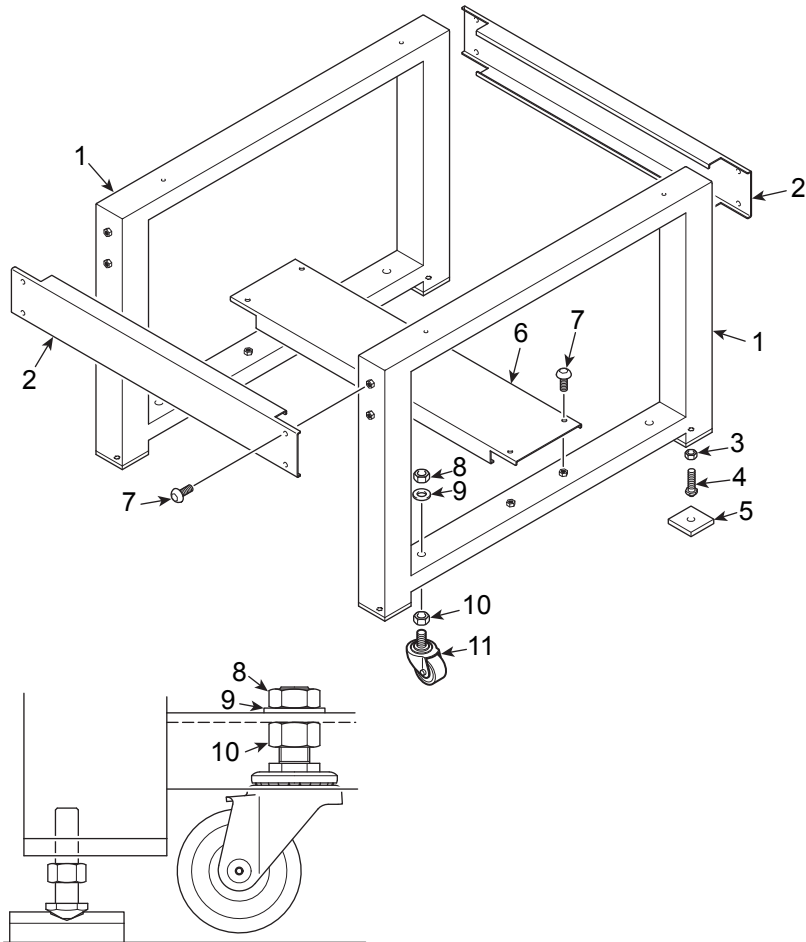
**(2)** Place the machine on the stand, and fix it by using screws (four points).



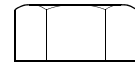
- 11. Hexagon bolt M8 x 25
- 12. Plain washer M8 x 18
- 13. Spring washer M8
- 14. Hexagon nut M8 (Type 1)

## 2-2. TWMX-C

### (1) Assemble the stand.

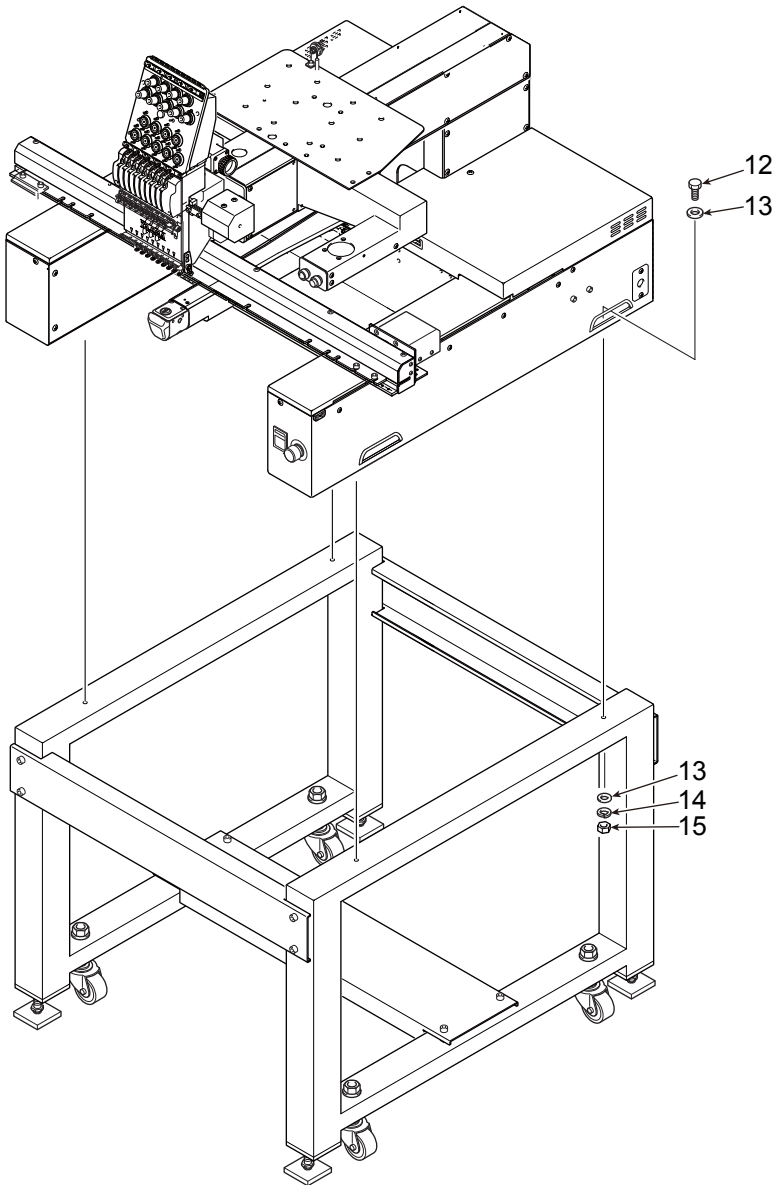


1. Stand base
2. Stand base joint
3. Hexagon nut M12 (Type 1)
4. Leveling bolt M12 x 50
5. Vibration-preventive base
6. Stand base joint B
7. Hexagon socket head button screw M8 x 15
8. Hexagon nut M16 (Type 3)
9. Plain washer M16 x 32
10. Hexagon nut M16 (Type 1)
11. Caster





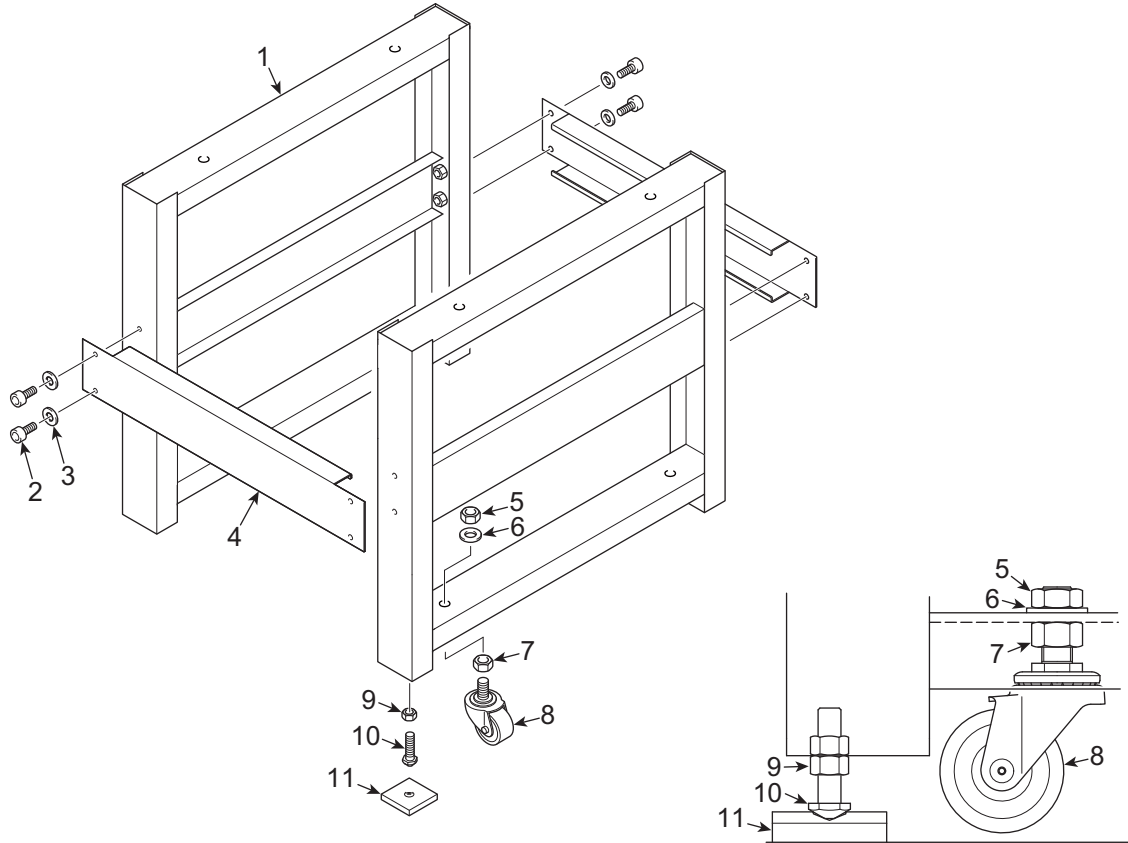
**(2)** Place the machine on the stand, and fix it by using screws (four points).



- 12. Hexagon bolt M8 x 25
- 13. Plain washer M8 x 18
- 14. Spring washer M8
- 15. Hexagon nut M8 (Type 1)

### 2-3. TMBR-SC, TMBP-SC

(1) Assemble the stand.



1. Stand

2. Hexagon socket head cap screw M8 x 15

3. Plain washer M8 x 18

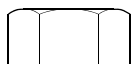
4. Stand joint

5. Hexagon nut M16 (Type 3)



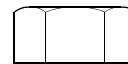
6. Plain washer M16 x 32

7. Hexagon nut M16 (Type 1)



8. Caster

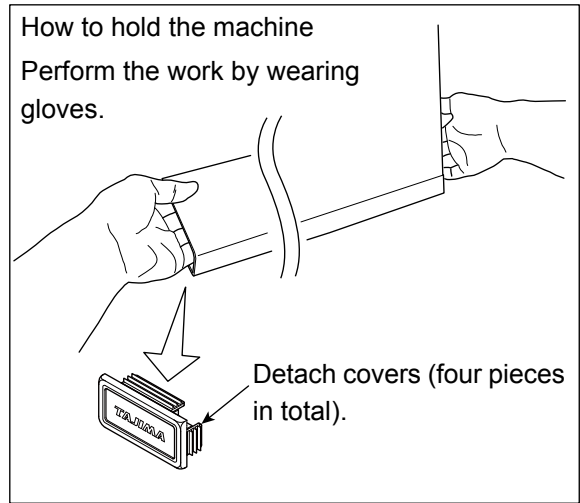
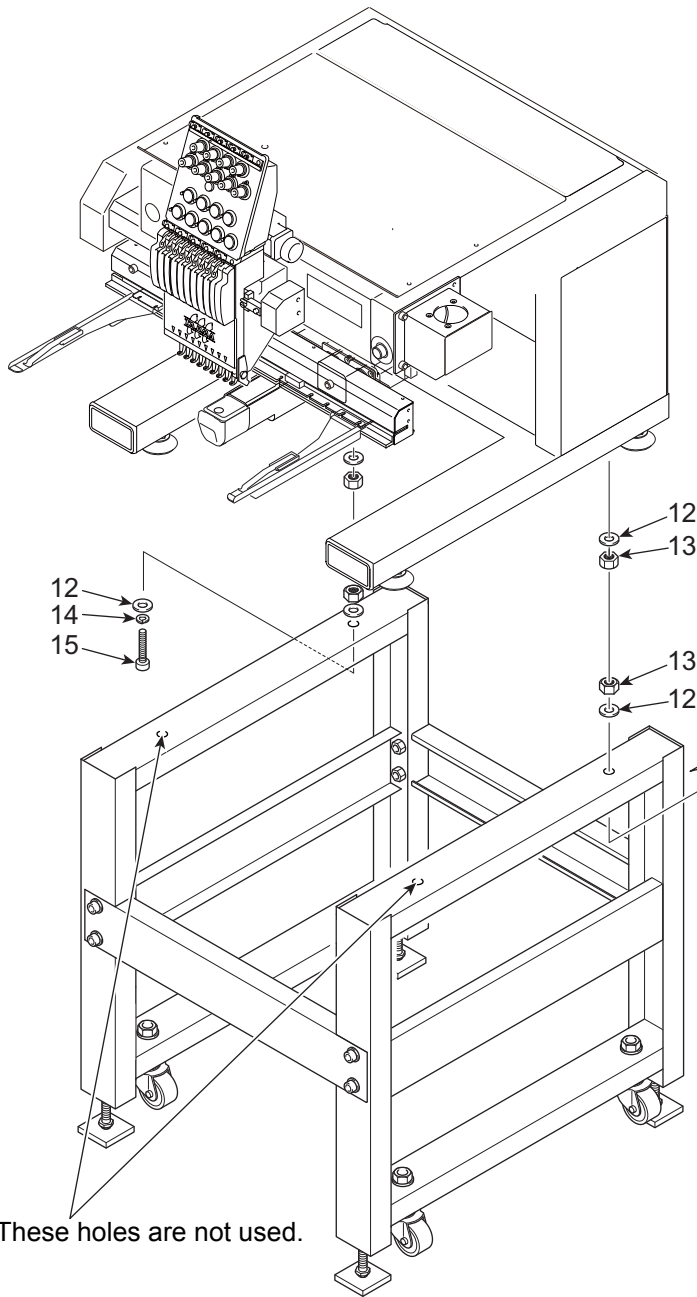
9. Hexagon nut M12 (Type 1)



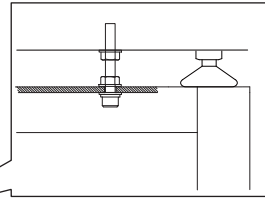
10. Leveling bolt M12 x 50


11. Vibration-preventive base

**(2)** Place the machine on the stand, and fix it by using screws (two spots at the backside only).



Cross section drawing



- 12. Plain washer M8 x 18
  - 13. Hexagon nut M8 (Type 1)
- 
- 14. Spring washer M8
  - 15. Hexagon socket head cap screw M8 x 60

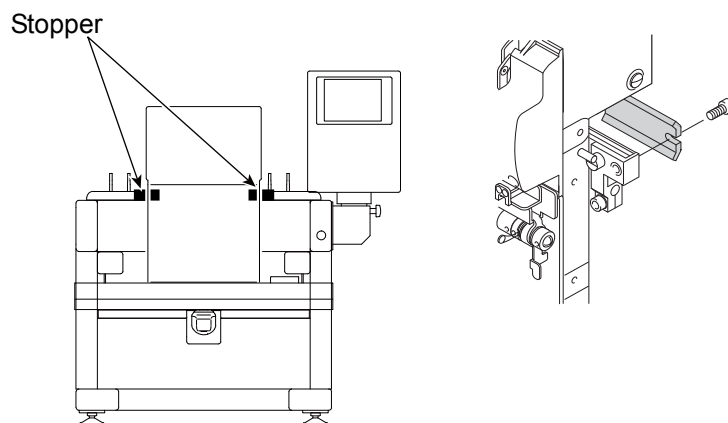
## Chapter 3 Detaching, attaching

### 1. Detaching

#### 1-1. Stopper

(1) Before using the machine, detach stoppers.

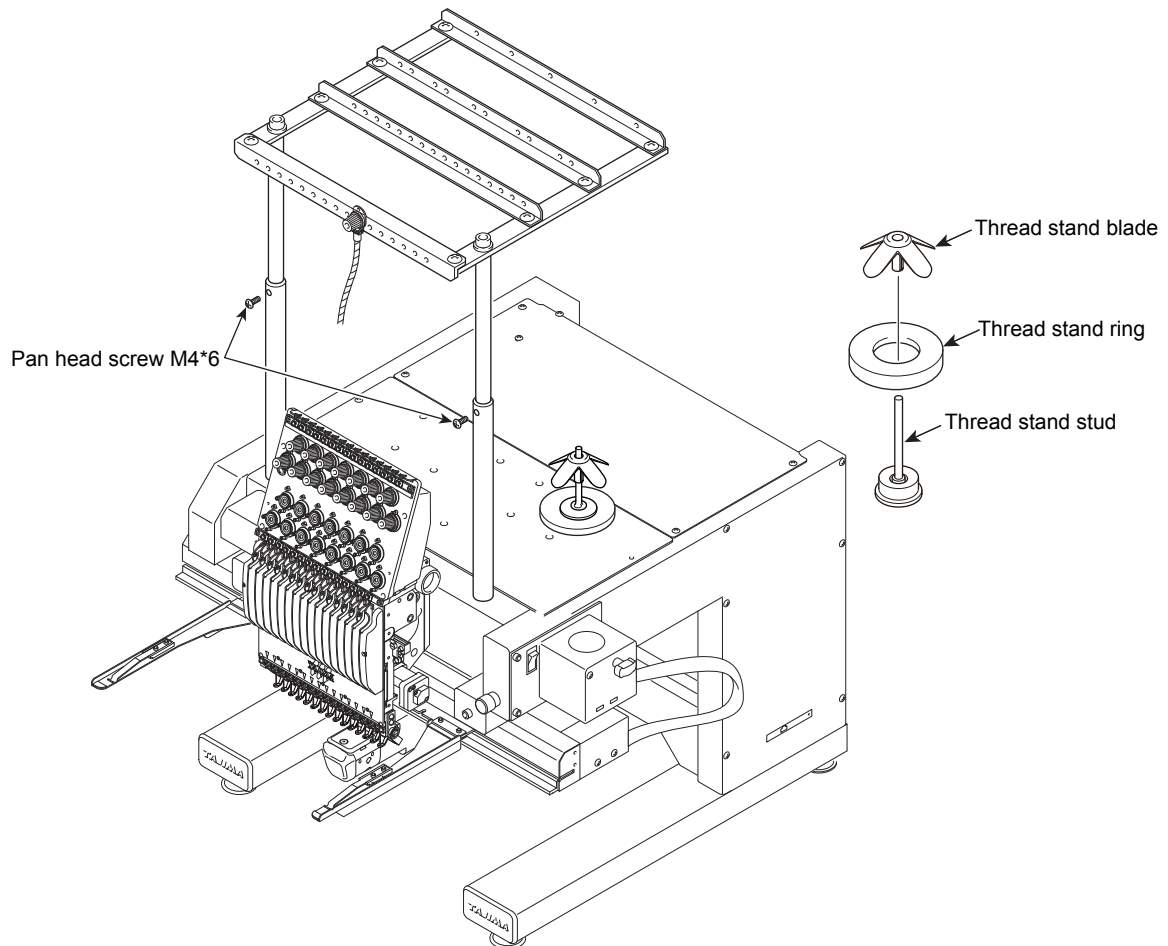
Stoppers are attached to right and left sides of the needle bar case.



## 2. Attaching

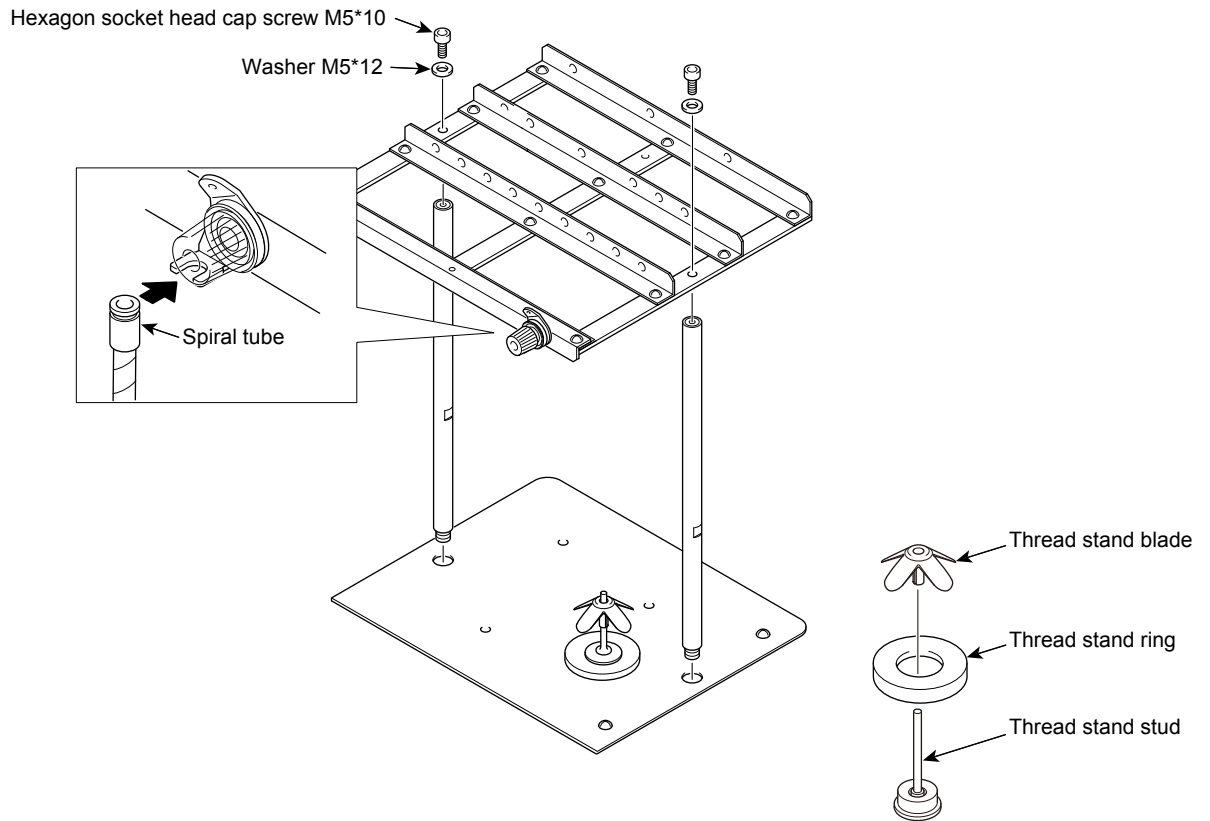
### 2-1. Thread course

#### (1) TMBR-SC, TMBP-SC

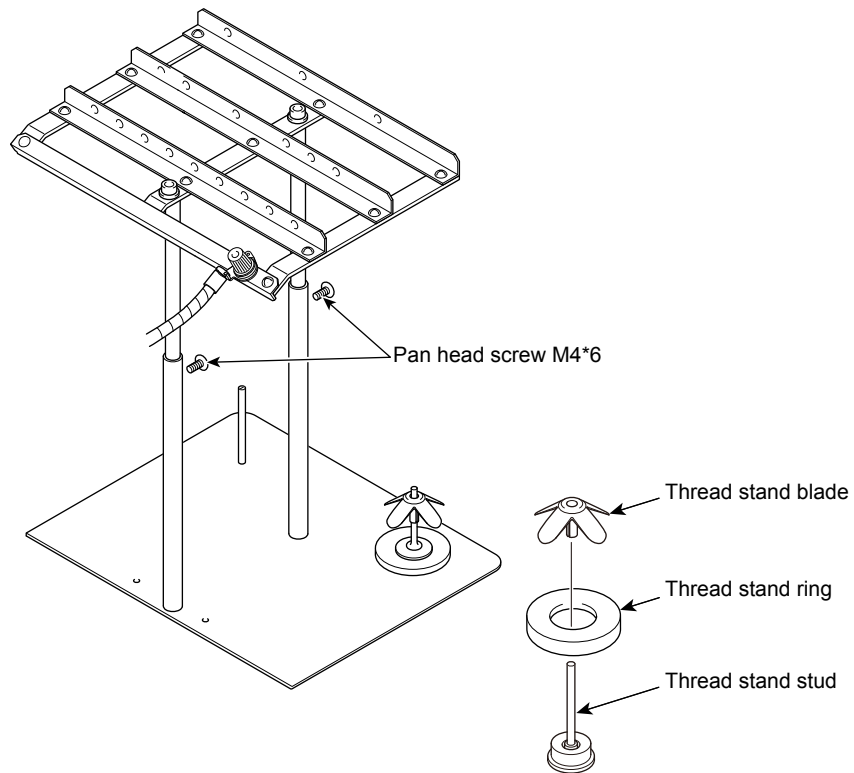




**(2) TFMX-C**



**(3) TWMX-C**

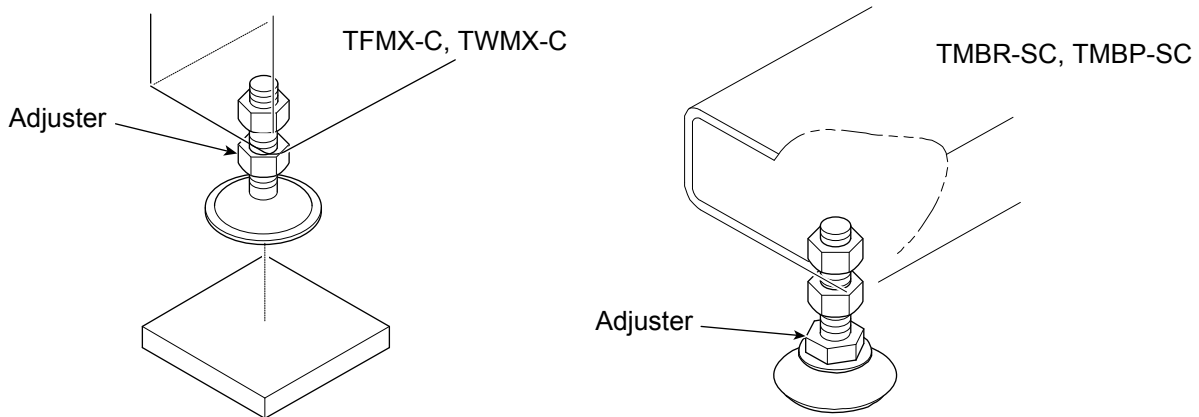


# Chapter 4 Level adjustment

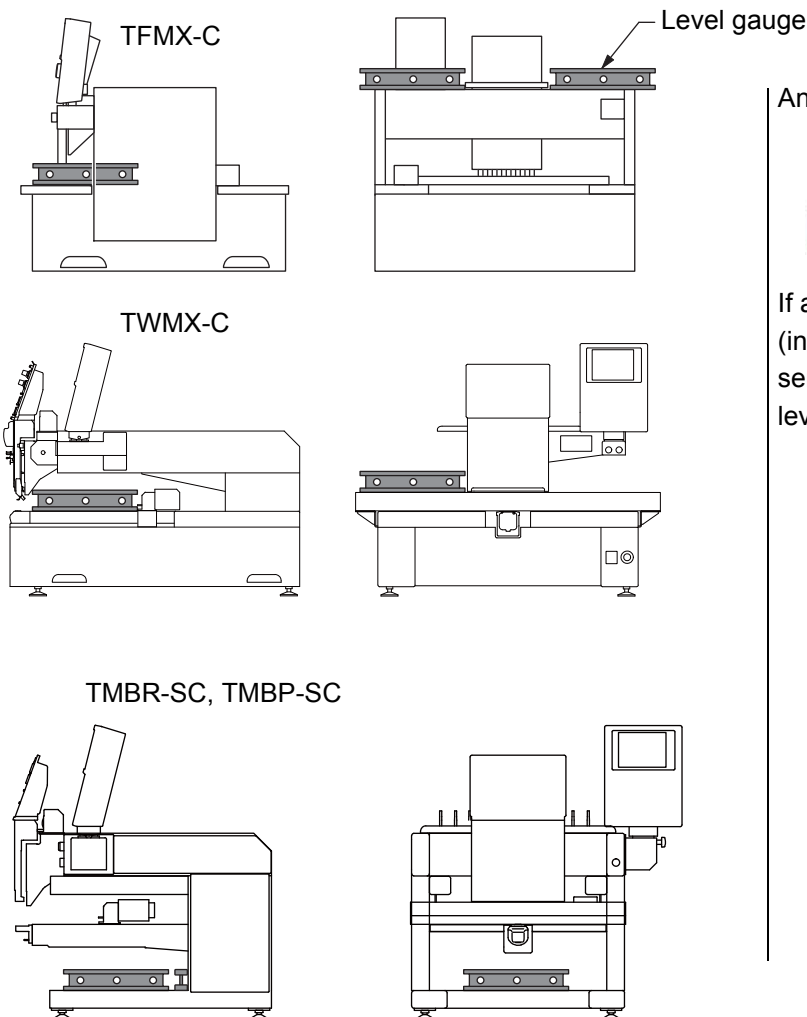
## 1. Level adjustment

### 1-1. When the stand (option) is not attached

Check leveling degree against the floor of this machine by using a level gauge. When it is not horizontal, adjust the level of the machine by using the adjuster.



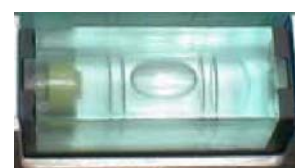
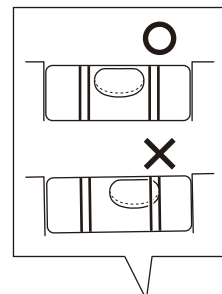
Spot where level gauge is used



An example of level gauge

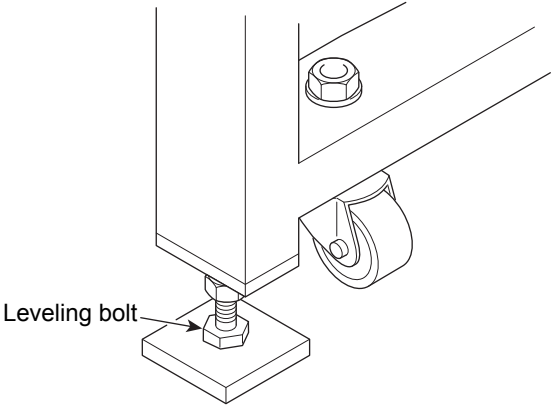


If a bubble is set within the range (inner lines) of a level gauge with its sensitivity of 0.5 mm, the degree of level becomes "±0.5°".



**1-2. When the stand (option) is attached**


Check leveling degree against the floor of this machine by using a level gauge. When it is not horizontal, adjust the leveling of the machine by using the leveling bolt.

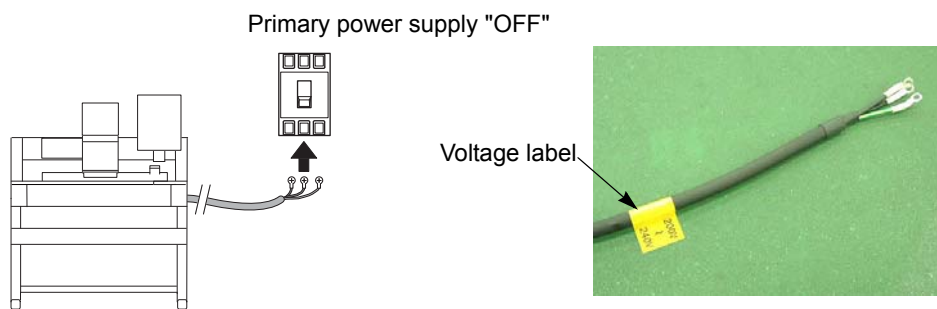



## Chapter 5 Connection of power cord

### 1. Important safety instructions





#### DANGER

-  When you connect the power cord, be sure to turn "OFF" the primary power supply. There could be a danger of electric shock, burning or death. In addition, check if the voltage of the voltage indicating label that is attached to the power cord fits to voltage spec. on your side, and then connect the power cord to the primary power supply.



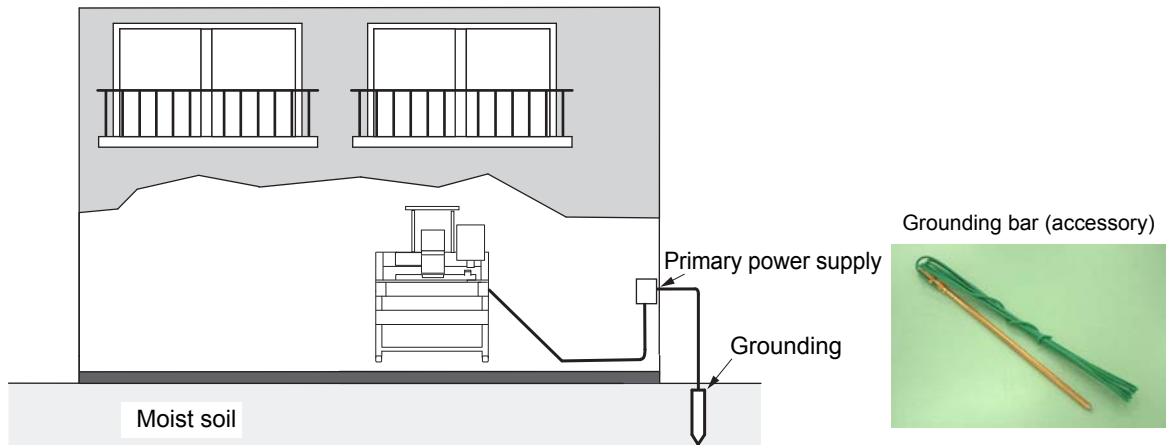
-  If the machine needs to be connected to an external power supply, the power supply cable connection must be done only by the service personnel assigned and trained by TAJIMA or qualified technician.

#### WARNING

-  When supplying the power, conform to excess voltage category "III".
-  Connect the machine to the power supply line that is not connected to machines subject to large load fluctuation such as elevators and presses so that the machine can operate in stable conditions.
-  Check if power voltage is enough for operating the machine by using a multimeter.  
Voltage: Within  $\pm 10\%$  of the rated voltage
-  The power supply cable must be laid out of the operator's moving area so that the operator does not step on the cable.

## ! WARNING

- ⚠ Insert the power cable plug fully. If a metallic part etc. touches a blade in the plug, it may cause fire and/or electric shock.
- ⚠ Since there is the danger of electric shock due to leak current, be sure to connect the grounding wire. In addition, degree of grounding should be type D or higher (grounding resistance 100 ohms or less).



## ! CAUTION



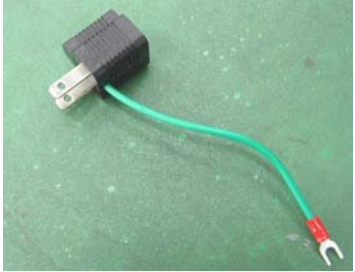

- ! In addition to full-time leak current, leak electric current generated by harmonics and surge flows in the power cable of the machine. For this reason, if selection and installation of breaker of leak current and leak current relay used for the factory are not correct, malfunctioning of the machine may occur.  
Regarding connection of power cord, observe the following items.
- ! Use a breaker of electric current leakage and leak current relay for which measures are taken against harmonics and surge. If such a breaker and a relay are not available, select conventional breaker and relay with sufficient leak current capacity to absorb leak current caused by harmonics and surge. (In this case, constant leak current must be controlled satisfactorily.)
- ! Regarding capacity of electric current leakage for breaker of electric current leakage and leak current relay per machine, please consult your local TAJIMA distributor.
- ! For actual product names of breaker of electric current leakage and leak current relay for which measures are taken against harmonics and surge, please consult your local TAJIMA distributor or electric engineers.
- ! To prevent the machine from property damages, one embroidery machine should be connected to one no fuse breaker. Property damages include a drop of output of the main shaft motor, etc., stop position error and color change error caused by the stop position error, design displacement, etc.



## 2. Power cord

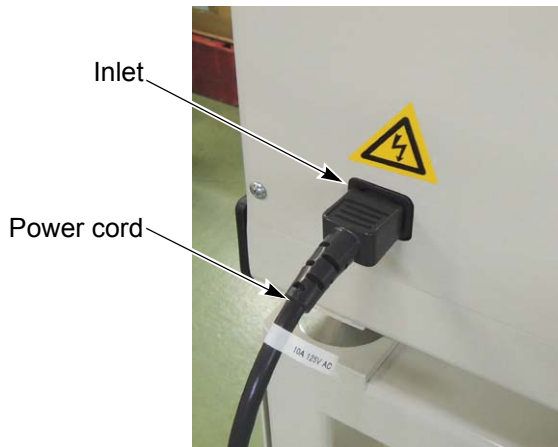
### 2-1. TFMX-C, TWMX-C

There are following types of power cord.


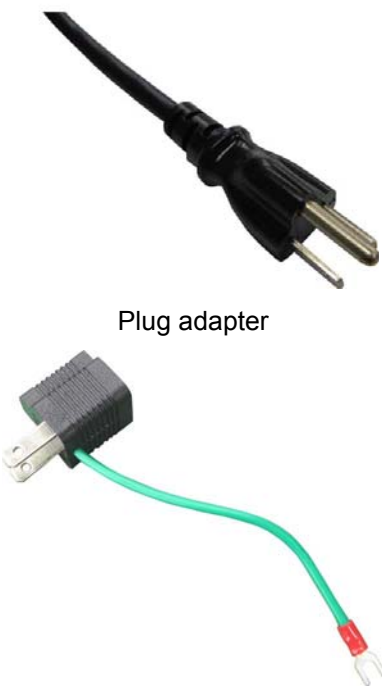
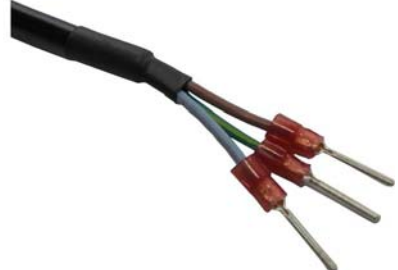
Exclusive item for UL-spec.	For Japanese domestic use	Other cases than that described left
	 <p data-bbox="635 927 799 965">Plug adapter</p> 	

## 2-2. TMBR-SC, TMBP-SC

For TMBR-SC or TMBP-SC, insert the power cord into the inlet of the machine.



There are following types of power cord.

Exclusive item for UL-spec.	For Japanese domestic use	Other cases than that described left
	 <p data-bbox="750 1377 909 1411">Plug adapter</p>	

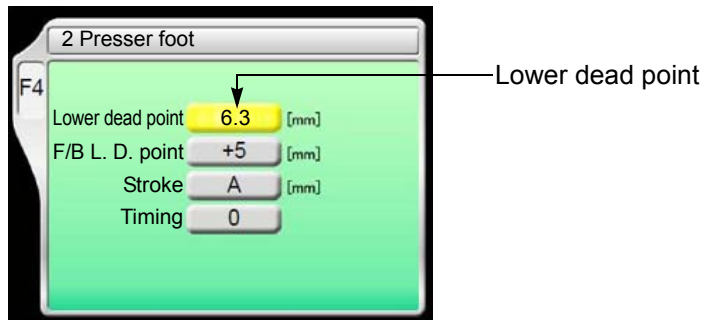
## Chapter 6 Checking

### 1. Needle locating position

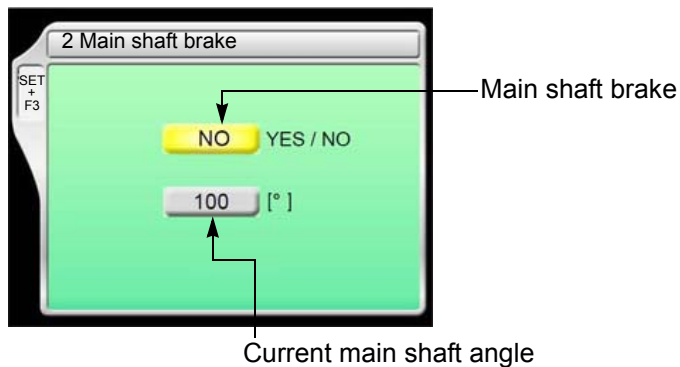
#### 1-1. TMBR-SC

Perform this checking at the first needle and the last needle.

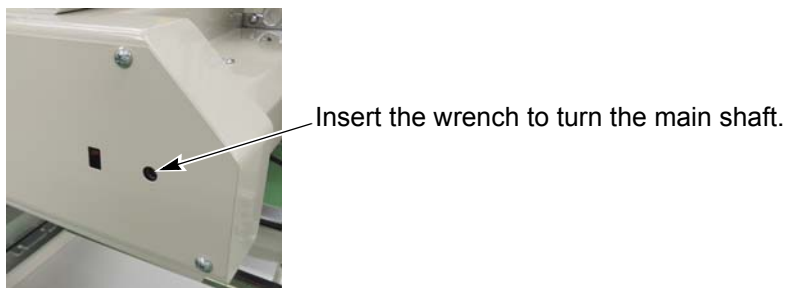
- (1) Set the lower dead point of "2 Presser foot" (F4 key) to "6.3" (mm) by operation on the operation panel.



- (2) Set "2 Main Shaft Brake" (SET + F3 key) to "NO". The presser foot will move down.



- (3) Turn the main shaft counterclockwise to set the main shaft angle to 178° (Needle bar lower dead point).



- (4) Lower the needle bar by hand.

- (5) Check if the needle is almost located at the center of needle hole.



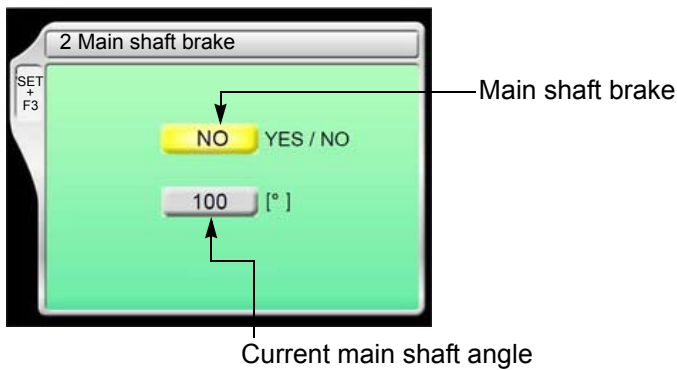
- (6) Set the main shaft angle to 100° (Stop position).  
(7) Perform Color Change to the last needle to check the needle locating position.  
(8) Set "2 Main Shaft Brake" to "YES".

## 1-2. TMBP-SC, TFMX-C, TWMX-C

Perform this checking at the first needle and the last needle.

- (1) Set "2 Main Shaft Brake" (SET + F3 key) to "NO".

The screen below shows the sample for TMBP-SC.



- (2) Turn the main shaft counterclockwise to set the main shaft angle to 178° (Needle bar lower dead point).

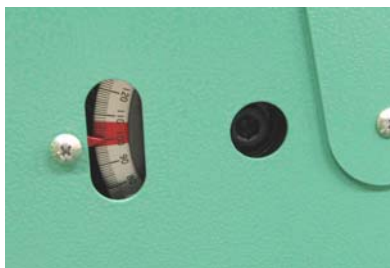
TMBP-SC



TWMX-C



TFMX-C



- (3) Lower the needle bar by hand.
- (4) Check if the needle is almost located at the center of needle hole.

TMBP-SC



TFMX-C, TWMX-C

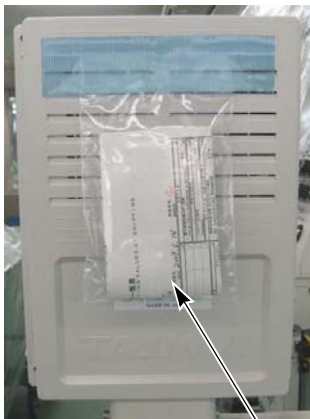


- (5) Set the main shaft angle to 100° (Stop position).
- (6) Perform Color Change to the last needle to check the needle locating position.
- (7) Set "2 Main Shaft Brake" to "YES".



## 2. Parameter setting

A parameter list is attached to the back of the operation panel. Check setting values. At this moment, check also version of the software.



Regarding information about the latest version of software and how to obtain the software, consult the distributor.

"Parameter setting chart" at shipment from the factory is attached.

### 3. Lubrication

## ! CAUTION

- ! When performing lubrication, use only Tajima s genuine TF oil (packed with the machine). If you use other oil than this by necessity, select oil equivalent to ISO viscosity grade: VG20.
- ! After the working, attach all covers that were detached.

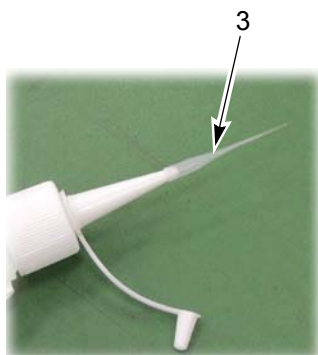
#### 3-1. Rotary hook

(1) TMBR-SC, TMBP-SC, TFMX-C, TWMX-C

To lubricate, use the oiler (accessory). Lubricating spots are raceway 1 and lubrication hole 2.

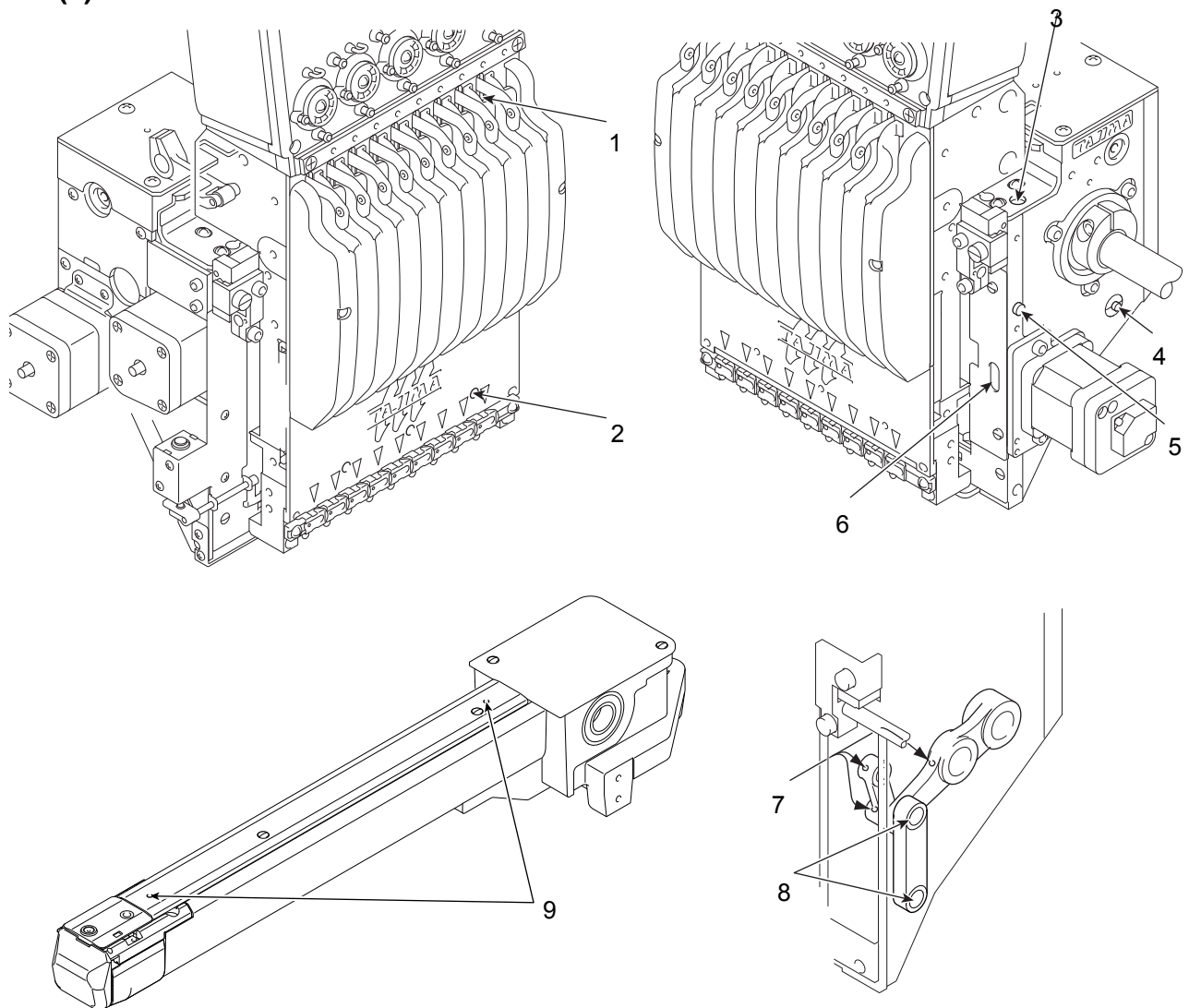


To lubricate lubrication hole, attach the nozzle 3 (accessory) to the tip of the oiler.



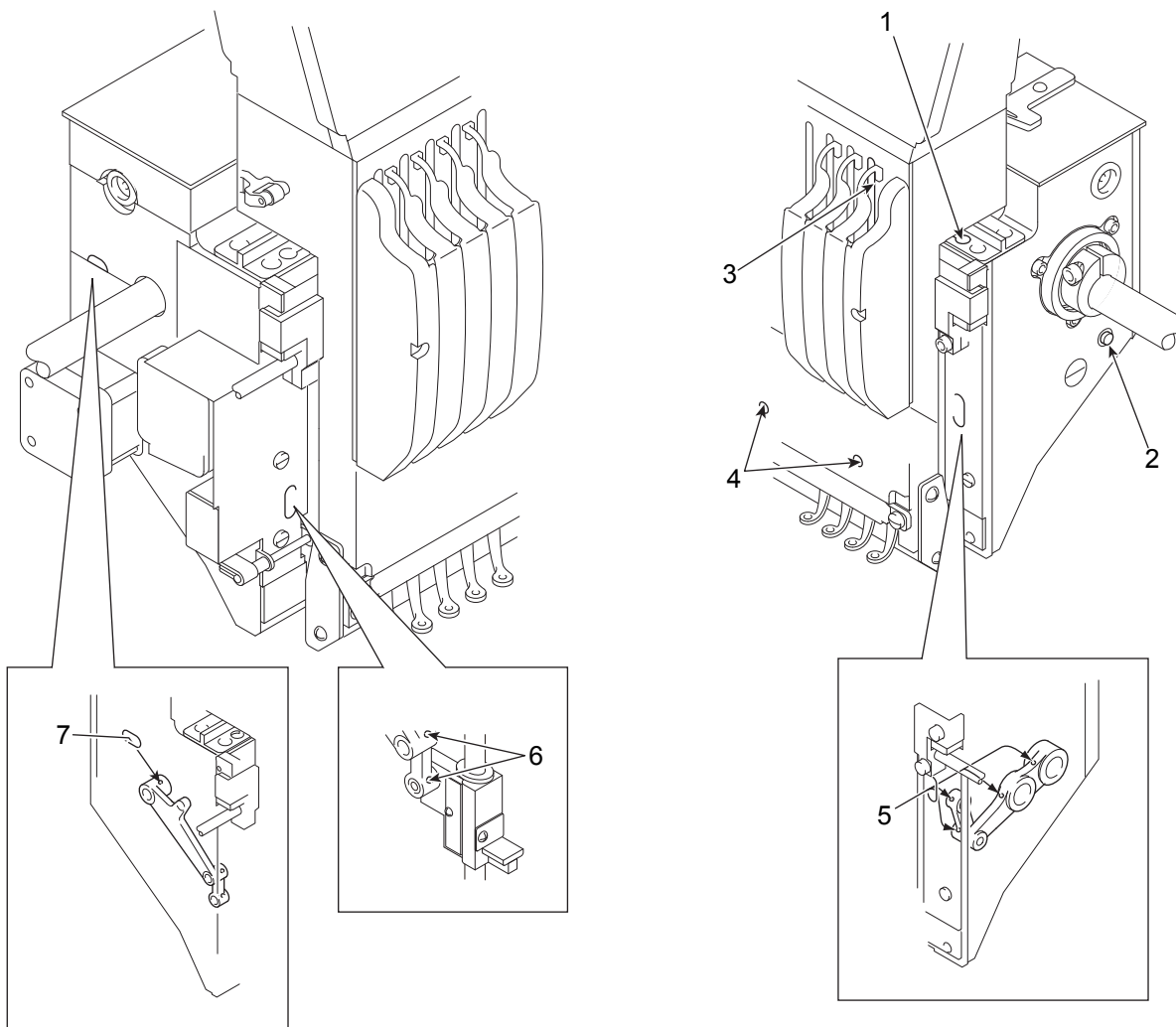
### 3-2. Inside of arm and cylinder bed

#### (1) TMBR-SC

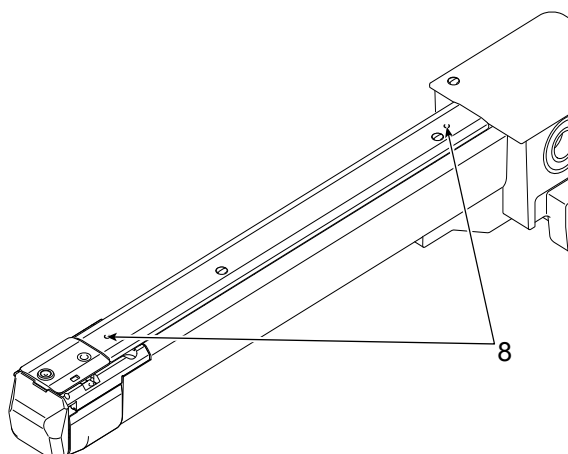


Lubricating spot
1: Needle bar
2: Needle bar
3: Needle bar drive shaft (needle bar side)
4: Wick of stepped pin
5: Wick of arm side (presser foot drive shaft)
6: Needle bar lever, connecting rod
7: Needle bar lever, connecting rod
8: Connecting rod
9: Rotary hook shaft

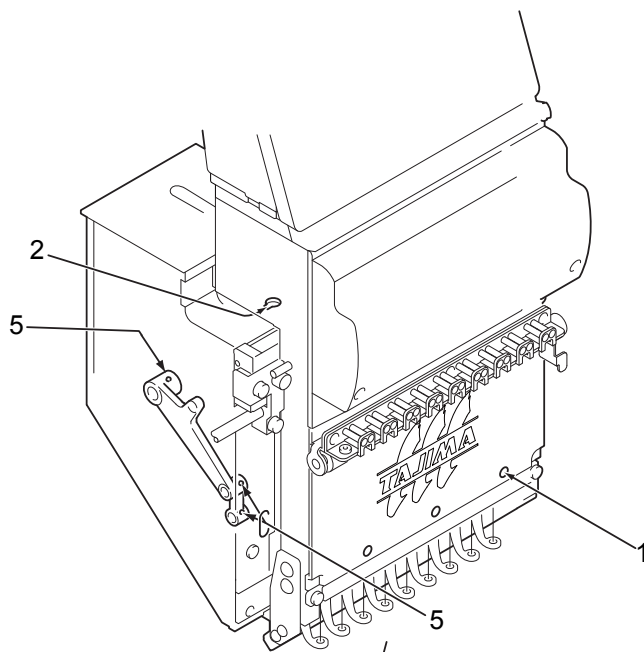
**(2) TMBP-SC**



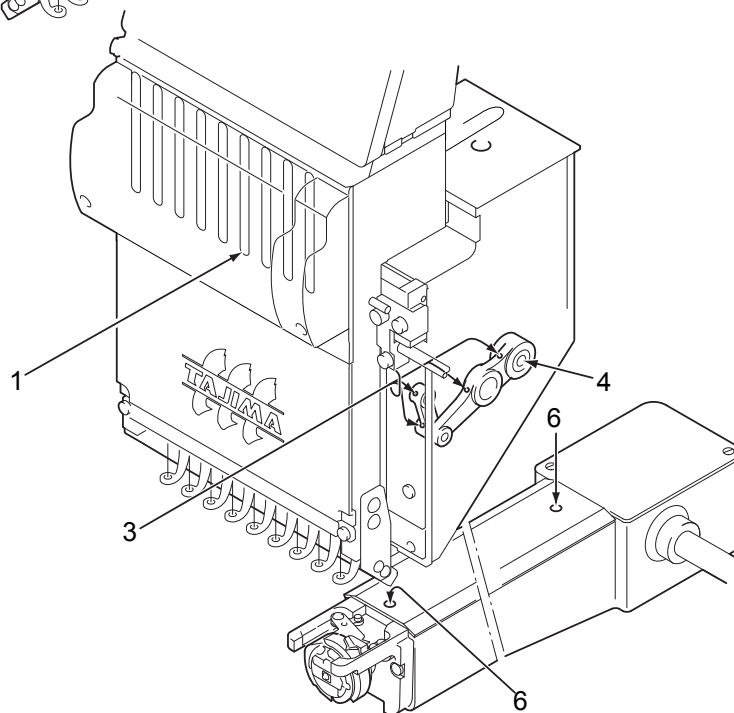
Lubricating spot
1: Needle bar drive shaft
2: Wick of stepped pin
3: Needle bar
4: Needle bar
5: Needle bar lever, connecting rod
6: Connecting rod
7: Presser foot lever
8: Rotary hook shaft



**(3)** TFMX-C, TWMX-C





Lubricating spot
1: Needle bar
2: Needle bar drive shaft
3: Needle bar lever, connecting rod
4: Wick of needle bar lever
5: Presser foot lever, connecting rod
6: Inside of cylinder bed



## 4. Idling, jump

### CAUTION

-  When operating the machine, check if there is no person around moving section and all covers are attached to prevent accident resulting in injury or death.
-  Keep on idling until antirust applied on rotary hook is completely removed. If antirust remains, it could cause thread breakage.

- (1) Set "Upper thread breakage detection" and "Under thread breakage detection" to "not to detect" in parameter setting.

Operation on the operation panel: Set by using F2▶6 .

- (2) Set the design of which data contains jump codes.

- (3) Start the machine to perform idling. At the beginning, start the machine with about 250 rpm or so and increase the speed up to 650 rpm while checking running condition of the machine. Spare time for 20 to 30 minutes for operation. Check if no misjumping occurs using design data that includes jump codes.

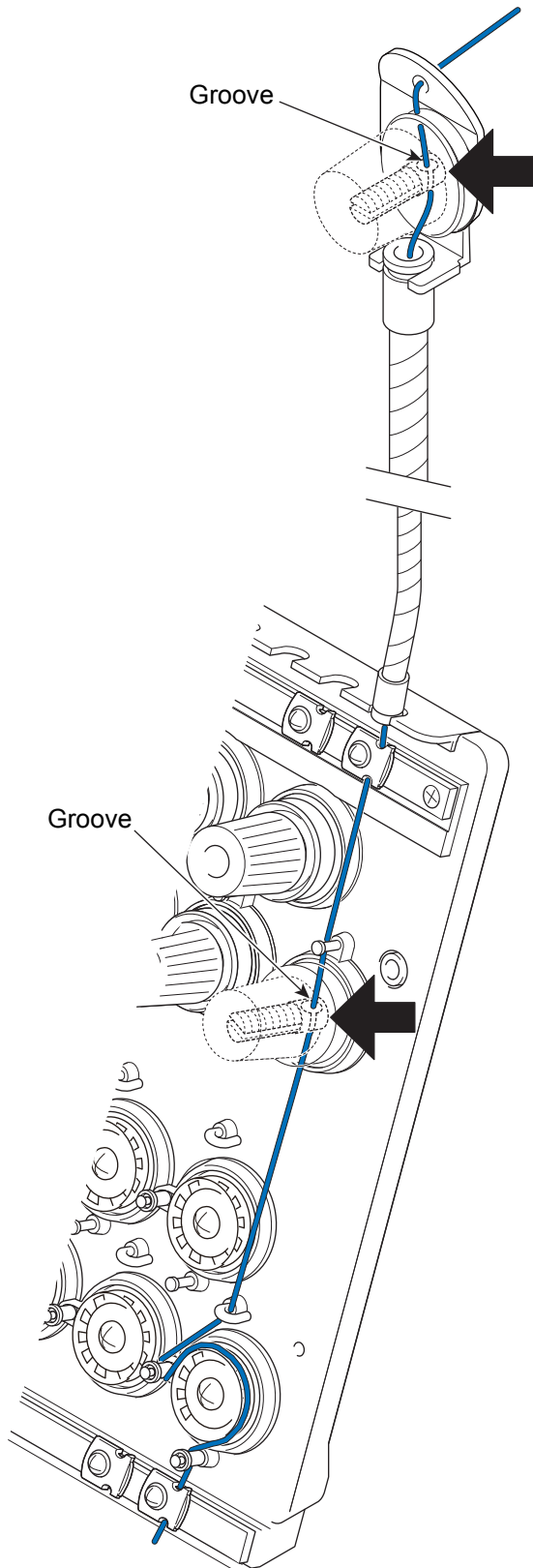
When misjumping occurs, it is necessary to adjust the position of the upper dead point stopper.

- (4) After the working, check if no heat occurs from the side part of the arm, the needle bar drive shaft, etc.

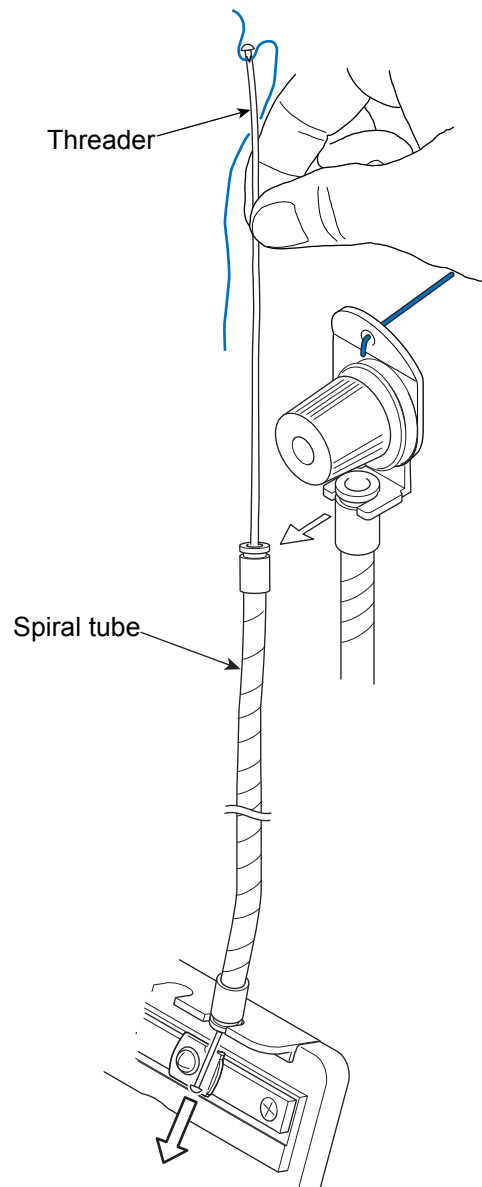
## 5. Threading

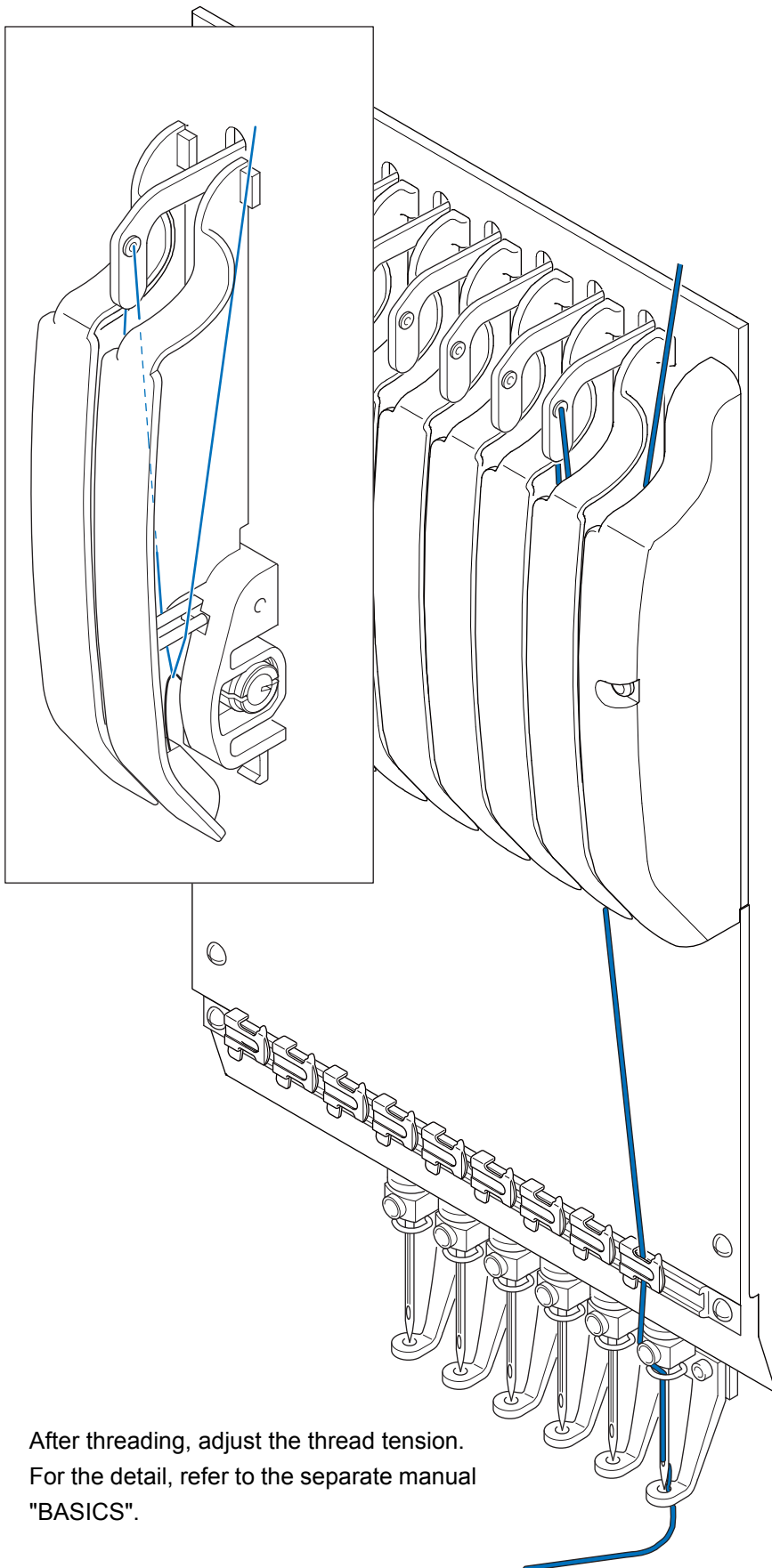
### 5-1. TMBR-SC, TMBP-SC

Threading at tension part (indicated by arrows) affects finishing of embroidering. Therefore, thread correctly.



Threading through spiral tube





It is possible to perform threading easily by just hooking the thread here.

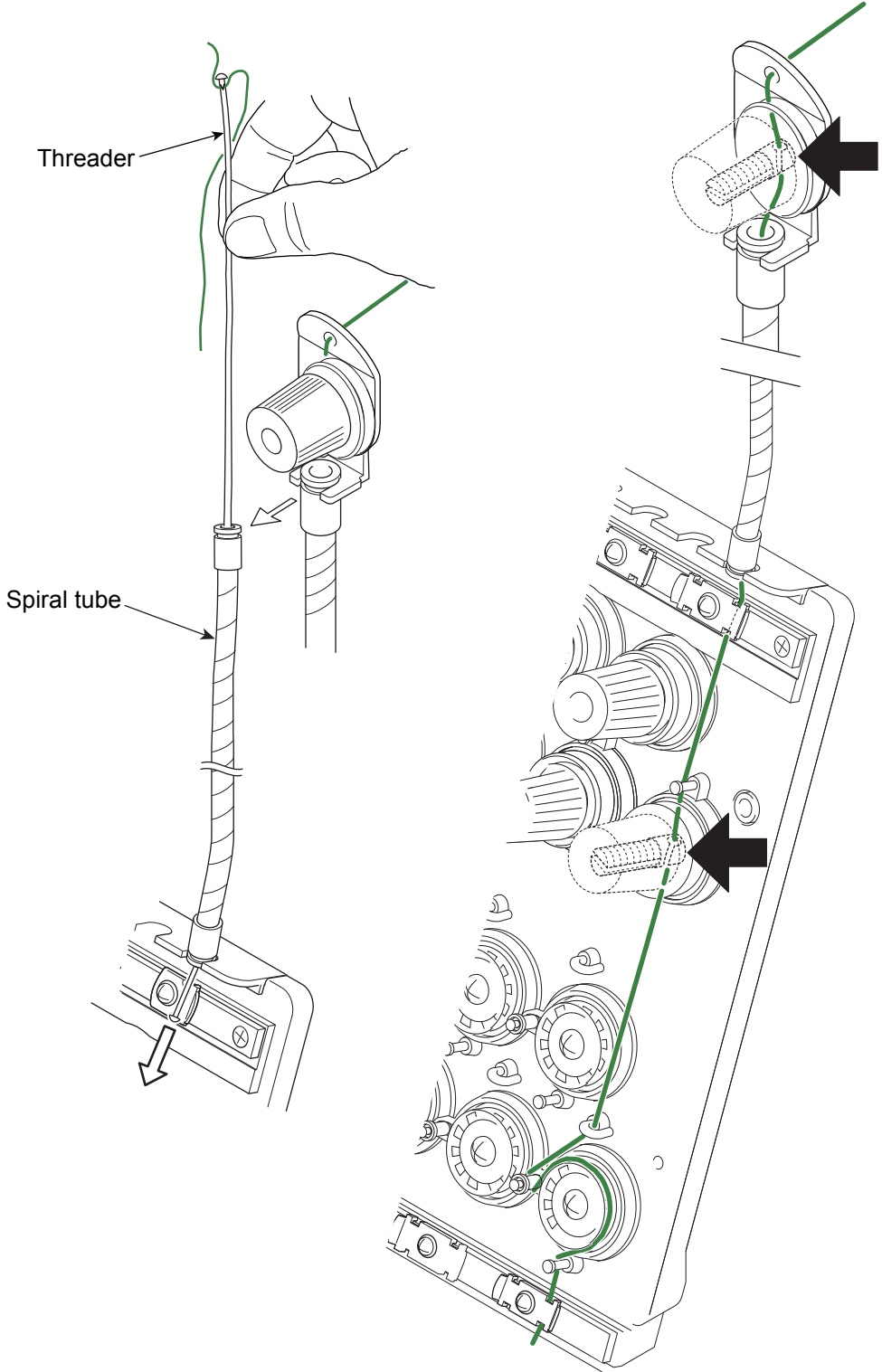
After threading, adjust the thread tension.  
For the detail, refer to the separate manual "BASICS".



### 5-2. TFMX-C, TWMX-C

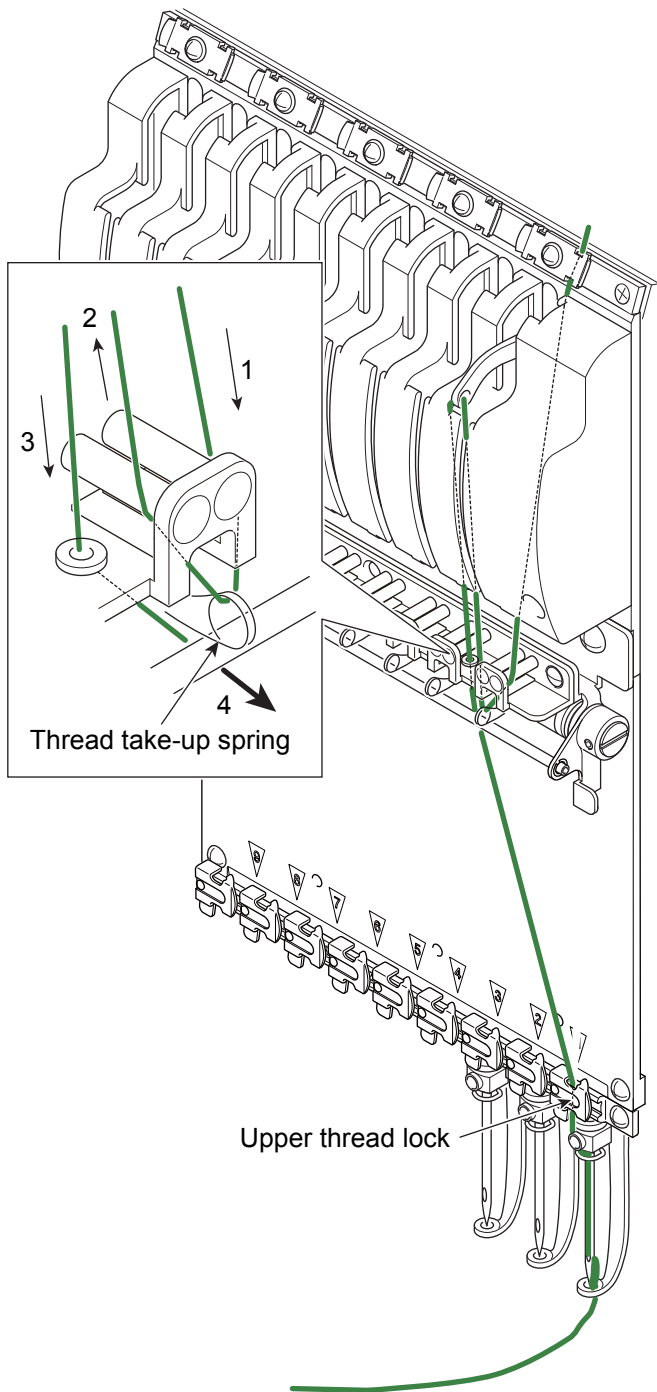
Threading at tension part (indicated by arrows) affects finishing of embroidering. Therefore, thread correctly.

Threading through spiral tube



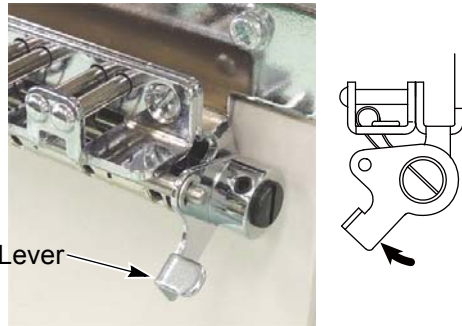
**! CAUTION**

- !** Pass the thread to the thread take-up spring and the upper thread lock surely. Otherwise thread breakage would be caused or the thread tension would be affected badly.
- !** Return the adjusting lever to the original position after passing the thread. Otherwise thread breakage would be caused or the thread tension would be affected badly.

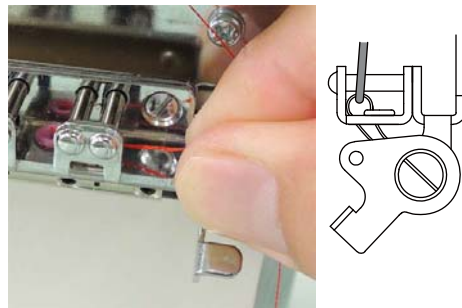


How to use adjusting lever

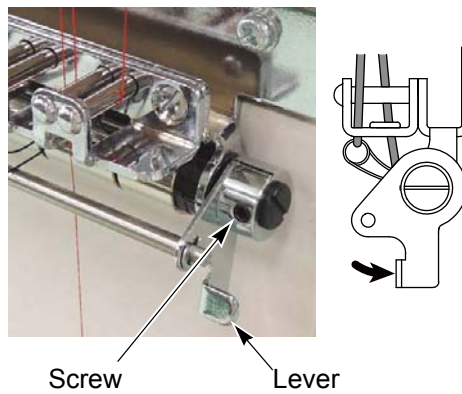
- (1)** Raise the lever.



- (2)** To thread




- (3)** After threading, return the lever. (The screw should face the front.)



### 5-3. Test sewing


Stretch fabric to the frame, set under thread bobbin and check each movement such as color change, manual ATH etc. Then, start test sewing.

#### CAUTION

-  For long life machine operation, operate the machine with about 70% of the maximum speed as "Operation for total fitting" for about two weeks after installation. By performing operation for total fitting, life of the machine will become longer, which will be useful to avoid unexpected troubles.

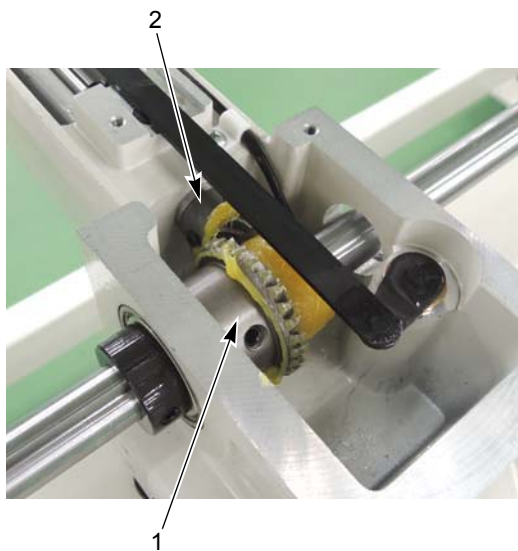
## Chapter 7 Adjustment

### WARNING

 Perform this work with the power turned "OFF" to prevent accident resulting in injury or death and/or property damage.

### 1. Bevel gear

Check "Play" between the bevel gear 1 and the bevel gear 2. If the bevel gear 2 moves slightly (0.1 to 0.2 mm), "Play" is normal.



If there is no "play", loosen the set screw of the bevel gear 1 to adjust position of the bevel gear 1.

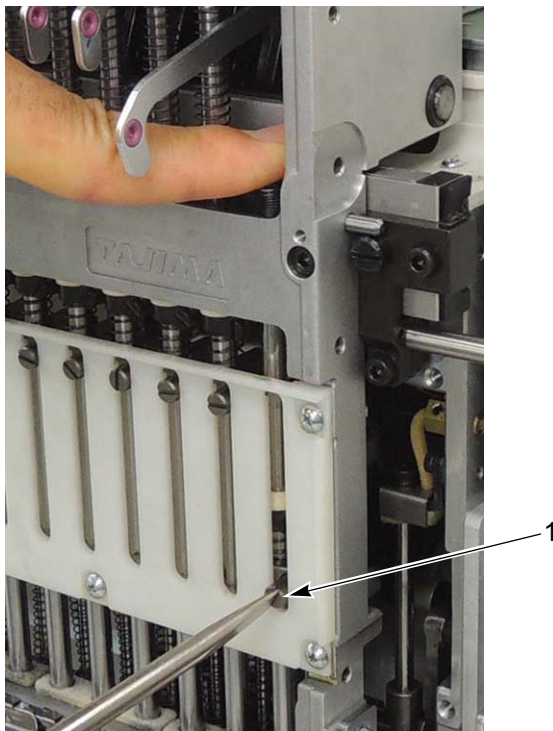
## 2. Lower dead point

### 2-1. TMBR-SC

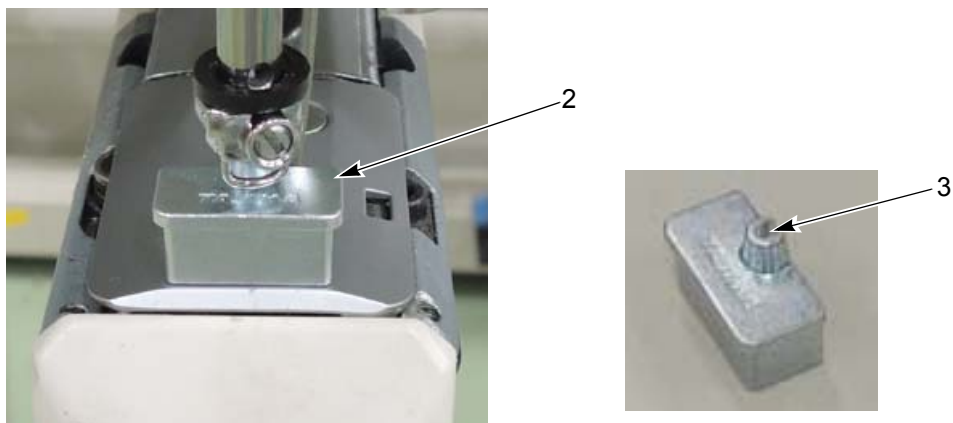
Perform this adjustment from the 1st needle to the last needle (All needle bars).

- (1) Move down the needle bar in the state of  $178^\circ$  (Needle bar lower dead point) of the main shaft angle, and loosen the screw 1.

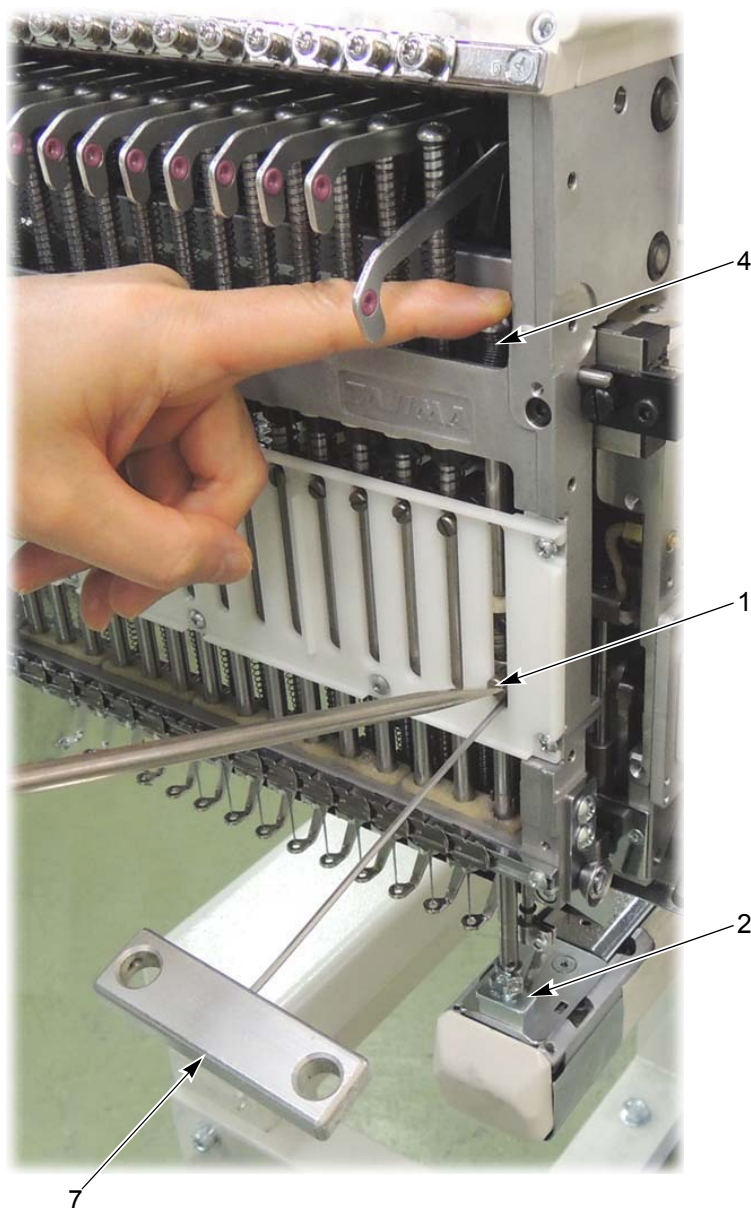
For the method of lowering the needle bar, refer to the detail page. (→p.21)



- (2) Attach the lower dead point gauge 2 so that the needle come into the groove 3.



- (3)** Push down the needle bar 4 to touch to the lower dead point gauge 2. Tighten the screw 1 in the state that needle clamp 5 faces as shown in the photo A.



Tighten the screw 1 in the state that the needle bar connecting stud 6 is raised as shown in the figure below. In this example, the wrench 7 is used.

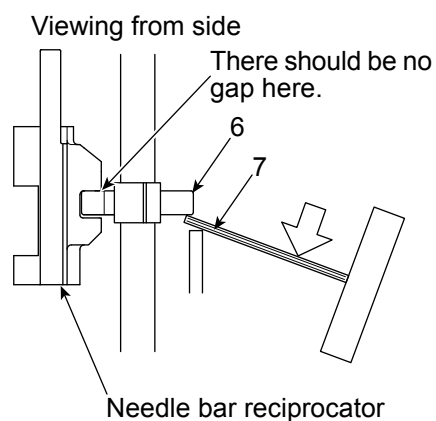
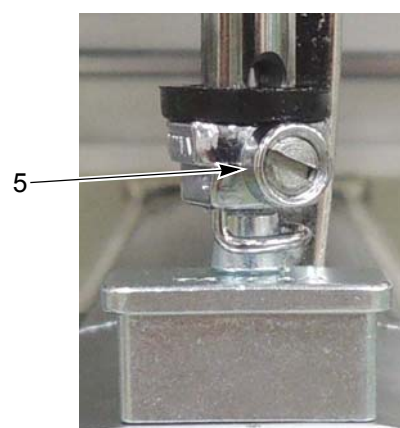


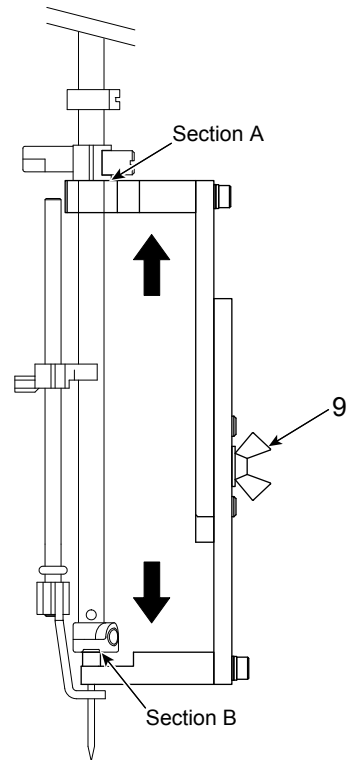
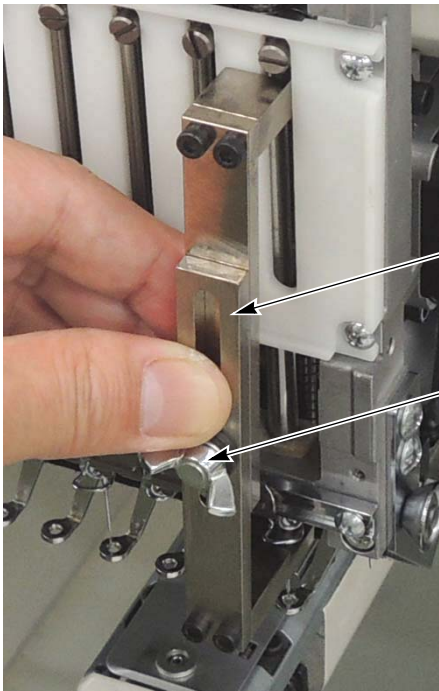
Photo A



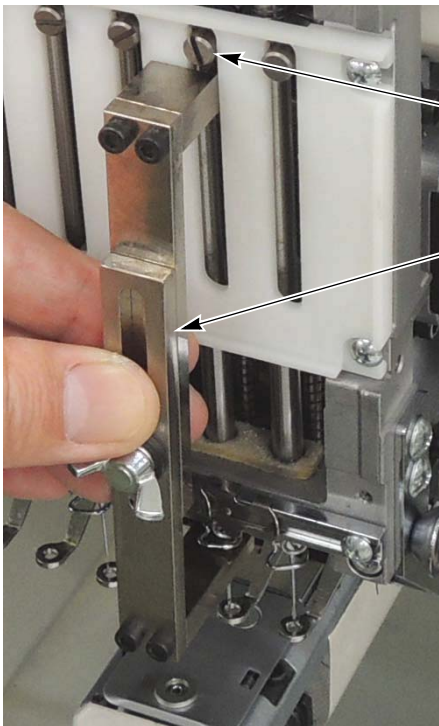
- (4)** Detach the lower dead point gauge 2.
- (5)** Set the main shaft angle to 100° (Stop position).
- (6)** Perform Color Change to the next needle bar.



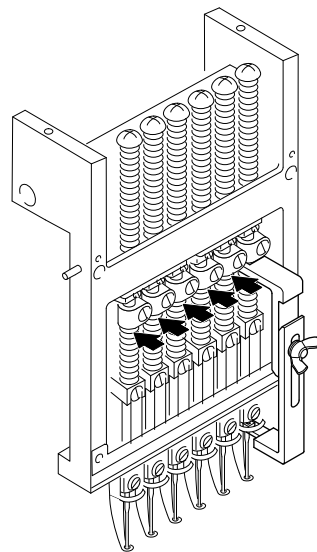
- (7)** Attach the connecting stud gauge 8 to the needle bar of the 1st needle. Loosen the wing screw 9, and tighten the wing screw 9 with no gap between section A and B.



- (8)** Attach the connecting stud gauge 8 to the 2nd needle. Loosen the screw 10, and tighten the screw 10 with no gap between section A and B.



Perform working of the 2nd needle and after to the last needle.



## 2-2. TMBP-SC, TFMX-C, TWMX-C

Perform this adjustment from the 1st needle to the last needle (All needle bars).

- (1) Turn the main shaft counterclockwise to set the main shaft angle to 178° (Needle bar lower dead point).
- (2) Lower the needle bar by hand.
- (3) Attach the lower dead point gauge as shown in the photo below.

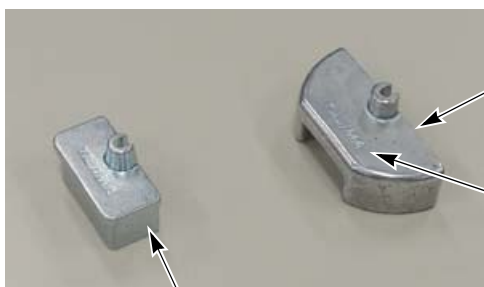
TMBP-SC



TFMX-C, TWMX-C



Lower dead point gauge



For TMBP-SC

For TFMX-C and TWMX-C

Engraved mark

For TFMX-C and TWMX-C, "TAJIMA" is indicated. The lower dead point gauge having engraved mark of "TAJIMA B" cannot be used.



- (4) Loosen the screw 1, and push down the needle bar 2 to touch to the lower dead point gauge 3. Tighten the screw 1 in the state that the needle clamp 4 faces as shown in the photo A.

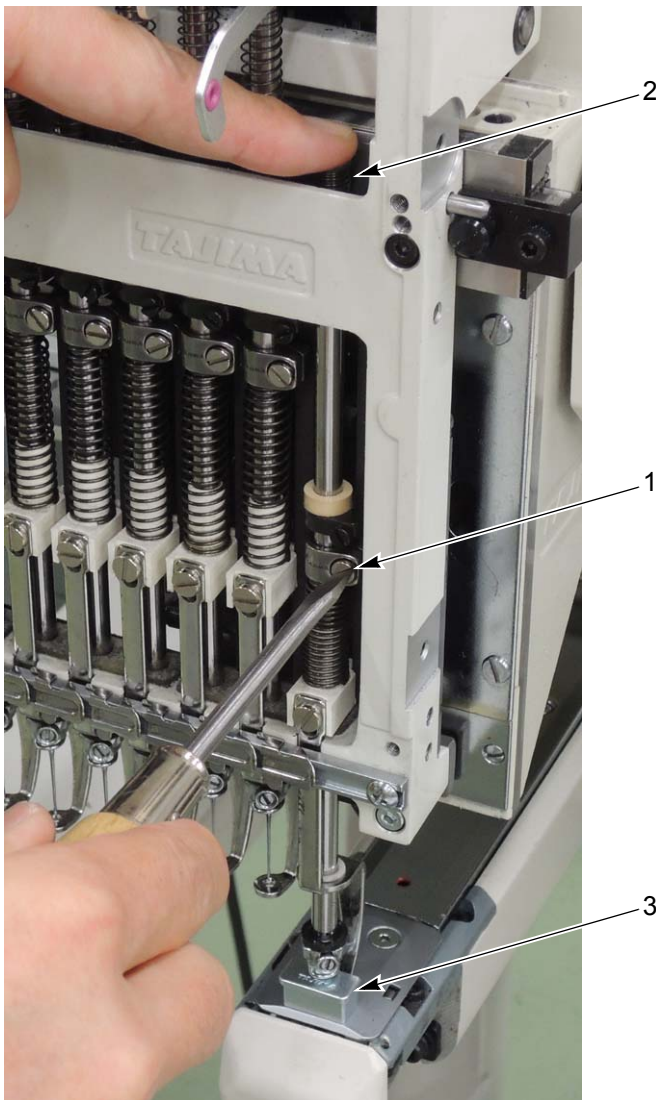
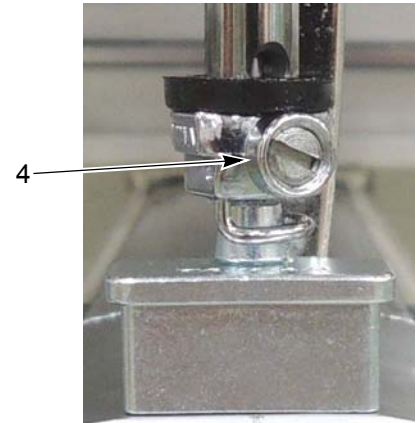


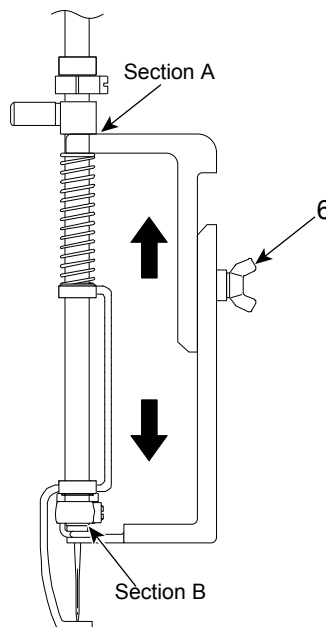
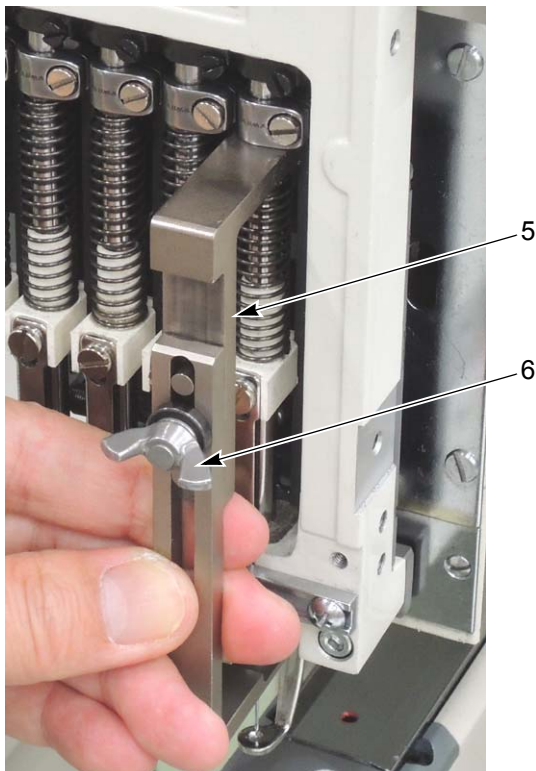
Photo A



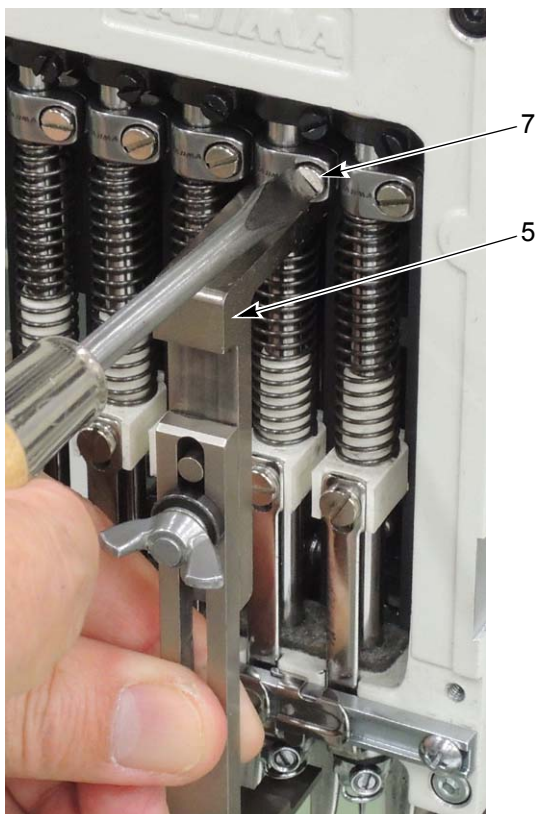
The lower dead point gauge in the photo above is for TMBP-SC.

- (5) Detach the lower dead point gauge, and set the main shaft angle to 100° (Stop position).  
 (6) Perform Color Change to the next needle bar.

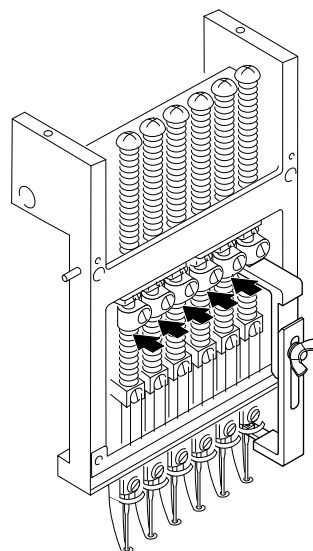
- (7)** Attach the connecting stud gauge 5 to the needle bar of the 1st needle. Loosen the wing screw 6, and tighten the wing screw 6 with no gap between section A and B.



- (8)** Attach the connecting stud gauge 5 to the 2nd needle. Loosen the screw 7, and tighten the screw 7 with no gap between section A and B.



Perform working of the 2nd needle and after to the last needle.



### 3. Upper dead point

#### 3-1. TMBR-SC

- (1) Set the main shaft angle to 0° (Upper dead point).
- (2) Loosen the screw 2 of the upper dead point stopper 1, and tighten again the screw 2 while 2 faces front (1 or 2 in the figure A).

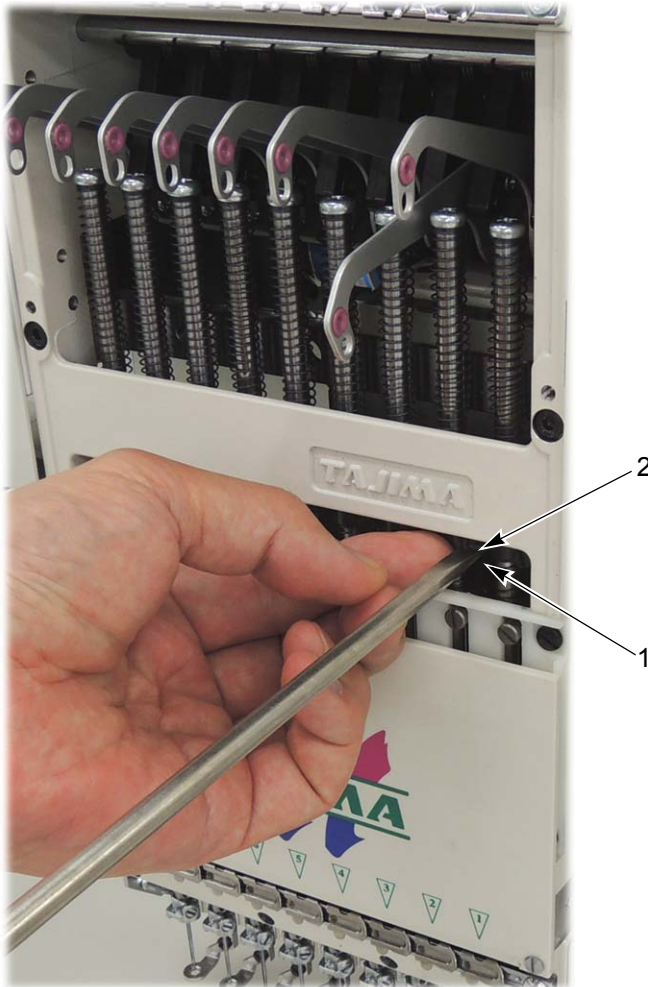
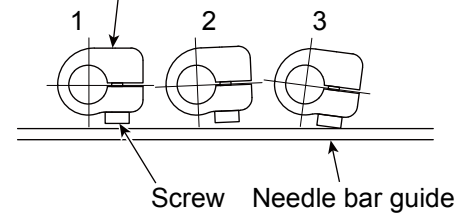
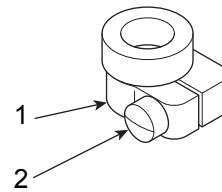


Figure A Viewing from top

Upper dead point stopper



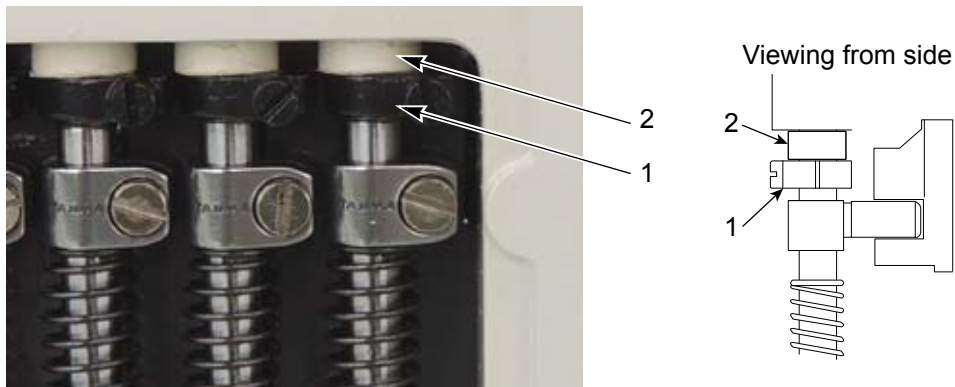
In the state of 3 in the figure A above, the upper dead point stopper touches the needle bar guide.



**3-2. TMBP-SC, TFMX-C, TWMX-C**

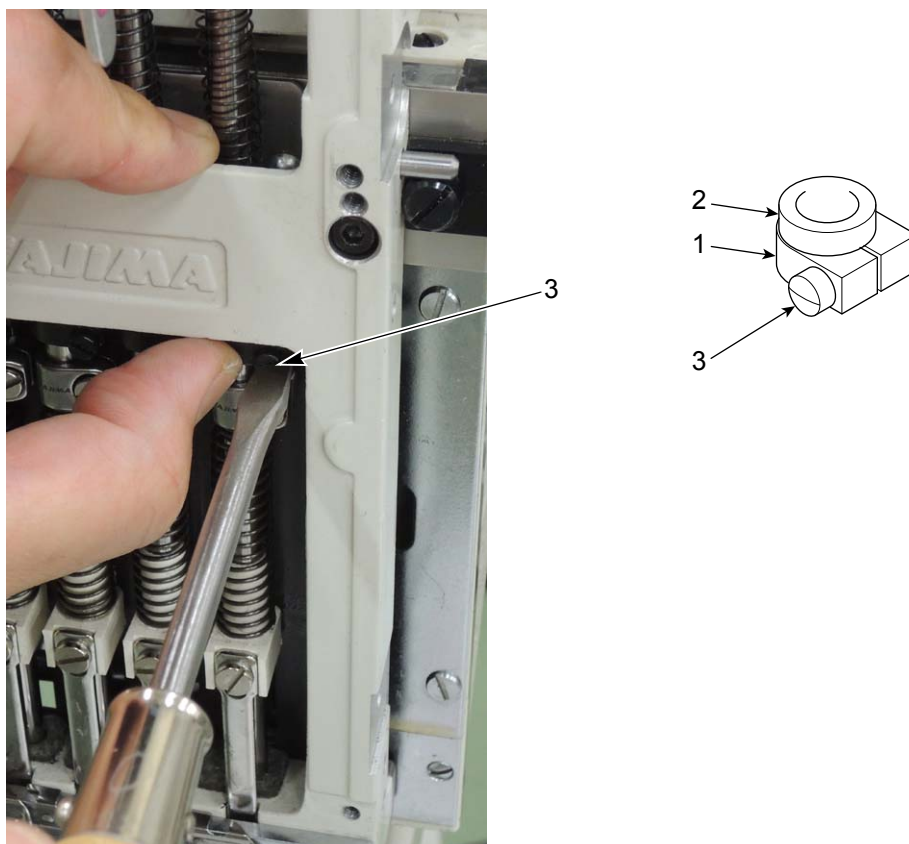
- (1) Turn the main shaft clockwise to set the main shaft angle to 7°.

Although the upper dead point of this machine is 0°, the upper dead point stopper 1 is fixed at the position where the upper dead point stopper 1 touches the cushion ring 2 at main shaft angle 7° in production at the factory.



- (2) Loosen the screw 3 of the upper dead point stopper 1.

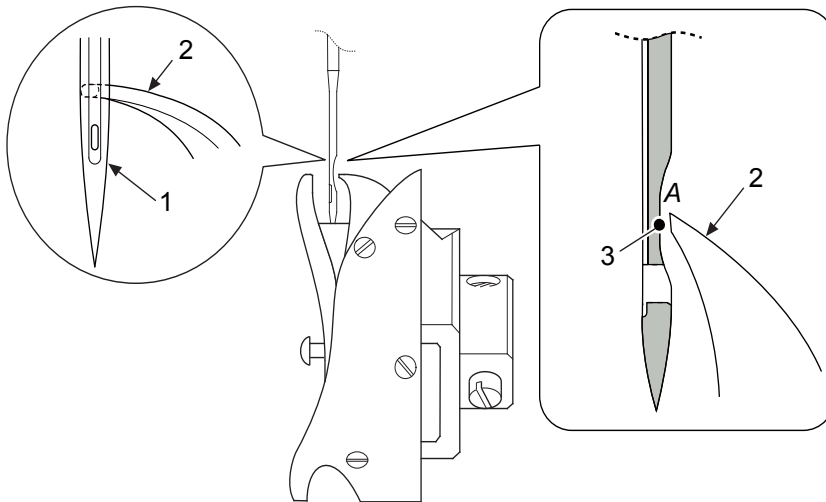
Tighten the screw 3 in the state of the upper dead point stopper 1 lightly touched to the cushion ring 2.



## 4. Needle and rotary hook

Perform this checking at the first needle and the last needle.

- (1) Turn the main shaft counterclockwise and set it to the position ( $200^{\circ}$  to  $201^{\circ}$ ) where the needle tip 1 meets the hook point of rotary hook 2.
- (2) Check if the gap (A) between the scarf 3 of needle and the hook point 2 of rotary hook is 0.1 to 0.3 mm.



Push the needle lightly using a flat head driver.





1st Edition            April, 2013

23rd Edition        November, 2016

■ **Manufactured by:**  
**Tokai Industrial Sewing Machine Co., Ltd.**

NO.1800, Ushiyama-cho, Kasugai, Aichi-pref., 486-0901, Japan  
Telephone:568-33-1161 Fax:568-33-1191

■ **Distributed by:**  
**Tajima Industries Ltd.**

19-22, Shirakabe, 3-chome, Higashi-ku, Nagoya, 461-0011, Japan  
Telephone:52-932-3444 Fax:52-932-2457

●**Copy, reprint, or modification of all or any part of this manual without permission is prohibited.**