

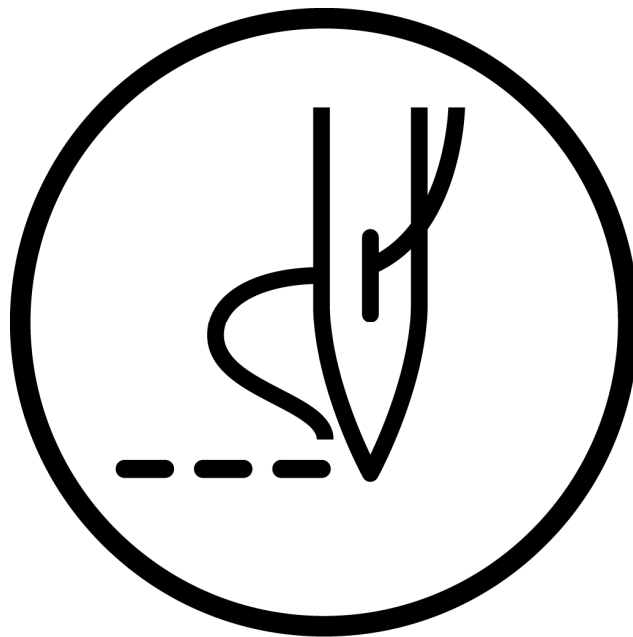
T-8420C, 8450C T-8720C, 8750C

TWIN NEEDLE LOCK STITCHER

Please read this manual before using the machine.

Please keep this manual within easy reach for quick reference.

This basic operation manual describes basic operations including sewing machine operations. For cleaning, standard adjustments and more details, please refer to the instruction manual contained in the Document CD.



Thank you very much for buying a BROTHER sewing machine. Before using your new machine, please read the safety instructions below and the explanations given in the instruction manual.

With industrial sewing machines, it is normal to carry out work while positioned directly in front of moving parts such as the needle and thread take-up, and consequently there is always a danger of injury that can be caused by these parts. Follow the instructions from training personnel and instructors regarding safe and correct operation before operating the machine so that you will know how to use it correctly.

SAFETY INSTRUCTIONS

1. Safety indications and their meanings

This instruction manual and the indications and symbols that are used on the machine itself are provided in order to ensure safe operation of this machine and to prevent accidents and injury to yourself or other people.

Indications




CAUTION

The instructions which follow this term indicate situations where failure to follow the instructions could cause injury when using the machine or physical damage to equipment and surroundings.

Symbols




.....

This symbol () indicates something that you should be careful of. The picture inside the triangle indicates the nature of the caution that must be taken.
(For example, the symbol at left means “beware of injury”.)




.....

This symbol () indicates something that you must not do.



.....

This symbol () indicates something that you must do. The picture inside the circle indicates the nature of the thing that must be done.
(For example, the symbol at left means “you must make the ground connection”.)

2. Notes on safety



CAUTION

Environmental requirements



Use the sewing machine in an area which is free from sources of strong electrical noise such as electrical line noise or static electric noise. Sources of strong electrical noise may cause problems with correct operation.



Any fluctuations in the power supply voltage should be within $\pm 10\%$ of the rated voltage for the machine. Voltage fluctuations which are greater than this may cause problems with correct operation.



The power supply capacity should be greater than the requirements for the sewing machine's power consumption. Insufficient power supply capacity may cause problems with correct operation.



The ambient temperature should be within the range of 5°C to 35°C during use. Temperatures which are lower or higher than this may cause problems with correct operation.



The relative humidity should be within the range of 45% to 85% during use, and no dew formation should occur in any devices. Excessively dry or humid environments and dew formation may cause problems with correct operation.



In the event of an electrical storm, turn off the power and disconnect the power cord from the wall outlet. Lightning may cause problems with correct operation.

Installation



Machine installation should only be carried out by a qualified technician.



Contact your Brother dealer or a qualified electrician for any electrical work that may need to be done.



The sewing machine weighs approximately 43 kg. The installation should be carried out by two or more people.



Do not connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



All cords should be secured at least 25 mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly with staples, otherwise there is the danger that fire or electric shocks could occur.



If using a work table which has casters, the casters should be secured in such a way so that they cannot move.



Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.













Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result.

Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea.





Keep the oil out of the reach of children.

! CAUTION









Sewing

- | | |
|--|---|
| <p> This sewing machine should only be used by operators who have received the necessary training in safe use beforehand.</p> <p> The sewing machine should not be used for any applications other than sewing.</p> <p> Be sure to wear protective goggles when using the machine.
If goggles are not worn, there is the danger that if a needle breaks, parts of the broken needle may enter your eyes and injury may result.</p> <p> Turn off the power switch at the following times.
The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work. The machine may operate if the treadle is depressed by mistake, which could result in injury.</p> <ul style="list-style-type: none"> • When threading the needle • When replacing the bobbin and needle • When not using the machine and when leaving the machine unattended <p> If using a work table which has casters, the casters should be secured in such a way so that they cannot move.</p> | <p> Attach all safety devices before using the sewing machine. If the machine is used without these devices attached, injury may result.</p> <p> Do not touch any of the moving parts or press any objects against the machine while sewing, as this may result in personal injury or damage to the machine.</p> <p> Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.</p> <p> If an error occurs in machine, or if abnormal noises or smells are noticed, immediately turn off the power switch. Then contact your nearest Brother dealer or a qualified technician.</p> <p> If the machine develops a problem, contact your nearest Brother dealer or a qualified technician.</p> |
|--|---|

Cleaning

- | | |
|--|--|
| <p> Turn off the power switch before carrying out cleaning.
The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work. The machine may operate if the treadle is depressed by mistake, which could result in injury.</p> <p> Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.</p> | <p> Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result.
Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea.
Keep the oil out of the reach of children.</p> <p> Use only the proper replacement parts as specified by Brother.</p> |
|--|--|

Maintenance and inspection

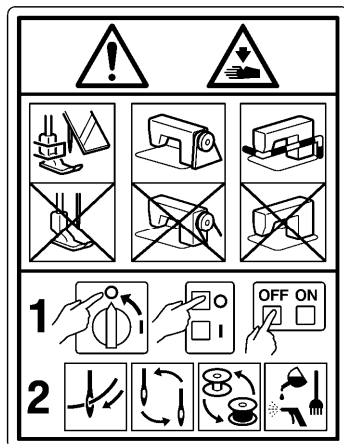
- | | |
|---|--|
| <p> Maintenance and inspection of the sewing machine should only be carried out by a qualified technician.</p> <p> Ask your Brother dealer or a qualified electrician to carry out any maintenance and inspection of the electrical system.</p> <p> Turn off the power switch and disconnect the power cord from the wall outlet at the following times.
The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.
The machine may operate if the treadle is depressed by mistake, which could result in injury.</p> <ul style="list-style-type: none"> • When carrying out inspection, adjustment and maintenance • When replacing consumable parts such as the rotary hook | <p> If the power switch needs to be left on when carrying out some adjustment, be extremely careful to observe all safety precautions.</p> <p> Secure the table so that it will not move when tilting back the machine head. If the table moves, it may crush your feet or cause other injuries.</p> <p> Use only the proper replacement parts as specified by Brother.</p> <p> If any safety devices have been removed, be absolutely sure to re-install them to their original positions and check that they operate correctly before using the machine.</p> <p> Any problems in machine operation which result from unauthorized modifications to the machine will not be covered by the warranty.</p> |
|---|--|

3.Warning labels

The following warning labels appear on the sewing machine.

Please follow the instructions on the labels at all times when using the machine. If the labels have been removed or are difficult to read, please contact your nearest Brother dealer.

1



CAUTION

Moving parts may cause injury.

*Safety devices:

- (A) Finger guard
- (B) Thread take-up cover
- (C) Belt cover

Operate with safety devices* installed.

Turn off the power before carrying out operations such as threading, changing the needle, bobbin, knives or hook, cleaning and adjusting.

2



Be careful not to get your hands caught when returning the machine head to its original position after it has been tilted.

3



Be careful to avoid injury from the moving thread take-up.

4



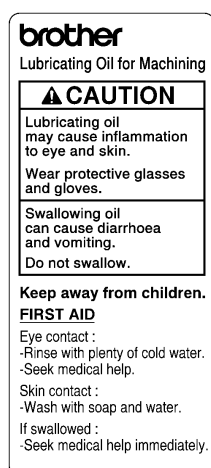
Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

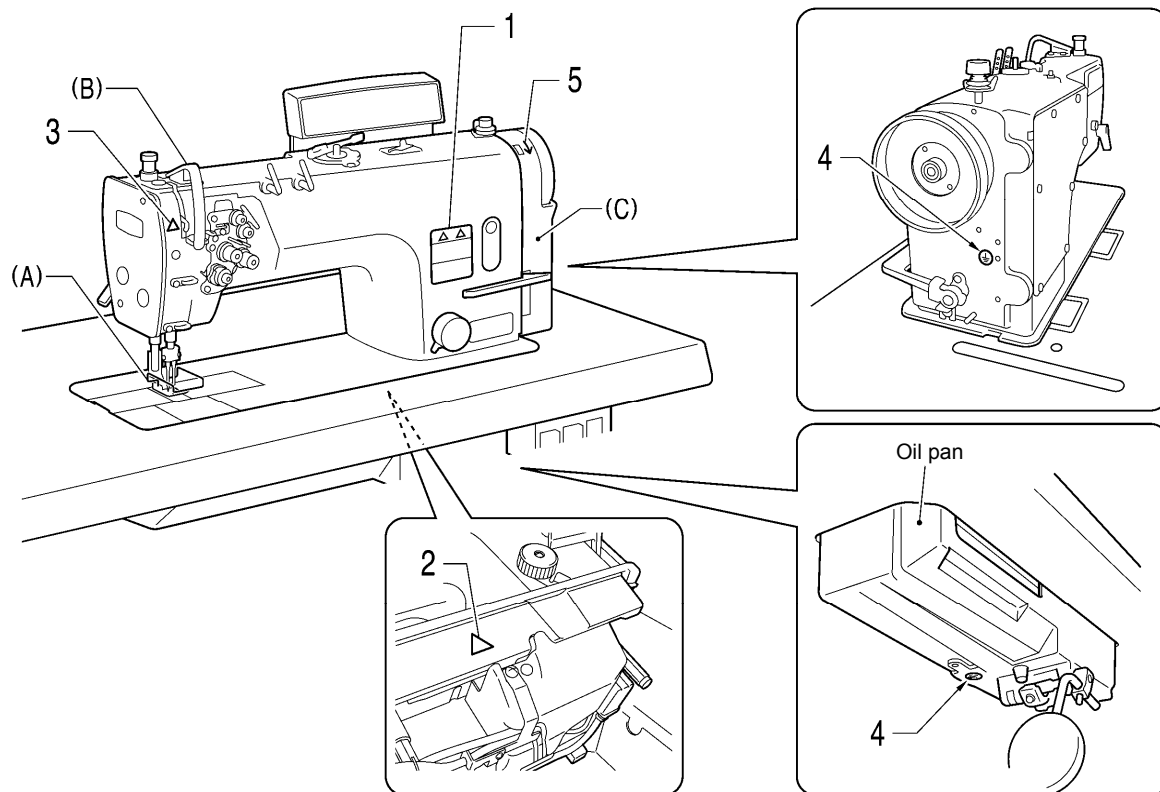
5



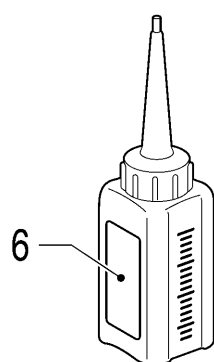
Direction of operation

6





2478B



Oil tank

2509B

CONTENTS

1. USEFUL FUNCTIONS FOR OPTIMUM SEWING	1	6. SEWING	23
2. NAMES OF MAJOR PARTS.....	2	6-1. Sewing.....	23
3. TABLE AND MOTOR.....	3	6-2. Backtacking	23
4. INSTALLATION	4	Document CD.....	25
4-1. Installation.....	5		
4-2. Lubrication	11		
4-3. Checking the machine pulley rotating direction....	13		
4-4. Alarm display (Semi dry type).....	13		
5. PREPARATION BEFORE SEWING ...	14		
5-1. Installing the needle	14		
5-2. Removing the bobbin	15		
5-3. Winding the lower thread	16		
5-4. Installing the bobbin	17		
5-5. Threading the upper thread	19		
5-6. Adjusting the stitch length.....	21		
5-7. Using the knee lifter	21		
5-8. Corner sewing method (T-8450C, 8750C) ...	22		
5-8-1. To stop the needle bars (right and left)	22		
5-8-2. Number of stitches: quick-reference guide	22		

1. USEFUL FUNCTIONS FOR OPTIMUM SEWING

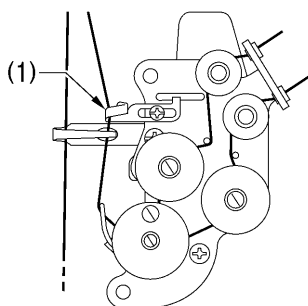
Thread take-up amount can be adjusted

→ INSTRUCTION MANUAL CD

7-4. Adjusting the thread take-up amount

Depending on the material and thread used, you can reduce the thread take-up amount to suit the material and thread being used by threading the thread through the thread amount adjuster (1).

This can be useful if sewing with light material or if using slippery thread such as polyester thread.



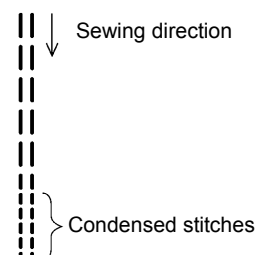
2510B

Condensed stitching

→ INSTRUCTION MANUAL CD

6-3. Sewing condensed stitches

This feature is ideal for use when sewing thin materials that can easily pucker when reverse stitches are sewn. Condensed stitches have a smaller sewing pitch and they help prevent fraying.



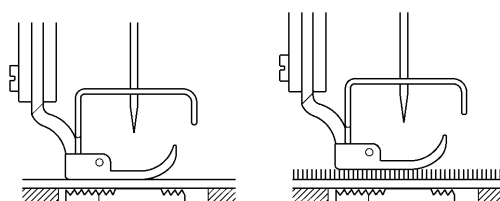
2512B

Floating presser foot for easy handling

→ INSTRUCTION MANUAL CD

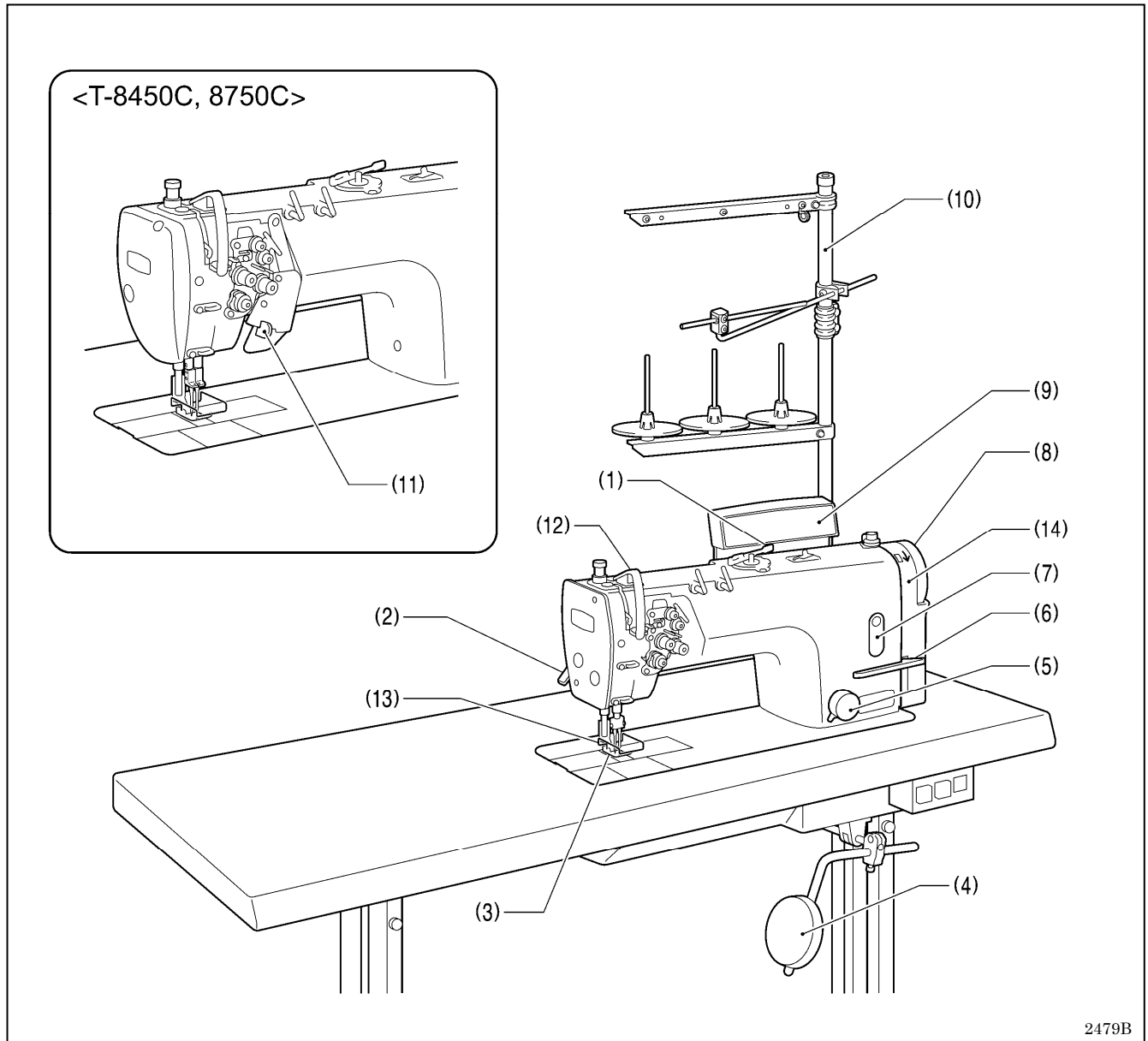
7-3. Adjusting the presser foot floating amount (minute lifting amount)

A micro-adjustable type floating presser foot is equipped as standard. This device is ideal for controlling presser foot floating in materials that stretch easily and materials with long pile. It prevents seam slippage and also prevents damage to the material. In addition, three-dimensional articles with irregular curves can also be handled with ease.



2513B

2. NAMES OF MAJOR PARTS



2479B

- (1) Bobbin winder
- (3) Presser foot
- (5) Stitch length dial
- (7) Oil gauge window
- (9) Alarm display (semi dry type)
- (11) Stop lever (T-8450C, 8750C)

- (2) Lifting lever
- (4) Knee lifter assembly
- (6) Reverse lever
- (8) Machine pulley
- (10) Cotton stand

Safety devices

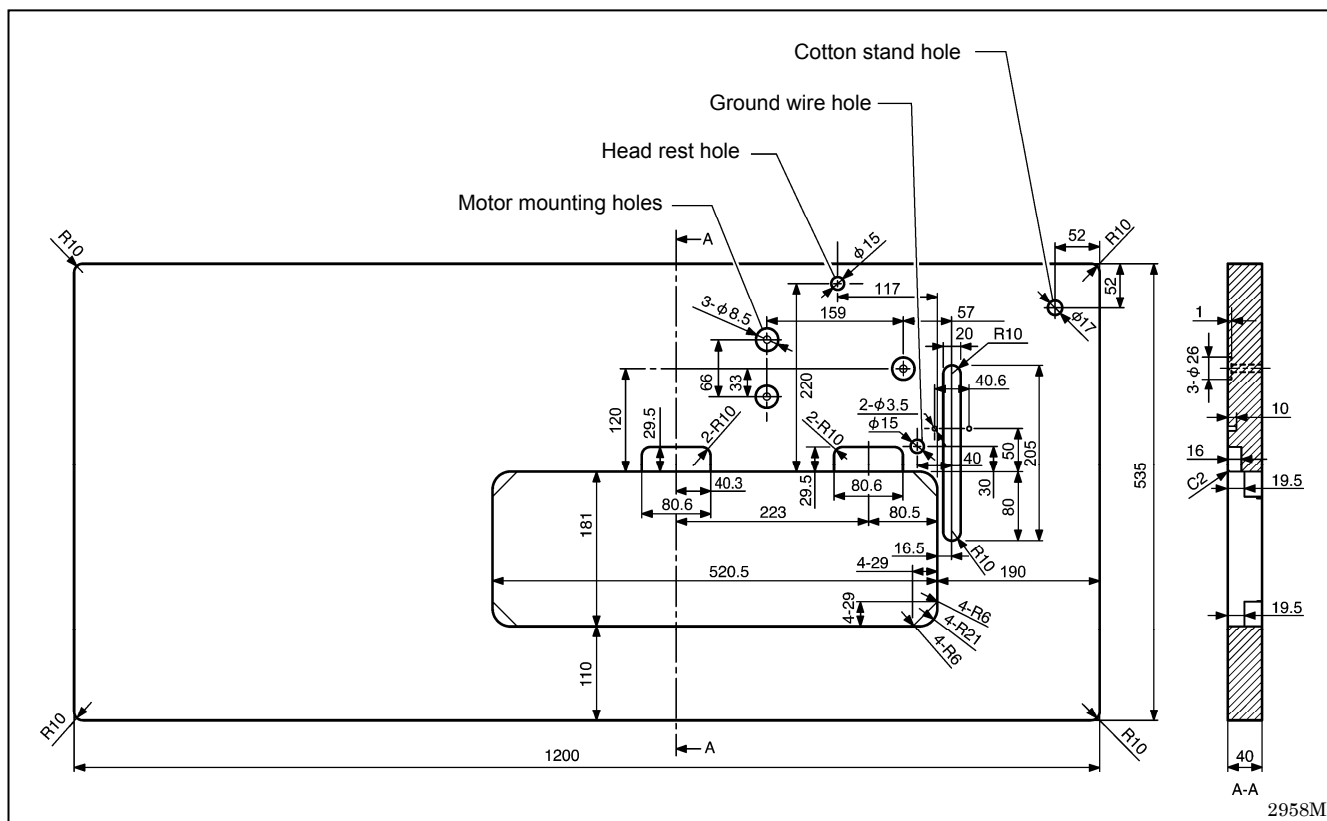
- (12) Thread take-up cover
- (14) Belt cover

- (13) Finger guard

3. TABLE AND MOTOR

A. Table processing diagram

- The top of the table should be 40 mm in thickness and should be strong enough to hold the weight and with-stand the vibration of the sewing machine.
- Drill holes as indicated in the illustration below.



B. Motor

CAUTION



All cords should be secured at least 25 mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly with staples, otherwise there is the danger that fire or electric shocks could occur.



<Motor>

- Use one of the clutch motors given in the table at right as the motor.
- Refer to the instruction manual for the motor for details on installing and using the motor.

Power	Motor
Single-phase	2-pole, 400 W motor
Three-phase	2-pole, 400 W motor





<Motor pulley and V-belt>

Select the correct motor pulley and V-belt by referring to the table below to suit the power frequency of your area.

Sewing speed	Frequency	Motor pulley (Outer diameter)	V-belt
4,000 sti/min	50 Hz	Motor pulley 100	46
	60 Hz	Motor pulley 85	45
3,500 sti/min	50 Hz	Motor pulley 90	45
	60 Hz	Motor pulley 70	44
3,000 sti/min	50 Hz	Motor pulley 75	44
	60 Hz	Motor pulley 65	43

4. INSTALLATION

CAUTION

-  Machine installation should only be carried out by a qualified technician.
-  Contact your Brother dealer or a qualified electrician for any electrical work that may need to be done.
-  The sewing machine weighs approximately 43 kg. The installation should be carried out by two or more people.
-  Do not connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.



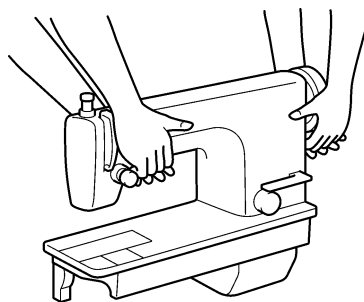
Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

Carrying the machine

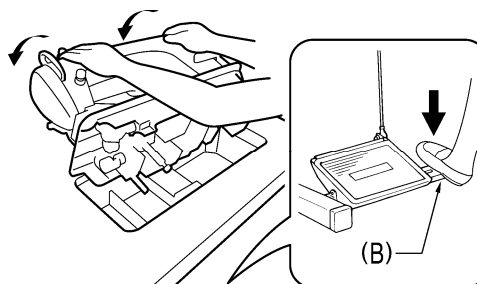
- The machine should be carried by the arm by two people as shown in the illustration.
- * Make sure that the machine pulley does not turn.



2959M

Tilting back the machine head

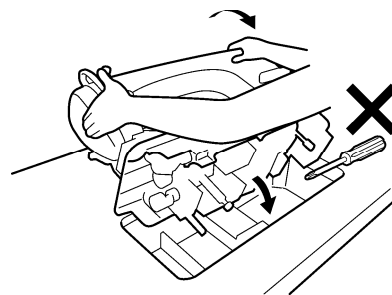
- Hold section (B) with your foot so that the table does not move, and then push the arm with both hands to tilt back the machine head.



2871M

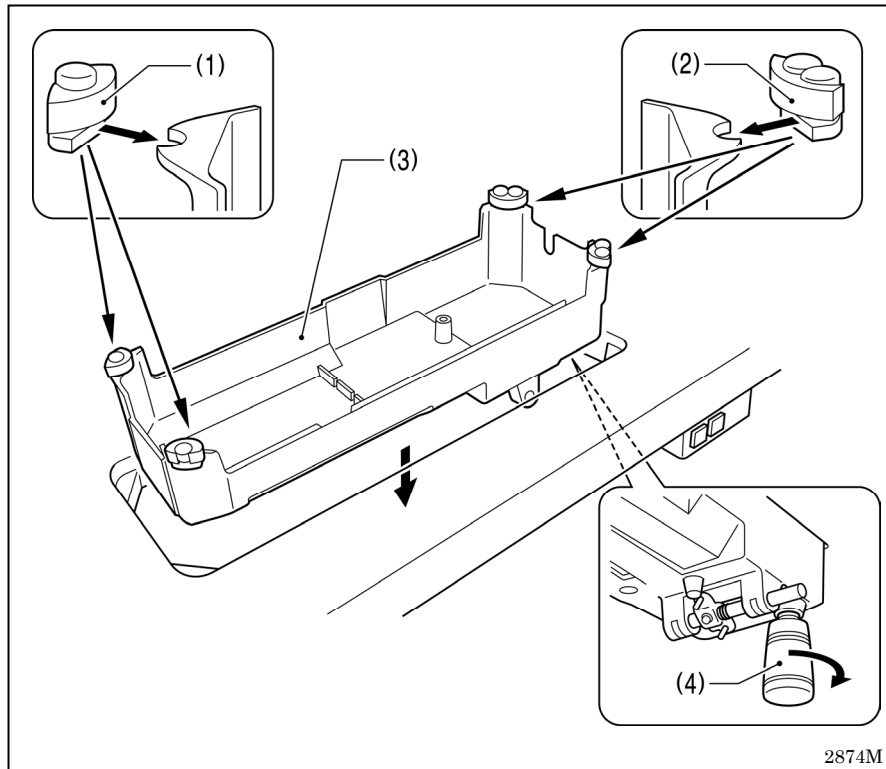
Returning the machine head to the upright position

1. Clear away any tools, etc. which may be near the table holes.
2. While holding the face plate with your left hand, gently return the machine head to the upright position with your right hand.



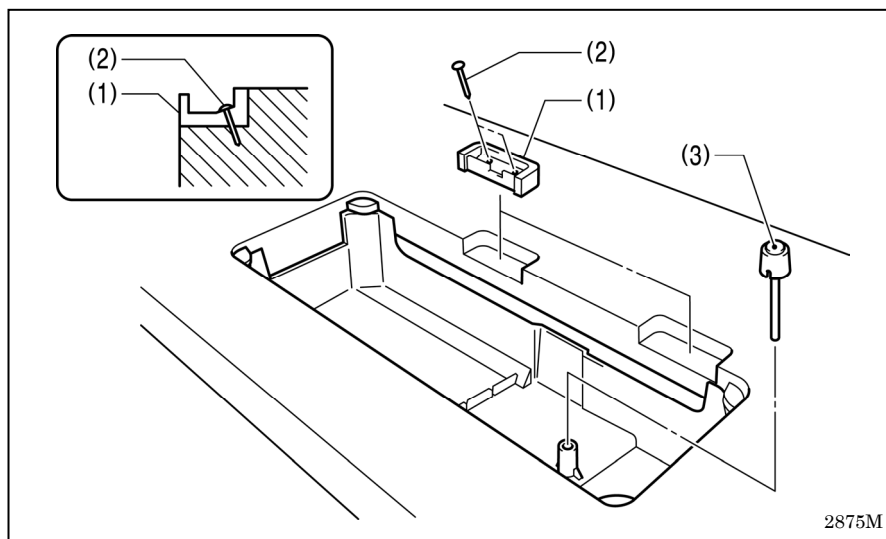
2872M

4-1. Installation



1. Oil pan

- (1) Head cushions (left) [2 pcs]
- (2) Head cushions (right) [2 pcs]
- (3) Oil pan
- (4) Oiler

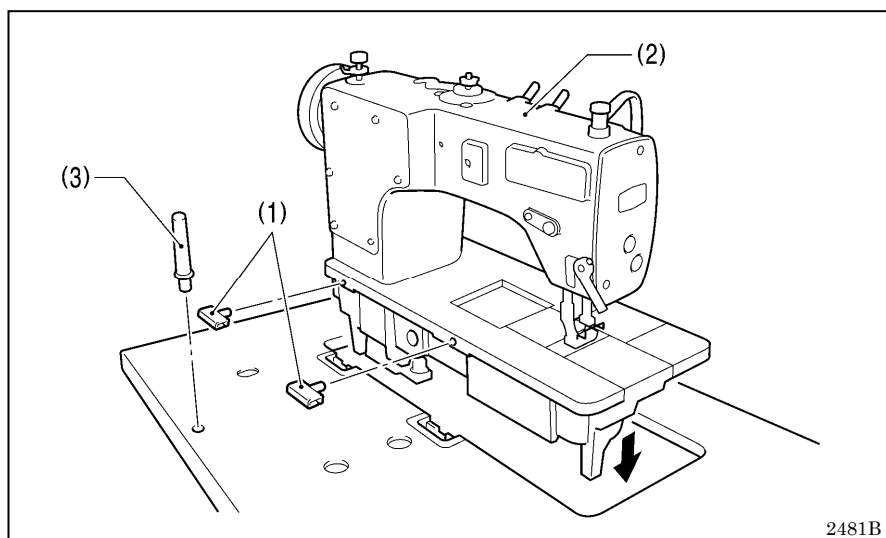


2. Rubber cushions

- (1) Rubber cushions [2 pcs]
- (2) Nails [4 pcs]

3. Knee lifter complying bar

- (3) Knee lifter complying bar

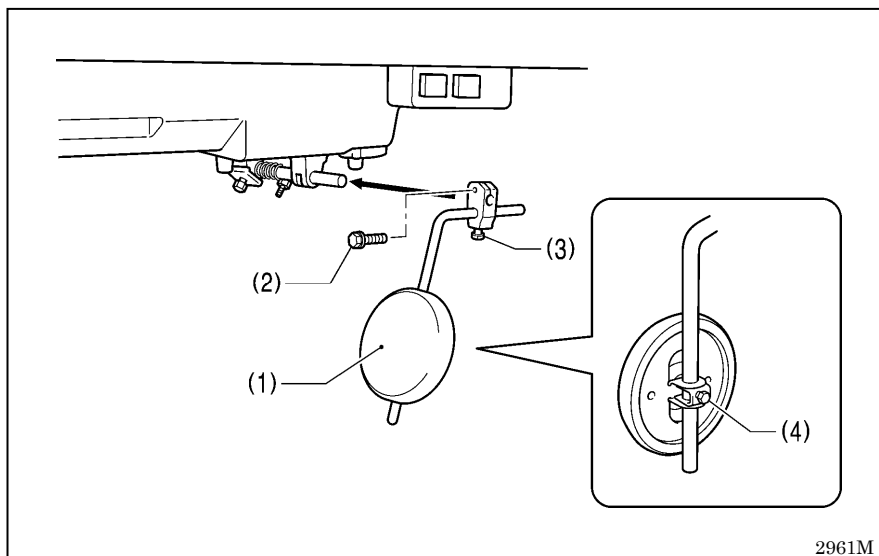


4. Machine head

- (1) Hinges [2 pcs]
- (2) Machine head
- (3) Head rest

NOTE:

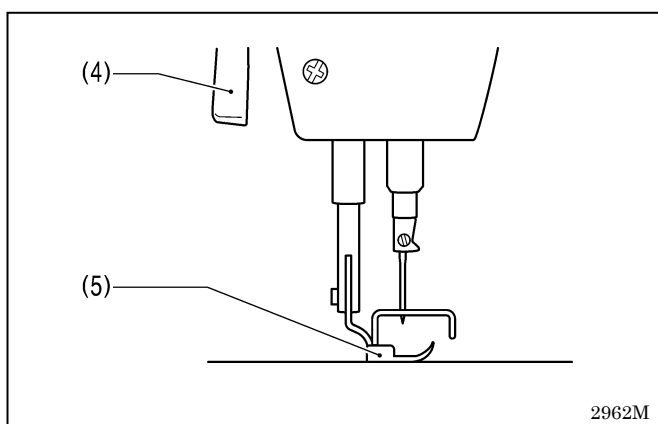
Tap the head rest (3) securely into the table hole. If the head rest (3) is not pushed in as far as it will go, the machine head will not be sufficiently stable when it is tilted back.



5. Knee lifter plate

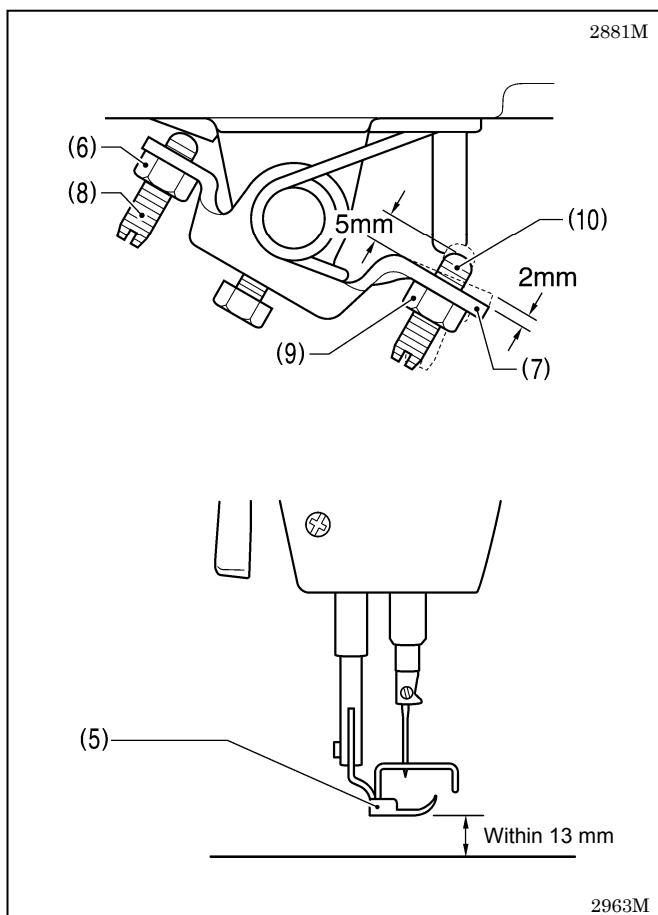
- (1) Knee lifter plate
(2) Bolt

* Loosen the bolt (3) and the bolt (4), and move the knee lifter plate (1) to a position where it is easy to use.



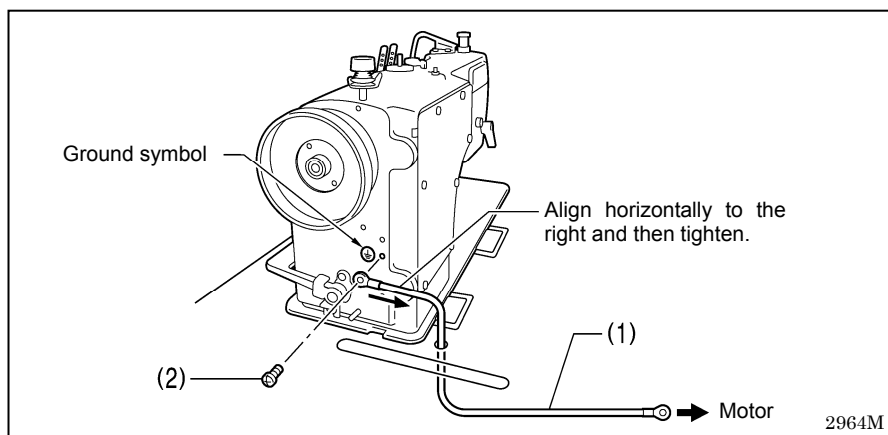
<Knee lifter adjustment>

1. Turn the machine pulley so that the feed dog is below the top of the needle plate.
2. Lower the presser foot (5) by using the lifting lever (4).



3. Loosen the nut (6).
4. Turn the screw (8) to adjust so that the amount of play in the knee lifter (7) is approximately 2 mm when the knee lifter plate (1) is gently pressed.
5. Securely tighten the nut (6).
6. Loosen the nut (9).
7. Turn the screw (10) until the distance between the end of the screw (10) and the knee lifter (7) is approximately 5 mm.
8. Turn the adjusting screw (10) to adjust so that the presser foot (5) is at the desired position within a distance of 13 mm of the needle plate when the knee lifter plate (1) is fully pressed.
9. After adjustment is completed, securely tighten the nut (9).

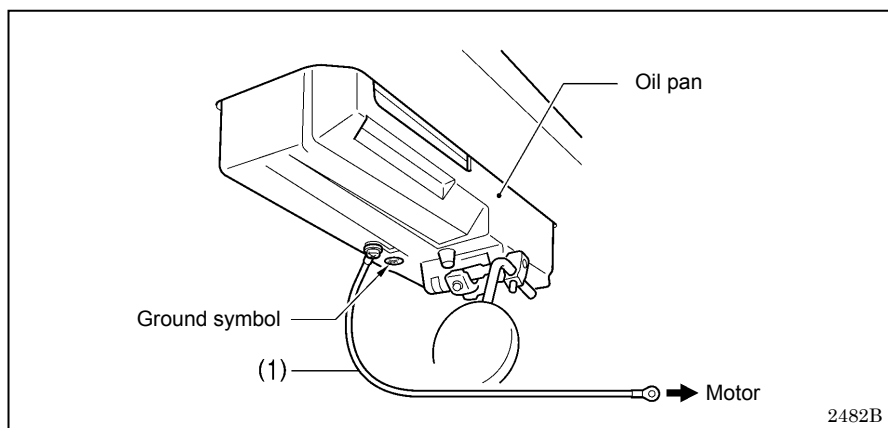
4. INSTALLATION



6. Ground wire

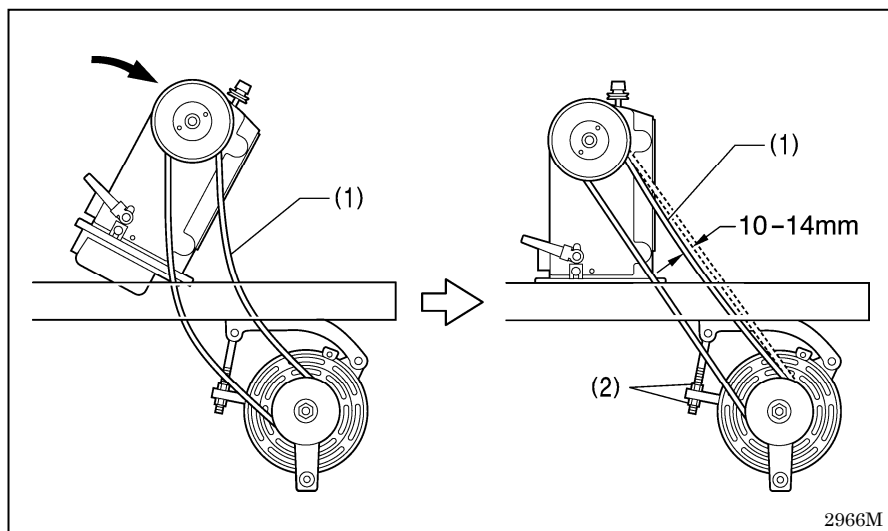
- (1) Ground wire
- (2) Screw

Be sure to connect the accessory ground wire (1) to the motor.



7. Ground wire

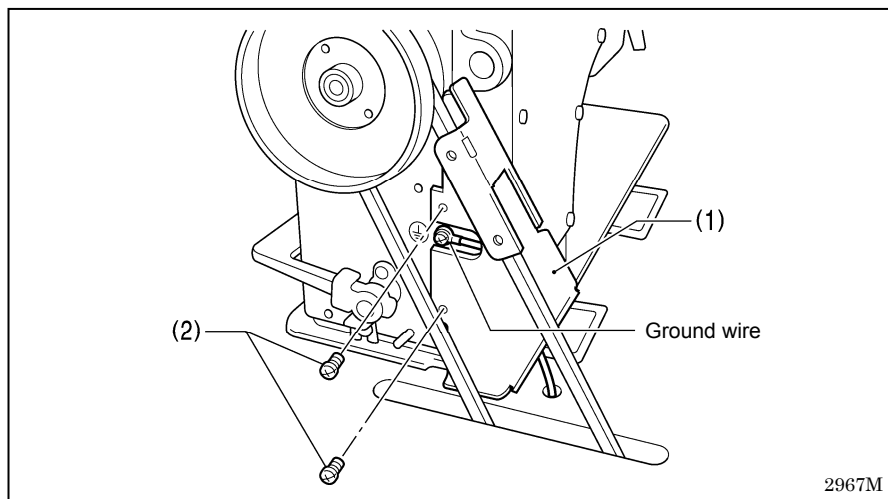
- (1) Ground wire



8. V-belt

- (1) V-belt

Turn the two nuts (2) to adjust so that there is 10-14 mm of deflection in the V-belt (1) when it is pressed at the midway point with a force of 5 N.



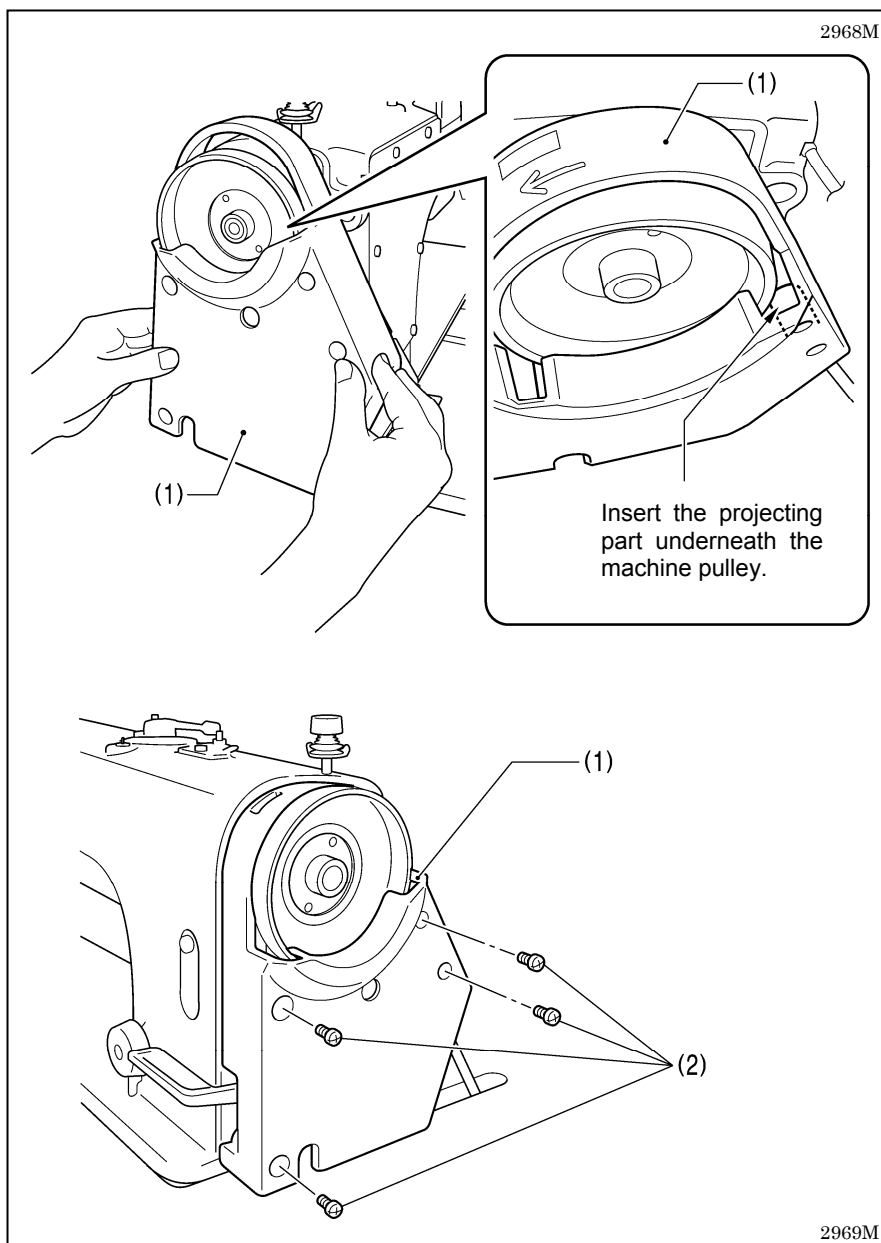
9. Belt cover bracket

- (1) Belt cover bracket
- (2) Screws [2 pcs]

2968M

10. Belt cover U

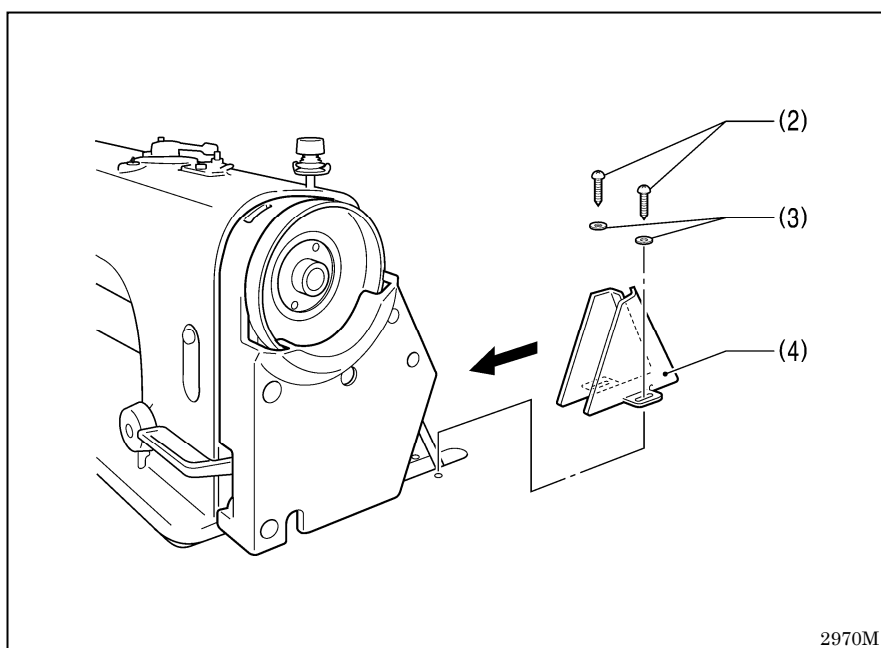
- (1) Belt cover U
 (2) Screws [4 pcs]



2969M

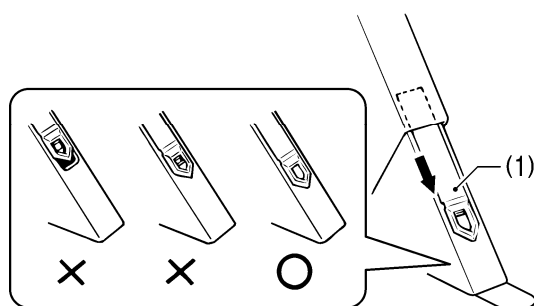
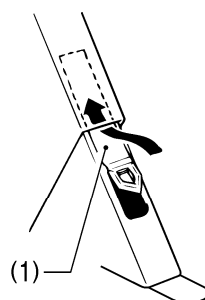
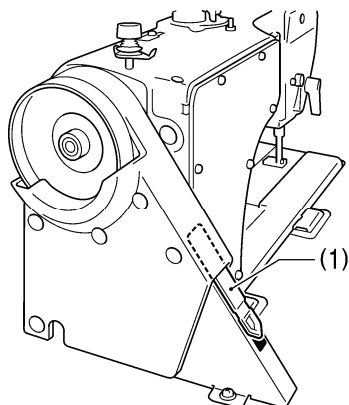
11. Belt cover D

- (1) Belt cover D
 (2) Wood screws [2 pcs]
 (3) Washers [2 pcs]



2970M

2971M

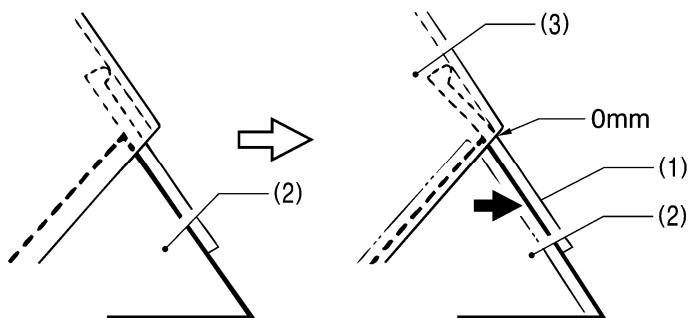


2972M

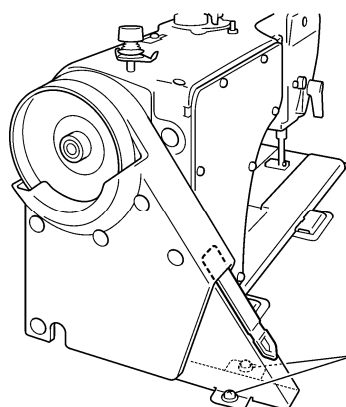
12. Belt cover D lid

(1) Belt cover D lid

Pull belt cover D (2) forward to adjust so that there is no gap between belt cover U (3) and the belt cover D lid (1).

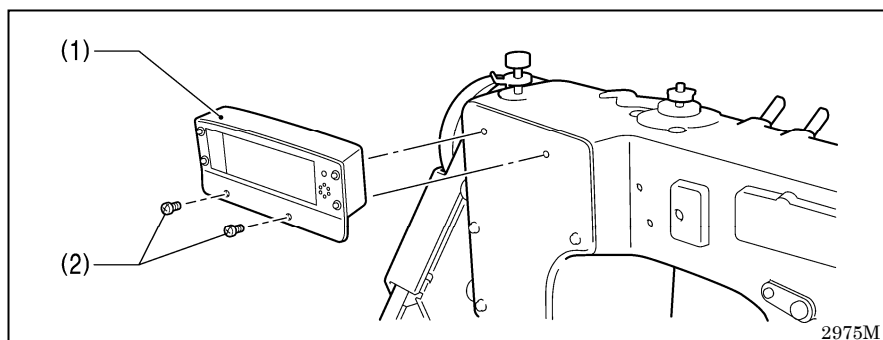


2973M



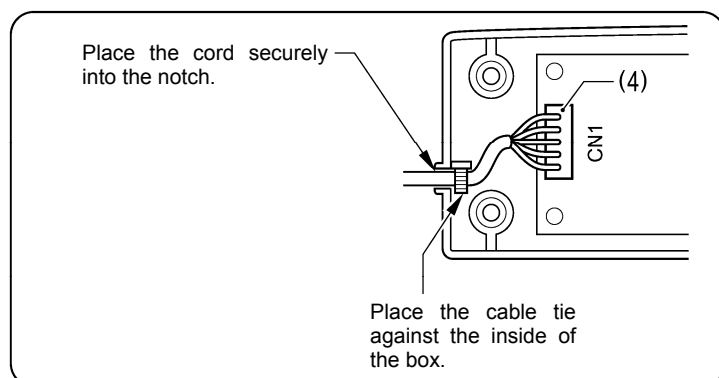
Re-tighten the wood screws.

2974M



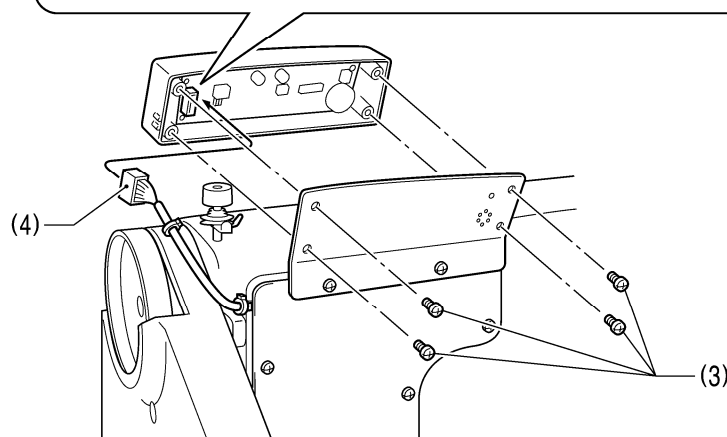
13. Alarm display (semi dry type)

- (1) Alarm display
(2) Screws [2 pcs]
(Use for tightening rear cover)

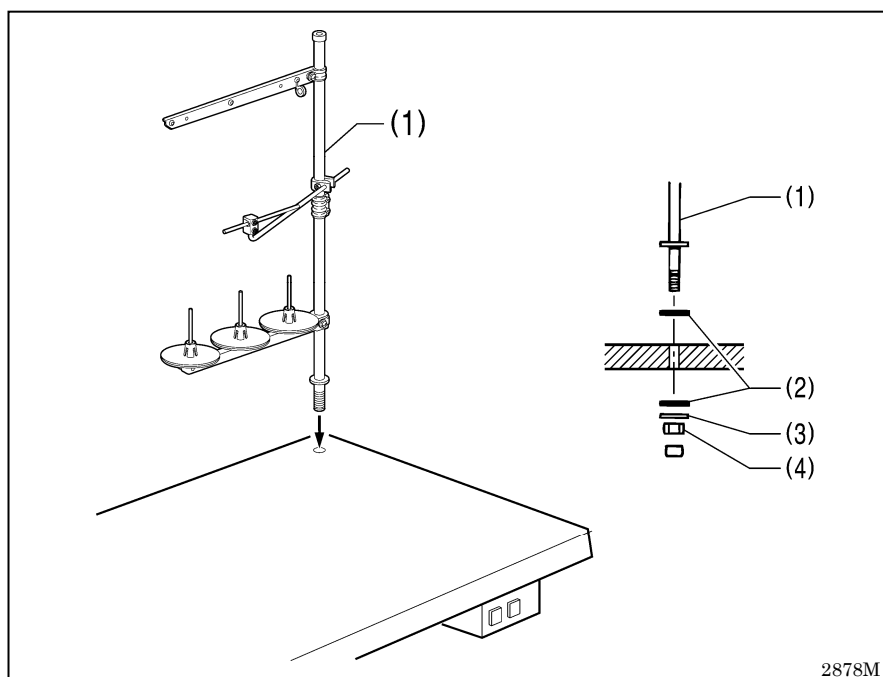


- (3) Screws [4 pcs: removed]
(4) Connector

After connecting the connector (4) to connector <CN1> on the P.C.B. of the alarm display (1), return the alarm display (1) to its original position and then tighten the screws (3).



2976M



14. Cotton stand

- (1) Cotton stand

NOTE:

Securely tighten the nut (4) so that the two rubber cushions (2) and the washer (3) are securely clamped and so that the cotton stand (1) does not move.

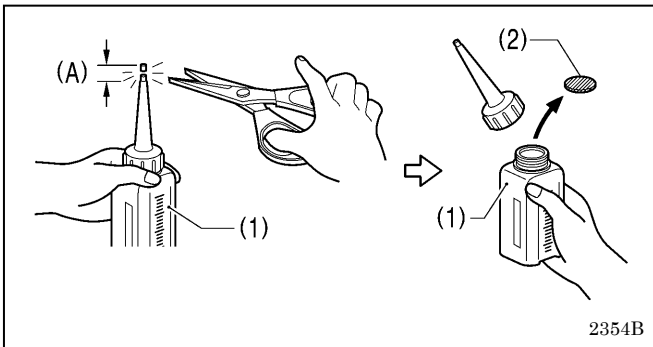
2878M

4-2. Lubrication

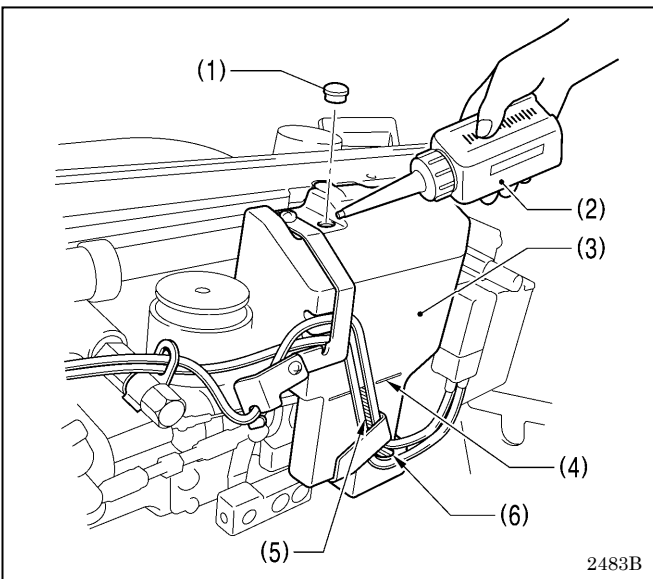
! CAUTION

- ⊘ Do not connect the power cord until lubrication has been completed, otherwise the machine may operate if the treadle is depressed by mistake, which could result in injury.
- ⊘ Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea. Keep the oil out of the reach of children.

- The sewing machine should always be lubricated and the oil supply replenished before it is used for the first time, and also after long periods of non-use.
- Use only the lubricating oil <NIPPON OIL CORPORATION Sewing Lube 10N; VG10> specified by Brother.
- * If this type of lubricating oil is difficult to obtain, the recommended oil to use is <Exxon Mobil EssoTex SM10; VG10>.



1. Hold the base of the nozzle of the accessory oil tank (1), and use scissors to cut about half-way along the straight section (A) of the nozzle.
2. Loosen and remove the nozzle, and then remove the seal (2).
3. Tighten the nozzle.



<Lubricating via the oil cover>

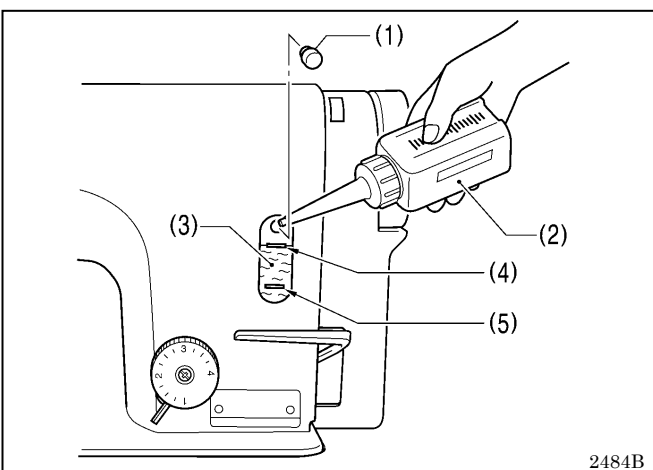
1. Tilt back the machine head.
2. Remove the rubber cap (1).
3. Use the accessory oiler (2) to pour lubricating oil into the oil cover (3) until the oil level reaches the reference line (4).

NOTE:

Do not fill with lubricating oil past the reference line (4). If you pour in too much lubricating oil, it may spill out when the machine head is tilted back.

4. Replace the rubber cap (1).
5. Return the machine head to its original position.

* If the lubricating oil level drops below the bottom (6) of the oil gauge window (5), be sure to add more oil.



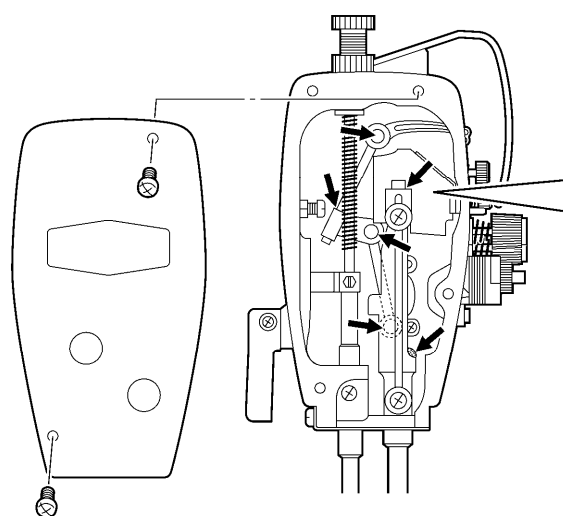
<Lubricating via the oil tank>

1. Remove the rubber cap (1).
2. Use the accessory oiler (2) to pour in lubricating oil until the oil level reaches the top reference line (4) of the oil gauge window (3).
3. Replace the rubber cap (1).

* If the lubricating oil level drops below the bottom reference line (5), be sure to add more oil.

■ Lubrication

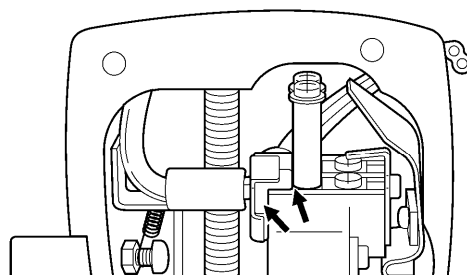
Apply 1 - 2 drops of oil to the places indicated by the arrows.



<Minimum lubrication type only>

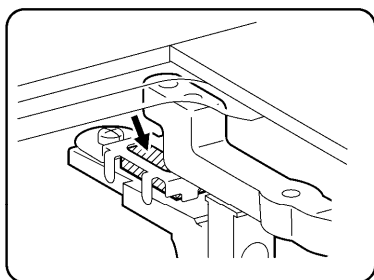
* Do not apply oil for semi dry types.

<T-8450C, 8750C>

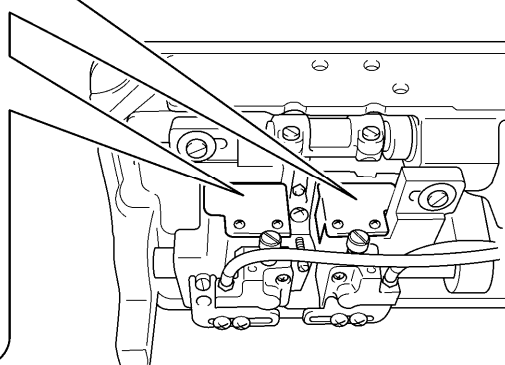
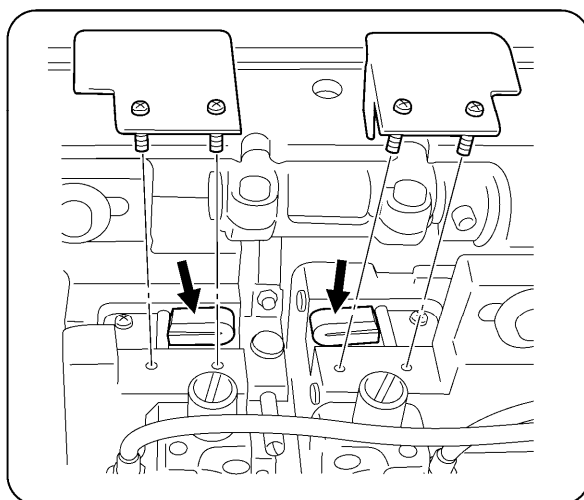
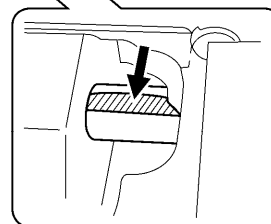
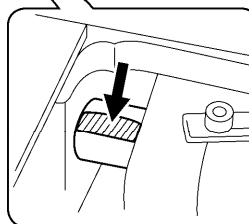
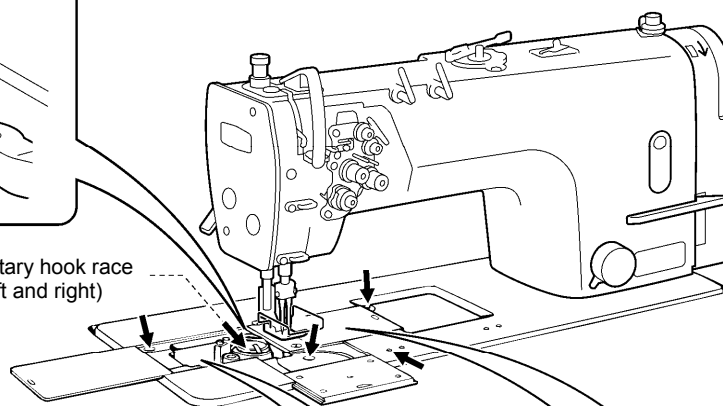


2200B

<Semi dry type and minimum lubrication type>



Rotary hook race
(left and right)



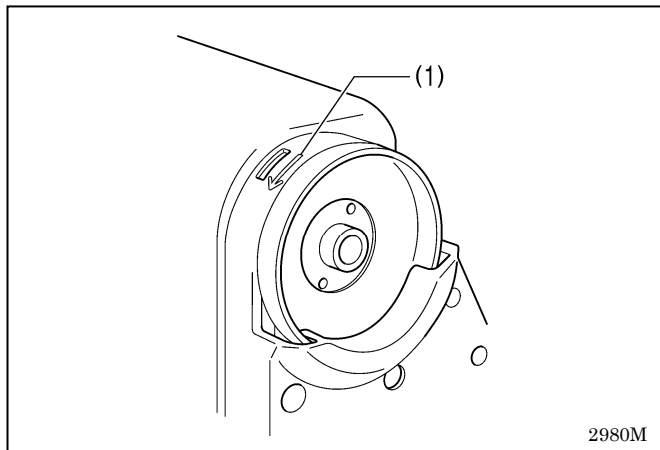
2485B

4-3. Checking the machine pulley rotating direction

! CAUTION



Do not touch any of the moving parts or press any objects against the machine while sewing, as this may result in personal injury or damage to the machine.

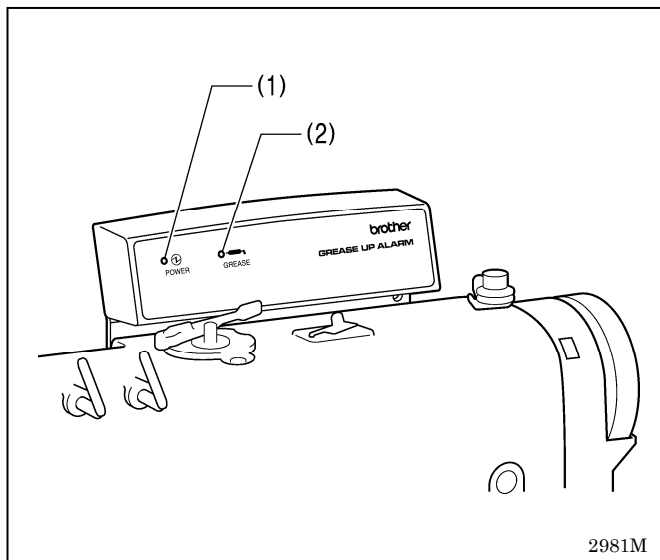


2980M

1. Insert the power cord plug into the wall outlet, and then turn on the power switch.
2. Depress the treadle slightly and check that the machine pulley starts to turn in the direction of the arrow (1).

* If the direction of rotation is reversed, change the direction of rotation to the correct direction while referring to the instruction manual for the motor.

4-4. Alarm display (Semi dry type)



2981M

The alarm display is a device that shows the time until the next greasing is required.

(1) POWER indicator (green)

The POWER indicator (1) only illuminates while the sewing machine is operating. It does not illuminate while the sewing machine is stopped.

(The alarm display makes a total of the time that the POWER indicator (1) is lit.)

NOTE:

The POWER indicator (1) may not illuminate at times such as if the sewing machine is operating at a slow speed, or when operation starts again after having been stopped for several minutes, but this is normal and is not the sign of a malfunction.

(2) GREASE indicator (red)

If the GREASE indicator (2) illuminates and the buzzer sounds each time the treadle is depressed, it is time to apply grease.

(Refer to page 31 of the instruction manual CD.)

5. PREPARATION BEFORE SEWING

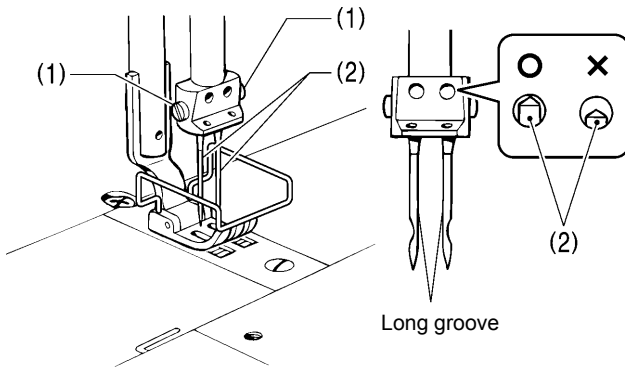
5-1. Installing the needle

! CAUTION



Turn off the power switch before installing the needle. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

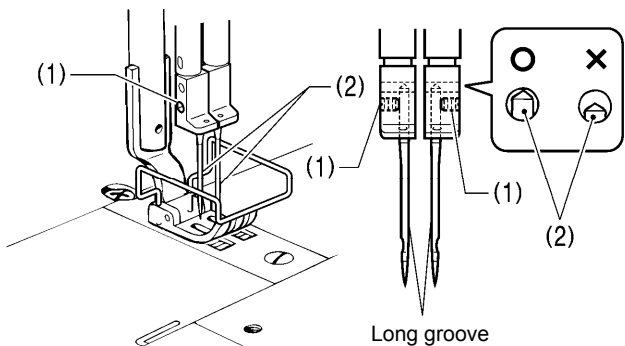
<T-8420C, 8720C>



2461B

1. Turn the machine pulley to move the needle bar to its highest position.
2. Loosen the screws (1).
3. Insert the needle (2) straight in as far as it will go so that the long groove is facing inward, and then securely tighten the screws (1).

<T-8450C, 8750C>



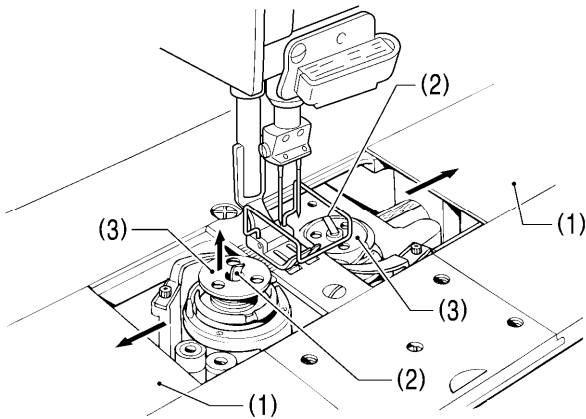
2462B

5-2. Removing the bobbin

CAUTION



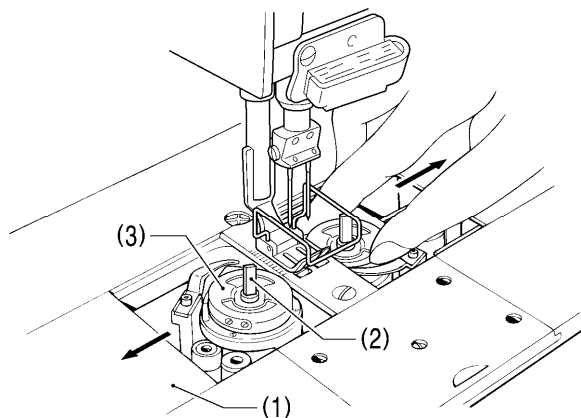
Turn off the power switch before removing the bobbin. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.
The machine may operate if the treadle is depressed by mistake, which could result in injury.



2486B

<Latch type>

1. Open the slide plates (1) by moving them to the right and left.
2. Pull the rotary hook latches (2) upward, and then remove the bobbins (3).



2487B

<Bobbin case type>

1. Open the slide plates (1) by moving them to the right and left.
2. Lift up the latch (2) of the rotary hook, and then remove the bobbin case (3).
3. Remove the bobbin.

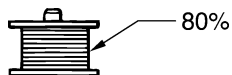
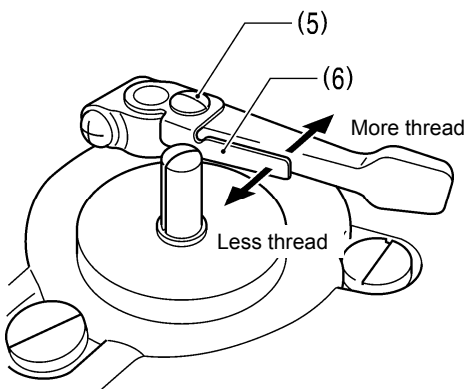
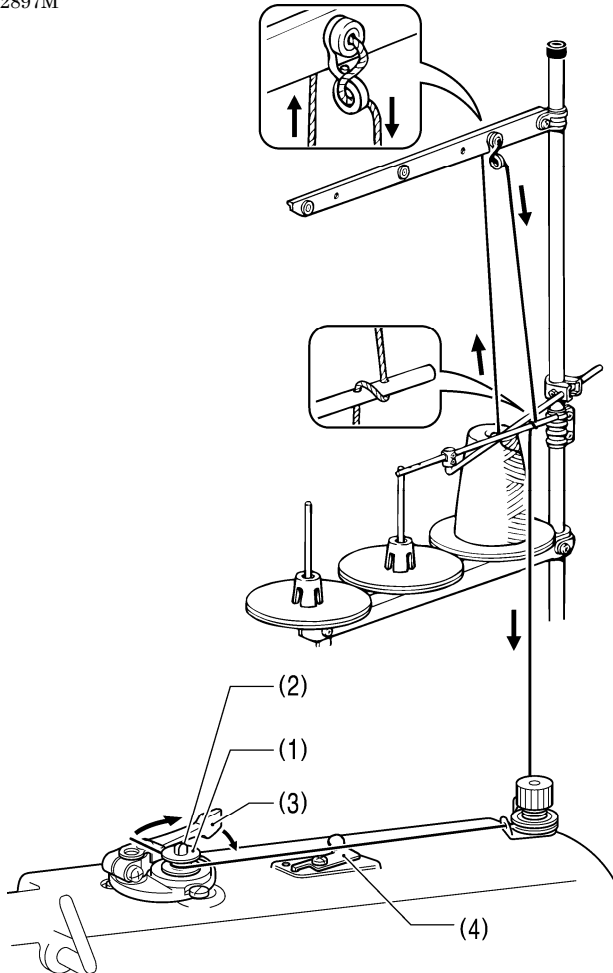
5-3. Winding the lower thread

! CAUTION



Do not touch any of the moving parts or press any objects against the machine while winding the lower thread, as this may result in personal injury or damage to the machine.

2897M



2123M

2124M

1. Turn on the power switch.
2. Place the bobbin (1) onto the bobbin winder shaft (2).
3. Wind the thread several times around the bobbin (1) in the direction indicated by the arrow.
 - * Check that the thread is not loose anywhere along the thread path.
4. Push the bobbin presser arm (3) toward the bobbin(1).
5. Raise the presser foot with the lifting lever.
6. Depress the treadle. Lower thread winding will then start.
7. Once winding of the lower thread is completed, the bobbin presser arm (3) will return automatically.
8. After the thread has been wound on, remove the bobbin and cut the thread with the knife (4).

- * Loosen the screw (5) and move the bobbin presser (6) to adjust the amount of thread wound onto the bobbin.

NOTE:

The amount of thread wound onto the bobbin should be a maximum of 80 % of the bobbin capacity.

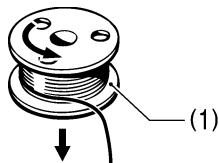
5-4. Installing the bobbin

! CAUTION



Turn off the power switch before installing the bobbin. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

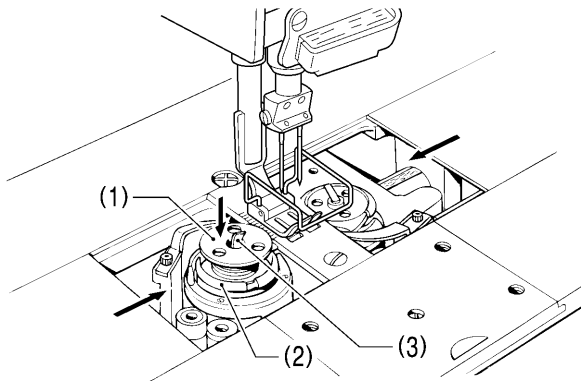
2898M



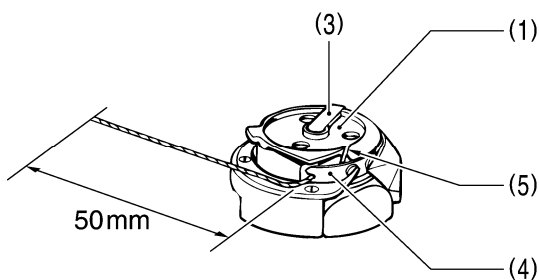
<Latch type>

1. Insert the bobbin (1) into the rotary hook (2) so that the winding direction is as shown in the illustration.
2. Return the rotary hook latch (3) to its original position.
3. Turn the machine pulley to rotate the rotary hook (2) until the tension spring (4) is visible.
4. Pass the thread through slit (5) in the rotary hook and then pass it under the thread tension spring.
5. Pull out the thread to a length of approximately 50 mm.
6. Close the slide plates.

- Use bobbins (1) made of light alloy as specified by BROTHER.

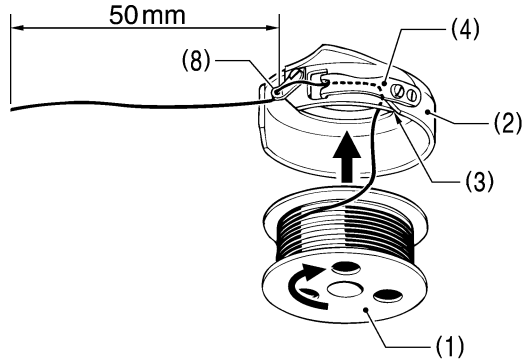


2488B

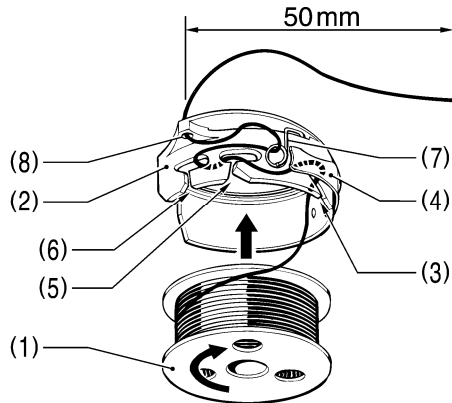


2900M

<A>

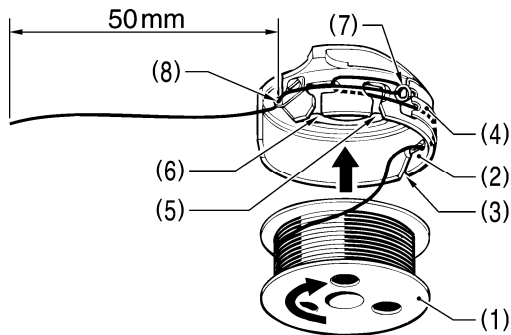


2902M

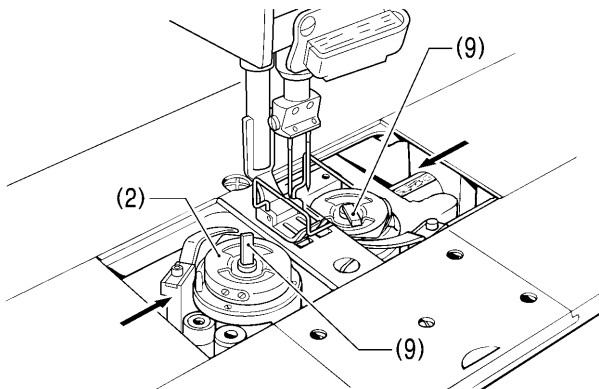


3126M

<C>



3127M



2489B

<Bobbin case type>

1. Insert the bobbin (1) into the bobbin case (2) so that the winding direction is as shown in the illustration.
2. There are three types of cap (2) (<A>, and <C>). Thread the thread by one of the following methods in accordance with the shape of the bobbin case (2) being used.

<A>

- 1) Pass the thread through slot (3) and under the thread tension spring (4).
- 2) Pass the thread through the thread hole (8) and pull out about 50 mm.

 <C>

- 1) Pass the thread through slot (3) and under the thread tension spring (4).
- 2) Pass the thread through slots (5) and (6), and then through the spring (7).
- 3) Pass the thread through the thread hole (8) and pull out about 50 mm.

3. Insert the bobbin case (2) into the rotary hook.

4. Push latch (9) of the rotary hook flat.

5. Close the slide plates.

- Use bobbins (1) made of light alloy as specified by BROTHER.

5-5. Threading the upper thread

CAUTION

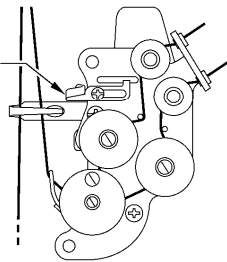


Turn off the power switch before threading the upper thread. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

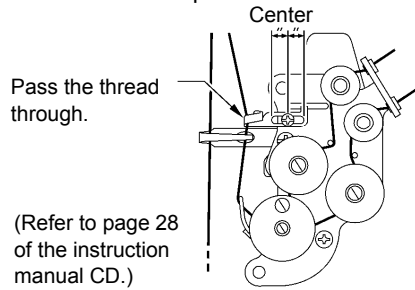
- Turn the machine pulley and raise the thread take-up (1) before threading the upper thread.
This will make threading easier and it will prevent the thread from coming out at the sewing start.
- Thread the left-side thread first.

<For non-foundation specifications>

Do not pass the thread through.

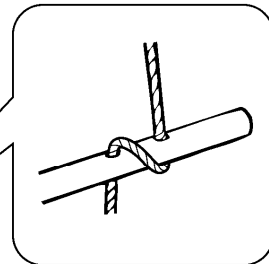
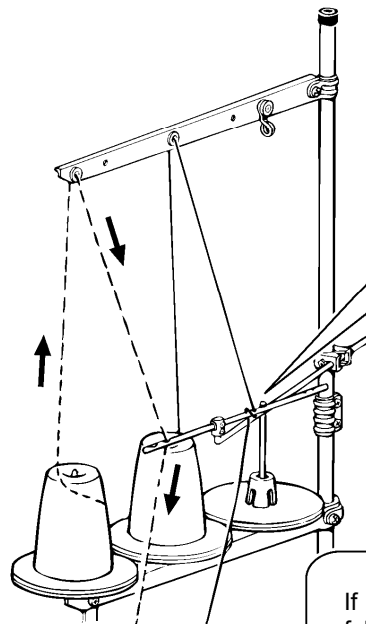


<For foundation specifications>



Pass the thread through.

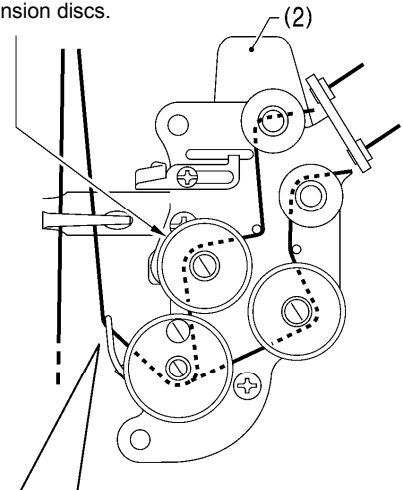
(Refer to page 28 of the instruction manual CD.)



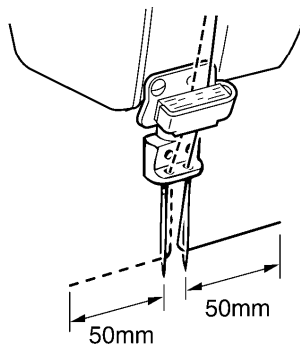
If the tension discs are opened as follows, the thread will become easier to thread.

- Press the tension release plate (2).
- Operate the lifting lever or the knee lifter to raise the presser foot.

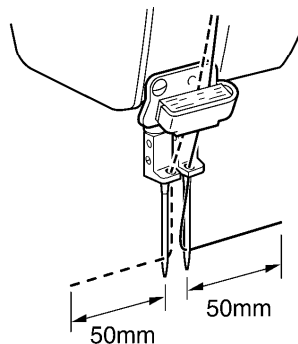
The thread can be passed securely in between the tension discs.



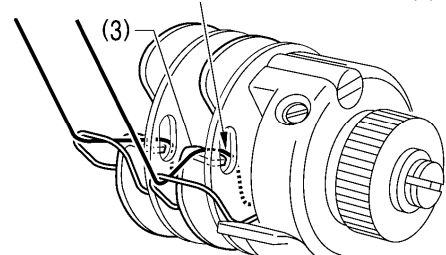
<T-8420C, 8720C>



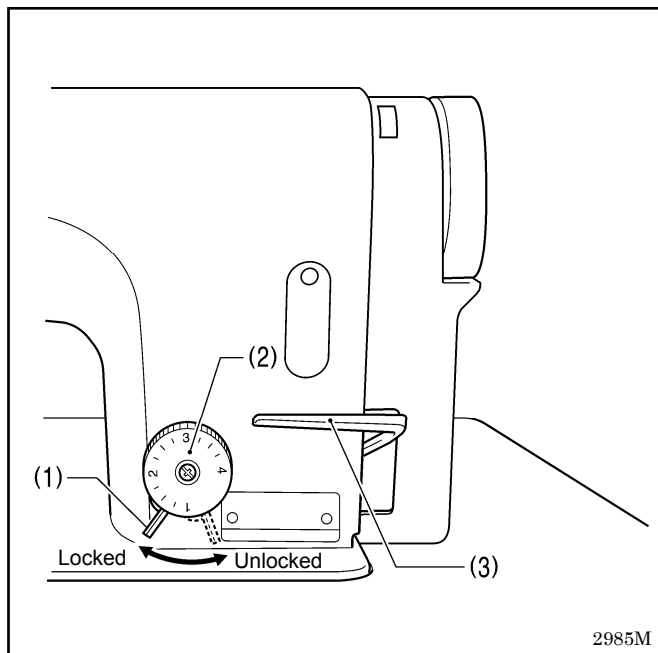
<T-8450C, 8750C>



Pass the thread on the inside of the tab (3).

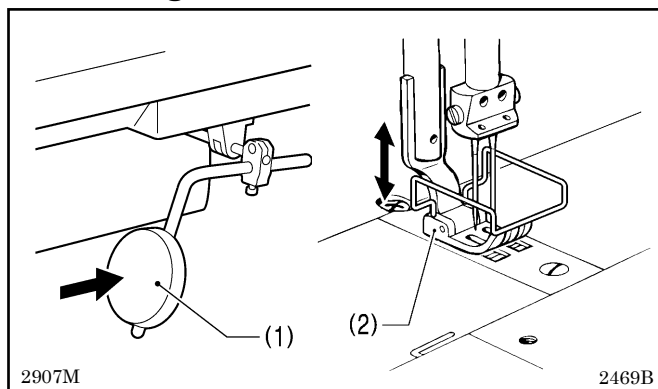


5-6. Adjusting the stitch length



1. Unlock the stitch length dial (2) by turning the dial lock lever (1) to the right until a click is heard.
 2. Turn the stitch length dial (2) clockwise or counterclockwise so that the desired stitch length is at the uppermost position on the dial.
 - The larger the number, the longer the stitch length will be. (The numbers on the dial are for use as a guide. The length of the finished stitches may vary depending on the type and thickness of material being sewn. Adjust while looking at the finished stitches.)
 - When turning the stitch length dial (2) from a larger setting to a smaller setting, it will be easier to turn the dial if the reverse lever (3) is pushed to the halfwaydown position.
 3. Turn the dial lock lever (1) firmly to the left to lock the stitch length dial (2).
- * Check that the stitch length dial (2) does not rotate.

5-7. Using the knee lifter



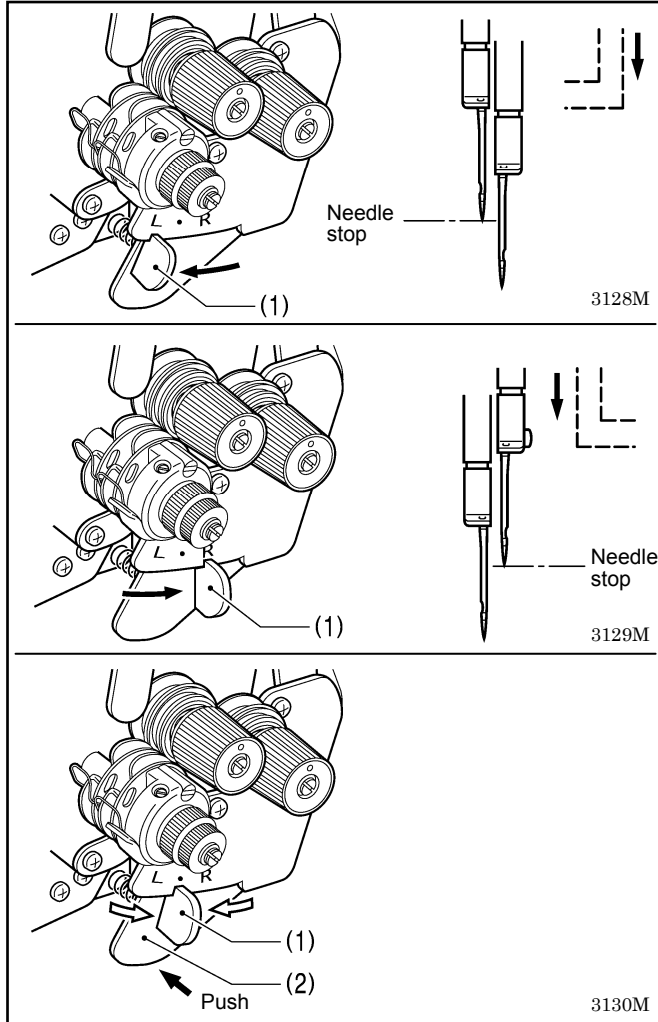
The presser foot (2) can be raised by pressing the knee lifter plate (1).

5-8. Corner sewing method (T-8450C, 8750C)

NOTE:

If using this machine in place of a single-needle machine, remove the needle which is not being used. In such cases, do not use the procedures given below to stop the unused needle bar from moving, otherwise damage to the machine may result.

5-8-1. To stop the needle bars (right and left)



- Operate the stop lever after the needle has penetrated the material and has stopped moving.
- Do not sew at speeds of over 1,000 sti/min while one of the needle bars has been stopped.

<To stop operation of the left needle bar>

Move the stop lever (1) to the "L" position.

<To stop operation of the right needle bar>

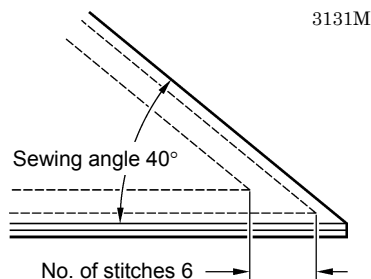
Move the stop lever (1) to the "R" position.

<To resume twin-needle sewing>

Press the push lever (2).

The stop lever (1) will then return to its original position automatically.

5-8-2. Number of stitches: quick-reference guide



Sewing angle No. of Stitches	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
2					4.6	3.8	3.2	2.7	2.2	1.8	1.5	1.1
3			4.6	3.5	3.0	2.5	2.1	1.8	1.5	1.2		
4		4.4	3.4	2.8	2.3	1.9	1.6	1.3				
5	4.8	3.5	2.7	2.2	1.8	1.5	1.3					
6	4.0	2.9	2.3	1.9	1.5	1.3						
7	3.7	2.5	2.0	1.6								
8	3.0	2.2	1.7									

<For 1/4" needle width>

Determine the stitch length from the chart above to make beautiful corner stitching.

The number of stitches of the outer needle varies according to the combination of sewing angle and stitch length.

[Example]

For a sewing angle of 40° and a stitch length of 2.9 mm, the number of stitches becomes 6.

6. SEWING

CAUTION



Attach all safety devices before using the sewing machine. If the machine is used without these devices attached, injury may result.



Turn off the power switch at the following times. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.

The machine may operate if the treadle is depressed by mistake, which could result in injury.

- When threading the needle
- When replacing the bobbin and needle
- When not using the machine and when leaving the machine unattended

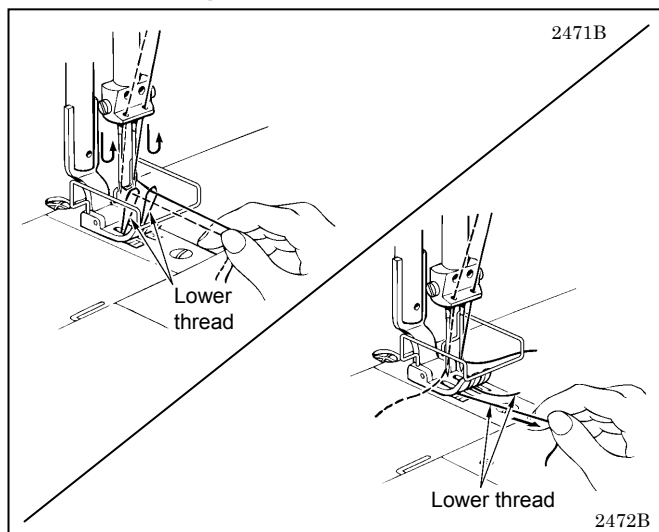


Do not touch any of the moving parts or press any objects against the machine while sewing, as this may result in personal injury or damage to the machine.



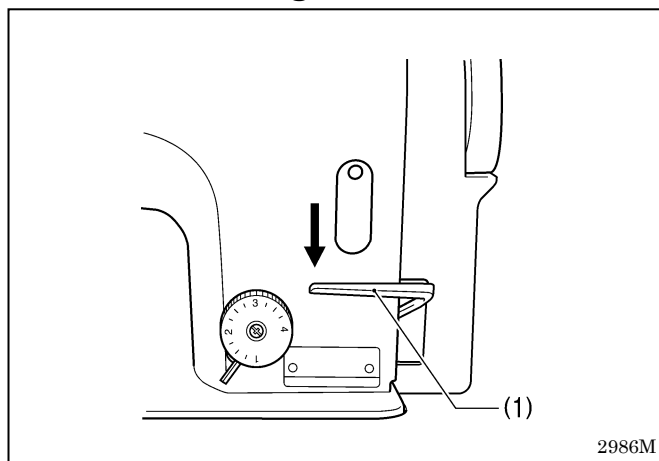
Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

6-1. Sewing



1. While holding the two upper threads with your fingers, turn the machine pulley by hand toward you until the lower threads come out onto the feed dog.
2. Pull the lower threads toward you and check that they pull out smoothly.
3. Turn on the power switch.
4. Depress the treadle to start sewing.

6-2. Backtacking



When the reverse lever (1) is pressed during sewing, the feed direction will be reversed. When it is released, the feed direction will return to normal.

Document CD



For cleaning, standard adjustments and more details, please refer to the instruction manual contained in the Document CD.

3168M

Contents of the Document CD

The following documents are contained in PDF format.

- Basic Operation Manual
- Instruction Manual
- Parts Book

Recommended system configuration for using the Document CD

OS: Windows® XP Service Pack 2, Windows Vista®, Windows® 7
Browser version: Microsoft® Internet Explorer 6 Service Pack 1 or higher
Screen resolution: 1024 x 768 pixels or more
Plug in (required to access): Adobe Reader 8.0 or higher

Adobe, the Adobe logo, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/ or other countries.

Windows® and Microsoft® Internet Explorer are either registered trademarks of Microsoft Corporation in the United States and/ or other countries.

BROTHER INDUSTRIES, LTD. <http://www.brother.com/>

1-5, Kitajizoyama, Noda-cho, Kariya 448-0803, Japan. Phone : 81-566-95-0088

© 2010 Brother Industries, Ltd. All Rights Reserved.

This is the original instructions.

T-8420C, 8450C, 8720C, 8750C

SB1409-001 E

2010.05.B(1)