SiRUBA

INSTRUCTIONS BOOK

DL7600



SAFETY INSTRUCTIONS

1.For your safety

To ensure your safety while using industrial sewing machine and devices, please follow the safety instructions below.

1-1 Usage and purpose

The sewing machine is designed to improve productive efficiency of sewing work. Do not use for other usage and purpose. Do not use the sewing machine before the installed drive device's safety measures have been confirmed being conducted.

1-2 Before use

Before using the machine, you should read the instruction manuals thoroughly and follow it. Hence, read the installed drive device instruction thoroughly, too.

1-3 Working environment Do not work in the following environment:

- The environment which its temperature and humidity will cause bad influence to the machine.
- Outdoors or the place which the machine may exposed to sunlight directly.
- Environment contains dust, corrosive gases or flammable gases, etc.
- Place which voltage fluctuation causes unstable, or voltage exceeds ±10% of specification.
- Place where power capacity necessary for the used motor specifications cannot be secured.
- Place where strong electric or magnetic field are generated such as surrounding at large-output high frequency transmitters or high frequency welding machines.

1-4 Unpacking and transportation

(1) Unpacking boxes from top and follows the sequences.
(2) Never pull or lift the parts near the needle or threading parts while removing machine head from the washer.
(3) Find an assistant when carrying machine head.
(4) Be careful do not have overly impact or shock while moving the machine.

2.Installation and preparation

2-1 Instruction and training Operators who assemble the sewing machine and instructors who responsible for repair and maintenance, need to have correct knowledge and operation skills. The managers should prepare and execute the instructions and training plan for the operators and supervisors beforehand.

2-2 Sewing table and motor

(1) Apply the table and foot stool which can withstand machine's weight and intensity of rebound stress while operating.

(2) Should consider sewing machine working area's lighting to provide the environment which operators could work smoothly.

(3) When installing the control box and the related parts of the sewing machine, pay attention the posture about the workers.

(4) Please follow the instruction from motor manufacturer to install the motor.

2-3 Wiring

(1) Before circuit assembly finished, do not connect the plug for power supply.

(2) Must fix the wire of sewing machine head, motor, and electric device securely.

(3) For connected electric cable, do not put excessive force on it.

(4) For electric cord equipment, should keep the safe distance away from moveable mechanic parts to avoid connect or friction.

(5) Connect the ground wire on assigned position of sewing machine head securely.

2-4 Instructions before operation

(1) When pour into lubricant, silicone oil, and grease, be careful do not attach on your eyes and skin. And keep these where children cannot reach.

(2) Before operation, the sewing machine must be lubricated.

(3) Do not put your hand under the needle or near the moving parts of the machine when turn the power on.

(4) When start to operate the sewing machine at first, make sure the rotating direction of pulley tallies with rotating direction mark.

2-5 Instructions while operating

(1) Be sure to operate the sewing machine with the safeguards such as motor cover, finger guard, and eyes guard, etc.

(2) During operation, do not let your hands or hair near the machine; moreover, put an object beside under the needle or near the moving parts of machine.

(3) Never puts your hand close to the knives part during operation which sewing machine has trimming device.

(4) Must turn off the power without operators or using the sewing machine.

(5) If the machine malfunctions, make abnormal sound or smelling unusual, turn off power immediately.

2-6 Removal

(1) Must turn off power first if disassembling or removing any parts, or doing adjustment.

(2) To pull the plug, do not pull or drag its cable or wire.

(3)A high voltage is applied inside the control box, do not open the cover until wait for five minutes.

2-7 Maintenance, inspection, and repair

(1) Follow the instruction manual to do maintenance, inspection, and repair.

(2) Entrust the specially trained workers to do maintenance, inspection, and repair.

(3) Must turn off the power first and make sure the motor and sewing machine are completely stop, then do the maintenance, inspection, and repair work.

(4) Do not transform the sewing machine by customer's judgment.

(5) Use original parts for maintenance and repair

3.Caution signs and alert pictorial markings

In order to prevent any danger to customers, this instruction manual contains following alert pictorial markings.

3-1 Illustration of caution signs



It must cause serious injury or death to operator or others, if do not pay attention to the sign and do the wrong operation.



It must cause injury to operator or others or machine damage, if do not pay attention to the sign and do the wrong operation.

3-2 Illustration of alert pictorial markings



Moving part. In case of industrial accident.



High-temperature part. In case of burn accident.

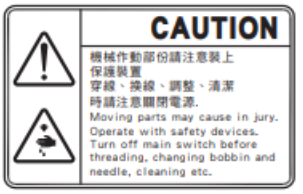


High-voltage part. In case of electric shock.



Indicated earth wire wiring.

Warning label on sewing machine



Forbid to remove safeguards, and works except for sewing works while power switch on.



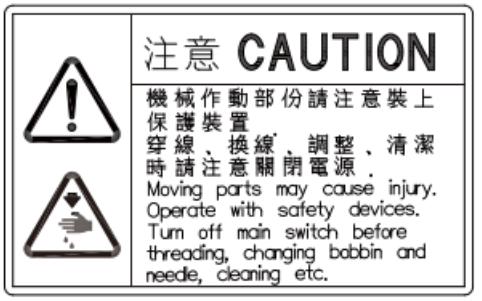
The label is affixed on safeguards. Considering the operation, it is not affixed on the finger guard and eyes guard.



Make sure pulley of sewing machine rotating direction is the same as the sign.

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① Must have ground wire.

A loosen or a did not connect well ground wire is the reason causing electronic shock or malfunction.

② Indicates rotating direction

Safety Protection Device (FIG.3)

(A) Finger Protector



圖3/Fig. 3

SAFETY ILLUSTRATION OF NEEDLE GUARD

The presser foot protection device is as shown as the figure 4. For safety of all operators, this device is restricted to disassemble.

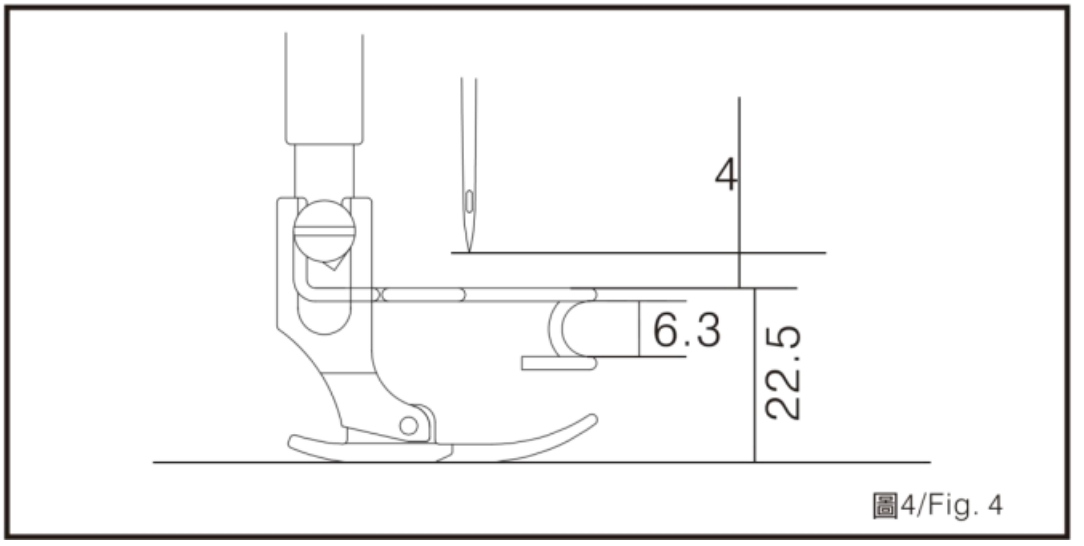


圖4/Fig. 4

MOVING THE SEWING MACHINE

1. The machine should be carried by two people as shown in the figure.

2. Hold the motor cover A by hand, so that the pulley will not rotate.

3. Please wear a pair of skidproof shoes while moving the sewing machine. (Fig. 5)



圖5/Fig. 5

THE INSTALLATION POSITION OF THE SEWING MACHINE

1. Please do not install the sewing machine near the equipment's, such as Television, Radio, or Wireless Telephone. Or these equipment's will experience electronic interference. (Fig. 6)

2. The wire should insert to the AC power socket directly. If using the extension wire, this might cause malfunction.

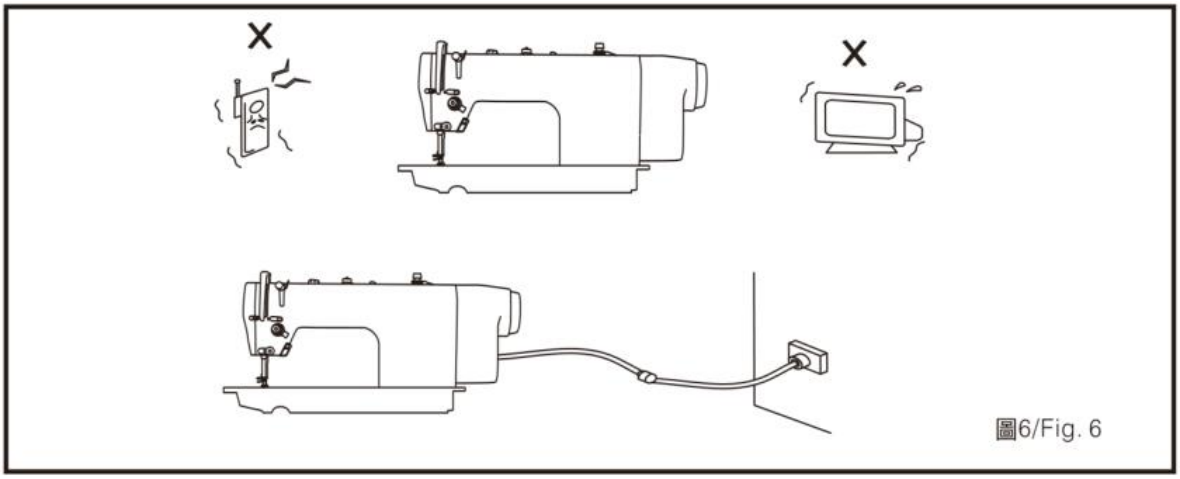


圖6/Fig. 6

NAMES OF MAJOR PARTS

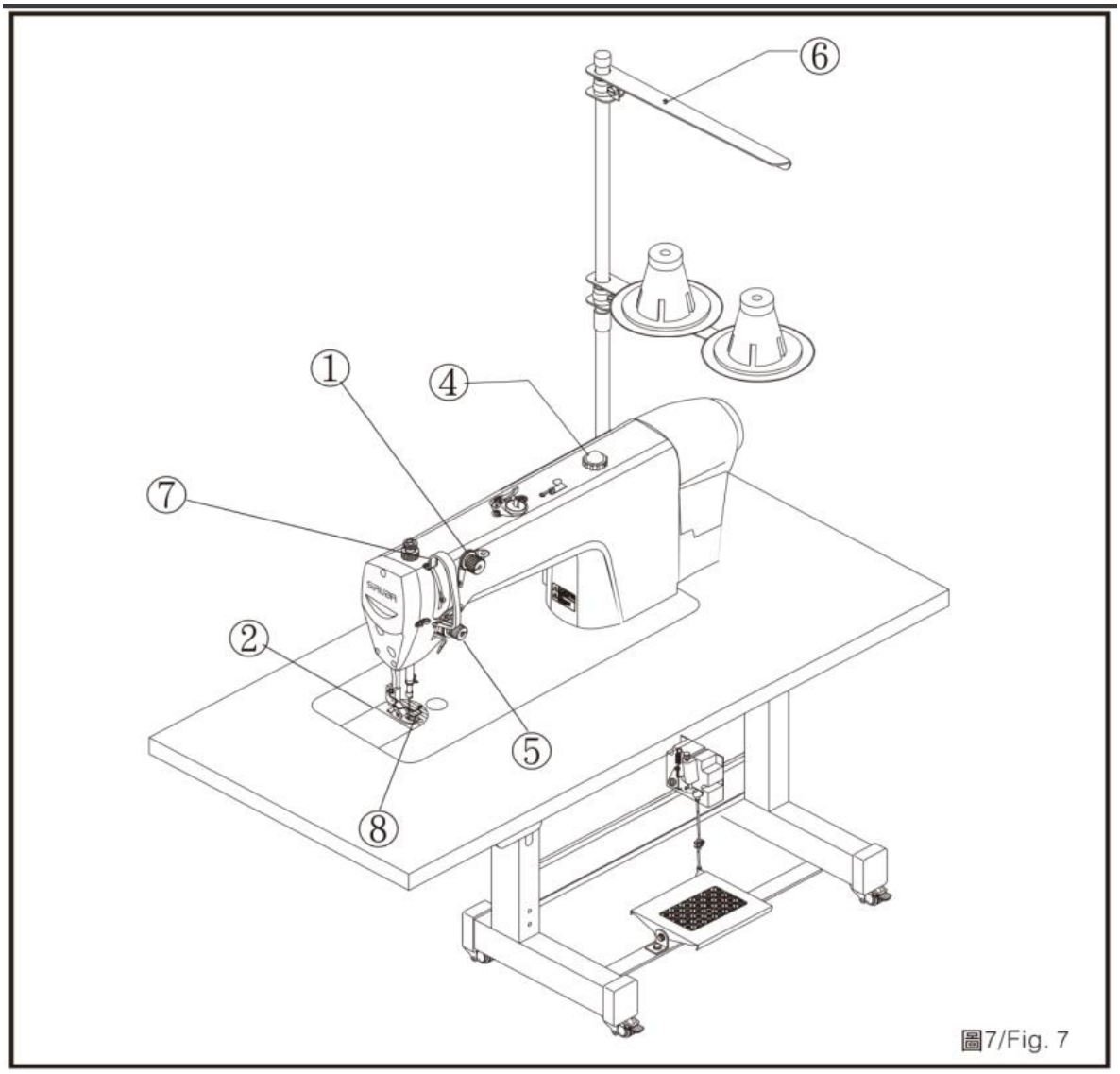


圖7/Fig. 7

① Thread Guide

② Presser Foot

④ Oil Windows

⑤ Thread Tension Adjusting Set

⑥ Thread Stand

Safety Protection Devices

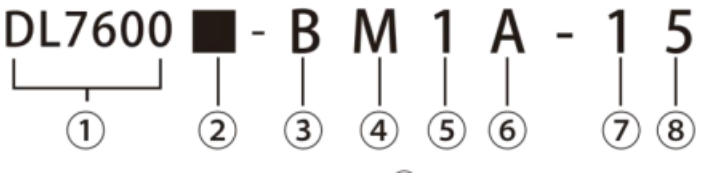
⑦Thread Take-up Cover

⑧ Finger Guard

SPECIFICATIONS

Specifications of machine category

1. Description of the machine name



① represents the type of the machine: L= High Speed One-needle Bottom

② Feed Lockstitch Machine represents the improved machine appearances

③ B: Rotary trimming system

④ Purposes: (Table 1, Table 2)

Code	Application	r.p.m Max Sewing Speed	(mm) Max Stitch Length
M	For medium-weight materials	Max： 4000	0～4
H	For medium to heavy-weight materials	Max：4000	0～5

Needle Bar Stroke		(mm) Presser Foot Lift		Needle
		By hand lifter	By knee lifter	
M	30.7	5.5	Max：13 Normal：10	DBX1 #14
H	35			DBX1 #14

⑤ Code of the hook:

1: High Speed Hook

2: 2-capacity Large Hook

3: Oil-Free Hook

4: Special Hook, Vertical Type

⑥ None: Four teeth rows of the needle plate and the feed dog

A: Three teeth rows of the needle plate and the feed dog

⑦ Code of operation box:

0: SIRUBA normal model without key type operation box

1: SIRUBA advanced model with key type operation box

⑧ Function code of the operation box (Table 3):

Code of the operation box & its functions	Function Code	Automatically Thread Trimming	Rapidly Backstitch	Thread Wiping	Auto Presser Foot Lifting	Electronic Gripper
Suitable for SIRUBA advanced model with operation box (1)	0	○	○	—	—	—
	1	○	○	○	—	—
	2	○	○	—	○	—
	3	○	○	○	○	—
	5	○	○	—	—	○
	6	○	○	—	○	○

2. Specification: (Table 4)

Model			DL7600	
Materials			Medium-weight	Heavy-weight
1	(r.p.m.) Sewing speed		Max: 4500 Normal: 4000	Max: 4000 Normal: 3500
2	Stitch length		0~4	0~5
3	(mm) Needle bar stroke		30.7	35
4	Needle		**DBX1 #14**	**DBX1 #14**
5	(kgs) Presser foot pressure		5~7	5~7
6	Presser lifter	Knee-drive	Standard: 10 mm (Max.: 13 mm)	
		Hand-drive	5.5 mm	
7	Presser foot		Adjustable presser foot	

8	Feed dog	3 teeth rows or 4 teeth rows	
		feed dog slope is adjustable	
9	(mm) Presser foot height	M 0.9~1.1	H 1.0~1.2
10	Feeding	Up/down and front/rear rocking bottom feeding	
11	Thread take-up lever	Connecting rod	
12	Thread take-up lever stroke	59.2±1	59.5±1
13	Lubrication	Fully automatic lubricating	
14	Oil recycle	Pillar plug pump	
15	Lubricant	Provided specified lubricant	
16	Thread wiping device	(Optional Device)	
17	Auto-stitch back device	(Standard Device)	
18	Motor	Regulated output: 400W (1/2HP), Max. output: 550W (3/4 HP)	
19	Power	3 Phases/single phase	
20	Electromagnetic drive power	DC-24V	
21	Trimming type	Horizontal engaged trimming type	

IMPORTANT SAFETY INSTRUCTIONS OF THIS MACHINE

1. Transportation

(1). The machine packed with two piece covers that made of expanded polystyrene to protect it.

(2). Put the machine into a carton.

(3). Use a cart or by two men's hands to move it.

2. Storage

(1). The machine must use duster cover to cover it when it did not work.

(2). The machine avoid to storage in the temperature more than 45°C.

3. Working

The machine doesn't work over 40°C.

4. Warning

Pay attention to this warning advice as the followings:

(1). Working area is dangerous.

(2). Never touch the needle if the machine is still running.

(3). Be careful if you infeed fabric.

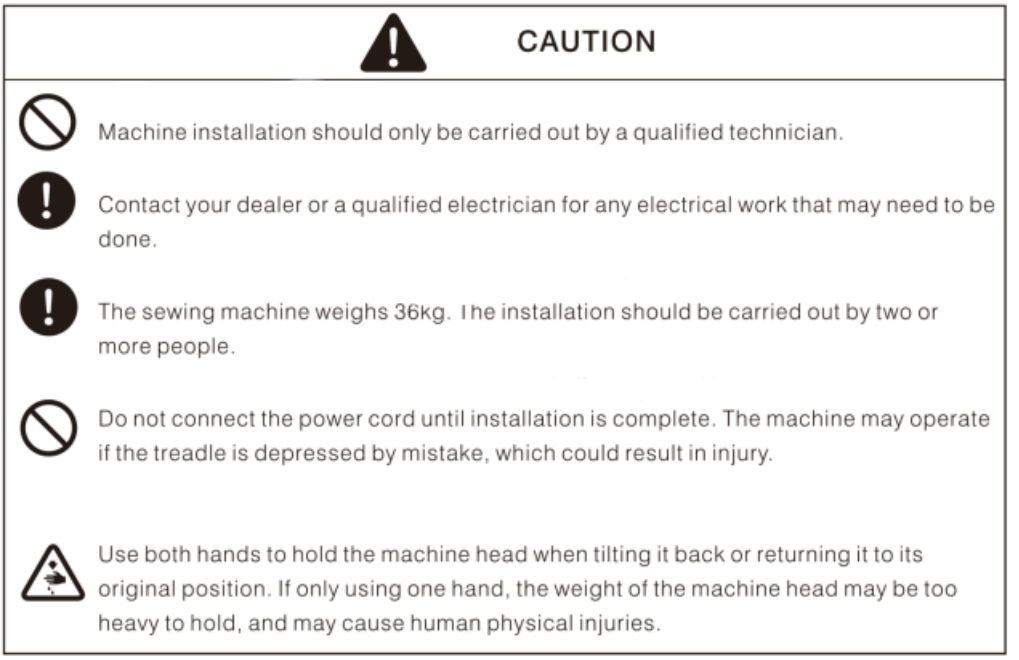
(4). Do not insert your finger between needle and roller for transportation on fabric.

Pay attention to the warning sticker.

(1). Movable parts must be enclosed with guard when you operate.

(2). Pull out the plug from socket when you adjust, thread, change bobbin and needle clean.

INSTALLATION



1. Please refer to table cut-out drawing and parts lists to install the anti-shock base and the thread stand.

OIL PAN INSTALLATION

1. The corners of the oil reservoir has to be placed on the four corners at the cut out groove of the machine table. (Fig. 9)

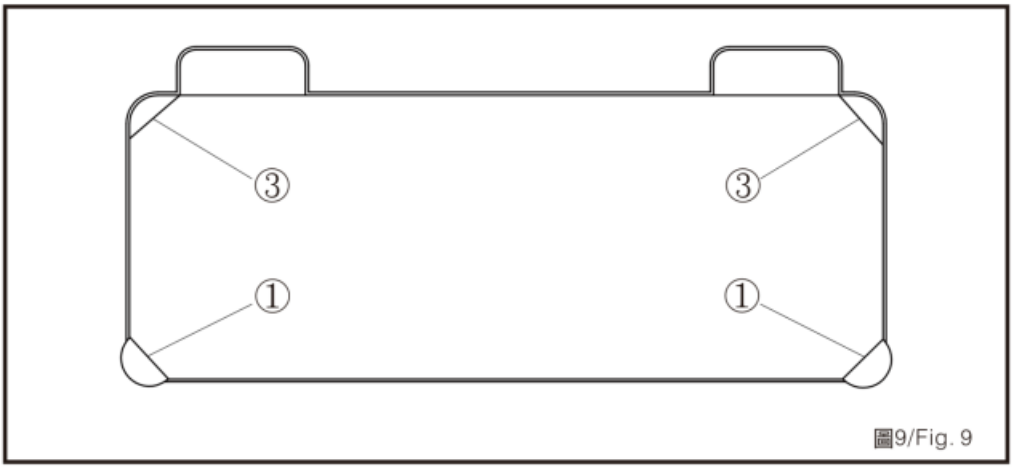


圖9/Fig. 9

2. Use nails ② as illustrated to fix two rubber seats ① on side A (the operator's side).

Use rubber-based adhesive to fix two cushion seats ③ on the hinge side (side B). Place oil reservoir ④ on the fixed seats. (Fig. 10)

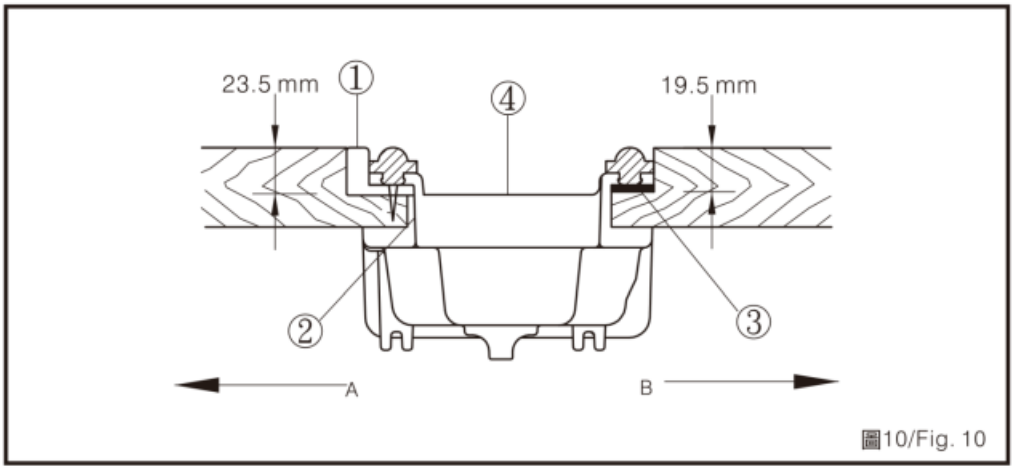
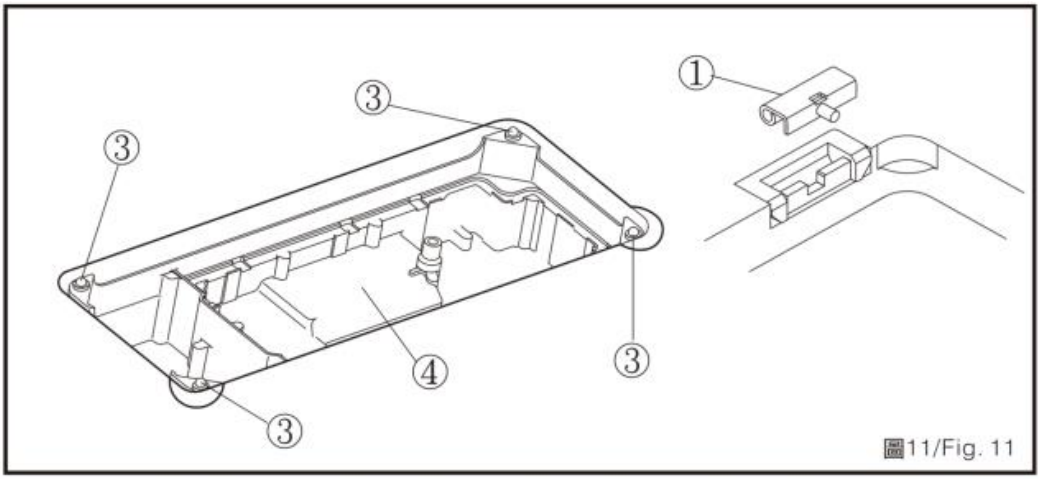


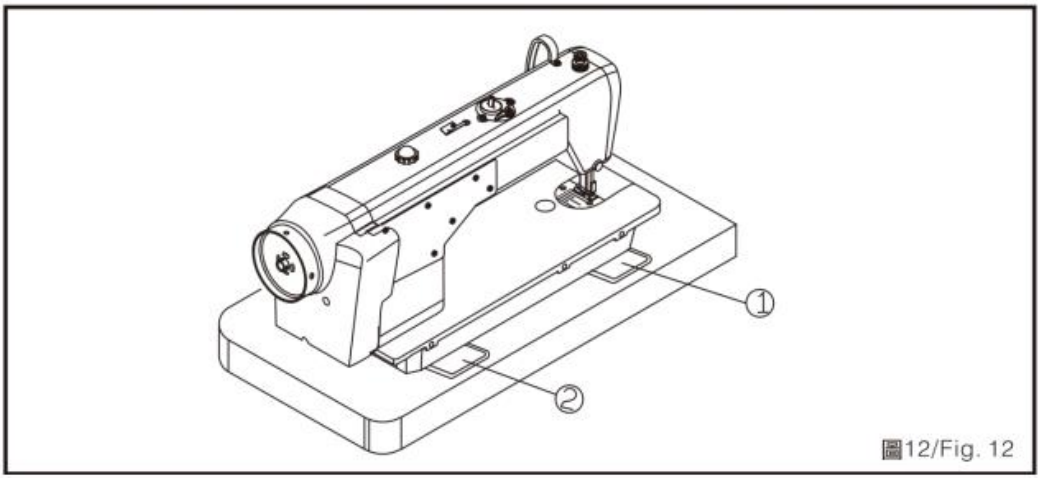
圖10/Fig. 10

3. Place the hinge ① into the two fixing holes before placing the machine head onto the four cushions ③ of the desk.

Then, install the machine head onto the machine bed that has two openings with rubber cushion ② of each. (Fig. 11, 12)



11/Fig. 11



12/Fig. 12

INSTALLING THE NEEDLE

Choose a right needle size according to the type of the thread and the type of the material used. Turn the power off before placing the needle. (Fig. 13)

Choose a right needle size according to the type of the thread and the type of the material used. Turn the power off before placing the needle. (Fig. 13)

1. Turn the hand wheel to raise the needle bar to its highest position.

2. Loosen screw 2, and hold the needle 1 with its indented side A facing exactly to right in direction B, and make sure that long groove Cof the needle is facing exactly to the left in direction D.

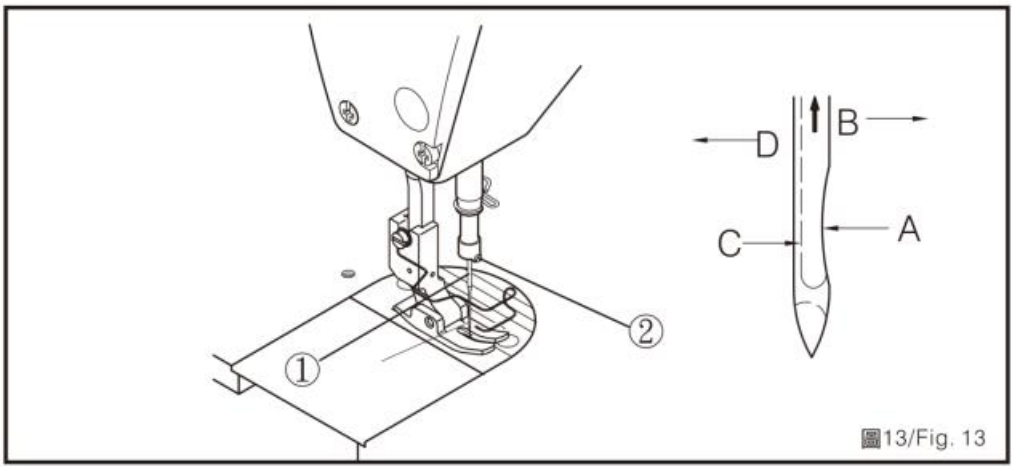


圖13/Fig. 13

SETTING THE BOBBIN

1. Set the bobbin in the bobbin case in the way that the thread wound direction is clockwise. (Fig. 14)

2. Pass the thread through thread slit A, and pull the thread in direction C. The thread will be pulled under the tension spring 1 and will be pulled out from notch B.

3. Be sure the bobbin rotates in the direction as the arrow shows when thread is pulled toward C.

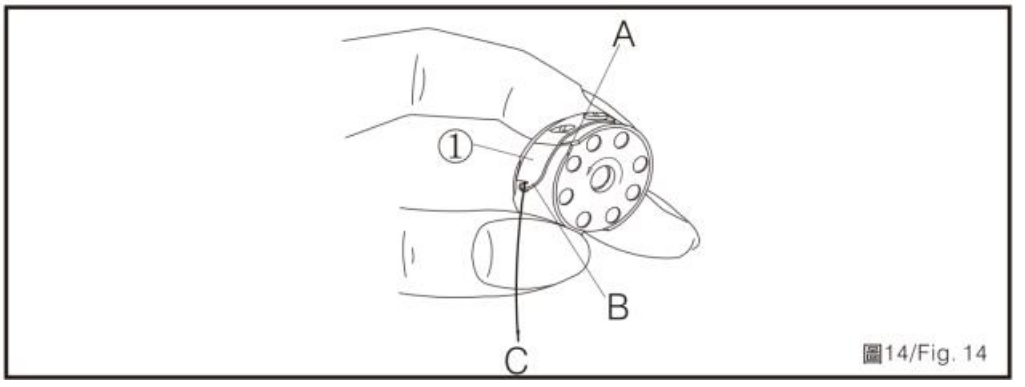


圖14/Fig. 14

THREAD STAND ASSEMBLY

1. Assemble the thread stand set before installing. Place the thread stand set onto the hole on the table top. (Fig. 16)

2. Fix the thread stand with a nut ① locked under the table top.

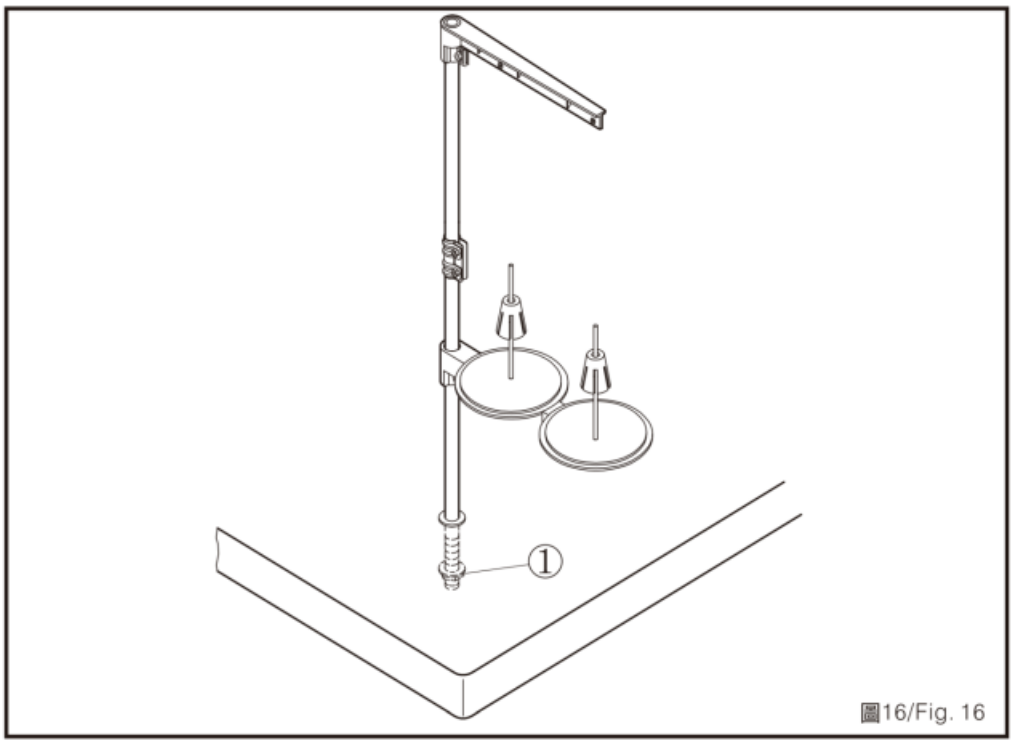


圖16/Fig. 16

THREADING THE MACHINE

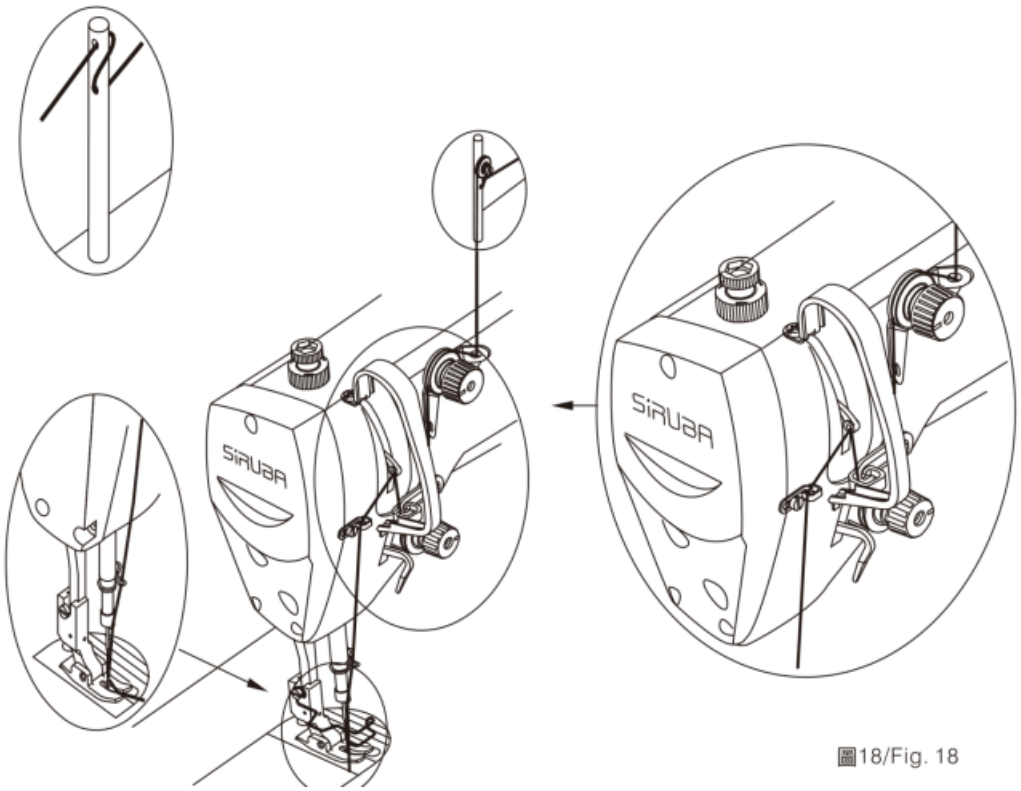
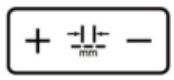


圖18/Fig. 18

STITCH LENGTH ADJUSTMENT



Stitch length adjustment key

Click to increase or decrease the stitch spacing; If you press and hold, the stitch spacing will continuously increase or decrease;



Function key P key

Click to enter or exit the user parameter settings interface.

If you press and hold, you will be redirected to the password input screen. Enter the correct password (2017), then press the S key briefly to confirm and proceed.

Enter the advanced parameter setting interface P-92.



Confirmation key S key

View and save the selected parameter number: After selecting the parameter number, press this key to view and modify it. After modifying the parameter value, press this key to exit and save the parameter.

On the main interface, press and hold the S key to switch to the debugging parameter interface (P-92). Short press the + and - keys to switch to other parameters (P-72).

P129, P-74, P-75, press S to enter parameters for debugging.


Addition key

Clicking increases the parameter value; long-pressing continuously increases the parameter value.


Minus key

Clicking decreases the parameter value; long-pressing continuously decreases the parameter value.



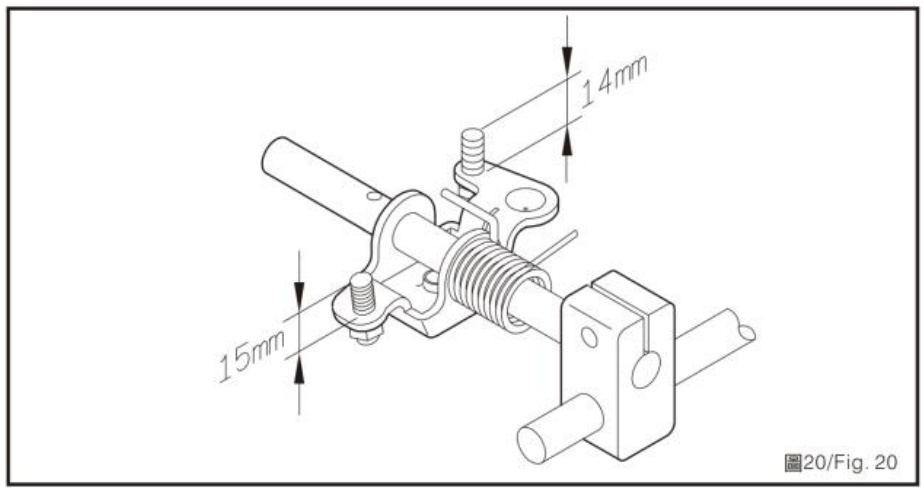
19/Fig. 19

ADJUSTMENT OF KNEE-CONTROL PRESSER FOOT LIFTER

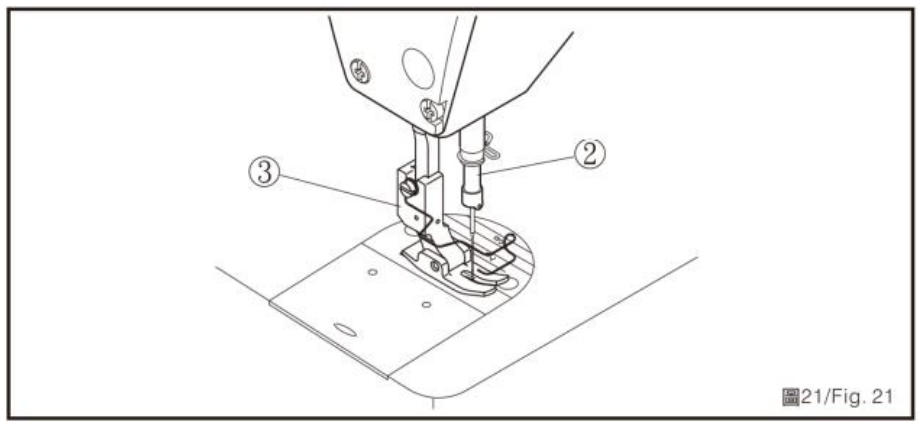
1. The standard lifting height is 10 mm by using knee-control presser foot lifter. (Fig.20, Fig. 21)

2. By adjusting the screw ① at the knee controller, the presser foot can be lifted up to 13mm.

3. When the presser foot is adjusted to be lifted over 10mm, assure the bottom end of the needle bar ② in its lower position③ does not hit the presser foot.



20/Fig. 20



21/Fig. 21

NEEDLE THREAD/BOBBIN THREAD TENSION ADJUSTMENT

1. Needle thread tension adjustment (Fig. 22)

(1) The left thread tail on the needle will be shorter after thread trimmed as you turn thread tension nut ① clockwise. (in A direction)

(2) The left thread tail will be longer, as thread tension nut ① is turned counter clockwise (in B direction).

(3) Increase the tension on needle thread by turning thread tension nut 2 clockwise (in C direction).

(4) Reduce the tension on needle thread by turning thread tension nut 2 counter clockwise (in D direction).

2. Bobbin thread tension adjustment

(1) The bobbin thread tension will be increased as tension adjust screw 3 is turned clockwise (in E direction).

(2) The bobbin thread tension will be reduced as screw 3 is turned counter-clockwise (in F direction).

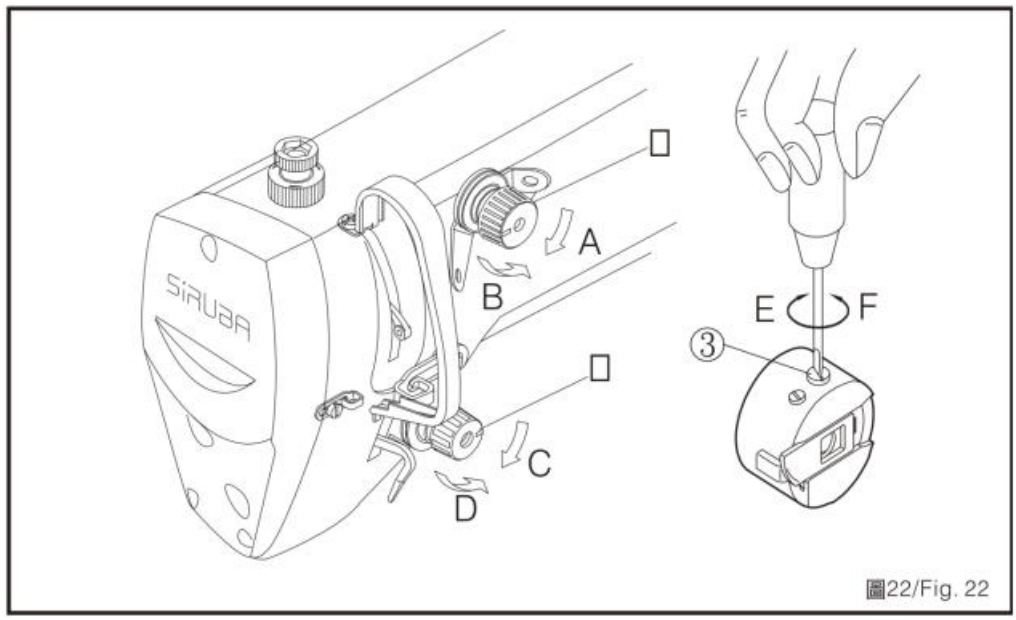


圖22/Fig. 22

NEEDLE STOP POSITION ADJUSTMENT

After replacing any electronic control unit, needle selector box, or spindle motor (including grating and encoder), you must perform a quick adjustment of the upper positioning. After adjusting the parameters, press the S key to save, then press and hold the slow start button until the screen displays SAVE to save to factory default values.

① On the main interface, press and hold the S key to switch to the adjustment parameter interface P-92. Adjust the parameter to item P72 (upper needle stop position). Manually rotate the handwheel to the upper needle stop position (thread take-up lever at the highest point) (9-10mm from the needle plate surface to the needle tip). The displayed value will change accordingly.

The position of the handwheel changes accordingly. Press the S key to confirm, then press the slow start button  .

THE THREAD TAKE UP SPRING ADJUSTMENT

1. Adjusting the stroke of thread take up spring 1. (Fig. 25)

(1) Loosen screw 2.

(2) The stroke of the thread take-up spring will be increased as the tension knob 3 is turned clockwise (in A direction).

(3) The stroke will be decreased as the the knob is turned counter-clockwise (in B direction).

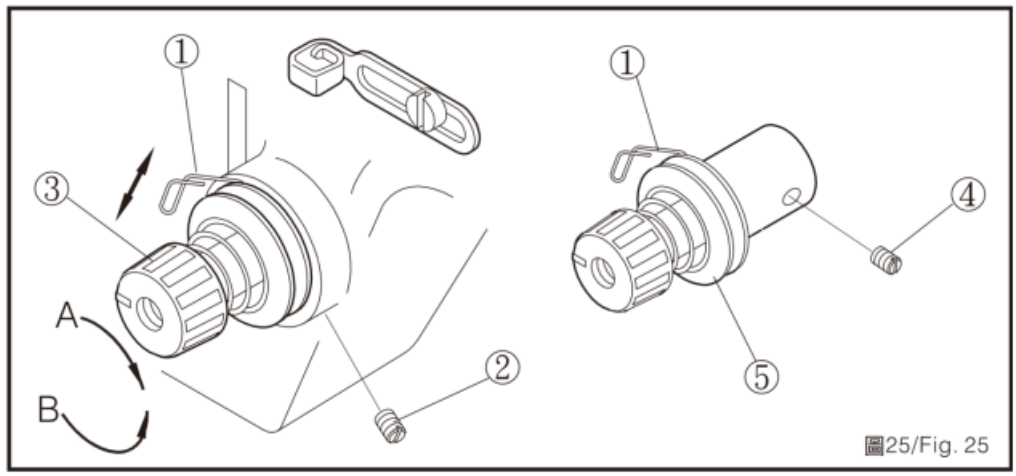
2. Adjusting the pressure of thread take up spring ①.

(1) Loosen screw ②, and remove thread tension disks ⑤

(2) Loosen screw ④.

(3) The pressure will be increased as tension knob ③ is turned clockwise (in A direction).

(4) The pressure will be reduced as tension knob ③ is turned counter clockwise (in B direction).

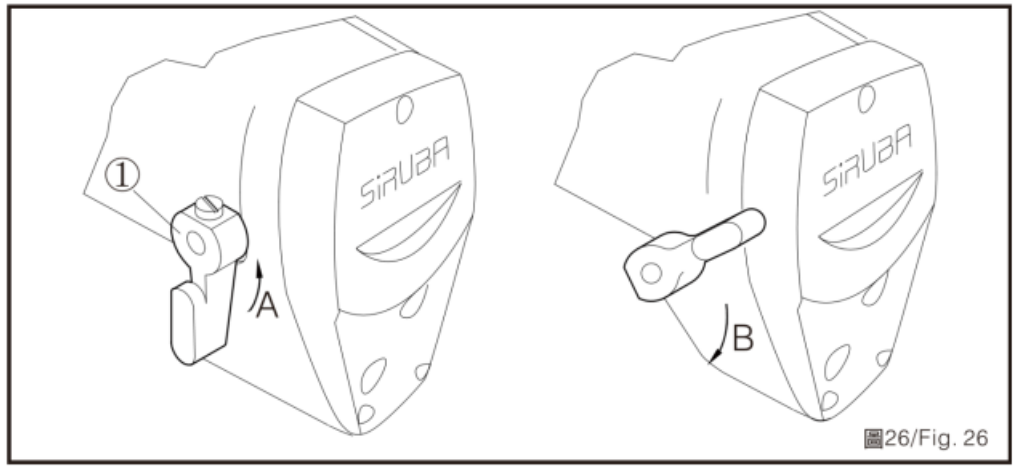


25/Fig. 25

MANUAL PRESSER FOOT LIFTING LEVER

1. Stop the machine and turn the presser foot lifting lever ① up (in A direction) to keep it up. (Fig. 26)

2. The presser foot will be lifted up to about 5.5 mm and will remain at that position. Turn hand lifter lever ① down (in B direction) to release presser foot to its original position.



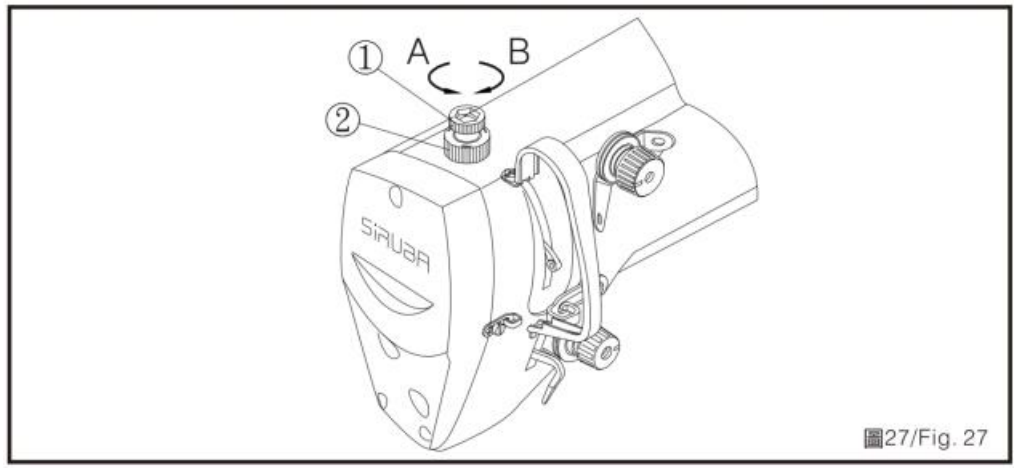
26/Fig. 26

ADJUSTING PRESSER FOOT PRESSURE

1. Loosen nut 2, Turn presser spring regulator 1 clockwise (in A direction) to increase the presser foot pressure. (Fig. 27)

2. Turn presser spring regulator 1 counter clockwise (in B direction) to reduce the presser foot pressure.

3. Lock nut 2 after adjustment is done. For regular fabric, the normal pressure of the presser foot should be set at 5kg, for heavy fabric is 7kg. (To have the best sewing result, please adjust the proper presser foot pressure according to the material.)



27/Fig. 27

ADJUST THE TIMING BETWEEN NEEDLE AND FEED DOG

1. Loosen screws ② and ③ on the feed eccentric cam ①, move the feed eccentric cam ① in the direction of the arrow or the opposite direction of the arrow, and lock the screws firmly.

(Fig. 28-a/b/c)

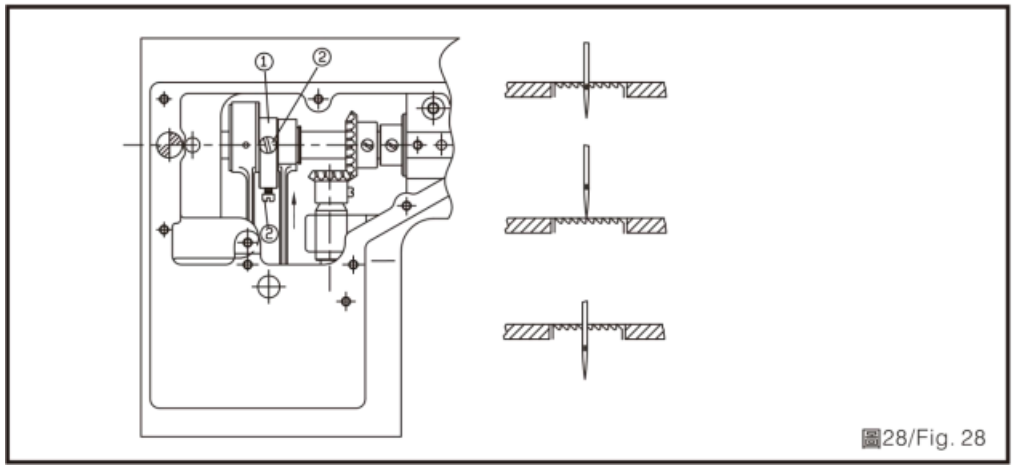
2. Standard timing adjustment: when the upper side of the needle hole travels down to the needle plate surface, adjust the upper sides of the feed dog teeth and the needle hole to be at the same level of the needle plate upper surface. (Fig. 28-a)

3. Antedated timing adjustment: to prevent the fabric deflected from feeding, turn the eccentric cam ① by the arrow direction to antedate the feed timing. (Fig. 28-b)

4. Delayed timing adjustment: to increase the stitch tension, extend the feed timing by turning the feed eccentric cam ① in the opposite direction of the arrow. (Fig. 28-c)

Attention:

Please do not move the feed eccentric cam 1 too far to avoid needle breakage.



28/Fig. 28

ADJUSTING THE ANGLE OF TILT OF THE FEED DOG

1. When mark A on the feed dog eccentric shaft ② is aligned with the crest line B, the gradient becomes horizontal. (Fig. 29-a)

2. To prevent the fabric puckering, loosen the screw ① by a screw driver and turn the feed dog eccentric shaft ② 90° toward the arrow direction to reduce the front gradient of the feed dog and to form a tilting-front status. (Fig. 29-b)

3. To prevent uneven fabric feeding, please turn the feed dog eccentric shaft ② 90-degree opposite to the arrow direction. This could decrease the backward tilt angle of the feed dog and to form a tilting -back status. (For adjusting the thick materials). (Fig. 29-c)

4. After adjusting the tilt angle of the feed dog, this will change the height of the feed dog. Therefore, please recheck its height after adjusting the tilt angle of the feed dog.

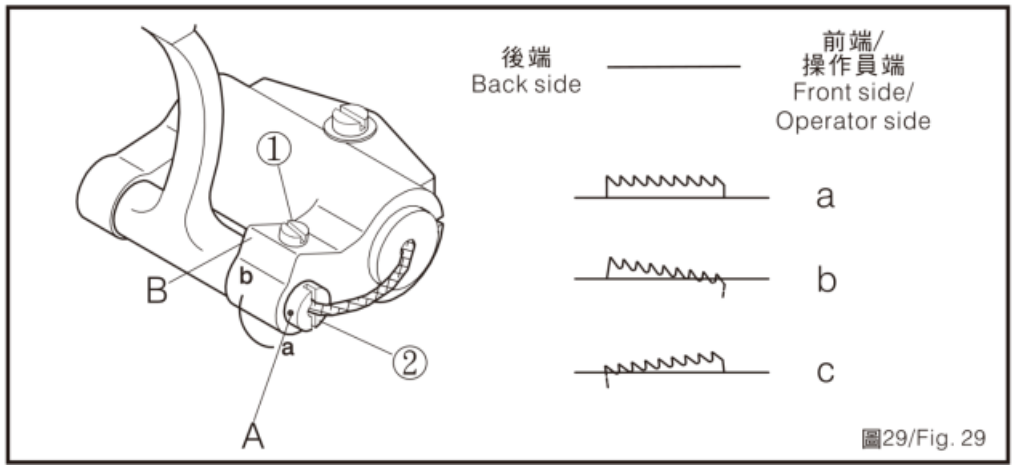


圖29/Fig. 29

ADJUSTING THE HEIGHT OF THE FEED DOG

1. The feed dog height (the height the feed dog emerged from the needle plate surface) is set by the fabric thickness as the followings: (Fig. 30-a/b/c)

Normal fabric: 0.85~0.95 mm (Fig. 30a)

Heavy fabric: 1.0~1.2 mm (Fig. 30b)

2. If the feed dog is emerged too much, it is very easily to form the puckers when sewing thin fabrics.

3. To adjust the feed dog height:

(1) Loosen screw on crank 1.

(2) Move the crank 1 up and down to move the feed bracket up and down to adjust.

(3) Lock the screw 2 securely after the adjustments.

4. There should be no space between the plain surface of the roller 3 and the crank ①. Also, avoid the situation of parts loosening happening. Otherwise, the opening part of the crank 1 will get worn easily

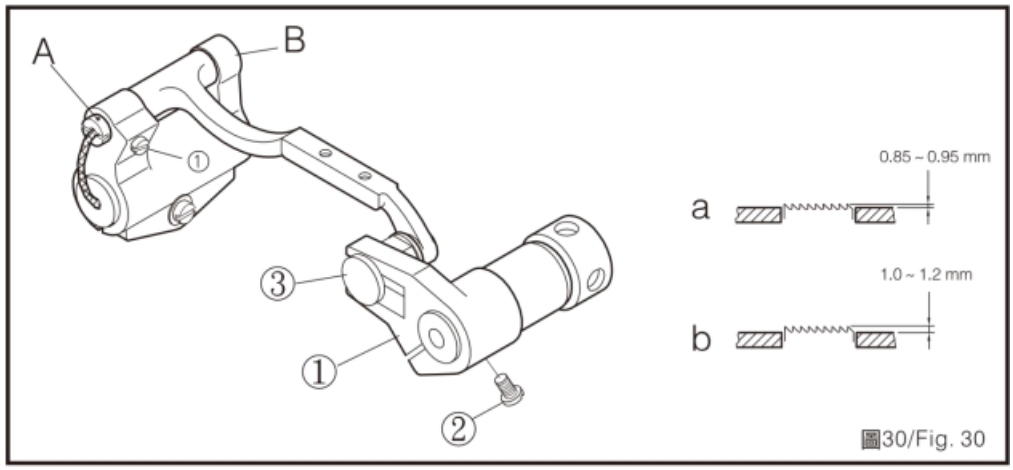


圖30/Fig. 30

CORRELATION BETWEEN NEEDLE AND HOOK

1. The timing adjustment between needle and hook is: turn the hand wheel to lower the needle bar down to the lower dead point of its stroke, and loosen the screw 1 (Fig. 31)

(1) Adjusting the height of needle bar:

(DB needle) Align the mark line A on needle bar 2 with the bottom edge of needle bar lower bushing 3, and then tighten the setscrew1.

(DA needle) Align the mark line C on needle bar 2 with the bottom edge of needle bar lower bushing 3, and then tighten the setscrew 1.

(2) Adjusting the position of the hook:

When a DA needle is used loosen the three setscrews on the hook, turn the hand wheel, and align marker line D on ascending needle bar 2 with the bottom edge of needle bar lower bushing 3.

(3) After the adjustments mentioned above are done, align hook blade point 5 with the needle center 4. Keep it at the ideal clearance of 0.05-0.1mm between the needle and the hook.

2. Confirm the part number is correct before replacing hooks.

Attention:

If the clearance between the hook tip and the needle is less than the identified value the hook tip will touch the needle and cause the damage of the hook tip happened easily. If the clearance is too wide, stitch skipping will occur easily.

(DB needle) Loosen the three setscrews on the hook, and turn the hand wheel to align the mark line B on ascending needle bar ② with the bottom edge of needle bar lower bushing ③.

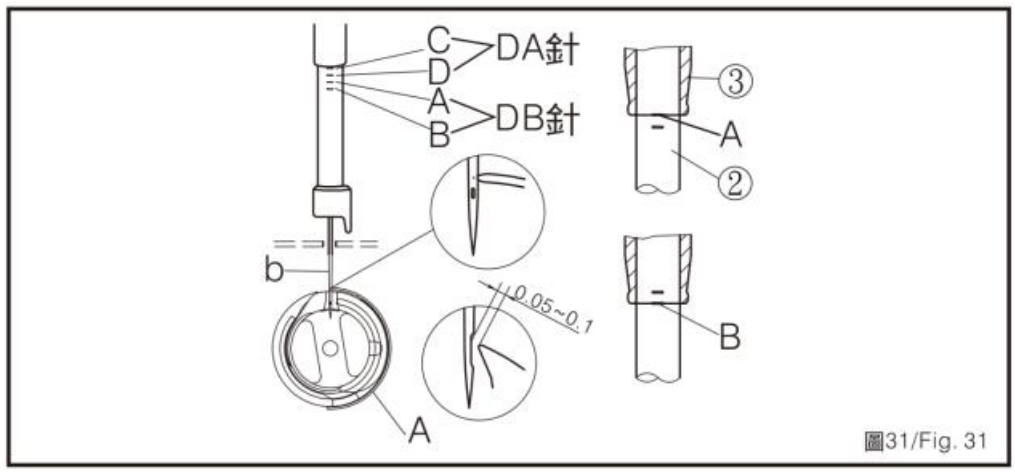


圖31/Fig. 31

PRESSER FOOT HEIGHT ADJUSTMENT

1. Loosen screw ①, and adjust the height of presser foot and its orientation. (Fig. 32)

2. After adjustment, lock the screw ① securely.

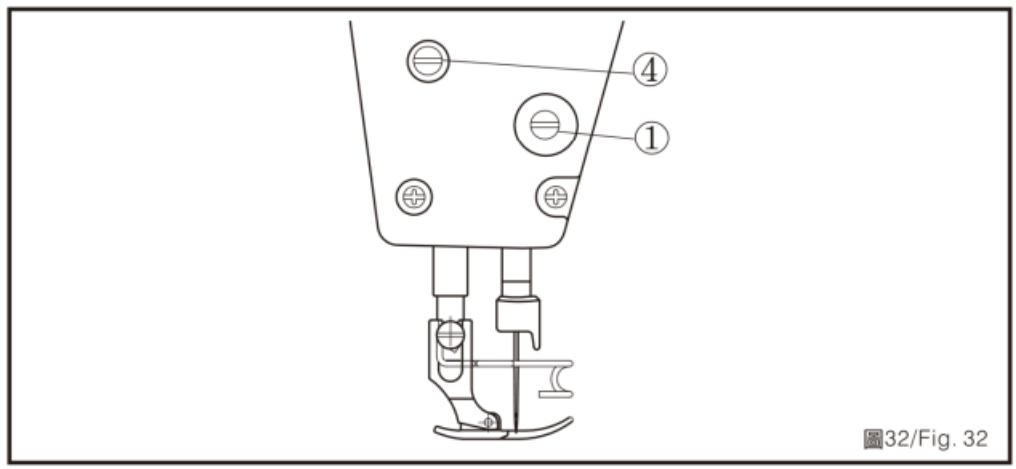


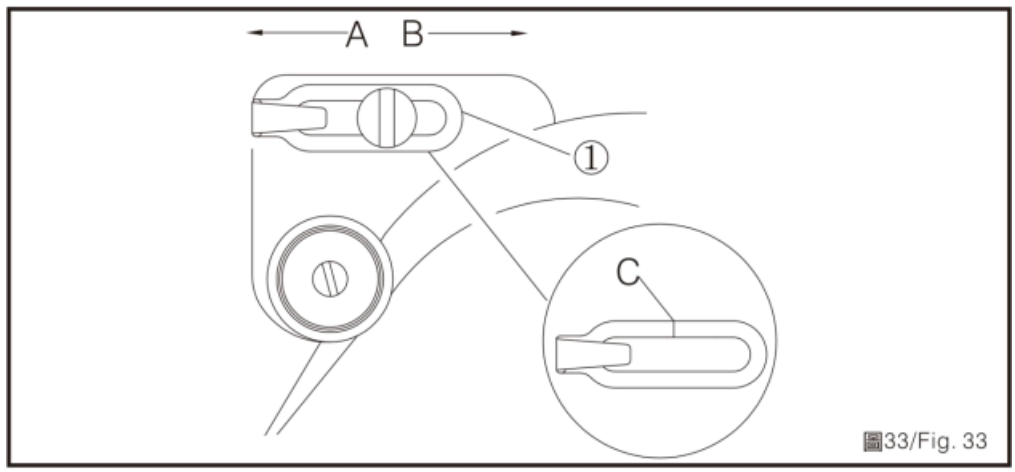
圖32/Fig. 32

THE THREAD TAKE UP STROKE ADJUSTMENT

1. Move thread guide ① to the left (in direction A) to increase the amount of thread pulled out by the thread take-up when sewing heavy fabric. (Fig. 33)

2. Move thread guide ① to the right (in direction B) to decrease the amount of thread pulled out by the thread take-up when sewing light-weight materials.

3. In general, thread guide ① is positioned to have the marker line C aligned with the center of the screw.



33/Fig. 33

ADJUSTING THE PEDAL

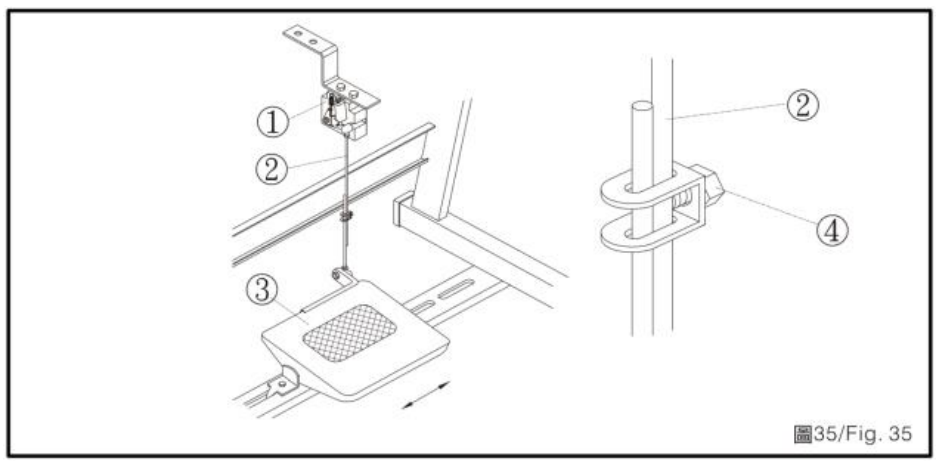
1. Install the connecting rod. (Fig. 35)

Move the pedal left and right as the arrow shows in the figure in order to align the motor control lover ① with the connecting rod ②.

2. Adjusting the slope of the pedal.

(1) The tilt degree can be changed and adjusted freely by changing the length of the connecting rod.

(2) The length of the connecting rod ② is adjusted by loosening the adjusting screw ④.



35/Fig. 35

ADJUSTING THE TENSION ON PEDAL AND PEDAL STROKE

1. Adjusting the front part treading pressure of the pedal. (Fig. 34)

(1) The pressure of the pedal can be adjusted by changing the mounting position of pedaling pressure adjust spring ①.

(2) The pressure is reduced when moving the spring hook to left side.

(3) The pressure is increased when moving the spring hook to right side.

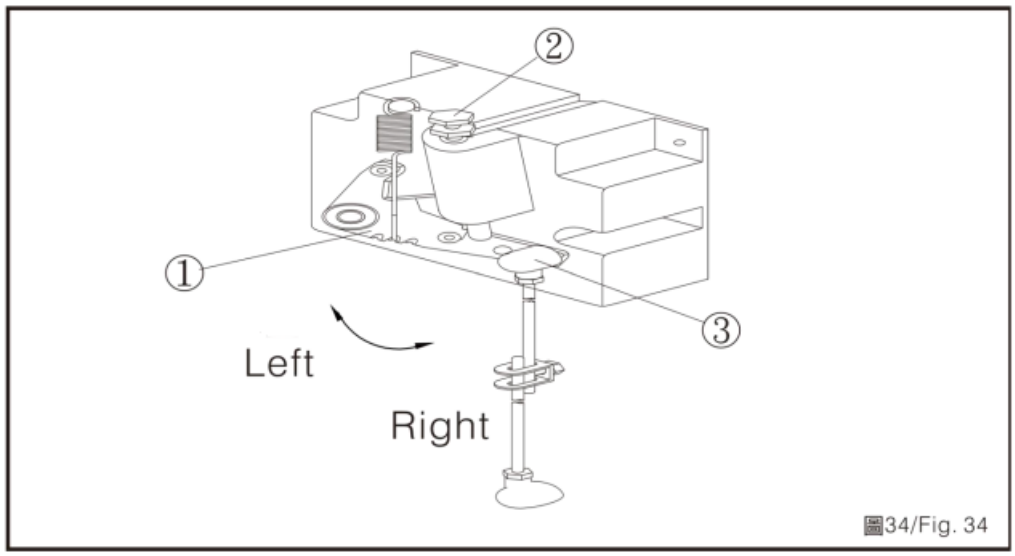
2. Adjusting the rear part treading pressure of the pedal.

(1) The rear part treading pressure of the pedal can be adjusted by driving the regulator screw ②.

(2) The pressure is increased when you follow the direction on the screw to drive it.

(3) The pressure is decreased when you drive the screw by the opposite direction of the arrow on the screw.

3. Adjusting the pedal stroke. The pedal stroke is shorter as connecting rod ③ moved to the left holes.



34/Fig. 34

ADJUSTING THE AMOUNT OF OIL IN THE HOOK

1. The oil amount adjustment screw is mounted on the hook driving shaft. Turn the screw counter clockwise toward "+" direction (A direction) to increase the amount of oil supplied in the hook. Turn the screw clockwise toward"-" direction (B direction) to reduce the amount of oil supplied in the hook. (Fig. 39)

2. After the amount of oil in the hook is properly adjusted, run the machine idly for 30 seconds to do oil splashing observation test to reconfirm the amount of oil in the hook.

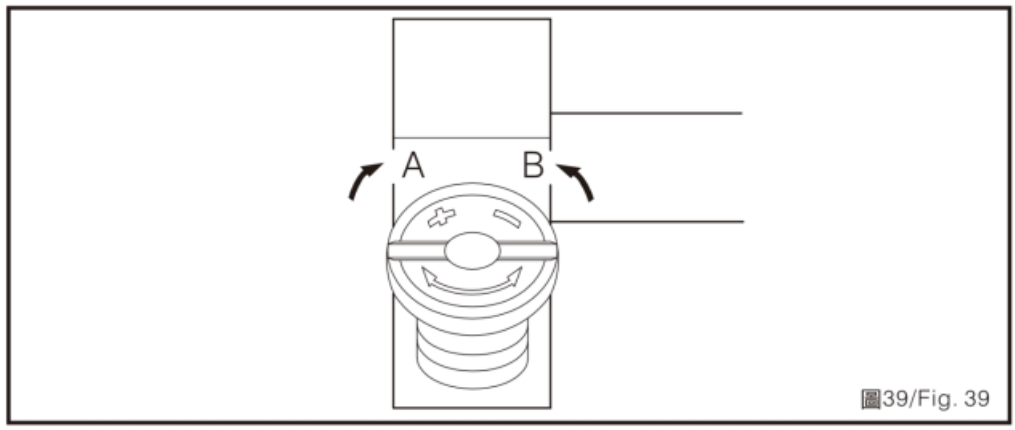
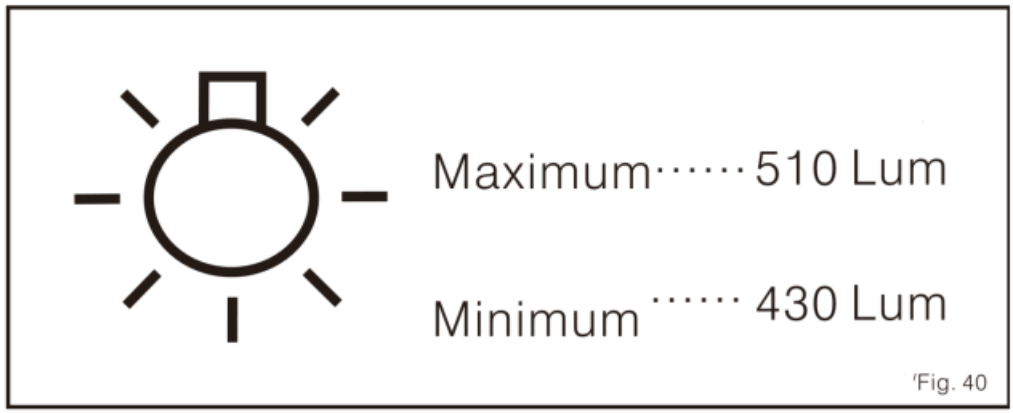


圖39/Fig. 39

LIGHTENING OF THE OPERATION ENVIRONMENT

Provide a warning that an industrial sewing unit or sewing system must always be unplugged from the local lighting of the sewing area before revamping, the marking of maximum rated input of a lamp shall be easily discernible while the lamp is being replaced indicated on or near the lamp socket as shown on Fig. 40.



'Fig. 40

CONDITIONS OF ALL OPERATORS

1. Read and understand well the content of this instruction book.

2. Know the functions of major parts and understand the notices.

3. Truely realize the meanings of all warning tags.

4. Realize and be familiar with how to operate this machine.

5. Operators have to keep well mental status.

6. Operators shall wear appropriate and proper working suits.

7. Develop the familiarity of how to operate the machine if needed.

OPERATING THE PEDAL

The foot pedal is operated as the following 4 steps. (Fig. 41)

1. Lightly tread the front part of the foot pedal shown as B in Fig. 32, machine runs at low sewing speed.

2. Further, tread the front part of the foot pedal shown as A, Machine runs at high sewing speed. (The machine runs at high speed after it completes the backstitch if the automatic backstitch has been preset.)

3. Reset the pedal to its original position, shown as C. Machine will stop (with the needle up or down.)

4. Fully depress the back part of the pedal shown as E, so that machine trims threads.

5. Attentions:

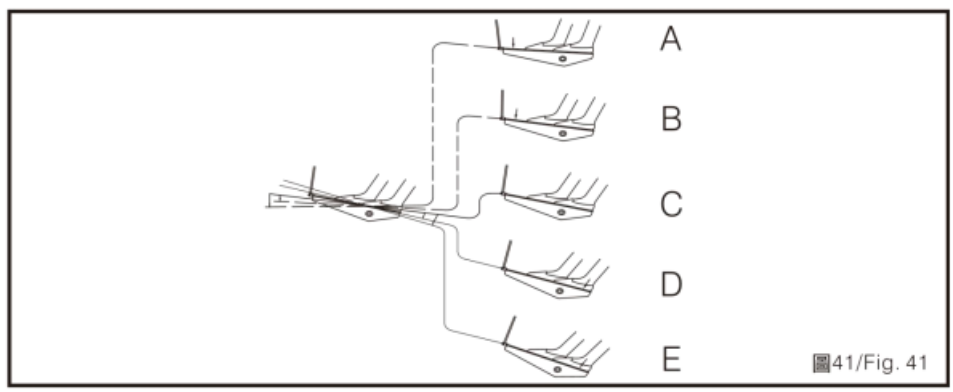
(1) One extra step is given between the machine stop and thread trimming steps if your machine is equipped with the auto presser foot lifter. When you lightly depress the back part of the pedal, shown as D, the presser foot goes up. The thread trimmer actuates if you further tread the back part of the pedal.

(2) Machine will stop after completing the backstitch if you relocate the pedal to its neutral position during executing the automatic backstitch.

(3) Whether the machine is under high speed or low speed sewing, you can make the machine doing thread trimming any time by tread down the back part of the pedal to do so.

(4) Even if you reset the foot pedal to its neutral position C immediately after the machine started thread trimming action, the machine will completely perform thread trimming.

(5) When the machine stops and makes the needle located at the lower dead end, tread the back part of the foot pedal once to D if you want to bring the needle up.



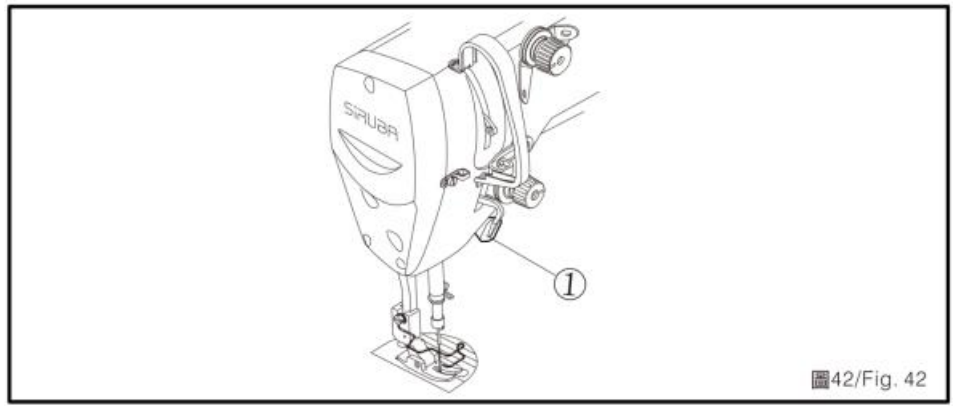
41/Fig. 41

OPERATING THE ONE TOUCH TYPE REVERSE FEED STITCHING

1. Press the switch lever 1 to start the back stitch function. (Fig. 42)

2. As long as the switch lever is pressed, the sewing machine will continue doing back stitch.

3. Release the switch lever, and the sewing machine will resume the normal sewing function.



42/Fig. 42

MAINTENANCE

CAUTION

Turn off the power switch before carrying out cleaning. The machine may operate if the treadle is pressed incautiously, 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 be resulted.

Furthermore, do not drink or eat the oil nor the grease for they can cause vomiting and diarrhea. Keep the oil away of the reach of children.

Use both hands to hold the machine head when tilting or returning it to its original position.

If only using one hand to move the machine, the weight of the machine head may cause slipping and you may get hurt.

For keeping the machine quality and lengthening the usage term of this sewing machine, please maintain it every day. In addition, before first use after a long idling time, please follow the following steps to maintain.

《CLEANING

1. Raise the presser foot.

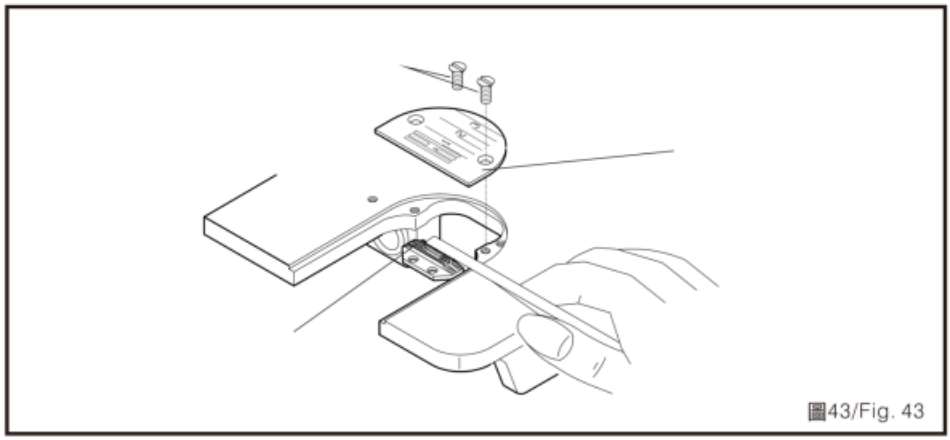
2. Remove the two screws 1, and then remove the needle plate 2.

3. Use a soft brush to clean dust and lint's on the feed dog teeth 3. (Fig. 43)

4. Install the needle plate 2 after doing the above cleaning.

5. Tilt back the machine head.

6. Periodical Maintenance Items (Table 7)



43/Fig. 43

Maintenance Cycle	Maintenance Items
Daily	1. Clean the lint on the feed dog.
	2. Check if there has enough liquid oil inside the oil pan. (The amount should be between the red up and down paint mark of the oil level gauge.)
	3. Keep the machine and the operation table clean.
Weekly	1. Keep the power cords looking clean and neat.
	2. Keep the operational panel clean.
	3. Check if the power parts is loosening or still at the right position.
Quarterly	1. Replace the liquid oil inside the oil pan.

OIL LUBRICATION

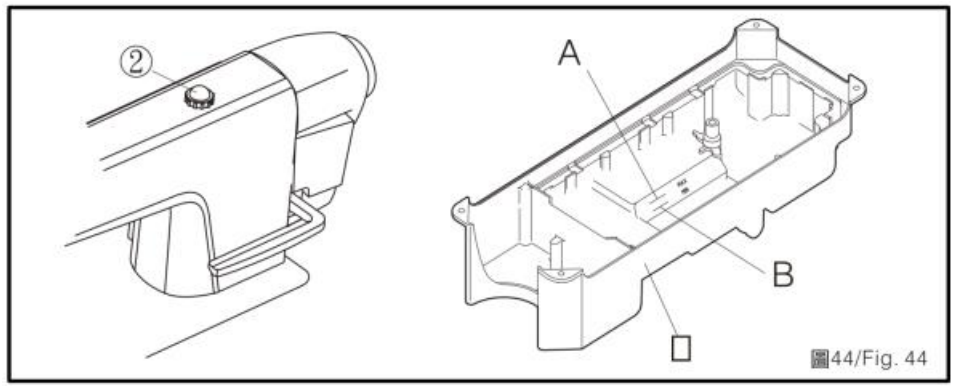
1. Oil lubrication instruction (Fig. 44)

(1) Fill the oil pan with specified oil up to high mark A.

(2) Refill the oil pan with the specified oil if the oil level is lower below low mark B.

(3) You will see oil splashing via the oil sight window 2 if the lubrication functions well when machine runs.

(4) When running the machine first time or after a period of idling time, please run your machine at 3,000 S.P.M. to 3,500 S.P.M. for about 10 minutes.



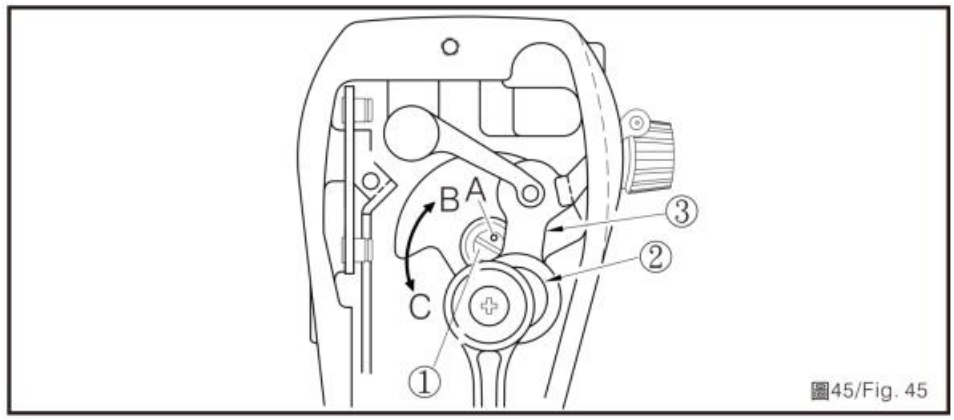
44/Fig. 44

2. Oil supply adjustment for needle bar/thread take-up lever (Fig. 45)

(1) Turning adjust pin ① to adjust the supplied oil volume to the needle bar crank and the thread take-up ③.

(2) To decrease supplied oil amount, turn the adjust pin ① in direction B to make the mark A close to the needle bar crank ②.

(3) To increase the supplied oil amount, turn the adjust pin ① in direction C to make the mark A away from the needle bar crank ②.



45/Fig. 45

3. Adjust the oil amount of the hook (oiling amount).

(1) Oil splashing test paper is about 25mm x 70mm. Any material of test paper is accepted. The material will not affect results. (Fig. 46)

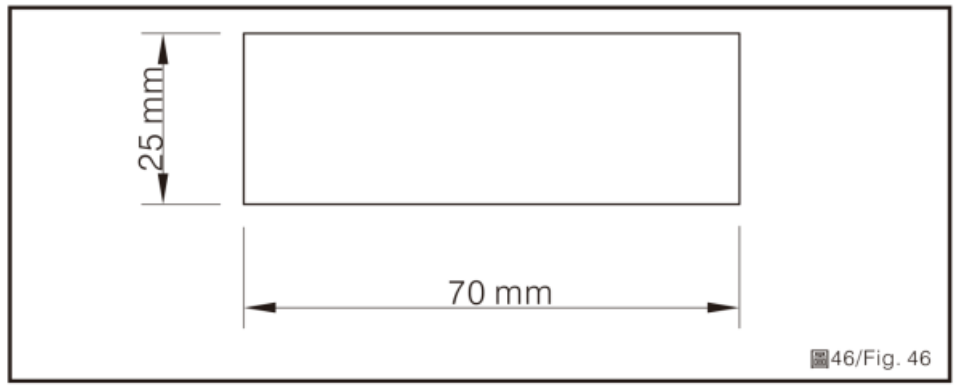


圖46/Fig. 46

(2) Confirm the oil amount. Place the test paper under the hook and fit the paper closely against to the wall of the oil pan. (Fig. 47)

①HOOK PAPER OIL PAN

BUSHING ④TOUCHING BASE

When doing step (2), carefully remove the sliding plate and do not touch the hook with fingers.

4. Attentions:

(1) If the machine doesn't warm up enough, please run the machine 3 minutes idly.

(2) While the machine is running, place the oil splashing test paper under the hook. (Fig. 47)

(3) Confirm that the height of the oil level in the oil pan falls between "HI" and " LOW".

(4) Oil splashing observation test should be completed in 5 seconds. (Use a watch to check the time used.)

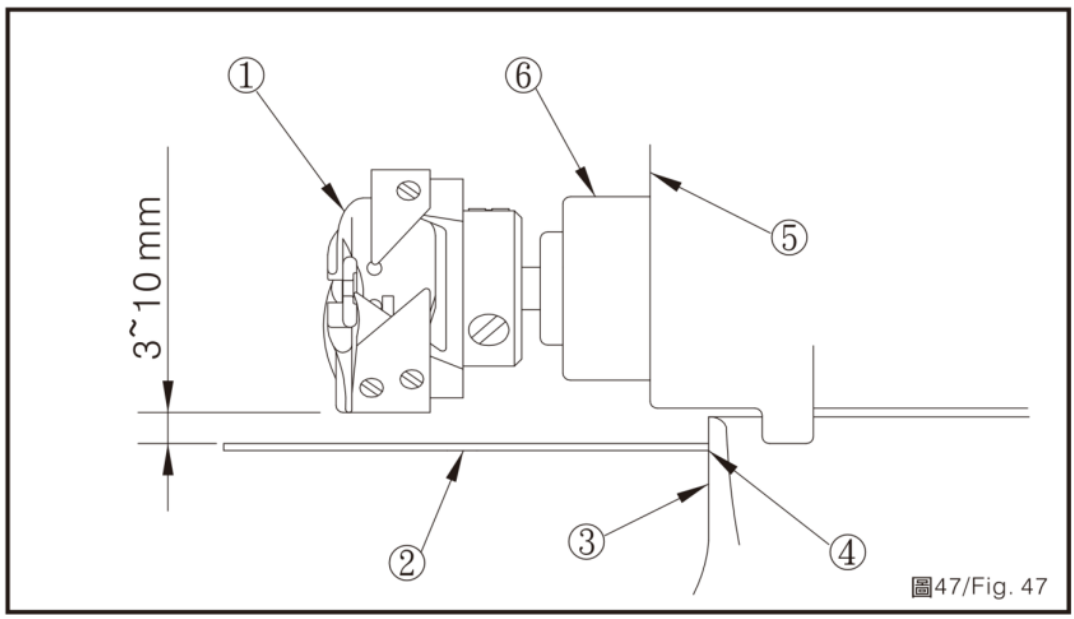


圖47/Fig. 47

5. A sample of observations indicate the appropriate oil amount. (Fig. 48)

Oil amount in the hook (small) as shown is approximated 1mm.

DL7200-BM: 1.5mm

DL7200-BH: 3mm

Oil amount in the hook (large) as shown is approximated 2 mm

DL7200-BM: 3mm

DL7200-BH: 6mm

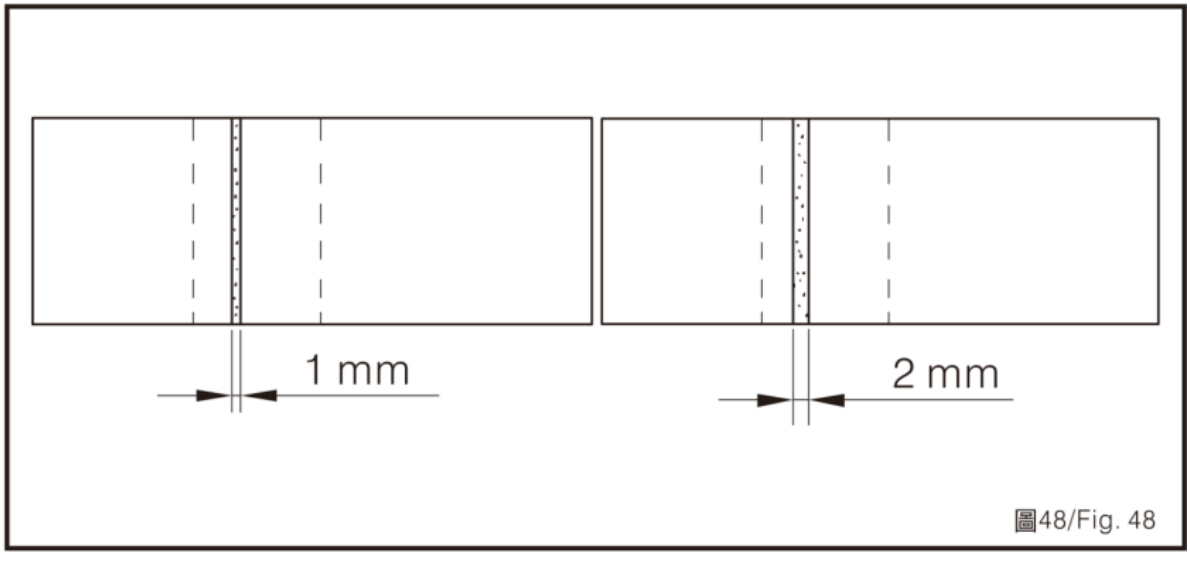


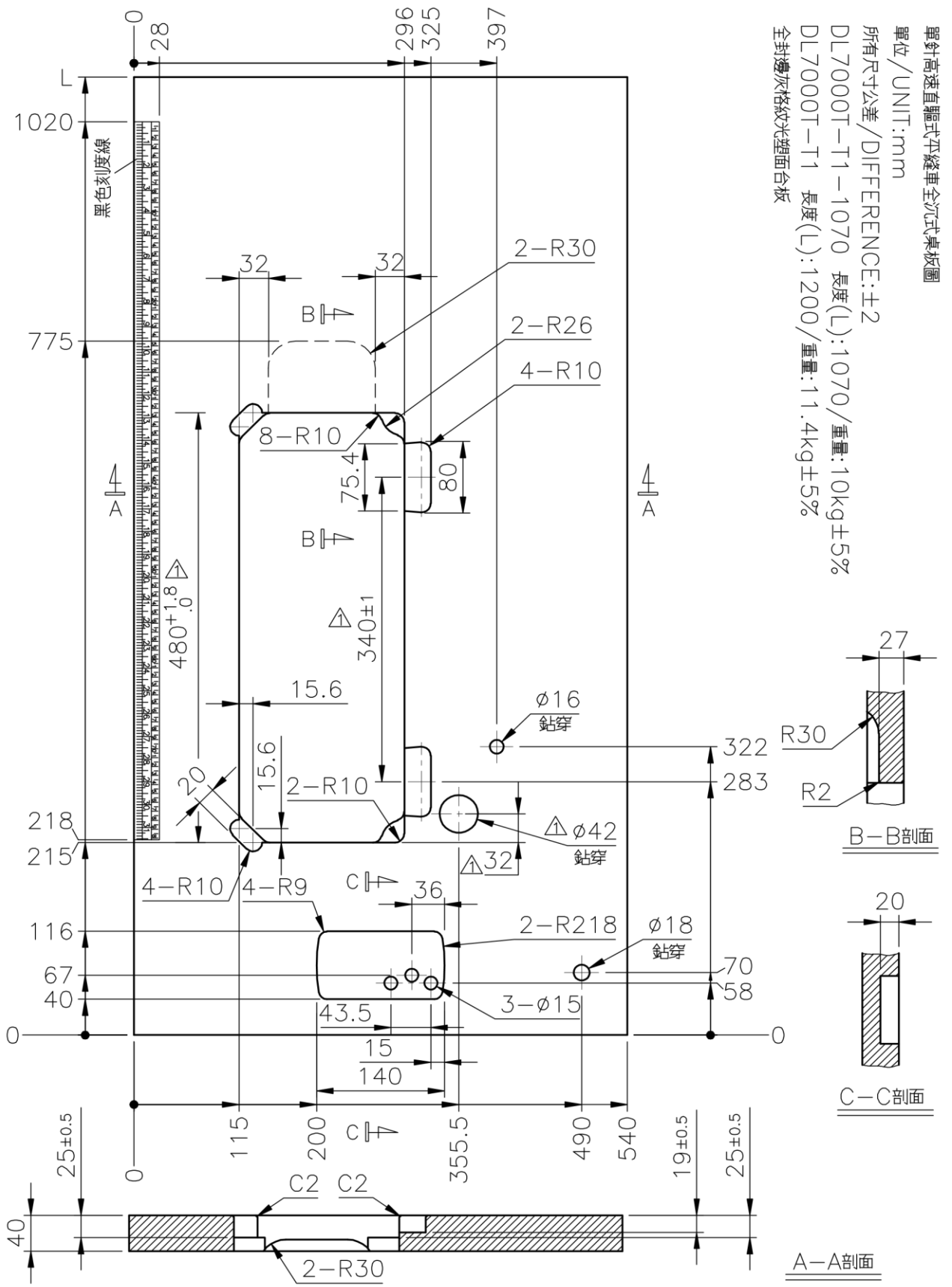
圖48/Fig. 48

(1) The amount of oil in the hook (ref. to the sample shown on Fig.9) should be adequately adjusted according to the sewing materials and processes.

Insufficient amount of oil will cause the hook to cease and overheat. Excess amount of oil may cause the sewing product stained with oil.

(2) Adequate adjustment should be reached in the way that same oil splashing observation will be collected in ③ times on separate paper.

SiRUBA TABLE CUT - OUT	Series	Item Code	Subclass / Remark	Mounting
	DL720/DL6800/DL6900 DL7000/DL7200/DL7300 DL7400/DL7500/DL3880 DL380 ⚠1	DL7000T-T1		Fully-submerged
				Date
				2021/04/28



DEMOLITION PROCEDURE

1. When the machine needs to be eliminated and demolished, certain basic rules must be observed to protect the environment and public health.

2. ALL machine components must be divided according to categories as the followings:

1) All sheathes, flexible hosing and plastic or non-metal components.

(2) Electricity components: switches, or lighting components.

(3) Insulation materials: rock wool, and flexible rubber strips.

(4) Metals: ferrous metals, copper, bronze and brass, various.

3. In this way, all materials can be eliminated correctly, recycled, or melted down for re-use or disposed of so that they do not harm the environment.