

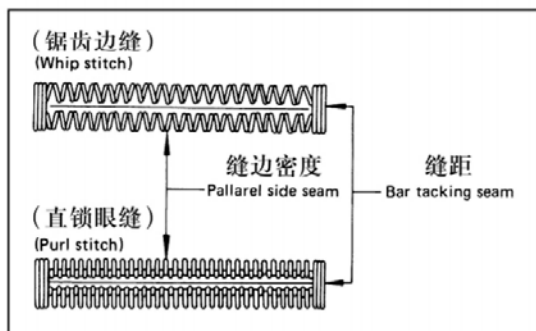
**中文**  
**ENGLISH**

**B-1M**

使用说明书（机械）

**INSTRUCTION MANUAL (Mechanical)**

## 1 : 缝迹形式/TYPES OF STITCHES



本缝纫机有两种线迹形式。它们是：

- 1、锯齿边缝
- 2、直锁眼缝

(锯齿边缝)

布的表面只有上线，背面是底线的锯齿状缝迹。

(直锁眼缝)

增强上线张力，上线直线通过，底线左右锁缝的缝迹。

This machine is capable of forming two different types of stitches, namely whip stitch and purl stitch.

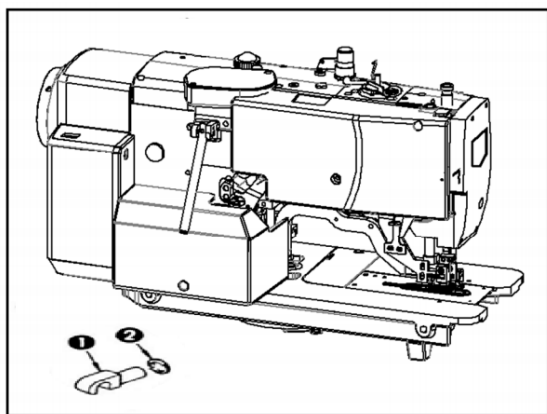
### (Whip stitch)

The whip stitch is formed in zigzag showing the needle thread only on top of fabric, and the bobbin thread on the bottom.

### (Purl stitch)

When applying higher tension to the needle thread to permit it to pass straight through fabric, the purl stitch is formed by the bobbin thread which is pulled over from both sides to the center line.

## 2 : 缝纫机头的安装/SETTING UP THE MACHINE HEAD



将铰链钩①装入机头。

然后，将机头放在机座上。

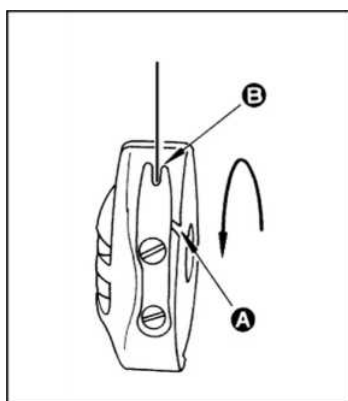
Insert hinge ① into machine head.

Then, place the machine head on the machine base.

不得抬压电控部位及剪线部件。

Do not lift the electric control parts and wire cutting parts

## 3: 梭心的安装方法/ATTACHING THE BOBBIN



1、手拿梭心，让线往左绕的方向，把它放入梭壳。

2、把线穿过梭壳的穿线口A，然后把线往B方向拉，从线张力弹簧下面的穿线口B拉出来。

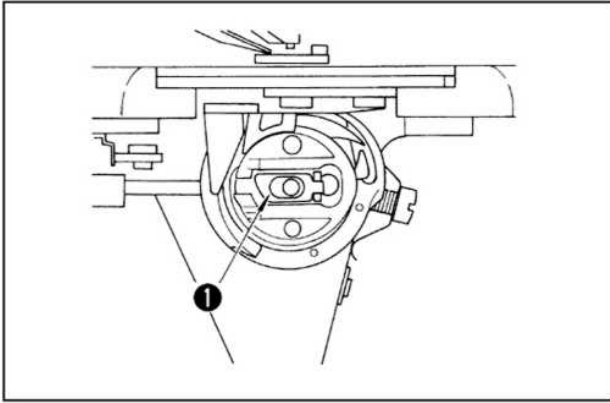
★拉底线，确认底线是否梭心与箭头的方向相同。

1. Hold and place a bobbin into the bobbin case so that the bobbin is wound counterclockwise.

2. Passing the thread through thread outlet A of the bobbin case, pull the thread, and the thread can be drawn out from thread outlet, passing under the bobbin winder tension spring.

★ Set the bobbin so that it rotates in the arrow direction when the bobbin thread is pulled.

#### 4 :梭壳的安装方法/INSTALLATION/REMOVAL OF BOBBIN CASE



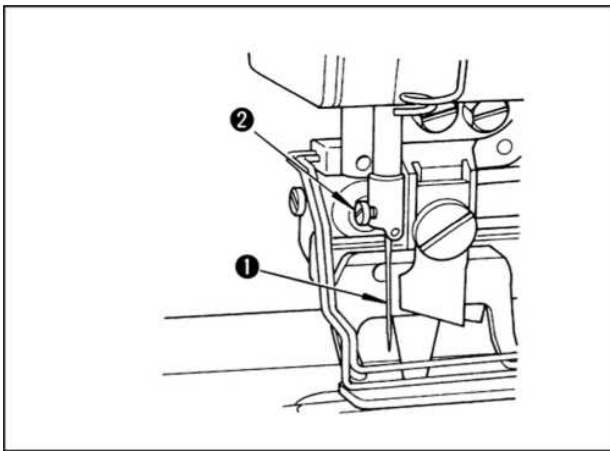
1、撬起梭壳扣爪①，取梭壳。撬起扣爪拿旋梭时梭心不会掉下来。

2、安装时请把梭壳插到底，扣爪闭上。

1. Lift up and hold bobbin case latch lever ① between two fingers to remove it from the hook. A bobbin does not fall off the bobbin case while the latch lever is lifted up.

2. For installation of the bobbin case, push the bobbin case into the hook so that it is supported by the hook shaft, and then snap in the latch lever.

#### 5 :机针的安装方法/HOW TO INSTALL THE NEEDLE



★切断电源。使用 DPx5J 机针

1、拧松机针固定螺丝②，手拿机针，把机针①凹部横向转到前侧。

2、然后把机针插进针杆孔的深处。

3、拧紧机针固定螺丝。

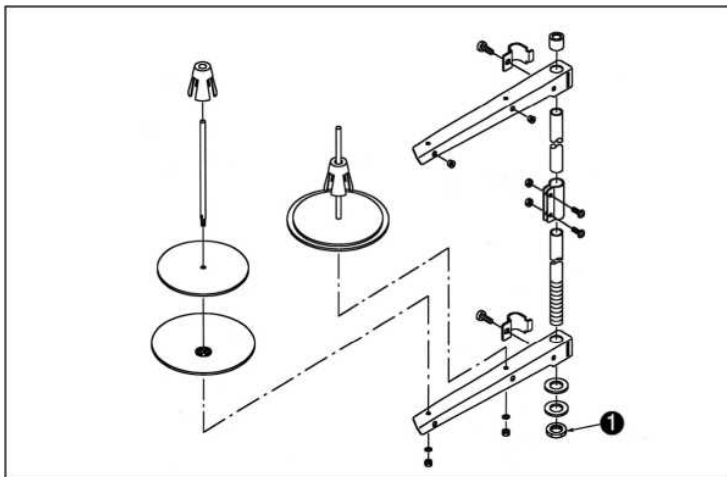
★Turn off the motor power. Use a DPx5J needle.

1. Loosening needle setscrew ②, hold needle ① with its recessed part facing toward the operator.

2. Insert the needle fully into the needle clamping hole, and.

3. Securely tighten the needle setscrew.

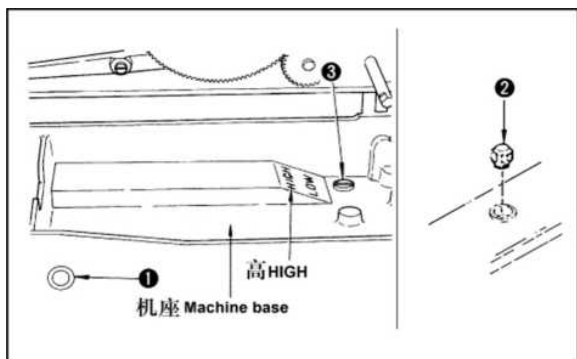
#### 6 :线架的安装/SETTING UP THE THREAD STAND



把立式线架放入台板孔，拧紧螺母①固定在台板上。调整配线的高度，让电源线从杆②中穿过。

Assemble the thread stand, and fix it in the table, Then tighten lock nut ① to fix the thread stand. If ceiling wiring can be made, pass the power cable through spool rest rod ②

## 7 :加油/LUBRICATION



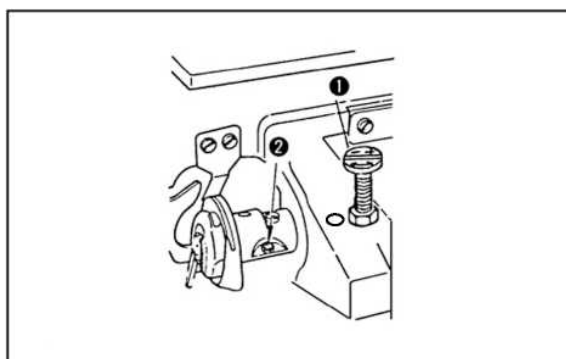
- 1、把 NO.1 新机油加入到油槽，加到 HIGH 标记的位置。
- 2、油量低于油标①时，应往油槽里加油。
- 3、当机器正常运转时可以通过油视窗②看到机油 (低速运转时油量会少一些)

★油脏污之后，请拧松放油螺丝③排出脏油，并换新机油。

### Before starting the machine

1. Fill the oil reservoir of the machine base with New Defrix Oil No. 1 up to the level indicated by "HIGH".
2. Supplement the oil when the oil level has lowered below the bottom line of oil gauge ①.
3. When the machine has been properly lubricated, the oil is seen to run through the pipe from oil sight window ② (Low speed operation permits easier observation of the lubricating oil)

★ Drain dirty oil by loosening oil drain screw ③ and fill the oil reservoir with fresh oil.

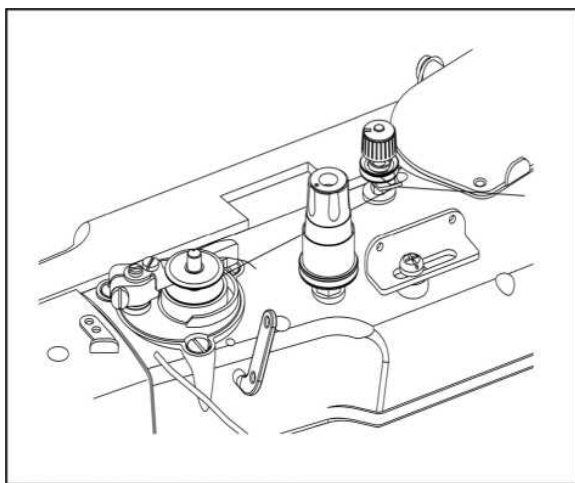


### ★旋梭油量的调节

用调节螺丝①调为大旋梭的油量，用调节螺丝②进行微量调节。把调节螺丝往里拧油量变多。

★ **Adjusting the lubrication for the sewing hook** Adjust the volume of lubricating oil supplied to the sewing hook by turning oil adjusting screws ① for rough adjustment, and ② for fine adjustment, oil volume is reduced when turning the screws clockwise.

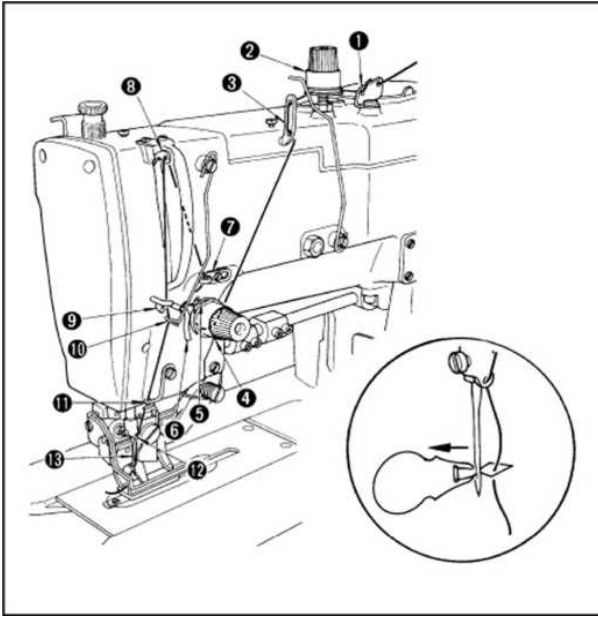
## 8. 底线的绕线方法/WINDING THE BOBBIN



- 1、把梭心插到绕线轴上。
- 2、如图所示进行穿线，并把线在梭心上绕几圈。

1. Fit a bobbin onto the bobbin winder shaft.
2. Take the thread from the spool and pass it through the guides in the numerical order shown in the figure, and wind the end of the thread several turns around the bobbin.

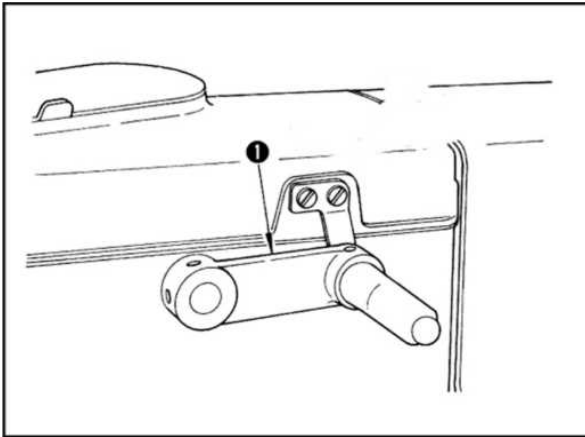
## 9: 上线的穿线方法/THREADING THE NEEDLE-THREAD



- 1、如图所示穿上线。
- 2、线穿针时,可使用附属的穿线器穿线非常方便。

1. Pass the needle thread in the order as shown in the figure.
2. The threading can be done easily by using the needle threader supplied with the machine.

## 10: 手动送布手柄 MANUAL FEED HANDLE



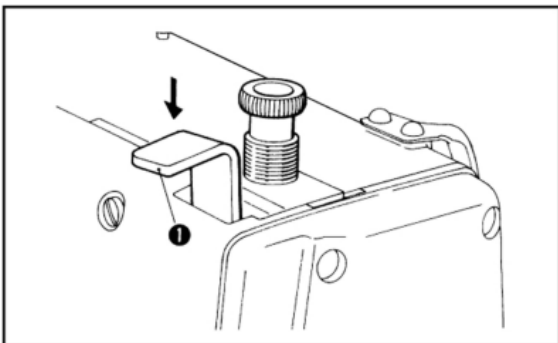
**CAUTION : Do not rotate when the pressure foot is lifted**

紧急停止后,或中途线断后,再次开始缝纫时,转动手动送布手柄①送布面构就开始动作。(注意)手动送布手应在确认了机针没有扎到布之后再转动。

**注意: 压脚抬起时禁止转动**

When you want to feed fabric manually after giving an emergency stop or to resume sewing from the point at which thread was broken, rotate manual feed handle ① to operate the cloth feeding mechanism. (NOTE) Confirm that the needle does not stick in fabric before turning the manual feed handle.

## 11: 防止切刀掉落 HOW TO HOLD THE DESCENDING KNIFE

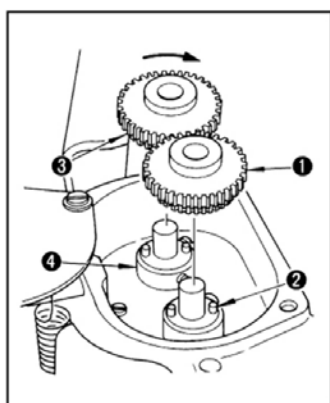


当上线和底线被切断时,或不想让刀落下时,在缝纫机停止之前把固定拨杆①轻轻向下按压。切刀就不会下落

When you do not want to cut fabric after sewing because of thread breakage or some other reasons, keep on pressing down knife stop lever ① lightly until the machine stops. Then the knife will not descend.

## 12: 针数的变换方法 CHANGING THE NUMBER OF STITCHES

代号 Symbol	小齿轮针号 No. of stitches of small gears	大齿轮针号 No. of stitches of Large gears	代号 Symbol	小齿轮针号 No. of stitches of small gears	大齿轮针号 No. of stitches of Large gears
A	54	345	I	93	200
B	62	300	ⓐ	100	190
C	66	285	K	105	180
D	70	268	ⓑ	110	170
Ⓔ	74	252	M	115	160
F	79	238	ⓒ	123	152
Ⓒ	83	225	O	130	145
H	88	212			



### ★更换齿轮

- 1、更换齿轮，可以变为表中所述的针数。
- 2、齿轮上均刻有 A、B、C...的英文字母和 123、156 的数字。
- 3、用英文字母相同的齿轮进行组合。
- 4、后而安装的齿轮上刻的数字表示此时的针数。（O 里的为标准附属品。其它则为另外订购零件。）

### ★齿轮的安装

- 1、从操作人员方面看，把齿轮①插进前面的 更换齿轮座②的校链上。
- 2、把齿轮③向箭头方向转动，插进后面的更 换齿轮座④的校链。

### ★ Spur gears

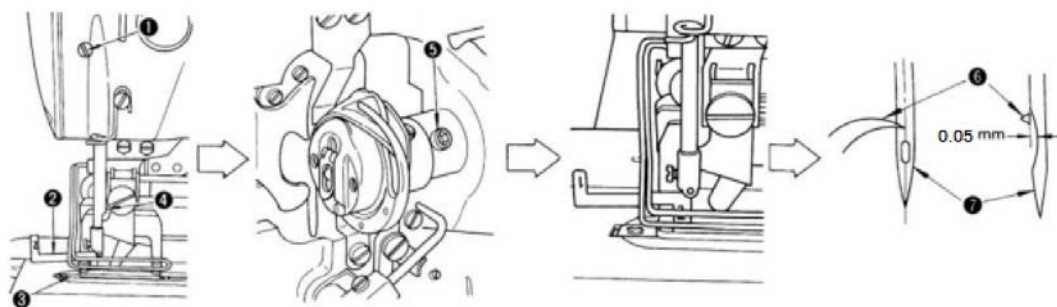
1. By selecting the spur gears, you can control the number of stitches as shown in the table
2. Alphabetical marks like A, B, C, etc, and numerals like 123, 152, etc are both engraved on each spur gear for identification
3. Use a combination of gears which have the same alphabetical marks
4. The numeral engraved the gear installed in the rear position will represent the number of stitched provided by the then combination of spur gears

The circled alphabetical symbols in the above table show that the gears are included in the standard accessories. All other gears are optional attachments

### ★ Attaching the spur gears to their shafts

1. Push gear ① into the shaft so that it is securely fixed by the pin on gear bushing ② located nearer to an operator

### 13: 机针和旋梭的关系 NEEDLE-TO-HOOK RELATION



★机针和旋梭请按如下所述进行调节。

1、把针杆降到最下点，让机针落到针板的针孔中央。

2、拧松针杆套管固定螺丝①。

(决定针杆的高度)

3、用同步尺②的”1”的部分放入针板③和针杆④下端之间，并让针杆顶到标尺。

4、拧紧针杆套管固定螺丝。

(决定旋梭的位置)

5、用附属的棒扳手拧松两个旋梭轴接头固定螺丝⑤。

6、向正规方向转动驱动皮带轮，针杆成为从最下、点开始上升的状态。

7、把同步尺的”2”的部分放到针板和针杆下•端之间，针杆顶到同步尺时。

8、让旋梭尖⑥对准机针⑦的中心，旋梭尖和机针之间的间隙为约0.05mm,把旋梭轴接头固定螺丝 拧紧。

(注意)发生跳针时，请让针杆的高度比同步尺”1”低0.5mm左右。

★ Set the needle to hook relation in the following way:

1. Bring down the needle bar to the lowest point when the needle is coming down through the center of the needle hole on the throat plate.

2. Loosen needle bar connection screw①, and adjust the height of the needle bar.

**(Setting the needle bar).**

3. Insert the part "1" of timing gauge ② into the gap between the bottom end of needle bar ④and throat plate③.

4. Retighten the needle bar connection screw to adjust the position of the sewing hook.

**(Setting the hook).**

5. Loosen setscrew ⑤of the hook sleeve by the bar spanner supplied with the machine.

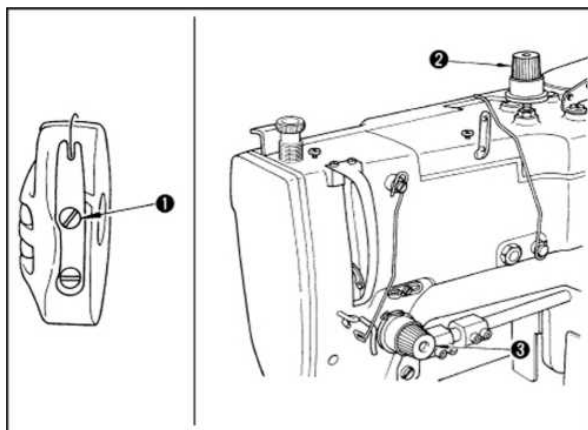
6. Rotate the driving pulley in the correct direction until the needle starts to go up from its lowest point.

7. Insert the part "2" of the timing gauge into the gap between the bottom end of the needle bar and the throat plate, where the bottom end of the needle bar touches the top of the part "2" of the timing gauge.

8. Align blade point ⑥of the sewing hook with the center of needle ⑦, and make adjustment so that a clearance of approx0.5mm (1/64")is provided between the needle and the blade point of the hook. Then securely retighten the setscrew of the hook sleeve.

(NOTE): If stitches are skipped, lower the needle bar by approx 0.5mm(1/64") from the timing gauge " 1".

## 14: 线张力 THREAD TENSION



### ★直锁眼缝的线张力

- 1、用梭壳张力螺丝①把底线张力调节为 0.15~0.2N 左右。
- 2、调整第一线张力器②缝制出漂亮的锯齿边缝那样的缝迹。如果背面线头露出的话，请调紧第一线张力器。
- 3、对于平行部 A 的锯齿形状，请用第二线张力器③调节。

### ★锯齿边缝的线张力

- 1、用张力螺丝①把底线张力调肖为 0.4~0.5N 左右。

- 2、更换第一线张力器②和第一线张力器③的调节弹簧。(第二线张力器要稍弱一些)
- 3、用第二线张力器②进行调节, 不让缝纫完后脱线。
- 4、用第一线张力器③调节平行部、加固缝部的缝迹。

### ★ Adjusting the thread tension for purl stitch:

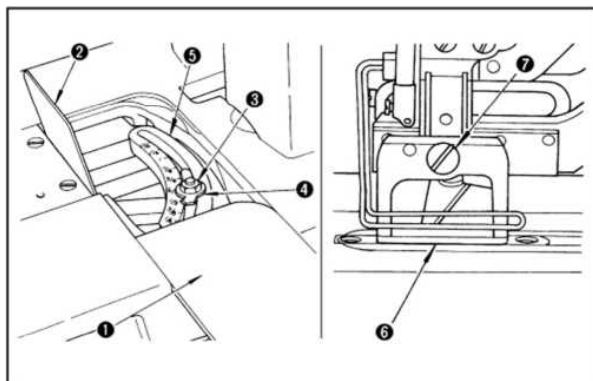
1. Adjust the bobbin thread tension to approx. 15 to 20g by adjusting screw ① of the bobbin case.
2. Adjust tension controller No. 1 ② for proper needle thread tension so that the bar-tack part is formed by well-shaped whip stitches. If the tension is too low bar tacking seam may form thread knots on the rear face of fabric.
3. Adjust tension controller No. 2 ③ for proper tension of the parallel side seams by judging from the stitch formation.

### ★ Adjusting the thread tension for whip stitch:

1. Adjust the bobbin thread tension to approx 40 to 50g by adjusting screw ① of the bobbin case.
2. Exchange the adjusting springs of tension controllers No.1 ② and No.2 ③ each other (the tension controller No.2 will have a weak spring).
3. Adjust tension controller No.2 ③ to prevent raveling off at the end of a seam.
4. The stitches of the parallel sides or bar-tack can be adjusted by tension controller No. 1 ②.



## 15 : 缝边长度(送布量)的调节 ADJUSTING THE OVEREDGING LENGTH (BUTTONHOLE LENGTH)



- 1、拉出外罩①，就可以抬起外罩②。
- 2、用附属的扳手拧松螺母③，把指针④对准送布曲柄⑤。上希望的刻度（与切布刀宽度相同的尺寸），然后拧紧螺母③。请不要把螺母③拧下来。
- 3、进行试验缝制，微调让切刀不切加固缝部。

### ★压脚的更换

请使用接近钮扣眼长度的压脚步⑥。

拧松压脚固定螺⑦，就可以更换压脚。

1.Pull out cover ①,and raise cover ②.

2.Loosen nut ③ by the spanner supplied with the machine. Set point ④to a desired length on scale (this length is the same with the knife width), and then retitthen nut ⑤.

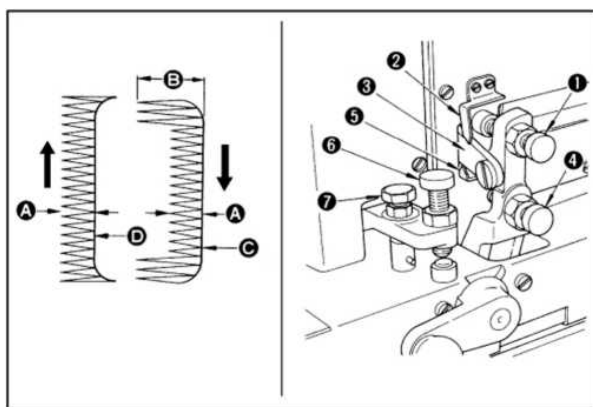
3.Through your trial sewing, adjust the overedging length accu rately to the extent that the bar tacking seams are not cut by the knife.

### ★ Changing the work clamp check

Use work clamp check ⑥having the size nearly the same as that of a buttonhole length.

By removing setscrew⑦ , a work clamp checks can be changed together with a work clamp check holder as a set.

## 16 : 锁眼宽度以及缝锁基准位置的调节 ADJUSTING THE OVEREDGING WIDTH AND OVEREDGING REFERENCE POSITION



机针的摆动以机针摆动的右侧为基准。调整 时请按照以下要领进行。

- 1、摆动宽度 A,移动螺丝①把指针②对准刻度板③上希望的刻度。实际的摆动宽度是刻度的 1/2 的量（单位：mm）。
- 2、加固缝宽度 B, 移动螺丝④把指针⑤对准刻度板的指针②指示的刻度，设定为摆动宽度的 2 倍。
- 3、右基线 C 的位置，移动螺丝⑥，设定到切刀切不了线的位置。拧紧螺丝⑥右基线向左移动。

4、进行试验缝，以进行上述的微调整。

5、左基线 D 的位置，因变更摆动宽度的位置也不变动，所以不需调整。但是切刀切左基线时，拧紧螺丝⑦让其向左移动。

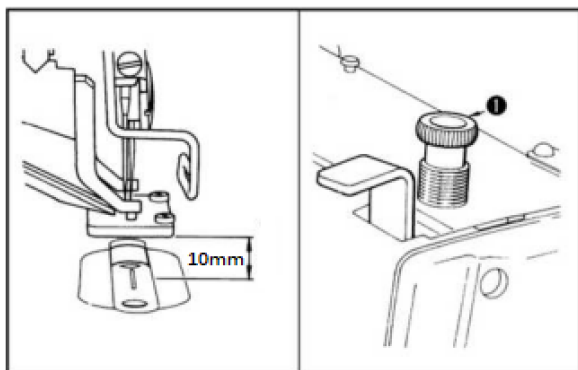
The needle swings from right to left with the right base line established as the reference position.

Perform the adjustment as follows:

1. To adjust stitch widthA,screw in or out screw ①, and set pointer ② to a desired value on scale plate③. The actually sewn stitch width will be the half of the set scale value(mm).
2. For adjustment of bar tacking width B , screw in or out screw ④,and set poiner ⑤to the value indicated by scale plate pointer ②, making the bar tacking width twice as large as the stitch width.

3. Adjust the position of right base line C by screwing in or out screw ⑥ so that it is kept away from the cutting line of the knife. As screw ⑥ is screwed in, the right base line moves to the left.
4. Through your trial sewing, further perform fine adjustment.
5. It is not necessary to adjust the position of left base line D since it remains unchanged when the stitch width is changed. However, the left base line should be moved to the left by screwing in screw ⑦ if it is cut by the knife.

## 17: 压脚的压力调整/ADJUSTING THE PRESSER BAR PRESSURE

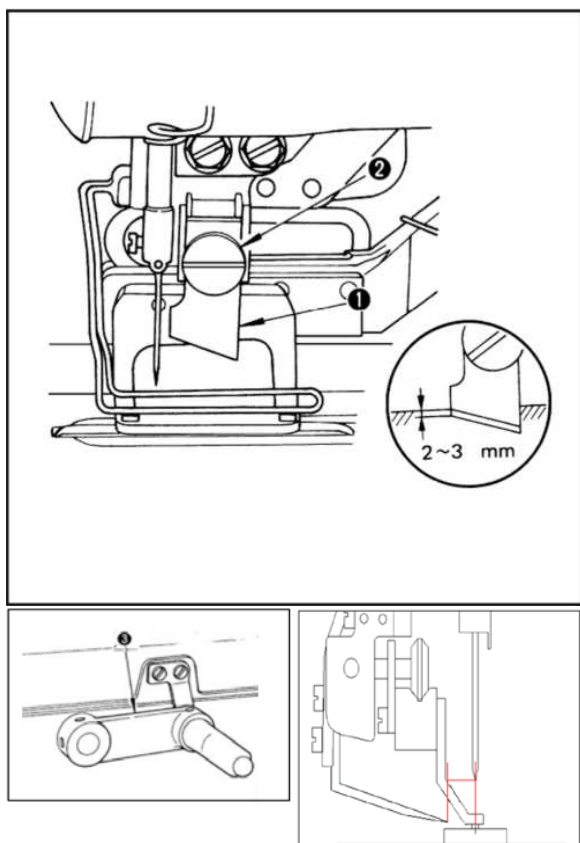


踏板踩到底时的压脚提升量为10mm。布压脚的压力用压脚调节螺丝①调节。拧紧调节螺丝①后，布压脚压力变大，布不容易出褶。

The presser bar goes up 10mm when the pedal is fully stepped down.

To adjust the pressure applied by the presser bar to fabric, turn presser spring regulator ①. When the pressure is not enough to prevent fabric from puckering, turn regulator ① clockwise.

## 18: 切刀的更换 REPLACING THE KNIFE



研磨切刀或更换新切刀时，请按照如下要领进行更换。

- 1、关闭电源
- 2、拧松切刀固定螺钉②，把切刀①和垫片一起卸下。
- 3、转动手动送布手柄③至面剪刀向左移动，安装时，下降到切刀最低点，让切刀和护针器上面的距离为2~3mm，拧紧切刀固定螺丝。

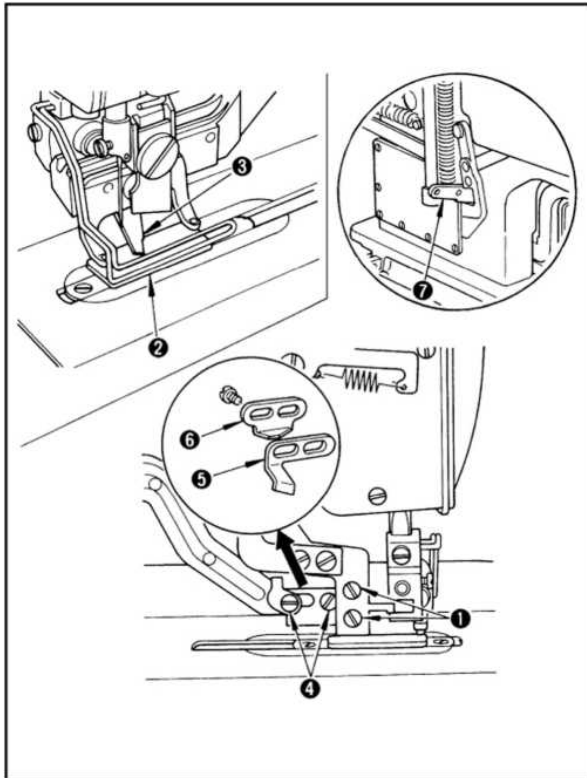
(注意)请一定放上垫片。

When sharpening or replacing the knife, remove it as follows:

1. Turn off the power
2. Loosen setscrew ②, and remove knife ① together with the washer.
3. Turn manual feed handle move the scissors to the face to the left attach the knife to the knife holder so that the higher end of the slanted knife blade comes down 2 to 3mm above the surface of the throat plate when the knife is brought down to the lowest position.

(NOTE): Do not forget to install the washer when retightening the setscrew.

## 19 : 上线切线的调整 ADJUSTMENT OF THE NEEDLE THREAD TRIMMER



### ★切刀的安装

拧松螺丝①，下降压脚使压脚②和切刀③不相碰。上线可以剪短。

但是缝纫布层时，压脚会倾斜所以把切刀的位置安得稍高一点。

### ★切刀关闭的同步时间

切刀伸到最比时，调整切刀关闭的同步时间。拧松螺丝④把上线切刀动作板A⑤前后移动，来调节。往前移动关闭的同步时间推迟，同时关闭量也变少。

（注意）切刀关闭之后，请确认还应有0.3-0.5 mm左右的富裕。没有关闭富裕时，切刀上线切刀动作板接触压脚提升拔杆⑦变重。

### ★切刀张开的同步时间

调整切刀使要切刀在从开始缝的2.5~3mm左右的地方，渐渐的开始张开。拧松螺丝④，前后移动上线切刀动作板B⑥来进行调节。向前移动张开时间提前。

（注意）定位的上线切刀动作板A一定不能偏斜。

### ★ Attaching the trimmer

Loosen setscrew ①, and adjust the height of trimmer ③. Set the height of trimmer ③ as low as possible, provided that it does not touch work clamp check ②, in order to minimize the length of remaining thread on the needle after trimming.

### ★ Closing timing of the needle thread trimmer

Adjust the closing timing of the needle thread trimmer so that the trimmer completely closes when it advances farthest.

To perform the adjustment, loosen screw ④, and move needle thread trimmer driving plate A ⑤ back and forth. When the needle thread trimmer driving plate is moved towards you, the closing timing is delayed with reduced amount of closing.

(NOTE) Confirm that an allowance of 0.3 to 0.5mm is left between the blades of the trimmer when the trimmer has completely closed.

If there is no such allowance the trimmer would interfere with the operation of the needle thread trimmer driving plate, preventing smooth movement of lifting lever ⑦.

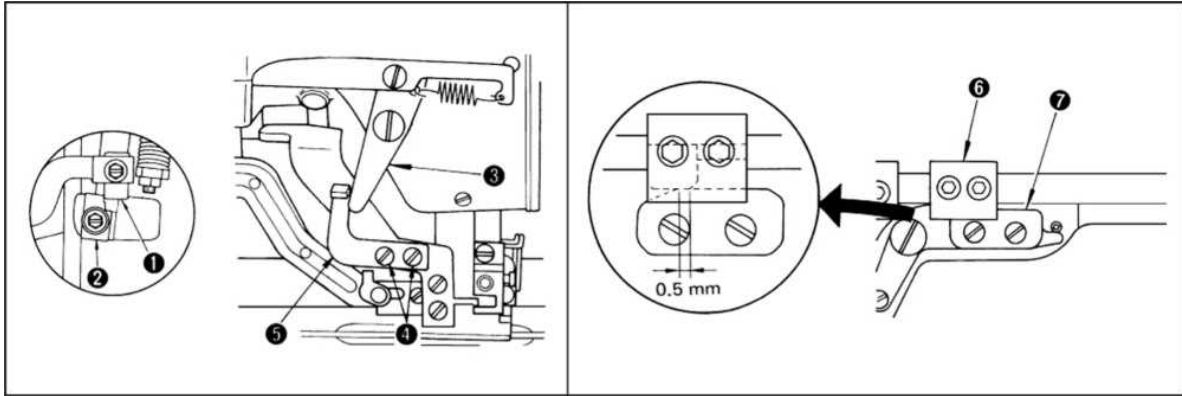
### ★ Opening timing of the needle thread trimmer

Adjust the timing of the thread trimmer so that the trimmer begins to open gradually at a distance of approx. 2.5 to 3mm (3/32" to 1/8") from the start.

To perform the adjustment loosen screw ④, and move needle thread trimmer driving plate B ⑥ back and forth. As it moves towards you, the trimmer begins to open earlier.

(NOTE) Take care not to cause the already fixed needle thread trimmer driving plate A to get out of position.

## 20 : 上线切线动作曲轴和限制板的调整 ADJUSTMENT OF NEEDLE THREAD TRIMMER HOLDER AND LIMITING PLATE



缝纫机低速起动时(多钩 B①和钩 A②咬合时)，拧松固定螺丝④，让限制板顶到阻挡曲柄③。

上线切刀张开时，让上线切线动作曲柄⑥和动作凸轮⑦咬合 0.5mm。

Loosen setscrew ④, and install and adjust limiting plate⑤so that it comes in contact with the blocking arm ③ at the time of slow start of the machine (When latch B ① is engaged with latch A ②).

Needle thread trimmer holder ⑥ should be installed in such manner that it engages with cam ⑦ by 0.5mm (1/64") when the needle thread trimmer opens.

## 21 :有关缝制的故障、原因及处理方法 TROUBLE.CAUSE.AND REMEDY

现象	原因	处理方法
1、上线断线	1、第二线张力器过强。 2、拉线弹簧的强度、移动量 过大。 3、旋梭尖有刺或有伤痕。 4、旋梭不同步。 5、线道有伤痕。 6、机针过细。	○ 减弱第二张力器的张力。 ○ 减弱拉线弹簧的弹力，或 缩小移动量。 ○ 磨平旋梭尖，或更换旋梭。 ○ 用同步尺调整旋梭的同步。 ○ 用布或蚀刀磨平。 ○ 更换成粗针。
2、上线脱线	1、上线切线剪打开过早。 2、放下压脚上线切刀便打开。 3、开始缝时不能为直锁眼缝。 4、上线的穿线方法不对。	○ 往后移动上线切线动作板 B。 ○ 往后移动上线切线动作板 B。 ○ 减弱第一线张力器的张力。 ○ 正确的穿线。
3、平行部缝迹不整齐	1、第二线张力器过弱。 2、挑线弹簧过强，活动范围小。 3、底线张力过强。	○ 增强第二线张力器。 ○ 重新调整挑线弹簧。 ○ 减弱底线张力。 (锯齿边缝 0.15-0.2N)
4、始缝缝迹不整齐	1、第一线张力器过弱。 2、上线切线位置过高。 3、挑线弹簧活动范围过大。	○ 增强第一线张力器。(0.15-0.3N) ○ 降低高度，但不要碰到压脚。 ○ 缩小挑线弹簧的活动范围，增大弹簧压力。
5、第一加固缝部上线 从布的下面堆线	1、第一线张力器过弱。 2、底线张力过强。	○ 增强第一线张力器。 ○ 减弱底线张力。(0.15-0.2N)
6、缝迹鼓起	1、底线张力过弱。 2、底线从梭壳脱出。	○ 加强底线张力。 ○ 正确的穿线。
7、跳线	1、压脚大，钮扣孔小。 2、布料薄。	○ 换成小压脚。 ○ 推迟机针和旋梭的同步时间。 (把针杆约下降 0.5mm 左右)

Trouble	Cause	Remedy
1. Needle thread is broken.	(1) The tension of the tension controller No.2 is too tight. (2) The tension or the stroke of the take-up spring is too great. (3) Blade point of sewing hook has burr or scratches. (4) Poor timing of the sewing hook. (5) The thread path has scratches. (6) The needle is too thin.	ODecrease the tension of the tension controller No.2 ODecrease the tension or the stroke of the take-up spring. OBuff the blade point of the sewing hook or replat the sewing hook. OReadjust the sewing hook's timing by the timing gauge. OBuff the thread path by cloth files, etc. OReplace by a thick needle.
2. Thread slips out of the needle.	(1) The needle thread trimmer opens too early. (2) The needle thread trimmer opens when the work clamp check is coming down. (3) The whip stitch is not formed at the start of sewing. (4) Wrong threading.	OMove back the needle thread trimmer driving plate B. OMove back the needle thread trimmer driving plate B. ODecrease the tension of the tension controller No.1. OPerform correct threading.
3. Wobbling stitches are formed in the overedging seams.	(1) The tension disc No.2 is too loose. (2) The tension and stroke of the take-up spring is not enough. (3) Bobbin thread tension is too high.	OIncrease the tension of the tension disc No.2 OReadjust the take-up spring. ODecrease the bobbin thread tension (15 to 20g for purl stitches).
4. Wobbling stitches are formed at the start of sewing.	(1) The tension disc No.1 is too loose. (2) The position of the needle thread trimmer is too high. (3) The stroke of the take-up spring is too great.	OIncrease the tension of the tension disc No.1 (15 to 30g) OLower the trimmer as low as possible, provided it does not come in contact with the work clamp check. ODecrease the stroke of the takeup spring, and increase the spring pressure.
5. The needle thread at the first bar tacking comes out and lumps on the bottom of cloth.	(1) The tension disc No.1 is too loose. (2) The bobbin thread tension is too high.	OIncrease the tension of the tension disc No.1. ODecrease the bobbin thread tension (15 to 20g).
6. Stitches float over cloth.	(1) Bobbin thread tension is not enough. (2) Bobbin thread slips out of the thread path on the bobbin case.	OIncrease the bobbin thread tension. OProperly thread the bobbin case.
7. Stitches are skipped.	(1) The work clamp check is too large for the buttonhole. (2) The cloth is made of lightweight materials.	OChange the work clamp check with a smaller one. ODelay the time of the needle and the sewing hook. (Lower the needle bar by approx. 0.5mm (1/2"))