

# **B-1E**

# 使用说明书(机械) INSTRUCTION MANUAL (Mechanical)

### I. 使用时的注意事项/IMPORTANT SAFETY INSTRUCTION

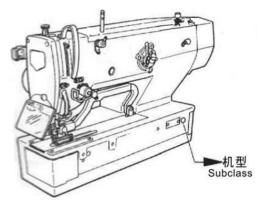
- 1) 没有往油盒加油时,请绝对不要运转缝纫机。
- 2) 缝制结束之后,请清扫旋梭、切刀部的灰尘和线绒。并确认油量是否充足。
- 3) 使用启动踏板时,缝纫机启动后请把踏板返回到原来的位置否则会连续缝制。
- 4) 本缝纫机装有安全开关,当缝纫机头放倒时,不让缝纫机运转。 要运转缝纫机时,请把缝纫机头正确地放置到台板上之后,再打开电源开关。
- 5) 请每三个月需添加油脂
- 1) Never operate the machine unless the oiling tank has been properly lubricated.
- 2 ) Be sure to remove any dust from the hook or bobbin thread cutting knife section at the end of the day, and check the amount of oil remaining.
- 3) Be sure to return the activating pedal to the home position after the machine has started to run.
- 4) A safety switch is installed so that this sewing machine can't be operated in the state that the machine head is tilted. When operating this sewing machine, turn the power switch ON after setting the sewing machine to the bed base properly.
- 5 ) Please add grease every three months

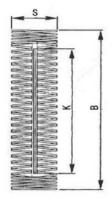
#### II. 规格/SPECIFICATIONS

#### 1. 机种/Subclass

B-1E 系列高速电子平头锁眼机有以下系列机型。

B-1E Serise Computer-controlled high-speed lockstich Straight Button-holing Industrial Sewing Machines has the subclass machines below.





机型	套结宽幅(S)	切刀尺寸	缝制长度(B)	主要用途
Subclass	Width of noose	Sise of cutter	Sewing length	Major application
B-1E	最大 5mm The maximum 5mm	6.4~31.8mm (1/4" ~1-1/4)	最大 41mm The maximum 41mm	缝制衬衣、衬衫、工作服、女装等棉布扣眼 Buttonholing of cloth such as men's shirts, blouses, work uniforms

# 2. 规格/Specifications

名称	规格
套结宽幅	标准 5mm
缝纫速度	标准 3600rpm (最高 4200rpm)
使用机针	DP×5#11J~#14J
针杆行程	34.6mm
旋梭	DP 型 全自动旋转供油旋梭
压脚上升量	14mm(可任意设定) 最大 17mm(逆转抬压脚时)
抬压脚驱动方式	脉冲马达式(1 个踏板・2 个踏板)
绕线功能	机头内置式(在机器驱动中可绕线)
送布驱动方式	脉冲马达式
摆针驱动方式	脉冲马达式
切刀驱动方式	脉冲马达式
面线张力机能	电磁铁张力方式通过控制面板操作可对各部位进行数据设定(平行部、套件部张力)
缝迹形状	角型、放射型、圆型(控制面板选择)等 30 种
记忆花样数	500 个花样
外形尺寸	长= 585mm   宽 225mm   高=385mm
机头重量	55Kg
电源	220V

# 2. 规格/Specifications

Name of Controller	specifications
Width	5mm
Sewing Speed	Standard 3600rpm Max 4200rpm
Needles	DP×5#11J~#14J
Stroke of Needle Bar	34.6mm
Shuttle	Type DP, All-auto Rotation Oil-supply Shuttle
Presser Height	14mm (Customized Setting) Max 17mm(Reverse pressure lifting foot )
Presser foot lift Driving Device	Pulse Motor
Winding	Build-in Type (winding at machine running)
Cloth-feeding Driving Device	Pulse Motor
Swing Needle Driving	Pulse Motor
Knife Driving Device	Pulse Motor
Upper-thread Tension Function	Solenoid Tension Method User can set the data at control panel to adjust each
	part (Parallel Part, Doubling Part Tension)
Stitch Form	Angle, Radial, Round (Selected at Control Panel) and other 30 types
Patterns in Memory	500 Patterns
Size	L= 585mm W=225mm H=385mm
Head Weight	55Kg
Motor used	220V

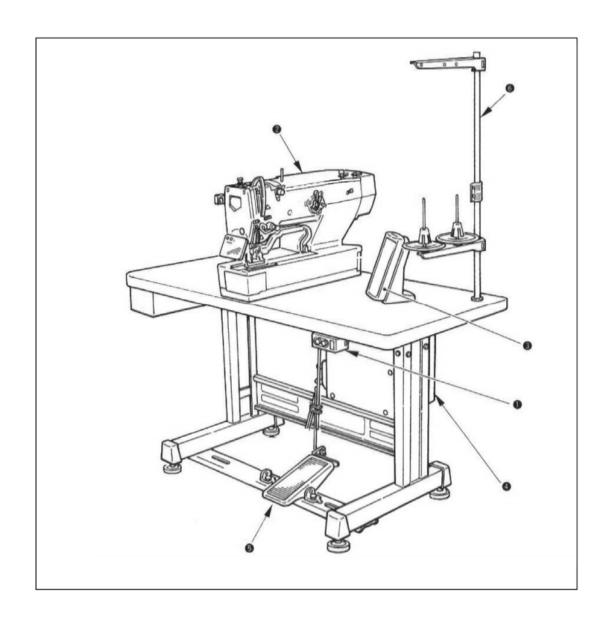
# 3. 标准缝衣形状一览表/Standard sewing shape list

01 方形	02 圆形	03 放射方形	04 放射形	05 放射直线固 定型
06 放射锥形固 定形	07 圆眼方形	08 圆眼放射形	09 圆眼直线加 固形	10 圆眼锥形加 固形
11 半圆形	12 圆方形	13 半圆方形	14 半圆直线加 固形	15 半圆锥形加 固形
16 圆眼半圆形	17 圆眼圆形	18 方放射形	19 方半圆形	20 方圆形
21 方直线加固 形	22 方锥形加固 形	23 放射半圆形	24 放射圆形	25 半圆放射形
The state of the s				
26 半圆圆形	27 加固缝	28 加固右切断	29 加固左切断	30 加固中央切 断

# 3. 标准缝衣形状一览表/Standard sewing shape list

01 Square type	1 Square type 02 Round type		04 Radial type	05 Radial straight bar-tacking type
06 Radial taper	07 Eyelet square	08 Eyelet radial	09 Eyelet straight	10 Eyelet taper
bar-tacking type	type	type	bar-tacking type	bar-tacking type
11 Semilunar	12 Round	13 Semilunar	14 Semilunar	15 Semilunar
type	square type	square type	straight	taper bar-tacking
			bar-tacking type	type
16Eyelet	17 Eyelet round	18 Square radial	19 Square	20 Square
semilunar type	type	type	semilunar type	round type
21Square	22 Square taper	23 Radial	24 Radial round	25 Semilunar
straight	bar-tacking type	semilunar type	type	radial type
bar-tacking type				
26 Semilunar	6 Semilunar 27 Bar-tacking		29 Bar-tacking,	30 Bar-tacking,
round type	٥		left cut	center cut

# 4. 构成/Inscape



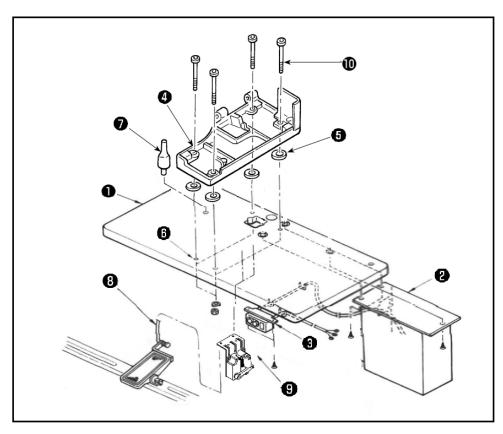
1	电源 ON/OFF 开关	Power ON/OFF switch
2	缝纫机机头(B-1E 系列)	Machine head (B-1E Series)
3	操作板	Operation panel
4	电控箱	Control box (CB-10)
(5)	抬压脚、启动踏板	Presser lifting pedal and start pedal
6	线架装置	Thread stand device

# III. 安装/INSTALLATION

★危险: 搬运缝纫机时,请至少 2 人以上进行。

★WARNING: To prevent possible accidents caused by fall of the sewing machine, perform the work by two persons or more when the machine is moved.

# (1) 板的安装/Set-up of the table



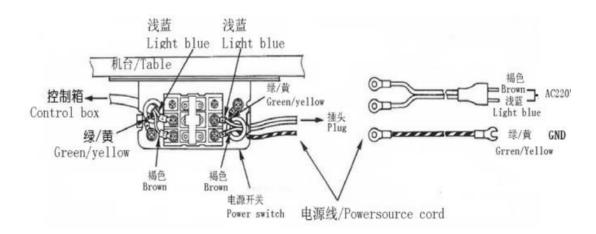
- 1) 把控制箱 ② 、电源开关③、固定到台板①上。
- 2) 用固定条把电源开关③的电缆线固定起来。
- 3) 把底座锁紧螺钉⑩(4个)穿过底座④。
- 4) 把减震橡胶安装到台板的底座固定孔⑥(4处), 然后固定底座④。
- 5) 把机头支撑杆⑦固定到台板①上。
- 6) 把缝纫机主机放到台板①上后, 把踏板和踏板开关⑨和附件的连接杆⑧连接起来。

#### ▶注意:请调整踏板位置,不让连接杆⑧和控制箱②相碰。

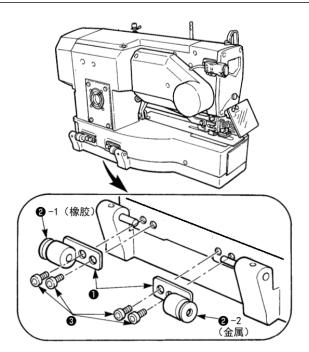
- 1) Securely install control box 2 and power switch 3 on table 1.
- 2) Securely fix the respective power cables of power switch ③.
- 3) Pass four bed base fixed screws (10)through bed base 4.
- 4) Set rubber cushions (5) to holes (6) and then fix on the base.
- 5) Fix head support bar ⑦on table① .
- 6) After placing the sewing machine main unit on bed base ①,connect pedal®

  To pedal switch⑨, connecting rods® which have been supplied as accessories.
  - ► CAUTION: Adjust the positions of the pedals so that connecting road ® and control ② do not come in contact with each other.

(2) 电源线的连接/Connecting the power cord 单相 220V 的连接/Connecting single phase 220V



- ▶注意:在电压规格不同的状态下绝对不能使用。
- ► CAUTION: Never use under the wrong voltage and phase.
  - (3) 缝纫机主体的安装/ Installing the sewing machine main unit.
  - ★危险: 搬运缝纫机时,请至少 2 人以上进行。
  - ★WARNING: To prevent possible accidents caused by fall of the sewing machine, perform the work by two persons or more when the machine is moved.

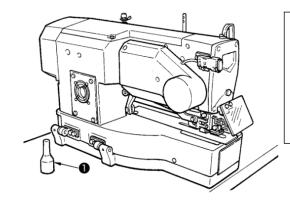


把绞链①和轴承座②(② -1: 橡胶,② -2: 金属)装到机头位置的 2 处,然后用固定螺丝③ 2 处把绞链板固定到缝纫机机头部。

Place hinge plates ① and shaft bearings ② -1 (rubber) and ② -2 (metal) in two places on the head base and fix the hinge plates to the machine head with setscrews ③ in two places.

- (4) 缝纫机的放倒方法/Tilting the sewing machine head
- ★危险:放倒或抬起缝纫机时,请注意不要被缝纫机夹住手指。 为了防止突然的起动造成的事故,请关掉电源之后再进行操作。

放倒缝纫机时,请轻轻地放倒,让缝纫机被机头支撑杆①支撑住。



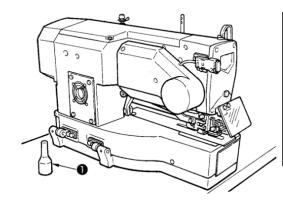
#### ▶注意:

- 1. 放倒缝纫机之前,请先确认台板上是 否装有机头支撑杆。
- 2. 为防止缝纫机突然倒下,请一定把缝纫机放到水平的地方,再放倒缝纫机。

When tilting the sewing machine head, tilt quietly the sewing machine until head support bar ①comes in contact with it.

#### **★**WARNING:

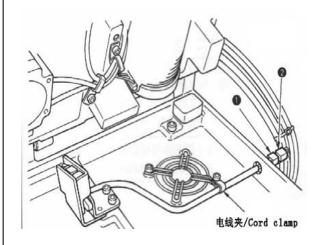
When tilting/raising the sewing machine head, perform the work so as not to allow your fingers to be caught in the machine. In addition, to avoid possible accidents caused by abrupt start of the machine, turn OFF the power to the machine before starting the work.



#### ► CAUTION:

- 1. Make sure that sewing machine head support bar ① is placed on the table before tilting the sewing machine.
- 2. To protect fall-down, be sure to tilt the sewing machine in a level place.

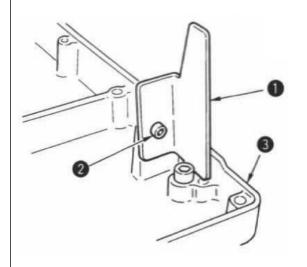
# (5) 安全开关的连接/Connecting the safety switch



打开机头后罩,把安全开关的插口① 连接到机头后端电路板②上,再重新 罩上后罩.

After open the machine cover, connecting safety switch connector with connect located on the PCB which is on the back of the machine

# (6) 挡油板的安装/Installing the hook oil shield plate



用固定螺钉②把挡油板①安装到底座③上。

# ▶注意:

放倒缝纫机或抬起缝纫机时,请注意不要碰到挡油板①。

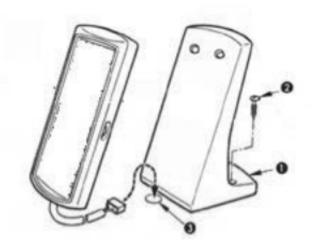
Install hook oil shield plate 1 onto bed base 3 with setscrew 2 .

#### ► CAUTION:

Fixes the sewing

machine so that it does not come in contact with kook oil shield plate when raising/tilting the sewing machine ①.

# (7) 操作板的安装/ Installing the operation



用木螺钉②把操作板座①固 定到台板上,再把电缆穿过 台板孔②。

Install hook oil shield plate ②onto bed base①with setscrew②.

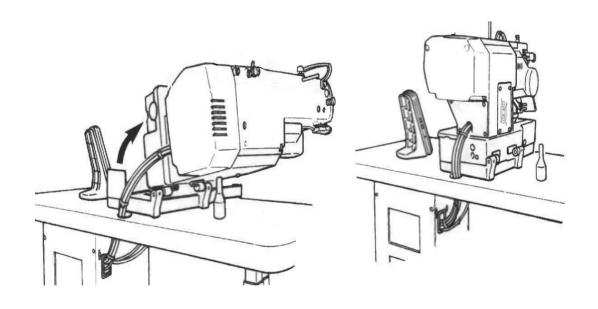
# (8) 电缆的处理/ Managing the cord

请一边慢慢地放倒缝纫机,一边确认电缆没有被勾住。

▶注意: 放倒缝纫机时,请确认机头支撑杆安装在台板上。

Slowly tilting the sewing machine, check that the cords are not forcibly pulled.

► CAUTION: When you tilt the sewing machine, make sure that the sewing machine head support bar is placed on the table.

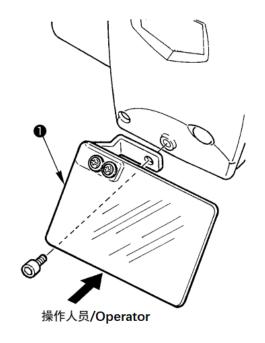


- (9) 眼睛防护罩的安装/Installing the eye protection cover
  - ★危险: 为了保护断针飞起弄伤眼睛,请一定安装起来。

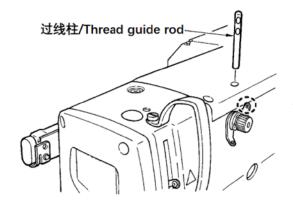
请一定安装眼睛防护罩①后使用缝纫机。

**★**WARNING: Be sure to attach this cover to protect the eyes from the disperse of needle breakage

Be sure to install and use eye protection cover ① and use the sewing machine.



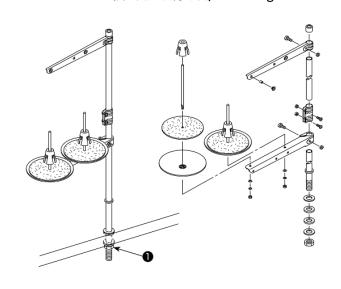
# (10) 过线柱/Thread guide rod



请把过线柱按 2 个横孔朝向正面 的方向安装好。

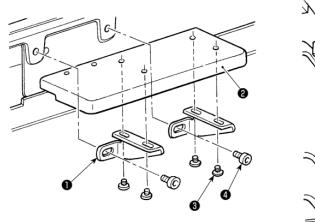
Securely fit the thread guide rod so that two side holes in the thread guide rod face the thread guide.

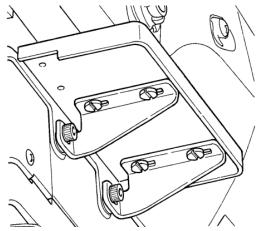
# (11) 线架装置的安装/ Installing the thread stand



- 1、 安装线架装置, 把它安装到机台 右上的孔里。
- 2、 拧紧固定螺母①, 不让线架装置 松动。
- 1. Assemble the thread stand, and set it in the hole in the top right corner of the machine table.
- 2.Tighten locknut  $\ \ \, \textcircled{1}\$  to fix the thread stand.

# (12) 辅助机台的安装/Installing the auxiliary table





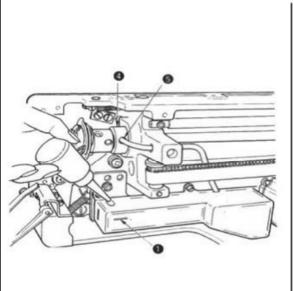
- 1、用螺栓③(4个)把辅助机台安装板①(2个)临时固定到辅助机台②上。
- 2、用螺栓④(2个)把辅助机台②临时固定缝纫机机座上。
- 3、固定螺栓③(4个)让缝纫机机座和辅助机台②之间没有间隙。
- 4、固定螺栓④(2个)让辅助机台②和缝纫机机座的上面对齐。
- 1. Temporarily fix two auxiliary table mounting plates 1 on auxiliary table 2 with four bolts 3 .
- 3. Fix four bolts © while removing a clearance between the sewing machine bed and auxiliary table © .
- 4. Fix two bolts ④ while aligning auxiliary.

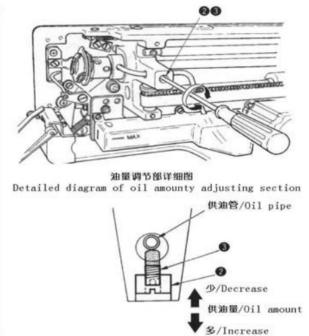
# IV、缝纫机开机前的准备/ PREPARATION BEFORE OPERATION

#### (1) 加油/Lubrication

★注意: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动后再进行。

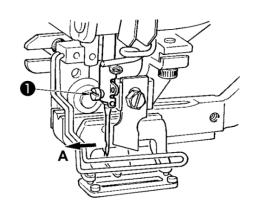
★WARNING: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after tuning the power off and ascertaining that the motor is at rest.





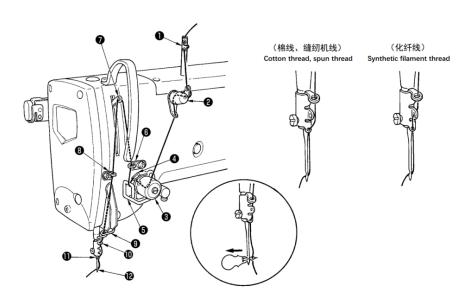
- 1、向油盒里加油
  - ○把机油加满到记号的位置①。
- 2、旋梭油量的调整
  - 〇拧松油量调节固定螺母②,然后用油量调节螺钉③进行调节。
  - 〇调节旋梭的油量时,拧进油量调节螺钉③则油量减少。
  - ○油量调节后,请用固定螺母②进行固定。
- ○新装缝纫机或较长时间没有用过的缝纫机,使用之前请取下梭壳,在旋梭边槽加 2~
- 3 滴机油。另外,向下轴前套④的加油孔⑤加几滴油,把油浸润到里面的毛毡里。
  - 1.Lubrication oil to oiling tank.
  - O Fill the oiling tank with Oil up to the level indicated by 1
  - 2. Adjusting the lubrication for the sewing hook
- OAdjust the amount of oil supplied to the sewing hook by loosening lock nut@and turning of amount adjustingscrew③.
  - O Amount of supplied oil is reduced when turning the screw@clockwise
  - O Fix the screw with lock nut 2 after adjusting the lubrication for the sewing hook.
- O When you first operate your sewing machine after set-up or after an extended period of disuse ,remove the bobbin case and apply a few drops of oil to the hook race .In addition, apply a few drops oil from oiling hook in hook driving shaft front metal to soak the inside felt in oil .

- (2) 机针的安装方法/Inserting the needle
- ★危险: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动再进行。
- ★WARNING: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after tuning the power off and ascertaining that the motor is at rest.



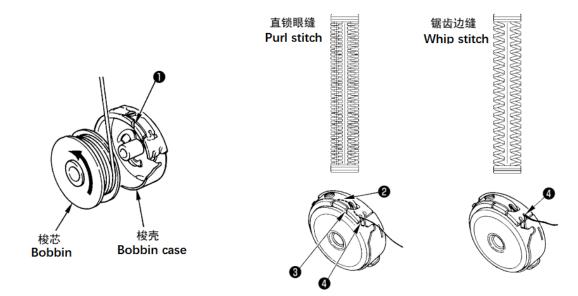
- 1、从缝纫机的正面看,把机针凹部横向转到前侧 A。
- 2、然后把机针插进针杆孔的最深处, 拧紧机针固定螺钉。
- 3、机针使用 DPx5-(#11J~#14J)。
- 1.Hold needle with its recessed part facing toward the operator side A.
- 2.Insert the needle fully into the needle champing hole ,and tighten needle setscrew .
- 3.Use a DPx 5(#11J ~#14J).

#### (3) 上线的穿线方法/Threading the needle-thread



- 1、上线如图 ~ 的顺序行穿线。
- 2、 把线穿针时, 使用附件的穿线器时操作会更加方便。
- 3、 使用机线不同,导线器的穿线方法也不同。
- 1. Pass the needle thread in the order to as shown in the figures.
- 2. The threading can be done easily by using the needle threader supplied with the machine.
- 3. Change the thread guide threading method according to the thread to be used.

# (4) 梭壳的穿线方法/Threading the bobbin case



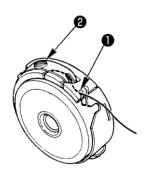
### 梭芯转动方向和穿线方法

- 1、请按照箭头所指示的方向把梭芯插进去。
- **2**、请把机线穿过穿线口①,然后再从张力弹簧②的下面躜过去,再次穿过穿线口③,从④把线拉出来。
- 3、请注意进行直锁眼缝和锯齿边缝时, ④的穿线方法不同。

#### Rotating direction of bobbin and threading

- 1. Fit the bobbin so that it rotates in the direction of the arrow.
- 2. Pass the thread through thread slit ①, then through under the tension spring
- 2 , again through thread slit 3 , and pull the thread from 4 .
- 3. Threading at 4 for purl stitching is different from that for whip stitching. So, be careful.

#### (5) 底线张力的调整/Adjusting the bobbin thread tension



在梭壳穿线口①在上方的位置,把底线向上拉出之后,请按照下列的方法调整底线张力。

直锁眼缝	0.05~0.15N	手拿从梭壳出来的线头,	轻轻地上下摆动时,梭壳就稍稍下
		降	
锯齿边缝	0.15~0.3N	手拿从梭壳出来的线头,	用稍稍强的力量摆动时,梭壳才下
		降	

- 1、把线张力螺钉②向右转动,底线张力变强,向左转动,底线张力变弱。
- 2、使用化纤缝纫机线时,请把张力稍稍减弱,棉纱线时请稍稍加强。因为本机装有防止空转弹簧,所以装上旋梭之后的线张力请再调强 0.05N 左右。
  - ▶注意: 调整了底线张力之后,请确认存储器开关的上线张力设定。

Adjust the bobbin thread tension as given below when the bobbin thread is pulled up at the position where thread slit ①of bobbin case comes up .

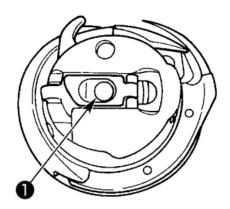
Purl stitch	0.05~0.15N	To such an extent that bobbin case quietly comes down when holding
		thread end coming from bobbin case and shaking it quietly up and down.
Whip stitch	0.15~0.3N	To such an extent that bobbin case barely comes down when holding thread
		end coming from bobbin case and shaking it somewhat strongly.

Turning tension adjust screw ②clockwise will increase bobbin thread tension and turning it counterclockwise will decrease the tension.

Adjust the bobbin thread tension to lower for synthetic filament thread, and to higher for spun thread. The thread tension is higher by approximately 0.05N when the bobbin case is set to the hook since idle-prevention spring is provided.

► CAUTION: When bobbin thread tension is adjusted, check the needle thread tension setting of the memory switch.

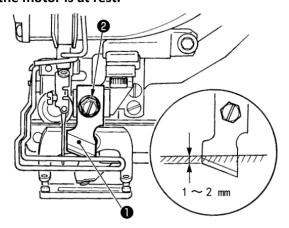
- (6) 梭壳的安装方法/Installation of bobbin case.
- ★注意: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动后再进行。
- ★ WARNING: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after



- 1、拨起梭壳抓手。
- 2、插入中旋梭轴①,关闭抓手。梭壳被按到一定位置会听到喀喳的响声。
- ▶注意: 如果梭壳没有在规定的位置,缝纫后梭心会飞出来,上线绕到旋梭轴上。
- 1. Lift up and hold bobbin case latch lever between two fingers.
- 2. Push the bobbin case into the hook so that it is supported by the hook shaft 1 and then snap in the latch lever. Press the bobbin case until the predetermined position is reached, and it will click.
- ► CAUTION: If the bobbin case is out of the predetermined position, it can jump out from the hook to cause the needle thread to tangle on the hook shaft. Check to be sure that the bobbin case is properly installed in the correct position.

#### (7) 切布刀的安装方法/Installing the knife

- ★注意: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动后再进行。
- ★ WARNING: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power of and ascertaining that the motor is at rest.



请按如下的步骤更换新的切布刀。

- 1、卸下切布刀固定螺钉②之后,把切布刀①和垫片一起简单地卸下来。
- 2、用手按下切布刀之后,把切布刀和针板上面的距离调整到 0~1mm,然后套上垫片,并拧紧固定。

When replacing the knife with a new one, perform as follows.

- 1. Knife  $\bigcirc$  can be easily removed together with the washer when removing knife retaining screw $\bigcirc$  .
- 2. Adjust so that the knife, when lowered the knife bar by hand, is spaced to 2 mm away from thetop surface of the throat plate as illustrated n the sketch. Then, be sure to place the washerand tighten the knife retaining screw.

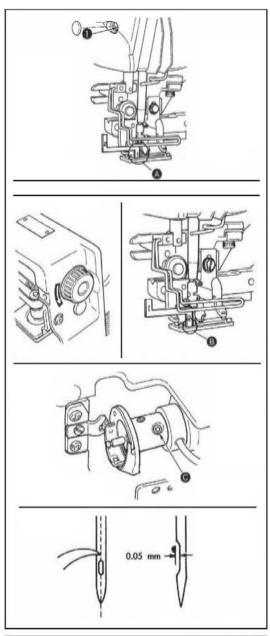
inch→mm 换算表/Inch→mm CONVERSION TABLE mm CONVERSION TABLE

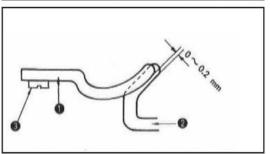
切布刀尺寸/inch	mm 表示	切布刀尺寸/inch	mm 表示
Knife size /inch	Indication of mm	Knife size /inch	Indication of mm
1/4	6.40	13/16	20.60
3/8	9.50	7/8	22.20
7/16	11.10	1	25.40
1/2	12.70	1 1/8	28.60
9/16	14.30	1 1/4	31.80
5/8	15.90	1 3/8	34.90
11/16	17.50	1 1/2	38.10
3/4	19.10		

#### V. 维修

1. 机针和旋梭的同步时间调整

★ 危险: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动后再进行。





机针和旋梭的同步调节,请在机针落到针板孔的中央时调整。

# (1) 针杆高度

- 1、把针杆降到最下点;
- 2、 把高度尺[1]的部分如图所示插入针板和 针杆下端之间, 使针杆碰到高度尺;
- **3**、拧紧针杆套管固定螺钉① , 决定针杆高 度。

### (2) 机针和旋梭的同步

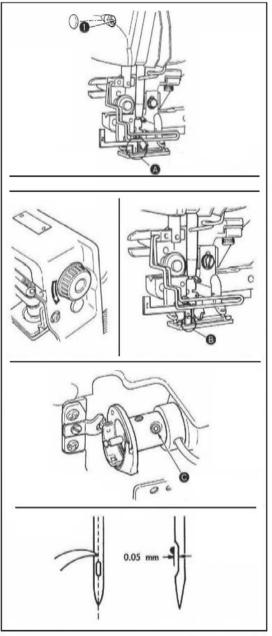
- 1、按逆时针的转动主向转手轮,让机针从最下点开始上升;
- 2、把高度尺[2]的部分插入针板和针杆下端之间,让针杆顶到高度尺;
- **3**、拧松轴套固定螺钉,把旋梭尖调整到机针的中心;
- 4、此时,机针与旋梭尖之间的间隙为约 0.05mm,距离过大会导致跳针,过小会磨损 旋梭尖;

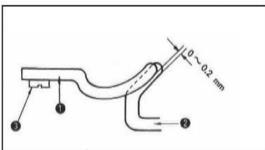
# (3) 内旋梭的固定和调整

用固定螺钉③把内旋梭固定器①的前端和内旋梭②的端面的咬合调整为 0~0.2mm

#### V. MAINTENANCE

- 1. Adjusting the needle-to-hook relation
- ★ WARNING: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.





Adjust the needle-to-hook relation when the needle enters the center of the needle hole in the throat plate .

#### (1) Needle bar height

Bring down the needle bar to the lowest point. Insert the part [1] of timing gauge into the gap between the bottom end of needle bar and throat plate, where the bottom end of the needle bar touches the top of the part [1] of the timing gauge. Loosen needle bar connection screw①, and adjust the height of the needle bar.

(2) Set the needle to hook relation in the following way:

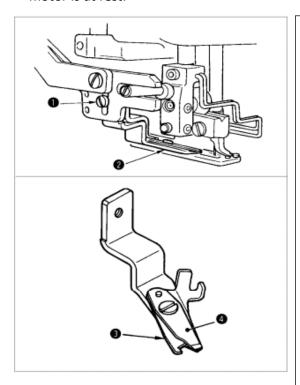
Rotate the hand pulley in the correct direction until the needle starts to go up from its lowest point.

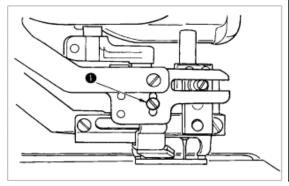
Inset the part [2] of the timing gauge into the gap between the bottom end of the needle bar and the throat plate, where the bottom end of the needle bar touches the top of the part [2] of the timing gauge.

Loosen setscrew of the hook sleeve, and align blade point of the sewing hook with the center of needle hole. Make adjustment so that a clearance of approx. 0.05mm is provided between the needle and the blade point of the hook.

(3)Adjusting the bobbin case positioning stopper Adjust with setscrew so that the contact of the top end of bobbin case positioning stopper and the end of inner hook is 0 to 0.2mm.

- 2. 上线切线的调整/ adjusting the needle thread trimmer
- ★注意: 为了防止突然启动造成人身事故,请关掉电源,确认马达停止转动后再进行。
- ★CAUTION: To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.





#### (1) 上线切刀的切线力的调整

上线切刀切线力不稳定时,始缝时上线容易跳线。

- 1、切线力弱时拧松螺丝①,卸下上线切刀②。
- 2、把压线弹簧前端轻轻弄弯,把切线压板④和 上切刀③的接触间隙调整为没有。

# (1) Adjusting the thread grasping force of the needle thread trimmer

If the needle thread trimmer fails to provide consistent thread grasping force, the needle thread can slip off at the beginning of sewing.

- 1.If the thread grasping force of the needle thread trimmer has reduce, loosen setscrew ① and detach needle thread trimmer ②.
- 2.Slightly bend the top end of thread presser spring 3 so that it comes in contact with thread trimming blade of upper knife 4 over the length with no clearance and so that the needle thread trimmer securely holds the thread regardless of the position of the thread trimming blade at which the thread is trimmed.

#### (2) 上切刀的安装高度

请拧紧上切刀安装螺钉①调整上切刀的安装高度。在上切刀和压脚不接触的情况下请尽量调低压脚,这样上线切刀残线长度较短。

但是缝纫多层布时,压脚会倾斜。请把位置稍稍提高,确保切刀与压脚相碰。

#### (2) Adjusting the height of the needle thread trimmer

To adjust the height of the needle thread trimmer, loosen setscrew①. Set the height of trimmer as low as possible, provided that it does not touch work clamp check, in order to minimize the length of remaining thread on the needle after trimming.

Note that the work clamp check tilts when sewing a multi-layered portion of the material, attach the needle thread trimmer to slightly raise the installing position of the trimmer.

# 故障现象与原因、处理对策/TROUBLES AND CORRECTIVE MEASURES

现象	原 因	处 理 对 策
1. 上线断线	1. 平行部张力过强;	〇减弱平行部张力;
	2. 挑线弹簧的强度过强,移动量过大;	○减弱挑线弹簧的弹力,或缩小移
	3. 旋梭尖部分有毛刺,有伤痕;	动量;
	4. 旋梭的同步时间不对;	〇锉平旋梭尖的毛刺,或更换旋梭;
	5. 线道上有伤痕;	〇用高度尺调整旋梭的同步时间;
	6. 机针安装不良;	〇用布或锉刀去除伤痕和毛刺;
	7. 机针过细;	○调整机针的朝向和高度;
	8. 机针的前端有伤痕;	○更换成粗机针;
		○更换机针;
2. 上线脱线	1. 上线切刀张开过早;	〇推迟上线切刀张开时间;
	2. 始缝部线勾不到一起	○减弱始缝张力;
	(始缝张力过大)	
	3. 上线穿线方法不对;	
	4. 始缝的速度过快;	
3. 平行部缝迹不均匀	1. 平行部线张力过弱;	〇磳强平行部线张力;
	2. 底线张力过强;	○减弱底线张力;
	3. 钮扣整体张力过弱;	○增强上夹线器张力;
4. 始缝缝迹不均匀	1. 平行部张力过弱;	〇加强平行部张力;
	2. 上线切必位置过高;	○不碰到压脚的前提下尽量下降压脚
	3. 挑线弹簧的移动量过大;	〇减小挑线弹簧的移动量;
5. 加固缝部上线从布	1. 加固缝线张力过弱;	○增强加固缝线张力;
的下面露出,成圈状	2. 底线张力过强;	○减弱底线张力;
	3. 缝放射状的图案时放射针数过多;	○减少放射针数;
	4. 结束缝的张力过弱;	○增强结束缝线张力;
6. 缝迹鼓起	1. 底线张力过弱;	○增强底线张力;
	2. 底线从梭壳中脱出来;	○重新正确地穿梭壳线;
		〇底线卷绕量绕得不要过多;
7. 锁眼绽出	1. 钮扣孔比压脚小;	○把压脚更换成更小的;
	2. 缝制薄料时皱缩;	○推迟机针和旋梭的同步时间(把
		针杆下降 0.5mm 左右);
	3. 机针安装不好;	○重新调整机针的朝向、高度等;
	4. 机针弯曲;	○更换机针;
	5. 旋梭尖部有毛刺或伤痕;	〇用锉刀锉平梭尖或更换旋梭;
8. 线绽开	1. 固定缝针数少;	○增加缝制结束时加固缝的针数;
	2. 固定缝宽度过宽;	〇减小缝制结束时的加固缝宽度;
9. 缝制结束上线留线	1. 固定缝宽度过窄;	○增加缝制结束时的加固缝针数;
过长	2. 固定缝张力过弱;	○减小缝制结束时的加固缝宽度;
10. 始缝时上线断线,	1. 始缝张力过弱;	○增强始缝张力;
或者背面线迹不好;		

Trouble	Causes	Corrective measures
1.Needle thread	Thread tension at parallel section is too	O decrease the thread tension at
breakage	•	parallel section.
	high.	O decrease the tension of thread
	2. Pressure or stroke of thread	take-up spring or decrease its stroke.
	take-upspring is too large.	O Buff the blade point of hook. Or,
	3. There is a burr or scratch on the blade	replace the hook.
	5. There is a built of scratch on the blade	O Adjust again the hook timing with
	point of hook.	timing gauge.
	4. Hook timing is not proper.	O Polish the thread path with sand
	5. There is a scratch on the thread path.	paper and buff it.
	6. Attaching needle is wrong.	O Adjust again the direction, height,
	7. Needle is too thin.	etc.
	8. Needle tip is damaged.	O Replace the needle with a thicker
		one.
		OReplace the needle.
2. Needle thread slips off.	1. Needle thread trimmer opens too early.	O Delay the opening timing of the needle
	2. Whip stitching is not formed at the start	thread trimmer.
	of sewing.(tension).	O Decrease tension at the start of sewing.
	3. Threading needle thread is wrong.	
	4. Speed at the start of sewing is too fast.	O Thread properly again.
		O Set the soft-start function.
3. Wobbling at	1. Thread tension at parallel section is too	O Increase the thread tension at
parallel section	low.	parallel section.
	<ol> <li>Bobbin thread tension is too high.</li> </ol>	O Decrease bobbin thread tension.
	3. Pre-tension is too low.	O increase pre-tension.
4. Wobbling at the start of	Thread tension at parallel section is too	O Increase the thread tension at parallel
sewing	low.	section.
	2. Position of needle thread trimmer is too	O Lower the needle thread trimmer to such
	high.	an extent that it does not come in contact with
		the presser.
	3. Stroke of thread take-up spring is too	O Decrease the stroke of thread
	large.	take-up spring.

5.Needle thread	Bar-tacking thread tension is too low.	O Increase the bar-tacking thread
appears on the	2. Bobbin thread tension is too high.	tension.
wrong side of	3. Number of stitches of radial shape is too	O Decrease the number of stitches
material at		O Decrease the number of stitches.
bar-tacking section	many.	O Increase tension at the end of
in dumpling	4. Tension at the end of sewing is too many.	sewing.
condition.		
6. Stitches float.	1. Bobbin thread tension is too low.	○ Increase the bobbin thread tension.
	2.Bobbin thread comes off bobbin case.	O perform proper threading the bobbin
		case.
		O take care that the winding amount of
		bobbin thread is not excessive.
7. Stitch skipping	1. Button hole is small in terms of the size of	Replace the presser with a smaller one
	presser.	O Delay the hook-to-needle timing.
	2. Material flops because of light-weight.	(Lower the needle bar by 0.5mm;)
	3. Attaching needle is wrong.	O Adjust again the direction, height,
	4. Needle id bent.	O Replace the needle.
	There is a burr or scratch on the blade point of	O Buff the blade top of hook. Or, replace the
	hook.	hook
8. Thread frays.	Number of stitches of the stitching is too	O Increase the number of stitches of tie
		stitching at the end of sewing.
	small.	O Narrow the width of tie stitching at the end
	2. Width of tie stitching is too wide.	of sewing
9. Length of needle thread	<del>-</del>	O Widen the width of tie stitching at the end
remaining at the end of	2. Tension of tie stitching is too low.	of sewing.
sewing is too long.		O Increase tension at the end of sewing
10.Needle thread	1. Tension at the start of sewing is too low.	O Increase tension at the start of sewing.
breaks at the start		
of sewing, or the		
wrong side of		
seam is dirty.		