

目录

Table of contents

使用说明 Operating instruction

1. 机器简介 Introduction to machine.....	1
2. 主要技术参数 Main technical parameters.....	1
3. 操练准备 Operating preparation.....	1
4. 安装电机 Install electromotor.....	1
5. 脚踏板与离合器拉杆连接 Connect pedal with clutch tension rod.....	2
6. 抬压踏板连接 Connect presser lifting pedal.....	2
7. 安装皮带防护罩 Install belt shield.....	2
8. 安装绕线器 Install bobbin winder.....	3
9. 润滑 Lubrication.....	3
10. 试车 Trial run.....	4
11. 安装机针 Install needle.....	4
12. 机针、缝线和缝料的配合 Match needle with sewing threads and materials.....	4
13. 穿面线 Upper threading.....	5
14. 绕线调节 Bobbin adjustment.....	5
15. 针距、倒顺缝误差调节 Stitch length, forward and backward stitching error adjustment.....	5
16. 挑线部位进油 Lubricating at thread take-up position.....	6
17. 压脚压力调节 Adjust the pressure of the presser foot.....	6
18. 安装梭心与缝线张力调节 Install bobbin and adjust the tension of the sewing thread.....	6
19. 挑线簧调节 Adjust the thread take-up tension spring.....	7
20. 底面线张力调节 Adjust the tension of the lower thread.....	7
21. 机针与旋梭同步调节 Synchronous adjustment to the needle and the rotary hook.....	8
22. 旋梭装卸 Assemble and unassemble rotary hook.....	9
23. 按装旋梭限位架 Install the spacing stop of the rotary hook.....	9
24. 送布牙安装 Install feed dog.....	9
25. 送布同步调节 Synchronous adjustment to the cloth feeding.....	10
26. 上送料机构的调节 Adjust the upper feed mechanism.....	11
27. 摆压脚、压脚前后方向间隙的调节 Adjust the clearance of the presser foot in front and back directions.....	11
28. 定期清扫 Cleaning termly.....	11

零件手册

PARTS MANUAL

1. 机壳部分 Machine hull parts.....	12-13
2. 挑线勾线部分 Thread take-up and thread hooking parts.....	14-15
3. 下送料部件 Lower feed parts.....	16-17
4. 拉杆压杆部件 Tie rod and press rod parts.....	18-19
5. 上送料部件 Upper feed parts.....	20-21
6. 膝动部件 Knee lifter components.....	22-23
7. 气缸部件 Puller cylinder parts.....	24-25
8. 附件Accessories.....	26-27

使用说明

Operating instruction

5. 脚踏板与离合器拉杆连接 (图 2)

5. Connect pedal with clutch lifting rod (figure 2)

A. 脚踏板安装的倾斜度应与地面成 15 度角为宜。

The suitable gradient between pedal installed and floor is 15°

B. 调整电机离合器, 使缝纫机拉杆 (B) 与离合器拉杆 (C) 如图连成一直线, 可使电机运转平稳, 寿命延长。

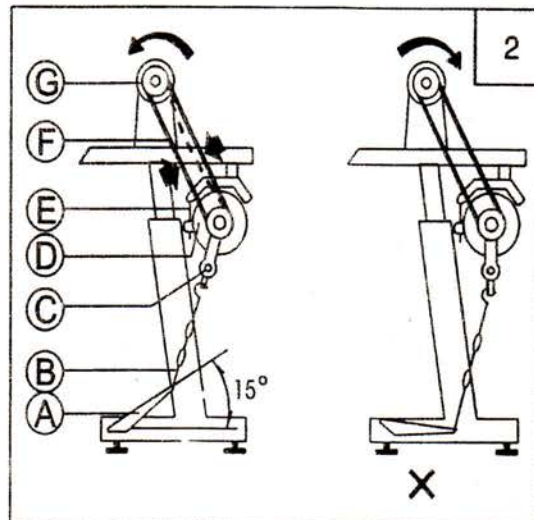
Adjust the motor clutch, and make the lifting rod (B) of the sewing machine and hat (C) of the clutch in line (see figure), so as to make motor run smoothly and its life span extended.

C. 缝纫机运转方向, 从机头主动轮外侧看, 应是逆时针方向, 与电动机的转向应一致。其转向可用电动机插头换转 180 度调整转向。

Look from the exterior part of the machine head driver, the running direction of the sewing machine is anticlockwise. Its running direction should accord with that of the motor, and can be adjusted with turning 180° of the motor plug.

D. O 型三角皮带 (F) 的张力调整, 由电动机移动上下位置来达到。皮带张力的大小可用手指将皮带按下, 使皮带如图所示弯曲成 10-12 毫米程度即可。

Moving the position of motor up and down can make the tension adjustment of the O triangular belt (F). Press the belt with finger to test the tension of the belt, and the belt should bend 10-12mm (see figure).

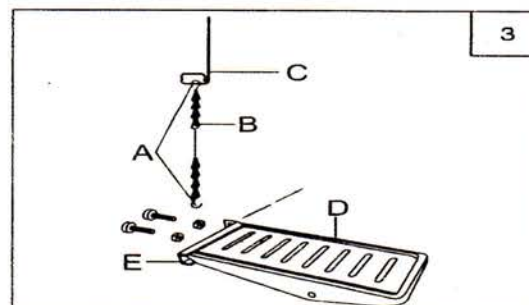


6. 抬压踏板连接 (图 3)

6. Connect presser-lifting pedal (figure 3)

先用拉链勾 A 连接压脚提升拉链 B 和压脚提升杆 C, 然后将脚踏板组件 D 安放在机架横档上, 左右移动控制板 E, 使拉链连成一直线, 接头用螺栓和螺母紧固, 最后用拉链勾勾住控制板即可。

Firstly, connect the presser foot lifting zipper B and presser foot lifting rod C with zipper hook A, then place the pedal subassembly D on the stand, and move the control plate E left and right to make zippers in line. The tie-in is fastened with nut and bolt. Finally, hitch the control plate with zipper hook.

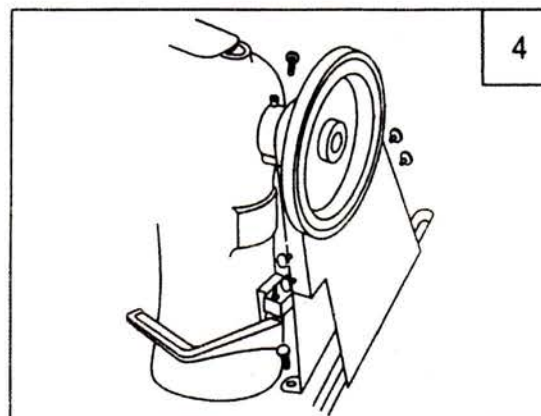


7. 安装皮带防护罩 (图 4)

7. Install belt shield (figure 4)

从安全角度考虑, 应安装皮带防护罩。

For safety consideration, the belt shield should be installed.



据工作的性质再提高到一定缝速。

Before using new machine or reusing a machine being laid aside for a long time, please demount the rubber plug and faceplate on the top of machine head, and add enough lubricating oil. After that, lift the presser foot, and let the machine run at a low speed of 300-400s.p.m. Please keep running test for 30 minutes with thorough lubrication, and then increase the sewing speed gradually. Machine will become harmonious after using for about one month. Sewing speed can then increase according to the nature of the work.

11. 安装机针 (图 7)

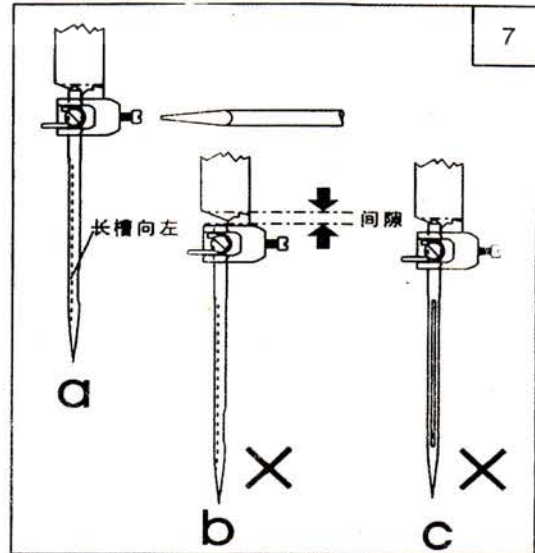
11. Install machine needle (figure 7)

转动上轮, 使机针上升到最高位置, 旋松夹针螺钉 1 将机针的长槽朝向操作者的左面, 然后把针柄插入针杆下部的针孔内, 使其碰到针杆孔的底部为止, 再旋紧针夹螺钉 1 固定机针即可。

Turn the upper wheel, and make the machine needle move up to the top position. Loosen the needle clamp bolt 1, and let the long groove of the machine needle face the left side of the operator, and then insert the needle bar in the needle hole at the lower part of the needle rod. Fasten the needle clamp bolt 1 and fix the machine needle when the needle bar touches the bottom of the needle rod hole.

注意: 如图 (b) 所示, 机针没有碰到针杆孔的底部。如图 (c) 所示针槽方向面对操作者, 都是错误的。

Notice: as figure (b) showing, machine needle does not touch the bottom of the needle rod hole. As figure (c) showing, the direction of the needle groove is facing the operator, both are wrong.

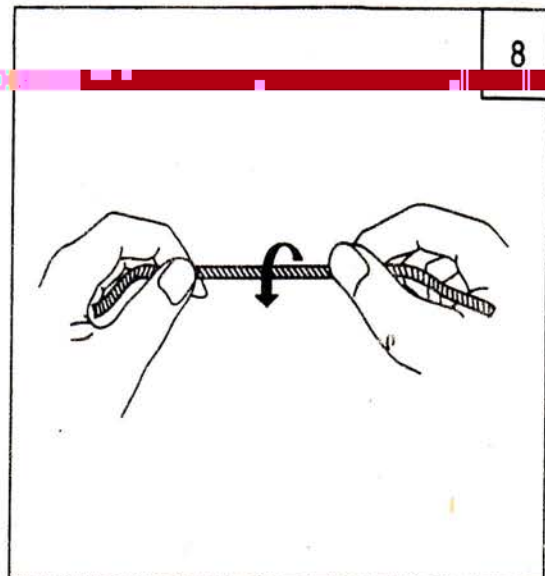


12. 机针、缝线和缝料的配合 (图 8)

12. Match the machine needle with sewing thread and sewing materials (figure 8)

面线采用左捻线, 底线则左右捻均可使用。缝线捻向的鉴别, 可按图 10 所示把缝线捏住, 以右手按图箭头方向搓转缝线, 若线股越搓越紧, 则是左捻线, 反之即是右捻线。请使用 DD×1 型 24#-27# 型机针, 机针的粗细应适合缝料的性质。如用过细的机针缝制紧厚的织物, 机针就容易折断, 也会因引起跳针、断线等现象。相反, 如果用过粗的机针缝制紧密的织物, 则会因针孔太大而损坏织物。所以应根据缝料性质不同, 机针和缝线的粗细都要适当的进行选择。

Upper thread should be left-twisted thread, and the bottom thread can be left twist thread or right-twisted thread. As figure 10 showing, we can determine the twist direction of the sewing thread. Twist the sewing thread in arrow direction showed in figure, and if the thread gets tightened, it should be the left -twisted thread; otherwise it should be the right-twisted thread. Please use 24#-27# machine needle, and thickness of the needle should match the nature of the sewing material. If use too thin needle to sewing thick textile, the needle can easily get broken, and needle skipping and stitches breaking can also arise from it. On the contrary, if use too thick needle to sew thick textile, the textile can also get damaged due to too big needle hole. Therefore, the machine needle and the thickness of the sewing thread should be chosen according to the nature of the sewing materials.



D 来达到相同的目的。

The stitch length can be adjusted by stitch length adjusting spanner A. Press the stitch length adjusting spanner with your left hand, and turn the belt wheel B with your right hand. The stitch length will be shortened when you turn the wheel clockwise; and it will become extended when you turn the wheel anticlockwise. After adjustment, test the stitch length with a piece of paper to get satisfactory results. Then take a look whether the length of the forward and backward stitch is the same. If the backward stitch is shorter, loosen the bolt C anticlockwise, and then fasten the bolt; if the backward stitch is longer than forward stitch, adjust it oppositely. You may achieve the same goal with adjusting bolt D.

16. 挑线部位进油 (图 12)

16. Lubricating at thread take-up position (figure 12)

挑线, 针杆部位采用羊毛软线进油。长期使用后, 如失去正常的进油作用, 软(油)线被污染或硬化, 就应更换新的羊毛软线。更换方法如下:

Take-up thread and needle bar should be lubricated with soft wool oil thread. If the soft (oil) thread was polluted or became sclerous and lost the normal lubricating function after long time use, it should be replaced with a new soft wool oil thread. The replacing method is as following:

1、打开机头面板, 卸下调节螺钉, 调压螺钉锁紧螺母和调节杆等。

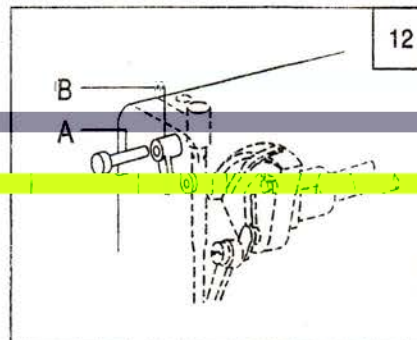
Open the face plate of the machine head, take down the adjusting bolt, locking nut of the pressure-adjusting bolt and adjusting bar etc.

2、卸下挑线连杆销 A, 然后拉出里面的软油线。Take down the connecting bar pin A of the take-up thread, and then pull out the soft oil thread.

3、拉出 B 里的软油线。Pull out the soft oil thread in B.

4、重新更换新油线。Replace a new oil thread.

5、安装的过程是上述过程的相反。The installing process is opposite from above process.

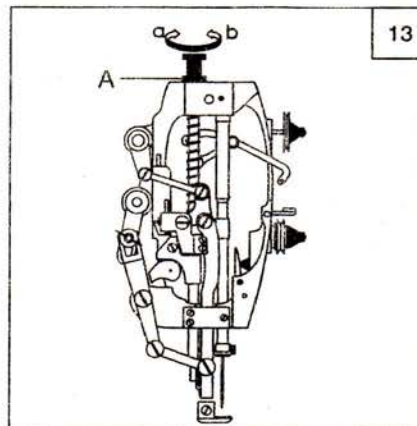


17. 压脚压力调节 (图 13)

17. Adjust the pressure of the presser foot (figure 13)

压脚的压力要根据缝料的厚度加以调节, 首先旋松调压螺钉锁紧螺母 A。缝料厚时, 应加大压脚压力, 这时将机头顶部的调压螺钉按 a 所示的方向转动; 缝薄料时, 可按 b 所示的方向转动调压螺钉, 以减少压脚的压力。最后旋紧调压螺母 A 即可。压脚的压力, 应以能正常推送缝料为宜。

Considering the thickness of the sewing material, the pressure of the presser foot can be adjusted by loosening the locking nut A of the pressure-adjusting bolt. If the sewing material is thick, turn the pressure-adjusting bolt at the top of the machine head in the direction as a shows in figure so as to increase the pressure of the presser foot, or turn the pressure-adjusting bolt in the direction as b shows in figure so as to decrease the pressure of the presser foot when the sewing material is thin. Finally, you should fasten the pressure-adjusting nut A. If it can normally push the sewing material, the pressure of the presser foot can be judged as suitable.

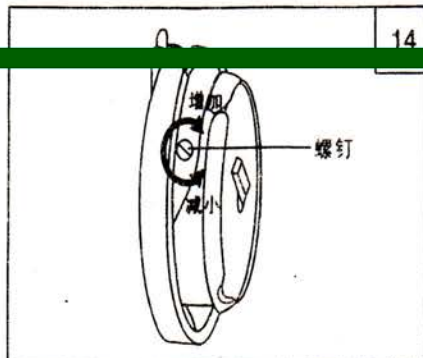


18. 安装梭心与缝线张力调节 (图 14)

18. Install bobbin and adjust the tension of the sewing thread (figure 14)

线的张力要根据缝料的差别, 缝线的粗细以及其它一些因素变动。实际使用中, 是根据缝纫出来的线迹, 来调节底、面线的张力使之得到正常的线迹。

The tension of the sewing thread should be adjusted according to the difference of the sewing material, the thickness of the sewing thread and other factors. In the real sewing



tension nut clockwise to increase the pressure of the upper thread, or loosen the bobbin bolt with a small screwdriver to decrease the pressure of the lower thread.

C、如出现图 d、e 的线迹，也可以参照上述方法加以调节。

If the stitch appears like as figure d or e shows, you may adjust it referring the above methods.

21. 机针与旋梭同步调节 (图 18、19)

21. Synchronous adjustment to the needle and the rotary hook (figure 18,19)

1、机针位置的调节 Adjust the needle position

用手转动主动轮，使针杆 (B) 下降至最低位置，卸下面板 (A)，上下移动针杆 (B) 初步定出同步位置 (针杆的同步位置，当针杆下降至最低位置时，机针线孔的中心 (C) 应与旋梭内周面 (D) 在同一位置上。

Turn the driver with your hand, and make the needle bar (B) drop to its lowest position. Then, take down the faceplate (A), move the needle bar up and down to set the original synchronous position (synchronous position of the needle bar). When the needle bar drops to its lowest position, the center of the needle hole (C) should be at the same position of the interior circle surface.

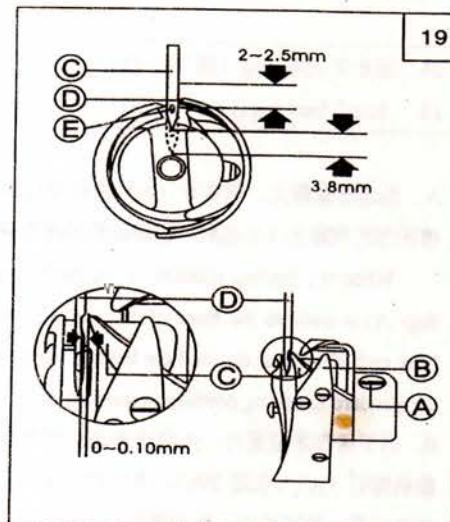
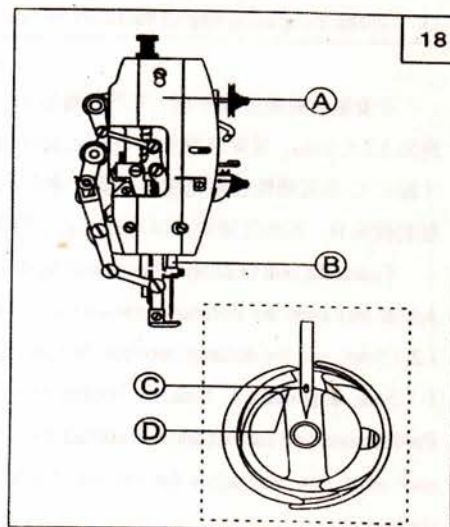
2、旋梭的同步调节 Synchronous adjustment to the rotary hook

旋梭和机针之间的相互运动关系，对缝纫机性能的影响很大。标准的同步关键是：用手转动轮、使机针向下运动到最低位置后再向上回升 3.8 毫米，这时旋梭钩线尖 (D) 应于机针的中心线 (C) 一致，在此位置时，钩线尖 (D) 应高于机针孔 (E) 上面约 2-2.5mm。

The interacting relation between the rotary hook and machine needle has great influence to the sewing performance. The standard synchronization is: turn the driver with your hand. Make the needle move downward to the lowest position, and then return upward for 3.8mm; meanwhile, the rotary hook thread time (D) should be consistent with the central line of the needle (C). At this position, hook thread time (D) should be higher than machine needle hole (E) for 2-2.5mm.

在调节旋梭的同步关系时，还要注意到旋梭尖与机针侧面的间隙。机针 (D) 缺口，底部与旋梭钩线尖 (C) 的间隙为 0-0.1mm。

The clearance between the rotary hook tine and the side of the needle should be noticed when adjusting the synchronous relations of the rotary hook. The clearance between the bottom of the needle (D) indentation and the hook thread tine of the rotary hook is 0-0.1mm.

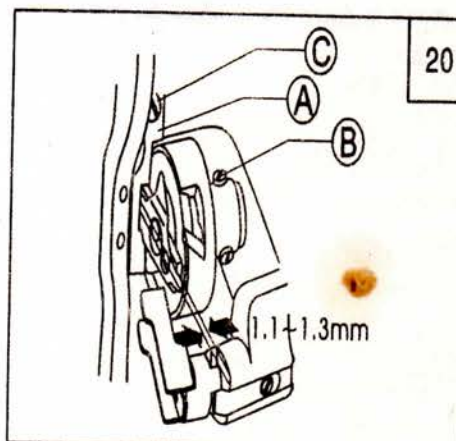


22. 旋梭装卸 (图 20)

22. Assemble and unassemble rotary hook (figure 20)

先将针杆上升到最高位置，拆下针板，取下机针和梭心套。旋开旋梭定位勾螺钉 (C)，把旋梭定位勾 (A) 取下。再旋松旋梭螺钉 (B)。使旋梭在它的转动轴上能够自由转动，接着用手转动上轮，使送料牙架走向高处。到此可以用手去旋转旋梭，使它让过牙架徐徐取出。安装旋梭上是述过程的回复。

Firstly, lift the needle bar to the highest position; take down the needle plate, machine needle and bobbin cover. Unscrew the set hook bolt (C) of the rotary hook, and take down the set hook of the rotary hook. Then, loosen the rotary hook bolt (B), so as to make the rotary hook move freely on its driving shaft. Turn the upper shaft with your hand to make the feed frame move higher. Now, turn the rotary hook with your hand and take it out slowly. The installing process of the rotary hook is opposite to the above process.



25. 送布同步调节 (图 24、25、26)

25. Synchronous adjustment to the cloth feeding (figure 24, 25, 26)

1、标准位置 Standard position

转动上轮,降低送布牙(A),当和针板表面(B)相平时,机针(C)的针尖应与针板,送布牙表面向在水平面上。调整可以通过调节送布凸轮的安装位置进行。

Turn the upper shaft and lower the feed dog (A). The needlepoint of the machine needle (C) should be at the same level with the needle plate (B) and the feed dog surface when the feed dog flatly placed on the surface of the needle plate. Changing the installing position of the cloth-feeding cam can make the adjustment.

2、抬牙凸轮的安装 Install the feed lifting cam

打开上盖板,用手逆时针转动上轮,使机针上升到最高位置,此时抬牙凸轮的第一个螺钉(逆时针方向转的第一个螺丝)向逆时针方向偏 45° ,在此位置拧紧螺钉即可。

Open the upper cover board, and turn the upper shaft anticlockwise with your hand to make the needle move up to its highest position; meanwhile, turn the first bolt (the first bolt anticlockwise) of the feed lifting cam 45° anticlockwise, and fasten the bolt at this position.

3、送布凸轮的安装

Install the cloth feeding cam

在抬牙凸轮安装好之后,再安装送布凸轮。以抬牙凸轮作为参照物,当机针抬到最高位置时,螺丝(A)向逆时针方向偏 30° ,也就是当抬牙凸轮的一个螺钉向顺时针方向偏 15° 。最后拧紧螺母(紧螺钉(B)。注意:螺丝(A)与另一螺丝不要弄错,它们的区别是另一螺丝有一个弹簧垫片。

Install the cloth-feeding cam after finishing the installation of the feed lifting cam. Referring to the feed-lifting cam, turn the bolt (A) 30° anticlockwise when the needle moving to its highest position. That is to say, turn the first bolt of the feed lifting cam 15° clockwise. Finally, fasten the binding bolt (B). Notice: The bolt (A) should be distinguished from the other bolt. The difference between them is that the other bolt has a spring cushion.

26. 上送料机构的调节 (图 27)

26. Adjust the upper feed mechanism (figure 27)

上下同步送料是该产品的重要性能之一。在缝纫过程中,应根据各种缝料的摩擦系数的不同和缝纫工艺的不同要求,对上送料机构的摆压脚滑块与摆压脚轴的中心距(L)进行调节。

Upper and lower feeding synchronously is one of the most important capabilities of the machine. In sewing operation, adjust the center distance (L) between the sliding blocks and the shaft of the swing presser-foot in upper feed mechanism.

调节方法:

Adjusting methods:

增大中心距 L-上送料量增大

Increase the center distance L-increase the quantity of the upper feeding.

减小中心距 L-上送料量减少。

Decrease the center distance L-decrease the quantity of the upper feeding.

