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手机官网

ZOJE 中捷缝纫机
ZOJE SEWING MACHINE

高速直驱拖轮链式缝纫机
HIGH SPEED DIRECT DRIVE TUGBOAT
CHAINSTITCH SEWING
ZJ3800/4810/3820/3830

浙江中捷缝纫科技有限公司
ZHEJIANG ZOJE SEWING MACHINE CO. LTD

地址：浙江省玉环市大麦屿街道兴港东路198号
ADD: No. 198, Xinggang East Road, Damaiyu Street, Yuhuan City, Zhejiang Province

国内营销中心：Domestic Business center
TEL:0579-87338345 87338215 FAX:0576-87338222

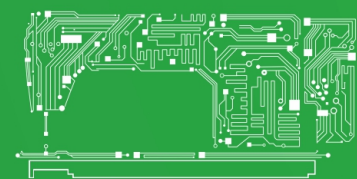
国际营销中心：International Business center
TEL:+86-576-87377013 87377272 FAX:+86-576-87338266

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全球服饰行业设备解决方案运营商

OPERATOR OF EQUIPMENT SOLUTIONS FOR THE
GLOBAL CLOTHING INDUSTRY

HIGH SPEED DIRECT DRIVE TUGBOAT CHAINSTITCH SEWING

3880/3881/3882/3883

对应ZJ3800/4810/3820/3830



INSTRUCTION MANUAL
PARTS LIST

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使用说明

提示：本机出厂时设为厚料型

一、开车前的注意事项

1. 油盘内未加油绝对不能开车。
2. 机器运转时,从上轮外侧看转向应该为逆时针方向、注意、不能倒转。
3. 在最初使用的一个月,应把缝速降低为每分钟 3500针进行缝纫作业
4. 按照电动机标牌上的标注,检查电源、电压及单相、三相是否正确。

二、使用注意事项

1. 机器运转时,请勿将手放到针的下部。
2. 机器运转时,请勿将手指伸入挑线杆护罩内。
3. 机器已停止后,才能盘动上轮。
4. 关掉电动机开关后,由于惯性上的缘故,电动机还会继续旋转一段时间,所以要注意,未停止转动不能将机器倾倒。
5. 机器运转时,请勿将手指、头发或其它东西靠近或接触上轮,“V”形皮带、电动机、也不要东西放置在它们附近
6. 装拆皮带罩及护指器时,请勿开动机器。

三、机器规格

| | |
|--------|---|
| 线迹形式 | 并列双针双线链式缝 |
| 速度 | 最高每分钟3500转 |
| 机针 | TV x 7 14#~20#或 UY128GAS 14#~20# |
| 针迹长度 | 1.4~4mm |
| 针杆行程 | 30mm |
| 双线间距范围 | 1/8" 5/32" 3/16" 7/32" 1/4" 5/16" 3/8" 1/2" |
| 挑线形式 | 针杆挑线 |
| 弯针 | 独立调节式1/8"~1/2" 通用 |
| 保针架 | 摇动式、固定式并用 |
| 膝提压脚 | 上升量8~10mm |
| 供油 | 叶片泵 |
| 润滑油 | 10号白油 |
| 压脚高度 | 5mm |

四、机器的安装 (图1)

1. 油盘的安装:将油盘支座①和油盘座③装在台板矩孔的四角,用油盘座钉②将其固定,再装上油盘(图1)。
2. 将机头边接钩放入底板孔内,与台板的机头连接钩座相嵌合,再将机头放到四只角的缓冲垫上。

五、加油(图2.图3)

1. 向油盘内加缝纫机油(10号白油)至HIGH记号部位(图2)。
2. 如果油面低于Low 记号,应再加油。
3. 加油后开动机器,润滑正常时,应看到油液喷到油窗上(图3)。至于喷到油窗上的油量多少与总油量的多少无关,所以不必担心。
4. 如需换新油,只要拆下油盘的排油螺钉,油污就能排出。
5. 使用新机器或长期未使用的缝纫机时,需抬起压脚以每分钟3500~4000针的速度空转约10分钟。

六、面部油量调节(图4)

转动油量调节销,可以调节针杆连杆销的供油量,调节销的刻点,靠近针杆连杆销时,油量最小,反之,则油量最大(图4)。

注意:调节油量时要十分注意,供油量并不是随调节立刻变化的。

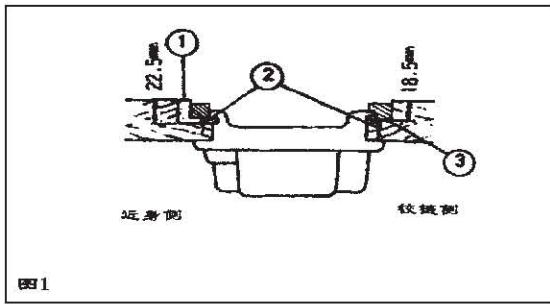


图1

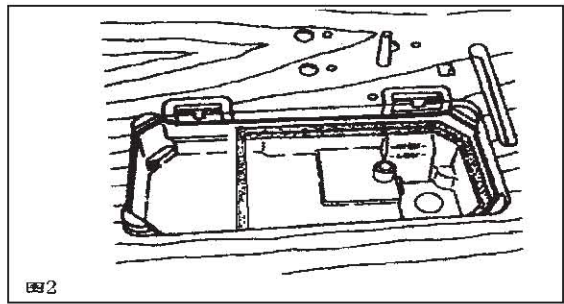


图2

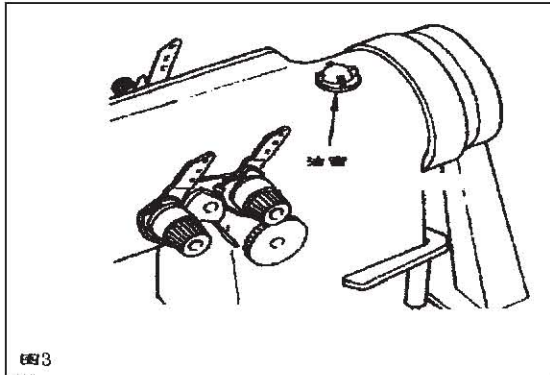


图3

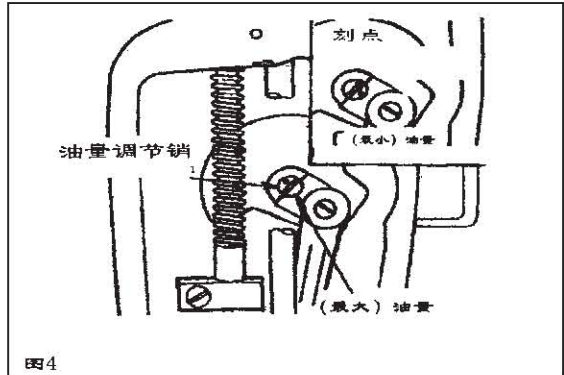


图4

七、面线穿线法(图5)

在针杆上升到最高位置时,按图5所示顺序依次穿过各线孔。

1. 线从操作者一侧向外穿过机针。
2. 面线穿过机针后必须再拉出100mm长线头。

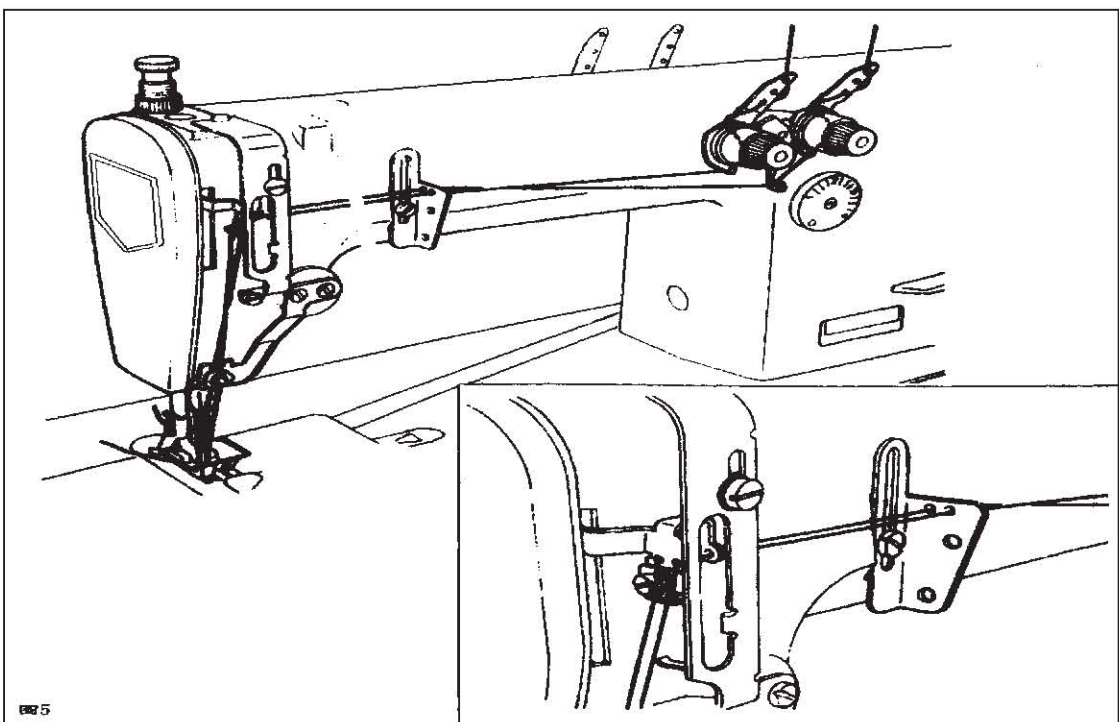
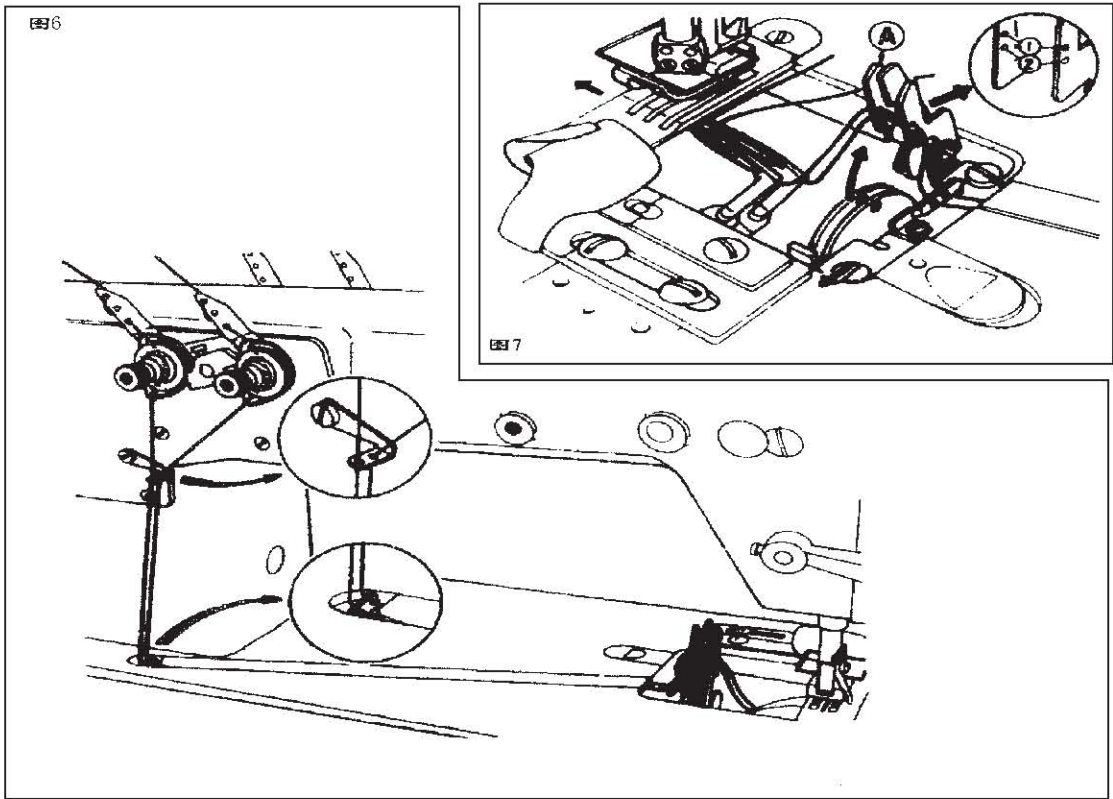


图5

八、底线的穿法(图6、图7)

底线按图示顺序依次穿过各线孔。

1. 按图6 所示穿过夹线器单面导线板, 如用捻度大的线或缝纫时需送料距大的时候应穿二个孔。
2. 把图中的扳簧朝操作人员侧拉, A 就向上抬起。
3. 穿弯针线时, 用附件中的镊子按图所示将线穿过, 在弯针的前端拉出50mm长线头。

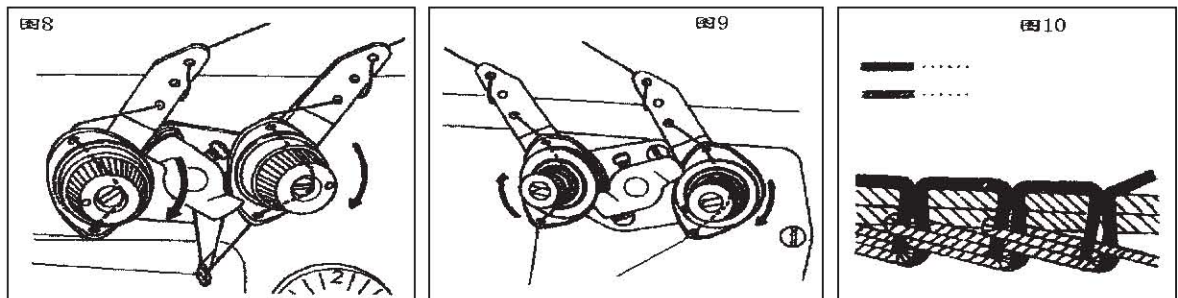


九、夹线器(图8、图9、图10)

面线张力的调节(图8所示): 向右转动夹线螺母张力变大。

底线张力的调节(图9所示): 向右转动夹线螺母张力变大。

底面线的关系(图10所示)为链式线迹的形成。



十、压脚(图11、图12)

压脚压力的调节(图11): 顺向转动压脚调压螺钉, 压力增强, 反之则压力减弱. 对一般布料而言, 压脚调压螺钉的标准高度为27~30mm(5公斤)左右。

要使压脚保持在抬起位置, 只要把压脚扳手向左或向右转动即可(图12)。

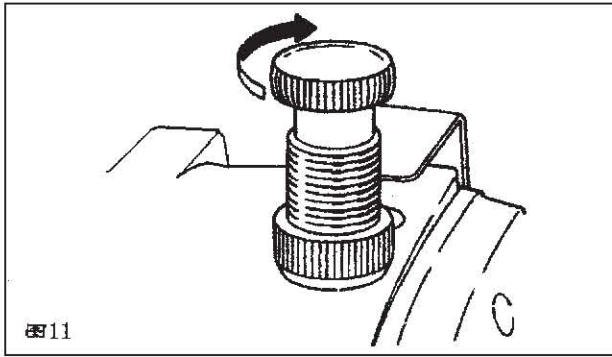


图11

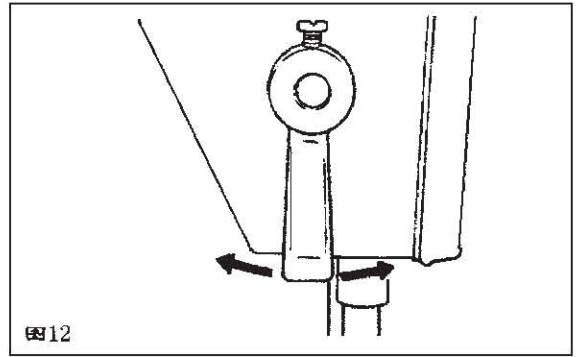


图12

十一、针距的调节(图13)

1. 针迹长度的调节(图13)只要旋转倒送料扳手上的面的针距调节旋钮至所需数字即可. 旋钮上刻度的数字用mm表示.
2. 针迹从大到小改变送料刻度时,应一边将倒送料扳手朝下压,一边转动送料距旋钮.
3. 针迹长度最大是4mm,最小是1.4mm.
4. 按下倒送料扳手,针迹变为紧密缝(1.4mm),该功能可用于起始缝和终止缝,或需加强缝纫的部份.
5. 本机不能进行倒缝.

十二、针距的安装(图14、图15)

在使用化纤线时,机针针孔的方向不能如(图14)中C的方向安装.

机针请使用TV x 7 14#~20#或UY128GAS 14#~20#机针,用化纤线缝制时,可按(图15)所示形式放置硅油,油箱应另外定制.

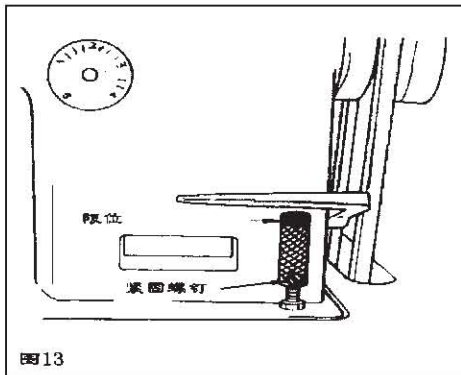


图13

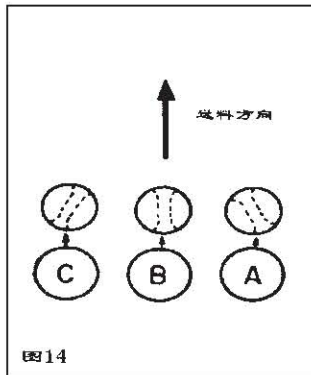


图14

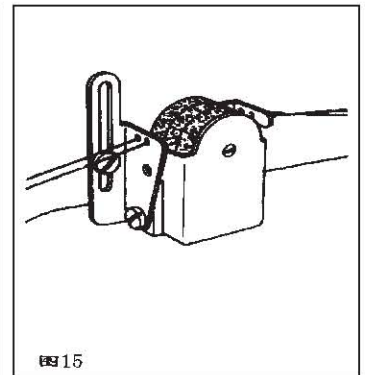


图15

十三、压脚高度的调节(图16)

为了调换压脚或改变压脚高度,角度需要:

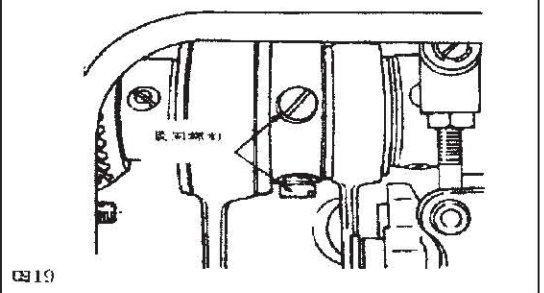
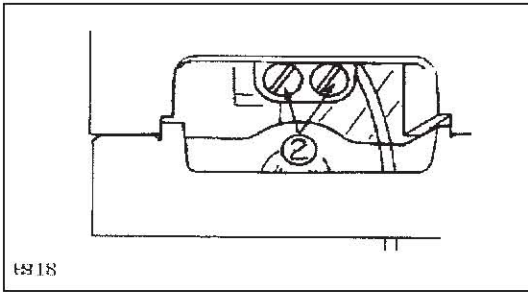
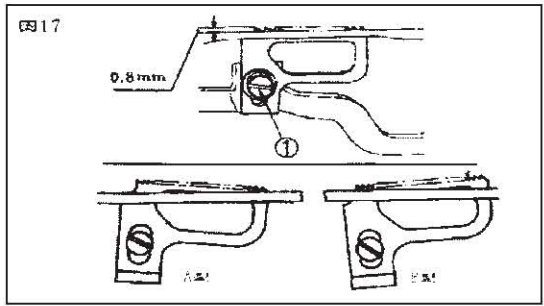
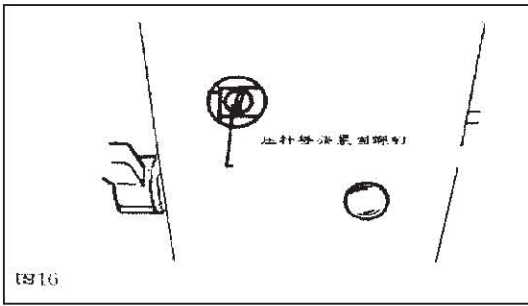
1. 拆下面板上的孔塞(图16).
2. 旋松压杆导架的紧固螺钉进行调节.
3. 调节后旋紧紧固螺钉

十四、送料牙的调节(图17、图18)

旋松图18所示螺钉②,送料牙的倾角即可调节成标准型、A型、B型,送料牙最大突出量是0.8mm,用图17中螺钉①调节.

十五、送料牙与针的同步(图19)

针尖下降至针板上平面3mm时,送料牙刚好全部下降至针板上平面以下,此时正好同步.可调节图19中的螺钉.



十六、针杆高度的调节(图20)

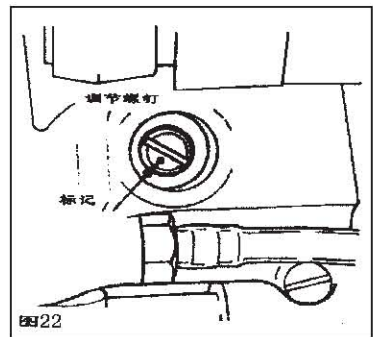
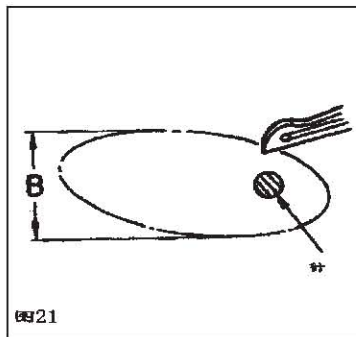
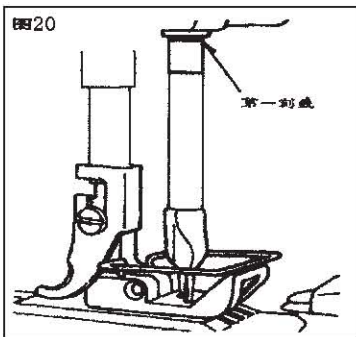
使用TV×7机针时,可用针杆上的刻线.针杆在下死点时,针杆上刻线应对准针杆下衬套的下端面(如图20所示),这样就决定了针杆的高度.同时调整压脚高度

十七、机针和弯针的调节(图21、图22)

弯针前后运动量的调节:

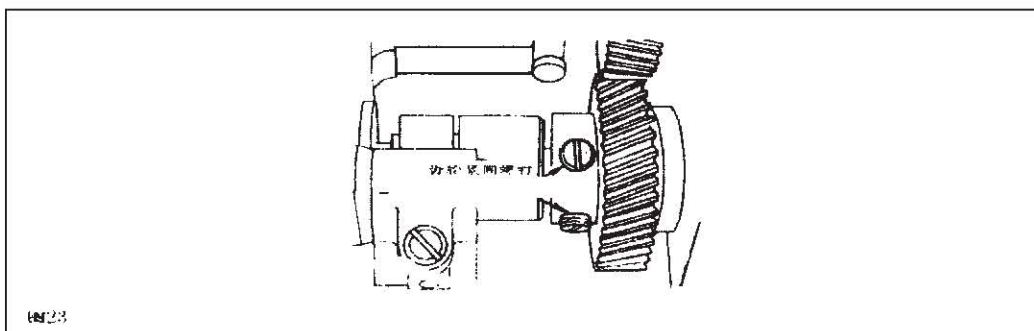
按如下顺序调节可得弯针椭圆运动中(图21)所示的B尺寸,通常B的尺寸在最大时为3.7mm,各种规格的机针都能缝纫.

1. 拆下弯针曲柄罩壳上的橡胶塞(图22).
2. 用手转动上轮.
3. 先旋松定位螺钉和紧固螺钉,调节有标号的螺钉.
4. 把调节螺钉上的冲印标记向右旋转,则B的尺寸就会变大,反之变小.
5. 旋紧定位螺钉和紧固螺钉.



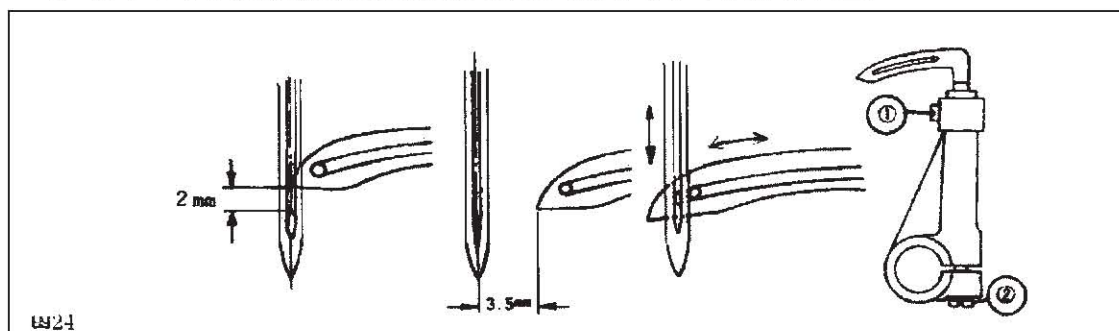
十八、弯针相对机针的同步(图23)

机针在最低点时,弯针退到最后,旋松图示齿轮的螺钉进行同步调整(如图23).



十九、弯针的勾取量(图24)

1. 弯针的针尖到达机针的中心位置时,弯针针尖离机针孔上端的距离标准值是2mm,此时针杆下刻线和针杆下衬套下端面对齐。(如图24)
2. 弯针的后退量约3.5mm。
3. 机针和弯针孔的相对关系如图24所示。(左右弯针可以分别调整)



二十、弯针和机针间和间隙

保针架调整后,机针和弯针间应留有一定间隙,即用手指轻压机针,机针也不应碰到弯针针尖。如果间隙太小了,机针的侧面与弯针针尖就会因相互碰撞而损伤。

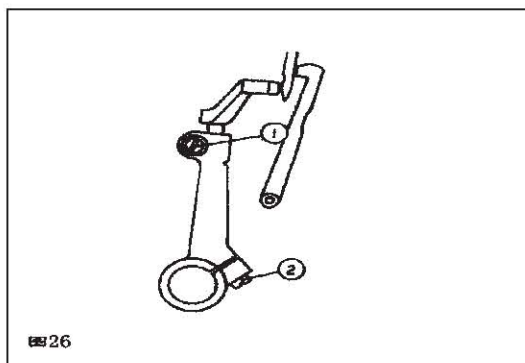
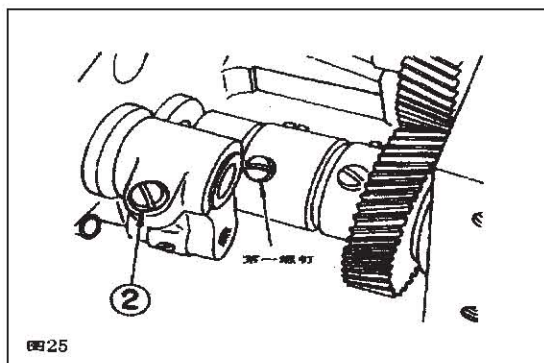
二十一、保针架的同步(图25)

保针架的同步,由(图25)中第一螺钉旋入弯针轴上的平面而决定。

二十二、保针架的位置(图26)

摆动保针架位置,使弯针勾取面线时让机针的针尖轻轻触及保针架,其高度应调整到不触及固定保针架范围,旋松(图26)中螺钉①②即可进行调节。

固定保针架和摆动保针架之间的关系(如图26)所示,与机针的间隙为0.1~0.2mm,缝纫机运转时不能强行夹住机针。



二十三、底线打线凸轮(图27)

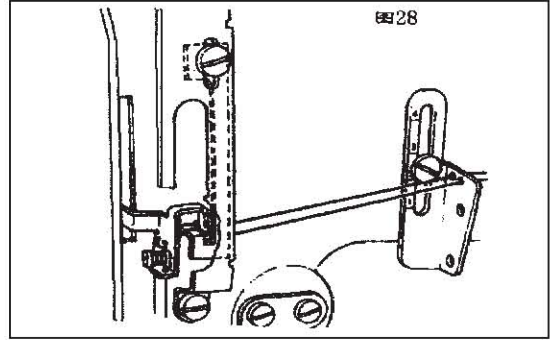
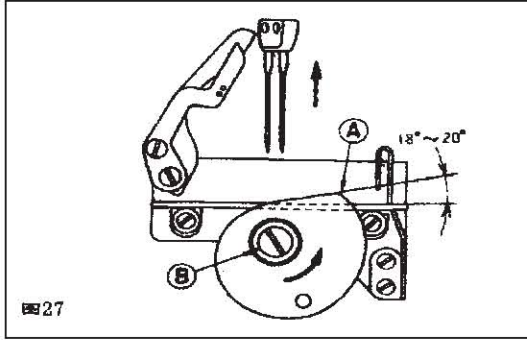
底线打线凸轮的位置如图27所示,针杆在最高点时,打线凸轮平面部分和钢丝平行部分的夹角为 $18^{\circ} \sim 20^{\circ}$,旋松螺钉B进行调整,位置决定后再旋紧。

调整时注意下列事项:底线从打线凸轮的突端A脱出时,针尖要完全进入底线弯针的线环中。

二十四、挑线杆线量调节板的位置(图28)

针杆在最低点时,如图28所示,用挑线杆线量调节板挡住面线,这样勾取面线时,面线线环变大。

此外,针杆在最低处时,也有拉紧面线线环的作用,通常在使用较细的缝线时,应把线量调节板降到最低点。



二十五、中间导线钩(图29)

中间导线钩的位置也关系到跳针现象的发生,一般把下列位置作为基准(图29)

棉线 $\#80 \sim \#50$

中间导线钩刻度2~3

棉线 $\#30 \sim \#20$

中间导线钩刻度3~4

化纤线 $\#80 \sim \#50$

中间导线钩刻度1~2

化纤线 $\#30 \sim \#20$

中间导线钩刻度2~3

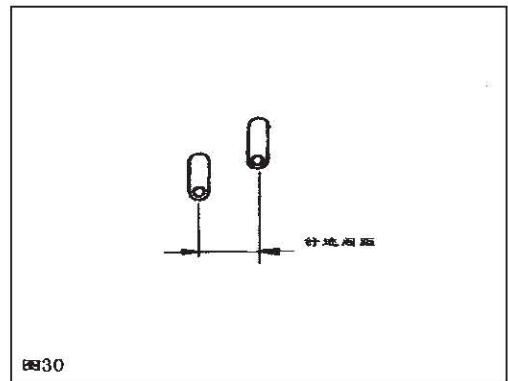
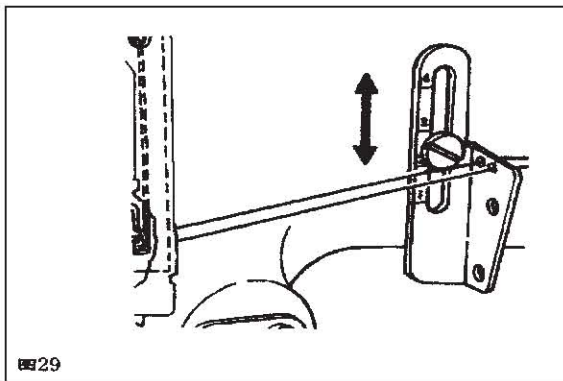
二十六、针板的调换(图30)

GK28-1的针板出厂标准规格为 $1/4''$ (6.4mm). (图30)

改变缝线间距通常同时要更换:

1. 针夹
2. 活压脚
3. 针板
4. 送料牙
5. 摆动护针杆
6. 卷边器

左弯针和右弯针在 $1/8'' \sim 1/2''$ 针板规格之内都通用. 针板宽度大时,除上述零件外还要调换推板和凸轮盖。



二十七、缝纫机的保养

为了使缝纫机保持良好的工作状态,要做到以下事项:

(一). 每日必须检查的事项:

1. 运转时,油窗内的油在飞溅。

2. 运转时,一听到有异常声音,即应停止缝纫作业,并请修理工来检查

(二).每周一次检查部位:

1. 拆下针板、推板、凸轮盖,用刷子清洗送料牙槽中的灰尘.
2. 把机头翻转,去除油泵过滤网上的垃圾及油盘内的灰尘.
3. 发现润滑油黑脏时,只需旋下油盘的排油螺钉排空污油,换入新的润滑油.
4. 油面必须高于最低线(Low).
5. 用布擦去沾在油盘磁铁上的黑粉.

二十八、故障和措施

| No. | 事故内容 | 原因 | 对策 |
|-----|------|---|---|
| 1 | 断线 | <ol style="list-style-type: none"> 1. 缝线质量差 2. 缝线太粗 3. 机针过热溶断缝线 4. 缝线张力太强 5. 机针、弯针、针板、保针架过线部份损伤 6. 线量未调节好 | <ol style="list-style-type: none"> 1. 使用质量好的缝线 2. 调换合适的缝线 3. 使用硅油或降低转速 4. 旋松夹线螺母 5. 用油石磨光再抛光 6. 调节线量调节板 |
| 2 | 跳针 | 1. 面线跳针 | <ol style="list-style-type: none"> 1. 调整弯针勾取量 2. 调整弯针与机针的间隙 3. 调整机针同弯针的同步 4. 根据缝线的情况调整线量调节板 5. 调整中间导线钩的位置 6. 检查机针安装是否正确 7. 检查保针架的位置和同步是否正确 8. 检查缝线是否穿正确 |
| | | 2. 底线跳针 | <ol style="list-style-type: none"> 1. 按上述面线跳针1.2检查 2. 检查底线凸轮的同步 3. 稍微增强底线的张力 4. 检查缝线穿得是否正确 |
| | | 3. 使用化纤线时的跳针 | <ol style="list-style-type: none"> 1. 使用硅油 2. 降低转速 3. 使用化纤线用的机针 |
| | | 4. 使用合成纤维线时的跳针 | <ol style="list-style-type: none"> 1. 降低转速 2. 使用硅油 |
| 3 | 线迹不良 | <ol style="list-style-type: none"> 1. 面线张力太弱 2. 底线张力太弱 3. 缝线太粗 4. 中间导线钩的位置不够正确 5. 挑线杆线量调节板位置不正确 6. 针板 | <ol style="list-style-type: none"> 1. 旋紧面线夹线螺母 2. 旋紧底线夹线螺母 3. 调换大号机针 4. 调整中间导线钩的位置 5. 调整线量调节板的位置 6. 使用针孔大的针板 |

| No. | 事故内容 | 原因 | 对策 |
|-----|------|---|---|
| 4 | 断针 | <ol style="list-style-type: none"> 1. 机针弯 2. 送料和机针不同步 3. 压脚的安装有问題 4. 保针架有问題 5. 面线张力过强 6. 机针太粗 | <ol style="list-style-type: none"> 1. 调換机针 2. 调整到同步 3. 压脚孔、针板孔的中心与机针中心要一致 4. 检查保针架的位置与同步 5. 放松面线张力 6. 使用合适的机针 |
| 5 | 起绉 | <ol style="list-style-type: none"> 1. 缝线张力过强 2. 底线打线凸轮不同步 3. 各过线处光洁度有问題 4. 压脚压力太强 | <ol style="list-style-type: none"> 1. 降低缝线张力,特别是底线的张力 2. 进行调节,使其同步 3. 研磨各过线部分 4. 旋松调压螺钉 |

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Operation Manual

1、Pre-start checks.

1. The machine shall not be started until the completion of oiling.
2. The rotating direction of the balance wheel, when the machine is started, shall be in counter-clockwise one. (View from the right side of the balance wheel.) Never should the machine run in the wrong direction.
3. The machine shall work at less than 4,500 s.p.m. for the first month.
4. Check power source, voltage, and phase number to see whether they are in accordance with the ratings on the name plate of the motor to be used.

2、Operating instructions:

1. Do not put your hands under the lower part of the needle when the machine is running.
2. Do not put your fingers into the thread take-up lever cover when the machine is running.
3. Only when the machine stops can you turn the balance wheel by hand.
4. due to inertia, the machine will keep running for a while after the motor is powered off, please do not tilt the machine before it stops running.
5. Keep away from the balance wheel, V-belt, winder and the motor when the machine is running.
6. Do not start the machine when mounting or relacing the belt cover, finger guard, etc.

3、Specifications

| | |
|------------------------------------|--|
| Stitch type | Two-needle double-row chain stitch |
| Speed | Max. 3500 s. p. m. |
| Needle | TV x 7 14#-20#或UY128GAS 14#-20# |
| Stitch length | 1.4~4mm |
| Stroke of needle bar | 30mm |
| Gaugas of clouble-row chain stitch | 1/8" 5/32" 3/16" 7/32" 1/4" 5/16" 3/8" 1/2" |
| Thread take-up type | Needle bar thread take u type |
| Looper | Separately adjustable type, for the range of 1/8"to 1/2" |
| Needle guard | Oscillating type and rigid type |
| Light clearance of knee lifter | 8~10mm |
| Oil supply | Impeller-type pump |
| Lubricating oil | *10white oil |

4、Installation of the machine(Fig.1)

1. To install the oil reservoir:

Put the oil reservoir rubber cushion ① and oil reservoir felt cushion ③ on the four corners of the table, fix them with the screws ②, then install the oil reservoir(Fig.1)

2. Put the machine connecting hooks into the holes to engage respectively two hinges seated in the table, then place the machine on the four cushions.

5、Oiling (Figs.2 and 3)

1. Oiling shall be made in oil reservoir and the oil surface also be made to the level of the mark "High" before the machine is started (Fig.2)

2. refill the oil when the oil level is beneath the "low" mark(Fig.3)

3. The normal condition of lubrication is that the oil shall spray onto the oil sight.

The amount of oil spraying onto the oil sight is not at all proportional to the total amount of oil in the oil reservoir. There is nothing to worry about.

4. Only when the drain cover screw is loosened and taken off can old oil be drained out and new oil be supplied again.

5. When a new model or those standing idle for long time are to be operated, presser foot shall be lifted and run idle for about ten、minutes.

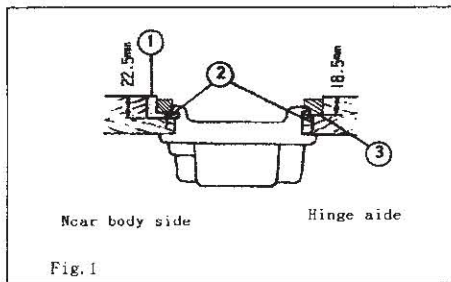


Fig. 1

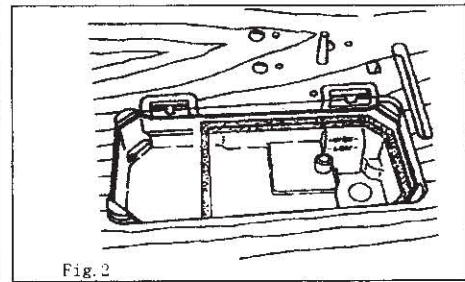


Fig. 2

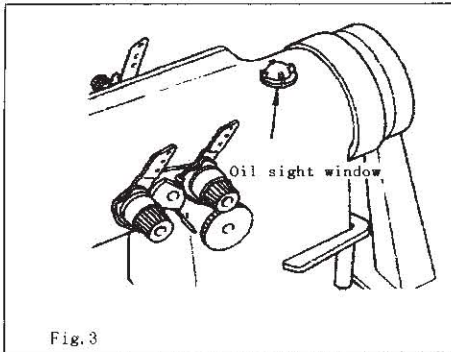


Fig. 3

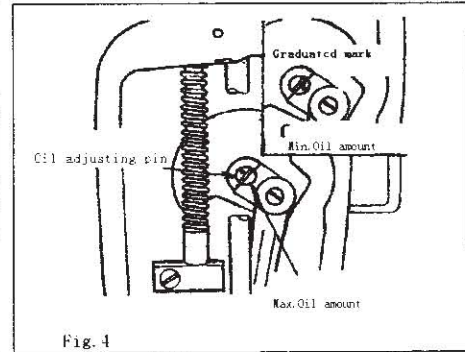


Fig. 4

6. How to regulate oil amount by means of manipulating elements on the face plate(Fig.4)

To turn oil-amount adjusting pin to regulate oil amount of the thread take-up crank, min. oil amount will be supplied when the mark of adjusting pin moves to the thread take-up crank as near as you desire. Otherwise, max. oil amount will be supplied.

7. The threading of needle thread.

To thread the eyes of the needles in the order as shown in Fig.5:

1. To make thread go through the eye of the needle outwards. (View from the operator's side)
2. To pull out 100mm of the remaining thread after needle thread going through the eyes of the needles.

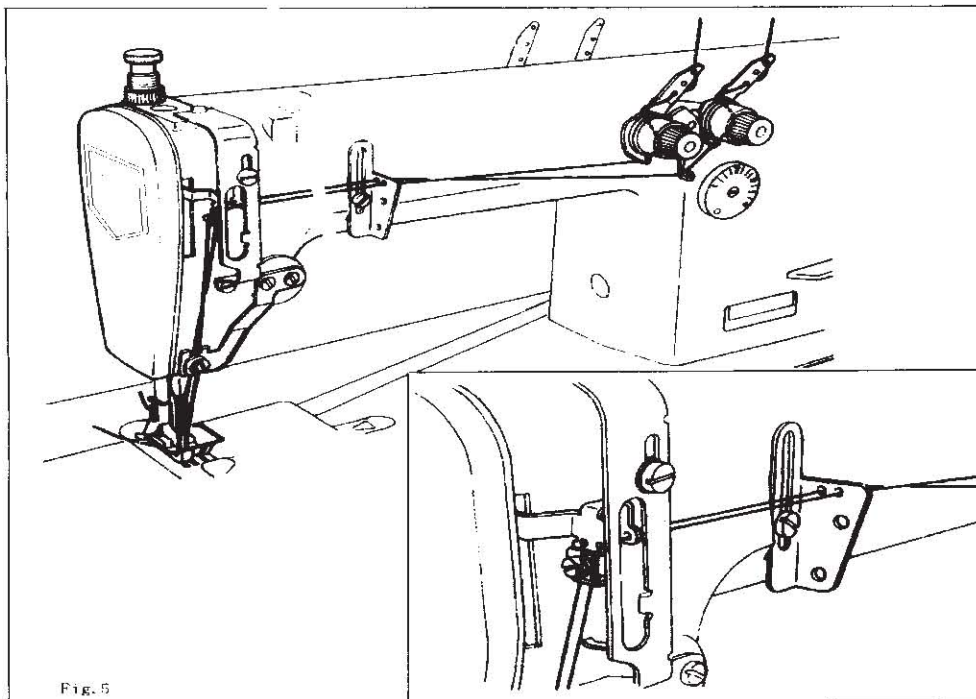
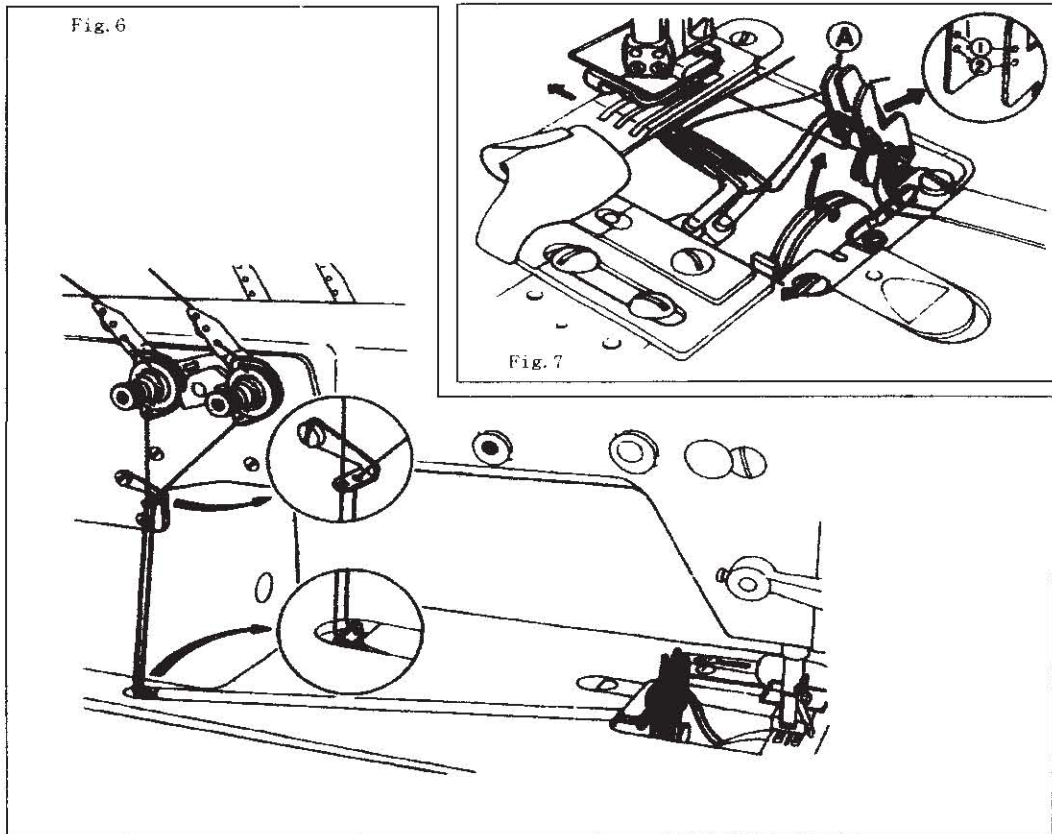


Fig. 5

8. The threading of bobbin thread(Fig.6 and 7)

To make bobbin thread go through the eye of the needle in the order as shown in (Figs.6 and 7):

1. Make the bobbin thread go through the tensioner guide plate; go through the two holes when thread of harder twist fibre is used and feed gauge is wider than usual.
2. Pull the spring toward the operator, as shown in Fig.7 and part A will rise upwards
3. When threading the looper, the thread shall be made to go through the eye of the needle with a tweezer as shown in Fig.7 and 50mm of remaining thread be pulled out

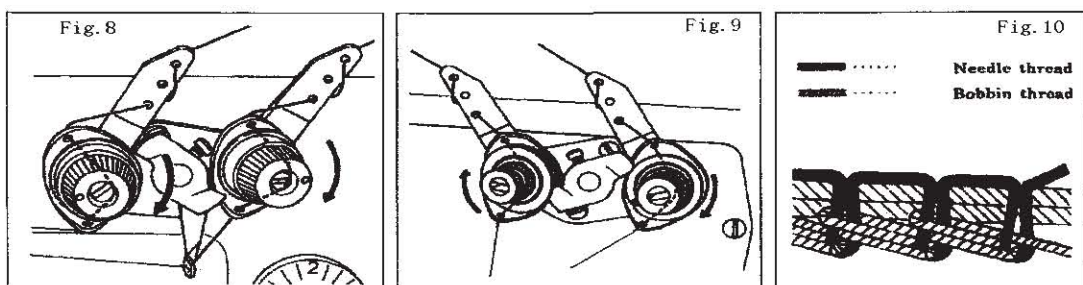


9. Thread tension asm.(Figs8,9 and 10):

To adjust the needle thread tension in accordance with the sewing working condition, we can adjust needle thread tension by tension spring. Turn the tension nut clockwise to increase the tension; turn counter-clockwise to decrease the tension.

To adjust bobbin thread tension:

Turn tension screw clockwise to increase the tension; turn tension screw counter-clockwise to decrease the tension. The relation between the needle thread and the bobbin thread as shown in (Fig. 10) depicts the forming of chain stitch.



10、 Presser foot (Figs.11 and 12):

Adjustment of pressure on presser foot (Fig.11)

Turn pressure regulating thumb screw clockwise to increase the pressure; turn pressure-regulating thumb screw counter-clockwise to decrease the pressure. For general fabric the standard height of pressure regulating thumb screw is about 27~30mm(5Kg.)

The presser bar lifter shall be turned either leftward or rightward in order to keep the presser foot under the condition of lifting position.

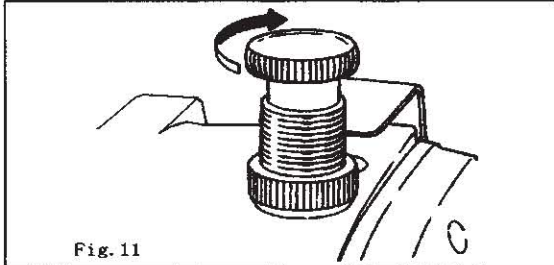


Fig. 11

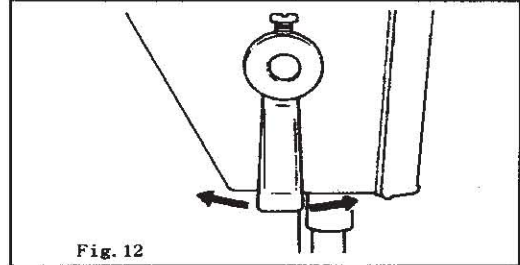


Fig. 12

11、 To adjust stitch length (Fig.13)

1. Turn the feed regulating dial in the way shown in fig13. The value of graduation is shown in millimetre(mm).

2. If you intend to change the stitch length, press down the reverse feed lever while turning the feed regulating dial.

3. Max. stitch length is 4mm:Min.stitch length is 1.4mm.

4. When reverse feed lever is pressed down, right-needle stitch of 1.4mm will be formed; this version of stitch is suitable for beginning and end seaming or bartacking.

5. The machine can not make reverse stitch.

12、 installation of the needle:

When thread of chemical fibre is used, the direction of the needle eye shall not be in that one, as shown in part C of Fig.14. Needle types should fall within the range from #9 to #21 of TV×7; the specifically numbered needle of GK×2 type is also acceptable. Oil tank shall be custom-made when thread of chemical fibre is used; silicone oil can be placed like that, as indicated in Fig.15.

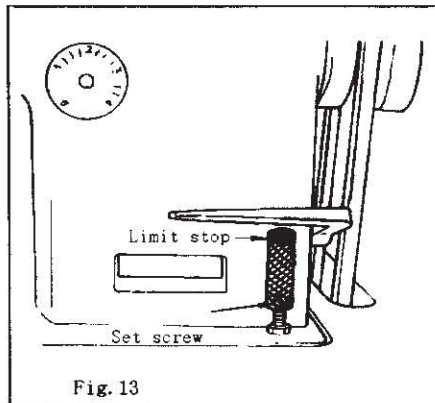


Fig. 13

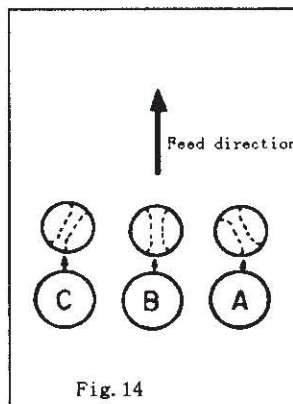


Fig. 14

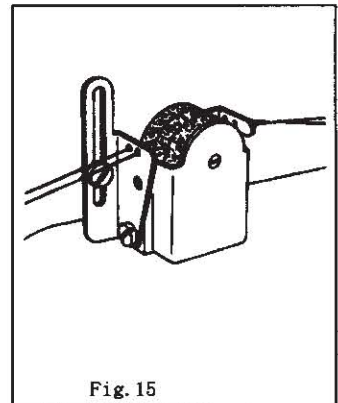


Fig. 15

13、 Adjustment of the height of the presser bar:(Fig.16)

For the requirements of either replacing the presser foot or changing the height and angle of presser foot, the following shall be observed.

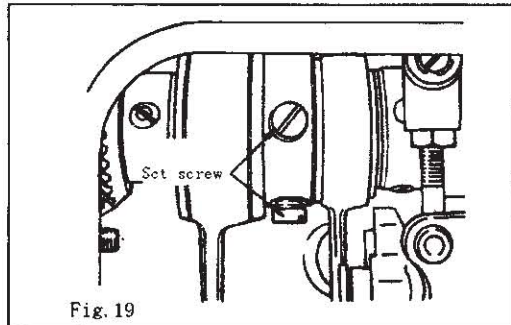
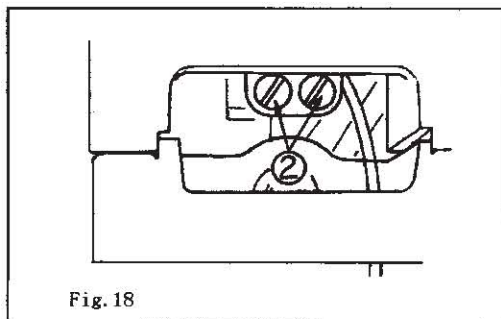
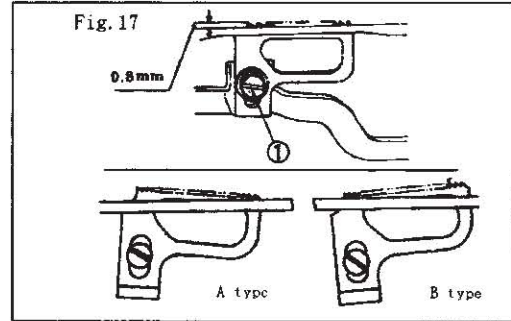
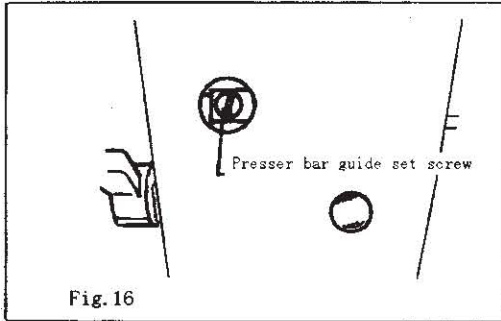
1. Take off the rubber plug in the hole from the face plate, as shown in Fig.16.
2. Loosen the presser bar guide bracket set screw.
3. after adjustment, retighten the screw

14. Adjustment of the height of the feed dog(Fig.17 and 18)

Loosen the set screw ②, as shown in Fig.18, the angle of the feed dog can be adjusted to the specified one of standard version, version A, and version B. The Max. height of 0.8mm of the projection from feed dog is adjustable by the adjusting of screw ① as shown in Fig.17.

15. synchronization of feed dog and needle:(Fig.19)

When the point of needle lowering down to the location of 3mm from the upper surface of the throat plate, the feed dog is right at the position below the upper surface of the throat plate, viz. the running of feed dog goes well regulated in synchronization with the motion of needle.



16. Adjustment of the height of needle bar:(Fig.20)

When the needle of TV×7 is used, if the graduation on the needle bar is at the lower fixed dead centre, the mark of graduation shall be in line with the lower end of the needle bar bushing, lower, as indicated in Fig20.

17. Adjustment of the needle and looper(Figs.21 and 22)

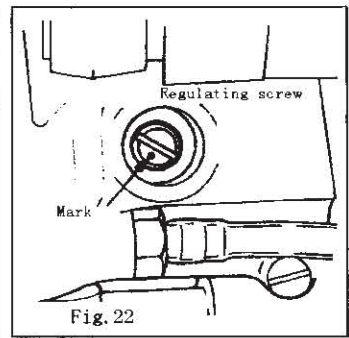
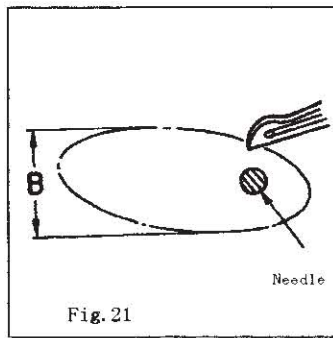
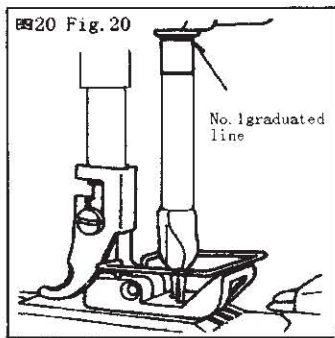
Adjustment of forward & backward motion of the looper: The dimension of part B of the looper in an elliptic motion can be measured, (refer to Fig.21). The max. dimension of part B is usually 3.7mm, suitable for sewing operation of needles of all kinds of sizes.

The adjusting procedure is as follows:

1. Take off the rubber plug on the crank case of the looper(refer to Fig.22)
2. Turn the balance wheel by hand.
3. First loosen the set screw and positioning screw, and then adjust the marked screw.
4. Turn clockwise the adjustable screw on which punch mark is printed, and The dimension of part B will be increased in value.
5. Tighten the set screw and positioning screw.

18. synchronization of looper with the needle(Fig.23)

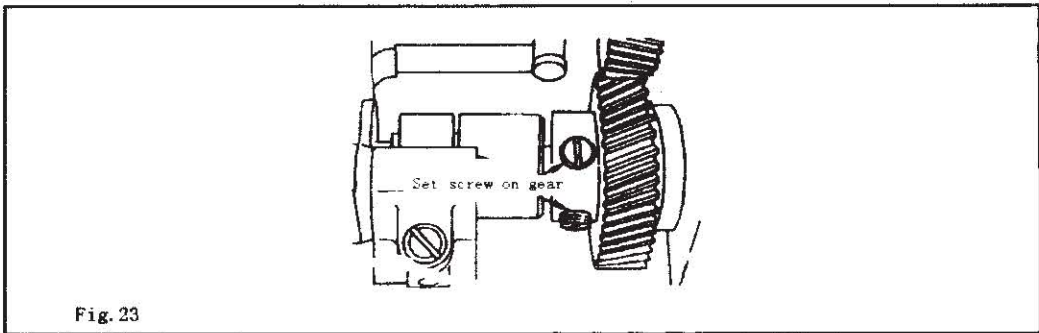
The looper shall be moved backward to the lowest position while the needle is at the lower fixed centre; loosen the screw on the gear to synchronize the looper with the needle (refer to Fig23).



19. Thread - guiding amount of the looper (refer to Fig.24)

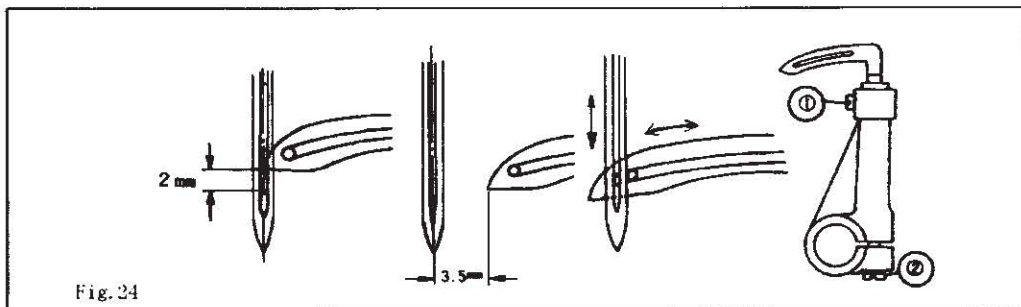
1. The standard value of the vertical distance between the point of the looper and the upper end of the eye of the needle is 2mm, then the graduation mark on the lower part of the needle bar shall be in line with the lower end of the needle bar bushing, lower. (refer to Fig.24)
2. The value of the stroke moved backward by the looper is about 3.5mm .
3. The relation between the eye of the needle and the eye of the looper is indicated in Fig.24.

(Note that the left looper and the right one can be separately adjusted).



20. The gap between the cooper and the needle:

After adjusting the needle guard, the gap of a given value between the needle and the looper shall be kept unchanged; the needle shall not touch at the point of the looper when it is pressed down softly. If the gap is narrower than usual, the side of the needle and the point of the looper are apt to incur breakage due to the impact of the needle side against the looper point



21. synchronization of the needle guard:(Fig.25)

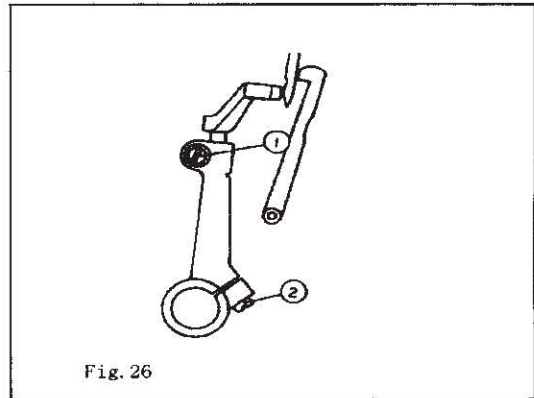
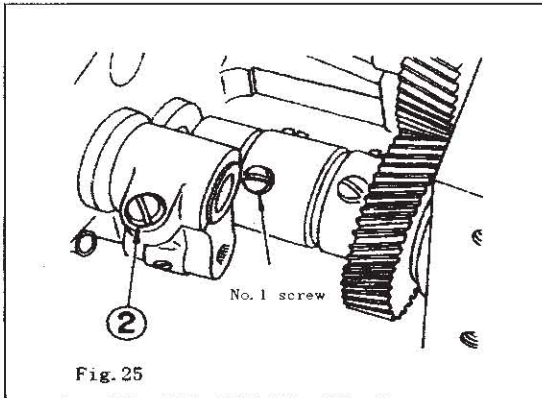
The synchronization of the needle guard depends on the condition of the plane on the rock shaft of the looper when no.1 screw has been screwed into this rock shaft.

22、 Position of needle guard:(Fig.26)

Oscillating the needle guard to make the needle tip touch needle gauge slightly.

It is recommended that the height adjustment shall not fall within the area of the left counter needle guard; the adjustment can be made by loosening screws 1 and 2. The relation between left counter needle guard and the counter needle guard is as represented in Fig.26; the clearance from the needle falls within the range of 0.1 to 0.2mm.

Note that the forced clamp of the needle shall be prohibited when the machine is in motion.



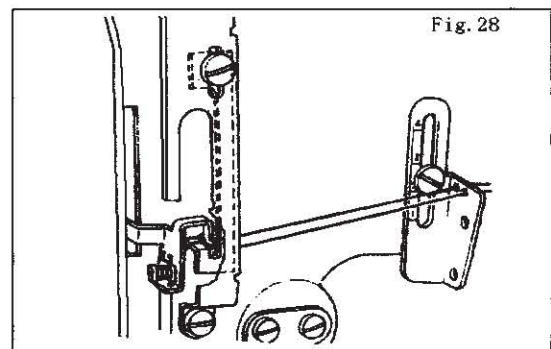
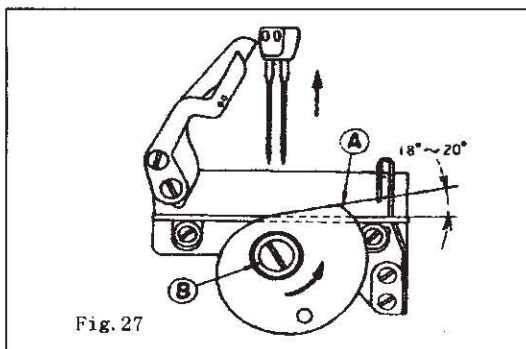
23、 Looper thread take-up cam:(Fig.27)

Its position can be seen as shown in Fig.27 When the needle bar is at the lower fixed centre, the planes of the cam and the steel wire are in parallelism; the projecting part of the cam can slightly rise at the angle of 18 to 20 degrees; first loosen screw B , and then make adjustment , finally tighten the screw firmly. Pay close attention to the following: The needle tip shall entirely come into the thread loop of the looper when the bobbin thread rejecting from the projecting part of the cam.

24、 The position of the thread-amount adjusting plate of the head take-up lever:(Fig.28)

The thread-amount adjusting plate will retain the bobbin thread when the needle bar is at the bottom dead centre; in such a way the loop of the needle thread is to become bigger when the needle thread is hooked. In addition to the foregoing there is a function of the tight pulling of the needle thread loop. The thread-amount adjusting plate usually reduces to the lowest point when a thread finer than normal is used.

Note that take-up thread tension lever is another name for thread-amount adjusting plate.



25、 Frame thread eyelet:(Fig.29)

The improper-positioning of the frame thread eyelet may be the cause of occurrence of skipping stitch.

The following locations are generally regarded as criteria(refer to Fig.29)

| | |
|---------------------------------|---|
| Cotton thread #80~#50 | Graduation marked on the frame thread eyelet2-3 |
| Cotton thread #30~#20 | Graduation marked on the frame thread eyelet3-4 |
| Thread of chemical fibre#80~#50 | Graduation marked on the frame thread eyelet1-2 |
| Thread of chemical fibre#30~#20 | Graduation marked on the frame thread eyelet2-3 |

26、 Replacement of throat plate:(Fig.30)

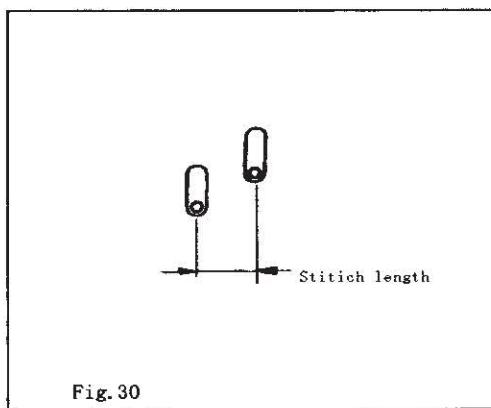
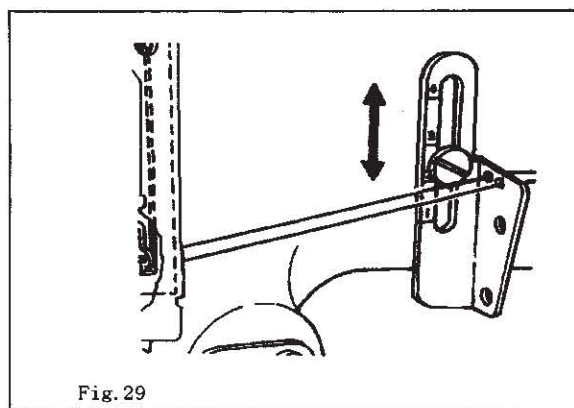
The standard size of the throat plate in parts book, which is stipulated by the factory, is 1/4", equivalent to 6.4mm.(Fig.30)

The replacement of the following components is usually needed A30 when changing the gauge of double-row thread stitch.

1.Needle clamp 2.Hinged foot 3.Throat plate 4.Feed dog 5. Rear moving needle guard 6. curler

The left and right loopers within the range of the sizes of 1/8" to 1/2" are interchangeable.

In addition to the aforesaid, the replacement of slide plate and cam cover shall be made when the width of throat plate is on the increase.



27、 maintenance of the machine.

The following shall be adhered in order to keep the machine in good working

conditions:

(1).Daily check:

1. the oil shall spray onto the oil sight when the machine is running.
2. Repairman shall be sent for when abnormal sound is heard during the operation of the machine.

(2).locations to be checked once a week:

1. To take off throat plate, slide plate, and cam cover; to clean dust of the slotted feed dog with a brush.
2. To turn over the head to rid both the oil filter screen on the oil pump and the interior of the oil reservoir of oil stain and dust.
3. Loosen drain hole screw and take it off; drain all the dirty oil from the oil reservoir and reoil it
4. Oil level must be above the lowest oil-level-indicating line marked "Low"
5. The black powder, adhering to the magnet in the oil reservoir shall be wiped with sponge cloth.

28. Common breakdowns and measures of trouble shooting:

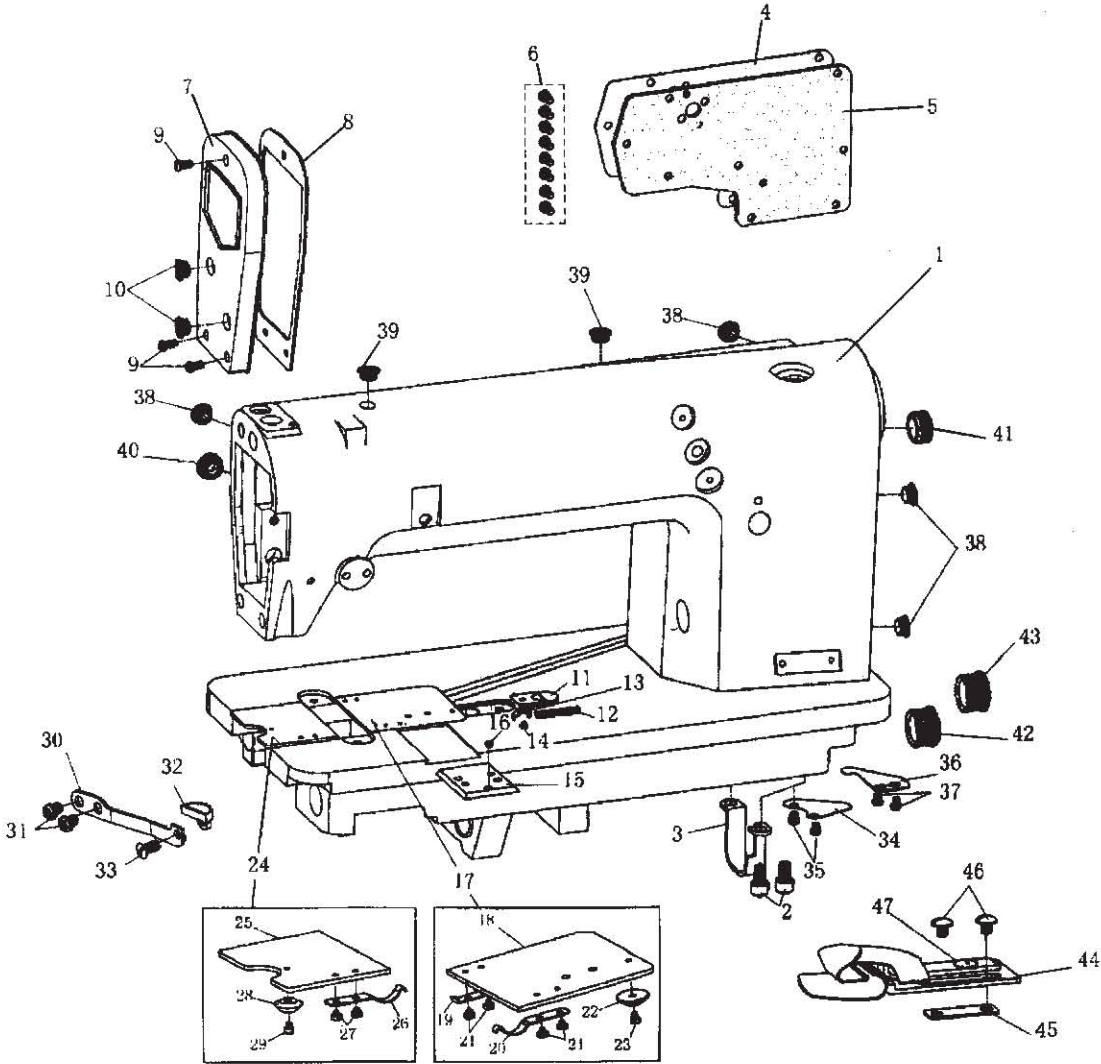
| No. | Breakdown | Causes | measures to be taken |
|-----|-----------------|---|---|
| 1 | Thread breakage | <ol style="list-style-type: none"> 1.Poor thread quality 2.Thread being too thick 3.Fusing thread due to high temperature of needle caused by machine's operation at high speed 4.Tension being too higher 5.Breakage of needle, looper, throat plate, and needle guard at the location of thread guide 6.Failure to adjust thread amount | <ol style="list-style-type: none"> 1.Quality thread to be used. 2.Replacement to be made by an appropriate thread 3.Silicone oil to be used and speed to be reduced 4.The tension nut to be loosened 5.First grinding with oil stone and then polishing 6.adjusting the thread amount adjusting plate |
| 2 | Skipping stitch | <ol style="list-style-type: none"> 1.skipping stitch of needle thread (leaking of two stitches due to the looper's failure to hook the needle thread) | <ol style="list-style-type: none"> 1.adjusting thread-hooking amount of looper 2.adjusting clearance between looper and needle 3.synchronization of needle in reference to looper 4.adjusting the thread-amount adjusting plate on thread amount changing conditions. 5.adjusting the frame thread eyelet 6.checking whether the mounting position of the needle is proper or not 7.to see if the location and synchronization of the needle guard is ok 8.To see if the needle thread threading is in a proper way |

| No. | Breakdown | Causes | measures to be laken |
|-----|--------------------|---|---|
| | | 2. Skipping stitch of bobbin thread (leaking of one stitch, needles failure to enter the looper eyelet) | 1. Refer to the above cases 1 and 2, as to skipping stitch of the needle thread. 2. To see if the timing of bobbin thread cam has been well regulated. 3. Increasing tension of bobbin thread a bit higher 4. To see if the threading of bobbin thread is in a correct way |
| | | 3. Skipping stitch when thread of chemical fibre being in use | 1. Using silicone oil 2. Reducing speed 3. Using needle for thread of chemical fibre |
| | | 4. Skipping stitch when thread of polyester fibre being in use | 1. Reducing speed 2. Silicone oil to be used |
| 3 | Twisted stitches | 1. needle thread tension being too low. 2. Bobbin thread tension being too low 3. Sewing thread being too thick 4. Improper position of the frame thread eyelet 5. Improper position of thread take-up tension plate 6. Throat plate | 1. Tightening tension nut of needle thread. 2. Tightening tension nut of bobbin thread 3. needle of large size to be used 4. Readjusting it to a proper position 5. Readjusting its position in an appropriate way 6. The eyelet of throat plate to be used being bigger than normal one |
| 4 | Breakage of needle | 1. needle being bent. 2. The operation of feed dog being not well regulated in reference to the motion of needle 3. Setting-up of the presser foot 4. The problem of the timing of needle guard remaining unsolved 5. needle thread tension being too high 6. needle being too thick | 1. needle to be replaced by another of proper size 2. Readjusting the timing to feed dog in respect to the needle 3. To make both the centre of the hole of the presser foot and the centre of the eyelet of the throat plate be in line with that of the eye of the needle. 4. The positioning & the timing of the needle guard to be taken into account 5. Relaxing needle thread 6. appropriate needle to be used |
| 5 | Puckering | 1. Thread tension being too high 2. The problem of the timing of the bobbin thread cam for thread guiding failing to be solved 3. The problem of surface finish arising From bobbin thread going through the parts on the thread guide. | 1. Decreasing thread tension, esp. tension of bobbin thread. 2. Readjusting of the very cam said to solve the timing problem 3. Surface finishing all the parts on the thread guide |
| | | 4. The force on the presser foot being too great | 4. Turning counter-clockwise the pressure-regulating screw. |

零件样本

PARTS LIST

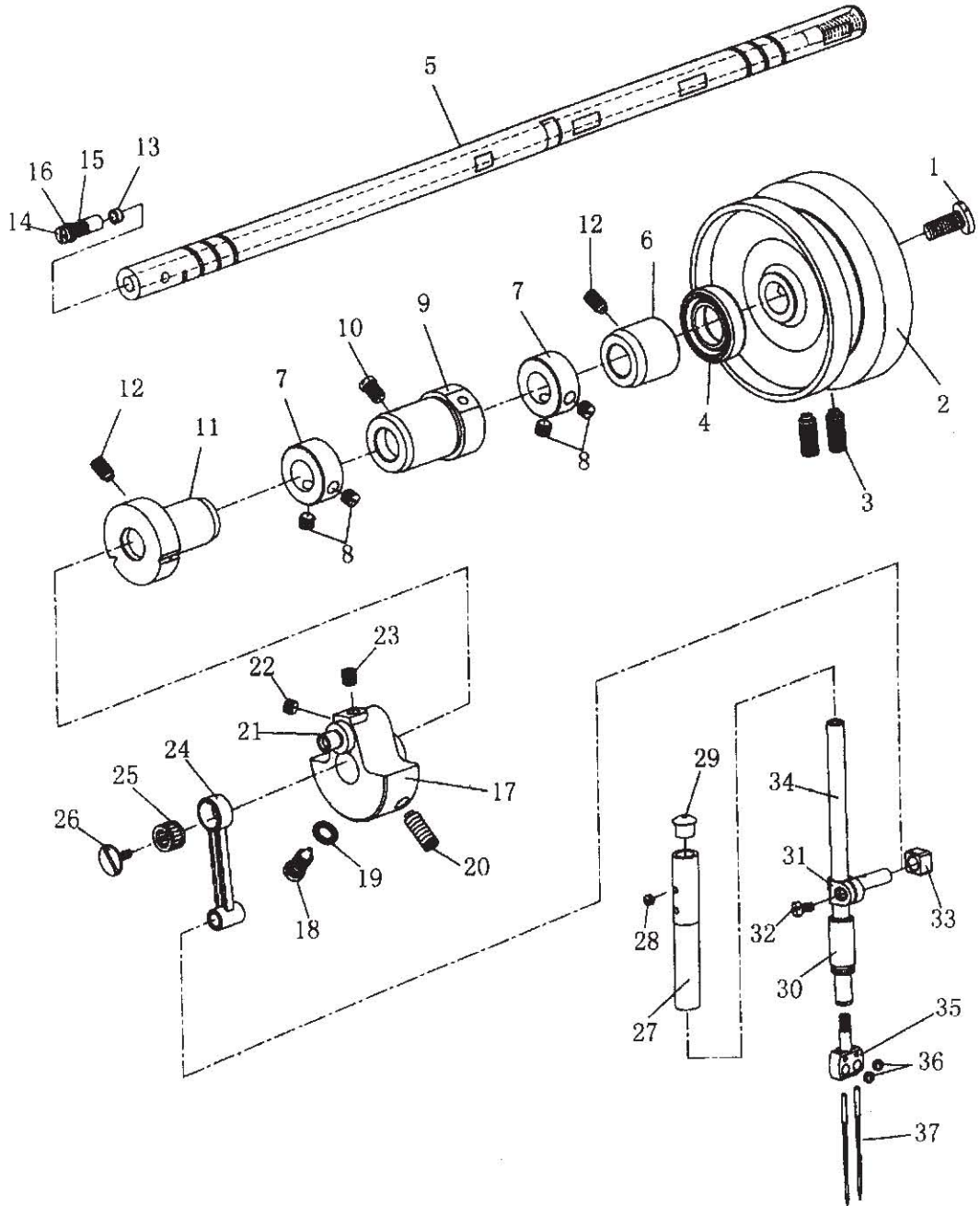
1. 机壳分组件/Arm bed components



1. 机壳分组件/Arm bed components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-------------|-----------------------------|------------|
| 1 | GQ202/13 | 机壳部件 | Arm bed composing | 1 |
| 2 | GS0127 | 底板支承螺钉 | Bed screw stud | 2 |
| 3 | GR1823 | 底板支承板 | Bed support | 1 |
| 4 | GK186 | 后窗板 | Side plate | 1 |
| 5 | GR1812 | 后窗板垫 | Gasket | 1 |
| 6 | GS100 | 后窗板螺钉 | Side plate screw | 8 |
| 7 | GR1455/2 | 面板部件 | Face plate asm. | 1 |
| 8 | GR1457 | 面板垫 | Face plate gasket | 1 |
| 9 | GS100 | 面板螺钉 | Screw | 3 |
| 10 | GR1458 | 面板调节螺孔塞 | Rubber plug | 2 |
| 11 | GR1813 | 凸轮盖压板 | Cam cover latch | 1 |
| 12 | GW287 | 凸轮盖压板弹簧 | Spring | 1 |
| 13 | GR1814 | 凸轮盖压板弹簧座 | Spring suspension | 1 |
| 14 | GS069 | 凸轮盖压板座螺钉 | Screw | 1 |
| 15 | GM241 | 附件安装板 | Attachment installing plate | 1 |
| 16 | GS012 | 附件安装板定位螺钉 | Screw | 1 |
| 17 | GM242/9 | 凸轮盖部件 | Cam cover asm | (1) |
| 18 | GM243 | 凸轮盖 | cover | 1 |
| 19 | GW289 | 凸轮盖托板 | Cam cover | 1 |
| 20 | Gw290 | 凸轮盖弹簧 | Spring | 1 |
| 21 | GS045 | 凸轮盖弹簧螺钉 | Screw | 4 |
| 22 | GR1815 | 凸轮盖导轮 | Cam cover guide | 1 |
| 23 | GS0129 | 凸轮盖导轮螺钉 | Screw | 1 |
| 24 | GM244/6 | 推板部件 | Bed slide asm. | (1) |
| 25 | GM245 | 推板 | Bed slide | 1 |
| 26 | GW291 | 推板簧 | Spring | 1 |
| 27 | GS045 | 推板簧螺钉 | Screw | 2 |
| 28 | GR1816 | 推板导轮 | Bed slide guide | 1 |
| 29 | GS0129 | 推板导轮螺钉 | Screw | 1 |
| 30 | GW292 | 推板锁簧 | Bed slide lock spring | 1 |
| 31 | GS010 | 推板锁簧螺钉 | Screw | 2 |
| 32 | GR1817 | 推板簧把手 | Latch | 1 |
| 33 | GS44 | 推板簧把手螺钉 | Screw | 1 |
| 34 | GR1818 | 送料轴底板挡油板 | Bed oil shield | 1 |
| 35 | GS010 | 底板挡油板螺钉 | Screw | 2 |
| 36 | GR1819 | 拾牙轴底板挡油板 | Bed oil shield | 1 |
| 37 | GS010 | 底板挡油板螺钉 | Screw | 2 |
| 38 | GR1461 | 轴套定位螺孔塞 | Rubber plug | 4 |
| 39 | GR1462 | 上轴套油孔线塞 | Rubber plug | 2 |
| 40 | GR1463 | 针杆曲柄螺孔塞 | Rubber plug | 1 |
| 41 | GR1464 | 送料针距调节器孔塞 | Rubber plug | 1 |
| 42 | GR1465 | 拾牙轴孔塞 | Rubber plug | 1 |
| 43 | GR1466 | 下轴盲孔塞 | Rubber plug | 1 |
| 44 | GR1916/5 | 卷边器部件(1/4") | (1/4")Folder | 1 |
| 45 | GR1923 | 卷边器垫块 | Gasket | 1 |
| 46 | GS0148 | 卷边器螺钉 | Screw | 2 |

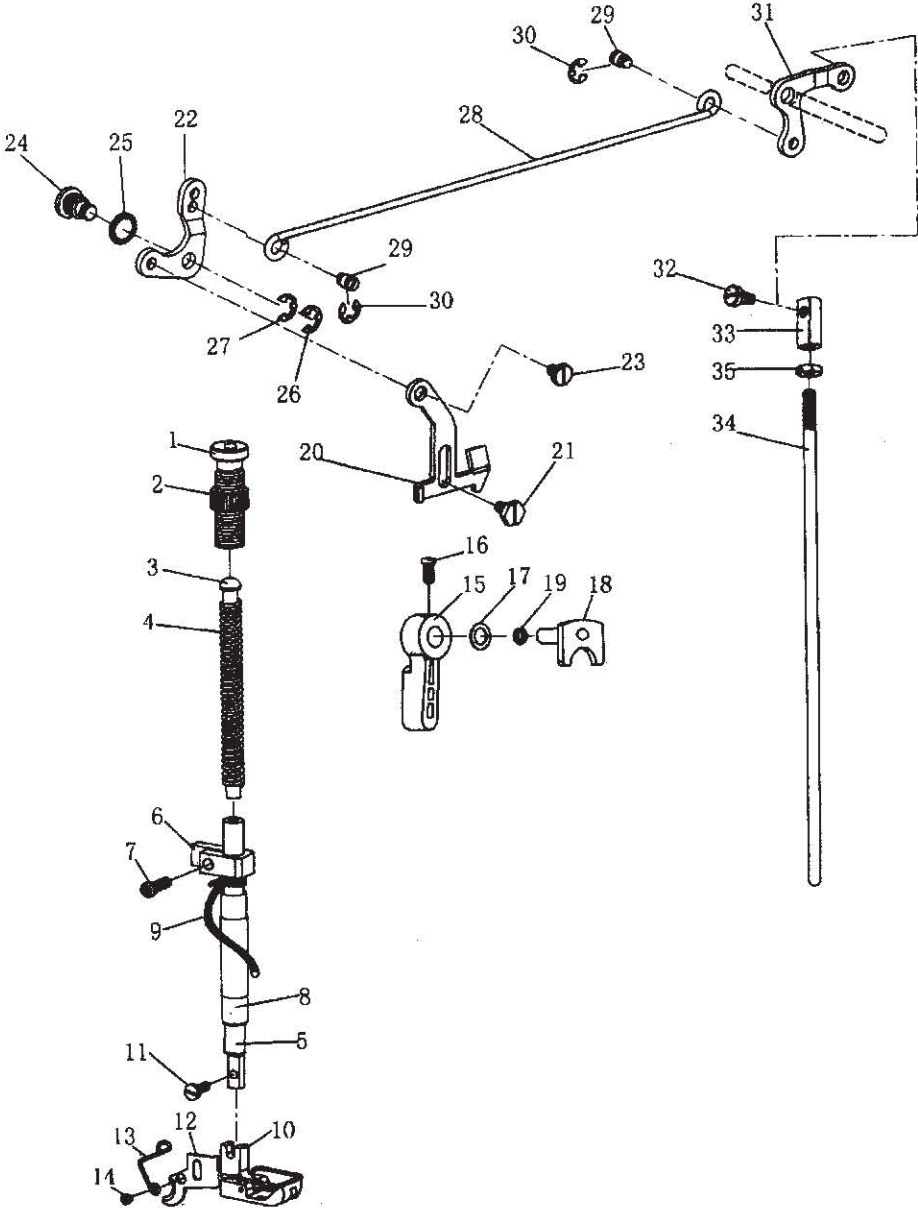
2. 上轴针杆分组件/Main shaft & Needle bar components



2. 上轴针杆分组件/Main shaft & Needle bar components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|----------------|---------------------------------|------------|
| 1 | GS02 | 上轴安全螺钉 | End screw | 1 |
| 2 | GP132 | 上轮 | Hand wheel | 1 |
| 3 | GS03 | 上轮螺钉 | Screw | 2 |
| 4 | GR1468/2 | 上轮油封 | Oil seal | 1 |
| 5 | GZ303 | 上轴 | Main' shaft | 1 |
| 6 | G0262/2 | 上轴后轴套部件 | Main' shaft bushing, rear | 1 |
| 7 | GR1824 | 上轴挡圈 | Main shaft thrust collar | 2 |
| 8 | GS033 | 上轴挡圈螺钉 | Screw | 4 |
| 9 | G0265 | 上轴中轴套部件 | Main shaft bushing intermediate | 1 |
| 10 | GS05 | 中轴套螺钉 | Screw | 1 |
| 11 | G0303/2 | 上轴前轴套部件 | Main shaft bushing, front | 1 |
| 12 | GS04 | 轴套螺钉 | Screw | 2 |
| 13 | GR1470 | 曲柄油量限制毡 | Roller felt | 1 |
| 14 | GX334 | 曲柄油量调节销 | Crank oil adjusting pin | 1 |
| 15 | G0269 | 曲柄油量调节销套 | Rubber bushing | 1 |
| 16 | GR1471 | 曲柄油量调节销O形圈 | O-Rubber ring | 1 |
| 17 | GH378 | 针杆曲柄 | Counterweight asm. | 1 |
| 18 | GS06 | 针杆曲柄定位螺钉 | Screw | 1 |
| 19 | GR1472 | 定位螺钉O形圈 | O-Rubber ring | 1 |
| 20 | GS07 | 针杆曲柄紧固螺钉 | Screw | 1 |
| 21 | GH379 | 针杆连杆销 | Needle crank | 1 |
| 22 | GS48 | 挑线曲柄定位螺钉 | Screw | 1 |
| 23 | GS041 | 挑线曲柄螺钉 | Screw | 1 |
| 24 | GH334 | 针杆连杆 | Needle bar crank rod | 1 |
| 25 | G0270 | 针杆连杆滚针轴承 | Needle roller bearing | 1 |
| 26 | GS09 | 针杆连杆左旋螺钉 | Left twist screw | 1 |
| 27 | G0271 | 针杆上衬套 | Needle bar bushing upper | 1 |
| 28 | GS012 | 针杆上衬套螺钉 | Screw | 1 |
| 29 | GR1479 | 针杆上衬套孔塞 | Rubber plug | 1 |
| 30 | G0288 | 针杆下衬套 | Needle bar bushing, lower | 1 |
| 31 | GR1478 | 针杆连接柱 | Needle bar connection asm. | 1 |
| 32 | GS011 | 针杆连接柱螺钉 | Screw | 1 |
| 33 | GU168 | 针杆连接柱滑块 | Crank slide block | 1 |
| 34 | GZ304 | 针杆 | Needle bar | 1 |
| 35 | GR1826 | 针夹 (1 / 4 ") | Needle clamp | 1 |
| 36 | GS0130 | 支针螺钉 | Screw | 2 |
| 37 | Gv18 | 机针 | Needle | 2 |
| | | | | |
| | | | | |

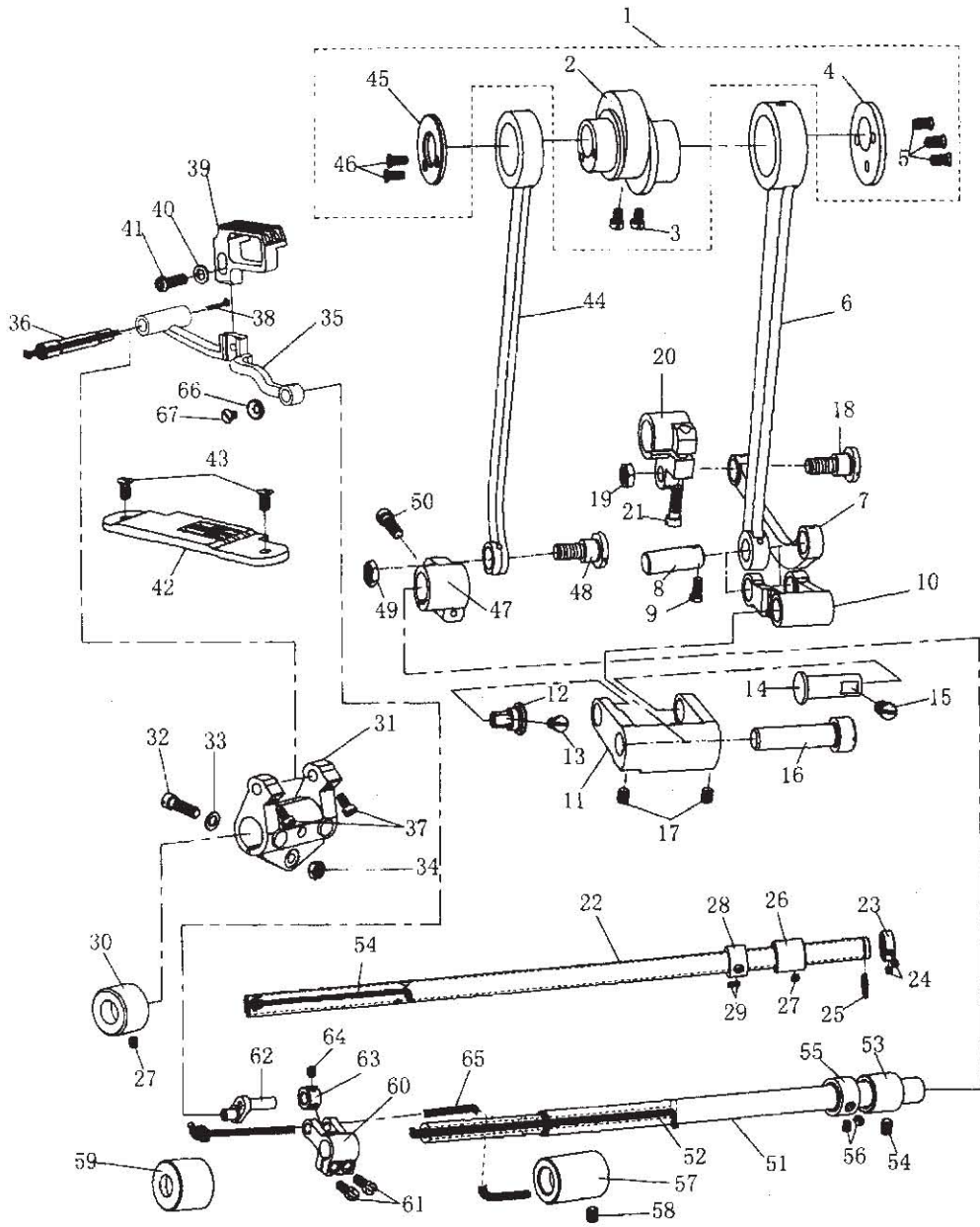
3. 压料分组件/Presser bar components



3. 压料分组件/Presser bar components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-----------|--|------------|
| 1 | GS018 | 调压螺钉 | Presser spring rugulator | 1 |
| 2 | GL18 | 调压螺钉螺母 | Nut | 1 |
| 3 | GR1494 | 调压导杆 | Presser bar guide bar | 1 |
| 4 | GW253 | 调压簧 | Presser spring | 1 |
| 5 | GZ305 | 压杆 | Presser bar | 1 |
| 6 | GR1827 | 压杆导架 | Presser bar guide bracket asm. | 1 |
| 7 | GS019 | 压杆导架螺钉 | Screw | 1 |
| 8 | G0273 | 压杆衬套 | Presser bar bushing, lower | 1 |
| 9 | GR1525 | 压杆油线 | Oil wick | 1 |
| 10 | GM246/5 | 压脚部件1/4" | Presser foot asm. | 1 |
| 11 | GS020 | 压脚螺钉 | Screw | 1 |
| 12 | GR1832 | 切线刀 | Thread knife | 1 |
| 13 | GR1833 | 切线刀导钩 | Thread knife guide | 1 |
| 14 | GS0129 | 切线刀导钩螺钉 | Screw | 1 |
| 15 | GR1499 | 压脚扳手 | Hand lifter | 1 |
| 16 | GS021 | 压脚扳手螺钉 | Screw | 1 |
| 17 | GR1500 | 压脚扳手垫圈 | Washer | 1 |
| 18 | GR1501/2 | 压脚扳手凸轮部件 | Hand lifter cam asm. | 1 |
| 19 | GR1503 | 压脚扳手轴O型圈 | Rubber ring | 1 |
| 20 | GR1504 | 压脚升降板 | Lifting lever | 1 |
| 21 | GS022 | 升降板轴位螺钉 | Hinge Screw | 1 |
| 22 | GR1505 | 抬压脚前杠杆 | Lifting link for lifting lever | 1 |
| 23 | GS023 | 前杠杆轴位螺钉 | Hinge Screw | 1 |
| 24 | GS024 | 前杠杆螺纹销 | Hinge pin | 1 |
| 25 | GR1506 | 前杠杆螺纹销垫圈 | Lifting lever gasket | 1 |
| 26 | GR1508 | 前杠杆特制开口挡圈 | Snap ring | 1 |
| 27 | GR1507 | 前杠杆开口挡圈 | Snap ring | 1 |
| 28 | GR1834 | 抬压脚拉杆 | Lifting lever connecting rod | 1 |
| 29 | GS025 | 抬压脚拉杆螺钉 | Screw | 2 |
| 30 | GR1510 | 抬压脚拉杆开口挡圈 | Snap ring | 2 |
| 31 | GR1835 | 抬压脚后杠杆 | Lifting lever link rear | 1 |
| 32 | GS0131 | 后杠杆轴位螺钉 | Hinge Screw | 1 |
| 33 | GR1836 | 抬压脚顶杆接头 | Swivel | 1 |
| 34 | GX378 | 抬压脚顶杆 | lifting lever connecting rod, vertical | 1 |
| 35 | G119 | 抬压脚顶杆螺母 | Nut | 1 |
| | | | | |
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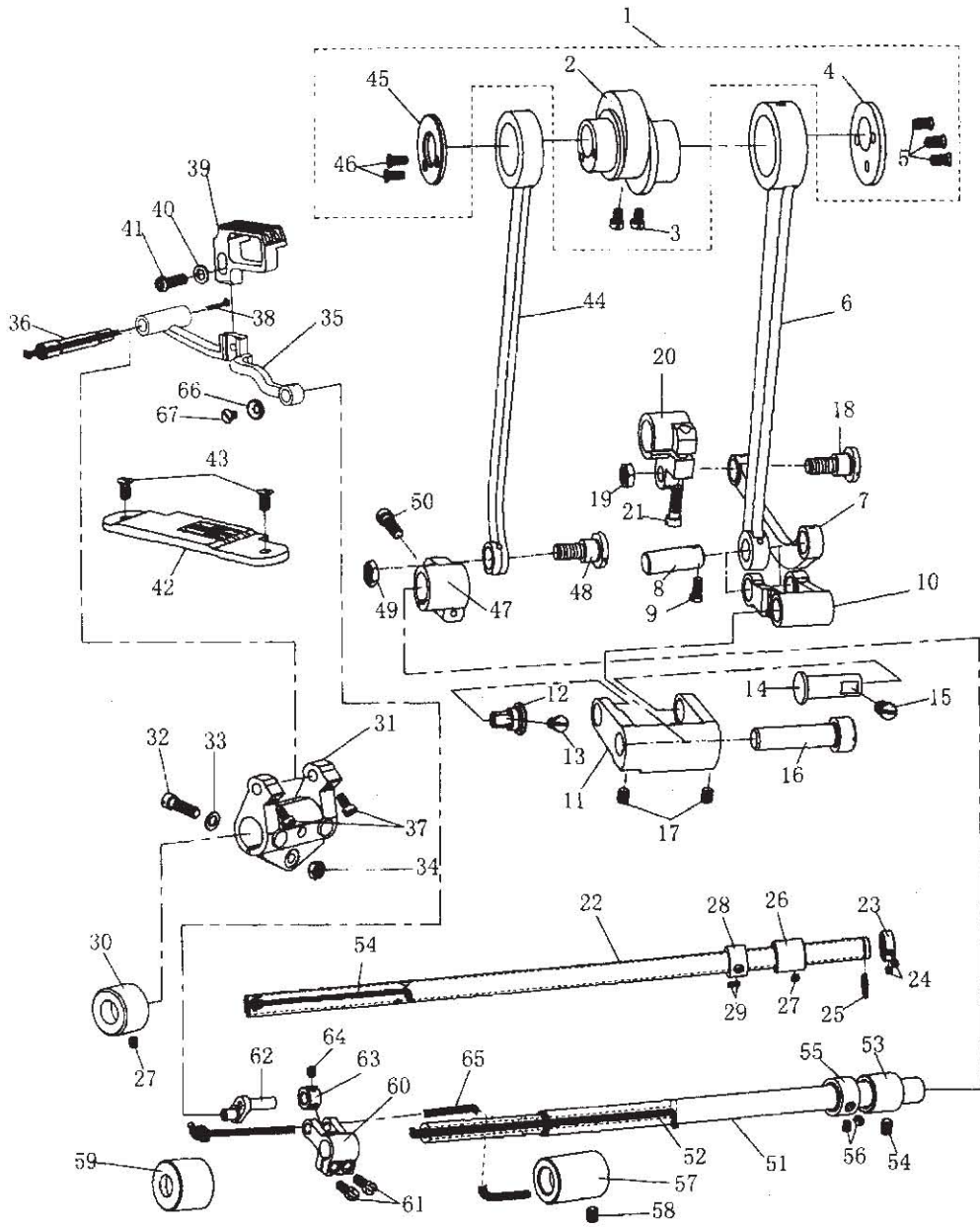
4. 送料分组件/Feed mechanism components



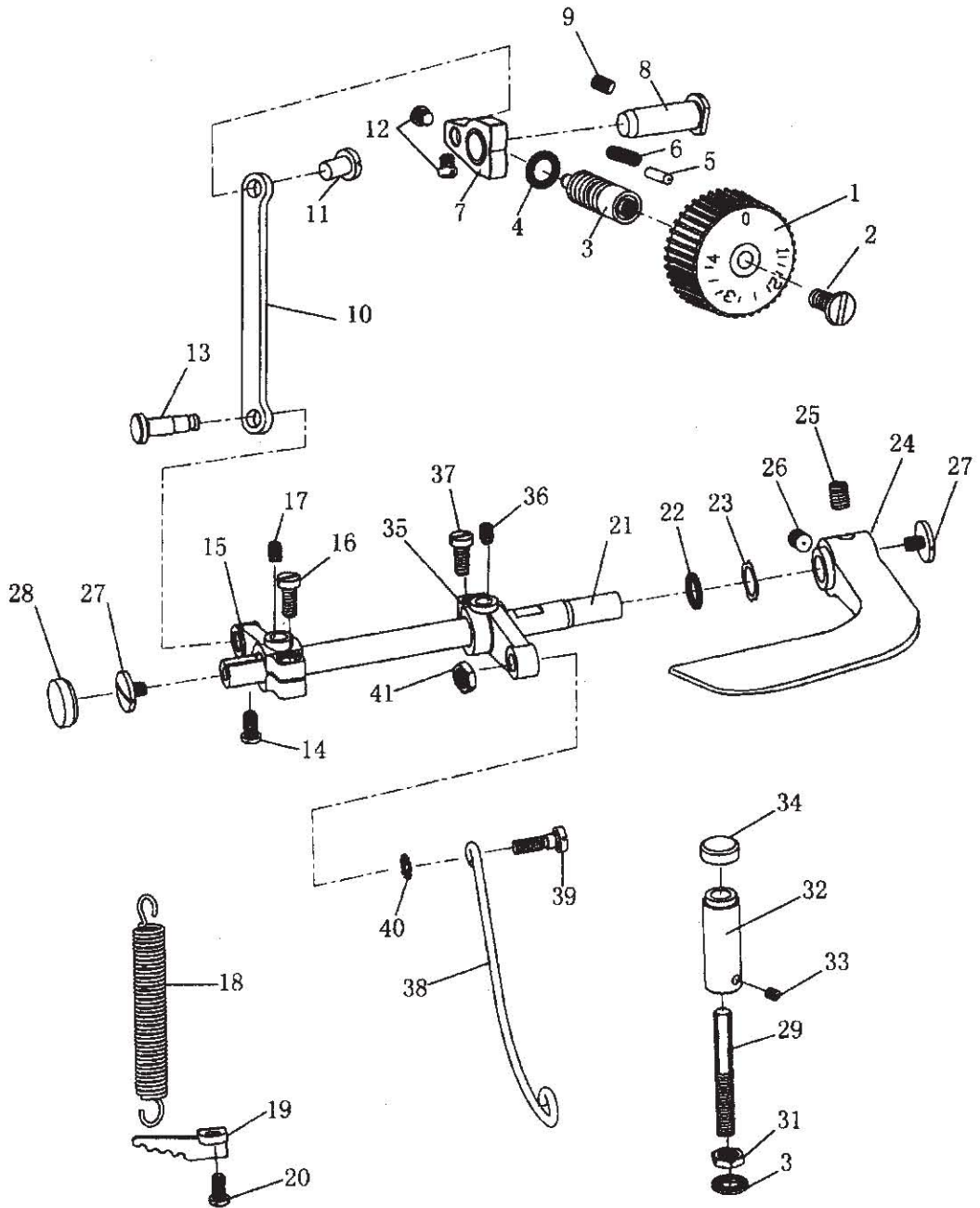
4. 送料分组件/Feed mechanism components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-----------|----------------------------------|------------|
| 1 | GT160/10 | 送料偏心轮部件 | Feed eccentric cam asm. | 1 |
| 2 | GT161 | 送料偏心轮 | Feed eccentric cam | 2 |
| 3 | GS034 | 送料偏心轮螺钉 | Screw | 1 |
| 4 | GR1521 | 送料偏心轮盖板 | Feed eccentric thrust washer | 3 |
| 5 | GS035 | 偏心轮盖板螺钉 | Screw | 1 |
| 6 | GH335 | 送料大连杆 | Feed rocker shaft connecting rod | 1 |
| 7 | GH380 | 送料小连杆 | Connecting rod | 1 |
| 8 | GX340 | 送料连杆销 | Connecting pin | 1 |
| 9 | GS036 | 送料连杆销螺钉 | Screw | 1 |
| 10 | GR1522 | 送料摆杆 | Feed driving rocket arm | 1 |
| 11 | GR1523 | 送料摆杆座 | Feed driving rocket | 1 |
| 12 | GX341 | 送料摆杆座右销 | Hingd stud | 1 |
| 13 | GS037 | 送料摆杆座右销螺钉 | Screw | 1 |
| 14 | GX342 | 送料摆杆座右销 | Hinge pin | 1 |
| 15 | GS05 | 送料摆杆座右销螺钉 | Screw | 1 |
| 16 | GZ279 | 送料摆杆销 | Hinge pin | 1 |
| 17 | GS038 | 送料摆杆销螺钉 | Screw | 2 |
| 18 | GS039 | 送料曲柄轴位螺钉 | Hinge screw | 1 |
| 19 | GL7 | 送料曲柄轴位螺母 | Nut | 1 |
| 20 | GH337 | 送料曲柄 | Feed rocker shaft crank | 1 |
| 21 | GS040 | 送料曲柄螺钉 | Screw | 1 |
| 22 | GZ280 | 送料轴 | Feed rocker shaft | 1 |
| 23 | GR1890 | 送料轴薄挡圈 | Thrust collar | 1 |
| 24 | GS032 | 送料轴薄挡圈螺钉 | Screw | 1 |
| 25 | GR1524 | 送料轴轴用挡圈 | Retaining ring | 2 |
| 26 | G0285 | 送料轴轴后套 | Bushing rear | 1 |
| 27 | GS41 | 送料轴轴后套螺钉 | Screw | 2 |
| 28 | GR1469 | 送料轴挡圈 | Thrust collar | 1 |
| 29 | GS39 | 送料轴挡圈螺钉 | Screw | 2 |
| 30 | G0286 | 送料轴前轴套 | Feed rocker shaft bushing, front | 1 |
| 31 | GR1838 | 牙架座 | Feed rocker | 1 |
| 32 | GS040 | 牙架座螺钉 | Screw | 1 |
| 33 | GR1528 | 牙架座螺钉垫圈 | Washer | 1 |
| 34 | GL20 | 牙架座螺母 | Nut | 1 |
| 35 | GR1839 | 牙架 | Feed bar | 1 |
| 36 | GX379 | 牙架销 | Feed bar shaft | 1 |
| 37 | GS042 | 牙架销螺钉 | Screw | 2 |
| 38 | GR1837 | 牙架销油线 | Oil wick | 1 |
| 39 | GM247 | 送料牙1/4" | Feed dog (1/4") | 1 |
| 40 | Gr1528 | 送料牙垫圈 | Washer | 1 |

4. 送料分组件/Feed mechanism components



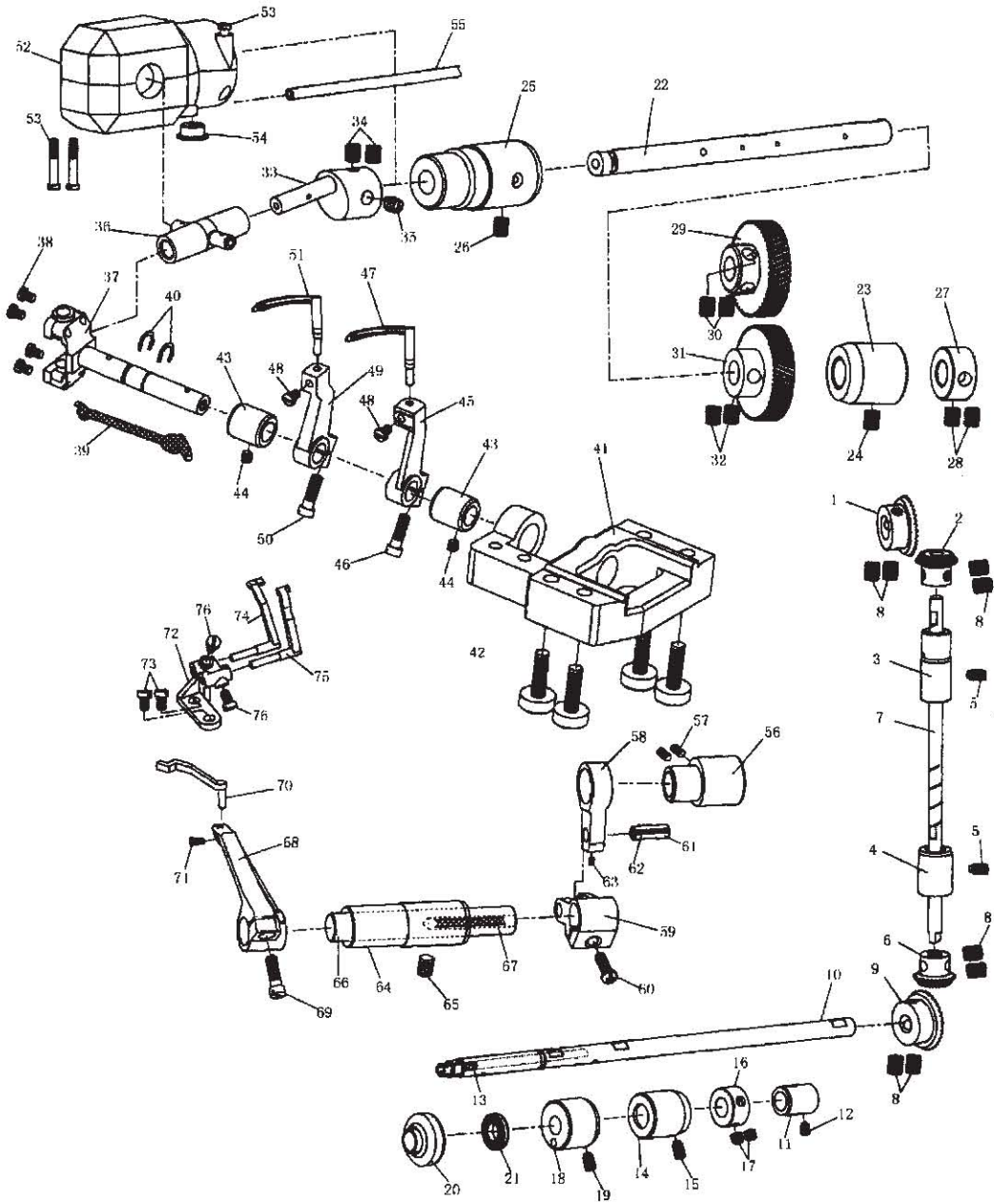
5. 送料调节分组件/Feed regulating components



5. 送料调节分组件/Feed regulating components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-----------|------------------------------------|------------|
| 1 | GR1537G | 送料距旋钮部件 | Stitch dial asm | 1 |
| 2 | GS0563 | 送料距旋钮螺钉 | Screw | 1 |
| 3 | GS047 | 送料调节螺柱 | Feed regulating screw | 1 |
| 4 | GR1538 | 送料调节螺柱O型圈 | O-Rubber ring | 1 |
| 5 | GX345 | 送料距锁合销 | Stitch dial lock pin | 1 |
| 6 | GW257 | 送料距缩合销簧 | Stitch dial lock spring | 1 |
| 7 | GR1843 | 送料调节器 | Feed regulator | 1 |
| 8 | GX346 | 送料调节器销 | Hinge pin | 1 |
| 9 | GS48 | 送料调节器销螺钉 | Screw | 1 |
| 10 | GH341 | 送料调节器连杆 | Feed regulator connecting rod | 1 |
| 11 | GR1540G | 调节器连杆轴 | Hinge pin | 1 |
| 12 | GS010 | 调节器连杆轴位螺钉 | Nut | 1 |
| 13 | GR1540 | 拉簧调节曲柄销 | Tension spring suspension stud | 1 |
| 14 | GS100 | 拉簧调节曲柄销螺钉 | Screw | 1 |
| 15 | GH342 | 拉簧调节曲柄 | Tension spring suspension crank | 1 |
| 16 | GS049 | 调节曲柄紧固螺钉 | Suspension bracket | 1 |
| 17 | GS48 | 调节曲柄定位螺钉 | Screw | 1 |
| 18 | GW258 | 倒送料轴拉簧 | Tension spring | 1 |
| 19 | GR1547 | 拉簧固定板 | Suspension bracket | 1 |
| 20 | GS01 | 拉簧固定板螺钉 | Screw | 1 |
| 21 | GZ282 | 倒送料轴 | Reverse feed control lever shaft | 1 |
| 22 | GR1542 | 倒送料轴O型圈 | Rubber ring, large | 1 |
| 23 | GR1543 | 倒送料轴弹性垫圈 | Waved Washer | 1 |
| 24 | GR1544 | 倒送料扳手 | Reverse feed control lever | 2 |
| 25 | GS050 | 倒送料扳手定位螺钉 | Screw | 1 |
| 26 | GS033 | 倒送料扳手螺钉 | Screw | 1 |
| 27 | GS051 | 倒送料轴端螺钉 | End Screw | 1 |
| 28 | GR1545 | 倒送料轴端孔塞 | Rubber plug | 1 |
| 29 | GS0134 | 倒送料挡块螺杆 | Screw | 1 |
| 30 | GR1599 | 挡块螺杆垫圈 | Washer | 1 |
| 31 | GL21 | 挡块螺杆螺母 | Nut | 1 |
| 32 | GR1844 | 倒送料挡块 | Lever stopper | 1 |
| 33 | GS0135 | 倒送料挡块螺钉 | Screw | 1 |
| 34 | GR1845 | 倒送料挡块橡胶垫 | Rubber cushion | 1 |
| 35 | GH344 | 倒送料曲柄 | Control lever crank, rear | 1 |
| 36 | GS48 | 到送料曲柄定位螺钉 | Screw | 1 |
| 37 | GS049 | 倒送料曲柄螺钉 | Screw | 1 |
| 38 | GH345 | 倒送料连杆 | Feed driving rocker arm connecting | 1 |
| 39 | GS052 | 倒送料连杆轴位螺钉 | Screw | 1 |
| 40 | GR1546 | 倒送料连杆弹簧垫圈 | Washer | 1 |
| 41 | G120 | 倒送料连杆轴位螺母 | Nut | 1 |

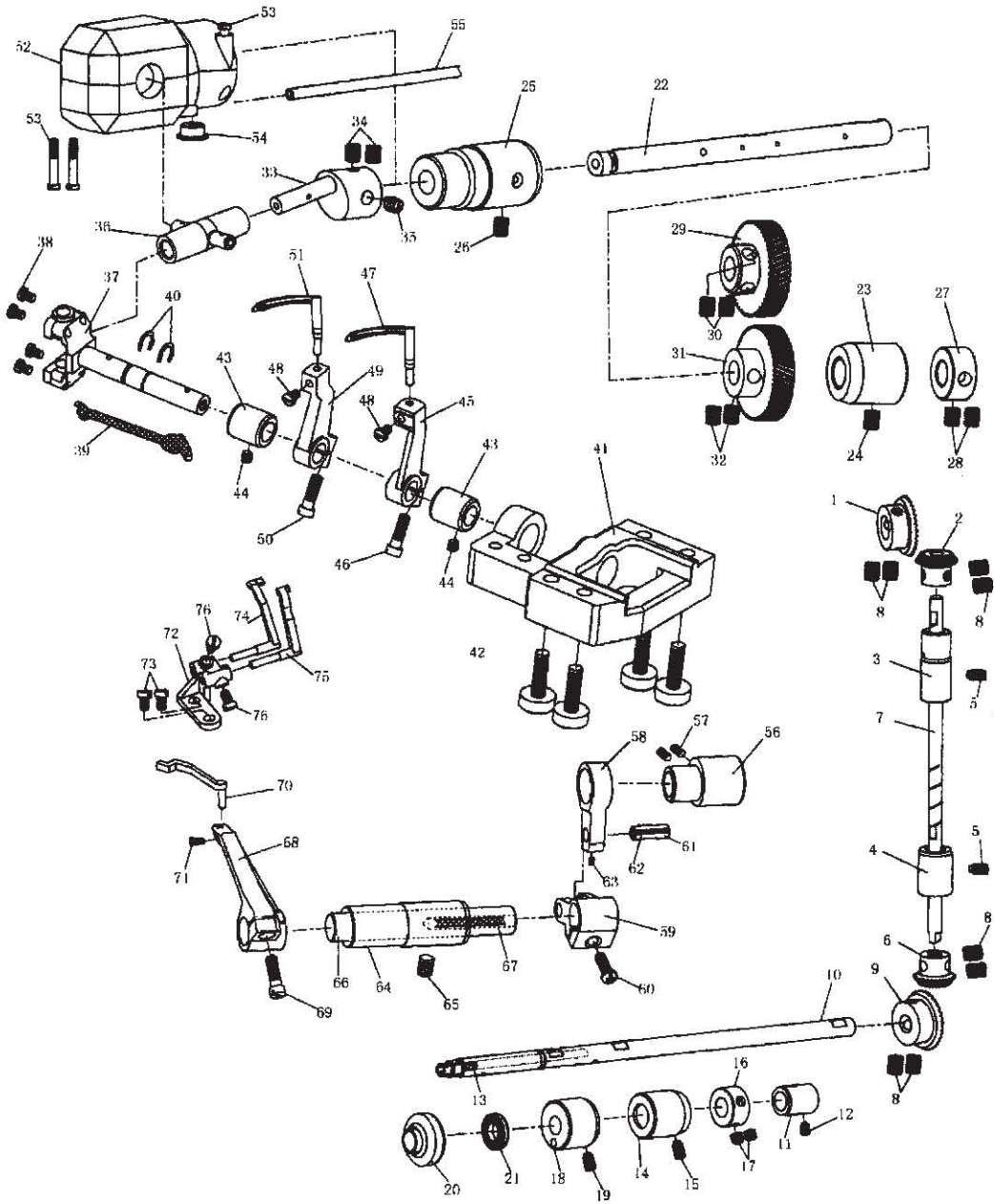
6. 弯针勾线分组件/Looper thread retainer components



6. 弯针勾线分组件/Looper thread retainer components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|----------|-----------------------------|------------|
| 1 | GC168 | 上轴伞齿轮 | Gear asm | 1 |
| 2 | GC167 | 竖轴上伞齿轮 | Pinion asm | 1 |
| 3 | G0283 | 竖轴上轴套 | Bushing, upper | 1 |
| 4 | G0280/2 | 竖轴下轴套部件 | Bushing, lower | 1 |
| 5 | GS04 | 竖轴轴套螺钉 | Screw | 2 |
| 6 | GC167 | 竖轴下伞齿轮 | Gear asm | 1 |
| 7 | GZ307 | 竖轴 | Upright shaft | 1 |
| 8 | GS033 | 伞齿轮螺钉 | Bushing, front asm. screw | 8 |
| 9 | GC169 | 下轴伞齿轮 | Gear asm | 1 |
| 10 | GZ308 | 下轴 | Lower shaft asm. | 1 |
| 11 | G0307 | 下轴后轴套 | Bushing, rear | 1 |
| 12 | GS04 | 下轴后轴套螺钉 | Screw | 1 |
| 13 | GR1847 | 下轴油孔孔塞 | Felt | 1 |
| 14 | G0308/2 | 下轴中轴套部件 | Bushing, intermediate | 1 |
| 15 | GS04 | 下轴中轴套螺钉 | Screw | 1 |
| 16 | GR1848 | 下轴挡圈 | Thrust collar asm | 1 |
| 17 | GS033 | 下轴挡圈螺钉 | Screw | 2 |
| 18 | G0311/2 | 下轴前轴套部件 | Bushing, front | 1 |
| 19 | GS04 | 下轴前轴套螺钉 | Screw | 1 |
| 20 | GR1849 | 下轴前轴套油封套 | Looper thread guard bushing | 1 |
| 21 | GR1850 | 下轴前轴套油封 | Oil seal | 1 |
| 22 | GZ309 | 弯针轴 | Looper rocker shaft | 1 |
| 23 | G0308/2 | 弯针轴后轴套部件 | Bushing, front | 1 |
| 24 | GS04 | 弯针轴后轴套螺钉 | Screw | 1 |
| 25 | G0314/2 | 弯针轴前轴套部件 | Looper thread guard bushing | 1 |
| 26 | GS48 | 弯针轴前轴套螺钉 | Screw | 1 |
| 27 | GR1848 | 弯针轴挡圈 | Thrust collar asm | 1 |
| 28 | GS033 | 弯针轴挡圈螺钉 | Screw | 2 |
| 29 | GC170 | 主动弯针齿轮 | Gear asm, upper | 1 |
| 30 | GS033 | 主弯针齿轮螺钉 | Screw | 2 |
| 31 | GC171 | 被动弯针齿轮 | Gear asm, lower | 1 |
| 32 | GS033 | 被动弯针齿轮螺钉 | Screw | 2 |
| 33 | GH384 | 弯针曲柄 | Looper crank asm. | 1 |
| 34 | GS033 | 弯针曲柄螺钉 | Screw | 2 |
| 35 | GS0136 | 弯针曲柄调节螺钉 | Loopercrank adjusting screw | 1 |
| 36 | GR1851/5 | 弯针十字接头部件 | Trunnion asm. | 1 |
| 37 | GZ310/3 | 弯针摆轴部件 | Looperrocker shaft asm | 1 |
| 38 | GS0100 | 弯针摆轴盖螺钉 | Screw | 4 |
| 39 | GR1533 | 弯针摆轴油线 | Oil wick | 1 |
| 40 | Gr1854 | 弯针摆轴挡圈 | Snap ring | 2 |

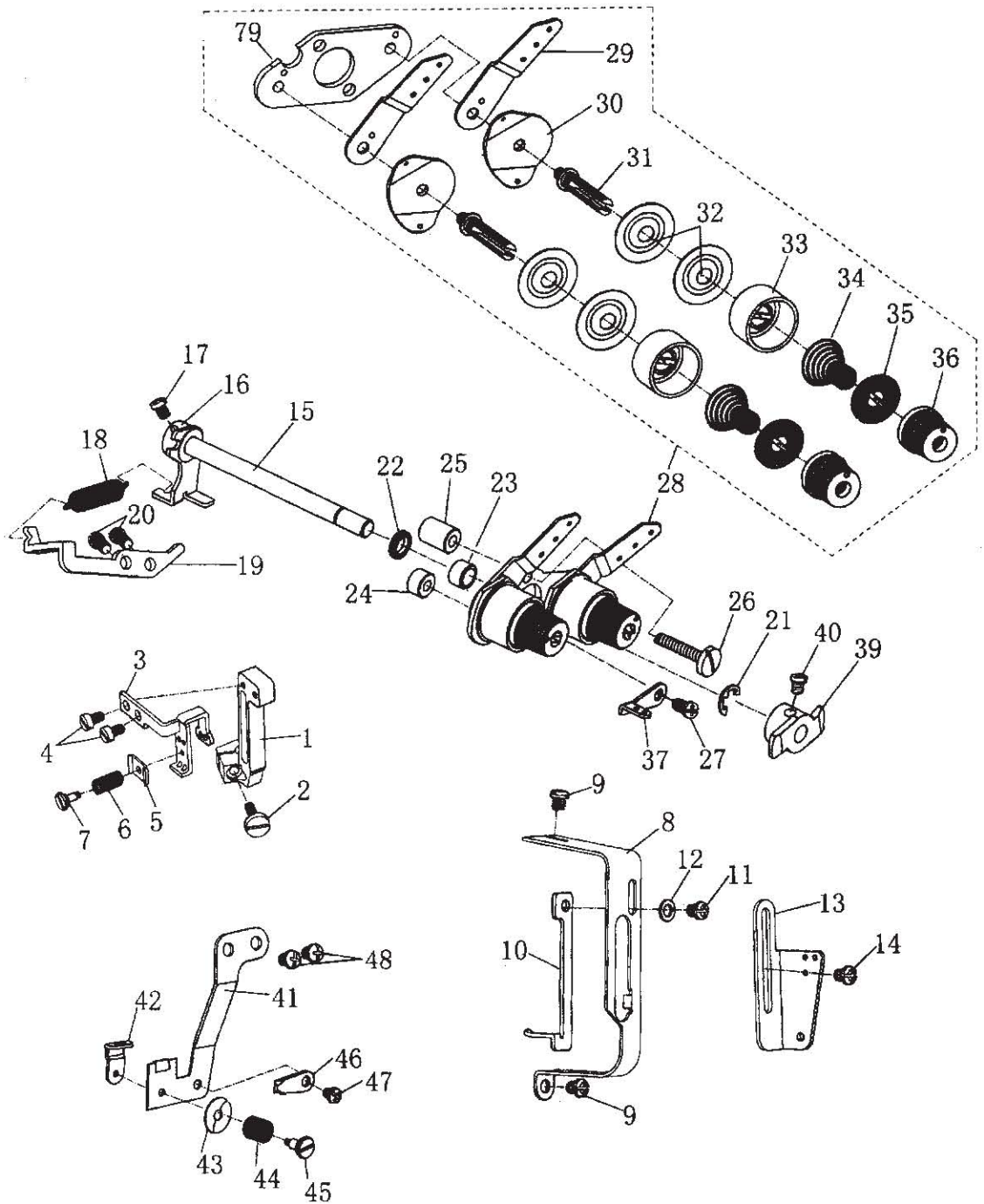
6. 弯针勾线分组件/Looper thread retainer components



6. 弯针勾线分组件/Looper thread retainer components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|------------|----------------------------------|------------|
| 41 | GR1855 | 弯针架座 | Looper mounting base | 1 |
| 42 | GS0137 | 弯针架座螺钉 | Screw | 4 |
| 43 | G0318 | 弯针摆轴轴套 | Bushing, rear | 2 |
| 44 | GS032 | 弯针摆轴轴套螺钉 | Screw | 2 |
| 45 | GH385 | 左弯针曲柄 | Looper holder asm. (LEFT) | 1 |
| 46 | GS040 | 左弯针曲柄螺钉 | Screw | 1 |
| 47 | GN169 | 左弯针 | Looper (LEET) | 1 |
| 48 | GS0138 | 弯针螺钉 | Screw | 2 |
| 49 | GH386 | 右弯针曲柄 | Looper holder asm. (RIGHT) | 1 |
| 50 | GS040 | 右弯针曲柄螺钉 | Screw | 1 |
| 51 | GN170 | 右弯针 | Looper (RIGHT) | 1 |
| 52 | GK187/7 | 弯针曲柄罩壳部件 | Crank cover asm | 1 |
| 53 | GS0139 | 曲柄罩壳螺钉 | Screw | 3 |
| 54 | GR1462 | 曲柄罩壳孔塞 | Rubber plug | 1 |
| 55 | GR1856 | 曲柄罩壳排油管 | Vinyl tube | 1 |
| 56 | GT162 | 护针凸轮 | Needle guard crank rod | 1 |
| 57 | GS48 | 护针凸轮螺钉 | Screw | 2 |
| 58 | GH387 | 护针连杆 | Needle guard crank rod | 1 |
| 59 | GH388 | 护针叉形曲柄 | Rear needle guard rocker fork | 1 |
| 60 | GS019 | 护针叉形曲柄螺钉 | Screw | 1 |
| 61 | GX380 | 护针曲柄销 | Pin | 1 |
| 62 | GR1837 | 护针曲柄销油线 | Oil wick | 1 |
| 63 | GS032 | 护针曲柄销螺钉 | Screw | 1 |
| 64 | G0319 | 护针轴套 | Bushing | 1 |
| 65 | GS48 | 护针轴套螺钉 | Screw | 1 |
| 66 | GZ312 | 护针轴 | Needle guard driving shaft asm | 1 |
| 67 | GR1837 | 护针轴油线 | Oil wick | 1 |
| 68 | GH389 | 护针曲柄 | rear needle guard rocker arm asm | 1 |
| 69 | GS040 | 护针曲柄螺钉 | Screw | 1 |
| 70 | GR1857 | 摆动护针杆(1/4) | Driving needle guard(1/4) | 1 |
| 71 | GS0100 | 摆动护针杆螺钉 | Screw | 1 |
| 72 | GR1858 | 护针杆座 | Needle guard base | 1 |
| 73 | GS0106 | 护针杆座螺钉 | Screw | 2 |
| 74 | GR1859 | 左固定护针杆 | Counter needle guard, left | 1 |
| 75 | GR1860 | 右固定护针杆 | Counter needle guard, right | 1 |
| 76 | GS096 | 左固定护针杆螺钉 | Screw | 2 |
| | | | | |
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| | | | | |
| | | | | |

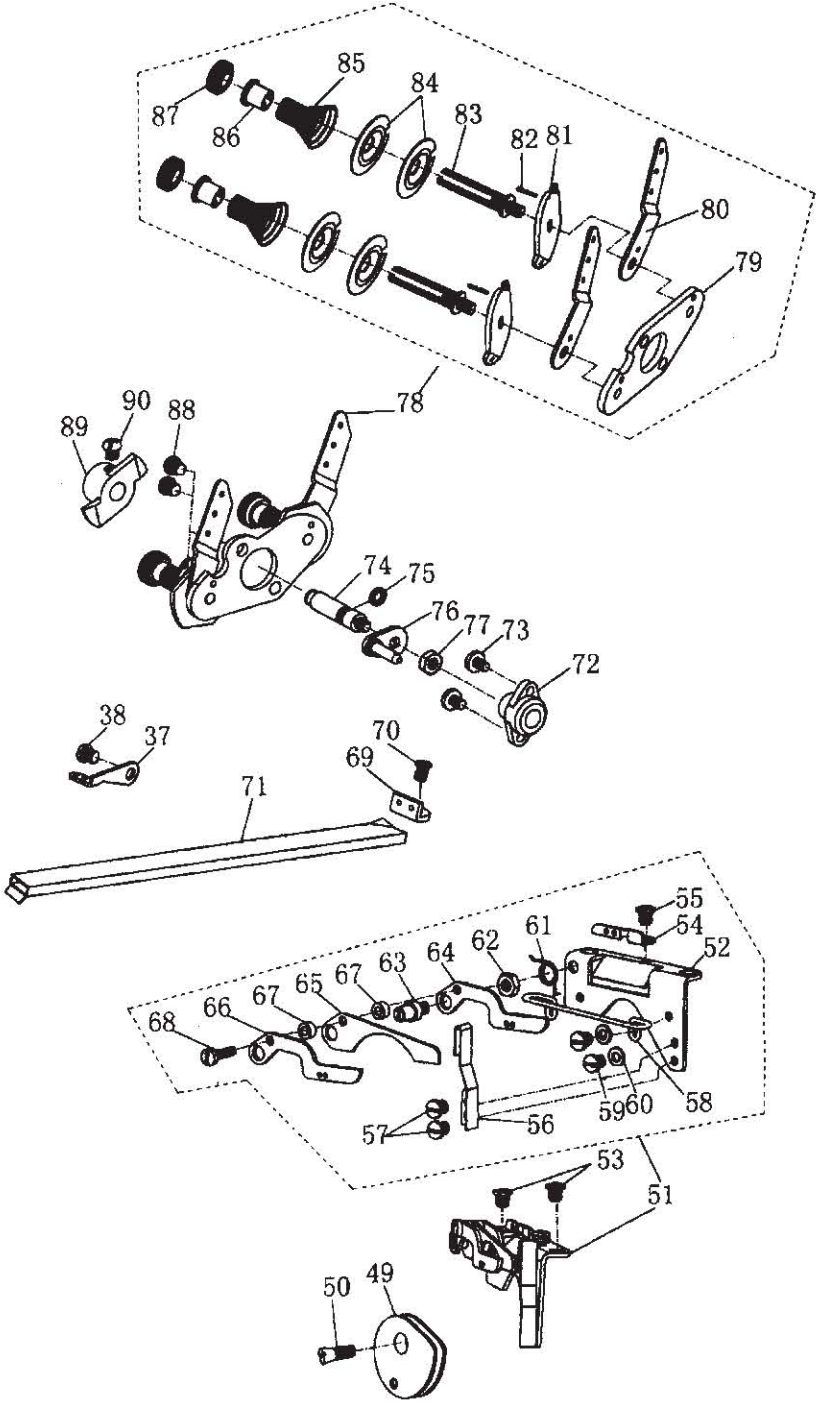
7. 挑线、松线、夹线分组件/Thread take-up, tension, and tension releasing assembly complete



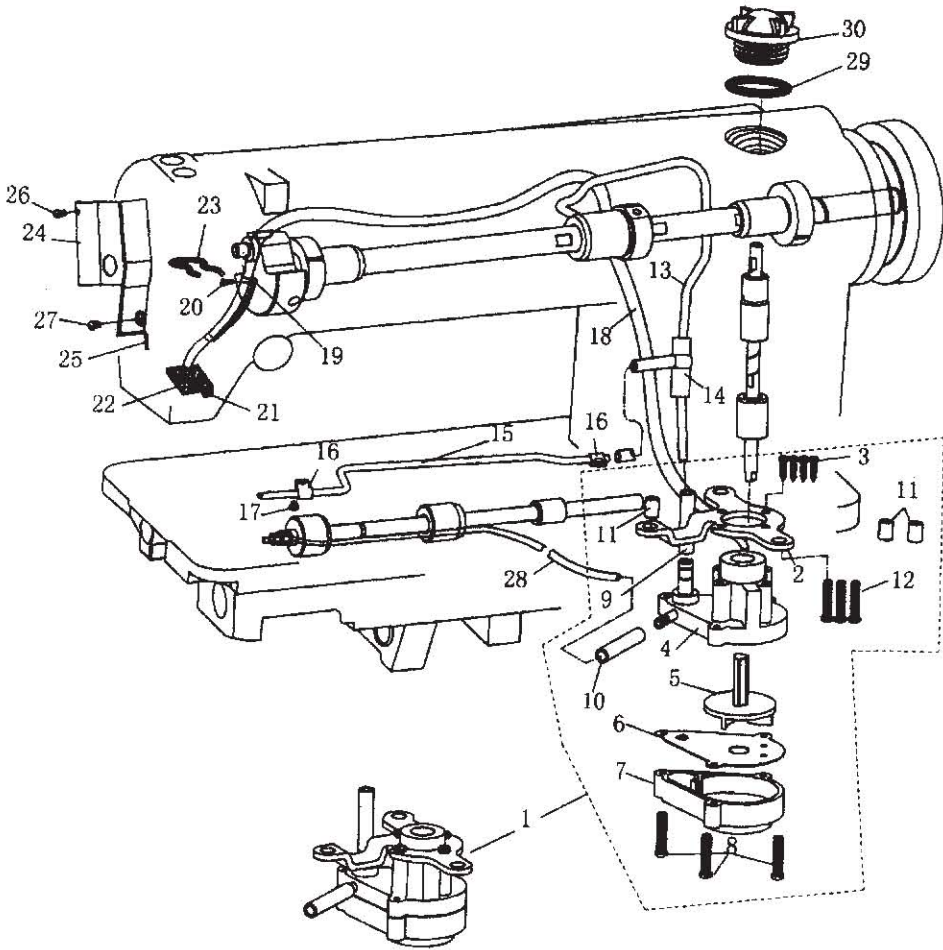
7. 挑线、松线、夹线分组件/Thread take-up,tension,and tension releasing assembly complete

| 序号 Ref.No | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|--------------|----------------|------------|-------------------------------------|------------|
| 1 | GH390 | 挑线连杆 | Thread take-up lever | 1 |
| 2 | GS0140 | 挑线连杆螺钉 | Screw | 1 |
| 3 | GH392 | 挑线杆 | Thread take-up | 1 |
| 4 | GS011 | 挑线杆紧固螺钉 | Screw | 2 |
| 5 | GR1861 | 挑线杆夹线板 | Tension plate | 1 |
| 6 | GW294 | 挑线杆夹线簧 | Tension spring | 1 |
| 7 | GS0141 | 挑线杆夹线板轴螺钉 | Screw | 1 |
| 8 | GK190 | 挑线杆护罩 | Thread take-up lever guard | 1 |
| 9 | GS010 | 挑线杆护罩螺钉 | Screw | 1 |
| 10 | GR1862 | 线量调节板 | Take-up thread tension lever | 1 |
| 11 | GS010 | 线量调节板螺钉 | Screw | 1 |
| 12 | GR1528 | 调节板螺钉垫圈 | Washer | 1 |
| 13 | GR1863 | 中间导线钩 | Frame thread shaft | 1 |
| 14 | GS010 | 中间导线钩螺钉 | Screw | 1 |
| 15 | GZ313 | 松线轴 | Tension release shaft | 1 |
| 16 | GH393/2 | 面线松线曲柄部件 | Tension release arm asm | 1 |
| 17 | GS082 | 面线松线曲柄螺钉 | Screw | 1 |
| 18 | GW295 | 抬压脚后杠杆弹簧 | Spring | 1 |
| 19 | GR1865 | 后杠杆弹簧固定板 | Suspension bracket | 1 |
| 20 | GS81 | 后杠杆弹簧固定板螺钉 | Screw | 2 |
| 21 | GR1507 | 松线轴挡圈 | Snap ring | 1 |
| 22 | GR1866 | 松线轴油封 | Oil seal ring | 1 |
| 23 | GR1867 | 松线轴环 | Tension release shaft spacer | 1 |
| 24 | GR1868 | 夹线器下安装垫 | Spacer (A) for installing plate | 1 |
| 25 | GE1869 | 夹线器上安装垫 | Spacer (B) for installing plate | 1 |
| 26 | GS0142 | 夹线器上安装垫螺钉 | Screw | 1 |
| 27 | GS079 | 夹线器下安装垫螺钉 | Screw | 1 |
| 28 | GR1870/19 | 面线夹线器部件 | Needle thread tension asm. | (1) |
| 29 | GR1871 | 面线单面导线板 | Needle thread tension guide plate | 2 |
| 30 | GR1872 | 面线双面导线板 | Tension thread guide | 2 |
| 31 | GS0143 | 夹线螺钉 | Looper thread tension post | 2 |
| 32 | GR1488 | 面线夹线板 | Tension disc | 4 |
| 33 | GR1873 | 面线松线座 | Tension disc presser post | 2 |
| 34 | GW251 | 面线夹线簧 | Tension spring | 2 |
| 35 | GR1490 | 面线止动板 | Tension disc stopper | 2 |
| 36 | GL34/2 | 面线夹线螺母部件 | Tension nut | 2 |
| 37 | GR1875 | 导线钩 | Frame thread guide | 2 |
| 38 | GS010 | 导线钩螺钉 | Screw | 1 |
| 39 | GR1876 | 面线松线爪 | Tension release latch | 1 |
| 40 | GS082 | 面线松线爪螺钉 | Screw | 1 |
| 41 | GR1907 | 过线板架 | Tension controller installing plate | 1 |
| 42 | GR1908 | 过线板 | Take-up thread guide | 1 |
| 43 | GR1493 | 过线夹线板 | Attachment installing plate | 1 |
| 44 | GW299 | 过线夹线簧 | Take-up thread tension spring | 1 |
| 45 | GS0149 | 过线夹线螺钉 | Take-up thread tension pose | 1 |
| 46 | GR1986 | 松线板 | Thread tension release guide latch | 1 |
| 47 | GS043 | 松线板螺钉 | Screw | 1 |
| 48 | Gs010 | 过线板螺钉 | Screw | 2 |

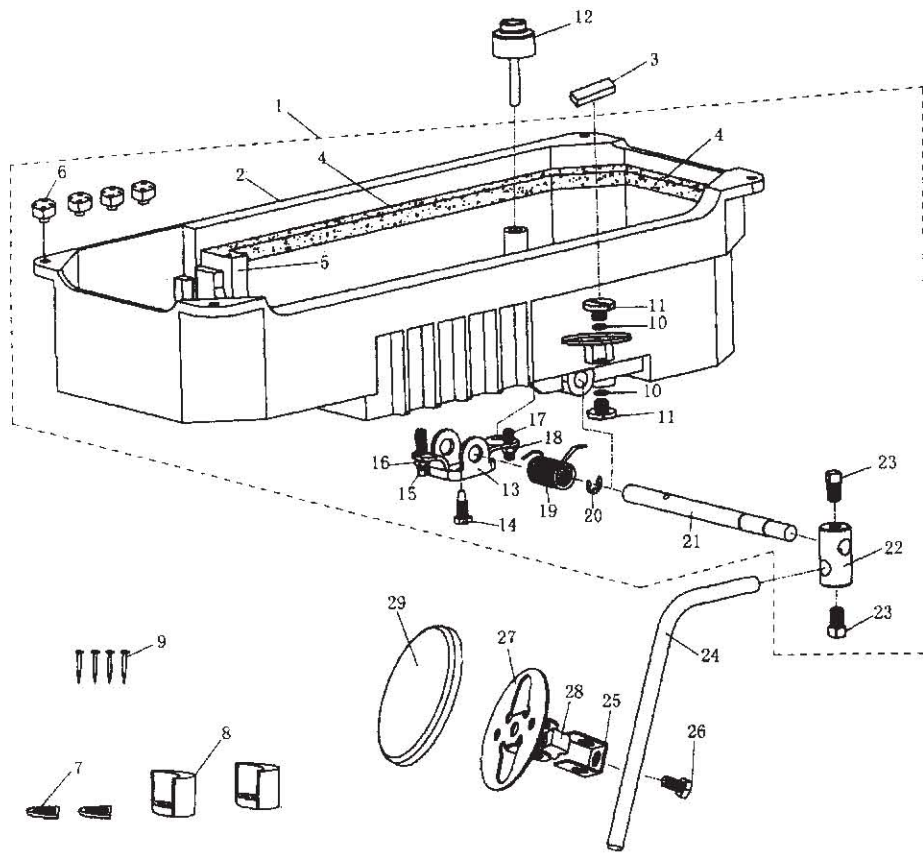
7. 挑线、松线、夹线分组件/Thread take-up,tension,and tension releasing assembly complete



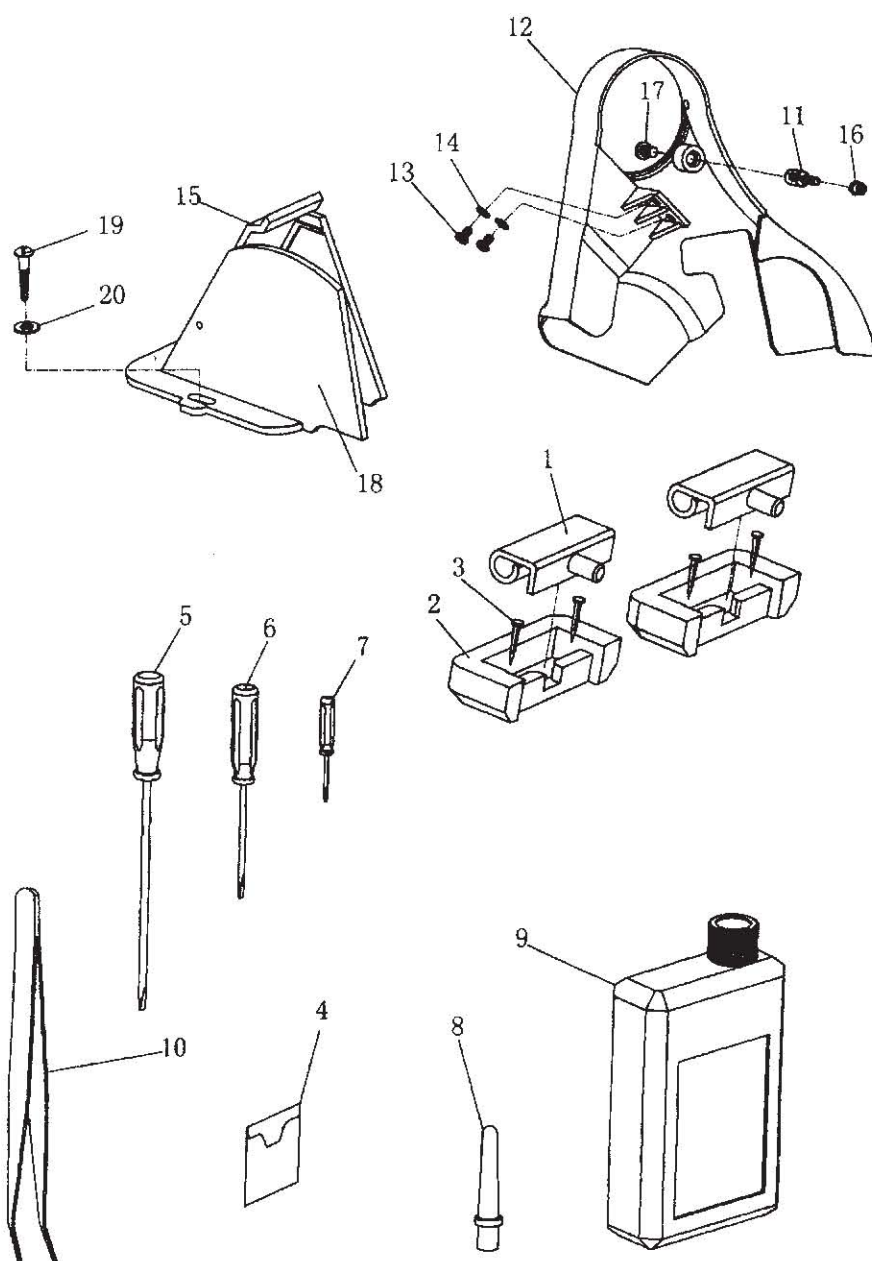
8. 润滑分组件/Lubrication



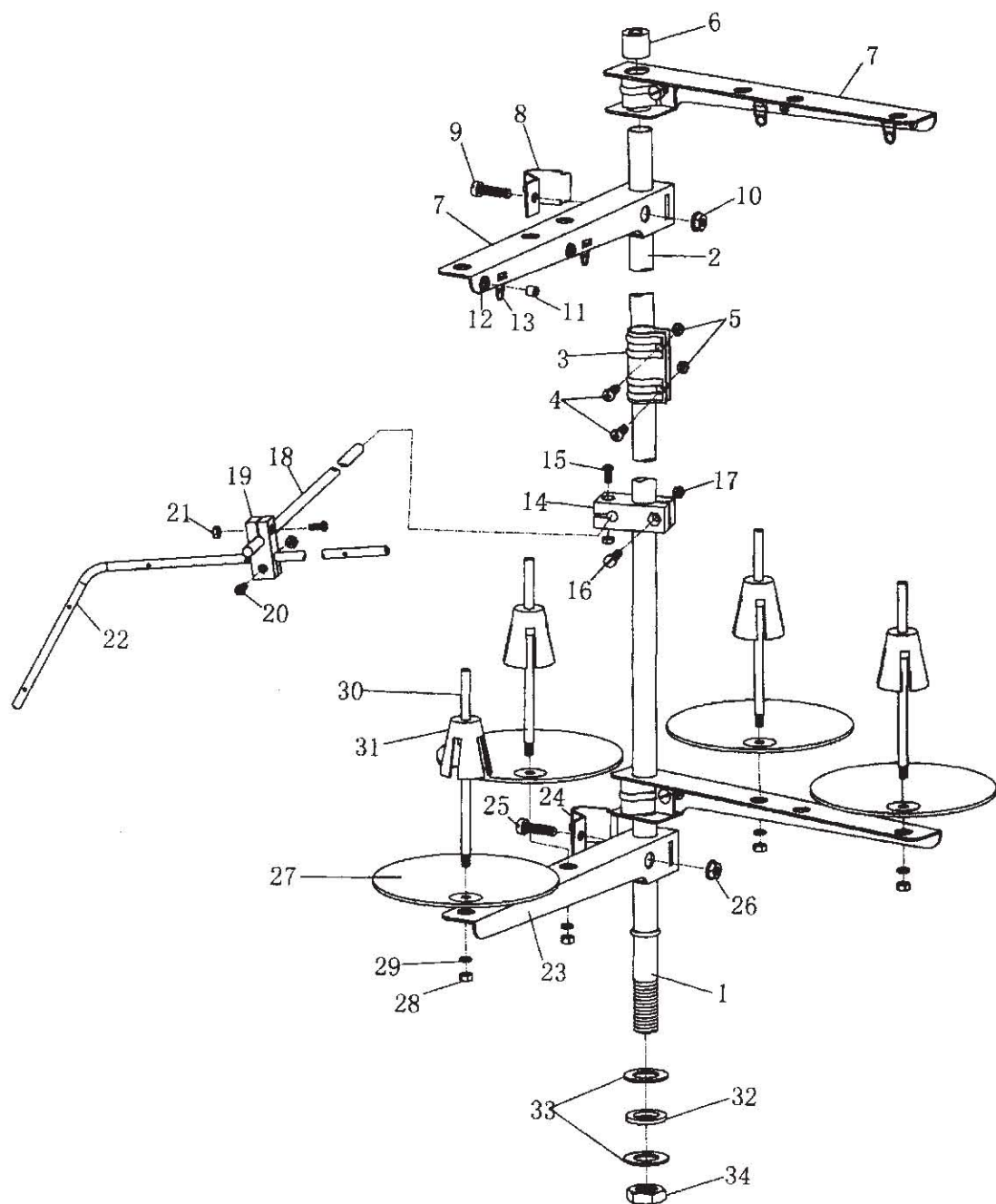
9. 油盘、膝抬压脚分组件/Oil reservoir & knee lifter components



10. 机头附件/Machine head accessoires



11. 四线团架分组件/Quadruple-thread spool stand asm



11. 四线团架分组件/Quadruple-thread spool stand asm

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-------------|---------------------------------|------------|
| 1 | GZ315 | 线架杆下节 | Spool rest rod (UPPER) | 1 |
| 2 | GZ316 | 线架杆上节 | Spool rest rod (LOWER) | 1 |
| 3 | GR1932 | 线架杆接头 | Spool rested joint | 1 |
| 4 | GBM5-17 | 线架杆接头螺钉 | Screw | 2 |
| 5 | GBM5-8 | 线架杆接头螺母 | Nut | 2 |
| 6 | GR1744 | 线架杆预防橡皮 | Spool rest rod rubber cap | 1 |
| 7 | GR1825 | 线架过线杆 | Thread guide asm. | 2 |
| 8 | GR1745 | 线架过线夹 | Thread guide asm joint | 2 |
| 9 | GS558 | 线架过线夹螺钉 | Screw | 2 |
| 10 | GL23A | 线架过线夹螺母 | Nut | 2 |
| 11 | GR1784A | 导线圈 | Thread guide ring | 4 |
| 12 | GR1784A-1 | 导线圈橡胶套 | Thread guide ring of rubber cap | 4 |
| 13 | GR1784B | 导线圈 | Thread guide ring | 4 |
| 14 | GR1933 | 线架导线杆夹 | Thread guide arm holder | 1 |
| 15 | GS149 | 线架导线杆夹螺钉(A) | Screw | 1 |
| 16 | GS113 | 线架导线杆夹螺钉(B) | Screw | 1 |
| 17 | GL157 | 线架导线杆夹螺母 | Nut | 2 |
| 18 | GZ317 | 线架导线杆 | Thread guide asm. | 1 |
| 19 | GR1934 | 线架导线杆过线夹 | Thread guide arm holder | 1 |
| 20 | GS231 | 线架导线杆过线夹螺钉 | Screw | 2 |
| 21 | GL110 | 线架导线杆过线夹螺母 | Nut | 2 |
| 22 | GR1935 | 线架导线杆过线 | Lower thread guide | 1 |
| 23 | GR1825 | 线盘架 | Spool rest arm. | 2 |
| 24 | GR1745 | 线盘架夹 | Thread guide arm joint | 2 |
| 25 | GS558 | 线盘架夹螺钉 | Screw | 2 |
| 26 | GL23A | 线盘架夹螺母 | NUT | 2 |
| 27 | GR1811 | 线盘 | Spool rest | 4 |
| 28 | GL23 | 线盘钉螺母 | Nut | 4 |
| 29 | GR1626 | 线盘钉弹簧垫圈 | Spring washer | 4 |
| 30 | GS067 | 线盘钉 | Spool pin | 4 |
| 31 | GR1215 | 线盘钉橡皮夹 | Spool vibration stopper | 4 |
| 32 | GR1696 | 线架杆紧固螺母垫圈 | Washer | 2 |
| 33 | GR1753 | 线架杆防震橡皮圈 | Rubber washer | 2 |
| 34 | GL158 | 线架杆紧固螺母 | Nut | 2 |

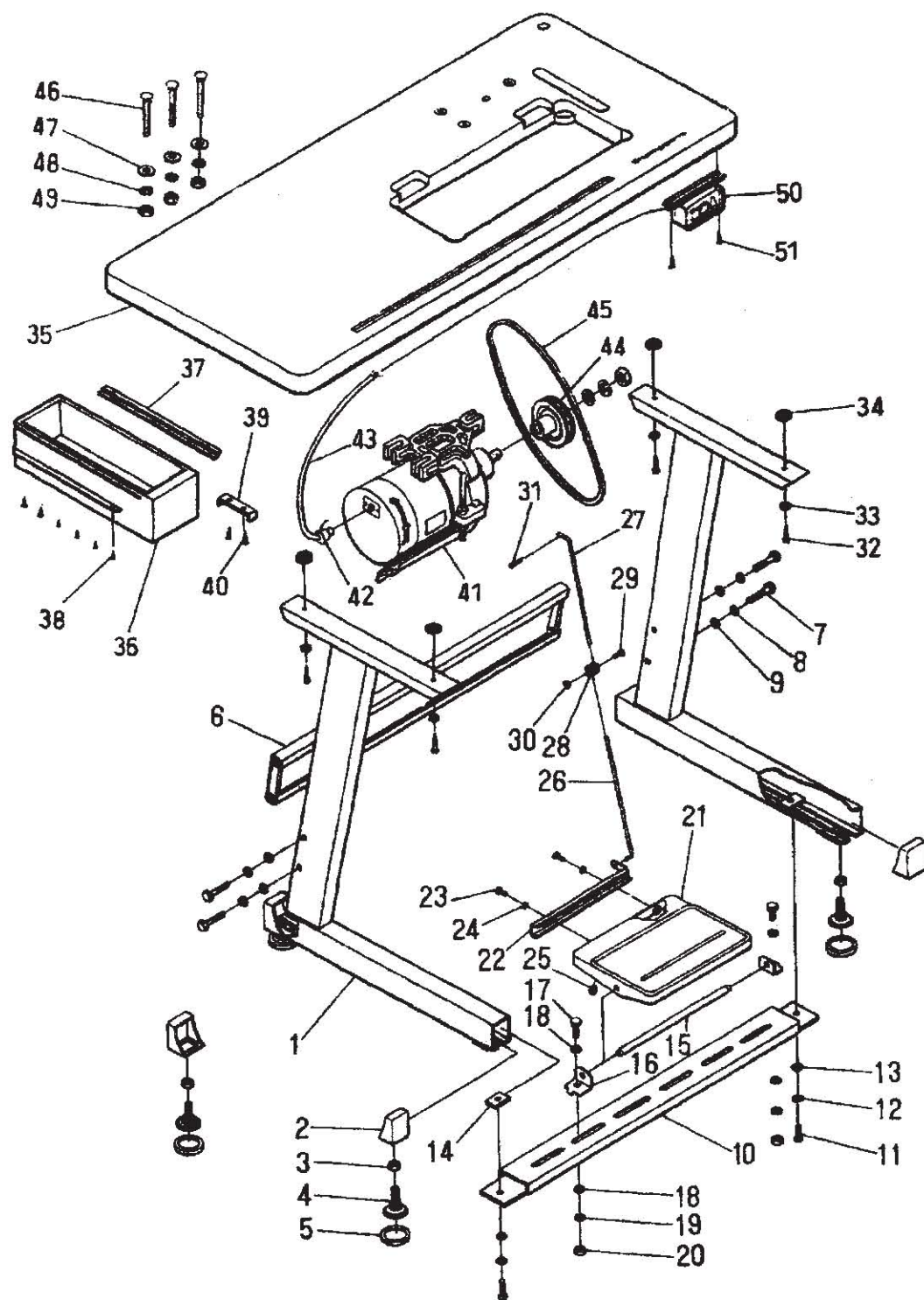
注:

| | |
|------|---------|
| 机 型 | 线 架 规 格 |
| 3881 | 二线架组件 |
| 3882 | 四线架组件 |
| 3883 | 六线架组件 |

Note:

| | |
|---------|----------------|
| Style | Specifications |
| CM-3881 | 2-thread |
| CM-3882 | 4-thread |
| CM-3883 | 6-thread |

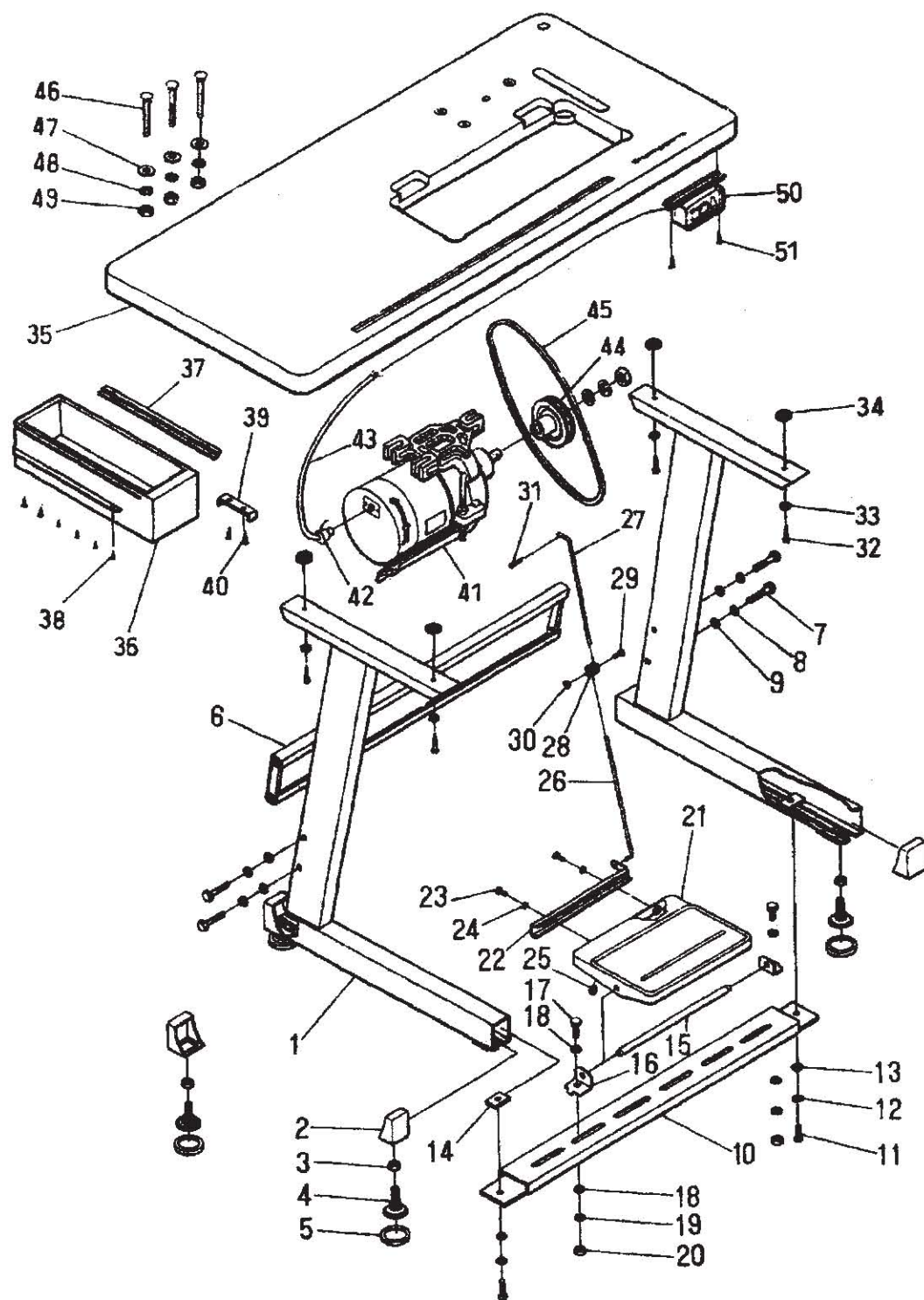
12. 机架、台板、电器分组件/Machine stand,table and electric appliance components







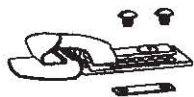
12. 机架、台板、电器分组件/Machine stand,table and electric appliance components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-----------|-------------------------------|------------|
| 1 | GKR193/5 | 边架部件 | Stand side asm | 2 |
| 2 | GKR194 | 边架座套 | Rubber cushion | 4 |
| 3 | GKL104 | 调节座螺母 | Nut | 4 |
| 4 | GKR196/2 | 调节座 | Screw | 4 |
| 5 | GKR198 | 调节座胶垫 | Spring washer | 4 |
| 6 | GKR173/3 | 横档部件 | Stand side support asm | 1 |
| 7 | GKS119 | 横档连接螺钉 | Screw | 4 |
| 8 | GKR176 | 边架柱弹簧垫圈 | Spring washer | 4 |
| 9 | GR253 | 边架柱垫圈 | Washer | 4 |
| 10 | GKR178/3 | 踏板轴档部件 | Treadle brace asm | 1 |
| 11 | GKS110 | 踏板轴档螺钉 | Screw | 2 |
| 12 | GKR122 | 踏板轴档垫圈 | Washer | 2 |
| 13 | GKR106 | 踏板轴档弹簧垫圈 | Spring washer | 2 |
| 14 | GKR181 | 踏板轴档定位螺母板 | Treadle brace locknut plate | 2 |
| 15 | GKX106 | 踏板轴 | Treadle shaft | 1 |
| 16 | GKR184 | 踏板轴座 | Treadle bracket | 2 |
| 17 | GKS110 | 踏板轴座螺钉 | Screw | 2 |
| 18 | GKR122 | 踏板轴座垫圈 | Washer | 4 |
| 19 | GKR106 | 踏板轴座弹簧垫圈 | Spring washer | 2 |
| 20 | GKL102 | 踏板轴座螺母 | Nut | 2 |
| 21 | GKR182 | 踏板 | Treadle | 1 |
| 22 | GKR111 | 踏板杠杆 | Treade pitman | 1 |
| 23 | GKS102 | 踏板杠杆螺钉 | Screw | 2 |
| 24 | GKR112 | 踏板杠杆垫圈 | Washer | 2 |
| 25 | GKL102 | 踏板杠杆螺母 | Nut | 2 |
| 26 | GKR116 | 下拉杆 | Pitman rod, lower | 1 |
| 27 | GKR118 | 上拉杆 | Pitman rod, upper | 1 |
| 28 | GKR183 | 拉杆接头 | Joint | 1 |
| 29 | GKS110 | 拉杆接头螺钉 | Joint screw | 1 |
| 30 | GKL101 | 拉杆接头螺母 | Joint nut | 1 |
| 31 | GKX101 | 上拉杆开口销 | Pitman rod split pin(uoocer) | 1 |
| 32 | GBS114 | 台板木螺钉 | Table wood screw | 4 |
| 33 | GKR112 | 台板木螺钉垫圈 | Table wood screw washer | 4 |
| 34 | GKR186 | 台板垫圈 | Table washer | 4 |
| 35 | GBR150 | 台板 | Table | 1 |
| 36 | GBR151 | 抽斗 | Drawer | 1 |
| 37 | GBR152 | 抽斗导轨 | Drawer rail | 2 |
| 38 | GBS121 | 抽斗导轨木螺钉 | Drawer rail wood screw | 6 |
| 39 | GBR153 | 抽斗限位板 | Drawer limit plate | 1 |
| 40 | GBS120 | 抽斗限位板木螺钉 | Drawer limit plate wood screw | 2 |





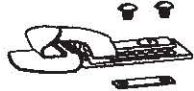
12. 机架、台板、电器分组件/Machine stand,table and electric appliance components



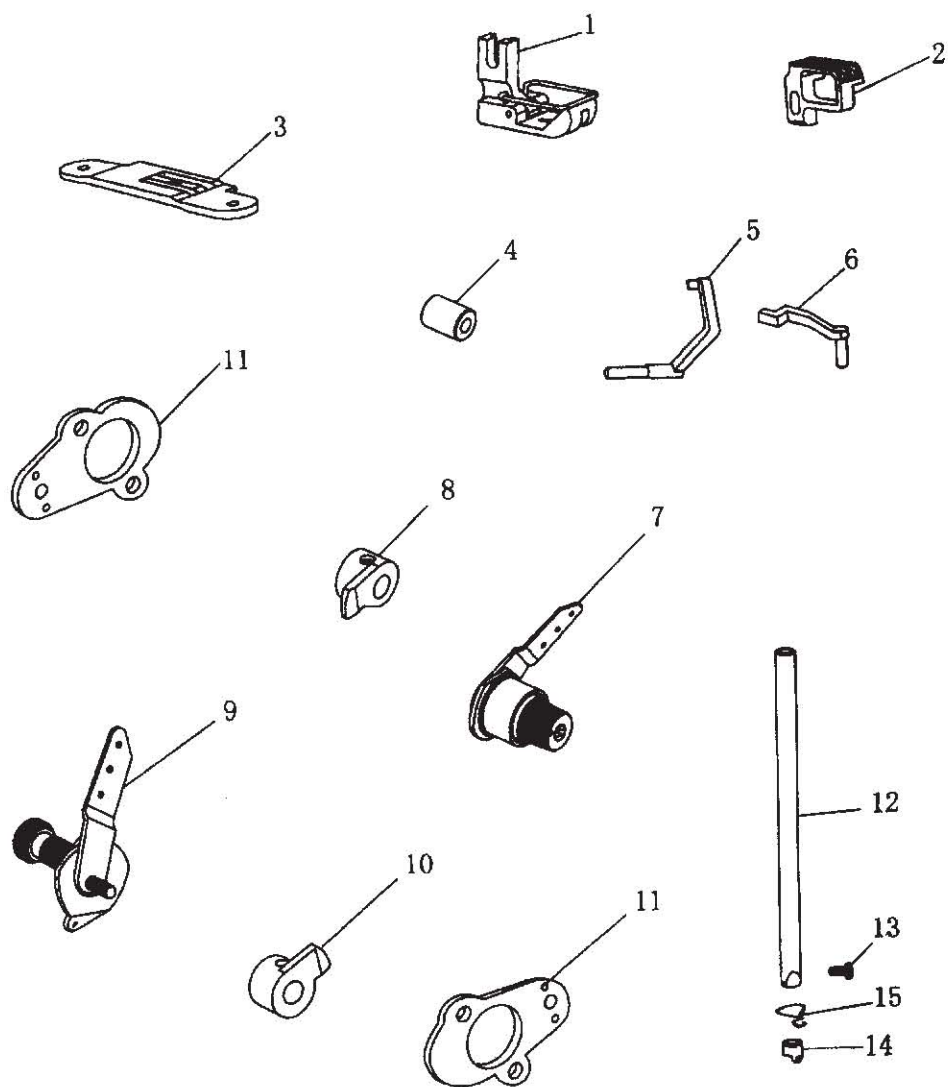
13. 3880附件一览表

| 名称 图示 规格 | | 右弯针 | 左弯针 | 推板 | 凸轮盖 | 卷边器 |
|----------------|--------------|---|--|---|---|---|
| | |  |  |  |  |  |
| 1 | 1/8"(3.2mm) | GN170 | GN169 | GM245 | GM243 | GR1939/5 |
| 2 | 5/32"(4.0mm) | | | | | GR1946/5 |
| 3 | 3/16"(4.8mm) | | | | | GR1924/5 |
| 4 | 7/32"(5.6mm) | | | | | GR1935/5 |
| 5 | 1/4"(6.4mm) | | | | | GR1916/5 |
| 6 | 5/16"(7.9mm) | | | | | GM262 |
| 7 | 3/8"(9.5mm) | | | GR1968/5 | | |
| 8 | 1/2"(12.7mm) | | | | | GM269 |

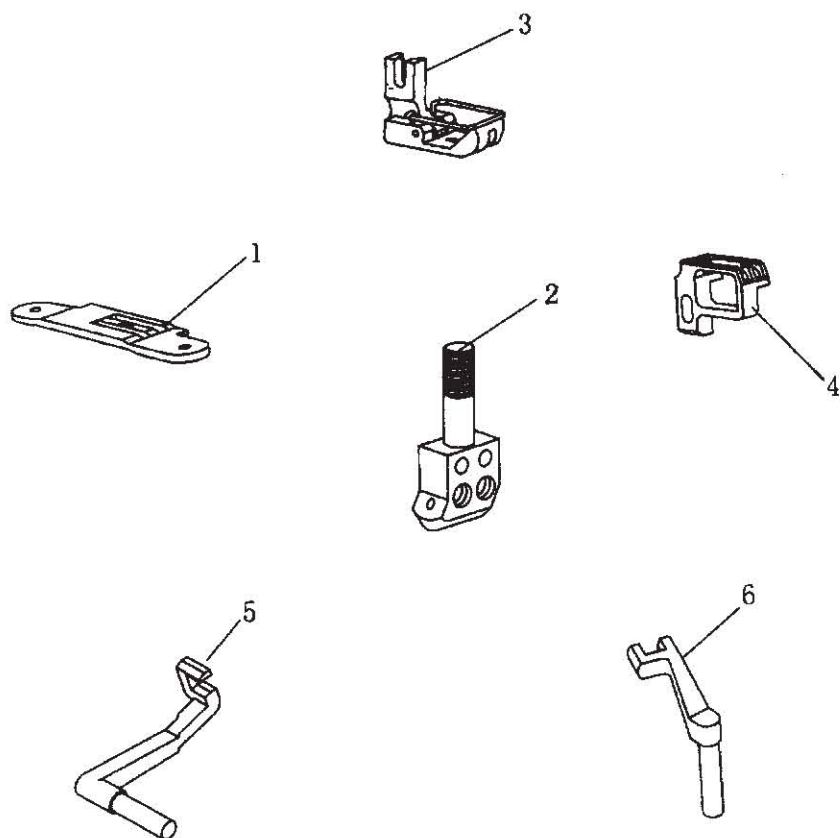
13. CM-3880List Throat of & its accessories

| Name | | Right looper | Lift looper | Bed slide | Cam cover | Folder |
|----------------|---------------|---|--|---|---|---|
| | | Solid drawing | | | | |
| Specifications | |  |  |  |  |  |
| 1 | 1/8" (3.2mm) | GN170 | GN169 | GM245 | GM243 | GR1939/5 |
| 2 | 5/32" (4.0mm) | | | | | GR1946/5 |
| 3 | 3/16" (4.8mm) | | | | | GR1924/5 |
| 4 | 7/32" (5.6mm) | | | | | GR1935/5 |
| 5 | 1/4" (6.4mm) | | | | | GR1916/5 |
| 6 | 5/16" (7.9mm) | | | | GM262 | GR1961/5 |
| 7 | 3/8" (9.5mm) | | | | | GR1968/5 |
| 8 | 1/2" (12.7mm) | | | | GM269 | GM270 |

14. 3881专用件/CM-3881 Special parts



15. 3882专用件/CM-3882 Special parts



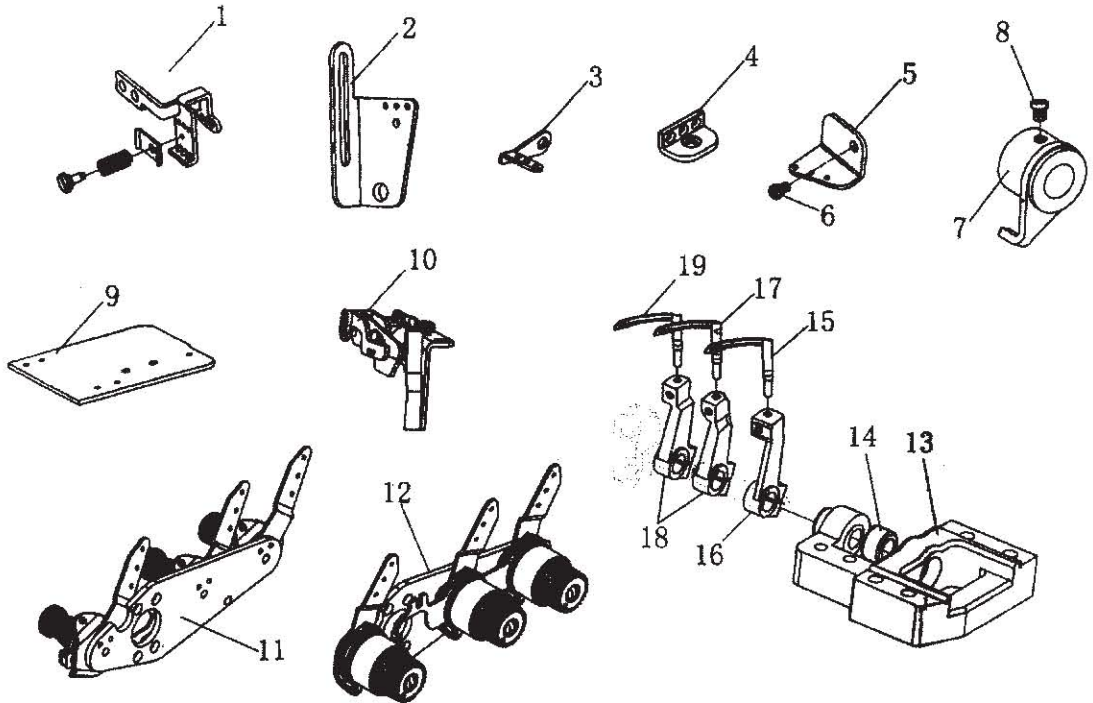
16. 3883S专用件/CM-3883S Special parts

| 名称 Name | 针板 Throat plate | 针夹 Needle clamp | 压脚 Presser foot asm. | 送料牙 Feed dog | 摆动护针杆 Rear moving needle guard | 左固定护针杆 Left needle guard |
|---------------------|--------------------|--------------------|-------------------------|-----------------|-----------------------------------|-----------------------------|
| 件号 Part.No. | GM248-S | GR1826-S | GM246/5-S | GM247-S | GR1857-S | GR1859-S |
| 数量 Amt.req. | 1 | 1 | 1 | 1 | 1 | 1 |
| 图示 Solid drawing | | | | | | |

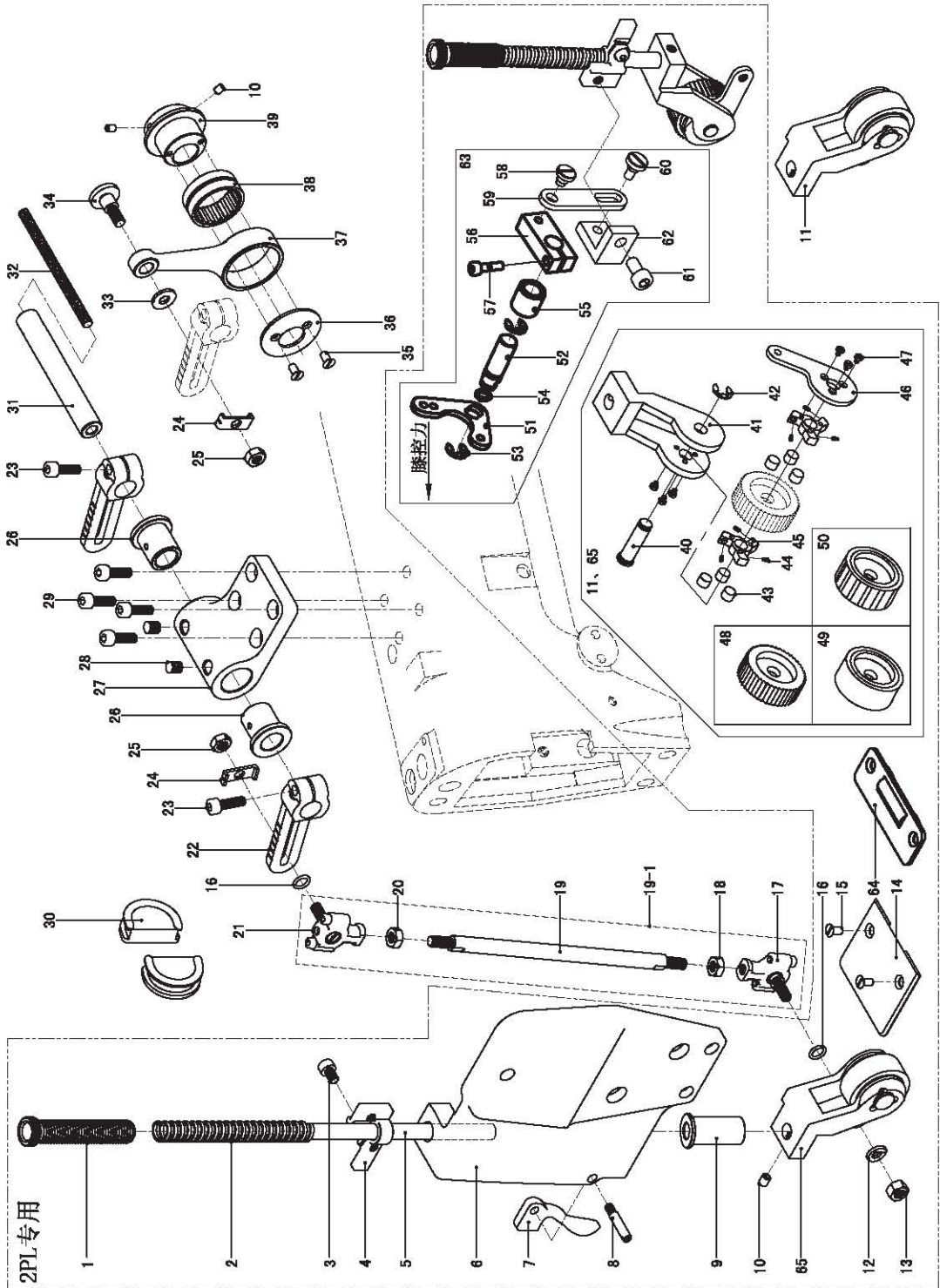
16. 3883P专用件/CM-3883P Special parts

| 名称 Name | 针板 Throat plate | 针夹 Needle clamp | 压脚 Presser foot asm. | 送料牙 Feed dog | 摆动护针杆 Rear moving needle guard | 左固定护针杆 Left needle guard |
|---------------------|--------------------|--------------------|-------------------------|-----------------|-----------------------------------|-----------------------------|
| 件号 Part.No. | GM248-P | GR1826-P | GM246/5-P | GM247-P | GR1857-P | GR1859-P |
| 数量 Amt.req. | 1 | 1 | 1 | 1 | 1 | 1 |
| 图示 Solid drawing | | | | | | |

16. 3883S、3883P通用件/CM-3883S、CM-3883P interchangeable parts



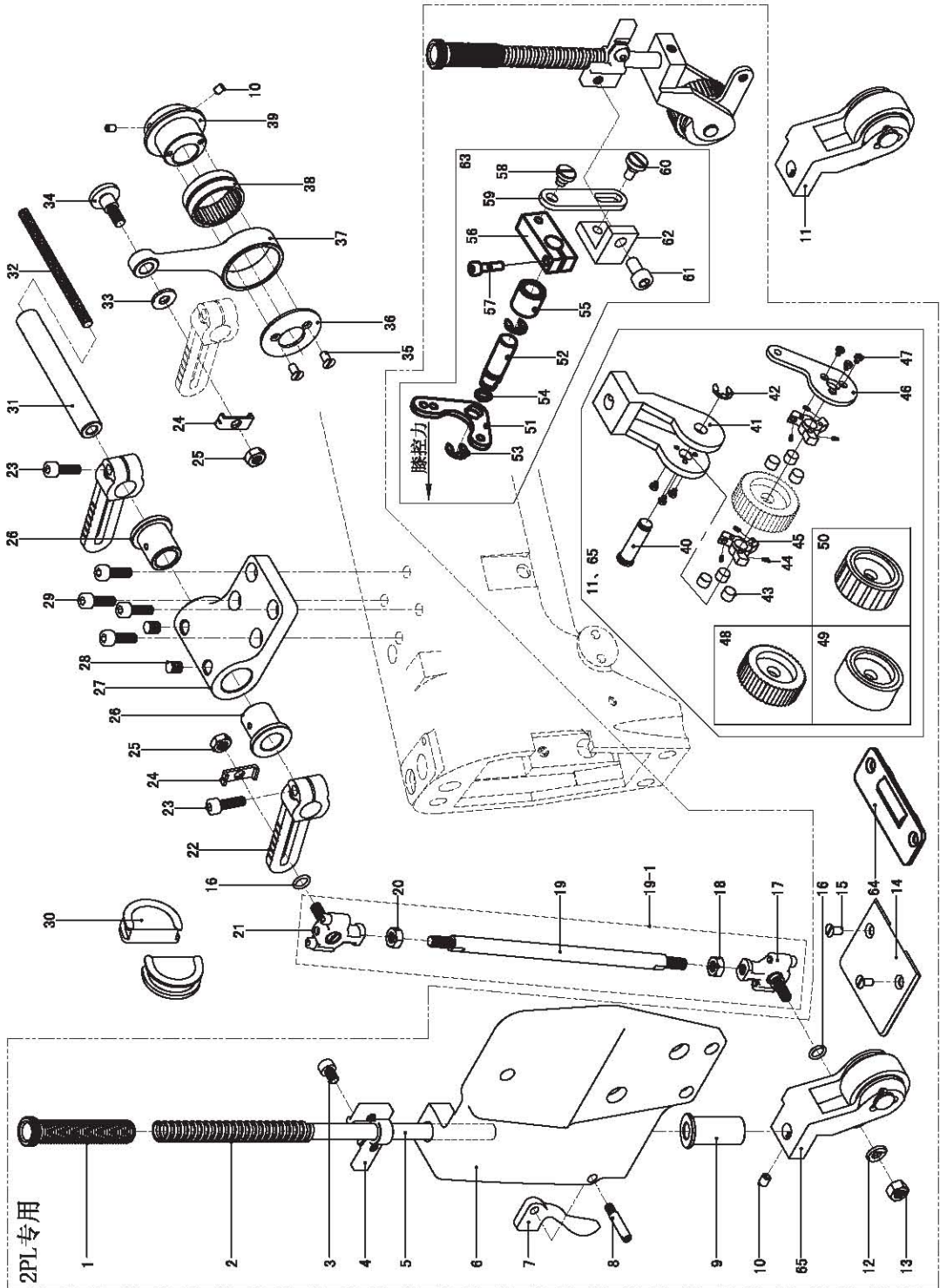
17. MPLA、2PL拖轮装置部件/MPLA、2PL tugboat device components



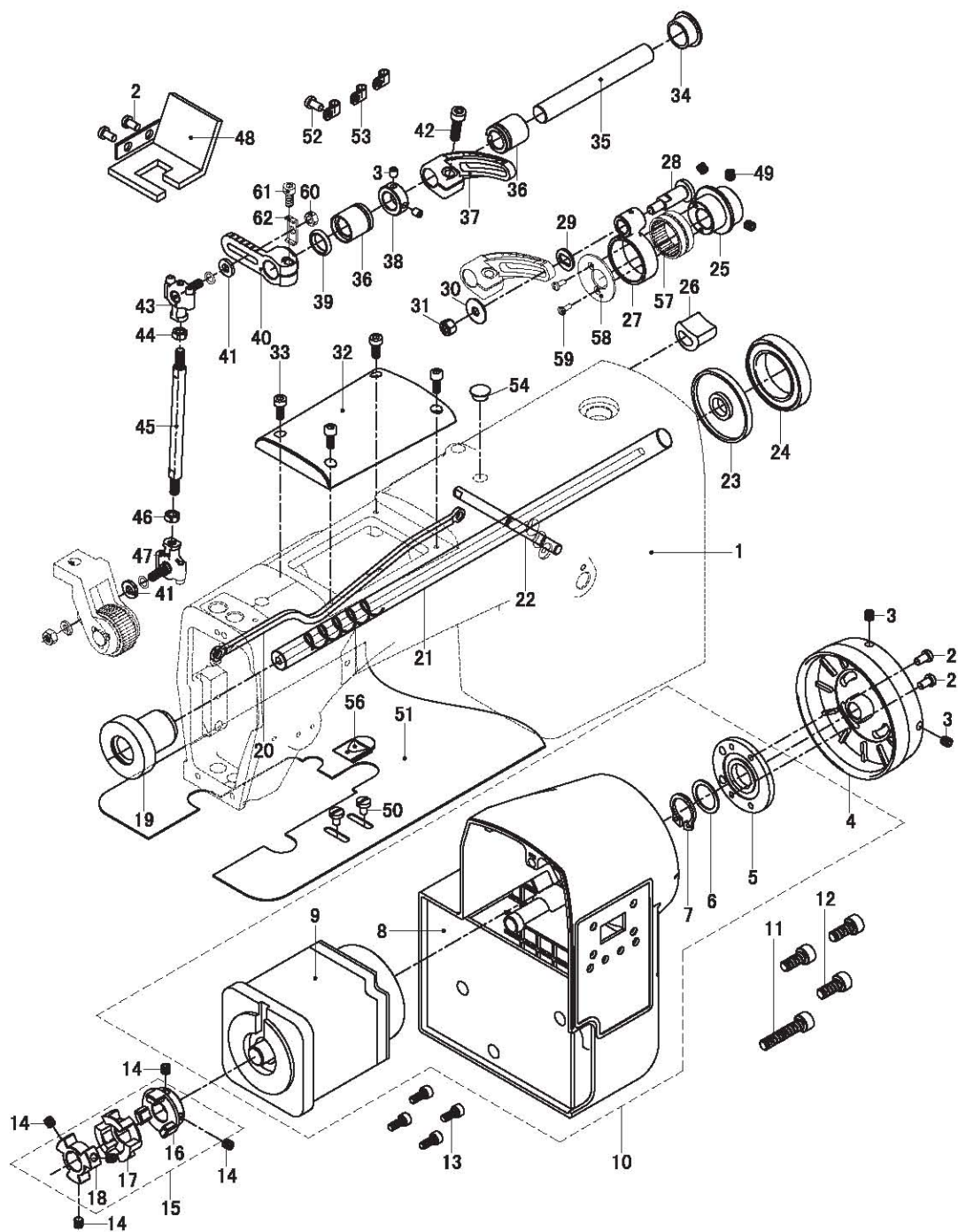
17. MPLA、2PL拖轮装置部件/MPLA、2PL tugboat device components

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|------------------|--------------------------------|------------|
| 1 | 927BT001 | 调节螺丝 | Screw | 1 |
| 2 | V18-2 | 压簧 | Presser bar spring | 1 |
| 3 | LD00044 | 内六角圆柱头螺钉M5×10 | Screw M5×10 | 1 |
| 4 | V18-4 | 压杆夹 | Presser bar clamp | 1 |
| 5 | 927PL026 | 压杆轴 | Presser bar | 1 |
| 6 | V18-6 | 面板 | Face plate | 1 |
| 7 | 927PL030 | 扳手 | Presser foot lifter | 1 |
| 8 | 927PL029 | 扳手轴销 | Support stud | 1 |
| 9 | 927PL031 | 压杆轴套 | Presser bar bush | 1 |
| 10 | LD00003 | 内六角紧定螺钉M6×6 | Screw M6×6 | 3 |
| 11 | V18-11 | 上拖轮组件(铁齿拖轮) | The tug assembly(Iron gear) | 1 |
| 11 | V18-11-J | 上拖轮组件(胶拖轮) | The tug assembly(Rubber wheel) | 1 |
| 11 | V18-11-T | 上拖轮组件(胶齿拖轮) | The tug assembly(Plastic gear) | 1 |
| 12 | DQ00014 | 弹簧垫圈6 | Spring washer | 1 |
| 13 | A4-11 | 螺母SM7/32"×32 | Nut SM7/32"×32 | 1 |
| 14 | V18-14 | 拖轮压板 | Tug plate | 1 |
| 15 | LD000184 | 沉头螺钉SM11/64"×40 | Screw SM11/64"×40 | 2 |
| 16 | OXQ00012 | O形圈 | O ring | 2 |
| 17 | 927PL017 | 关节轴承组件(下) | Plain Bearings (Lower) | 1 |
| 18 | LM00018 | 螺母M6(左旋) | Nut M6-LH | 1 |
| 19 | 927PL015 | 连接轴 | Shaft for linking balls | 1 |
| 20 | LM00006 | 螺母M6 | Nut M6 | 1 |
| 21 | 927PL013 | 关节轴承组件(上) | Plain Bearings (Upper) | 1 |
| 22 | 927PL004 | 调节连杆 | Adjusting rod | 2 |
| 23 | K6-5 | 内六角圆柱头螺钉M5×16 | Screw M5×16 | 2 |
| 24 | 927PL010 | 指示压板 | Indicating plate | 2 |
| 25 | A6-25 | 螺母SM15/64"×28 | Nut SM15/64"×28 | 2 |
| 26 | V18-26 | 轴套 | Sleeve | 2 |
| 27 | V18-27 | 直驱轴支座 | Direct drive shaft bearing | 1 |
| 28 | V18-28 | 油毡 | Felt | 2 |
| 29 | FJ8-16-1 | 内六角圆柱头螺钉M6×10 | Screw M6×10 | 4 |
| 30 | 927PL008 | 橡胶塞 | Plug | 2 |
| 31 | V18-31 | 直驱轴 | Shaft | 1 |
| 32 | V18-32 | 油毡 | Felt | 1 |
| 33 | DQ00039 | 平垫圈6 | Washer | 1 |
| 34 | 927PL011 | 轴位螺钉 | Screw | 1 |
| 35 | LD00046 | 开槽圆柱头螺钉SM1/8"×44 | Screw SM1/8"×44 | 2 |
| 36 | V18-36 | 偏心轮挡片 | Crank cover | 1 |
| 37 | V18-37 | 连杆 | Connecting rod | 1 |
| 38 | V18-38 | 实体套圈滚针轴承 | Bearing | 1 |

17. MPLA、2PL拖轮装置部件/MPLA、2PL tugboat device components



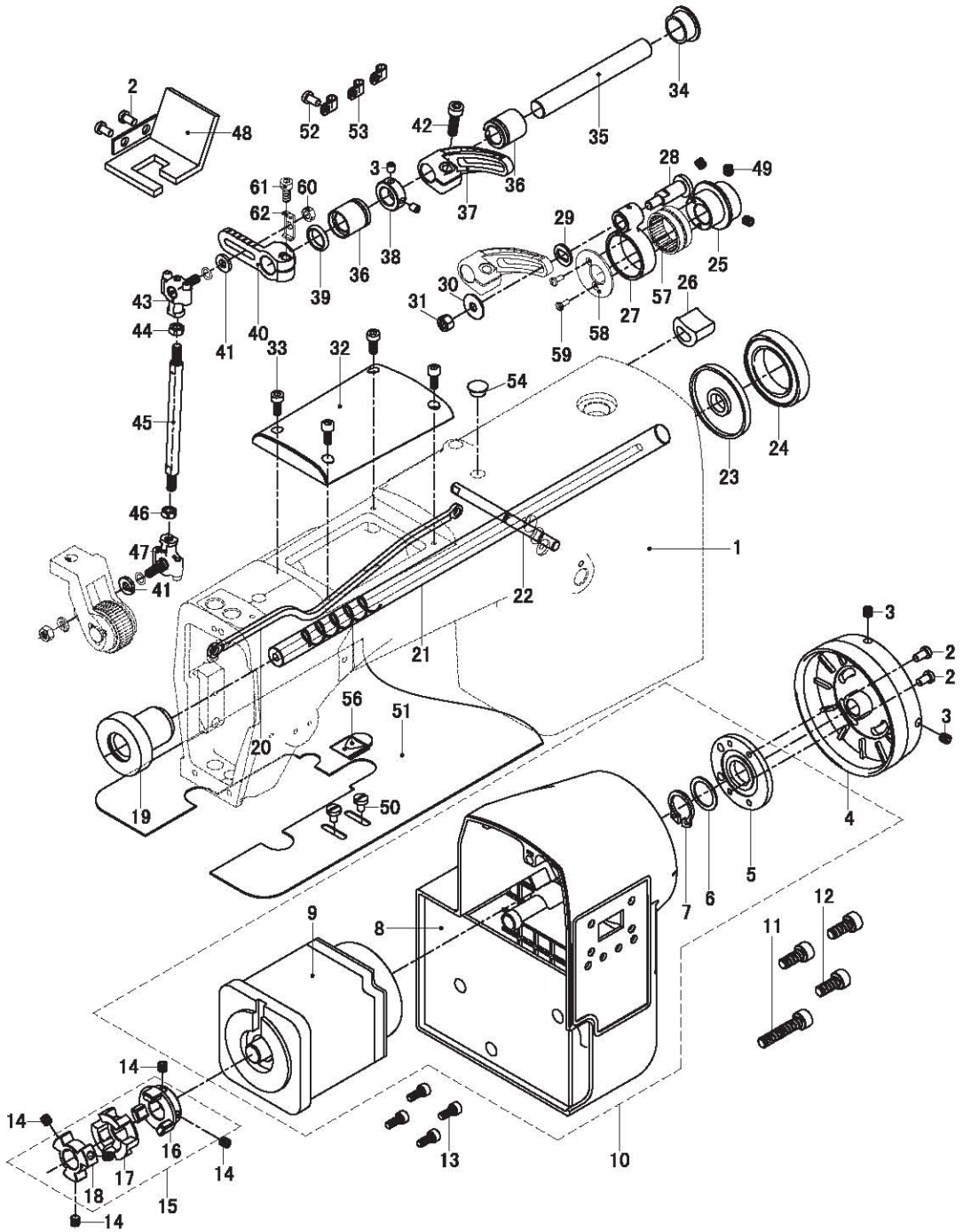
18. 3880直驱一体机部件/3880 Direct drive one mechanism



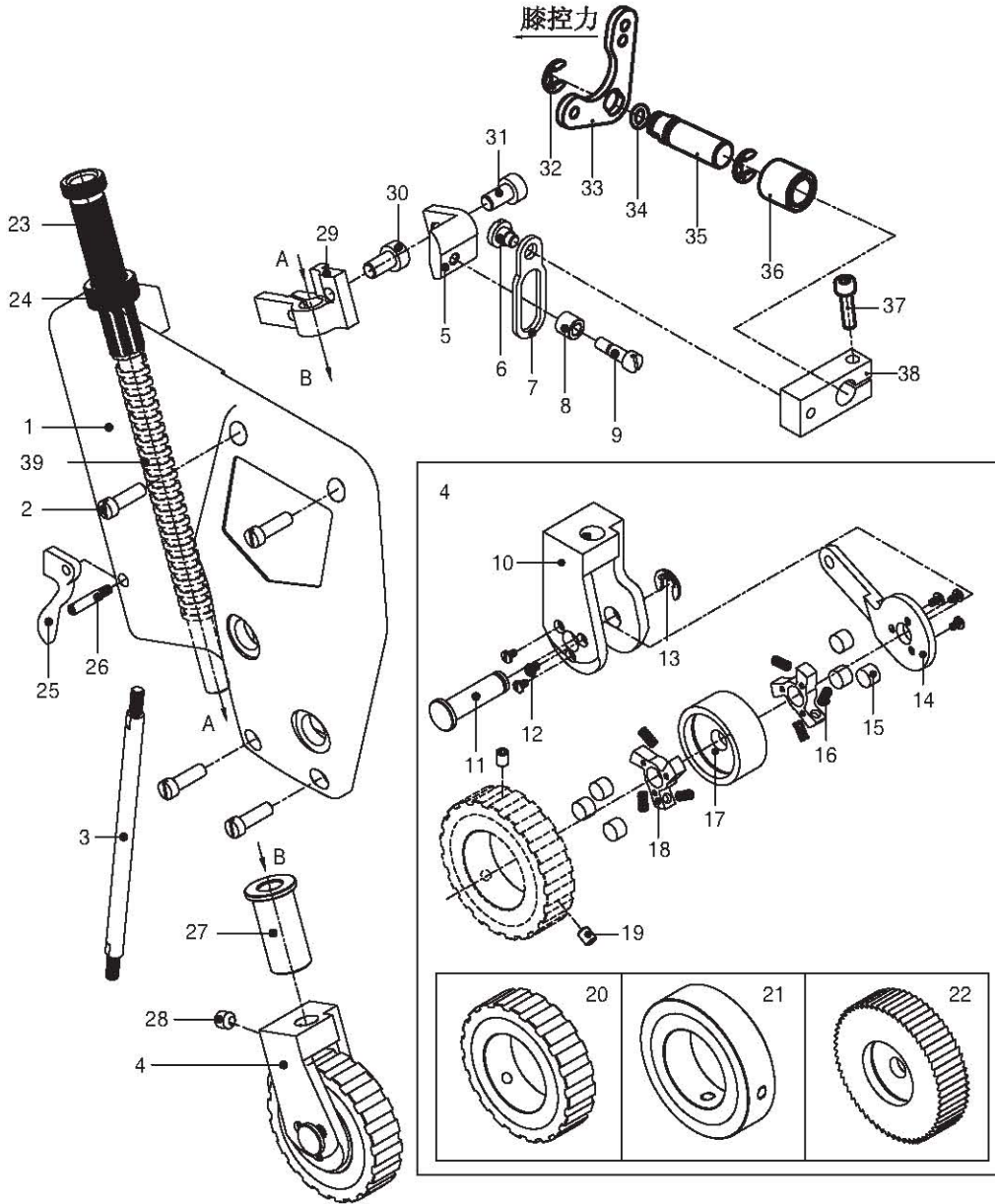
18. 3880直驱一体机部件/3880 Direct drive one mechanism

| 序号 Ref.No. | 件号 Part NO. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|---------------|------------------------|------------|
| 1 | V20-01 | 机壳 | Machine Frame | 1 |
| 2 | V20-02 | 十字槽盘头螺钉M5×9 | Screw | 4 |
| 3 | V20-03 | 内六角紧定螺钉M5×5 | Screw | 4 |
| 4 | V20-04 | 手轮 | Hand wheel | 1 |
| 5 | V20-05 | 定位器 | Fixed Position Disk | 1 |
| 6 | V20-07 | 垫圈 | Washer | 1 |
| 7 | V20-08 | 轴用弹性挡圈 | Retaining Ring | 1 |
| 8 | V20-09 | 一体机罩壳 | Motor Cover | 1 |
| 9 | V20-10 | 电机 | Motor | 1 |
| 10 | V20-06-01 | 琦星简易款一体机 | Motor asm. | 1 |
| 11 | V20-11 | 内六角圆柱头螺钉M5×35 | Screw | 1 |
| 12 | V20-12 | 内六角圆柱头螺钉M5×28 | Screw | 3 |
| 13 | V20-13 | 内六角圆柱头螺钉M5×20 | Screw | 4 |
| 14 | LD00003 | 内六角紧定螺钉M6×6 | Screw | 4 |
| 15 | V20-15 | 联轴器组件 | Connect block asm. | 1 |
| 16 | V20-16 | 联轴器B | Connect block B | 1 |
| 17 | V20-17 | 缓冲垫 | Collar | 1 |
| 18 | V20-18 | 联轴器A | Connect block A | 1 |
| 19 | V20-19 | 上轴前铜套 | Copper sets | 1 |
| 20 | V20-30 | 拾压脚板 | Board | 1 |
| 21 | V20-27 | 上主轴 | Main' shaft | 1 |
| 22 | V20-22 | 松线轴 | Tension release shaft | 1 |
| 23 | V20-23 | 上轴油封 | Oil Seal | 1 |
| 24 | V20-24 | 轴承6907Z | Ball bearing | 1 |
| 25 | V20-25 | 偏心轮 | Eccentric wheel | 1 |
| 26 | V20-14 | 送料调节器孔孔塞 | Cushion rubber | 1 |
| 27 | V20-21 | 偏心轮连杆 | connecting rod | 1 |
| 28 | V20-32 | 轴位螺钉 | Screw | 1 |
| 29 | V20-29 | 异形垫圈 | Washer | 1 |
| 30 | V20-26 | 垫圈 | Washer | 1 |
| 31 | V20-31 | 螺母SM1/4"×33 | Nut | 1 |
| 32 | V20-28 | 顶盖 | Top cap | 1 |
| 33 | V20-33 | 内六角圆柱头螺钉M4×12 | Screw | 4 |
| 34 | V20-34 | 拖布轮孔孔塞 | Cushion rubber | 1 |
| 35 | V20-35 | 后拖轮轴 | Puller driving shaft | 1 |
| 36 | V20-36 | 后拖轮轴铜套 | Bush | 2 |
| 37 | V20-37 | 后拖轮曲柄 | Puller driving lever | 1 |
| 38 | V20-38 | 挡圈 | Collar | 1 |
| 39 | V20-39 | 油封 | Oil Seal | 1 |
| 40 | V20-40 | 调节连杆 | Adjusting Rod Assembly | 1 |

18. 3880直驱一体机部件/3880 Direct drive one mechanism



19. PLB拖轮装置部件/PLB tugboat device components



19. PLB拖轮装置部件/PLB tugboat device components

| 序号 Ref.No. | 件号 Part NO. | 名称 | Description | 数量 Amt. |
|---------------|----------------|----------------------|------------------------------------|------------|
| 1 | V21-01 | 菱形面板 | Diamond panel | 1 |
| 2 | V4-21 | 一字开槽圆柱头螺钉 | Screw SM3/16" X28 | 4 |
| 3 | V21-03 | 连接轴 | Shaft for linking balls | 1 |
| 4 | V21-04 | 大拖轮组件(胶齿拖轮) | Large tug components(Plastic gear) | 1 |
| 4 | V21-04-T | 大拖轮组件(铁齿拖轮) | Large tug components(Iron gear) | 1 |
| 4 | V21-04-J | 大拖轮组件(胶拖轮) | Large tug components(Rubber wheel) | 1 |
| 5 | V21-05 | 压杆夹连接座 | Connecting seat | 1 |
| 6 | V18-60 | 轴位螺钉 | Screw | 1 |
| 7 | V21-07 | 连接板 | Plate | 1 |
| 8 | V21-08 | 滚套 | Collar | 1 |
| 9 | V21-09 | 螺钉 | Screw | 1 |
| 10 | V21-10 | 拖轮安装支架 | Upper puller Stent | 1 |
| 11 | V18-40 | 拖布轮轴 | Puller Shaft | 1 |
| 12 | LD00170 | 开槽圆柱头螺钉SM3/32" X56 | Screw SM3/32" X56 | 6 |
| 13 | TDQ00006 | 开口挡圈6 | Ring | 1 |
| 14 | V21-14 | 星轮连杆 | Star ferry link | 1 |
| 15 | 927PL052 | 滚子 | Rolling shaft | 6 |
| 16 | TH00024 | 弹簧 | Spring | 6 |
| 17 | V21-17 | 胶轮内圈 | Tire inner ring | 1 |
| 18 | 927PL054 | 星轮 | Star ferry | 2 |
| 19 | V21-19 | 内六角圆柱头螺钉M4X5 | Screw | 2 |
| 20 | V21-20 | 胶齿轮 | Plastic gear | 1 |
| 21 | V21-21 | 平胶轮 | Rubber wheel | 1 |
| 22 | V21-22 | 铁齿轮 | Iron gear | 1 |
| 23 | 927BT001 | 调节螺丝 | Screw | 1 |
| 24 | V21-24 | 螺母 | Nut | 1 |
| 25 | 927PL030 | 扳手 | Presser foot lifter | 1 |
| 26 | 927PL029 | 扳手轴销 | Support stud | 1 |
| 27 | 927PL031 | 压杆轴套 | Presser bar bush | 1 |
| 28 | LD00003 | 内六角紧定螺钉M6X6 | Screw M6X6 | 3 |
| 29 | V18-4 | 压杆夹 | Presser bar clamp | 1 |
| 30 | LD00044 | 内六角圆柱头螺钉M5X10 | Screw M5X10 | 1 |
| 31 | V18-61 | 内六角圆柱头螺钉SM15/64" X28 | Screw SM15/64" X28 | 1 |
| 32 | V18-53 | 开口挡圈7 | Ring | 2 |
| 33 | V18-51 | 拾压脚前杠杆片 | Leverage tablets | 1 |
| 34 | V18-54 | O形圈 | O ring | 1 |
| 35 | V18-52 | 拾压脚前杠杆轴 | Lever shaft | 1 |
| 36 | V18-55 | 拾压脚前杠杆轴套 | Sleeve | 1 |
| 37 | V18-57 | 内六角圆柱头螺钉M4X16 | Screw M4X16 | 1 |
| 38 | V18-56 | 拾压脚曲柄 | Crank | 1 |
| 39 | V18-2 | 压簧 | Presser bar spring | 1 |