

INSTRUCTION MANUAL  
AND  
ILLUSTRATED PARTS LIST

FOR

**SINGER**

MACHINES

1375A1

1375A2

1375A3

THE SINGER COMPANY

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## I. Uses and feature.

Machines of Class 1375A are used for sewing buttons especially for knitting and clothing industry, have features of original designed, excellent appearance and reliable structure.

The machine has a unique system for spreader. Thread tension and looper mechanism are reasonably designed and precisely made. In operation, the machine will finish one sewing cycle by stepping the treadle once, and trim thread automatically.

Model 1375A1 is for sewing four hole buttons with crossover stitches; Model 1375A2 is for sewing two or four hole buttons with parallel stitches; And while model 1375A3 have functions both model 1375A1 and model 1375A2 with.

### 一、 机器的用途和特点:

1375A 系列钉扣缝纫机, 设计新颖、造型美观、结构可靠, 是专供针织、服装行业钉钮扣用的缝制设备。

机器采用了已获得国家专利的同步分线机构, 夹线机构、钩针机构设计合理, 制作精湛, 操作时只需踩踏板一次即会自动完成一枚钮扣的缝合, 自动割线。

1375A1 型, 用于钉四眼钮扣, 十字线缝合; 1375A2 型, 用于钉二眼或四眼钮扣, 平行线缝合; 1375A3 型是二用型钉扣缝纫机, 同时具有 1375A1 和 1375A2 的功能。

## II. Main specifications.

Sewing speed: 1400rpm

Width of needle vibrating: 2-4.5mm

Button clamp movement: 0-4.5mm

Number of stitches per button: 20stitches(16seams)

Stitch type: single thread chain stitch

Size of buttons: 9-26mm in outside diameter

Needle type: N2852-05(#16), N2852-05(#18), N2852-05(#20)

Thread: polyester threads

Motor: C4132(Continuous running motor, 4pole, 1/3HP, 220V)

Net weight of machine head: 24Kg

### 二、 主要技术参数:

- |         |                |
|---------|----------------|
| 1. 机器速度 | 1400 转/分       |
| 2. 机针摆动 | 2-4.5 毫米       |
| 3. 钮夹移动 | 0-4.5 毫米       |
| 4. 缝纫针数 | 20 针 (16 线)    |
| 5. 线迹型式 | 单线链式线迹         |
| 6. 机针型号 | N2852-05 (#16) |

	N2852-05 (#18)
	N2852-05 (#20)
7. 钮扣直径范围	φ9-φ26 毫米
8. 缝 线	涤棉线
9. 电动机型号和功率	C4132 (4 pole, 1/3HP, 220V)
10. 机头净重	24 公斤

### III. Cautions before operation.

1. Don't hold the rear cover when transporting.
2. Never let your machine rotate in reverse direction. The correct operating direction of the machine is clockwise as viewed from the operator.
3. When a machine is new or has been idle for several weeks, it is advisable to apply oil to all holes, movable parts and oil felts.

### 三、 使用前的注意事项:

1. 搬运缝纫机时，请勿托在后罩上。
2. 缝纫机转动时，从操作者一面看，向顺时针方向旋转，不能倒转。
3. 初次使用缝纫机或使用长久未用的缝纫机时，请在机器各轴孔和滑动部位、储油毡上加注适量润滑油。

### IV. Installation of machine.

1. First assemble machine frame.
2. Fit button switch and motor to sewing machine table. To install the motor (as shown in Fig.1), first fasten motor base (2) to sewing machine table by means of bolts (5), flat washers(6), spring washers(7) and hexagon nuts(8), then fasten the motor(3) to motor base (2) by means of hexagon bolts(9), flat washers(10), spring washers(11) and hexagon nuts(12).
3. After completing the assembling of machine frame and table, install the machine head. First loosen screw (1) to remove rear cover (as shown in Fig.2), then fasten the machine head to sewing machine table by means of four long bolts.
4. To install the belt.

The belt connecting the motor with the sewing machine head should be tightened properly. Press belt with your thumb, and adjust the belt tension by turning nut of motor base (4 in Fig.1) so that the belt can be depressed 2-2.5 cm with a finger.

5. To install chains.
  - A. To install the chain for the starting lever: remove rear cover, hitch the S shape hook of the chain to the hole located in the front end of starting lever (as shown in Fig.3).
  - B. To install the chain for the button clamp lifting rod: remove hinged cover, connect the straight hook with chain, and hitch it to the connecting hook on the button clamp lifting rod (as shown in Fig.4).

button clamp lifting rod (as shown in Fig.4).

Finally, connect chains with two treadles separately. To limit movement of treadles, treadles fastened to the floor should be inclined strongly and chains should not be too slack. The proper adjustment will make the operator less fatigue.

#### 四、机器的安装：

##### 1. 拼装机架。

2. 将控制按钮、电动机安装在台板上。电动机安装顺序(见图 1)：先用电动机托架螺栓(5)、平垫圈(6)、弹簧垫圈(7)、六角螺母(8)，将电动机托架(2)安装在台板上；然后用六角螺栓(9)、平垫圈(10)、弹簧垫圈(11)、六角螺母(12)将电动机(3)装在电动机托架(2)上。

3. 机架与台板拼装好后，安装机头。先卸下机头后罩(见图 2)，旋下螺钉(1)，将后罩向上抽；然后用四只长螺栓把机头固定在台板上。

4. 装传动皮带。机头固定好后，装上传动皮带，调节电动机托架调节螺母(见图 1 中(4))，同时用手指轻按传动皮带，使传动皮带约有 2-2.5cm 的松动幅度为适宜。

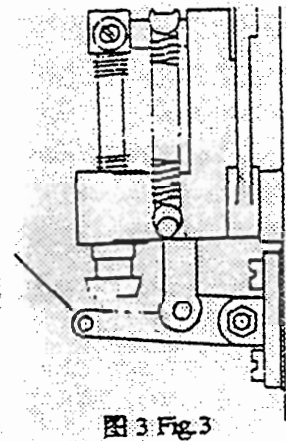
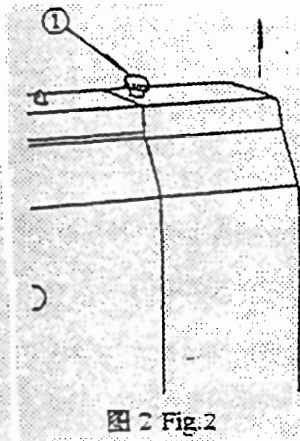
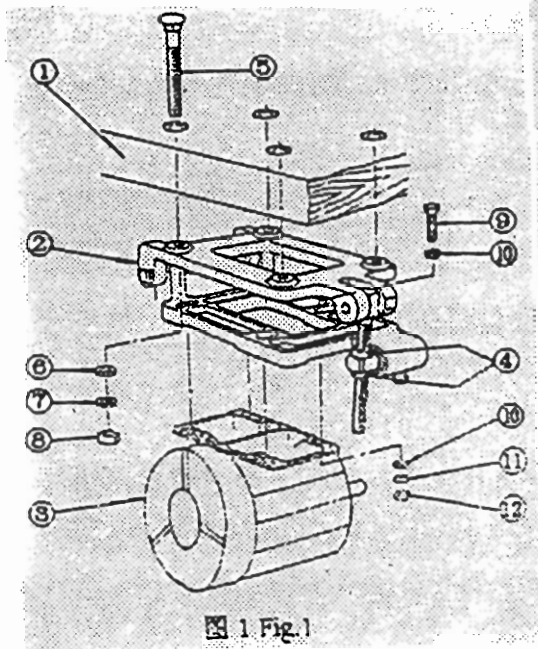


图 2 Fig.2

图 3 Fig.3

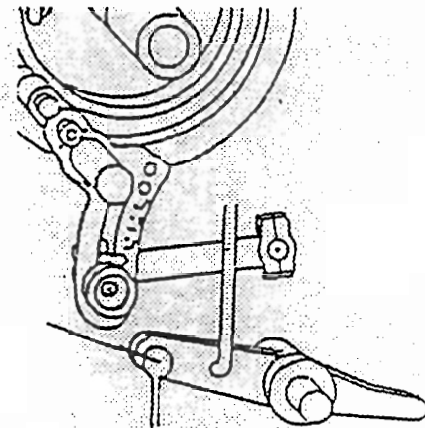


图 4 Fig.4

## 5. 挂链条:

A: 启动链条的挂法: 卸下后罩, 在启动杠杆的前端有一孔(见图 3), 将链条上的 S 形挂钩挂在启动杠杆孔内。

B: 拾压脚链条的挂法: 打开大罩壳, 在拾压脚杠杆上有一连接钉(见图 4), 将直吊钩与链条连接后, 挂在连接钉上。

最后将两根链条的另一端分别与两只脚踏板连接。为减少踏板踩动幅度, 脚踏板安装的坡度要大, 链条不能太松。调整得当操作较省力。

## V. Construction and Adjustments.

### 五、结构简解和使用说明:

#### 1. Starting and stopping.

The main shaft is driven by clutch mechanism, as shown in Fig.5. Depressing treadle allows chain to pull down the starting lever (1), and bevel of wedge (2) will drive pulley to engage to clutch wheel and turn the main shaft. Releasing the treadle quickly after depressing, starting bracket (3) will not be released by hook (4) until stop block (5) on the side of worm wheel pushing out stopping lever (6) at the end of the 19th stitch. The clutch wheel is disengaged while brake stop (7) will move upward and apply pressure to the pulley to slow down the main shaft. As the needle finishes the 20<sup>th</sup> stitch (the motion is now actuated by the inertia of itself only), the speed is considerably lowered, so that enabling the stop bolt (8) plugging into notch as a positioner.

The pressure of brake stop (7) can be adjusted to create a "soft" stop. While the machine has been spared in use for several hours and is again to run there always happens that the notch can not be reached while stopping. This will come back to normal after several trials on running under no load. Therefore, there will be no need of further adjustment afterwards.

#### 1. 启动及制动

主轴采用摩擦离合方式传动, 见图 5。启动时脚踩右踏板, 链条把启动杠杆 (1) 拉下, 由启动板 (2) 的斜面驱动带轮, 啮合磨擦轮, 使主轴旋转。脚踩下后应随即放开, 启动架 (3) 已被吊钩 (4) 勾着, 直至旋转 to 第 19 针末, 蜗轮侧面的一个停车顶块 (5) 推开停车顶杆 (6) 使启动吊钩 (4) 脱开, 摩擦轮分离, 同时制动块 (7) 向上, 顶住带轮, 使主轴速度降低, 当靠惯性力走完第 20 针时速度已很低, 此时制动块 (8) 进入缺口起定位作用。

制动皮块 (7) 的摩擦压力可以调节, 以达到较小的停车冲击声。机器在停用几小时后再用, 往往会发生几次停车未到缺口的情况, 只要开几次空车就会正常起来, 故不必作任何调整。

#### 2. The starting safety pawl.

To avoid accident caused by careless operating, a safety device is installed at rear of the machine. The main part of the device is starting safety pawl (9) (as shown in

Fig.5).

The starting safety pawl should prevent the work clamp from being lifted when machine is in operation and should prevent machine from starting when button clamp is raised. This will prevent needle, looper and thread trimmer from being damaged.

## 2. 启动安全爪

为了避免因操作者疏忽误踩踏板而造成事故，本缝纫机在机器后部安装了一套安全装置，其主要部件为启动安全爪，见图5中(9)。

当压脚(即钮夹)提升时，安全爪就阻止启动杠杆开车，以防止打坏机针、勾针、割线刀等。当启动杠杆向下，驱动主轴旋转时，安全爪被阻，使压脚不能上升。

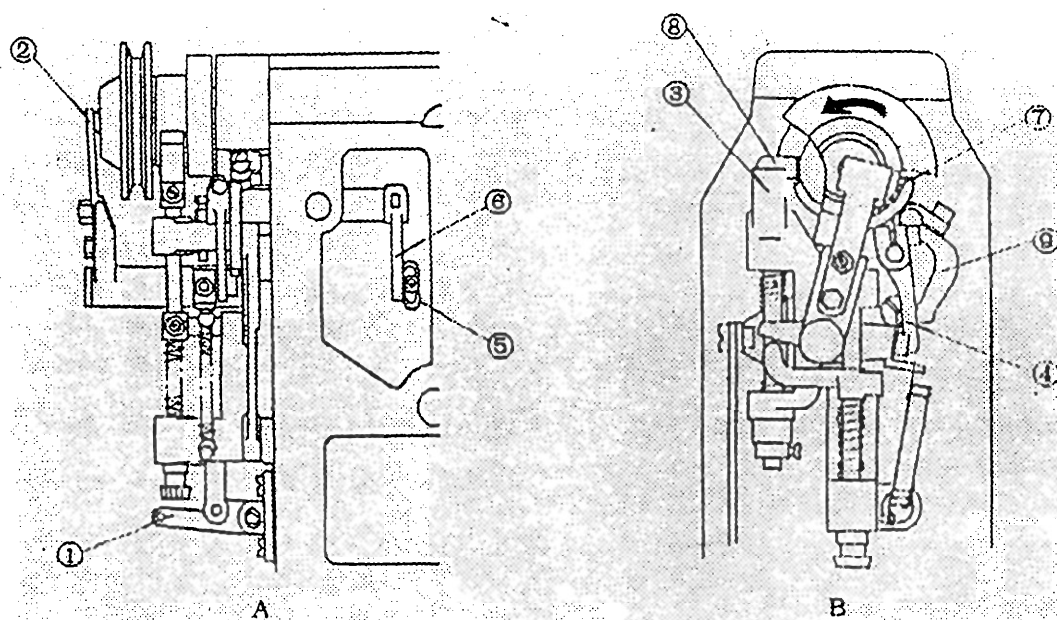


图 5 Fig.5

## 3. The relative position of needle, looper and spreader.

### A. The relative position of needle and looper.

First set the needle properly, as shown in Fig.6, loosen screw (1) and insert needle (2) up into needle bar as far as it will go with its short groove A of needle facing away from the operator. Securely tighten needle clamping screw (1). Turn the machine pulley until the needle bar moves down to its lowest position. When the needle bar is in this position, needle point should be at the centre of the looper shaft, as shown in Fig.7. Turn the machine pulley to raise the needle bar about 3-3.5mm from the lowest position, point of looper should reach the centre line of needle. The point of the looper should be about 1mm above the top of the needle eye.

In the above-mentioned position, there is a very slight clearance between the point of looper and needle. It is necessary that the needle pass 0.1-0.2mm to the needle guard, but without actually rubbing against it. (see fig 8). Notice: The clearance between needle and needle guard should be the same when the needle is swinging right and left.

B. The relative position of needle, looper and spreader.

Turn the needle down from the highest position until needle point is in line with the bottom of spreader. Then the spreader should be in a state of relative rest while the needle will continue its downward stroke until the lowest position. The needle will move upward from the lowest position to such a position where the spreader is beginning to swing (but still in a state of rest). In such a position, the clearance from the point of looper to fork of spreader should be 0-0.85mm. Loosen set screw of spreader to adjust. (see fig 8a).

3. 机针、勾针与分线叉的位置

A: 机针与勾针的相对位置:

首先正确装好机针，见图 6。旋松螺钉(1)，将机针(2)插入针夹孔直到孔底，机针的短槽 A 背向操作者，然后旋紧螺钉(1)。此时将针杆运动至最低位置时，针尖应对准勾针轴中心。机针和勾针的相对位置见图 7，针尖对准勾针轴的中心，机针从最下点上升 3~3.5 毫米，勾针的尖头刚好到达机针中心，而勾针尖位于针上边距离为 1 毫米。

在上述勾线位置，勾针头部与机针之间的间隙极微，机针对护针板(见图 8)的间隙在 0.1-0.2mm 范围，但不宜擦着。应特别注意针左右摆动时，机针对护针板的间隙要一样。

B: 机针、勾针与分线叉的相对位置:

当机针由上向下运动至针尖与分线叉下平面基本重合时，分线叉应开始保持相对静止状态；机针继续向下运动至最低点，然后向上运动。当机针由低逐渐向上运动至某一位置，使得分线叉又将开始摆动时(即分线叉将动未动时)，此时勾针头部端面离分线叉叉口距离应有 0~0.85 毫米。如不符可拧松分线叉紧固螺钉进行微调(见图 8a)。

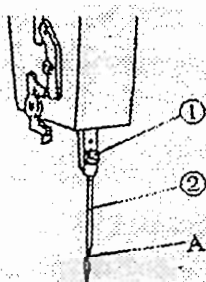


图 6 Fig. 6

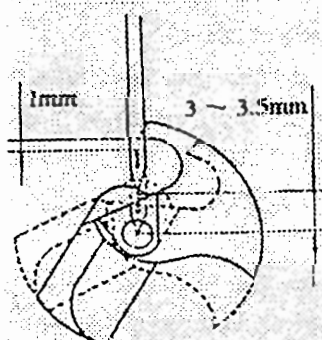


图 7 Fig. 7

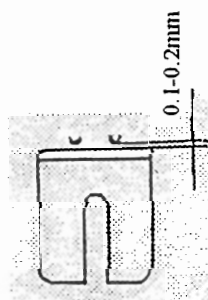


图 8 Fig. 8

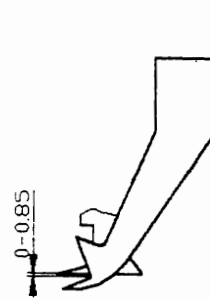


图 8a Fig. 8a



#### 4. To adjust the needle position above button.

The needle must fall in the center of holes in the button. There are two steps to adjust. Lateral distance of buttonholes is controlled by needle vibrating crank. When connecting rod is moved out, lateral distance will be increased, and vice versa. As shown in Fig.9. Longitudinal distance of buttonholes is regulated by needle crossing crank. When its connecting link is moved downward, the longitudinal distance will be increased, and vice versa. When the link is at its highest position, the longitudinal distance is zero, the machine is to attach two hole buttons, as shown in Fig.10.

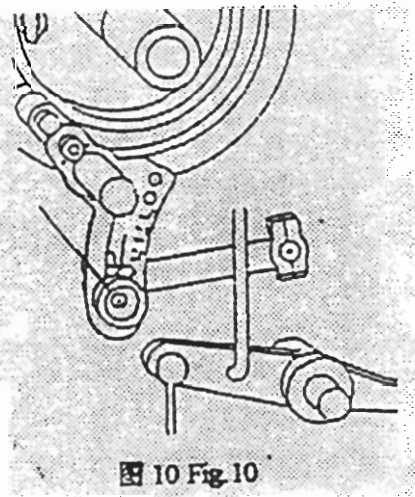
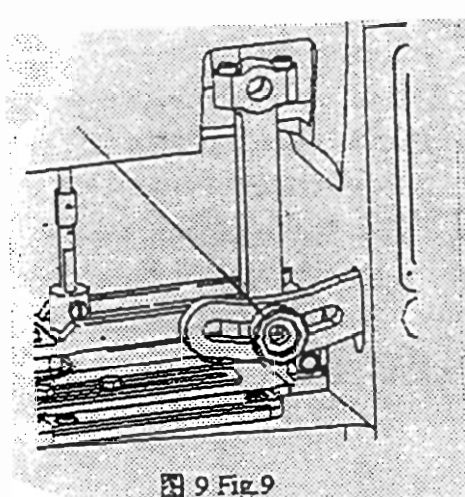
If the needle can not fall in the center of holes in the button due to improperly installed button clamp, then the button clamp must be adjusted. Loosen two hexagon screws (1), and move the button clamp properly (as shown in Fig.11). Check if the needle falls in the center of hole in feed plate before adjusting the button clamp.

The position of needle above the button is closely related to sewing performance. Make absolutely certain when adjusting. To adjust the button clamp for the size of button to be sewn on, choose good quality button and insert it in the clamp, pushing it as far as it will go. When the button is correctly placed into position in the clamp, depressing the threadle to release the button clamps. Put material under the button clamp if it slides after falling down freely. Turn the main shaft slowly to bring the needle to the centre of each hole in the button.

When buttons of different sizes are to be sewn on one suit at the same time, the distances from center to center of two kinds of buttons should be close. Adjusting the button clamp in accordance with the small button, and the needle may not fall in the center of holes in big buttons, as shown in Fig.12. Notice: Don't let needle contact with the hole periphery of the button.

#### 4. 对准钮扣孔

机针必须对准钮扣孔。调正时有二个步骤，横向孔距由摆针调节曲柄控制，将连杆向外可增加摆针距，向里则减少摆针距，见图9。纵向孔距由跨针曲柄调



节，连杆向下移，跨针距大，向上移，跨针距小，移至最高点跨针距为 0，用于钉二眼钮扣，见图 10。

如果钮夹位置不正确，机针不能对准钮扣孔时，则要调整钮夹。如图(11)旋松钮夹体上的二个六角螺钉(1)，然后移动钮夹。在调整钮夹前检查一下机针是否对准在方孔板的方孔中间位置。

机针对钮扣孔准不准，对缝纫性能关系极大。调节时要仔细核对，选取孔形误差小的钮扣塞进钮夹，位置拨正踩动踏板，让压脚自由落下，不要把压脚碰歪，自由落下时发现压脚有滑动还要垫布，然后缓慢地旋转主轴，使机针刺入钮扣各孔中心，不能有某一孔偏，以免跳针和断针。

一件衣服需同时钉大钮扣和小钮扣二种规格时，要求二种钮扣的孔距较接近，调整时般按照钮孔小的对中，钮孔大的则稍偏，见图 12。注意不要让机针擦着孔边。

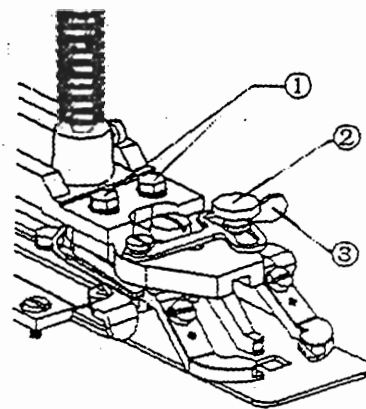


图 11 Fig.11

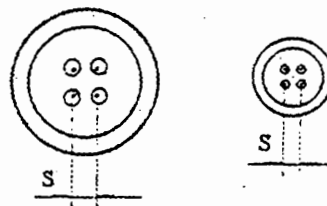


图 12 Fig.12

#### 5. Adjusting button clamp (as shown in Fig.11).

The button clamp is suitable for attaching two or four or bar buttons of 9-26mm in outside diameter.

To adjust the clamp jaws, loosen screw (2), pull back the button clamp adjusting plate (3), and adjust the clamp jaws to the desired width, then securely tighten the screw. The width between clamp jaws with button should be slightly smaller than width between clamp jaws without button. It is easy for the button to be inserted or taken out. If the opening of the clamp jaws is not wide enough, it is difficult to insert button in and at the same time will cause unnecessary wearing of the clamp.

#### 5. 钮夹的调整(见图 11)

本机钮夹适宜订 9~26mm 直径的四眼或二眼钮扣，大小钮扣都能对准中心。

夹脚钳口大小的调节，旋松螺钉(2)，用钮夹调节板(3)，把夹脚钳口调节到所需宽度，然后旋紧螺钉(2)。夹脚钳口宽度以钳口中无钮扣比有钮扣略小些为适宜，此时即能正常夹住钮扣，操作起来又省力。如果钳口闭合太多，不利塞钮，又容易磨损。

#### 6. Threading and thread tension discs (as shown in Fig.13).

Thread the machine in accordance with the diagram as shown in Fig.13. Threading improperly will affect the sewing quality directly.

There are three thread tension discs installed at the top of the machine and each of

them has different functions. The thread tension disc No.4 must be opened to let the thread pass smoothly in sewing. Especially in sewing the first stitch, stitches skipping is easy to happen because the thread can not pass due to the friction drag. The thread tension disc should be closed as soon as possible to prevent the end of the thread from being pulled out of the needle when the button clamp begins to lift at the end of cycle.

The thread tension disc No.2 has the function just contrary. It holds the thread in sewing. And it will not hold the thread and control the amount of thread that is pulled through the disc at the end of a sewing cycle to provide sufficient thread for the first stitch of the following cycle.

The thread tension disc (1) helps the thread tension disc (2) to ensure the capability of making the seam tight. Although thread tension disc (2) can make thread tight, it is easy to break thread. The thread tension disc (2) should be as loose as possible. The thread tension disc (1) will close in sewing to prevent reel thread from being pulled out. As soon as the thread loop draw-up and the continuous lift of the needle bar pushes the disc (1) open to release the thread from its spool to compensate the thread which has been consumed in the sewing material after the formation of the loop and needle bar lifting to the highest position.

There is a small thread tension disc (6) below the faceplate with only a slight tension. It reduces the chances of splitting of thread around needlepoint, and keeps the stability of the formation of thread loop and thread triangle.

To adjust the height of upper thread (5): When the needle bar is at its lowest position, the thread should be straight, but not too tight. The loop should be stable and prevent stitch skipping from being twisted when the needle bar moves upward. If thread twist is so strong that the loop runs away frequently. Adjust carefully to reach the above requirement, as shown in Fig. 14.

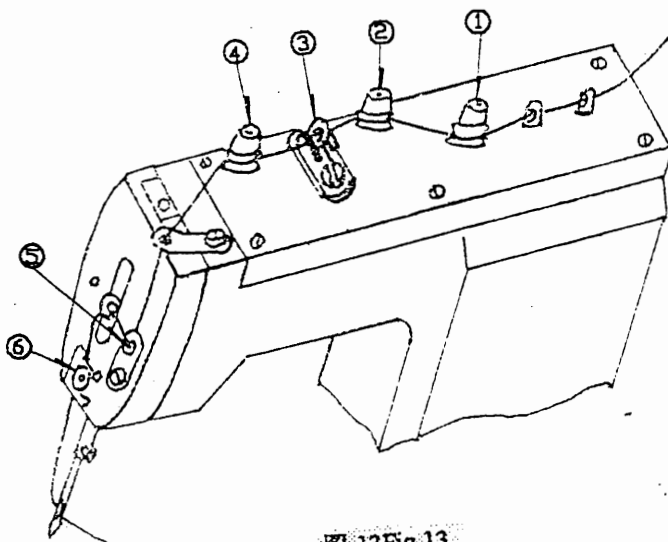


Fig. 13

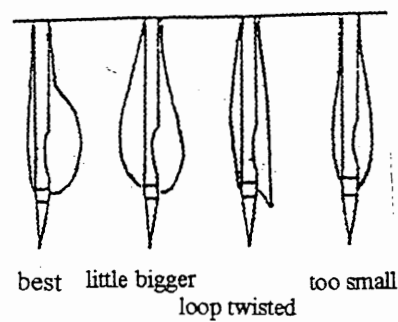


Fig. 14

## 6. 穿线方法和压线器压力的调节(见图 13)

当穿线错误时, 会直接影响缝纫质量。请按图 13 正确穿线。

机器顶部三个压线器, 作用各不相同。压线器(4)在缝纫时必须顶开, 使缝线的流动阻力极小, 特别是缝第一针时, 阻力稍大就通不过, 形成空针。停车后, 当压脚开始提升, 压线器应即关闭, 以防止机针内的线往回拖。

压线器(2)的作用相反, 在缝纫时起压线作用, 而停车后提升压脚之初, 必须顶开, 让输线杆(3)从线团抽线, 以备下一次缝纫之用。

压线器(1)是帮助压线器(2)增加收紧线迹的能力。单靠压线器(2)压紧, 虽然也能收紧线, 但容易断线, 因此压线器(2)尽可能放松些。压线器(1)在缝纫时压紧, 防止线团线流动, 到线环收上, 针杆上升接近最高点时顶开, 放出线团的线补充消耗在缝料中的线。

面板下部的一个小压线器(6), 压力很小, 用于减少针尖破线, 以及线环、线三角的稳定。

面板穿线(5)的高度调节: 要求针杆到最低点时, 缝线全部拉直, 但又不很紧, 使针杆回升时线环稳定, 防止扭曲而引起跳针。如发现线的捻度大, 线环经常逃跑, 则必须细心调到上述要求, 形成最佳线环, 如图 14 所示。

## 7. Function of thread trimming.

The button clamp-lifting rod will drive the crank of thread trimming shaft, and the motion of thread trimmer will cut inside thread. Adjust the position of hanger crank(P25-1.5B4), make thread trimmer cut thread first, then lift button clamp. Or if the button clamp is lifting while the trimming knife fails to reach the trimming position, the thread will break and the stitches easily tend to loose.

## 7. 自动割线

由抬压脚扛杆推动割线轴曲柄, 使割线刀运动, 割断勾针内侧的一根线。调整吊钩曲柄(P25-1.5B4)位置, 使割线刀的运动先割断线, 后提升压脚, 否则压脚上升时, 割刀未到达割线位置, 而线已绷断, 钮扣容易掉落。

## 8. Shift cam unit. (model 1375A3)

Open the hinged cover, you can see the shift cam unit (as shown in Fig15), which is designed for model 1375A3, and is used to shift crossover stitches and parallel stitches. The position which the illustration shows is suitable to crossover stitches. If you need parallel stitches, you can loose screw (1), pull out the handle (2), make the wheel (3) well touch with profile of the shift cam, and then tight the

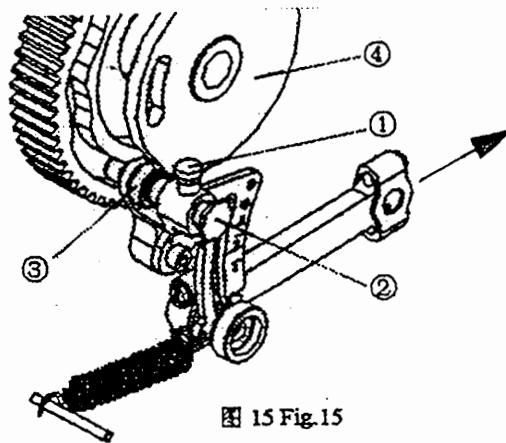


图 15 Fig.15

screw (1). In order to pull or push the handle (2) easily, you should pull or push it by the left hand and nip the button clamp jaw holder by the right hand to pull toward (directed by the arrow as shown in fig15.).

#### 8. 凸轮切换装置(1375A3 型)

打开大罩壳, 可见如图 15 所示一套凸轮切换装置, 它专为 1375A3 型设计, 用于十字线缝合和平行线缝合的切换, 图示位置为十字线缝合。若需平行线缝合, 可旋松螺钉(1), 拉出手柄(2), 使滚轮(3)与切换凸轮(4)表面贴合, 然后旋紧螺钉(1)即可。为使手柄(2)拉出或推入方便, 应左手拉或推手柄(2), 右手捏着钮夹体向前拉, 见图 15 中箭头方向。

### VI. Lubrication and maintenance.

In order to keep excellent performance and ensure a long life of the machine, the machine should be carefully maintained. All holes and moving parts should be oiled daily with singer oil type C. Most of the bushing adopt ferroalloy which features of a thin film of oil and good lubrication. Some key parts are fitted with oil felt and should keep good lubrication. Regularly remove cover to check and see if the oil comes up to the surface of the felt and if not, fill up with oil. Clutch wheel and brake should not be oiled in order to affect driving and braking.

## 六、润滑和保养:

应注意保养, 才能保持优良的性能, 并延长使用寿命。各轴孔、摩擦部位, 每天要加润滑油, 用胜家 C 型油, 以免机件凝结。轴套大部分采用铁基粉墨材料, 具有含油性, 润滑性能好, 某些重要部位还有储油毡, 应保持润湿。各盖板要定期打开检查, 是否有缺油现象。断油是加速零件磨耗的主要原因之一。离合制动轮及皮块不应加油, 以免影响传动及制动。

### VII. Trouble shooting.

#### 1. The needle breaks.

a. The button clamp is improperly installed. The needle doesn't fall in the center of each hole in the button, and strike with button while turning.

b. The feed plate is improperly installed. Needle strikes with the whole periphery of the feed plate.

c. Needle guard hit needle.

d. Looper strikes with needle when come to meet.

e. The position of the worm has been moved. The lengthwise feed of the button clamp and crosswise movement of the needle before the needle entering into the buttonhole must be stopped.

f. Poor quality of the button, the buttonholes are oblique or improper positioning of the button itself.

#### 2. Thread breaks.

a. The needlepoint has been spoiled and the eye and grooves of the needle not smooth

enough.

- b. The thread tension disc (2) is too tight or the thread tension disc (1) opens too late (cause breakage of striding thread).
- c. The thread at thread-feed-lever crooks.
- d. Hook has scars or burrs.
- e. The needle guard or the hole of the throat plate has been scratched.
- f. Thread breaks occasionally due to low threading on the faceplate.

### 3. Stitch skips.

- a. The distance of thread hooking is too long or too short, or the needle bar is not at the proper height.
- b. The clearance between the needle and looper or between the needle and the needle guard is too big.
- c. The button clamp is improperly installed, the needle doesn't fall in the center of holes in the button.
- d. The button clamp doesn't hold the material down on the feed plate firmly, the material moves up or down with the needle.
- e. The needle is bent, or doesn't fall in the center of holes in the button, or has not been inserted completely.
- f. The needle impacts with the hole of the feed plate.
- g. Excessive worn parts or damaged hook.

### 4. Stitch is too loose.

- a. The tension of the thread tension disc (2) is too weak.
- b. Releasing of the thread tension disc (1) is too early.

### 5. Stitch is vacant at the beginning of sewing.

- a. The thread end is too short, the amount of the thread feed by the thread-feed-lever should be increased, but the thread-feed at the starting should avoid the forming or bent thread.
- b. Thread trimmer cuts a thread at the outside.
- c. The opening of the thread tension disc (4) is not wide enough.

### 6. The thread won't be trimmed properly.

- a. The trimmer is too dull.
- b. The timing of thread trimming is incorrect.

## 七、简单故障分析:

### 1. 断针

- A. 压脚位置不正, 机针对钮孔偏, 转动时机针打在钮扣上。
- B. 方孔板错位, 机针擦着方孔。
- C. 护针板碰针。
- D. 勾针与机针接触时有碰撞。

- E. 蜗杆定位走动。当机针将刺入钮孔前，必须停止横向及纵向运动。
- F. 钮扣质量差，孔偏或未放准。

## 2. 断线

- A. 针尖碰损，机针及针槽不光滑。
- B. 压线器(2)太紧或压线器(1)开放太迟(跨线断)。
- C. 输线杆处的线弯曲。
- D. 勾针有锈斑或毛刺。
- E. 护针板或针板孔毛刺划伤。
- F. 面板穿线过低引起少量激烈断线。

## 3. 跳针

- A. 勾针距离过大或过小，或针的高度不正确。
- B. 机针对勾针或对护针板间隙大。
- C. 压脚位置不正确，机针对钮孔偏。
- D. 压脚三爪压布不匀，布随针上下浮动。
- E. 机针弯曲，偏转或针柄未插到针孔底。
- F. 针碰方孔板。
- G. 零件严重磨损或勾针损坏。

## 4. 线迹太松

- A. 压线器(2)压力小。
- B. 压线器(1)开放时间太早。

## 5. 开始几针走空针

- A. 线头短，应把输线杆的输线量增大。但输线起步位置不能使线弯曲。
- B. 割线刀割断了外侧一根线。
- C. 压线器(4)顶开太少。

## 6. 割线不断

- A. 刀锋变钝。
- B. 割线时间不对。





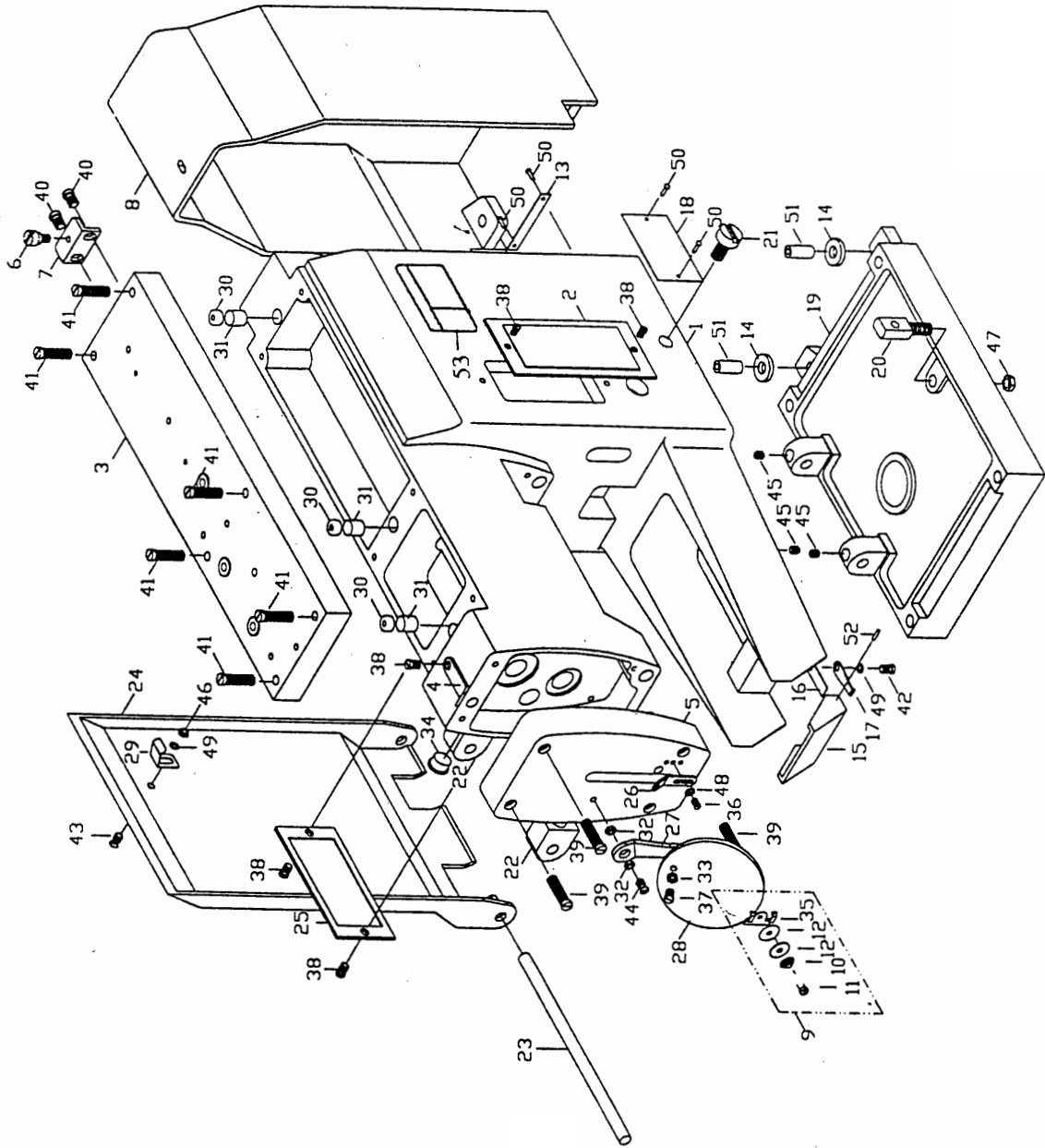
# 零件图册

## Illustrated parts list

## 1. 1.1-0 机壳部件

## 1.1-0 Arm bed components

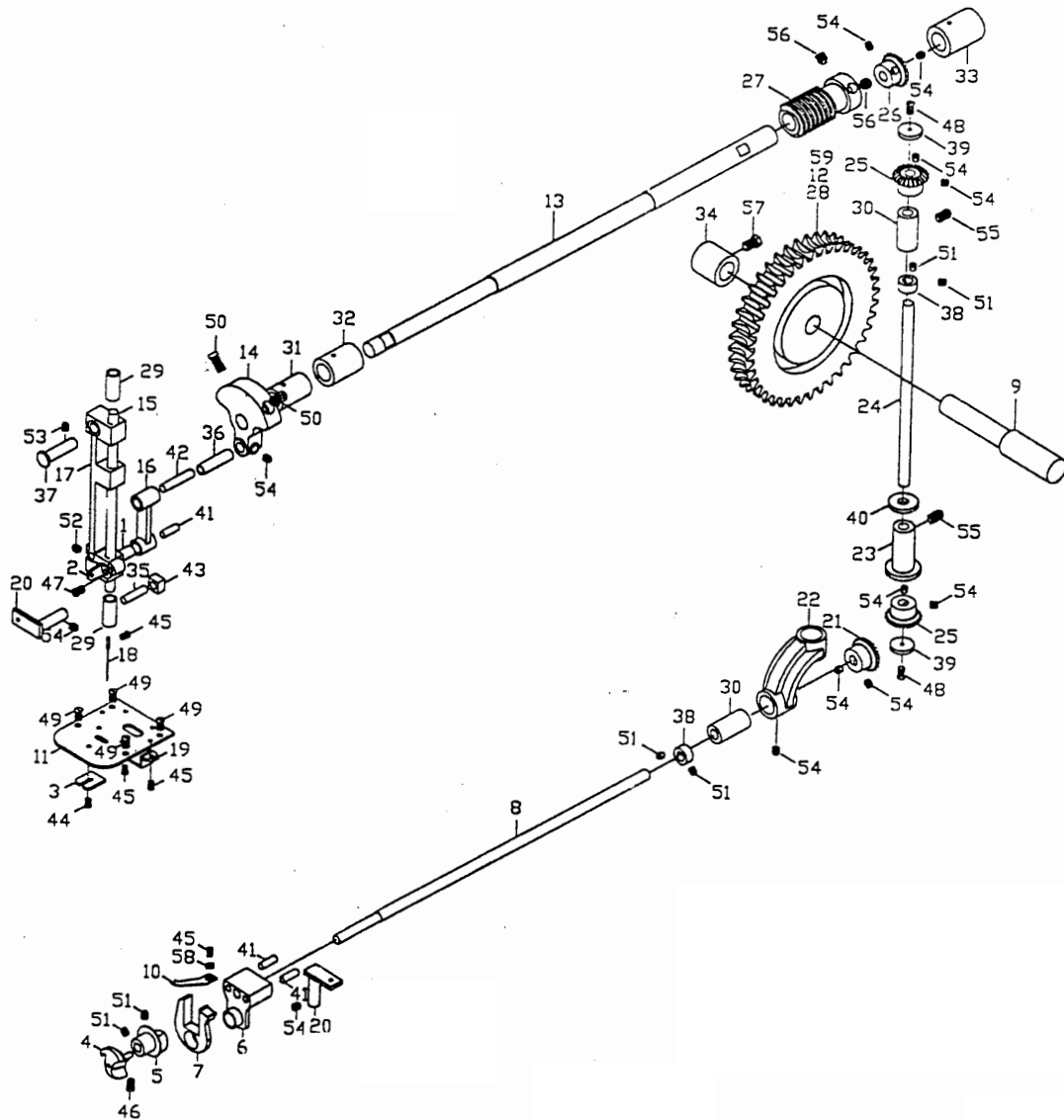
Ref. No.	Part No.	名称	Description	Amt.
1	1.1A1	机壳	Machine frame	1
2	1.1A2	横盖板	Left side cover	1
3	1.1A3	顶盖	Top cover	1
4	1.1A4	过线板	Thread retaining plate	1
5	1.1A5	面板	Face plate	1
6	1.1A6	后罩吊紧螺钉	Set screw	1
7	1.1A7	后罩壳支承	Support for rear cover	1
8	1.1A8	后罩壳	Rear cover	1
9	1.1A9	压线器部件图	Tension regulator asm.	1
10	1.1A10	圆锥弹簧	Tension spring	1
11	1.1A11	轴位螺钉	Shoulder screw	1
12	1.1A12	夹线板	Tension disc	2
13	1.1A13	机号牌	Machine cards	1
14	1.1A14	垫圈	Washer	2
15	1.1A15	钩针罩壳组件	Looper cover asm.	1
16	1.1A18	钩针罩壳压板簧	Looper cover clamp spring	1
17	1.1A19	钩针罩壳铰链板	Looper cover hinge	1
18	1.1A20	型号牌	Model brand	1
19	1.1A23	油盘	Oil tray	1
20	1.1A24	定位座	Position bracket	1
21	1.1A25	滚花螺钉	Knurled screw	1
22	1.1A26	机壳铰链座	Machine frame hinge bracket	2
23	1.1A27	大罩壳销	Hinged cover pin	1
24	1.1A28	大罩壳	hinged cover	1
25	1.1A29	直盖板	Right side cover	1
26	1.1B1	面板穿线	Face plate thread guide plate	1
27	1.1B2	玻璃托板	Glass plate bracket	1
28	1.1B3	护目玻璃	Safety glass plate	1
29	1.1B4	大罩壳簧	Hinged cover spring	1
30	1.1B5	油孔罩子	Oil hole cover	3
31	1.1B6	主轴储油毡	Oil felt	3
32	1.1B7	过线簧盖	Bobbin winder tension disc cover	2
33	1.1B8	纸柏垫圈 4	Washer 4	1
34	1.1B9	小橡皮塞	Small rubber plug	1
35	1.1B10	面板线勾	Face plate thread guide	1
36	1.1C1	开槽圆柱头螺钉	Screw M3×5	1
37	1.1C2	开槽圆柱头螺钉	Screw M4×6	1
38	1.1C3	开槽圆柱头螺钉	Screw M4×8	5
39	1.1C4	开槽圆柱头螺钉	Screw M4×25	4
40	1.1C5	开槽圆柱头螺钉	Screw M5×10	2
41	1.1C6	开槽圆柱头螺钉	Screw M5×25	6
42	1.1C7	开槽盘头螺钉	Screw M4×6	1
43	1.1C8	开槽沉头螺钉	Screw M4×6	1
44	1.1C9	开槽沉头螺钉	Screw M4×10	1
45	1.1C10	开槽平端紧定螺钉	Set screw M6×8	4
46	1.1C11	六角薄螺母	Hex nut M4	1
47	1.1C12	六角螺母	Hex nut M6	1
48	1.1C13	小垫圈	Small washer φ3	1
49	1.1C14	小垫圈	Small washer φ4	2
50	1.1C15	铆钉	Rivet φ2×8	4
51	1.1C16	销	Pin φ8×18	2
52	1.1C17	销	Pin Bφ1.5×8	1
53	1.1A30	警示标记	Caution Mark	1



## 2. 1.2-0 直针、钩针分线部件

## 1.2-0 Needle, hook thread wiping components

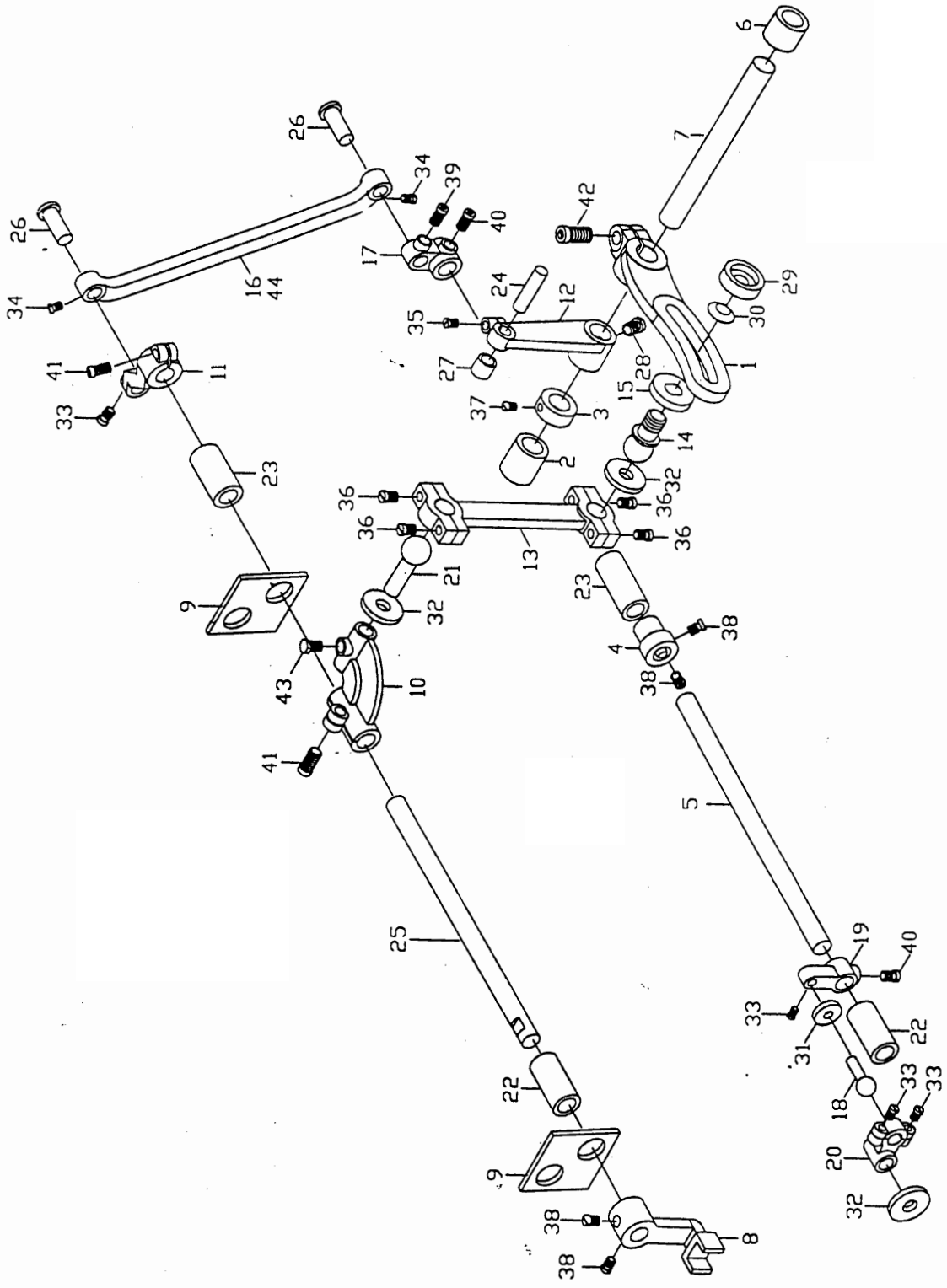
Ref. No	Part. No	名称	Description	Amt.
1	1.2A1	针杆连接轴	Needle bar connecting stud	1
2	1.2A2	针杆连接轴忽线	Thread take-up lever asm.	1
3	1.2A3	护针板	Needle guard	1
4	1.2A4	钩针	Looper	1
5	1.2A5	等距凸轮	Equidistant cam	1
6	1.2A6	摆动架	Swing bracket	1
7	1.2A7	分线叉座架	Thread wiping fork holder	1
8	1.2A8	钩针轴	Looper shaft	1
9	1.2A9	蜗轮轴	Worm gear shaft	1
10	1.2A10	分线叉	Thread wiping fork	1
11	1.2A11	针板	Needle plate	1
12	1.2A12	蜗轮 (1375A1)	Worm gear (1375A1)	1
13	1.2B1	主轴	Main shaft	1
14	1.2B2	针杆曲柄	Needle bar crank	1
15	1.2B3	针杆	Needle bar	1
16	1.2B4	针杆连杆	Needle bar connecting link	1
17	1.2B5	针杆座	Needle bar bracket	1
18	1.2B6	机针	Needle	1
19	1.2B7	钩针轴压板	Looper shaft clamp	1
20	1.2B8	压板	Clamp	2
21	1.2B9	钩针轴伞齿轮	Looper shaft bevel gear	1
22	1.2B10	伞齿轮座	Bevel gear holder	1
23	1.2B11	立轴下轴套	Vertical shaft bushing (lower)	1
24	1.2B12	立轴	Vertical shaft	1
25	1.2B13	立轴伞齿轮	Vertical shaft bevel gear	2
26	1.2B14	主轴伞齿轮	Main shaft bevel gear	1
27	1.2B15	蜗杆	Worm	1
28	1.2B16	蜗轮 (1375A2)	Worm gear (1375A2)	1
29	1.2B17	针杆轴套	Needle bar bushing	2
30	1.2B18	锥齿轮轴套	Vertical shaft bushing	2
31	1.2B19	主轴前轴套	Main shaft bushing (front)	1
32	1.2B20	主轴中轴套	Main shaft bushing (middle)	1
33	1.2B21	主轴后轴套	Main shaft bushing (rear)	1
34	1.2B22	蜗轮轴轴套	Worm gear shaft bushing	1
35	1.2B23	摆针滑块轴	Needle bar oscillating slide block stud	1
36	1.2B24	针杆曲柄销	Needle bar crank pin	1
37	1.2B25	针杆座销	Needle bar bracket pivot pin	1
38	1.2B26	紧圈	Thrust collar	2
39	1.2B27	立轴伞齿轮储油毡	Oil felt	2
40	1.2B28	储油毡	Oil felt	1
41	1.2B29	针杆连接轴储油毡	Oil felt	3
42	1.2B30	针杆曲柄销储油毡	Oil felt	1
43	1.2B31	摆轴滑块	Oscillating rock shaft slide block	1
44	1.2C1	开槽圆柱头螺钉	Screw M3×3	1
45	1.2C2	开槽圆柱头螺钉	Screw M3×4	4
46	1.2C3	开槽圆柱头螺钉	Screw M4×6	1
47	1.2C4	开槽圆柱头螺钉	Screw M4×10	1
48	1.2C6	开槽沉头螺钉	Screw M3×5	2
49	1.2C5	开槽沉头螺钉	Screw M4×6	4
50	1.2C7	内六角圆柱头螺钉	Screw M6×16	2
51	1.2C8	开槽凹端紧定螺钉	Set screw M4×4	6
52	1.2C9	开槽凹端紧定螺钉	Set screw M4×6	1
53	1.2C10	开槽凹端紧定螺钉	Set screw M5×5	1
54	1.2C11	开槽凹端紧定螺钉	Set screw M6×6	12
55	1.2C12	开槽凹端紧定螺钉	Set screw M6×15	2
56	1.2C14	内六角平端紧定螺钉	Set screw M8×8	2
57	1.2C15	六角头螺栓	Blot M5×15	1
58	1.2C16	轻型弹簧垫圈 3	Spring lock washer 3	1
59	1.2A13	蜗轮 (1375A3)	Worm gear (1375A3)	1



## 3. 1.3-0 摆针部件

## 1.3-0 Needle bar oscillating components

Ref.No.	Part No	名称	Description	Amt.
1	1.3A1	摆针调节曲柄	Needle bar oscillating regulating crank	1
2	1.3A2	摆针主轴右轴套	Needle bar oscillating shaft bushing (right)	1
3	1.3A3	摆针主轴定位圈	Thrust collar	1
4	1.3A4	挡圈	Thrust collar	1
5	1.3A5	摆针下轴	Needle bar oscillating shaft (lower)	1
6	1.3A6	摆针主轴左轴套	Needle bar oscillating shaft bushing (left)	1
7	1.3A7	摆针主轴	Needle bar oscillating shaft	1
8	1.3B1	摆针前曲柄	Needle bar oscillating crank (front)	1
9	1.3B2	抬压脚轴储油毡	Oil felt	2
10	1.3B3	摆针中曲柄	Needle bar oscillating crank (middle)	1
11	1.3B4	摆针后曲柄	Needle bar oscillating crank (rear)	1
12	1.3B5	摆针主曲柄	Needle bar oscillating (main)	1
13	1.3B6	摆针大连杆	Needle bar oscillating connecting rod	1
14	1.3B7	摆针球头螺钉	Needle bar oscillating ball head screw	1
15	1.3B8	指示垫圈	Indicating washer	1
16	1.3B9	弯连杆(1375A1/2)	Curved connecting link(1375A1/2)	1
17	1.3B10	摆针下曲柄	Needle bar oscillating crank (lower)	1
18	1.3B11	球头肖	Ball head pin	1
19	1.3B12	钩针拨杆	Looper shifter	1
20	1.3B13	钩针连杆	Looper connecting rod	1
21	1.3B14	球头肖	Ball head pin	1
22	1.3B15	摆针上下轴轴套	Needle bar oscillating busing	2
23	1.3B16	摆针上下轴轴套	Needle bar oscillating busing	2
24	1.3B17	滚柱轴	Roller shaft	1
25	1.3B18	摆针上轴	Needle bar oscillating shaft (upper)	1
26	1.3B19	弯连杆销	Curved connecting link pin	2
27	1.3B20	滚柱	Roller	1
28	1.3B21	外六角锥端定位螺钉	Hex head cone point set screw	1
29	1.3B22	摆针调节滚花螺母	Needle bar oscillating regulating knurled nut	1
30	1.3B23	碟形垫圈	Belleville spring	1
31	1.3B24	储油毡	Oil felt	1
32	1.3B25	储油毡	Oil felt	3
33	1.3C1	开槽圆柱头螺钉	Screw M4×10	4
34	1.3C2	开槽圆柱头螺钉	Screw M4×12	2
35	1.3C3	开槽圆柱头螺钉	Screw M5×10	1
36	1.3C4	开槽圆柱头螺钉	Screw M5×14	4
37	1.3C11	开槽平端紧定螺钉	Set screw M4×5	1
38	1.3C5	开槽平端紧定螺钉	Set screw M6×5	4
39	1.3C6	内六角圆柱头螺钉	Screw M5×8	1
40	1.3C7	内六角圆柱头螺钉	Screw M6×8	2
41	1.3C8	内六角圆柱头螺钉	Screw M6×12	2
42	1.3C9	内六角圆柱头螺钉	Screw M6×16	1
43	1.3C10	外六角螺栓	Bolt M6×8	1
44	1.3A8	弯连杆(1375A3)	Curved connecting link (1375A3)	1

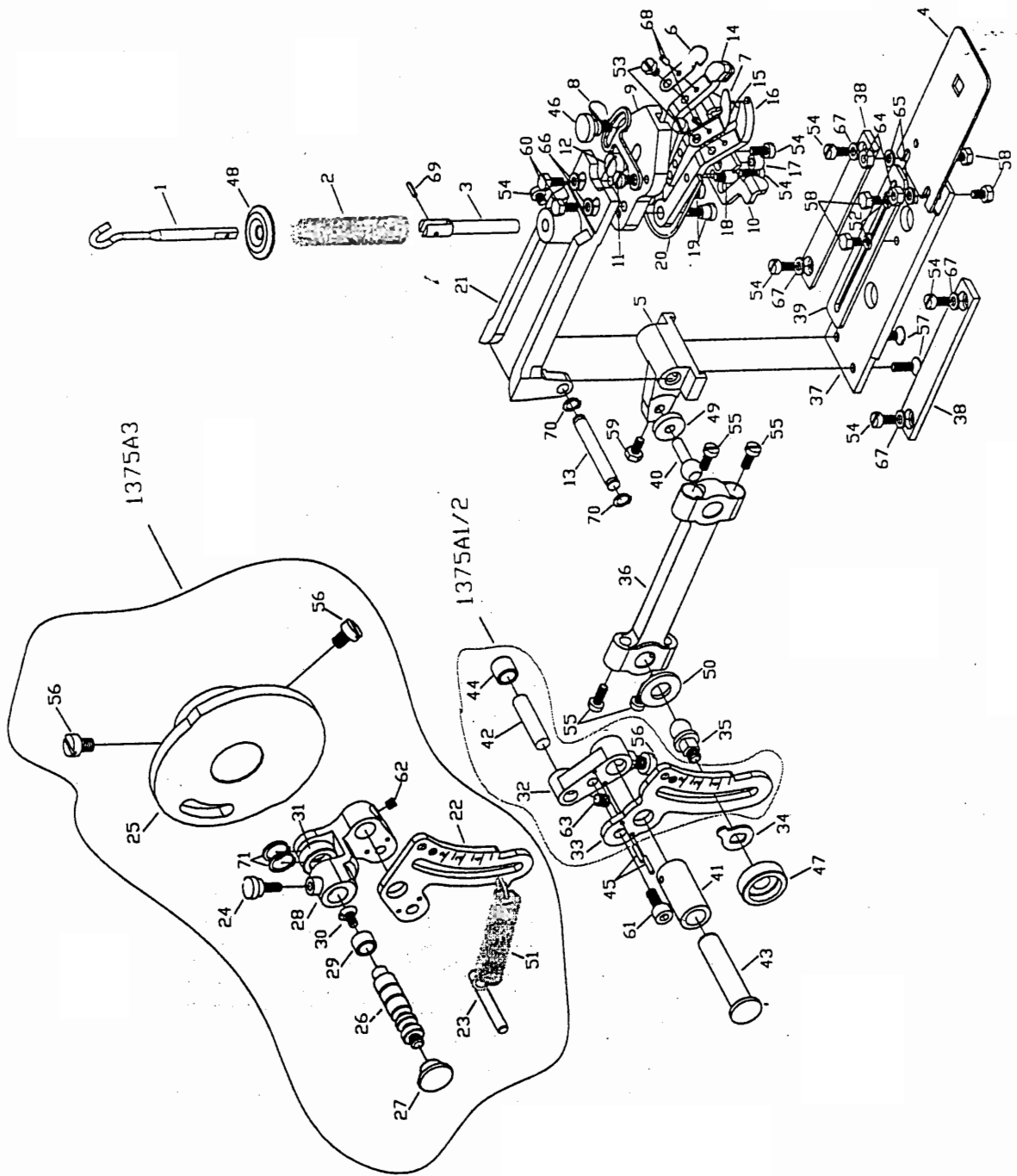


## 4. 1.4-0 钮夹部件

## 1.4-0 Button clamp components

Ref.No.	Part No.	名称	Description	Amt
1	1.4A1	钮夹吊钩	Button clamp lifting hook	1
2	1.4A2	压簧	Pressure spring	1
3	1.4A3	钮夹吊杆	Button clamp lifting lever	1
4	1.4A4	小方孔板	Small square hole plate	1
5	1.4A6	钮夹座	Button clamp holder	1
6	1.4A7	右钮夹片	Button clamp plate (right)	1
7	1.4A8	左钮夹片	Button clamp plate (left)	1
8	1.4A9	钮夹调节板	Button clamp adjusting plate	1
9	1.4A10	夹脚定位板	Position plate	1
10	1.4A11	夹脚导向板	Guide plate	1
11	1.4A12	调节板固定螺钉	Set screw	1
12	1.4A13	中夹脚固定螺钉	Set screw	1
13	1.4A14	钮夹座销	Button clamp holder pin	1
14	1.4A15	右钮夹	Button clamp (right)	1
15	1.4A16	中夹脚	Button clamp (middle)	1
16	1.4A17	左钮夹	Button clamp (left)	1
17	1.4A18	中夹脚固定螺母	Set nut	1
18	1.4A19	导向螺钉	Guide screw	2
19	1.4A20	夹脚定位螺钉	Set screw	2
20	1.4A21	钮夹簧	Button clamp jaw spring	1
21	1.4A22	钮夹体	Button clamp jaw holder	1
22	1.4A23	跨针调节曲柄(1375A3)	Button clamp feeding regulating crank(1375A3)	1
23	1.4A24	拉簧销(1375A3)	Extension spring pin (1375A3)	1
24	1.4A25	定位螺钉(1375A3)	Set screw (1375A3)	1
25	1.4A26	切换凸轮(1375A3)	Shift cam (1375A3)	1
26	1.4A27	拉杆(1375A3)	Pull bar (1375A3)	1
27	1.4A28	拉杆柄(1375A3)	Pull handle (1375A3)	1
28	1.4A29	拉杆座(1375A3)	Pull pedestal (1375A3)	1
29	1.4A30	滚柱(1375A3)	Roller(1375A3)	1
30	1.4A31	左旋沉头螺钉(1375A3)	Screw (1375A3)	1
31	1.4A32	滚轮(1375A3)	Wheel (1375A3)	1
32	1.4B1	跨针曲柄(1375A1/2)	Button clamp feeding crank(1375A1/2)	1
33	1.4B2	跨针调节曲柄(1375A1/2)	Button clamp feeding regulating crank(1375A1/2)	1
34	1.4B3	跨距指针	Button clamp feeding arrow	1
35	1.4B4	球头方块螺钉	Ball head square neck screw	1
36	1.4B5	钮夹连杆	Button clamp connecting link	1
37	1.4B6	钮夹底板	Button clamp base plate	1
38	1.4B7	钮夹座夹板	Button clamp guide plate	2
39	1.4B8	挡衣板	Dress guard plate	1
40	1.4B9	球头销	Ball head pin	1
41	1.4B10	跨针曲柄轴轴套	Button clamp feeding crank shaft bushing	1
42	1.4B11	滚柱轴(1375A1/2)	Roller shaft (1375A1/2)	1
43	1.4B12	跨针曲柄销	Needle bar crank pin	1
44	1.4B13	滚柱(1375A1/2)	Roller (1375A1/2)	1
45	1.4B14	跨针曲柄圆柱销	Button clamp feeding crank pin	2
46	1.4B15	滚花高头螺钉	Knurled thumb screw	1
47	1.4B16	跨针调节滚花螺母	Button clamp feed regulating knurled nut	1
48	1.4B17	夹线板	Tension disc	1
49	1.4B18	储油毡	Oil felt	1
50	1.4B19	储油毡	Oil felt	1
51	1.4B20	拉簧(1375A3)	Extension spring (1375A3)	1
52	1.4B21	纸拍垫圈 4	Washer 4	2
53	1.4C1	开槽圆柱头螺钉	Screw M4×5	2
54	1.4C2	开槽圆柱头螺钉	Screw M4×8	7
55	1.4C3	开槽圆柱头螺钉	Screw M4×10	4
56	1.4C4	开槽圆柱头螺钉	Screw M6×8	3
57	1.4C5	开槽沉头螺钉	Screw M4×10	2
58	1.4C6	六角头螺栓	Hex cap bolt M4×6	4
59	1.4C7	六角头螺栓	Hex cap bolt M4×8	1
60	1.4C8	六角头螺栓	Hex cap bolt M5×12	2
61	1.4C9	内六角圆柱头螺钉	Screw M5×12	1
62	1.4C10	开槽平端紧定螺钉	Set screw M5×5	1
63	1.4C11	开槽平端紧定螺钉	Set screw M6×6	1
64	1.4C12	六角螺母 M4	Hex nut M4	2
65	1.4C13	垫圈 4	Washer 4	2
66	1.4C19	垫圈 5	Washer 5	2
67	1.4C14	小垫圈 4	Small washer 4	4
68	1.4C15	弹性圆柱销 2.5×5	Pin 2.5×5	2
69	1.4C16	弹性圆柱销 2×8	Pin 2×8	1
70	1.4C17	轴用弹性挡圈 6	Axial elastic collar	2
71	1.4C18	轴用弹性挡圈 10	Axial elastic collar	2

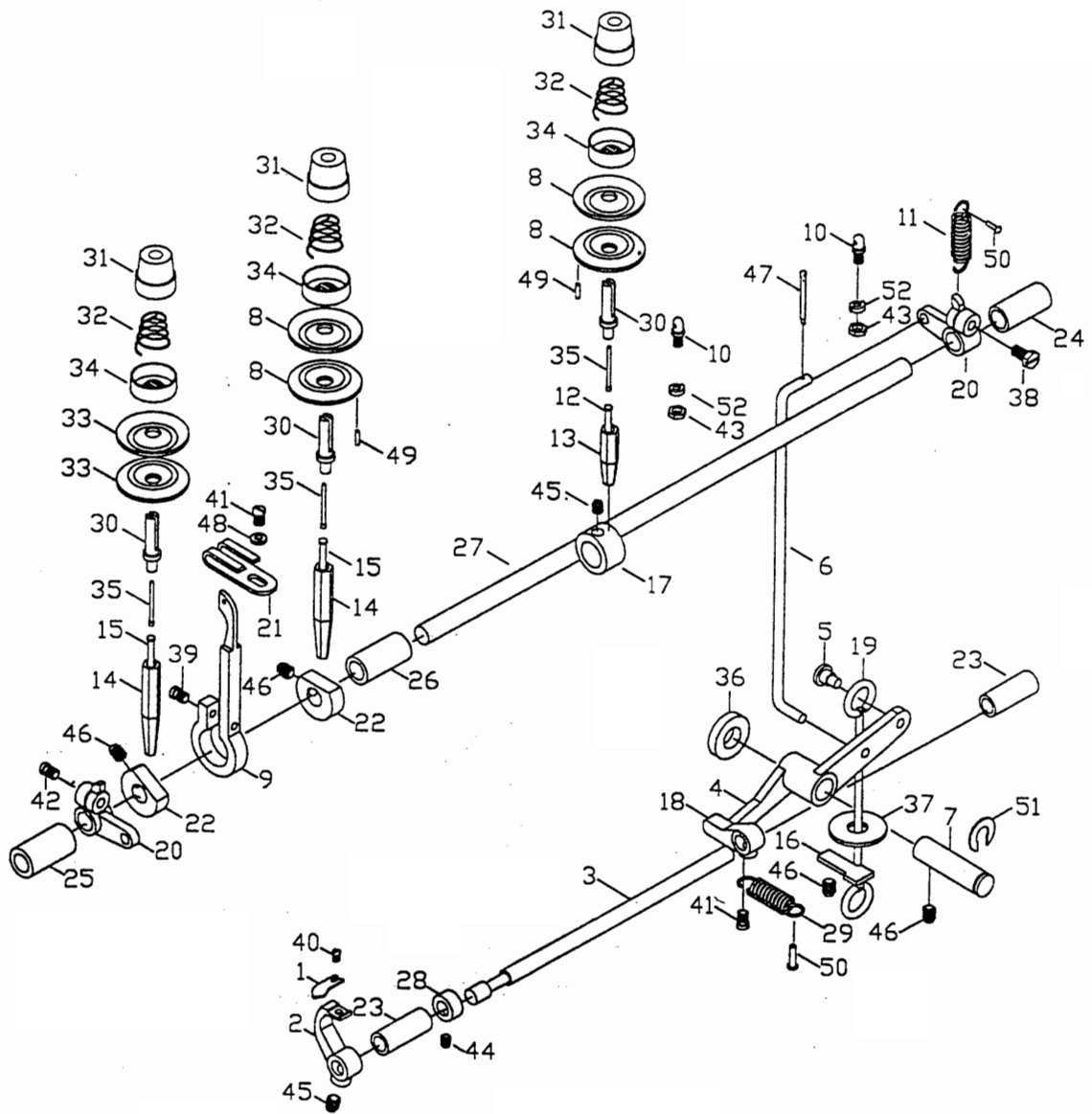




## 5. 1.5—0 线路割线部件

## 1.5—0 Trimming mechanism components

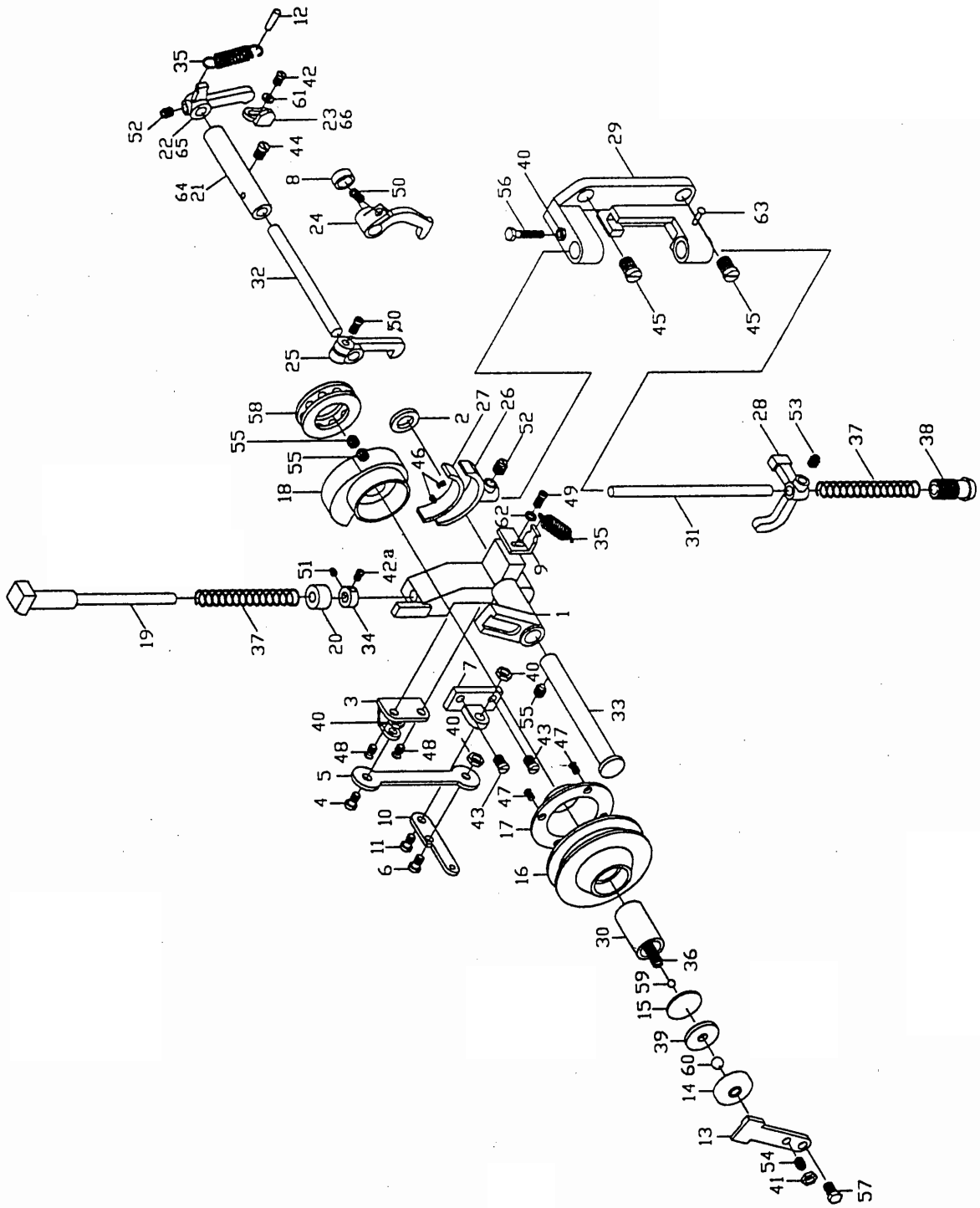
Ref.No	Part No.	名称	Description	Amt.
1	1.5A1	割线刀	Trimmer	1
2	1.5A2	刀架	Trimmer arm	1
3	1.5A3	割线轴	Trimmer shaft	1
4	1.5A4	抬压脚杠杆	Button clamp lifting lever	1
5	1.5A5	抬压脚杠杆连接钉	Link screw	1
6	1.5A6	抬压脚杠杆	Button clamp lifting link	1
7	1.5A7	带槽销轴	Slotted pin	1
8	1.5A8	夹线板	Tension disc	4
9	1.5A9	输线杆	Thread feed crank	1
10	1.5A10	过线柱	Thread pole	2
11	1.5A11	拉簧	Extension spring	1
12	1.5A12	松线钉圆销(短)	Tension releasing pin (shorter)	1
13	1.5A13	顶线螺母	Tension releasing nut	1
14	1.5A14	长顶线螺母	Tension releasing nut (longer)	2
15	1.5A15	松线钉圆销(长)	Tension releasing pin (longer)	2
16	1.5A16	链条勾挡块	Chain hook restricting block	1
17	1.5B1	松线凸轮	Tension releasing cam	1
18	1.5B2	割线轴杠杆	Trimmer crank	1
19	1.5B3	压脚链条钩	Button clamp chain hook	1
20	1.5B4	吊钩曲柄	Hanger crank	2
21	1.5B5	输线钩	Thread feed lever	1
22	1.5B6	顶线凸轮	Tension releasing cam	2
23	1.5B8	割线轴轴套	Trimmer shaft bushing	2
24	1.5B9	抬压脚轴轴套	Button clamp lifting shaft bushing	1
25	1.5B10	抬压脚轴轴套	Button clamp lifting shaft bushing	1
26	1.5B11	抬压脚轴轴套	Button clamp lifting shaft bushing	1
27	1.5B12	抬压脚轴	Button clamp lifting shaft	1
28	1.5B13	紧圈	Thrust collar	1
29	1.5B14	拉簧	Extension spring	1
30	1.5B15	夹线螺钉	Tension screw	3
31	1.5B16	夹线螺母	Tension thumb nut	3
32	1.5B17	夹线簧	Tension spring	3
33	1.5B18	夹线板	Tension disc	2
34	1.5B19	夹线器外壳	Tension disc cover	3
35	1.5B20	松线钉(长)	Tension releasing pin (longer)	3
36	1.5B21	抬压脚杠杆储油毡	Oil felt	1
37	1.5B22	橡胶垫圈	Rubber washer	1
38	1.5C1	六角头带槽螺栓	Bolt M5×12	1
39	1.5C2	圆柱头螺钉	Screw M4×12	1
40	1.5C3	开槽盘头螺钉	Screw M3×5	1
41	1.5C4	开槽盘头螺钉	Screw M5×8	2
42	1.5C5	开槽盘头螺钉	Screw M5×12	1
43	1.5C6	六角螺母	Hex nut M4	2
44	1.5C7	开槽平端紧定螺钉	Set screw M4×4	1
45	1.5C8	开槽平端紧定螺钉	Set screw M6×5	2
46	1.5C9	开槽平端紧定螺钉	Set screw m6×8	4
47	1.5C10	开口销	Cotter pin 2.5×12	1
48	1.5C11	平垫圈	Washer 5	1
49	1.5C12	圆柱销	Pin 2×12	2
50	1.5C13	铆钉	Rivet 3×12	2
51	1.5C14	开口挡圈	Retaining ring 9	1
52	1.5C15	弹簧垫圈	Spring lock washer 4	2



## 6. 1.6-0 停车部件

## 1.6-0 Stop-motion mechanism components

Ref.No.	Part No.	名称	Description	Amt.
1	1.6A1	启动架	Starting bracket	1
2	1.6A2	启动架垫圈	Starting lever washer	1
3	1.6A3	传动控脚	Transmission hook	1
4	1.6A4	球面螺钉	Raised cheese head screw	1
5	1.6A5	连杆	Connecting rod	1
6	1.6A6	螺钉	Screw	1
7	1.6A7	支架	Support	1
8	1.6A8	抬压脚轴定位圈	Retaining ring	1
9	1.6A9	弹簧钩	Spring hook	1
10	1.6A10	启动杠杆	Starting lever	1
11	1.6A11	螺钉	Screw	1
12	1.6A12	销	Pin	1
13	1.6B1	启动板	Starting latch	1
14	1.6B2	带轮钢珠盖	Pulley steel ball cover	1
15	1.6B3	带轮钢珠垫片	Pulley steel ball pad	1
16	1.6B4	带轮	Pulley	1
17	1.6B5	摩擦圈	Friction ring	1
18	1.6B6	离合制动轮	Clutching and braking	1
19	1.6B7	制动门	Braking latch	1
20	1.6B8	缓冲垫圈	Cushion ring	1
21	1.6B9	轴套 (1375A1/2)	Bush (1375A1/2)	1
22	1.6B10	停车顶杆(1375A1/2)	Stop motion trip lever (1375A1/2)	1
23	1.6B11	停车顶块(1375A1/2)	Stop motion trip block (1375A1/2)	1
24	1.6B12	启动安全爪	Starting safety pawl	1
25	1.6B13	启动吊钩	Starting hook	1
26	1.6B14	制动皮托架	Brake shoe bracket	1
27	1.6B15	制动块	Braking leather shoe	1
28	1.6B16	制动导架	Braking guide	1
29	1.6B17	制动架	Braking frame	1
30	1.6B18	带轮轴套	Pulley bushing	1
31	1.6B19	制动杆	Braking plunger rod	1
32	1.6B20	启动吊钩轴	Starting hook pin	1
33	1.6B21	启动架销	Starting lever pin	1
34	1.6B22	制动门紧圈	Thrust collar	1
35	1.6B23	拉簧	Extension spring	2
36	1.6B24	压簧	Pressure spring	1
37	1.6B25	压簧	Pressure spring	2
38	1.6B26	调压螺母	Pressure regulating thumb nut	1
39	1.6B27	带轮钢珠储油毡	Oil felt	1
40	1.6C1	六角螺母	Hex nut M5	4
41	1.6C2	六角螺母	hex nut M6	1
42	1.6C3	开槽圆柱头螺钉	Screw M4×10	1
42a	1.6C4	内六角圆柱头螺钉	Screw M4×8	1
43	1.6C5	开槽圆柱头螺钉	Screw M6×12	2
44	1.6C6	开槽圆柱头螺钉	Screw M6×16	1
45	1.6C7	开槽圆柱头螺钉	Screw M8×16	2
46	1.6C8	开槽沉头螺钉	Screw M3×5	2
47	1.6C9	开槽沉头螺钉	Screw M4×8	4
48	1.6C10	开槽沉头螺钉	Screw M5×10	2
49	1.6C11	内六角圆柱头螺钉	Screw 5×12	1
50	1.6C12	内六角圆柱头螺钉	Screw M5×14	2
51	1.6C13	开槽平端紧定螺钉	Set screw M4×4	1
52	1.6C14	开槽平端紧定螺钉	Set screw M6×6	2
53	1.6C15	开槽平端紧定螺钉	Set screw M6×8	1
54	1.6C16	开槽平端紧定螺钉	Set screw M6×10	1
55	1.6C17	内六角平端紧定螺钉	Set screw M8×8	5
56	1.6C18	六角头螺栓	Hex cap bolt M5×25	1
57	1.6C19	六角头螺栓	Hex cap bolt M6×12	1
58	1.6C20	单向推力球轴承	Bearing	1
59	1.6C21	钢球	Work clamp foot mounting base ball	1
60	1.6C22	钢球	Work clamp foot mounting base ball	1
61	1.6C23	平垫圈	Washer 4	1
62	1.6C24	小垫圈	Small washer 5	1
63	1.6C25	标牌用铆钉	Rivet 4×10	1
64	1.6A15	轴套 (1375A3)	Bush (1375A3)	1
65	1.6A13	停车顶杆(1375A3)	Stop motion trip lever (1375A3)	1
66	1.6A14	停车顶块(1375A3)	Stop motion trip block (1375A3)	1



## Accessories

## 附件清单

NO.	Part No.	Description	名称	Unit.	Specification
1	001	Head support pillow	机头支承棒	1	
2	002	Button tray base	钮扣盘	1	
3	003	Button tray plate	钮扣盘座	1	
4	1.4A	Large square hole plate	大方孔板	1	
5	T82	Box wrench	梅花扳手	1	7-10mm
6	004	Socket screw driver	内六角扳手	1	4mm
7	005	Screw driver	一字型螺钉旋具	1	70×4mm
8	006	Screw driver	一字型螺钉旋具	1	100×6mm
9	007	Button head bolt(zinc-coated)	镀锌半圆头螺栓	4	M6×90
10	008	Square nut	方螺母	4	M6 GB39
11	009	Safety glass plate assembly	护目玻璃组件	1	
12	010	Plastic oiler.(with oil)	塑料油壶	1	Oil 50CC
13	1.2B6	Needle	机针	3	N2852-05(16#)
14	1.2A4	Looper	勾针	1	
15	1.5A1	Trimmer	割线刀	1	
16	011	Rubber ring	橡胶圈	1	
17	1.7A1	Thread needle bar take-up	挑线杆	1	
18	012	Hex cap bolt	六角头螺栓	1	M5×5
19	013	Washer	垫圈	1	5 GB95
20	014	Countersunk wood screw	沉头木螺钉	5	4.5×25 GB100
21	1.4C19	Washer	垫圈	4	6 GB96
22	1.2C1	Cheese head screw	圆柱头螺钉	4	M3×3 GB65
23	1.2C3	Cheese head screw	圆柱头螺钉	4	M4×6 GB65
24	015	Accessories box	附件盒	1	
25	016	Instruction manual and illustrated parts list	说明书	1	
26	1.5B3	Button clamp chain hook	压脚链条钩	1	
27	017	Wrench(double end)8-10mm	呆扳手	1	8-10mm
28	018	Motor bracket	电动机架	1	
29	019	Extra pedal assembly	脚踏板	1	
30	020	Chain	链条	2	
31	021	Hook	钩子	3	
32	022	Thread stand assembly	线架组件	1	

## Accessories

## 附件清单 (续)

NO.	Part No.	Description	名称	Unit.	Specification
33	023	Hex cap bolt	六角头螺栓	4	M8×35 GB30
34	024	Hex nut	六角螺母	4	M8 GB6170
35	025	Washer	垫圈	4	φ8 GB97
36	026	Spring lock washer	弹簧垫圈	4	φ8 GB93





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