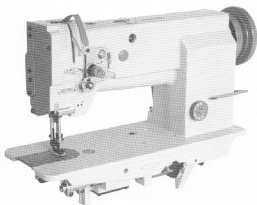


**SINGLE NEEDLE
COMPOUND-FEED CLOCKSTITCH SEWING MACHINE**

*4410

單針綜合送料平縫機



☒ 使用說明 ☒ 零件樣本

INSTRUCTION MANUAL & PARTS LIST

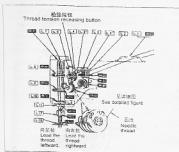
1. 机针引线

- (1) 让带圈线穿过过线架A。
注意：当使用细而滑的线（如涤纶线）时，让线穿过过线架B。
- (2) 机线杆上升到最高位置，按图所示，顺序穿线。



1. Threading of needle threads

- (1) Pass each needle thread through thread guide A.
Note: When thin slippery thread (polyester thread or filament thread, for example) is used, pass the thread through thread guide B as well.
- (2) With the take-up lever locked at the upper most position, pass each needle thread in the order shown in the following figure.



82440-1



82440-2



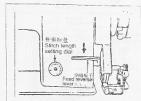
2. 调整针距和倒缝线迹

注意：压下倒缝踏板时，将倒缝踏板压平，可调节针距大小。
倒缝操作……当压下倒缝踏板时，可实现倒缝操作。

2. Adjustment of stitch length and reverse-stitch operation

Note: To make stitch length shorter, depress the reverse lever and turn the stitch length setting dial.

Reverse-stitch operation... Stitching goes back while the feed reverse lever is held down.

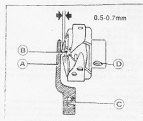


3. 机心安装

注意：在需要将机心装入机壳内时，按图示正确的线线方向安装机心。

3. How to place the bobbin into the hook

Note: In case of placing the bobbin into the hook, place the bobbin by making winding toward the thread in correct direction shown in Fig.



4. 安全离合器安装

安全离合器是为了防止梭织机在不正常工作下继续运转而设计的。

4. SAFETY CLUTCH DEVICE

Safety clutch device is installed to prevent the hook and cog belt from damage in case the thread is caught into the hook when the machine is loaded abnormally during operation.

(1) 安全离合器的功能

- 当安全离合器工作时，同步带轮松开，上轴空转，下轴停止转动，梭织机不工作。
- 清除梭梭内卡住的多余线头。
- 对于开动的同步带轮轴，检查下轴是否顺利地继续运转。将安全离合器的位置调整到如图所示。

FUNCTION OF SAFETY CLUTCH

- When the safety clutch acts, the cog belt pulley will be unloaded, then the rotation of hook shaft will stop. The arm shaft only will rotate. Stop the operation of machine.
- Remove the thread thoroughly which is caught into the hook.
- Turn the cog belt hub by hand, and check whether the hook shaft rotates lightly and properly place the clutch device as follows.

(2) 离合器的复位

- 左手按下复位按钮，右手按图所示方向转动上轴轮。
- 连杆杆头同步带轮轴时，肩力转动上轴轮。
- 松开复位按钮。
- 如图示，安全离合器复位。

HOW TO SET THE SAFETY CLUTCH

- While pressing down the push button on the opposite side of bed by left hand, turn the balance wheel slowly by right hand away from you as shown in the figure.
 - The balance wheel will stop by the gear plate, but turn the balance wheel more firmly.
 - Release the push button.
 - As shown in the Figure, the safety clutch device is set.
- 离合器工作时的设定
A. 当偏心销的标记点靠近下轴中心时，力矩减小，当标记点向外偏移时，力矩增加。
B. 调紧力矩时，向外移动同步带，松开固定螺钉，转动偏心销进行调节。
C. 力矩调节好以后，拧紧固定螺钉。

FORCE APPLIED TO THE SAFETY CLUTCH

- The force applied to the safety clutch is the smallest when the white mark of the eccentric pin faces the center of the lower shaft. The force proportionally increases as the white mark faces the outside.
- To adjust the force, slide the timing belt, loosen the set screw, and turn the eccentric pin.
- After the adjustment, make sure to fasten the set screw.

5. 上送布长度调整

根据梭织机有不均匀的送布情况发生时，可通过调节送布曲柄（右）与连杆的位置来调节送布情况。

调节方法：

- 松开特殊螺钉。
- 上移特殊螺钉减少送布量。
- 上移特殊螺钉增加送布量。

理论上海，特殊螺钉在垂直斜板处时，上下送布量相等。

(4) 调整送布后应紧固特殊螺钉。

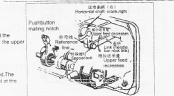
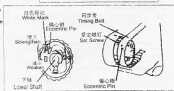
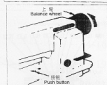
5. UPPER FEED ADJUSTMENT (needle side)

If the uneven feeding occurs according to the fabric, adjust the long hole of the horizontal feed shaft crank(right) to adjust the upper feed length.

(How to adjust)

- Loosen the special bolt.
- Move the special bolt upward to decrease upper feed.
- Move the special bolt downward to increase the upper feed. The upper feed and the lower feed theoretically becomes equal at the reference line on the horizontal feed shaft crank.

(4) Securely tighten the special bolt after adjustment.



6. 内、外压脚垂直行程调整

当缝料的厚度和弹性有较大变化时，需对压脚的垂直行程（移动范围）进行调整，调整如下：

6. Outside presser foot and inside presser vertical stroke adjustment

When fabric with large elasticity is sewn, or when thickness of fabric changes, the vertical stroke (movable range) of the presser foot should be adjusted as follows:

- (1) 松开特殊螺钉
- (2) 当偏心轮连杆向下移动时，压脚垂直行程增加。
- (3) 当偏心轮连杆向上移动时，压脚垂直行程减小。
- (4) 调整结束后，紧固特殊螺钉。

Adjustment

- (1) Loosen the special bolt.
- (2) The vertical strokes of the presser foot become maximum when the crank rod is moved upward and set.
- (3) The vertical strokes become minimum when the nut is moved downward and set.
- (4) After the adjustment, fully tighten the special bolt.

压脚垂直行程调节范围为：2—6mm

The vertical strokes of the presser foot can be adjusted within a range from 6 mm to 2mm.

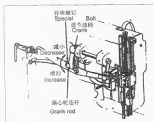
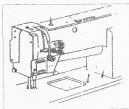
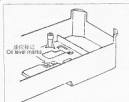
7. 加油 (1)

在油盘中加满到“H”位置，在使用中定期检查油位。如果油量在“L”位置以下，请补加到“H”位置。请使用白色缝纫机油。

7. Lubrication (1)

Fill the oil tank with lubricating oil until oil level reaches "H" mark. Periodically check oil level during operation and if oil level is found below "L", add oil to "H" mark.

Please use white sewing machine oil.

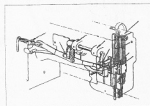


8. 加油 (2)

新的缝纫机可长期不使用的缝纫机，在使用前要在下面箭头所指位置适量加油。

8. Lubrication (2)

When the sewing machine is used for the first time, or operated after long stop, a suitable quantity of oil should be applied to the place indicated by arrow in the below figures.

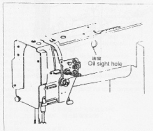


9. 加油状况

在操作过程中通过油窗检查油量的供应情况。

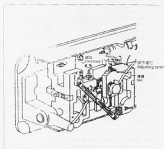
9. Oiling condition

See dripping of oil through the oil sight hole to check oiling condition during operation.

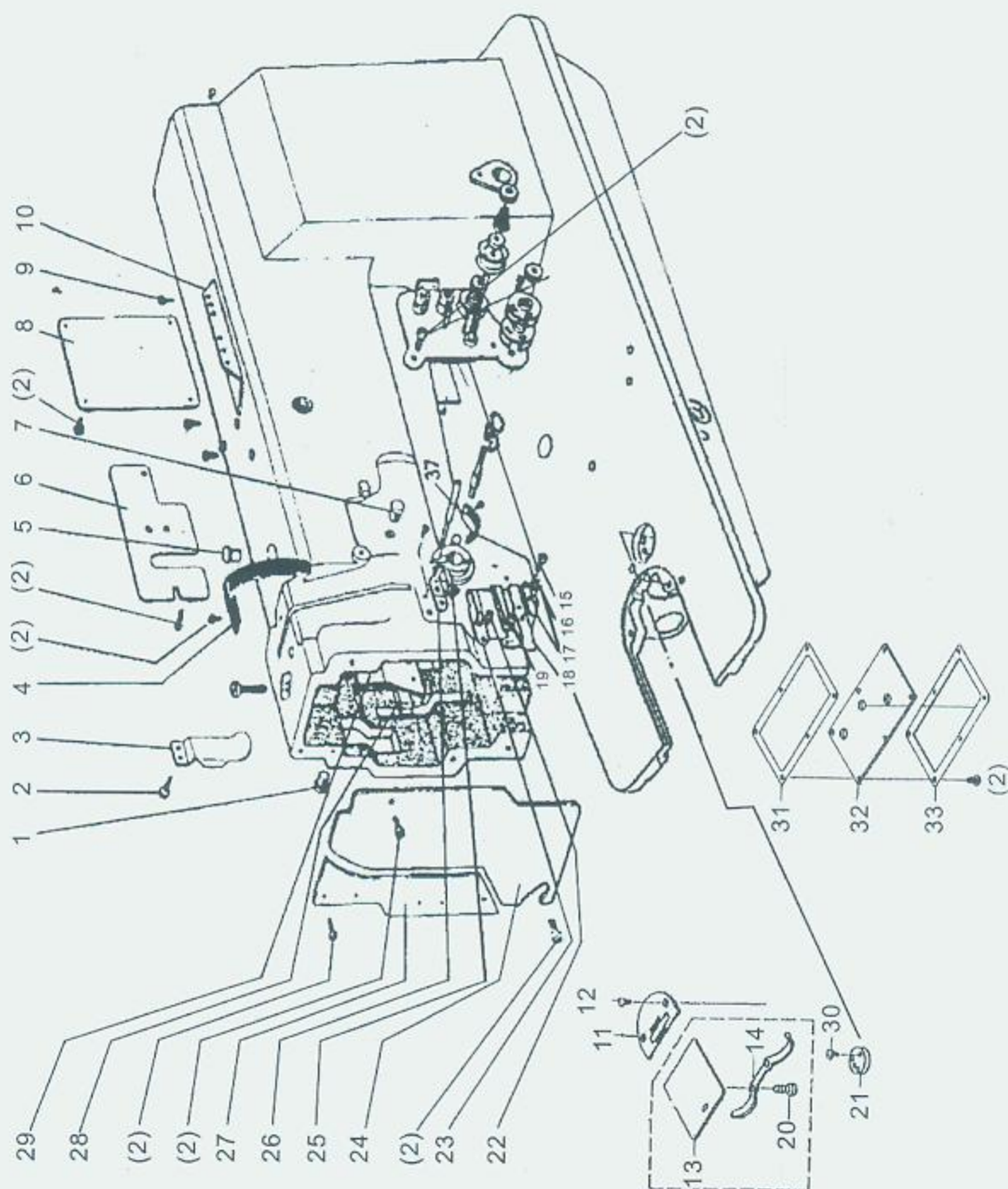


10. 润滑系统调整

Adjustment of lubrication to hook.



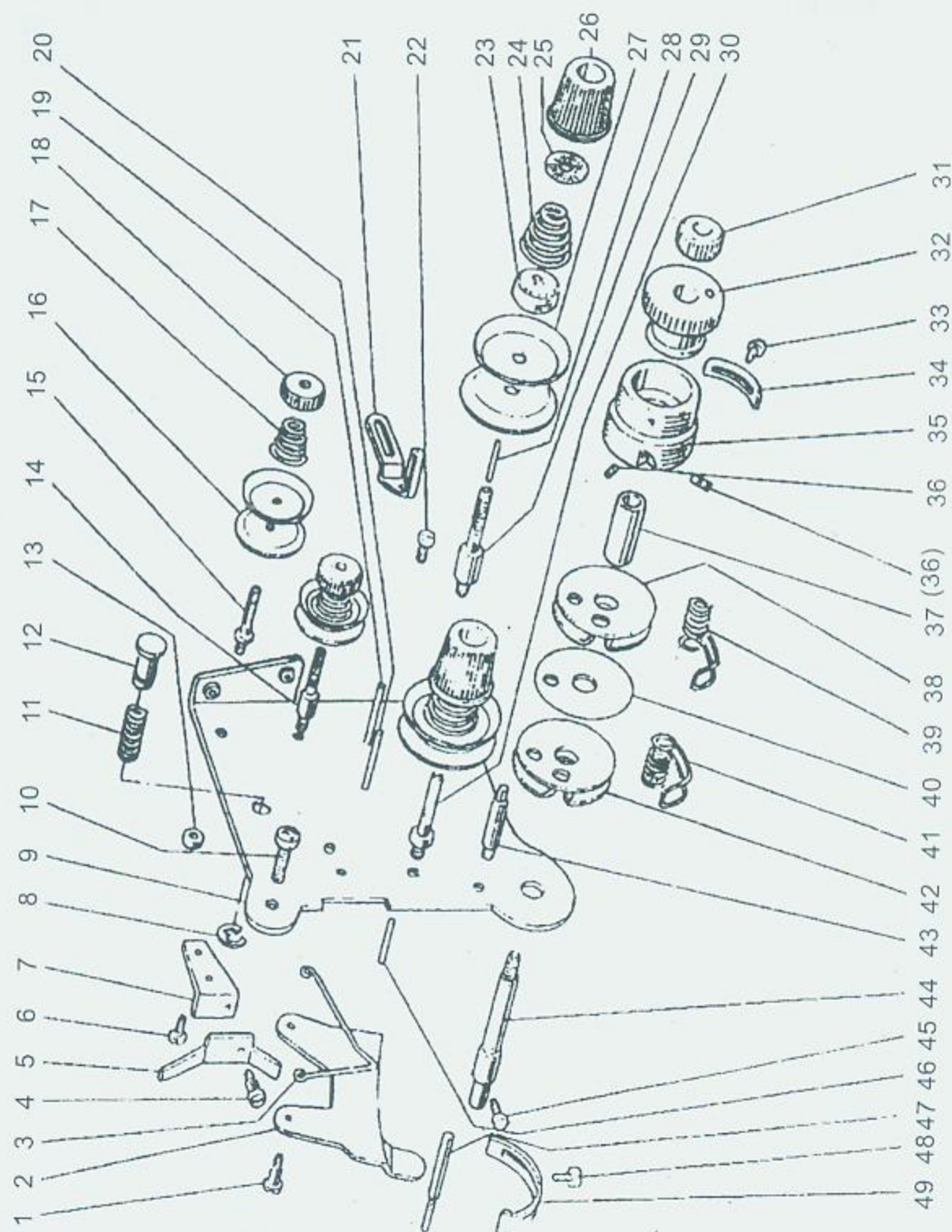
A: 机壳部件 FRAME & MISCELLANEOUS COVER COMPONENTS



A: 机壳部件 FRAME & MISCELLANEOUS COVER COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	机头橡皮塞	Rubber Plug	2
2	盖板螺钉	Screw for cover	22
3	防油板	Oil Guard Plate	1
4	挑线杆防护罩	Thread Take-up Cover	1
5	橡皮塞	Rubber Plug	1
6	后盖板 (左)	Rear Cover(L)	1
7	机头橡皮塞	Rubber Plug	1
8	后盖板 (右)	Rear Cover(R)	1
9	线勾螺丝	Screw	2
10	上过线板	Throat Plate(Upper)	1
11	针板	Throat Plate	1
12	针板螺钉	Screw 11/64-40 L=8.5	2
13	推板	Bed Laid	1
14	推板簧片	Slid plate Spring	1
15	圆柱头阶梯螺钉	Stud	1
16	压紧弹簧	Spring	1
17	过线压板	Thread Tension Plate	1
18	过线勾	Thread Guide	1
19	圆柱头螺钉	Screw	1
20	推板螺钉	Screw 3/32-56 L=1.9	2
21	夹边座	Scale Base Plate	1
22	防油垫固定板螺钉	Screw	1
23	线勾 (中)	Thread Guide (Middle)	1
24	面板	Face Plate	1
25	过线勾沉头螺钉	Screw	2
26	线勾 (上)	Thread Guide (Upper)	1
27	滑块导轨安装板	Fix Plate For Slide Block Guide	1
28	挡油罩板垫块	Plate For Oil Guard Cover	1
29	挡油板	Oil Guard Plate	1
30	夹边座螺钉	Screw 11/64-40 L=7	2
31	底板齿轮箱盖板垫	Gasket	1
32	底板齿轮箱盖板	Oil Tank Cover	1
33	底板齿轮后盖板压板	Oil Tank Cover Plate	1

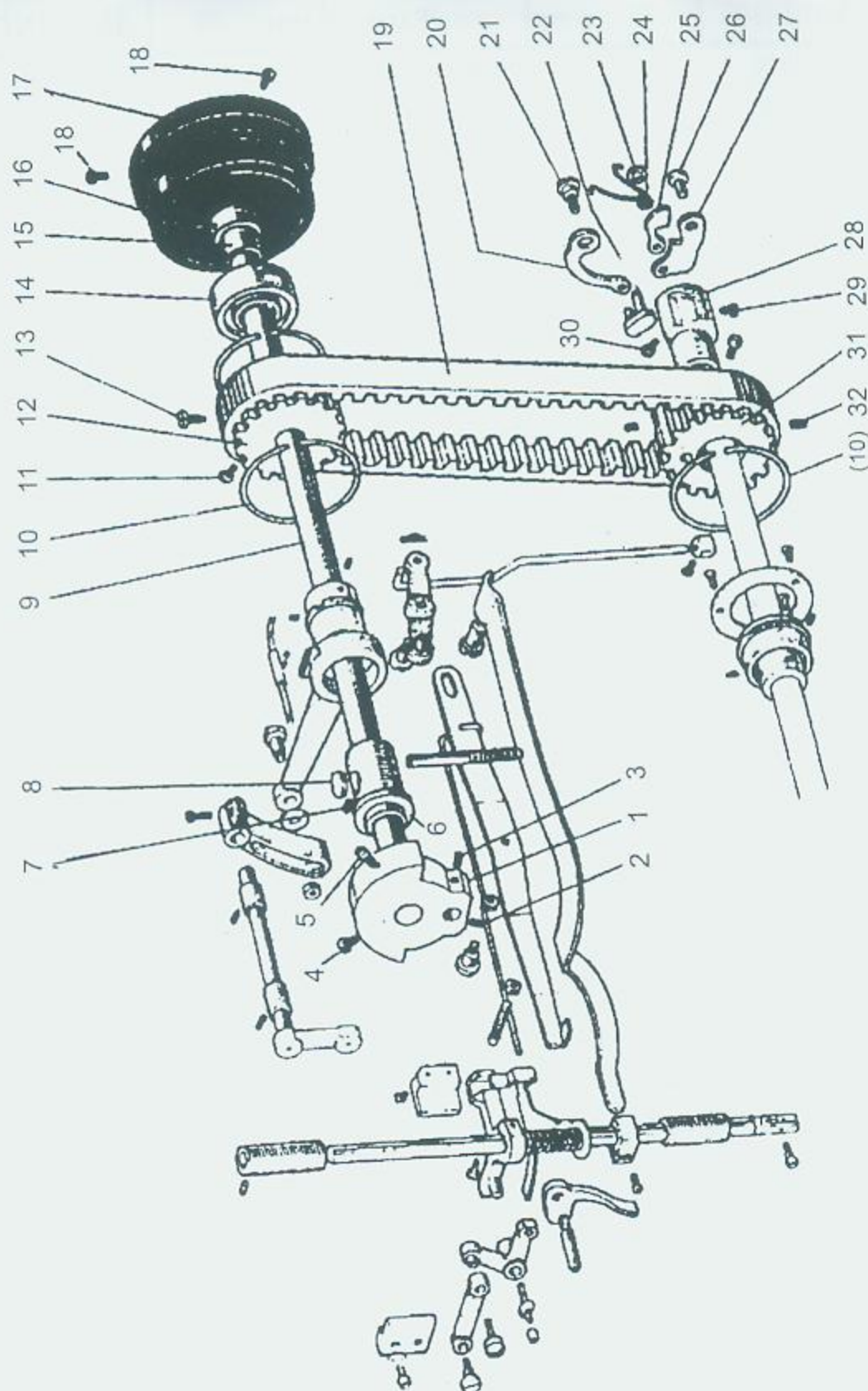
B: 夹线调节部件 THREAD TENSION COMPONENTS



B: 夹线调节部件 THREAD TENSION COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	松压板螺钉线	Screw	2
2	松线板	Thread Releasing Plate	1
3	松线压板弹簧	Spring	1
4	阶梯螺钉	Stud	1
5	摆杆	Balance Bar	1
6	园柱头螺钉	Screw	1
7	安装板	Fix Plate	1
8	挡圈	E-Ring	1
9	夹线调节器安装板	Fix plate for thread tension regulator	1
10	挑线杆防护罩螺钉	Screw	2
11	按钮复位弹簧	Spring	1
12	按钮	Buttun	1
13	六角螺母	Nut	2
14	夹线调节螺钉	Thread Tension Adjusting Screw	1
15	夹线调节螺钉	Thread tension adjusting screw	
16	夹线板	Thread tension Disc	2
17	夹线弹簧	Thread tension spring	1
18	夹线螺母	Thread tension nut	
19	过线销	Thread Guide pin	2
20	夹线定位板销	Pin	
21	线勾	Thread guide	1
22	面板线勾螺钉	Screw	1
23	松线板	Thread tension releasing disc	1
24	夹线簧	Thread tension spring	1
25	夹线螺母止动板	Stop plate	1
26	夹线螺母小组件	Thread tension Nut Assy	1
27	夹线板	Thread tension plate	2
28	过线钉	Thread guide stud	1
29	夹线调节螺钉	Thread tension adjusting screw	1
30	夹线调节螺钉	Thread tension adjusting screw	
31	螺母	Nut	1
32	套筒	Sleeve	1
33	圆柱头螺钉	Screw	1

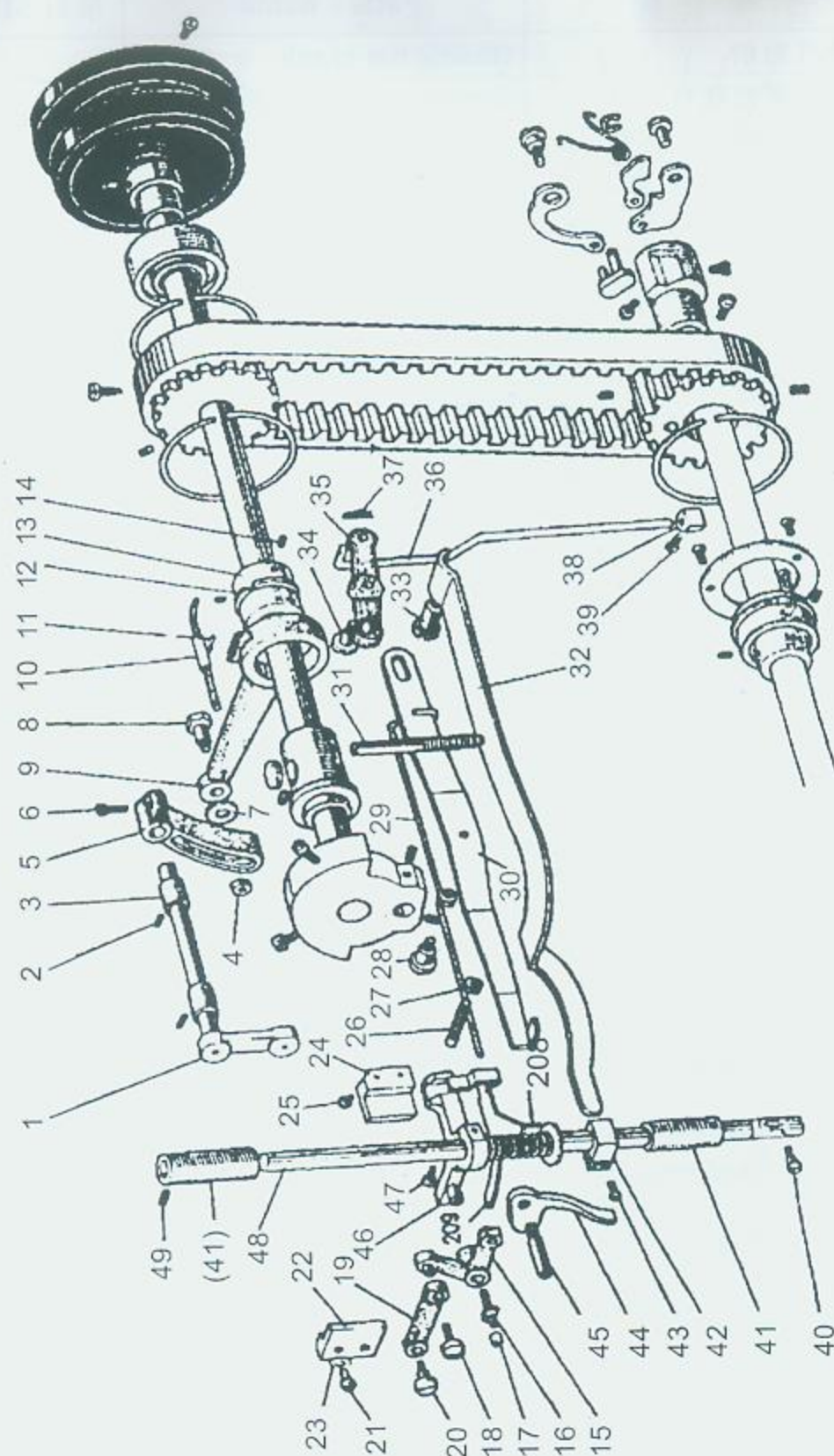
C: 上轴部件 UPPER SHAFT COMPONENTS



C: 上轴部件 UPPER SHAFT COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	针杆曲柄	Needle bar crank	1
2	上轴紧圈螺钉	Screw	1
3	挑线曲柄定位螺钉	Screw	1
4	针杆曲柄螺钉	Screw	1
5	针杆曲柄定位螺钉	Screw	1
6	上轴轴套 (左)	Bushing(L)	1
7	紧定螺钉	Screw	1
8	上轴轴套羊毛毡	Felt	1
9	上轴	Up Shaft	1
10	弹簧挡圈	C-ring	3
11	同步带轮螺钉	Screw	1
12	同步带轮	Timing belt wheel	1
13	倒缝操纵杆曲柄螺钉	Screw	1
14	轴承	Ball bearing	1
15	上轴紧圈	Collar	1
16	上轴紧圈螺钉	Screw	2
17	主动轮	Pulley balance wheel	1
18	主动轮	Screw	2
19	同步带	Timing belt	1
20	长连杆	Long link	1
21	长连杆销	Pin	1
22	连接销	Connecting pin	1
23	E型档圈	E-ring	1
24	同步带轮弹簧	Spring	1
25	连杆	Link	1
26	短连杆销	Pin	1
27	短连杆	Short link	1
28	同步带轮轴	Shaft	1
29	定位螺钉	Screw	1
30	紧定螺钉	Screw	1
31	同步带轮	Timing belt wheel	1
32	同步带轮螺钉	Screw	2

D: 压脚部件 PRESSER FOOT COMPONENTS



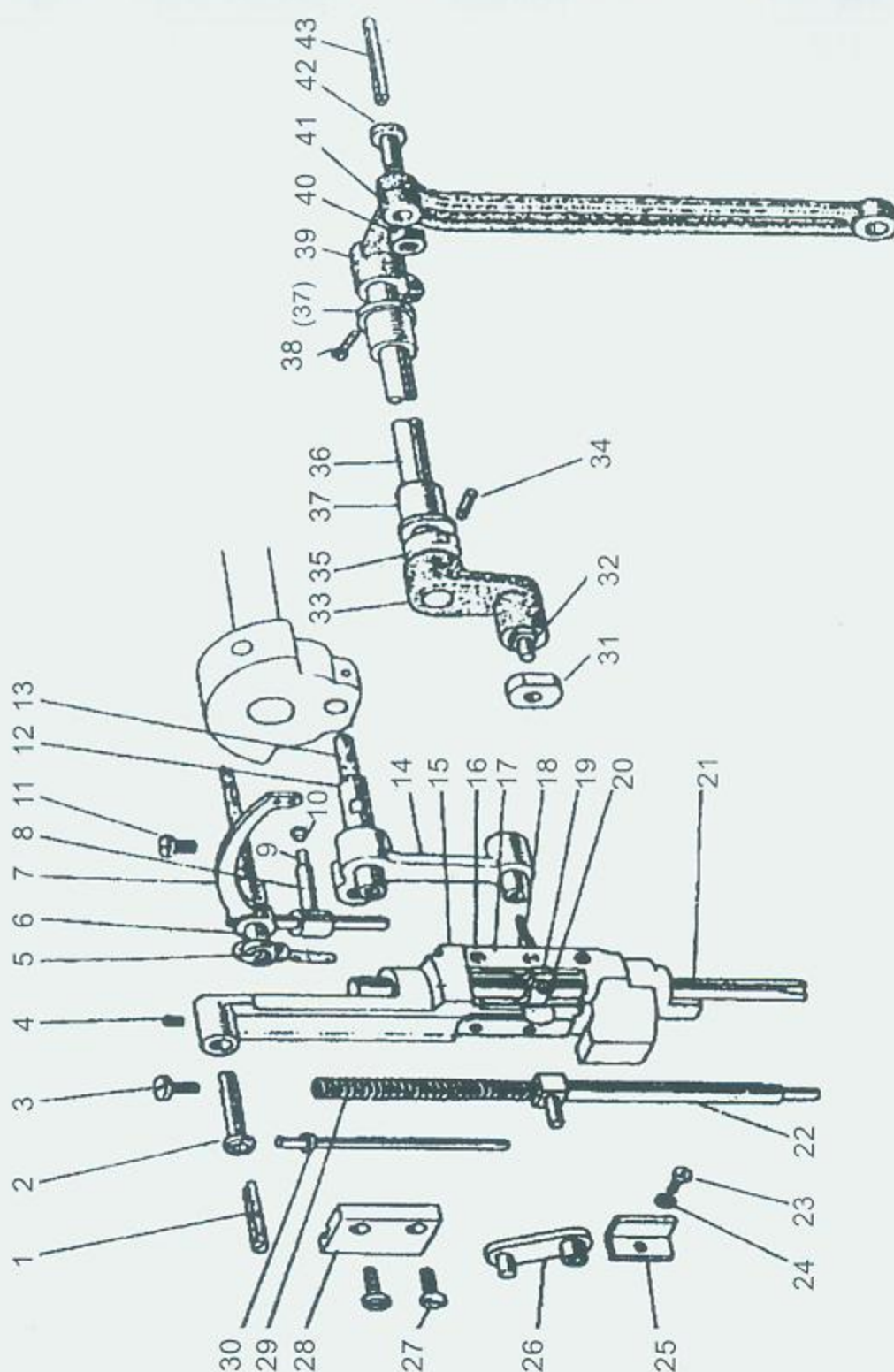
D: 压脚部件 PRESSER FOOT COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	压脚提升曲柄轴	Shaft	1
2	压脚提升曲柄轴轴套螺钉	Screw	2
3	压脚提升曲柄轴轴套	Bushing	2
4	调节螺母	Nut	1
5	调节曲柄	Adjusting crank	1
6	送布轴曲柄（右）螺钉	Screw(R)	1
7	垫圈	Washer	1
8	调节螺钉	Adjusting screw	1
9	偏心轮连杆	Link	1
10	油绳	Oil wick	1
11	偏心连杆毛毡夹	Felt holder	1
12	C型卡圈	C-ring	1
13	压脚提升偏心轮	Presser lifting eccentric	1
14	压脚提升偏心轮螺钉	Screw	2
15	压脚提升杠杆	Presser lifting lever	1
16	压脚提升杠杆铰链轴	Stud	1
17	滑柱	Stud roller	1
18	曲柄连杆螺钉	Screw	1
19	曲柄连杆	Crank connecting link	1
20	曲柄轴位螺钉	Step screw	1
21	导轨安装螺钉	Screw	2
22	滑块导轨	Slide guide	1
23	垫圈	Washer	2
24	压紧杆提升架导轨	Vibrating presser bar guide	1
25	导轨螺钉	Screw	2
26	复位弹簧螺钉	Screw	1
27	复位弹簧螺帽	Nut	1
28	膝控提升杠杆螺钉	Step screw	1
29	膝控提升杠杆复位弹簧	Spring	1
30	膝控提升杠杆	Knee lifting lever	1
31	调压螺钉	Screw	1
32	压紧杆簧	Presser bar spring	1
33	压簧支撑螺钉	Screw	1

D: 压脚部件 PRESSER FOOT COMPONENTS

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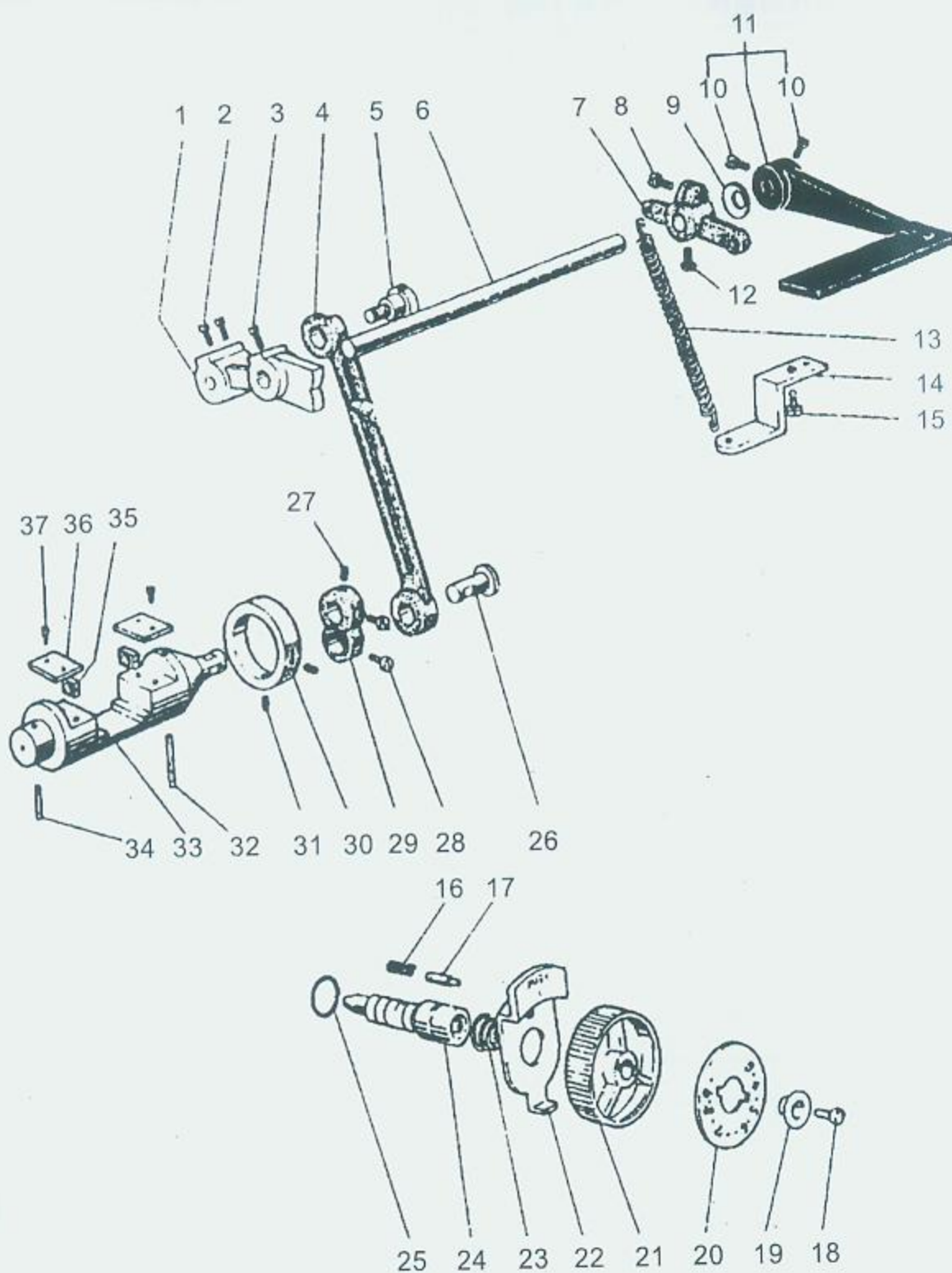
E: 针杆挑线部件 NEEDLE BAR & TAKE-UP LEVER COMPONENTS



E: 针杆挑线部件 NEEDLE BAR & TAKE-UP LEVER COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	油线	Oil wick	1
2	针杆摆动架销	Needle bar guide bracket stud	1
3	压紧杆螺钉	Screw	1
4	针杆摆动架紧定螺钉	Screw	1
5	油线	Oil wick	1
6	挑线杆铰链轴	Thread take-up lever support stud	1
7	挑线杆	Thread take-up lever	1
8	滑杆	Thread take-up slide lever	1
9	滑杆油线	Oil wick	1
10	滑杆塞子	Slide lever cap	1
11	主动轮螺钉	Screw	1
12	挑线曲柄连杆轴	Thread take-up crank pin	1
13	连杆轴油线	Oil wick	1
14	针杆挑线连杆	Connecting link	1
15	针杆摆动架	Needle bar guide bracket	1
16	沉头螺钉	Screw	6
17	垫片	Washer	2
18	羊毛毡	Felt	1
19	针杆夹头	Needle bar connecting stud	1
20	圆柱头螺钉	Screw	1
21	针杆	Needle bar	1
22	内压紧杆	Presser bar (In Side)	
23	六角开槽螺栓	Screw	1
24	垫片	Washer	1
25	针杆导向块	Needle bar guide	1
26	杠杆连杆	Needle bar connecting link	1
27	提升架紧定螺钉	Screw	2
28	滑块导轨	Slide block guide	1
29	内压脚弹簧	Spring	1
30	压簧顶杆	Vibrating presser Spring guide	1
31	针杆架摆动滑块	Slide block	1
32	支撑轴螺钉	Slide block stud	1
33	针杆架摆动曲柄 (左)	Needle bar guide bracket crank(L)	1

F: 针距调节部件 STITCH ADJUSTING COMPONENTS



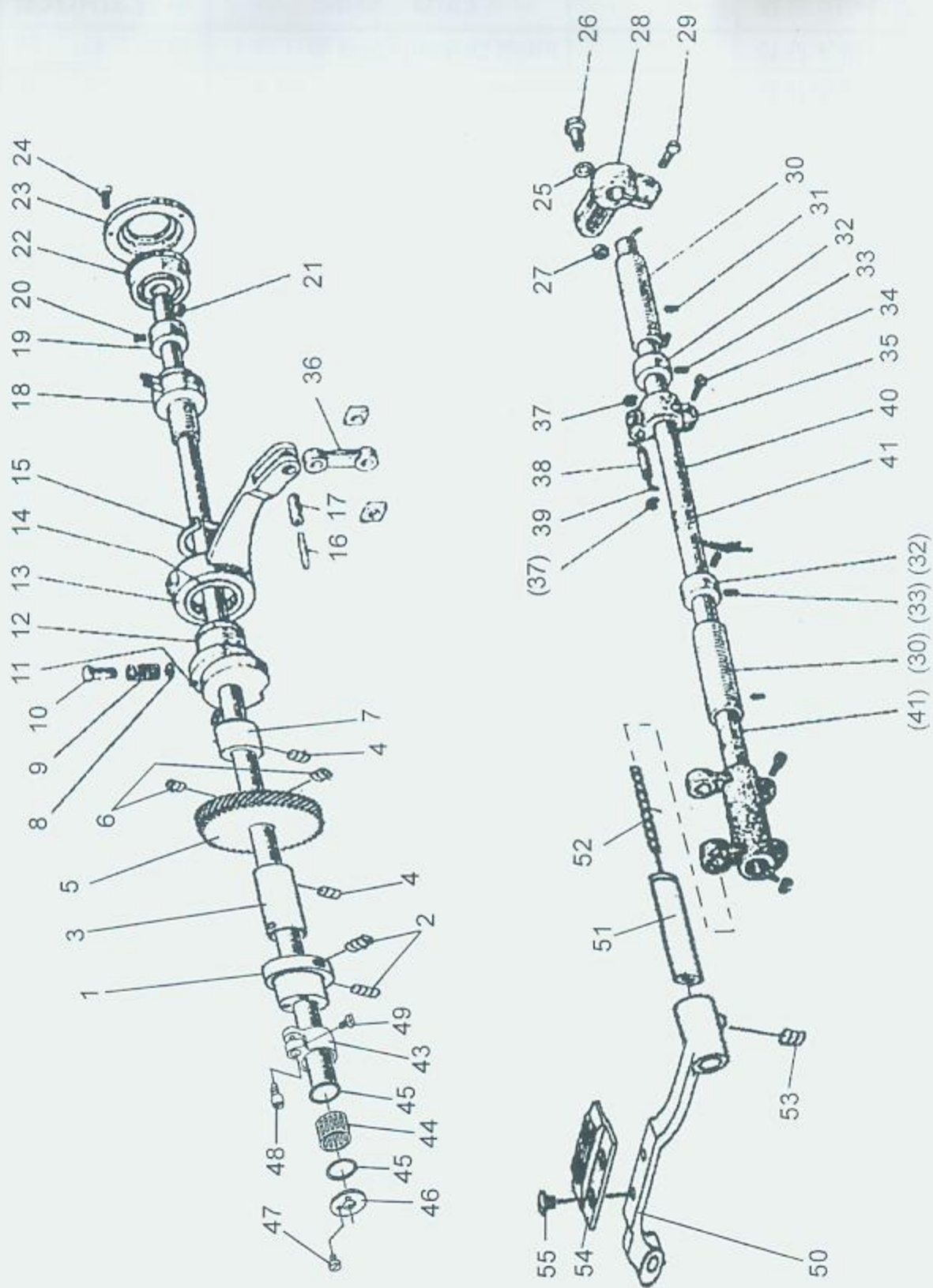
F: 针距调节部件 STITCH ADJUSTING COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	针距调节曲柄	Stitch adjusting crank	1
2	限位块螺钉	Screw	2
3	圆柱端圆柱头螺钉	Screw	1
4	倒缝操纵连杆	Reverse stitch connecting link	1
5	送布轴曲柄铰链轴	Feeding crank stud	1
6	倒缝操纵杆	Reverse stitch shaft	1
7	倒缝操纵曲柄	Reverse stitch crank	1
8	拉簧架螺钉	Screw	1
9	倒缝操纵杆垫圈	Washer	1
10	限位块螺钉	Screw	2
11	倒缝操纵扳手	Reverse sewing lever	1
12	圆柱头螺钉	Screw	1
13	倒缝操纵曲柄弹簧	Spring plate	1
14	弹簧架	Screw	1
15	挑线杆防护罩螺钉	Spring	1
16	止动销弹簧	Pin	1
17	止动销	Screw	1
18	针距标盘螺钉	Bushing	1
19	标盘螺钉衬套	Feed seale plate	1
20	标盘面板	Dial	1
21	针距标盘	Stoper plate of dial	1
22	针距标盘定位板	Spring	1
23	针距按键簧	Feed regulating screw	1
24	针距调节螺杆	Rubber ring	1
25	针距标盘橡皮圈	Eccentric shaft	1
26	偏心轴	Screw	1
27	内六角圆柱头螺钉	Screw	1
28	内六角紧定螺钉	Slide block guide	2
29	倒缝操纵曲柄（下）	Reverse stitch crank(low)	1
30	挡圈	Collar	1
31	送布凸轮螺钉	Screw	2
32	倒缝台羊毛毡（长）	Felt(long)	1
33	倒缝台	Reverse block	1

F: 针距调节部件 STITCH ADJUSTING COMPONENTS

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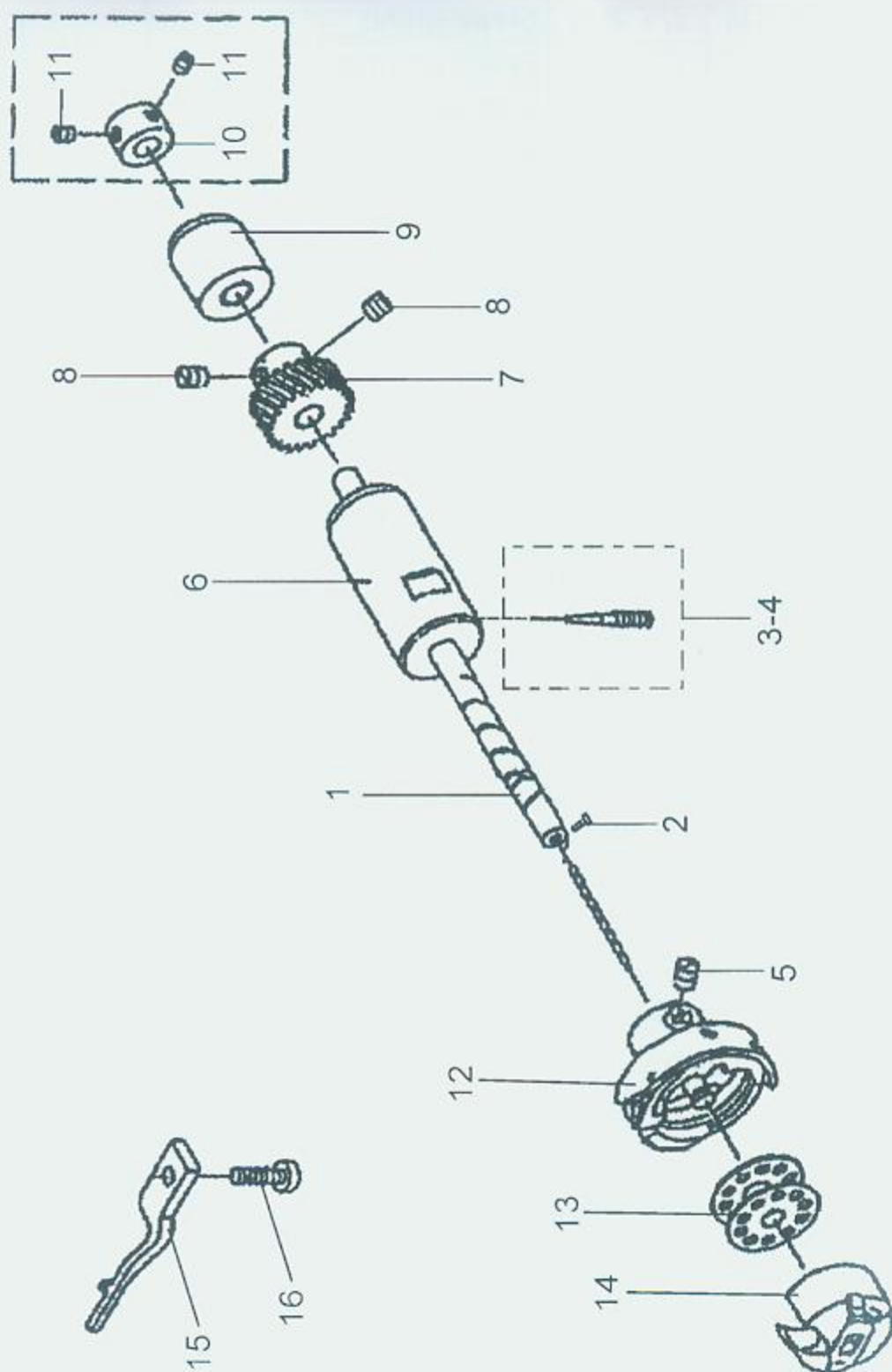
G: 下轴, 送布轴部件 LOWER SHAFT & FEEDING SHAFT COMPONENTS



G: 下轴, 送布轴部件 LOWER SHAFT & FEEDING SHAFT COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	抬牙凸轮	Feed Driving Cam	1
2	抬牙凸轮螺钉	Screw 15/64-28 L=10.5	2
3	下轴轴套 (左)	Lower Shaft Front Metal	1
4	下轴轴套 (左) 螺钉	Screw 15/64-28 L=7	1
5	大齿轮	Lower Shaft Gear	1
6	大齿轮螺钉	Screw 1/4-40 L=6	2
7	下轴轴套 (中)	Lower Shaft Inner Metal	1
8	挡圈	E-ring	2
9	复位弹簧	Spring	1
10	复位按	Pin	1
11	挑线杆定位螺钉	Screw	2
12	送布凸轮	Feed cam	1
13	送布轮凸连杆	Feed cam connecting rod	1
14	轴承	Needle bearing	1
15	C型挡圈	C-ring	1
16	油线	Oil wick	1
17	送布轮连杆销	Pin	1
18	下轴轴套 (中) 组件	Bushing (Lower shaft middle-side)	1
19	轴套	Bushing	1
20	上轴紧圈螺钉	Screw	1
21	紧定螺钉	Screw	1
22	轴承	Ball bearing	1
23	挡扳	Stop plate	1
24	挡扳螺钉	Screw	3
25	垫圈	Washer	1
26	送布曲柄螺钉	Screw	1
27	调节螺母	Nut	1
28	送布曲柄 (右)	Feed crank (right)	1
29	送布轴曲柄 (右) 螺钉	Screw (right)	1
30	送布轴套 (左)	Bushing (feeding shaft left-side)	2
31	紧定螺钉	Screw	2
32	送布轴紧圈	Collar	2
33	送布轴紧圈螺钉	Screw	1

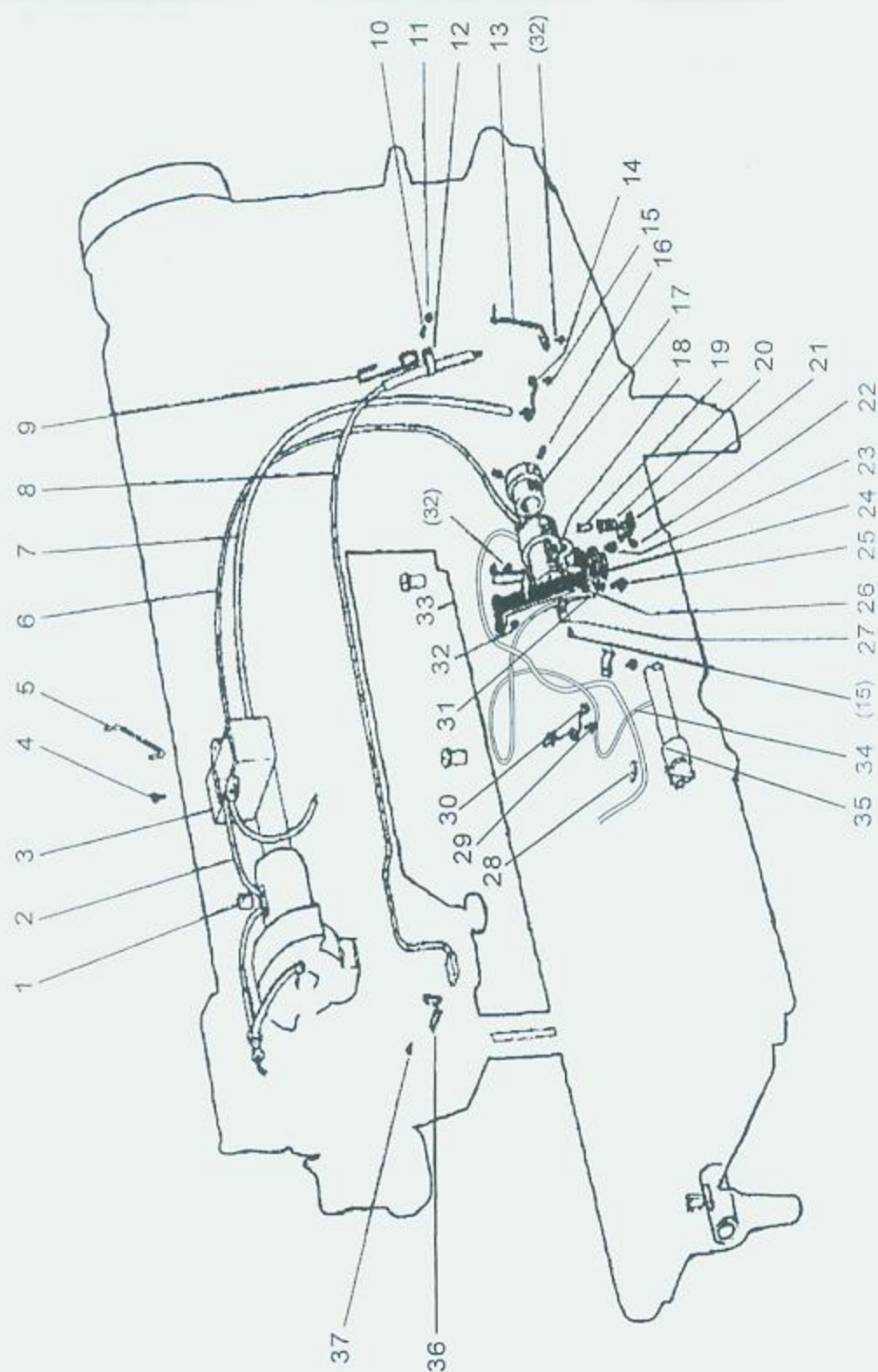
H: 旋梭台部件 HOOK SADDLE COMPONENTS



H: 旋梭台部件 HOOK SADDLE COMPONENTS

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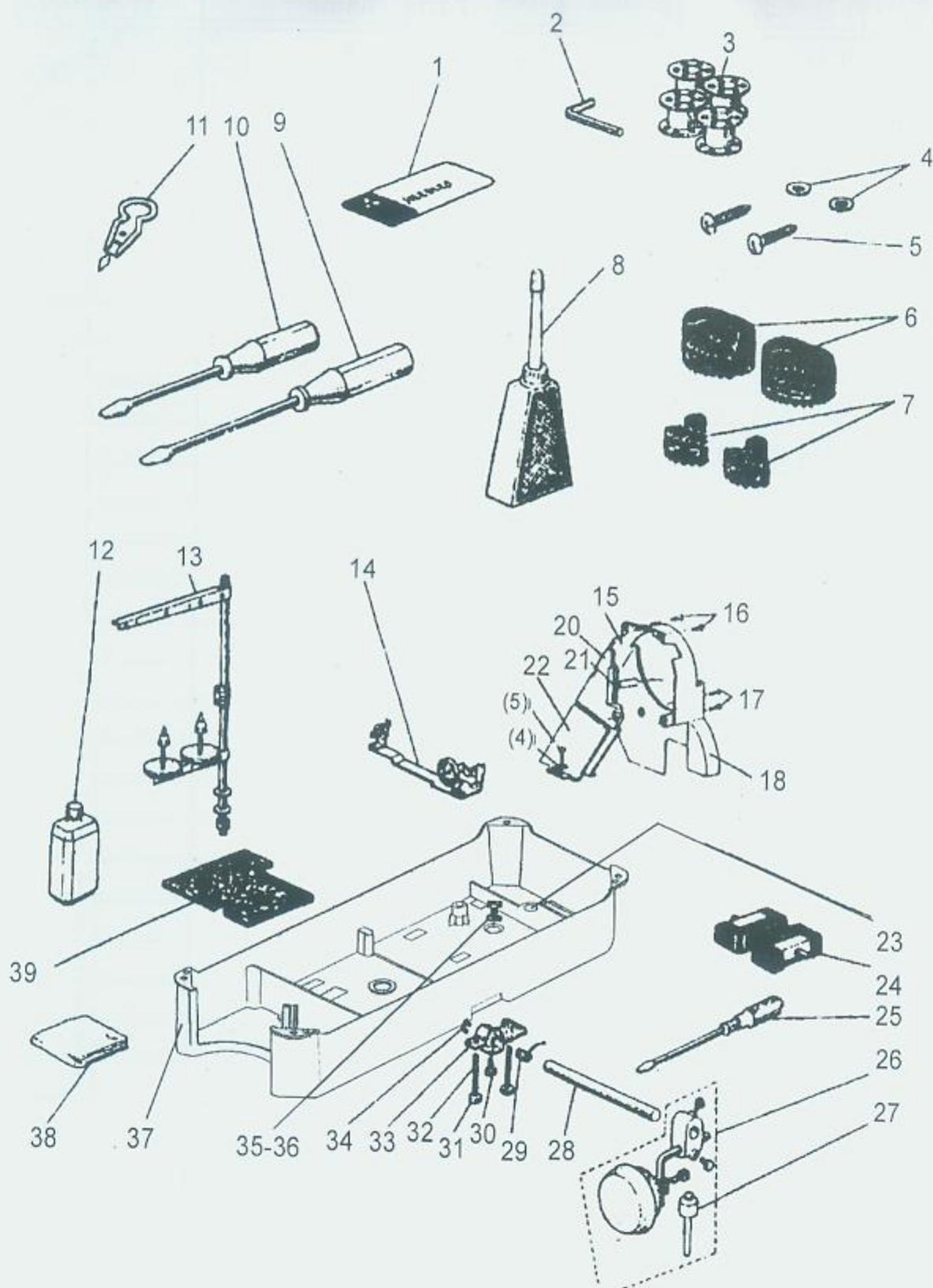
I: 潤滑部件 OIL LUBRICATION COMPONENTS



I: 润滑部件 OIL LUBRICATION COMPONENTS

序号 No	名 称	Parts name	单针 SINGLE
1	羊毛毡	Felt	1
2	油管组件	Oil tube Assy	1
3	油管组件	Oil box Assy	1
4	螺钉 (镀锌)	Screw	2
5	油管夹	Oil tube holder	1
6	油管	Oil tube	1
7	油管	Oil tube	1
8	油管组件	Oil tube Assy	1
9	油管夹	Oil tube holder	1
10	油管夹固定螺钉	Screw	7
11	调节板螺钉弹簧垫	Washer	1
12	机头回油管固定夹	Oil tube holder	1
13	油管夹	Oil tube holder	1
14	油管夹	Oil tube holder	1
15	油管夹螺钉	Screw	8
16	轴套紧定螺钉	Screw	2
17	轴套	Bushing	1
18	油管	Oil tube	1
19	柱塞	Pin	1
20	柱塞弹簧	Spring	1
21	柱塞弹簧挡板	Stop plate	1
22	挡板安装螺钉	Screw	1
23	圆柱头螺钉	Screw	1
24	过滤板	Filter plate	1
25	圆柱头螺钉	Screw	1
26	油管板组件	Oil tube plate Assy	1
27	油管夹	Oil tube holder	1
28	油管夹	Oil tube holder	1
29	油管夹螺钉	Screw	
30	油管夹	Oil tube holder	
31	三通油管组件	Three-Accors Oil tube Assy	
32	安装板固定螺钉	Screw	4
33	油管	Oil tube	

J: 附件 ACCESSORIES



J: 附件 ACCESSORIES

序号 No	名 称	Parts name	单针 SINGLE
1	机针	Needle bar crank	3
2	内六角扳手	Spanner	1
3	梭心	Bobbin	4
4	垫圈	Washer	2
5	绕线器木螺钉	Wood screw	4
6	防振垫块	Vibration preventing rubber	2
7	防振垫块	Vibration preventing rubber	2
8	小油壶	Oiler(small)	1
9	螺钉起子(中)	Screw driver(middle)	1
10	螺钉起子(小)	Screw driver(small)	1
11	穿线器组件	Threader Assy	1
12	油箱	Oil tank	1
13	线架组件	Thread stand Assy	1
14	绕线器组件	Bobbin Winder Assy	1
15	皮带罩(上)	Belt cover(upper)	1
16	后盖板螺钉	Screw	2
17	皮带罩螺钉	Screw	2
18	皮带罩(下)	Belt cover(lower)	1
19	皮带罩板螺母螺钉	Screw	1
20	皮带罩板组件	Belt cover Assy	1
21	皮带罩板螺母	Nut	1
22	皮带罩罩架	Belt cover holder	1
23	小磁块	Magnet(small)	1
24	机壳铰链组件	Hinge Assy for head	2
25	螺钉起子(大)	Screw driver(large)	1
26	小附件组件	Accessories Assy(small)	1
27	膝控提升顶杆组件	Knee lifter lever Assy	1
28	膝控铰链轴	Hinge shaft	1
29	膝控复位弹簧	Spring	1
30	碰块弯杆接头螺钉	Screw	1
31	调节螺母	Adjusting nut	2
32	膝控限位调节螺钉	Adjusting screw	2
33	膝控提升杠杆曲柄	Knee lifter lever crank	1

J: 附件 ACCESSORIES

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