

# GA-441 Series

*Instructions & Parts Catalogue*



**Single Needle Lockstitch Cylinder Bed Compound  
Feed Sewing Machine for Heavy Duty Materials**

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## 使用说明 Operation Instruction

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## 1.机器简介

该系列产品广泛地适用于箱包、帐篷、凉席等行业。

产品采用连杆挑线，单针特种摆梭，构成双线锁式线迹。471采用上下复合送料；441采用三同步综合送料。送料力量强劲稳定，缝纫多层滑性、粘性缝料及特厚特长物料时，都能操持上下层不位移。使制品整齐，线迹精确美观。

该产品适用于安全和作业用的皮带、帐篷、船帆、帆布、建筑围柱和工业包等厚重和特大物料的缝制。

## 2.主要技术规格

适用范围	厚料、极厚料
最高缝纫缝速	800s.p.m
最大线迹长度	0~11mm
压脚提升高度	手动13mm,膝控20mm
针杆行程	56mm
采用机针	DY×3 25#
使用旋梭	KSP-204N
缝台筒径	81mm
润滑方式	手工加油
电动机	550W

## 1.Brief introduction

This series machines are widely used in the industry of bags,tents,mat,etc.

These machines adopt linking lever to take up thread, single needle and special oscillating shuttle to form lock-stitch seam.471 is top and bottom feed and 441 is compound feed, they have strong feeding power and can easy stitch several plies, slippery, extra thick or extra long materials.The stitch seam is neat and beautiful.

These products are suitable for sewing leather belt,tents, sails,construction barrier,industrial bags,etc.

## 2.Main specifications

Applications	Heavy and Extra-heavy weight materials
Max.sewing speed	800s.p.m
Max.stitch length	11mm
Needle bar stroke	56mm
Presser foot lift height	13mm by hand 20mm by pedal
Hook	KSP-204N
Needle	DY×3 25#
Cylinder diameter	81mm
Lubrication	Oiled by hand
Motor power	550W

### 3.操作准备

#### (一)拭擦机器

机头装箱为了防止机件生锈，各部分均涂有较厚的防锈油只脂，同时机头装箱后，还可能在较长的贮藏和长途运输阶段造成油脂硬化和积聚在机器表面的灰尘，所以必须将表面的油脂和灰尘用汽油和洁净的软布拭擦干净。

#### (二)检查

机器出厂时，虽经过周密的检查和试验，但在长途运输中也可能受到强烈的震动使机件松动或歪曲，所以应该做一次周密仔细的检查，并用手轻轻转动主动轮，看机件之间有无转动困难，碰撞现象或其他不均匀的阻力，不正常的声响，如有应做适当的调整，机器情况正常后才可正式试车。

### 4.安装电机(如图1)

将电动机C左右移动，使缝纫机主动轮槽A与电动机皮带轮槽B在一直线位置，以皮带不接触台板为准。

### 4.Installing the motor (Fig.1)

Move the motor C leftward or rightward to make the hand wheel belt groove A and motor pulley belt groove B run in line.

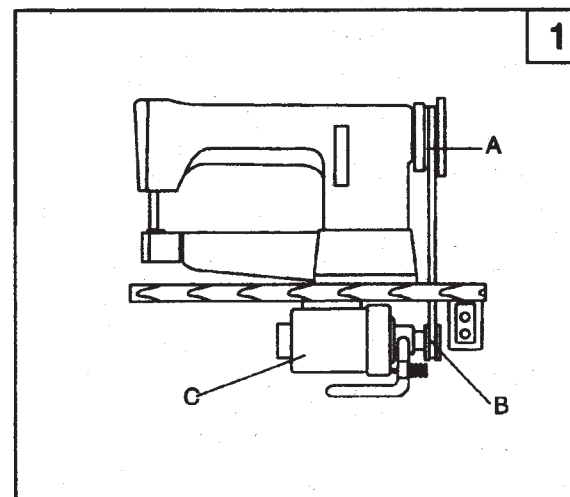
### 3.Machine installation

#### 1.Clearing the machine

Before the head is packed,all of the parts of the machine are coated with anti-rust grease,meanwhile the grease can harden and the dust can cover the machine surface during long time storage and shipment,so,the dust and grease must be cleared by clean cloth with gasoline.

#### 2.Examination

Although every machine is conformed by strict inspection and test before delivery,the parts of the machine may be loose and deformed after long distance transportation with jolt. A thorough examination must be performed.Turn the balance wheel slightly by hand to check if there is running obstruction, parts collision, uneven resistance and abnormal noise. If any of these exist, adjustment must be made accordingly before running.



## 5. 安装皮带防护罩(见图2)

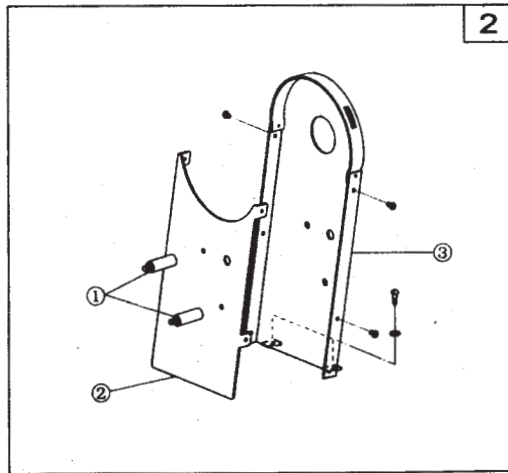
- 从安全角度考虑, 应安装皮带防护罩
- 把皮带罩支架 ① 旋入到机壳螺钉孔内;
  - 皮带罩板 ② 安装在机壳上;
  - 把V型皮带罩套在手轮上;
  - 把皮带罩 ③ 装在皮带罩板 ②上;
  - 钻孔a、a, 用木螺钉固定在台板上。

## 6. 润滑(见图3)

如图在箭头所示处加油

## 7. 安装机针(如图4)

- 转动手轮, 使针杆停在最高位置;
- 旋松机针夹紧螺钉 ①, 使机针 ② 的凹槽a朝向右面;
- 将机针插至针杆孔的底部;
- 拧紧机针夹紧螺钉 ①。



## 5. Installing the belt guard(Fig.2)

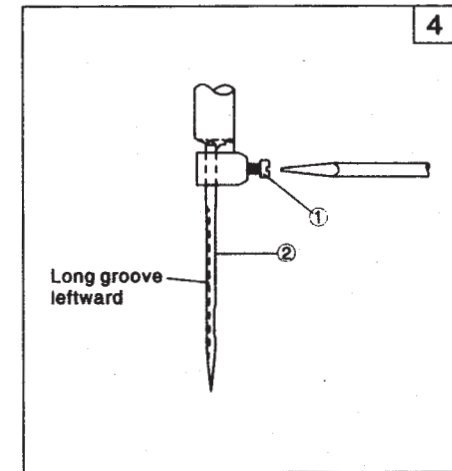
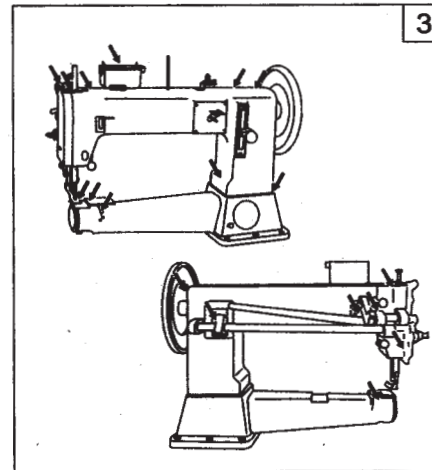
- Please install the belt guard for the safety purpose
- Install the pin supporter ① into the screw hole on the machine casting;
  - Install the guard ② on the casting;
  - Put the V-belt on the hand wheel;
  - Install the guard ③ on the guard ②;
  - Fix the guard on the table with wooden screw.

## 6. Lubrication(Fig.3)

Please add the oil at the places shown by arrows.

## 7. Installing the needle (Fig.4)

- Turn the hand wheel to lift the needle bar at its highest position;
- Loosen the screw ① and keep the long groove A of needle ② rightward;
- Fully insert the needle shank up to the bottom of needle bar;
- Tighten the screw ①.



## 8.线的选择

面线采用左捻线，底线可使用左捻线或右捻线，辨别线的旋向，根据图示，把缝线捏住，以右手按图箭头方向搓转缝线，若线股越搓越紧，则为左捻线，反之，即为右捻线。

## 9.梭心绕线(见图6)

- 自线团来的线，依次穿过A、B、C、D，然后把线头在梭心上绕上几圈；
- 把梭心压板向下掀压，绕线轮即可压向机壳内摩擦轮；
- 绕线量由调节螺钉②加以调节，适当的绕线量为平行绕线至梭心外径的80%。顺时针转动螺钉增加梭心绕线量，逆时针转动螺钉减少梭心绕线量。
- 梭心绕满后，梭心压板松开，绕线器自动停

## 10.放入和取出梭心(如图7)

### (一)取出梭心

打开梭盖，将针杆放至最低位置，在弹簧①和梭心壳②之间插入开手③，压下弹簧①，向外拉梭心壳②，就可将梭心从梭心壳中取出。

### (二)放入梭心

放梭心时，拉出线头，将梭心④放入梭心壳⑤，将线从梭心壳的线槽⑦中向上引出。然后将线从梭心簧⑥下面的穿线孔中引出。确保当梭心壳放入摆梭后，摆梭内的弹簧1被扣住。

## 8.Choosing thread(Fig.5)

The needle thread should be left-twist;the bobbin thread may be left-twist or right-twist.The way judging the thread twist:hold the thread by left hand,twist it by right hand as the direction shown in the Fig.5,if the thread changes tightly,it's left-twist,on the contrary,it's right-twist.

## 9.Winding the bobbin thread (Fig.6)

- Threading the thread from thread spool and pass through A,B,C,D,then wind thread several corcles around bobbin;
- Put the winding lever onto bobbin,the winding pulley will press the friction pulley in the arm;
- Thread amount can be adjusted by screw ②,the optimum capacity of bobbin thread is fill about 80%of bobbin outside diameter,turn the screw clockwise to increase the amount,on the contrary,decrease the amount.
- After finish,loosen the winding lever and thread winder will stop automatically.

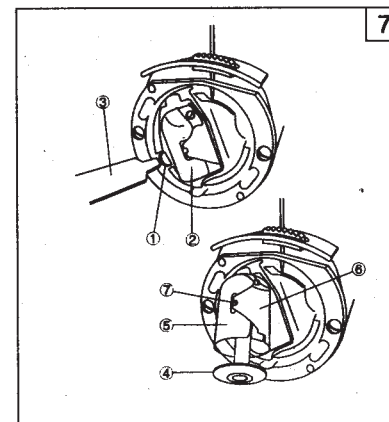
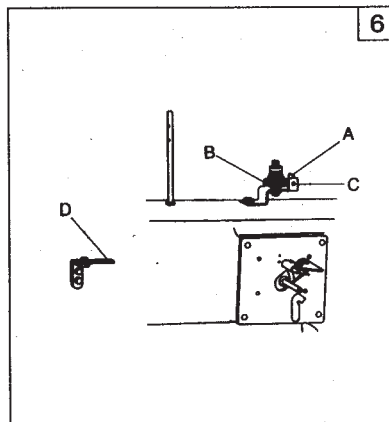
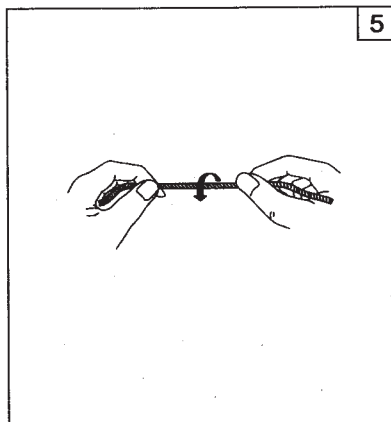
## 10.Installing and uninstalling the bobbin (Fig.7)

### 1. Uninstalling the bobbin

Open the shuttle cover and lower the needle bar at its lowest position,insert the opener③ between spring ① and bobbin case②,press the spring ① down and draw the bobbin case② out,the bobbin will be pulled out from bobbin case.

### 2. Installing the bobbin

When install the bobbin,draw the thread tip out and put the bobbin 4 into bobbin case ⑤,thread the bobbin thread from slit ⑦,then pass it through the hole under the tension spring ⑥. The bobbin case will be locked by spring ① after being put into shuttle.





### 11.穿引针线(见图8)

针线穿法按图示从(1)到(14)。

### 12.调节线张力(见图9)

#### (一)调节面线张力

旋转张力调节螺母(1), 顺时针旋转面线张力增大, 逆时针旋转面线张力减小。

#### (二)调节底线张力

旋转张力调节螺钉(2), 顺时针旋转底线张力增大, 逆时针旋转张力减小。

### 13.调节针距(见图10)

逆时针或顺时针旋转针距调节螺母(1), 刻度板上的数字表示线迹长短尺寸, 若所需针距确定后, 锁紧螺母(2)应拧紧。倒缝送料时, 只要向上提针距调节螺杆即可。若手放松针距调节螺杆, 缝纫机恢复顺向送料。

注: 针距调节螺杆由于长期上下移动而松动时, 旋转螺钉(3), 调整到扳动力度适宜即可。

### 11.Threading needle thread(Fig.8)

The sequence of threading is shown in the Fig 8 from(1)-(14).

### 12.Adjusting thread tension(Fig.9)

#### 1.Adjusting needle thread tension.

Turn the nut ① clockwise to increase the needle thread tension, turn the nut counter-clockwise to decrease the needle thread tension.

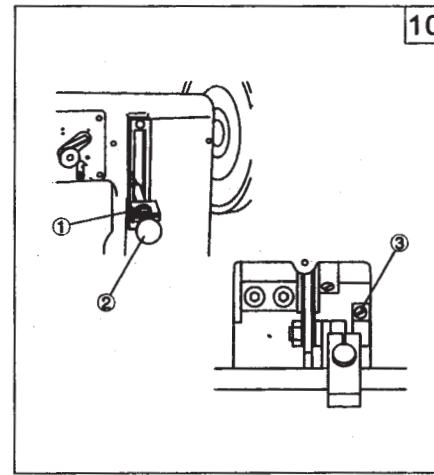
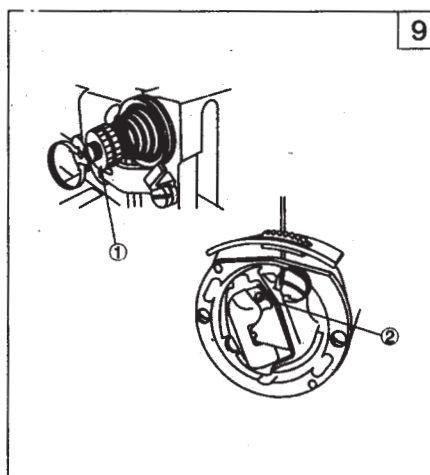
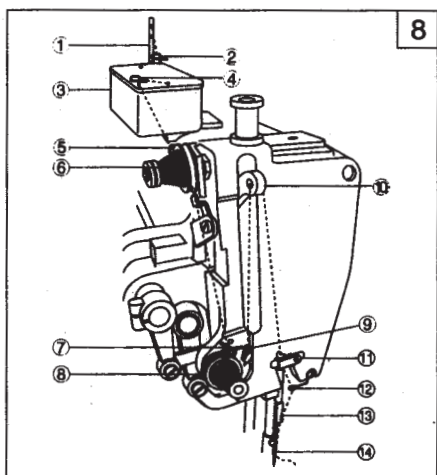
#### 2.Adjusting bobbin thread tension

Turn the screw ② clockwise to increase the bobbin thread tension; turn the screw counter-clockwise to decrease the tension.

### 13.Adjusting stitch length(Fig.10)

Turn the stitch length adjusting nut ① clockwise or counter-clockwise, the numbers on graduation board shown the sizes of the stitch length, if the stitch length confirmed, please tighten the nut ②. For reverse feed, lift the stitch length adjusting screw bar to perform reverse sewing, release the screw bar, the forward sewing is resumed.

Note: if the screw bar becomes loose because of moving upward or downward for a long time, please turn the screw 3 to maintain the proper tension.





#### 14. 调节挑线簧(见图11)

##### (一) 改变挑线簧的行程

- a. 拧松限位板螺钉 ①, 并上下移动限位板 ②;
- b. 限位板向下移, 则增大挑线簧行程, 限位板向上移, 则减小挑线簧行程

##### (二) 改变挑线簧的张力

拧松螺母 ③, 逆时针旋转弹簧轴, 则增大挑线簧张力; 顺时针旋转弹簧轴, 则减小挑线簧张力, 用螺丝刀插入弹簧轴的插口, 旋转到所要求的张力。

#### 15. 调节压脚的压力(见图12)

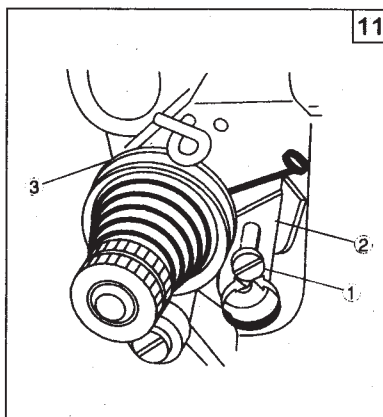
调节适当的压脚压力是根据所采用的缝料而定。

- a. 旋转弹簧调压螺钉(1), 顺时针旋转则增大压脚压力, 反之则减小压脚压力。
- b. 调整后, 紧固调压螺母(2)。

#### 16. 调节送布牙的高度(如图13)

送布牙的调整位置是高出针板1.3~1.5mm。根据缝纫要求调整送布牙高度或更换送布牙后, 请按如下步骤:

- a. 确定送布牙的最高位置, 紧固送布牙螺钉 ①;
- b. 根据缝纫特殊情况, 可临时调整送布牙高度, 相对标准高度或高或低。



#### 14. Adjusting thread take-up spring (Fig.11)

##### 1. Changing the stroke of thread take-up spring

- a. Loosen the screw ① and move the stop plate ② up-ward and downward;
- b. Move the stop plate downward to increase the stroke of thread take-up; move the plate upward to decrease the stroke of thread take-up.

##### 2. Adjusting the tension of thread take-up

Loosen the nut ③, turn the spring shaft counter-clockwise to increase the tension of thread take-up; turn the shaft clockwise to decrease the tension. Please use a screw driver to insert the split on the spring shaft and turn the spring shaft to get the required tension.

#### 15. Adjusting the pressure of presser foot (Fig.12)

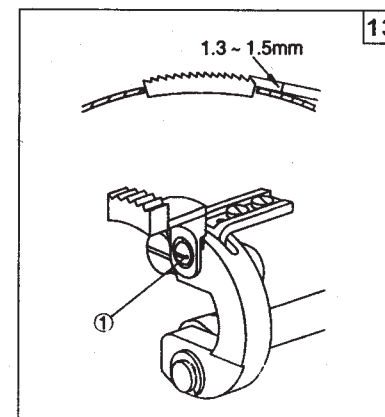
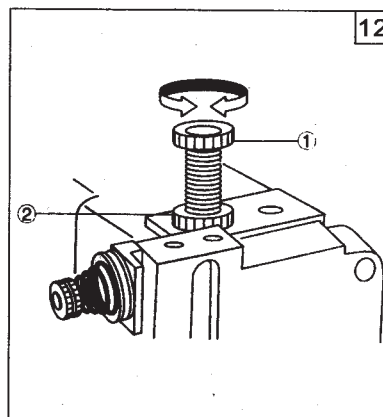
The proper pressure of presser foot should be adjusted according to the materials to be sewn.

- a. Turn the screw ① clockwise to increase the pressure, on the contrary, decrease the pressure.
- b. After finish, tighten the nut ②.

#### 16. Adjusting the height of feed dog (Fig.13)

The adjustment position of feed dog is higher 1.3~1.5mm than needle plate, please adjust it as following sequence according to sewing requirements or after changing a new one:

- a. Confirm the highest position of feed dog, then tighten the feed dog screw ①;
- b. Temporarily adjust the height of feed dog higher or lower compare to the standard height according to special sewing situation.



## 17. 针与摆梭的关系(见图14)

### a. 确定针杆的高度

针杆标准高度的确定,当针杆从最低位置上升4.5-5.5mm时,摆梭勾线尖在针杆中心,针杆孔上边与摆梭勾线尖距离为2.5-3mm。

### b. 确定摆梭的位置

旋松底座孔(1)中曲柄螺钉(2),然后前后移动曲柄,调整梭尖位置完毕后,拧紧螺钉(2)。

c. 梭尖与针杆之间侧面间隙在0.05-0.3mm范围内,旋松下轴后曲柄螺钉和下轴紧固螺钉,左右移动下轴,调整后,拧紧各螺钉。

## 18. 调节压脚交互量(见图15)

摆压脚和小压脚的交替提升量,可在一定范围内进行适当的调节,在一般的厚料缝纫中,摆压脚提升量为6mm,小压脚提升量为4.5mm左右。当其它机构不变的情况下,两压脚提升量之和是一定值。

调节方法:旋松调节曲柄螺钉(1),按图示向上转动升降前曲柄,摆压脚的提升量增大,反之提升量减小。调好后,将螺钉拧紧即可。

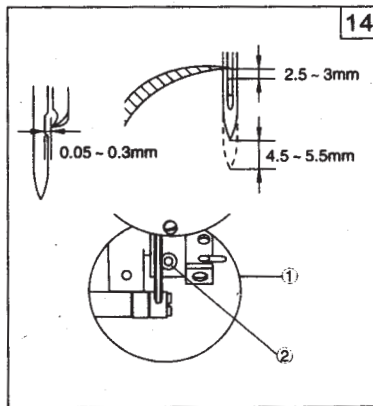
摆压脚和小压脚总提升量的调节方法:先将偏心轮连杆螺钉(2)旋松,然后调节该螺钉与升降轴中心距B,若使摆压脚和小压脚总提升量增加,中心距B变小,反之总提升量减小。其调节量有一定范围,不宜过大。

## 19. 调节上送料同步(见图16)

a. 不管下送料,放下提升杆,就可获得粗糙上送料线迹。

B. 441的微调如图所示,旋松螺钉(1),按箭头所示方向调整(2)(3)的相对位置,调节结束后旋紧螺钉(1)。

c. 471的微调如图所示,旋松手柄螺钉(4),按箭头所示方向旋转蜗杆(5)进行调整,调节结束后旋紧螺钉(4)。



## 17. The relationship between needle and shuttle (Fig.14)

### a. confirm the height of needle bar

When the needle bar is lifted 4.5~5.5mm from its lowest position, the tip of shuttle should locate at the center of needle bar and the clearance between the top of needle bar hole and the tip of shuttle is 2.5~3mm.

### b. Confirm the position of shuttle

Loosen the crank screw ② in the bed hole ①, move the crank forward or backward, after adjust the position of the tip of shuttle, tighten the screw ②.

c. The flank clearance between the tip of shuttle and needle bar should be 0.05~3mm, loosen the rear crank screw and collar screw of lower shaft, move the lower shaft leftward or rightward, after adjustment, tighten the screws.

## 18. Adjusting the lifting amount of alternating foot (Fig.15)

The lifting amount of alternating foot can be adjusted within a certain range, for normal sewing, the lifting amount of outer presser foot is 6mm, the lifting amount of inner presser foot is 4.5mm, if the other mechanism is fix, the lifting amount of two feet is constant.

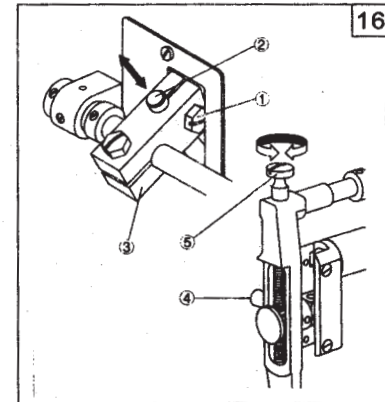
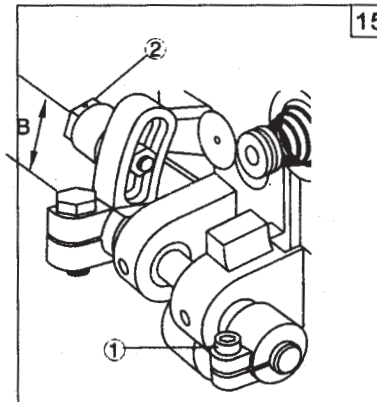
Adjusting method: loosen the crank screw ①, turn the crank upward shown in the Fig 15 to increase the lifting amount of outer presser foot, on the contrary, decrease the amount, after finish, tighten the screw. Adjusting method of lifting amount of two feet: loosen the screw ②, adjust the central distance B between the screw and upper feed shaft, shorten the distance B will increase the lifting amount, on the contrary, decrease the amount. Please note the range of adjustment is limited, please don't be overlarge.

## 19. Adjusting the timing of upper feed (Fig.16)

a. Ignoring ① lower feed, lower the presser foot lifting bar and the coarse stitch of upper feed is realized.

b. For 441, loosen the screw ①, adjust the relative position between ② and ③, after finish, tighten the screw ①.

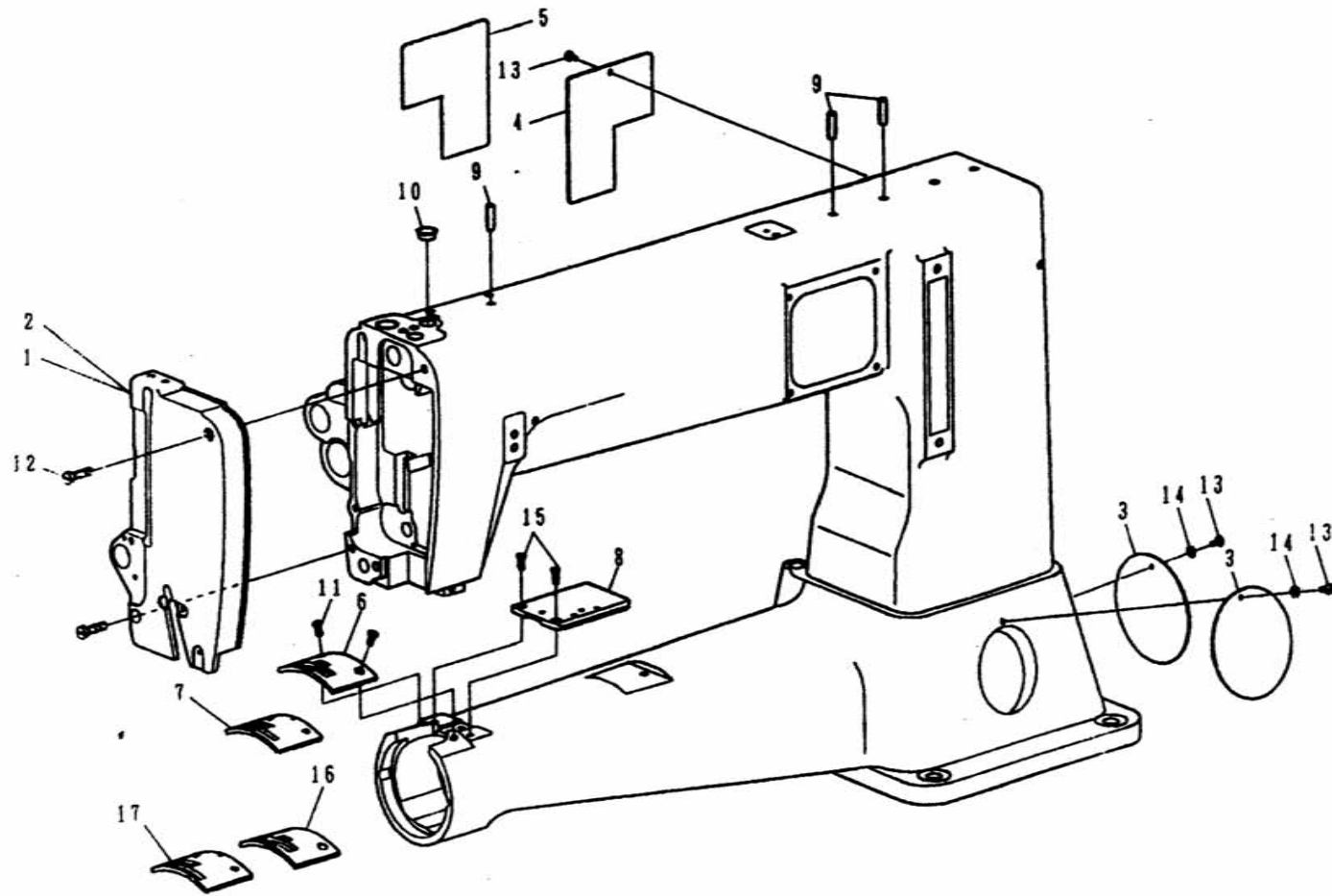
c. For 471, loosen the screw ④, turn the worm ⑤ as the direction shown in the Fig.16, after finish, tighten the screw ④.



## 零件手册 Parts Manual

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A.机壳、外装机构 FRAME & MISCELLANEOUS COVER COMPONENTS





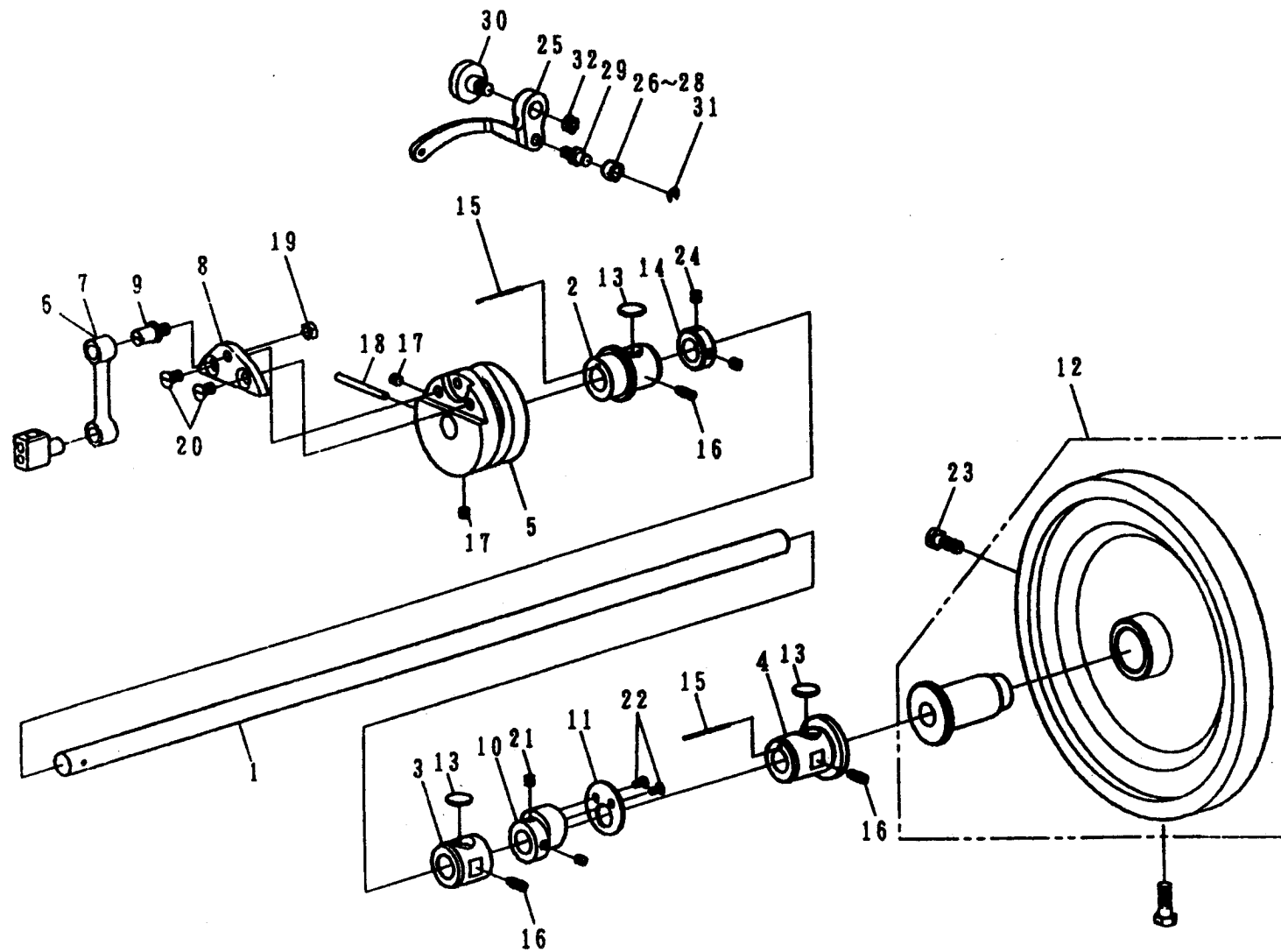
A. 机壳外装机构 FRAME & MISCELLANEOUS VOVER SOMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 Q'TY	备注 Remarks
1	#01	4410111005	面板组件-----	Face Plate Asm.-----	1	
2	#02	4710111005	面板组件-----	Face Plate Asm.-----	1	
3		4710111100	底座侧面板 (A) ----	Side Cover, A-----	2	
4	#01	4410111200	侧盖板 (B) -----	Side Cover, B-----	1	
5	#02	4710111200	侧盖板 (B) -----	Side Cover, B-----	1	
6	#01	4410111300	针板-----	Throat Plate-----	1	
7	#02	4710111300	针板-----	Throat Plate-----	1	
8		4710111600	角板-----	Slide Plate-----	1	
9		YD050018	油管-----	Oil Pipe-----	3	
10	#01	S1013-0A	油塞-----	Rubber Plug-----	1	
11		ZSB12045	针板螺丝-----	Screw 3/16-28 L=8----	2	
12		ZSB15014	面板螺丝-----	Screw 15/64-28 L=21--	2	
13		ZSB09047	侧盖板螺丝-----	Screw 9/64-40 L=7----	3	
14		WC049001	螺丝垫圈-----	Washer-----	2	
15		ZSB11018	角板螺钉-----	Screw 11/64-40 L=9----	2	
16	#01	4410111400	针板-----	Throat Plate(Short)---	1	
17	#02	4710111400	针板-----	Throat Plate(Short)---	1	

Note(注记) #1.....For -441 用

#2.....For -471 用

B. 上轴机构 MAIN SHAFT COMPONENTS



B. 上轴机构 MAIN SHAFT COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 Q'TY	备注 Remarks
1		4710120101	上轴	Main Shaft	1	
2		4710120201	上轴前套	Main Shaft Bushing ,Front	1	
3		4710120300	上轴中套	Main Shaft Bushing ,Center	1	
4		4710120400	上轴后套	Main Shaft Bushing , Rear	1	
5		4710191301	挑线凸轮	Thread Take Up Cam	1	
6	#01	4410121000	针杆小连杆	Needle Bar Crand Rod	1	
7	#02	4710121000	针杆小连杆	Needle Bar Crand Rod	1	
8		4710121100	挑线凸轮连接座	Crand Plate	1	
9		4710121300	挑线凸连接轴	Needle Bar Crank Shaft	1	
10		4710122000	送料凸轮	Feed Cam	1	
11		4710122100	凸轮侧板	Side Plate	1	
12		4710122304	上轮	Hand Wheel Asm.	1	
13		4710122500	油线	Felt	3	
14		4710122601	上轴定环	Thrust Coller	1	
15		XA200160	油线	Oil Wick	2	
16		ZSA15010	上轴套螺钉	Screw 15/64-28 L=15	3	
17		ZSH16001	挑线凸轮螺钉	Screw 1/4-40 L =6	2	
18		YB040045	挑线凸轮销	Tapered Pin 4.0X45	1	
19		ZSL18001	凸轮连接座螺母	Nut 9/32-28	1	
20		ZSC18001	凸轮连接座螺钉	Screw 9/32-28 L=22	2	
21		ZSH15001	凸轮螺钉	Screw 15/64-28 L=7	2	
22		ZSC11007	凸轮侧板螺钉	Screw 11/64-40	2	
23		ZSD20003	上轮螺钉	Screw 5/16-24 L=21	2	
24		ZSA16025	定环螺钉	Screw 1/4-40 L=6	2	
25		4710190100	挑线杆体	Thread Take Up Lever	1	
26		4710190200	挑线滚柱套	Roller	1	
27	#03	4710190220	挑线滚柱套	Roller	1	
28	#03	4710190230	挑线滚柱套	Roller	1	
29		4710190300	挑线杆滚柱轴	Roller Stud	1	
30		ZSG20012	挑线螺钉	Hinge Screw	1	
31		RE000040	E型环	E-Shaped Snap Ring(4mm)	1	
32		ZSL18001	挑线螺母	Nut 9/32-28	1	

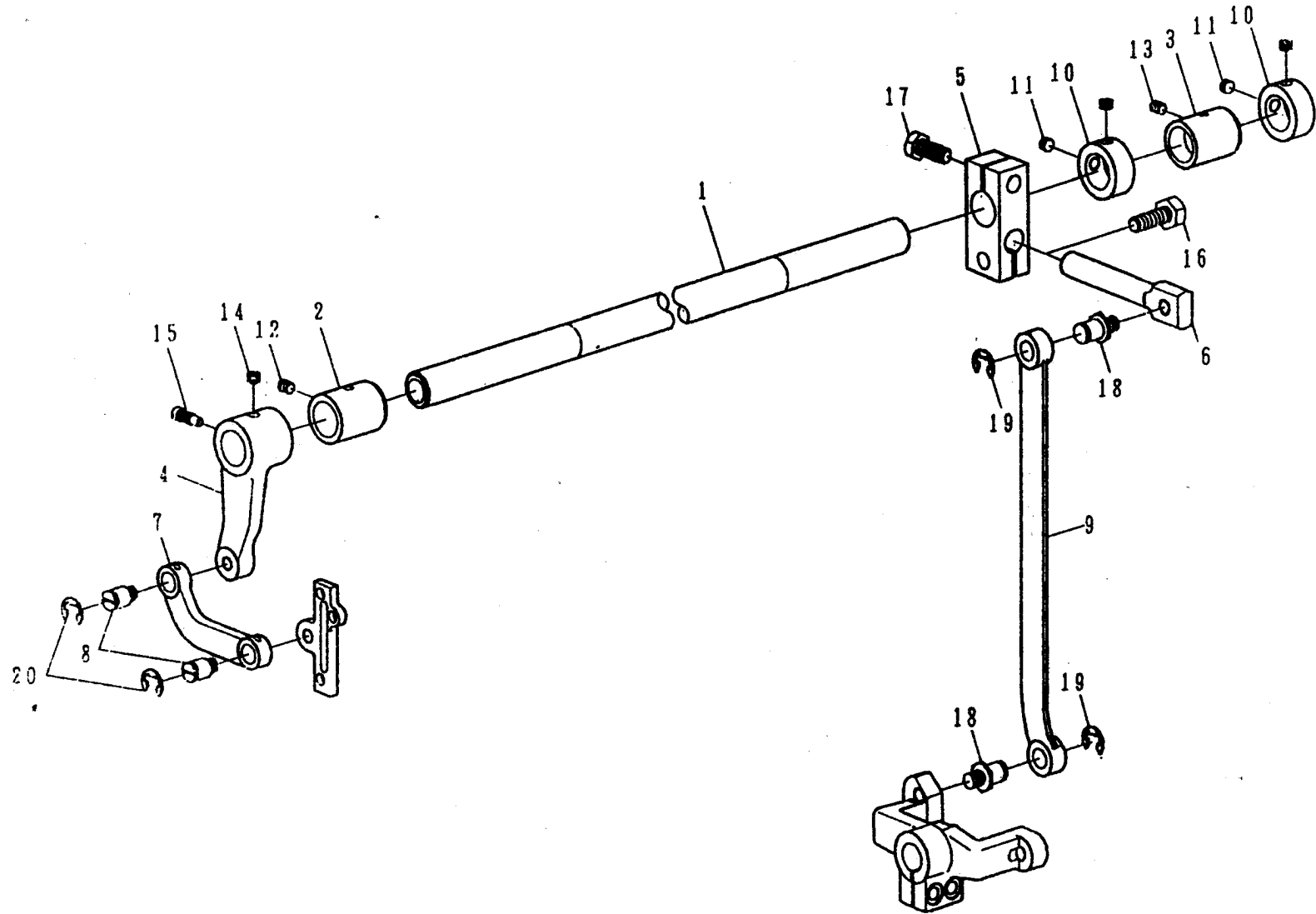
Note(注记)#1.....For -441 用

#2.....For -471 用

#3.....Selective part 选用品



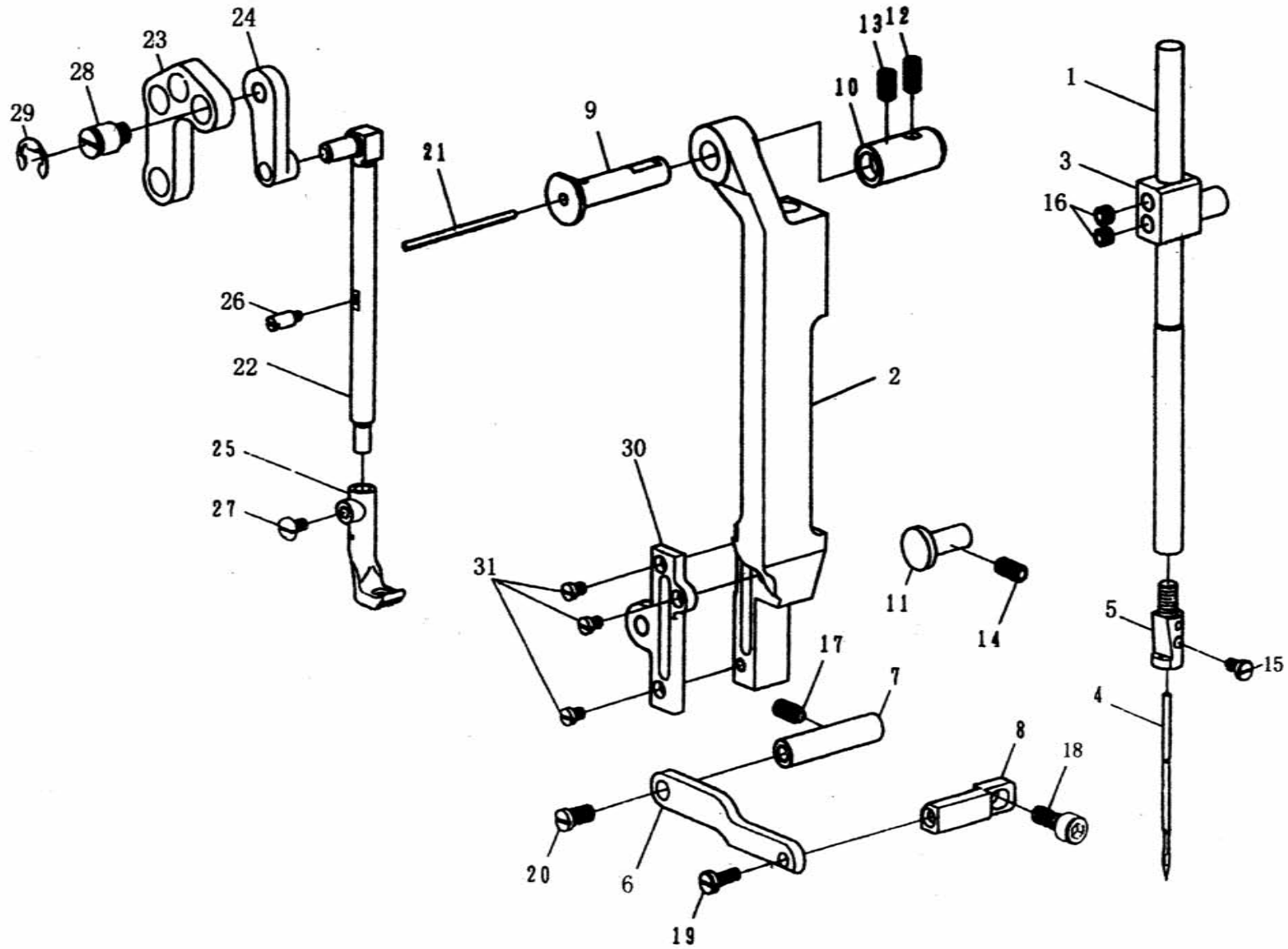
C. 针杆·上送料机构 NEEDLE BAR UPPER FEED MECHANISM COMPONENTS



C. 针杆 上送料机构 NEEDLE BAR • UPPER FEED MECHANISM COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 Q'TY	备注 Remarks
1		4410142100	中轴	Driving Shaft	1	
2		4410145600	中轴前套	Driving Shaft Front Metal	1	
3		4710142201	中轴后套	Driving Shaft Rear Metal	1	
4		4410142300	中轴前连杆	Driving Shaft Rod, Front	1	
5		4410142400	中轴后连杆	Driving Shaft Rod, Rear	1	
6		4410141900	中轴后连杆销	Driving Shaft Rear Arm Pin	1	
7		4410143100	压杆连杆	Frame Driving Link	1	
8		ZSK18019	压杆连杆螺钉	Hinge Screw	2	
9		4410142000	送料连杆	Frame Driving Rod	1	
10		LG4043-0A	中轴定环	Thrust Collar D=18 W=12	2	
11		ZSA16010	定环螺钉	Screw 1/4-40 L=4.5	4	
12		ZSA15028	中轴套螺钉	Screw 15/64-28 L=7	1	
13		ZSA15028	中轴套螺钉	Screw 15/64-28 L=7	1	
14		ZSH16005	中轴前连杆螺钉	Screw 1/4-40 L=4.5	1	
15		ZSB15015	中轴前连杆定位螺钉	Screw 15/64-28 L=14.5	1	
16		ZSD20011	中轴后连杆紧固螺钉	Screw 5/16-18 L=18	1	
17		ZSD20009	中轴后连杆紧固螺钉	Screw 5/16-18 L=24	1	
18		ZSK20009	送料连杆螺钉	Hinge Screw	2	
19		RE000080	E型环	E-Shaped Snap Ring(8mm)	2	
20		RE000080	E型环	E-Shaped Snap Ring(8mm)	2	

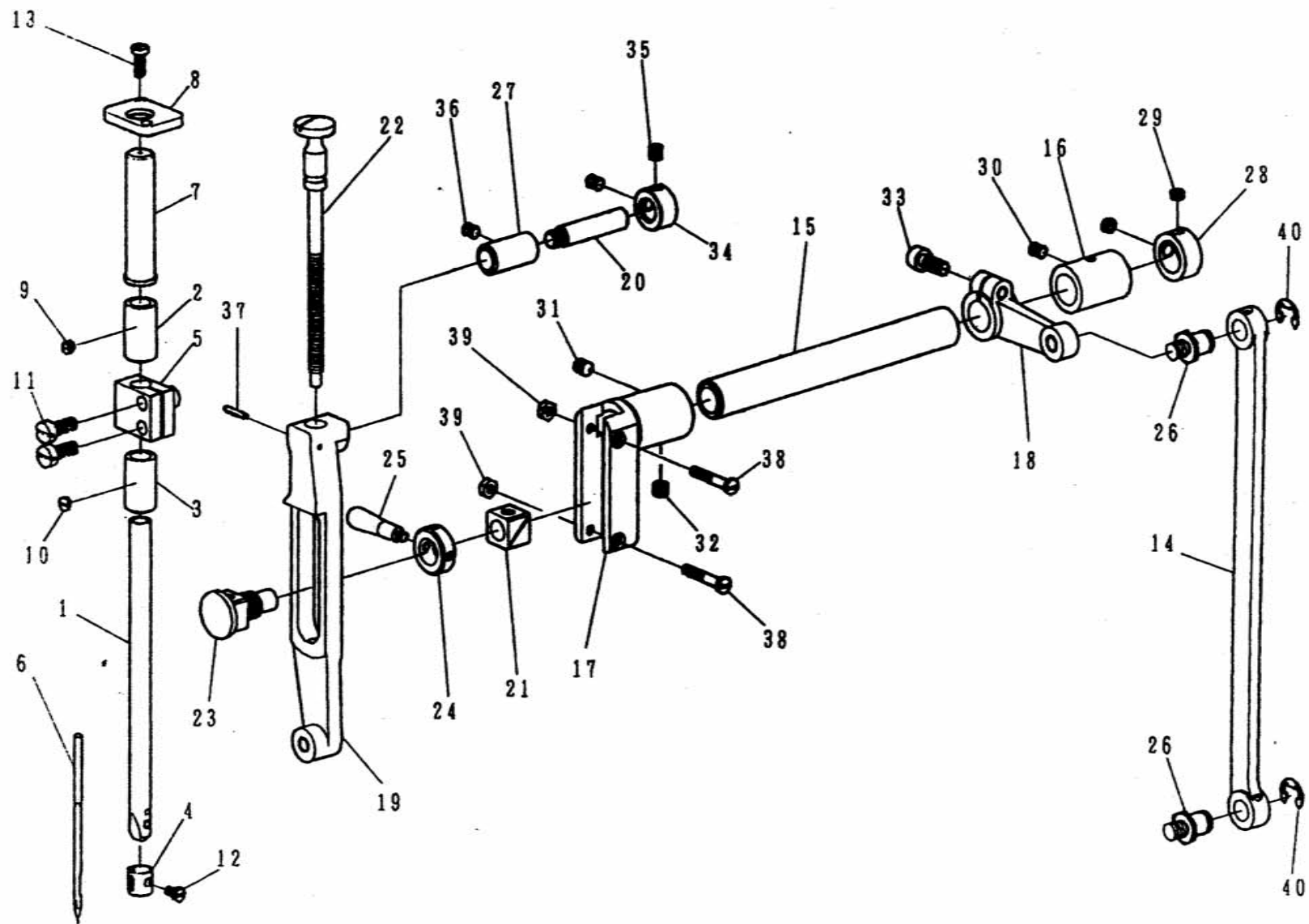
C. 针杆·上送料机构 NEEDLE BAR·UPPER FEED MECHANISM COMPONENTS



C. 针杆. 上送料机构 NEEDLE BAR UPPER FEED MECHAISM COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4410140100	针杆	Needle Bar	1	
2		4410270100	针杆座	Frame Driving Base	1	
3		4410140900	针杆连接轴	Needle Bar Connnection	1	
4		IN794#230	机针	Needle (794 Nm=230-4)	1	
5		4410140200	针夹	Needle Stopper	1	
6		4410143700	压板	Pressure Plate	1	
7		4410272300	调节轴	Setting Shaft	1	
8		4410272200	调节板	Setting Plate	1	
9		4410270200	针杆座调节轴	Frame Driving Base Shaft	1	
10		4410273000	调节轴套	Frame Driving Base Shaft Metal	1	
11		4410270400	针杆座定位轴	Frame Driving Base Guide	1	
12		ZMH06005	调节套固定螺钉	Screw 15/64-28 L=12	1	
13		ZMH06010	调节套固定螺钉	Screw 15/64-28 L=12	1	
14		ZMH06005	定位轴固定螺钉	Screw 15/64-28 L=12	1	
15		ZSB11022	针夹螺钉	Screw 11/64-40 L=7	1	
16		ZMH16005	针杆连接轴螺钉	Screw 1/4-40 L=4.5	2	
17		ZMH06005	调节轴固定螺钉	Screw 15/64-28 L=12	1	
18		ZMJ06002	调节板螺钉	Screw 15/64-28 L=21	1	
19		ZSB11076	压板固定螺钉A	Screw 11/64-40 L=12	1	
20		ZSB15004	压板固定螺钉B	Screw 15/64-28 L=10.5	1	
21		XA200100	毛毡	Oil Wick	1	
22		4410150100	压杆	Upper Feed Bar	1	
23		4410143600	L型连杆	L Link	1	
24		4410143300	压杆连杆	Upper Feed Frame Driving Link	1	
25		4410151000	内压脚	Pressure Foot	1	
26		4410142900	压杆定位螺柱	Upper Feed Bar Pin	1	
27		ZSB11041	内压脚螺钉	Screw 11/64-40 L=7	1	
28		ZSK18019	L型连杆定位螺钉	Hinge Screw	1	
29		RE000080	E型环	E-Shaped Snap Ring(8mm)	1	
30		4410151100	压杆定位板	Guide Plate	1	
31		ZSB11042	定位板固定螺钉	Screw 11/64-40 L=4.5	1	

C. 针杆. 上送料机构 NEEDLE BAR UPPER FEED MECHAISM COMPONENTS



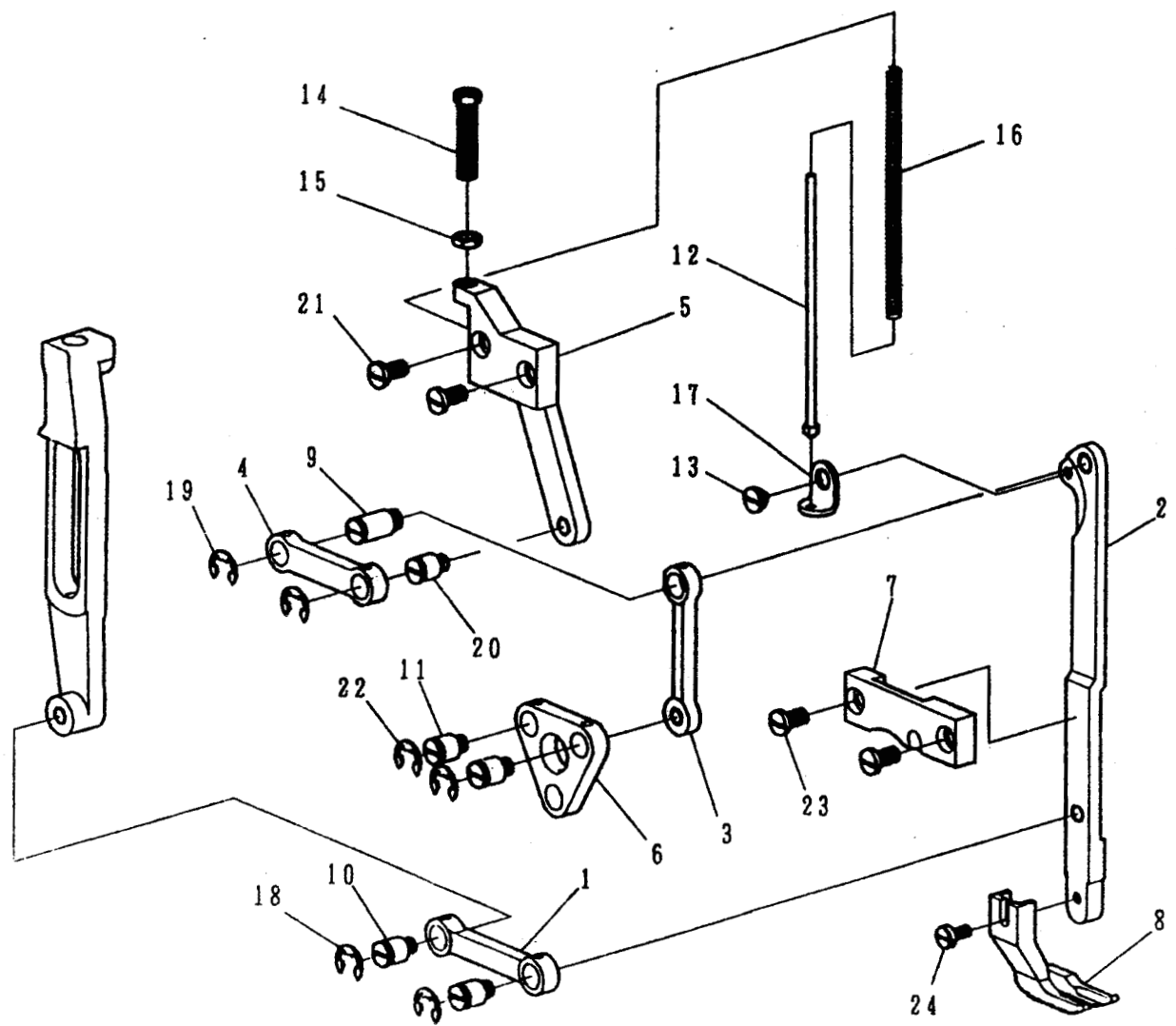
C. 针杆 上送料机构 NEEDLE BAR UPPERFEED MECHANISM COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 Q'TY	备注 Remarks
1	#02	4710140100	针杆	Needle Bar	1	
2	#02	4710140400	针杆上套	Needle Bar Bushing, Upper	1	
3	#02	4710140500	针杆下套	Needle Bar Bushing, Lower	1	
4	#02	4710140700	针杆挡线	Needle Bar Thread Guide	1	
5	#02	4710140900	针杆连接轴	Needle Bar Connection	1	
6	#02	IN794#230	机针	Needle (794 Nm=230)	1	
7	#02	4710141200	针杆护套	Needle Bar Cover	1	
8	#02	4710141300	针杆护套定位板	Cover Plate	1	
9	#02	ZSA15013	针杆上套螺钉	Screw 15/64-28L=3.4	1	
10	#02	ZSA16039	针杆下套螺钉	Screw 15/64-28L=2.5	2	
11	#02	ZSB15032	针杆连接轴收紧螺钉	Screw 15/64-28L=14	1	
12	#02	ZSB11030	挡线螺钉	Screw 11/64-40L=6.5	2	
13	#02	ZSB11076	定位板螺钉	Screw 11/64-40L=12	1	
14	#02	4710142000	送料连杆	Lengthwise Feed Rod	1	
15	#02	4710142101	中轴	Driving Shaft	1	
16	#02	4710142201	中轴套	Bushing, Rear	1	
17	#02	4710142301	中轴前连杆	Driving Shaft Rod, Front	1	
18	#02	4710142401	中轴后连杆	Driving Shaft Rod, Rear	1	
19	#02	4710142500	上送料调节器	Uper Feed Control Bracket	1	
20	#02	4710142600	调节器连接轴	Shaft	1	
21	#02	4710142700	上送料调节滑块	Brock	1	
22	#02	4710142800	上送料调节罗丝	Screw	1	
23	#02	4710142900	滑块连接轴	Shaft	1	
24	#02	4710143000	滑块连接轴锁紧螺母	Nut	1	
25	#02	4710143900	滑块连接轴锁紧提杆	Control Lever	1	
26	#02	ZSK20009	送料连杆螺钉	Hinge Screw	2	
27	#02	4710140500	连接轴套管	Bushing	1	
28	#02	LG4043-0A	中轴定环	Thrust Collar D=18 w=10	1	
29	#02	ZSA16010	定环螺钉	Screw 1/4-40L=4.5	2	
30	#02	ZSA15028	中轴套螺钉	Screw 15/64-28L=7	1	
31	#02	ZSH16002	中轴前连杆固定螺钉	Screw 1/4-40L=8.5	1	
32	#02	ZSH16001	中轴前连杆固定螺钉	Screw 1/4-40L=6	1	
33	#02	ZMJ06002	中轴后连杆收紧螺钉	Screw M6L=15	1	
34	#02	LQ1274-0A	连接轴定环	Thrust Collar D=9.53 W=10	1	
35	#02	ZSA15028	连接轴定环螺丝	Screw 15/64-28L=7	2	
36	#02	ZSA15028	连接轴套螺丝	Screw 15/64-28L-7	1	
37	#02	YD025014	弹簧销	Spring Pin 2.8x14	1	
38	#02	ZSB11507	滑块防护螺丝	Screw 11/64-40L=24	2	
39	#02	ZSL11004	滑块防护螺母	Nut 11/64-40	2	
40	#02	RE000080	E型环	E-Shaped Snap Ring(8mm)	2	

Note(注记) #02.....For 471 -471用



C. 针杆. 上送料机构 NEEDLE BAR·UPPER FEED MECHAISM COMPONENTS



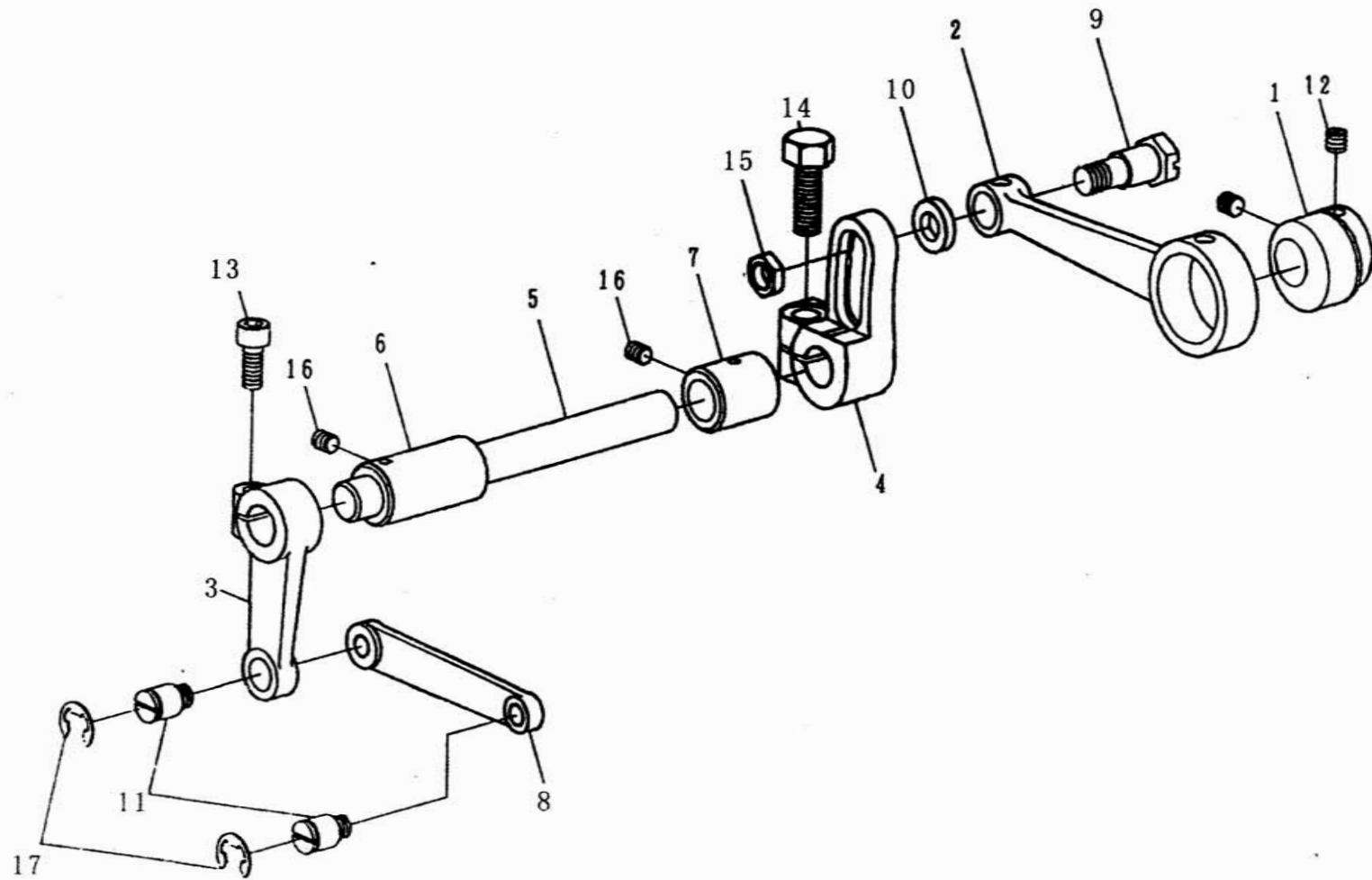


C. 针杆. 上送料机构 NEEDLE BAR UPPER FEED MECHAISM COMPONENTS

REF.No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1	#02	4710143100	压脚小连杆	Rod	1	
2	#02	4710143200	同步压杆	Upper Feed Rod	1	
3	#02	4710143300	连杆A	Upper Feed Link A	1	
4	#02	4710143400	连杆B	Upper Feed Link B	1	
5	#02	4710143500	连杆架	Upper Feed Link Bracket	1	
6	#02	4710143600	三角形连杆	Bracket	1	
7	#02	4710143700	同步压杆导架	Supporting Plate	1	
8	#02	4710143800	外压脚	Walking Foot (Standard)	1	
9	#02	ZSK20006	连杆A螺钉	Hinge Screw	1	
10	#02	ZSK18019	上送调节器连接螺钉	Hinge Screw	2	
11	#02	ZSK18019	三角形连杆连接螺钉	Hinge Screw	2	
12	#02	4710144100	弹簧导杆	Spring Guide Bar	1	
13	#02	ZSG11058	弹簧支板固定螺钉	Hinge Screw	1	
14	#02	ZSF18001	调压螺钉	Adjusting Thumb Screw	1	
15	#02	ZSL18003	调压螺母	Nut 9/32-28	1	
16	#02	4710144200	压缩弹簧	Spring	1	
17	#02	E1288-0A	弹簧支板	Retaining Plate	1	
18	#02	RE000080	E型环	E-Shaped Snap Ring (8mm)	2	
19	#02	RE000080	E型环	E-Shaped Snap Ring (8mm)	2	
20	#02	ZSK18019	连杆架连接螺钉	Hinge Screw	1	
21	#02	ASB15005	连杆架固定螺钉	Screw 15/64-28 L=12	2	
22	#02	RE000080	E型环	E-Shaped Snap Ring (8mm)	2	
23	#02	ZSB15005	压杆导架固定螺钉	Screw 15/64-28 L=12	2	
24	#02	ZSB11026	外压脚螺钉	Screw 11/64-40 L=9.5	1	

Note(注记)#2.....For -471 用

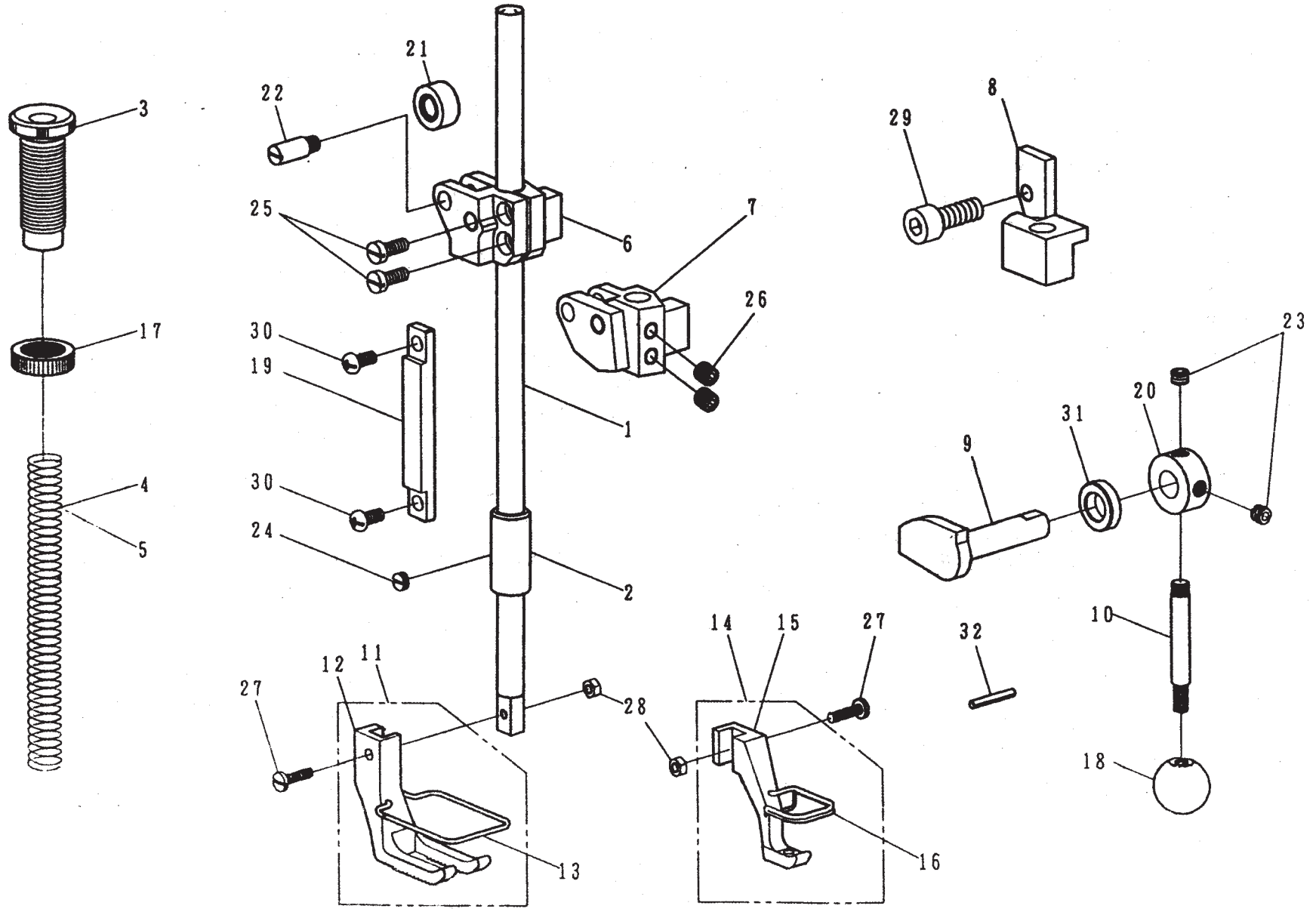
C. 针杆. 上送料机构 NEEDLE BAR·UPPER FEED MECHAISM COMPONENTS



C. 针杆 上送料机构 NEEDLE BAR • UPPER FEED MECHANISM COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710144401	上送轴偏心	Driving Cam	1	
2		4710144500	上送料连杆	Connecting Rod	1	
3		4710144600	上送轴连杆	Driving Shaft Arm,Front	1	
4		4710144700	上送轴曲柄	Driving Shaft Arm,Rear	1	
5		4710144800	上送轴	Feed Rocker Shaft	1	
6		4710144900	上送轴前套	Bushing,Front	1	
7		4710145000	上送轴后套	Bushing,Rear	1	
8		4710145100	摇轴连杆	Rod	1	
9		ZSG22002	上送料调节螺丝	Hinge Screw	1	
10		WH208005	平垫	Washer	1	
11		ZSK18019	上送轴连接螺钉	Hinge Screw	2	
12		ZSA16025	偏心顶丝	Screw 1/4-40 L=6	2	
13		ZMJ06002	曲柄收紧螺钉	Screw m6 L=21	1	
14		ZSD20011	上送轴曲柄收紧螺钉	Screw 5/16-18	1	
15		ZSL22001	上送料调节螺母	Nut 11/32-28	1	
16		ZSA15028	上送轴后套顶丝	Screw 15/64-28 L=7	2	
17		RE000080	E型环	E-Shaped Snap Ring(8mm)	2	

D. 压脚机构 PRESSURE BAR COMPONENTS

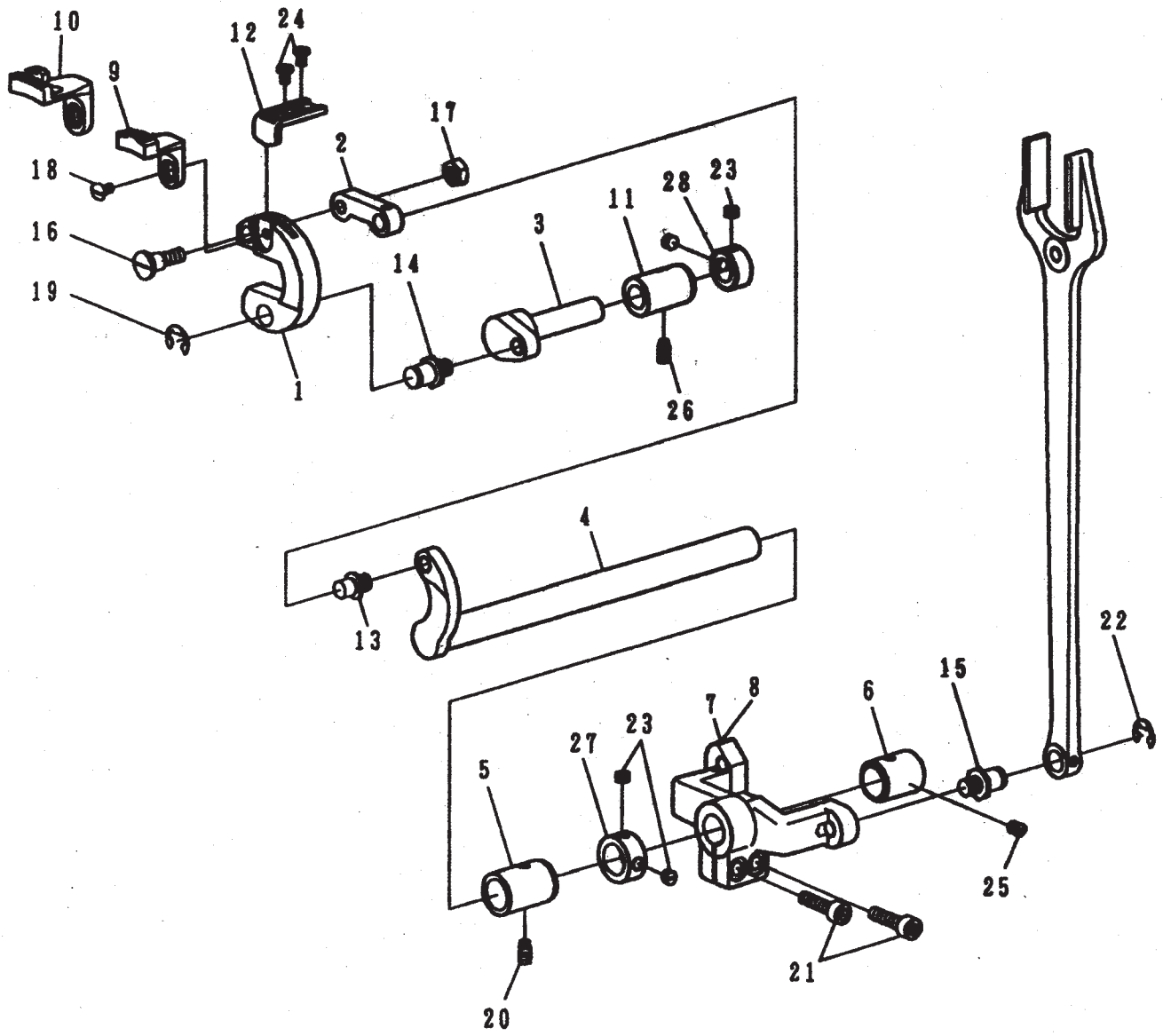


D. 压脚机构 PRESSURE BAR COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710150100	压杆	Presser Bar	1	
2		4710150200	压杆下套	Presser Bar Bushing	1	
3		4710150300	压杆调压罗丁	Screw	1	
4	#01	4410150400	压杆压缩弹簧	Spring	1	
5	#02	4710150400	压杆压缩弹簧	Spring	1	
6	#01	4410150500	压杆导架	Presser Bar Guide Bracket	1	
7	#02	4710150500	压杆导架	PResser Bar GUIDE bracket	1	
8		4710150600	压杆提升器	Hand Lifter Link	1	
9		4710150700	压杆偏心轴	Hand Lifter Cam	1	
10		4710150800	压脚提杆	Hand Lifter Lever	1	
11	#01	4410143805	外压脚(组)	Pressure Foot(Stdard)Asm.	1	
12	#01	4410143800	外压脚	Pressure Foot(Stdard)	1	
13	#01	4410152500	外压脚挡线簧	Guand	1	
14	#02	4710152500	内压脚(组)	Pressure Foot(Standard)Asm.	1	
15	#02	4410151000	内压脚	Pressure Foot(Standard)	1	
16	#02	4410152500	内压脚挡线簧	Guand	1	
17		4410115500	压簧锁紧螺母	Nut	1	
18		4410151600	压脚提升手球	Grip	1	
19		4710151700	导板	Guide Plate	1	
20		4710151800	压杆提升定环	Thrust Collar	1	
21		4710151900	滚轮	Roller Follower	1	
22		4710152000	滚轮轴	Guide Pin	1	
23		ZSH16005	定环顶丝	Screw 1/4-40 L=4.5	2	
24		ZSA15013	压杆下套顶丝	Screw 15/64-28L=2.5	1	
25	#01	ZSB12002	压杆导架收紧螺钉	Screw 3/16-28 L=12	2	
26	#02	ZSH16001	压杆导架螺丝	Screw 1/4-40 L=6	2	
27		ZSB09061	外压脚螺丝	Screw 9/64-40 L=13.5	1	
28		ZSL09001	外压脚螺母	Nut 9/64-40	1	
29		ZSJ16001	提升架螺钉	Screw 1/4-40 L=4.5	1	
30		ZSB11011	导板固定螺钉	Screw 11/64-40 L=9	2	
31		WA100009	定环	Collar	1	
32		YD030020	弹簧销	Spring Pin 3.0x20	1	

Note(注记) #1.....For -441用  
 #2.....For -471用

E. 送料机构 FEED MECHANISM COMPONENTS (1/2)





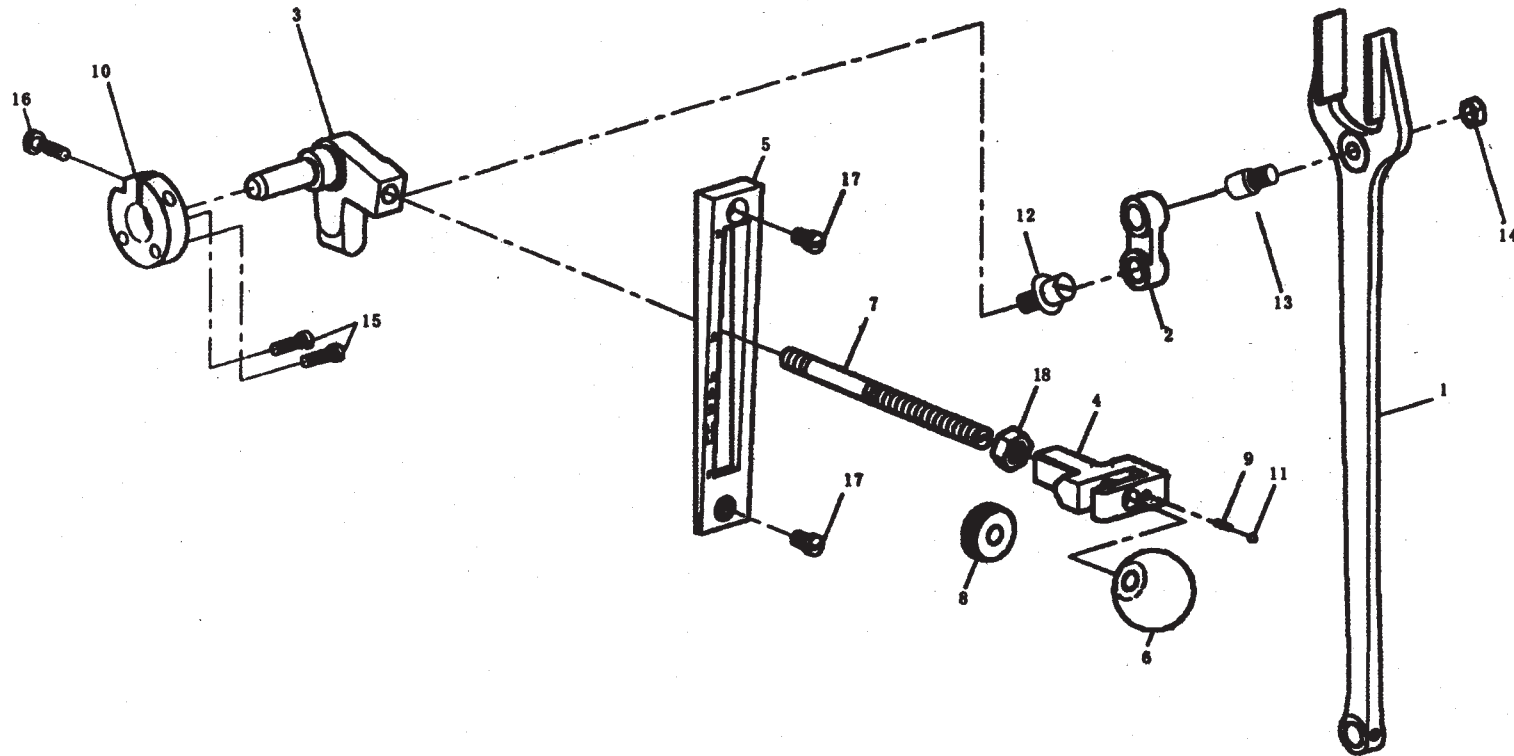
E. 送料机构 FEED MECHANISM COMPONENTS(1/2)

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710160100	牙架-----	Feed Bar-----	1	
2		4710160200	牙架连杆-----	Feed Bar Link-----	1	
3		4710160300	牙架连接轴-----	Driving Shaft-----	1	
4		4710160404	摇动轴-----	Feed Rocker Shaft-----	1	
5		4710160600	摇动轴前套-----	Bushing,Front-----	1	
6		4710160700	摇动轴后套-----	Bushing,Rear-----	1	
7	#1	4410160800	摇动曲柄-----	Feed Rocker Shaft Crank----	1	
8	#2	4710160800	摇动曲柄-----	Feed Rocker Shaft Crank----	1	
9	#1	4410161400	送料牙-----	Feed Dog-----	1	
10	#2	4710161400	送料牙-----	Feed Dog-----	1	
11		4710161700	牙架连接轴套-----	Driving Shaft Metal-----	1	
12		4710162100	牙架压板-----	Feed Bar Presser-----	1	
13		ZSK20007	摇动轴螺柱-----	Hinge Screw-----	1	
14		ZSK20009	牙架连接轴螺柱-----	Hinge Screw-----	1	
15		ZSK20009	牙叉连接螺柱-----	Hinge Screw-----	1	
16		ZSG16024	连杆牙架连接螺钉-----	Hinge Screw D=7.94 L=8-----	1	
17		ZSL16004	连杆牙架连接螺母-----	Nut 1/4-24-----	1	
18		ZSB11041	机牙螺丝-----	Screw 11/64-40L=7-----	1	
19		RE000080	E型环-----	E-Shaped Snap Ring (8mm)----	1	
20		ZSA15037	摇动轴前套顶丝-----	Screw 15/64-28 L=10.5-----	1	
21		ZMJ06004	摇动曲柄收紧螺钉-----	Screw M6-----	2	
22		RE000080	E型环-----	E-Shaped Snap Ring (8mm)----	1	
23		ZSA16029	定环顶丝-----	Screw 1/4-40L=3.5-----	4	
24		ZSB11035	牙架压板螺丝-----	Screw 11/64-28L=6-----	2	
25		ZSA15028	摇动轴后套顶丝-----	Screw 15/64-28L=7-----	1	
26		ZSA15037	牙架连接套顶丝-----	Screw 15/64-28L=10.5-----	1	
27		LG4044-0A	摇动轴定环-----	Thrust Collar D=14.72 W=10--	1	
28		LG4014-0A	牙架连接轴定环-----	Thrust Collar D=11.11 W=10--	1	

Note(注记) #1.....For -441 用  
#2.....For -471 用



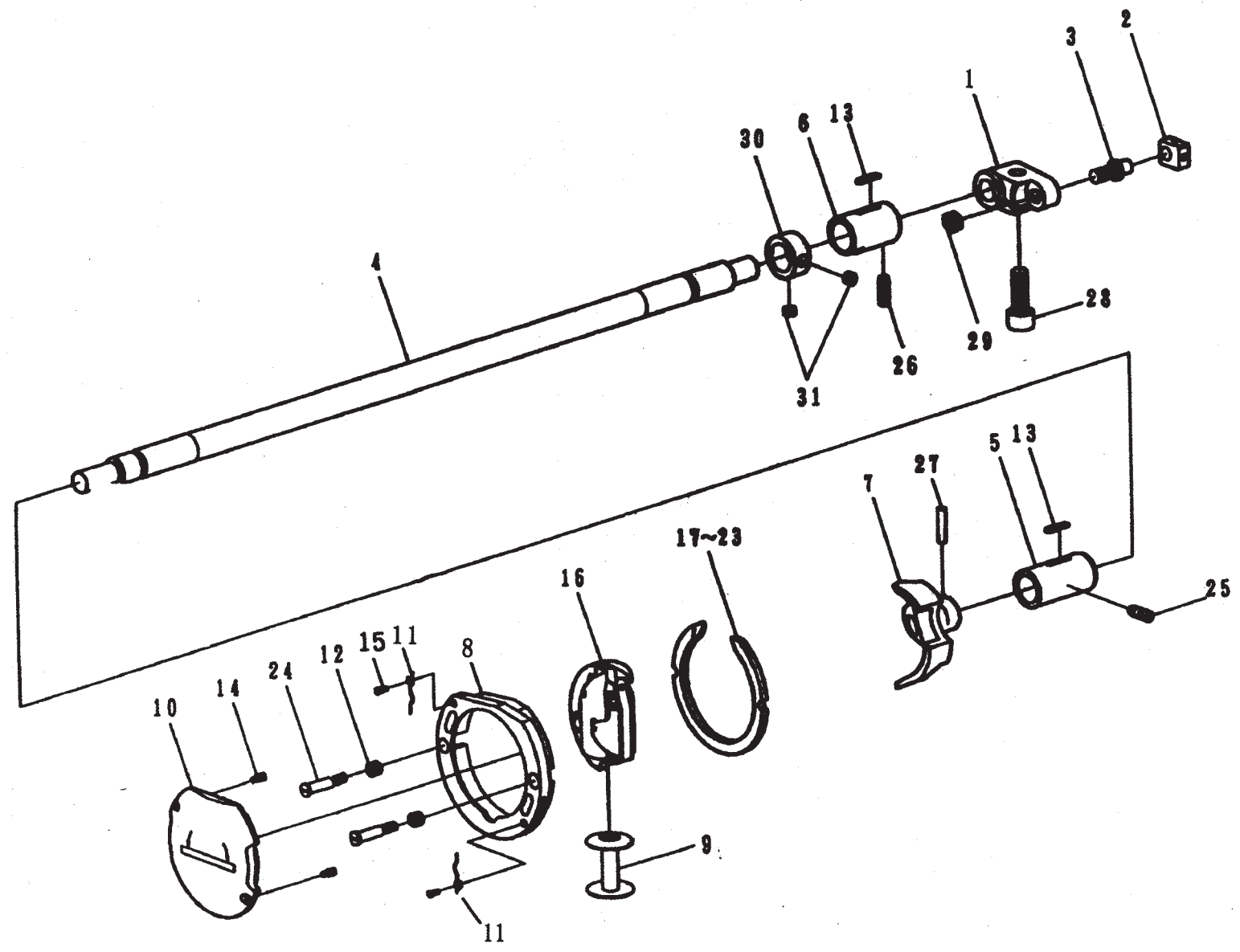
E. 送料机构 FEED MECHANISM COMPONENTS(2/2)



E. 送料机构 FEED MECHANISM COMPONENTS (2/2)

REF. No NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1	4710160900	大牙叉-----	Rod-----	1	
2	4710161000	针距连杆-----	Feed Connecting Link-----	1	
3	4710161100	针距座-----	Feed Regulator-----	1	
4	4710161200	倒缝杠杆-----	Lever-----	1	
5	4710161300	刻度板-----	Side Cover-----	1	
6	4710161600	针距调节手球-----	Lever Grip-----	1	
7	4710161800	针距调节杆-----	Lever Shaft-----	1	
8	4710161900	针距调节螺母-----	Nut-----	1	
9	4710162000	固定弹簧-----	Spring-----	1	
10	4710162200	针距固定环-----	Support Plato-----	1	
11	4710162300	刚球-----	Ball-----	1	
12	ZSK18018	针距连杆连接螺钉-----	Hinge Screw、A-----	1	
13	ZSK18020	针距连杆连接螺钉-----	Hinge Screw、B-----	1	
14	ZSL18001	连接螺母-----	Nut 9/32-28-----	1	
15	ZSB12015	固定环固定螺钉-----	Screw 3/16-28 L=12-----	2	
16	ZSB12036	固定环收紧螺钉-----	Screw 3/16-32 L=18-----	1	
17	ZSB15019	刻度板固定螺钉-----	Screw 15/64-28 L=9-----	2	
18	ZML08001	杠杆锁紧螺母-----	Nut-----	1	

F. 下轴机构 HOOK DRIVING SHAFT COMPONENTS (1/2)

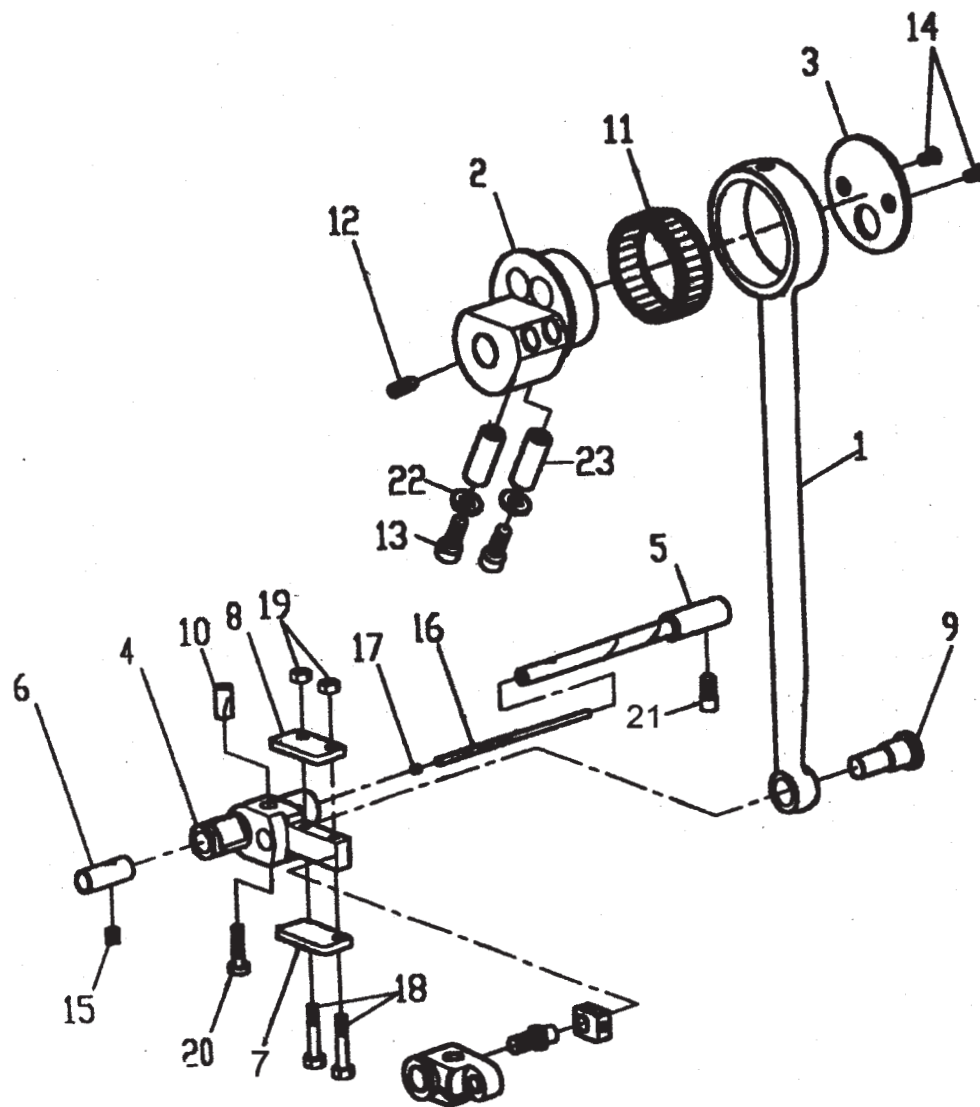


F. 下轴机构 HOOK DRIVING SHAFT COMPONENTS (1/2)

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710182500	下轴曲柄	Hook Driving Shaft Crank	1	
2		4710182600	摆轴滑块	Crank Slide Block	1	
3		4710182700	滑块罗柱	Slide Block Stud	1	
4		4710180100	下轴	Hook Driving Shaft	1	
5		4710180300	下轴前套	Bushing,Front	1	
6		4710180500	下轴后套	Bushing,Rear	1	
7		4410181600	摆梭托	Shuttle Driver	1	
8		4710181400	梭床	Shuttle Race Body	1	
9		4710183200	梭心	Bobbin	1	
10		4710183600	梭床盖	Hook Cover	1	
11		4710183700	梭床盖弹簧	Hook Cover Spring	2	
12		4710183800	梭床盖弹簧	Hook Counter Spring	2	
13		4710183900	毛毡	Oil Felt	2	
14		4710184000	梭床盖螺钉	Screw	2	
15		ZSG06004	梭床弹簧螺钉	Hinge Screw D=2.6 L=2.7	2	
16		4710181300	摆梭	Hook Cover	1	
17	#03	4710184210	梭床圈	Distance Piece	1	
18	#03	4710184220	梭床圈	Distance Piece	1	
19	#03	4710184230	梭床圈	Distance Piece	1	
20		4710184200	梭床圈	Distance Piece (Standard)	1	
21	#03	4710184240	梭床圈	Distance Piece	1	
22	#03	4710184250	梭床圈	Distance Piece	1	
23	#03	4710184260	梭床圈	Distance Piece	1	
24		ZSG12047	梭床螺钉	Screw	2	
25		ZSA15010	下轴前套螺钉	Screw 15/64-28 L=15	1	
26		ZSA15010	下轴后套螺钉	Screw 15/64-28 L=15	1	
27		YB040016	摆梭托肖	Tapered Pin 4.0x16	1	
28		ZMJ08003	下轴曲柄螺钉	Screw M8 L=21	1	
29		ZSL 18003	滑块螺母	Nut 9/32-28	1	
30		LG4044-0A	下轴定环	Thrust Collar D=14.72 W=10	1	
31		ZSA16029	下轴定环螺钉	Screw 1/4-40 L=3.5	2	

Note(注记) #3.....selective part 选用品

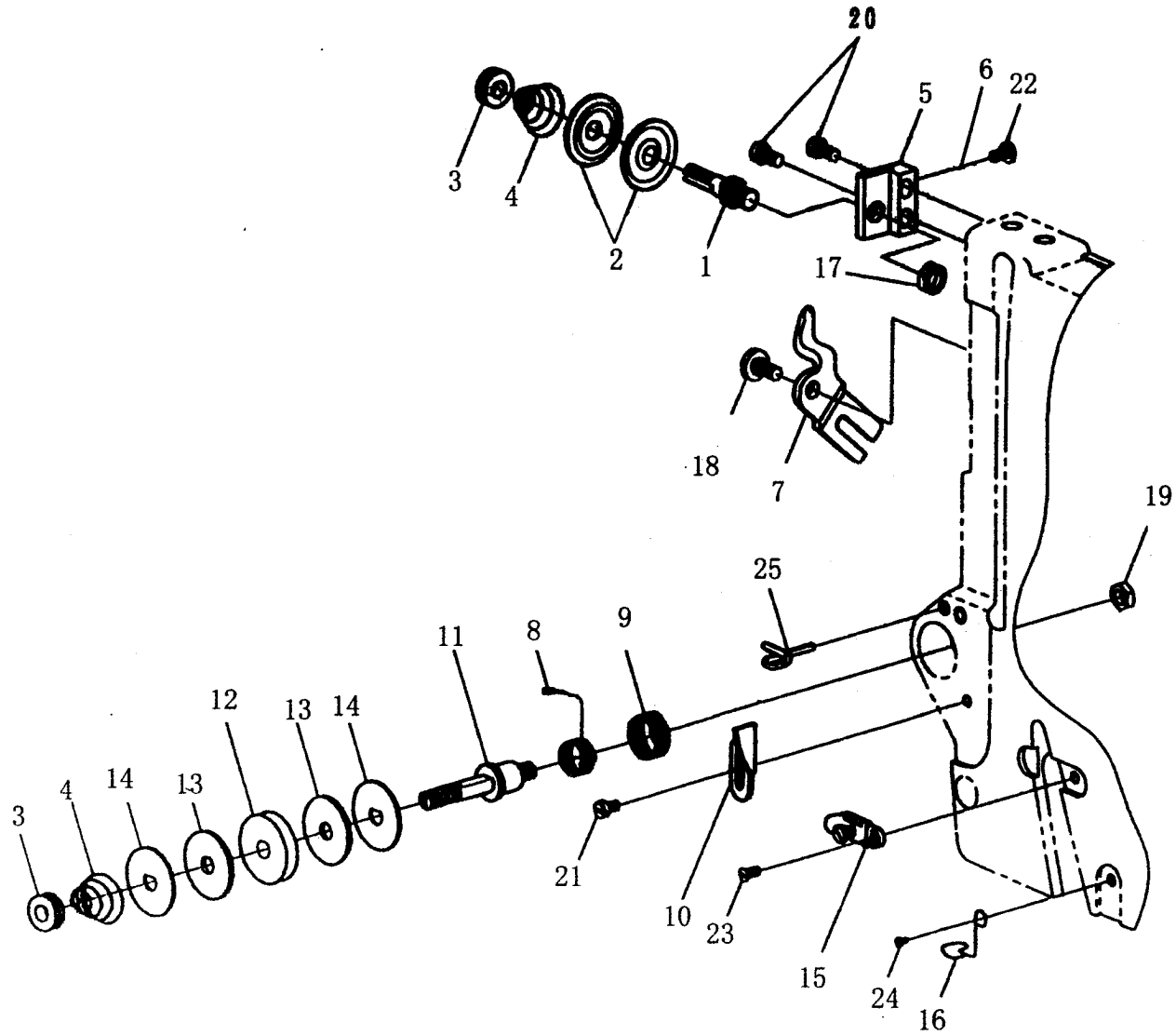
F. 下轴机构 'HOOK DRIVING SHAFT COMPONENTS (2/2)



F. 下轴机构 HOOK DRIVING SHAFT COMPONENTS(2/2)

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710181800	大连杆	Connecting Rod	1	
2		4710181900	主轴偏心	Con-Rod Eccentric Cam	1	
3		4710182000	主轴偏心侧板	Cam Side Plate	1	
4		4710182200	摆轴	Oscilating Rock Shaft	1	
5		4710182300	中心轴	Hjnge Pin	1	
6		4710182400	中心轴套	Rock Shaft Bushing	1	
7		4710182800	摆轴下夹板	Slide Plate A	1	
8		4710182900	摆轴上夹板	Slide Plate B	1	
9		4710183000	大连杆连接轴	Con-Rod Pin	1	
10		4710183100	大连杆锁紧螺销	Con-Rod Pin Wedge	1	
11		4710182100	大连杆轴承	Cage & Roller	1	
12		ZSH15006	主轴偏心定位螺钉	Screw 15/64-28L=15	1	
13		ZMJ06006	偏心锁紧螺丝	Screw M8l=30	2	
14		ZSC11002	大连杆固定螺钉	Screw 11/64-40L=7	2	
15		ZSA15028	中心轴套顶丝	Screw 15/64-28L=7	1	
16		XA300085	毛毡	Oil Wick	1	
17		LG1275-0A	中心轴油道铆钉	Ping 2.9x3.2x3	1	
18		ZSD11010	摆轴夹板螺丝	Screw	2	
19		ZSL11002	摆轴夹板螺母	Nut 11/64-40	2	
20		ZSB12036	大连杆锁紧螺丁	Screw 3/16-32L=18	1	
21		ZSJ15001	中心轴锁紧螺丁	Screw 15/64-28L=10.7	1	
22		WA06008	垫圈	Washer	2	
23		4710183400	偏心螺销	PIN	2	

G. 夹线器机构 TENSION POST COMPONENTS

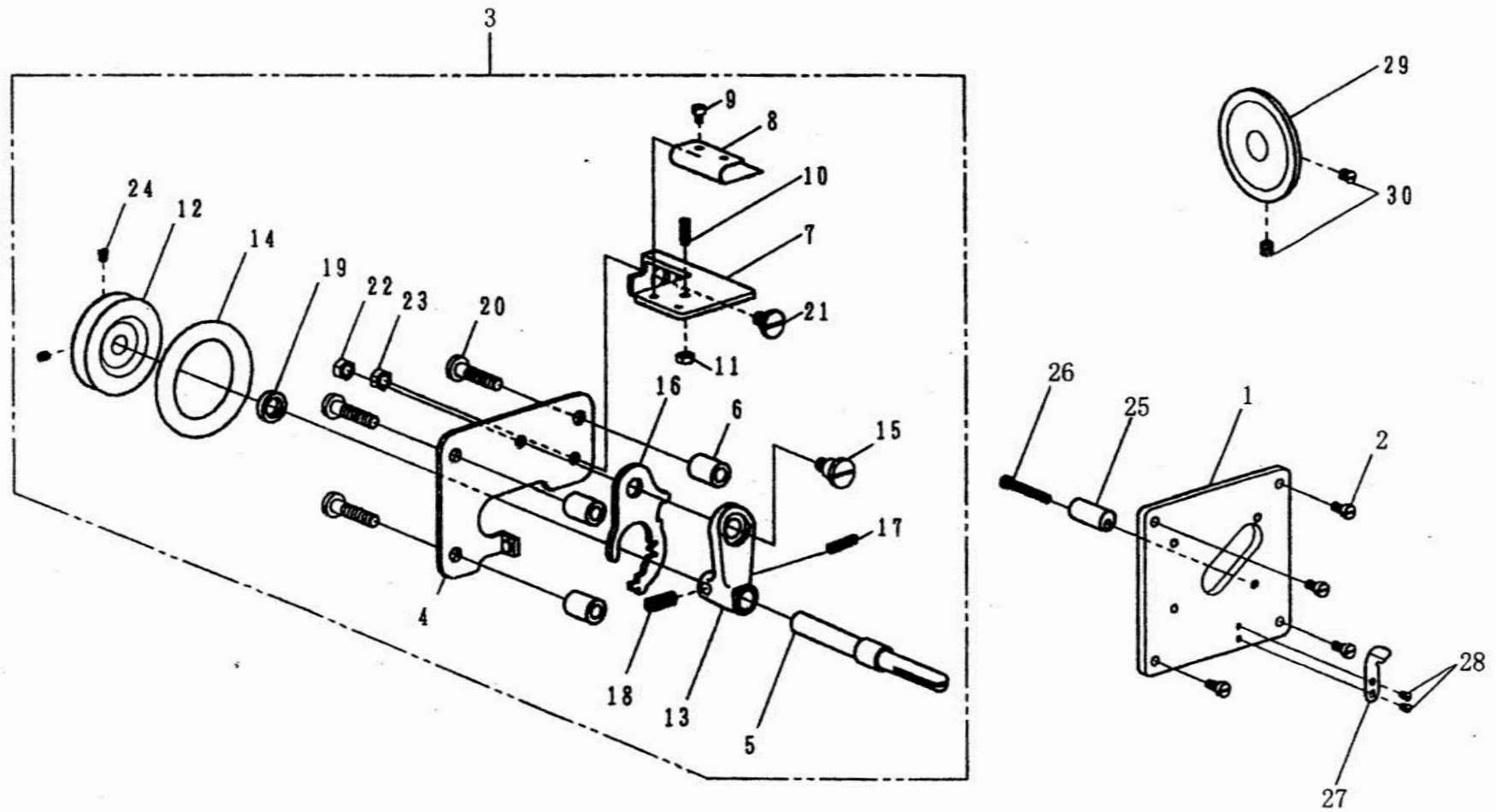




G. 夹线机构 TENSION POST COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710310100	夹线螺钉	Thread Tension Post	1	
2		A1025-0A	夹线板	Tension Disk	2	
3		ZSN16004	夹线螺母	Thread Tension Stud Nut	2	
4		4710310400	夹线簧	Thread Tehsion Spring	2	
5		4710310500	夹线座	Thread Tension Post Bracket	1	
6		4710310600	线挂	Thread Tension Guide	1	
7		4710310700	松线板	Thread Releasing Plate	1	
8		4710310800	挑线簧	Spring A	1	
9		4710310900	挑线扭簧	Spring B	1	
10		4710311000	线轴弹簧调节器	Spring Support Plate	1	
11		4710311100	过线螺钉	Thread Tension Wheel Post	1	
12		4710311200	过线轮	Thread Tension Wheel	1	
13		XB123001	过线轮油毡	Wheel Felt	2	
14		4710311400	过线压板	Felt Support Plate	2	
15		4710311605	穿线架组件	Arm Thread Guide Bottom Asm	1	
16		4710312000	线挂下	Frame Thread Guid	1	
17		ZSL18003	夹线器固定螺母	Nut 9/32-28	1	
18		ZSG12046	松线板固定螺钉	Hinge Screw D=6.0 L=3.2	1	
19		ZSL15002	过线锁紧螺母	Nut 15/64-28	1	
20		ZSB11011	夹线器座固定螺钉	Screw 11/64-40 L=12	2	
21		ZSB09014	调节器固定螺钉	Screw 9/64-40 L=6.0	1	
22		ZSB09047	线挂螺钉	Screw 9/64-40 L=7	1	
23		ZSC09005	穿线架固定螺钉	Screw 9/64-40 L=5	1	
24		ZSB09047	线挂螺钉	Screw 9/64-40 L=7	1	
25		4710113300	过线圈	Thread Guide	1	

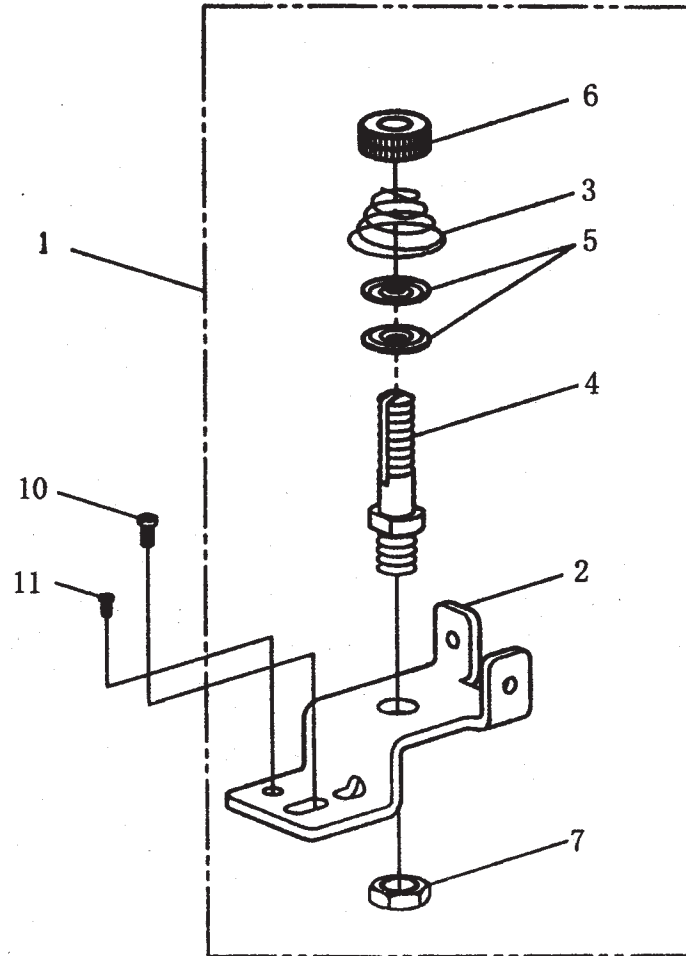
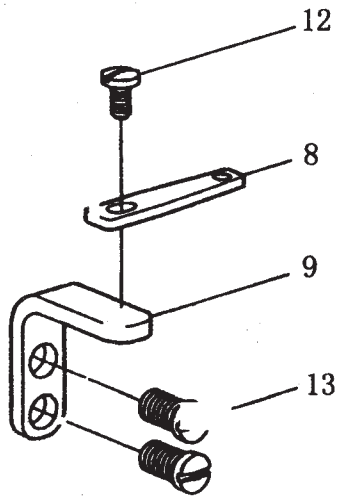
H. 绕线器 穿线机构 THREAD WINDER & THREAD GUIDE COMPONENTS (1/2)



H. 绕线器 穿线机构 THREAD WINDER & THREAD GUIDE COMPONENTS (1/2)

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710320100	绕线器座	Thread Winder Plate	1	
2		ZSB11011	绕线器座固定螺钉	Screw 11/64-40 L=9	4	
3		4710320805	绕线器组件	Thread Winder Asm.	1	
4		4710320800	下绕线板	Thread Winder Base	1	
5		4710320900	绕线轴	Thread Winder Shaft	1	
6		4710321000	定位销	Spacer	3	
7		4710321100	压力板	Bobbin Presser	1	
8		4710321200	满线跳板	Bobbin Presser Spring	1	
9		ZSB06008	跳板固定螺钉	Screw 3/32-56 L=3.3	2	
10		ZSA08007	跳板调节螺钉	Adjusting Screw	1	
11		ZSL08001	跳板调节螺母	Nut 1/8-44	1	
12		4710321300	驱动轮	Bobbin Winder Wheel	1	
13		4710321400	绕线架	Bobbin Winder Frame	1	
14		4710322000	绕线轮	Wheel Ring	1	
15		ZSG11059	绕线架连接螺钉	Hinge Screw	1	
16		4710321500	绕线压力板	Bobbin Winder Tension Bracket	1	
17		4710321600	压缩弹簧	Spring	1	
18		4710321800	绕线压缩弹簧	Bobbin Winder Spring	1	
19		4710321900	驱动轮定环	Thread Winding Shaft Collar	1	
20		ZSB11083	下绕线板固定螺钉	Screw 11/64-40 L=18	3	
21		ZSG11057	压力板固定螺钉	Hinge Screw D=7.24L=1.9	1	
22		ZSL11007	压力板固定螺母	Nut 11/64-40	1	
23		ZSL11007	绕线架固定螺母	Nut 11/64-40	1	
24		ZSA11003	驱动轮固定螺钉	Screw 11/64-40 L=5	2	
25		4710320300	定位销	Stopper	1	
26		ZSB11071	定位销固定螺钉	Screw 11/64-40 L=30	1	
27		4710320400	切线保持板	Thread Cut & Clamp Plate	1	
28		ZSB08008	保持板固定螺钉	Screw 1/8-44 L=4	2	
29		4710320500	摩擦轮	Friction Wheel	1	
30		ZSA15028	摩擦轮固定螺钉	Screw 15/64-28 L=7	2	

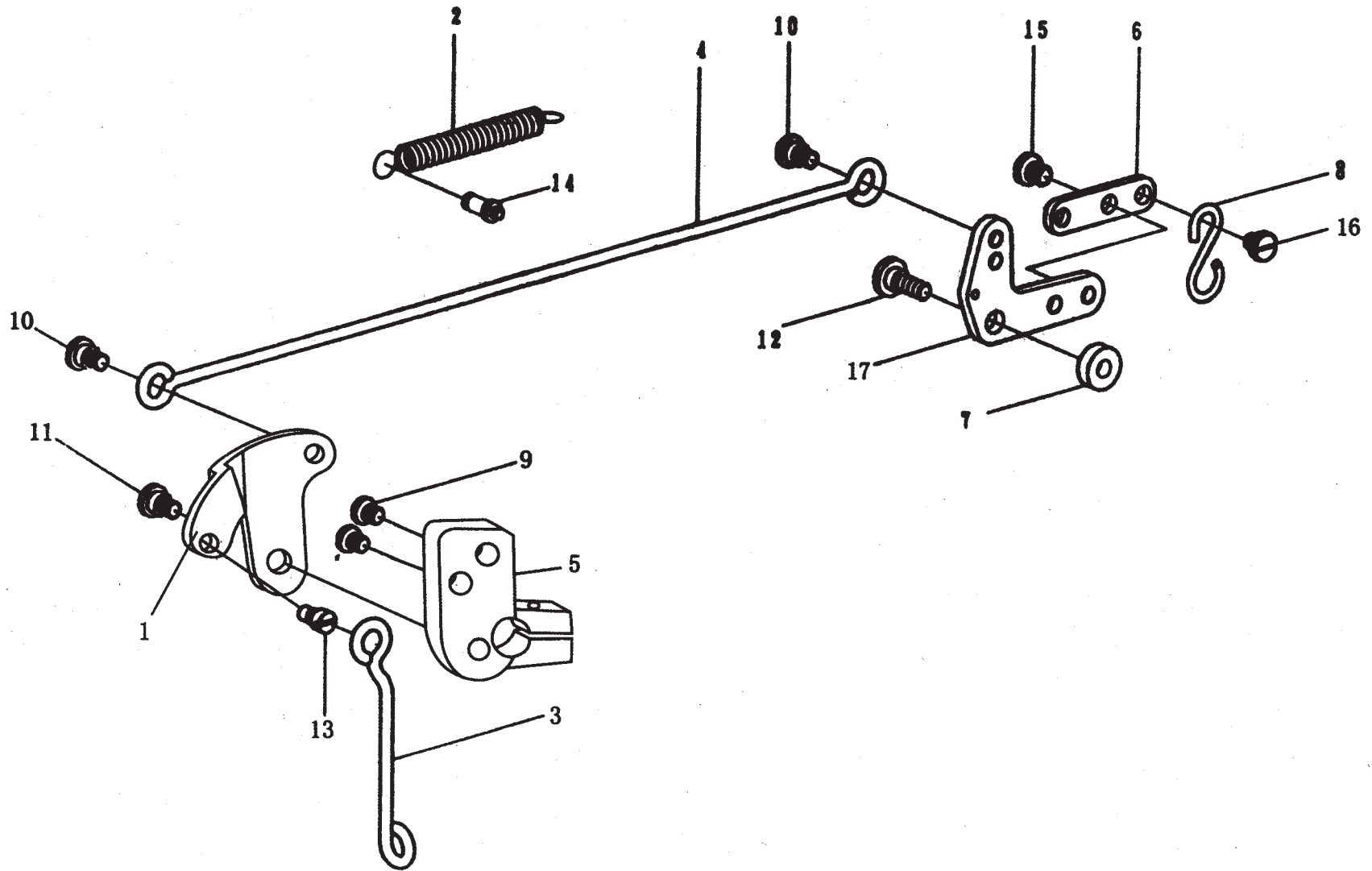
H. 绕线器 穿线机构 THREAD WINDER & THREAD GUIDE COMPONENTS (2/2)



H. 绕线器·穿线机构      THREAD WINDER & THREAD GUIDE COMPONENTS (2/2)

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 Q'TY	备注 Remarks
1		4710313005	绕线压力调节器组件	Thread Winder Guide Base Asm.	1	
2		4710313000	压力调节器座	Thread Winder Guide Base	(1)	
3		4710313100	夹线簧	Tension Sping	(1)	
4		4710310100	调压螺丝	Thread Tension Post	(1)	
5		A1025-0A	夹线板	Tension Disk	(2)	
6		ZSN16004	调压螺母	Thread Tension Stud Nut	(1)	
7		ZSL18003	调压螺丝固定螺母	Nut 9/32-28	(1)	
8		4710322200	线挂	Thread Guide	1	
9		4710322300	线挂座	Guide Bracket	1	
10		ZSB11015	压力座调整螺丝	Screw 11/64-40 L=8.5	1	
11		ZSB08001	压力固定螺丝	Screw 1/8-44 L=6	1	
12		ZSB09047	线挂固定螺钉	Screw 9/64-40 L=7	1	
13		ZSB15004	线挂座固定螺钉	Screw 15/64-28 L10.5	2	

# I. 膝动提升机构 KNEE LIFER COMPONENTS

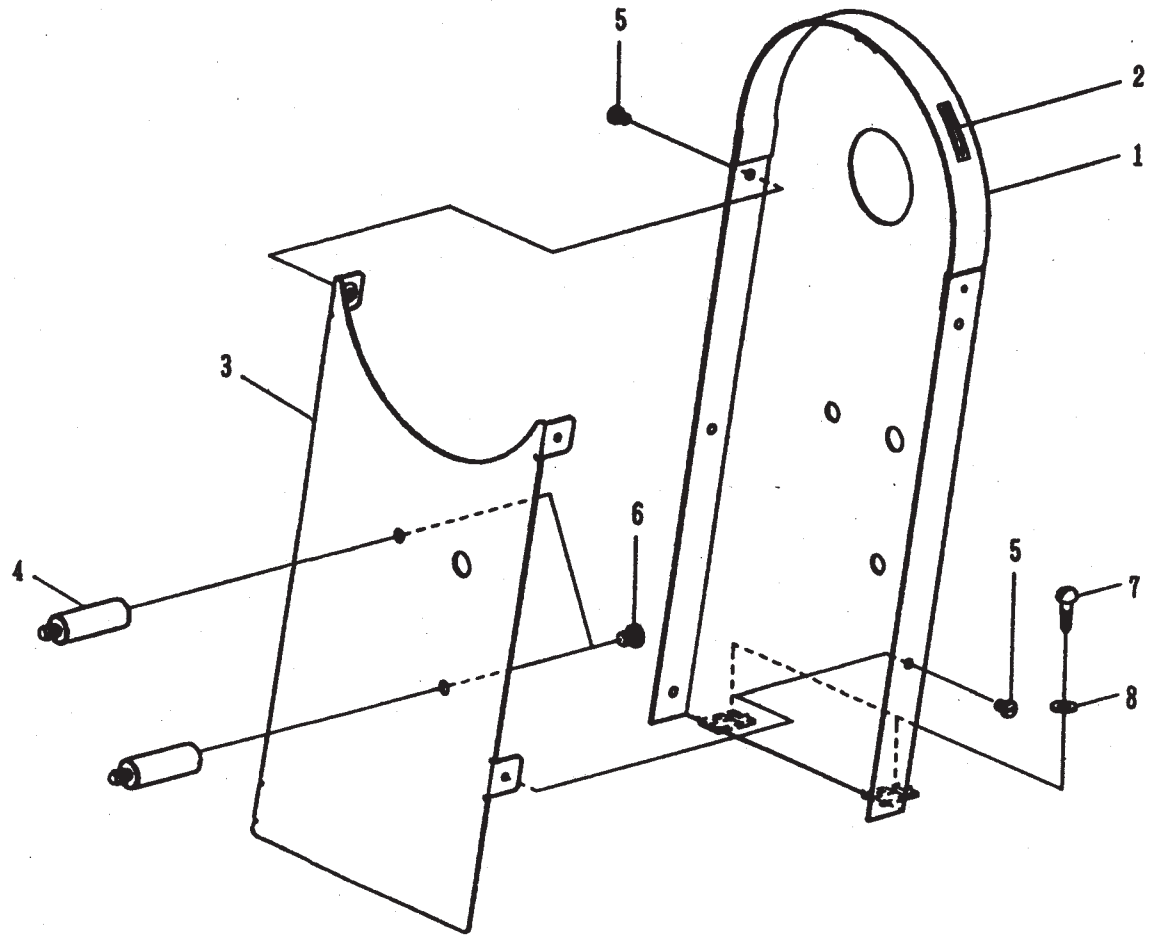




I. 膝动提升机构 KNEE LIFTER COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710340100	扇型压杆提升臂	Presser Bar Lifting Link	1	
2		4710340200	压杆提升拉簧	Presser Bar Lifting Spring	1	
3		4710340300	压杆提升杆	Presser Bar Lifting Bar	1	
4		4710340400	压杆提升拉杆	Side Connecting Bar	1	
5		4710340500	支撑板	Link Base	1	
6		4710340600	连接板	Link Plate	1	
7		4710340700	升臂定环	Link Collar	1	
8		4710340800	S型销	S-Plug	1	
9		ZSB15001	支撑板紧固螺钉	Screw 15/64-28 L=6.5	2	
10		ASG15045	拉杆连接螺钉	Hinge Screw D=7.94 L=4.3	2	
11		ZSG15045	升臂连接螺钉	Hinge Screw D=7.94 L=4.3	1	
12		ZSG15046	升臂连接螺钉	Hinge Screw D=7.94 L=4.3	1	
13		4710341200	升杆连接螺钉	Hinge Screw	1	
14		ZSK11037	弹簧勾螺钉	Spring Suspension	1	
15		ZSB15001	连接板固定螺钉	Screw 15/64-28 L=6.5	2	
16		ZSG16025	S 销连接螺钉	Hinge Screw D=8.0 L=3.4	1	
17		4710340110	L型压杆提升臂	Presser Bar Lifting Link	1	

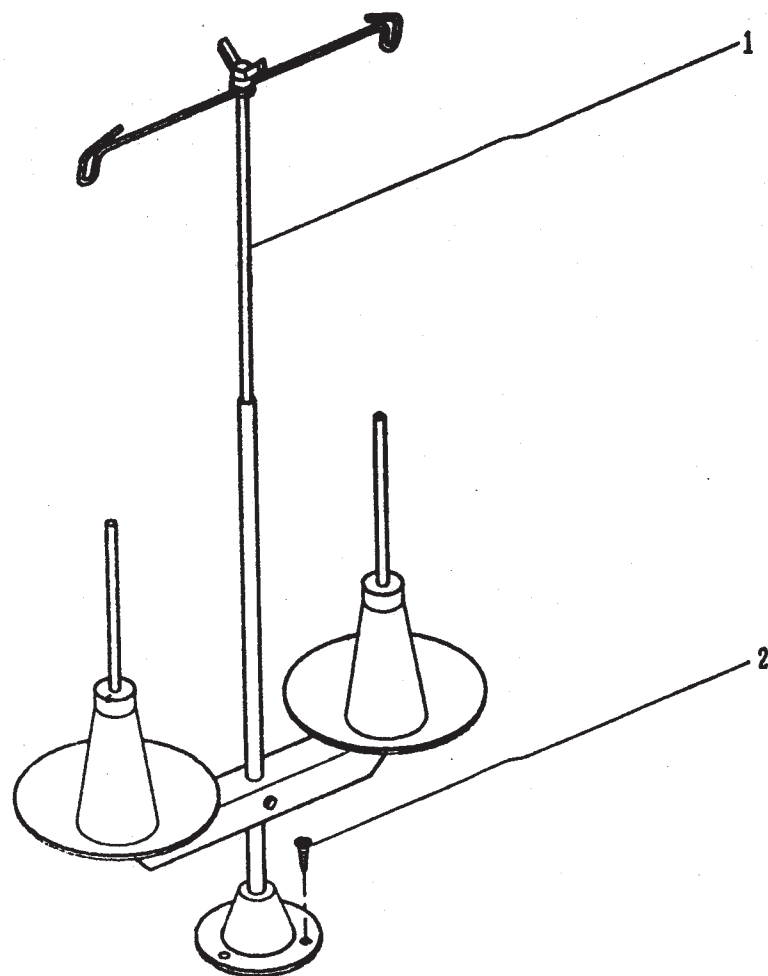
J. 皮帶罩 BELT COVER COMPONENTS



**J. 皮带罩 BELT COVER COMPONENTS**

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710335100	皮带盖A-----	Belt Cover A-----	1	
2		4710335400	方向标识-----	Direction Label-----	1	
3		4710335200	皮带盖B-----	Belt Cover B-----	1	
4		4710335300	皮带盖连接螺丝----	Belt Cover Stud-----	2	
5		ZSB11008	皮带盖固定螺丝----	Screw 11/64-40 L=5-----	5	
6		ZSB15001	皮带盖锁紧螺丝----	Screw 15/64-28 L=6.5-----	2	
7		ZMT05003	木螺丝-----	Wood Screw D=8.3L=18-----	2	
8		WA059005	平垫-----	Washer 5x10.5x1-----	2	

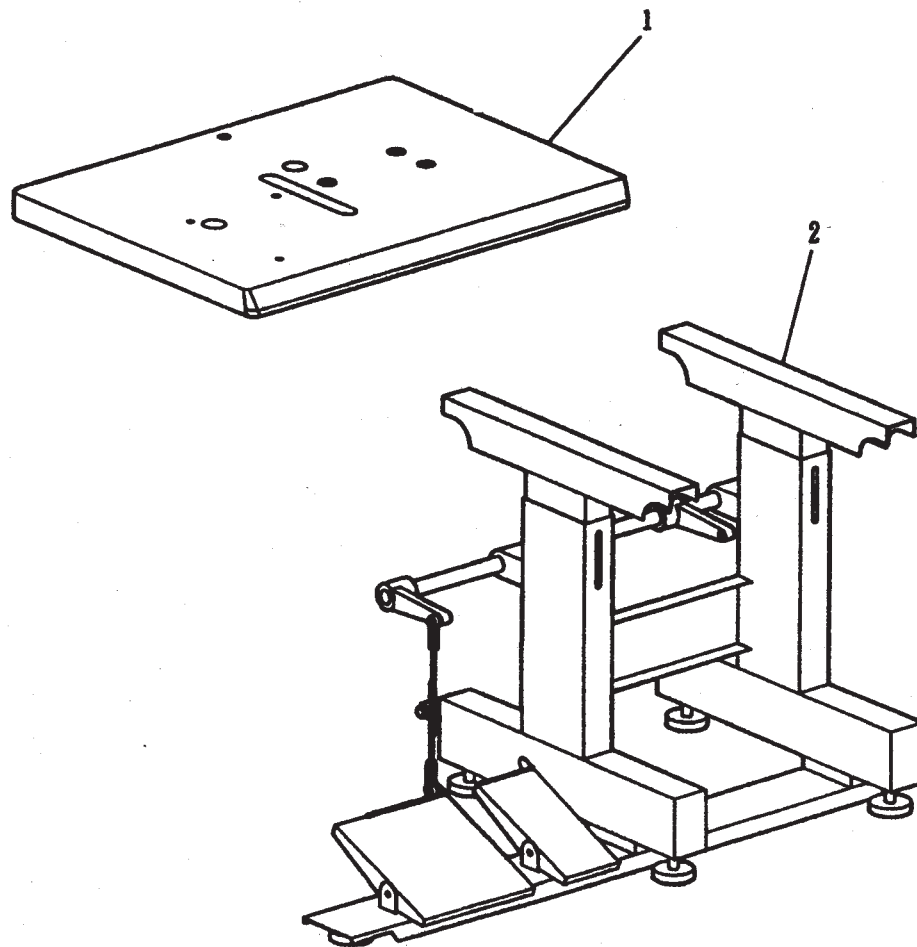
K. 线架 THREAD STAND COMPONENTS



**K. 线架 THREAD STAND COMPONENTS**

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		A7050-0A	线架-----	Shread Stand-----	1	
2		ZMT05001	木螺丝-----	Wood Screw L=8-----	3	

L. 拾板机架 TABLE COMPONENTS

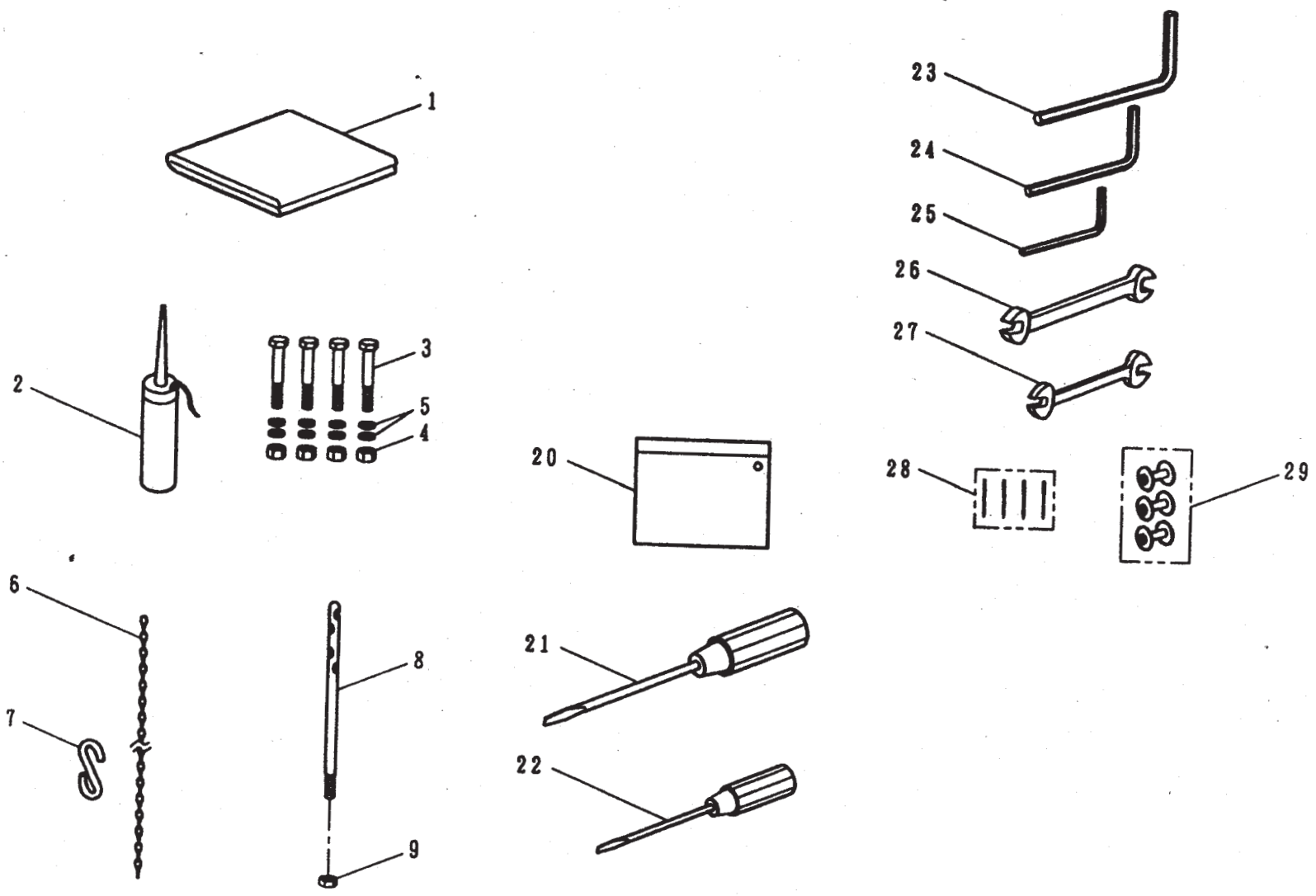




L. 抬板机架 TABLE COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		4710820100	台板	Table	1	
2		0	机架	Stand	1	

M. 附件 ACCESSORIES PARTS COMPONENTS



H. 附件 ACCESSORIES PARTS COMPONENTS

REF. No	NOTE	零件号码 Part No.	零件名称	Name of Part	件数 QTY	备注 Remarks
1		A7001-0A	车头盖	Cover	1	
2		A7012-1A	油壶	Oiler Asm.	1	
3		ZMD10002	螺丝	Screw M10 L=65	4	
4		ZML10004	螺帽	Nut M 10	4	
5		WA110003	平垫圈	Washer 11x27x2	8	
6		4710341400	锁链	Chain	1	
7		4710340800	S型销	S-Plug	1	
8		4710113400	绵柱	Needle Thread Guide Pin	1	
9		ZSL12003	螺帽	Nut 3/16-32	1	
10		4710911005	油壶组	Oil Pot Asm.	1	
11		4710911100	油壶盖	Oil Pot Cover	(1)	
12		4710911000	油壶	Oil Pot	(1)	
13		4710911200	穿线构	Frame Thread Guide	(1)	
14		4710911300	弹簧板	Cover Stopper	(1)	
15		ZSL06001	螺帽	Nut 3/32-56	(1)	
16		ZSB09047	螺丝	Screw 9/64-40 L=7	(1)	
17		4710911400	销	Pin	(1)	
18		ZSB15005	螺丝	Screw 15/64-28 L=12	(1)	
19		ZSA09005	螺丝	Screw 9/64-40 L=3.5	(1)	
20		A7000-0A	工具袋	Accessory Box	1	
21		A7010-2A	螺丝刀 (大)	Screw Driver, Large	1	
22		A7010-0A	螺丝刀 (小)	Screw Diver, Small	1	
23		EH7141-5A	六角形螺丝刀	Hexagonal Wrench Key(5mm)	1	
24		EH7141-6A	六角形螺丝刀	Hexagonal Wrench Key(4mm)	1	
25		EH7141-4A	六角形螺丝刀	Hexagonal Wrench Key(3mm)	1	
26		LG7200-0A	开口板手	Wrench(11x14)	1	
27		LG7201-0A	开口板手	Wrench(9x10)	1	
28		IN794#230	针	Needle (794 Nm=230-4)	1	
29		4710183200	梭心	Bobbin	3	

N.零件号码与页数对照表 NUMERICAL PARTS-LISL (1/4)

零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE
4410111005	3-1	4410273000	9-10	4710143000	11-24	4710152000	17-22
4410111200	3-4	4710111005	3-2	4710143100	13-1	4710152500	17-16
4410111300	3-6	4710111100	3-3	4710143200	13-2	4710160100	19-1
4410111400	3-16	4710111200	3-5	4710143300	13-3	4710160200	19-2
4410121000	5-6	4710111300	3-7	4710143400	13-4	4710160300	19-3
4410140100	9-1	4710111400	3-17	4710143500	13-5	4710160404	19-4
4410140200	9-5	4710111600	3-8	4710143600	13-6	4710160600	19-5
4410140900	9-3	4710113400	41-8	4710143700	13-7	4710160700	19-6
4410141900	7-6	4710120300	5-3	4710143800	13-8	4710160800	19-8
4410142000	7-9	4710120400	5-4	4710143900	11-25	4710160900	21-1
4410142100	7-1	4710121000	5-7	4710144100	13-12	4710161000	21-2
4410142300	7-4	4710121100	5-8	4710144200	13-16	4710161100	21-3
4410142400	7-5	4710121300	5-9	4710144401	15-1	4710161200	21-4
4410142900	9-26	4710122000	5-10	4710144500	15-2	4710161300	21-5
4410143100	7-7	4710122100	5-11	4710144600	15-3	4710161400	19-10
4410143300	9-24	4710122304	5-12	4710144700	15-4	4710161600	21-6
4410143600	9-23	4710122500	5-13	4710144800	15-5	4710161700	19-11
4410143700	9-6	4710140100	11-1	4710144900	15-6	4710161800	21-7
4410143800	17-12	4710140400	11-2	4710145000	15-7	4710161900	21-8
4410143805	17-11	4710140500	11-27	4710145100	15-8	4710162000	21-9
4410145600	7-2	4710140500	11-3	4710150100	17-1	4710162100	19-12
4410150100	9-22	4710140700	11-4	4710150200	17-2	4710162200	21-10
4410150400	17-4	4710140900	11-5	4710150300	17-3	4710162300	21-11
4410150500	17-6	4710141200	11-7	4710150400	17-5	4710180100	23-4
4410151000	9-25	4710141300	11-8	4710150500	17-7	4710180300	23-5
4410151100	9-30	4710142000	11-14	4710150600	17-8	4710180500	23-6
4410152500	17-13	4710142101	11-15	4710150700	17-9	4710181300	23-16
4410160800	19-7	4710142201	11-16	4710150800	17-10	4710181400	23-8
4410161400	19-9	4710142301	11-17	4710151000	17-15	4710181800	25-1
4410181600	23-7	4710142401	11-18	4710151005	17-14	4710181900	25-2
4410270100	9-2	4710142500	11-19	4710151500	17-17	4710182000	25-3
4410270200	9-9	4710142600	11-20	4710151600	17-18	4710182100	25-11
4410270400	9-11	4710142700	11-21	4710151700	17-19	4710182200	25-4
4410272200	9-8	4710142800	11-22	4710151800	17-20	4710182300	25-5
4410272300	9-7	4710142900	11-23	4710151900	17-21	4710182400	25-6

N.零件号码与页数对照表 NUMERICAL PARTS-LISL (2/4)

零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE
4710182500	23-1	4710311000	27-10	4710340400	33-4	LG1274-0A	11-34
4710182600	23-2	4710311100	27-11	4710340500	33-5	LG1275-0A	25-17
4710182700	23-3	4710311200	27-12	4710340600	33-6	LG4014-0	19-28
4710182800	25-7	4710311400	27-14	4710340700	33-7	LG4043-0A	11-28
4710182900	25-8	4710311605	27-15	4710340800	33-8	LG4043-0A	7-10
4710183000	25-9	4710312000	27-16	4710340800	41-7	LG4044-0A	19-27
4710183100	25-10	4710313000	31-2	4710341200	33-13	LG4044-0A	23-30
4710183200	23-9	4710313005	31-1	4710341400	41-6	LG7200-0A	41-26
4710183280	41-29	4710313100	31-3	4710820100	39-1	LG7201-0A	41-27
4710183600	23-10	4710320100	29-1	4710911000	41-12	RE000040	5-31
4710183700	23-11	4710320300	29-25	4710911005	41-10	RE000080	11-40
4710183800	23-12	4710320400	29-27	4710911100	41-11	RE000080	13-18
4710183900	23-13	4710320500	29-29	4710911200	41-13	RE000080	13-19
4710184000	23-14	4710320800	29-4	4710911300	41-14	RE000080	13-22
4710184200	23-20	4710320805	29-3	4710911400	41-17	RE000080	15-17
4710184210	23-17	4710320900	29-5	4710113300	27-25	RE000080	19-19
4710184220	23-18	4710321000	29-6	4710120101	5-1	RE000080	19-22
4710184230	23-19	4710321100	29-7	4710120201	5-2	RE000080	7-19
4710184240	23-21	4710321200	29-8	4710122601	5-14	RE000080	7-20
4710184250	23-22	4710321300	29-12	4710142201	7-3	RE000080	9-29
4710184260	23-23	4710321400	29-13	A1025-0A	27-2	S1013-0A	3-10
4710190100	5-25	4710321500	29-16	A1025-0A	31-5	WA059005	35-8
4710190200	5-26	4710321600	29-17	A7000-0A	41-20	WA18009	17-31
4710190220	5-27	4710321800	29-18	A7001-0A	41-1	WA110003	41-5
4710190230	5-28	4710321900	29-19	A7010-0A	41-22	WC049001	3-14
4710190300	5-29	4710322000	29-14	A7012-2A	41-21	WH208005	15-10
4710191301	5-5	4710322200	31-8	A7012-1A	41-2	XA200100	9-21
4710310100	27-1	4710322300	31-9	A7050-0A	37-1	XA200160	5-15
4710310100	31-4	4710335100	35-1	E1288-0A	13-17	XA300085	25-16
4710310400	27-4	4710335200	35-3	EH7141-4A	41-25	XB123001	27-13
4710310500	27-5	4710335300	35-4	EH7141-5A	41-23	YB040016	23-27
4710310600	27-6	4710335400	35-2	EH7141-6A	41-24	YB040045	5-18
4710310700	27-7	4710340100	33-1	IN794#230	11-6	YD025014	11-37
4710310800	27-8	4710340200	33-2	IN794#230	41-28	YD030020	17-32
4710310900	27-9	4710340300	33-3	IN794#230	9-4	YD050018	3-9



N.零件号码与页数对照表 NUMERICAL PARTS-LISL (3/4)

零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE
ZMD10002	41-3	ZSA16010	11-29	ZSB12002	17-25	ZSG15046	33-12
ZMH06005	9-12	ZSA16010	7-11	ZSB12015	21-15	ZSG16024	19-16
ZMH06005	9-14	ZSA16025	15-12	ZSB12036	21-16	ZSG16025	33-16
ZMH06005	9-17	ZSA16025	5-24	ZSB12036	25-20	ZSG20012	5-30
ZMH06010	9-13	ZSA16029	19-23	ZSB12045	3-11	ZSG22002	15-9
ZMJ06002	11-33	ZSA16029	23-31	ZSB15001	33-15	ZSH16001	11-32
ZMJ06002	15-13	ZSA16039	11-10	ZSB15001	33-9	ZSH16001	17-26
ZMJ06002	9-18	ZSB06008	29-9	ZSB15001	35-6	ZSH16001	5-17
ZMJ06004	19-21	ZSB08001	31-11	ZSB15004	31-13	ZSH16002	11-31
ZMJ08003	23-28	ZSB08008	29-28	ZSB15004	9-20	ZSH16005	17-23
ZMJ08003	25-13	ZSB09014	27-21	ZSB15005	13-21	ZSH16005	7-14
ZML10004	41-4	ZSB09047	27-22	ZSB15005	13-23	ZSH16005	9-16
ZMT05001	37-2	ZSB09047	27-24	ZSB15005	41-18	ZSJ15001	25-21
ZMT05003	35-7	ZSB09047	3-13	ZSB15014	3-12	ZSJ16001	17-29
ZSA08007	29-10	ZSB09047	31-12	ZSB15015	7-15	ZSK11037	33-14
ZSA09005	41-19	ZSB09047	41-16	ZSB15019	21-17	ZSK18018	21-12
ZSA11003	29-24	ZSB09061	17-27	ZSB15032	11-11	ZSK18019	13-10
ZSA15010	23-25	ZSB11008	35-5	ZSC09005	27-23	ZSK18019	13-11
ZSA15010	23-26	ZSB11011	27-20	ZSC11002	25-14	ZSK18019	13-20
ZSA15010	25-12	ZSB11011	29-2	ZSC11007	5-22	ZSK18019	15-11
ZSA15010	5-16	ZSB11011	17-	ZSC18001	5-20	ZSK18019	7-8
ZSA15013	11-9	ZSB11015	31-10	ZSD11010	25-18	ZSK18019	9-28
ZSA15013	17-24	ZSB11018	3-15	ZSD20003	5-23	ZSK18020	21-13
ZSA15028	11-30	ZSB011022	11-12	ZSD20009	7-17	ZSK20006	13-9
ZSA15028	11-35	ZSB11022	9-15	ZSD20011	15-14	ZSK20007	19-13
ZSA15028	11-36	ZSB11026	13-24	ZSD20011	7-16	ZSK20009	11-26
ZSA15028	15-16	ZSB11035	19-24	ZSF18001	13-14	ZSK20009	19-14
ZSA15028	19-25	ZSB11041	19-18	ZSG06004	23-15	ZSK20009	19-15
ZSA15028	25-15	ZSB11041	9-27	ZSG11057	29-21	ZSK20009	7-18
ZSA15028	29-30	ZSB11042	9-31	ZSG11058	13-13	ZSL06001	41-15
ZSA15028	5-21	ZSB11057	11-38	ZSG11059	29-15	ZSL08001	29-11
ZSA15028	7-12	ZSB11071	29-26	ZSG12046	27-18	ZSL09001	17-28
ZSA15028	7-13	ZSB11076	11-13	ZSG12047	23-24	ZSL11002	25-19
ZSA15037	19-20	ZSB11076	9-19	ZSG15045	33-10	ZSL11004	11-39
ZSA15037	19-26	ZSB11083	29-20	ZSG15045	33-11	ZSL11007	29-22



N.零件号码与页数对照表 NUMERICAL PARTS-LISL (4/4)

零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE	零件号码 Part No.	页数 PAGE
ZSL11007	-----29-23						
ZSL12003	-----41-9						
ZSL15002	-----27-19						
ZSL15004	-----41-32						
ZSL16004	-----19-17						
ZSL18001	-----21-14						
ZSL18001	-----5-19						
ZSL18001	-----5-32						
ZSL18003	-----13-15						
ZSL18003	-----23-29						
ZSL18003	-----27-17						
ZSL18003	-----31-7						
ZSL22001	-----15-15						
ZSN16004	-----27-3						
ZSN16004	-----31-6						