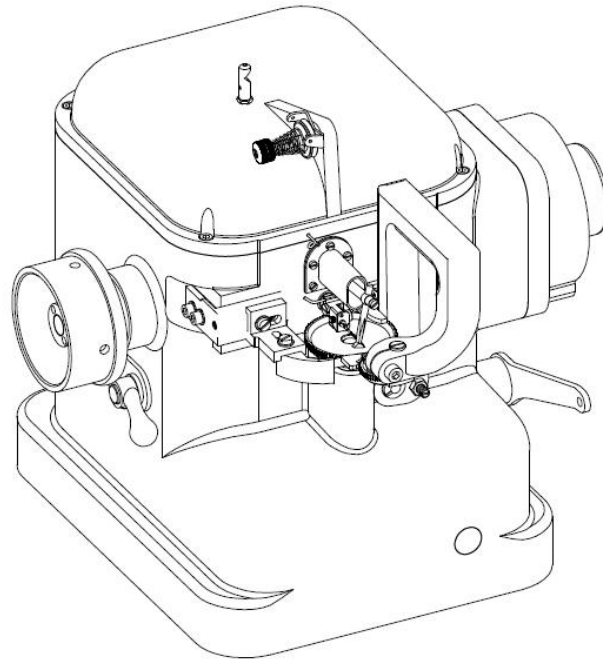


# JJ6003 Manual and Spare Parts List



**JJ6003 series upper drawing machine is chain stitch high speed sewing machine, which is attached direct drive motor and could achieve adjustable speed, needle position and pneumatic presser foot lifting. This machine mainly sews garment, leather, shoes, hats, fur products, gloves. It is an ideal sewing equipment for various thick fur and leathers, sports shoes.**

**The main products of our factory: JJ302, JJ600 series upper drawing machines, JJ4 series fur sewing machines, JJ373 button stitch sewing machines, JJ6003 computerizes direct drive upper drawing machine, JJ302 computerizes direct drive upper drawing machine and JJ168 side shoe sewing machines and etc. We are the biggest manufacturer of fur sewing machines, upper drawing machines and button stitch sewing machines in China.**

## **INDEX**

- 1. INSTALLATION AND MACHINE SPECIFICATION  
.....3-5**
- 2. OPERATING INSTRUCTIONS.....6**
- 3. SEWING PROBLEMS..... 7**
- 4. SETTING OF MACHINE.....8-10**
- 5. PARTS LIST .....11-29**

## **1. INSTALLATION AND MACHINE SPECIFICATION**

### **MACHINE SPECIFICATION**

**Model name: JJ6003 Upper drawing machine**

**Needle size: DPx 5 #18-22**

**Sewing Speed: 0- 2000 R.P.M.**

**Stitch length: 0-6 mm**

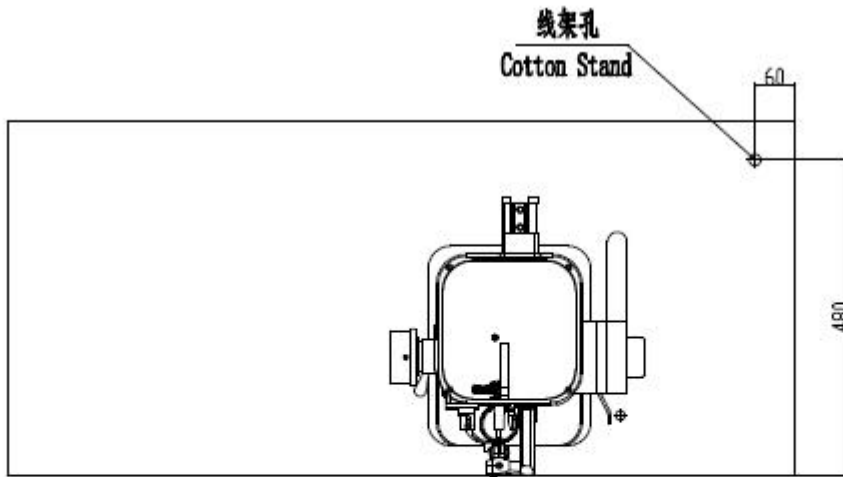
**Max sewing thickness: 7mm**

**Max sewing width: 5mm**

**Needle bar stroke: 33mm**

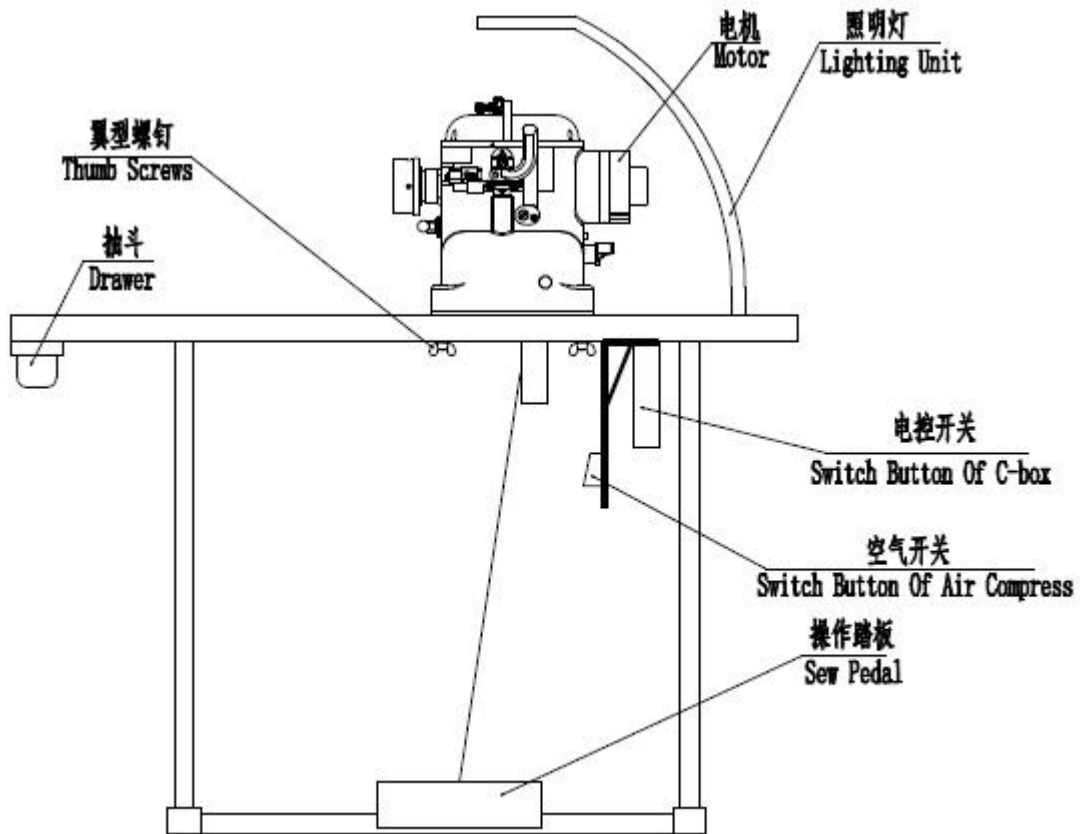
**Hook needle stroke: 16mm**

**Machine weight: 73 kgs**



线架安装图

注意  
台板安放必须水平



Picture 1

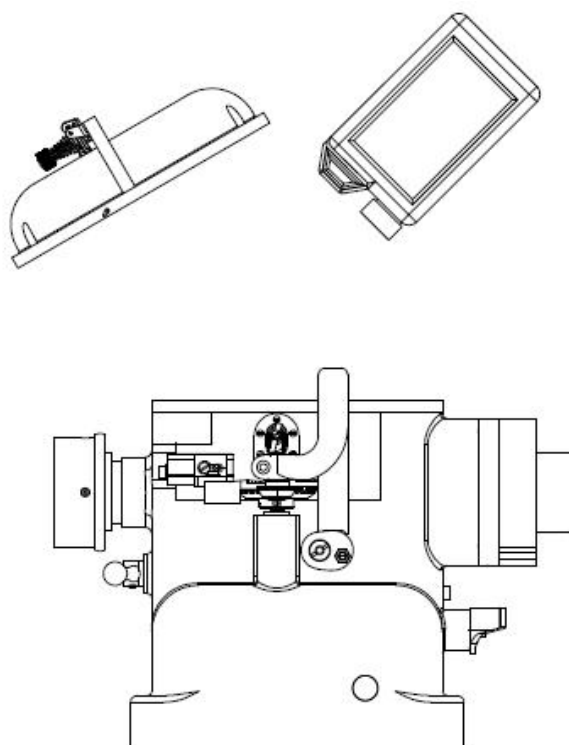
IMPORTANT: THE MACHINE MUST BE FILLED WITH OIL BEFORE OPERATION  
Refer to the drawing opposite.

- 1.1 Check that the machine and accessories supplied are complete (see list overleaf).
- 1.2 If using a new stand, drill these according to the template provided with this handbook.
- 1.3 Attach the motor, starter, and pedals to the stand.
- 1.4 Choose a motor pulley to achieve the desired machine speed.
- 1.5 Place the machine in position and screw both thumb screws through from underneath the table top.
- 1.6 Remove the machine lid by UN-screwing all four cap head screws through from underneath the table top.
- 1.7 Attach the cotton stand to the stand at the rear of the machine.
- 1.8 Connect the cup opening lever to the pedal using the chain and "S" hooks, Ensure that the cups are able to touch when the pedal is released.
- 1.9 Fit either an endless belt or the belt supplied so that the belt can be moved 3 cm under gentle hand pressure at the middle of its span

**OVER TENSIONING WILL DAMAGE THE MACHINE**

- 1.10 Run the machine and check that oil is being pumped up to the oil sight dome. If it is not, please read Section.5.
- 1.11 The speed of these machines can be 3000 R.P.M. Although we recommend 2500 R.P.M.

Note: If the machine is not an auto-oil type, Please fix the return pipe at the bottom of the base at first, Then mount the machine at the table. (see fig 2)



**Picture 2 Automatic oiling**

## 2. OPERATING INSTRUCTIONS

### 2.1 Initial Checks

Check for any transit damage.

### 2.2 Needles and Thread

The thread recommended is either glazed cotton or ethylene, although other steps can be used.  
Recommendations:

TABLE 1

MACHINE TYPE	NEEDLE SIZE	THREAD SIZE	RPM
6003-1	DP×5 135×5 18/110	120-200	0-2500
6003-2	DP×5 135×5 22/140	100-120	0-2500

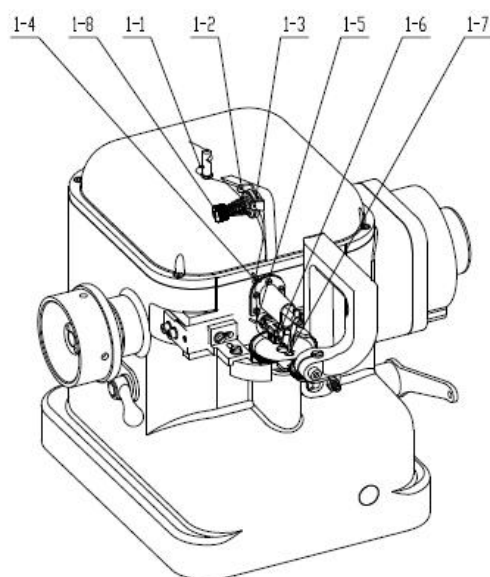
### 2.3 Threading up

Fit the needle to the needle bar, short groove (or scarf) uppermost, and make sure it is fully back against its stop.

Thread up following the diagram opposite.

#### 1) Threading the Machine

See Fig. 1, take thread through thread guide stud No. 1-1 of first hole, then through thread tension guide no. 1-2 of second hole, forward and over between the thread guide no. 1-4, then go through clasp No. 1-5, make the thread in and between the screw No. 1-6, down and through the groove until the right side of needle bar, then forward through the hole of thread tension guide No. 1-7. Finally, from the underside, pass the thread up through the needle eye. (Seeing Fig 3)



Picture 3

### 2.4 Thread Tension

To decrease thread tension, turn the tension nut counter clockwise (1-8) ;

To increase thread tension, turn the tension nut clockwise (1-8) .

### 2.5 Maintenance

Always check that the pump is pumping oil into the sight dome. If it is not, the most likely causes are either a blocked filter, or insufficient oil-check the oil level gauge. The oil should be completely changed at YEARLY INTERVALS. To do this, remove the machine from the base, tip the dirty oil away, and clean the tray and the filter on the pump. Replace the machine on its base. Remove the machine lid and fill with 2 bottles of 800ml oil. If the needle or looper are bent, change them immediately.

### 3. SEWING PROBLEMS

PROBLEM	SUGGESTED CHECK SEQUENCE
Breaking cotton	Change needle. Try less tension.
	Use stronger Cotton.
	Check thread path for smoothness.
	Shorten spring in needle Plunger.
	Check looper is not bent or damaged
Breaking needles	Check needle is straight.
	Carefully turn machine over and watch.
	Needle for hitting needle plate or cups.
	Check cup height.
	Check looper is not hitting needle.
Check feed timing.	
Uneven stitch length	Clean excess oil off feed wheel and feed gripe. Replace feed grips.
Excessive looper play	Replace cam bell.
Front piece of material is not fed correctly	Adjust arm tension by turning adjusting clockwise to increase tension.
Dis stitching	Check there is sufficient cotton tension.
	Check looper clearances and timing of machine.
	Check that a “loop” is being made; if not try a smaller needle.
	Check needle is passing through triangle. Try less depth of seam.
	Check cotton is easily pulled through eye of needle.
	Continuous filament thread can cause mis- stitching.

Oil stops being pumped to oil sight dome	(1) Try changing to maximum stitch length and run machine.
	(2) Check oil level-top up if necessary.
	(3) Check oil filter by removing machine from base.
Oil leaks from a seal	Before changing seal try the following
	(1) Remove pulley/fly wheel
	(2) Clean and dry seal with tissue.
	(3) Replace pulley/fly wheel without any oil on seal.
	(4) Run machine
	If this procedure fails to cure leak, then replace seal with New seal-see parts list for number
Machine feed stops or is erratic	(1) Clean feed grips and feed wheel with lightly oil and replace.
	(2) Replace feed grips and retaining grip
Oil leaks from cross head shield or stitch length adjuster slot	Check return pipe on oil distributor is not blocked.
	If so, then oil can overflow over the top the top of the Distributor and cause excessive oil splash
Excessive looper play	Check cam ball. Replace if necessary.
Machine is noisy	Check play in carriage eccentric and strap eccentric. Replace if necessary

## 4. SETTING OF MACHINE

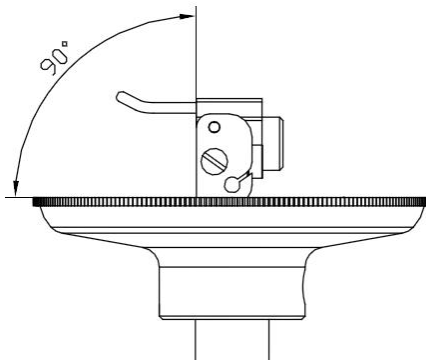
This section allows the setting and timing of the machine to be checked and IF NECESSARY describes how to adjust the machine.

IMPORTANT: CHECK BEFORE ADJUSTING ANYTHING; IF ADJUSTMENT IS REQUIRED ONLY ADJUST BY A SMALL AMOUNT.

4.1. Fit a needle of the size you are going to sew with. The machine will have been set in the factory with the recommended needle size as in Table 2.2. Set the machine to the largest stitch.

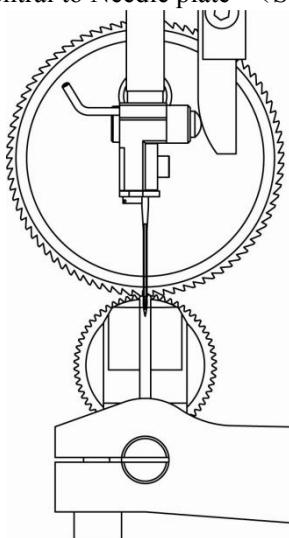
4.2. Check Needle bar is Square to Back Cup (Seeing Fig 4)

If this is not then slacken the carriage, twist the Needle bar, and re tighten the carriage.



Picture 4

4.3 Check Needle is Parallel and Central to Needle plate (Seeing Fig 5)



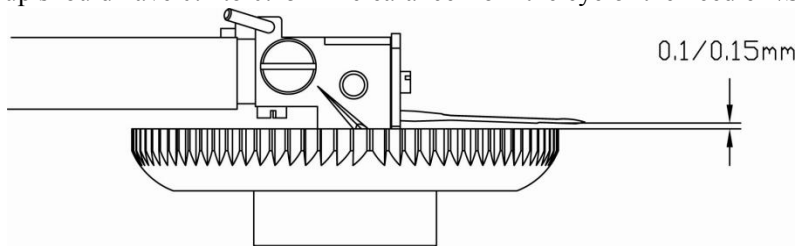
Picture 5

If the needle is not parallel and central to the needle plate, slacken the arm by turning the machine upside down and undo the arm slide bolt. Slacken the needle plate by undoing the central screw. A combination of rotating the arm and then the needle plate must be used to bring the needle central and parallel to the groove in the needle plate. re tighten the arm slide bolt and the central screw.



#### 4.5 Check Cup heights

The back cup should have 0.1 to 0.15mm clearance from the eye of the needle (Seeing Fig 6)



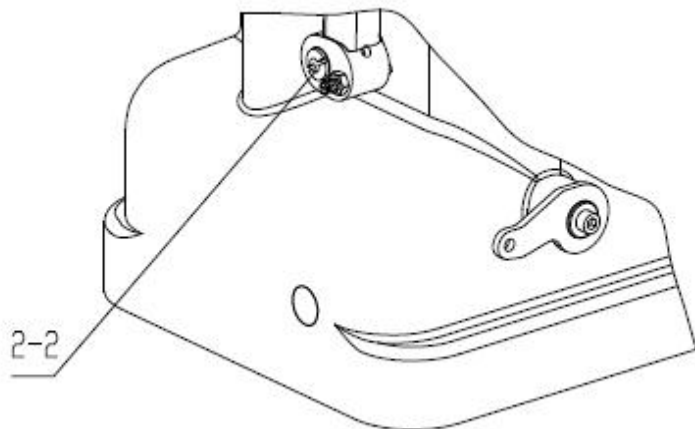
**Picture 6**

If the back cup needs adjusting, slacken both grub screws with the Allen key, move the cup up and down as required, and re tighten the grub screws. (Seeing Fig 7)

#### 4.6 Regulating the Pressure of the Press Discs (Seeing Fig.2)

To increase the pressure of the press disc, turn the tapped rod No. 2-2 clockwise;

To decrease the pressure of the press disc, turn the tapped rod No. 2-2 counter clockwise.

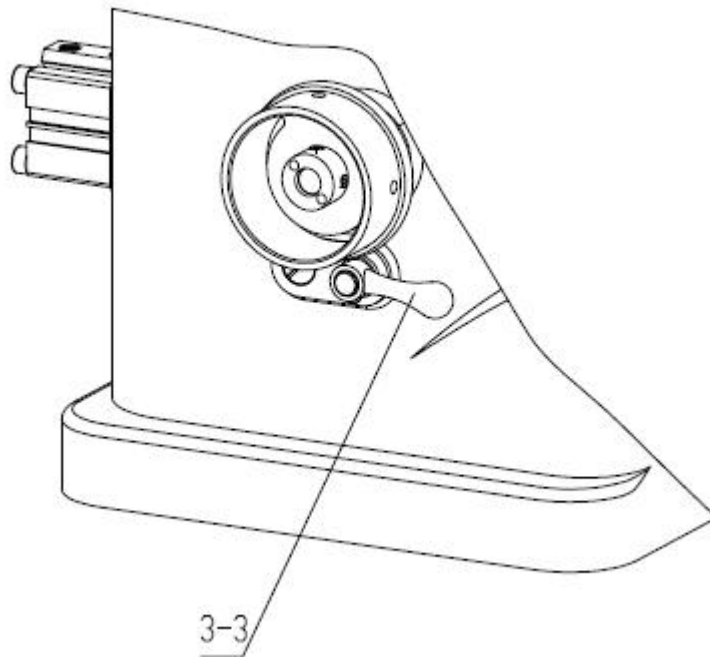


**Picture 7**

#### 4.7 Adjusting the Stitch Length (Seeing Fig.8)

To increase the stitch length, turn the stitch length adjuster No. 3-3 counter clockwise;

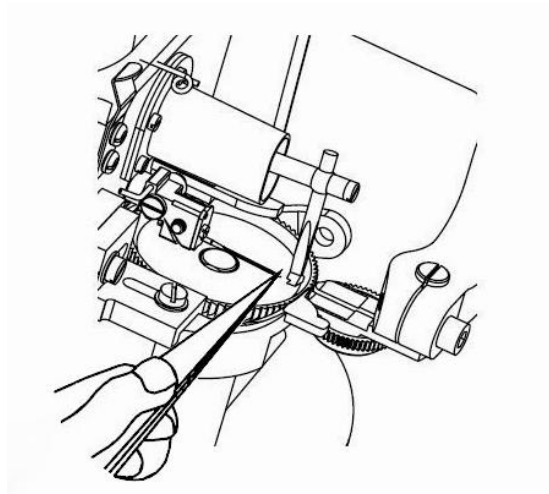
To decrease the stitch length, turn the stitch length adjuster No. 3-3 clockwise;



**Picture 8**

#### 4.8 Changing the Needle (Seeing Fig 9)

Loosen the needle clamp screw, take out the used needle, put in the new needle. Use tweezers, hold the needle with short groove up, place the needle into the needle groove in the needle bar slot where the needle clamp hold it and push it as far as it will go. Finally, re-tighten the needle clamp screw.



**Picture 9**

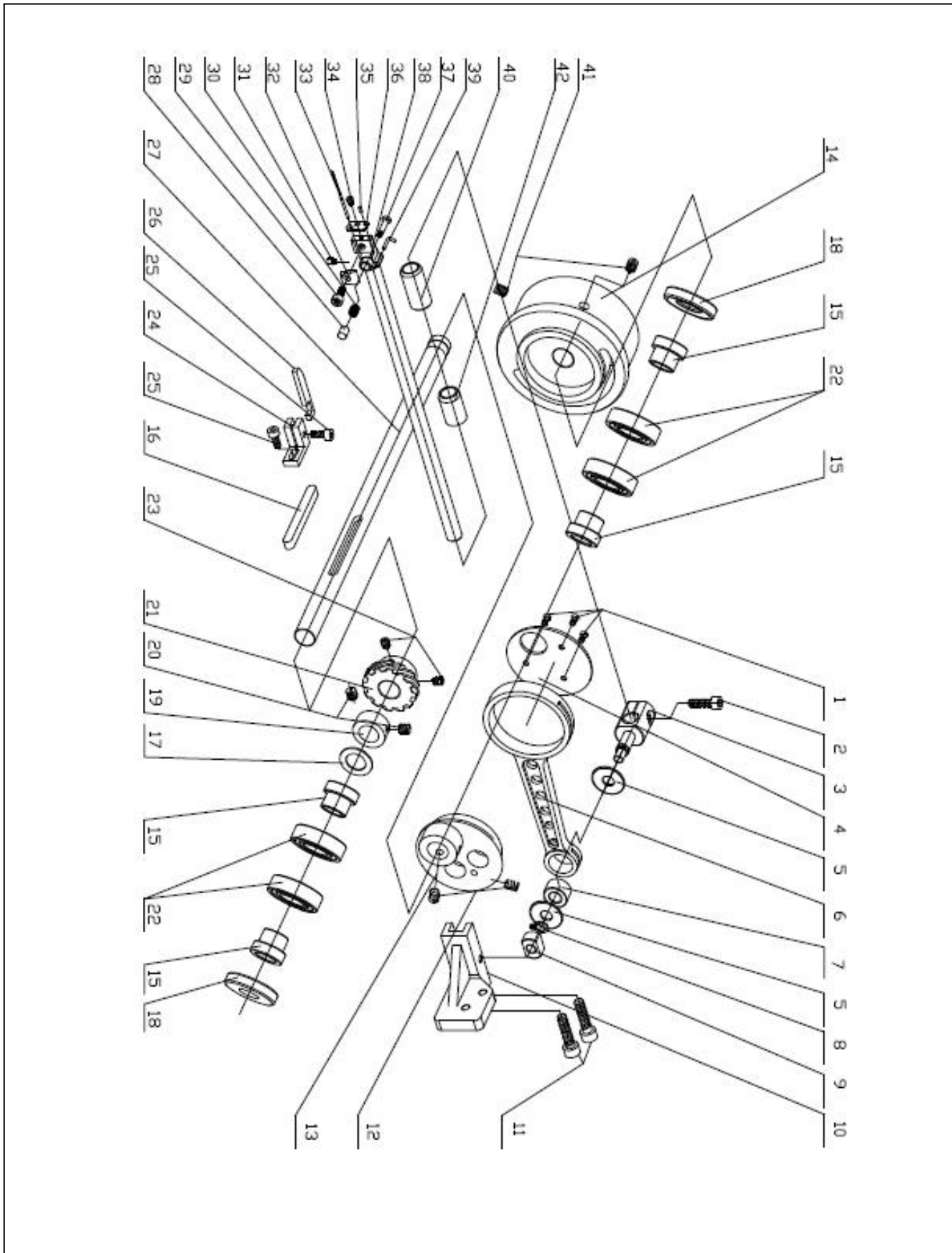
## PARTS LIST

- 1. Frame part Components.....12-13**
- 2. Needle Bar Part Components.....14-16**
- 3. Hooked Needle Part Components.....17-18**
- 4. Feeding Part Components.....19-20**
- 5. Pressing Front Wheel Parts Components.....21-23**
- 6. Driving Oil Components ..... 24-25**
- 7. Knee Lifter Components..... 26-27**
- 8. Attachment Part.....28-29**



Ref.NO	Parts.NO	零件名称	Description	6003
1	6145	夹线螺母	Thread Tension Nut	1
2	6144	夹线簧	Thread Tension Spring	1
3	6252	羊毛毡	Thread Tension Pat	2
4	6143	夹线板	Thread Tension Disc	2
5	6141	夹线螺钉	Thread Tension Post	1
6	6139	过线板	Thread Tension Guide	1
7	6003/1-7	顶盖安装螺钉	Screw M5X15	4
8	6146	顶盖过线钉	Thread Guide Stud	1
9	6147	过线钉螺母	Nut M5	1
10	6003/1-10	上盖	Top Cover	1
11	6003/1-11	塑料盖	Lubricant Cover	1
12	6003/1-12	气缸安装座螺杆	Screw	1
13	6003/1-13	气缸	Standard Air Cylinder	1
14	6003/1-14	机壳	Main Frame	1
15	6003/1-15	气缸安装螺钉	Screw M8X60	1
16	6003/1-16	电机	Motor	1
17	6003/1-17	电机安装螺钉	Screw M6X20	4
18	6041	螺钉	Screw M6X10	2
19	6003/1-19	机壳底部盖板密封圈	Seal Ring	1
20	6003/1-20	机壳底部盖板	Bottom plate for machine body	1
21	6003/1-21	安装螺钉	Screw M5X12	20
22	6203	观油窗	Oil window	1
23	6131	观油窗O型密封圈	Seal Ring P14	1
24	6064	单过线架	Thread Guide	1
25	6254	单过线架螺钉	Screw SM11/64X40 L=4	1
26	6003/1-26	机壳底部密封垫	Seal for machine bottom	1
27	6003/1-27	机壳放油螺钉密封圈	screws	1
28	6003/1-28	机壳放油螺钉	Screw SM9/32×28	1

## 2. Needle Bar Part Components



## 2. Needle Bar Part Components

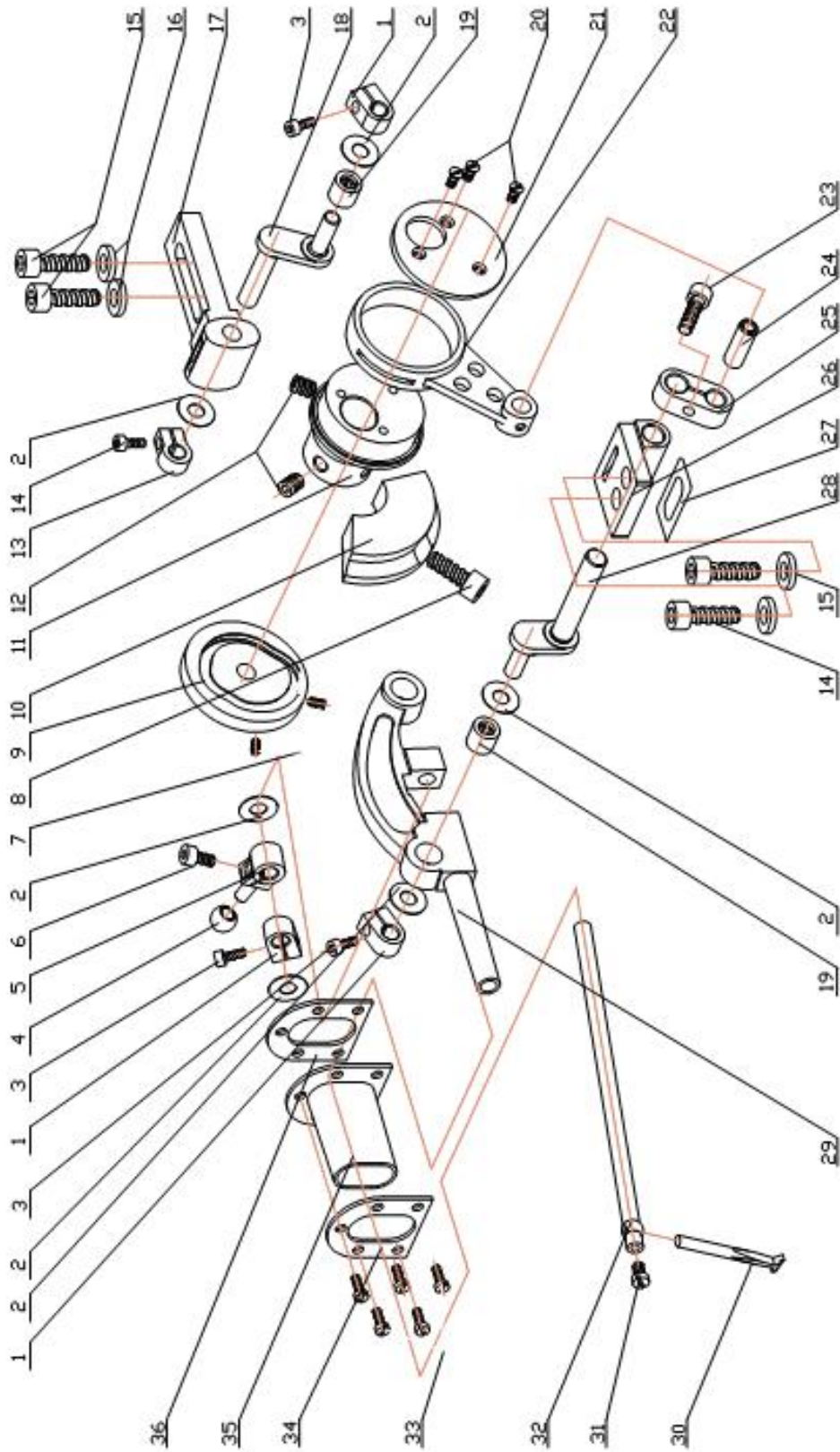
Ref.NO	Parts.NO	零件名称	Description	6003
1	6026	针杆偏心轮盖螺钉	Screw SM1/8X44 L7	3
2	6028	针杆连接柱螺钉	Screw M5X16	1
3	6027	针杆连接柱	Needle Bar Tension Seat	1
4	6025	针杆偏心轮盖	Back Plate	1
5	6029	垫圈	Washer	2
6	6019	针杆连杆	Big Connection Rod	1
7	6030	轴套	Slide Block	1
8	6031	开口挡圈	Retaining Ring E6	1
9	6035	滑块	Slide Block	1
10	6032	滑块座	Needle Bar Tension Seat	1
11	6034	滑块座螺钉	Screw M6X25	2
12	6021	针杆偏心轮螺钉	Screw M6X6	2
13	6020	针杆偏心轮	Big Eccentric	1
14	6003/2-14	手轮	Belt Wheel	1
15	6003/2-15	主轴轴套	Bush	4
16	6003/2-16	半圆键	Wood ruff key	1
17	6076	挡圈垫片	Washer	1
18	6003/2-18	骨架油封	Skeleton Oil Seal	2
19	6023	挡圈	Collar	1
20	6024	螺钉	Screw 1/4X40 L6	2
21	6022	齿轮	Helical Gear	1
22	6003/2-22	轴承	BERNING	4
23	6192	齿轮螺钉	Screw M5X6	2
24	6037	松线座	Loose Thread Seat	1
25	6038	松线座螺钉	Screw M4X10	2
26	6036	松线块	Loose Thread Block	1
27	6003/2-27	主轴	Main Shaft	1
28	6050	压线顶头	Plunger Nut	1
29	6047	机针压板螺钉	Screw M4X8	1
30	6049	压线弹簧	Needle Bar Tension Spring	1
31	6048	机针限位螺钉	Needle clamp Body	1
32	6044	机针压板	Needle Clamp	1
33	6253	机针	Needle Bar	1
34	6045	过线板螺钉	Screw M3X4	1

## 2. Needle Bar Part Components

35	6241	过线板定位销	Needle Clamp Screw 4X10	1
36	6046	过线板	Needle Bar Tension Plate	1
37	6042	压线螺钉	Screw	1
38	6043	针杆体	Needle Stop Plate	1
39	6242	拦线钩	Clasp	1
40	6219	针杆前轴套	Needle Bar Bush(Front)	1
41	6067	紧定螺钉	ScrewM6×6	2
42	6220	针杆后轴套	Needle Bar Bush(Rear)	1



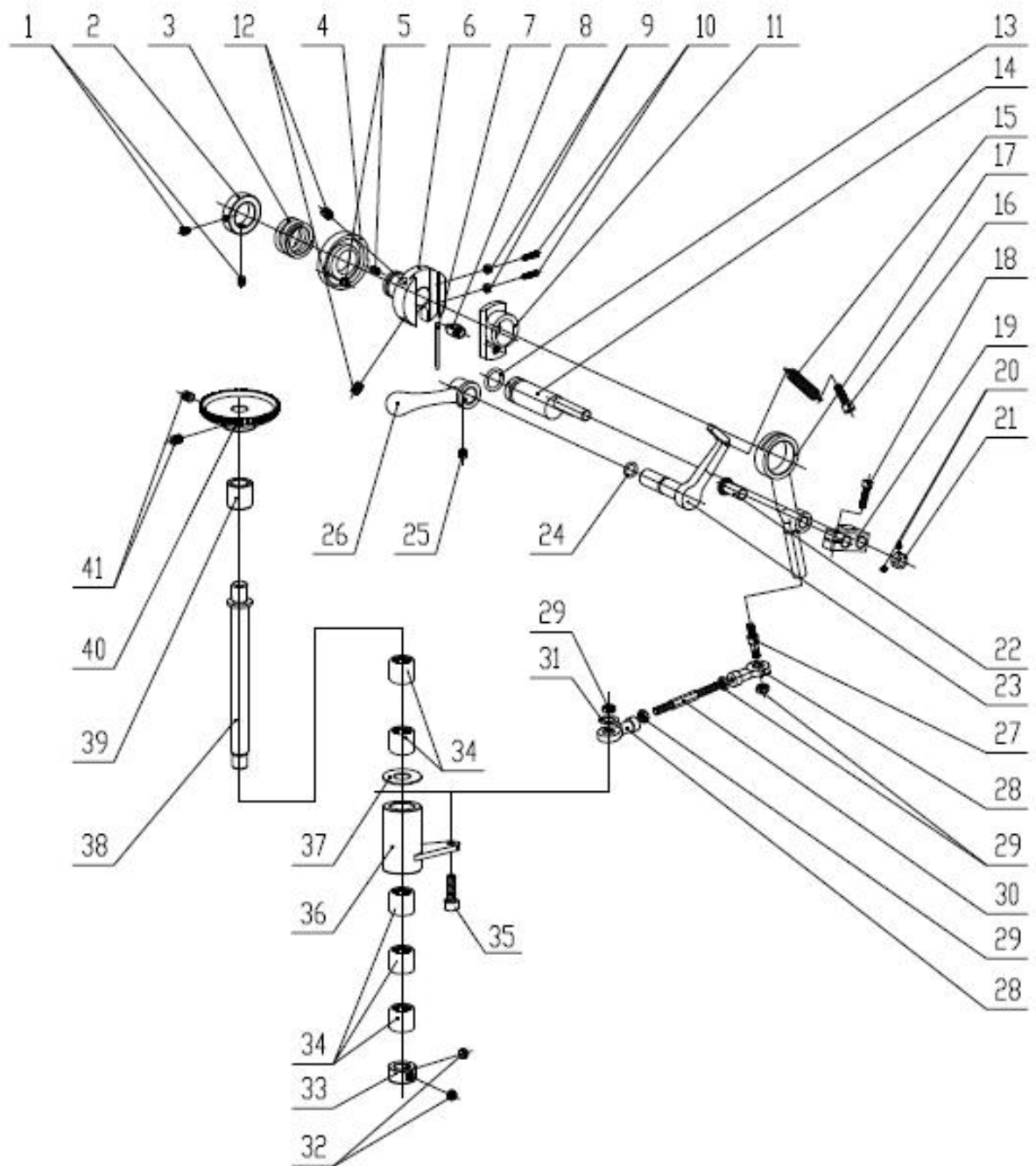
### 3. Hooked Needle Part



### 3.Hooked Needle Part

Ref.NO	Parts.NO	零件名称	Description	6003
1	6060	挡圈	Collar	3
2	6058	垫圈	Washer	6
3	6061	挡圈螺钉	Screw M3X8	3
4	6088	凸轮滚珠	Roller Cam Assembly	1
5	6089	钩针摆动滚珠曲柄	Ball Arm Assembly	1
6	6246	钩针滚子曲柄螺钉	Screw M4X8	1
7	6087	凸轮螺钉	Screw M6X12	2
8	6248	平衡块螺钉	Screw M6X16	1
9	6086	凸轮	Cam Assembly	1
10	6247	平衡块	Cam Balance	1
11	6072	钩针偏心轮	Small Eccentric	1
12	6073	钩针偏心轮螺钉	Screw M6X8	1
13	6066	后曲柄挡圈	Collar	1
14	6091	螺钉	Screw M4X10	1
15	6055	螺钉	Screw M6X20	4
16	6054	垫圈	Washer	4
17	6053	钩针架后曲柄座	Looper Frame Bracket	1
18	6052	钩针架后曲柄	Looper Frame(Rear)	1
19	6059	钩针架轴承	Bearing HK 0609	2
20	6075	钩针偏心轮盖螺钉	Screw 1/8X44 L=7	3
21	6074	钩针偏心轮盖	Back Plate	1
22	6084	钩针连杆	Small Eccentric	1
23	6069	钩针曲柄扎头螺钉	Screw M5X12	1
24	6070	钩针连杆销	Couple shaft	1
25	6068	钩针曲柄扎头	Double collar	1
26	6063	前曲柄座	Looper Rocker Bracket(F)	1
27	6079	前曲柄座垫片	Washer	1
28	6062	钩针架前曲柄	looper Frame Rocker (Front)	1
29	6051	钩针架	Looper Frame	1
30	6082	钩针	Looper	1
31	6081	钩针紧固螺钉	Screw M4X8	1
32	6080	钩针杆	Looper Shaft	1
33	6085	压板螺钉	Screw M3X10	5
34	6078	钩针杆护套压板	Washer	1
35	6083	钩针杆护套	Lube Sleeve	1
36	6077	护套油封	Skeleton Oil Seal	1

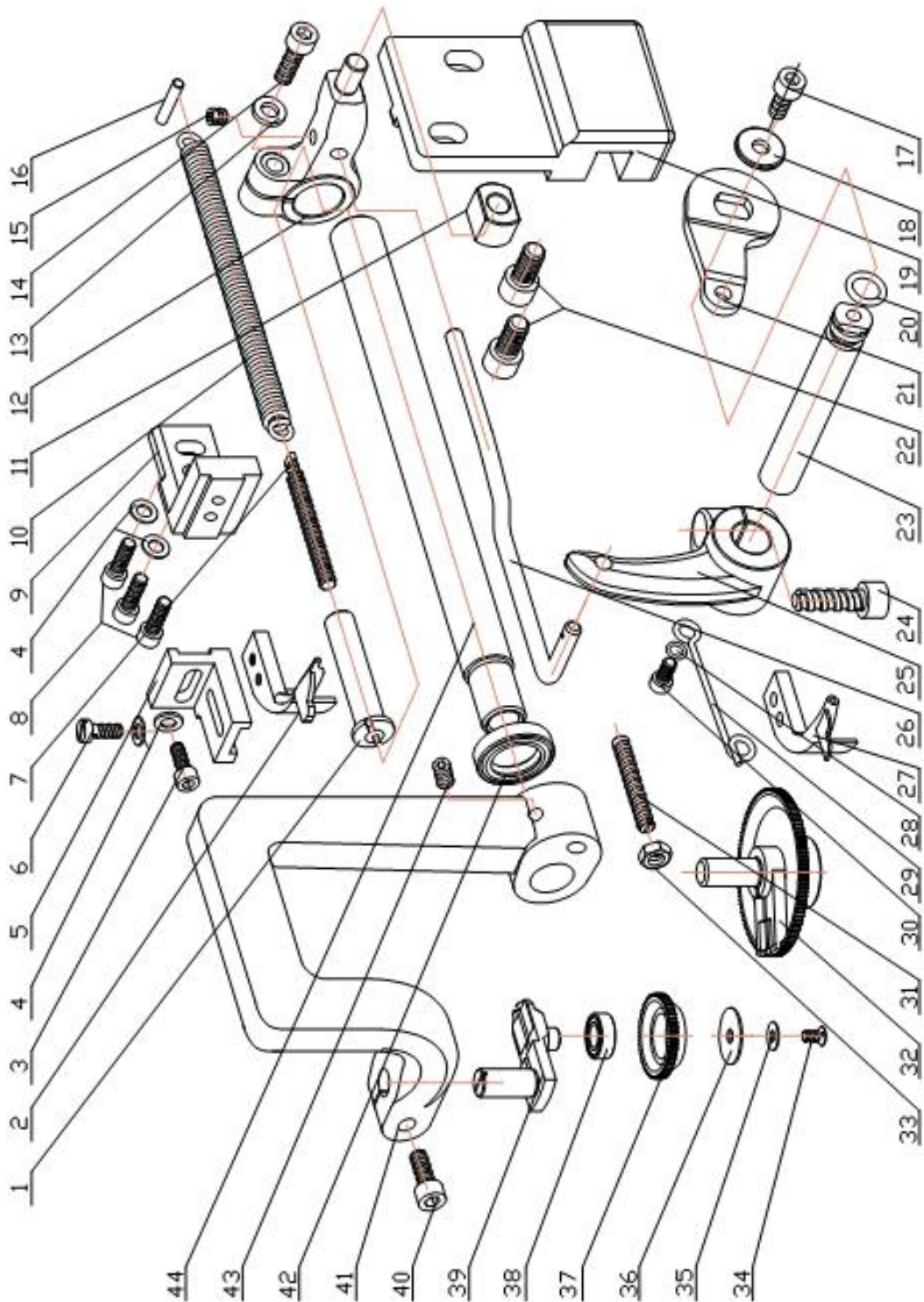
## 4. Feeding Part Components



#### 4. Feeding Part Components

Ref.NO	Parts.NO	零件名称	Description	6003
1	6003/4-01	紧固螺钉	Screw M5X5	2
2	6003/4-02	套管	Collar	1
3	6003/4-03	套管弹簧	Collar Spring	1
4	6003/4-04	送料调节偏心轮	Feed adjusting eccentric	1
5	6003/4-05	偏心轮螺钉	Screw	2
6	6003/4-06	送料调节滑块座	Feed adjusting slide seat	1
7	6003/4-07	调节板	Adjusting plate	1
8	6003/4-08	固定支轴	Fixed shaft	1
9	6003/4-09	滑块座调节螺母	Nut M3	2
10	6003/4-10	滑块座调节螺钉	Screw	2
11	6003/4-11	送料调节滑块	Slide block	1
12	6126	螺钉	Screw M6X8	2
13	6131	O 型密封圈	Seal Ring	1
14	6003/4-14	偏心轴	Eccentric Shaft	1
15	6003/4-15	送料调节拉簧	Spring	1
16	6003/4-16	送料调节拉簧螺钉	Screw M5X15	1
17	6115	送料连杆	Connection Rod	1
18	6128	连接轴座螺钉	Screw M4X14	1
19	6127	连接轴座	Connection Block	1
20	6118	挡圈螺钉	Screw M4X10	2
21	6116	挡圈	Collar	1
22	6117	送料连杆销	Pin	1
23	6003/4-23	送料调节按钮拨杆	Feed adjusting lever	1
24	6003/4-24	O 型密封圈	Seal Ring	1
25	6003/4-25	紧固螺钉	Screw M5X5	1
26	6003/4-26	送料调节按钮	Feed adjusting button	1
27	6132	关节轴承螺钉	Screw	1
28	6133	关节轴承	Connection Block	2
29	6135	螺母	Nut M6	3
30	6134	连接螺杆	Connection Rod M6X75	1
31	6285	垫圈	Washer	1
32		挡圈螺钉	Screw 1/4X40 L=4	2
33	6290	挡圈	Collar	1
34	6092	单向轴承 HF1516	one way bearing	5
35	6249	关节轴承连接螺钉	Screw M6X20	1
36	6003/4-36	传动曲柄	Transmission outer ring	1
37	6003/4-37	传动曲柄垫圈	Washer	1
38	6003/4-38	送料轴	Shaft Assembly	1
39	6003/4-39	送料轴套	Feeding shaft sleeve	1
40	6112	送料盘	Back cup	1
41	6113	送料盘螺钉	Screw 11/64X40	2

## 5. Pressing Front Wheel Part Components

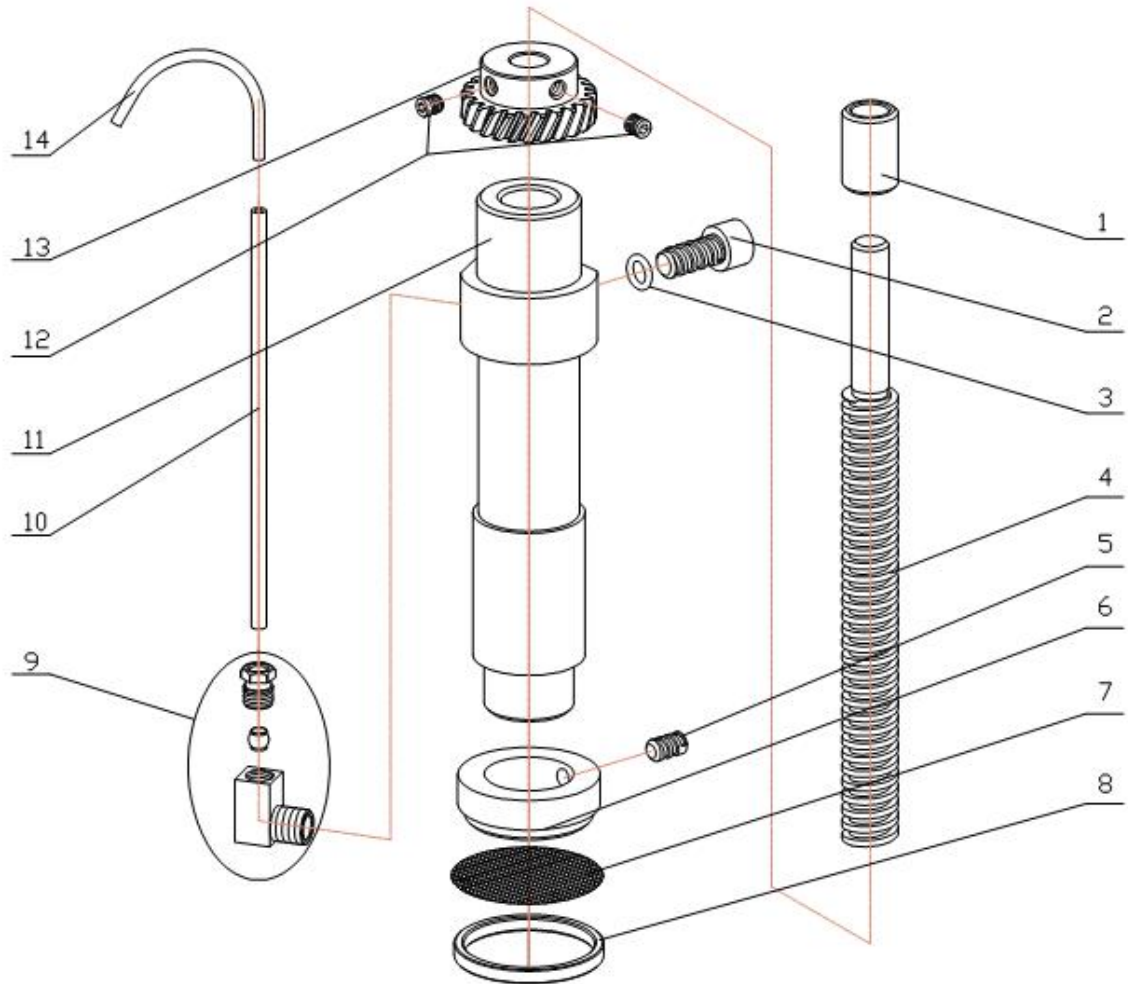


## 5. Pressing Front Wheel Part Components

Ref.NO	Parts.NO	零件名称	Description	6003
1	6166	调节销	Tapped Rod	1
2	6176	挡料板 (B)	Work Guide	1
3	6174	挡料板座螺钉	Work Guide Screw M5X14	1
4	6169	垫圈	Washer	4
5	6172	挡料板座	Guide Connector	1
6	6173	挡料板螺钉	Work Guide Screw M5X12	1
7	6165	拉簧调节螺钉	Screw M6X50	1
8	6168	挡料板座支架螺钉	Screw M5X16	2
9	6003/5-09	挡料板座支架	Guard Connector	1
10	6163	压料拉簧	ExTension Spring	1
11	6160	压杆导架滑块	Slide Block	1
12	6156	压杆导架	Pressure Lever	1
13	6095	垫圈	Washer	1
14	6158	螺钉	Screw M6X20	1
15	6230	螺钉	Screw M6X6	1
16	6164	拉簧销	Pin	1
17	6185	螺钉	Screw M6X14	1
18	6184	垫圈	Washer	1
19	6161	压杆导架座	Pressure Lever	1
20	6182	O 型密封圈	Seal Ring	1
21	6183	压料手柄	Press Shaft Block	1
22	6162	压杆导架座螺钉	Screw M8X16	1
23	6003/5-23	压料手柄轴	Base Shaft	1
24	6180	压料摆动曲柄螺钉	Screw M8X25	1
25	6179	压料摆动曲柄	Bass Shaft Table	1
26	6177	拉杆	Pull Rod	1
27	6175	挡料板 (A)	Work Guide M4X12	1
28	6014	垫圈	Washer	1
29	6170	过线钩	Thread Tension Guard	1
30	6094	紧定螺钉	Screw	1

31	6150	限位螺钉	Stopper Disc Arm M6X40	1
32	6154	大压料盘组件	Big Front Disc Set	1
33	6151	限位螺母	Nut M6	1
34	6259	小压料盘螺钉	Screw	1
35	6260	小垫圈	Washer	1
36	6261	大垫圈	Washer	1
37	6262	小压料盘	Small Press Cup	1
38	6263	轴承	Bearing	1
39	6264	小压料盘轴	Needle Guard Plate	1
40	6149	压料支架螺钉	Screw M6X12	1
41	6148	压料支架	Feed Disc Arm	1
42	6265	骨架油封	Skeleton Oil Seal	1
43	6153	压料支架紧固螺钉	Screw M6X20	1
44	6152	压料杆	Shaft Disc Arm	1

## 6. Driving Oil Part Components

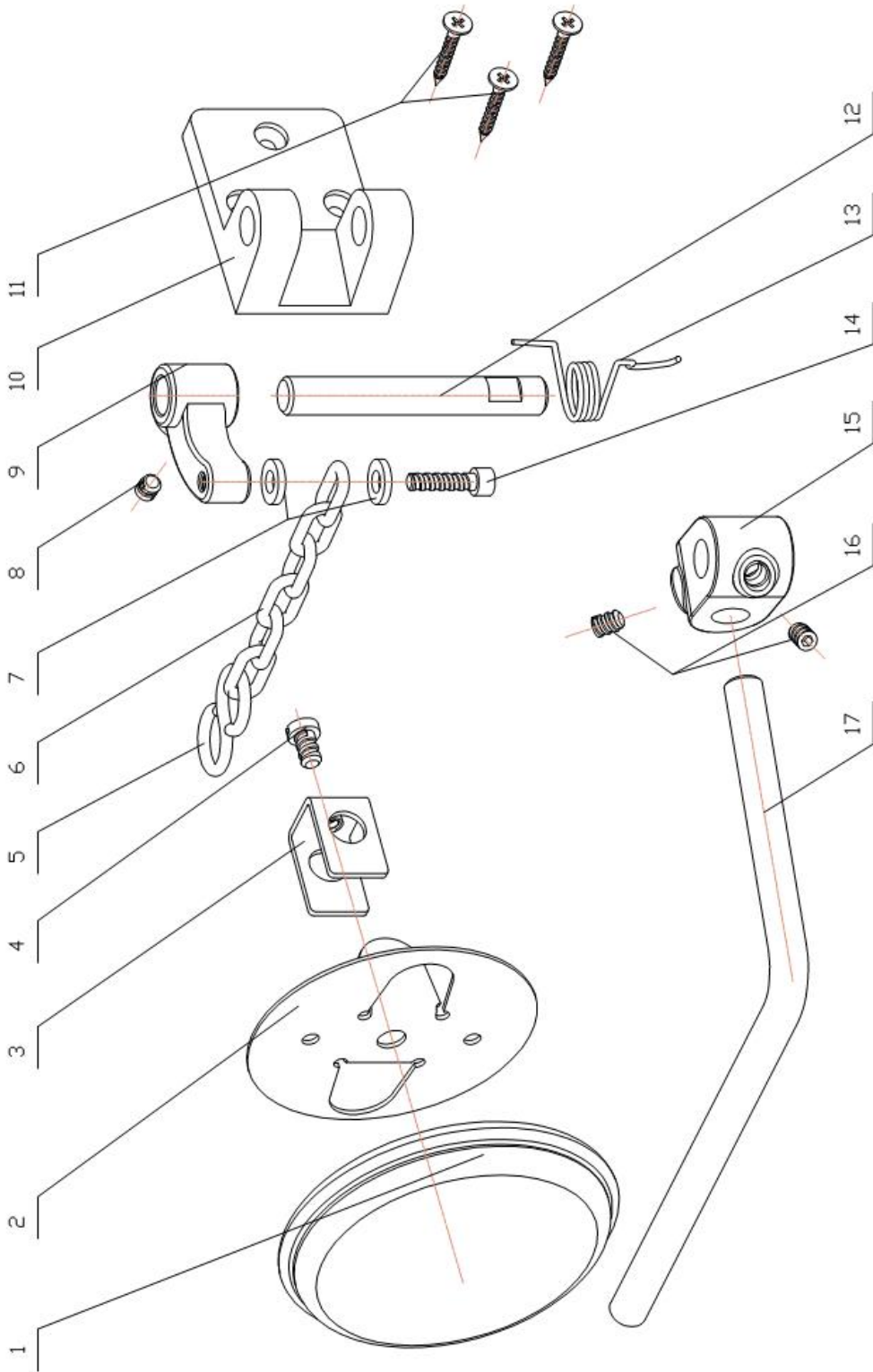




## 6. Driving Oil Components

Ref.NO	Parts.NO	零件名称	Description	6003
1	6194	衬套	Bush	1
2	6196	油泵固定螺钉	Screw M8X20	1
3	6266	O 型密封圈	Seal Ring	1
4	6193	打油螺杆	Worm	1
5	6056	油网套螺钉	Screw M6X6	1
6	6197	油网套	Lube Sleeve And Net	1
7	6033	油网	Oil net	1
8	6039	油网紧圈	Oil seal	1
9	6267	油管接头组件	Oil Pump Connect Assembly	1
10	6190	油泵油管	Lubricant coupler	1
11	6016	油泵体	Lubricant Pipe	1
12	6192	齿轮螺钉	Screw M5X6	2
13	6191	油泵齿轮	Gear	1
14	6251	出油管	Coupler	1

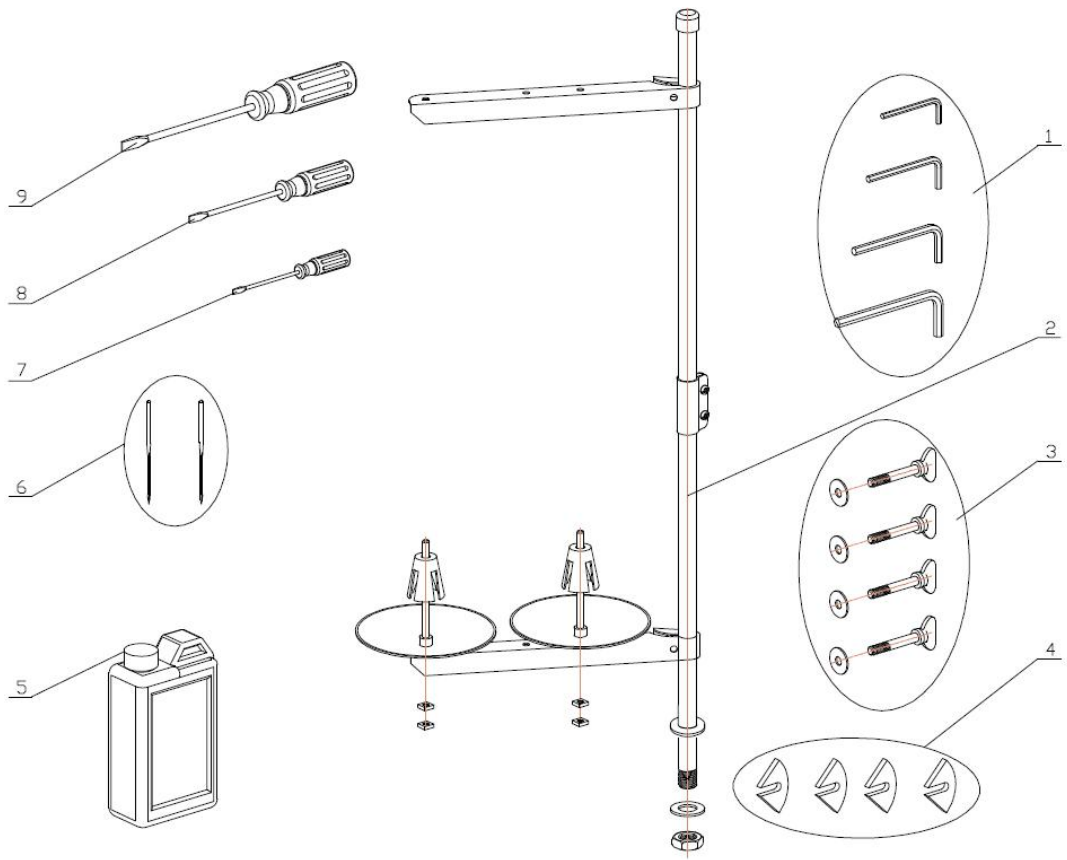
## 7.Knee Lifter Components



## 7. Knee Lifter Components

Ref.NO	Parts.NO	零件名称	Description	6003
1	6870	操纵板垫	Knee Press Plate Cover	1
2	6869	操纵板	Knee Press Plate	1
3	6867	操纵杆架	Bracket	1
4	6868	操纵杆螺钉	Screw M6X10	1
5	6860	S 型钩针	S Shaped Hook	1
6	6861	链条	Chain	1
7	6859	垫圈	Washer	2
8	6856	膝控曲柄紧定螺钉	Screw M6X10	1
9	6455	膝控曲柄	Mounting Bracket	1
10	6098	膝控座	Knee press Rod Holder	1
11	6354	膝控座螺钉	Screw	3
12	6862	膝控轴	Main Shaft	1
13	6863	钮簧	Spring	1
14	6657	膝控曲柄连接螺钉	Screw M6X25	1
15	6864	操纵杆接头	Bearing Bracket	1
16	6865	操纵杆接头螺钉	Screw M8X14	2
17	6866	操纵杆	Knee Lifter Plate Rod	1

## 8.Attachment Parts



## 8. Attachment Parts

Ref.NO	Parts.NO	零件名称	Description	6003
1	6209	内六角扳手	Wrench2.5, 3, 4, 5	4
2	6212	线架	Thread Stand	1
3	6268	翼型螺钉、垫片	Screw M8X50	4
4	6101	橡胶垫	Cushion	4
5	6236	油壶	Oiler	2
6	6211	机针	needle	10
7	6208	一字螺丝刀（小）	Needle SBX1	1
8	6208-1	一字螺丝刀（中）	Needle SBX1	1
9	6208-2	一字螺丝刀（大）	Needle SBX1	1

**Notice: The machine must be grounding before installation.**

**Please read the direct drive motor manual carefully  
before operating the direct drive motor.**