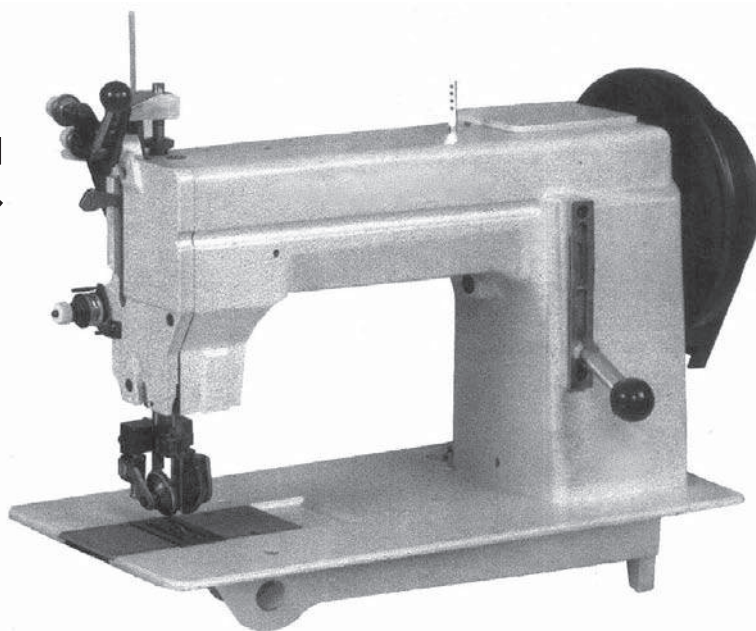




**FP1 MOC**



**FP1 MOC-ORN**



**Double-needle Mocca Sewing Machine  
Operational Instructions**

# Contents

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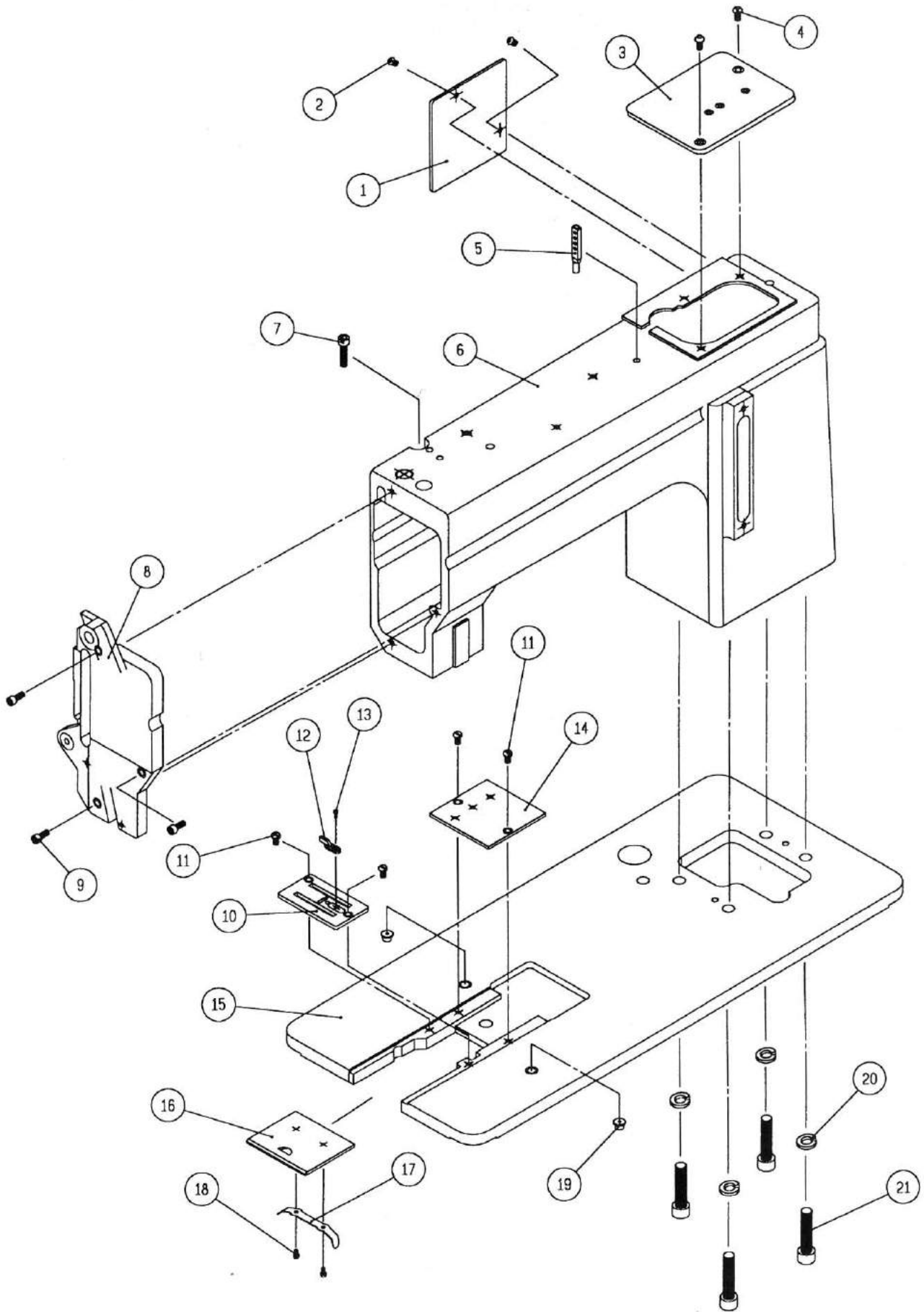
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***CHAPTER***

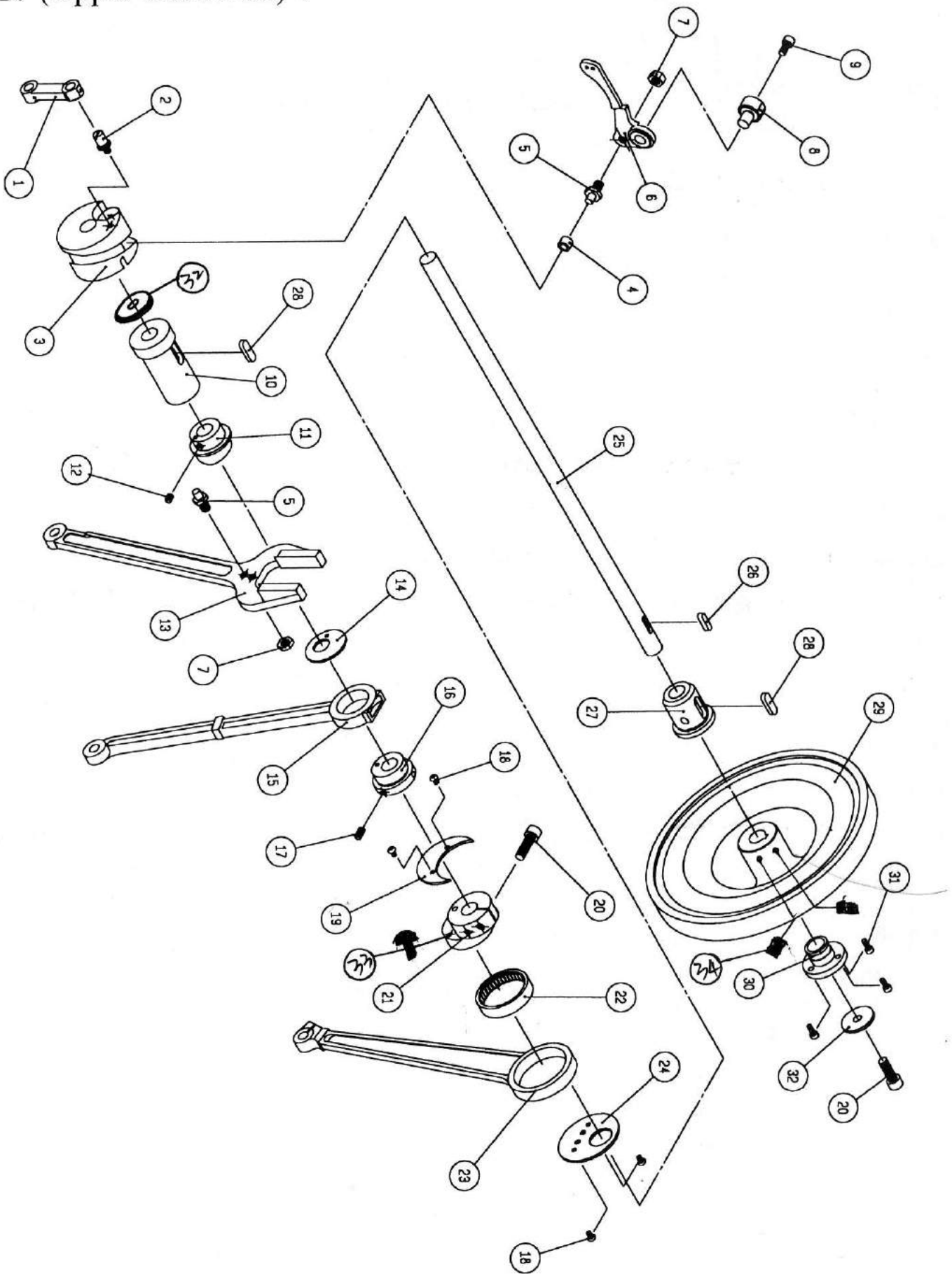
**1**

A. (Frame Part):



NO	Part No.	Part Title	Quantity	Specification
1	A00001	Cover	1	
2	SB05009	Hexagon Socket Half-round Head Screw	2	M5*10L
3	A00002	Cover	1	
4	SB05004	Hexagon Socket Half-round Head Screw	2	M5*10L
5	A00003	Guide Post	1	
6	A00004	Frame	1	
7	SB01014	Hexagon Socket Screw	1	M6*25L
8	A00005	Face Plate	1	
9	SB03007	Hexagon Socket Screw	3	M5*16L Mo.8
10	A00006	Needle Plate	1	7.5 5.5
11	A00007	Needle Plate Screw	6	M5*8L
12	A00008	Needle Plate Tongue	1	
13	SB08001	Round-head Small Screw	1	
14	A00009	Anchor Plate	1	
15	A00010	Base	1	
16	A00011	Large Hook Cover	1	
17	A00012	Spring Sheet	1	
18	SB05007	Hexagon Socket Half-round Head Screw	2	M3*4L Mo.5
19	A00013	Oil Plug	2	
20	SB21002	Spring Washer	4	M10
21	SB01018	Hexagon Socket Screw	4	M10*45L

B. (Upper Shaft Part) :



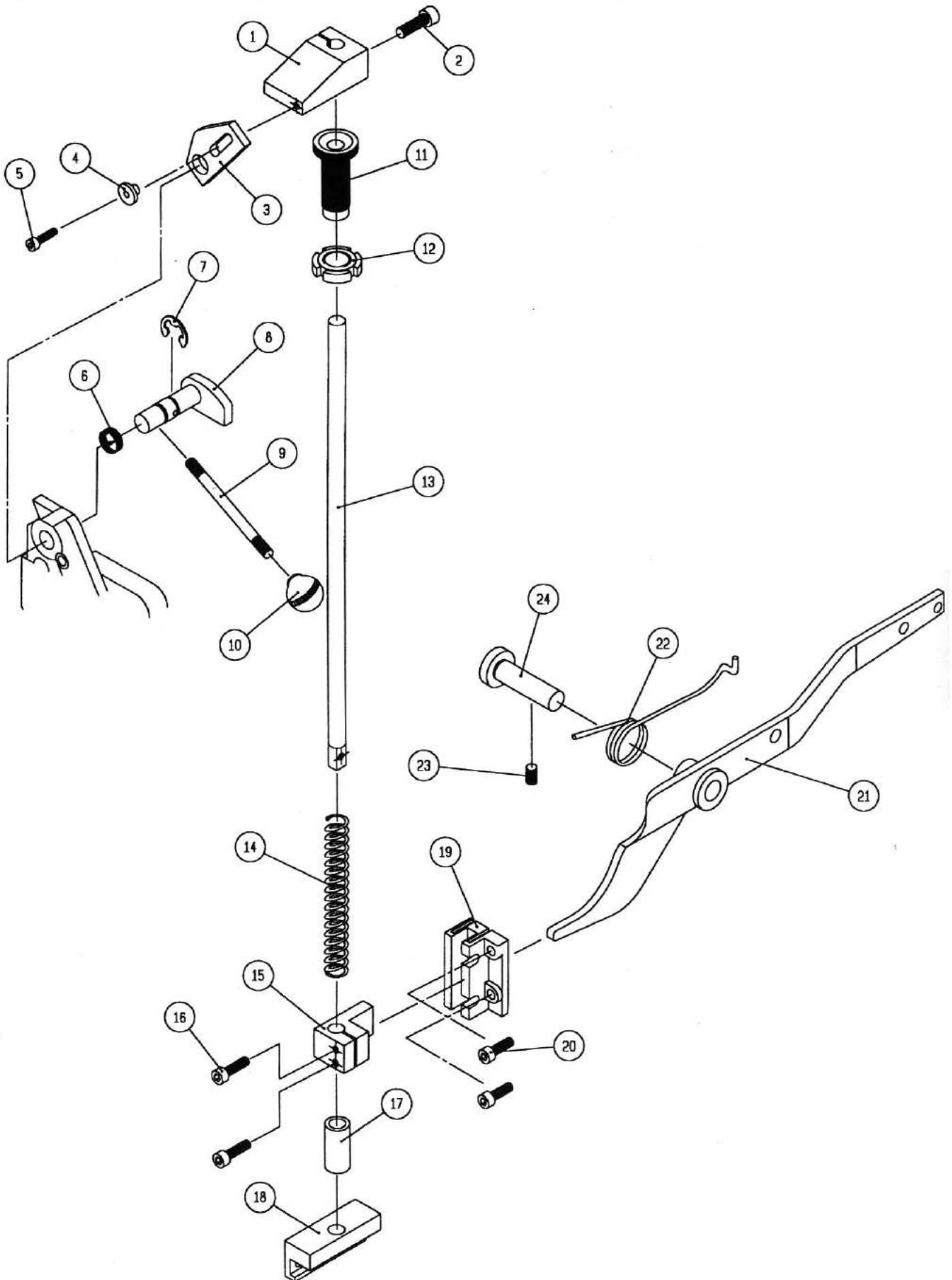
NO	Part No.	Part Title	Quantity	Specification
1	A01001	Needle Bar Connecting Link	1	
2	A01002	Needle Bar Connecting Shaft	1	
3	A01003	Cam	1	
4	A01004	Thread Take Up Lever Roller	1	
5	A01005	Roller Axle Screw	2	
6	A01006	Thread Take Up Lever	1	
7	SB11003	Hexagon Nut	2	M8
8	A01007	Thread Take Up Lever Fixed Axle	1	
9	SB01011	Hexagon Socket Screw	1	M6*10L
10	A01008	Upper Shaft Bushing(Front)	1	
11	A01009	A Triangle Eccentric Wheel	1	
12	SB04004	Hexagon Socket Set Screw	2	M6*6L
13	A01010	Stradle Type Rod	1	
14	A01011	Side Plate(1)	1	
15	A01012	Link	1	
16	A01013	Link Eccentric Wheel	1	
17	SB04005	Hexagon Socket Set Screw	2	M6*10L
18	SB05008	Hexagon Socket Haft-round Head Screw	4	M4*10L
19	A01014	Side Plate(2)	1	
20	SB01016	Hexagon Socket Screw	1	M8*25L
21	A01015	Moving Rod Eccentric Wheel	1	
22	SA22001	Needle Roller Bearing	1	HK4512
23	A01016	Moving Rod	1	
24	A01017	Side Plate(3)	1	
25	A01018	Upper Shaft	1	
26	SC11001	Flat Key	1	5*5*20L
27	A01019	Upper Shaft Bushing(Back)	1	

NO	Part No.	Part Title	Quantity	Specifications
28	A01020	Oil Waste	2	
29	A01021	Belt Roller	1	
30	A01022	Locating Seat	1	
31	SB01002	Hexagon Socket Screw	3	M4*8L
32	A01023	Side Plate(西)	1	
33	SB05012	Have Head Inside Hexagon screw	1	M6*16L
34	SB10001	Head Hexagon screw	2	M8*12L



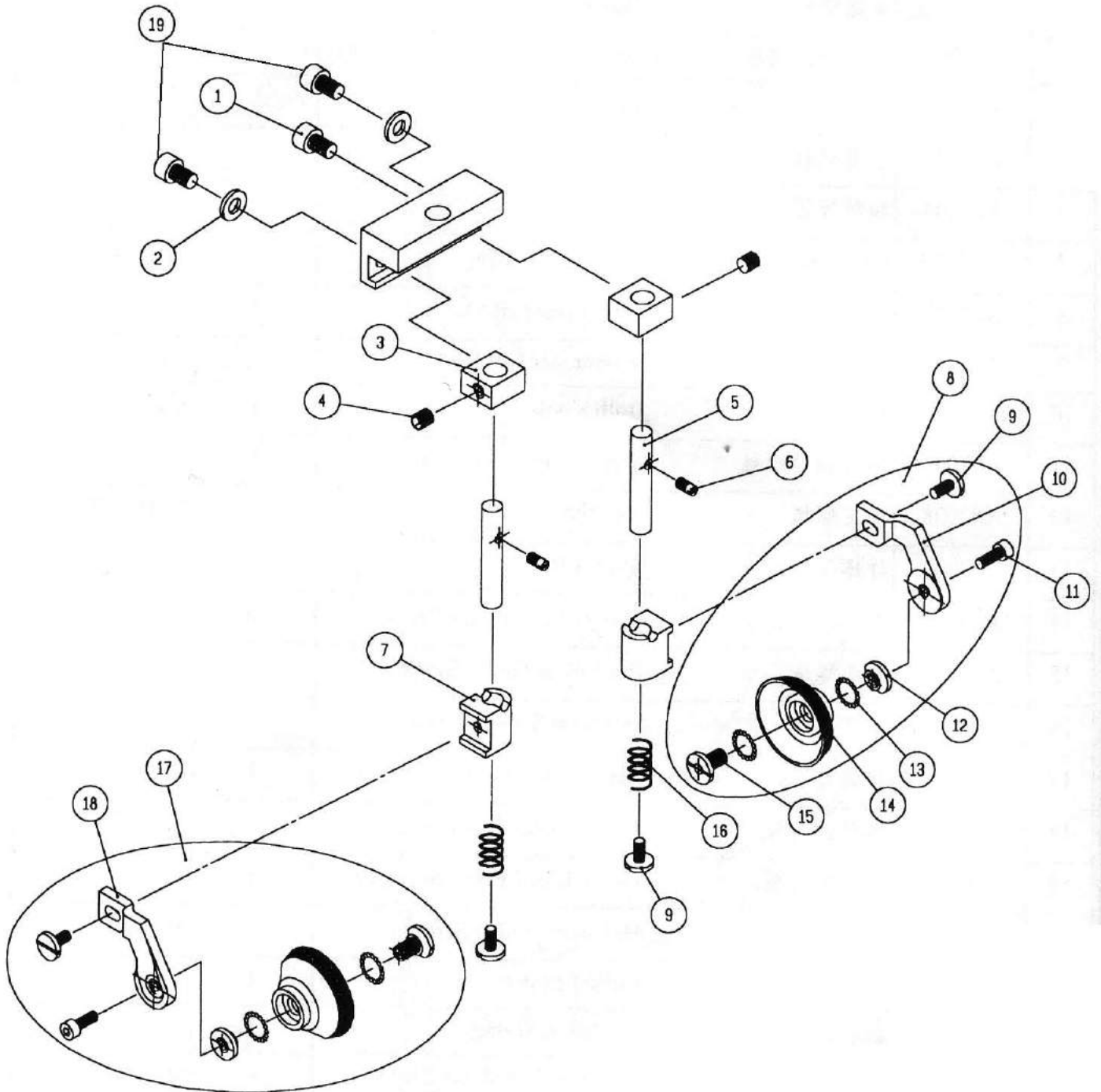


C. (Hand Wheel Part)1/2:



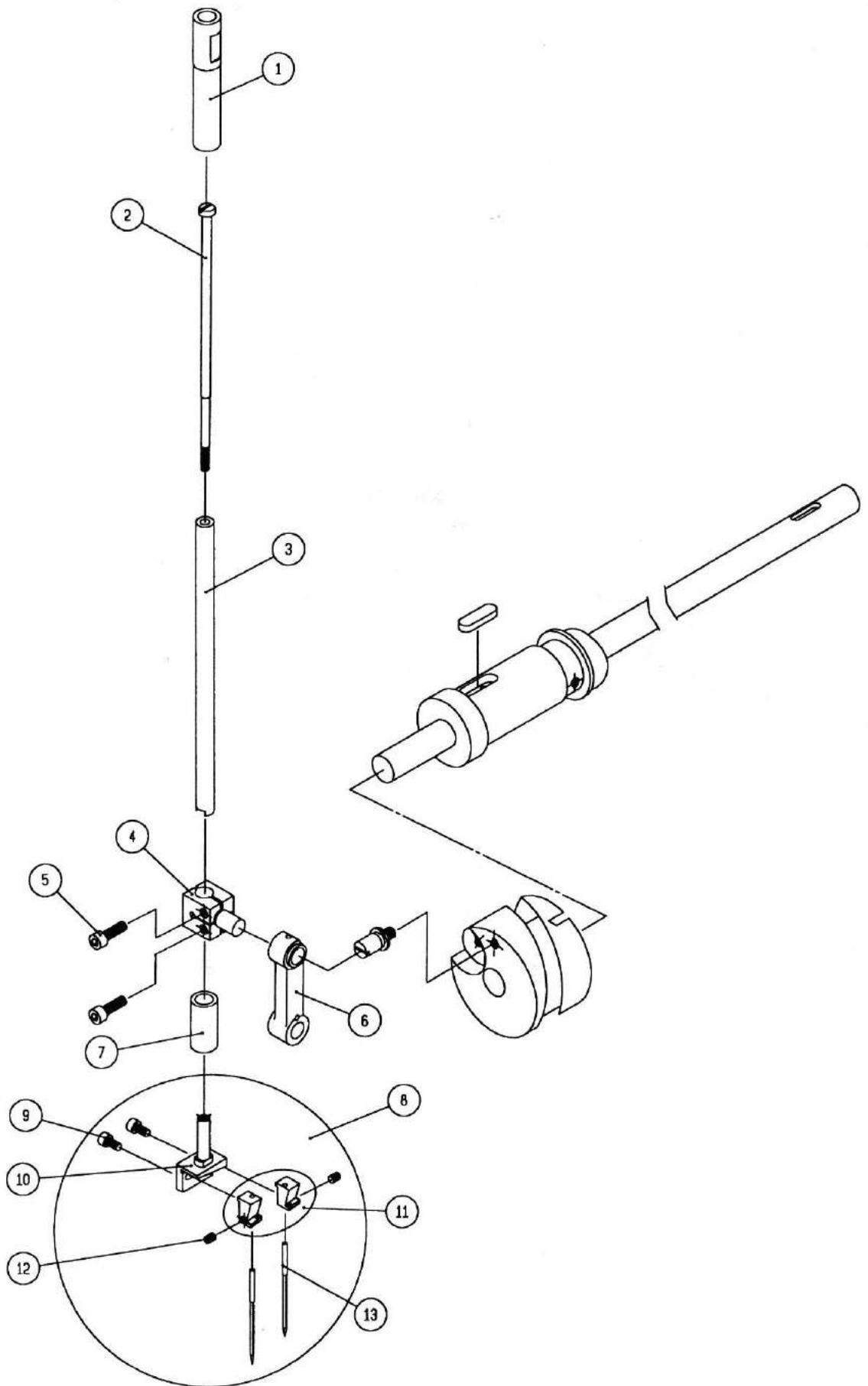
NO	Part No.	Part Title	Quantity	Specifications
1	A02001	Passer Bar Fixed Seat	1	
2	SB01013	Hexagon Socket Screw	1	M6*20L
3	A02002	Sa-La System Push Away Seat	1	
4	A02003	Fixed Set	1	
5	SB01004	Hexagon Socket Screw	1	M4*16L
6	A02004	Torsional Spring	1	
7	SC23001	E-type Snap Ring	1	Ø 10
8	A02005	Passer Bar Lift Shaft	1	
9	A02006	Passer Bar Lift Rod	1	
10	SC43002	Bulb Knob	1	Ø 6
11	A02007	Passer Releasing Thumb	1	
12	A02008	Set Nut	1	5"/8*28
13	A02009	Passer Bar	1	
14	A02010	Passer Bar Pressor Spring	1	
15	A02011	Passer Bar Guide Block	1	
16	SB01008	Hexagon Socket Screw	2	M5*16L
17	A02012	Passer Bar Thimble	1	
18	A02013	Hand Wheel Fixed Seat	1	
19	A02014	Guide Block Fixed Seat	1	
20	SB01008	Hexagon Socket Screw	2	M5*16L
21	A02015	Lifting Lever	1	
22	A02016	Torsional Spring	1	
23	SB04005	Hexagon Socket Set Screw	1	M6*10L
24	A02017	Lifting Lever Fixed Shaft	1	

C. (Hand Wheel Part)2/2:



NO	Part No.	Part Title	Quantity	Specifications
1	SB01022	Hexagon Scket Screw	1	M6*12L
2	SB22002	Washer	2	M6
3	A02018	Hand Wheel Fixed Seat Slide	2	
4	SB04004	Hexagon Scket Set Screw	2	M6*6L
5	A02019	Hand Wheel Axle	2	
6	A02020	Set Screw	2	M4
7	A02021	Hand Wheel Slip Seat	2	
8	A03001	Right Hand Wheel System	1	
9	A03002	Screw	4	M4
10	A03003	Right Hand Wheel Arm	1	
11	SB01003	Hexagon Scket Screw	2	M4*12L
12	A03004	Hand Wheel Bearing Seat	2	
13	SA45001	Hand Wheel Roller	4	$\phi$ 2mm*17
14	A03005	Hand Wheel	2	
15	A03006	Hand Wheel Screw	2	
16	A02022	Hand Wheel Compression Spring	2	
17	A04001	Left Hand Wheel System	1	
18	A04002	Left Hand Wheel Arm	1	
19	SB01042	Hexagon Bear Nest screw	2	M6*10L

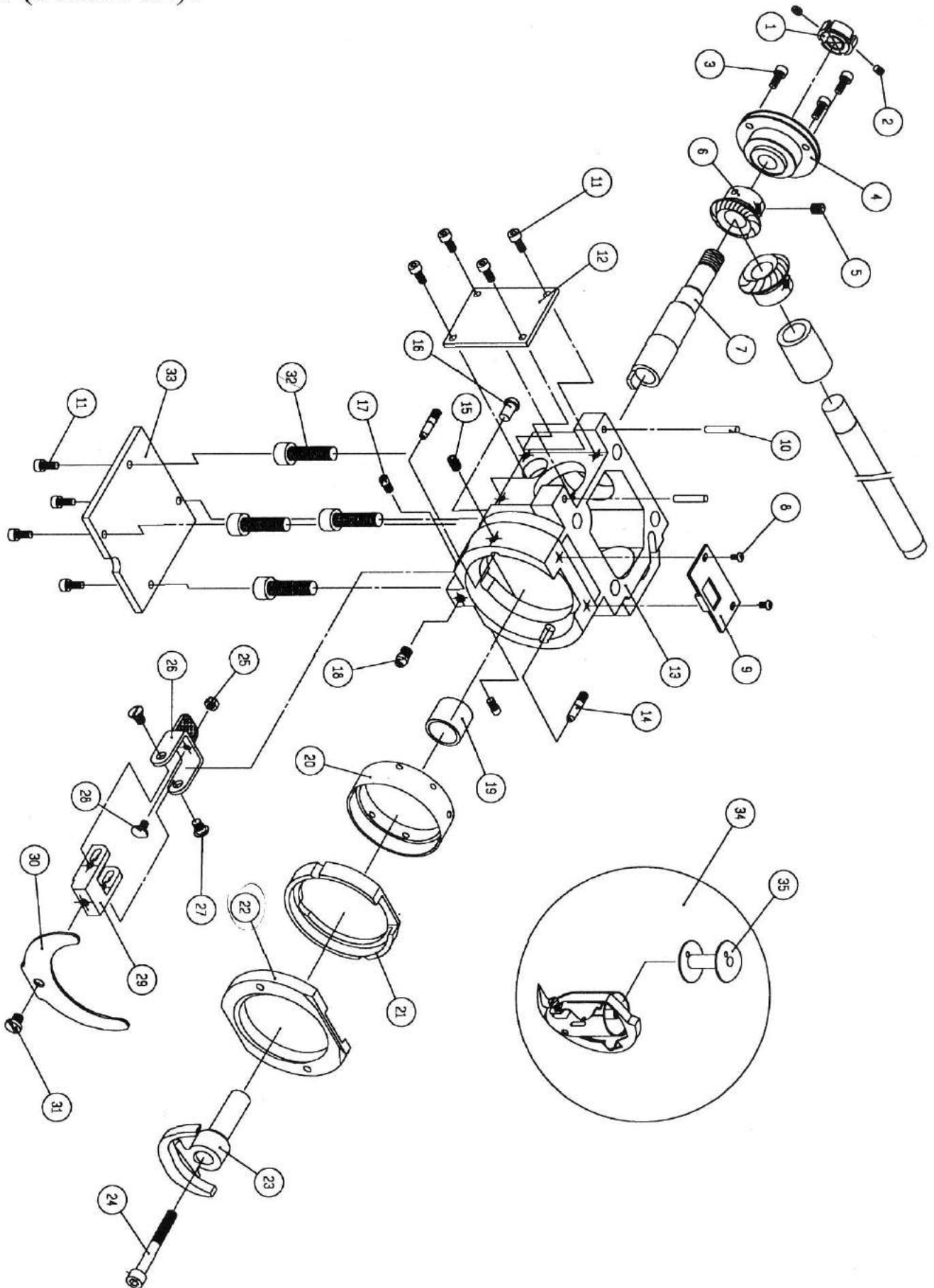
D. (Needle Bar Part):



NO	Part No.	Part Title	Quantity	Specification
1	A05001	Needle Bar Thimble(Upper)	1	
2	A05002	Needle Screw	1	11"/64*40
3	A05003	Needle Bar	1	
4	A05004	Needle Bar Connected Seat	1	
5	SB01008	Hexagon Scket Screw	2	M5*16L
6	A01001	Needle Bar Connected Rod	1	
7	A02012	Needle Bar Thimble(Lower)	1	
8	A06001	Needle System	1	
9	SB01001	Hexagon Scket Screw	2	M4*8
10	A06002	Needle Seat	1	
11	A06003	Needle Clamp	1	
12	SB04001	Hexagon Scket Set Screw	2	M4*5L
13	A06004	Needle	2	DD*1

P.S.The needle system is sell all , is not have sell a part of the component

E. (Suttle Part):





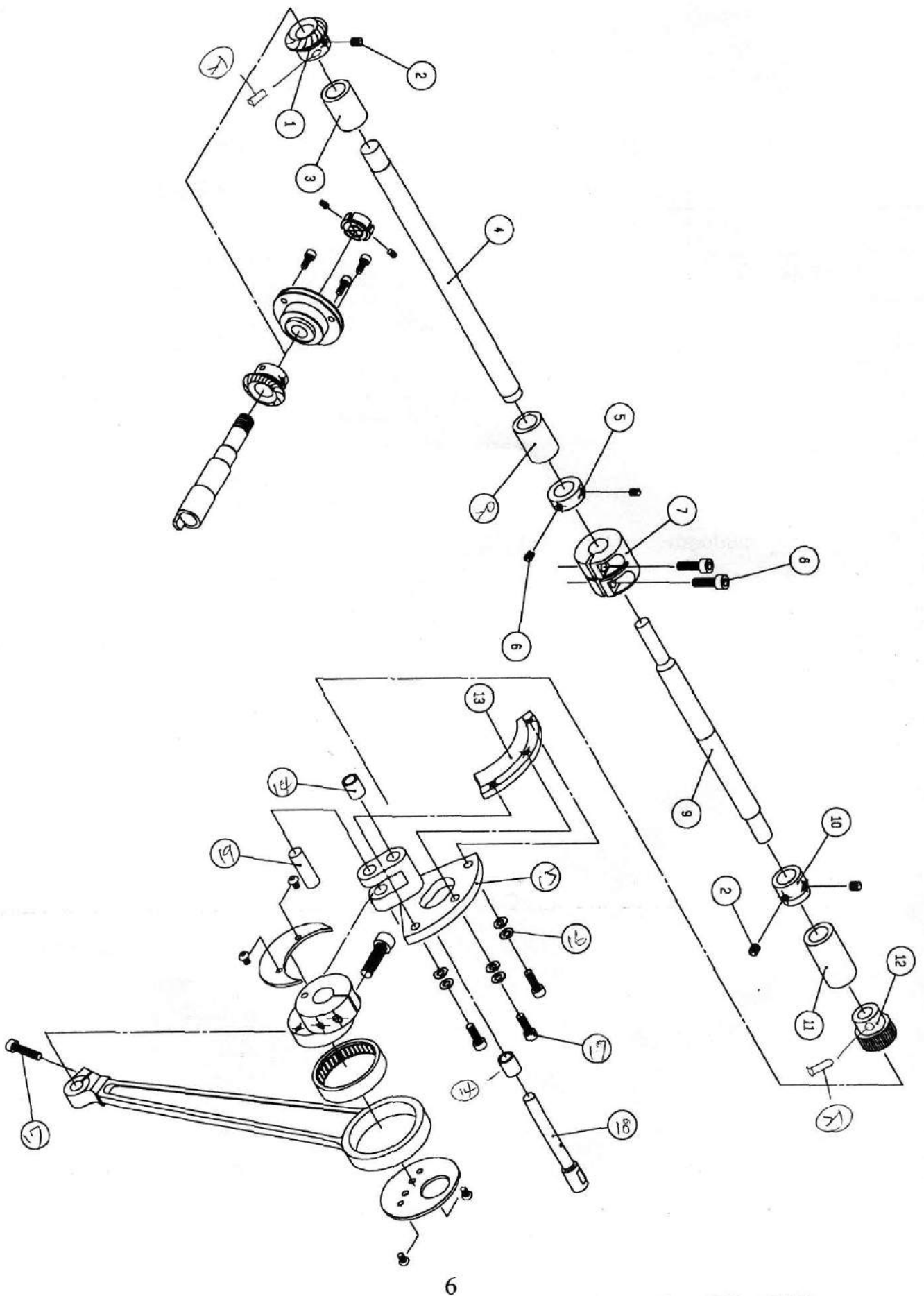
NO	Part No.	Part Title	Quantity	Specification
1	A07001	Set Nut	1	M12
2	SB04001	Hexagon Scket Set Screw	2	M4*5L
3	SB01004	Hexagon Scket Screw	3	M4*16L
4	A07002	Fixed Seat	1	
5	SB04004	Hexagon Scket Set Screw	1	M6*6L
6	A07003	Bevel Gear	1	
7	A07004	Large Hooks Spindle	1	
8	SB05001	Hexagon Scket Half-round Head	2	M3*6L
9	A07005	Needle Bracket	1	
10	SC02001	Flat Pin	2	
11	SB01002	Hexagon Scket Screw	8	M4*10L
12	A07006	Cover Plate(Small)	1	
13	A07007	Shuttle Seat	1	
14	A07008	Screw	2	
15	SB04003	Hexagon Scket Set Screw	2	M5*8L
16	A07009	Set Pin	1	
17	A07010	Screw	2	
18	A07011	Screw	1	
19	A07012	Copper Sleeve	1	
20	A07013	Suttle Guide Forward and Backward Adjustor	1	
21	A07014	Suttle Guide Ring Seat	1	
22	A07015	Suttle Cover	1	
23	A07016	Suttle Driver	1	
24	SB01015	Hexagon Scket Screw	1	M6*50L
25	SB11001	Hexagon Scket Nut	1	M4
26	A07017	Suttle Cover Follower Plate Adjustment Block	1	

NO	Part No.	Part Title	Quantity	Specifications
27	A07018	Screw	2	
28	A07019	Screw	1	
29	A07020	Suttle Cover Follower Plate Fixed Seat	1	
30	A07021	Suttle Cover Spring Follower Plate	1	
31	A07022	Screw	1	
32	SB01017	Hexagon Scket Screw	4	M8*30L
33	A07023	Cover Plate(Large)	1	
34	A08001	Large Hooks System	1	KSP-204
35	A08002	Bobin	1	

P.S.The large hooks system is sell all, not have sell a part of the component

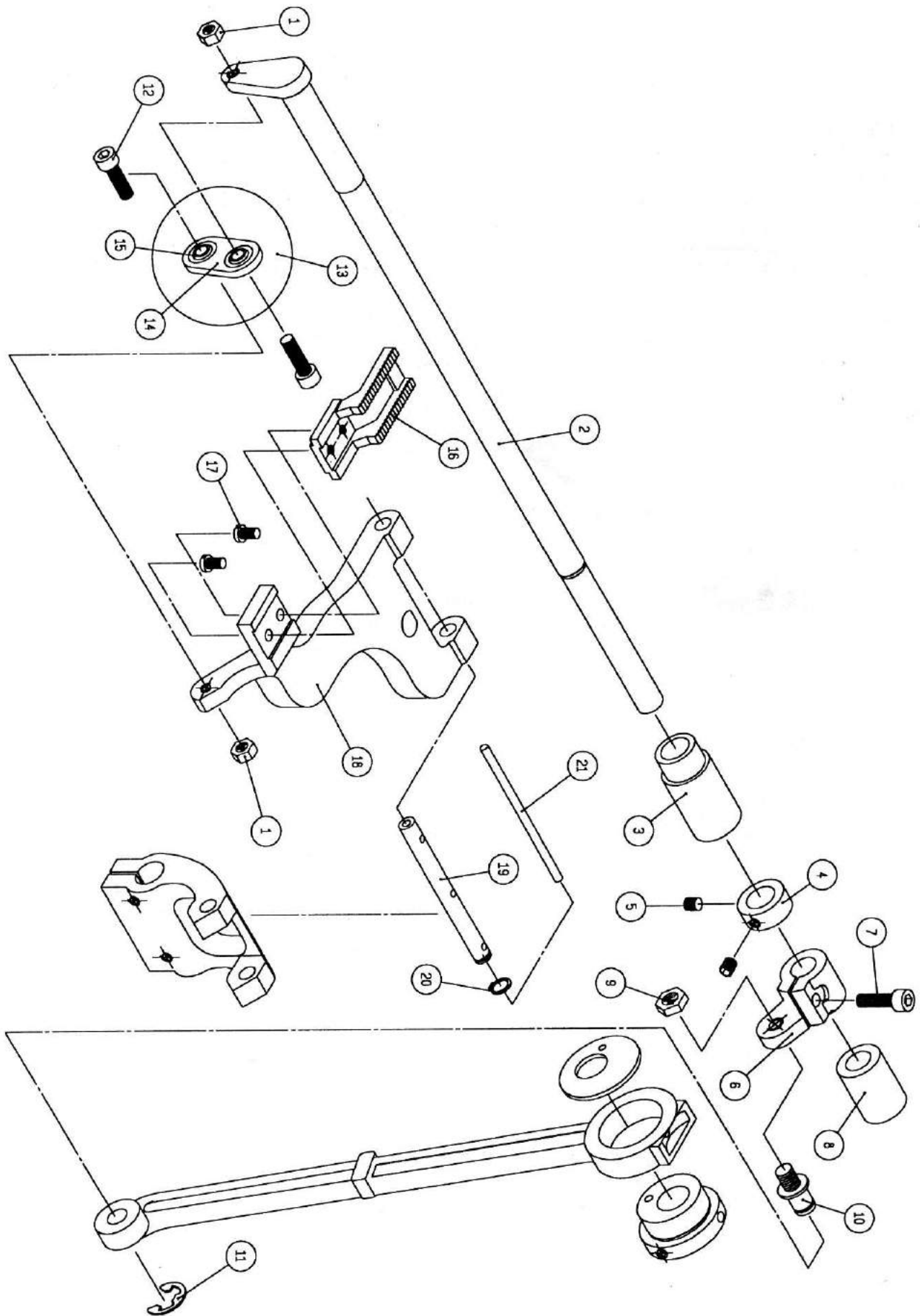


F. (Lower Shaft Part):



NO	Part No.	Part Title	Quantity	Specifications
1	A07003-1	Bevel Gear	1	
2	SB04007	Hexagon Socket Set Screw	3	M6*5L
3	A09001	Lower Shaft Thimble(Left)	1	
4	A09002	Lower Shaft(Left)	1	
5	A09003	Fixed Ring	1	
6	SB04002	Hexagon Socket Set Screw	2	M5*6L
7	A09004	Connected Seat	1	
8	SB01012	Hexagon Socket Screw	2	M6*16L
9	A09005	Lower Shaft(Right)	1	
10	A09006	Fixed Ring	1	
11	A09007	Lower ShaftThimble(Right)	1	
12	A09008	Straight Gear	1	
13	A09009	Tooth Seat	1	
14	A09011	Tooth Seat Thimble	2	
15	A09012	Swing Gear Seat	1	
16	SB22001	Washer	3	M5
17	SB01008	Hexagon Socket Screw	4	M5*16L
18	A09013	Tooth Seat Shaft	1	
19	A09014	Moving Rod Connected Shaft	1	
20	A09001-1	Lower Shaft Thimble(Middle)	1	
21	SC02001	Set Pin	1	M4*22L

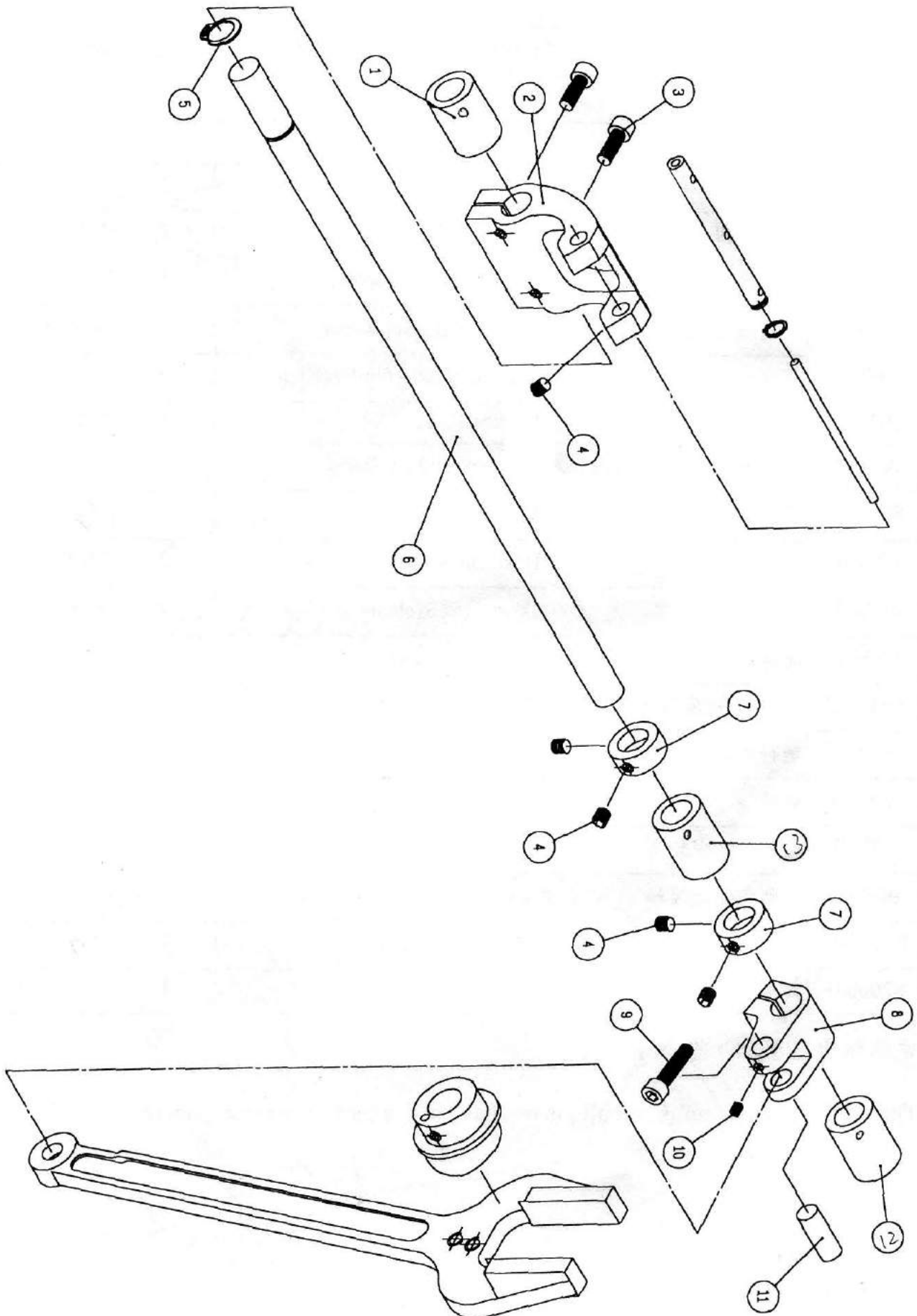
G. (Feeding Part)1/3:



NO	Part No.	Part Title	Quantity	Specifications
1	SB11003	Hexagon Nut	2	M6
2	A0A001	Rocking Shaft(1)	1	
3	A0A002	Rocking Shaft Thimble(Left)	1	
4	A0A003	Fixed Ring	1	
5	SB04004	Hexagon Socket Set Screw	2	M6*6L
6	A0A004	Link Transmission Seat	1	
7	SB01045	Hexagon Socket Screw	1	M6*16L
8	A0A005	Rocking Shaft Thimble(Right)	2	
9	SB11004	Hexagon Nut	1	M8
10	A0A006	Connected Shaft Screw	1	
11	SC23003	E-type Snap Ring	1	$\phi 8$
12	SB01013	Hexagon Socket Screw	2	M6*20L
13	A0B001	Connected System	1	}
14	A0B002	Connected Sheet	1	
15	SA13001	Spherical Race Bearing	2	
16	A0A007	Feed Dog Gear	1	
17	A00007	Screw	2	M5*8L
18	A0A008	Feed Dog Gear Sewing Crank	1	
19	A0A009	Rocking Dog Gear Connected Shaft	1	
20	SC22001	C-Type Snap Ring	1	$\phi 7$
21	S206001	Oil line	1	

P.S.The connected system is sell all , is not have sell a part of the component

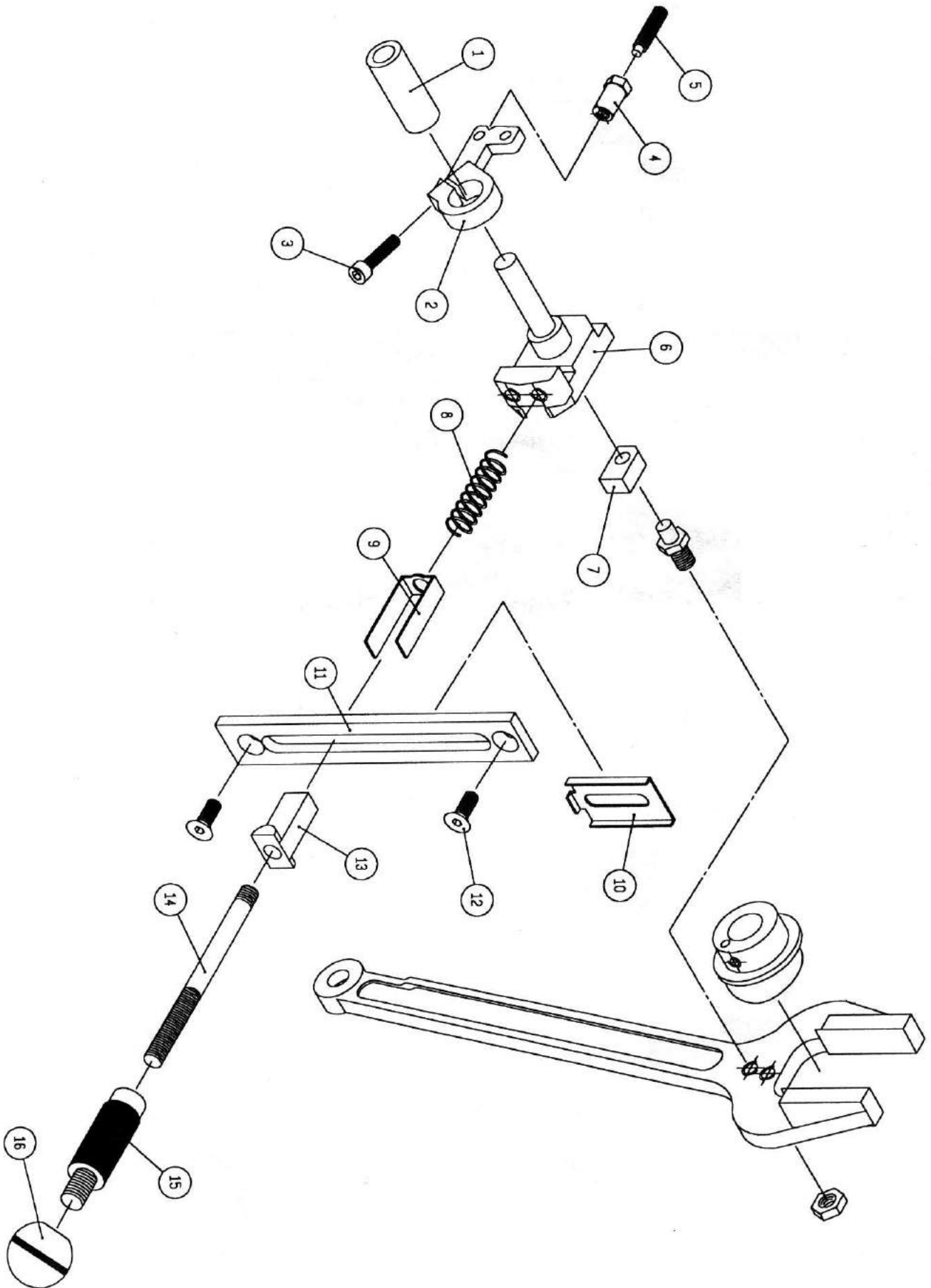
G. (Feeding Part)2/3:





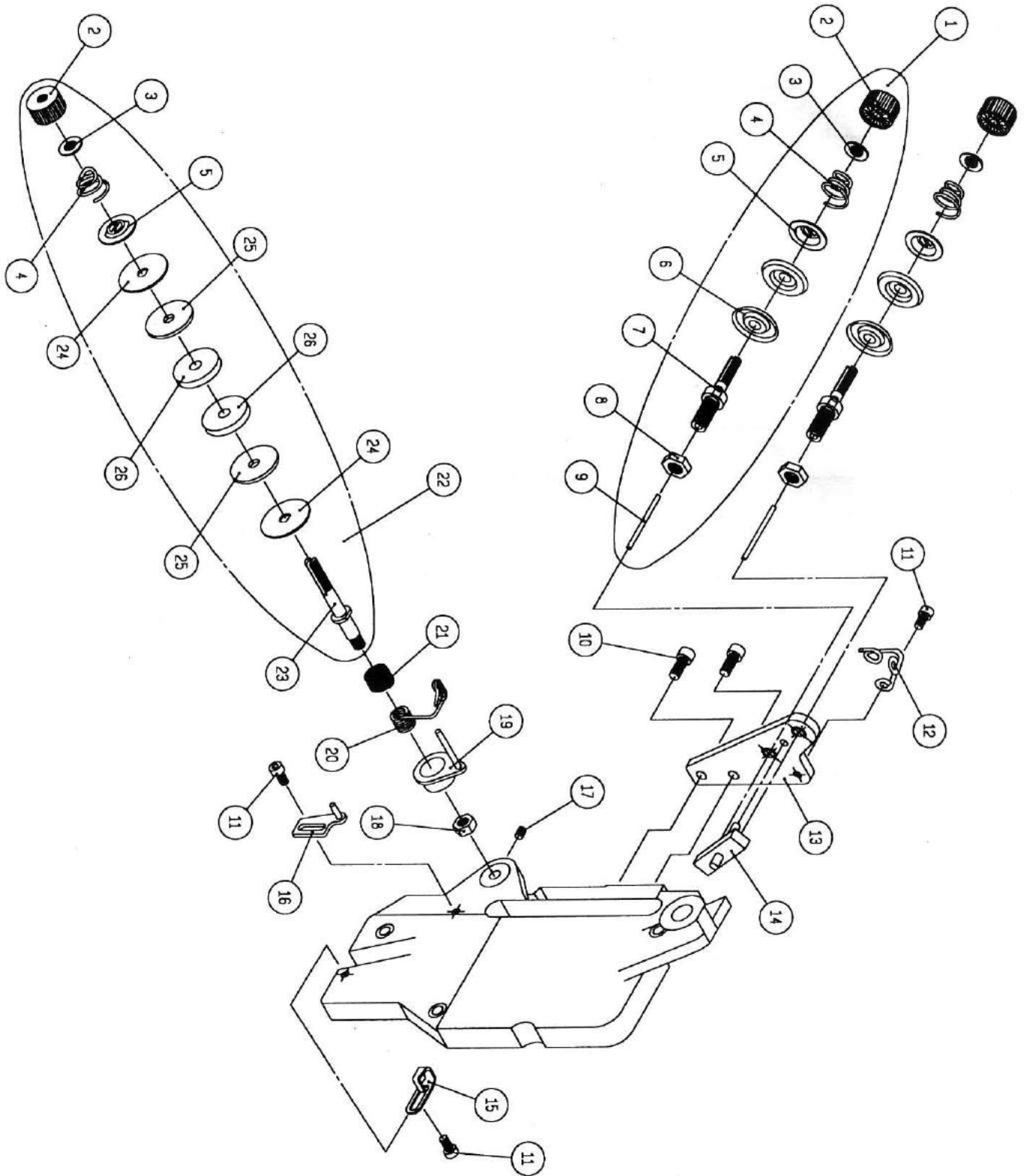
NO	Part No.	Part Title	Quantity	Specifications
1	A0A010	Rocking Shaft Thimble (Front)	1	
2	A0A011	Rocking Crank	1	
3	SB01012	Hexagon Socket Screw	2	M6*16L
4	SB04004	Hexagon Socket Set Screw	5	M6*6L
5	SC22002	Outer Snap Ring(C-Type Snap Ring)	1	
6	A0A012	Rocking Shaft	1	
7	A0A013	Fixed Ring	2	
8	A0A014	Connected Handle	1	
9	SB01013	Hexagon Socket Screw	1	M6*20L
10	SB04001	Hexagon Socket Set Screw	1	M4*5L
11	A0A015	Connected Shaft	1	
12	A0A029	Rocking shaft Thimble (back)	1	
13	A0A030	Rocking shaft Thimble	1	

### G. (Feeding Part)3/3:



NO	Part No.	Part Title	Quantity	Specifications
1	A0A016	Feed Regulation Rod Bush	1	
2	A0A017	Fixed Seat	1	
3	SB01028	Hexagon Socket Screw	1	M5*22L
4	A0A018	Screw Jacket	1	
5	A0A019	Screw	1	M6*25L
6	A0A020	Sewing Regulation Seat	1	
7	A0A021	Silde Block	1	
8	A0A022	Sewing Regulation Spring	1	
9	A0A023	Spring Follower Plate	1	
10	A0A024	Locating Plate	1	
11	A0A025	Scale Plate	1	
12	SB09001	Counter Sunk Screw	2	M6*16L
13	A0A026	Follower Block	1	
14	A0A027	Sewing Regulation Rod	1	
15	A0A028	Bulb Knob Link	1	
16	SC43002	Bulb Knob	1	M10

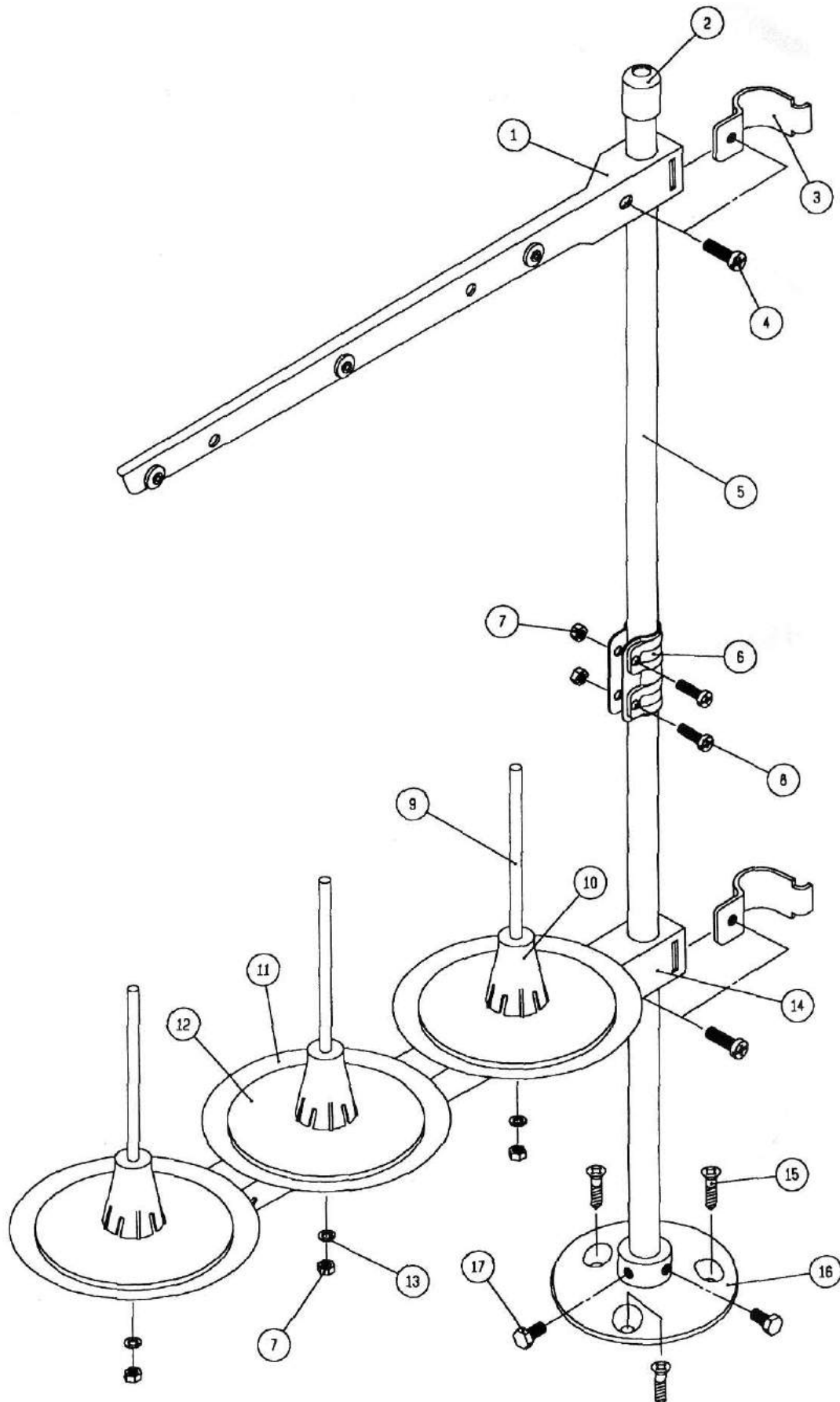
### H. (Tension Post Part):



NO	Part No.	Part Title	Quantity	Specifications	
1	A0C001	Thread Guide System	1		
2	A0C002	Nut	3		
3	A0C003	Follower Sheet	3		
4	A0C004	Thread Tension Spring	3		
5	A0C005	Follower Sheet	3		
6	A0C006	Tension Disk	4		
7	A0C007	Thread Tension Wheel Rod	2		
8	SB11004	Hexagon Nut	2		M8
9	A0C008	Bar Needle	2		
10	SB01007	Hexagon Scket Screw	2	M5*12L	
11	SB01001	Hexagon Scket Screw	3	M4*8L	
12	A0D001	Thread Guide	1		
13	A0D002	Thread Guide Fixed Seat	1		
14	A0D003	Thread Guide Push Plate	1		
15	A0D004	Thread Guide	1		
16	A0D005	Thread Guide Hook Fixed Seat	1		
17	SB04012	Hexagon Scket Set Screw	1	M4*6L	
18	SB11003	Hexagon Nut	1	M6	
19	A0D006	Thread Spring Seat	1		
20	A0D007	Thread Guide Hook	1		
21	A0D008	Thread Spring	1		
22	A0E001	Thread Guide Sytem	1		
23	A0E002	Thread Tension Wheel Rod	1		
24	A0E003	Felt Side Plate	2		
25	A0E004	Felt Ring	2		
26	A0E005	Thread Tension Wheel	2		

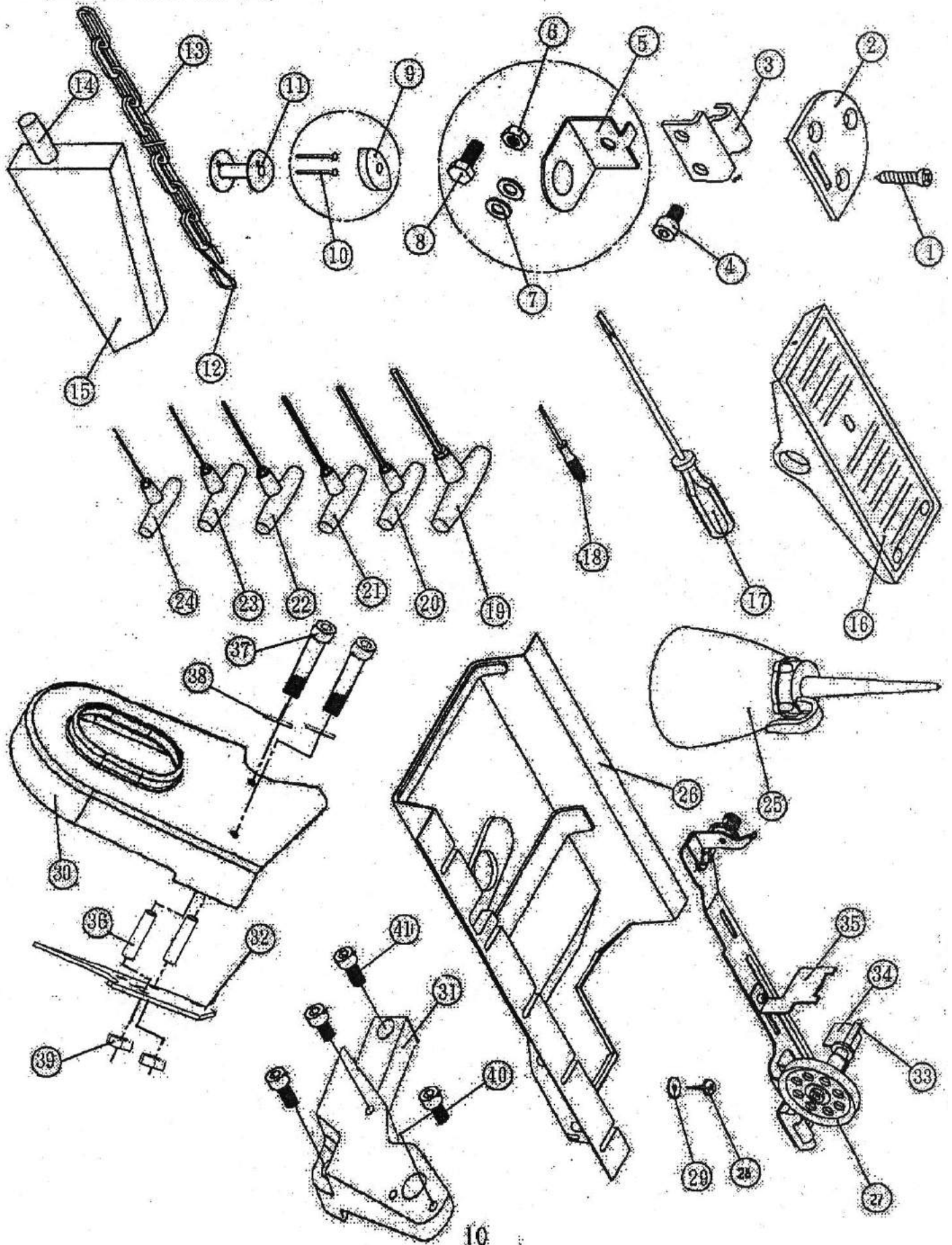
P.S.Thread guide system and thread guide sytem is sell all, is not have sell a part of the component

I. (Thread Stand Part) :



NO	Part No.	Part Title	Quantity	Specifications
1	A0F001	Thread Stand(一)	1	
2	A0F002	Thimble	1	
3	A0F003	Pipe Clamp(一)	1	
4	SB06002	Cross Round-Head Screw	2	M6*20L
5	A0F004	Support Bracket	2	
6	A0F005	Pipe Clamp(二)	1	
7	SB11002	Hexagon Head Nut	2	M5
8	SB06001	Cross Round-Head Screw	2	M5*16L
9	A0F006	Tray Shaft	3	
10	A0F007	Tray Shaft Sleeve	3	
11	A0F008	Tray	3	
12	S207001	Sponge Washer	3	
13	SB21001	Spring Washer	3	M5
14	A0F009	Thread Stand(二)	1	
15	SB33001	Wood Screw(Self-tapping Screw)	3	M5*20L
16	A0F010	Thread Stand Seat	1	
17	SB02001	Hexagon Head Screw	2	M6*11L

### J. (Accessories Part) :





NO	Part No.	Part Title	Quantity	Specifications
1	SB35001	Cross Disk-head Self-tapping Screw	6	M6*32L
2	A0G001	Hinge(1)	2	
3	A0G002	Hinge(2)	2	
4	SB01020	Hexagon Scket Screw	4	M8*12L
5	A0G003	Foot Selector Anchor Seat	2	
6	SB11004	Hexagon Nut	2	M8
7	SB22004	Washer	4	M8
8	SB02002	Hexagon Head Screw	2	M8*20L
9	A0G004	Rubber Cushion	4	
10	SC52001	Wire Nail	4	
11	A08002	Bobbin	3	
12	A0G005	S-Type Hook	2	
13	SA44001	Chain	1	
14	A0G006-1	Board Pillar Connect stick	1	
15	A0G006	Plate Retainer	1	
16	A0G007	Foot Selector Plate	1	
17	SK02002	Screw Driver(Large)	1	
18	SK02001	Screw Driver(Small)	1	
19	SK24005	T-Type Spanner(6mm)	1	
20	SK24004	T-Type Spanner(5mm)	1	
21	SK24003	T-Type Spanner(4mm)	1	
22	SK24002	T-Type Spanner(3mm)	1	
23	SK24001	T-Type Spanner(2.5mm)	1	
24	SK24006	T-Type Spanner(2mm)	1	
25	SK32001	Oil Can	1	
26	A0G008	Oil Reservoir	1	
27	A0G009	Bobbin Winder	1	
28	SB34001	Cross Over Self-tapping Screw	3	M4*15L
29	SB22003	Washer	3	M4
30	A0G010	Defend Cover	1	
31	A0G011	Support Bracket	1	
32	A0G012	Leather Belt Seat	1	
33	A0G013	Reel Bobbin	1	
34	A0G016	Propeller	1	
35	A0G017	Three-dimensional Dog	1	
36	A0G016	Sleeve	2	
37	SB01026	Hexagon Socket Screw	2	M6*55L
38	SB22002	Washer	2	
39	SB11004	Hexagon Screw	2	M6
40	SB01022	Hexagon Socket Head Screw	2	M6*12L
41	SB01034	Hexagon Socket Head Screw	2	M6*16L

***CHAPTER***

**2**

## 2-1 Safety Instructions :

The non-observance of the following safety instructions can cause bodily injuries or damages to the machine.

1. The machine must only be commissioned in full knowledge of the instruction book and operated by persons with appropriate training.
2. Before putting into service also read the safety rules and instructions of the motor supplier.
3. When gauge parts are exchanged (e.g. needle, hand wheel, needle system, feed dog, bobbin) when threading, when the workplace is left, and during service work, the machine must be disconnected from the mains by switching off the master switch or disconnecting the mains plug.
4. Daily servicing work must be carried out only by appropriately trained persons.
5. Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.
6. Conversion or changes to the machine must be authorized by us and made only in adherence to all safety regulations.
7. For repairs, only replacement parts approved by us must be used.

***CHAPTER***

**3**

### 3-1 Specifications :

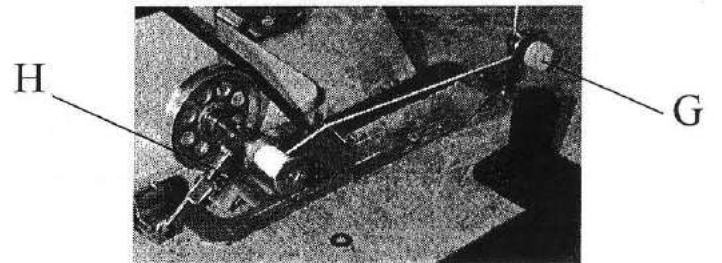
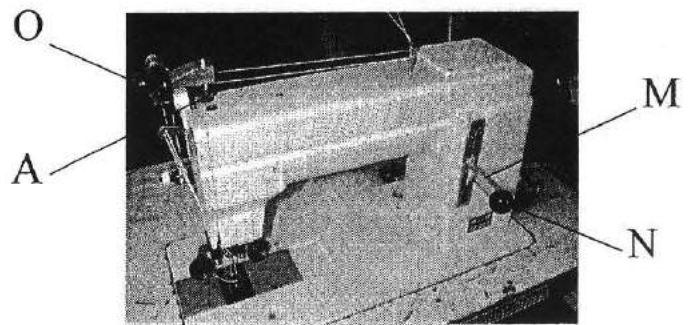
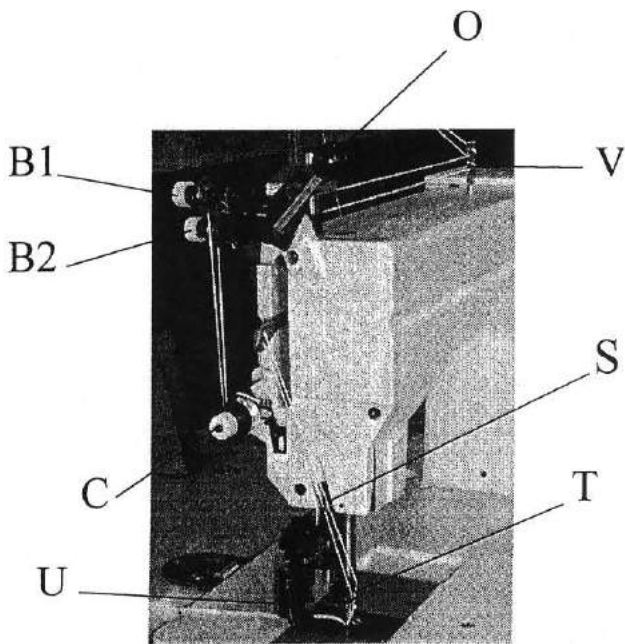
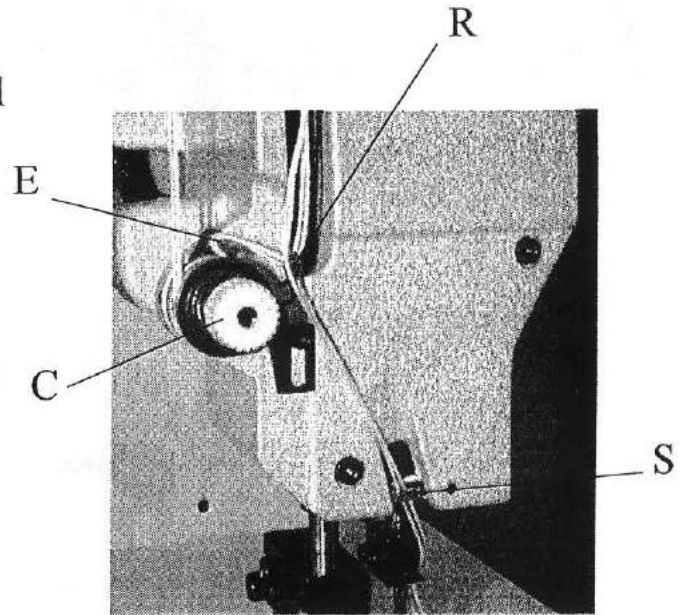
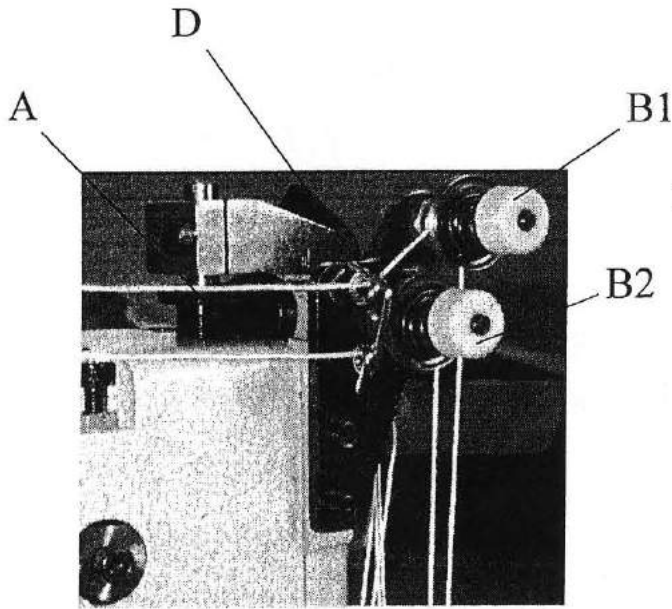
Classes	: 102 - 104
Needle System	: 328LR , DD*1 , NO:25#~28#
Maximun Sewing Distance	: 8mm
Needle Bar Stroke	: 50mm
Lift Distance of Hand Wheel(or Presser Foot)	: 10mm
Maximun Sewing Speed	: 800 needle/min

### 3-2 Functional elements instruction

- A—Passer releasing thumb screw to adjust hand wheel pressure ◦
- B1、B2—Control button to set needle thread tension of main tensioner ◦
- C—Control button to set needle thread tension of auxiliary tensioner ◦
- D—Thread guide to lead needle thread ◦
- E—Thread guide to lead needle thread ◦
- G—Adjustable bobbin winder tension system ◦
- H—Bobbin winder with stopping lever ◦
- M—Knurled knob to set sewing distance(stitch length)
- N—Sewing regulation rod to set sewing distance(stitch length) of control rod ◦
- O—Knob to set control hand wheel in raised position ◦
- R—Thread guide hook to lead needle thread with a spring action ◦
- S—Thread guide to lead needle thread ◦
- T—Needle clamp to fixed needle and lead needle thread ◦
- U—Hand wheel to depressed a things ◦
- V—Guide post to lead needle thread ◦

***CHAPTER***

**4**





#### 4-1 Threading the needle thread

##### ■ Steps:

- In thread stand, pull the thread from the reel in the right tray and lead it through guide post **V**, through method as show in Fig.1 ◦
- From the right through the thread guide **D** of the down hole, as show in Fig.2 ◦
- Clockwise around and between tension disk of the control button **B2**, as show in Fig.2 ◦
- Anti-clockwise 1 1/2 times around inside thread tension wheel of the control button **C**, as show in Fig.3 ◦
- Over the thread spring seat **E**, as show in Fig.3 ◦
- Through the inside hole of thread guide hook **R**, as show in Fig.3 ◦
- From behind through the inside hole in thread take-up lever, as show in Fig.5 ◦
- Through thread guide **S**, as show in Fig.3 ◦
- Through the right hole in needle clamp **T**, then downward through needle hole and pull about over 10cm, as show in Fig.4 ◦
- In thread stand, pull the thread from the reel in the left tray as the above-mentioned method to complete ◦

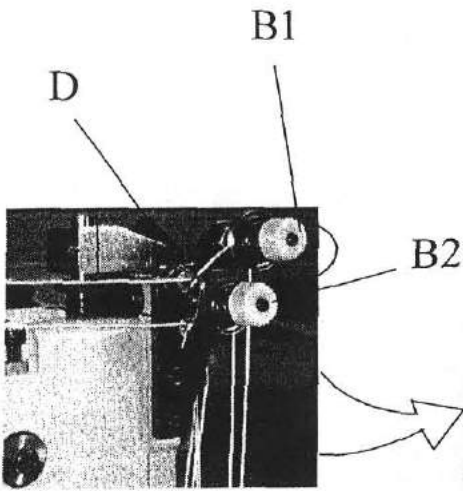


Fig.2

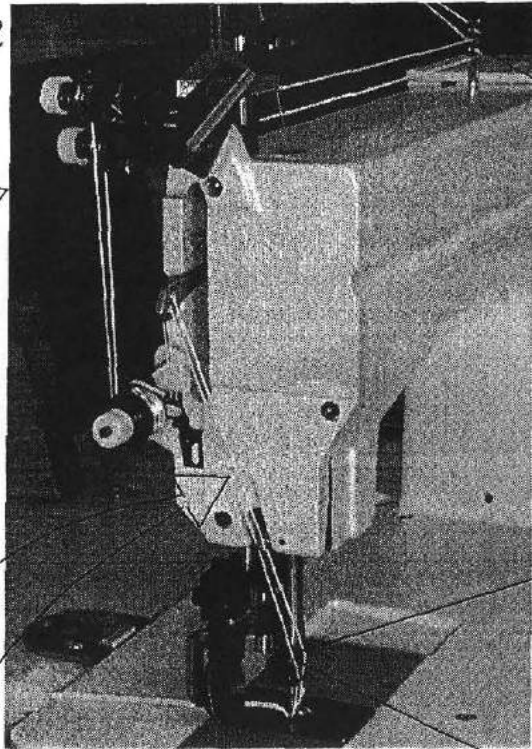


Fig.5

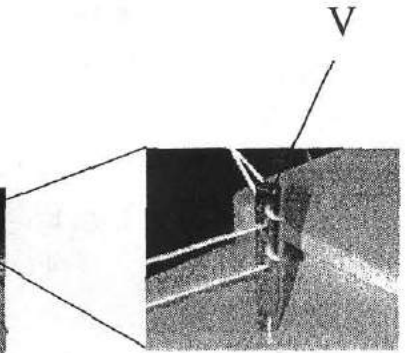


Fig.1

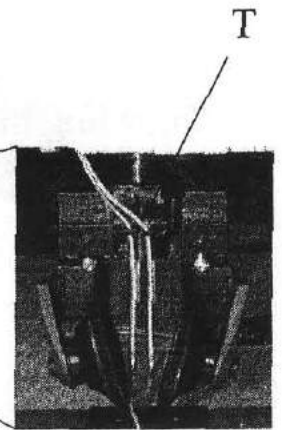


Fig.4

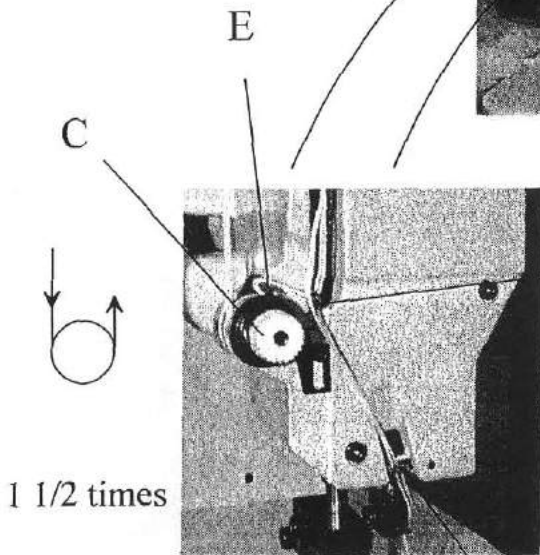
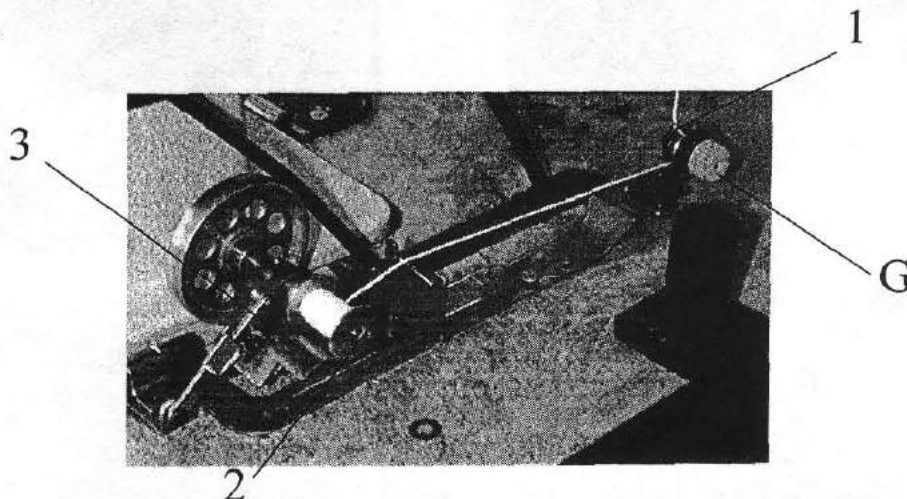


Fig.3

## 4-2 The Bobbin Thread Component

### ■ Winding the bobbin thread :

- Push empty bobbin onto the winder shaft ◦
- A thread from above through the thread guide **1** ◦
- Clockwise through between the discs of the adjustable bobbin winder pretension system **G** ◦
- Over the thread guide **2** ◦
- A thread wind on a few turns on the the bobbin thread, a winding hole of the bobbin thread and pull thread through by about 3 cm ◦
- Stopping lever **3** against the bobbin thread ◦
- If during winding on, the machine is not used for sewing , the hand wheel must be raised ◦
- Run machine , hold the loose end of thread firmly during the first few wind ◦  
The bobbin winder switches off automatically when the bobbin thread is full ◦



■ Changing the bobbin :

- Switch off the machine ◦
- Turn the pulley wheel to thread take up lever to its highest position ◦
- Press spring **a**(Fig.1) , the bobbin case spring up and remove bobbin ◦
- Insert the full bobbin into the bobbin case, when pull the thread the bobbin turns in the same direction as the shuttle ,the direction indicated by an arrow,see Fig.2 ◦
- Pull bobbin thread through slit beneath spring **b** (Fig.1)and pull thread about over 8 cm ◦

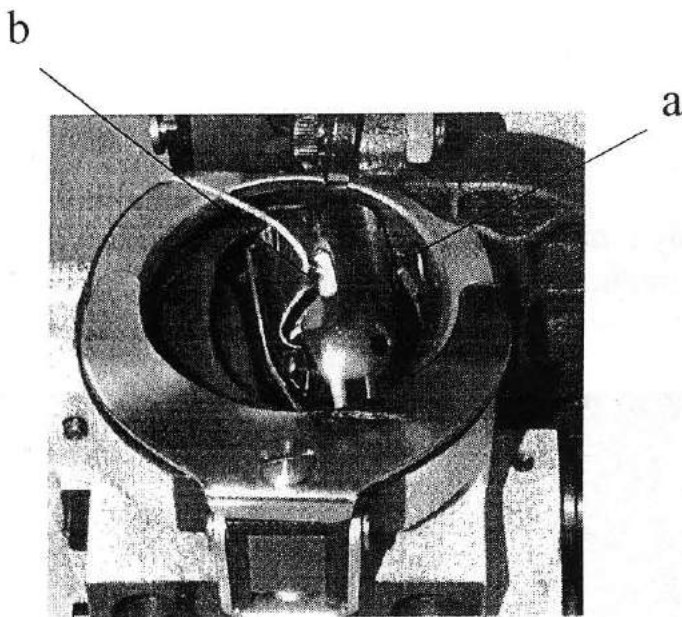


Fig.1

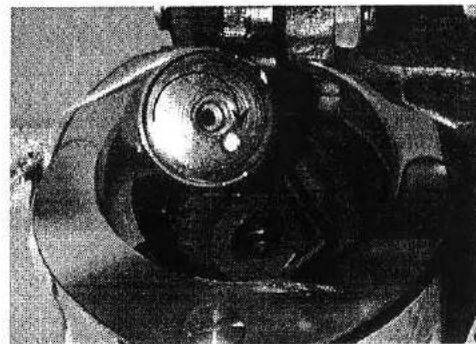
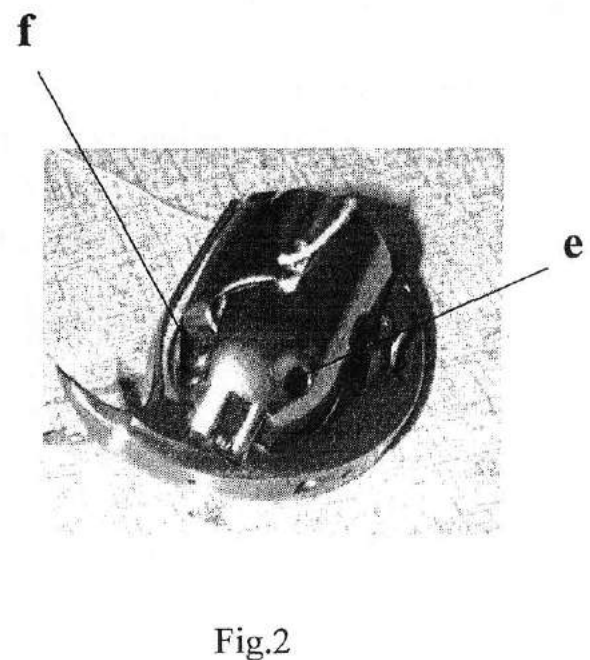
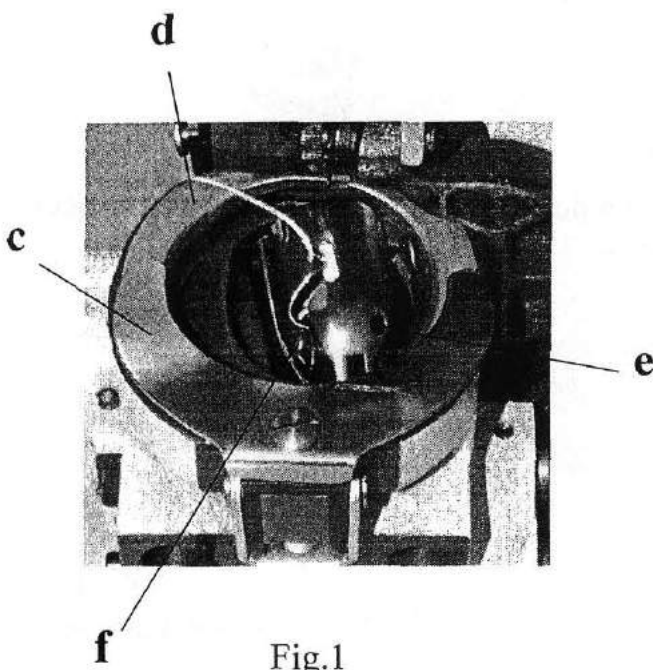


Fig.2

■ Regulating the bobbin thread tension :

- Open suttile cover spring follower plate **c**, remove suttile cover **d** and take out large hooks system (Fig 2), class:KSP-204 ◦
- Loosen screw **e** and adjust the thread tension with screw **f** ◦
- Re-tighten screw **e** ◦



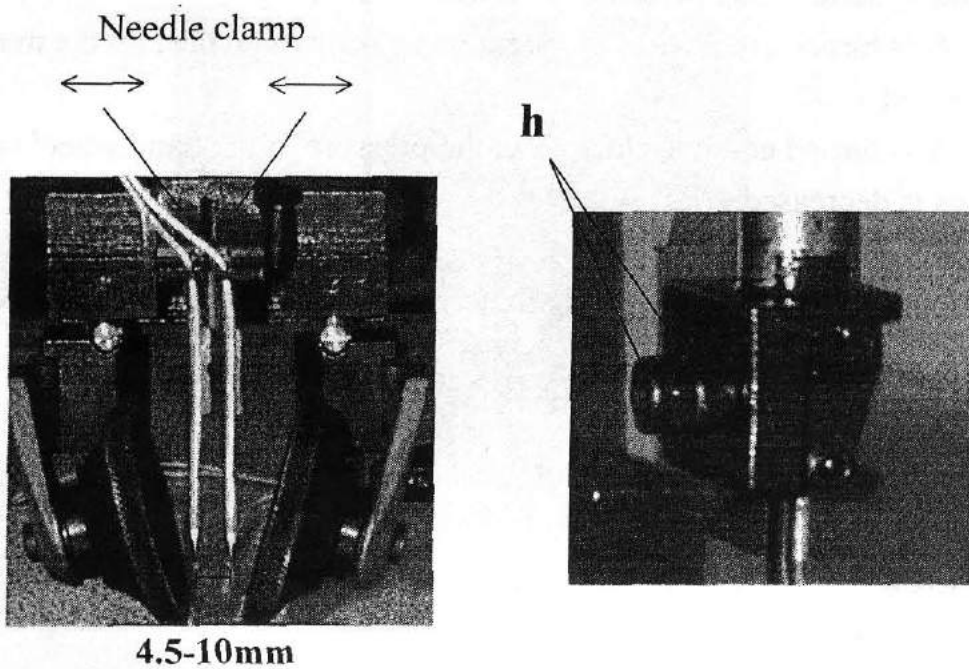
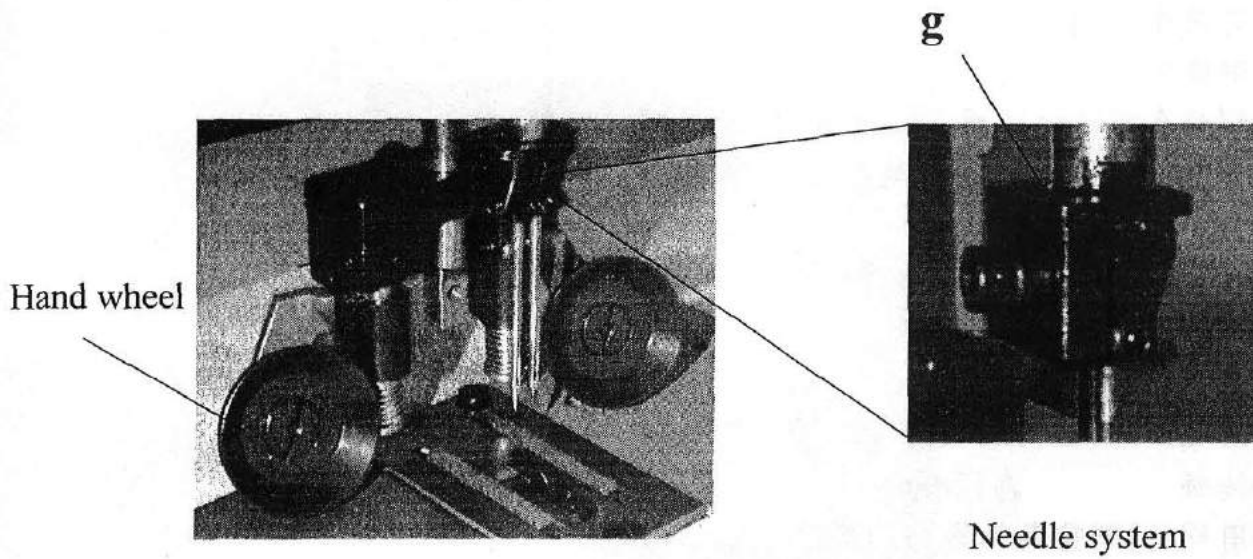
### 4-3 The Needle Component

■ Inserting the needle :

- Switch off the machine ◦
- Bring needle bar to its highest position ◦
- Swing out the hand wheel direction both sides , loosen set screw **g**, double-needle insert the needle clamp, make sure the long groove of the needle face toward forward direction ◦ (Fig.1)
- Tighten set screw **g** ◦

■ Adjust the distance of the needle :

- Loosen screw **h**, needle clamp available to adjust the distance of the needle, about 4.5-10mm and it must be harmony with hand wheel, needle point and hand wheel lower distance between about 0.3-0.5mm ◦ (Fig.2)
- Adjust to appropriate position , tighten screw **h** ◦



#### 4-4 The Hand wheel Component

■ Regulate hand wheel pressure :

- By hand with the ball knob **O** ◦ (Fig.1)
- Regulating hand wheel pressure with screw **A** ◦ (Fig.1)
- Screw **A** is turned clockwise, the pressure of the hand wheel on the material is increased ◦
- Screw **A** is turned counter-clockwise, the pressure of the hand wheel on the material is decreased ◦

**Note:** Run machines without sewing material only with hand wheel raised ◦

■ Regulating stroke height of hand wheel :

- With screw **i**, regulating stroke height of hand wheel ◦ (Fig.2)
- Maximum stroke of hand wheel is 12 mm ◦
- With screw **j**, regulating between the width of two the hand wheels ◦ (Fig.2)

**Note:** Center point of the hand wheel and needle must forward and backward symmetry ◦



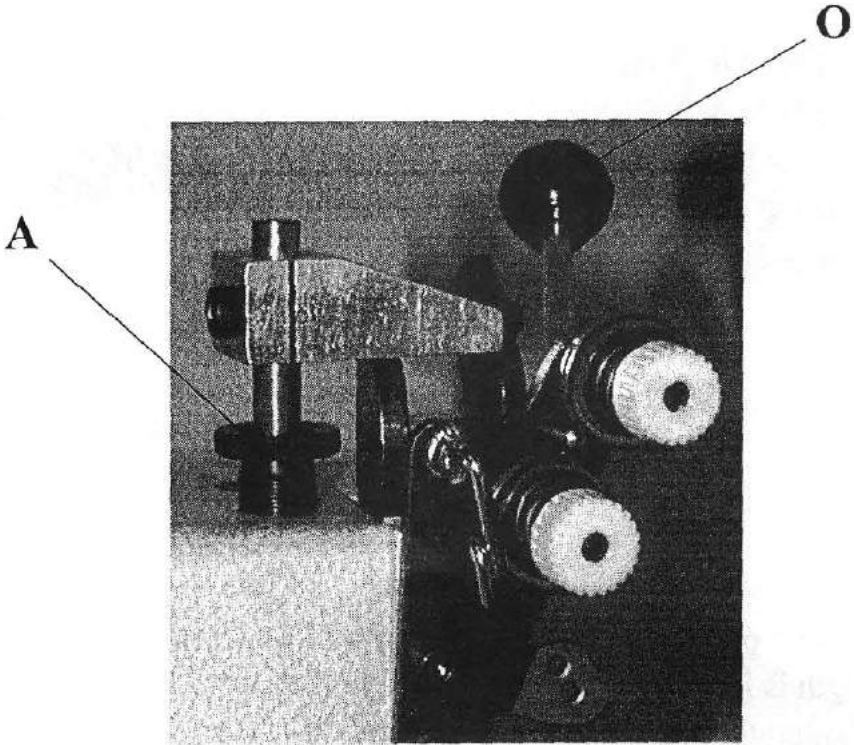


Fig.1

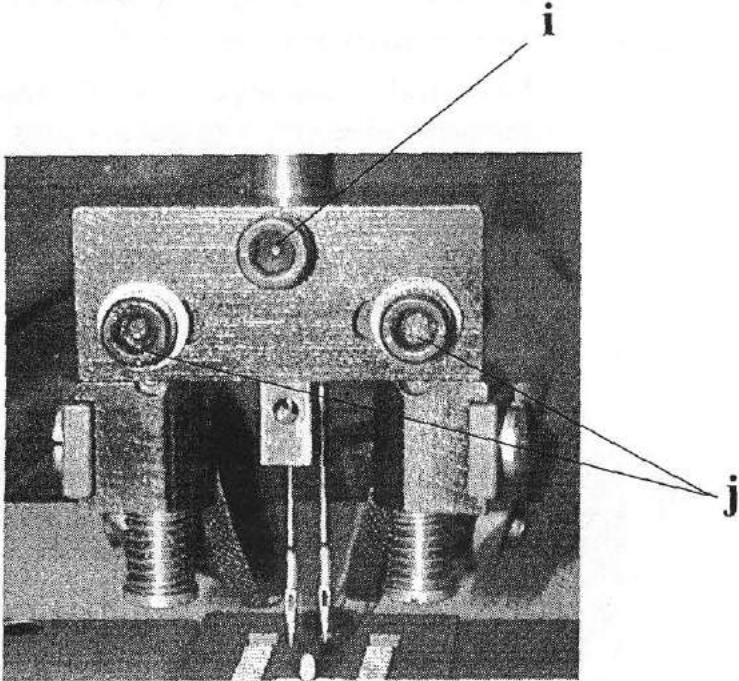


Fig.2

#### 4-5 Regulate stitchlength :

■ Regulate stitchlength :

- Loosen knurled screw of knob link **M** (Fig.1)
- Adjusting ball knob of stitchlength regulation rod **N** more and more toward down, stitchlength is longer ◦
- When it adjust suitable stitchlength , tighten knurled screw of knob link **M** (Fig.1)

When the stitchlength regulation rod in **0** position(middle position), the feed dog gear can not forward and backward remove ◦

When the stitchlength regulation rod in lower poistion, the feed dog gear can

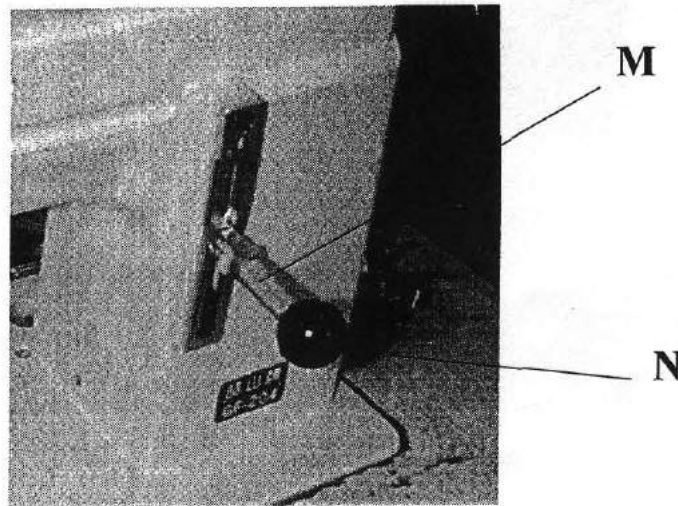


Fig.1

#### 4-6 Regulate large hook

##### ■ Regulate large hook :

- Loosen set screw **a** ° (Fig.2)
- With tool insert a hole of the subtle guide adjustor **Q** right and lift direction turn , large hook can forward and backward adjusting ° (Fig.2)
- Tighten set screw **a** °

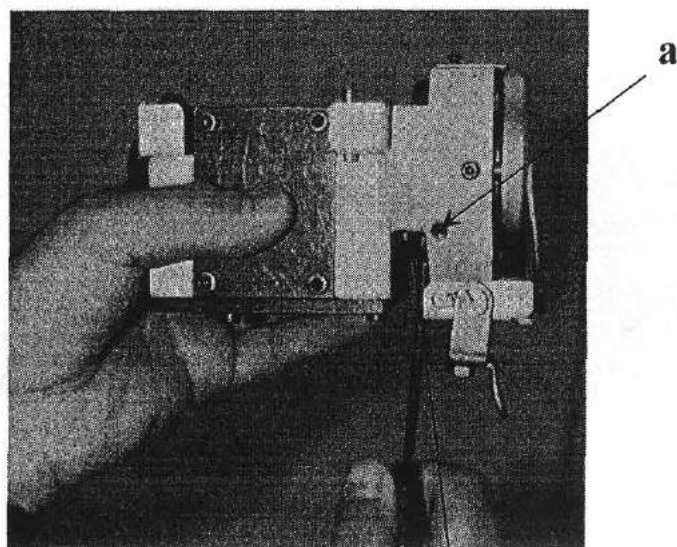


Fig.2

#### 4-7The Needle Thread Component

- Regulating the needle thread tensions :
  - Switch off the machine ◦
  - Loosen needle thread tension of auxiliary tensioner **C** ◦ (Fig.2)
  - Needle thread tension of main tensioner **B1**、**B2** to regulating main needle thread tension ◦ (Fig.1)
  - The loop from the needle and bobbin thread is drawn in the sewing fabric ◦
  - The needle thread tension of auxiliary tensioner **C** is regulated last of all, its thread tension is regulated must always be set lower than main needle thread tension ◦ (Fig.2)

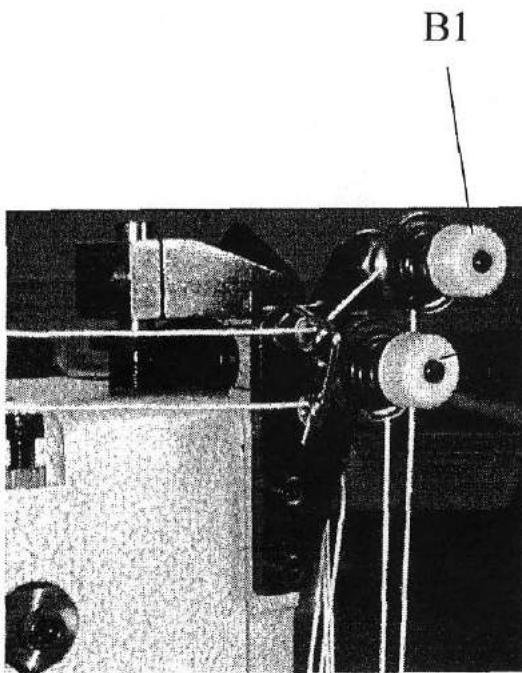


Fig.1

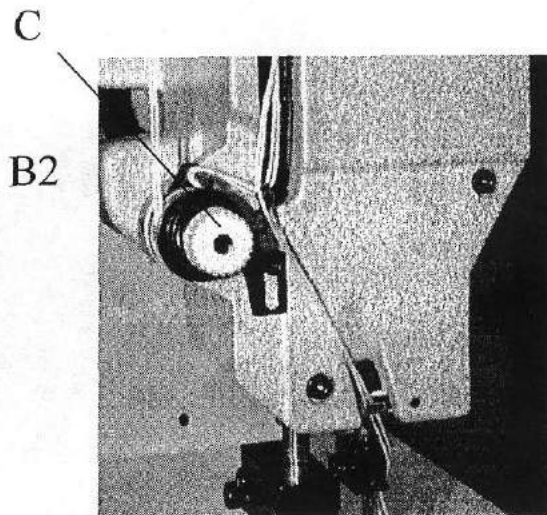


Fig.2

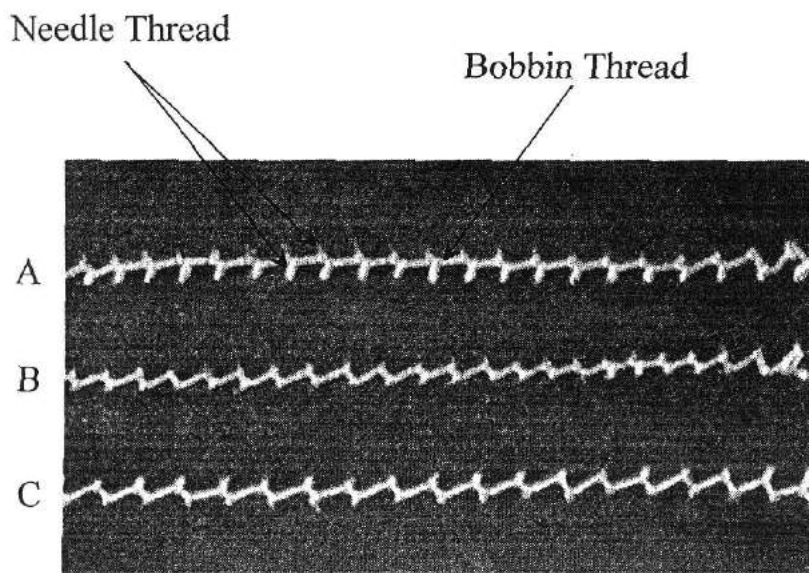
■ Thread tension :

Regulate both tensions so that the needle and bobbin threads interlock in the center of the center ◦

Needle thread tension too loose and bobbin thread tension too tight , as show in Fig.A ◦

Needle thread tension and bobbin thread tension all too tight, as show in Fig.B ◦

Needle thread tension and bobbin thread tension all too loose ,as show in Fig.C ◦



***CHAPTER***

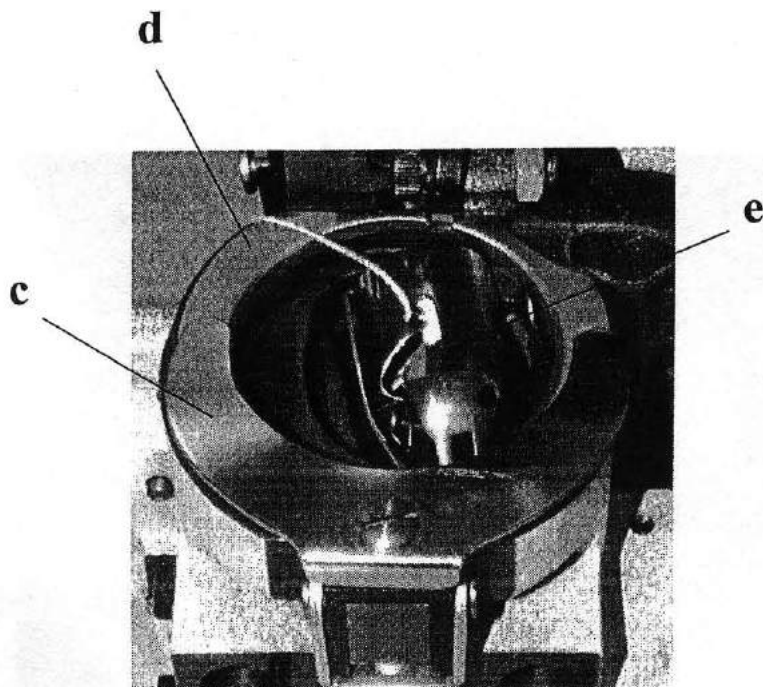
**5**

## 5-1 Break-down Elimination

### ■ Needle thread clip thread :

Handle method :

- Open suttle cover spring follower plate **c** ◦
- Move suttle cover **d** , take out the large hooks system **e** ◦
- Reorder needle thread ◦



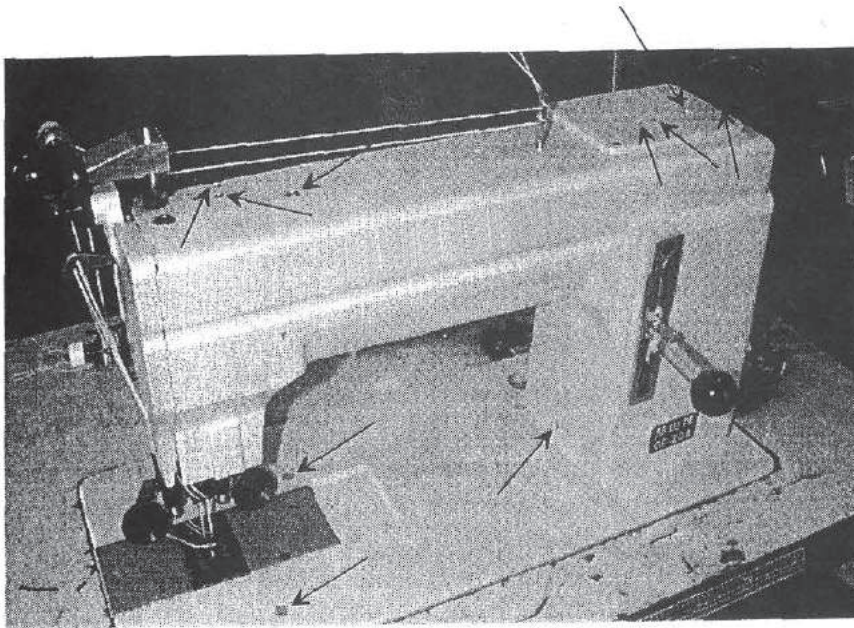
## 5-2Service

### ■ Service :

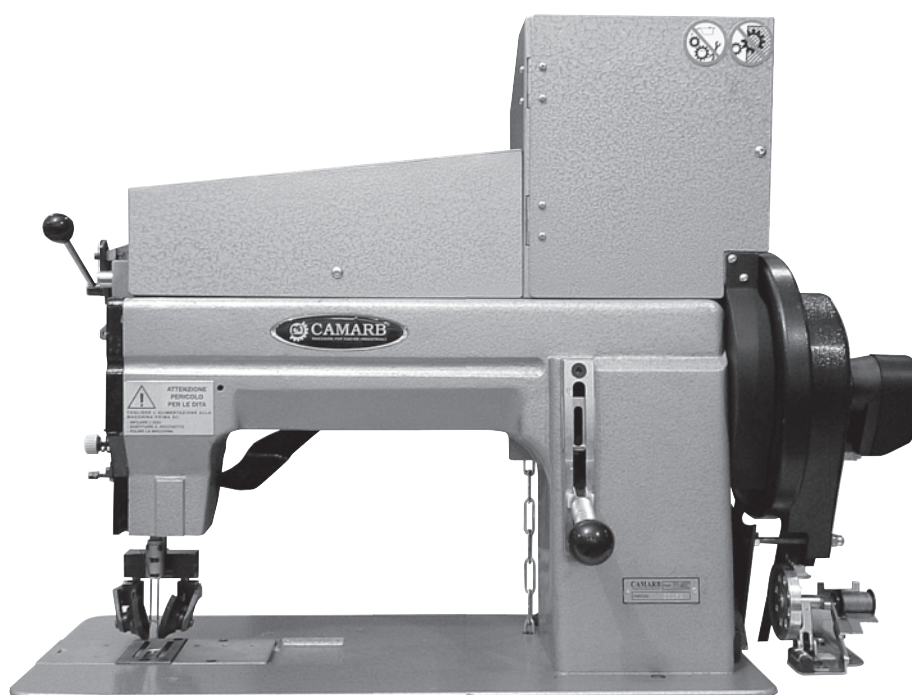
—Every time before operate the machine must libricate, every day libricate at least twice ◦

Needle oiling modle : R-32

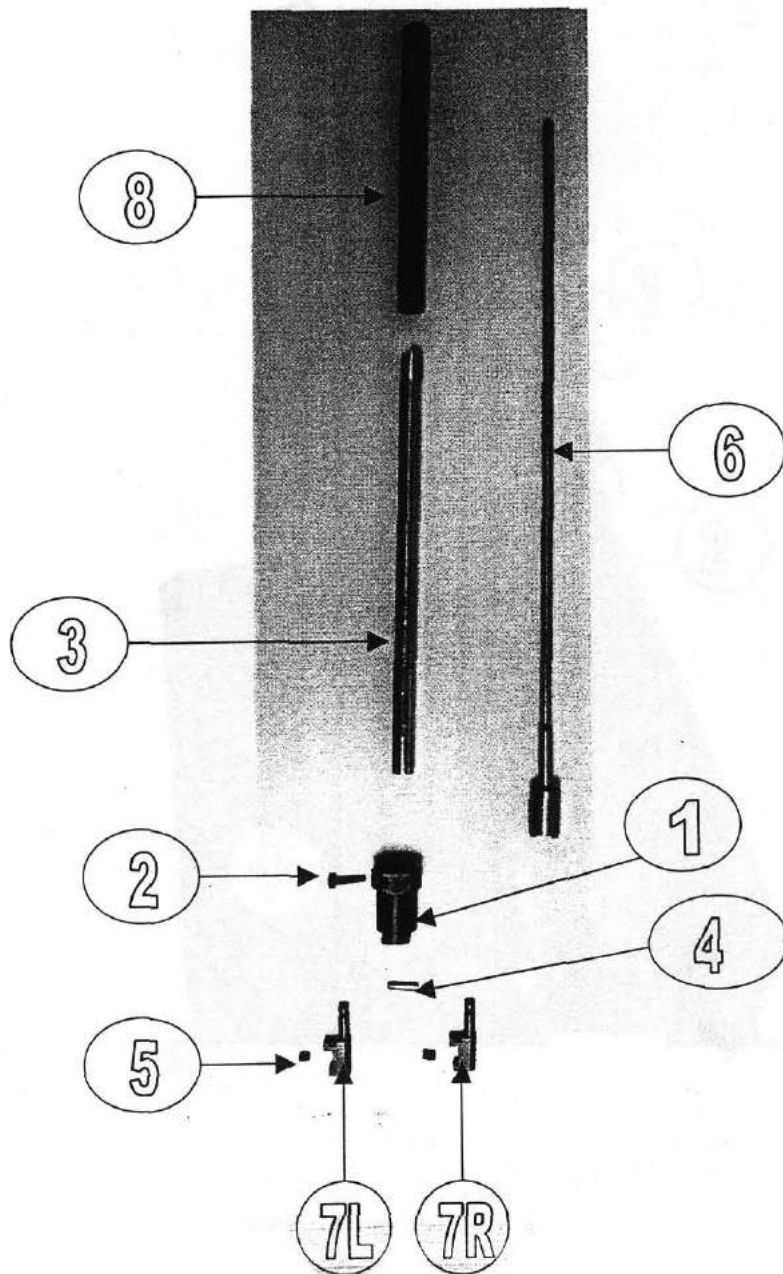
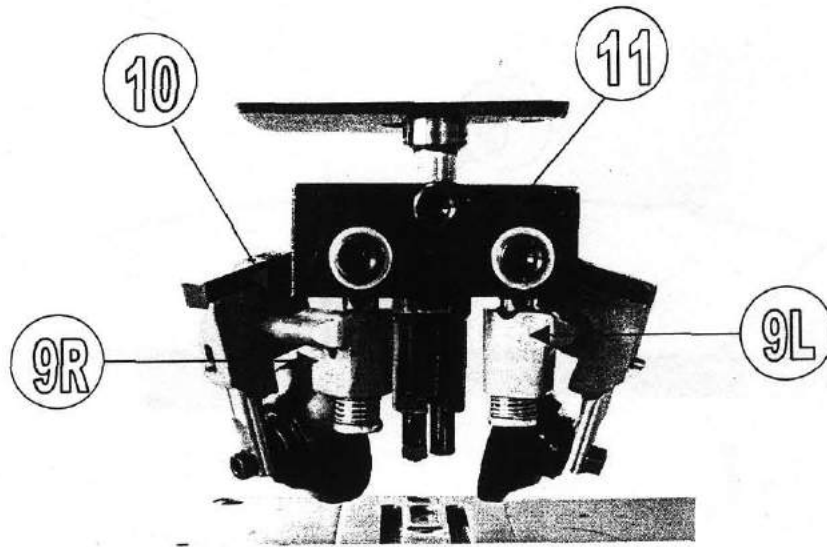
—All oil hole marked by arrows in Fig ◦



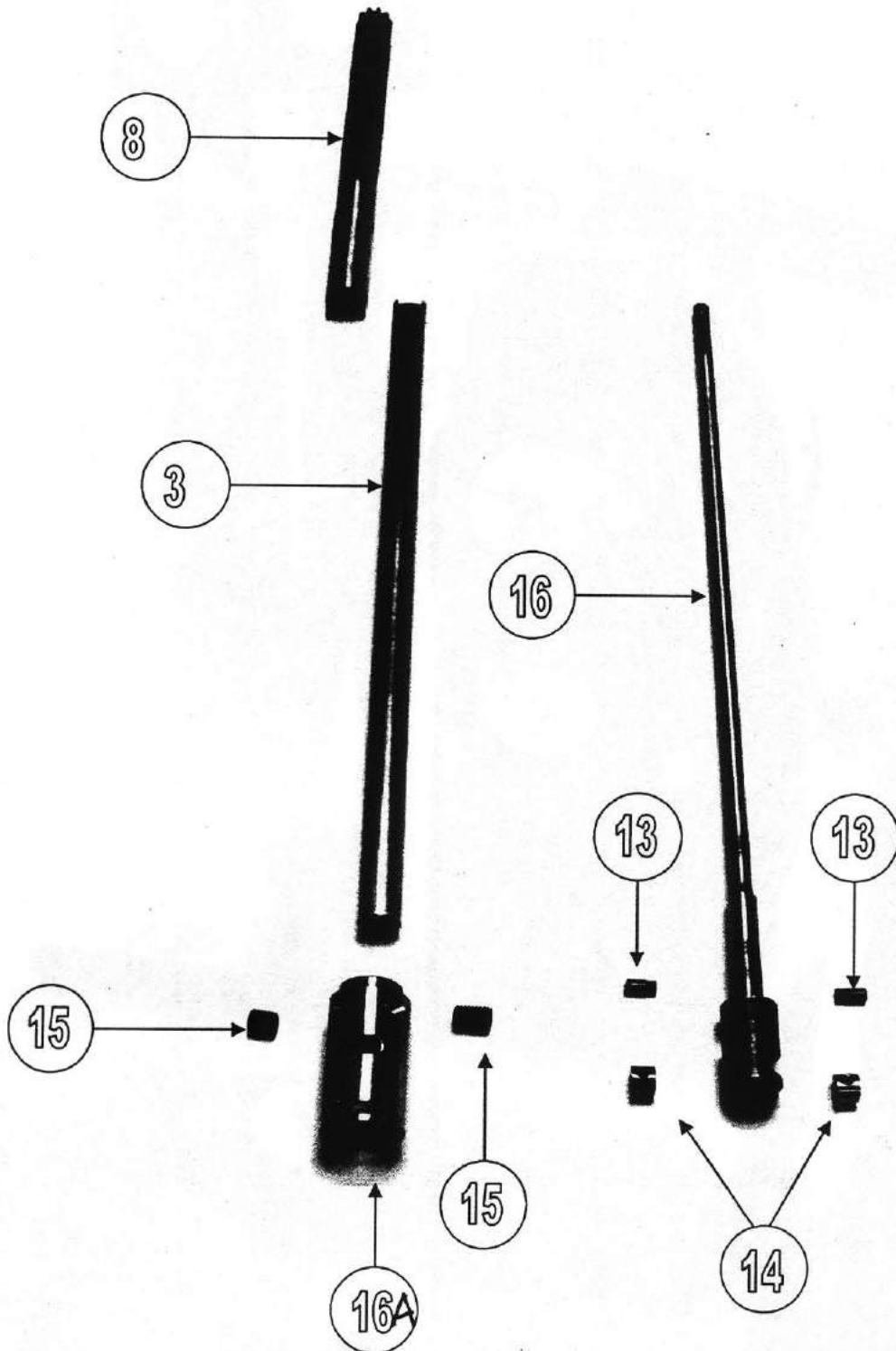




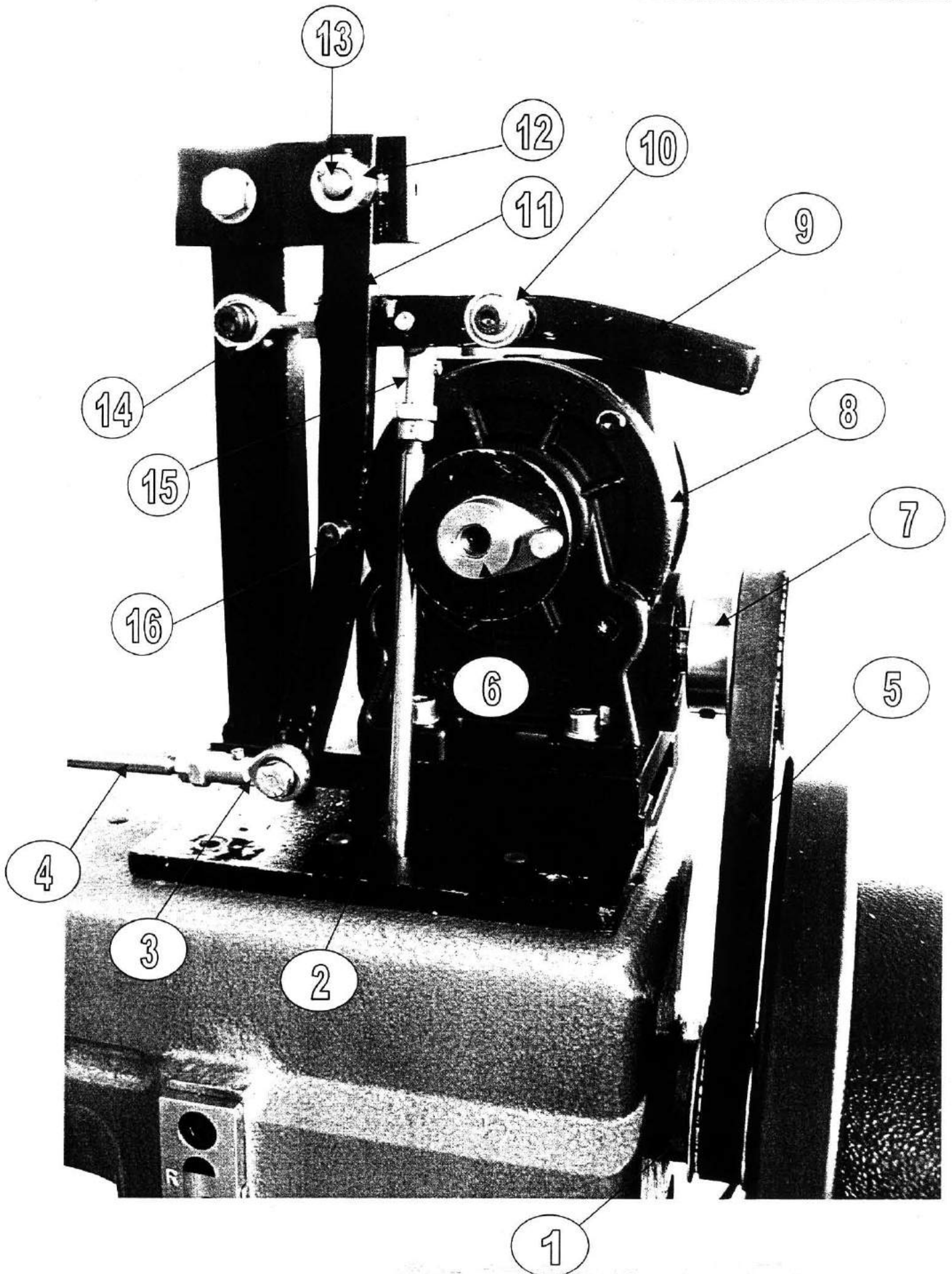
# FP1 MOC-ORN



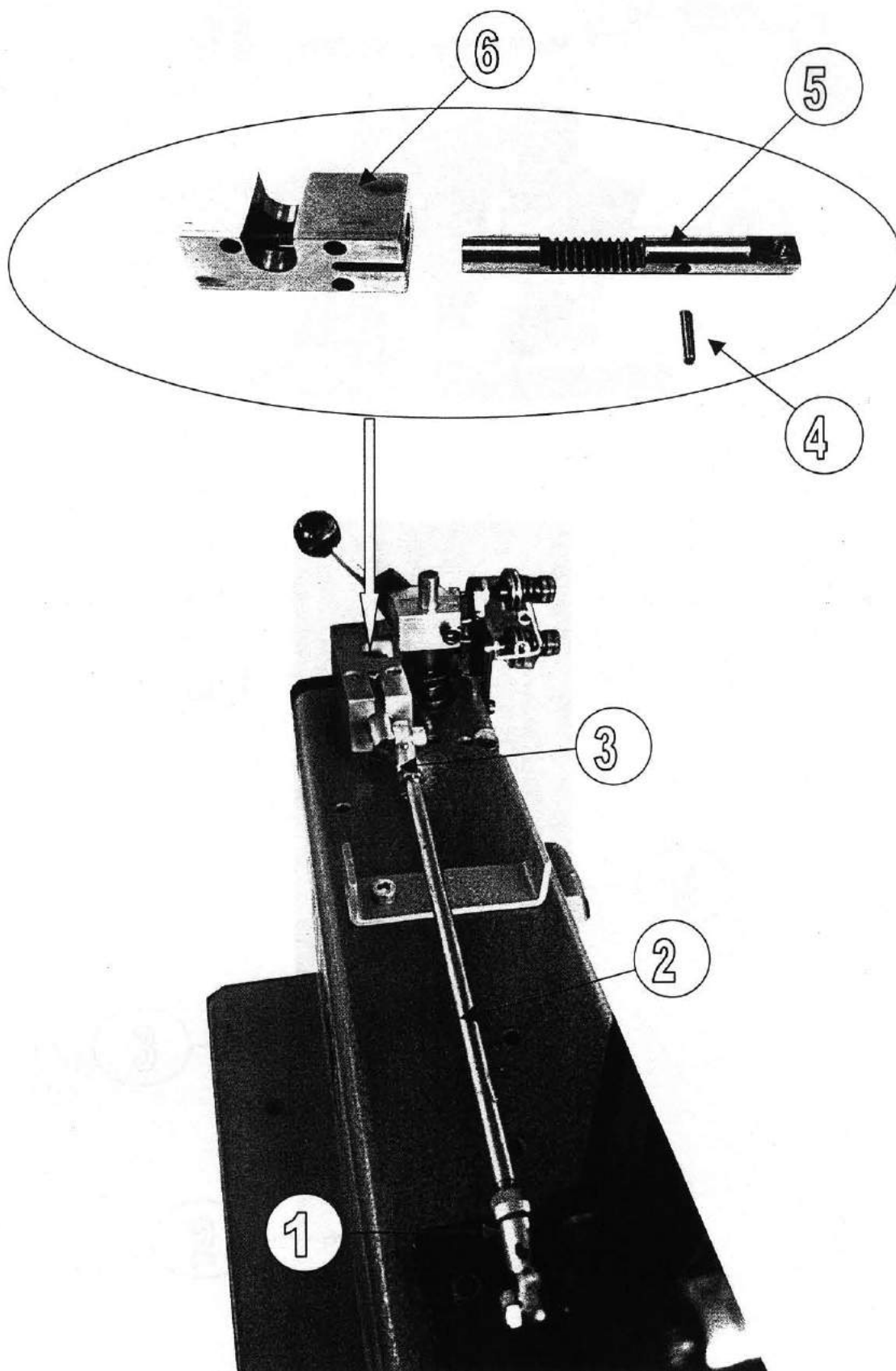
TAV.12



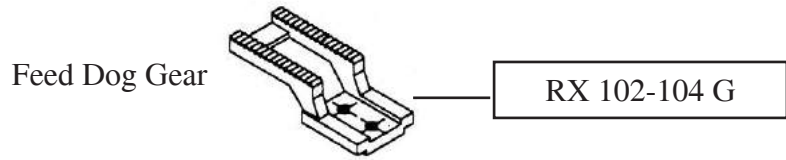
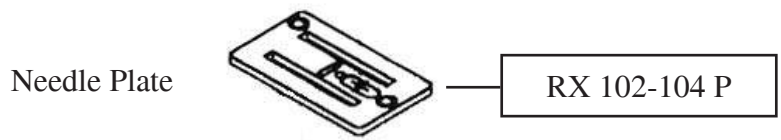
TAV 12 A



TAV.13



TAV.14



RX 102-104-MOC ORN

