

**PREMIER SERIES**

**BY**

**P1206RB-7**

# CONTENTS

## Operation Instruction

1. Brief introduction.....	1
2. Machine specification.....	1
3. Installing the motor.....	1
4. Installing the oil pan.....	1
5. Installing the machine head.....	2
6. Installing the knee lifter assy.....	2
7. Adjusting the knee lifter.....	3
8. Installing the belt.....	3
9. Installing the bobbin winder.....	3
10. Installing the belt cover.....	4
11. Lubrication.....	4
12. Checking the machine pulley rotating direction.....	4
13. Test operation.....	5
14. Installing the needle.....	6
15. Removing the bobbin case.....	6
16. Winding the bobbin thread.....	6
17. Threading the bobbin thread.....	7
18. Threading the needle thread.....	7
19. Adjusting the stitch length.....	8
20. Sewing and backtacking.....	8
21. Adjusting the thread tension.....	9
22. Adjusting the presser foot pressure.....	9
23. Adjusting the trailing length after thread trimming.....	10
24. Adjusting the thread tension spring.....	10
25. Adjusting the upper thread guide.....	11
26. Adjusting the presser foot height.....	11
27. Adjusting the feed dog height.....	11
28. Adjusting the feed dog angle.....	12
29. Adjusting the difference of stitch length between the forward and backtacking.....	12
30. Adjusting the tension release.....	12
31. Adjusting the timing of needle and feed mechanism.....	13
32. Adjusting the rotary hook lubrication amount.....	13
33. Adjusting the height of needle bar and the timing with hook.....	14
34. Adjusting the oil pump.....	14
35. Adjusting the lifting amount of presser feet.....	15
36. Adjusting the synchronizer.....	16
37. Adjusting the trimming mechanism.....	17~18
38. Clean.....	19

## Parts Manual

1. Casting mechanism.....	20~21
2. Needle bar and thread take-up mechanism.....	22~23
3. Presser foot mechanism.....	24~25
4. Feed mechanism.....	26~29
5. Upper feed mechanism.....	30~31
6. Hook mechanism.....	32~33
7. Lubrication mechanism.....	34~35
8. Thread trimming mechanism.....	36~37
9. Reverse stitching mechanism.....	38~39
10. Accessories.....	40~41

# **Operation Instruction**

## 1. Brief introduction

This machine is designed with link type feed mechanism and link lever thread take-up mechanism and full lubrication by pump. It's suitable for sewing leather, canvas and other heavy weight materials, such as suitcase, car seat, tent, sofa, etc.

It's reliable and accurate on such functions as thread trimming, needle positioning, etc.

## 2. Main specifications

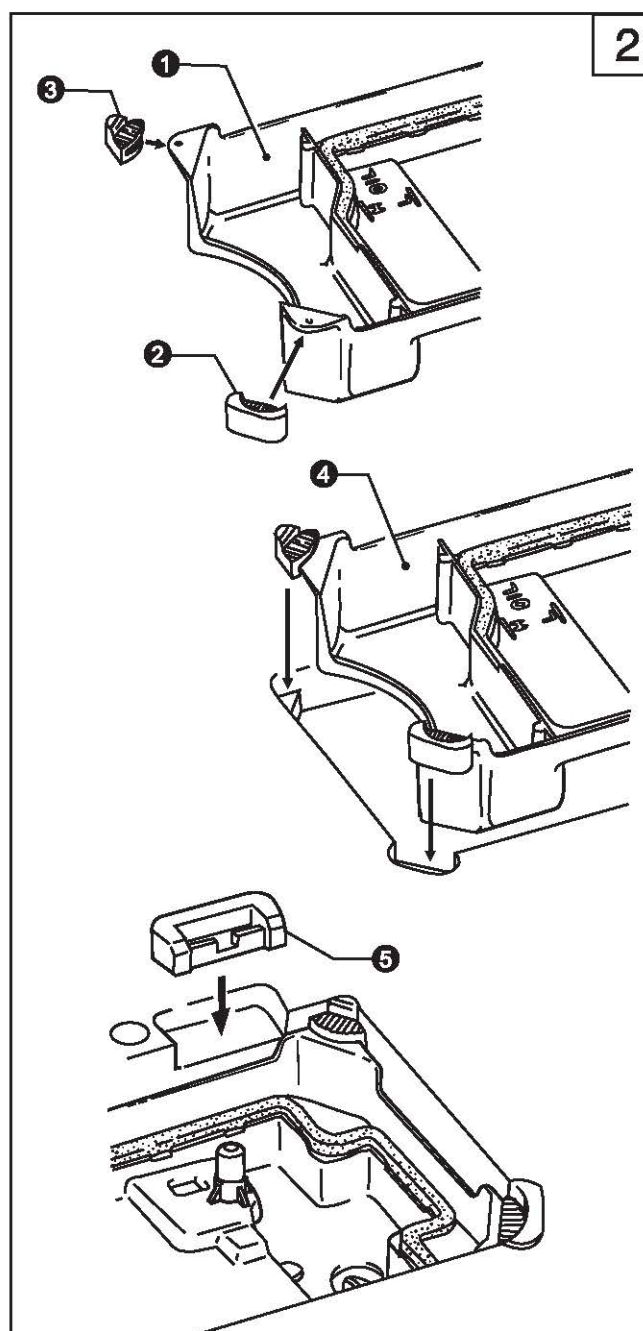
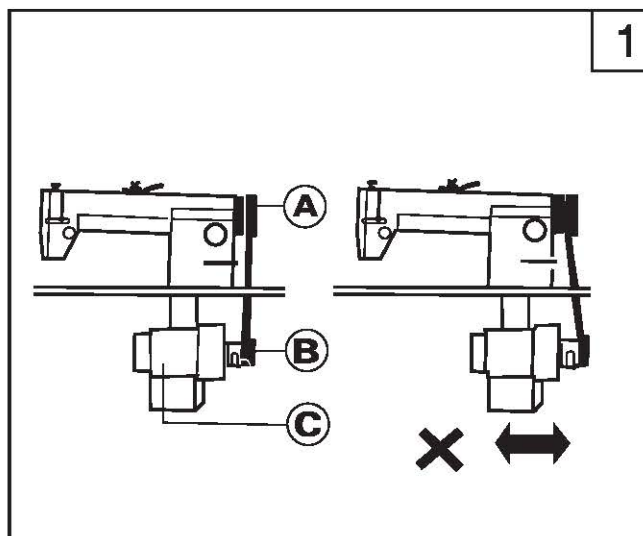
Applications	Medium & heavy weight materials
Max sewing speed	2000 s.p.m
Max stitch length	7mm
Needle bar stroke	37mm
Lifting amount of presser foot	3.5-5.5mm
Needle	DPX17 23#
Presser foot	By hand
lifting height	By knee
Hook	Large lubrication hook
Lubrication	Automatic lubrication
Motor power	Servo motor

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

Move the motor (C) leftward or rightward, to make the machine pulley groove (A) and motor pulley groove (B) on one line.

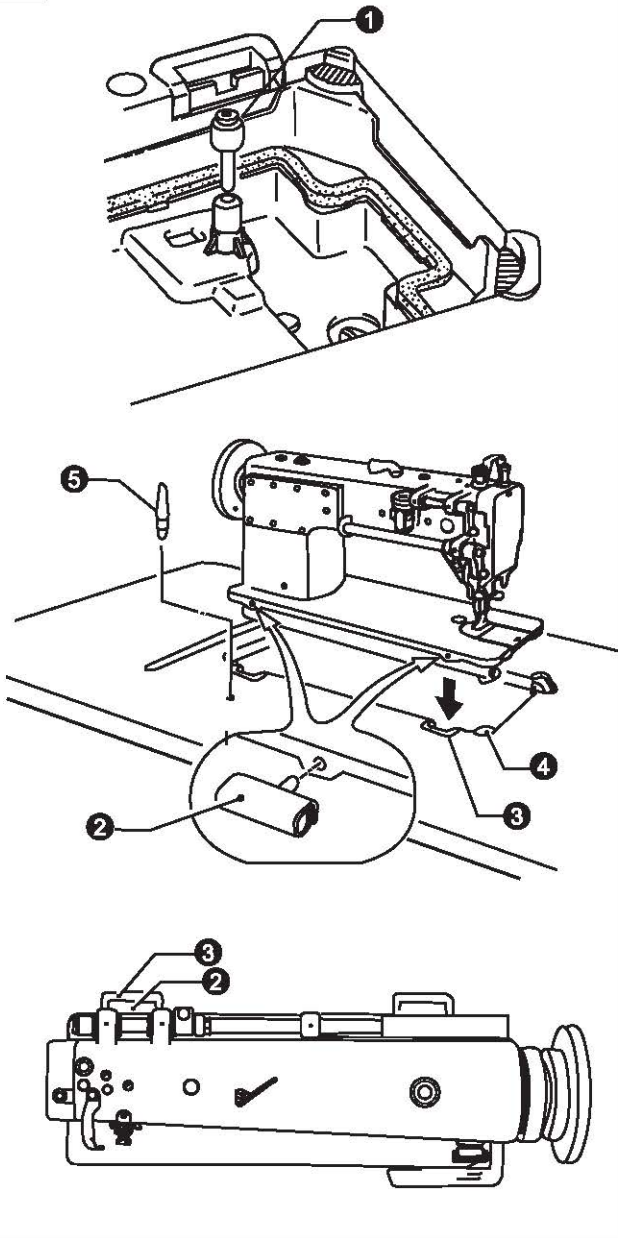
## 4. Installing the oil pan (Fig.2)

- 1.Insert the two head cushion ② into the front corners of the oil pan ①;
- 2.Insert the two head cushion ③ into the back corners of the oil pan ①;
- 3.Place the oil pan ④ into the cutouts of table;
- 4.Insert the two rubber cushion ⑤ into the notches of table





3



## 5. Installing the machine head (Fig.3)

1.Insert the knee lifter lifting bar ①.

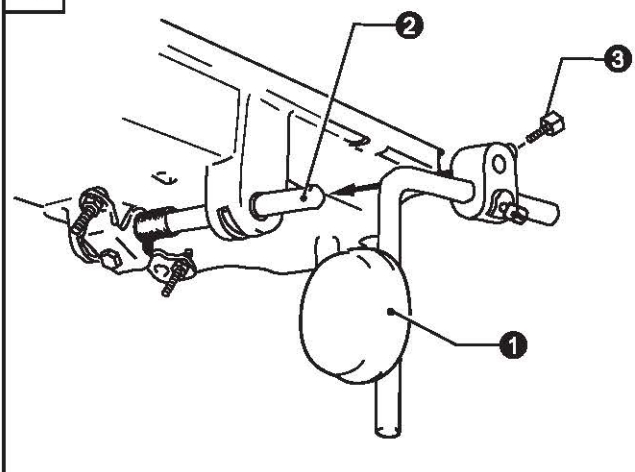
2.Insert the two hinges ② into the holes in the machine bed.

3.Clamp the two hinges onto the rubber cushions ③ in the work table, and place the machine head onto the head cushions ④ which are on the top of the oil pan corners.

4.Tap the rest bar ⑤ into the table hole.

**NOTE:** Tap the rest bar securely into the table hole, if not, the machine head will not be safe when it is tilted back.

4

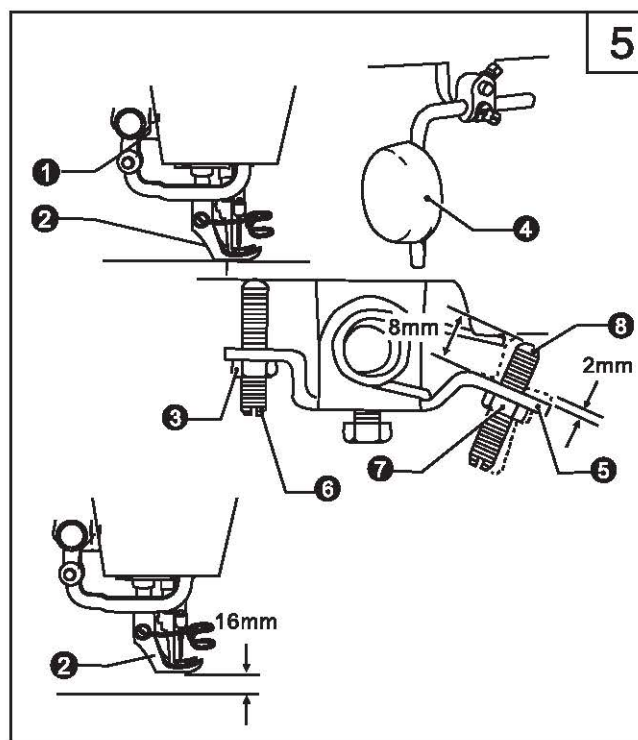


## 6. Installing the knee lifter assy. (Fig.4)

Insert the knee lifter assy. ① into the shaft ② under the oil pan, and slightly tight the screw ③.

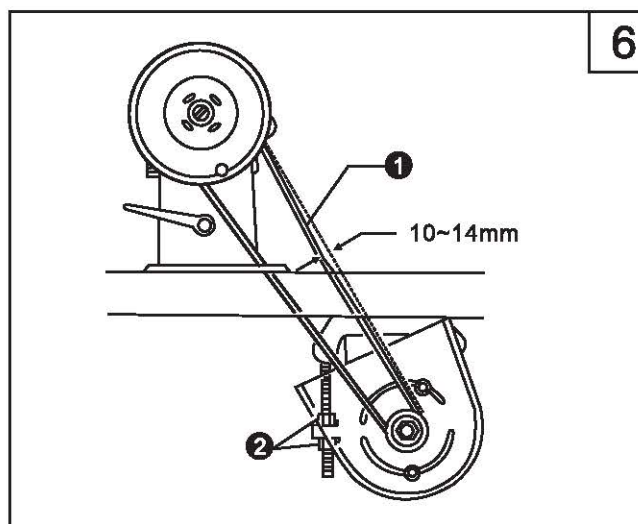
## 7. Adjusting knee lifter(Fig.5)

- 1.Lower the presser foot ② by turning the presser foot bar lifter ①.
- 2.Loosen the nut ③.
- 3.Turn the screw ⑥ to adjust the bracket ⑤ to 2mm play.
- 4.Securely tighten the nut ③.
- 5.Loosen the nut ⑦.
- 6.Turn the screw ⑧ until the distance between the end of the screw and bracket is approximately 8mm.
- 7.Turn the adjusting screw ⑧ to adjust, so that the presser foot is at the desired position within a distance of 16mm above the needle plate when the knee lifter plate ④ is fully pressed.
- 8.After adjustment, tighten the nut ⑦.



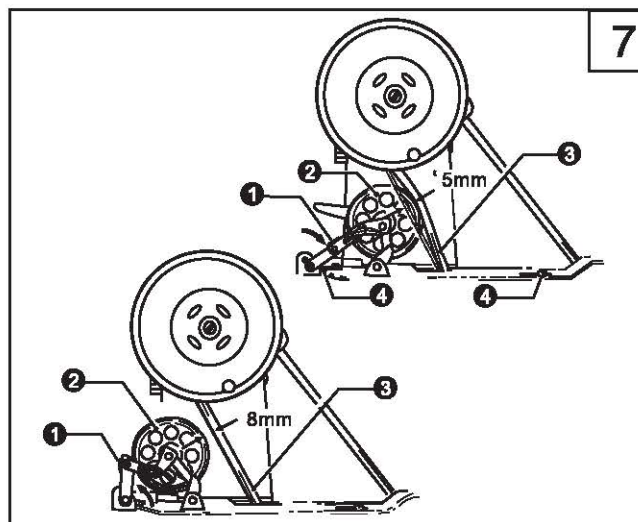
## 8. Installing the belt (Fig.6)

- 1.Tilt back the machine head, and then place the belt ① onto the machine pulley and motor pulley.
- 2.Turn the nut ② to adjust, so that there is 10-14mm of deflection of the belt when it's pressed at the middle point by a force of 5N.

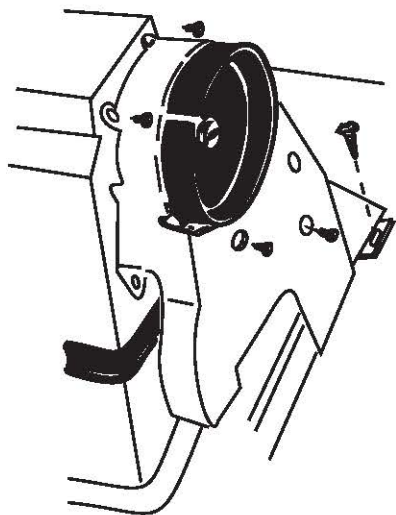


## 9. Installing the bobbin winder (Fig.7)

- 1.Push down the bobbin presser arm ① as far as it will go.
- 2.Press the bobbin winder wheel ② on the belt, and push the belt by approximately 5mm, meanwhile make sure that the winder should be parallel with the belt hole in the work table.
- 3.Fix the winder by two screws ④.
- 4.Pull the bobbin presser arm ① back, and check that there is the clearance of approximately 8mm between the bobbin winder wheel ② and the belt ③.



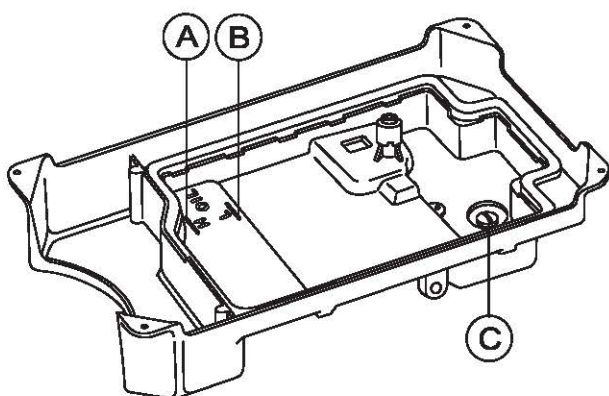
8



### 10. Installing the belt cover (Fig.8)

Please install the belt cover as shown in the Fig. 8

9



### 11. Lubrication(Fig.9)

#### 1.Oil amount

Please fill the oil according to the mark indicated on the oil pan. Mark (A) means the highest position. Mark (B) means the lowest position. If the oil amount is lower than the Mark (B), oil will not be pumped and machine will be jammed.

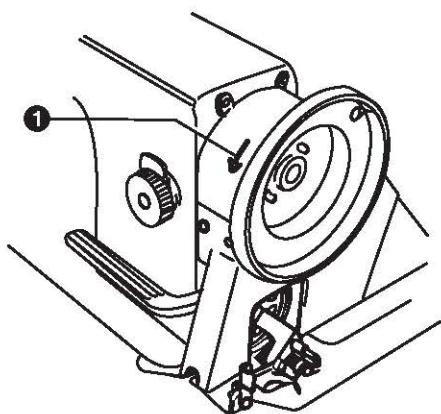
#### 2.Fill the oil

Please fill the 18# sewing oil into the oil pan until to the Mark (A)

#### 3.Change the oil

1.Uninstall the screw (C), and drain out the used oil  
2.Clean the oil pan, and tighten the screw (C), fill the fresh oil again according the requirement.

10



### 12. Checking the machine pulley rotating direction (Fig.10)

1.Insert the power plug and turn on the switch.

2.Depress the treadle slightly and check if the machine pulley starts to turn in the direction of the arrow.

3.If not, change the direction according to the operation instruction of motor.

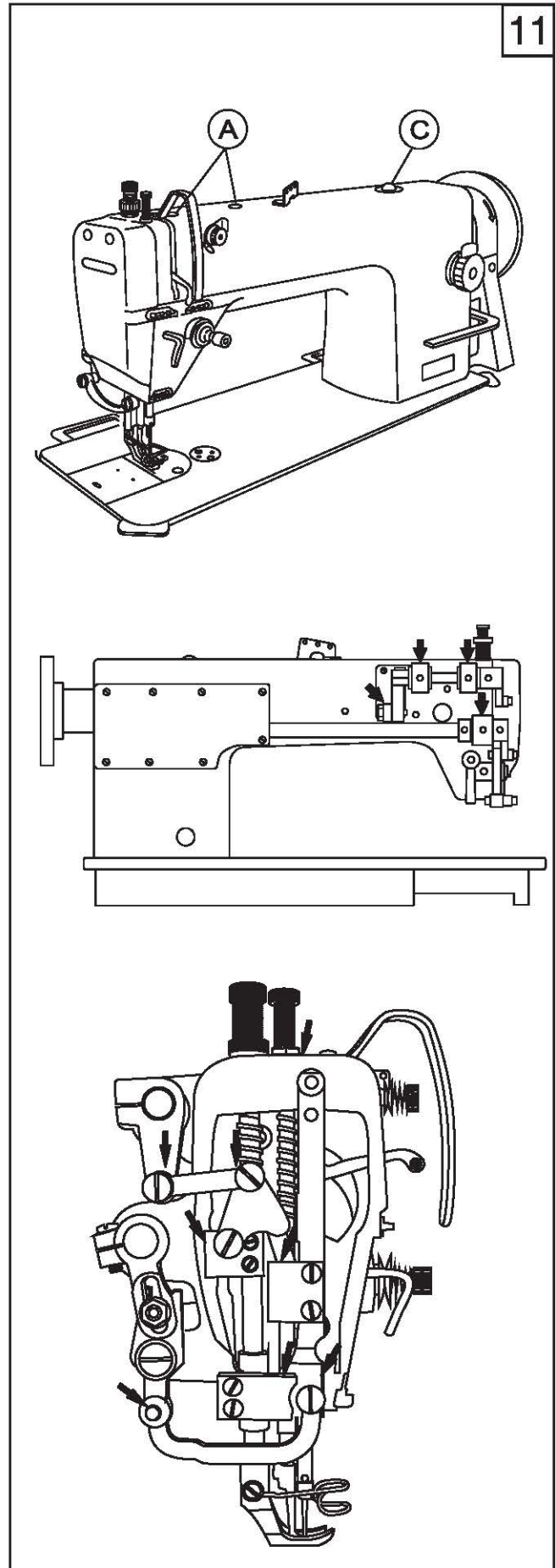
### 13. Test operation(Fig.11)

Carry out the test operation when start up a new sewing machine for the first time, or restart after a long period of non-use.

Remove the rubber cap (A) on the top of the arm and face plate, fully lubricate the parts showed by the arrows.

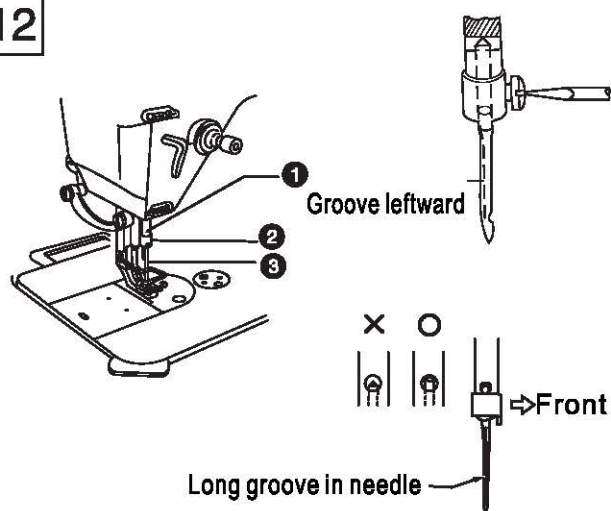
Install the face plate again, lift the presser foot and operate the machine at a lower speed of 1000-1500spm, and observe the oil running through the oil gauge window.

After one month, then the speed can be increased according to the different sewing operation.





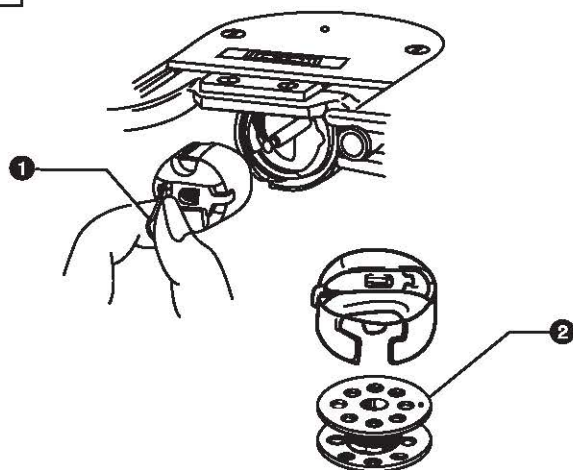
12



## 14. Installing the needle (Fig.12)

1. Turn the machine pulley to move the needle bar ① to its highest position;
2. Loosen the screw ②
3. Insert the needle ③ in a straight line as far as it will go, making sure that the long groove on the needle is at the left, and then securely tighten the screw ②

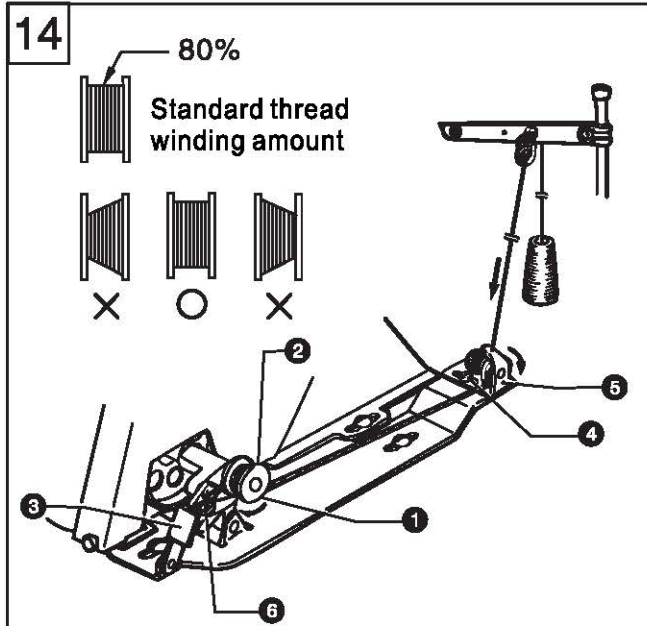
13



## 15. Removing the bobbin case (Fig.13)

1. Turn the machine pulley to lift the needle bar to its highest position. Pull the latch ① of the bobbin case upward and then put the bobbin into the bobbin case, finally insert the complete bobbin case with bobbin into the hook shaft.
2. To remove the bobbin case, pull the latch and draw the bobbin case out of the hook.

14



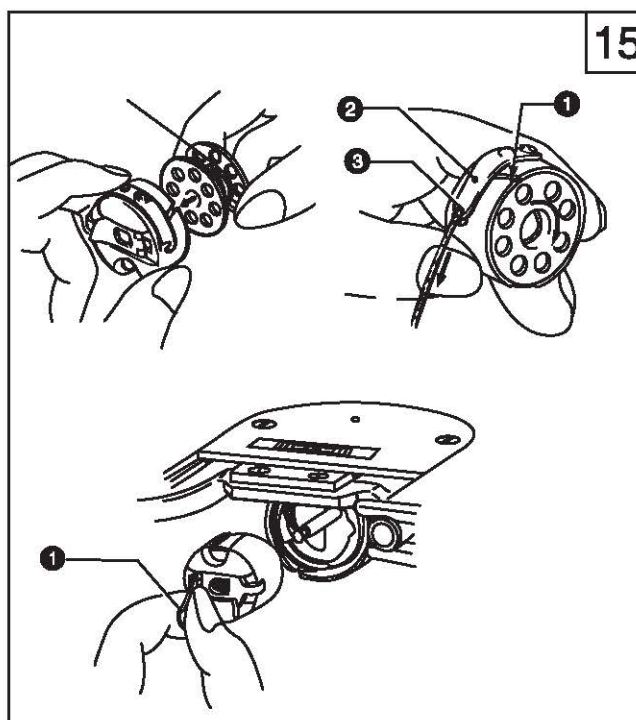
## 16. Winding the bobbin thread (Fig.14)

1. Turn the power on;
  2. Place the bobbin ① onto the bobbin winder shaft ②;
  3. Wind the thread several circles around the bobbin in the direction indicated by arrow;
  4. Push down the bobbin presser arm ③;
  5. Lift the presser foot;
  6. Depress the treadle, the winding operation will start;
  7. Once finished, the bobbin presser arm ③ will recover automatically.
- \* If the thread winding is not neat and even, loosen the screw ④ to adjust the position of bobbin winder base.
- \* Turn the screw ⑥ to adjust the bobbin winding amount
- Tighten the screw to increase the winding amount;
  - Loosen the screw to decrease the winding amount.
- Note:  
The proper winding amount should be around 80% of the bobbin capacity.



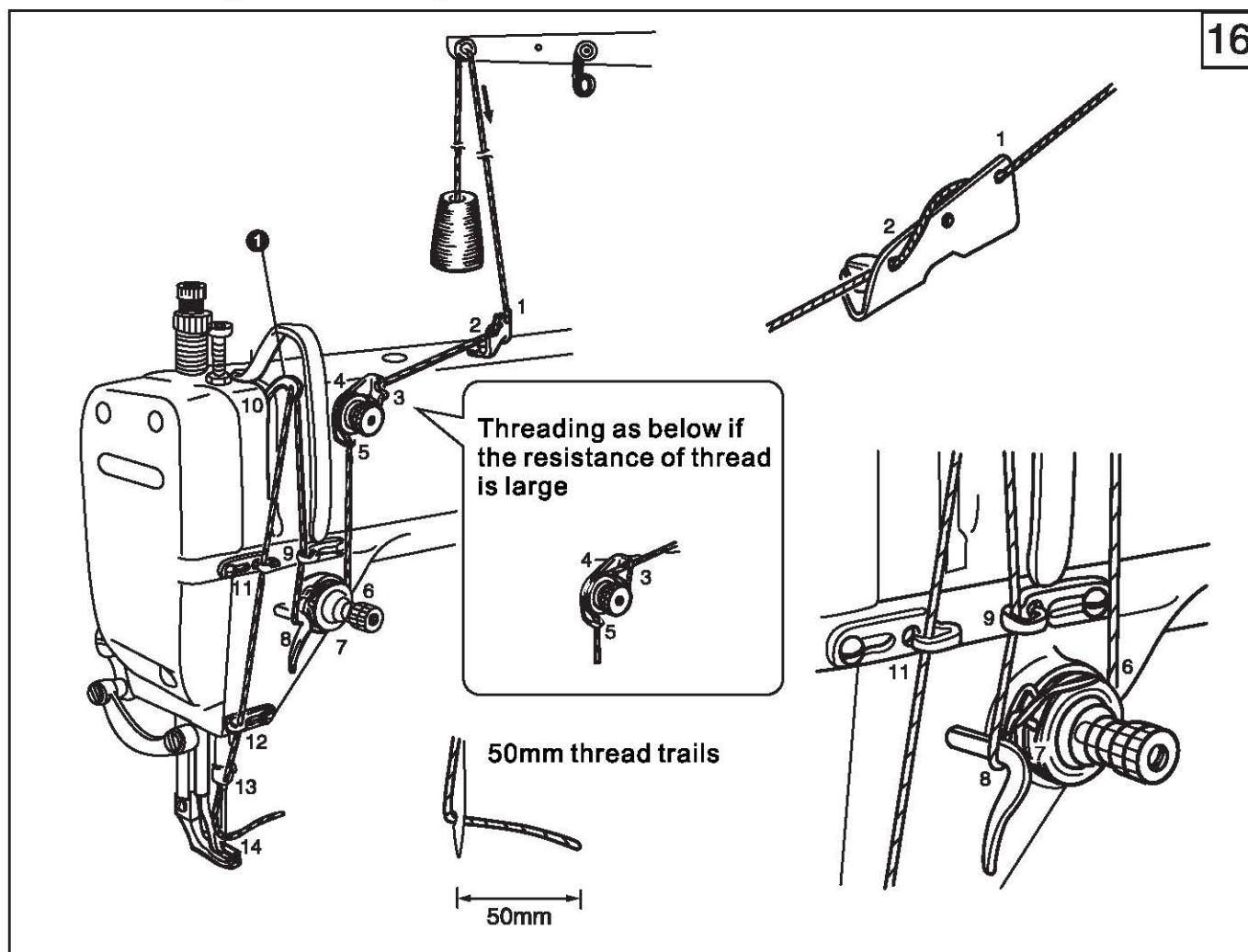
## 17. Threading the bobbin thread (Fig.15)

1. Turn the machine pulley to lift the needle to its highest position;
2. The bobbin thread should be right twist, place the bobbin into the bobbin case;
3. Pass the thread through the slot ① and spring plate ②, and finally pull it out of the notch ③;
4. Check that the bobbin should turn clockwise if the thread is pulled;
5. Hold the latch ④, and place the bobbin case in the hook.

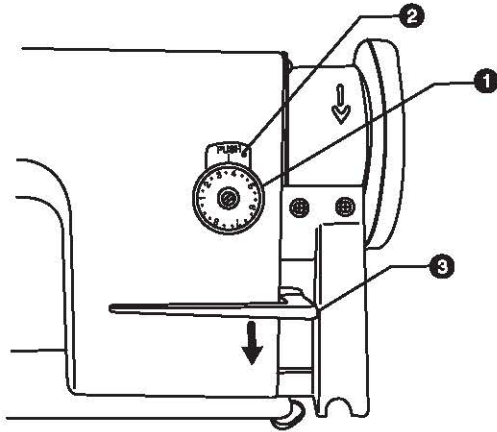


## 18. Threading the needle thread (Fig.16)

Raise the thread take-up lever to its highest position. This will make threading easier and will prevent the thread from coming out at the sewing start.



17



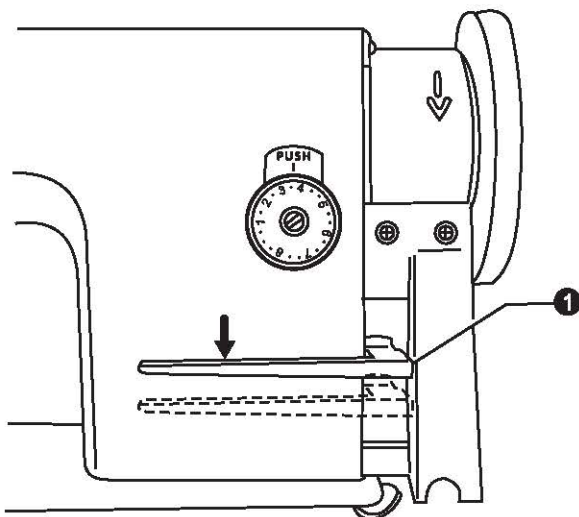
### 19. Adjusting the stitch length (Fig.17)

While press the stopper ②, turn the stitch length dial ① to make the number on the dial align with the mark on the stopper ②. The number is the stitch length in mm.

\* The larger the number, the longer the stitch length will be.

\* When turn the dial from a larger setting to a smaller setting, it will be easy to turn if the reverse lever ③ is pressed down.

18

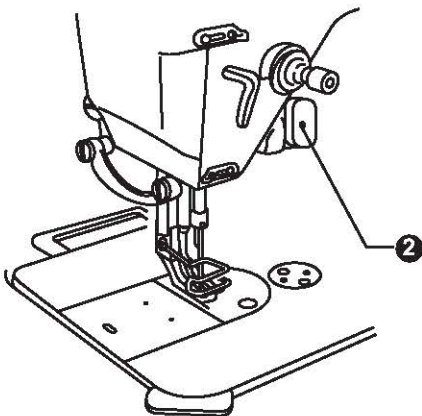


### 20. Sewing and backtacking (Fig.18)

1. Turn the power on;

2. Depress the treadle to start sewing.

When the reverse lever ① is pressed or the backtacking button is on during sewing, the feed will be reversed. After release, the feed will recover to normal.



## 21. Adjusting the thread tension (Fig.19)

19

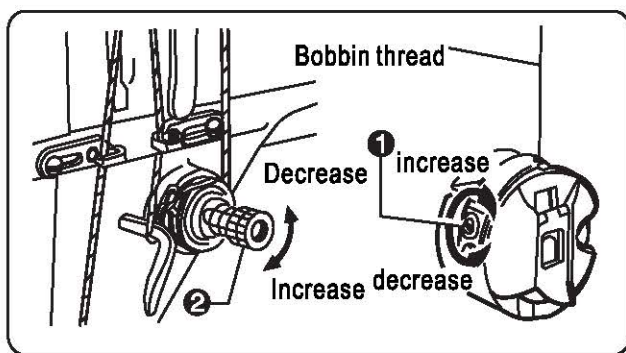
### Normal stitch



- increase the needle thread tension
- decrease the bobbin thread tension



- decrease the needle thread tension
- increase the bobbin thread tension



#### <Bobbin thread tension>

Adjust by turning the screw ① until the bobbin case drops gently by its own weight while the thread end coming out of the bobbin case is held.

#### <Needle thread tension>

After adjust the bobbin thread tension, adjust the needle thread tension so that a good, even stitch seam is obtained.

1. Lower the presser foot;
2. Adjust by turning the thread tension nut ②.

## 22. Adjusting the presser foot pressure(Fig.20)

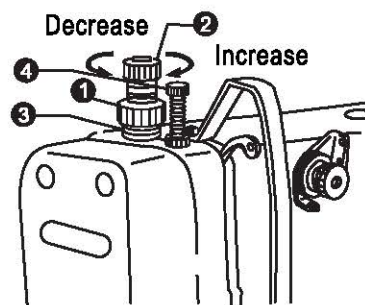
20

### <Adjusting the presser foot pressure>

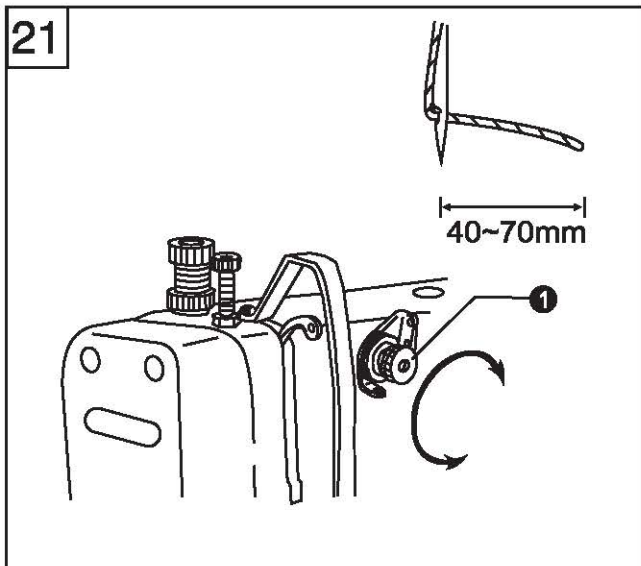
1. Loosen the lock nut ①;
2. Turn the adjusting screw ② to adjust the pressure of presser foot, if it's not enough, please turn the screw ⑤ to increase the pressure.
- \* The pressure should be as weak as possible, but strong enough so that the material doesn't slip.
3. Tighten the nut ①.

### <Adjusting the walking foot presser>

4. Loosen the nut ③;
5. Turn the screw ④ clockwise to increase the pressure, on the contrary, turn the screw ④ counterclockwise to decrease the pressure;
6. Tighten the nut ③.



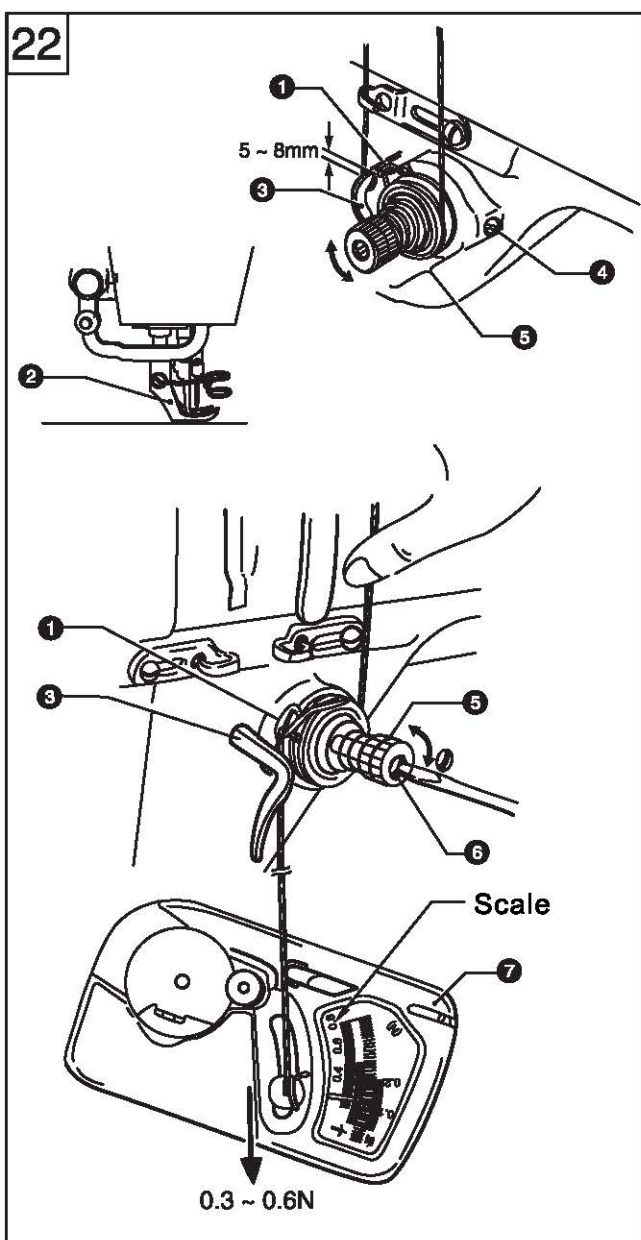




### 23. Adjusting the trailing length after thread trimming(Fig.21)

Turn the nut ① to adjust the trailing length

- At the time of thread trimming, the thread tension mechanism will release and the needle thread tension is only applied by the thread guide ①;
- The standard trailing length for the needle thread is 40-70mm;
- If increase the thread guide tension, the trailing length will be short; if decrease the thread guide tension, the trailing length will be longer.



### 24. Adjusting the thread tension spring (Fig. 22)

★ The standard position of the thread tension spring ① is 5-8mm above the upper surface of the thread guide ③ when the presser foot ② is lowered.

1. Lower the presser foot ②;
2. Loosen the screw ④;
3. Turn the thread tension bracket ⑤ to adjust the spring position;
4. Tighten the screw ④.

★ The standard tension of the spring is 0.3-0.6N.

5. Push the needle thread with your finger until it is slightly higher than the thread tension bracket ⑤ and so that the upper thread is not pulled out;
6. Pull the needle thread down until the spring ① is at the same height with the upper surface of thread guide ③, and then measure the tension of the spring.
7. Insert a screwdriver into the slot of the thread tension stud ⑥, and turn the stud to adjust the tension of the spring ①.

Note:

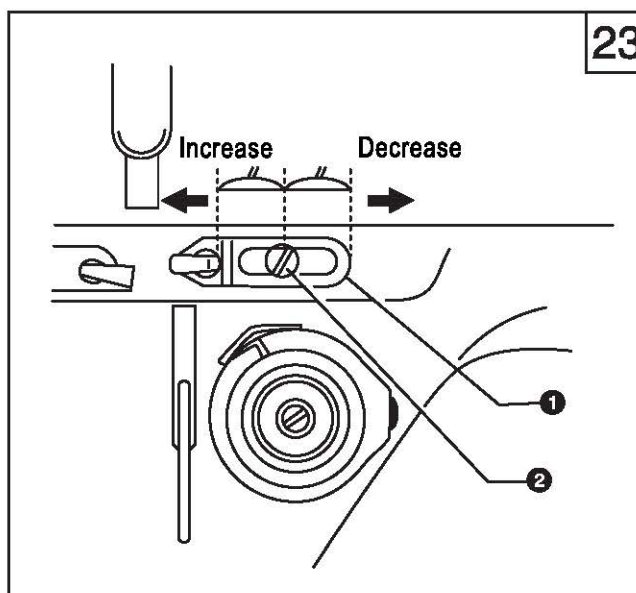
If using a tension gauge ⑦ to measure the tension, take the reading from the scale on the side of the red line.

## 25. Adjusting the upper thread guide(Fig. 23)

The standard position of upper thread guide ① is where the screw ② is in the center of the adjustable range of upper thread guide.

To adjust the position, loosen the screw ② and move the thread guide.

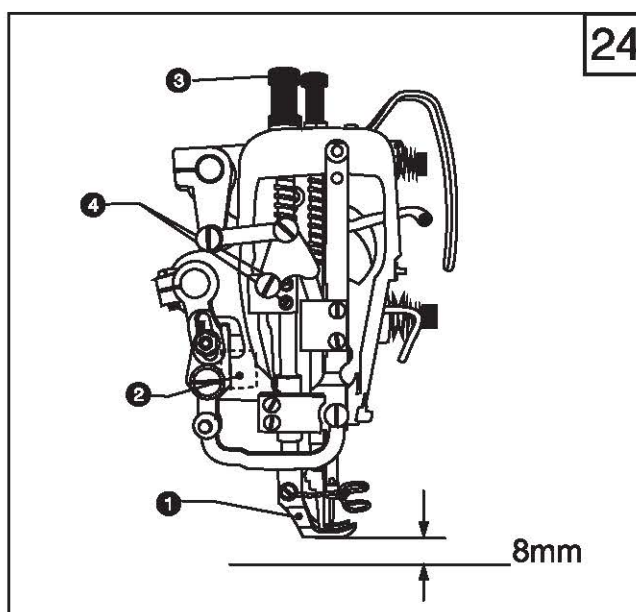
If stitch the heavy materials, move the thread guide leftward. (To increase the thread take-up tension)  
If stitch the light materials, move the thread guide rightward. (To decrease the thread take-up tension)



## 26. Adjusting the presser foot height(Fig. 24)

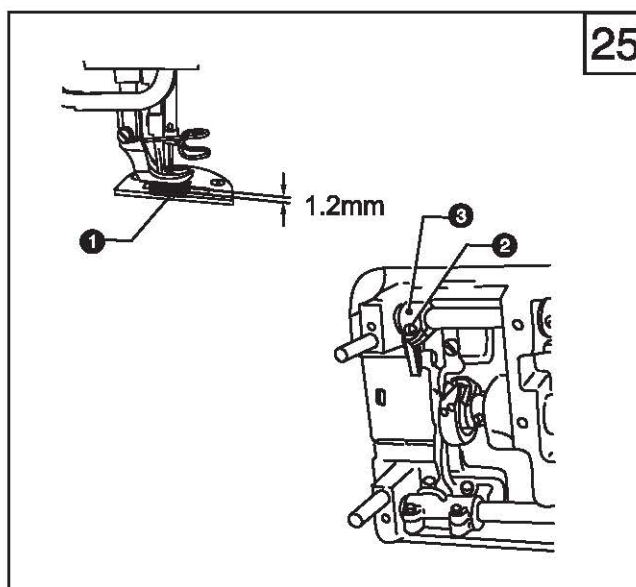
The standard height of presser foot ① is 8mm when it is lifted by hand.

1. Loosen the screw ③ to lift the presser bar
2. Put a measurement gauge with 8mm height under the presser foot;
3. Loosen the screw ④ and adjust the height of presser foot;
4. Tighten the screw ④.



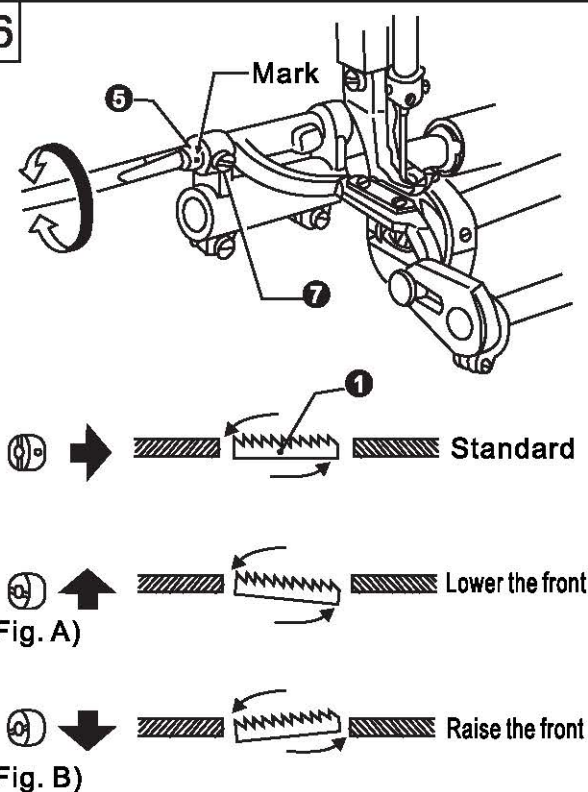
## 27. Adjusting the feed dog height (Fig. 25)

1. Set the stitch length maximum, when the feed dog ① is at its highest position above the needle plate, the standard height is 1.2mm
2. Loosen the screw ② and turn the feed lifting arm ③ to adjust the height of feed dog.





26



### 28. Adjusting the feed dog angle (Fig. 26)

The standard angle of the feed dog is: when the feed dog is at its highest position above the needle plate, the Mark on the feed bracket shaft is on the horizontal position.

1. Turn the machine pulley to lift the feed dog to its highest position;
2. Loosen the screw ⑦;
3. Turn the feed bracket shaft in the direction of the arrow within a range of 90° with respect to the standard angle position.

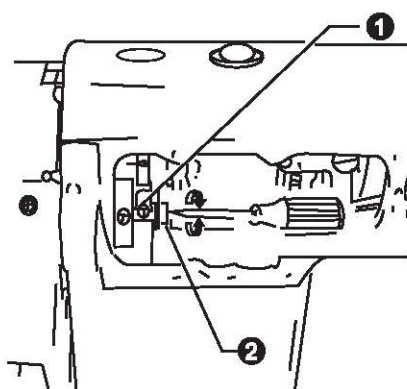
\* In order to prevent puckering, lower the front of the feed dog (Fig. A)

\* In order to keep the materials straight, raise the front of the feed dog (Fig. B)

4. Securely tighten the set screw ⑦.

It's necessary to adjust the feed dog height again after this adjustment.

27



### 29. Adjusting the difference of stitch length between the forward and backtacking (Fig. 27)

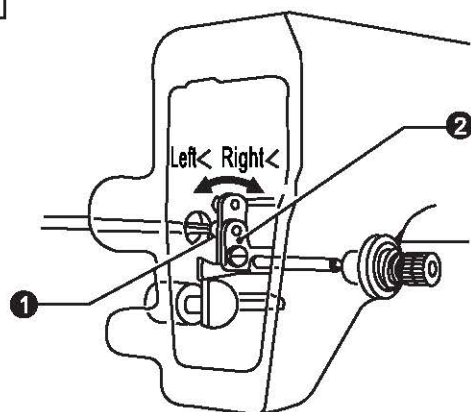
1. Remove the back cover;
2. Loosen the screw ① and turn the connecting stud ②

\* Turn the stud ② clockwise, the forward stitch length will be longer and the backtacking stitch length will be shorter;

\* Turn the stud ② counterclockwise, the forward stitch length will be shorter and the backtacking stitch length will be longer;

3. Tighten the screw ①.

28



### 30. Adjusting the tension release (Fig. 28)

The opening time of the thread tension discs can be adjusted.

Remove the rubber cap on the rear of arm, and turn the screw ①, then the thread release cam ② can be moved left or right.

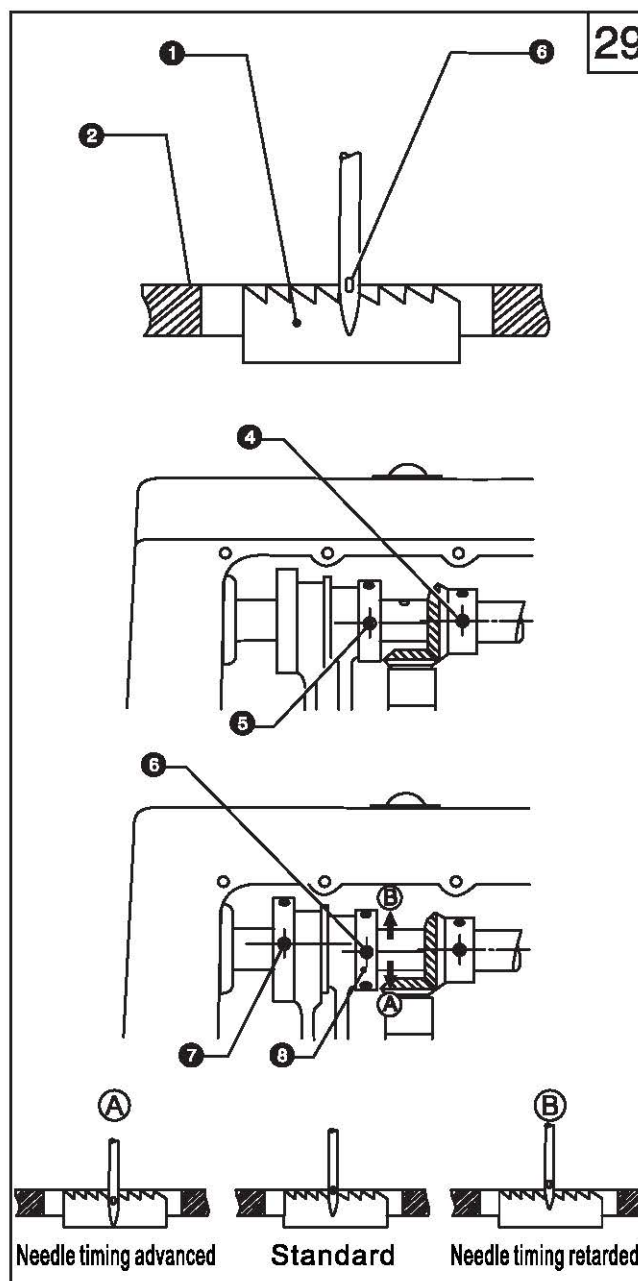
Move the cam rightward, the release time will be slow

Move the cam leftward, the release time will be quick.

### 31. Adjusting the timing of needle and feed mechanism (Fig. 29)

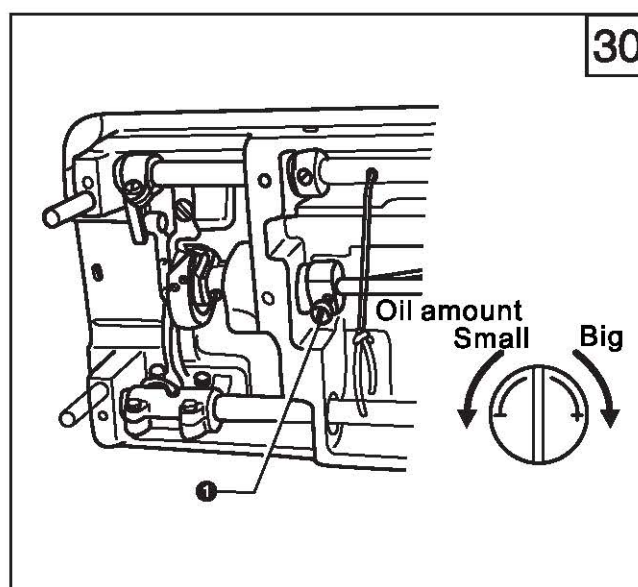
The standard timing is when the feed dog is lowered from its highest position until it is flush with the top of the needle plate ②, and the needle eye ③ is also aligned horizontally with the surface. Adjust by changing the phases of feed cam and eccentric wheel UD

1. Remove the rear cover
2. Turn the machine pulley in reverse direction, set the second screw ④ on the gear of upper shaft as reference mark, make the third screw ⑤ of eccentric wheel UD slightly lower than the reference mark screw ④;
3. Continue to turn the machine pulley, set the second screw ⑥ of eccentric wheel UD as reference mark, make the third screw ⑦ of feed cam slightly higher than the reference mark screw ⑥.
4. If need a non-timing position, loosen the three screws of eccentric wheel UD, adjust the eccentric cam ⑧ in the direction of arrow (A) or (B)  
To increase the tension of thread, turn the eccentric cam ⑧ to direction (A)  
To avoid the needle bent, turn the eccentric cam ⑧ to direction (B)
5. After adjustment, tighten all of the screws.

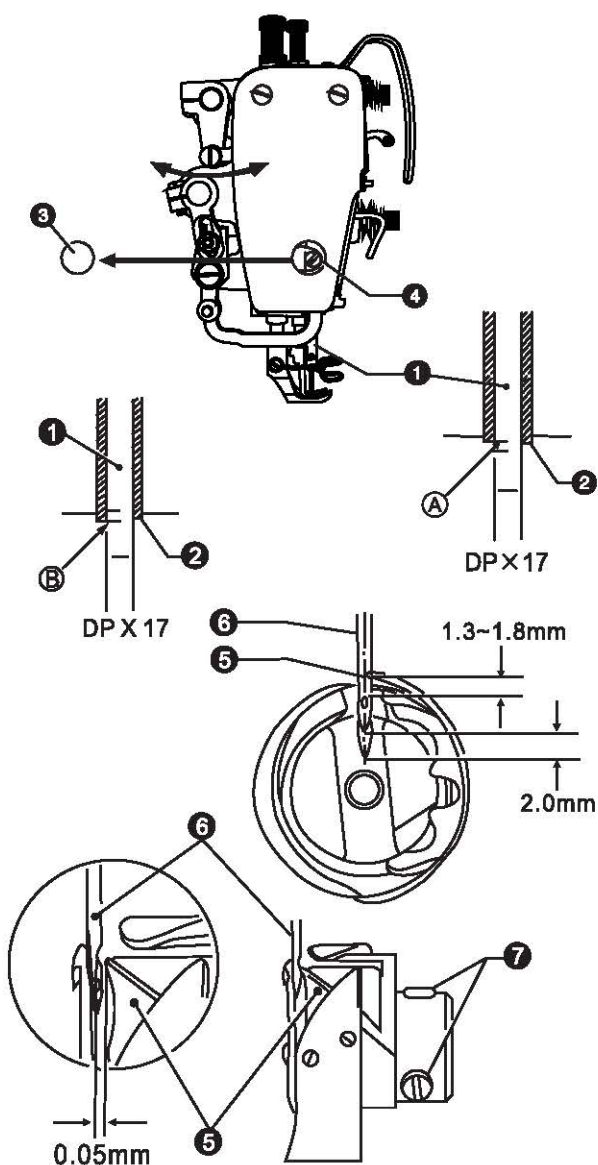


### 32. Adjusting the rotary hook lubrication amount (Fig. 30)

Tilt back the machine head, and turn the oil adjustment screw ① to adjust the hook oiling amount.



31



### 33. Adjusting the height of needle bar and the timing with hook (Fig. 31)

When the needle bar ① is at its lowest position, the top reference line (A) on the needle bar should be aligned with the bottom edge of the needle bar bush ②.

1. Turn the machine pulley to lower the needle bar to its lowest position;
2. Take out the rubber cap ③;
3. Loosen the screw ④, and move the needle bar ① to proper position;
4. Tighten the screw ④;
5. Close the rubber cap ③.

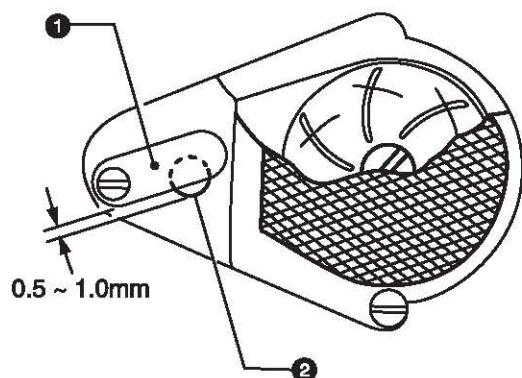
Lift the needle bar ① from the lowest position, when the second reference line (B) on the needle bar is aligned with the bottom edge of the needle bar bush ②, the tip ⑤ of the hook should be aimed at the center of needle ⑥.

1. Turn the machine pulley to raise the needle bar ① from its lowest position until the reference line (B) is aligned with the bottom edge of the needle bar bush ②

\* When the needle bar moves up 2mm, the clearance between the upper of needle hole and the hook tip should be 1.3-1.8mm

2. Loosen the screw ⑦, and make the hook tip aimed at the center of needle ⑥, the clearance between the hook tip and needle should be 0.05mm
3. Tighten the screw ⑦.

32



### 34. Adjusting the oil pump (Fig. 32)

If the oil is not circled observed from the oil gauge window at a lower sewing speed, turn the oil adjustment plate ① to cover the oil hole.



### 35. Adjusting the lifting amount of presser foot (Fig. 33)

1. Vertical movement of presser foot and walking foot  
★ The presser foot ① and walking foot ② move vertically one after another

★ Usually the stroke of walking foot and presser foot is same or the stroke of walking foot is slightly lower. Place the thread take-up lever at the lowest position, and lower the presser bar lifter, loosen the screw ③ and move the upper feed lifting cam ④.

Move it rightward to make the stroke of two feet be equal

Move it leftward to make the stroke of presser foot be smaller.

2. Adjusting the lifting amount of presser feet  
Adjust the lifting amount of two feet to match the materials to be sewn.

Loosen the screw ⑤, and move the screw upward to increase the lifting amount or move the screw downward to decrease the lifting amount.

3. Adjusting the forward/backward clearance of the two feet

To keep the front groove of presser foot not strike the rear of the walking foot, the clearance of C must be kept about 3mm.

Loosen the screw of feed arm R, and then turn the feed rock shaft ⑥ to adjust.

4. Adjusting the feed amount of walking foot (Fig. A)

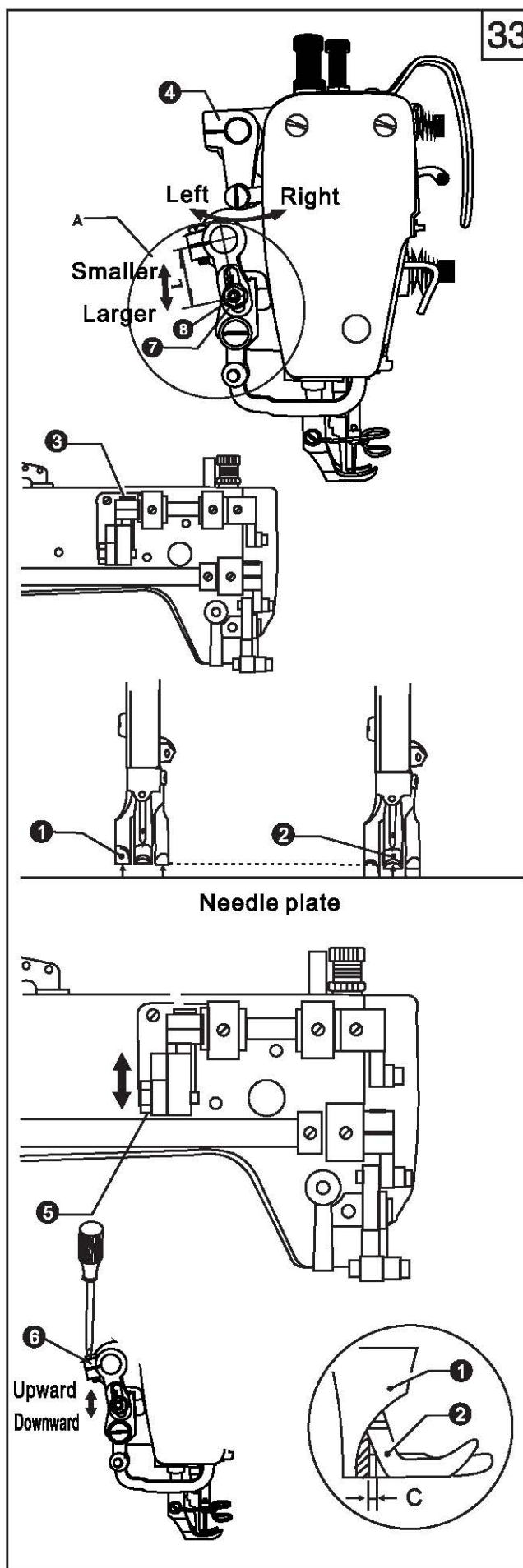
★ The standard ration of feed amount between feed dog and walking foot is 1:1

The feed amount of walking foot can be adjusted to suit for the materials to be sewn.

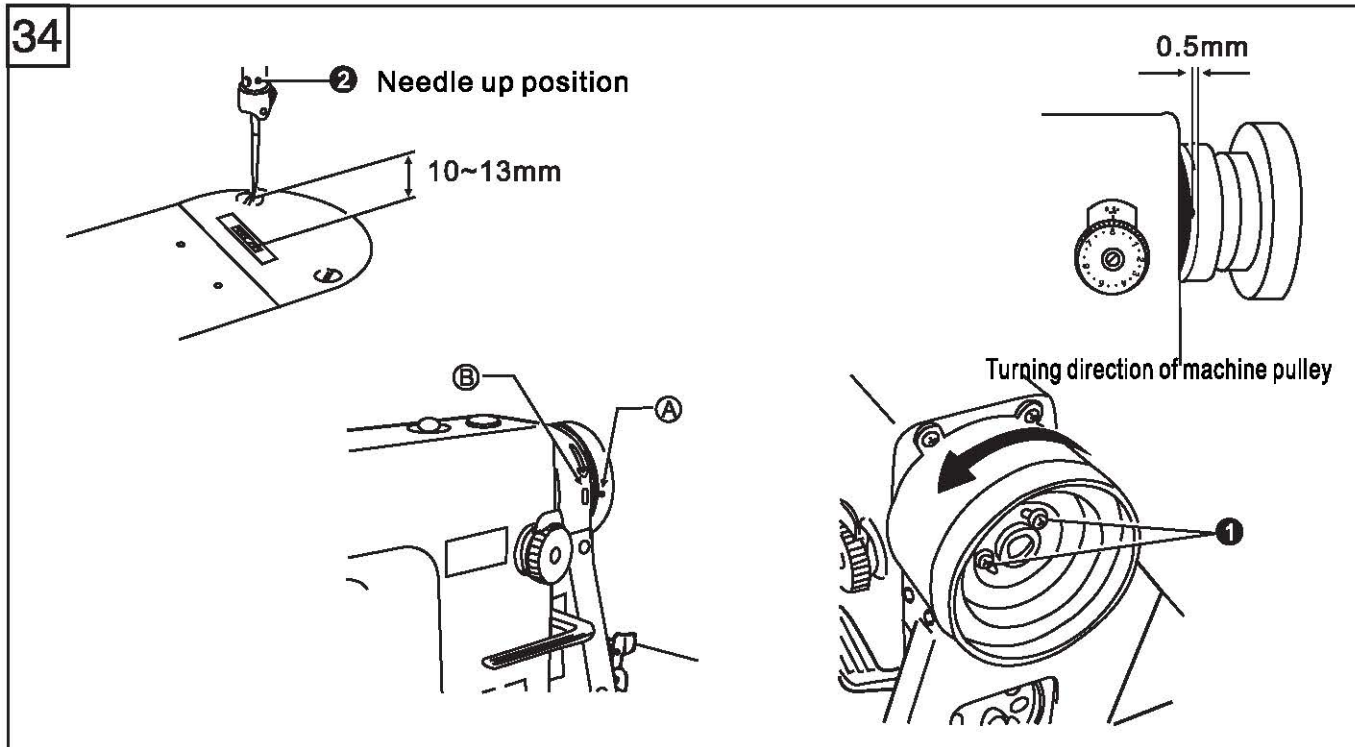
Loosen the nut ⑦, and move the slide block ⑧

Upward: decrease the distance L to make the feed amount be smaller

Downward: increase the distance L to make the feed amount be larger



## 36. Adjusting the synchronizer (Fig. 34)



The synchronizer consists of two elements which are used to detect the needle position. Both of the two signals of needle down and thread trimming are controlled by one element.

- Turn the power on, the machine will stop at the needle up position after running, and the Mark (A) on the machine pulley will be in the range of hole (B) in the belt cover, meanwhile, the distance between needle plate and needle tip should be 10-13mm.
- if need to adjust, please refer to the procedure below

### ■ Adjusting the needle up position

1. Turn off the power;
2. Loosen the two screws ①;
3. Move the two screws sets in the direction of machine pulley turning to raise the needle bar, and on the contrary, to make the needle up position lower;
4. Tighten the two set screws ①.

### ■ Needle down and thread trimming signals

Do not adjust the needle down stop position

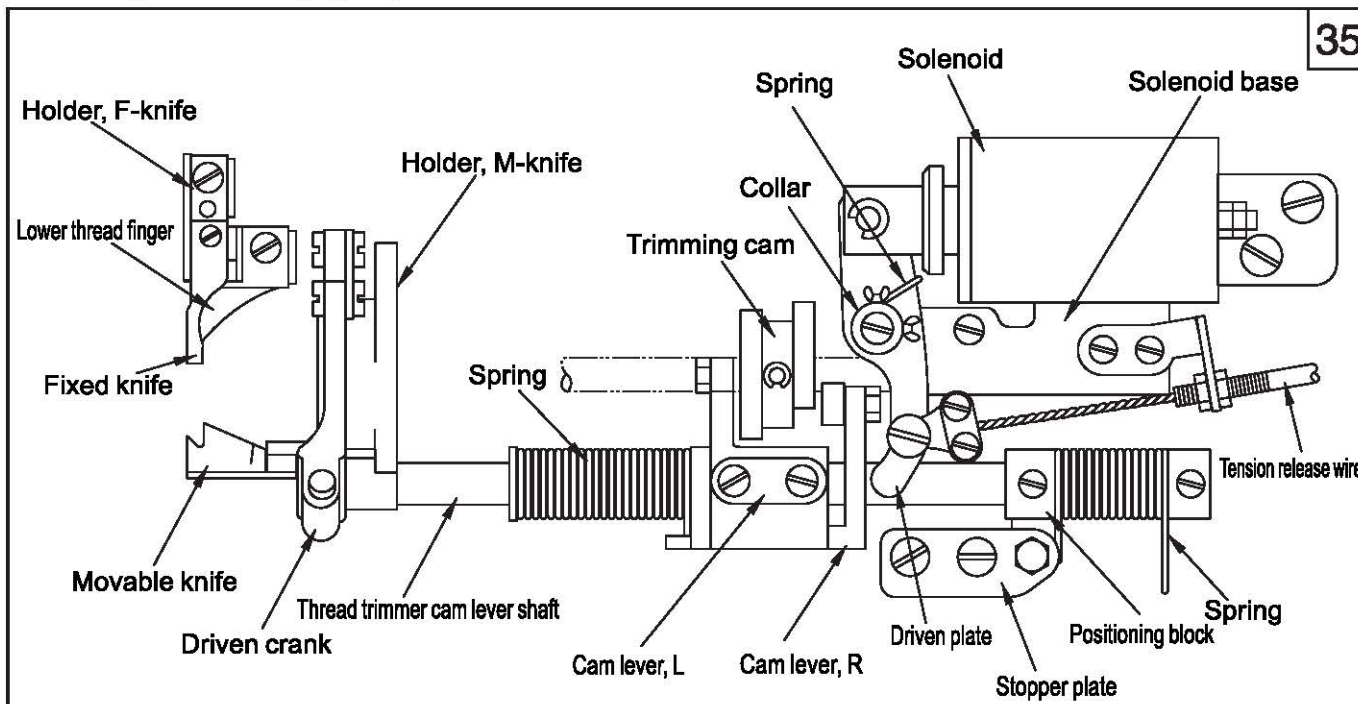
### Note:

- The synchronizer is pre-adjusted in the factory. Do not set the synchronizer when move the machine pulley.
- When installing the pulley, make sure that there should be a 0.5mm clearance between the synchronizer and pulley edge.



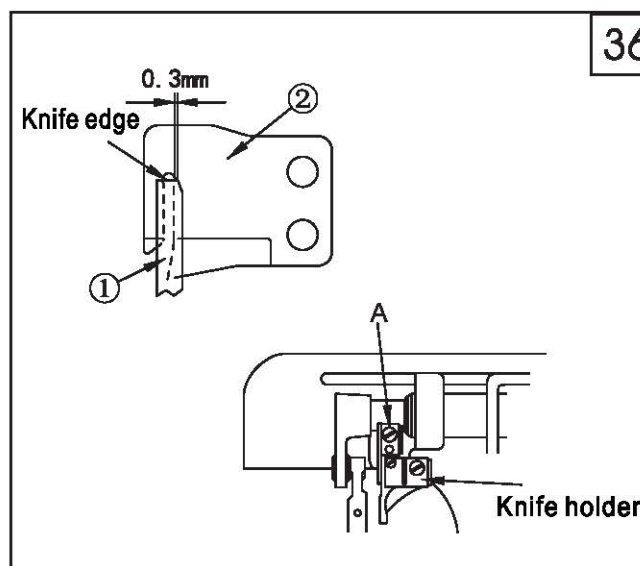
## 37. Adjusting the trimming mechanism

### 1. Trimming mechanism (Fig. 35)



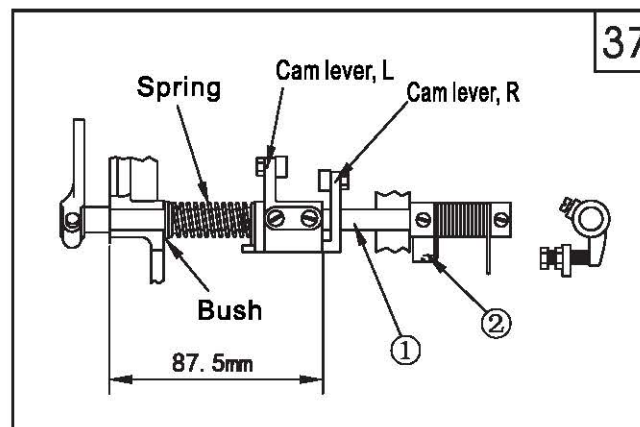
### 2. The relation between fixed knife and movable knife (Fig. 36)

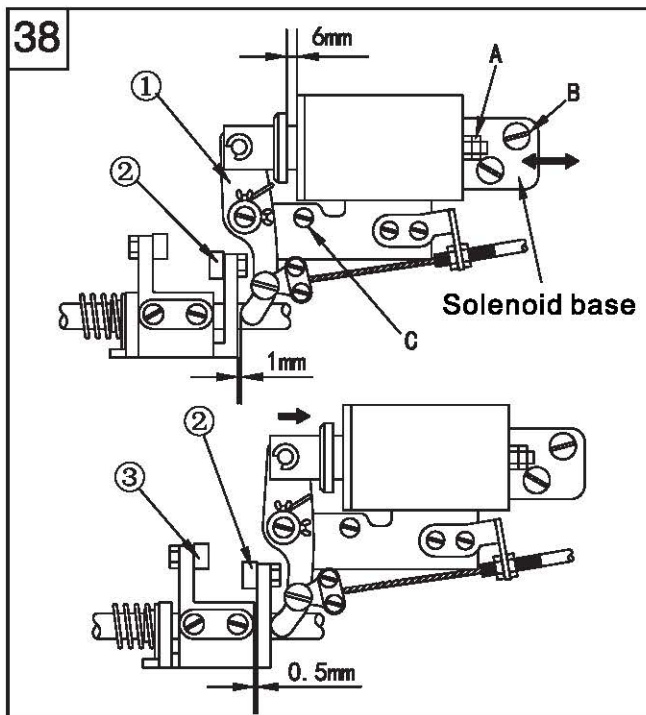
- (1) The clearance between fixed knife ① and movable knife ② should be 0.3mm
- (2) Adjust the position illustrated by the Fig. 35
- (3) Move the bobbin case opener and adjust the holder of fixed knife.



### 1. Thread trimmer cam lever shaft

- (1) Install the shaft ① on the machine bed first;
- (2) Install the cam lever L on the shaft ① as illustrated;
- (3) Slightly turn the shaft ①, and install the positioning block ② as illustrated.





#### 4. Installing the trimming solenoid (Fig. 38)

(1) The stroke of solenoid

a. The standard stroke is 6.0mm

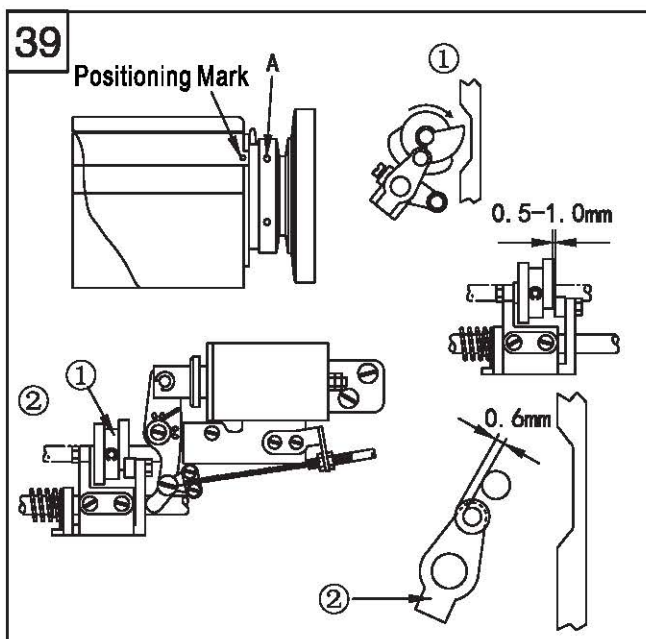
b. Turn the nut (A) to adjust the stroke

(2) Installing the solenoid

a. Fixed the solenoid by the screws B and C;

b. Be sure to keep the clearance between the driven plate ① and cam lever R ② 1mm;

c. When the solenoid is active, there should be a 0.5mm clearance between the cam lever L ③ and cam lever R ②. If need to adjust, please move the solenoid base shown by the arrow.

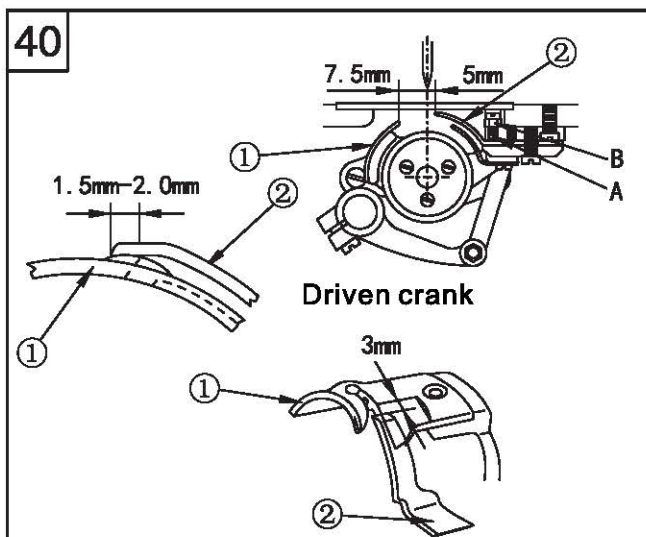


#### 5. Installing the trimming cam (Fig. 39)

(1) Align the second mark A on the machine pulley with the Positioning Mark on the arm;

(2) Set the solenoid active and turn the trimming cam ① until the cam is touched with the roller, then fix the cam;

(3) Set the solenoid inactive and make the cam lever ② restore to the original position, there should be a 0.5-1.0mm clearance between cam and roller.



#### 6. Adjusting the knives (Fig. 40)

(1) The relation between fixed knife and movable knife  
The clearance between movable knife ① and needle center is 7.5mm, and the clearance between fixed knife ② and needle center is 5mm.

(2) Set the solenoid active, the movable knife ① will turn rightward driven by the trimming cam. When the movable knife ① moves to its left furthest position, the clearance between two knives ① and ② should be 1.5-2.0mm

(3) Adjusting the trimming solenoid

A. If the thread trimming not smoothly, especially the thick thread used, just need to increase the trimming pressure;

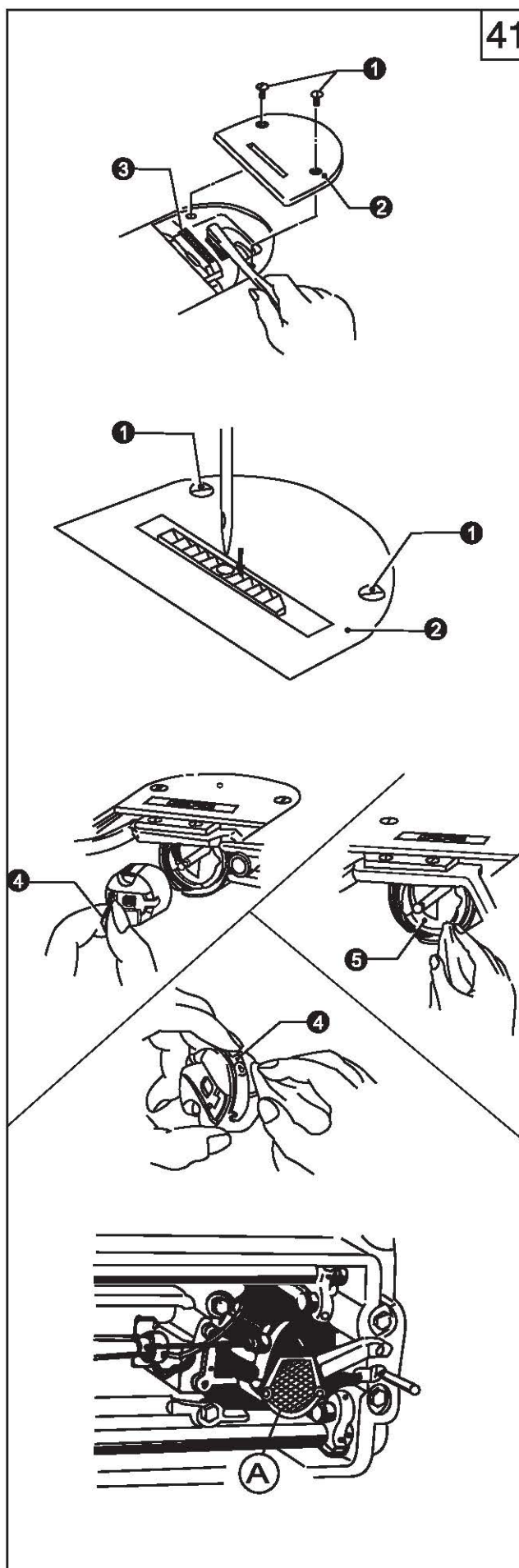
B. Adjusting the trimming pressure: loosen the nut B, adjust the screw A to get the reasonable pressure.

### 38.Clean (Fig. 41)

- 1.Raise the presser foot;
  - 2.Remove the two screws ① and needle plate ②;
  - 3.Clean the feed dog with a soft brush;
  - 4.Install the needle plate ② by two screws ①.
- 
- 5.Turn the machine pulley slowly and check if the needle drops into the hole center of needle plate
- ★ If not
- Check if the needle is bent
  - Loosen the screw ①, and reinstall the needle plate ②
- 6.Turn the machine pulley and lift the needle above the needle plate, check if the needle tip is blunt, if yes, change a new one.
  - 7.Tilt back the machine head
  - 8.Remove the bobbin case ④
  - 9.Clean the hook with a soft cloth and check if the hook is worn out
  - 10.Take out the bobbin from the bobbin case, and clean the bobbin case with a soft cloth
  - 11.Insert the bobbin into the bobbin case and place the bobbin case back into the machine

- 12.Clean the dust on the filter (A) of oil pump.

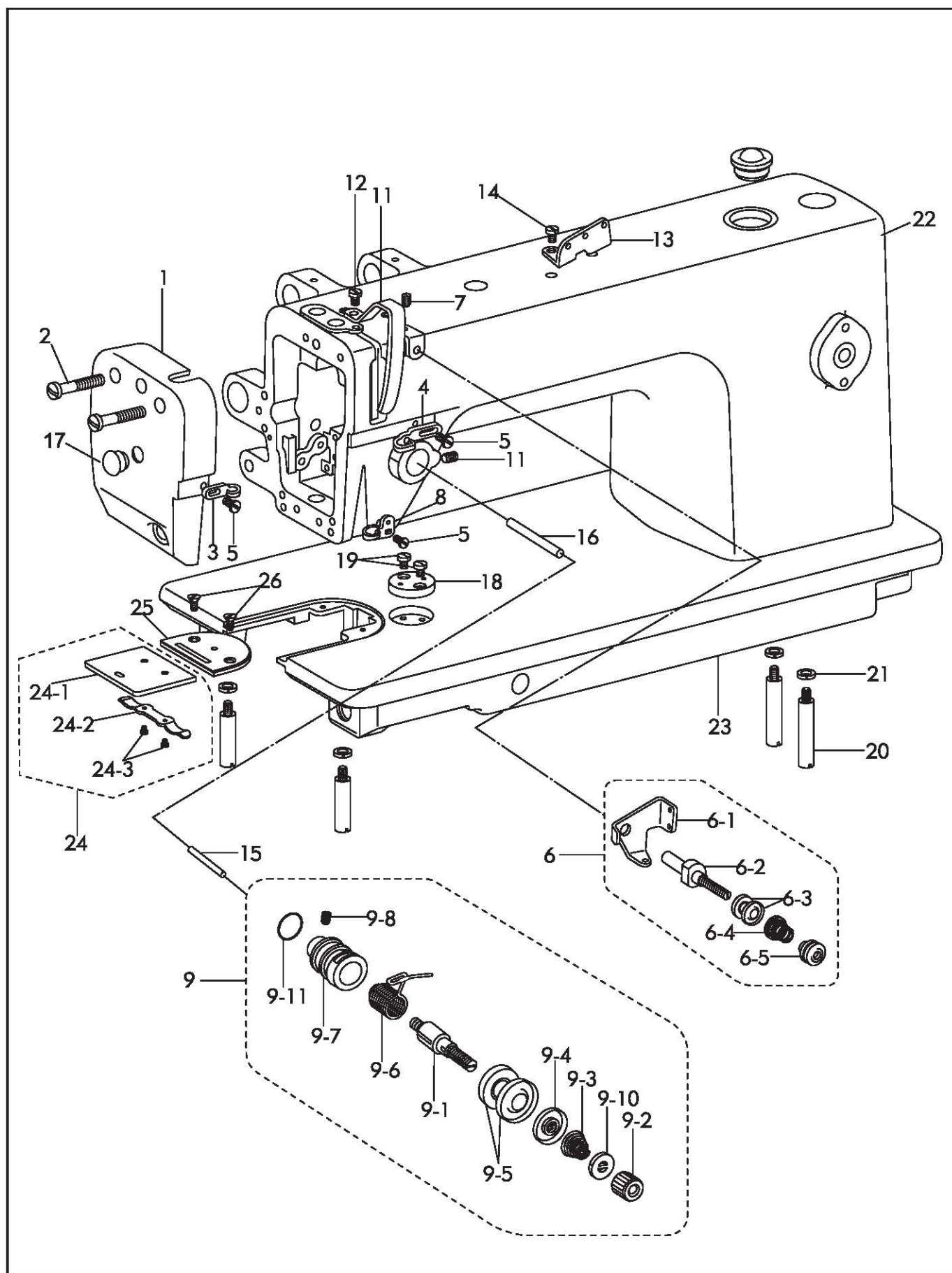
41



# Parts Manual



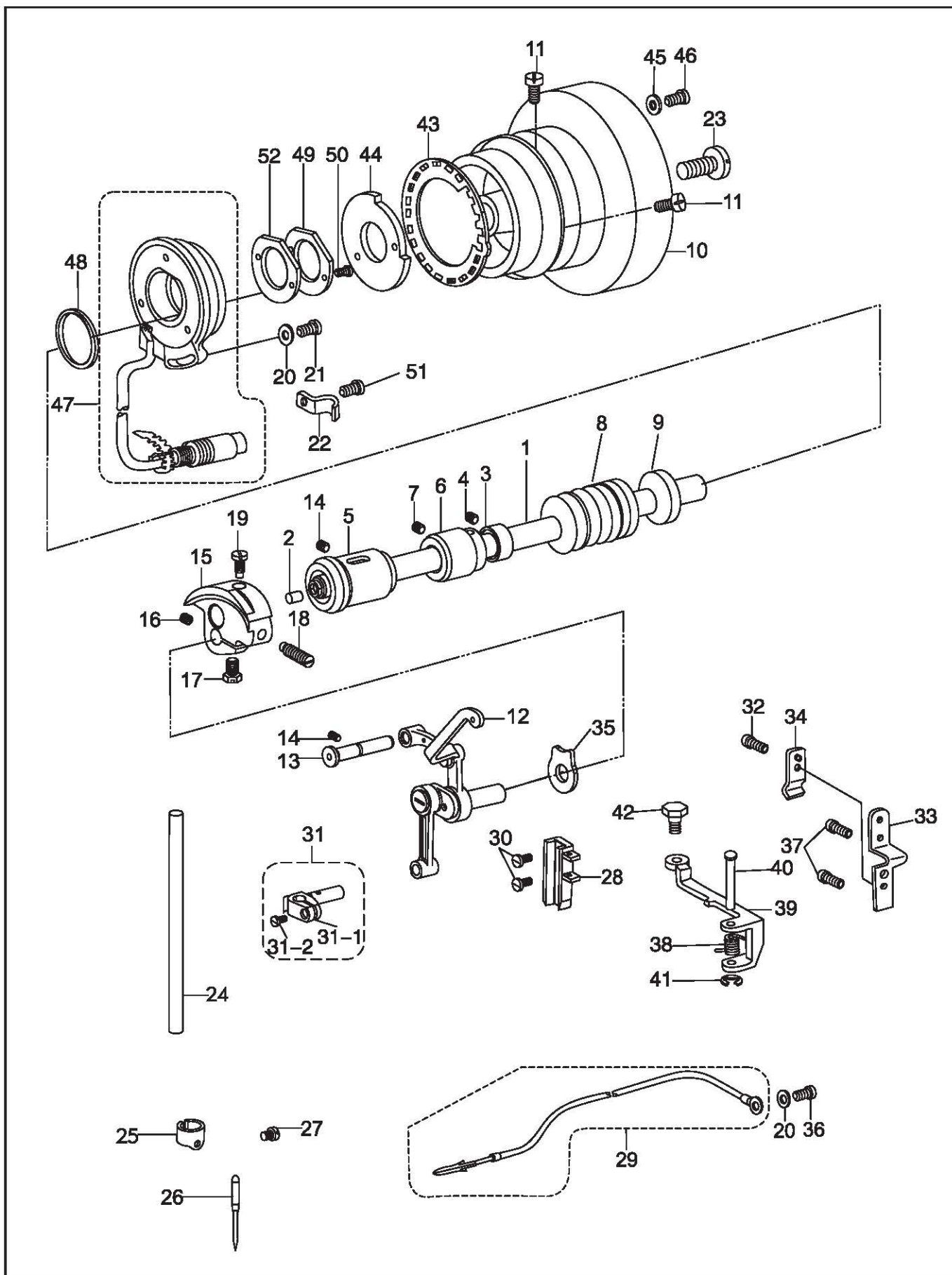
## 1. Casting mechanism



## 1. Casting Mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1001	Face plate	1	
2	100-1002	Screw	2	
3	100-1003	Thread guide	1	
4	100-1004	Thread guide	1	
5	100-1005	Screw	3	
6	100-1006	Thread guide assy.	1	
6-1	100-1007	Thread guide	1	
6-2	100-1008	Pre-tension stud	1	
6-3	100-1009	Tension disc	2	
6-4	100-1010	Tension spring	1	
6-5	100-1011	Adjusting screw	1	
7	100-1012	Set screw	1	
8	100-1013	Thread guide	1	
9	100-1014	Thread tension bracket assy.	1	
9-1	100-1015	Tension stud	1	
9-2	100-1016	Tension nut	1	
9-3	100-1017	Tension spring	1	
9-4	100-1018	Disc presser	1	
9-5	100-1019	Disc, tension	2	
9-6	100-1020	Thread take-up spring	1	
9-7	100-1021	Thread tension bracket	1	
9-8	100-1022	Set screw	1	
9-10	100-1023	Stopper	1	
9-11	100-1024	O ring	1	
10	100-1025	Set screw	1	
11	100-1026	Cover	1	
12	100-1027	Screw	1	
13	100-1028	Thread retainer	1	
14	100-1029	Screw	1	
15	100-1030	Tension release pin	1	
16	100-1031	Tension release stud	1	
17	100-1032	Rubber plug	1	
18	100-1033	Ruler plate	1	
19	100-1034	Screw	2	
20	100-1035	Bed leg	4	
21	500-1036	Washer, spring	4	GB93 6
22	500-1037	Arm	1	
23	500-1038	Bed	1	
24	500-1039	Slide plate assy.	1	
24-1	100-1040	Slide plate	1	
24-2	100-1041	Spring plate	1	
24-3	100-1042	Screw	2	
25	100-1043	Needle plate	1	
26	100-1044	Screw	2	

## 2. Needle bar and thread take-up mechanism

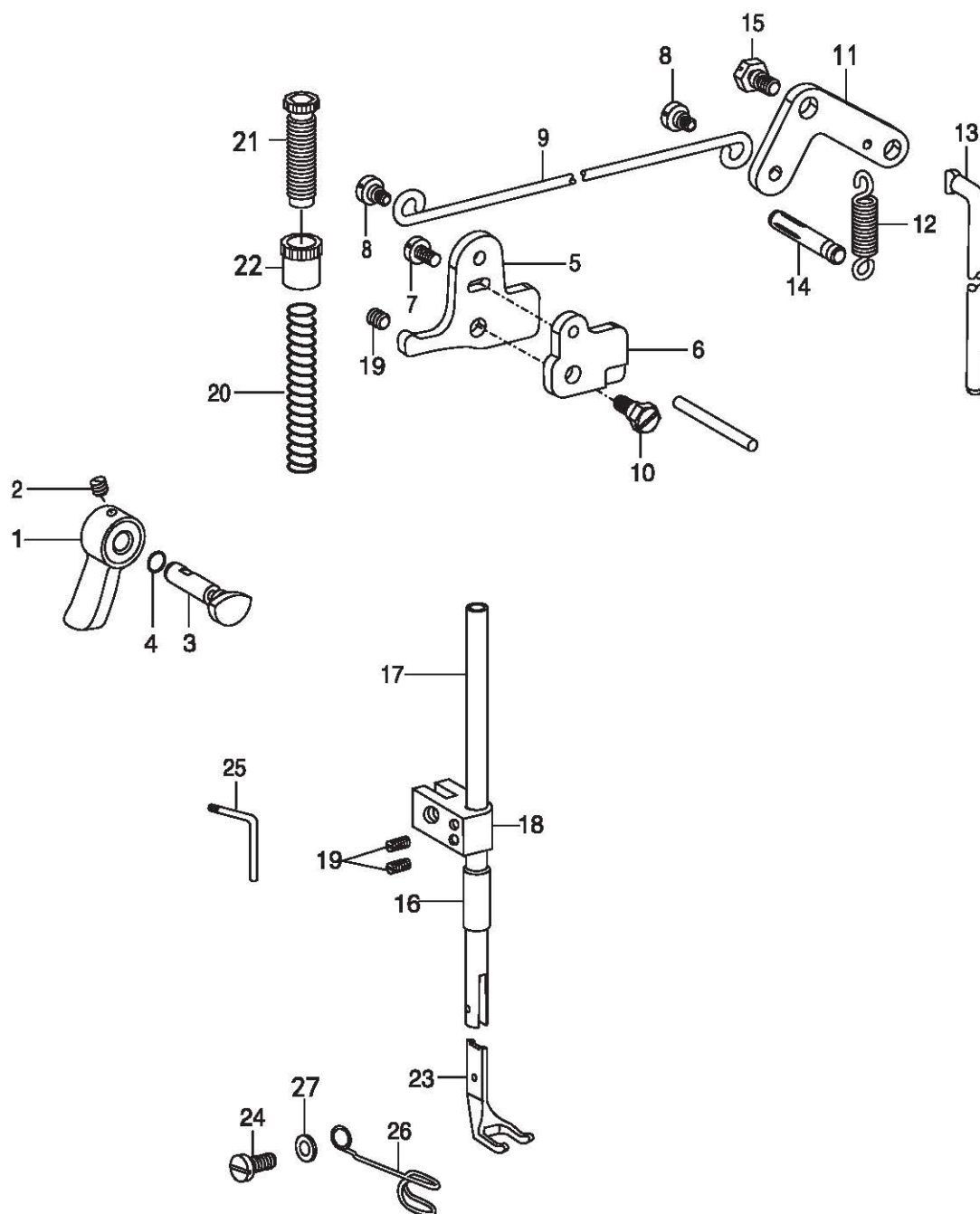


## 2. Needle bar and thread take-up mechanism

Line	Part Number	Description	Qt.	Notes
1	500-2001	Upper shaft	1	
2	100-1056	Robber cap	1	
3	100-1057	Collar	1	
4	400-1105	Screw	2	
5	100-1058	Bush, L	1	
6	100-1059	Bush, M	1	
7	100-1060	Set screw	1	
8	500-2008	Bush, R	1	
9	500-2009	Oil seal	1	
10	500-2010	Hand wheel	1	
11	500-2011	Screw	2	
12	100-1065	Thread take-up lever set	1	
13	100-1066	Support shaft	1	
14	100-1067	Set screw	2	
15	100-1068	Thread take-up crank	1	
16	100-1069	Screw	1	
17	400-1203	Screw	1	
18	100-1070	Screw	1	
19	100-1071	Screw	1	
20	500-2020	Washer	2	
21	400-1015	Screw	1	
22	700-1449	Wire clamp	1	
23	500-2023	Screw	1	
24	100-1076	Needle bar	1	
25	100-1077	Thread guide	1	
26	100-1078	Needle	1	135X17#23
27	200-1166	Set screw	1	
28	500-2028	Guide	1	
29	500-2029	Earth wire	1	
30	100-1123	Screw	2	
31	100-1079	Needle bar clamp assy.	1	
31-1	100-1080	Needle bar clamp	1	
31-2	100-1081	Set screw	1	
32	500-2034	Screw	1	
33	500-2035	Wire holder, U	1	
34	500-2036	Wire holder, D	1	
35	100-1082	Washer	1	
36	400-1214	Screw	1	
37	500-2039	Screw	2	
38	500-2040	Screw	1	
39	500-2041	Tension release plate	1	GB896 2
40	500-2042	Tension release pin	1	
41	500-2043	Retaining ring	1	
42	500-2044	Screw	1	
43	500-2045	Speed command plate	1	
44	500-2046	Plate, needle upper stop	1	
45	500-2047	Washer	2	
46	500-2048	Screw	2	
47	500-2049	Synchronizer	1	
48	500-2050	Packing, synchronizer	1	
49	500-2051	Support, synchronizer	1	
50	500-2052	Screw	2	
51	700-1448	Screw	1	
52	500-2054	Support packing, synchronizer	1	



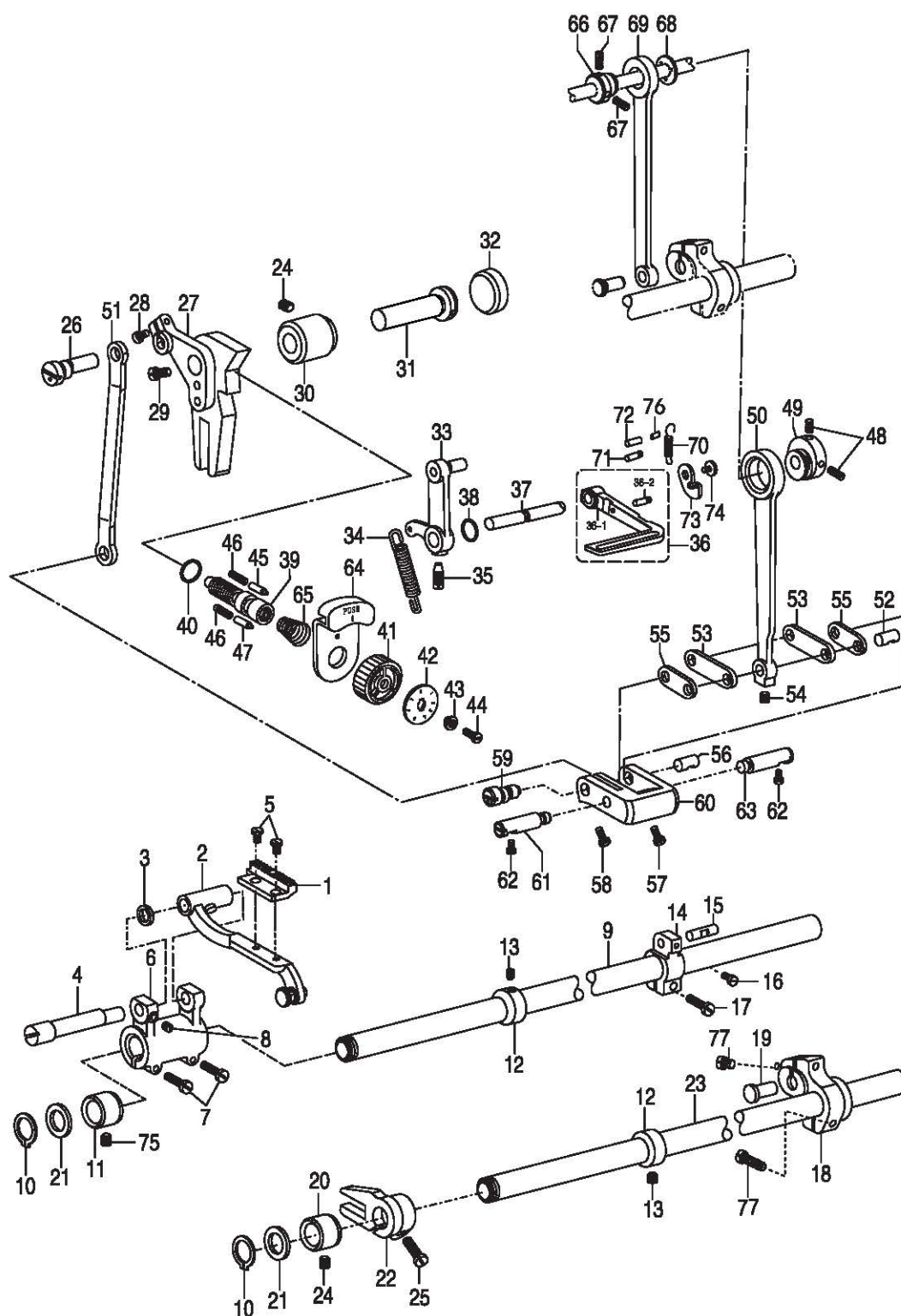
### 3. Presser foot mechanism



### 3. Presser foot mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1090	Presser bar lifter	1	GB3452.1 4.5X1.8G
2	100-1091	Screw	1	
3	100-1092	Lifter crank	1	
4	100-1093	O ring	1	
5	100-1094	Lifter lever	1	
6	500-3006	Guide plate	1	
7	100-1096	Screw	1	
8	100-1097	Screw	2	
9	100-1098	Collecting rod	1	
10	100-1099	Screw	1	
11	100-1100	Lever	1	
12	100-1101	Spring, extension	1	
13	100-1102	Knee lifter bar	1	
14	100-1103	Spring hook	1	
15	100-1104	Shoulder screw	1	
16	100-1105	Bush	1	
17	500-3017	Presser bar	1	
18	100-1107	Guide bracket	1	
19	100-1060	Screw	2	
20	100-1108	Spring, compression	1	
21	100-1109	Adjusting screw, presser	1	
22	100-1110	Adjusting nut, presser	1	
23	100-1111	Presser foot	1	
24	700-1042	Screw	1	
25	100-1113	Thread guide	1	
26	100-1114	Finger guard	1	103940
27	100-1115	Washer	1	103680

## 4. Feed mechanism



## 4. Feed mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1116	Feed dog	1	
2	100-1117	Feed bar	1	
3	100-1118	Washer	1	
4	100-1119	Shaft	1	
5	100-1120	Screw	2	
6	100-1121	Feed rock arm	1	GB894.1 15
7	100-1122	Screw	2	
8	100-1123	Screw	1	
9	500-4009	Feed shaft	1	
10	100-1125	Retaining ring	2	
11	500-4011	Bush, L	1	
12	100-1057	Collar	2	
13	400-1105	Set screw	4	
14	100-1127	Feed rocker arm	1	
15	100-1128	Stud	1	
16	100-1129	Set screw	1	
17	400-1027	Screw	1	
18	100-1130	Feed lifting arm	1	
19	100-1131	Pin	1	
20	500-4020	Bush, L	1	
21	100-1133	Washer	2	
22	100-1134	Feed lifting arm	1	
23	500-4023	Shaft	2	
24	100-1120	Screw	2	
25	400-1027	Screw	1	
26	100-1136	Connecting stud	1	
27	100-1137	Feed regulator	1	
28	100-1138	Screw, L	1	
29	100-1139	Screw, S	1	
30	500-4030	Bush	1	
31	100-1141	Shaft	1	
32	500-4032	Rubber cap	1	
33	100-1143	Pin assy. Lever	1	
34	100-1144	Spring, extension	1	
35	100-1145	Screw	1	
36	100-1146	Reverse stitching lever assy.	1	6.3X1.8G GB3452.1-92
36-1	100-1147	Reverse stitching lever	1	
36-2	100-1148	Spring hook pin	1	
37	100-1149	Shaft	1	
38	100-1150	O ring	1	
39	100-1151	Adjusting screw	1	14X2.4
40	100-1152	O ring	1	
41	100-1153	Stitch length dial	1	
42	100-1154	Stitch length plate	1	
43	100-1155	Support bush	1	



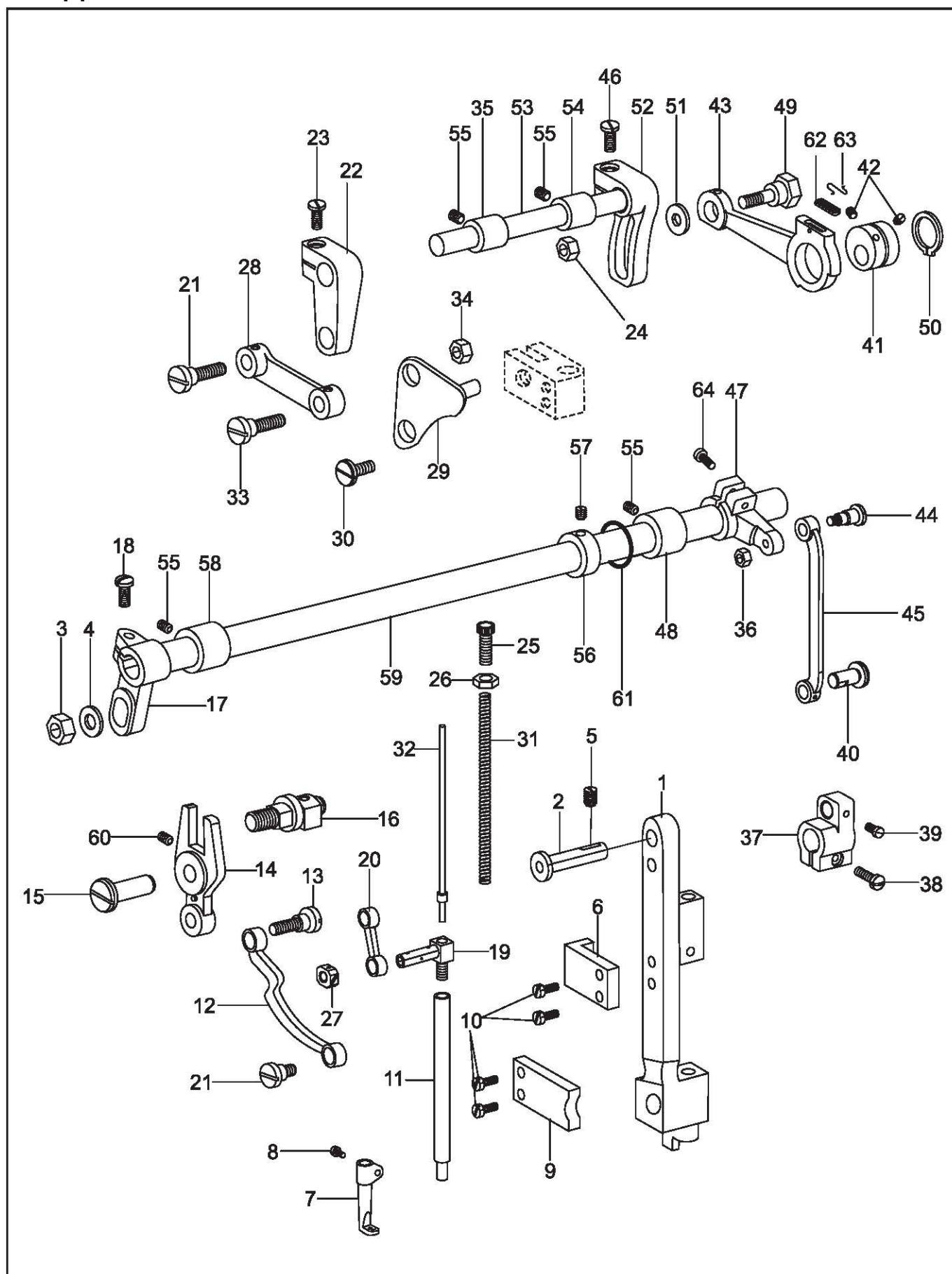
This diagram is an exploded view of a mechanical assembly, likely a vehicle's suspension or steering component. It shows various parts numbered 1 through 77, arranged in a way that illustrates their relative positions and how they fit together. The components include:

- Upper Assembly (Top Right):** Features a vertical rod (66) with a nut (67) and a washer (68). A bracket (69) is attached to the rod.
- Central Assembly (Middle):** Includes a main vertical rod (50) with a nut (49) and a washer (48). A bracket (53) is attached to the rod. A spring (34) is shown in the center.
- Lower Assembly (Bottom):** Features a main vertical rod (12) with a nut (13) and a washer (14). A bracket (15) is attached to the rod. A spring (20) is shown at the bottom.
- Other Components:** Various bolts (e.g., 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77), washers (e.g., 10, 21, 24, 25, 30, 31, 32, 40, 41, 42, 43, 44, 45, 46, 47, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77), and other small parts (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 16, 17, 18, 19, 20, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77).

#### 4. Feed mechanism

Line	Part Number	Description	Qt.	Notes
44	100-1156	Screw	1	
45	100-1157	Positioning pin	1	
46	100-1158	Spring	2	
47	100-1159	Stopper pin	1	
48	100-1160	Set screw	3	
49	100-1161	Feed cam	1	
50	100-1162	Feed connecting rod	1	
51	100-1163	Connecting rod	1	
52	100-1164	Stud	1	
53	100-1165	Link	2	
54	100-1129	Set screw	1	
55	100-1166	Link	2	
56	100-1167	Shaft	1	
57	100-1168	Screw	1	
58	100-1169	Screw	1	
59	100-1170	Shaft	1	
60	100-1171	Feed regulator crank	1	
61	100-1172	Pin shaft, L	1	
62	400-1027	Screw	2	
63	100-1173	Pin shaft, R	1	
64	100-1174	Stopper	1	
65	100-1175	Spring	1	
66	100-1176	Eccentric wheel	1	
67	100-1160	Screw	3	
68	100-1177	Holder	1	
69	100-1178	Feed lifting rod	1	
70	100-1179	Spring	1	
71	100-1180	Spring hook	1	
72	100-1181	Pin	1	
73	100-1182	Plate	1	
74	100-1183	Screw	1	
75	100-1184	Screw	1	
76	100-1185	Pin shaft	1	
77	100-1186	Screw	1	

## 5. Upper feed mechanism

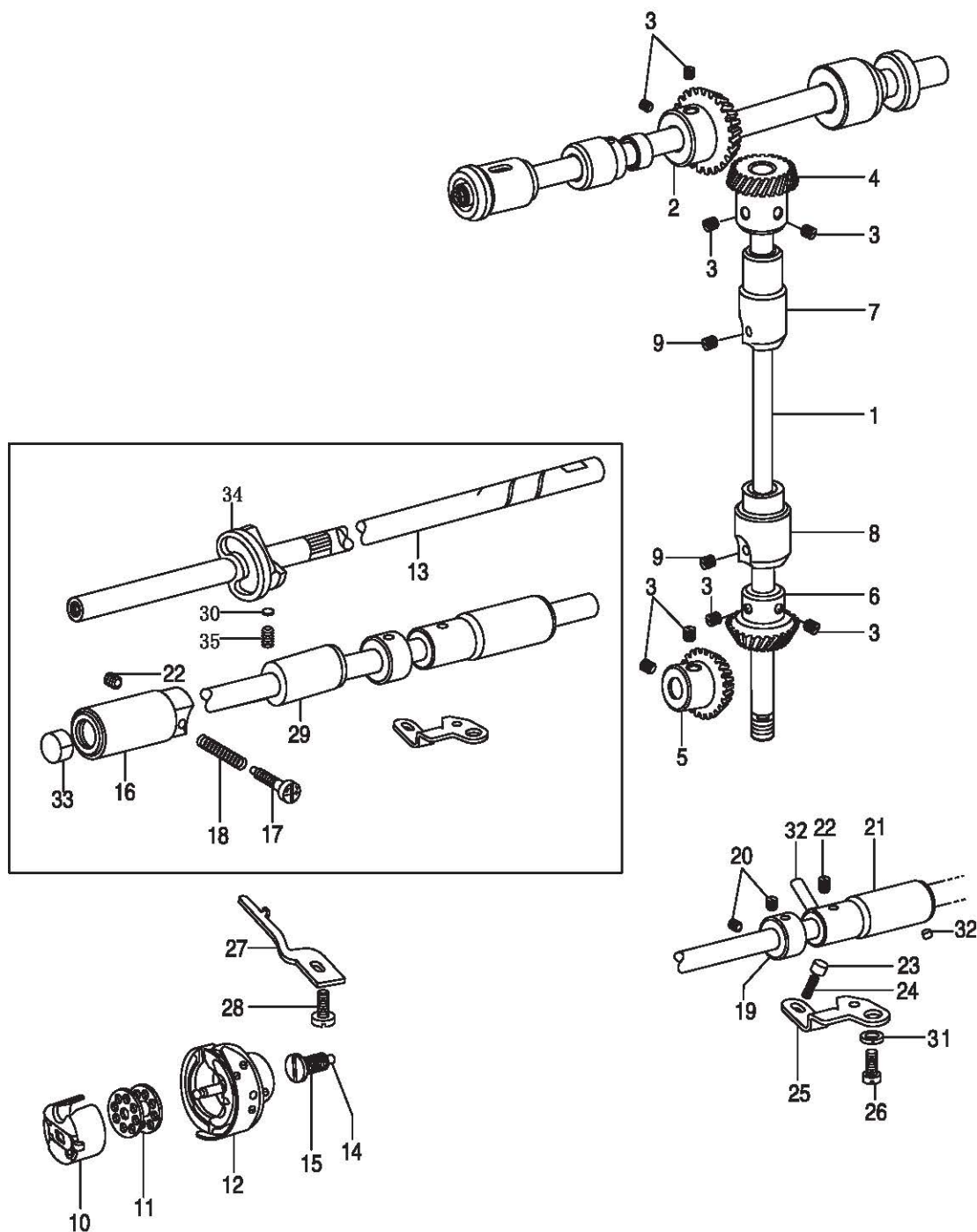


## 5. Upper feed mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1187	Needle bar rocking frame	1	GB/T95 6
2	100-1188	Shaft, n/b rocking frame	1	
3	100-1189	Nut	1	
4	100-1190	Washer	1	
5	100-1060	Screw	1	
6	100-1191	Guider	1	
7	100-1192	Walking foot	1	
8	100-1027	Screw	1	
9	100-1193	block	1	
10	100-1123	Screw	4	
11	100-1194	Presser bar, walking foot	1	
12	100-1195	Link	1	
13	100-1196	Screw	1	
14	100-1197	Crank	1	
15	100-1198	Pin shaft	1	
16	100-1199	Stud shaft assy.	1	
17	100-1200	Feed rocking arm crank, L	1	
18	100-1201	Screw	2	
19	100-1202	Connector	1	
20	100-1203	Link	1	
21	100-1204	Screw	2	
22	100-1205	Feed lifting arm crank, L	1	
23	100-1206	Screw	1	
24	100-1207	Nut	1	
25	100-1208	Screw	1	
26	100-1209	Nut	1	
27	100-1210	Block	1	
28	100-1211	Link	1	
29	100-1212	Crank	1	
30	100-1213	Stud	1	
31	100-1214	Spring, compression	1	
32	100-1215	Guide bar	1	
33	100-1216	Screw	1	
34	100-1217	Nut	1	
35	100-1218	Bush, L	1	
36	100-1219	Nut	1	
37	100-1220	Feed rocker arm	1	
38	100-1122	Screw	1	
39	100-1129	Set screw	1	
40	100-1221	Stud	1	
41	100-1222	Eccentric wheel	1	
42	400-1203	Screw	2	
43	100-1223	Connecting rod	1	
44	100-1224	Shoulder screw	1	
45	100-1225	Connecting rod	1	
46	100-1226	Shoulder screw	1	GB894.1 25
47	100-1227	Feed rocking arm crank, R	1	
48	100-1228	Bush, M	1	
49	100-1229	Screw	1	
50	100-1230	Retaining ring, C	1	
51	100-1231	Washer	1	
52	100-1232	Feed arm	1	
53	100-1233	Feed lifting shift	1	
54	100-1234	Bush, R	1	
55	100-1235	Screw	3	
56	100-1057	Collar	1	
57	400-1105	Screw	2	
58	100-1236	Bush, L	1	
59	100-1237	Upper feed shift	1	
60	100-1238	Screw	1	
61	100-1239	O ring	1	
62	100-1240	Oil felt	1	
63	100-1241	Spring	1	
64	100-1242	Screw	1	



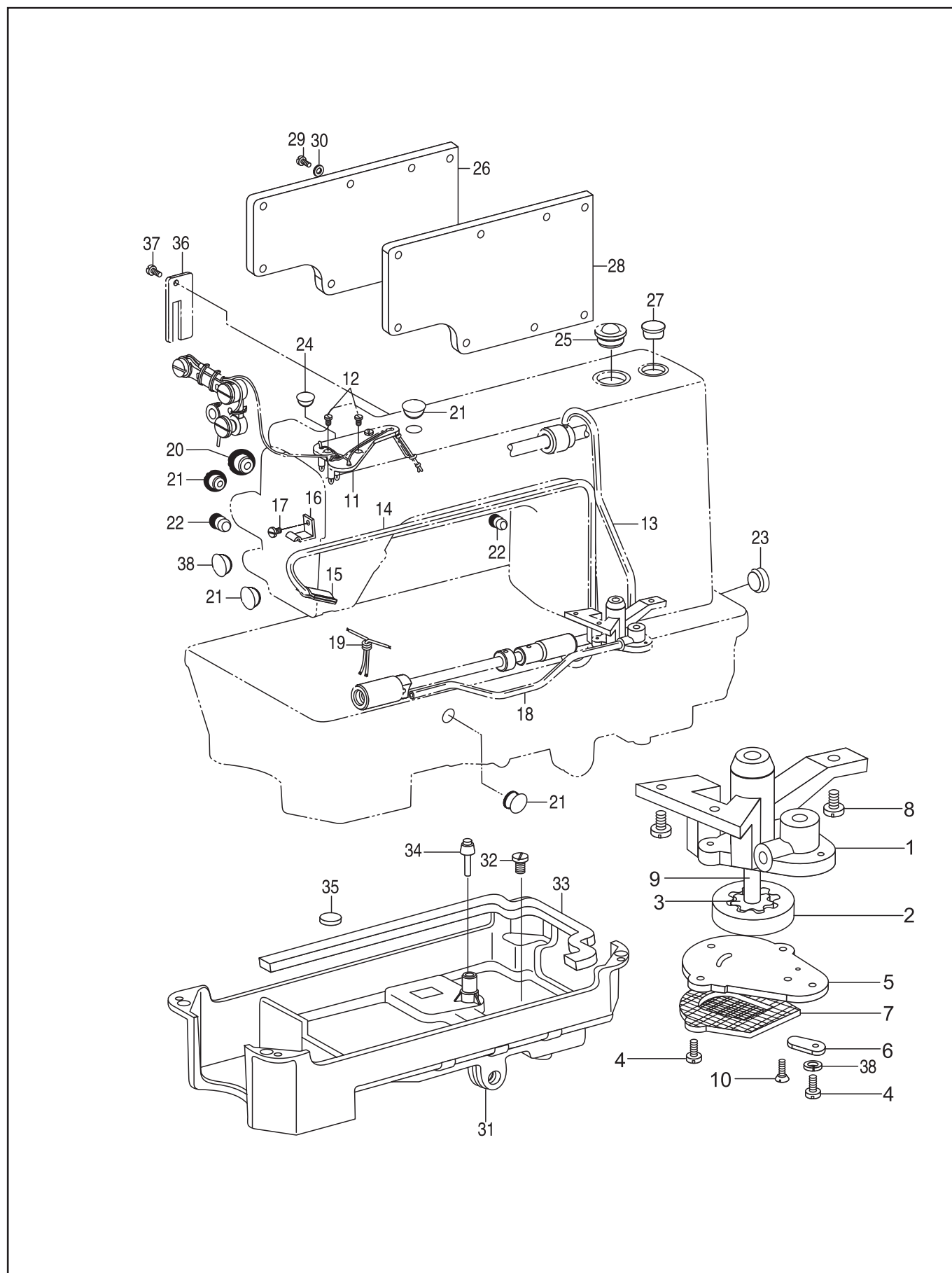
## 6. Hook mechanism



## 6. Hook mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1243	Vertical shaft	1	
2	100-1244	Bevel gear, upper shaft	1	
3	400-1203	Set screw	8	
4	100-1245	Bevelgear, vertical shaft, U	1	
5	100-1246	Bevel gear, lower shaft	1	
6	100-1247	Bevel gear, vertical shaft, L	1	
7	100-1248	Bush, vertical shaft, U	1	
8	100-1249	Bush, vertical shaft, L	1	
9	100-1060	Screw	2	
10	500-6010	Bobbin case	1	
11	100-1251	Bobbin	1	
12	500-6012	Hook assy.	1	
13	500-6013	Lower shaft	1	
14	100-1254	Filter	1	
15	100-1255	Screw	1	
16	500-6016	Bush, lower shaft, L	1	
17	100-1257	Adjusting screw, oil	1	
18	100-1258	Adjusting spring	1	
19	100-1259	Collar	1	
20	100-1184	Screw	2	
21	500-6021	Bush, lower shaft, R	1	
22	100-1067	Screw	2	
23	100-1261	Plunger	1	
24	100-1262	Spring	1	
25	100-1263	Holder plate	1	
26	100-1264	Screw	1	
27	100-1265	B/case holder position bracket	1	
28	100-1266	Screw	1	
29	500-6029	Bush, lower shaft, M	1	
30	500-6030	Washer	2	
31	500-1036	Washer	1	GB93 6
32	100-1268	Oil tube	1	
33	500-6033	Oil seal	1	
34	500-6034	Thread trimming drive cam	1	
35	500-6035	Screw	2	

## 7. Lubrication mechanism

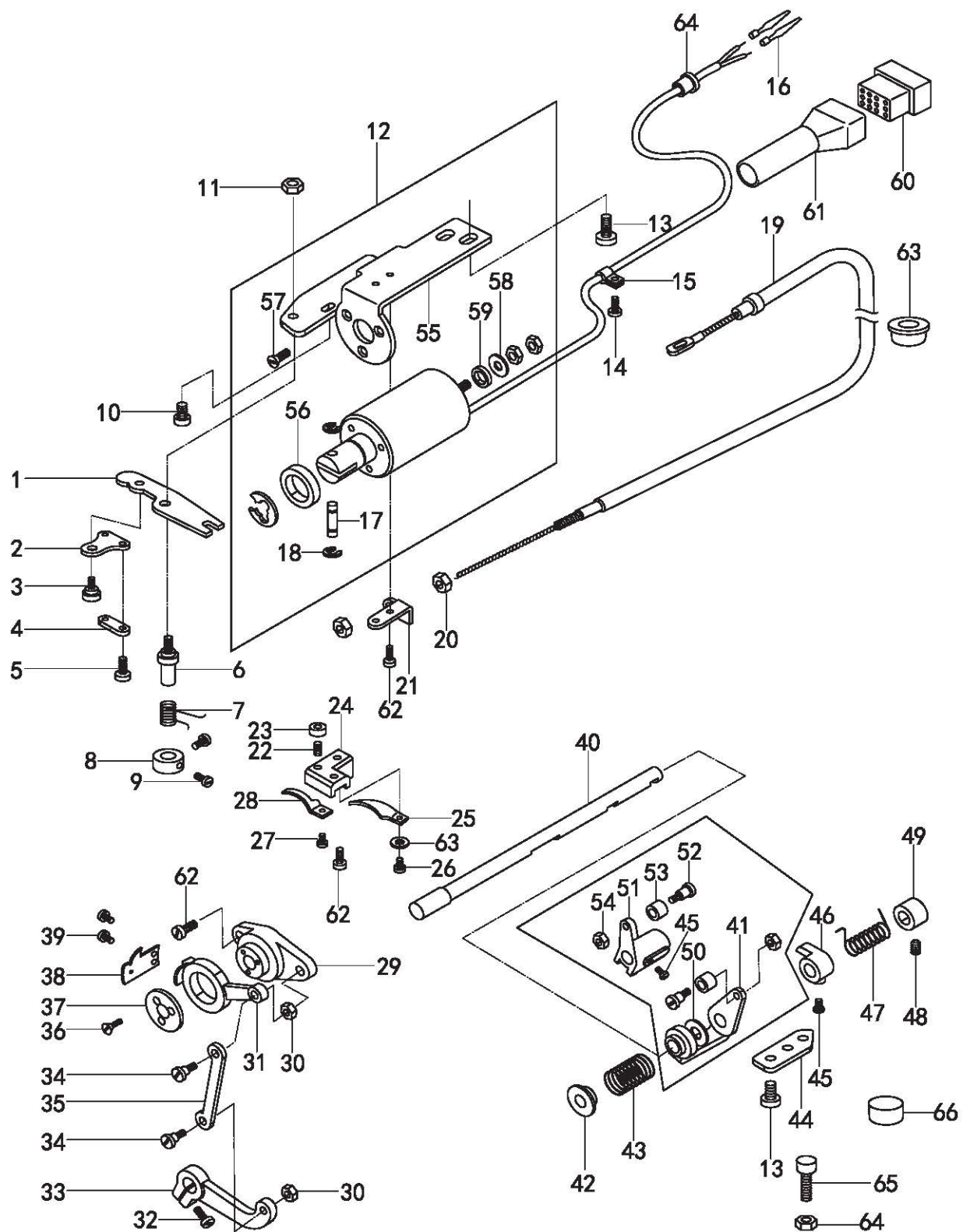


## 7. Lubrication mechanism

Line	Part Number	Description	Qt.	Notes
1	100-1270	Pump body	1	GB/T67 M3x10
2	100-1271	Big gear, pump	1	
3	100-1272	Small gear, pump	1	
4	100-1273	Screw	3	
5	100-1274	Cover	1	
6	100-1275	Throat plate	1	GB/T68 M3x10
7	100-1276	Filter set	1	
8	100-1277	Screw	3	
9	100-1278	Shaft	1	
10	100-1279	Screw	2	
11	100-1280	Setting plate	1	
12	100-1112	Screw	2	
13	100-1281	Oil tube, U	1	
14	500-7014	Tube assy.	1	
15	500-7015	Felt	1	
16	100-1283	Tube carrier	1	
17	100-1284	Screw	1	
18	500-7018	Oil tube, L	1	
19	500-7019	Oil wick	1	
20	100-1287	Rubber cap	1	
21	100-1288	Rubber cap	4	
22	100-1289	Rubber cap	2	
23	100-1290	Rubber cap	1	
24	100-1291	Rubber cap	1	
25	100-1292	Oil gauge window	1	
26	100-1293	Back cover	1	
27	100-1294	Rubber cap	1	
28	100-1295	Packing	1	
29	100-1054	Screw	8	
30	200-1377	Washer	8	
31	500-7031	Oil pan	1	
32	200-1371	Screw	1	
33	100-1306	Packing, oil pan	1	
34	100-1307	Lifter bar, knee	1	
35	100-1308	Magnet	1	
36	100-1296	Cover, S	1	GB93 4
37	100-1297	Screw	1	
38	500-7038	Washer, spring	1	



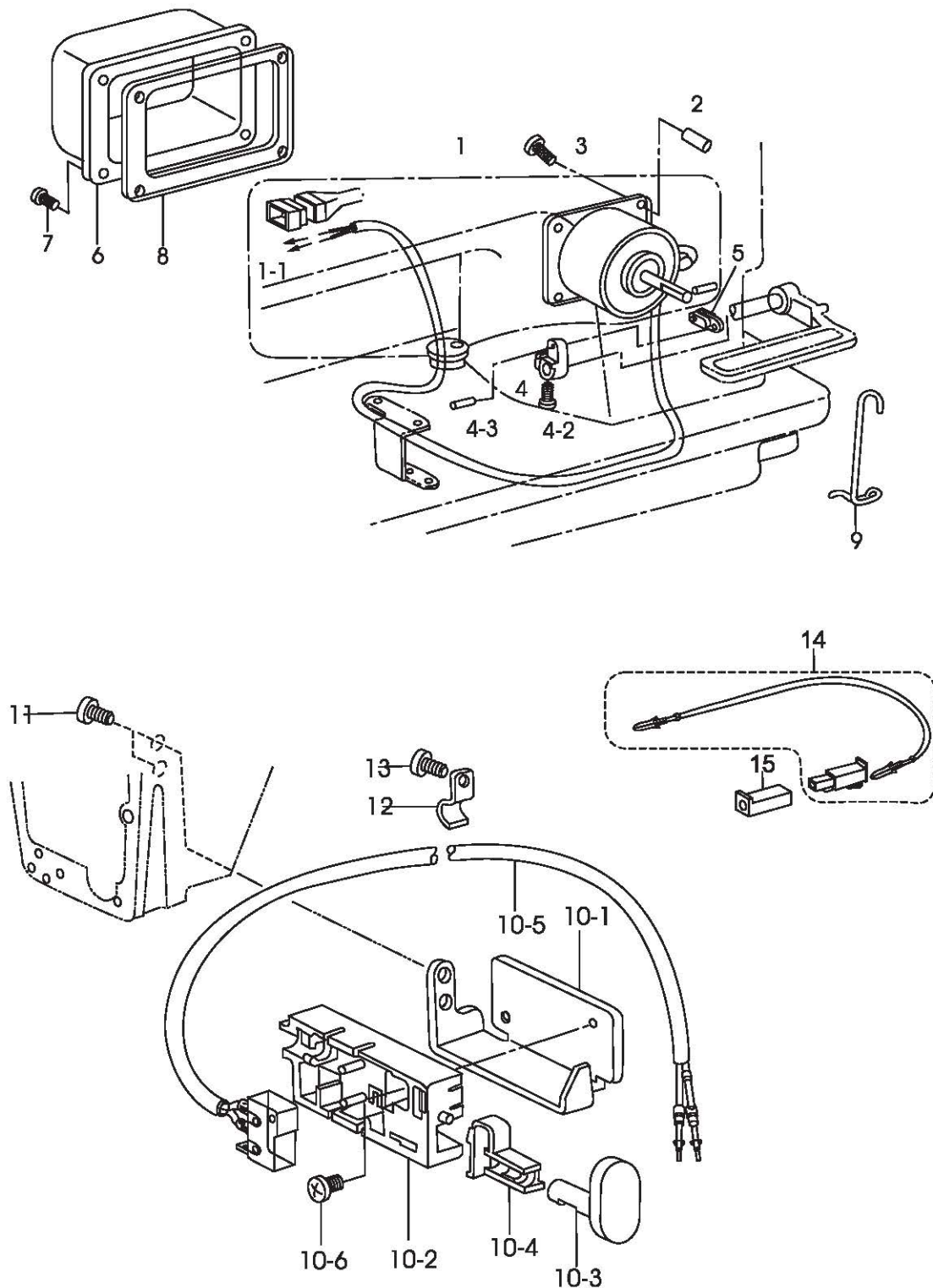
## 8. Thread trimming mechanism



## 8. Thread trimming mechanism

Line	Part Number	Description	Qt.	Notes
1	500-8001	Driven plate	1	SM11/64" X40X5
2	500-8002	Wire support	1	
3	500-8003	Screw	1	
4	500-8004	Link	1	
5	500-8005	Screw	1	
6	500-8006	Screw pin, driven plate	1	SM1/8"X44X7
7	500-8007	Spring	1	
8	500-8008	Collar	1	
9	200-1084	Screw	2	
10	100-1266	Screw	1	
11	700-1268	Nut	1	SM15/64"X28X12 SM11/64"X40X7.5
12	500-8012	Thread trimmer solenoid assy.	1	
13	500-8013	Screw	4	
14	500-8014	Screw	1	
15	500-8015	Wire holder	1	
16	500-8016	Terminal pin	2	GB896 4
17	500-8017	Pin	1	
18	500-8018	Retaining ring	2	
19	500-8019	Tension release wire	1	
20	500-8020	Nut	2	
21	500-8021	Tension release lever	1	SM9/64"X40X8.5
22	500-8022	Screw	1	
23	500-8023	Nut	1	
24	500-8024	Holder, F-knife	1	
25	500-8025	Lower thread finger	1	
26	700-1448	Screw	1	SM9/64"X40X6 SM9/64"X40X4.3
27	500-8027	Screw	1	
28	500-8028	Fixed knife	1	
29	500-8029	Holder, M-knife	1	
30	500-8030	Nut	2	
31	500-8031	Holder, M-knife, L	1	SM11/64"X40X12
32	400-1027	Screw	1	
33	500-8033	Driven crank	1	
34	500-8034	Screw	2	
35	500-8035	Link	1	
36	500-8036	Screw	3	SM1/8X44X5.2
37	500-8037	Washer	1	
38	500-8038	Movable knife	1	
39	500-8039	Screw	2	
40	500-8040	Thread trimmer cam lever shaft	1	
41	500-8041	Thread trimmer cam level, R	1	SM15/64"X28X6
42	500-8042	Collar	1	
43	500-8043	Spring	1	
44	500-8044	Stopper plate	1	
45	500-8045	Screw	3	
46	500-8046	Positioning block	1	SM1/4"X40X4
47	500-8047	Spring	1	
48	400-1105	Screw	2	
49	500-8049	Collar	1	
50	500-8050	Plastic ring	1	
51	500-8051	Thread trimmer cam level, L	1	SM3/16"X28X8.5 SM3/16"X28
52	500-8052	Screw	2	
53	500-8053	Roller	2	
54	500-8054	Nut	2	
55	500-8055	Thread trimmer solenoid base	1	
56	500-8056	Seal washer, big	1	GB/T819.2 M4X6 GB/T96.1 5
57	500-8057	Screw	3	
58	500-8058	Washer	1	
59	500-8059	Seal washer, small	1	
60	700-1442	Connector	1	
61	700-1441	Cover	1	SM11/64"X40X7.5 GB6172 M6
62	500-8014	Screw	4	
63	500-8063	Guard	1	
64	500-8064	Nut	1	
65	500-8065	Screw	1	
66	500-8066	Packing	1	

## 9. Reverse stitching mechanism

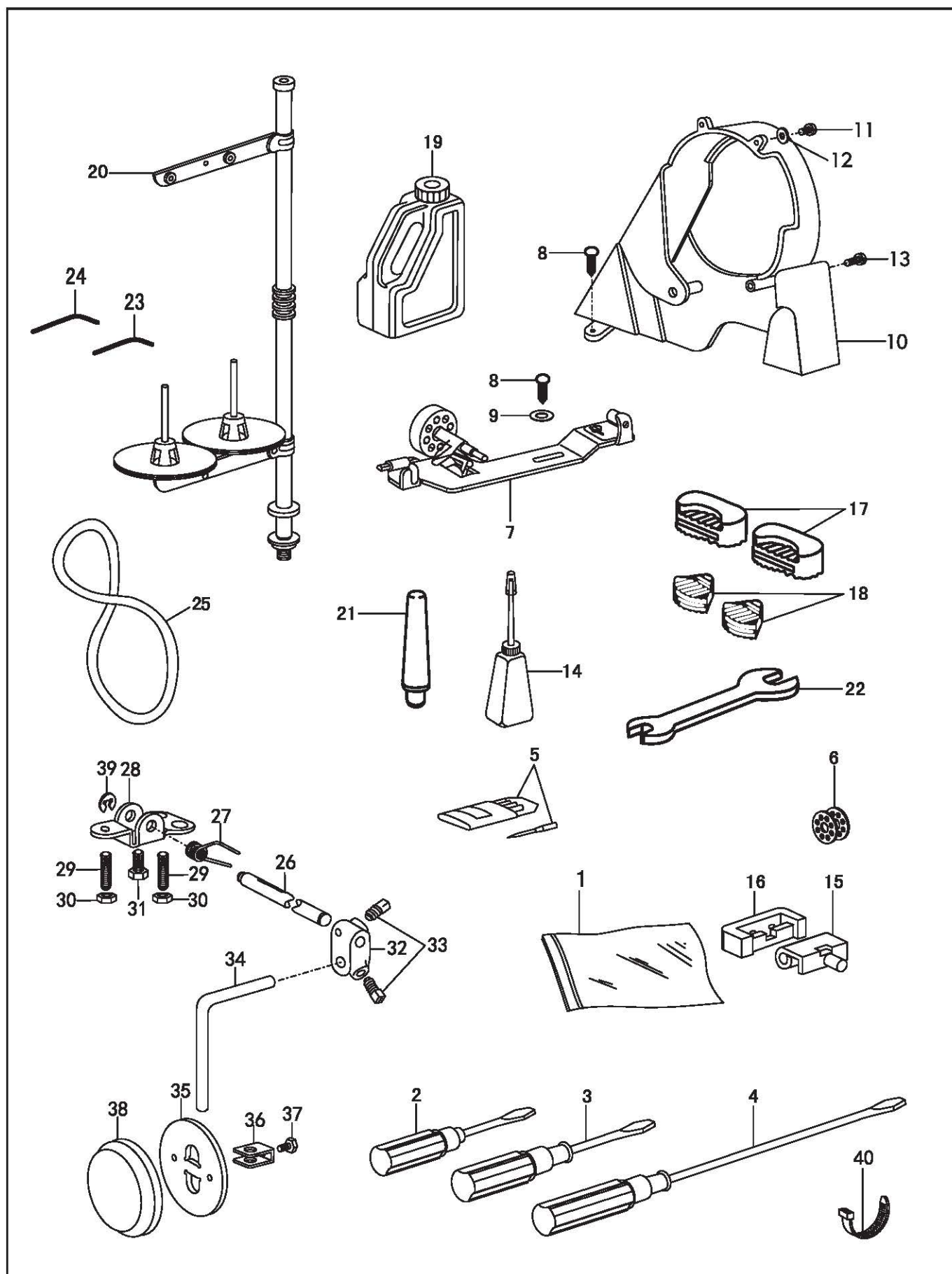


## 9. Reverse stitching mechanism

Line	Part Number	Description	Qt.	Notes
1	500-9001	Quick reverse solenoid assy.	1	
1-1	500-8016	Terminal pin	2	
2	500-9003	Space collar	4	
3	500-9004	Screw	4	
4-1	500-9005	Solenoid lever	1	
4-2	500-9006	Screw	1	
4-3	500-9007	Pin	1	
5	500-9008	Connecting lever	1	
6	500-9009	Solenoid cover	1	
7	100-1054	Screw	4	
8	500-9011	Washer	1	
9	500-9012	Cord holder	1	
10-1	500-9013	Support	1	
10-2	500-9014	Base	1	
10-3	500-9015	Actuator	1	
10-4	500-9016	Spring, R-switch	1	
10-5	500-9017	Reverse switch assy.	1	
10-6	500-9018	Screw	1	GB/T818 M3x6
11	400-1290	Screw	2	
12	700-1449	Cord holder	3	
16	700-1448	Screw	3	
14	500-9022	Wire, reverse solenoid	1	
15	500-9022	Connector	1	



## 10. Accessories



## 10. Accessories

Line	Part Number	Description	Qt.	Notes
1	100-1299	Accessory bag	1	135X17#23
2	100-1300	Screw driver, S	1	
3	100-1301	Screw driver, M	1	
4	100-1302	Screw driver, L	1	
5	100-1078	Needle	4	
6	100-1251	Bobbin	3	GB5282 ST4.8x19 GB/T95 6 φ14
7	200-1369	Bobbin thread winder assy.	1	
8	500-1108	Screw	4	
9	500-1109	Washer	2	
10	500-1110	Belt guard assy.	1	
11	500-1111	Screw	2	GB/T67 M4x8 GB/T97.1 4 GB/T67 M5x12
12	500-1112	Washer	2	
13	500-1113	Screw	2	
14	100-1309	Oil pot	1	
15	100-1310	Head hinge	2	
16	100-1311	Cushion, head hinge	2	
17	100-1312	Head cushion, L	2	
18	100-1313	Head cushion, S	2	
19	100-1314	Oil tank	1	
20	100-1315	Thread stand assy.	1	
21	100-1316	Head rest	1	2 GB/T5356-1998 3 GB/T5356-1998 M41
22	500-1122	Wrench	1	
23	100-1318	Wrench, 2mm	1	
24	100-1319	Wrench, 3mm	1	
25	500-1125	V-belt	1	
26	100-1321	Lifter shaft	1	
27	100-1322	Spring	1	
28	100-1323	Bracket	1	
29	100-1324	Adjusting screw	2	
30	100-1325	Adjusting nut	2	
31	100-1326	Screw	1	GB/T5781 M8x12 M8x20
32	100-1327	Bracket	1	
33	100-1329	Screw	1	
34	100-1330	Lifter bar	1	
35	100-1331	Knee lifter plate	1	
36	100-1332	Stopper	1	GB896 9 3x120
37	100-1333	Screw	1	
38	500-1138	Cover, K-lifter plate	1	
39	100-1334	Retaining ring	1	
40	100-1303	Wire clamp	3	