CONSEW

OPERATING INSTRUCTIONS, PARTS LIST MAINTENANCE PROCEDURES CONSOLIDATED SEWING MACHINE CORP.

Model 733R-5

EXTRA HEAVY DUTY LONG ARM SINGLE NEEDLE DROP FEED ALTERNATING PRESSER FEET LOCKSTITCH MACHINE

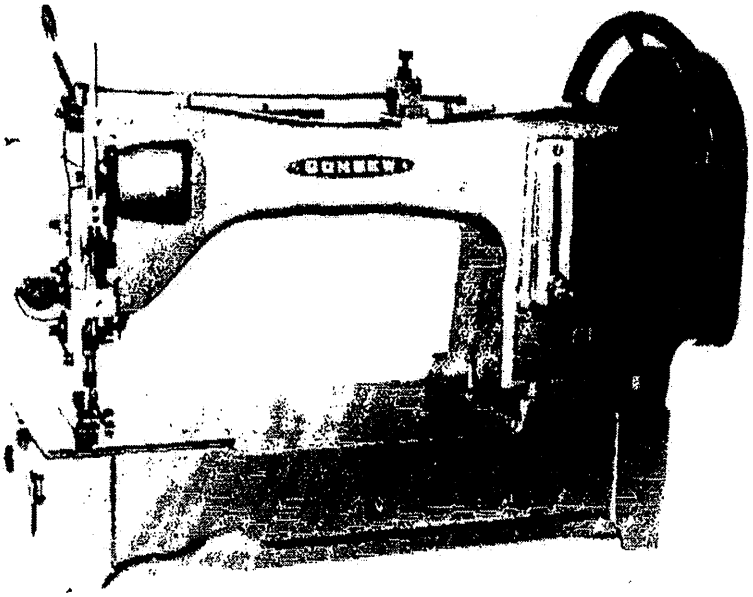
1NTRODUCTION—CONSEWMODEL 733R-5

Consew Model 733R-5 is a single needle,flatbed,type 301 stitch,reverse feed,industrial sewing machine used is the fabrication and repair of aerial delivery equipment.
Consew Model 733R-5 is capable of sewing fabrics that range from heavy cotton and nylon duck to multiple layers of heavy webbing.
Consew Model 733R-5 is able to fabricate and install personnel—,cargo—and extraction—parachutes,bridle loops,locking stow loops,harnesses and multiple layer heavy webbing splices.

Preventive Maintenance

Machines should be kept covered when not in operation to prevent dust and dirt accumulation which,when allowed to build up,mixes with oil and becomes caked on the machine.
After use, sewing machines should be wiped down with oil and a soft cloth before covering.
Once a week the inside of the machine and the motor should be blown out with shop air if available.If shop air is not available, clean with a soft bristle brush.
CAUTION: USE EYE PROTECTION WHEN USING SHOP AIR.
Once a year the machine should be cleaned with a solvent such as Freon, then immediately oiled thoroughly to prevent rust and corrosion.
CAUTION: ENSURE GOOD VENTILATION WHEN USING SOLVENTS.
When the machines are in constant use they should be oiled at least twice daily.
Using the proper oil is of utmost importance. For lubrication of the machine,only good quality sewing machine oil shoud be used.
a.Oiling points are shown in figures 10 and 11.
b.Use one drop at each oiling point.

SECTION I1 OPERATING INSTRUCTIONS AND MAINTENANCE PROCEDURES



Characteristics and Capacity

The CONSEW Model 733R-5 singleneedle,extra heavy duty lockstitch machine is designed for sewing canvas,tents,sails,harnesses,safety belts,webbing and similar products.

It is equipped with alternating pressers,drop feed and a long-beak oscillating shuttle on a horizontal axis.It has a cleance of 25.4mm(1 ″)under the presser foot. Clearance,on bed,at right of needle is 413mm(16 1/4″)and length of bcd 655mm(25-3/4″)

The machine is equipped with a stitching reverse lever which also regulates stitches in length from 3 to 13mm(2 to 8 stitches per inch).

Alternating pressers consist of a vibrating presser foot and a lifting presser foot working in combination.In operation,the pressers alternately press down on the material,the vibrating presser working in unison with the feed,so that there is no slipping of the two or more plies of material which are being sewn.Additional features include pedal operated presser foot lift and reverse.The maximum operating speed is 550 stitches per minute.The balance wheel always rotates towards the operator.

THREAD AND NEEDLE SELECTION

THREAD

Left twist thread should be used in the needle. For the bobbin,either right twist or left twist can be used.

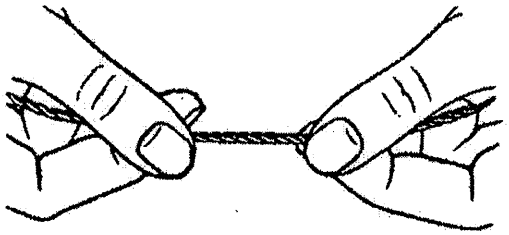


Fig.1 How to determine the twist

Hold the thread as shown in Fig.1 .Turn the thread over toward you between the thumb and forefinger of the right hand.If left twist,the strands will wing tighter.If right twist, the strands will unravel.

NEEDLE

Needles recommended for Consew machine Model 733R-5 are as follows;

For Cloth

Schmetz—1000 Series available in sizes 230,250,280,and 300

Schmetz—1000H Series available in sizes 160,200,230, 250,280,300,330

For Leather(Special orders only)

Schmetz - J.003D Series,triangular point,available in sizes 230,250,280
Schnietz - 1000DB1 Series - wide diamond point available in sizes 280
Schmetz - 1000LL Series,narrow twist point,available in sizes 250,280
Schmetz - J.000LR Series,narrow reverse twist point,available in sizes 300
Schmetz 1000.Q Series,square point,available in sizes 280,300
The size of the needle to be used depends upon the size of the thread which must pass freely through the eye of the needle.
Do not use rough or uneven thread or thread which passes with difficulty through the needle eye,as such thread will interfere with the successful use of the machine.

TO REMOVE THE BOBBIN

Rotate the balance wheel bringing the needle bar to its lowest position.Then with the curved part of the shuttle cylinder opener t35225,which should conform to the curve of the should,as shown in Fig.2,insert the small end of the shuttle cylinder opener into Slot A in the spring latch under the shuttle cylinder(Fig.2).

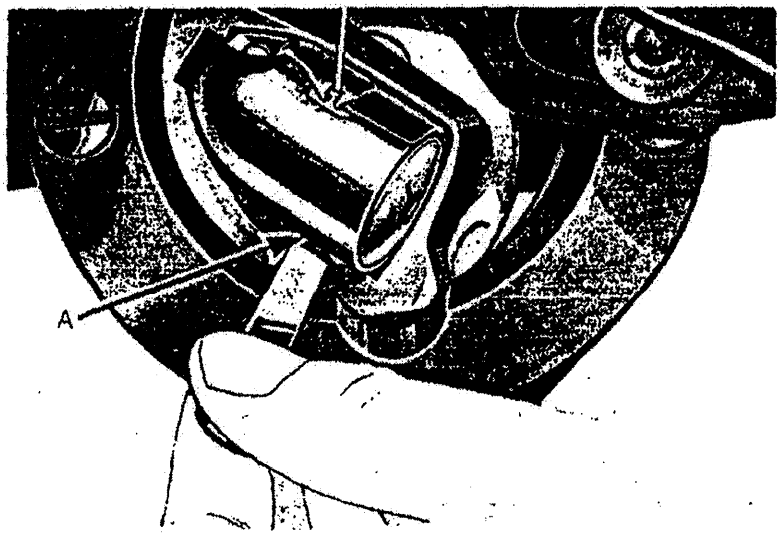


Fig.2 use of Shuttle Cylinder Opener(35225)

4. WINDING BOBBINS

The bobbin winder is mounted on the table top as shown in Fig.3 with its pulley in front of the driving belt so that the pulley will separate from the belt after the bobbin has been wound with sufficient thread.

Push the bobbin on the bobbin spindle (1,Fig.3) as far as it will go.Pass the thread from thread stand downward through the eye in the tension bracket.Then between and around the back of the tension discs,bring the thread forward toward the bobbin and wind from below in clockwise direction several times around the bobbin.Push bobbin winder lever (3,Fig.3)downward until the wheel(2,Fig.3)contacts the drive belt and start the machine.

After bobbin is filled with thread,release will cause the wheel to disengage from the belt and winding will stop.

Cut the thread and remove the bobbin from the bobbin spindle.

The adjustment screw(5,Fig.3)can be turned in or out to increase or decrease the amount of the thread wound on the bobbin.

When fine thread is wound on bobbins,use light tension.It is regulated by turning the knurled nut(6,Fig.3)on the tension bracket at the rear of the bobbin winder.

Bobbin can be wound while the machine is sewing.

If the thread does not wind evenly on bobbins,loosen the screw(4,Fig.3)and move the bracket to the right or left as required,then tighten the screw.

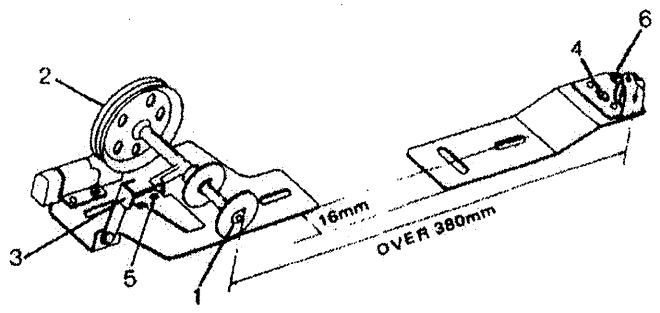


Fig.3,winding Bobbins

5.TO REPLACE THE BOBBIN AND THREAD THE SHUTTLE

Hold the bobbin between the thumb and index finger of the left hand,at the sane time the thread is drawing off from the underside toward the right as shown in Fig.4.Place the bobbin in the cylinder as far as it will go,draw the thread in the slot B,Fig.4 in the cylinder and under the tension spring,then into the delivery eye A.Fig.4,then push the cylinder back until it is locked by the spring latch,and allow about 3 inches of thread to hang free from the shuttle Fig.5 so that it can be drawn up through the throat plate,as noted in Fig.8.

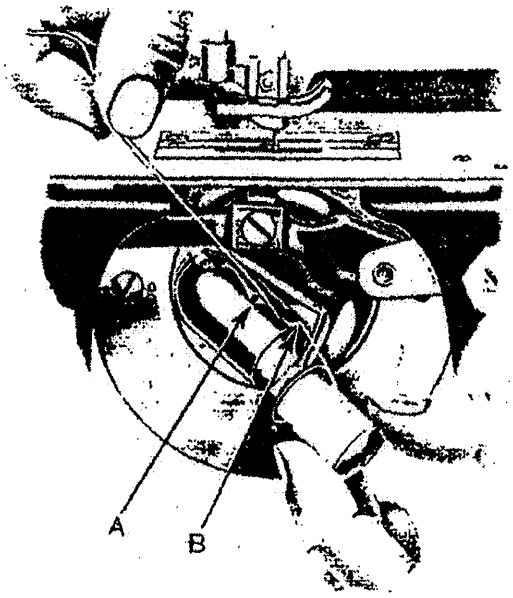


Fig.4 Bobbin Replacement and Threading the Shuttle

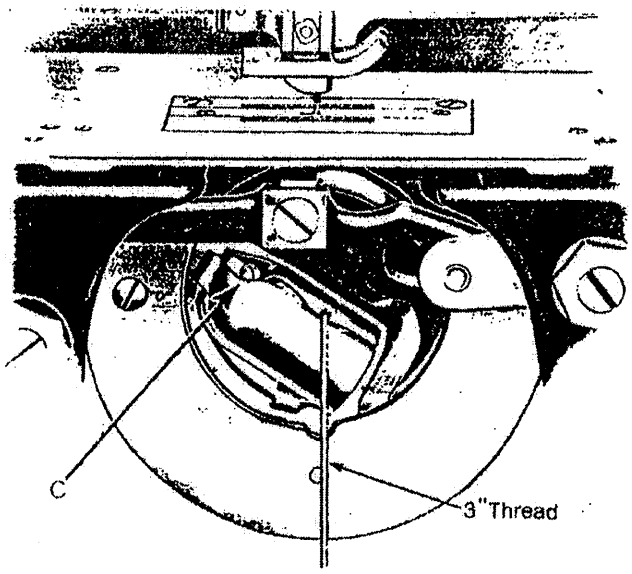


Fig.5 Bobbin replaced and Shuttle thread

6.TO SET THE NEEDLE

Rotate the balance wheel until the needle bar has reached its highest positon.Loosen the set screw in the needle clamp and place the needle up into the clamp as far as it will go. The long groove of the needle must be facing left and the eye in line with the arm of the machine.Then tighten the set screw.

7.TO THREAD THE NEEDLE

With operator facing front of machine,turn balance wheel,until the thread take-up lever, (Fig.6)reaches its highest position.

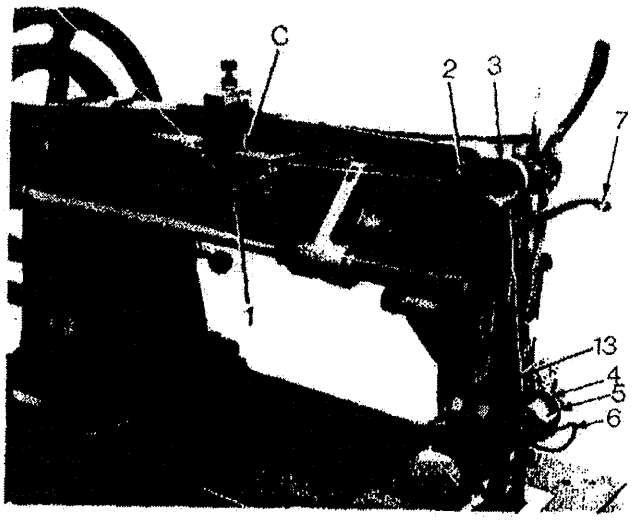


Fig.6 Threading the needle

Open the lid of Cup C;pass the thread from the cotton stand downward through the hole in the right side of cup,then through the thread post 1 undes the lid ,then through the hole in the left side of cup.Then close the lid and pass the thread through the thread guide 2, over from right to left between the thread retainer discs 3,down under and from thread guide 13 to let around the tension wheel 4,into the loop of the thread take-up spring 5,under the staple 6,Figs.6 and 7,up and from back to front through the hole 7,in the thread take-up lever,down through the thread guide 8, Fig.7 into the slot 9 in the vibrating presser bar,into thread guide 10 on the needle clamp,and from left to right through the eye of the needle 11 then pass the thread down through the hole in the lifting presser foot 12. Draw about four inches of thread through the hole of the lifting presser foot with which to pull up the bobbin thread as shown in Fig.8.

Note:If thread lubrication is not required,omit thread from cup C Fig.6 and stsrt threading machine at thread guide 2(Fig.6.)

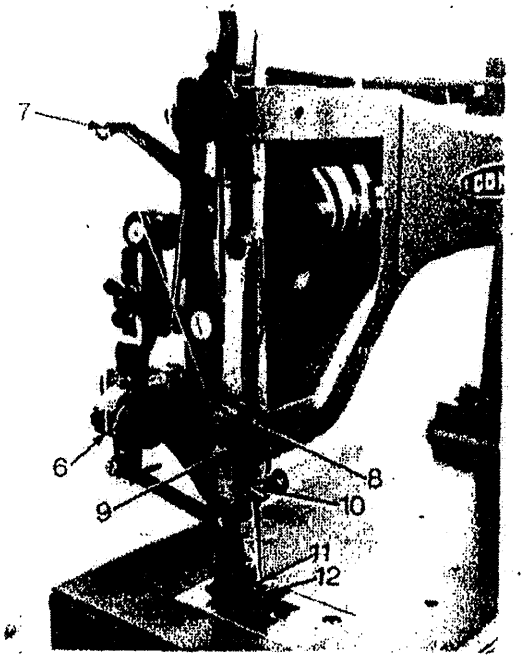


Fig.7 Threading the Needle

B.TO PREPARE FOR SEWING

With the left hand hold the end of the needle thread,leaving it slack from the hand to the needle.Turn the balance wheel until the needle moves down and up again to its highest position,thus catching the bobbin thread;draw up the needle thread and the bobbin thread will come up with it through the hole in the throat plate(see Fig.8)Lay both threads back under the presser feet.

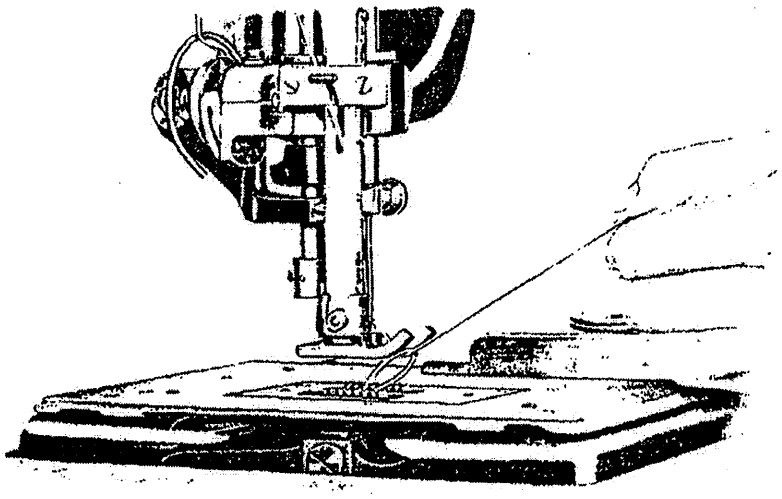


Fig. 8 Drawing up the Bobbin Thread

9. TO COMMENCE SEWING

Place the material beneath the presser feet, lower the presser feet and turn the balance wheel over toward you to begin sewing.

10. TO REMOVE THE WORK

Stop the machine with the thread take-up lever at rest in its highest position; draw about three inches of thread through the thread retaining discs, raise the presser feet, draw the work back and cut the threads close to the goods. Leave the ends of the threads under the presser feet.

11. REGULATING THE THREAD TENSIONS

For ordinary stitching, the tension of the needle and bobbin threads should be equal so as to lock both threads in the center of the fabric. If the tension on either thread is stronger than on the other, imperfect stitching will be the result.

If the tension on the needle thread is greater than that on the lower thread, it will be straight along the upper surface of the fabric.

If the tension on the bobbin thread is greater than that on the needle thread, the bobbin thread will lie straight along the underside of the fabric.

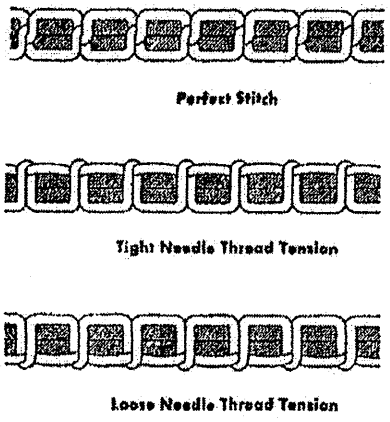


Fig.9

A. The tension the needle thread is regulated by the thumb nut H Fig.11 at the front of the thread retaining discs and the thumb nut J Fig.11 at the front of the tension wheel. The tension on the thread retaining discs should be only enough to cause the tension wheel to turn when the thread is taken from the spool.

B. The tension on the bobbin thread is regulated by the screw C Fig.5 which holds the tension spring to the cylinder. To increase the tension, turn the screw to the right. To decrease the tension, turn the screw to the left.

12. TO REGULATE THE LENGTH OF STITCH AND REVERSE LEVER

The length of stitch is regulated by loosening the serrated nut on the reverse lever G Fig. 10 in the slot on the front of the upright part of the arm. To lengthen the stitch, move the lever downward. To shorten the stitch, move the lever upward and then tighten the nut. When making reverse stitch move the lever upward as far as it will go.

13. TO REGULATE THE PRESSURE ON THE MATERIAL

The pressure on the material is regulated by means of the hexagon head screw D, Fig. 10. Loosen the hexagon lock nut, E, F g. 10 and turn the screw 1) to the right to increase the pressure or to the left to decrease the pressure. When the desired pressure has been obtained, hold the screw D with a wrench to keep it from turning while the lock nut(E) is being tightened against the bracket(F).

The pressure should be only heavy enough to enable the feed to move the work along evenly, and to prevent the work from rising with the needle.

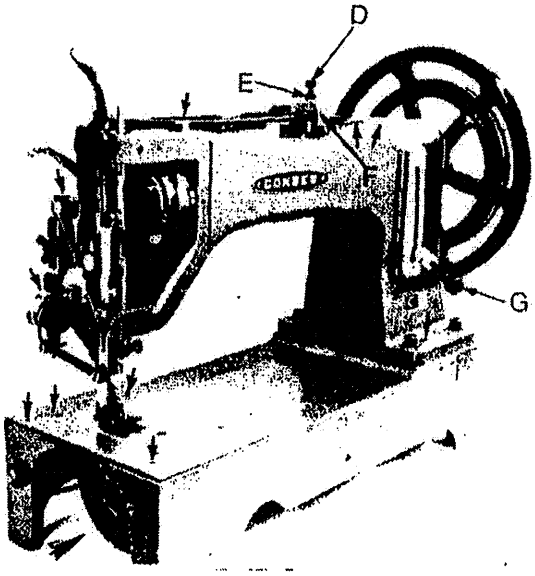


Fig. 10 Oiling Points at front of Machine

14.TO OIL THE MACHINE

To insure easy running and prevent unnccessary wear of the machine, oil all parts which are in movable contact. When the machine is in continuous use, oil should be applied frequently. The places where the machine should be oiled are indicated in Figs. 10 and 11 by arrows pointing to the oil holes and bearings. **Important Note**: The oil holes on the machine are indicated by a red circle around the oil hole. Oil should be regularly applied to the shuttle race.

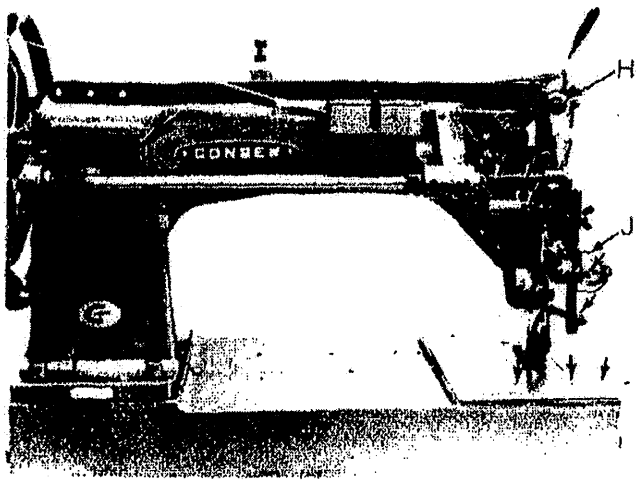


Fig. 11 Oiling Points at Back of Machine

On the back of the arm is a cover, fastened by two knurled screws loosen the screws and remove cover. Care shoula be taken to see that all the moving parts inside are sufficiently lubricated. Replace cover into position and tighten the two screws.

SECTION III

BASIC ADJUSTMENTS

1.TO SET THE NEEDLE BAR

When the shuttle point is at the cener of the needle,the top of the needle eye should be approximately(0.8mm)1/32,below the point of the shuttle.

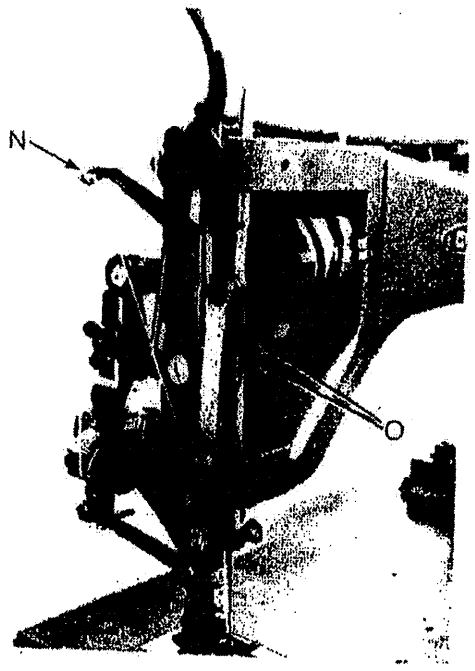


Fig.12 Setting the Needle Bar

To adjust,loosen the two set screws "0" Fig.12 and move the needle har up or down as required,then securely tighten the set screws.

NOTE - This setting of the needle bar may be varied slightly depending upon the size of the needle and the thread being used.

2. TO SET THE SHUTTLE WITH RELATION TO THE NEEDLE

The shuttle can be adjusted for proper clearance between the shuttle point and the needle. If a change is made from a very small needle to a much larger one, the shuttle point will perhaps pass too close to the needle, or too far away from it, if the change is from a large to a much smaller needle.

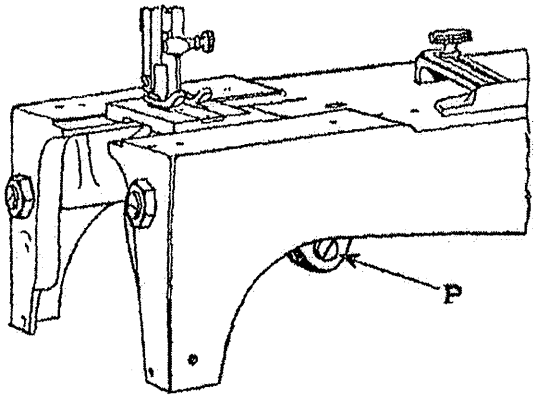


Fig.13 Setting the shuttle with Relation to the Needle

In such cases, loosen the clamping screw(P), Fig.13 beneath the machine bed, and move the shuttle race slightly to right or left to suit the needle being used, then securely tighten the clamping screw(P).

3. TO TIME THE FEED

For general sewing conditions, the feed do shoula be so timed that it will have completed its feeding action at approximately the same time that the take-up lever N Fig.12 completes its upward stroke.

When the machines leave the factoryt THEY ARE PROPERLY TIMED, AND NO ADJUSTMENT IS MECESSARY UNLESS THE POSITION OF THE FEED CAM HAS BEEN DISTURBED.

If adjustment shoula be considered necessary, remove the arm side cover at the rear side of the machine arm. The feed cam is easily accessible with the arm side cover removed.

This cam is provided with two screws.Loosen these two screws and set the cam for earlier or later movement of the feed dog,as required,by turning the cam about the arm shaft to the required position,then securely tighten the two screws in the cam.

4. HOW TO SET HANDWHEEL

The handwheel(35008)is packed separaely and must be positioned on main shaft prior to operating the machine.

Remove the two screws(35009)and slide off the bushing that is set on the shaft.Then set the handwheel on the shaft using the two bushing screws 35009.See Fig.14.

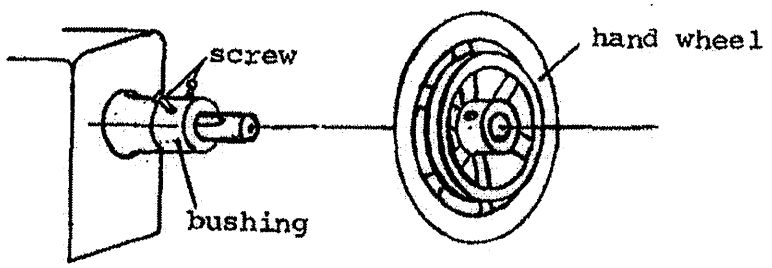


Fig.14 Setting the Handwheel

SECTION IV

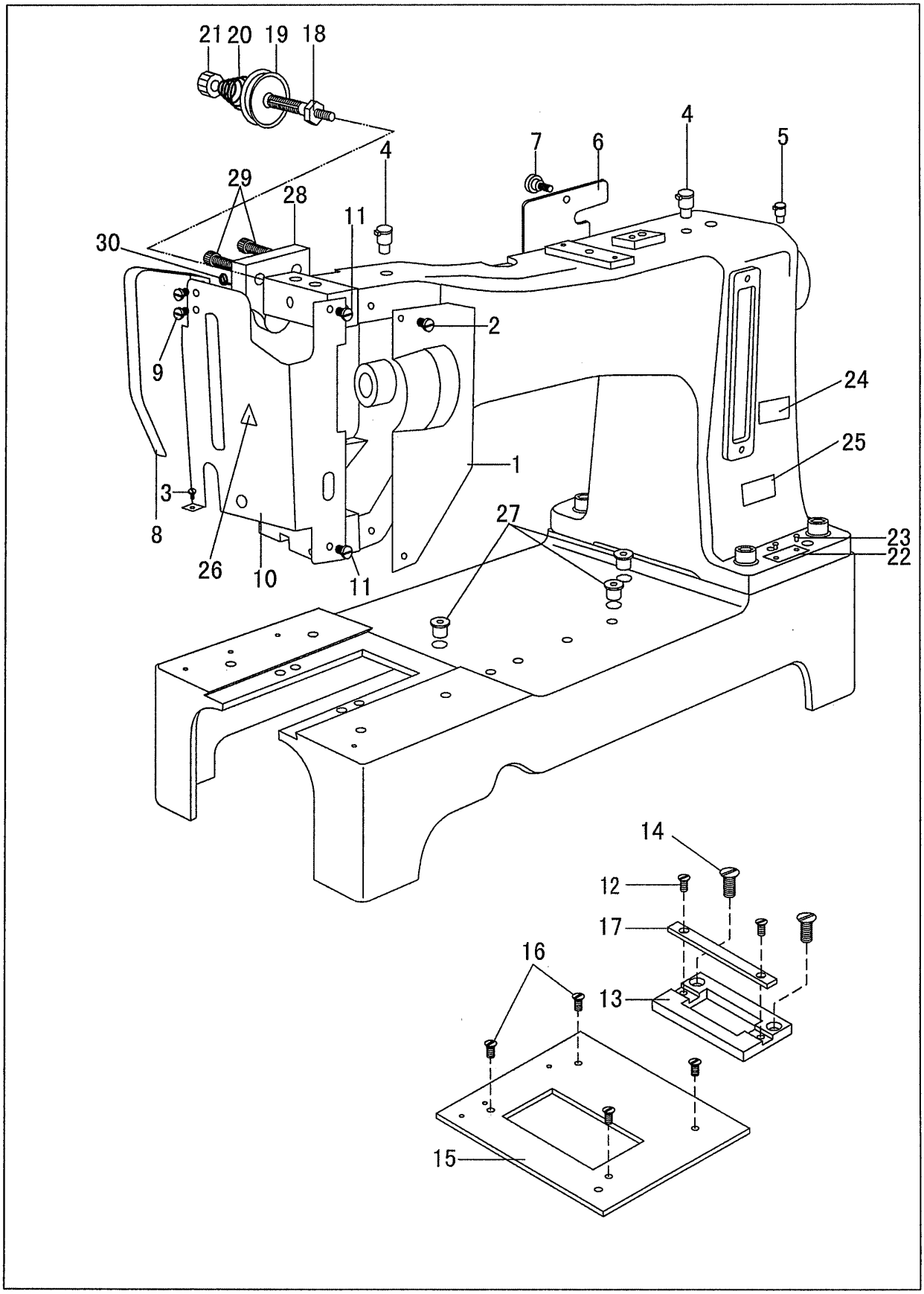
TROUBLE SHOOTING

This section contains trouble-shooying information which can be of help in determining and removing the causes of trouble that may develop in the machine.When the troubles covered by this section develop,they can be conveniently tracked down and readlly corrected bu consulting the following tabulation:

SYMPTOM	CAUSE	REMEDY
Needle breakage.	Needle is loose in needle clamp.	Tighten needle clamp.
	Needle of incorrect class and style is being used.	Compare needle with one of correct type.
	Presser foot is loose or out of line.	Straighten and align presser foot;tighten securely.
	Needle is too light for material being sewn.	Select the correct needle.
	Operator is pulling the material being sewn.	DO NOT assist machine in feeding of material.
Thread breakage (Needle).	Thread is too heavy for needle being used.	Select and inaert a thicker needle.
	Right twist thread is being used.	Only left twist thread is to be used.
	Damp or defective thread is being used.	Use new,dry and smooth thread of correct size.
	Machine is incorrestly thread.	Follow threading diagram as shown.
	Needle is incorrectly set.	Set the needle with the short groove closest to the loop taker(shuttle).
	Upper tension is too tight.	Adjust for correct stitch balance.
	Thread take-up spring is out of adjustment.	Adjust to proper position.

SYMPTOM	CAUSE	REMEDY
Thread breakage (Needle) (Continued) :	Needle is rubbing against presser foot.	Re-align and tighten presser foot.
	Needle is defective, blunt or bent at point.	Replace with new needle.
	Sharp edge on the loop taker (shuttle), bobbin case or tension contollers.	Smooth with fine emery paper and polish with rouge cloth.
Thread breakage (Bobbin)	Damp or defective thread being used.	Use new, dry and smooth thread of correct size.
	Bobbin thread tension is too tight.	Adjust for correct stitch balance.
	Bonnin shuttle case is incorrectly threaded.	Follow threading instruction as described.
	Bobbin is wound too full to revolve freely.	Remove excess thread to the rim of the bobbin. Adjust bobbin winder accordingly.
	Rounds of thrad on the bobbin are lapped over one another.	Unwind bobbin manually and rewind evenly and uniformly.
	Bobbin case is sticky with gummy oil and lint.	Clean bobbin case, shutte and shuttle race with kerosene or naphtha, then lubricate with a few drops of oil.
	Shrap eage on shuttle, bobbin case, bobbin or needle.	Smooth with fine emergy paper and polish with rouge cloth.
Sippinng (ship atitches)	The needle thread fails to catch the bobbin.	Reset the needle har and needle as described.
Drawing of Seam.	The threads draw or pucker the seam.	Adjust tensions for correct stjtch balance.
Stitches uneven or piled up.	Stitches pile up in one place	Adjust stitch regulation for longer stitch.
		Increase presser foot pressure.

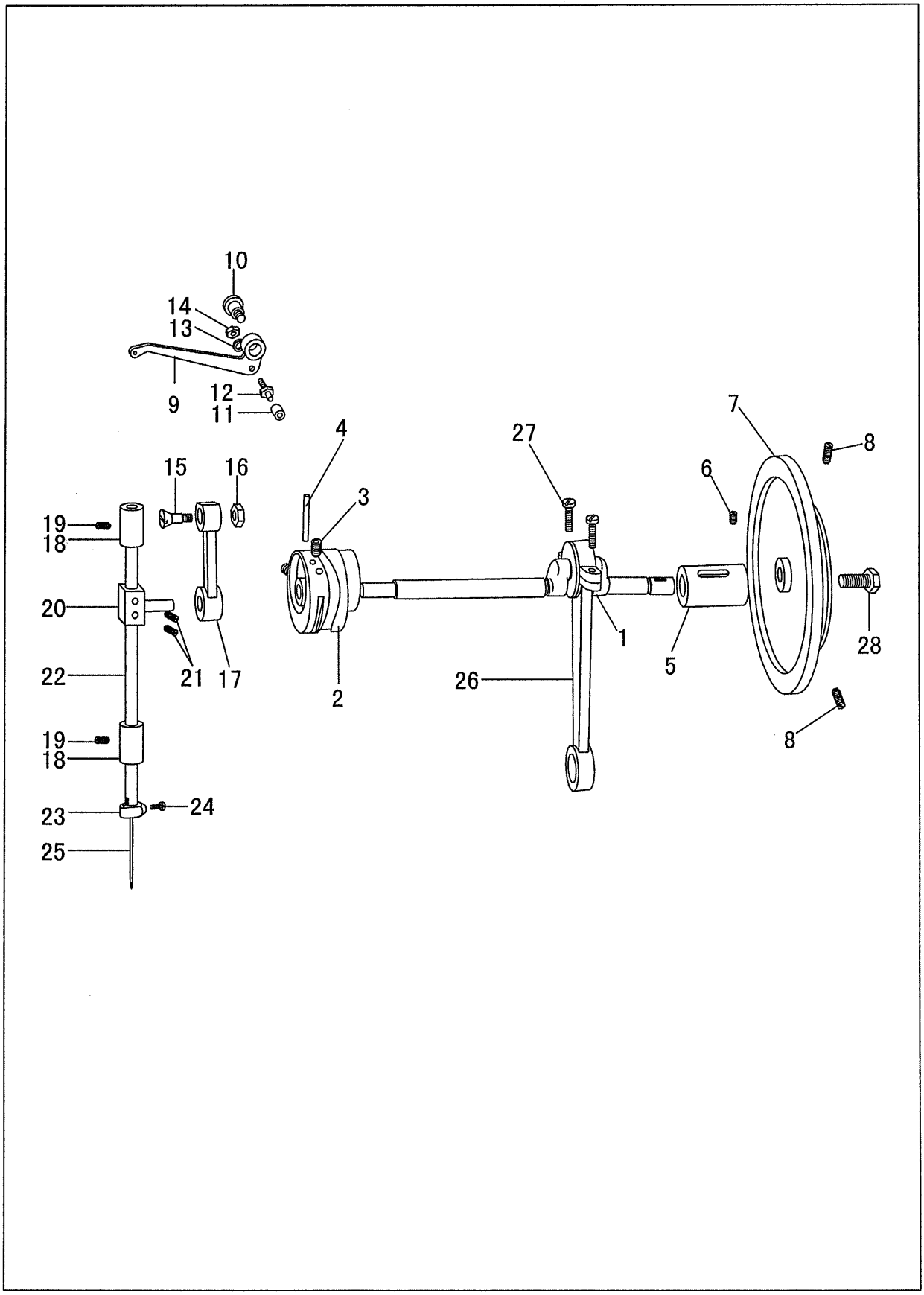
1、Casting mechanism



1. Casting mechanism

NO	PART NO	DESCRIPTION	QTY	NOTE
1	35167-A	Arm face cover	1	
2	6333	Screw	3	
3	348040	Screw	1	
4	35013	Oil cup(L)	2	
5	35014	Oil cup(L)	1	
6	35168-A	Arm side cover	1	
7	8093	Screw	2	
8	35032-A	Thread take-up lever cover	1	
9	30047	Screw	2	
10	35031-A	Face plate	1	
11	13005-A	Screw	2	
12	35191-A	Screw	2	
13	35192	Throat plate body	1	
14	35193	Screw	2	
15	35194	Cloth plate	1	
16	35195	Screw	4	
17	35190-AB	Throat plate	1	
18	4171	Tension stud	1	
19	1423	Tension disc	2	
20	1422	Tension spring	1	
21	8079	Tension thumb nut	1	
22		Serial label	1	
23		Rivet	2	
24		Caution label	1	
25		Model label	1	
26		Caution label	1	
27	35209-A	Ball type oil cup	3	
28	35306-A	Casting insert	1	
29	35034-A	Screw	3	
30	35158-4	Spring	1	

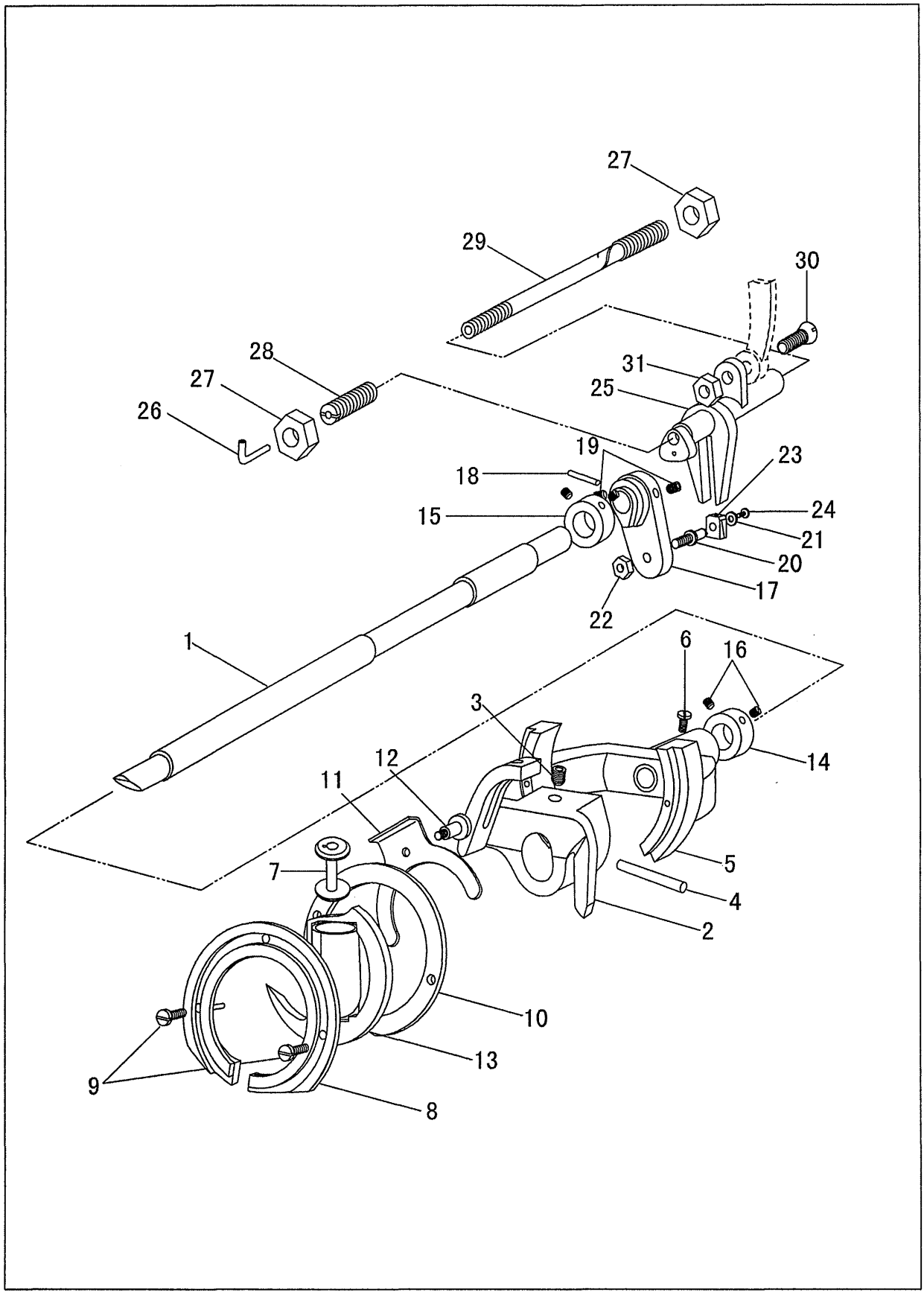
2. Arm shaft, takeup lever mechanism



2. Arm shaft, takeup lever mechanism

NO.	PART NO	DESCRIPTION	QTY	NOTE
1	35010-A	Arm shaft	1	
2	35302-A	Thread take-up can	1	
3	35017-A	Screw	2	
4	35018-A	Taper pin	1	
5	35011-A	Bushing	1	
6	35012-A	Screw	1	
7	35008-A	Balance wheel	1	
8	35009-A	Screw	2	
9	35035-A	Thread take-up lever complete	1	
10	35036-A	Screw	1	
11	35038-A	Thread take-up lever roller	1	
12	35039-A	Pin screw	1	
13	35040-A	Washer	1	GB859-87-8
14	8105-A	Nut	1	
15	35020-A	Screw	1	
16	6027-2	Nut	1	
17	35019-A	Needle bar connecting link	1	
18	35023-A	Needle bar bushing	2	
19	10761	Screw	2	
20	35021-A	Needle bar connecting stud	1	
21	35017-A	Screw	2	
22	35022-A	Needle bar	1	
23	35024-A	Needle Clamp	1	
24	35025-A	Screw	1	
25	35026	Needle 1000#250	1	1000H 27#
26	35201-A	Rock shaft connecting rod	1	
27	35202-A	Screw	2	
28	10577-A	Screw	1	

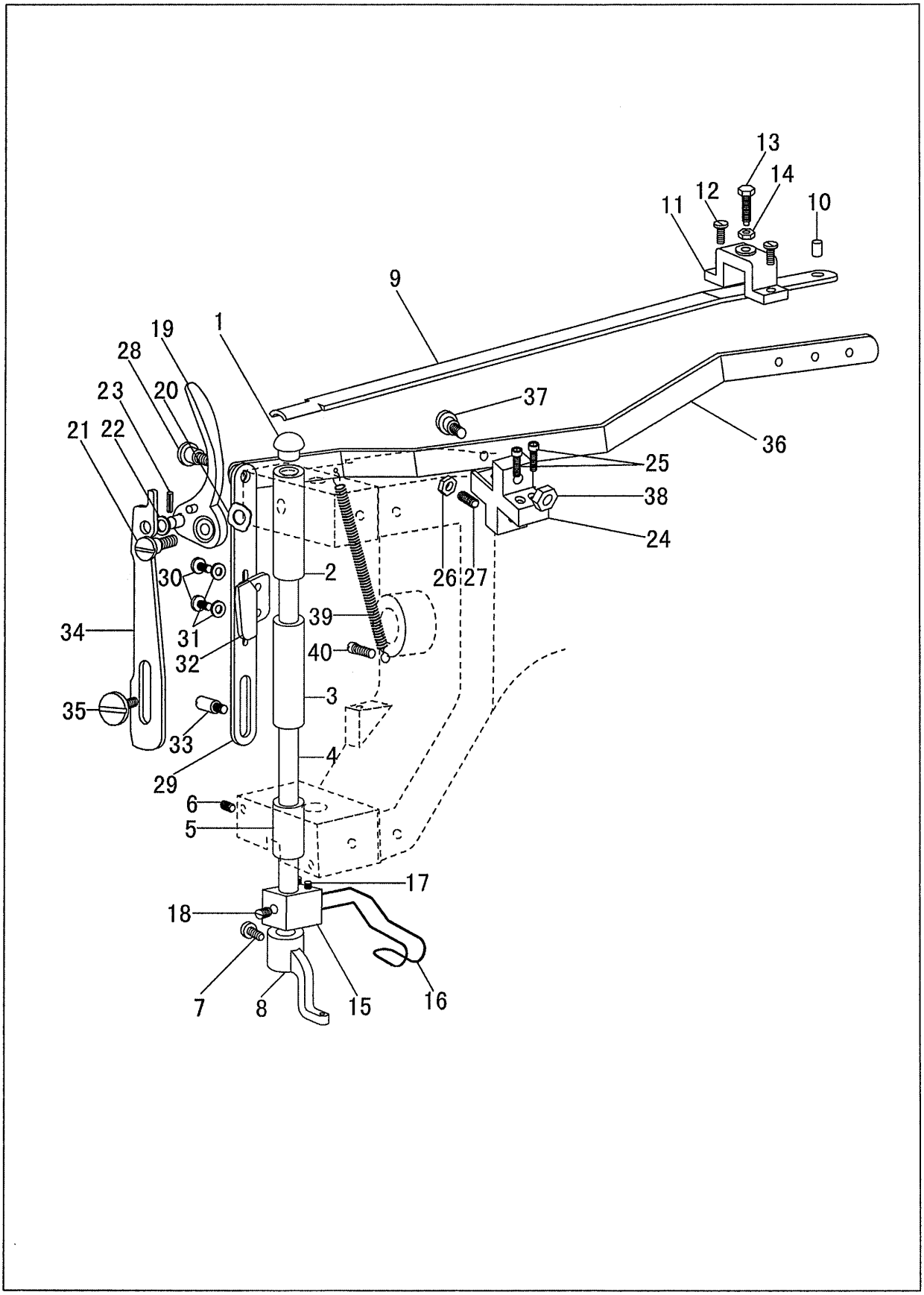
3. Lower shaft, shuttle mechanism



3. Lower shaft, shuttle mechanism

NO.	PART NO	DESCRIPTION	QTY	NOTE
1	35216-A	Oscillating shaft	1	
2	35218-A	Shuttle driver	1	
3	35017-A	Screw	1	
4	35215-A	Taper pin	1	
5	35219-A	Shuttle race frame	1	
6	35220-A	Screw	1	
7	35226	Bobbin	1	
8	35222-1	Shuttle race body	1	
9	35223-A	Screw	2	
10	35222-3	Shuttle race	1	
11	35222-4	Shuttle race spring	1	
12	35222-5	Screw	1	
13	35224	Shuttle hook complete	1	KSP7-31
14	35217-A	Oscillating shaft collar (A)	1	
15	35227-A	Oscillating shaft collar (B)	1	
16	8009	Screw	4	
17	35214-A	Oscillating shaft crank	1	
18	35215-A	Taper pin	1	
19	35017-A	Screw	2	
20	35211-A	Screw shaft	1	
21	35212-A	Washer	1	
22	35213-A	Nut	1	
23	35210-A	Slide block	1	
24	12418	Screw	1	
25	35205-A	Pock shaft	1	
26	35208-A	Oil pipe	1	
27	35187-A	Nut	2	
28	35207-A	Thumb screw	1	
29	35206-A	Hinge pin	1	
30	35203-A	Screw	1	
31	35204-A	Nut	1	

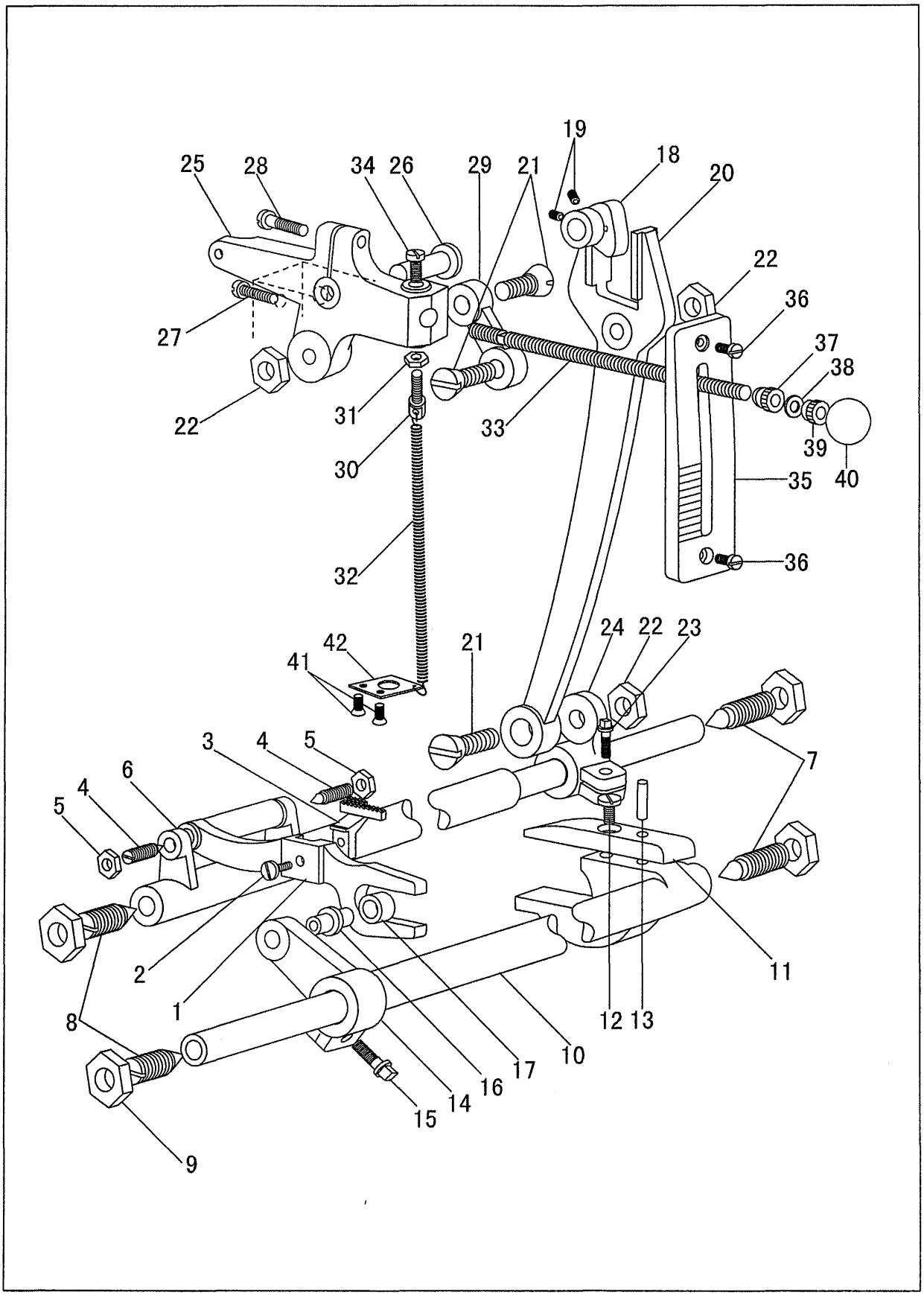
4. Presser bar & lifting mechanism



4. Presser bar & lifting mechanism

NO.	PART NO	DESCRIPTION	QTY	NOTE
1	35136-A	Sleeve cap	1	
2	35137-A	Presser bar sleeve (upper)	1	
3	35138-A	Presser bar sleeve (lower)	1	
4	35140-A	Presser bar	1	
5	35023-A	Presser bar bushing (lower)	1	
6	10761	Screw	1	
7	10828	Screw	1	
8	35141-A	Inner presser foot	1	
9	35125-A	Presser bar spring	1	
10	35126-A	Pin	1	
11	35127-A	Presser bar spring bracket	1	
12	50101	Screw	2	
13	35128-A	Screw	1	
14	35129-A	Nut	1	
15	35245-A	Finger guard base	1	
16	35244-A	Finger guard	1	
17	8103	Screw	2	
18	8097	Screw	1	
19	35147C-A	Presser bar lifting lever complete	1	
20	35151-A	Washer	1	
21	35150-A	Screw	1	
22	35153-A	Washer	1	
23	4179	Pill	1	GB879-86
24	35130-A	Foot lifting lever bracket	1	
25	35034-A	Screw	2	
26	10586	Nut	1	
27	10571	Screw	1	
28	10712	Screw	1	
29	35132-A	Lifting bracket	1	
30	6333	Screw	2	
31	30025-A	Washer	2	GB97. 1-85-4
32	35145-A	Tension release lever	1	
33	35133-A	Screw	1	
34	35152-A	Presser bar lifting link	1	
35	35154-A	Screw	1	
36	35131-A	Foot lifting lever	1	
37	35134-A	Screw	1	
38	10636	Nut	1	
39	35276-A	Foot lifting lever spring	1	
40	11154	Screw	1	

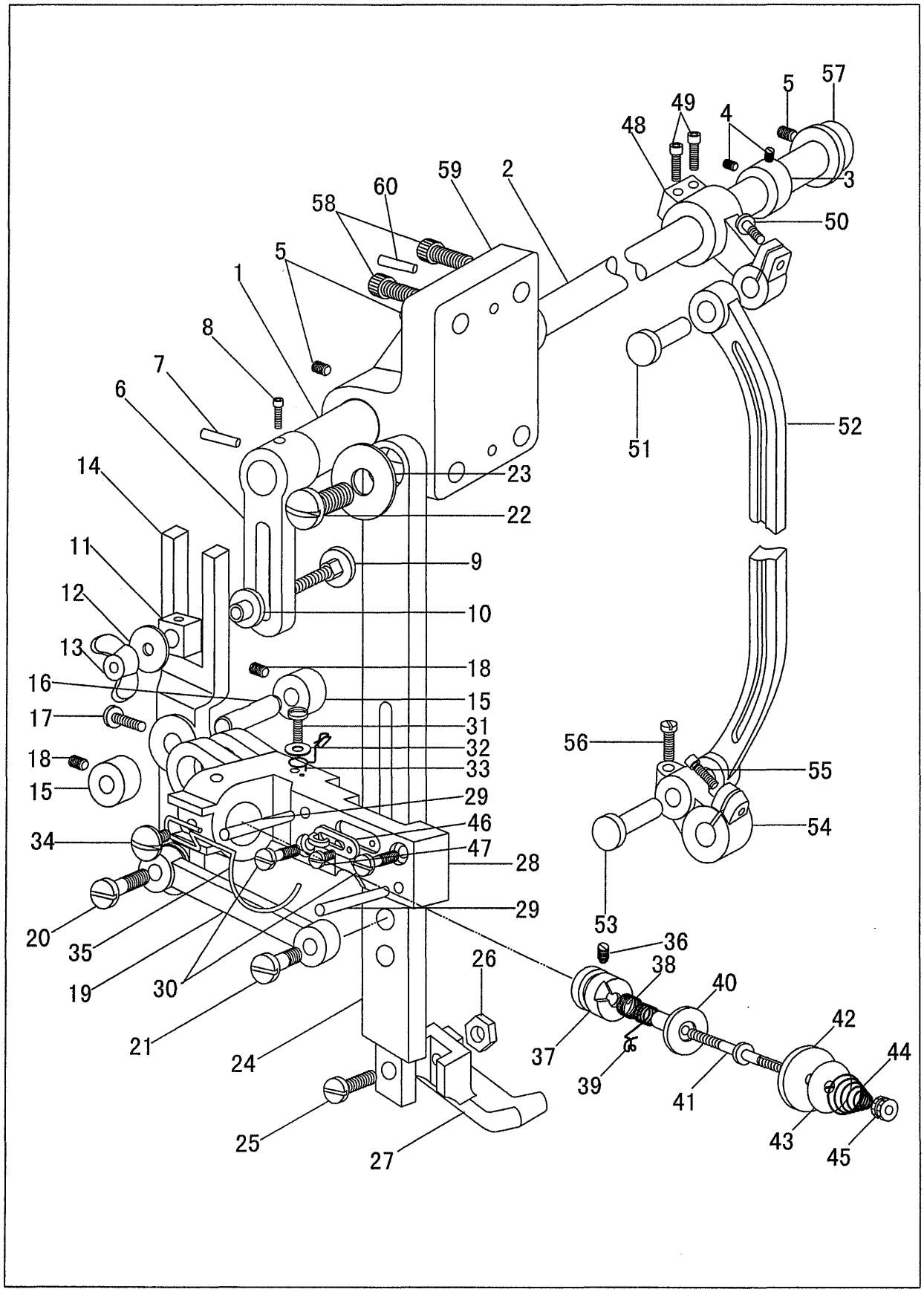
5. Lower feed mechanism



5. Lower feed mechanism

NO	PART NO	DESCRIPTION	QTY	NOTE
1	35188-A	Feed bar	1	
2	1368	Screw	1	
3	35189-A	Feed dog	1	
4	6027-1	Screw	2	
5	6027-2	Lower feed rock shaft	2	
6	35184-A	Screw center (long)	1	
7	35185-A	Screw center (short)	2	
8	35186-A	Screw	2	
9	35187-A	Nut	4	
10	35232-A	Shaft	1	
11	35232-1-A	Wear block	1	
12	35223-A	Screw	1	
13	50174	Taper pin	1	
14	35233-A	Feed lifting rock shaft crank	1	
15	35234-A	Screw	1	
16	35235-A	Stud	1	
17	35235-A	Roller	1	
18	35045-A	Feed driving eccentric	1	
19	35017-A	Screw	2	
20	35046-A	Feed forked connection	1	
21	35048-A	Screw	3	
22	6027-2	Nut	3	
23	35183-A	Screw	1	
24	35182-A	Lower feed rock shaft crank	1	
25	35049-A	Feed regulator	1	
26	35050-A	Hinge stud	1	
27	17053	Screw	1	
28	10761	Screw	1	
29	35047-A	Feed connecting link	1	
30	17059	Screw	1	
31	4135	Nut	1	
32	35058-A	Spring	1	
33	35051-A	Feed regulating lever	1	
34	4019	Screw	1	
35	35052-A	Stitch length plate	1	
36	35053-A	Screw	2	
37	35055-A	Knurling tool (A)	1	
38	35054-A	Washer	1	
39	35056-A	Knurling tool (B)	1	
40	35057-A	Knob	1	
41	6031	Screw	2	
42	35059-A	Hook plate	1	

6. Upper feed mechanism

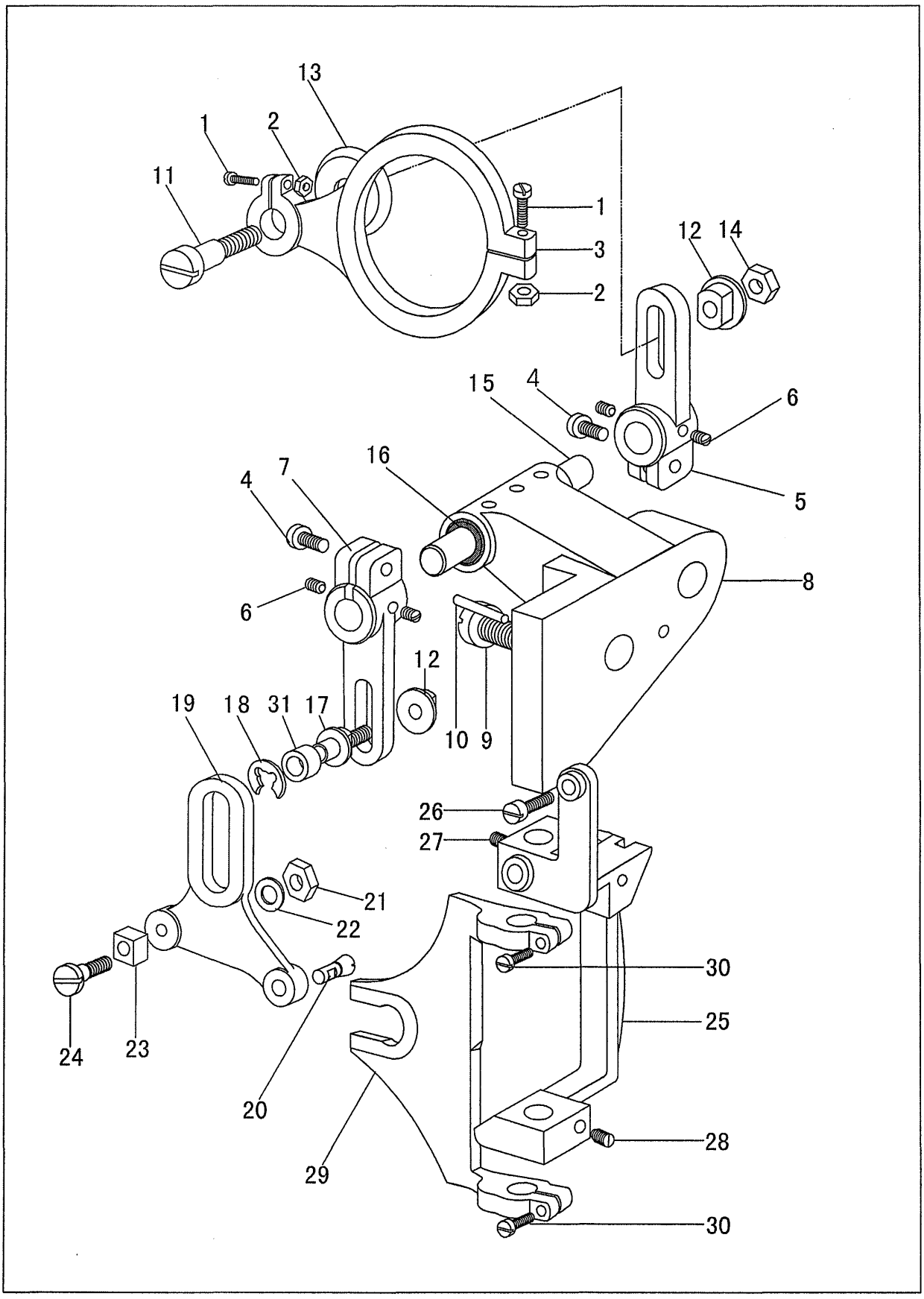


6. Upper feed mechanism

NO.	PART NO	DESCRIPTION	QTY	NOTE
1	35077-A	Upper feed shaft bushing (front)	1	
2	35072-A	Upper feed shaft	1	
3	35073-A	Upper feed shaft collar	1	
4	10566	Screw	2	
5	10525	Screw	3	
6	35078-A	Upper feed shaft adjusting arm	1	
7	50295-A	Taper pin	1	
8	35017-A	Screw	1	
9	35079-A	Screw	1	
10	35080-A	Pipe	1	
11	35081-A	Slide block	1	
12	35082-A	Washer	1	
13	10776	Nut	1	
14	35083-A	Upper feed forked connection	1	
15	35058-A	Upper feed forked connection shaft bushing	2	
16	35084-A	Upper feed forked connection shaft	1	
17		Screw	1	
18	10581	Screw	2	
19	35090	Connection crank	1	
20	35091-A	Screw (long)	1	
21	35092-A	Screw (short)	1	
22	8089	Screw	1	
23	35094-A	washer	1	
24	35093-A	upper feed foot	1	
25	35097-A	Screw	1	
26	35098-A	Washer	1	
27	35096-A	Upper feed foot	1	
28	35087-A	Connecting bracket	1	
29	35089-A	Pin	2	
30	35088-A	Screw	2	
31	6025	Screw	1	
32	30078	Washer	1	
33	35159-A	Thread guide (middle)	1	
34	10559	Screw	1	
35	35166-A	Large thread	1	
36	10581	Screw	1	

37	1414	Tension regulator	1	
38	1417	Regulating spring	1	
39	35161-A	Thread take-up spring	1	
40	1418	Thread take-up spring adjusting sleeve	1	
41	35160-A	Tension controller stud	1	
42	35162-A	Tension disc	1	
43	35163-A	Tension disc washer	1	
44	35165-A	Tension release spring	1	
45	8079	Tension thumb spring	1	
46	10683	Thread guide (lower)	1	
47	10685	Screw	1	
48	35069-A	Upper feed shaft crank	1	
49	35034-A	Screw	2	
50	10598-A	Screw	1	
51	35068-A	Hinge stud (upper)	1	
52	15067-A	Connecting rod	1	
53	35066-A	Hinge stud (lower)	1	
54	35065-A	Shaft crank (lower)	1	
55	35034-A	Screw	1	
56	10519-A	Screw	1	
57	35071-A	Upper feed shaft bushing (back)	1	
58	35075-A	Screw	4	
59	35074-A	Bracket	1	
60	35076-A	Pin	2	

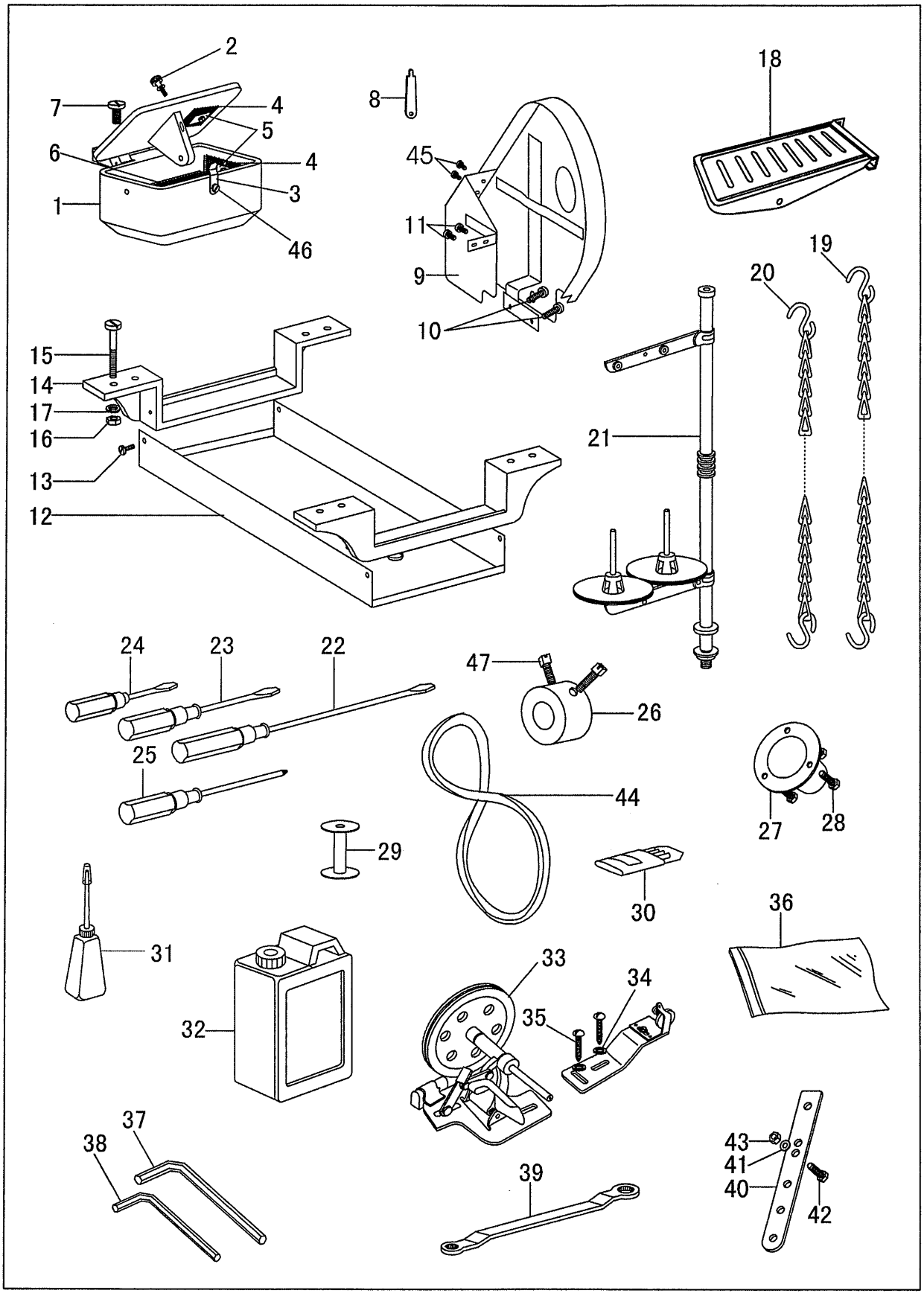
7. Foot lifting mechanism



7. Foot lifting mechanism

NO.	PART NO	DESCRIPTION	QTY	NOTE
1	35103-A	Screw	2	
2	35104-A	Nut	2	
3	35102-A	Eccentric rod	1	
4	35301-A	Screw	2	
5	35108-A	Adjusting arm	1	
6	35501-A	Screw	4	
7	35113-A	Eccentric Crank	1	
8	35454-A	Presser bar bracket guide	1	
9	35111-A	Screw	2	
10	35112-A	Taper pin	2	
11	35105-A	Screw	1	
12	35106-A	Pipe	2	
13	35107-A	Washer	1	
14	8105-A	Nut	1	
15	35109-A	Adjusting arm shaft	1	
16	35110-A	Needle bearing	2	
17	35519-A	Screw	1	
18	35520-A	Stop ping	1	GB896 5
19	35115-A	Upper feed barbell	1	
20	35119-A	Stud pin	1	
21	8105-A	Nut	1	
22	35118-A	Washer	1	
23	35117-A	Slide block	1	
21	35116-A	Screw	1	
25	35139-A	Presser bar clamp	1	
26	6029	Screw	1	
27	8009-A	Screw	1	
28	10827	Screw	1	
29	35120-A	Presser bar lifting	1	
30	6306-A	Screw	2	
31	35527	Roller	1	

8. Accessories



8. Accessories

NO	PART NO	DESCRIPTION	QTY	NOTE
1	35157C-A	Oil box complete	1	
2	10699-A	Screw	1	
3	35157-4	Oil box cover spring	1	
4	35157-7	Oil box felt(small)	2	
5	35157-8	Oil box felt plate	2	
6	35157-9	Oil box felt(large)	1	
7	35223-A	Screw	1	
8	35225-A	Shuttle cylinder opener	1	
9	35239C	Belt guard complete	1	
10	10519	Screw (long)	I	
11	13005	Screw (short)	3	
12	35242	Oil pan	1	
13	11570	Screw	4	
14	35240	Bed hinge	2	
15	35241	Screw	8	
16	0040	Nut	8	
17	0058	Washer	8	GB7244-87-8
18	50296	Pedal with stop rings	2	
19	35277	Chain	1	1000mm
20	35278	Chain	1	500mm
21	35254	Thread stand complete	1	
22	8118	Screw driver (large)	1	
23	8120	Screw driver (middle)	1	
24	8121	Screw driver (small)	1	
25	19473	Screw driver (cross type)	1	
26	35006	Arm shaft collar	1	
27	37701-A	Cover	1	
28	37702	Screw	3	
29	35226	Bobbin	5	
30	N0925	Needle	5	
31	8123	Oiler (small)	1	
32	8125-A	Oiler (large)	1	
33	35255	Bobbin winder complete	1	
34	35255-1	Washer	2	
35	35255-2	Screw	2	
36	8132-B	Accessory bag	1	
37	1870	Hexagonal wrench	1	S=5MM
38	15571	Hexagonal wrench	1	S=4MM
39	10748-A	Double head wrench	1	11-12
40	11376	Motor lever extension	1	
41	11379	Washer	9	
42	11377	Screw	9	
43	11378	Nut	2	
44		V-belt	1	1400MM
45	6339	Screw	6	
46	8100	Screw	3	
47	35009	Screw	2	