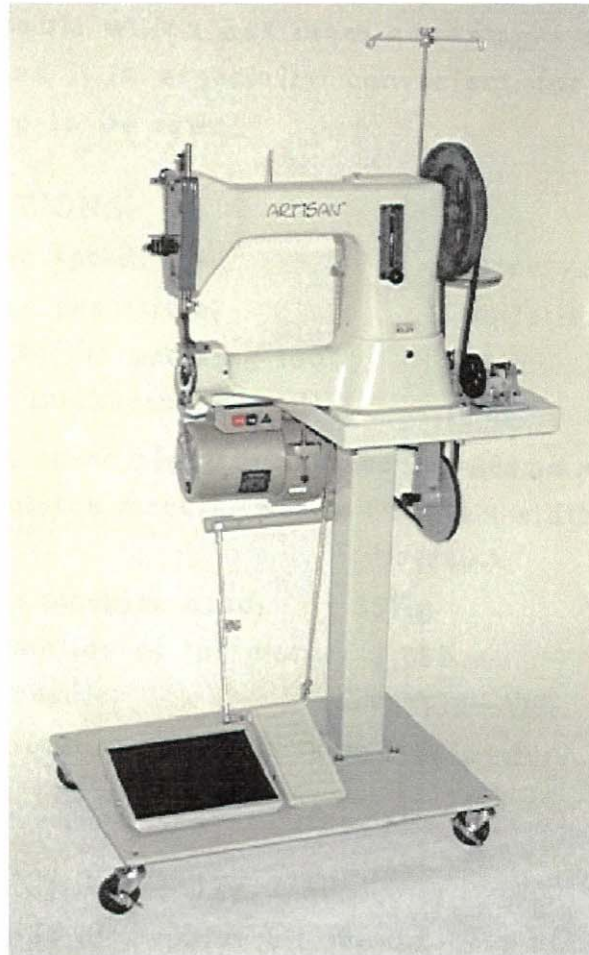


# ARTISAN<sup>®</sup>

**Cylinder Bed Leather Stitching Machine**



**45K-2**

**INSTRUCTION  
MANUAL**

## I. Features

Industrial sewing machine is a kind of special tool for large scale sewing of thick materials like thick canvas, thick leathers which are used for cargo tarpulin, high load bags, saddles, and leather siutcases etc.

sewing machine has some typical structures among others, for example, single verticle needle, cam thread raising, ballance shuttle, threading hooking with double locked thread track and a harged tube working table which has more advantages over the flat board working table and it is especially convenient for thick materials with arc thread gap to be sewn.

## II. SPECIFICATIONS:

1. Max. working speed: 800rev./min
2. Max. distance per stitch: 7mm/stitch
3. Max. height of the pressing foot: 12mm
4. Max. sewing thickness allowed : 10mm
5. The working space right to the needle: 268mm×166mm
6. Dimensions of the machine head: (length×width×height)530×270  
×480mm
7. Weight of the machine head: 35Kg
8. Power consumption of the motor: 0.55Kw
9. Type of the needle: GV1~~#~~22—~~#~~27
10. Thread specification, canddle thread 25/3—18/7, flaxer thread 2—7,  
nylon thread 2—24~~#~~

## III. PREPARATIONS BEFORE USE

1. A few drops of machine oil should be put into the oil holes of the machine and the lubracation places. Dust and antirust grease should be cleaned for new machines of that of being kept for a long time. Then make the machine running unload for a few minutes.
2. In normal operation, the direction of the upper wheel of the machine should be counter-clockwise.
3. The needle and thread should be selected according to properties of different materials.

(1)The size of the needle should be choosen according to the diameter of the thread in order to assure that the thread can go through the hole of the needle smoothly. Uneven thread of thread knots will affact the sawing.

(2)There is no special requirements for the sewing thread and shuttle thread(both left spined or right spined thread will do.)

4.The sewing speed should be selected according to the materials to be sewn. The max. speed should not be over 800 rev./min. Higher speed will cause demeges of some parts of the machine.

5.The cleaning and lubracating of the whole machine should not be less than twice every duty.

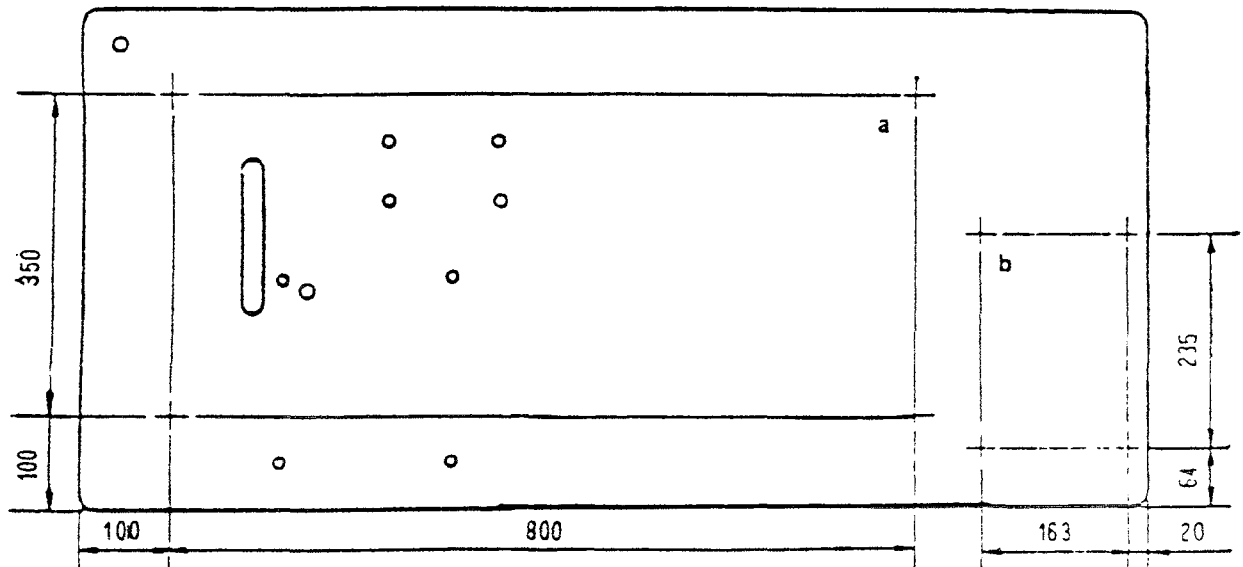


图 1

## VI. INSTALLATIONS:

(1)Place for the installation:

A flat and stable base is necessary for the installation of the machine in order to assure even running and small vibration. Rubber washers usually can make the machine more stable and reduce the running noise.

(2)The demonstration of the instaliation of the machine stand and board.

- a. Position of the stand
- b. Position of the drawers
- (3) The machine head:

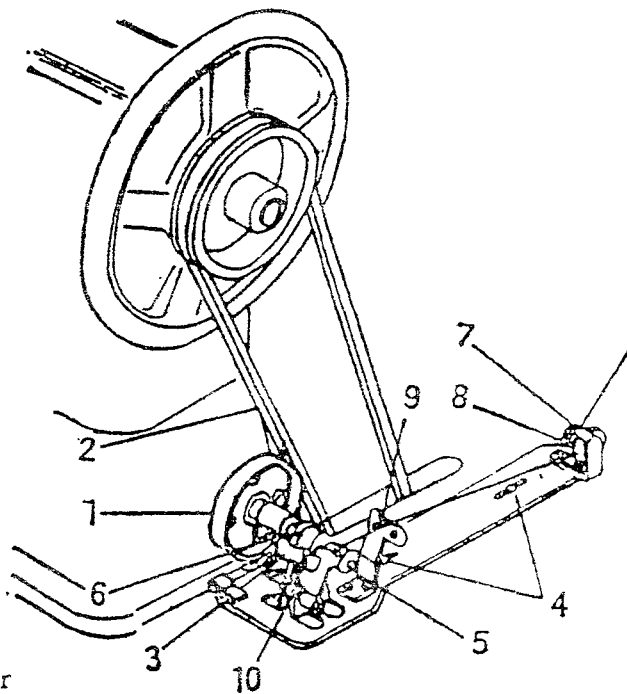
The machine head is installed on the board with 4 screw belts and 4 screw nuts.

### 2. The thread winder

After the installation of the machine head and loading the bolt, put the wheel of the winder (1) against the belt (2) and left a certain space in

between. But the wheel (1) should have a good contact with the belt (2) after pressing down the winding wheel stand (3) in order to assure that the winding wheel will be rotated by the belt. Then fix the winder on the board by screwing the nail (4).

As is shown in Fig. 2



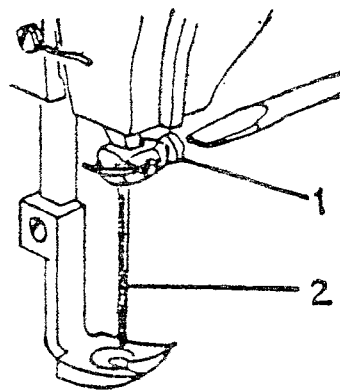
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### 3. Pressing foot lifting rod:

After the installation of the rod on the axis fender of the foot pad connect the press foot lifting pad and the rod with the hook on both ends of the chain. Fix the pressing foot pad on the right and the motor starting pad on the left.

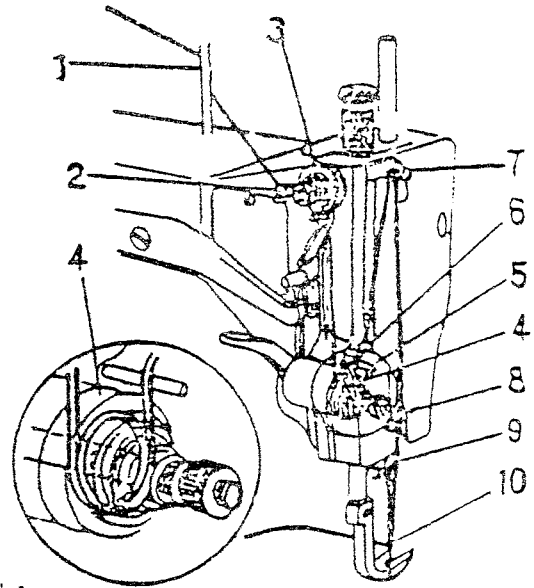
### 4. The Needle:

Turn the upper wheel to make the needle rod raise its highest position, loose the needle clipper screw (1), put the shaft of the needle (2) into the upper end of the hole in the needle rod and make long slot of the needle face the left. Then fix the clipper screw. As is shown in Fig. 3



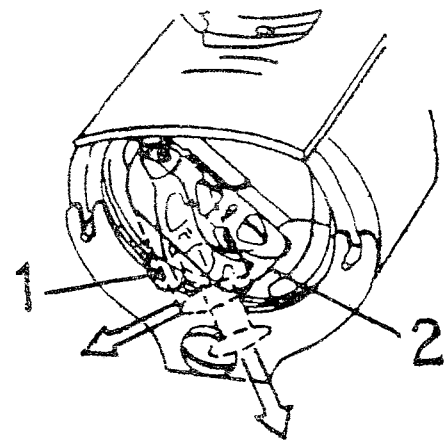
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5. Threading the upper thread  
 The sewing thread is embed into the thread clipper(3) through nail (1) and the ring on the machine head first. Second, put the thread through wheel 4 and wind the wheel 1 1/2 circle. Third, put the thread up and let it go through thread guiding nail(5) then make it go down through the thread provoking spring(6). Fourth, put the thread up through the hole of thread provoking rod (7) then down to be embed into the thread hooking slot on the panel (8) then make it to be hooked in the needle hook(9). Finally, put the thread from the left through the needle hole(10). then pull out some thread of about 50mm. for sewing.



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6. Remove the shuttle heart.  
 Turn the upper wheel to make the needle just left the needle board, then press down the shuttle spring (1) to make the position pine of the spring separate from the shuttle heart. Pull the shuttle shell(2), then the shuttle heart is removed. See Fig. 5



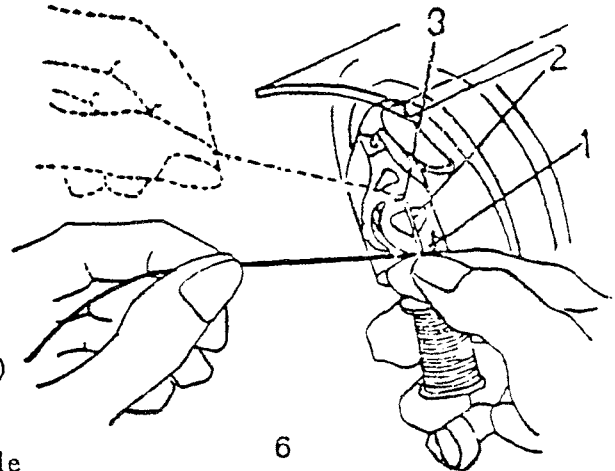
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7. Winding the shuttle heart  
 Insert the shuttle heart(5) into the top axis of thread winder(6) put the thread to be winded from the thread ball through the hole of the winder(7) first, then insert the thread into the clipper(8). After that, put the thread through winding board(9), make a few circle on the shuttle(10). Then the winding wheel will be automatically pressed on the bell and the shuttle heart will be winded and stops automatically as it is full during the normal sewing. See Fig. 2

The winding of the shuttle heart should be arranged in order and with properiate tension. If it is winded with small tension, more pressure of the winder clipper should be given. If it is not in an order, adjustment of the winding stand is necessary. Loose the screw nail and move the stand right or left until the winding is in order. The shuttle heart should not be over winded, otherwise it will spread out. The normal winding value should not be over 0.5—1mm than the diameter of the shuttle heart. The winding value of the heart can be adjusted by the screw on the auto full controllor.

#### 8. Threading the ballance shuttle

Hold the shuttle heart right hand, take the screwing thread left hand and let the thread slide under the shuttle heart spring (g). Then pull the thread into the thread guid slot of shuttle heart (2) then put it into the guide slot (3).

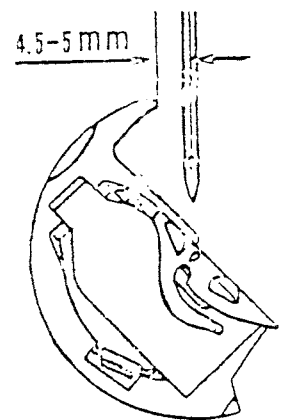


Put the shuttle heart into the shuttle

heart shell and press the shell into the shuttle bed and make the positioning pine of the bal:ance shuttle spring connect with the shell. Finally, pull out some thread of about 100mm for sewing. See Fig. 6 .

#### 9. The mounting of the ballance shuttle

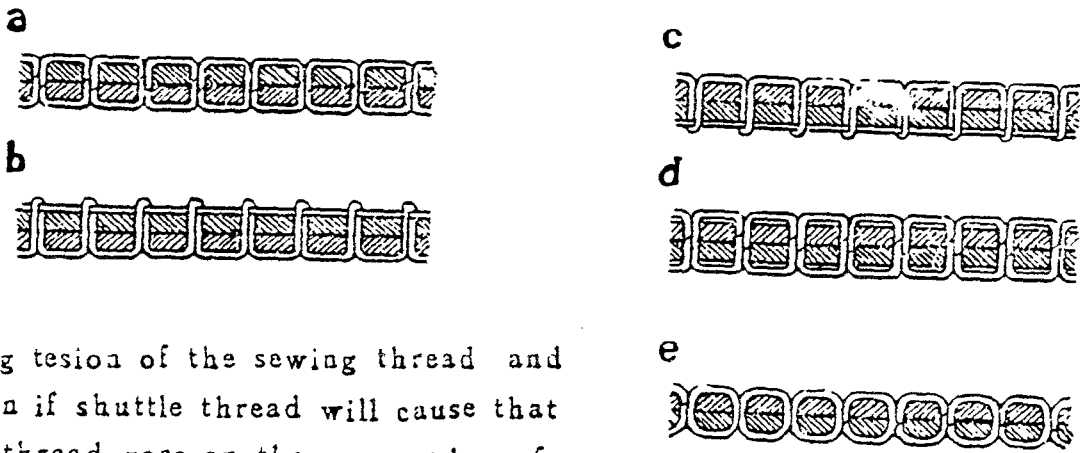
After the mounting of the ballance shuttle, the distance between the mouth top of the shuttle and the needle should be 4.5—5mm as the needle moves to its lowest position. See Fig. 7 .



#### 10. Adjustment of the thread tesion

The tesions of the both needle thread and the shuttle thread are very important for normal sewing. (See the samples in Fig. 8 ).

a. For normal sewing track, both threads should be knited in the middle of the materi- als being sewn.



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b: Big tension of the sewing thread and small tension of shuttle thread will cause that the sewing thread goes on the upper edge of the materials being sewn.

c: Big tension of shuttle thread and small sewing thread tension will cause that the shuttle thread goes on the lower edge of the materials as a straight line.

d: Small tensions of both threads will cause that although both threads knit in the middle but loose.

e: Big tension of both threads will cause that both threads are embedded into the material being sewn. See Fig. 8.

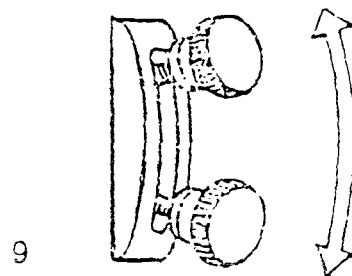
The tension of the sewing thread is adjusted by turning the clipper screw nut, and that of the shuttle thread by adjusting the screw on the shuttle head shell.

### 11. The adjustment of the pressure of the press foot

The function of the pressing foot is to help the material feeder to feed the materials to be sewn. The pressure of the foot should be adjusted according to the thickness of the material to be sewn. The pressure should be high with thick materials to be sewn, otherwise, the pressure of the foot should be low and the pressure should be adjusted when the feeding is normal or even a little bit smaller. The way of adjusting is to turn the screw; the pressure will be increased when turning down clockwise, otherwise it will be reduced.

### 12. Adjustment of stitch distance

The stitch distance should be determined according to the properties of different materials; if the material to be sewn is thick and hard, the distance should be longer, otherwise,

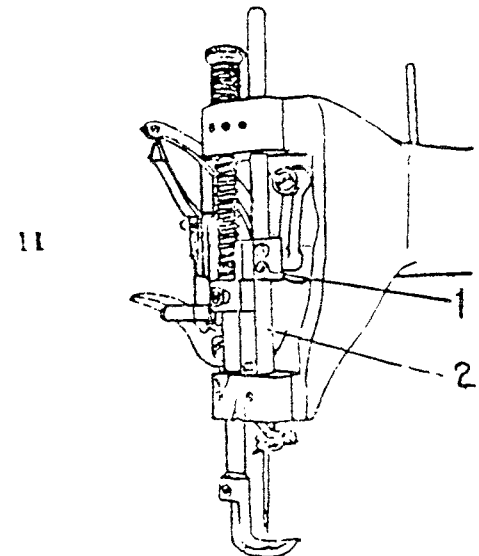
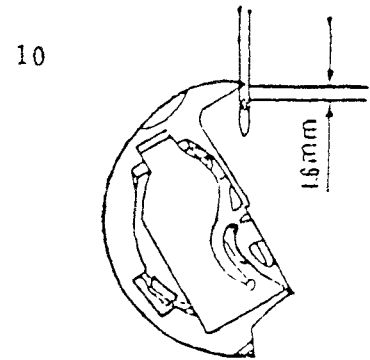


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shorter. The adjustment of the stitch distance is done by first loose the screw rod then put it upward or down. The distance will be shorter as the rod goes up and it will be larger as it goes down ( See Fig. 9 ) After the adjustment, tighten the screw to fix the stitch distance selected.

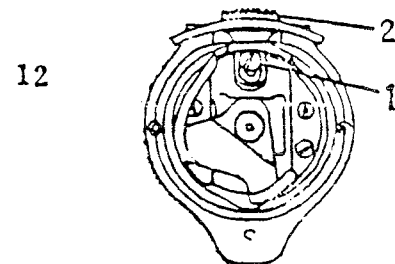
### 13. The adjustment of the needle rod height

The height of the rod should be adjusted according to the position of the needle the mouth top of the ballance shuttle moves to the center of the needle, the distance between the needle hole and the shuttle heart should be 1.6mm. Open the penal, loose the screw of the needle rod connecting axis(1) then move the needle rod to a height desired. After that tighten the screw. See Fig.10.



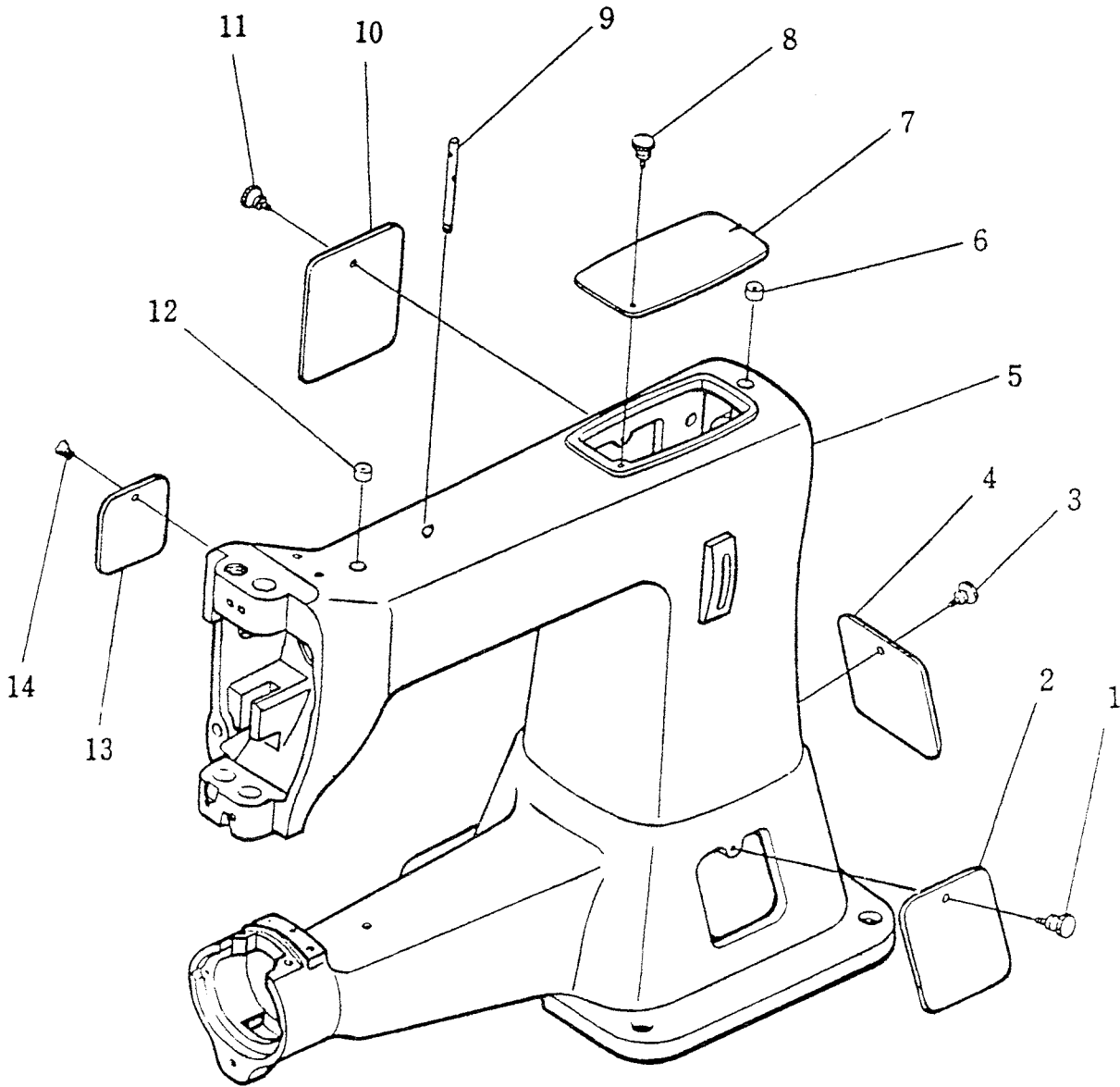
### 14. The adjustment of the height of the feeding saw

The height of the feeding saw should be adjusted according to the properties of different materials. The saw should be higher above the panel as the materials to be sewn are thick, otherwise, it should be lower. First, loosen the screw of the feeding saw(1), then adjust the saw to the position desired. After that] tighten the screw to fix it. See fig.12.

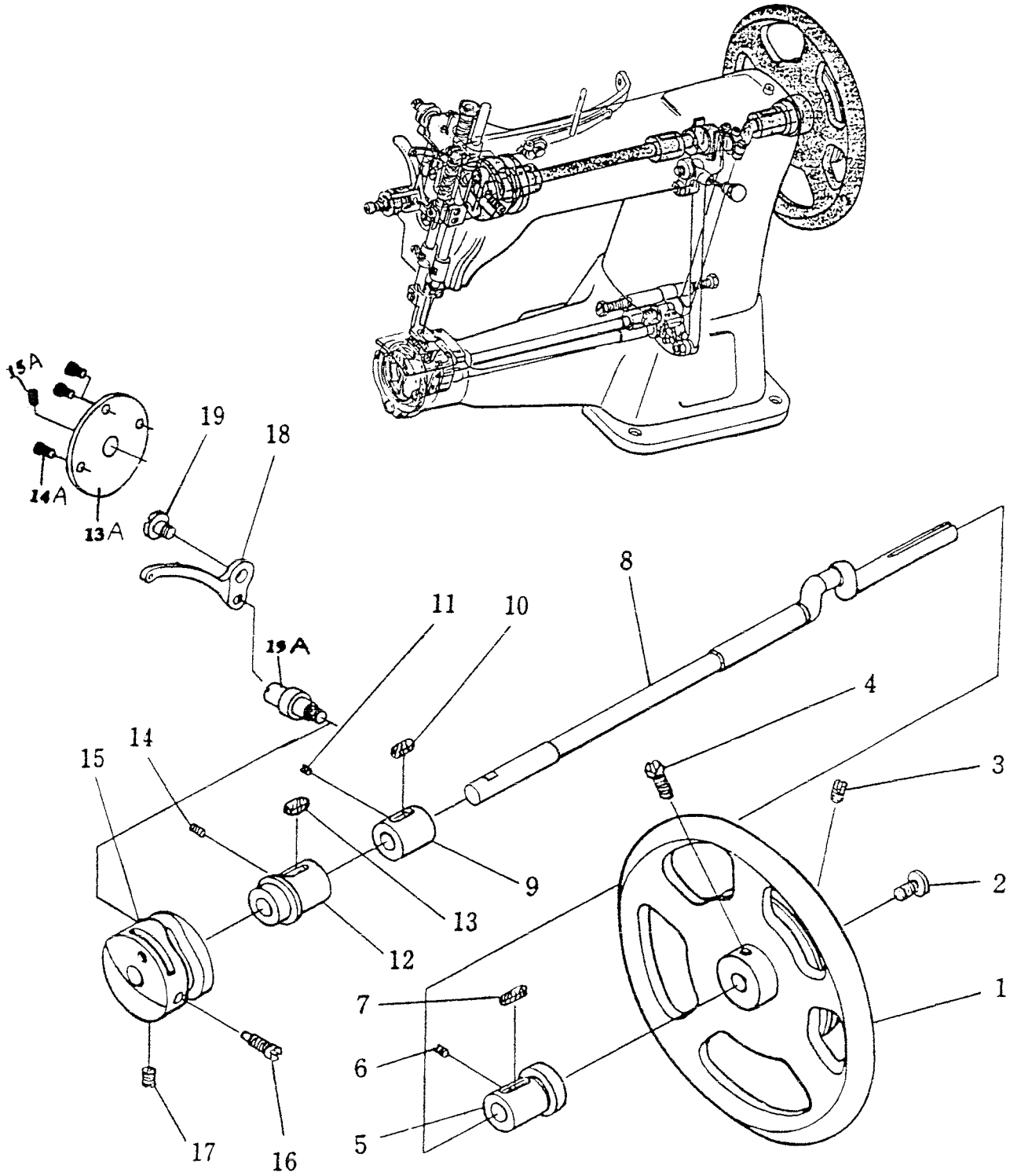




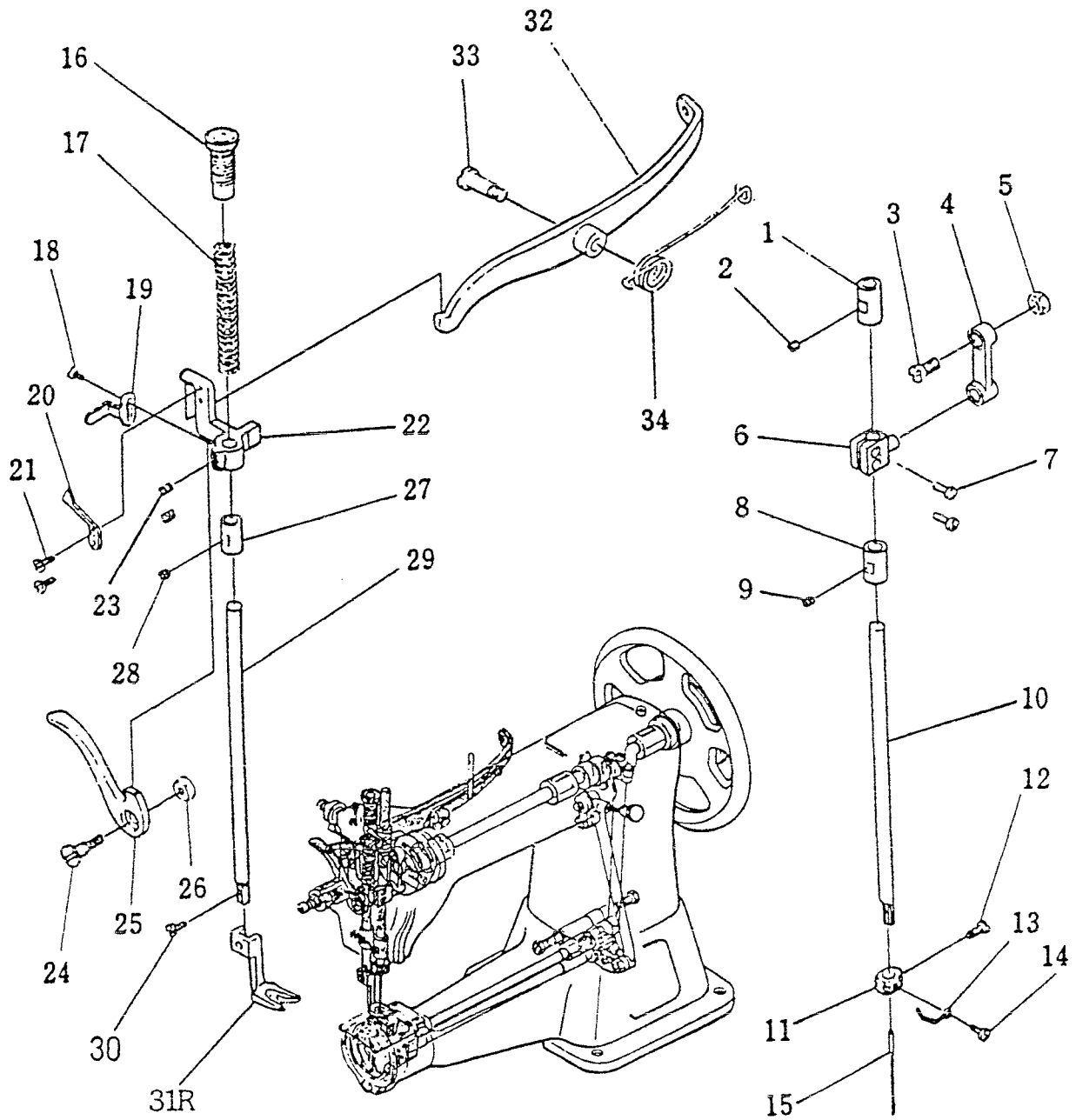
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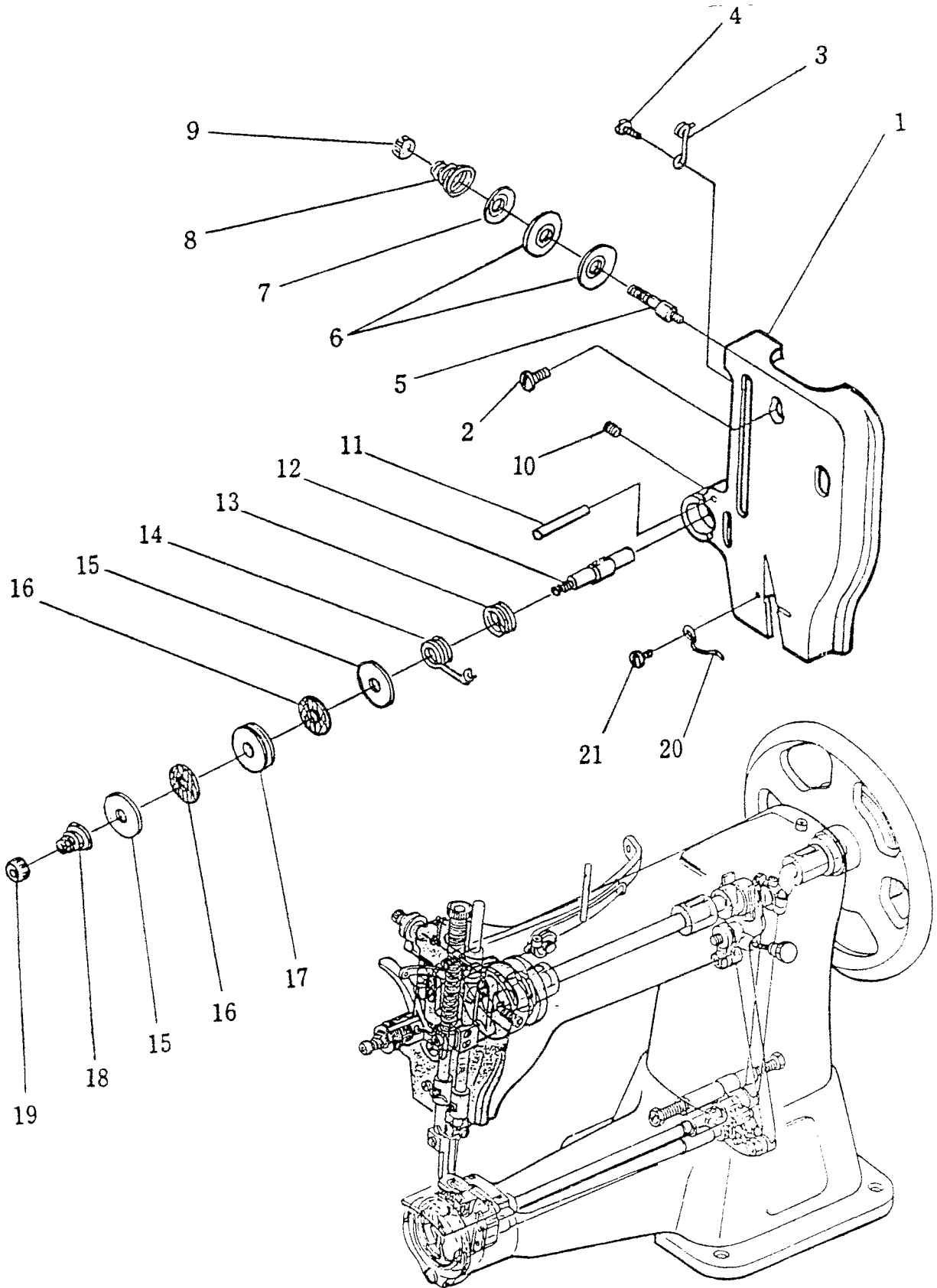
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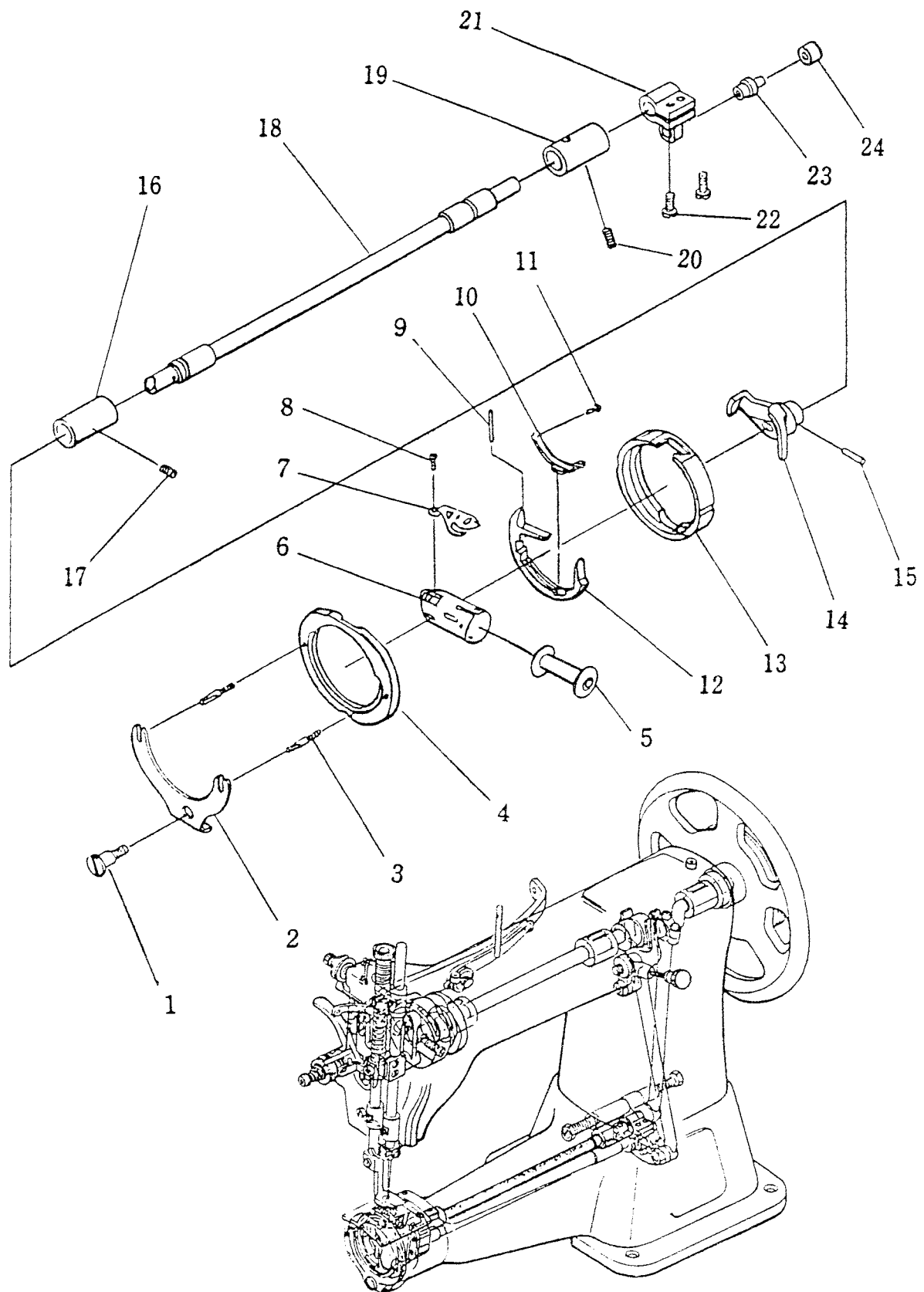
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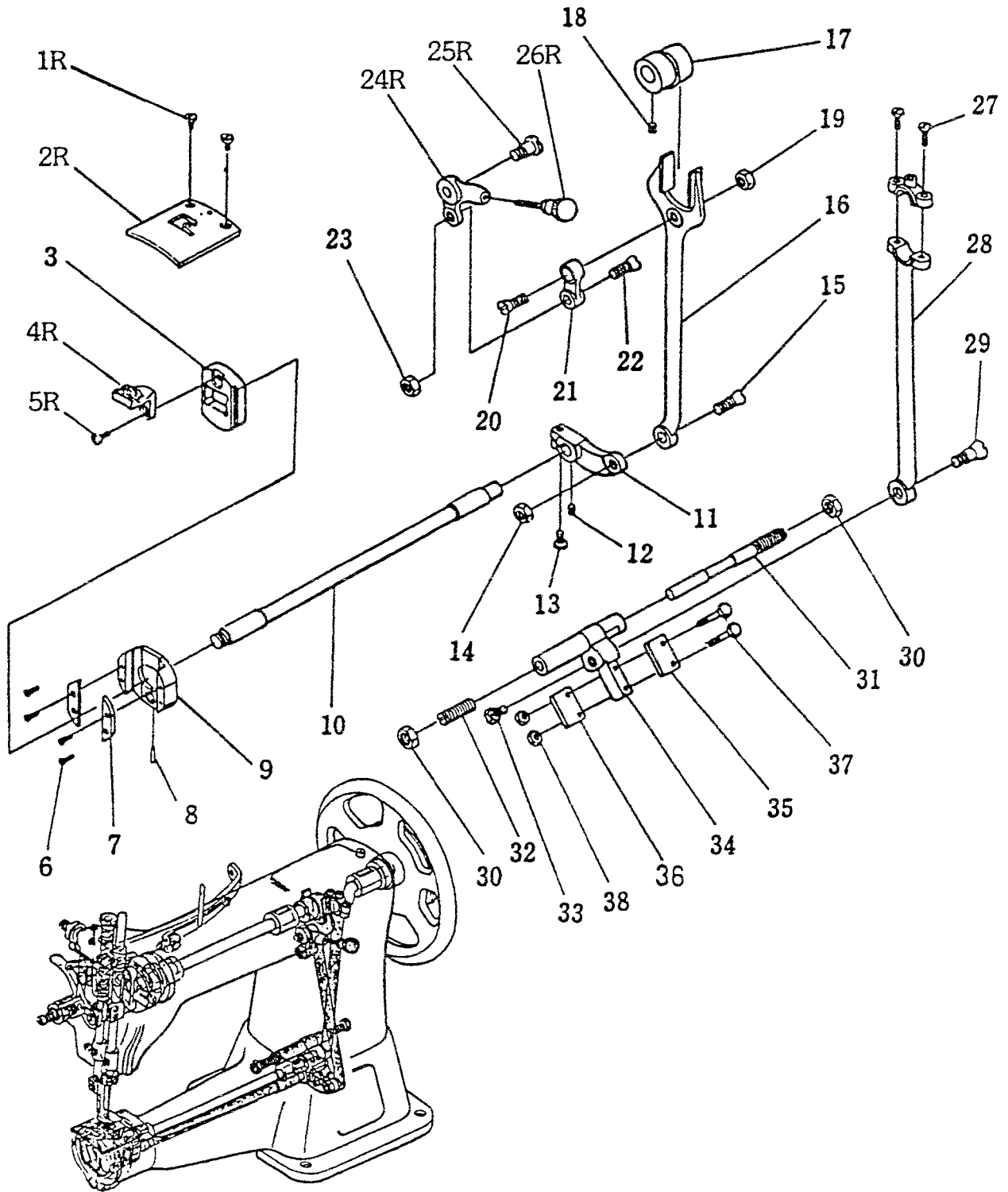
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