

# COMPOUND FEED LOCKSTITCH SEWING MACHINE 3-FACH-TRANSPORT DOPPELSTEPPSTICH-NÄHMASCHINE



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# **Parts Manual**

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#### 1. Brief introduction

Model GC6-6 and GC6-7 medium and heavy duty lockstitch sewing machine both are constructed with the mechanisms of single needle, link thread take-up with needle bearing, precise spiral bevel gear transmition, big rotating hook with double thread capacityand forward or reverse sewing. They have the same advantages of small momentof torsion, low noise, feeding smoothly even from sewing single layer to the lap seams with equability of stitch length, beautiful flat stitches in appearance. They are widely used in the factories of suitcase, bag, leather goods, sofa, tarpaulin, cushion, cloth, shoes, cap and labour protection goods.

The main differences between machines of Model GC6-6 and Model GC6-7 are as follows:

The feed mechanism of model GC6-6 is constructed by the top feed of walking presser foot and bottom feed of feed dog. It can be adjusted to achieve the synchronization of top and bottom feed, to eliminate the slippage between top and bottom layers when sewing loose bulge and slippery materials, also, the top feed can be adjusted in differential with the bottom feed for sewing pleat.

Whereas on machine Model GC6-7, the synchronized top feed of walking presser foot, needle feed and bottom feed of feed dog forming the unison feed, which the slippage between material layers could be eliminated absolutely.So that the elastic and slippery materials can be sewn successfully. Most of this machine is the top feed presser foot nearing needle, therefore the cording, lap seaming and folding all are convenient.

#### 2. Main specifications

| Model                                | GC6-6   | GC6-7                            |  |  |
|--------------------------------------|---|----------------------------------|--|--|
| Max. sewing speed                    | 2000spm   |                                  |  |  |
| Max.stitch length                    | 9mm   | 9mm                              |  |  |
| Presser foot lift                    | 6.5mm(13mm when knee controlled)  | 6.5mm(13mm when knee controlled) |  |  |
| Max.thickness of material to be sewn | 8 layers of leather clothes, at free conditions the thickness of material up to 8mm |                                  |  |  |
| Needle                               | model DP 17,#18-#22 used for mac  | hine Model GC6-6                 |  |  |
|                                      | model DP 17,#18-#24 used for machine Model GC6-7                                    |                                  |  |  |
| Rotating hook                        | big rotating hook with double thread capacity                                       |                                  |  |  |
| Motor                                | 370w(used for sewing machine only)  |                                  |  |  |

#### 3. Installation and preparation

#### 3.1 Installation

#### 3.1.1 Location of the machine

To ensure a smooth running, the machine Should be located on rigid and flat floor. The insert of rubber mat between machine stand and floor is recommended for further reducing the running noise and vibration.

#### 3.1.2 Installing drip pan(Fig.1)

Fix drip pan 1 into the table cutout, aligning knee lifter lifting rod 3 with knee lifter connecting rod 15 of machine head, and to touch it, also maintain dimendions 30 and 119.5mm from nail hole to the table, then drive nails into both sides of the cutout to secure the drip pan.(further see figure on page56).

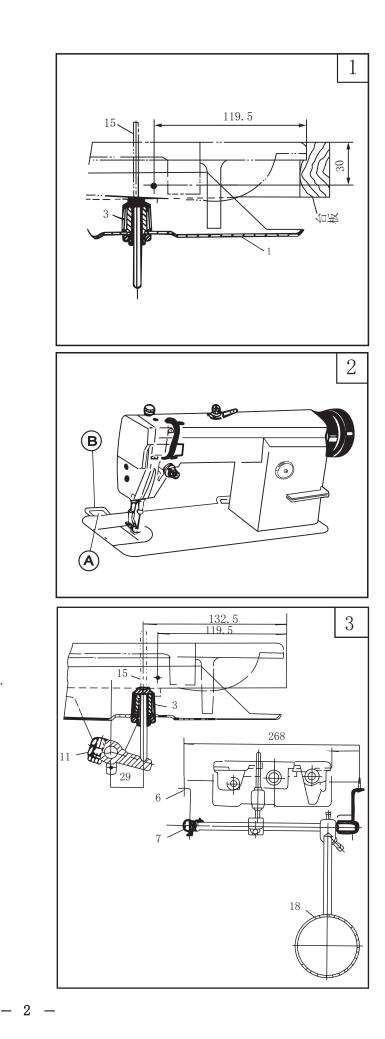
#### 3.1.3 Mounting machine head(Fig.2)

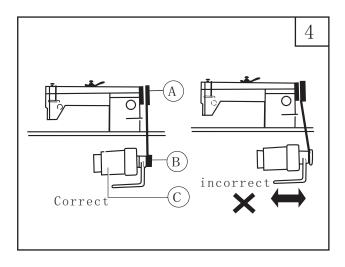
Make the hinge A of machine head engaged with hinge socket B on the table, then turn the machine head freely till it is seated on the frame of table cutout.

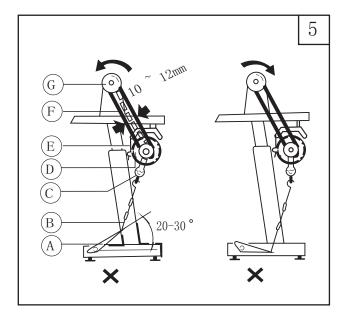
3.1.4 Mounting rock shaft bracket of knee liter (Fig.3, also see figure on page 56)

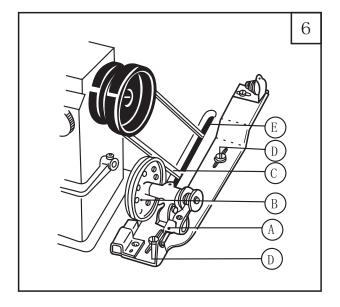
1) Adjust rock shaft knee plate 18 according to the body of operator, for the convenience to operate.

2) Adjust the position of knee lifter assembly according to Fig. 3, then fasten the rock shaft bracket with wood screws 6.









#### 3.1.5 Installing the motor(Fig.4)

Align machin balance wheel belt groove A with motor pulley belt groove B by moving the motor C leftward or rightward. Be sure the belt is not touch with table.

3.1.6 Connecting the clutch lever to the pedal (Fig.5)

1) The optimum tilt angle of pedal A with floor is approx. 15 degree.

2) Adjust the clutch of the motor so that clutch lever C and draw bar B run in line.

3) The machine balance wheel should rotate counterclockwise for normal sewing when view from opposite side of balance wheel G. The motor is rotation in the same direction. The rotation can be reversed by reversing (turn over 180 deg.) The plug of motor.

4) Adjust the tension of V-belt F by moving the motor vertically. The proper tension of V-belt is a salck of 10-12mm when the belt is depressed at the belt span by finger.

3.1.7 Installing the bobbin winder(Fig.6)

Align pulley B of bobbin winder with outside of belt and should be kept a proper clearance between them, so that pulley B could be contacted with belt after the stop latch thumb.

lever A depressed, thereby belt drives the pulley B while machine running. After check bobbin winder is in parallel with belt slit E of table, fastened by two wood screws D.

3.1.8 Installing the thread unwiner (Fig.7)

Locate thread unwinder at the right front of the table, note that spool rest may not obstruct when machine head is turned backward, then tightern wood screw C.

#### 3.2 Preparation

#### 3.2.1 Cleaning the machine

Before delivery, the machine parts are coated with rust preventive grease, which may be hardened and contaminated by dust during storage and shipment. This grease must be removed by clean cloth with gasoline.

#### 3.2.2 Examination

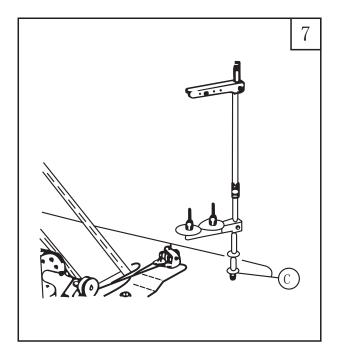
Though every machine is confirmed by strict inspection and test before delivery, the machine parts may be loosed or deformed after long distance transportation with jolt. A thorough examination must be performed after cleaning the machine. Turn the balance wheel to see if there is running obstruction, parts collision, uneven resistance or abnormal noise. If these exist, adjustment must be made accordingly before run.

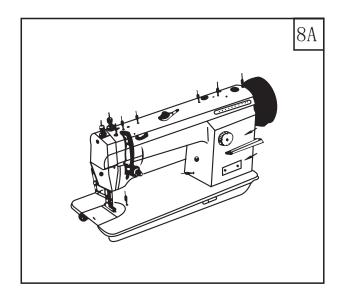
#### 3.2.3 Lubrication

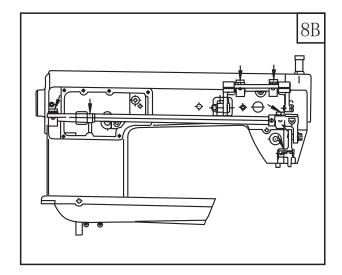
Before machine running, Clean it with soft cloth, then fully lubricate the holes indicated by arrows shown in Fig8 .

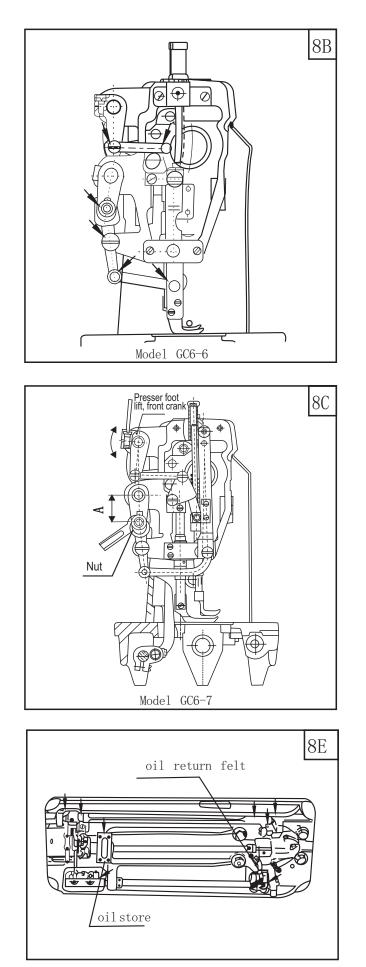
If the machine is in contionus operation, the operator should lubricate it no less than two times a days.

Be sure to use HA-8 Sewing Machine Oil or HJ-7 Machinery Oil.



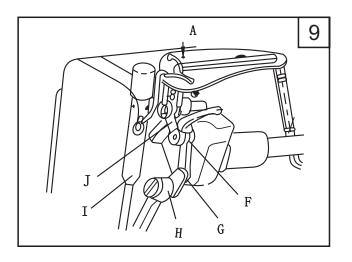


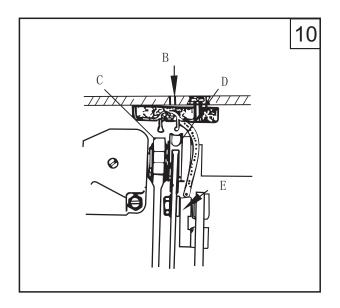


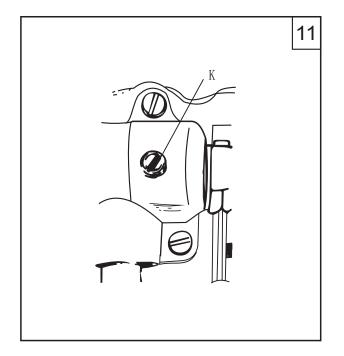


For vaccum sucking needle bar inside oil, see Fig8E. A long oil-return felt should be installed.

Hook oil store is not filled with lubrication oil before leaving off the factory. fill oil before use.







Oil Hole A up to PartF. G. H. I. J(See Fig9).

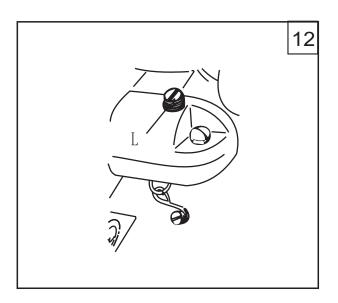
Oil Hole B up to PartC. D. E(See Fig10)through 9 oil wick.

The bevel gear cases in Fig. 11 and Fig.12 are packed with grease, which should be replenished periodically as may be consumed gradually after long time of operation . When replenish, turn off screw plugs L,K first and packed with fresh grease thru screw hole into gear cases then screw on screw plugs. Should the grease in the bevel gear cases been too dirty or partial hardened, it must be changed thoroughly

#### 3.2.4 Trial run

Trial run is required for a new sewing machine, or when the machine left out operation for considerable length of time is used again.

Before the trial run, lift presser foot first, the balance wheel must be rotated in correct direction as mentioned in 3.1.6,3 ). Run the machine begin at a low speed, as the machine runs well then increasing the speed gradually and up to 2000spm, after a few minutes to stop the machine for examination. As the machine is run sufficiently well then put it into operation



#### 4. Operation

#### 4.1. Selection of thread

Needle thread should be left-twisted. Thread. For bobbin thread, either left or right twisted thread is available.

To identify the twist direction of the thread, hold the thread as shown in Fig.13, twist the thread by right hand in the direction of arrow. If the strand turn to be tight, the thread is the left-twisted, otherwise the thread is right- twisted thread .

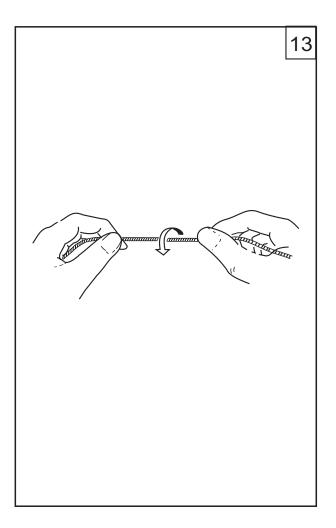
# **4.2** Coordination between needle, thread and sewing material

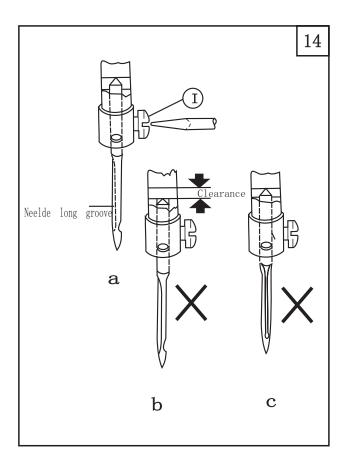
Needle of machine Model GC6-6 is Dp 17, #18-#22

Needle of machine Model GC6-7 is Dp 17, #18-#22

Selection to the needle size should be based upon the thread and material to be sewn. The following table is for reference

| NeedleSize | Kind and number of thread | Material to be sewn                 |
|------------|---------------------------|-------------------------------------|
| #18        | Cotton thread #30-#40     | clothes, canvas heavy wool          |
| #19        | Linen thread #60-#80      | heather cloth, shoes, cap, hand bag |
|            | Polyester thread #20-#40  | Heavy fabric,                       |
| #21 #22    | linen thread #40-#60      | leather goods,                      |
| #21~#22    | glazed thread #40-#60     | sofa, suitcase, bag,                |
|            | mercerized thread#21-#60  | tarpaulin, cushion                  |



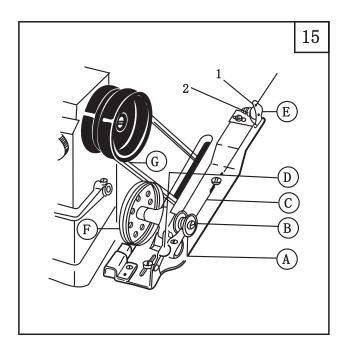


#### 4.3 Installing the needle (Fig.14)

Turn the balance wheel to lift needle bar to the highest position, loosen needle set screw 1, fully insert the needle shank upto the bottom of needle socket, then tighten needle set screw 1.

Note: Fig.14(b): insufficient insertion,

Fig.14(c): wrong direction of long groove.



#### 4.4 Winding the Bobbin thread

4.4.1 Winding method (Fig. 15)

Install bobbin A to bobbin winder spindle B.
 Pass thread C from spool through the eye 1

on tension bracket E. Pass it between tension discs 2, and then wind the end of the thread a few turns on the bobbin

3) Push stop latch thumb lever D down to lock the bobbin, the winder pulley F is thereby pressed on belt G.

4) Start the machine to wind thread.

Note when thread is wound without sewing operation, be sure to keep the presser foot lifted.

5) When thread is fully wound the bobbin winder stop latch automatically release the bobbin winder, thus stopping the winding motion.

#### 4.4.2 Winding adjustment(Fig.16)

1) Wound bobbin thread should be neat and tight, if not, adjust the thread tension by turning tension stud thumb nut A of bobbin winder tension bracket.

Note: nylon or polyester thread should be wound with light tension, otherwise bobbin D might be broketn or deformed.

2) When the wound thread layer does not present a cylindrical shape as in Fig.16a, loosen tension bracket screw B and move tension bracket C leftward or rightward. If thread is wound as shown in Fig, 16b, move the tension bracket rightward, while if thread is wound as shown in Fig. 16c, move the tension bracket leftward, After adequately positioning the tension bracket, tighten screw B.

Donot over fill the bobbin, the optimum capacity of thread will fill about 80% of bobbin outside diameter, this can be adjusted by stop latch screw E.

# 4.5 Threading the needle thread and drawing the bobbin thread

To thread the needle thread, raise needle bar to its highest position, lead the thread from spool and pass it in the order numerically instructed in Fig.17.

The detail of threading are as follows:

1) Lead thread from spool, pass down thru the right side of thread guide plate 1, to left pass up thru middle hole of thread guide plate 1, to left pass thru between two small tension discs and pass down thru the left hole of thread guide plate 1.

2) To left pass down thru the right hole, to left up thru middle hole and to left down thru left hole of thread retainer 2.

3) Pass down thru between two tension discs, to left and up pass thru the hook of thread take-up spring, turn to left pass thru underneath the slack thread regulator5 (Model GC6-7 is the thread guide), then up pass thru the thread guide 6. and up to left pass thru the hole of thread take-lever 7.

4) Turn down to left pass thru the thread guide 8, pass down thru the therad guard 9 of needle bar bushing (lower)(on the machine Model GC6-7 is the lower thread guard 9) and needle bar thread guide 10. Then pass the thread from left thru the eye of needle 11, afterward draw out the thread from needle eye approx 100mm.

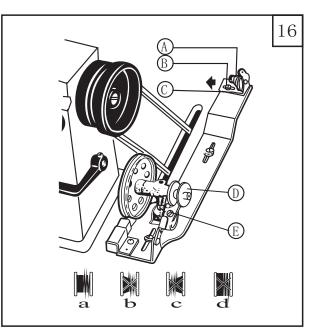
To draw the bobbin thread, hold the tip of the needle thread by hand, turn the balance wheel to lower the needle bar and then, to lift it to its highest position. Pull the needle thread and then the bobbin thread is drawn up. Put the tips of needle and bobbin thread toward from under presser foot.

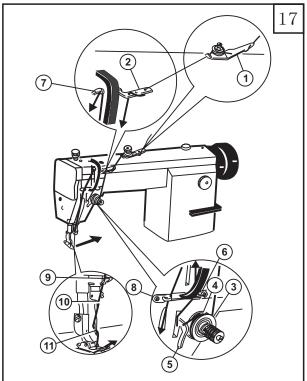
#### 4.6 Setting the bobbin (Fig.18)

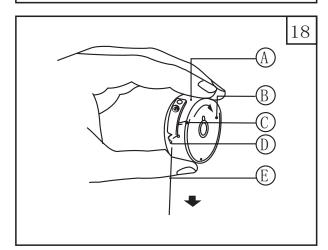
1) Put bobbin B into bobbin case A.

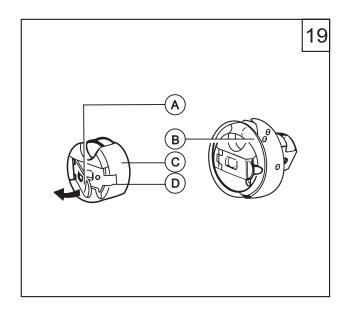
2) Pass the thread thru slit C to lead it underneath the bobbin case tension spring D and out at the notch of spring, draw out thread about 100mm.

3) Make sure that the bobbin rotates clockwise when the thread E is drawn, if not ,reverse the bobbin B.







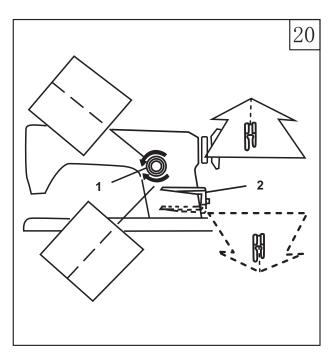


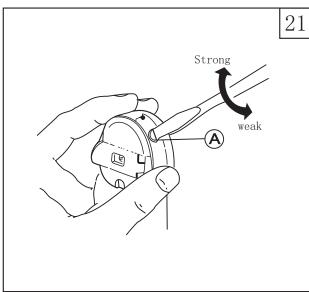
#### 4.7. Installing the bobbin case (Fig.19)

1) Lift the needle bar to its hightest position and open the bed slide.

2) Fully lift bobbin case latch lever A and holding it by fingers, securely install the bobbin case into the rotating hook B.Note that the bobbin case latch is engaged in the positioning groove of rotating hook spindle.

3) When remove the bobbin case from rotating hook, fully lift the bobbin case latch lever A and holding it by fingers first, so that to prevent the bobbin from dropping out from the bobbin case, then gently take the bobbin case out.





#### 4.8. Setting stitch length and reverse sewing (Fig.20)

1) Stitch length can be set by turning stitch length regulating dial 1. The stitch length is longer when turning stitch length regulating dial 1 counter-clockwise, and the stitch length is shorter when turning the dial 1 clockwise.

2) Sewing reverse when feed reverse lever 2 is depressed, and forward sewing is restored automatically when release the depressing on feed reverse lever 2

#### 5. Adjusting thread tension

In principle the thread tension is to be adjusted in accordance with materials, thread and other factors.

In practice, the thread tension is adjusted according to the stitches resulted. The needle thread tension should be adjusted with referensce to the bobbin thread tension.

To adjust the bobbin thread tension, turn bobbin case tension spring screw A (see Fig.21) clockwise to increase the tension, or turn the screw counter-clockwise to decrease the tension. It is a common practice to check the bobbin thread tension as shown in Fig. 22. In case of glazed thread #50, hold the end of pulled out thread and to vibrate bobbin case up and down, if the bobbin case fall down slowly, the proper tension is obtained.

The needle thread tension can be adjusted by changing:

(1) tension of the thread take-up spring,

(2) swinging range of the thread take-up spring,

(3) tension of tension disc

(4) the position of thread guide 6 in fig. 17. All these adjustments will be described as follows.

#### 5.1. Adjusting the thread take-up spring

The normal tension of thread take-up spring is approx. 35-55. The normal swing range of the thread take - up spring is 5-8mm. For sewing light weight materials (with short stitch length), weaken the spring tension and widen the swinging range of spring, while for sewing heavy weight materials, strengthen the spring tension and shorten the swinging range of spring.

5.1.1 Adjusting the thread take-up spring tension(Fig.23) Loosen tension stud set screw A, turn tension stud B

clockwise to increase the spring tension, or turn the tension stud counter-clockwise to decrease the spring tension. After the adjustment, be sure to tighten tension stud set screw A.

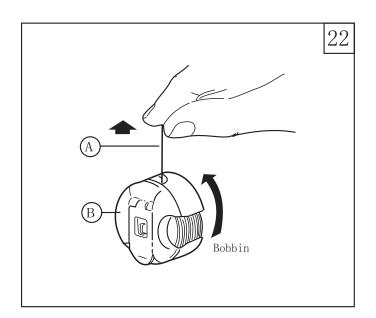
The thread take-up spring tension is about 45g. To attain this, loosen set screw A first, then turn tension stud B counter clockwise to release the tension of thread takeup spring C to zero, and turn tension stud B clockwise until spring C just comes into contact with the stopper on thread take-up spring regulator, then further

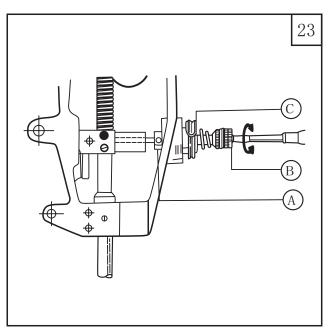
turn tension stud B clockwise be 1/2 turn. After adjustme -nt, tighten tension stud set screw A.

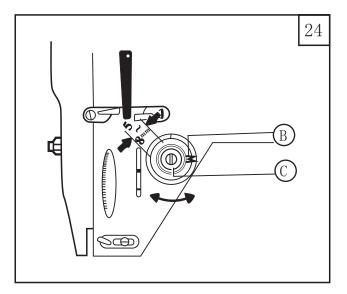
# 5.1.2 Adjusting the swing range of thread take-up spring (Fig.24)

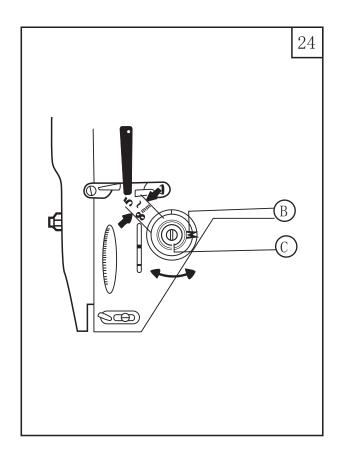
Loosen set screw B, turn tension complete C clockwise to increase the swing range or turn tension complete C counter-clockwise to decrease the swing range. After the adjustment, tighten set screw B.

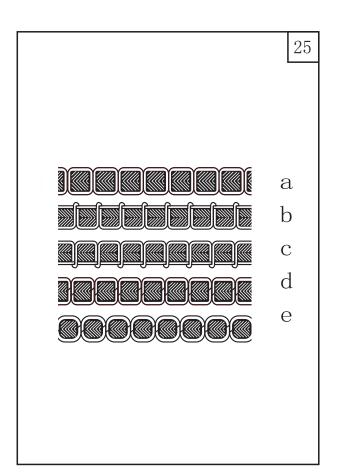
Before delivery, thread take-up spring is properly adjusted. Re-adjustment is needed only in the case of sewing special material material or with special thread.











#### 5.2 Adjusting the thread guide

The position of thread guide affects sewing quality and therefore must be adjusted according to the materials to be sewn and sewing conditions.

The normal relationship between the position of thread guide (Fig.17) and the materials to be sewn is as the following table

|                    | 1        | 2           | 3         |
|--------------------|----------|-------------|-----------|
| Thread<br>guide    | Leftward | Center      | Rightward |
| Position           | 50       | <b>TD</b> ) | SÐ        |
| Material<br>weight | Heavy    | Medium      | Light     |

# **5.3** Adjusting the tension of needle thread and bobbin thread

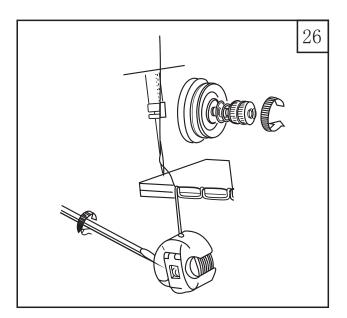
Fig.25 shows the various type of stitch forms probably to happen when sewing.

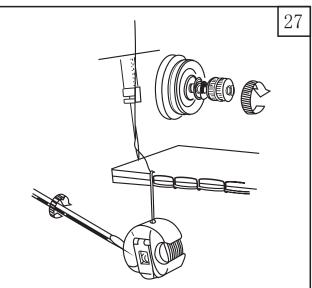
Normal stitch form should be as shown in Fig.25 (a). When abnormal stitches occur with puckering, loose stitch or thread breakage, the tension of needle thread and bobbin thread must be adjusted accordingly.

1) In case of needle thread tension is too strong or bobbin thread tension is too weak, as shown in Fig.25(b), turn the tension regulating thumb nut counterclockwise to decrease the needle thread tension or tighten the bobbin case tension regulating screw to increase the bobbin thread tension(see Fig. 26).

2) In case of needle thread tension is too weak or bobbin thread is too strong as shown in Fig.25(c), turn the tension regulating thumb nut clockwise to increase the needle thread tension or turn the bobbin case tension regulating screw counter-clockwise to decrease the bobbin thread tension (see Fig. 27).

3) In case of stitches as shown in Fig. 25(d), (e), adjustment can be made with reference to above means.





# 28 A D E

#### 6. Adjustment

6.1 Timing between needle and rotating hook motion

6.1.1 Adjusting the needle bar position(Fig. 28)

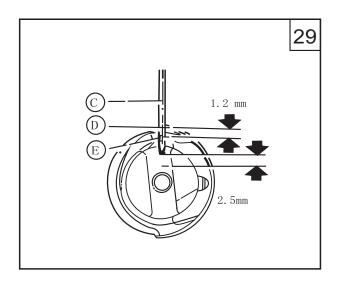
1) Turn the balance wheel to locate needle bar at its lowest position.

2) Remove face plate (or rubber plug).

3) Loosen needle bar connecting stud clamping screw A.

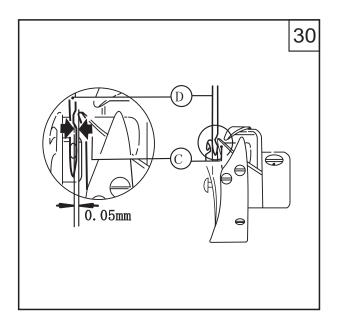
4) Move needle bar vertically to bring the center of needle eye D coincidence with inside surface E of bobbin case holder.

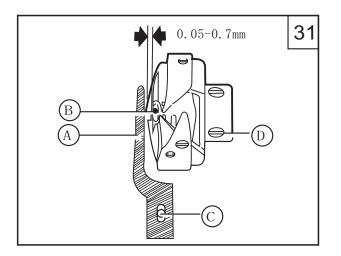
5) Then tighten clamping screw A.



6.1.2 Adjusting rotating hook point timing with needle (Fig. 29)

Turn the balance wheel to locate needle bar to its lowest position, and when needle bar lifted again at 2.5mm from its lowest position, the rotating hook point D should be coincides with needle center line C, and hook point D is 1.2 mm above the upper edge E of needle eye.





When adjusting the rotating hook point timing also note that clearance between notch bottom of needle D and hook point C must be maintained approx.0.05mm (see Fig. 30)

6.1.3 Removing and installing the rotating hook (Fig. 31)1) Lift the needle bar to its highest position.

2) Remove the throat plate, take down the needle and the bobbin case.

3) Loosen rotating hook bobbin case holder position bracket screw C and take down position bracket .

4) Loosen two set screws D of rotating hook.

5) At this point, the rotating hook can be turned freely on its shaft, and it can be kept to avoid the collision with feed dog support as the feed dog support in its highest, then take down the rotating hook slowly.

6) Installing the rotating hook can be done in reverse sequence.

6.1.4 Adjusting the clearance between rotating hook and bobbin case holder position bracket (Fig.31)

The projecting flange of the position bracket A should be engaged in the notch B of the bobbin case holder, and maintain a clearance of 0.5-0.7 mm between projecting flange top and the bottom of notch while installing.

#### 6.2 Adjusting the feed dog

#### 6.2.1 Adjusting height of feed dog

Turn balance wheel to raise the feed dog to its highest position, at that position, the height of feed dog teeth should be projected 0.8-1mm above throat plate top surface as shown in Fig.32. The height of feed dog teeth of 1mm above the throat plate top surface can be taken while sewing heavy material.

When adjusting, loosen feed lifting rock shaft crank clamping screw A (Fig.33) slightly, then turn feed lifting rock shaft crank B till the proper height of the feed dog teeth is achieved, after adjustment, tighten clamping screw A.

6.2.2 Adjusting the position of feed dog (Fig.34)

The standard position of feed dog A is that the clearance from the throat plate slit end to the front end of the fully advanced feed dog is 1.5 mm. as shown in Fig.34a

1) Fix the feed dog in the position where the feed fully advances.

2) Loosen two feed rock shaft crank clamping screws B slightly, as shown in Fig.34b

3) Move feed bar to adjust the clearance between the feed dog and throat plate.

4) After adjustment, tighten clamping screw B.

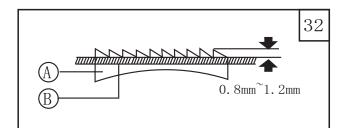
#### 6.3 Adjusting the tension releasing mechanism(Fig.35)

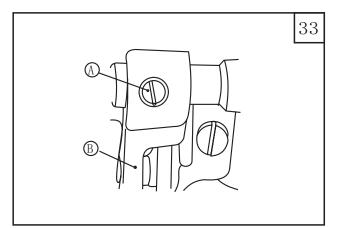
The tension discs should be pushed apart to open when the presser foot is lifted. But the open timing of the tension discs can be adjusted as follows:.

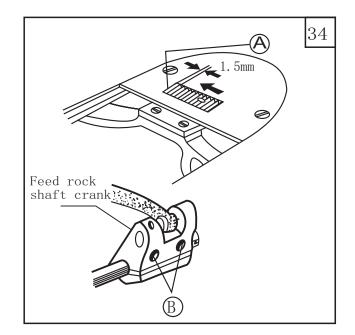
1) Remove face plate and the rubber plug at rear side of arm and lossen screw A of the knee lifting lever (left).

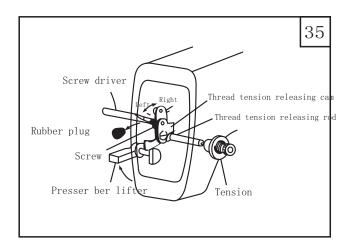
2) Then the tension releasing cam can be moved leftward or rightward, open later when the cam is moved rightward, open earlier when the cam is moved leftward.

3) After adjustment, tighten screw A and replace rubber plug and face plate.









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#### 6.4 Adjusting the pressure of presser foot (see Fig.36)

pressure on presser foot is to be adjusted in accordance with material to be sewn.

Loosen lock nut B,b, first, then turn pressure regulating thumb screwA,a,clockwise as shown in Fig.36 to increase the pressure while turn the pressure regulating thumb screw A,a, counter-clockwise to decrease the pressure on presser foot, then tighten lock nut B,b,

#### 6.5 Adjusting top feed mechanism

6.5.1 Adjusting top feed mechanism of machine Model GC6-6

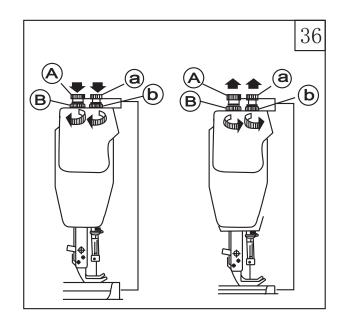
1) Adjusting feed amount

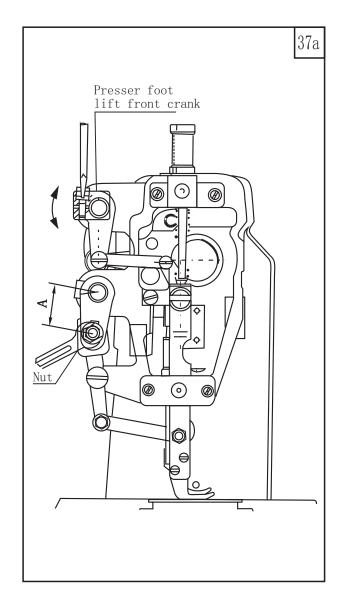
The top feed can be adjusted to synchronize with bottom feed or differential with bottom feed.

Loosen the nut with a spanner, then change the center distance A, as shown in Fig.37a. Increase distance A to increase the top feed amount, decrease the center distance to decrease the top feed amount, after adjusting, tighten the nut. Trial sewing should taken after every adjustment. The adjusting is repeated if necessary, until the required feed style is achieved.

2) Adjusting the alternate lift amount of the presser feet The lift amount of the walking presser foot is with 5.5 mm when sewing medium or heavy material, and the presser foot lift amount is 3.5 mm. The lift amount of these two presser feet can be changed slightly according to the nature of material or the requirements in sewing. But he sum tof these two presser feet lift amount is nearly the same, as the other mechanisms are kept in constant conditions. In other works, the increasing of walking presser foot lift amount will diminishes the lift amount of presser foot, and vice versa.

When adjusting, loosen clamping screw of presser foot lift front crank slightly with a screwdriver and turn the crank to overcome the friction on its shaft, as shown in Fig.37a. The lift amount of walking presser foot can be increased and the lift amount of presser foot is decreased if turn the crank clockwise. The lift amount of walking presser foot is decreased and the lift amount of presser foot is increased when turn the crank counter-clockwise. After adjustment tighten the clamping screw.





3) Adjusting the lift amount of presser foot together with walking presser foot

The lift amount of walking presser foot together with presser foot also can be adjusted slightly. When adjusting, loosen nut with a spanner first, then move the presser foot lift regulating screw to change its center distance B between the presser foot lift shaft, as shown in Fig.39 The lift amount is increased as to shorten the center distance B, and the lift amount is decreased when widen the center distance B, After adjustment, tighten the nut again.

4) Adjusting the clearance betwesser foot and walking presser foot

In sewing operation, for prevent the walking presser foot from striking on presser foot at the end of feeding, a proper clearance C of approx. 1.5mm should be maintained between them, as shown in Fig.40b. When the clearance is too small or too big necessary to adjust, loosen rear crank clamping screw with a screw driver and turn the rock shaft, sa shown in FIG.40A. Turn rock shaft clckwise to decrease the clearance C, and turn the rock shaft counter clockwise to increase the clearance C. After adjustment, tighten clamping screw.

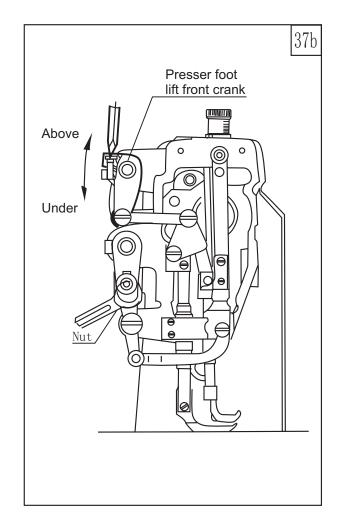
After the adjustment of 2).3) or 4) as mentioned above, an inspection should be made, as to raise the presser feet with presser bar lift, and turn balance wheel slowly to see that the walking presser foot is to strike with other parts, if it is, should be adjusted again.

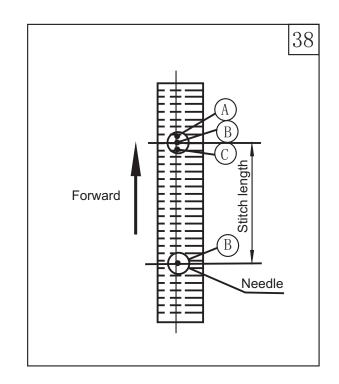
#### 6.5.2 Adjusting the feed mechanism of machine Model GC6-7 1) adjusting the feed amount

Top feed must be synchronized with needle feed and bottom feed, this is performed in factory before delivery. If necessary it can be adjusted as follows:

Lift the presser foot with presser bar lifter, set the max stitch length, then turn balance wheel slowly and watch for needle penetration to see if the needle is positioned in the center of feed dog needle hole, at the point B as show in Fig.38, if not, should be adjusted first as shown in Fig.40a. After adjustment, tighten the clamping screw.

Turn the balance wheel continuously until the needle feed end is reached, at that time, the feed amount is correct when the needle is still positioned in the center of feed dog needle hole, at the point B1 as shown in Fig.38. If the needle is positioned at point A in Fig.38, the feed amount is too big, and too small of feed amount while the needle is positioned at point C in Fig.38, all of these should be adjusted accordingly. In adjusting, loosen nut with a spanner, then to change the center distance A, after adjustment tighten the nut.





2) Adujsting the alternate lift amount of the presser feet Lift amount of the walking presser foot is within 5mm and lift amount of the presser foot is 2.5 mm, when sewing medium or heavy materials. The lift amount of these two presser feet can be changed slightly according to the nature of material or the requirements in sewing. The sum of the lift amount of these two presser feet is nearly the same as the other mechanisms are kept in constant condition. In other words, the increasing of walking presser foot lift amount diminishes the lift amount of presser foot, and vice versa.

When adjusting, loosen the presser foot lift front crank clamping screw slightly with a screw driver as shown in Fig.37b, and turn the crank to overcome the friction on its shaft. The lift amount of walking presser foot can be increased and the lift amount of presser foot is decreased if turn the crank clockwise. The lift amount of walking presser foot is decreased and the lift amount of presser foot is increased when turn the crank counter-clockwise. After adjustment, tighten the clamping screw.

3) Adjusting the lift amount of presser foot together with walking presser foot

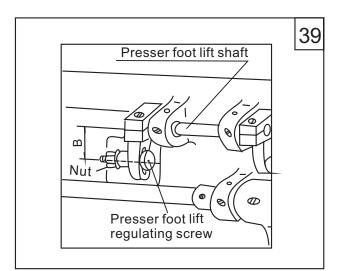
The lift amount of presser foot together with walking presser foot can be adjusted slightly. When adjusting, loosen nut with a spanner foot lift regulating screw to change its center distance between the presser foot lift shaft as shown in Fig.39. The lift amount is increased as to shorten the center distance B, and the lift amount is decreased when to widen the center distance B. After adjustment, tighten the nut again.

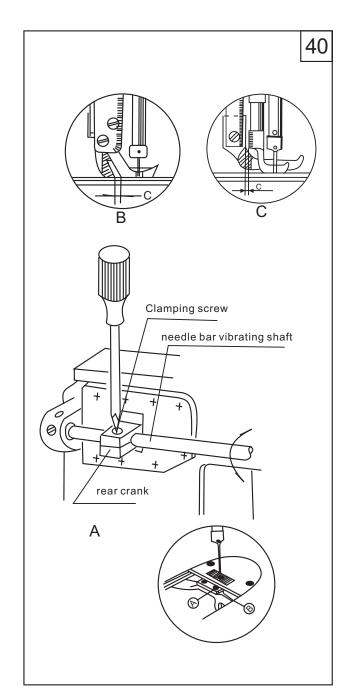
4) Adjusting the clearance between presser foot and walking presser foot

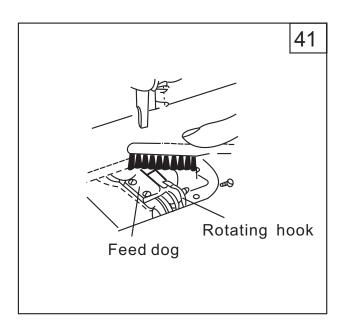
In sewing operation, for prevent the walking presser foot from striking on presser foot at the end of feeding, a proper clearance C of approx. 1.5mm should be maintained between them, as shown in Fig.40c. When the clearance is too small or too big necessary to adjust, loosen rear crank clamping screw with a screw driver and then turn the rock shaft as shown in Fig.40a. Turn the rock shaft clockwise to increase the clearance C, and turn the rock shaft counter-clockwise to decrease the clearance C. After adjustment, tighten the clamping screw.

After adjusting the clearance between presser foot, it is probable the needle to deviate from the center of the feed dog needle hole in feed direction, this can be adjusted to loosen the feed rock shaft crank clamping screw B (Fig. 34b) and shifting the feed dog B (Fig.40d) in direction of feed after adjustment, tighten clamping screw B again, In case the needle is deviated from the feed dog needle hole center in the crosswise direction, loosen twoo feed dog screw A (Fig.40d) and to shift the feed dog B crosswise. After adjustment, tighten the feed dog screw.

After the adjustment of 1)-4) as mentioned above, an inspection should be made, as to raise the presser foot with presser bar lifter and turn the balance wheel slowly to see that the walking presser foot is to strike the other parts. If it may be, should be adjusted again.



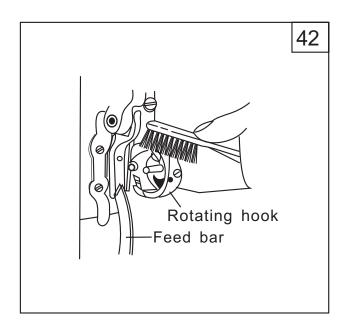




## 7. Periodical cleaning

#### 7.1. Cleaning the feed dog(Fig.41)

Remove the throat plate and clean off all the dust and lint on the feed dog.



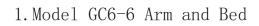
#### 7.2 Cleaning the rotating hook(Fig.42)

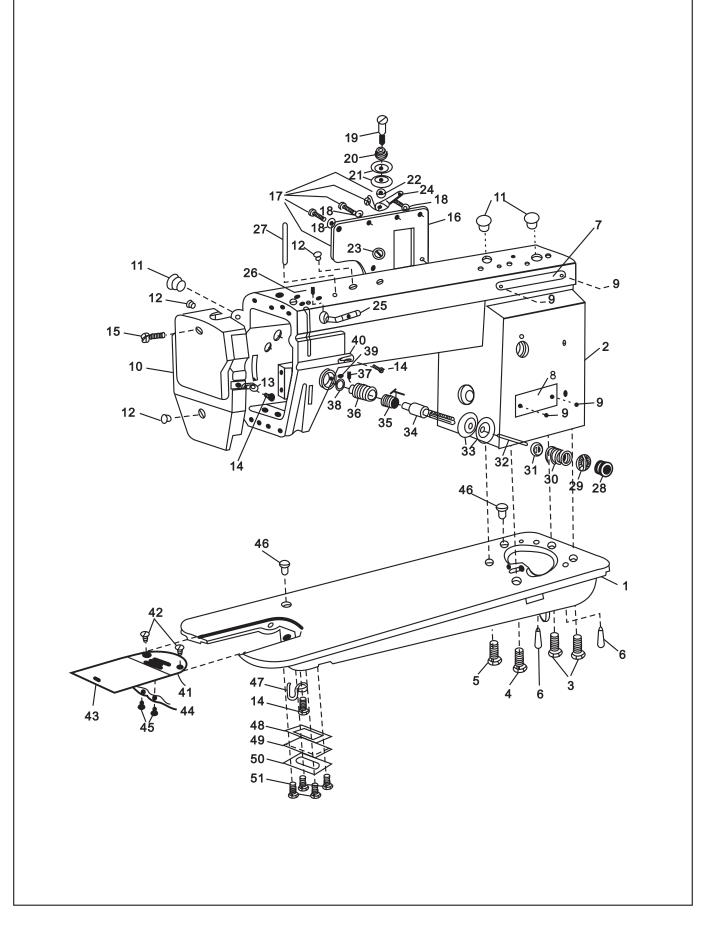
Lay down the machine head and clean the hook, wipe the bobbin case with soft cloth.

# 8.Trouble shooting

| Trouble                      | Possible causes   | Remedy  |
|------------------------------|---|---|
| Needle<br>breaking           | <ol> <li>Needle too thin or bent.</li> <li>Wrong set of needle.</li> <li>Push or pull the material with hand while sewing.</li> <li>Too heavy the weight of sewing material.</li> </ol>                                 | Change the needle with new<br>one.<br>Refer to the section 4.3.<br>Support the material gently<br>with hand while sewing.<br>Sewing according to the<br>technical specification |
| Skip<br>stitch               | <ol> <li>Needle bent or needle<br/>number is not fitted the<br/>weight of material.</li> <li>Wrong set of needle.</li> </ol>  | Change the needle.<br>Refer to the section 4.3.   |
| Needle<br>thread<br>breaking | <ol> <li>Wrong needle threading.</li> <li>Needle thread tension too<br/>strong.</li> <li>Poor thread.</li> <li>Needle too thin or too<br/>rough.</li> </ol>   | Refer to the section 4.5.<br>Refer to the section 5.3.<br>Change the thread.<br>Change the needle.  |
| Bobbin<br>thread<br>breaking | <ol> <li>Too strong the bobbin<br/>thread tension.</li> <li>Thread wound on bobbin<br/>flabbily and uneven.</li> <li>Needle hole of throat<br/>plate too rough or have<br/>worn.</li> </ol>                             | Weaken the bobbin thread<br>tension.<br>Wind the bobbin again.<br>Change throat plate or<br>polish needle hole with<br>#O emery cloth.  |
| Loose<br>stitch              | <ol> <li>Unsuitable adjust of<br/>needle thread tension and<br/>bobbin thread tension .</li> <li>Too weak the tension on<br/>thread take-up spring.</li> </ol>  | Readjust the needle<br>thread tension and bobbin<br>thread tension.<br>Adjust thread take-up<br>spring as section 5.1.1.  |
| Puckering                    | <ol> <li>Too light the weight of<br/>material and too long the<br/>stitch length.</li> <li>Too strong the thread<br/>tension on needle and<br/>bobbin.</li> <li>Too strong the pressure<br/>on presser foot.</li> </ol> | Adjust suitably.<br>Adjust tension regulating<br>thumb nut, thread take-up<br>spring and bobbin case<br>tension spring screw.<br>Loosen pressure regulating<br>thumb screw.     |

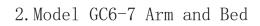
# **Parts Manual**

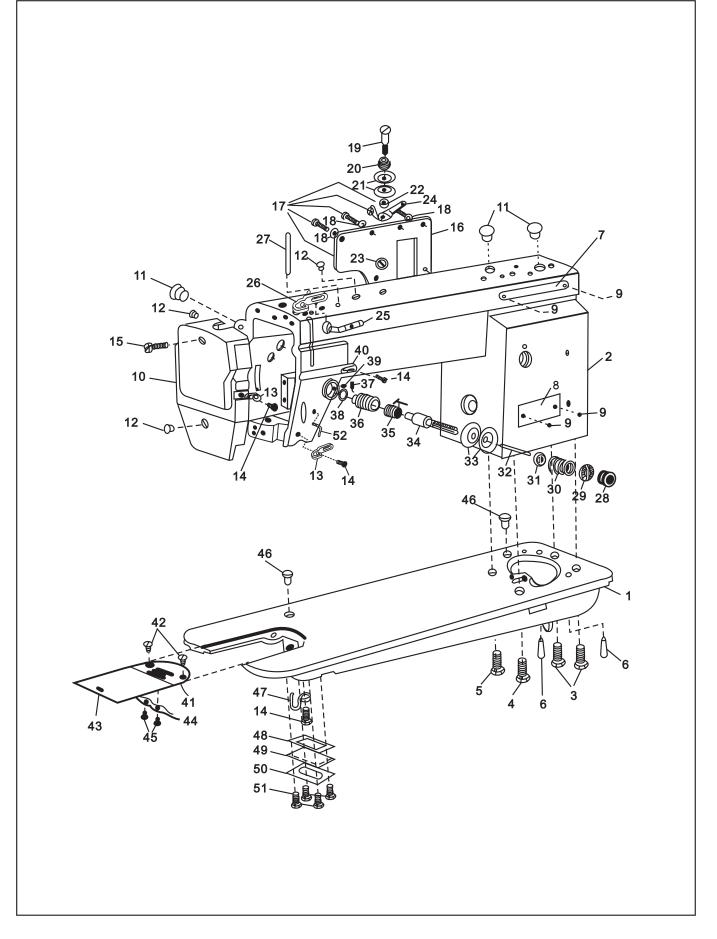




1.Model GC6-6 Arm and Bed

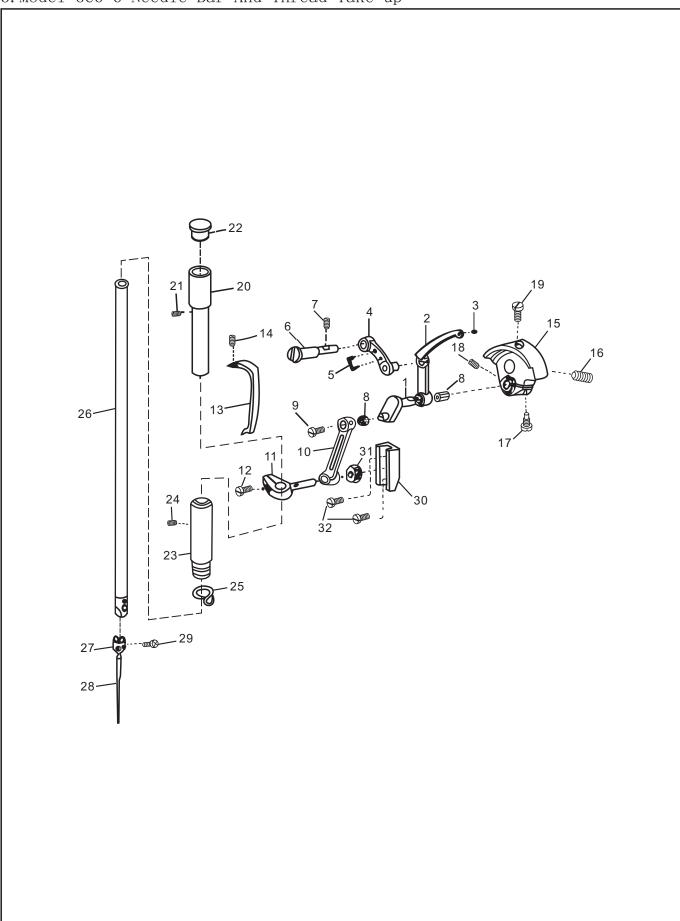
| No.      | Parts No .                   | Name of parts                     | Qty. | Remarks                                    |
|----------|------------------------------|-----------------------------------|------|--|
| 1        | 34T4 - 401 - A               | Machine bed                       | 1    |  |
| 2        | 34T4 - 402 - A               | Machine arm                       | 1    |  |
| 3        |                              | Screw                             | 2    | M10 28 GB5782-86                           |
| 4        |                              | Screw                             | 1    | M12 38 GB5782-86                           |
| 5        | 33T4 - 011                   | Screw                             | 1    | M12 38 GB5782-86                           |
| 6        | 5514-011                     | Pin                               | 2    | M6 30 GB117-86                             |
| 7        | 34T4 - 404                   | Name plate                        | 1    | GC6-6-1 为34T4-404-1                        |
| 8        |                              | Trade mark                        | 1    | GC6-6-1 为34T4-404-1<br>GC6-6-1 为34T4-406-1 |
| 8<br>9   | 34T4 - 406                   |                                   |      |  |
|          | 34T4 - 403a                  | Nail                              | 4    | Ф2.5 5 GB827-86                            |
| 10       |                              | Face plate                        | 1    |  |
| 11       | 22T1 - 003C3                 | Rubber plug( $\Phi$ 19)           | 1    |  |
|          |                              | Rubber plug( $\Phi$ 19)           | 2    |  |
| 12       | 22T1 - 004C4                 | Rubber plug                       | 1    | Φ 11.8                                     |
|          |                              | Rubber plug                       | 1    | Φ 11.8                                     |
|          |                              | Rubber plug                       | 1    | Φ 11.8                                     |
| 13       | 22T1 - 003C5                 | Thread finger                     | 1    |  |
| 14       | 22T1 - 003C6                 | Screw                             | 1    | SM9/64" 40 6                               |
|          |                              | Screw                             | 1    |  |
| 15       | 22T1 - 004                   | Screw                             | 3    | SM11/64" 40 10                             |
| 16       | 33T4 - 405                   | Rear cover                        | 1    |  |
| 17       | 22T1 - 006                   | Screw                             | 6    | SM11/64" 40 9                              |
| 18       | 22T1 - 007                   | Washer                            | 6    |  |
| 19       | 22T1 - 009E1                 | Screw                             | 1    |  |
| 20       | 22T1 - 009E1<br>22T1 - 009E2 |                                   | 1    |  |
|          |                              | Spring                            |      |  |
| 21       | 22T1 - 009E3                 | Thread tension discs              | 2    |  |
| 22       | 22T1 - 009E4                 | Shim                              | 1    |  |
| 23       |                              | Split stop ring                   | 1    | 3 GB896                                    |
| 24       | 22T1 - 009E5                 | Thread guide plate                | 1    |  |
| 25       | 22T1 - 010                   | Three-eye thread finger           | 1    |  |
| 26       | 22T1 - 011                   | Screw                             | 1    | SM11/64" 40 5.5                            |
| 27       | 33T1 - 004                   | Oil pipe                          | 1    |  |
| 28       | 22T1 - 012F2                 | Nut                               | 1    |  |
| 29       | 22T1 - 012F10                | Stop plate                        | 1    |  |
| 30       | 33T4 - 008C1                 | Spring                            | 1    |  |
| 31       | 22T1 - 012F4                 | Thread tension releasing plate    | 1    |  |
| 32       | 22T1 - 012F9                 | Pin                               | 1    |  |
| 33       | 22T1 - 012F5                 | Discs                             | 2    |  |
| 34       | 22T1 - 012F1                 | Screw                             | 1    |  |
| 35       | 22T1 - 012F1                 | Thread take-up spring             | 1    |  |
| 36       | 22T1 - 012F7                 | Thread tension adjusteing bracket | 1    |  |
| 37       |                              | Screw                             | -    | SM0/64" 40 4                               |
| 38       | 22T1 - 012F8                 | O-type ring                       | 1    | SM9/64" 40 4                               |
| 38<br>39 | 22T1 - 012F11                |                                   | 1    |  |
|          | 22T1 - 013                   | Set screw                         | 1    | SM15/64" 28 8                              |
| 40       | 22T1 - 014                   | Thread finger                     | 1    |  |
| 41       | 34T4 - 012-A                 | Throat plate                      | 1    |  |
| 42       | 22T1 - 020                   | Screw                             | 2    | SM11/64" 40 4.5                            |
| 43       | 20T1 - 013F1                 | Slide plate                       | 1    |  |
| 44       | 20T1 - 013F2                 | Spring                            | 1    |  |
| 45       | 20T1 - 013F3                 | Screw                             | 2    |  |
| 46       | 1WF1 - 032                   | Oil plug                          | 2    |  |
| 47       | 33T1 - 030-A                 | Position finger for oil wick      | 1    |  |
| 48       | 33T1 - 032-A                 | Seal ring                         | 1    |  |
| 49       | 33T1-033-A                   | Cover                             | 1    |  |
| 50       | 33T1-034-A                   | Press plate                       | 1    |  |
| 51       | 22T7 - 015                   | Screw                             | 4    | SM9/64" 40 11                              |
| 51       | 221/-013                     | 5010W                             | 4    | 51017/04 40 11                             |





2. Model GC6-7 Arm and Bed

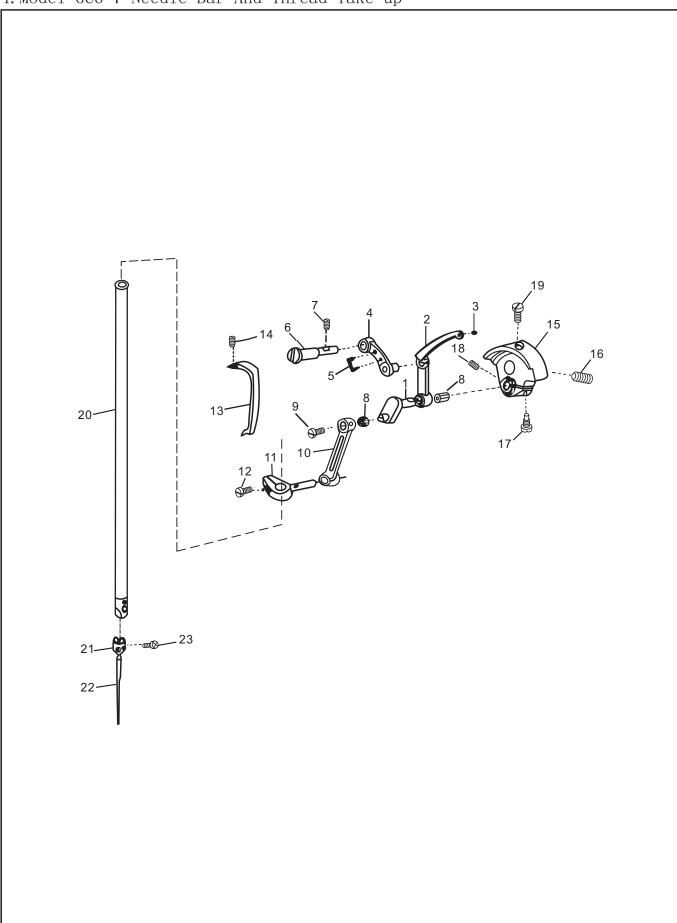
| No. | Parts No .     | Name of parts                                      | Qty. | Remarks          |
|-----|----------------|--|------|------------------|
| 1   | 34T4 - 401 - A | Machine bed  | 1    |                  |
| 2   | 34T4 - 402 - A | Machine arm  | 1    |                  |
| 3   |                | Screw  | 2    | M10 28 GB5782-86 |
| 4   |                | Screw  | 1    | M12 38 GB5782-86 |
| 5   | 33T4 - 011     | Screw  | 1    | M12 38 GB5782-86 |
| 6   |                | Pin  | 2    | M6 30 GB117-86   |
| 7   | 34T4 - 404     | Name plate   | 1    | 34T4-404-1       |
| 8   | 34T4 - 406     | Trade mark   | 1    | 34T4-406-1       |
| 9   | 34T4 - 403a    | Nail   | 4    | Φ2.5 5 GB827-86  |
| 10  | 5111 1054      | Face plate   | 1    | + 2.5 5 GB027 00 |
| 11  | 22T1 - 003C3   | Rubber plug( $\Phi$ 19)                            | 1    |                  |
| 11  | 2211-00505     | Rubber plug( $\Phi$ 19)<br>Rubber plug( $\Phi$ 19) | 2    |                  |
| 12  | 22T1 - 004C4   | Rubber plug $(\Psi^{(1)})$                         |      | Φ 11.8           |
| 12  | 2211-00404     |  |      | $\phi$ 11.8      |
|     |                | Rubber plug  | 1    |                  |
| 10  | 22T1 - 003C5   | Rubber plug  | 1    | Ф 11.8           |
| 13  |                | Thread finger                                      | 1    | CMO/(All AO (    |
| 14  | 22T1 - 003C6   | Screw  | 1    | SM9/64" 40 6     |
|     |                | Screw  | 1    |                  |
| 15  | 22T1 - 004     | Screw  | 3    | SM11/64" 40 10   |
| 16  | 33T4 - 405     | Rear cover   | 1    |                  |
| 17  | 22T1 - 006     | Screw  | 6    | SM11/64" 40 9    |
| 18  | 22T1 - 007     | Washer   | 6    |                  |
| 19  | 22T1 - 009E1   | Screw  | 1    |                  |
| 20  | 22T1 - 009E2   | Spring   | 1    |                  |
| 21  | 22T1 - 009E3   | Small thread tension discs                         | 2    |                  |
| 22  | 22T1 - 009E4   | Shim   | 1    |                  |
| 23  |                | Split stop ring                                    | 1    | 3 GB896          |
| 24  | 22T1 - 009E5   | Thread guide plate                                 | 1    |                  |
| 25  | 22T1 - 010     | Three-eye thread finger                            | 1    |                  |
| 26  | 22T1 - 011     | Screw  | 1    | SM11/64" 40 5.5  |
| 27  | 33T1 - 004     | Oil pipe   | 2    |                  |
| 28  | 22T1 - 012F2   | Nut  | 1    |                  |
| 29  | 22T1 - 012F10  | Stop plate   | 1    |                  |
| 30  | 33T4 - 008C1   | Spring   | 2    |                  |
| 31  | 22T1 - 012F4   | Thread tension releasing plate                     | 1    |                  |
| 32  | 22T1 - 012F9   | Pin  | 1    |                  |
| 33  | 22T1 - 012F5   | Thread teasion plate                               | 4    |                  |
| 34  |                | Screw  |      |                  |
| 35  | 22T1 - 012F1   | Thread take-up spring                              | 1    |                  |
| 36  | 22T1 - 012F6   | Thread tension adjusting bracket                   |      |                  |
| 30  | 22T1 - 012F7   |  | 2    |                  |
|     | 22T1 - 012F8   | Screw  | 1    | SM9/64" 40 4     |
| 38  | 22T1 - 012F11  | O-type ring  | 1    |                  |
| 39  | 22T1 - 013     | Set screw  | 1    | SM15/64" 28 8    |
| 40  | 22T1 - 014     | Thread finger                                      | 1    |                  |
| 41  | 34T4 - 012-A   | Throat plate                                       | 1    |                  |
| 42  | 22T1 - 020     | Screw  | 1    | SM11/64" 40 4.5  |
| 43  | 20T1 - 013F1   | Slide plate  | 3    |                  |
| 44  | 20T1 - 013F2   | Spring   | 1    |                  |
| 45  | 20T1 - 013F3   | Screw  | 6    |                  |
| 46  | 1WF1 - 032     | Oil plug   | 6    |                  |
| 47  | 33T1 - 030-A   | Position finger for oil wick                       | 1    |                  |
| 48  | 33T1 - 032-A   | Seal ring  | 1    |                  |
| 49  | 33T1 - 033-A   | Seal cover   | 2    |                  |
| 50  | 33T1 - 034-A   | Press plate  | 1    |                  |
| 51  | 22T7 - 015     | Screw  | 1    | SM9/64" 40 11    |
| 52  | 35T4-405       | Big Thread finger                                  | 1    |                  |



# 3. Model GC6-6 Needle Bar And Thread Take-up

| No. | Parts No .        | Name of parts  | Qty. | Remarks               |
|-----|-------------------|--|------|-----------------------|
| 1   | 33T1 - 001        | Thread take-up crank                                   | 1    |                       |
| 2   | 33T1 - 004B1      | Thread take-up lever                                   | 1    |                       |
| 3   | 33T1 - 004B2      | Thread take-up lever eyelet bushing                    | 1    |                       |
| 4   | 33T1 - 003A1      | Thread take-up lever link                              | 1    |                       |
| 5   | 33T1 - 003A2      | Thread take-up lever link oil wick                     | 1    | Φ 2 30                |
| 6   | 33T1 - 002        | Thread take-up lever link hinge pin                    | 1    |                       |
| 7   | J0 0 40           | Thread take-up lever link hinge pin set screw          | 1    | SM15/64" 28 10        |
| 8   | 19242/8           | Needle bearing   | 2    | 8 12 8                |
| 9   | 22T2 - 001A6      | Needle bar connecting link cap screw                   | 1    |                       |
| 10  | 33T1 - 014        | Needle bar connecting link                             | 1    |                       |
| 11  | 130032            | Needle bar connecting stud                             | 1    |                       |
| 12  | 22T2 - 001A9      | Needle bar connecting stud clamping screw              | 1    | SM9/64" 40 6          |
| 13  | 33T4 - 007        | Thread take-up lever guard                             | 1    |                       |
| 14  | 22T2 - 004        | Thread take-up lever guard screw                       | 1    | SM11/64" 40 5.5       |
| 15  | 33T1 - 006C1      | Needle bar crank                                       | 1    |                       |
| 16  | 33T1 - 006C2      | Needle bar crank set screw                             | 1    |                       |
| 17  | 33T1 - 006C3      | Thread take-up crank clamping screw                    | 1    |                       |
| 18  | 22T2 - 005B3      | Thread take-up crank position screw                    | 1    | SM1/4" 40 7           |
| 19  | 61 - 04 - 01/B206 | Needle bar crank position screw                        | 1    |                       |
| 20  | 22T2 - 008        | Needle bar bushing(upper)                              | 1    |                       |
| 21  | JO 0 35           | Needle bar bushing(upper)set screw                     | 1    | SM15/64" 28 4.5       |
| 22  | 22T2 - 011        | Needle bar bushing(upper)rubber plug                   | 1    |                       |
| 23  | 33T1 - 01611      | Needle bar bushing(lower)                              | 1    |                       |
| 24  | 22T2 - 013        | Needle bar bushing(lower)set screw                     | 1    | SM15/64" 40 2.7       |
| 25  | 33T1 - 01612      | Needle bar bushing(lower)thread guard                  | 1    |                       |
| 26  | 33T1 - 017        | Needle bar   | 1    |                       |
| 27  | 22T2 - 015        | Needle bar thread guide                                | 1    |                       |
| 28  | 1F - 009          | Needle   | 1    | DP 17 21 <sup>#</sup> |
| 29  | 22T1 - 017        | Needle set screw                                       | 1    | SM11/8" 44 4.5        |
| 30  | 33T1 - 012        | Needle bar connecting stud slide block guide-way       | 1    |                       |
| 31  | 33T1 - 013        | Needle bar connecting stud slide block guide-way       | 1    |                       |
| 32  | 22T2 - 019        | Needle bar connecting stud slide block guide-way screw | 2    | SM11/64" 40 8         |
|     |                   |  |      |                       |

# 3. Model GC6-6 Needle Bar And Thread Take-up

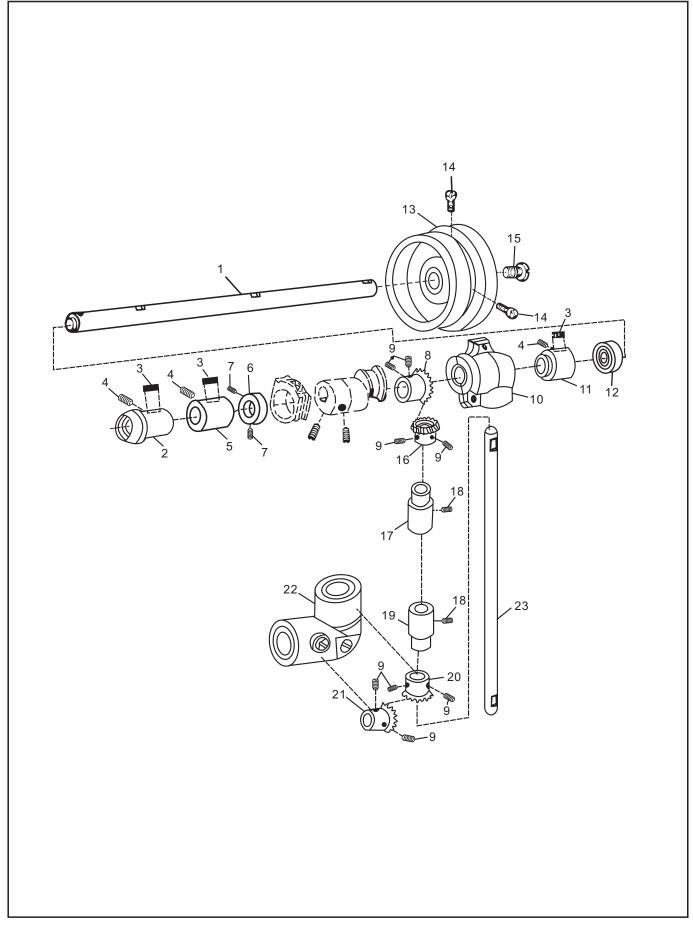


4. Model GC6-7 Needle Bar And Thread Take-up

| No. | Parts No .        | Name of parts                                 | Qty. | Remarks               |
|-----|-------------------|---|------|-----------------------|
| 1   | 33T1 - 001        | Thread take-up crank                          | 1    |                       |
| 2   | 33T1 - 004B1      | Thread take-up lever                          | 1    |                       |
| 3   | 33T1 - 004B2      | Thread take-up lever eyelet bushing           | 1    |                       |
| 4   | 33T1 - 003A1      | Thread take-up lever link                     | 1    |                       |
| 5   | 33T1 - 003A2      | Thread take-up lever link oil wick            | 1    | Φ2 30                 |
| 6   | 33T1 - 002        | Thread take-up lever link hinge pin           | 1    |                       |
| 7   | JO 0 40           | Thread take-up lever link hinge pin set screw | 1    | SM15/64" 28 10        |
| 8   | 19242/8           | Needle bearing                                | 2    | 8 12 8                |
| 9   | 22T2 - 001A6      | Needle bar connecting link cap screw          | 1    |                       |
| 10  | 33T1 - 014        | Needle bar connecting link                    | 1    |                       |
| 11  | 130032            | Needle bar connecting stud                    | 1    |                       |
| 12  | 22T2 - 001A9      | Needle bar connecting stud clamping screw     | 1    | SM9/64" 40 6          |
| 13  | 33T4 - 007        | Thread take-up lever guard                    | 1    |                       |
| 14  | 22T2 - 004        | Thread take-up lever guard screw              | 1    | SM11/64" 40 5.5       |
| 15  | 33T1 - 006C1      | Needle bar crank                              | 1    |                       |
| 16  | 33T1 - 006C2      | Needle bar crank set screw                    | 1    |                       |
| 17  | 33T1 - 006C3      | Thread take-up crank clamping screw           | 1    |                       |
| 18  | 22T2 - 005B3      | Thread take-up crank position screw           | 1    | SM1/4" 40 7           |
| 19  | 61 - 04 - 01/B206 | Needle bar crank position screw               | 1    |                       |
| 20  | 33T1-017          | Needle bar                                    | 1    |                       |
| 21  | 22T2 - 015        | Needle bar thread guide                       | 1    | #                     |
| 22  | 1F - 009          | Needle  | 1    | DP 17 21 <sup>#</sup> |
| 23  | 22T1 - 017        | Needle set screw                              | 1    | SM11/8" 44 4.5        |
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# 4. Model GC6-7 Needle Bar And Thread Take-up

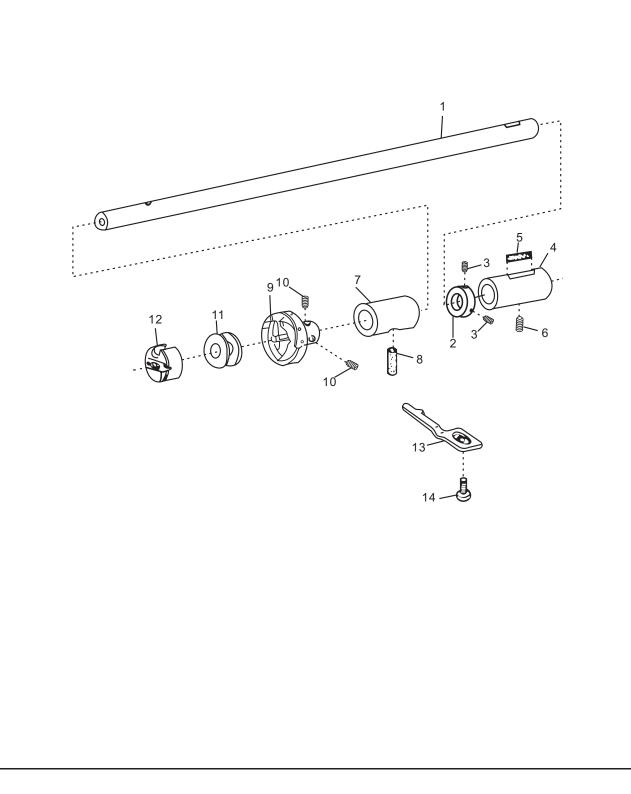




## 5. Arm Shaft And Vertical Shaft

| No. | Parts No .         | Name of parts                            | Qty. | Remarks        |
|-----|--------------------|--|------|----------------|
| 1   | 33T1 - 008         | Arm shaft                                | 1    |                |
| 2   | 33T1 - 007D1       | Arm shaft flanged bushing(front)         | 1    |                |
| 3   | 33T1 - 007D2       | Arm shaft bushing oil pad(felt)          | 3    |                |
| 4   | JO 0 40            | Arm shaft bushing set screw              | 3    | SM15/64" 28 10 |
| 5   | 33T1 - 009E1       | Arm shaft bushing (middle)               | 11   |                |
| 6   | 22T3 - 002B1       | Arm shaft collar                         | 1    |                |
| 7   | 22T3 - 002B2       | Arm shaft collar set screw               | 2    | SM1/4" 40 4    |
| 8   | 22T3 - 010Ea1 - 2  | Arm shaft bevel gear                     | 1    |                |
| 9   | 22T2 - 005B3       | Bevel gear set screw                     | 8    | SM1/4" 40 7    |
| 10  | 33T1 - 010F        | Bevel gear case(upper)complete           | 1    |                |
| 11  | 33T1 - 011G1       | Arm shaft bushing(rear)                  | 1    |                |
| 12  | 22T3 - 006F        | Arm shaft bushing(rear)oil seal assembly | 1    |                |
| 13  | 33T1 - 024         | Balance wheel                            | 1    |                |
| 14  | 22T2 - 007C2       | Balance wheel set screw                  | 2    | SM15/64" 28 15 |
| 15  | 22T3 - 008         | Arm shaft screw                          | 1    | SM5/16" 24 12  |
| 16  | 22T3 - 01E2a2-2    | Vertical shaft bevel gear(upper)         | 1    |                |
| 17  | 33T1 - 025Q1       | Vertical shaft bushing(upper)            | 1    |                |
| 18  | JO 0 40            | Arm shaft bushing set screw              | 2    | SM15/64" 28 10 |
| 19  | 33T1 - 023P1       | Vertical shaft bushing(lower)            | 1    |                |
| 20  | 22T3 - 010E2b2 - 2 | Vertical shaft bevel gear(lower)         | 1    |                |
| 21  | 22T3 - 010E2b1 - 2 | Rotating hook shaft bevel gear           | 1    |                |
| 22  | 33T1 - 022N        | Bevel gear case(lower)assembly           | 1    |                |
| 23  | 33T1 - 026         | Vertical shaft                           | 1    |                |
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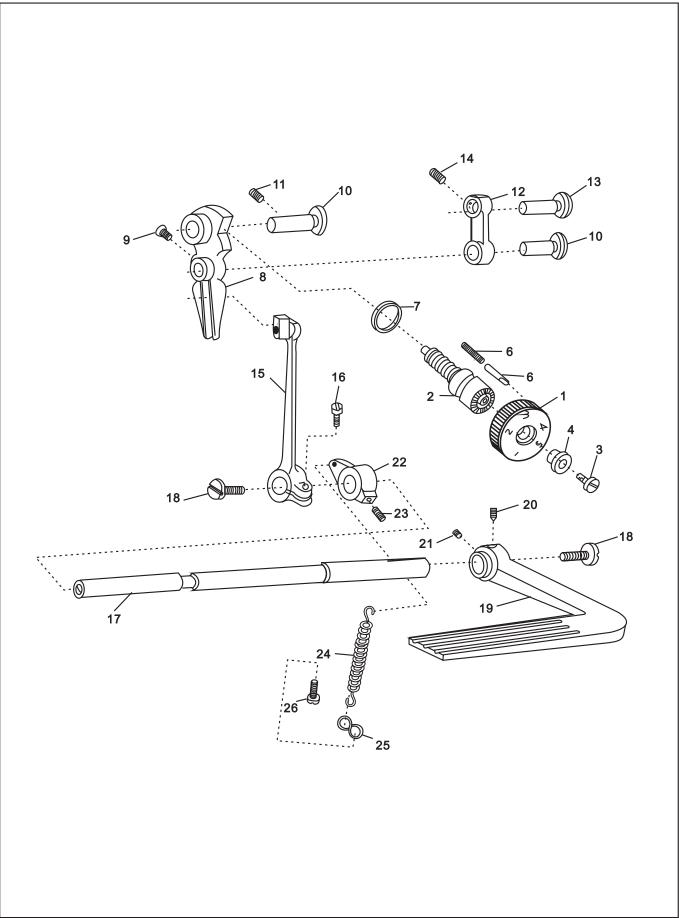
6. Rotating Hook And Its Shaft



#### No. Parts No. Name of parts Qty. Remarks 33T1 - 020L 1 Hook shaft complete 1 2 22T4 - 002B1 Collar for hook shaft 1 SM15/64" 28 4.5 3 2 JO 0 35 Screw 4 33T1 - 021M1 Rear bushing 1 5 33T1 - 021M2 Felt 1 SM15/64" 28 7.5 JO 0 81 Screw 6 1 7 33T1 - 019K1 - A Front bushing 1 8 33T1 - 019K2 - A Felt 1 9 33T1 - 018J Hook complete 1 SM11/64" 40 8 33T1 - 018J3 Screw 10 3 33T1 - 027 Bobbin 11 1 33T1 - 028R 12 Bobbin case complete 1 13 33T1 - 029 Position finger 1 14 22T4 - 015 Screw 1 SM11/64" 40 10

#### 6. Rotating Hook And Its Shaft

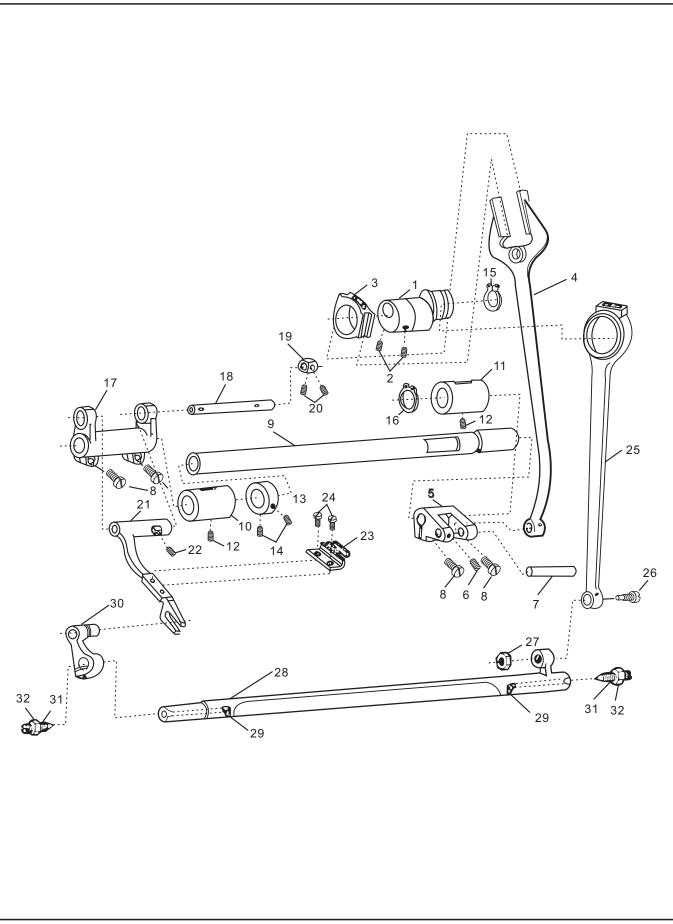
# 7. Stitch Length Regulating



# 7. Stitch Length Regulating

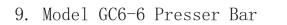
| No. | Parts No .    | Name of parts                     | Qty. | Remarks            |
|-----|---------------|-----------------------------------|------|--------------------|
| 1   | 33T2 - 012    | Stitch length dial                | 1    | 33T2-012-1         |
| 2   | 33T2 - 011    | Stitch length adjusting screw bar | 1    |                    |
| 3   | 22T5 - 006C3  | Screw                             | 2    | SM3/16" 28 13      |
| 4   | 22T5 - 007    | Rubber plug                       | 1    |                    |
| 5   | 22T5 - 008    | Stop pin                          | 1    |                    |
| 6   | 22T5 - 009    | Spring                            | 1    |                    |
| 7   |               | O-type ring                       | 1    | O 14 2.4           |
| 8   | 33T2 - 013 -A | Stitch length adjusting swing bar | 1    | GC6-6-1 为 36T2-022 |
| 9   | 17T5 - 010    | Set screw                         | 1    | SM1/4" 40 9        |
| 10  | 33T2 - 024 -A | Hinge pin                         | 2    |                    |
| 11  | JO .0 81      | Screw                             | 1    | SM15/64" 28 7.5    |
| 12  | 33T2 - 025 -А | Stitch length link                | 1    |                    |
| 13  | 33T2 - 026 -A | Pin                               | 1    |                    |
| 14  | 22T2 - 005B3  | Set screw                         | 1    | SM1/4" 40 7        |
| 15  | 33T2 - 19C    | Reverse feed swing lever complete | 1    |                    |
| 16  | 22T6 - 001A1b | Screw                             | 1    | SM3/16" 28 12      |
| 17  | 33T2 - 020    | Shaft for feed lever              | 1    |                    |
| 18  | 17T5 - 019    | Screw                             | 2    | SM3/66" 32 10      |
| 19  | 17T5 - 015    | Reverse feed lever                | 1    |                    |
| 20  | 17T5 - 017    | Set screw                         | 1    | SM15/64" 28 8      |
| 21  | 17T5 - 016    | Set screw                         | 1    | SM15/64" 28 6.5    |
| 22  | 33T2 - 021    | Reset lever                       | 1    |                    |
| 23  | 6A6 - 08A     | Screw                             | 1    | SM1/4" 40 12       |
| 24  | 33T2 - 022    | Coil spring                       | 1    |                    |
| 25  | 33T2 - 023    | Set hook for spring               | 1    |                    |
| 26  | 22T1 - 006    | Screw                             | 1    | SM11/64" 40 9      |
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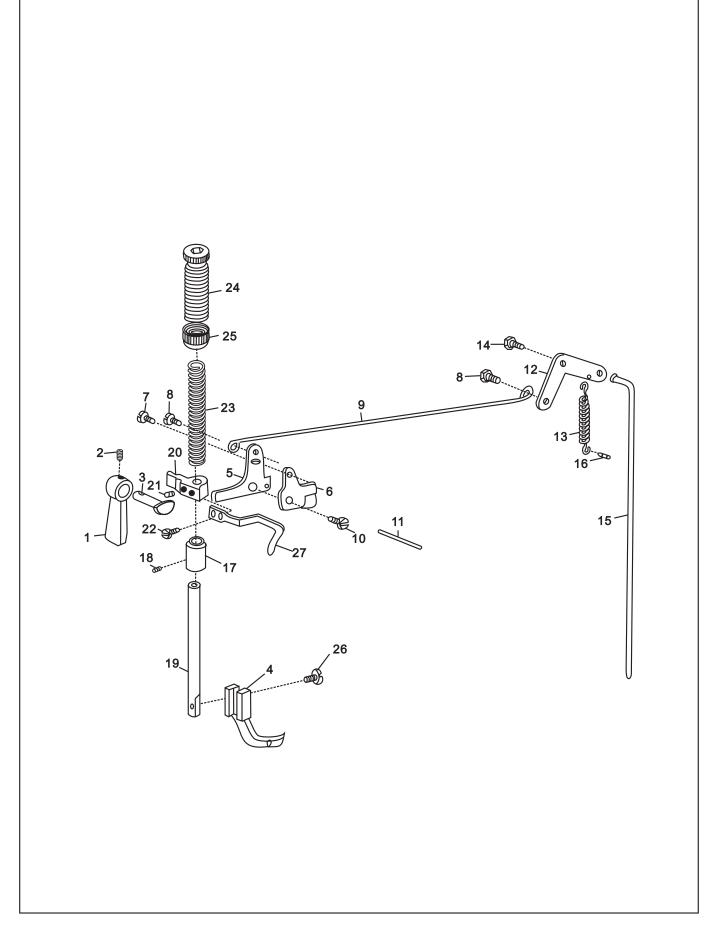
### 8. Bottom Feed



#### 8. Bottom Feed

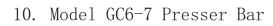
| No. | Parts No .         | Name of parts                | Qty. | Remarks                |
|-----|--------------------|------------------------------|------|------------------------|
| 1   | 33T2 - 14 - A      | Feed cam                     | 1    |                        |
| 2   | 22T1 - 013         | Screw                        | 2    | SM15/64" 28 8          |
| 3   | 22T3 - 009D1a2     | Fork slide block complete    | 1    |                        |
| 4   | 33T2 - 17 - A      | Fork                         | 1    |                        |
| 5   | 34T2 - 202 - A     | Feed crank                   | 1    |                        |
| 6   | 22T6 - 001A1b      | Screw                        | 1    | SM11/64" 40 4.5        |
| 7   | 34T2 - 203         | Pin                          | 1    |                        |
| 8   | 22T6 - 001A1b      | Set screw                    | 2    | SM3/16" 28 15          |
| 9   | 33T2 - 008 - A     | Feed shaft                   | 1    |                        |
| 10  | 33T2 - 028 - A     | Front bushing                | 1    |                        |
| 11  | 33T2 - 027 - A     | Rear bushing                 | 1    |                        |
| 12  | JO 0 81            | Screw                        | 2    | SM15/64" 28 7.5        |
| 13  | 22T3 - 002B1       | Collar for arm shaft         | 1    |                        |
| 14  | 22T2 - 005B3       | Screw                        | 2    | SM1/4" 40 7            |
| 15  |                    | Stop ring                    | 1    | GB894.1-86 <i>-</i> 20 |
| 16  |                    | Stop ring                    | 1    | GB894.1-86 -14         |
| 17  | 33T2 - 029 - A     | Front crank for feed         | 1    |                        |
| 18  | 33T2 - 006         | Feed dog shaft               | 1    |                        |
| 19  | 33T2 - 007         | Collar                       | 1    |                        |
| 20  | 22T1 - 012F8       | Screw                        | 2    | SM9/64" 40 6           |
| 21  | 33T2 - 005         | Feed dog support             | 1    |                        |
| 22  | 61 - 04 - 01/B3-Z1 | Screw                        | 2    | SM1/8" 40 4.5          |
| 23  | 61 - 04 - 01/B7    | Feed dog                     | 1    | 510176 -0              |
| 24  | J0 0 51            | Screw                        | 2    | SM1/8" 40 5.5          |
| 25  | 33T2 - 018B - A    | Link                         |      | 514170 40 5.5          |
| 26  | 17T4 - 002         | Screw                        | 1    |                        |
| 27  | J0 0 63            | Nut                          |      | SM9/32" 28             |
| 28  | 33T2 - 001         | Shaft for feed dog lift      | 1    | 51117/52 20            |
| 29  | 5512 001           | Oil wick                     | 2    | Φ 35                   |
| 30  | 33T2 - 004A        | Feed dog lift crank conplete | 1    | Ψ 35                   |
| 31  | 33T2 - 002         | Screw                        | 2    | SM3/8" 28 31           |
| 32  | 33T2 - 003         | Nut                          | 2    | 51115/0 20 51          |
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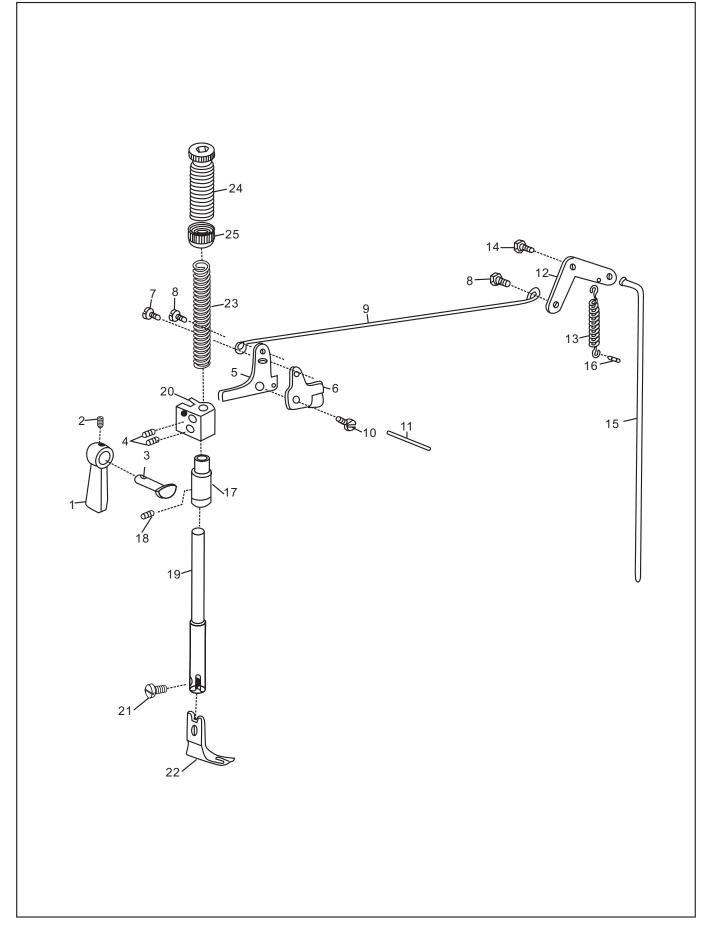




#### 9. Model GC6-6 Presser Bar

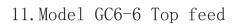
| No. | Parts No .               | Name of parts  | Qty. | Remarks          |
|-----|--------------------------|--|------|------------------|
| 1   | 34T3 - 003               | Presser bar lifter                                   | 1    |                  |
| 2   | 22T7 - 001A2             | Presser bar lifter position screw                    | 1    | SM11/64" 40/6    |
| 3   | 33T3 - 004               | Presser bar lifting cam                              | 1    |                  |
| 4   | 34T3-306                 | Presser foot   | 1    |                  |
| 5   | 22T7 - 004B1a            | Knee lifter lever(left)                              | 1    |                  |
| 6   | 22T7 - 004B1b            | Tension releasing cam                                | 1    |                  |
| 7   | 22T7 - 004B1c            | Knee lifter lever(left)screw                         | 2    | SM11/64" 40/6.5  |
| 8   | 22T7 - 004B12            | Knee lifter link hinge screw                         | 1    | SM3/16" 28 /7    |
| 9   | 22T7 - 004B3             | Knee lifter link                                     | 1    |                  |
| 10  | 22T7 - 005A              | Tension releasing cam hinge screw                    | 1    | SM15/64" 28 / 13 |
| 11  | 22T7 - 006               | Tension releasing rod                                | 1    | 51110,01 20,10   |
| 12  | 22T7 - 007C1             | Knee lifter lever(left)(right)                       | 1    |                  |
| 13  | 22T7 - 007C2             | Knee lifter lever(left)(right)spring                 | 1    |                  |
| 14  | 22T7 - 005B              | Knee lifter lever (left)(right)hinge screw           | 1    | SM15/64" 28 / 10 |
| 15  | 33T3 - 001               | Knee lifter lever lifting rod                        | 1    |                  |
| 16  | 22T7 - 008               | Knee lifter bellcrank(right)spring connecting pin    | 1    |                  |
| 17  | 34T3 - 035               | Presser bar bushing                                  | 1    |                  |
| 17  | 22T1 - 013               | Presser bar bushing<br>Presser bar bushing set screw | 1    |                  |
| 19  | 2211 - 013<br>34T3 - 303 | Presser bar  | 1    |                  |
| 20  | 22T7 - 011D1             | Presser bar guide bracket                            | 1    |                  |
| 20  | 22T1-013                 |  |      | SM15/64" 28/8    |
|     |                          | Presser bar guide bracket set screw                  | 1    |                  |
| 22  | 22T2-004                 | Slack thread regulator set screw                     | 1    | SM15/64" 40/5.5  |
| 23  | 34T3-302                 | Presser bar spring                                   | 1    |                  |
| 24  | 34T3-301                 | Pressure regulating thumb screw                      | 1    |                  |
| 25  | 22T7-014E2               | Pressure regulating thumb screw lock nut             | 1    | SM9/64" 40/11    |
| 26  | 22T7 - 015               | Presser foot screw                                   | 1    | 31019/04 40/11   |
| 27  | 22T7 - 016               | Slack thread regulator                               | 1    |                  |
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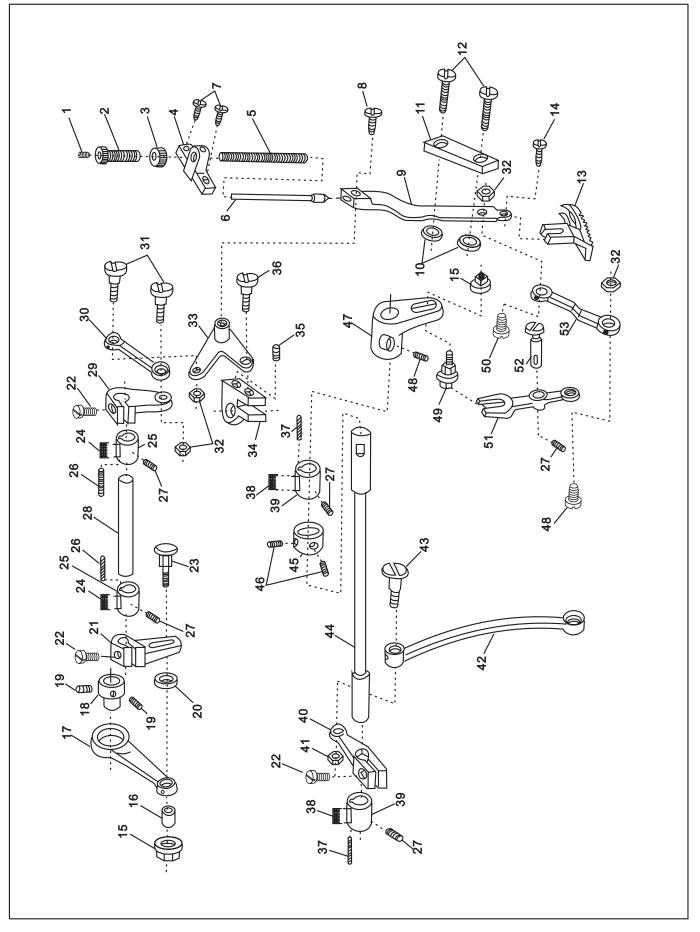




#### 10. Model GC6-7 Presser Bar

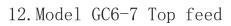
| Parts No .    | Name of parts   | Qty.   | Remarks  |
|---------------|---|--|--|
| 34T3 - 003    | Presser foot llifter  | 1  |  |
| 22T7 - 001A2  | Presser foot llifter position screw   | 1  | SM11/64" 40/6  |
| 33T3 - 004    | Presser foot llifting cam   | 1  |  |
| JO O 40       | Presser bar guide bracket set screw   | 1  |  |
| 22T7 - 004B1a | Knee lifter lever(left)   | 1  |  |
| 22T7 - 004B1b | Tension releasing cam   | 1  |  |
| 22T7 - 004B1c | Knee lifter lever(left)screw  | 2  | SM11/64" 40/6.5  |
| 22T7 - 004B2  | Knee lifter link hinge screw  | 1  | SM3/16" 28 /7  |
| 33T3 - 004B3  | Knee lifter link  | 1  |  |
| 22T7 - 005A   | Tension releasing cam hinge screw   | 1  | SM15/64" 28 / 13   |
| 22T7 - 006    | Tension releasing rod   | 1  |  |
| 22T7 - 007C1  | Knee lifter lever(left)(right)  | 1  |  |
| 22T7 - 007C2  | Knee lifter lever(left)(right)spring  | 1  |  |
| 22T7 - 005    | Knee lifter lever (left)(right)hinge screw  | 1  | SM15/64" 28 / 10   |
| 33T3 - 001    | Knee lifter lever lifting rod   | 1  |  |
| 22T7 - 008    | Knee lifter bellcrank (right) spring connecting pin   | 1  |  |
| 35T3 - 303    | Presser bar bushing   | 1  |  |
| 22T2 - 013    | Presser bar bushing set screw   | 1  |  |
| 35T3 - 302    | Presser bar   | 1  | SM15/64" 28/8  |
| 34T3 - 301    | Presser bar position block  | 1  |  |
| 22T7 - 015    | _   | 1  | SM9/64" 40/11  |
| 22T7 - 017F   | Slack foot  | 1  |  |
| 34T3 - 302    | Presser bar spring  | 1  |  |
| 34T3 - 301    | Pressure regulating thumb screw   | 1  |  |
| 22T7 - 014E2  |   | 1  |  |
|               |   |  |  |
|               | 34T3 - 003<br>22T7 - 001A2<br>33T3 - 004<br>JO O 40<br>22T7 - 004B1a<br>22T7 - 004B1b<br>22T7 - 004B1c<br>22T7 - 004B2<br>33T3 - 004B3<br>22T7 - 005A<br>22T7 - 005A<br>22T7 - 007C1<br>22T7 - 007C2<br>22T7 - 007C2<br>22T7 - 005<br>33T3 - 001<br>22T7 - 008<br>35T3 - 303<br>22T2 - 013<br>35T3 - 302<br>34T3 - 301<br>22T7 - 015<br>22T7 - 017F<br>34T3 - 302<br>34T3 - 301 | 34T3 - 003Presser foot llifter22T7 - 001A2Presser foot llifter position screw33T3 - 004Presser foot llifter position screw3T3 - 004Presser foot llifter position screw22T7 - 004B1aKnee lifter lever(left)22T7 - 004B1bTension releasing cam22T7 - 004B1cKnee lifter lever(left)screw22T7 - 004B2Knee lifter link hinge screw33T3 - 004B3Knee lifter link hinge screw22T7 - 005ATension releasing cam hinge screw22T7 - 006Tension releasing rod22T7 - 007C1Knee lifter lever(left)(right)22T7 - 007C2Knee lifter lever(left)(right)hinge screw33T3 - 001Knee lifter lever (left)(right)hinge screw33T3 - 001Knee lifter lever lifting rod22T7 - 005Knee lifter lever lifting rod22T7 - 008Knee lifter bellcrank (right) spring connecting pin35T3 - 302Presser bar bushing22T2 - 013Presser bar position block22T7 - 015Presser bar position block22T7 - 017FSlack foot34T3 - 301Presser bar spring34T3 - 301Presser bar spring | 34T3 - 003Presser foot llifter134T3 - 001A2Presser foot llifter position screw133T3 - 004Presser foot llifting cam1JO O 40Presser bar guide bracket set screw122T7 - 004B1aKnee lifter lever(left)122T7 - 004B1bTension releasing cam122T7 - 004B1cKnee lifter lever(left)screw222T7 - 004B2Knee lifter link hinge screw133T3 - 004B3Knee lifter link122T7 - 005ATension releasing cam hinge screw122T7 - 005ATension releasing rod122T7 - 007C1Knee lifter lever(left)(right)122T7 - 007C2Knee lifter lever(left)(right)spring122T7 - 005Knee lifter lever (left)(right)hinge screw133T3 - 001Knee lifter lever lifting rod122T7 - 005Knee lifter lever lifting rod122T7 - 008Knee lifter bellcrank (right) spring connecting pin135T3 - 303Presser bar bushing set screw135T3 - 301Presser bar position block122T7 - 015Presser bar position block122T7 - 017FSlack foot134T3 - 301Presser bar spring134T3 - 301Presser bar spring134T3 - 301Presser bar spring1 |

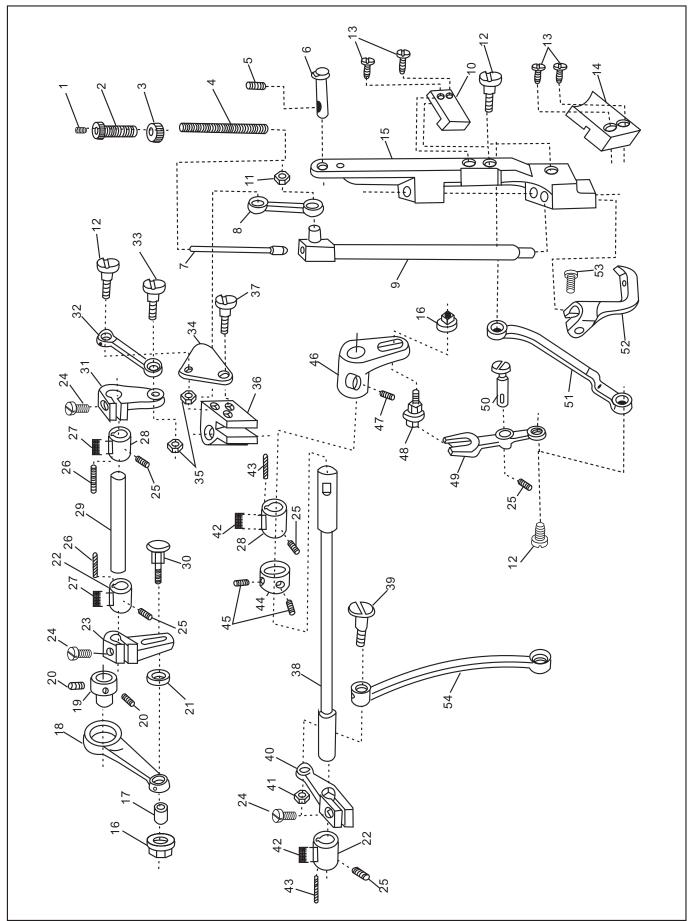




# 11. Model GC6-6 Top feed

| No. | Parts No .       | Name of parts  | Qty.  | Remarks |
|-----|------------------|--|-------|---------|
| 1   | 35T5 - 501       | Walking presser foot pressure regulating thumb screw wick                      | 1     |         |
| 2   | 35T5 - 502       | Walking presser foot pressure regulating thumb screw                           | 1     |         |
| 3   | 35T5 - 503       | Walking presser foot pressure regulating thumb screw lock nut                  | 1     |         |
| 4   | 35T5 - 504       | Walking presser foot pressure regulating thumb screwv bracket                  | 1     |         |
| 5   | 35T5 - 505       | Walking presser foot pressure regulating rod spring                            | 1     |         |
| 6   | 35T5 - 506       | Walking presser foot pressure regulating rod                                   | 1     |         |
| 7   | 01/13504         | Walking presser foot pressure regulating thumb bracket screw                   | 2     |         |
| 8   | 34T5 - 525b      | Screw  | 1     |         |
| 9   | 34T5 - 510       | Walking presser foot link  | 1     |         |
| 1 0 | 34T5 - 511       | Walking presser foot guideway base plate                                       | 2     |         |
| 1 1 | 34T5 - 512       | Walking presser foot guideway  | 1     |         |
| 12  | 34T5 - 525       | Walking presser foot guideway screw  | 2     |         |
| 13  | 34T5 - 515       | Walking presser foot   | 1     |         |
| 14  | 22T5 - 015       | Walking presser foot screw   | 1     |         |
| 15  | 34T5 - 518       | Presser foot lift regulating screw nut   | 2     |         |
| 16  | 34T5 - 519       | Presser foot lift regulating screw bushing                                     | 1     |         |
| 17  | 34T5 - 520       | Presser foot lift eccentric  | 1     |         |
| 18  | 34T5 - 516       | Presser foot lift eccentric set screw  | 1     |         |
| 19  | 01/B602          | Washer   | 2     |         |
| 2 0 | 34T5 - 521       | Presser foot lift rear crank   | 1     |         |
| 2 1 | 34T5 - 517       | Presser foot lift rear crank clamping screw                                    | 1     |         |
| 22  | 34T5 - 540       | Presser foot lift regulating screw   | 3     |         |
| 23  | 34T5 - 522       | Oil pad  | 1     |         |
| 24  | 34T5 - 536b      | Presser foot lift and walking shaft bushing                                    | 2     |         |
| 2 5 | 61 - 04 - 01/B06 | Thread take-up lever link oil wick   | 1 / 1 |         |
| 26  | 34T5 - 536c      | Presser foot lift and walking shat bushing set screw                           | 2     |         |
| 27  | JO 0 · 35        | Presser foot lift shaft  | 5     |         |
| 28  | 34T5 - 537       | Presser foot lift shaft front crank  | 1     |         |
| 29  | 34T5 - 535       | Presser foot lift connecting rod   | 1     |         |
| 30  | 34T5 - 534       | Presser foot lift and walking hinge screw                                      | 1     |         |
| 3 1 | 34T5 - 507       | Nut  | 2     |         |
| 32  | 34T5 - 508       | Presser foot lift bellcrank  | 4     |         |
| 33  | 34T5 - 526       | Presser foot lift position block   | 1     |         |
| 34  | 34T5 - 528       | Presser foot lift position block set screw                                     | 1     |         |
| 35  | 01/B308          | Presser foot hit position block set setew                                      | 1     |         |
| 36  | 34T5 - 527       | Thread take-up lever link oil wick   | 1     |         |
| 37  | 34T5 - 536c      | -  | 2     |         |
| 38  | 34T5 - 536b      | Oil par<br>Presser foot lift and walking rear shaft bushing                    | 2     |         |
| 39  | 34T5 - 538a      | Walking presser foot rear crank  | 2     |         |
| 4 0 | 34T5 - 523       | Walking presser foot connecting rod hinge screw nut                            | 1     |         |
| 4 1 | 61-04-01/B06     | Walking presser foot connecting rod  | 1     |         |
| 42  | 34T5 - 524       | Walking presser foot connecting rod hinge screw                                | 1     |         |
| 43  | 17T4 - 002       | Walking presser foot connecting four hinge screw                               | 1     |         |
| 44  | 34T5-539         | Walking presser foot walking shaft collar                                      | 1     |         |
| 45  | 34T5 - 532       |  | 1     |         |
| 4 6 | 22T3-002B2       | Walking presser foot walking shaft collar set screw                            | 2     |         |
| 47  | 34T3-533         | Walking presser foot front crank<br>Walking presser foot front crank set screw | 1     |         |
| 48  | 01/B902          |  | 1     |         |
| 49  | 34T5 - 529       | Walking presser foot slide block assembly                                      | 1     |         |
| 50  | 34T5 - 513a      | Presser foot lift and walking hinge screw                                      | 2     |         |
| 51  | 34T5 - 529       | Walking presser foot forked connection   | 1     |         |
| 52  | 34T5-530         | Walking presser foot forked connection stud                                    | 1     |         |
| 53  | 34T5-514         | Walking presser foot walking connection rod                                    | 1     |         |
|     |                  |  |       |         |
|     |                  |  |       |         |

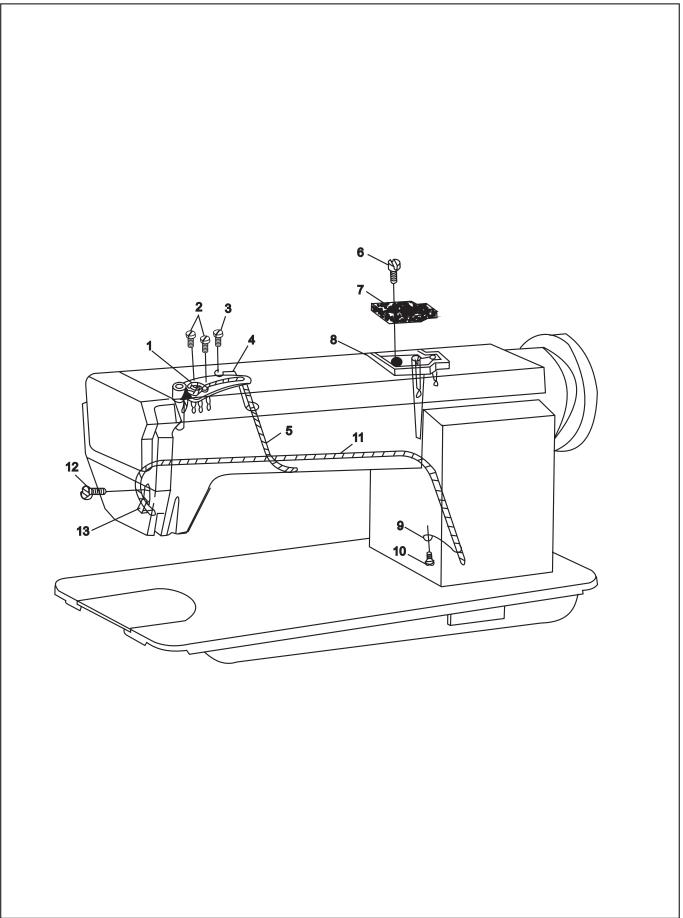




12.Model GC6-7 Top feed

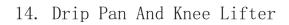
| No.      | Parts No .   | Name of parts                      | Qty.                                | Remarks |
|----------|--------------|------------------------------------|-------------------------------------|---------|
| 1        | 34T5-501     | Oil felt                           | 1                                   |         |
| 2        | 35T5-503     | Screw                              | 1                                   |         |
| 3        | 34T5-503     | Nut                                | 1                                   |         |
| 4        | 35T5-501     | Presser bar spring                 | 1                                   |         |
| 5        | J0.0.40      | Screw                              | 1                                   |         |
| 6        | 35T5-504     | Needle bar move stand shaft        | 1                                   |         |
| 7        | 35T5-505     | Spring bar                         | 1                                   |         |
| 8        | 35T5-507     | Presser foot up and down link      | 1                                   |         |
| 9        | 35T5-508     | Connector                          |                                     |         |
| 10       | 6WF5-002     | Slot for slide block               | 3                                   |         |
| 10       |              | Slide block                        | 4                                   |         |
|          | 33T1-013     |                                    | 1                                   |         |
| 12       | 34T5-507     | Screw                              | 1                                   |         |
| 13       | 22T2-019     | Screw                              | 2                                   |         |
| 14       | 35T5-511     | Rail block                         | 1                                   |         |
| 15       | 6WF5-001     | Needle bar move stand              | 1                                   |         |
| 16       | 34T5-518     | Nut                                | 1                                   |         |
| 17       | 34T5-519     | Washer                             | 2                                   |         |
| 18       | 34T5-520     | Link                               | 1                                   |         |
| 19       | 34T5-516     | Presser foot up and down eccentric | 2                                   |         |
| 20       | 01/B602      | Screw                              | 1                                   |         |
| 21       | 34T5-521     | Washer                             | 3                                   |         |
| 22       | 34T5-538a    | Rear bushing                       | 5                                   |         |
| 23       | 34T5-517     | Rear crank                         | $\begin{array}{c} 2\\ 2\end{array}$ |         |
| 24       | 34T5-540     | Screw                              | 2                                   |         |
| 25       | J0.0.35      | Set screw                          |                                     |         |
| 26       | 34T5-536c    | Cotton wick                        |                                     |         |
| 27       | 34T5-536b    | Oil felt                           |                                     |         |
| 28       | 34T5-536a    | Front bushing                      |                                     |         |
| 29       | 34T5-537     | Presser foot up and down shaft     | 1                                   |         |
| 30       | 34T5-522     | Screw                              |                                     |         |
| 31       | 34T5-535     | Front bushing                      | 2                                   |         |
| 32       | 34T5-534     | Link                               | 1                                   |         |
|          |              |                                    | 1                                   |         |
| 33       | 34T5-513b    | Bolt                               | 1                                   |         |
| 34       | 34T5-506     | Presser foot up and down lever     | 1                                   |         |
| 35       | 34T5-506     | Nut                                | 1                                   |         |
| 36       | 35T3-301     | Presser bar set block              | 1                                   |         |
| 37       | 34T5-527     | Bolt                               | 2                                   |         |
| 38       | 34T5-539     | Needle bar move shaft              | 2                                   |         |
| 39       | 17T4-002     | Screw                              | 1                                   |         |
| 40       | 34T5-523     | Rear crank                         | 2                                   |         |
| 41       | 61-04-01/B06 | Screw                              |                                     |         |
| 42       | 34T5-538b    | Felt                               |                                     |         |
| 43       | 34T5-538c    | Cotton wick                        |                                     |         |
| 44       | 34T5-532     | Collar                             |                                     |         |
| 45       | 22T3-002B2   | Screw                              |                                     |         |
| 46       | 34T5-533     | Front crank for needle bar move    |                                     |         |
| 47       | 34T5-541     | Screw                              | 1                                   |         |
| 48       | 34T5-531     | Slide block complete               | 1                                   |         |
| 49       | 34T5-529     | Fork bar                           |                                     |         |
| 50       | 34T5-530     | Pin                                |                                     |         |
|          |              | Needle bar move link               |                                     |         |
| 51<br>52 | 35T5-512     |                                    |                                     |         |
| 52       | 35T5-502     | Small presser foot                 |                                     |         |
| 53       | 22T2-004     | Screw                              |                                     |         |
| 54       | 5WF4-003     | Swing presser foot link            |                                     |         |
|          |              |                                    |                                     |         |
|          |              |                                    |                                     |         |

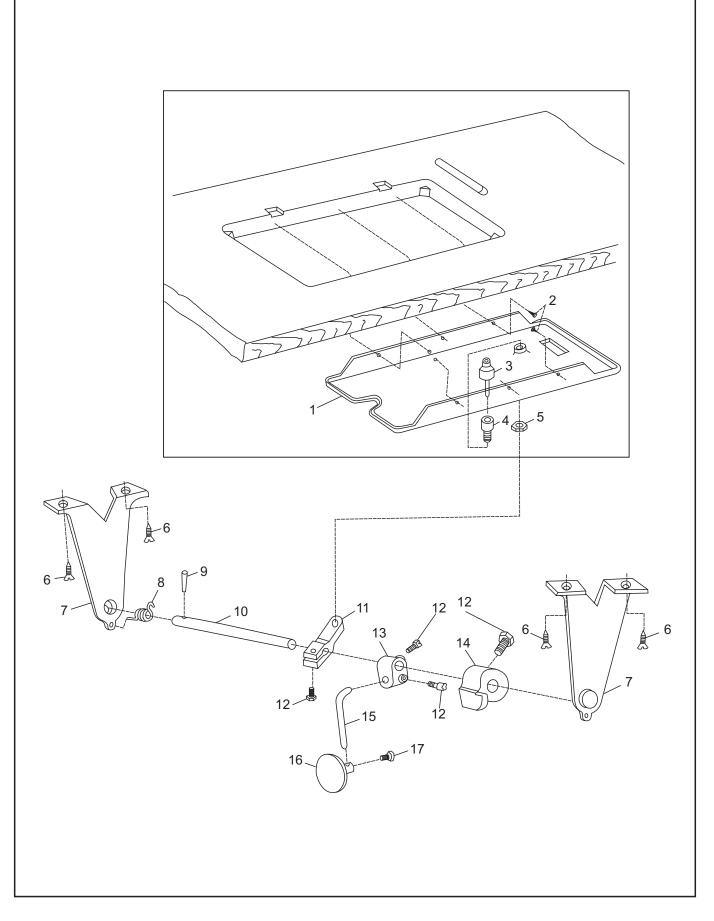
# 13. Lubrication



#### 13. Lubrication

| No. | Parts No .   | Name of parts                   | Qty. | Remarks         |
|-----|--------------|---------------------------------|------|-----------------|
| 1   | 22T8 - 011C  | Oil wick fixing plate assembly  | 1    | SM/64" 40 11    |
| 2   | 22T8 - 012   | Oil wick fixing plate screw     | 2    | SM9/64" 40 4.5  |
| 3   | 22T8 - 011C4 | Oil wick fixing hook screw      | 1    |                 |
| 4   | 22T8 - 011C5 | Oil wick fixing hook            | 1    |                 |
| 5   | 22T8 - 0113  | Oil wick of fixing plate        | 1    | SM11/64" 40 16  |
| 6   | 33T4 -005B2  | Small oil reservoir screw       | 1    |                 |
| 7   | 33T4 - 005B3 | Small oil reservoir oil pad     | 1    |                 |
| 8   | 33T4 - 005B1 | Small oil reservoir             | 1    |                 |
| 9   | 33T4 - 010   | Long oil wick fixing hook       | 1    | SM11/64" 40 5.5 |
| 10  | 22T2 - 004   | Long oil wick fixing hook screw | 1    |                 |
| 11  |              | Long oil wick                   | 1    |                 |
| 12  | 22T2 - 004   | Long oil wick clamp screw       | 1    |                 |
| 13  | 22T8-016     | Long oil wick clamp             | 1    |                 |
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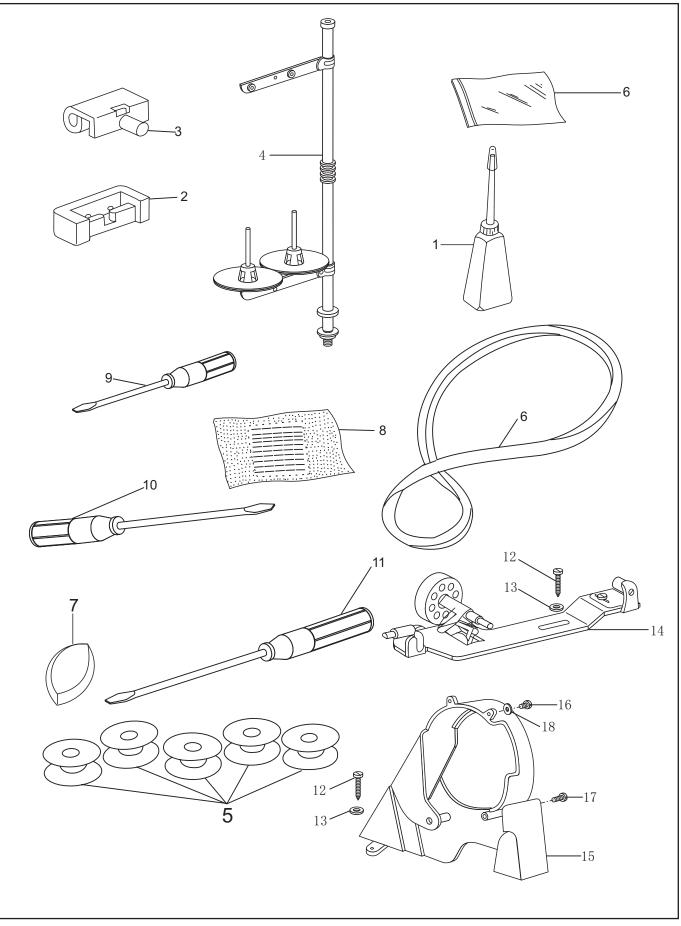




# 14. Drip Pan And Knee Lifter

| No. | Parts No .   | Name of parts                         | Qty. | Remarks            |
|-----|--------------|---------------------------------------|------|--------------------|
| 1   | 33T5 - 001   | Drip pan                              | 1    |                    |
| 2   |              | Nail                                  | 6    | L22                |
| 3   | 33T5 - 003   | Knee lifter pushing rod               | 1    |                    |
| 4   | 33T5 - 004   | Knee lifter pushing rod guide bushing | 1    |                    |
| 5   |              | Hexagon nut                           | 1    | M12 1 GB6172-86    |
| 6   |              | Round head wood screw                 | 4    | ST4.8 25 GB5284-85 |
| 7   | 33T5 - 005   | Knee lifter rock shaft bracket        | 2    |                    |
| 8   | 33T5 - 006   | Knee lifter rock shaft spring         | 1    |                    |
| 9   |              | Knee lifter rock shaft spring pin     | 1    | 销 3 12 GB119-86    |
| 10  | 33T5 - 007B1 | Knee lifter rock shaft                | 1    |                    |
| 11  | 33T5 - 002   | Knee lifting crank                    | 1    |                    |
| 12  |              | Knee lifter bellcrank joint set screw | 4    | M8 12 GB821-88     |
| 13  | 33T5 - 008   | Knee lifter bellcrank joint           | 1    |                    |
| 14  | 33T5 - 011E1 | Knee lifter rock shaft stop dog       | 1    |                    |
| 15  | 33T5 - 009   | Knee lifter bell crank                | 1    |                    |
| 16  | 33T5 - 010F  | Knee lifter knee plate assembly       | 1    |                    |
| 17  |              | Knee lifter knee plate set screw      | 1    | M6 10 GB5782-86    |
|     |              |                                       |      |                    |

### 15. Accessories



#### 15. Accessories

| No. | Parts No . | Name of parts                   | Qty.  | Remarks |
|-----|------------|---------------------------------|-------|---------|
| 1   | 22T9-012   | Oil pot                         | 1     |         |
| 2   | 33T1-002   | Hinge                           | 2     |         |
| 3   | 22T9-007F2 | Rubber coat                     | 2     |         |
| 4   | GJX-2      | Spool stand complete            | 1     |         |
| 5   | 33T1-027   | Bobbin                          | 5     |         |
| 6   |            | Parts bag                       | 1     |         |
| 7   |            | Arm vibration proof washer bock | 4     |         |
| 8   |            | Needle                          | 1Pack |         |
| 9   | 33TF-015   | Screw driver(small)             | 1     |         |
| 10  | 33TF-014   | Screw driver                    | 1     |         |
| 11  | 33TF-013   | Screw driver(big)               | 1     |         |
| 12  |            | Wood screw                      | 4     |         |
| 13  |            | Washer                          | 4     |         |
| 14  | S14420020  | Thread winde complete           | 1     |         |
| 15  | 33TF-021   | Belt guard complete             | 1     |         |
| 16  |            | Screw                           | 2     |         |
| 17  |            | Screw                           | 2     |         |
| 18  |            | Washer                          | 2     |         |
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TYPICAL SEWING MACHINE WANPING MACHINERY CO., LTD.

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This machine may only be operated by adequately trained operators only after having completely read and understood the instruction manual.

Parts are subject to changes in design without prior notice.



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