

# EM 113 BR

Single needle decorative fancy stitch machine with thread crossing device for braid-stitch

INSTRUCTION / OPERATING MANUAL PARTS MANUAL

#### EM113 BR

#### DOUBLE-STITCH LOCKSTITCH SEWING MACHINE

Double-coloured floral rope machine, the appearance of this machine is novel, the line mark is unique and beautiful, refuel fullautomatically, low noises, low convulsion, regulating and operating simply and directly with high efficiency. It is suitable for the decorative sewing such as men and women's dress, leather shoes, sportswear, children dress, bedspread, handbag, etc.

MO	DEL	EM113 BR
MAX SEWI	ING SPEED	1600r.p.m
STITCH	LENGTH	0-4.5mm
NEEDLE BA	AR STROKE	32mm
PRESS	BY HAND	5mm
FOOT LIFT	BY KNEE	13mm
FEED	-DOG	3-row feed dog
LUBRICATION		Automatic lubrication
RATING	POWER	400W/4P

#### Contents

1

\_\_\_\_

Operation Manual1
Parts Book18
For Medium Heavy Materials19
Arm Bed Components
Main Shaft & Take-up Components
Needle Bar & Thread Tension Components23
Presser Bar Components
Hook Driving Shaft Components
Feed Mechanism Components
Feed Regulatig Components
Lubrication Components
Oil Reservoir & Knee Lifter Components
Machine Head Accessories (1)
Machine Head Accessories (2)
Machine Stand, Table & Electric Appliance Components41
For Heavy Weight Materials

# **Operation Manual**

## **BEFORE OPERATION**

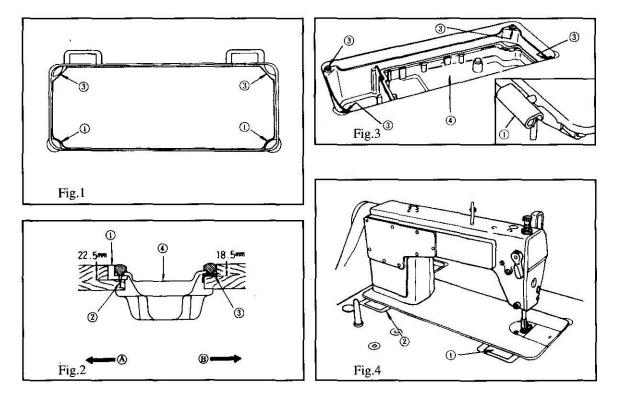
- 1. Never operate the machine unless its oil pan has bas been filled with oil.
- 2. After setting up the machine, check the direction of motor rotation. To check it, turn the handwheel by, hand to bring the needle down, and turn the power switch ON while observing the handwheel. (The handwheel should turn counteclockwise as observed from the handwheel side.)
- 3. Do not use a larger motor pulley for the first one month.
- 4. Confirm that the voltage and phase (single or 3-phase) are correct by checking them against the ratings shown on the motor nameplate.

#### **OPERATION PRECAUTIONS**

- 1. Keep your hands away from the needle when you turn the power switch ON or while the machine is operating.
- 2. Do not put your fingers into the hread take-up cover while the machine is operating.
- 3. Be sure to. turn the power switch OFF before tilting the machine head or removing the V belt.
- 4. When an operator leaves from the machine, make sure to turn off the power.
- During operation, be careful not to allow your or any other person's head or hands to come close to the handwheel, V belt, bobbin winder or motor, Also. do not place anything close to them. Doing so may be dangerous.
- 6. If your machine is provided with a belt cover, finger guard or any other protectors, do not operate your machine with any of them removed.
- 7. Don't clean the face of machine head with thinner.

#### \*Installing the oil pan

- 1) The oil pan should rest on the four corners of the machine table groove.
- 2) Fix two rubber seats ① on side A (operator's side) using nails ② as illustrated abive.
  Fix two cushion seats ③ on side B (hinged side) using nails ②.Then place oil pan ④ on the fixed seats. (Fig.1, Fig.2)
- 3) Fit hinge ① into the opening in the machine bed, and fit the machine head to table rubber hinge ② before placing the machine head on cushions ③ on the four corners. (Fig.3, Fig.4)



## LUBRICATION (FIG. 5, FIG. 6)

## 1. Information on Iubrication (Fig.5)

### \*Before starting the machine

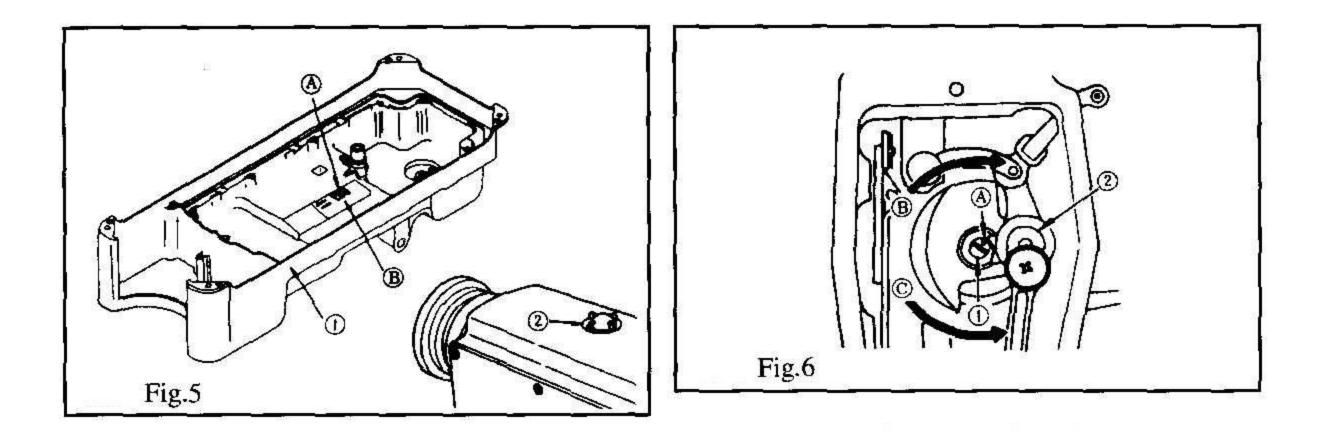
- 1) Fill oil pan ① with sewing machine oil (10 white oil) up to HIGH mark A.
- 2) When the oil level lowers below LOW mark B, refill the oil pan with the specified oil.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window ② if the lubrication is adequate.
- 4) Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.

#### \*Precaution

When you first operate your machine after set up or after an extended period of disuse, run your machine at 3,000 s.p.m. to 3,500 s.p.m. for about 10 minutes for the purpose of break\_in.

#### 2. Adjusting the amount of oil supplied to the face plate parts (Fig.6)

- 1) Adjust the amount of oil supplied to the thread take-up and needle bar crank ② by turning adjust pin ①.
- 2) The minimum amount of oil is reached when marker dot A is brought close to needle bar crank ② by turning the adjust pin in direction B.
- 3) The maximum amount of oil is reached when marker dot A is brought to the position just opposite from the needle bar crank by turning the adjust pin in direction C.



## ADJUSTING AMOUNT OF OIL SUPPLY TO THE HOOK

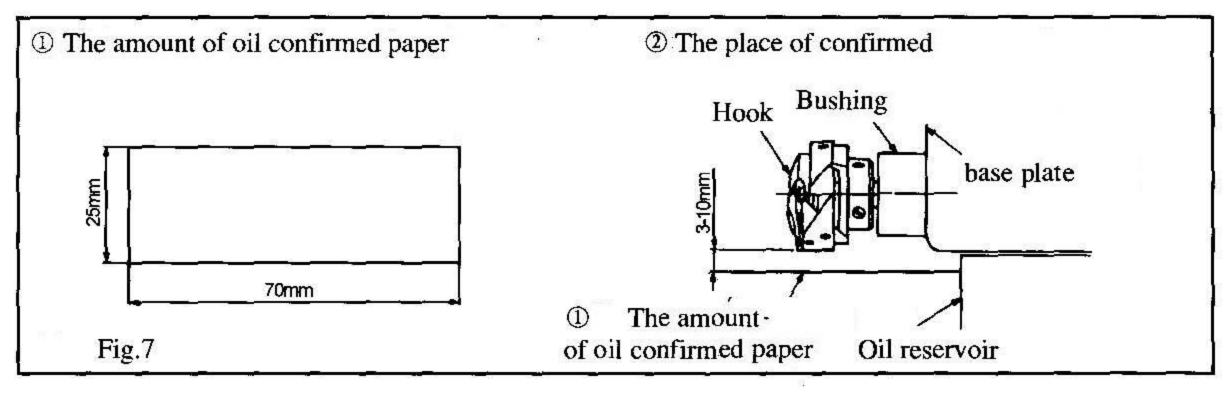
- 1) After cooling, the machine may be idling for three minutes (operating continued properly). (Fig 7)
- 2) The amount of oil confirmed paper must be inserted in the state when the machine is operating.
- 3) Oil in the oil pan is confirmed within HI and LOW.
- 4) The amout of oil confirmed is for five seconds (please use the clock with the second) **\*The proper amount of oil manual (Fig 8)**
- 1) The amount of oil can be adjusted according to the different sewing process but it must be suitable amount.
- \* Otherwise the hook wil generate heat or the sewing material will be

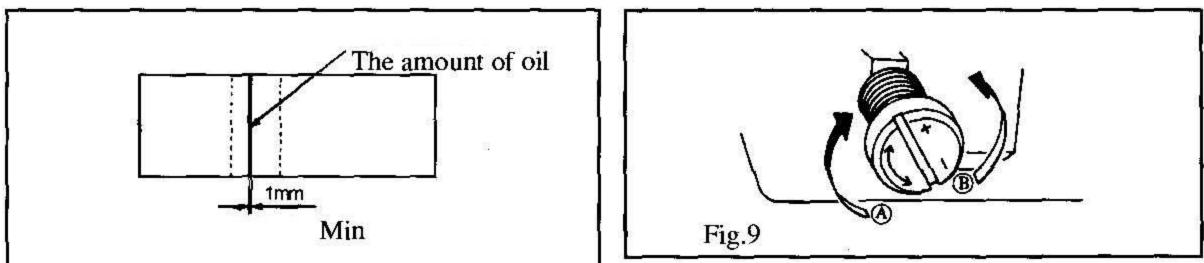
# contaminated.

2) Use the amount of confirmed paper for three times to observe the amount of oil. Adjust the screw until the mark on the paper hasn't changed.

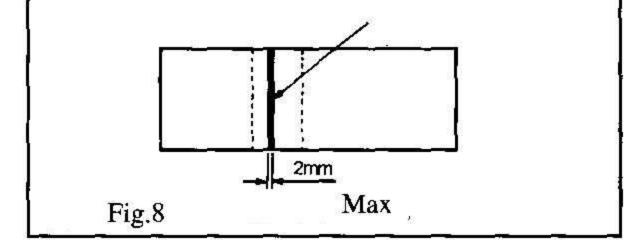
#### \*Adjusting the amount of oil supplied to the hook (Fig 9)

- More oil is supplied as oil amount adjust screw mounted on the hook driving shaft is turned toward + in dirction A. As the oil amout adjust screw is turned toward - in direction B, the amount of oil supplied will be decreased.
- 2) After adjusted, the machine must be idling for thirty seconds. It can be confirmed the state of oil supplied.





- 35

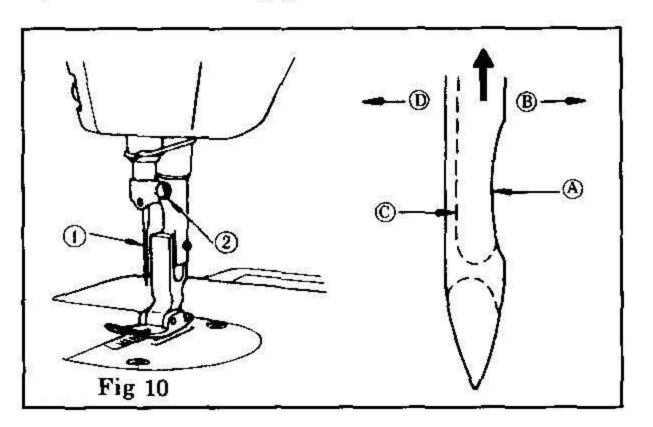


## **ATTACHING THE NEEDLE (FIG. 10)**

#### \*Turn the motor power OFF before starting to attach the needle.

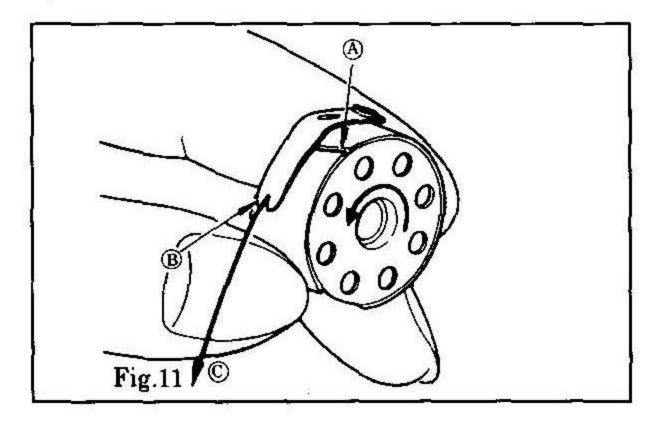
A needle of DB  $\times$  1<sup>#</sup>14 should be used. Select a proper needle size according to the count of thread and the type of material used.

- 1) Turn the handwheel until the needle bar reaches the highest point of its stroke.
- 2) Loosen screw 2), and hold needle 1) with its indented part A facing exactly to the right in direction B.
- 3) Insert the needle in the direction of the arrow until it will go no further.
- 4) Securely tighten screw 2.
- 5) Check that long groove C of the needle os facing exactly to the left in direction D.



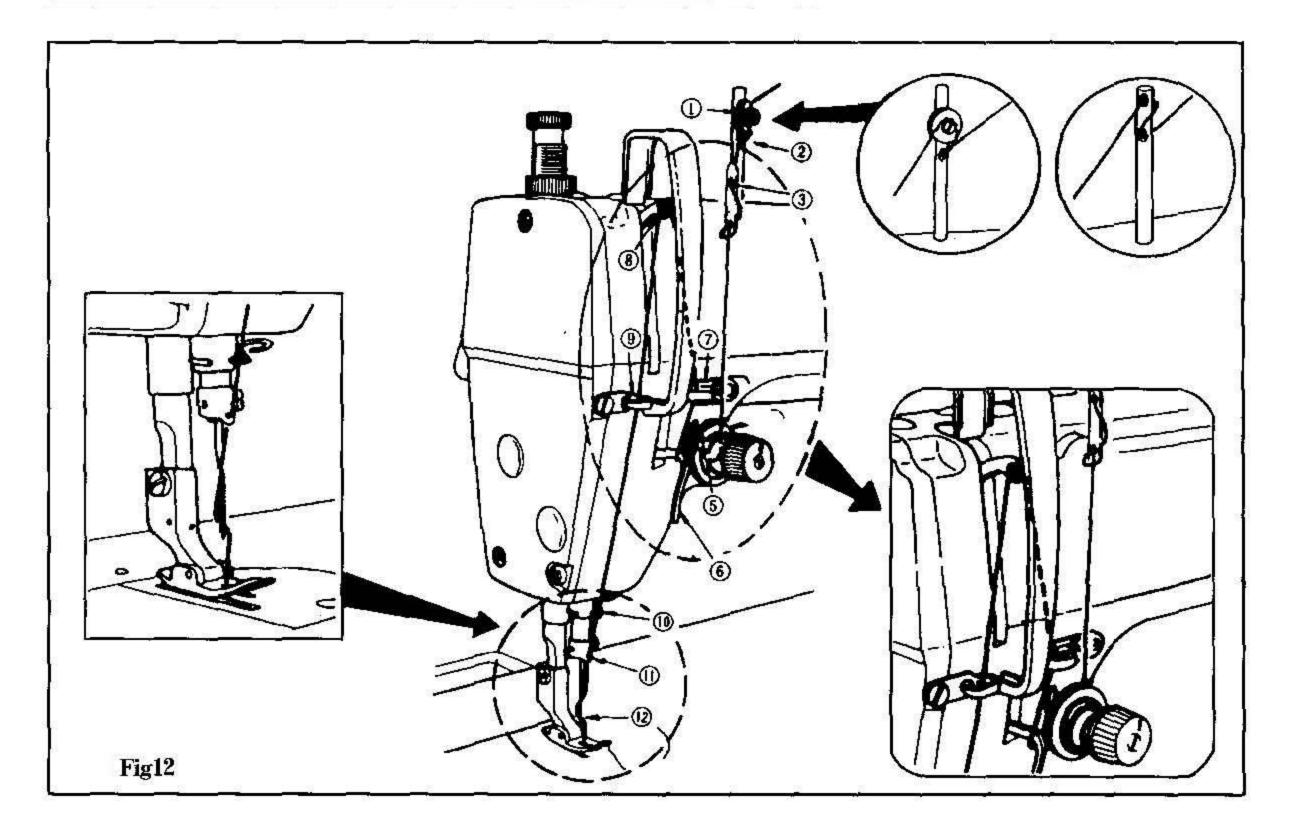
## SET THE BOBBIN INTO THE BOBBIN CASE (FIG. 11)

- 1) Hold the bobbin in a way that the thread open end is directed to the left as observed from you, and set the bobbin into the bobbin obbin case.
- 2) Pass the thread through thread slit A, and pull the thread in direction B. By so doing, the thread will pass under the tension spring and come out from notch B.
- 3) Cheek that the bobbin rotates in the direction of the arrow when thread C is pulled.



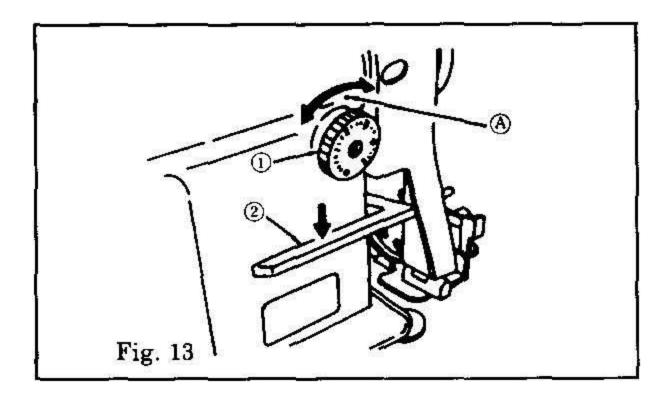
• 6 •

## **THREADING THE MACHINE (FIG. 12)**



## ADJUSTING STITCH LENGTH (FIG. 13)

- 1) Turn stitch length dial ① in the direction of the arrow, and align the desired number to marker dot A on the machine arm.
- 2) The dial calibration is in milimeters.
- 3) When you want to decrease the stitch length, turn stitch length dial ① while pressing feed lever 2 in the direction of the arrow.



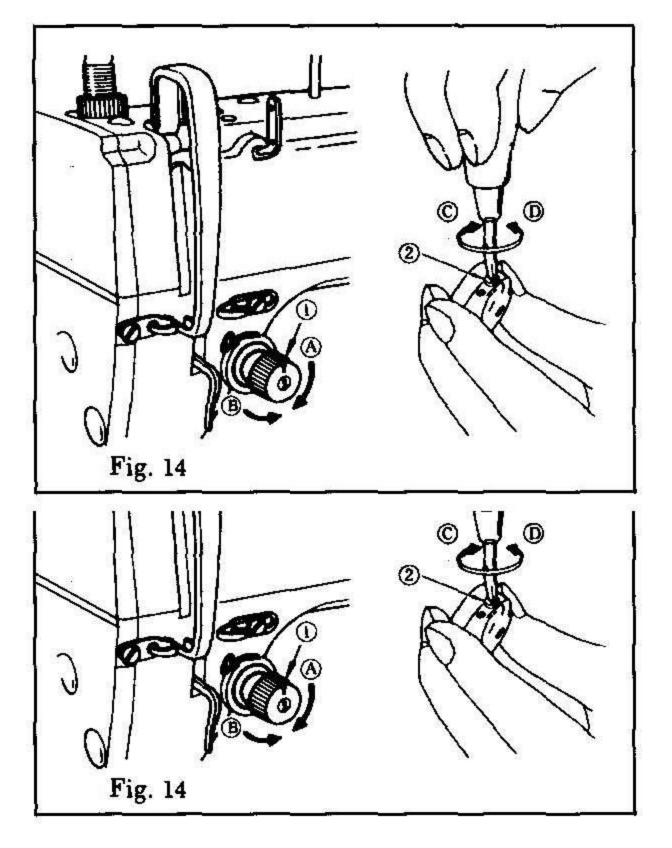
Adjusting the thread tension

## 1. Adjusting the needle thread tension

- 1) Adjust the needle thread tension using tension adjust nut ① according to the sewing specifications.
- 2) As you turn nut ① clockwise (in direction A), the needle thread tension will increase.
- 3) As you turn nut ① counterclockwise (in direction B), the tension will decrease.

## 2. Adjusting the bobbin thread tension

- 1) As you turn tension adjust screw ② clockwise (in direction C), the bobbin thread tension will increase.
- 2) As you turn screw ② counterclockwise (in direction D). the bobbin thread tension will decrease.



• 8 •

Adjusting of the thread take-up spring

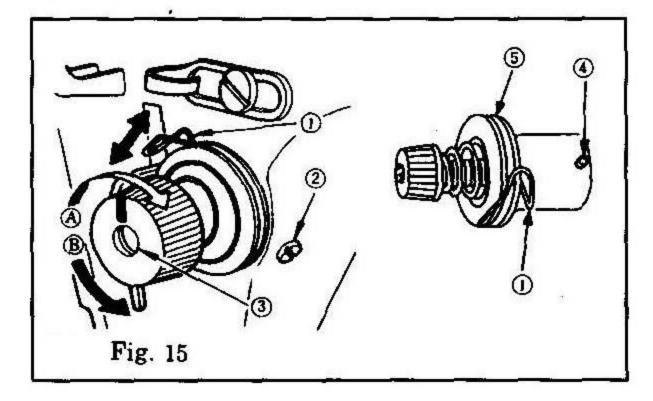
#### 1. Changing the stroke of thread take-up spring ①

- 1) Loosen setscrew 2.
- 2) As you turn tension post ③ clockwise (in direction A), the stroke of the thread take-up spring will be increased.
- 3) As you turn the knob counterclockwise (in direction B), the stroke will be decreased.

#### 2. Changing the pressure of thresd take-up spring ①

1) Loosen setscrew 2, and take out tension asm 3.

- 2) Loosen setscrew ④, and remove tension post ③.
- 3) As you turn tension post ③ clockwise (in direction A), the pressure will be increased.4) As you turn the post counterclockwise (in direction B), the pressure will be decreased.

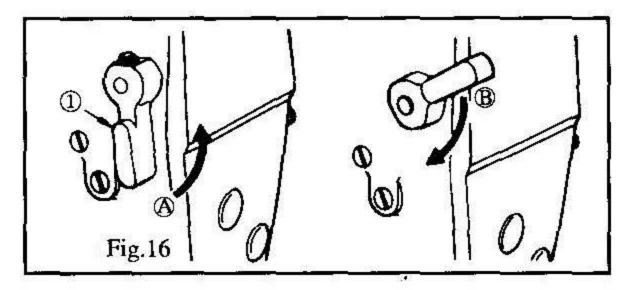


#### Using presser foot lifter

- 1) To stop the machine with its presserfoot up, turn hand lifter 1) in direction A.
- 2) The presser foot will go up about 5.5 mm and stop.

53

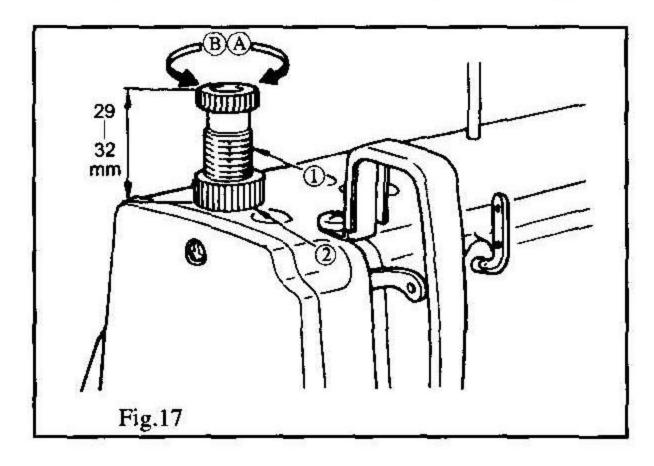
- 3) The presser foot will go back to its original position when hand lifter ① is turned down in direction B.
- 4) Using the knee lifter, you can get the standard presser foot lift of about 10 mm and a maximum lift of about 13 mm.



## Adjust the pressure of presser foot

- 1) Loosen nut ②. As you turn presser spring regulator ① clockwise (in direction A), the presser foot pressure will be increased.
- 2) As you turn the presser spring regulator counterclockwise (in direction B), the pressure will be decreased.
- 3) After adjustment, tighten nut 2.

4) For general fabrics, the standard height of the presser spring regulator is 29 to 32 mm (5kg). (For the model Heavy it is 7kg)



• 10 •

.

#### Time feed motion to needle motion

- 1) Loosen two setscrews 2 and 3 on feed eccentric cam 1, properly position the eccentric cam. Then retighten the setscrews.
- 2) To obtain the standard feed timing, when when the feed dog is dropping from throat plate, align the top of the feed dog with the top of the hole on the needle and the top of the throat plate.
- 3) To advance the feed timing in order to prevent uneven material feed, move the feed eccentric cam in the direction of the arrow.
- 4) To delay the feed timing in order to increase stitch tightness, move the feed eccentric cam in the opposite direction from the arrow.

#### \*If moving the feed eccentric cam to far, the needle will be break.

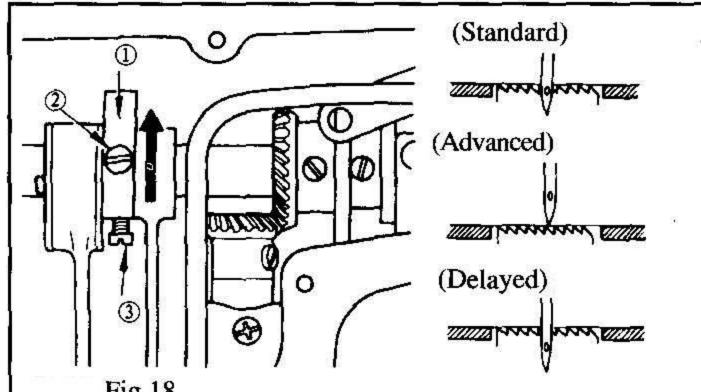


Fig.18

.

14

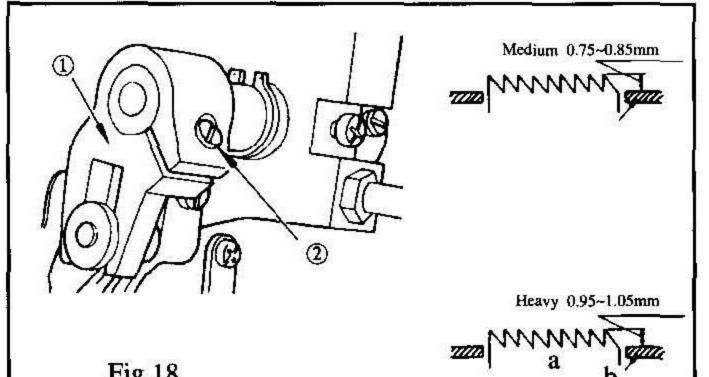
Adjust the height of feed dog

- 1) The feed dog is factory adjusted so that it just out from the throat plate surface 0.8 mm to 0.9 mm. For the Heavy, 0.95 mm to 1.05 mm.
- 2) If the feed dog juts out too much, puckering may result when sewing light-weight materials. (Recommended protrusion: 0.7 mm to 0.8 mm)
- 3) To adjust the height of the feed dog:
  - (1) Loosen screw ② of crank ①.
  - (2) Move the feed bar up or down to make adjustment.
  - (3) Securely tighten screw 2.

#### \* Precaution

If the screw is tighten too securely, the crank will be abraded.

a. Feed dog b. Throat plate



	11g.10					D
	10 - 22	322	332	600000 - 00	5210	
1.5	0.577-0.0254					

### • 12 •

Adjust the timing between the needle and the hook

- 1. Adjust the timing between the needle and the hook as follows:
- 1) Turn the handwheel to bring the needle bar down to the lowest point of its stroke, and loosen sntscrew ①.
- \* Adjusting the needle bar height
- 2) When using the needle of DBX1, align marker line A on needle bar 2 with the bottom end of needle bar lower bushing 3, then tighten setscrew 1.

When using the needle of DAX1, align marker line B with it, then tighten setscrew ①.

\* Adjusting position a of the hook

3) When using the needle of DBX1 losen the three hook setscrews, turn the handwheel, and align marker line B on the needle bar ② with the bottom end of needle bar lower bushing ③.

When using the neadle of DAX1, align marker line D with the bottom end of needle bar lower bushing ③.

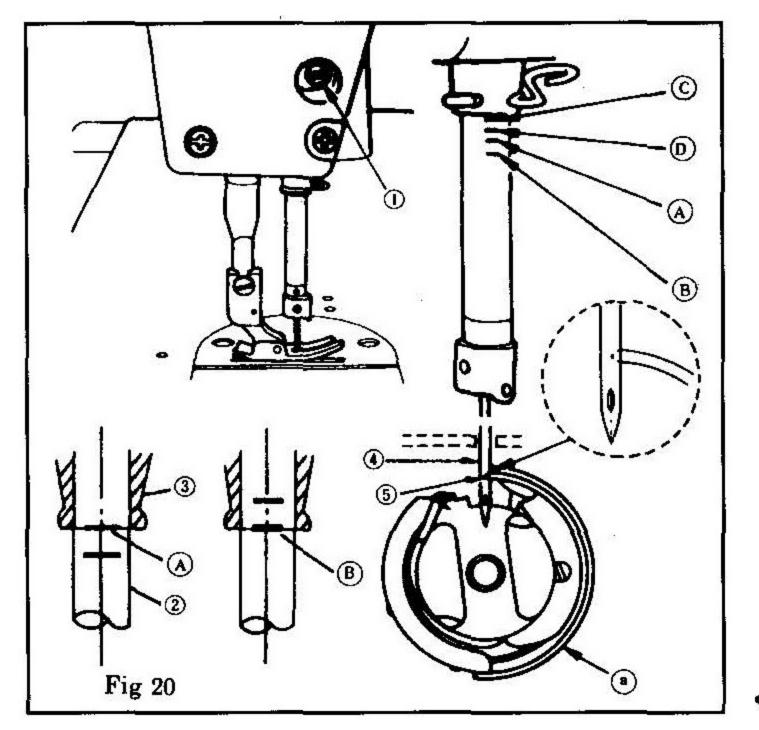
4) After making the adjustments mentioned in the above steps align hook blade point (5) with the center of needle (4). Provide a clearance of 0.04 mm to 0.1 mm between the needle and the hook, then securely, tighten the hook setscrews.

\* Precaution

If the clearance is too small, the tip of the hook will be abraded. If it is too big. it will lead to skip over.

\* Note that the type of hook to be substituted for, when replacing the hook.

shall be in conformity with the very type of the hook installed in the sewing machine of original assemblage.



# To adjust pressure bar height

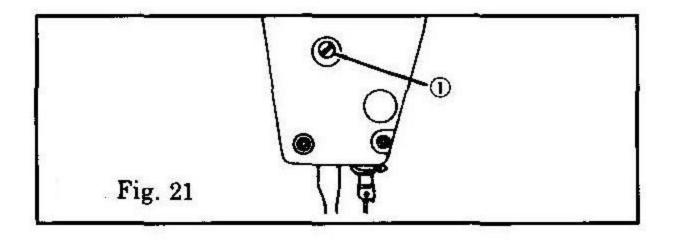
•

1) Loosen setscrew ①, and adjust: the presser bar height and the angle of the presser foot.

2

4

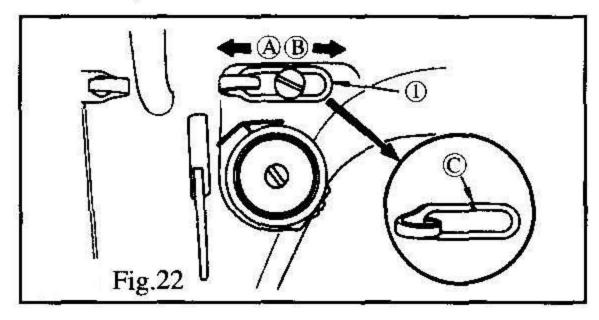
2) After adjustment, securely tighten the setscrew.



• 14 •

## Adjusting the thread guide

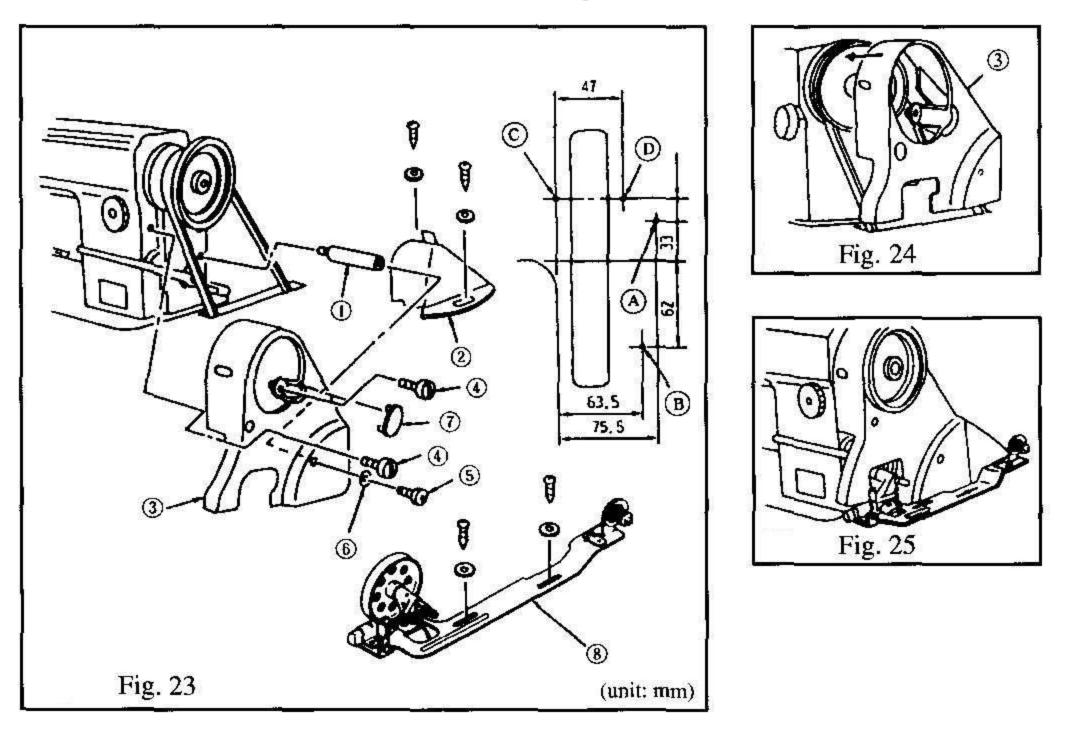
- 1) When sewing heavy-weight materials, move thread guide ① to the left in direction A to increase the length of thread pulled out by the thread take-up.
- 2) When sewing light-weight materials, move thread guide ① to the right in direction B to decrease the length of thread pulled out by the thread take-up.
- 3) When the marker line C on the thread guide ① is aligned with the center of the screw, it is standard.



#### • 15 •

### Installing procedure

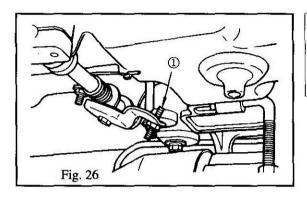
- 1) Drill four wooden screw guide holes A, B, C and D in the machine table.
- 2) Insert support ① in the tapped hole in the arm.
- 3) Install the front belt cover ③, get the hand whee l in the middle of the hole.
- 4) Install the back belt cover 2 at C and D.
- 5) Using the screws ④, ⑤ and washer ⑥ fix the front belt cover ③ on the support the tighting torque for the screw ④ is about 30 kgfcm, for the screw ⑤ is about 25 kgfcm.
- 6) Fix the cover O.
- Move the back belt cover ② backward until its rubber touches the front beit cover ③, then move further more 0.5-1 mm, fix it using the wooden screws and washers.
- 8) Fix bobbin winder (8) at A and B using the wooden screws.

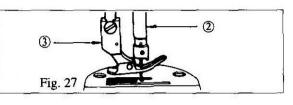


• 16 •

#### Adjusting the height of the knee lifter

- 1) The standard height of the presser foot lifted using the knee lifter is 10 mm.
- 2) You can adjust the presser foot lift up to 13 mm using knee lifter adjust screw (1).
- 3) When you have adjusted the presser foot lift to over 10 mm, be sure that bottom end of needle bar ② in its lowest position does not hit presser foot ③.





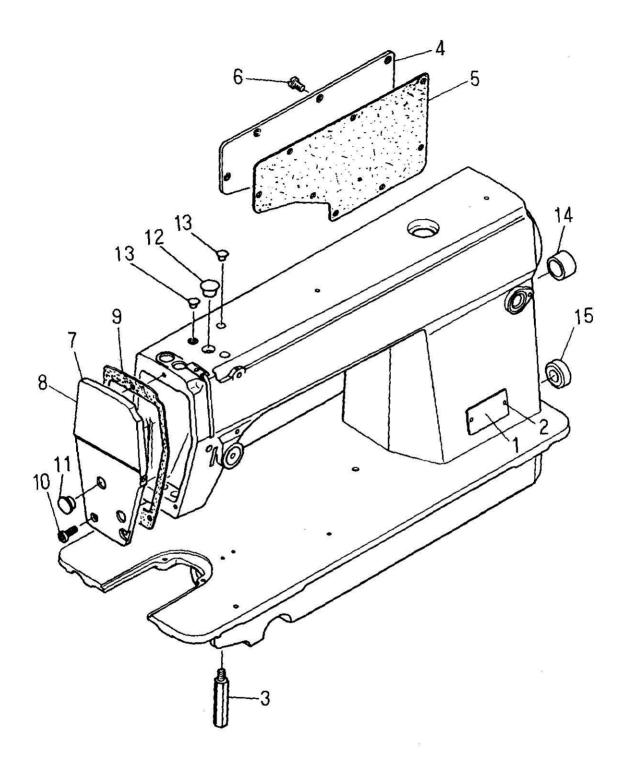
	Model	Model	Model
Application	For medium-weight materials	For heavy-weight materials	For heavy-weight big hook
Sewing speed	Max. 5,500 s.p.m.	Max. 3,500 s.p.m.	Max. 3,000 s.p.m
Stitch length	Max. 5mm	Max. 5mm	Max. 7mm
Presser foot lift (by knee lifter)		10mm(standara) 13mm(max.)	
Nædle	DB × 1 <sup>#</sup> 9~ <sup>#</sup> 18	DB × 1 *18~*22	DB × 1 *18~*23
Lubricating oil		10 white oil	

#### **Parts Book**

#### For Medium Heavy Materials

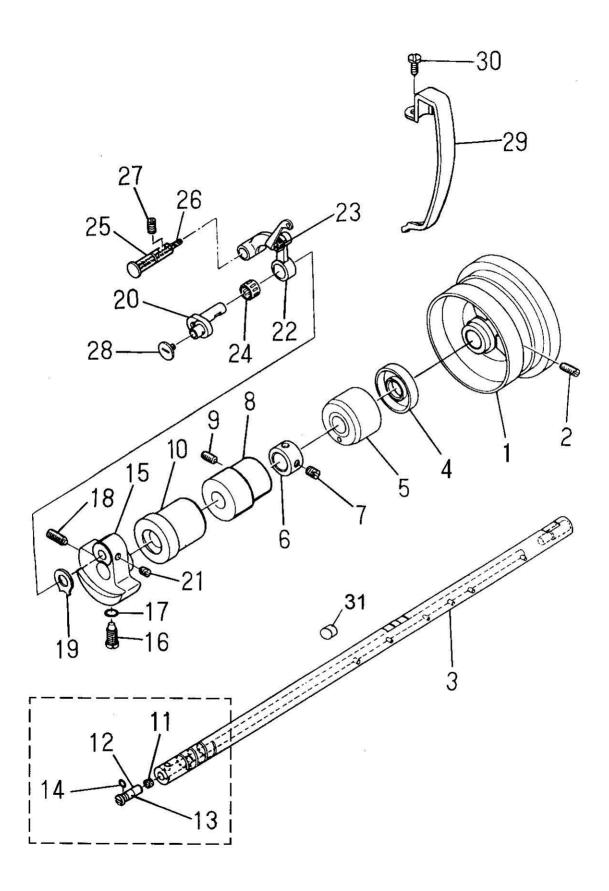
#### 1.Arm bed components

Ref.No.	Part No.	Description	Amt.
1	GQ276	Model plate	1
2	GX565		2
3	GS0548	Bed screw stud	4
4	GK239	Side plate	1
5	GR3340	Gasket	1
6	GS053		8
7	GR3342	Face plate arm	1
8	GQ277	Decorative plate	1
9	GR3343	Gasket	1
10	GS053	Screw 12/64-28 L=9	3
11	GR1458	Rubber plug	2
12	GR1463		1
13	GR3344	Rubber plug	2
14	GR3345	Rubber plug	1
15	GR1464	Rubber plug	1



#### 2.Main shaft & thread take-up components

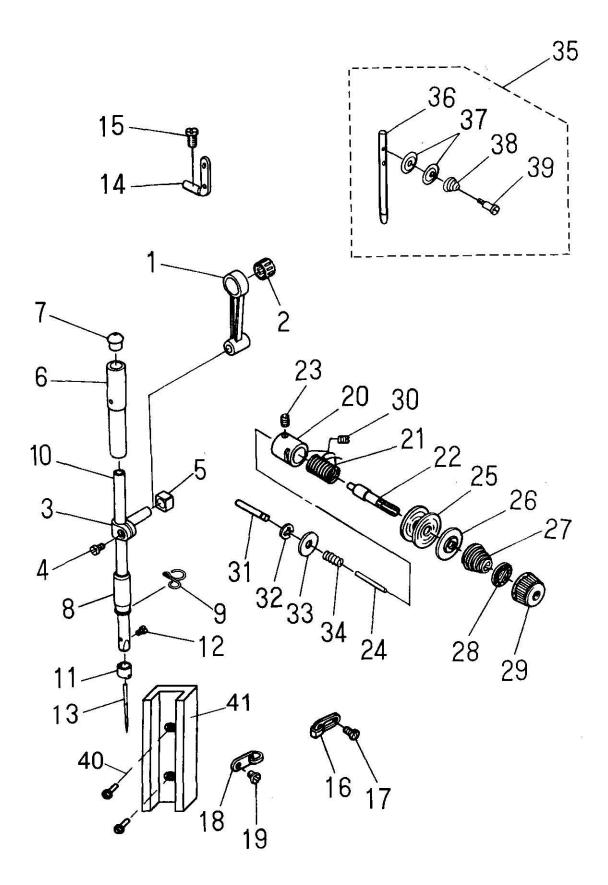
Ref.No.	Part No.		Description	Amt.
1	GP166		Hand wheel	1
2	GS03		Serew 15/64-28 L=15	2
3	GZ431	,	Main shaft	1
4	GR3346		Main shaft	1
5	GO462		Main shaft bushing, rear	1
6	GR1469	••••••	Thrust collar asm	1
7	GS39		Screw 1/4-40 L=6	2
8	GO463		Bushing, intermediate	1
9	GS0549	,	Screw	1
10	GO464		Main shaft bushing, front	1
11	GR1470		Roller felt	1
12	GX334	·····	Oil amount adjustimg pinasm	1
13	GO269		Rubber pushinb	1
14	GR1471		Rubber ring	1
15	GH561		Counterweight	
16	GS06		Screw 1.4-40 L=6	1
17	GR1472	·····	Rubber ring	1
18	GS0550		Screw 9/32-28 L=16	1
19	GR1473		Counterweight protecting plate	1
20	GH402/2		Needle bar crank asm	1
21	GS39	·····	Screw 1/4-40 L=6	2
22	GH564/4		Thread take-up lever asm	1
23	GR3349		Rubber	1
24	GO270		Needle bearing	1
25	GX566		Thread take-up crank shaft	1
26	GR3350	•••••••••••••••••••••••••••••••••••••••	Oiling wick	1
27	GS04	······	Screw 15/64-28 L=10.5	1
28	GS09	······	Screw (left twist)9/64-40 L=4.8	1
29	GK240		Thread take-up lever cover	1
30	GS551		Screw 3/16-28 L=6	1
31	GR0231		Rubber plug	1



#### 3.Needle bar & thread tension components

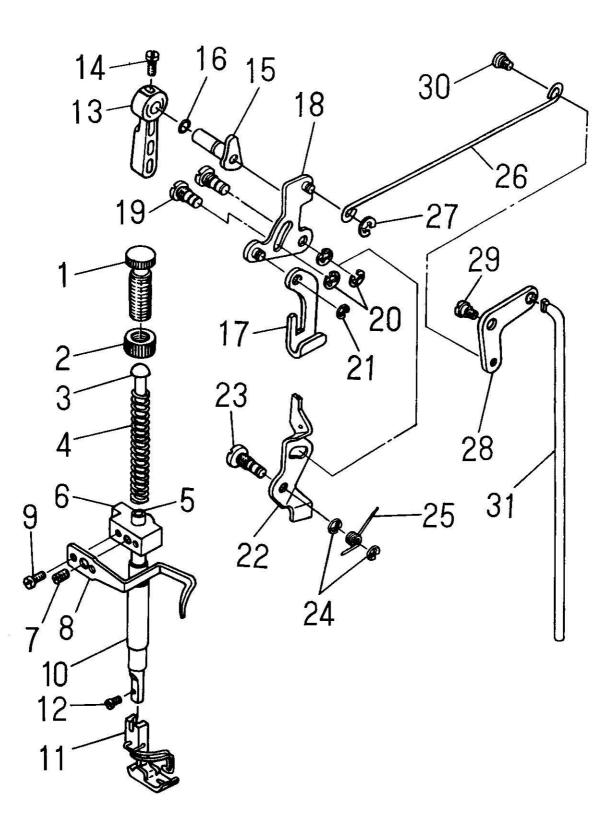
Ref.No.	Part No.		Amt.
1	GH334	Needle bar crank rod	1
2	GO270	Needle bearing	1
3	GR1478	Needle bar connection asm	1
4	GS011	Screw 9/64-40 L=6	1
5	GU168	Slide block	1
6	GO271	Needle bar bushing, upper	1
7	GR1479	Cap	1
8	GO272	Needle bar bushing, lower	1
9	GR3351	Needle bar thread guide	1
10	GZ432	Needle bar	1
11	GR3352	Needle bar thread guide	1
12	GS071	Screw 1/8-44 L=4.5	1
13	GV15	Needle (DB $\times 1^{\#}14$ )	1
14	GR3353	Two-hole thread eyelet	1
15	GS0551	Screw 3/16-28 L=6	1
16	GR3354	Frame thread guide, right	1
17	GS0552	Screw 11/64-40 L=6	1
18	GR3355	Frame thread guide, left	1
19	GS0551	Screw 11/64-40 L=6	1
20	GR1487	Tension post socket	1
21	GW250	Take-up spring	1
22	GS015	Screw	1
23	GS016		1
24	GX567	Thread release pin	1
25	GR1488	Tension disc	2
26	GR1489	Tension disc holder	1
27	GW251	Tension spring	1
28	GR1490	Tension disc stopper	1
29	GL0113	Tension nut	1
30	GS48	Screw 15/64-28 L=7	1
31	GX568	Tension release supporting pin	1
32	GR1717	Snap ring	1
33	GR3357	Washer plate	1
34	GW432	Tension release pin spring	1
35	GR1491/5	Needle thread guide pin asm	1
36	GR1492	Needle thread guide pin	(1)
37	GR1493	Tension disc	(2)
38	GW252	Tension spring	(1)
39	GS017	Hinge screw	(1)
40	GS0340	Slide block	2
41	GR0341	Needle bar trough	1

• 23 •



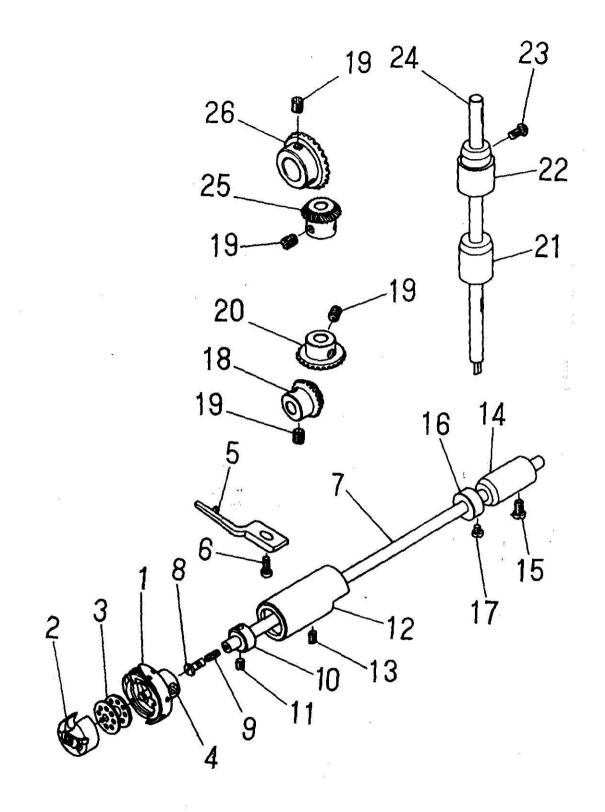
#### 4. Presser bar components

Ref.No.	Part No.	Description	Amt.
1	GS0553	Presser spring regulator	1
2	GL0114	Nut	1
3	GR1494	Presser guide bar	1
4	GW253	Presser spring	1
5	GZ275	Presser bar	1
6	GR3358	Needle bar guide bracket	1
7	GS033	Screw 1/4-40 L=8	1
8	GR3359	Presser bar thread guide	1
9	GS0100	Screw 9/64-40 L=8.5	2
10	GO273	Presser bar bushing lower	1
11	GM200/5	Presser foot asm.	1
12	GS020	Screw 9/64-40 L=10.5	1
13	GR3360		1
14	GS0554	Screw	1
15	GR3361/2		1
16	GR1503	Rubber ring	1
17	GR3363	Lifting lever	1
18	GR3364/3	Hand lifter link asm.	1
19	GS0555	Link shaft	2
20	GR1510	Snap ring	3
21	GR3366	Lifting lever ring	1
22	GR3367	Tension release plate	1
23	GS0556	Tension release shaft	1
24	GR1510	Snap ring	2
25	GW433	Tension release return spring	1
26	GR3368	Lifting lever connecting rod	1
27	GR1510	Snap ring	1
28	GR3369	Lifting lever link	1
29	GS0557	Hinge screw	1
30	GS0558	Hinge screw	1
31	GR3370	Connecting rod vertical	1



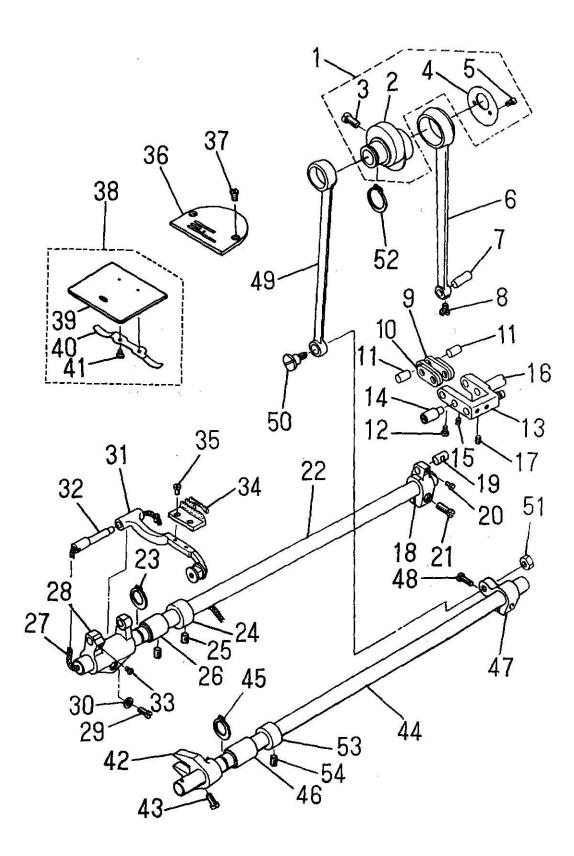
#### 5.Hook driving shaft compinents

1       GN161       Hook asm       1         2       GN162       Bobbin case asm       1         3       GN163       Bobbin       1         4       GS029       Screw       2         5       GR3371       Positioning finger.       1         6       GS030       Screw       1         7       GZ434       Hook driving shaft.       1         8       GS031       Oil scal screw.       1         9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       G031/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS082       Screw 11/64-40 L=4.8       2         16       GR1519       Thrust collar asm       1         17       GS082       Screw 11/64-40 L=4.8       2         18       GC165       Pinion asm       1         19       GS033       Screw 1/4-40 L=8       8         20       GC166	Ref.No.	Part No.	Description	Amt.
3       GN163       Bobbin       1         4       GS029       Screw       2         5       GR3371       Positioning finger.       1         6       GS030       Screw 11/64-40 L=9.5       1         7       GZ434       Hook driving shaft.       1         8       GS031       Oil seal screw       1         9       GR1515       Oil wick       1         10       GR3372       Thtust collar       1         11       GS032       Screw 11/64-40 L=3.5       2         12       GO31/3       Bushing asm front       1         13       GS0559       Screw       1         14       GO470       Bushing, rear       1         15       GS053       Screw 12/64-28 L=9       1         16       GR1519       Thrust collar asm       1         17       GS082       Screw 11/64-40 L=4.8       2         18       GC165       Pinion asm       1         19       GS033       Screw 1/4-40 L=8       8         20       GC166       Gear asm, large       1         21       GO471       Upright shaft bushing, ower       1         22 <td>1</td> <td>GN161</td> <td> Hook asm.</td> <td>1</td>	1	GN161	Hook asm.	1
4       GS029       Screw.       2         5       GR3371       Positioning finger.       1         6       GS030       Screw 11/64-40 L=9.5.       1         7       GZ434       Hook driving shaft.       1         8       GS031       Oil seal screw.       1         9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       GO31/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm large.       1         12       GO471       Upright shaft bushing,ower.       1         23       GS053       Screw 12/64-28 L=9.       1 </td <td>2</td> <td>GN162</td> <td> Bobbin case asm.</td> <td>1</td>	2	GN162	Bobbin case asm.	1
5       GR3371       Positioning finger.       1         6       GS030       Screw 11/64-40 L=9.5.       1         7       GZ434       Hook driving shaft.       1         8       GS031       Oil seal screw.       1         9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       GO31/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       GO471       Upright shaft bushing, ower.       1         22       GO472       Bushing. upper.       1         23       GS053       Screw 12/64-28 L=9.       1	3	GN163	Bobbin	1
6       GS030       Screw 11/64-40 L=9.5	4	GS029	Screw	2
7       GZ434       Hook driving shaft.       1         8       GS031       Oil seal screw.       1         9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       GO31/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm,       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm,       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm, large.       1         21       GO471       Upright shaft bushing, ower.       1         22       GO472       Bushing, upper.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         23       GS053       Screw 12/64-28 L=9.       1	5	GR3371	Positioning finger	1
8       GS031       Oil seal screw.       1         9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       GO31/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       GO471       Upright shaft bushing, ower.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         25       GC167       Pinion asm.       1	6	GS030		1
9       GR1515       Oil wick.       1         10       GR3372       Thtust collar.       1         11       GS032       Screw 11/64-40 L=3.5.       2         12       G031/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       G0470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       G0471       Upright shaft bushing, ower.       1         22       G0472       Bushing, upper.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         25       GC167       Pinion asm.       1	7	GZ434	Hook driving shaft	1
10       GR3372       Thtust collar	8	GS031	····· Oil seal screw	1
11       GS032	9	GR1515	····· Oil wick	1
12       GO331/3       Bushing asm front.       1         13       GS0559       Screw.       1         14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       GO471       Upright shaft bushing, ower.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         25       GC167       Pinion asm.       1	10	GR3372	Thtust collar	1
13       GS0559	11	GS032		2
14       GO470       Bushing, rear.       1         15       GS053       Screw 12/64-28 L=9.       1         16       GR1519       Thrust collar asm.       1         17       GS082       Screw 11/64-40 L=4.8.       2         18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       GO471       Upright shaft bushing, ower.       1         22       GO472       Bushing, upper.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         25       GC167       Pinion asm.       1	12	GO331/3	Bushing asm front	1
15       GS053	13	GS0559		1
16       GR1519	14	GO470	Bushing, rear	1
17       GS082	15	GS053	Screw 12/64-28 L=9	1
18       GC165       Pinion asm.       1         19       GS033       Screw 1/4-40 L=8.       8         20       GC166       Gear asm. large.       1         21       GO471       Upright shaft bushing,ower.       1         22       GO472       Bushing, upper.       1         23       GS053       Screw 12/64-28 L=9.       1         24       GZ435       Upright shaft.       1         25       GC167       Pinion asm.       1	16	GR1519		1
19       GS033	17	GS082		2
20       GC166       Gear asm_large	18	GC165	Pinion asm,	1
21       GO471       Upright shaft bushing, ower	19	GS033	Screw 1/4-40 L=8	8
22       GO472       Bushing, upper	20	GC166		
23       GS053	21	GO471	Upright shaft bushing, ower	1
23       GS053	22	GO472	Bushing, upper	
24       GZ435       Upright shaft	23	GS053	Screw 12/64-28 L=9	1
25 GC167 1	24	GZ435	Upright shaft	1
	25	GC167	Pinion asm	1
	26	GC168		



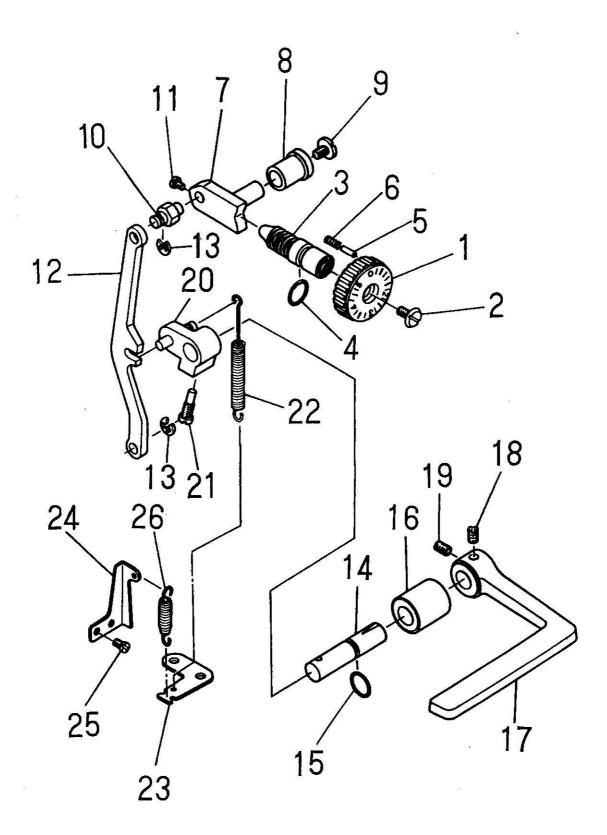
#### 6.Feed mechanism components

Ref.No.	Part No.	Description	Amt.
1		Feed drive cecentric cam asm	1
2	GT198	Feed drive cccentric cam	(1)
3	GS034	Screw 1/4-40 L=11	(2)
4	GR3373	Thrust collar	(1)
5	GS011	Screw 9/64 L=6	(2)
6	GH568	Rocker shaft connecting rod	1
7	GX570	Walking foot pin	1
8	GS0560	Scrcw 9/64-40 L=6	1
9	GR3374	Walking foot link	2
10	GR3375	Connecting link	2
11	GX571	Walking foot pin	2
12	GS0560	Screw 9/64-40 L=6.	2
13	GR3376/2	Walking foot adjusting link	1
14	GX573	Adjusting link fulcrum shaft	1
15	GS48	Screw 15/64-28 L=7	1
16	GX573	Adjusting link fulcrum shaft	1
17	GS48	Scrcw 15/64-28 L=7	1
18	GH569	Feed rocker shaft crank asm	1
19	GX571	Walking foot pin	1
20	GS0560	Scrcw 9/64-40 L=6	1
21	GS0561	Scrcw 3/16-28 L=14	1
22	GZ436	Feed rocker shaft.	1
23	GR1524	Retaining ring	1
24	GR1469	Thrust collar asm	1
25	GS39	Screw 1/4-40 L=6	2
26	GO473	Fccd tocker shaft bushing	1
27 -	GR3378	Oil wick	1
28	GR3379	Feed rockcr asm	1
29	GS69	Screw 3/16-28 l=14	1
30	GR1528	Washer	1
31	GR3380/5	Feed bar asm	1
32	GX575	Feed bar shaft	1
33	GS092	Screw 11/64-40 L=7	1
34	GM201	Feed dog.	1
35	GS072	Screw 1/8-44 L=6	2
36	GM202	Throat platc	1
37	GS044	Screw 11/64-40 l=8.5	2
38	GM340/4	Bed slide asm	1
39	GM204	Slide plate	(1)
40	GW434	Bed slide spring	(1)
41	GS045	Screw 3/32-56 L=1.9	(2)
42	GH570	Driving shaft crank asm. front	1
43	GS037	Screw 11/64-40 L=10.5	1
44	GZ437	Feed driving shaft	1
45	GR1524	Retaining ring	1
46	GO336	Feed rocker shaft bushing	1
47	GH571	Rear crank asm	1
48	GS0561	Screw 3/16-28 L=12	1
49	GH572	Connecting rod	1
50	GS0562	Hinge screw	1
51		Nut 9/32-28	1
52	GR1535	Snap ring	1
53	GR1469	Thrust collar asm	1
54	G\$39	Screw 1/4-40 L=6	2



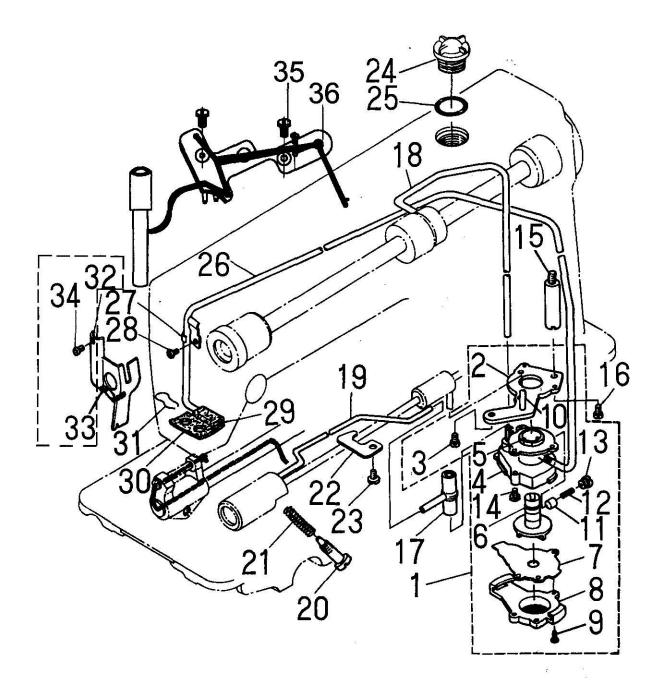
#### 7.Feed regulating components

Ref.No.	Part No	. Description	Amt.
1	GR3382	Feed dial	1
2	GS0563	Screw	1
3	GS0564	Feed regulator screw	1
4	GR3383	Rubber ring	1
5	GX576	Pin	1
6	GW257	Spring	1
7	GR3384	Feed regulator	1
8	GO474	Feed regulator bushing	1
9	GS0565	Screw	1
10	GX577	Feed regulator pin	1
11	GS011	Screw 9/64-40 L=6	2
12	GH573	Feed regulator connecting rod	1
13	GR1510	Snap ring	2
14	GZ438	Feed reverse shaft	1
15	GR3385	Rubber ring	1
16	GO475	Feed lever metal	1
17	GR3386	Reverse feed control lever	1
18	GS050	Screw 1/4-40 L=10	1
19	GS033	Screw 1/4-40 L=8	1
20	GH574/2	Feed reverse arm asm.	1
21	GS0566	Feed reverse arm screw	1
22	GW435	Feed reverse spring	1
23	GR3387	····· Feed spring hook	1
24	GR3388	Adjusting link spring guide	
25	GS0567	Screw 11/64-40 L=5	
26	GW436	Adjusting link spring	1



#### 8.Lubrication components

1       GR3389/12       Lubricating oil pump asm.       1         2       GR3390       Oil pump installing base.       (1)         3       GS0568       Screw 15/64-28 L=9.       (3)         4       GR3391       Oil pump bushing.       (1)         5       GO476       Oil pump bushing.       (1)         6       GR3392       Oil pump impeller.       (1)         7       GR3393       Oil pump impeller cover.       (1)         8       GR3394       Lubricating oil pump cover.       (1)         9       GS554       Screw.       (3)         10       GR3395       Hook driving shaft oil tube.       (1)         11       GR3396       Plunger.       (1)         12       GW437       Plunger screw.       (1)         13       GS0569       plunger screw.       (1)         14       GS062       Screw 1/64-04 L=9.5.       1         16       GS030       Screw 1/64-40 L=9.5.       1         17       GR3399       Oil tube.       1         18       GR3398       Main shaft oil tube.       1         19       GR3399       Oil tube.       1         20       GS054 <th>Ref.No.</th> <th>Part No.</th> <th></th> <th>Description</th> <th>Amt.</th>	Ref.No.	Part No.		Description	Amt.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1	GR3389/12		Lubricating oil pump asm	1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	GR3390		Oil pump installing base	(1)
5       GO476       Oil punp bushing	3	GS0568		Screw 15/64-28 L=9	(3)
6       GR3392       (1)         7       GR3393       (1)         8       GR3394       (1)         9       GS554       (1)         9       GS554       (1)         9       GS554       (1)         10       GR3395       Hook driving shaft oil tube	4	GR3391		Oil pump	(1)
7       GR3393       Gil pump impeller cover	5	GO476		Oil punp bushing	(1)
8       GR3394       Lubricating oil pump cover.       (1)         9       GS554       Screw	6	GR3392		Oil punp impeller	(1)
9       GS554       Screw       (3)         10       GR3395       Hook driving shaft oil tube.       (1)         11       GR3396       Plunger       (1)         12       GW437       Plunger spring.       (1)         13       GS0569       plunger screw.       (1)         14       GS02       Screw       (1)         15       GS0567       Oil pump support.       1         16       GS030       Screw 11/64-40 L=9.5.       1         17       GR3397       Rubber joint.       1         18       GR3398       Main shaft oil tube.       1         19       GR3399       Oil tube.       1         20       GS054       Oil adjusting screw.       1         21       GW259       Spring.       1         22       GR3400       Tube holder (lower).       1         23       GS062       Screw 15/64-28 L=9.       1         24       GR1561       Oil sight window.       1         25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube holder.       1         27       GR1566       Oil return tube holder.       1 <th>7</th> <th>GR3393</th> <th></th> <th>Oil pump impeller cover</th> <th>(1)</th>	7	GR3393		Oil pump impeller cover	(1)
10       GR3395       Hook driving shaft oil tube.       (1)         11       GR3396       Plunger.       (1)         12       GW437       Plunger spring.       (1)         13       GS0569       plunger screw.       (1)         14       GS062       Screw.       (1)         15       GS0567       Oil pump support.       1         16       GS030       Screw 11/64-40 L=9.5.       1         17       GR3397       Rubber joint.       1         18       GR3398       Main shaft oil tube.       1         19       GR3399       Oil tube.       1         20       GS054       Oil adjusting screw.       1         21       GW259       Spring.       1         22       GR3400       Tube holder (lower).       1         23       GS062       Screw 15/64-28 L=9.       1         24       GR1561       Oil sight window.       1         25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1566       Oil return tube holder.       1         26       GR3403       Arm oil shield. <t< th=""><th>8</th><th>GR3394</th><th></th><th>Lubricating oil pump cover</th><th>(1)</th></t<>	8	GR3394		Lubricating oil pump cover	(1)
11       GR3396	9	GS554		Screw	(3)
12       GW437       GW437       (1)         13       GS0569       (1)         14       GS062       (1)         15       GS0567       (1)         16       GS030       Screw	10	GR3395		Hook driving shaft oil tube	(1)
13       GS0569	11	GR3396		Plunger	(1)
14       GS062       Screw	12	GW437		Plunger spring	(1)
15       GS0567       Oil pump support.       1         16       GS030       Screw 11/64-40 L=9.5.       1         17       GR3397       Rubber joint.       1         18       GR3398       Main shaft oil tube.       1         19       GR3399       Oil tube.       1         20       GS054       Oil adjusting screw.       1         21       GW259       Spring.       1         22       GR3400       Tube holder (lower).       1         23       GS062       Screw 15/64-28 L=9.       1         24       GR1561       Oil sight window.       1         25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1566       Oil return tube holder.       1         28       GS0551       Screw 3/16-28 L=6.       1         29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil felt presser.       1         32       GR3403       Arm oil shield.       1         33       GR3404       Oil wick.       1         34       GS44       Screw 1/8-44 L=4. <td< th=""><th>13</th><th>GS0569</th><th></th><th>plunger screw</th><th>(1)</th></td<>	13	GS0569		plunger screw	(1)
16       GS030       Screw 11/64-40 L=9.5       1         17       GR3397       Rubber joint       1         18       GR3398       Main shaft oil tube	14	GS062		Screw	(1)
17       GR3397       Rubber joint	15	GS0567	e a real contrar a construction of the second to the second second second second second second second second s	Oil pump support	1
11       GR3398       Main shaft oil tube.       1         19       GR3399       Oil tube.       1         20       GS054       Oil adjusting screw.       1         21       GW259       Spring.       1         22       GR3400       Tube holder (lower).       1         23       GS062       Screw 15/64-28 L=9.       1         24       GR1561       Oil sight window.       1         25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1566       Oil return tube holder.       1         28       GS0551       Screw 3/16-28 L=6.       1         29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil felt presser.       1         31       GR1569       Oil felt presser.       1         32       GR3403       Arm oil shield.       1         33       GR3404       Oil wick.       1         35       GS0835       Oil wick setplate screw.	16	GS030		Screw 11/64-40 L=9.5	1
13 $GR3399$	17	GR3397		Rubber joint	1
20       GS054       Oil adjusting screw.       1         21       GW259       Spring.       1         22       GR3400       Tube holder (lower).       1         23       GS062       Screw 15/64-28 L=9.       1         24       GR1561       Oil sight window.       1         25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1566       Oil return tube holder.       1         27       GR1566       Oil return tube holder.       1         28       GS0551       Screw 3/16-28 L=6.       1         29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil felt presser.       1         31       GR1569       Oil felt presser.       1         33       GR3404       Oil wick.       1         34       GS44       Screw 1/8-44 L=4.       1         35       GS0835       Oil wick setplate screw.       2	18	GR3398		Main shaft oil tube	1
21 $GW259$ Spring.       1         22 $GR3400$ Tube holder (lower).       1         23 $GS062$ Screw 15/64-28 L=9.       1         24 $GR1561$ Oil sight window.       1         25 $GR1562$ Rubber ring.       1         26 $GR3401$ Oil return tube.       1         26 $GR3401$ Oil return tube.       1         26 $GR3401$ Oil return tube.       1         27 $GR1566$ Oil return tube holder.       1         28 $GS0551$ Screw 3/16-28 L=6.       1         29 $GR1567$ Anti-dust oil felt.       1         30 $GR1568$ Oil felt presser.       1         31 $GR1569$ Oil felt presser.       1         33 $GR3404$ Oil wick.       1         34 $GS044$ Screw 1/8-44 L=4.       1         35 $GS0835$ Oil wick setplate screw.       2	19	GR3399		Oil tube	1
21 $GR3400$ Tube holder (lower)		GS054			
23       GS062       Screw 15/64-28 L=9       1         24       GR1561       Oil sight window       1         25       GR1562       Rubber ring       1         26       GR3401       Oil return tube       1         27       GR1566       Oil return tube holder       1         28       GS0551       Screw 3/16-28 L=6       1         29       GR1567       Anti-dust oil felt       1         30       GR1568       Oil felt presser       1         31       GR1569       Oil shield       1         33       GR3403       Arm oil shield       1         34       GS44       Screw 1/8-44 L=4       1         35       GS0835       Oil wick setplate screw       2		GW259		Spring	1
24       GR1561       Oil sight window	22	GR3400		Tube holder (lower)	1
25       GR1562       Rubber ring.       1         26       GR3401       Oil return tube.       1         27       GR1566       Oil return tube holder.       1         28       GS0551       Screw 3/16-28 L=6.       1         29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil return oil felt.       1         31       GR1569       Oil felt presser.       1         32       GR3403       Arm oil shield.       1         33       GR3404       Oil wick.       1         34       GS44       Screw 1/8-44 L=4.       1         35       GS0835       Oil wick setplate screw.       2	23				
26       GR3401       Oil return tube       1         27       GR1566       Oil return tube holder       1         28       GS0551       Screw 3/16-28 L=6       1         29       GR1567       Anti-dust oil felt       1         30       GR1568       Oil return tube holder       1         31       GR1569       Oil felt       1         32       GR3403       Arm oil shield       1         33       GR3404       Oil wick       1         34       GS44       Screw 1/8-44 L=4       1         35       GS0835       Oil wick setplate screw       2	24				-
27       GR1566       Oil return tube holder.       1         28       GS0551       Screw 3/16-28 L=6.       1         29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil felt.       1         31       GR1569       Oil felt presser.       1         32       GR3403       Arm oil shield.       1         33       GR3404       Oil wick.       1         34       GS44       Screw 1/8-44 L=4.       1         35       GS0835       Oil wick setplate screw.       2	25			2010 ·	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	100700-0				
29       GR1567       Anti-dust oil felt.       1         30       GR1568       Oil felt.       1         31       GR1569       Oil felt presser.       1         32       GR3403       Arm oil shield.       1         33       GR3404       Oil wick.       1         34       GS44       Screw 1/8-44 L=4.       1         35       GS0835       Oil wick setplate screw.       2					2
30       GR1568       Oil felt       1         31       GR1569       Oil felt presser       1         32       GR3403       Arm oil shield       1         33       GR3404       Oil wick       1         34       GS44       Screw 1/8-44 L=4       1         35       GS0835       Oil wick setplate screw       2					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					17
32GR3403Arm oil shield133GR3404Oil wick1 $34$ GS44Screw 1/8-44 L=4135GS0835Oil wick setplate screw2					-
33       GR3404       Oil wick					
$\begin{bmatrix} 34 \\ 35 \end{bmatrix} = \begin{bmatrix} GS44 \\ GS0835 \end{bmatrix} = \begin{bmatrix} 1/8 \\ -44 \\ -1 \end{bmatrix}$	1.9-01.5				- 1
35 GS0835 Oil wick setplate screw 2					
	_ L				
36 GR0836 1				2	
	36	GR0836		Oil wick setplate asm	1



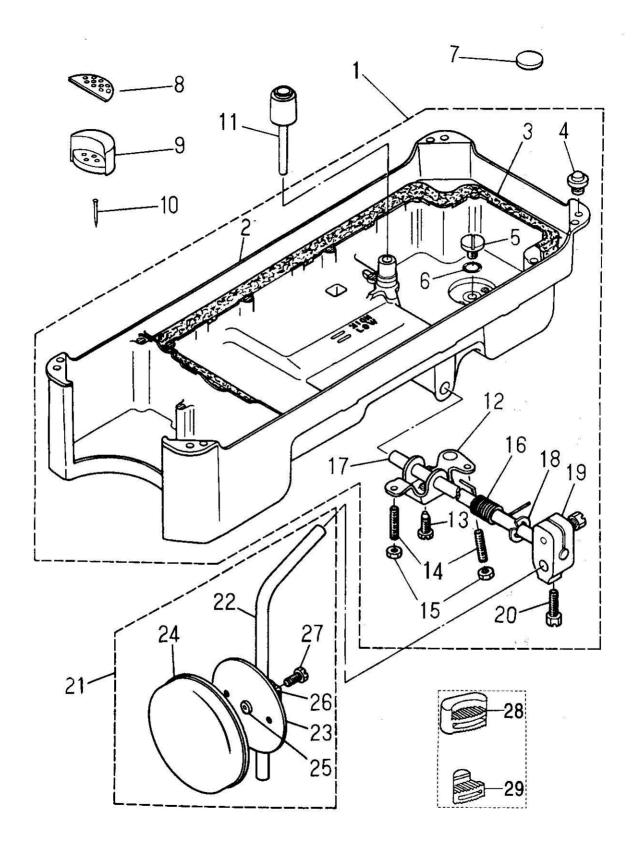
· .

#### 9.Oil reservoir & knee lifter components

,

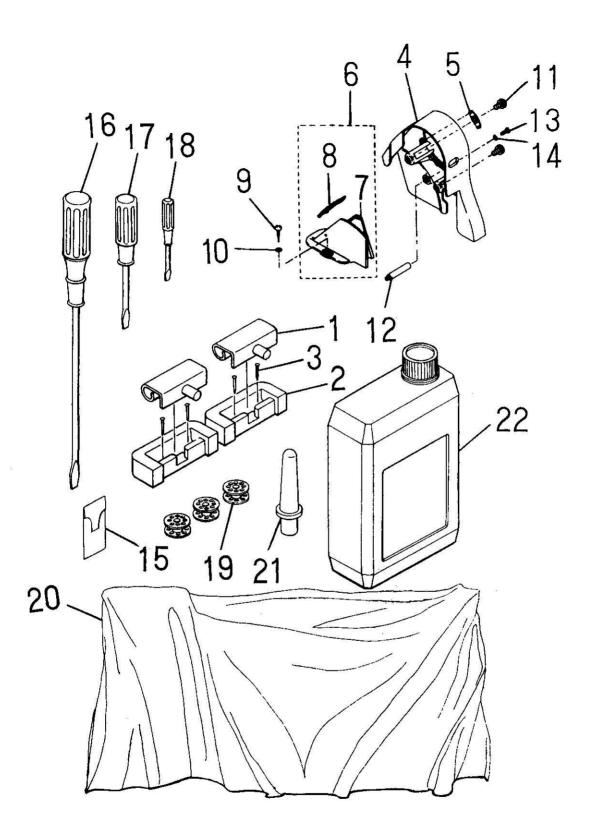
Ref.No.	Part No.	r	mt.
1	GR3405/17	 Oil reservoir asm	1
2	GR3406	 Oil reservoir	(1)
3	GR3407	 Gasket	(1)
4	GR3408	 Rubber cushion	(4)
5	GS0571	 Screw	(2)
6	GR3409	Rubber ring	(2)
7	GR1576	 Oil reservoir magnet	1
8	GR1578	 Oil reservoir felt cushion	2
9	GR1579	 Oil reservoir rubber cushion	2
10	GBX108	 Nail	4
11	GH579	 Knee press lifter rod	1
12	GH576	 Connecting rod, vertical	1
13	GS0572	 Screw	1
14	GS057	 Screw 15/64-28 1=30	2
15	GL21	 Nut 15/64-28	2
16	GW438	 Spring	1
17	GZ439	 Knee press rod	1
18	GR1583	 Snap ring	1
19	GR3410	 Bearing bracket	1
20	GS0573	 Screw 9/32-20 1=20	2
21	GR3411/6	 Knee press plate asm	1
22	GR1586	 Knee lifter plate rod	1
23	GR3412	 Knee press plate	1
24	GKR13	 Knee press plate cover	1
25	GR3413	 Rubber	1
26	GR3414	 Knee press plate holder	1
_27			_1
28		R	2
_29	22T9-010	 Antivbration pad of machine head(small)	_2 _

Remarks: antivbration pad of machine head(big)28, antivbration pad of machine head(small) 29, it is suitable to install table of which four concave angle shape and size is small the antivbration pad of machine head(28,29), shape and size.



## 10.Machine head accessories(1)

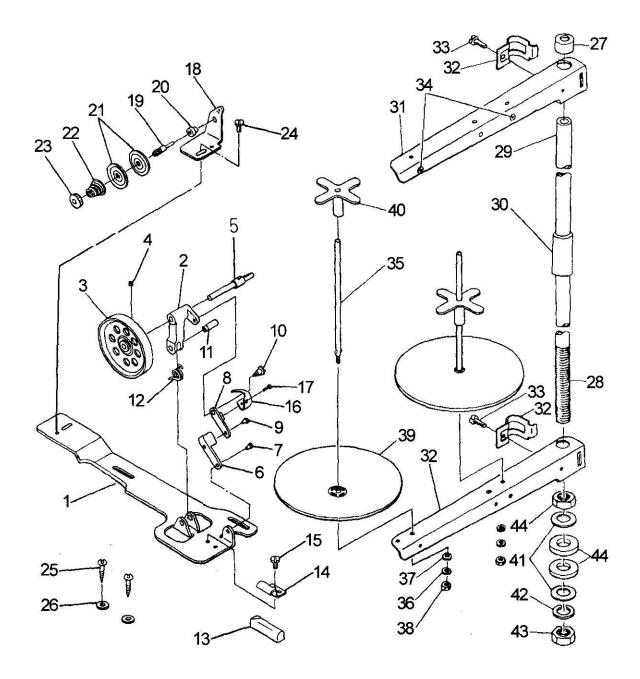
Ref.No.	Part No.		Description	Amt.
1	GR1590/2		Machine hinge plate asm	2
2	GBX105		Machine hinge plate	2
3	GK241		Nail	4
4	GR3415		Beltcover,A	. 1
5	GK242/3		Beltcover,A cap	1
6	GK243		Beltcover,B asm.	1
7	GK242/2		Beltcover,B	, 1
8	GBS120		Beltcover,B cover asm,	. 1
9	GBR147		Wood screw D=4.5 L=20	. 2
10	GS0574		Washer	2
11	GS0575		Beltcover, A screw	. 2
12	GS0576		Beltcover support	1
13	GS0576		Screw 3/16-28 L=14	. 1
14	GR3417		Washer	. 1
15	GV15		Needle	.1包
16	GR1610		Screw driver, large	. 1
17	GR1602		Screw driver, mendium	. 1
18	GR1603		Screw driver, small	. 1
19	GN163		Bobbin	. 3
20	GF424		Machine head cover	. 1
21	GBR148		Machine rest pin	. 1
22	GR1604/3	·····	Oil reservoir asm	. 1
		- -		
		10		



• 38 •

## Machine head accessories(2)

Ref.No.	Part No.		Description	Amt.
1	GR3419	Bobbin winder base asm		. 1
2	GR3420	Thread winder base asm 1		
3	GP167		Thread winder asm	
4	GS013	,,	Screw	
5	GZ284		Bobbin winder shaft	1
6	GR3421	,	Connecting rod	1
7	GX347	••••	Connecting rod pin	1
8	GR3422		Bobbin winder frame rod	1
9	GX347		Bobbin winder frame rod pin	1
10	GS063	•••••••••••••••••••••••••••••••••••••••	Screw 1/8-44 L=12.5	1
11	GX348		Bobbin winder frame pin	1
12	GW263		Bobbin winder frame spring	1
13	GR1613		Rubber brake	1
14	GR3423		Presser plate	1
15	GS061		Screw 11/64-40 L=3	1
16	GW439		Bobbin winder spring	1
17	GS065		Hinge screw	1
18	GR3425		Thread tension bracket asm	1
19	GS0577		Screw	1
20	GR1617		Bobbin winder tension disc collar	1
21	GR1488	,,,	Tension disc	2
22	GW265		Tension spring	1
23	GL22	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
24	GS0578			1
25	GBS120		1970 March 19700 March 19700 March 19700 March 1970 March 1970 Mar	
26	<b>GBR147</b>			2
27	GR1744			
28	GZ315			
29	GZ316	,	Spool rest rod (upper)	1
30	GR1932		Spool rested joint	1
31	GR1825		Thread guide asm.	2
32	GR1745		Thread guide asm joint	2
33	GS558		Screw	
34	GR1748	•••••••••••••••••••••••••••••••••••••••	Thread guide ring	2
35	GS067		Spool pin	2
36	GR1625			2
37	GR1626			
38	GL23			
39	GR1811			
40	GR1215			
41	GR1696			
42	GR1751			
43	GL158			
44	GR1753	******	Rubber washer	



•

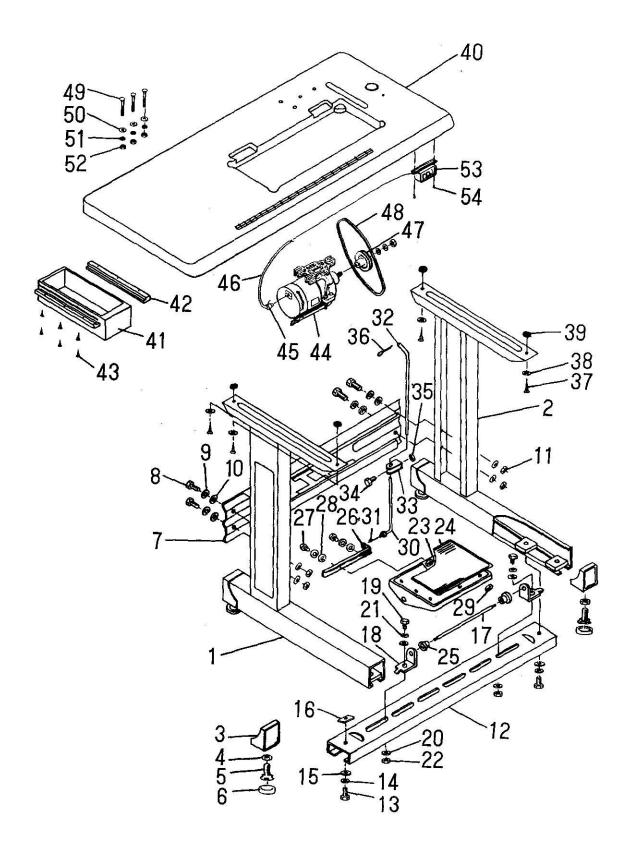
#### 11.Machine stand, table & electric appliance components\*

Ref.No.	Part No.		Description
1	GKR302/5		Stand side asm, left
2	GKR305/5		Stand side asm right
3	A DATA DATA DATA DATA DATA DATA DATA DA		Rubber cushion
4	<b>GKL104</b>		Nut
5	GKR196/2		Screw
6	GKR198		Space ring
7	GKR309		Stand side support
8			
9	GKS110		Screw
	GKR106		Spring washer
10	GKR122		Washer
11	GKL101		Nut
12	GKR310		Treadle brace
13	GKS110		Screw
14	GKR106		Spring washer
15	GKR122		Washer
16	GKR311		Treadle brace locknut plate
17	GKX301		Treadle shaft
18	GKR317		Treadle bracket
19	GKS110		Screw
20	<b>GKR122</b>		Washer
21	GKR106		Spring washer
22	<b>GKL101</b>		Nut
23	GKR312		Trcable
24	GKR313		Gas Ket
25	GKR314		Collar
26	GKR315		Tteadle pitman
20	GKK515 GKS102		1.0
			Screw
28	GKR112	·····	Washer
29	GKL102		Nut
30	GKR316		Pitman rod, lower
31	GKW301		Spring
32	GKR118		Pitman rod, upper
33	GKR183	Several control and the several s	Joint
34	GKS110		Joint screw
35	GKL101	······	Joint nut
36	GKX101		Pitman rod split pin (upper)
37	GBS114		Table wood screw
38	<b>GKR112</b>	,	Table wood screw washer
39	GKR186		Table washer
40	<b>GBR150</b>		Table
41	GBR151		Drawer
42	GBR152		Drawer rail
43	GB\$121		Drawer rail wood screw
44	GD234		Motor GFC4024 motor
44	GD234 GD219		Motor connecting wire plug
	GD219 GD108		
46			Motor wire
47	GD233		Motor pulley
48	GE122		Machine driving beit
49	GKS122	······································	Motor & table connecting screw
50	GKR209		Motor & table connecting washer
51	GKR106		Motor & table connecting spring washer
52	<b>GKL101</b>	·····	Motor & table connecting nut
53	GD227		Power source switch
54	GBS104		Power source switch wood screw

\* Nate that parts above mentioned shall be purchased in a separate order.

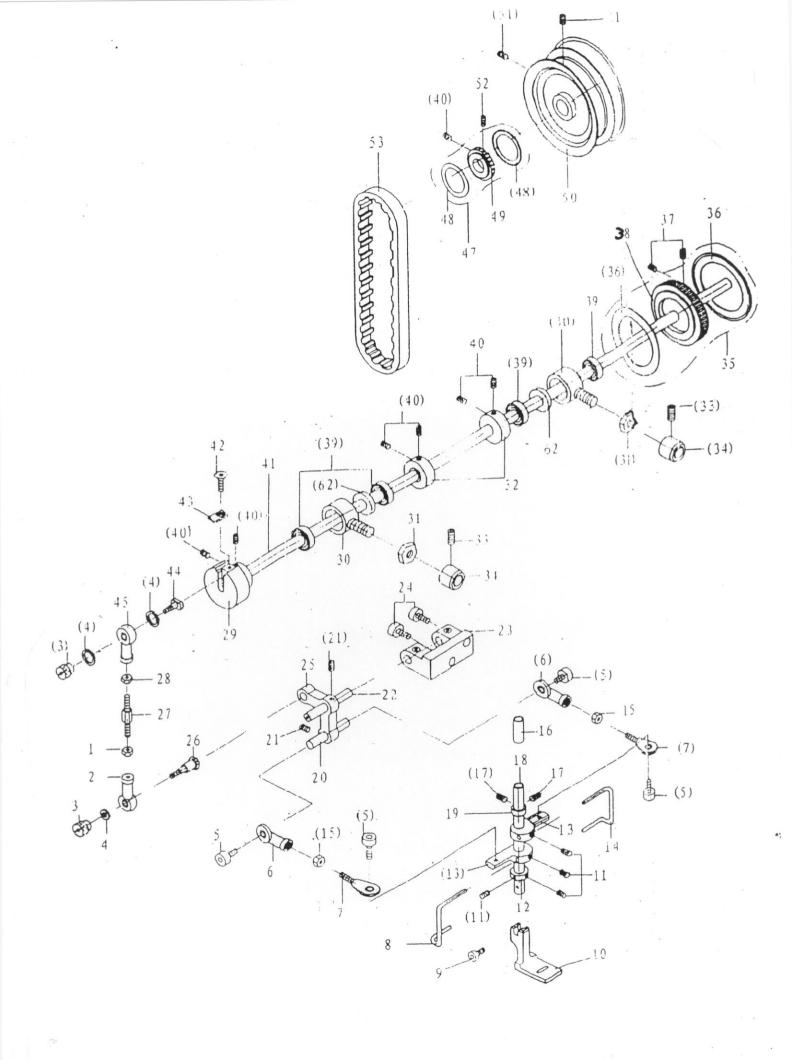
.

•



# For Heavy Weight Materials

	Ref.No.	Part No.	Description	Amt.
	1	GH579/3	Link thread take-up lever asm,	1
50 1	2	GH580	Needle bar crank H	(1)
	3	GR1644	Thread guide pin	1
	4	GO288	Needle bar bushing, lower	1
	5	GR1632	Needle bar thread guide	1
	6	GZ441	Needle bar	1
	7	GR3431	Needle bar thread guide	1
	8	<b>GV</b> 17		1
	9	GW269	Presser spring	1
	10	GR3433/10	Thread tension asm,	1
	11	GW268	Tension spring	1
	12	GR3432	Arm thread guide (HA)	1
	13	GW440	Adjust link spring	1
	14	GR3434	Positioning finger	1
	15	GM210	Throat plate(H)	1
	16	GM209	Feed dog(H)	1
	17	GM208/5	Hinged presser foot asm	1
	18	GR1646	Presser foot asm	1
	19	GN197	Lubricating bobbin asm	1
	20	GS069	Screw 1/8-44 L=25	1
	21	GR3435	feed spring hook	1



3         851301         scree cap ball joint(lower)         1 1         MS(left)GB6170-86           2         851302         knurled nut washer         3         56B97.2-85           6         ball joint(forward)         2         5           7         ball joint(forward)         2           8         851303         looper(left)         1           9         M500-4-8         screw         1           9         M500-4-8         screw         1           10         851304         presser         1           11         hexagon socket set screw with cup point         4         M4x4GB80-85           12         851306         looper fright)         1         4         M4x4GB80-85           13         851307         looper fright)         1         4         M4x4GB80-85           14         851307         looper fright)         1         1         5           15         screw cup         2         M5x5GB80-85         1         1           18         85131         upper retaining ring for looper stand         1         1           21         hexagon socket set screw with cup point         2         M5x16GB70-865           25 <th></th> <th>NO.</th> <th>Parts no.</th> <th>Description</th> <th>Qty.</th> <th>Remark</th>		NO.	Parts no.	Description	Qty.	Remark
3         851302         kmurled nut         2         5           4         washer         3         56B97.2-85           5         heragon socket screw with cylindrical head         4         M5x12GB70-85           6         ball joint(forward)         2         1           7         ball joint(back)         2         1           8         851303         looper(left)         1         1           9         N500-4-8         screw         1         SM9/64*x10-10.5           10         851304         presser         1         M4x4GB80-85           12         851306         looper(right)         1         1           13         851306         looper(right)         1         1           15         screw cup         2         M5GB6170-86         1           19         851310         presser stick cover         1         1           21         hexagon socket set screw with cup point         2         M5x16GB70-885           22         85131         rocker shaft         1         1           24         hexagon socket set screw with cup point         2         M5x16GB70-885           25         851315         rocker sh		1	851301	screw cap	1	MS(left)GB6170-86
4         washer         3         5GB97.2~65           6         ball joint(forward)         2           7         ball joint(back)         2           8         851303         looper(left)         1           9         8500-4~8         screw         1           11         hexagon socket set screw with cup point         4         M4x4G80~85           12         851305         down retaining ring for looper holder         1         1           13         851306         looper(right)         1         1           15         screw cup         2         M5G86170-86           16         851300         presser stick cover         1         1           17         851300         presser stick cover         1         1           20         851311         upper retaining ring for looper stand         1         1           21         hexagon socket screw with cup point         2         M5x16G870-885           22         85131         rocker shaft         1         1           23         85131         rocker shaft         1         1           24         hexagon socket screw with cup point         2         M5x16G870-86		2		ball joint(lower)	1	
5         hexagon socket screw with cylindrical head         4         M5x126B70-85           6         ball joint(forward)         2         1           7         ball joint(back)         2           8         851303         looper(left)         1           9         8500-4-8         screw         1           9         8500-4-8         screw         1           10         851304         presser         1           11         hexagon socket set screw with cup point         4         M4x46B80-85           12         851305         doom retaining ring for looper holder         1           13         851306         presser stick cover         1           16         851308         presser stick cover         1           17         861309         slot type set screw         1           19         851311         upper retaining ring for looper stand         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           22         851313         rocker shaft         1         1           23         851314         rocker shaft         1         1           24         hexagon socket set screw with cup point </td <td></td> <td>3</td> <td>851302</td> <td>knurled nut</td> <td>2</td> <td></td>		3	851302	knurled nut	2	
6         ball joint(forward)         2           8         851303         looper(left)         1           9         8500-4-8         screw         1           10         851304         presser         1           11         hexagon socket set screw with cup point         4         M4x46B80-85           12         851305         down retaining ring for looper holder         1           13         851306         looper(right)         1           15         screw cup         2         M5GB6170-86           16         851308         presser stick cover         1           19         851310         uper retaining ring for looper stand         1           20         851311         uper retaining ring for looper stand         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           25         851315         rocker shaft         1         1           24         hexagon socket set screw with cup point         2         M5x56B80-85           25         851315         rocker frame         1         1           26         851320         looper drive shaft center support         2         M10GB6170-86		4		washer	3	5GB97.2-85
7       ball joint(back)       2         8       851303       looper(left)       1         9       8500-4-8       screw       1         10       851304       presser       1         11       hexagon socket set screw with cup point       4       M4x4G880-85         12       851305       down retaining ring for looper holder       1         13       851306       presser stick cover       1         15       screw cup       2       M5GB6170-86         16       851309       slot type set screw       2       SmM1/8"x44-2.5         18       851310       presser stick       1       1         20       851311       upper retaining ring for looper stand       1       1         21       hexagon socket set screw with cup point       2       M5x56680-85         26       851311       nocker shaft       1       1         28       851314       rocker shaft center support       1       1         26       851314       nocker frame       1       1       1         26       851315       nocker frame       1       1       1         27       851315       screw cup       2 <td></td> <td>5</td> <td></td> <td>hexagon socket screw with cylindrical head</td> <td>4</td> <td>M5x12GB70-85</td>		5		hexagon socket screw with cylindrical head	4	M5x12GB70-85
8         851303 8500-4-8 8500-4-8 9         looper(left) screw         1 1         SM9/64*x10-10.5           11         hexagon socket set screw with cup point 4         M4x46B80-85         M4x46B80-85           12         851305         down retaining ring for looper holder 1         1         M4x46B80-85           12         851306         looper(right)         1         M5cB6170-86           16         851308         presser stick cover 1         1         SmM1/8*x44-2.5           18         851310         presser stick cover up         1         M5cB6170-86           16         851310         presser stick cover up         1         M5x5GB80-85           13         851311         upper retaining ring for looper stand         1         1           20         851313         rocker shaft         1         1           23         851314         rocker shaft center support         1         M5x166B70-885           24         hexagon socket set screw with cup point         2         M5x166B70-86           26         851315         rocker frame         1         1           28         screw cup         1         M5x166B70-86         2           28         851320         looper drive shaft center suppo		6		ball joint(forward)	2	
9         8500-4-8 851304         screw         1         SM9/64*x10-10.5           11         hersgen socket set screw with cup point         4         M4x4GB80-85           12         M51306         down retaining ring for looper holder         1           13         851306         looper holder         1           13         851306         looper (right)         1           15         screw cup         2         M5GB6170-86           16         851308         presser stick cover         1           17         851301         presser stick cover         1           18         851312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x5GB80-85           23         851314         rocker shaft         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-86           25         851315         rocker frame         1         1           26         851318         eccentric wheel         1         1           31         screw cup         2         M10GB6170-86           29         851321         screw stake         2         5		7		ball joint(back)	2	
10         851304         presser         1           11         hexagon socket set screw with cup point         4         M4x4GB80-85           12         #51305         down retaining ring for looper holder         1           13         #51306         looper holder         2           14         #51307         looper(right)         1           15         screw cup         2         M5GB6170-86           16         #51308         presser stick cover         1           19         #51311         upper retaining ring for looper stand         1           20         #51312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x5GB80-85           23         #51314         rocker shaft         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885           25         #51316         hinge screw         1         1           26         #51316         hinge screw         1         1           30         #51319         looper drive shaft center support         2         M10GB6170-86           28         #51321         screw cup         2		8	851303	looper(left)	1	82
11         hexagon socket set screw with cup point down retaining ring for looper holder         4         M4x46B80-85           12         851306         looper holder         1         1           13         851306         looper holder         2         M56B6170-86           14         851307         looper (right)         1         1         1           15         screw cup         2         M56B6170-86         1           16         851300         presser stick cover         1         1           20         851311         upper retaining ring for looper stand         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           23         851312         rocker shaft         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885           25         851317         ball hinge screw         1         1           26         851316         hinge screw         1         1           30         851320         looper drive shaft center support         2         1           31         screw cup         2         M10GB6170-86         1           32         851321		9	8500-4-8	screw	1	SM9/64"x10-10.5
12       851305       down retaining ring for looper holder       1         13       851306       looper holder       2         14       851307       looper(right)       2         15       screw cup       2       M5GB6170-86         16       851308       presser stick cover       1         17       851309       slot type set screw       2       SmM1/8"x44-2.5         18       851310       upper retaining ring for looper stand       1         20       851312       small shaft       1         21       hexagon socket set screw with cup point       2       M5x5GB80-85         22       851315       rocker shaft       1       1         23       851316       hinge screw       1       1         24       hexagon socket screw with cup point       2       M5x6GB70-865         25       851315       rocker shaft       1       1         26       851316       hinge screw       1       1         27       851316       hinge screw       1       1         30       8500-3-34       screw up       2       M10GB6170-86         31       screw cup       2       SM3/16"x28-6		10	851304	presser	1	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		11		hexagon socket set screw with cup point	4	M4x4GB80-85
14         851307         looper(right) screw cup         1           15         screw cup         2         M5GB6170-86           16         851308         presser stick cover         1           17         851309         slot type set screw         2         SmM1/8*x44-2.5           18         851310         upper retaining ring for looper stand         1           20         851312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x5GB80-85           22         851313         rocker shaft         1         1           23         851314         rocker frame         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885           25         851315         rocker frame         1         1           26         851319         looper drive shaft center support         2         1           30         851319         looper drive shaft retaining ring         2         2         SM3/16*x28-6           28         851320         looper drive shaft         1         1         10009006B276-82           38         851322         big belt wheel         1<		12	851305	down retaining ring for looper holder	1	
15         screw cup         2         M5GB6170-86           16         851309         slot type set screw         2         SmM1/8"x44-2.5           17         851300         presser stick         1         1           19         851311         upper retaining ring for looper stand         1         1           20         851312         small shaft         1         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           22         851313         rocker shaft         1         1           23         851315         rocker holder         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-865           25         851315         rocker holder         1         1           26         81316         hinge screw         1         1           30         851319         looper drive shaft center support         2         M10CB6170-86           23         851320         looper drive shaft retaining ring         2         SM3/16"x28-6           34         851321         screw cup         2         SM3/16"x28-6           35         851322         big belt wheel		13	851306	looper holder	2	
16         851308         presser stick cover         1         SmM1/8"x44-2.5           17         851300         presser stick         1           19         851311         upper retaining ring for looper stand         1           20         851312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           22         851313         rocker shaft         1         1           23         851314         rocker sholder         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885           25         851315         rocker frame         1         1           26         851316         hinge screw         1         1           27         851318         eccentric wheel         1         1           30         851320         looper drive shaft center support         2         M10GB6170-86           28         51321         screw cup         2         M10GB6170-86         1           31         screw cup         2         SM3/16"x28-6         2         3           32         851321         screw cup         2		14	851307	looper(right)	1	
17       851309       slot type set screw       2       SmM1/8"x44-2.5         18       851310       presser stick       1         19       851311       upper retaining ring for looper stand       1         20       851312       small shaft       1         21       hexagon socket set screw with cup point       2       M5x56B80-85         22       851313       rocker shaft       1         23       851315       rocker holder       1         14       hexagon socket screw with cylindrical head       2       M5x16GB70-885         25       851315       rocker frame       1       1         26       851316       hinge screw       1       1         27       851317       ball hinges connecting screw       1       1         28       screw cup       1       M5GB6170-86       2         30       851319       looper drive shaft center support       2       M10GB6170-86         32       851321       screw stake       2       SM3/16"x28-6         34       851321       screw stake       2       SM3/16"x4-2.5         35       851322       big belt wheel retaining ring       2       M6x10GB80-85		15		screw cup	2	M5GB6170-86
18         851310         presser stick         1           19         851312         small shaft         1           20         851312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x5GB80-85           22         851312         rocker holder         1           23         851314         rocker holder         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885           25         851315         rocker frame         1         1           26         851316         hinge screw         1         1           27         851317         ball hinges connecting screw         1         1           30         851319         looper drive shaft center support         2         M10GB6170-86           28         screw cup         2         M10GB6170-86         2         SM3/16"x28-6           31         screw tup         2         SM3/16"x28-6         2         SM3/16"x28-6           38         851320         looper drive shaft center support         2         SM3/16"x28-6           36         851322         big belt wheel assembly         2         SM3		16	851308	presser stick cover	1	
19         851311 20         upper retaining ring for looper stand small shaft         1           21         hexagon socket set screw with cup point         2         M5x56B80-85           22         851313         rocker shaft         1           23         851314         rocker shaft         1           24         nexagon socket screw with cylindrical head         2         M5x16GB70-885'           25         851315         rocker frame         1         1           26         851316         hinge screw         1         1           27         851317         ball hinges connecting screw         1         1           28         screw cup         1         1         1           30         851319         looper drive shaft center support         2         M10GB6170-86           31         screw cup         2         SM3/16"x28-6         34           34         851321         screw stake         2         3           35         8500-3-34         screw         2         SM3/16"x28-6           34         851321         screw stake         2         3           36         851322         big belt wheel assembly         2         M6x10GB80-85		17	851309	slot type set screw	2	SmM1/8"x44-2.5
20         851312         small shaft         1           21         hexagon socket set screw with cup point         2         M5x5GB80-85           22         851313         rocker shaft         1           23         851314         rocker shaft         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885*           25         851315         rocker frame         1         1           26         851316         hinge screw         1         1           27         851317         ball hinges connecting screw         1         1           28         screw cup         1         M5GB6170-86         2           29         851318         eccentric wheel         1         1           30         851320         looper drive shaft center support         2         M10GB6170-86           32         851321         screw cup         2         SM3/16"x28-6         3           34         851321         screw stake         2         SM3/16"x28-6           35         851323         big belt wheel assembly         4         1000900GB276-82           36         851324         big belt         4         1000900GB276		18	851310	presser stick	1	
21         hexagon socket set screw with cup point         2         M5x5GB80-85           22         851313         rocker shaft         1         1           23         851314         rocker shaft         1         1           24         hexagon socket screw with cylindrical head         2         M5x16GB70-885*           25         851315         rocker frame         1         1           26         851316         hinge screw         1         1           28         screw cup         1         M5GB6170-86           29         851319         looper drive shaft center support         2         M10GB6170-86           30         851320         looper drive shaft retaining ring         2         SM3/16"x28-6           34         851321         screw cup         2         SM3/16"x28-6           35         851321         screw stake         2         SM3/16"x28-6           36         851322         big belt wheel assembly         1         1           36         851323         big belt wheel assembly         1         1000900GB276-82           37         hexagon socket set screw with cup point         7         M5x3GB80-85           41         851325 <td< td=""><td></td><td>19</td><td>851311</td><td>upper retaining ring for looper stand</td><td>1</td><td></td></td<>		19	851311	upper retaining ring for looper stand	1	
22       851313       rocker shaft       1         23       851314       rocker holder       1         24       hexagon socket screw with cylindrical head       2       M5x16GB70-885 <sup>-</sup> 25       851316       hinge screw       1         26       851316       hinge screw       1         27       851317       ball hinges connecting screw       1         28       screw cup       1       M5GB6170-86         29       851319       looper drive shaft center support       2         31       screw cup       2       M10GB6170-86         32       851320       looper drive shaft retaining ring       2         33       8500-3-34       screw stake       2         34       851321       screw stake       2         35       851322       big belt wheel assembly       1         36       851323       big belt wheel       1         39       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1       1         42       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851326       hol		20	851312	small shaft	1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		21		hexagon socket set screw with cup point	2	M5x5GB80-85
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		22	851313	rocker shaft	1	
25         851315         rocker frame         1           26         851316         hinge screw         1           27         851317         ball hinges connecting screw         1           28         screw cup         1         M5GB6170-86           29         851318         eccentric wheel         1           30         851319         looper drive shaft center support         2           31         screw cup         2         M10GB6170-86           32         851320         looper drive shaft retaining ring         2           33         8500-3-34         screw         2         SM3/16"x28-6           34         851321         screw stake         2         M6x10GB80-85           38         851324         big belt wheel retaining ring         2         M6x10GB80-85           41         851325         looper driver shaft         1         1         M5x3GB80-85           41         851326		23	851314	rocker holder	1	
26         851316         hinge screw         1           27         851317         ball hinges connecting screw         1           28         screw cup         1         M5GB6170-86           29         851318         eccentric wheel         1         1           30         851319         looper drive shaft center support         2         M10GB6170-86           31         screw cup         2         M10GB6170-86         2           33         8500-3-34         screw         2         SM3/16"x28-6           34         851321         screw stake         2         SM3/16"x28-6           35         851322         big belt wheel assembly         2         M6x10GB80-85           36         851324         big belt wheel         2         M6x10GB80-85           38         851324         big belt wheel         1         1000900GB276-82           40         hexagon socket set screw with cup point         7         M5x3GB80-85           41         851326         holder         1         1           42         ball shaft         1         2         SM11/64"x40-3           43         851326         holder         1         1         1 <td></td> <td>24</td> <td></td> <td>hexagon socket screw with cylindrical head</td> <td>2</td> <td>M5x16GB70-885</td>		24		hexagon socket screw with cylindrical head	2	M5x16GB70-885
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		25	851315		1	
28         screw cup         1         M5GB6170-86           29         851318         eccentric wheel         1           30         851319         looper drive shaft center support         2           31         screw cup         2         M10GB6170-86           32         851320         looper drive shaft retaining ring         2           33         8500-3-34         screw         2         SM3/16"x28-6           34         851321         screw stake         2         SM3/16"x28-6           34         851321         screw stake         2         SM3/16"x28-6           35         851322         big belt wheel assembly         2         SM3/16"x28-6           36         851323         big belt wheel retaining ring         2         M6x10GB80-85           38         851324         big belt wheel         1         10000900GB276-82           40         hexagon socket set screw with cup point         7         M5x3GB80-85           41         851325         looper driver shaft         1         1           42         2         SM11/64"x40-3         1           43         851326         holder         1         1           44 <t< td=""><td></td><td>26</td><td>851316</td><td>hinge screw</td><td></td><td></td></t<>		26	851316	hinge screw		
29       851318       eccentric wheel       1         30       851319       looper drive shaft center support       2         31       screw cup       2       M10GB6170-86         32       851320       looper drive shaft retaining ring       2         33       8500-3-34       screw       2       SM3/16"x28-6         34       851321       screw stake       2       SM3/16"x28-6         35       851322       big belt wheel assembly       2       SM3/16"x28-6         36       851321       screw stake       2       SM3/16"x28-6         37       hexagon socket set screw with cup point       2       M6x10GB80-85         38       851324       big belt wheel       1       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851326       holder       1       1         42       2       SM11/64"x40-3       1         43       851326       holder       1       1         44       851326       holder       1       1         45       ball joint(upper)       1       5       SM11/64"x40-3         48       851330		27	851317	ball hinges connecting screw	1	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		28		screw cup	1	M5GB6170-86
31       screw cup       2       M10GB6170-86         32       851320       looper drive shaft retaining ring       2       SM3/16"x28-6         34       851321       screw stake       2       SM3/16"x28-6         35       851322       big belt wheel assembly       2       SM3/16"x28-6         36       851323       big belt wheel retaining ring       2       M6x10GB80-85         38       851324       big belt wheel       1       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1         42       2       SM11/64"x40-3         43       851326       holder       1         44       851327       T type screw       1         45       ball joint (upper)       1       -         46       1       -       -         47       851320       small belt wheel assembly       2         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel retaining ring       2         51       8500-2-30       hexagon socket set screw with cup point       2		29	851318	eccentric wheel	1	
31       screw cup       2       M10GB6170-86         32       851320       looper drive shaft retaining ring       2       SM3/16"x28-6         34       851321       screw stake       2       SM3/16"x28-6         35       851322       big belt wheel assembly       2       SM3/16"x28-6         36       851323       big belt wheel retaining ring       2       M6x10GB80-85         38       851324       big belt wheel       1       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1         42       2       SM11/64"x40-3         43       851326       holder       1         44       851327       T type screw       1         45       ball joint (upper)       1       -         46       1       -       -         47       851320       small belt wheel assembly       2         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel retaining ring       2         51       8500-2-30       hexagon socket set screw with cup point       2		: 30	851319	looper drive shaft center support	2	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		31.				M10GB6170-86
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		32	851320	looper drive shaft retaining ring		
34       851321       screw stake       2         35       851322       big belt wheel assembly       2         36       851323       big belt wheel retaining ring       2         37       hexagon socket set screw with cup point       2         38       851324       big belt wheel       1         39       ball shaft       4       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1       1         42       2       SM11/64"x40-3       4         43       851326       holder       1       1         44       851327       T type screw       1       1         45       ball joint(upper)       1       1       1         46       1       1       1       1         47       851329       small belt wheel retaining ring       2       1         48       851330       small belt wheel       1       1         50       851332       big wheel       1       1         51       8500-2-30       hexagon socket set screw with cup point       1       132XL      <		33	8500-3-34			SM3/16"x28-6
35         851322         big belt wheel assembly         -           36         851323         big belt wheel retaining ring         2           37         hexagon socket set screw with cup point         2           38         851324         big belt wheel         1           39         ball shaft         4         1000900GB276-82           40         hexagon socket set screw with cup point         7         M5x3GB80-85           41         851325         looper driver shaft         1           42         2         SM11/64"x40-3           43         851326         holder         1           44         851327         T type screw         1           45         ball joint(upper)         1         -           46         1         -         -           47         851329         small belt wheel retaining ring         2           49         851331         small belt wheel         1           50         851332         big wheel         1           51         8500-2-30         hexagon socket set screw with cup point         2         Sm15164"x28-15           52         hexagon socket set screw with cup point         1         132XL <td></td> <td>34</td> <td>851321</td> <td>screw stake</td> <td></td> <td></td>		34	851321	screw stake		
36         851323         big belt wheel retaining ring hexagon socket set screw with cup point         2         M6x10GB80-85           37         big belt wheel         1         1         1000900GB276-82           40         hexagon socket set screw with cup point         4         1000900GB276-82           40         hexagon socket set screw with cup point         7         M5x3GB80-85           41         851325         looper driver shaft         1         2           42         2         SM11/64"x40-3         1           43         851326         holder         1         2           44         851327         T type screw         1         1           45         ball joint(upper)         1         1           46         1         1         1           47         851329         small belt wheel assembly         1           48         851330         small belt wheel         1           50         851332         big wheel         1           51         8500-2-30         hexagon socket set screw with cup point         2         Sm15164"x28-15           52         hexagon socket set screw with cup point         1         1322XL         2sets		35		big belt wheel assembly	-	
37       hexagon socket set screw with cup point       2       M6x10GB80-85         38       851324       big belt wheel       1         39       ball shaft       4       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1       4         42       2       SM11/64"x40-3       1         43       851326       holder       1       4         44       851327       T type screw       1       1         45       ball joint(upper)       1       -       -         46       1       -       -       -       -         47       851329       small belt wheel assembly       -       -       -         48       851330       small belt wheel retaining ring       2       -       -       -         49       851331       small belt wheel       1       -       -       -       -         51       8500-2-30       hexagon socket set screw with cup point       2       Sm15164"x28-15       -       -         52       hexagon socket set screw with cup point       1       M5x66B80-85       -<					2	
38       851324       big belt wheel       1         39       ball shaft       4       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1         42       2       SM11/64"x40-3         43       851326       holder       1         44       851327       T type screw       1         45       ball joint(upper)       1		37				M6x10GB80-85
39       ball shaft       4       1000900GB276-82         40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1       1         42       2       SM11/64"x40-3       3         43       851326       holder       1       1         44       851327       T type screw       1       1         45       ball joint(upper)       1       1       1         46       1       1       1       1         47       851329       small belt wheel assembly       1       1         48       851330       small belt wheel retaining ring       2       2         49       851331       small belt wheel       1       1         50       851322       big wheel       1       1         51       8500-2-30       hexagon socket set screw with cup point       2       Sm15164"x28-15         52       hexagon socket set screw with cup point       1       M5x6GB80-85         53       toothed belt       1       132XL         54       2       screw cup       1       SM11/64"x40			851324			MOXICODOC CO
40       hexagon socket set screw with cup point       7       M5x3GB80-85         41       851325       looper driver shaft       1       2       SM11/64"x40-3         42       2       SM11/64"x40-3       1       1       1         42       2       SM11/64"x40-3       1       1       1         43       851326       holder       1       1       1         44       851327       T type screw       1       1       1         45       ball joint(upper)       1       1       1       1         46       1       1       1       1       1       1         47       851329       small belt wheel assembly       1       1       1       1         48       851330       small belt wheel       retaining ring       2       2       1       1         50       851332       big wheel       1       1       1       1       1         51       8500-2-30       hexagon socket set screw with cup point       1       1       132XL         52       hexagon socket set screw with cup point       1       132XL       1       132XL         54       2       5						1000900GB276-82
41       851325       looper driver shaft       1         42       2       SM11/64"x40-3         43       851326       holder       1         44       851327       T type screw       1         45       ball joint(upper)       1       1         46       1       1       1         47       851329       small belt wheel assembly       1         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2       Sm15164"x28-15         52       hexagon socket set screw with cup point       1       132XL         54       2       2sets       1         55       8570-8-12       screw cup       1       SM11/64"x40		40				
42       2       SM11/64"x40-3         43       851326       holder       1         44       851327       T type screw       1         45       ball joint(upper)       1       1         46       1       1         47       851329       small belt wheel assembly       1         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851322       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2       Sm15164"x28-15         52       hexagon socket set screw with cup point       1       M5x6GB80-85         53       toothed belt       1       132XL         54       2       Sm11/64"x40	1		851325			MOXOODOO OO
43       851326       holder       1         44       851327       T type screw       1         45       ball joint(upper)       1         46       1         47       851329       small belt wheel assembly         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52       hexagon socket set screw with cup point       1         53       toothed belt       1       132XL         54       2sets       1         55       8570-8-12       screw cup       1						SM11/64"x40-3
44       851327       T type screw       1         45       ball joint(upper)       1         46       1         47       851329       small belt wheel assembly         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52       hexagon socket set screw with cup point       1         53       toothed belt       1       132XL         54       2sets       1         55       8570-8-12       screw cup       1			851326	holder		UNIT OT ATO U
45       ball joint(upper)       1         46       1         47       851329       small belt wheel assembly         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52       hexagon socket set screw with cup point       1         53       toothed belt       1       132XL         54       2sets       1         55       8570-8-12       screw cup       1       SM11/64"x40						
46       1         47       851329       small belt wheel assembly         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52       hexagon socket set screw with cup point       1         53       toothed belt       1         54       2sets       1         55       8570-8-12       screw cup       1						×
47       851329       small belt wheel assembly       1         48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52       1       M5x6GB80-85         53       toothed belt       1         54       2sets       1         55       8570-8-12       screw cup       1	1	Color Statements		Journ (appor)		
48       851330       small belt wheel retaining ring       2         49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2         52        hexagon socket set screw with cup point       1         53        toothed belt       1         54        2sets         55       8570-8-12       screw cup       1		47	851329	small belt wheel assembly	-	
49       851331       small belt wheel       1         50       851332       big wheel       1         51       8500-2-30       hexagon socket set screw with cup point       2       Sm15164"x28-15         52       hexagon socket set screw with cup point       1       M5x6GB80-85         53       toothed belt       1       132XL         54       screw cup       1       SM11/64"x40					2	
50         851332         big wheel         1           51         8500-2-30         hexagon socket set screw with cup point         2         Sm15164"x28-15           52         hexagon socket set screw with cup point         1         M5x6GB80-85           53         toothed belt         1         132XL           54         2sets         1         SM11/64"x40						
51         8500-2-30         hexagon socket set screw with cup point         2         Sm15164"x28-15           52         hexagon socket set screw with cup point         1         M5x6GB80-85           53         toothed belt         1         132XL           54         screw cup         1         SM11/64"x40						
52hexagon socket set screw with cup point1M5x6GB80-8553toothed belt1132XL54screw cup1SM11/64"x40		and so that the second s				Sm15164"x28-15
53     toothed belt     1     132XL       54     2sets     1       55     8570-8-12     screw cup     1						
54         2sets           55         8570-8-12         screw cup         1         SM11/64"x40		53			-	
55         8570-8-12         screw cup         1         SM11/64"x40		54			-	100112
50		55	8570-8-12	screw cup		SM11/64"x40
		56			1	