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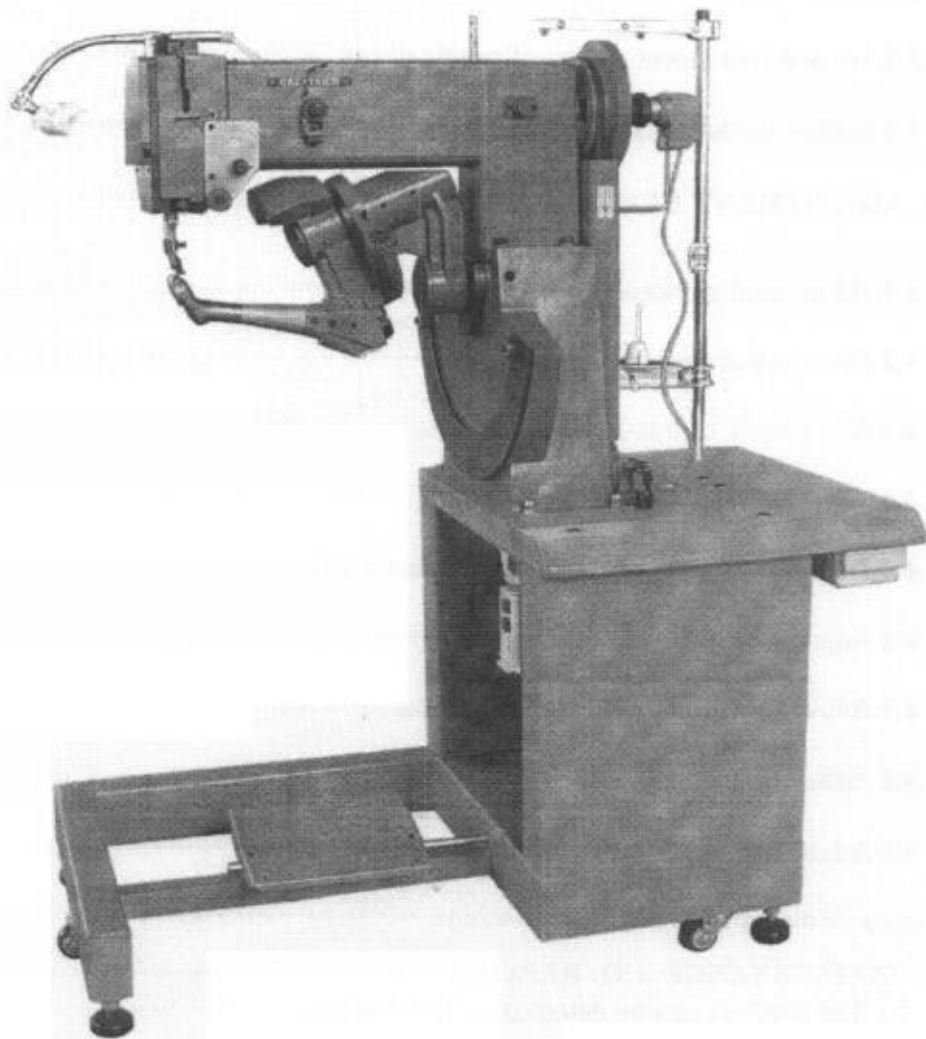
SM 7570 - CH

Double thread seated type inseam sewing machine

**INSTRUCTION / OPERATING MANUAL
PARTS MANUAL**

SM 7570 - CH

DOUBLE THREAD SEATED TYPE INSEAM SEWING MACHINE



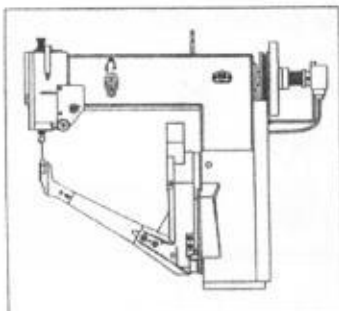
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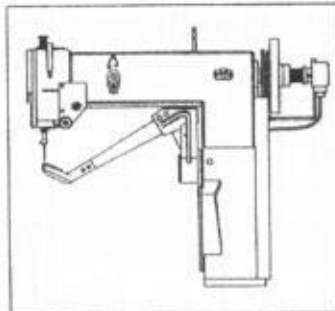
Thank you very much for your choice of this sewing machine. please read the manual carefully before use!

1. MACHINE DESCRIPTION

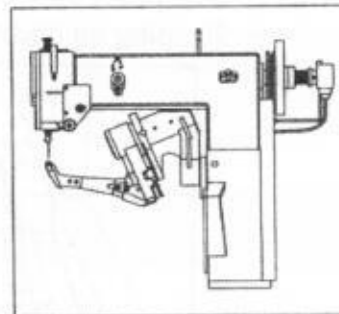
Double thread Shoe-border stitcher. The machine can be equipped with three kinds of horns for different works. A horn is a longer horn especially designed for side stitching of top boots, also can be used for side stitching common shoes. B horn is a special horn designed for loafer and roller skates. S horn is a special horn designed for OPANKA stitching of little shoes and special shoes. The horn assembled on machine can be replaced by another one easily.



Mod. A



Mod. B



Mod. S

This machine is driven by an asynchronous electric motor. The sewing speed can be controlled stepless and the needle stop position can be controlled by asynchronous electric motor, the presser foot can be lifted automatically.

2. TECHNICAL FEATURES OF THE MACHINE

Sewing speed:	Stepless speed regulating
Stitch length:	3-12mm(A/B),3-10mm(S)
Stitch thickness:	1.5-8mm(A/B),1.5-6mm(S)
Lifting capacity:	20mm
Travel of needle bar:	50mm
Sewing needle:	Mod. A,B : CP×5(25#/27#) Mod. S: CP×5(23#/25#)
Bobbin:	Mod. A: 32×13mm Mod. B: 26×11mm Mod. S: 23×8.5mm
Sewing thread:	Compound thread
Motor:	750W(380V 3-phase / 220V 1-phase)
Lighting:	7W / 220V 1-phase
Weight:	Mod.A: 260kg(N.W.) / 290kg(G.W.) Mod.B: 242kg(N.W.) / 272kg(G.W.) Mod.S: 260kg(N.W.) / 290kg(G.W.)
Machine dimensions:	130×64×140cm (L.×W.×H.)
Dimensions with packing:	146×75×150cm (L.×W.×H.)

3. USE OF THE MACHINE

3.1 Start pedal

First of all, switch on the machine to check if the rotation of the motor is conformable to the red arrow on the belt cover. If the direction is opposite, switch in the other way round. Then operate the pedal in three different movements.(Fig 1)

- Stepping on forward(position A) means advance. Stepping on lightly is slow and stepping on heavily is fast.
- Stop in the neutral position.
- Stepping on backward(position B) means lifting the presser foot.

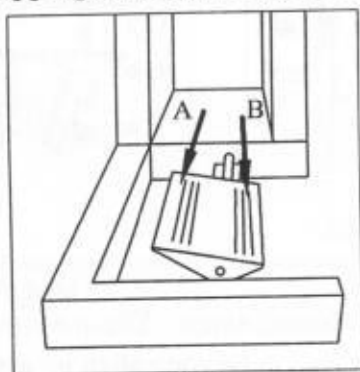


Fig 1

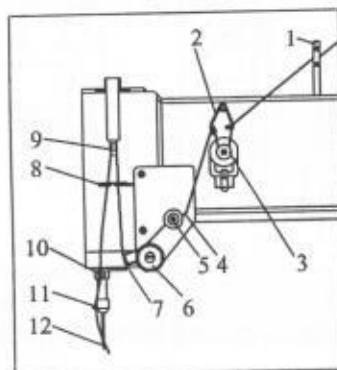


Fig 2

3.2 Needle preparation

To fix the needle, proceed as follows

- Turn the pulley in the correct direction as shown on the belt cover by hand so that needle bar comes to its highest position.
- Loosen the clamping screw.
- Insert the needle upto the bottom of the needle hole and tighten the screw.

3.3 Needle thread preparation

Thread the needle thread by the path indicated in Fig 1.

- (1) Threading rod (2) Guiding ring (3) Thread gripping holder (4) Pin
- (5) Thread tighter (6) Upper threading wheel (7) Take-up spring
- (8) Threading ring (9) Take-up lever (10) Lower threading wheel
- (11) Needle holder (12) Needle

3.4 Stitch length adjustment (Fig 3)

To adjust the stitch length, press the adjust button with one hand and turn the pulley with the other. When a click is heard, turn the pulley slightly to increase or reduce the stitch length according to the arrow on the frame.

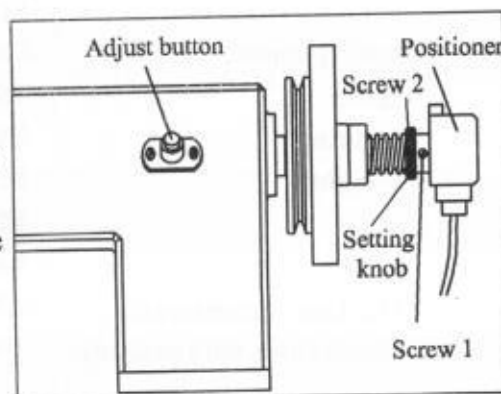


Fig 3

3.5 Tension adjustment setting of the needle thread

To adjust the needle thread tension, proceed as follows(Fig 4)

- Rotate the knob 1 in a clockwise to increase the tension of needle thread. and vice-versa.
- Loosen screw 2 and adjust shell 3 to set the take-up spring 4 drop to the lowest position.
- Loosen the screw 5 ,turn the pin 6 in an anti-clockwise direction to increase the pressure of the take-up spring 4 and vice-versa. After adjustment, tighten the screw 5.

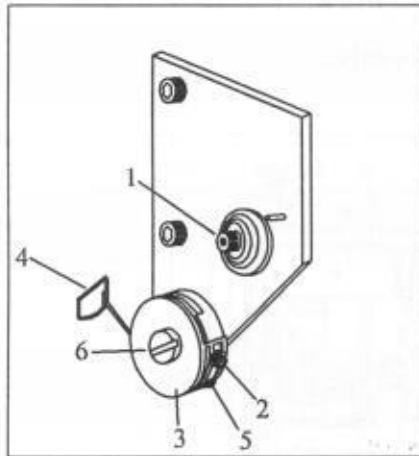


Fig 4

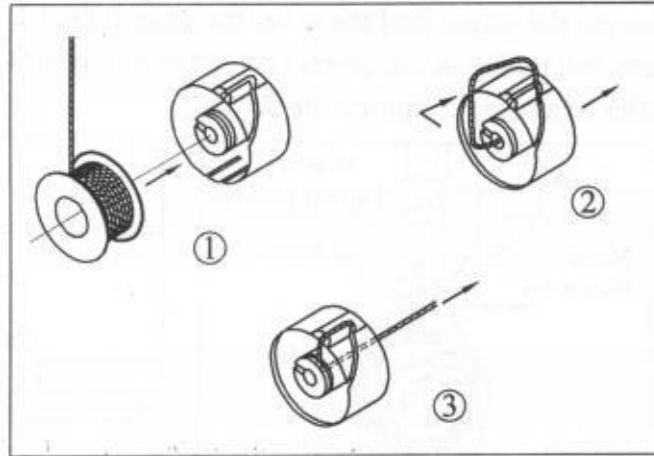


Fig 5

3.6 Bobbin thread preparation and tension adjustment

To prepare the bobbin thread , proceed as follows

- Place the bobbin in the bobbin holder device.
- Thread the bobbin thread by the path indicated in Fig 5.

To adjust the bobbin thread tension, proceed as follows

- Take out the bobbin holder from its seat.
- Prizing up the spring leaf with screwdriver to increase the bobbin thread tension.(Fig 6)
- Flattening the hem of the spring leaf with screwdriver to reduce the bobbin thread tension.(Fig 7)

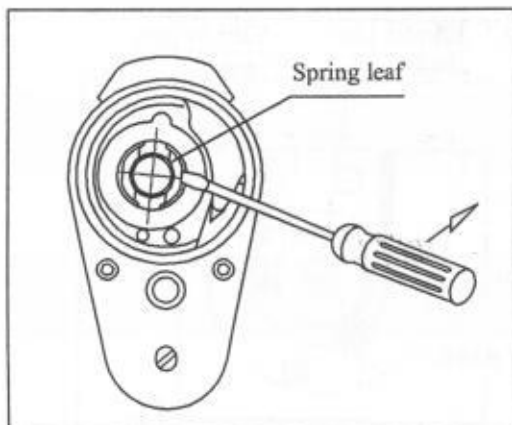


Fig 6

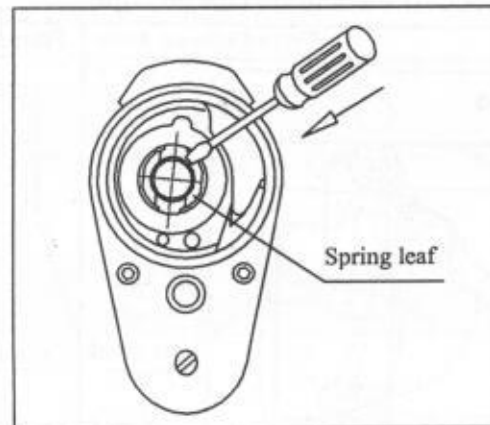


Fig 7

4. ADJUSTMENT SETTING OF THE MACHINE

4.1 Adjustment of the needle-foot transport

4.1.1 Turn the pulley in correct direction. When the needle descends about 32-34mm from highest position the needle and the inner presser foot begin to move backward.(Fig 8) To adjust it, proceed as follows

- Loosen the two screws on the eccentric driving block.(Fig 11)
- Turn the pulley in correct direction to meet the requirements mentioned above.
- After adjustment, tighten the screws.

4.1.2 The inner presser foot and needle should remain synchronous. As the needle descends,so does the inner presser foot. To adjust it, proceed as follows

- Loosen the screw 2 of the eccentric gear 1(Fig 9).
- Turn the pulley in the correct direction to adjust it properly.
- After adjustment, tighten the screw 2.

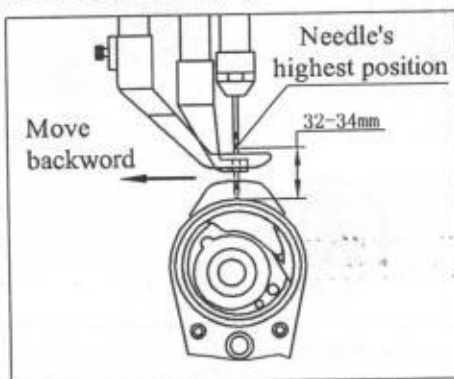


Fig 8

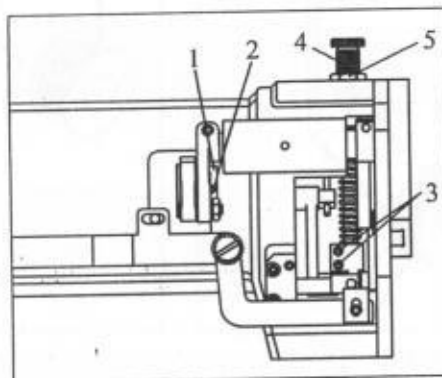


Fig 9

4.2 Speed adjustment of the shuttle

To adjust the speed of the shuttle, proceed as follows

- Remove the belt cover. Turn the pulley in the correct direction so that the needle bar crank deflect about 15° towards vertical direction or the thread take-up lever raise about 3mm from its lowest position.(as shown in Fig 10a)
- At this time, watch the elliptic gear case. The plate end of the synchronous belt wheel shaft should be in the vertical direction. (Fig 10b)
- If the speed of the shuttle is not correct, please adjust the two adjusting screws of the driving sleeve that is fixed at the end of the main shaft(Fig 11). As thus, the speed of the shuttle can be adjusted.

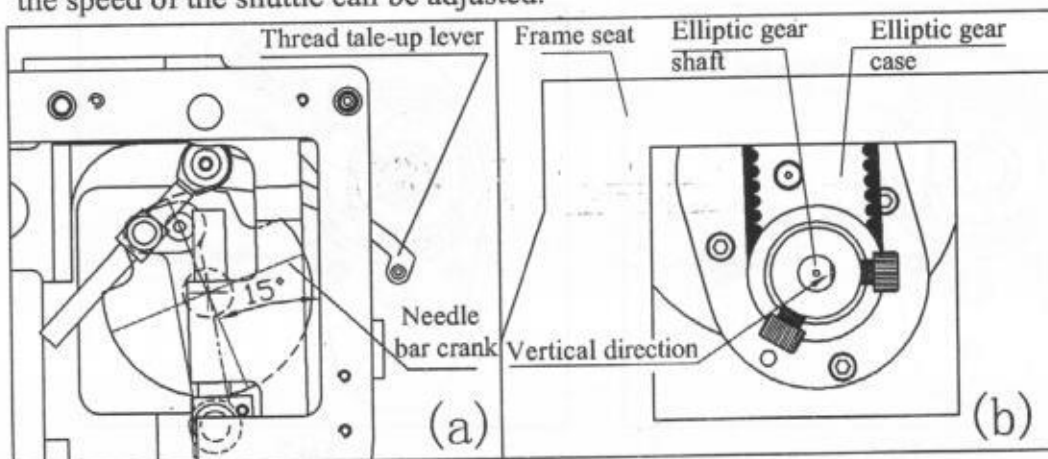


Fig 10

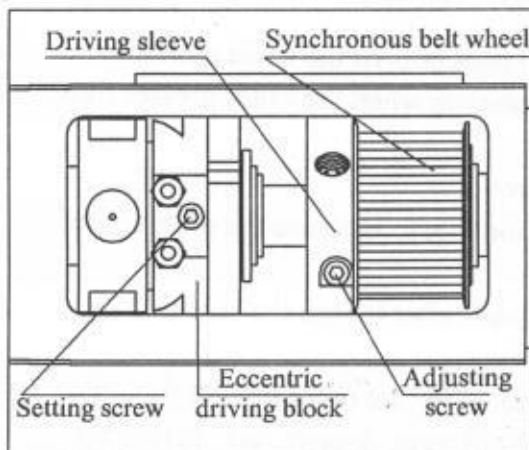


Fig 11

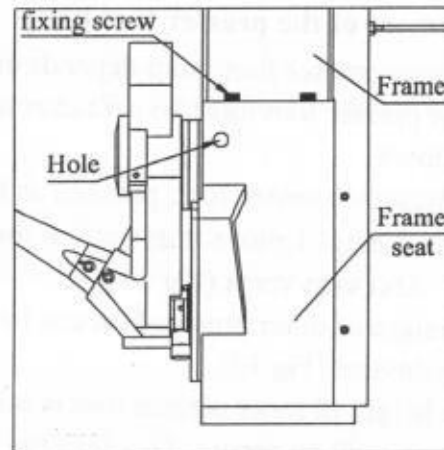


Fig 12

4.3 Adjustment of the needle-shuttle relation

To adjust the needle-shuttle relation, proceed as follows

- Loosen the two setting screws(M10) of the conical gear or of the driving sleeve(shaft) in the right hole of the frame seat.(Fig 12)
- Turn the pulley in the correct direction. When the needle bar raise 3-3.5mm from its lowest position, the tip of the shuttle is just at 1/3 of the upper recess of the needle.(Fig 13)
- The distance between the shuttle tip and the needle slot surface is 0.05mm(Fig 13). To adjust it, loosen the four M12 fixing screws(Fig 12) on the frame seat and move the frame.
- The longer the stitch length is, the lower the shuttle will be at the needle slot. Make sure that the shuttle tip can't be too high or too low. Otherwise it might run into the top or bottom of the needle recess.
- Tighten the screws after adjustment.

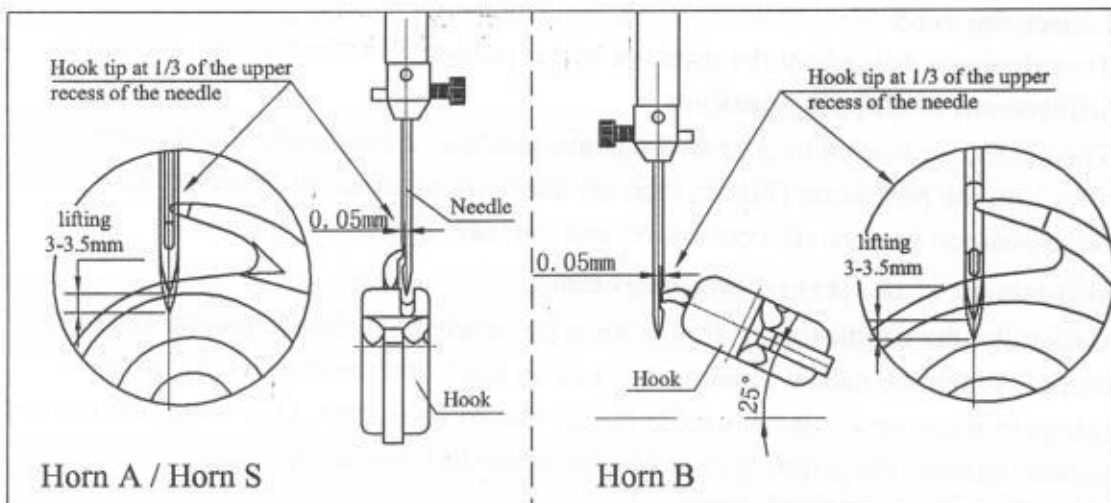


Fig 13

4.4 Adjustment of the presser foot jump

The inner presser foot jump depends on the thickness of the sewn materials. The inner presser foot must be off the sewn materials when the outer presser foot holds it down.

To adjust the presser foot, proceed as follows:

- Loosen the nut 1, move it upward in the buttonhole to increase the presser foot jump. And vice-versa. (Fig 14)
- The height of outer presser foot can be adjusted after loosen the screws 3 on clamp device. (Fig 15)
- If the height of inner presser foot is not suitable for the outer presser foot, the transport will be erratic. To adjust the height of inner presser foot: Insure the presser foot is in the lowest position, loosen the screws 3 (Fig 15) when the inner presser foot is clamped by hand, then adjust the height of inner presser foot.

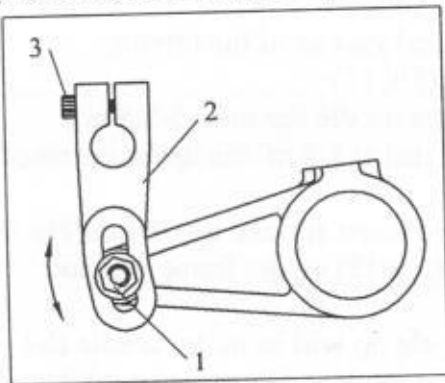


Fig 14

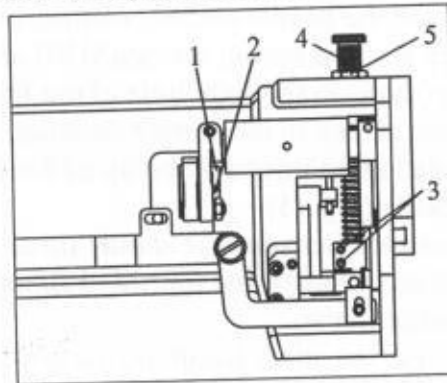


Fig 15

4.5 Pressure adjustment setting of the presser foot

To adjust the pressure of the presser foot, proceed as follows (Fig 15)

- Loosen the nut 5.
- Turn the knob 4 to adjust the pressure of the presser foot, then tighten the nut 5.

4.6 Adjustment of stopping position

The positioner is used to control the pause position of the needle bar. Loosen the screws 1 on the positioner (Fig 3), then set the stopping position by adjust the relative position between the positioner and the main shaft.

4.7 Adjustment of the thread gripping holder

Generally, the needle thread should keep loose when the needle pierces the sewn material. When the needle thread is hooked by hook and the thread take-up lever begins to move upwards, the needle thread should be tighten. Otherwise, the relative position between the gripping cam and the main shaft needs adjusting.

To adjust it, proceed as follows:

- Loosen the two setting screws on the gripping cam.
- Turn the pulley and the adjustment can be done.
- Tighten the two setting screws after adjustment.

4.8 Adjustment of the Chain and Replacement of the Ball Connecting Rod (Mod. A, Mod. S) Fig.16

When the chain in the horn holder <3> becomes loose, it can be adjusted in the following ways.

- Loosen the screws <10> to remove the cover of horn <9>, then loosen slowly two screws <6> on the chain wheel holder <5> in the horn holder <3>.
- Adjust the screw <4> below the horn holder <3>. Turn it right to make the tight. After that tighten the screws <6>. Loosen the screw <8> on the cover of horn <9>. The nut <7> should also be adjusted.
- After adjustment, the parts should be remounted successively.

To adjust or replace the ball connecting rod <11>, proceed as follows:

- Dismantle the cover of horn <9>, the chain wheel holder <5> and so on. The ball connecting rod <11> can be removed when the screws <1> is loosened. Two notches at the end of ball connecting rod should be in the same direction as it was dismantled. So it is with the other ball connecting rod.

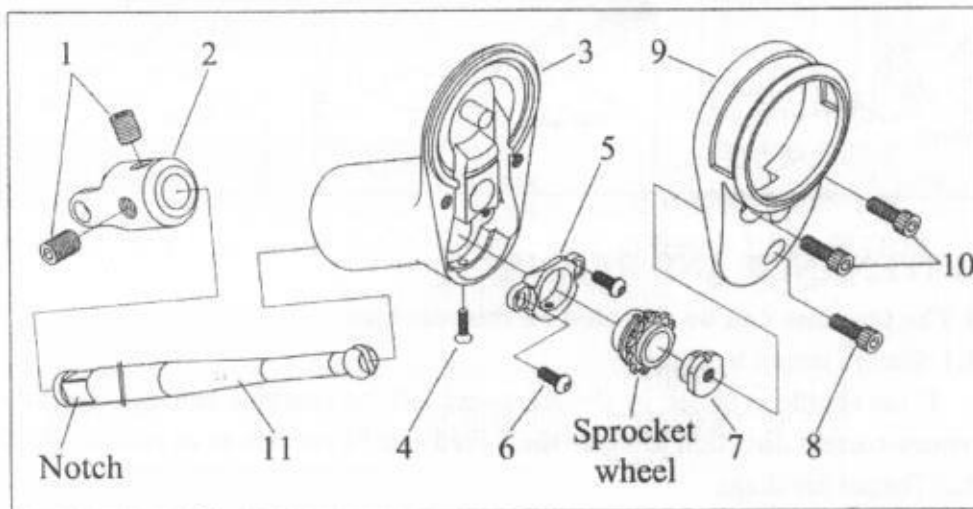


Fig.16

4.9 Adjustment of the safety clutch

The on-off driver is applied to this sewing machine. When the machine is overchanged, the pulley will run idle, releasing the main shaft automatically. The motor stops running in two seconds to ensure the safety of the machine.

To adjust the safety clutch, proceed as follows(Fig 3)

- Loosen the screw 2 of the clutch setting knob.
 - Loosen the clutch setting knob, until releasing the spring completely.
 - Place a sewing material to be sewn in the stitching area.
 - Tighten the clutch setting knob, until touch the spring.
 - Rotate the setting knob circle by circle, at the same time turn the pulley.
- If the needle just can drill the material and the clutch not slide, the safety clutch adjustment setting is correct.

4.10 Arms replacement of the machine

There are three kinds of arms that can be equipped with the machine. To replace one arm by another one, the way is as follows (Fig 17):

- Turn the pulley in the correct direction until the needle rises to its highest position, remove the inner and the outer presser foot. (Arm A, must remove the counterweight block at first and Arm S, must remove the arm at first.)
- Loosen the two M10 screws of the Synchronous belt wheel (Arm A) or of the driving shaft (Arm B & S), then loosen and remove four M8 screws on the arm bracket.
- Remove the arm or arm bracket (Arm S).
- Assemble another arm to the machine then tighten the screws and adjust the needle-hook position as described in this handbook Par. 5.3.

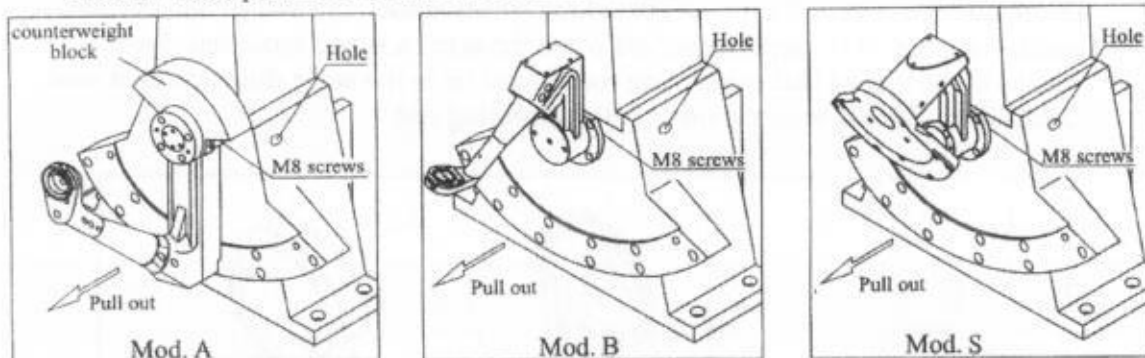


Fig 17

5. MAINTENANCE AND REPAIR

5.1 The troubles can be detected on this machine

5.1.1 Shuttle jamed by thread

If the shuttle is jamed by thread; switch off the machine and turn the pulley in the count-correct direction to make the thread shuttle reverse as to remove the thread.

5.1.2 Thread breakage

The low quality of thread, wrong threading path, the breakage of needle and etc. will cause thread breakage. Replace the thread, needle or rethreading the thread maybe can solve thread breakage.

5.1.3 Irregular stitching

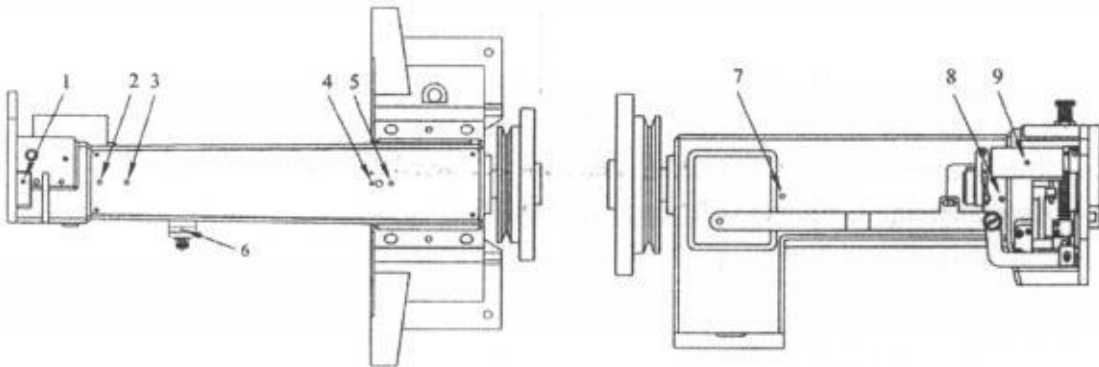
Wrong adjust setting of needle transport or some obstacle inside the shoe will cause irregular stitching. Adjusting the needle transport correctly and removing the obstacle inside the shoe can solve this problem.

5.2 Ordinary maintenance

The machine must be daily lubricated at the end of the shift. Rotating parts must be carefully and accurately lubricated. The cable hole, the driving parts in the horn, in the horn seat, in the frame and in the frame seat and the oiling ports indicated in Fig 18 must be lubricated every shift. Other mechanical parts on this machine must be lubricated every week.

Check and oil the machine carefully when it is reused after a longtime. Test run and running slowly are required.

Oiling hole on the frame



Oiling hole on the arm and horn

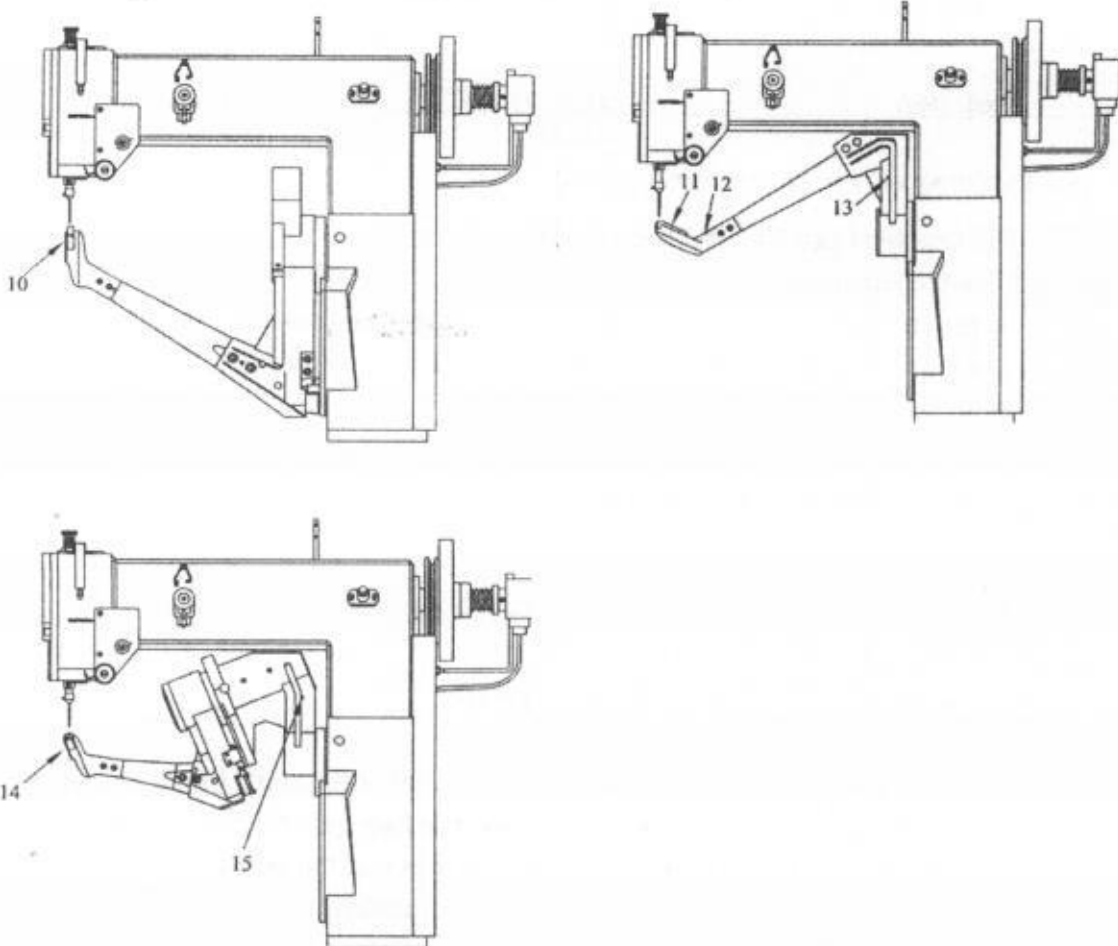


Fig 18

*Double Thread Seated Type
Inseam Sewing Machine*

*Parts
Drawing*

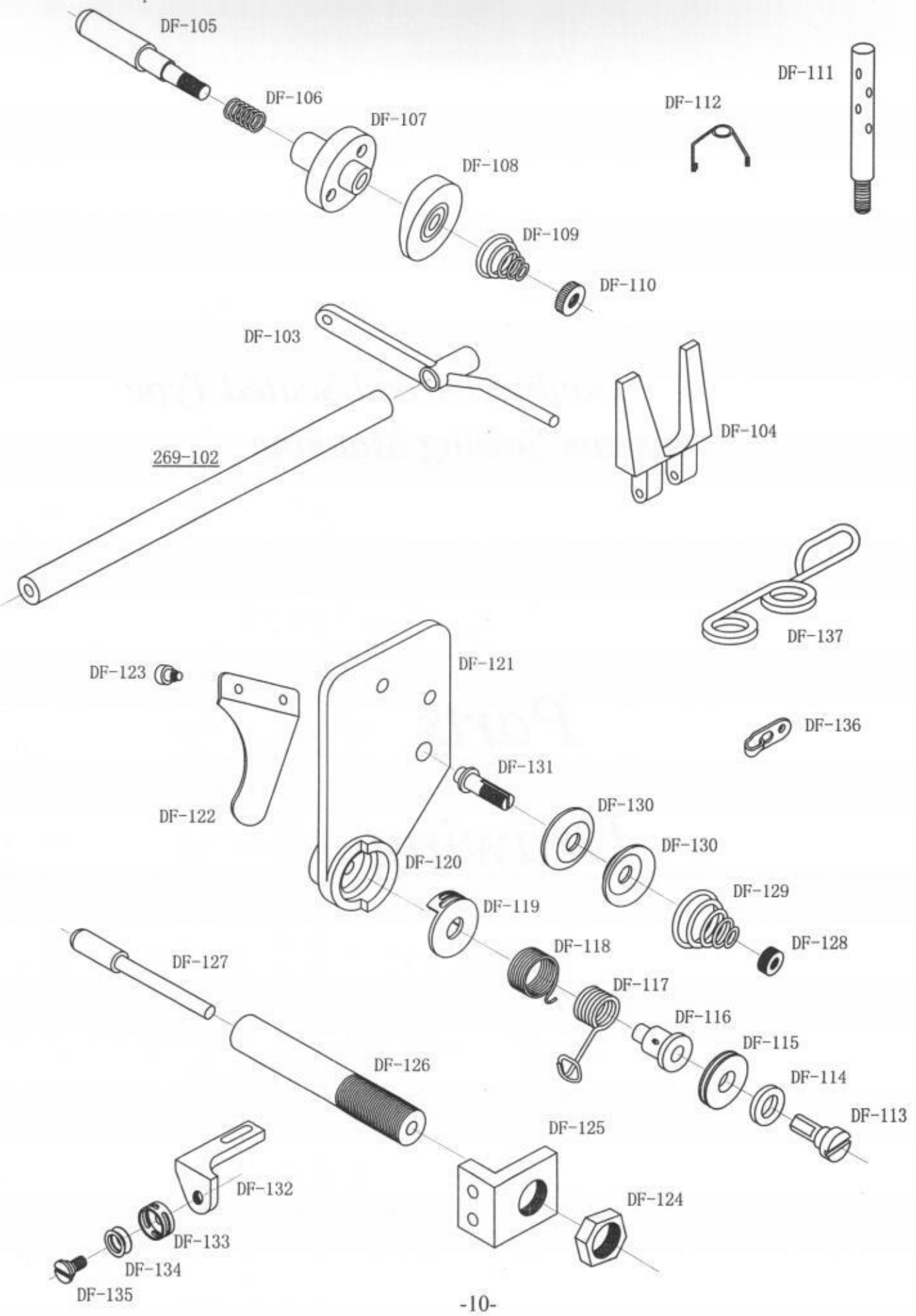


Fig. No.	Part's name	Quantity	Remarks
269-101	Frame	1	
269-102	Shaft	1	
DF-103	Loosen thread lever	1	
DF-104	Thread releasing block	1	
DF-105	Pushing rod	1	
DF-106	Spring	1	
DF-107	Holder	1	
DF-108	Clamping sleeve	1	
DF-109	Conical spring	1	
DF-110	Nut	1	
DF-111	Threading rod	1	
DF-112	Thread guiding ring	1	
DF-113	Pin	1	
DF-114	Washer	1	
DF-115	Threading wheel	1	
DF-116	Wringing spring holder	1	
DF-117	Thread take-up spring	1	
DF-118	Wringing spring	1	
DF-119	Shell	1	
DF-120	Threading device holder	1	
DF-121	Fixing plate	1	
DF-122	Thread releasing plate	1	
DF-123	Screw	1	
DF-124	Nut	1	
DF-125	Holder	1	
DF-126	Thread releasing sleeve	1	
DF-127	Thread releasing rod	1	
DF-128	Nut	1	
DF-129	Conical spring	1	
DF-130	Tension disk	2	
DF-131	Rod	1	
DF-132	Holder	1	
DF-133	Shell	1	
DF-134	Threading wheel	1	
DF-135	Screw	1	
DF-136	Thread carrier	1	
DF-137	Threading ring	1	

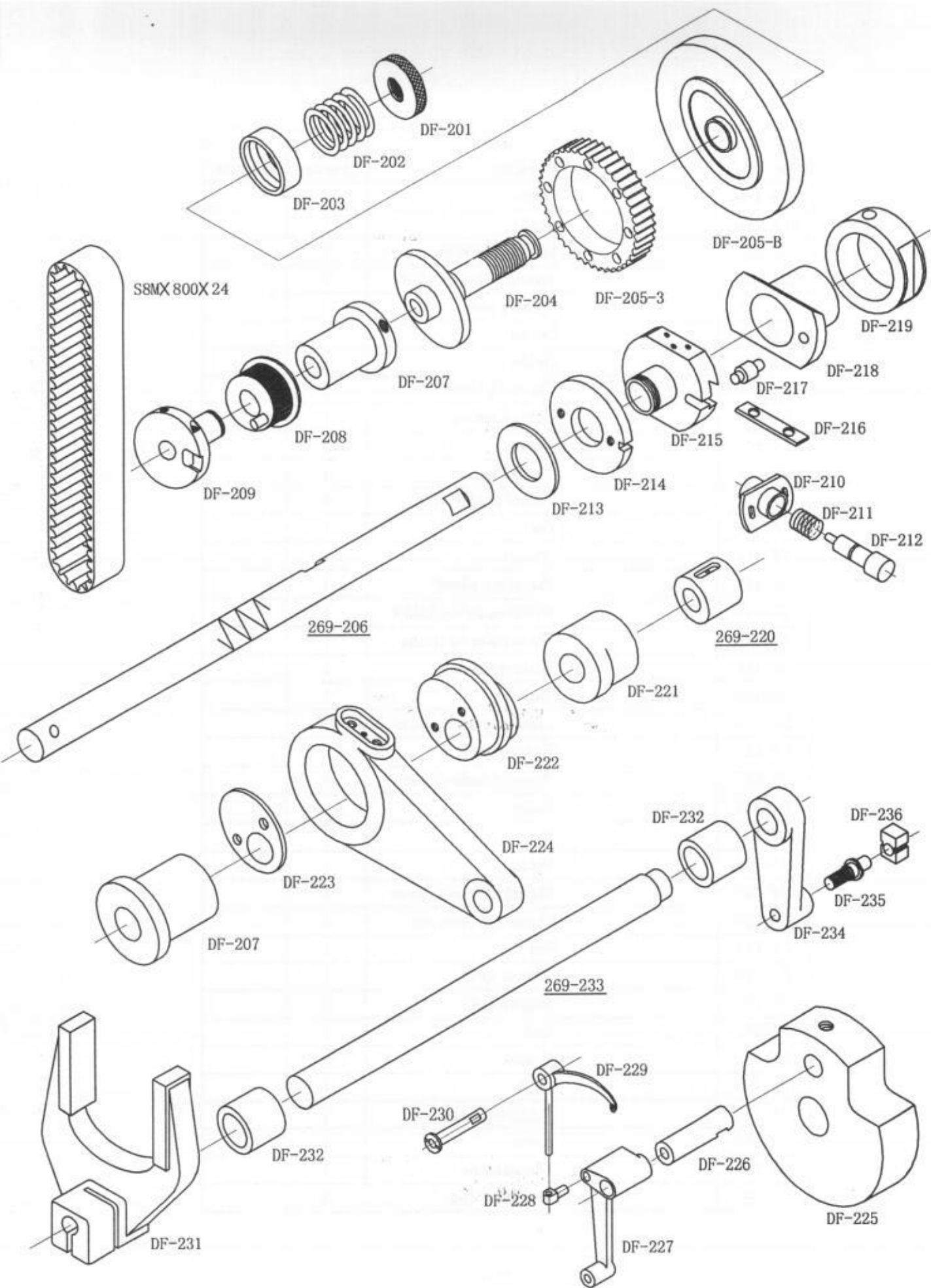


Fig. No.	Part's name	Quantity	Remarks
269-206	Main shaft	1	
269-220	Main shaft bushing	1	
269-233	Needle bar swing shaft	1	
DF-201	Safety clutch setting knob	1	
DF-202	Spring	1	
DF-203	Bearing protecting shell	1	
DF-204	Clutch shaft	1	
DF-205-B	Pulley	1	
DF-205-3	Synchronous belt wheel	1	
DF-207	Main shaft bushing	2	
DF-208	Synchronous belt wheel	1	
DF-209	Driving sleeve	1	
DF-210	Spring holder	1	
DF-211	Spring	1	
DF-212	Stitch length adjusting button	1	
DF-213	Washer	1	
DF-214	Eccentric adjusting ring	1	
DF-215	Eccentric driving block	1	
DF-216	Gag	1	
DF-217	Locating pin	1	
DF-218	Eccentric gear	1	
DF-219	Cupreous bushing	1	
DF-221	Gripping cam	1	
DF-222	Eccentric gear	1	
DF-223	Cover of eccentric gear	1	
DF-224	Connecting lever	1	
DF-225	Needle bar crank	1	
DF-226	Pin	1	
DF-227	Connecting lever	1	
DF-228	Slide sleeve	1	
DF-229	Thread take-up lever	1	
DF-230	Fixing pin	1	
DF-231	Fork	1	
DF-232	Bushing	2	
DF-234	Needle bar swing crank	1	
DF-235	Pin	1	
DF-236	Slide block	1	
S8M×800	Synchronous belt	1	

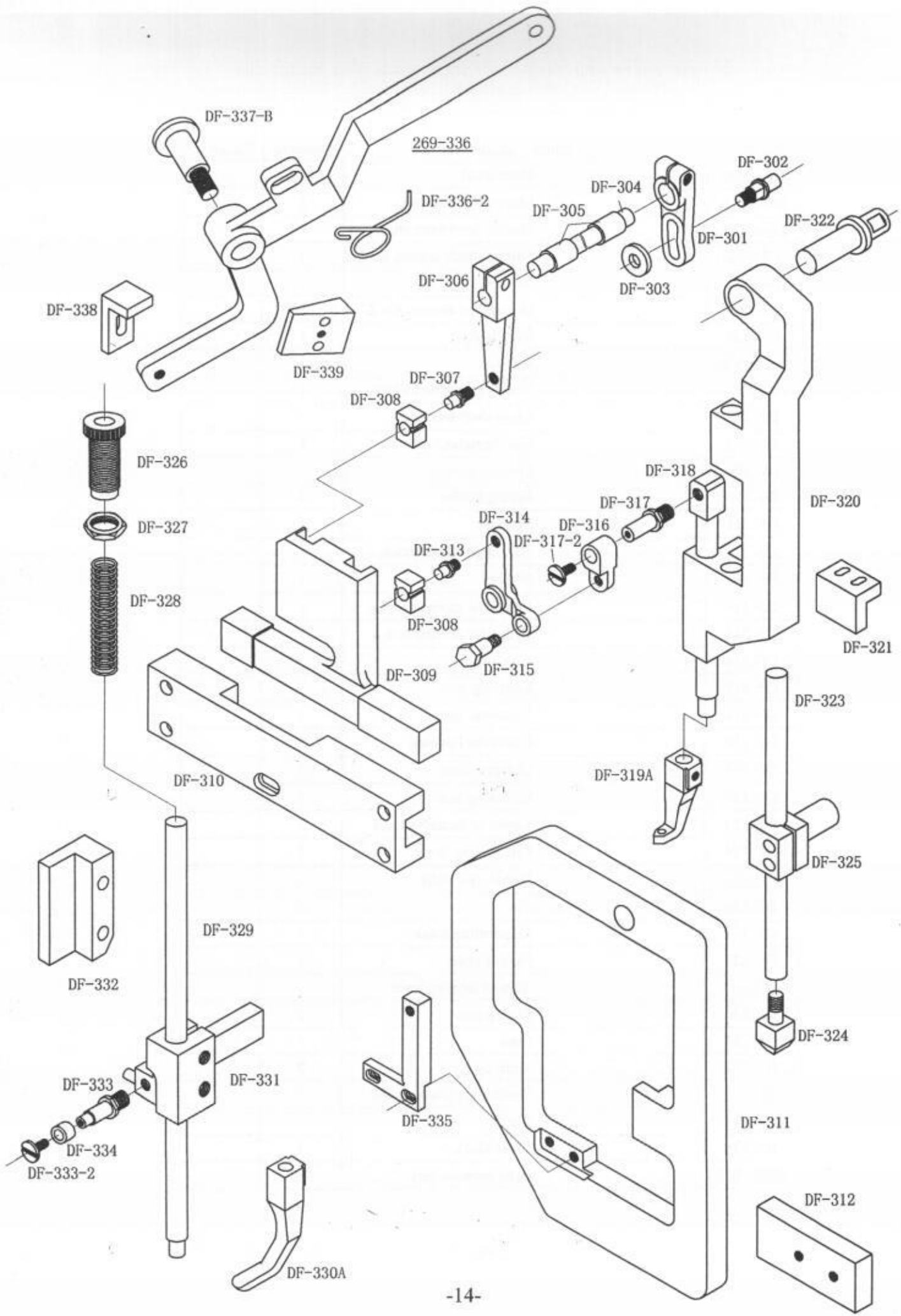


Fig. No.	Part's name	Quantity	Remarks
269-336	Presser foot lifting rocker	1	
DF-301	Adjusting crank	1	
DF-302	Pin	1	
DF-303	Washer	1	
DF-304	Short shaft	1	
DF-305	Bushing	2	
DF-306	Presser foot lifting crank	1	
DF-307	Pin	1	
DF-308	Slide block	2	
DF-309	Integrated slide block	1	
DF-310	Guiding track	1	
DF-311	Supporter	1	
DF-312	Stop off	1	
DF-313	Pin	1	
DF-314	Presser foot lifting lever	1	
DF-315	Screw	1	
DF-316	Connecting block	1	
DF-317	Connecting pin	1	
DF-317-2	Screw	1	
DF-318	Inner presser foot bar	1	
DF-319A	Inner presser foot	1	
DF-320	Needle bar holder	1	
DF-321	Rear stop off	1	
DF-322	Pin	1	
DF-323	Needle bar	1	
DF-324	Needle holder	1	
DF-325	Needle bar clamp	1	
DF-326	Pressure adjusting knob	1	
DF-327	Nut	1	
DF-328	Spring	1	
DF-329	Outer presser foot bar	1	
DF-330A	Outer presser foot	1	
DF-331	presser foot bar clamp	1	
DF-332	Rail cover	1	
DF-333	Pin	1	
DF-333-2	Screw	1	
DF-334	Roller	1	
DF-335	Guiding block	1	
DF-336-2	Spring	1	
DF-337-B	Pin	1	
DF-338	Adjusting block	1	
DF-339	Thread releasing wedgy block	1	

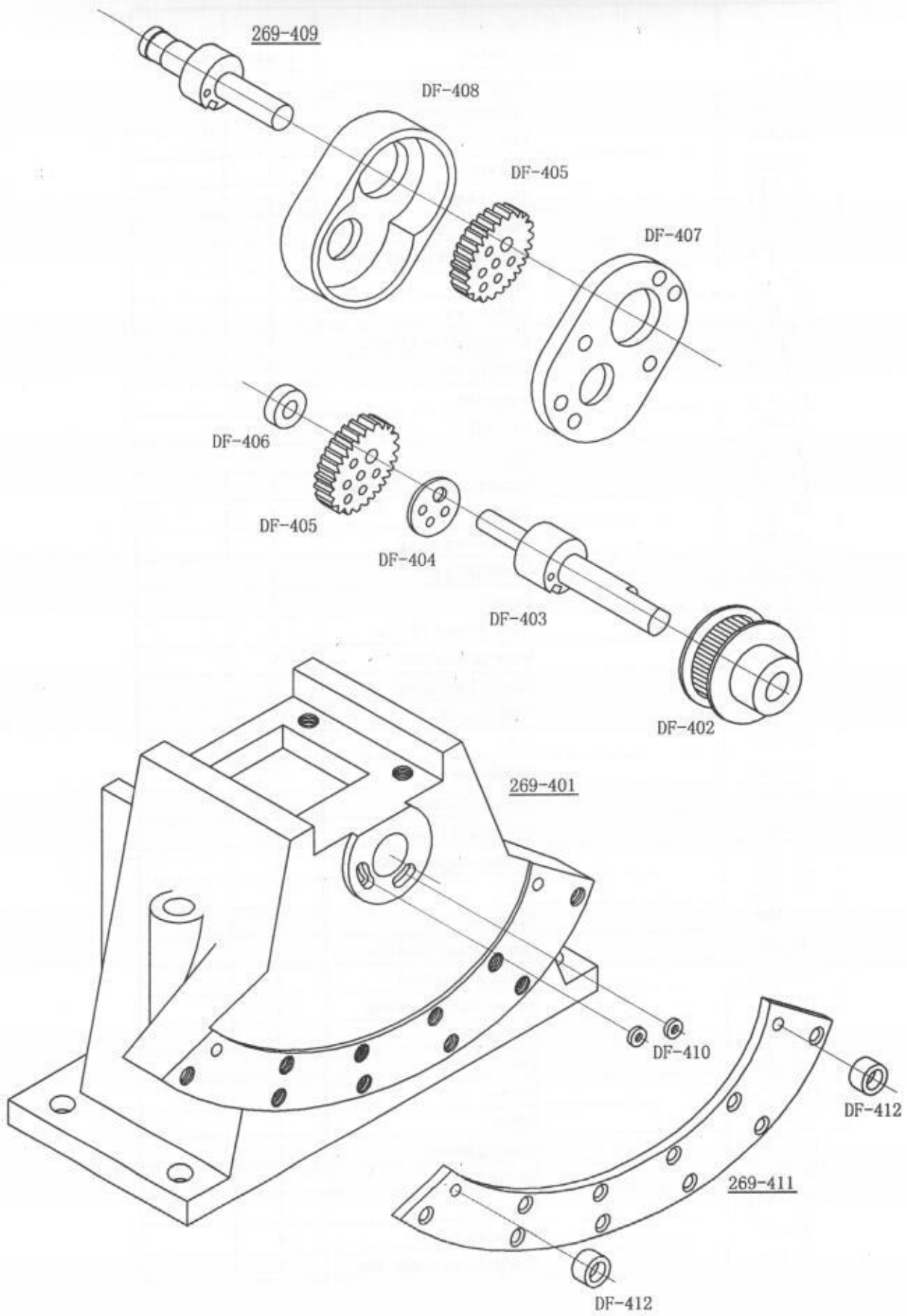


Fig. No.	Part's name	Quantity	Remarks
269-401	Frame scat	1	
269-409	Elliptic gear shaft	1	
269-411	Arc plate	1	
DF-402	Synchronous belt wheel	1	
DF-403	Elliptic gear shaft	1	
DF-404	Washer	2	
DF-405	Elliptic gear	2	
DF-406	Washer	2	
DF-407	Elliptic gear case cover	1	
DF-408	Elliptic gear case	1	
DF-410	Washer	2	
DF-412	Stopping block	2	

A

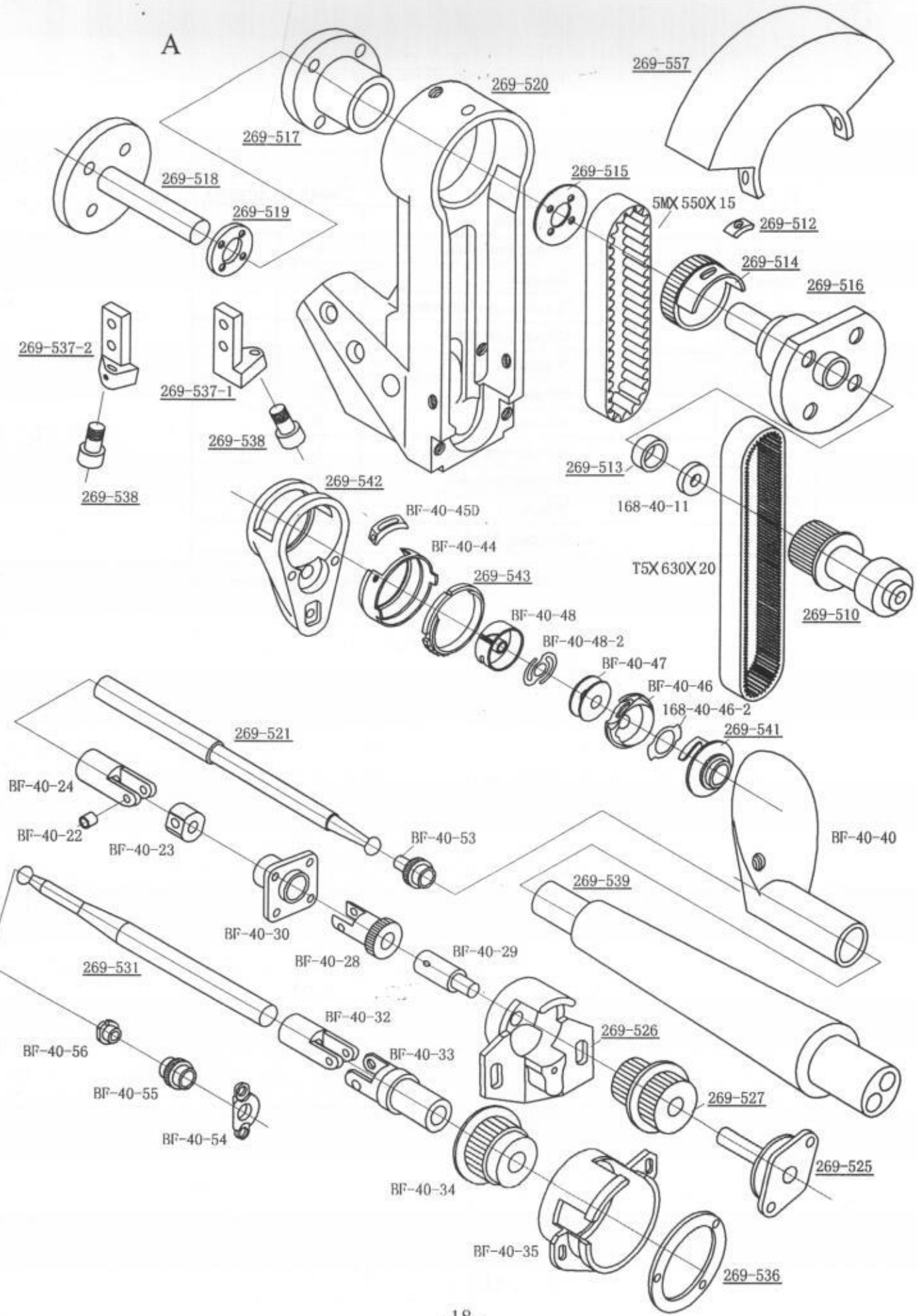


Fig. No.	Part's name	Quantity	Remarks
269-510	Synchronous belt wheel	1	
269-512	Locking block	1	
269-513	Ring	1	
269-514	Synchronous belt wheel	1	
269-515	Baffle of belt wheel	1	
269-516	Holder of support arm	1	
269-517	Cover ring	1	
269-518	End cover axle	1	
269-519	Washer	1	
269-520	Support arm	1	
269-521	Ball connecting rod	1	
269-525	Fixing pin of gear	1	
269-526	Gear holder	1	
269-527	Composite gear	1	
269-531	Ball connecting rod	1	
269-536	Bearing baffle	1	
269-537-1	Left bearing holder	1	
269-537-2	Right bearing holder	1	
269-538	Bearing	2	
269-539	Connecting sleeve	1	
269-541	Shuttle driver	1	
269-542	Cover of horn	1	
269-543	Geared ring	1	
269-557	Counterweighting block	1	
BF-40-22	Bushing of universal joint	4	
BF-40-23	Connecting block	2	
BF-40-24	Universal joint	1	
BF-40-28	Geared universal joint	1	
BF-40-29	Pin	1	
BF-40-30	Fixed cover	1	
BF-40-32	Universal joint	1	
BF-40-33	Universal joint	1	
BF-40-34	Synchronous belt wheel	1	
BF-40-35	Belt wheel holder	1	
BF-40-40	Horn	1	
BF-40-44	Shuttle holder	1	
BF-40-45D	Needle plate	1	
BF-40-46	Shuttle	1	
BF-40-47	Bobbin	2	
BF-40-48	Bobbin housing	1	
BF-40-48-2	Spring leaf	1	
BF-40-53	Gear	1	
BF-40-54	Nut	1	
BF-40-55	Sprocket wheel	1	
BF-40-56	Sprocket wheel holder	1	
168-40-11	Washer	1	
168-40-46-2	Shuttle spring leaf	1	
T5×630×20	Synchronous belt	1	
5M×550×15	Synchronous belt	1	

Fig. No.	Part's name	Quantity	Remarks
269-601	Driving shaft	1	
269-602	Holder of support arm	1	
269-603	Support arm	1	
269-604	Shaft	1	
269-605	Conical gear	1	
269-606	Conical gear	1	
269-607	Shaft	1	
269-608	Bushing	1	
269-609	Connecting sleeve	1	
269-610	Horn	1	
269-611	Conical gear	1	
269-612	Composite gear	1	
269-613	Horn cover	1	
269-614	Needle plate	1	
269-615	Shuttle holder	1	
269-616	Shuttle driver	1	
269-617	Shuttle	1	
269-618	Cover	1	
269-620	Bushing	1	
269-621	Gear	1	
DF-604	Conical gear	2	
DF-607	Clamp ring	1	
DF-611	Bushing	2	
DF-616	Cover	1	
CF-30-09-1	Fastening ring	2	
CF-30-09-2	Fastening nut	2	
SF-40-46-2	Shuttle spring leaf	1	
SF-40-47	Bobbin	2	
SF-40-48	Bobbin housing	1	
SF-40-48-2	Spring leaf	1	

Fig. No.	Part's name	Quantity	Remarks	Fig. No.	Part's name	Quantity	Remarks
269-701	Holder of frame	1		DF-918	End cover axle	1	
269-702	Frame of arm	1		SF-40-19	Washer	1	
269-703	Shaft	1		167-4020	Support arm	1	
269-704	Conical gear	2		167-4021	Ball connecting rod	1	
269-705	Bearing housing	1		SF-40-22	Bushing of universal joint	4	
269-706	Shaft	1		SF-40-23	Connecting block	2	
269-707	Arc plate	1		SF-40B-24	Universal joint	1	
269-708	Cover	1		167-4025	Fixing pin of gear	1	
269-737	Bearing holder	1		167-4026	Gear holder	1	
269-738	Bearing	1	CF8-A	167-4027	Composite gear	1	
269-741	Shuttle driver	1		SF-40B-28	Geared universal joint	1	
269-742	Horn cover	1		SF-40-29	Pig	1	
269-743	Geared ring	1		SF-40B-30	Fixed cover	1	
269-744	Shuttle holder	1		167-4031	Ball connecting rod	1	
269-745	Needle plate	1		SF-40-32	Universal joint	1	
269-746	Shuttle	1		167-4033	Universal joint	1	
269-748	Bobbin housing	1		DF-934	Synchronous belt wheel	1	
269-757	Counterweight	1		DF-935	Belt wheel holder	1	
DF-601-B	Shaft	1		SF-40-36	Bearing baffle	1	
DF-604	Conical gear	2		SF2-439	Connecting sleeve	1	
DF-611	Bushing	2		167-4040	Horn	1	
DF-616	Cover	1		SF-40B-46-2	Shuttle spring leaf	1	
6001-Z	Bearing	4		SF-40B-47	Bobbin	1	
SF2-410	Synchronous belt wheel	1		SF-40B-48-2	Spring leaf	1	
SF-40-11	Washer	1		SF-40B-53	Gear	1	
SF-40-12	Locking block	1		SF-40B-54	Nut	1	
SF2-413	Ring	1		SF-40B-55	Sprocket wheel	1	
167-4014	Synchronous belt wheel	1		SF-40B-56	Sprocket wheel holder	1	
SF-40-15	Baffle of belt wheel	1		TS-440-18	Synchronous belt	1	
SF2-416	Holder of horn	1		5Mx375x12	Synchronous belt	1	
SF-40-17	Cover ring	1					

