

SM 7773

Three needle chainstitch, low postbed
sewing machine for the shoe production.

**INSTRUCTION / OPERATING MANUAL
PARTS MANUAL**

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Warning:

Before used, please clean the machine carefully; remove all dust, dirt and any other substance that may have dirtied the machine during transport.

Remove any anticorrosive grease that has been used to protect non-painted parts.

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Thank you very much for your choice of this machine. Please read this manual carefully before use.

1. MACHINE DESCRIPTION

SM 7773 is a chainstitch sewing machine with three needles (can be sew also with one or two needles). It is suitable for sewing the upper of various shoes, as safety, working, military boots. It is driven by a servo motor. Its operation is so easy.

2. TECHNICAL FEATURES OF THE MACHINE

Sewing speed:	Stepless speed regulation
Stitching thickness:	0.8-6mm
Stitch length:	2-6mm
Needle spacing:	2.4mm/3.15mm
Motor:	560W/380V Three-phase
Net weight:	165Kg
Machine dimensions:	106×65×135cm (L.×W.×H.)

3. PREPARATION READY FOR USE

(1) After machine installation, connect the machine cable with the main electricity supply (controlling that the voltage and frequency of the main supply line are the same as those supply to motor.) and connect the filter-reducer unit to the compress air supply (pressure to be set for this machine – 6 bar).

(2) Start pedalswitch on the machine to watch if the rotation of 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 movement(Fig 1)

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

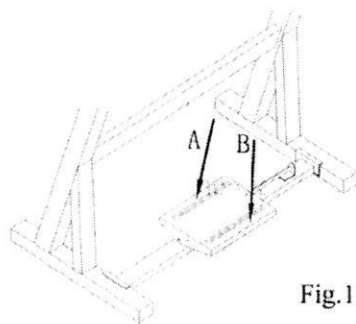


Fig.1

4. THE ADJUSTMENT SETTING OF THE MACHINE

The machine is already adjusted all right at the assemble plant. Normally, the machine can be used directly. At the period of use, some parts need to be adjusted according to sewing material. The way to adjusting is described as follows.

4.1 The adjustment setting of the awls' height (Fig.2)

At first, please install the awls correctly; then turn the handwheel in the correct direction till the awl comes to its undermost position. At this time, the "A" point on awl is under the up surface of needle plate 1.6-3mm. To adjust the height of awl, the procedure as follows:

- (1) Loosen the fastening screw of conical fastening pin (654-1037).
- (2) Move the awl bar (654-1039) to its correct position.
- (3) Tighten the fastening screw of the part 654-1037.

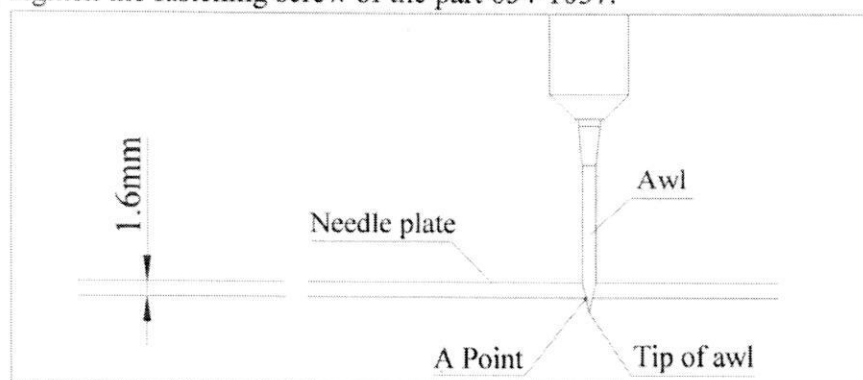


Fig.2

4.2 Position setting of eccentric cam of hook needle movement (Fig.3)

Turn the handwheel in the correct direction till the hook needle bar (654-1063) comes to its undermost position. Mark a scale that is even with the upper surface of needle bracket (654-1061) on the hook needle bar. Then turn the handwheel continually till the awl comes to its undermost position. At this time, the hook needle bar rise about 1.6-3.2mm from its undermost position. If the movement of the hook needle is not accord with the rule described above, the crank angle of eccentric cam(654-1014) of hook needle movement need to adjusted.

This setting is very important. It is the basic setting of all adjustment setting.

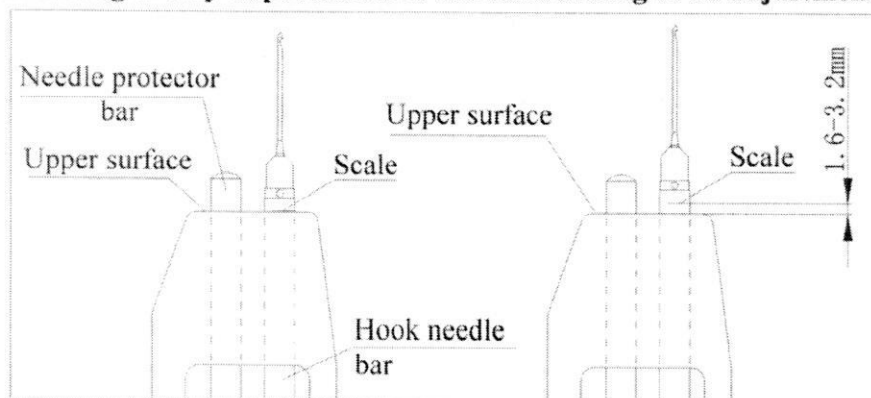


Fig.3

4.3 Position setting of hook need bar

Turn the handwheel in the correct direction by hand, let the hook needle approach the awl nearest. At this time, the distance between hook needle and awl should be about 0.8mm. This distance can be adjusted by move the hook needle bar after loosen the fastening screw of Conical fastening pin (654-1037).

4.4 Position setting of the eccentric cam (654-1004) of needle transporting (Fig.4)

At first, turn the handwheel by hand to ensure that the machine is all right. Then run the machine with high speed and observe the track of hook needle transporting. (Put a paper behind the needle plate as background will convenient for observe.)

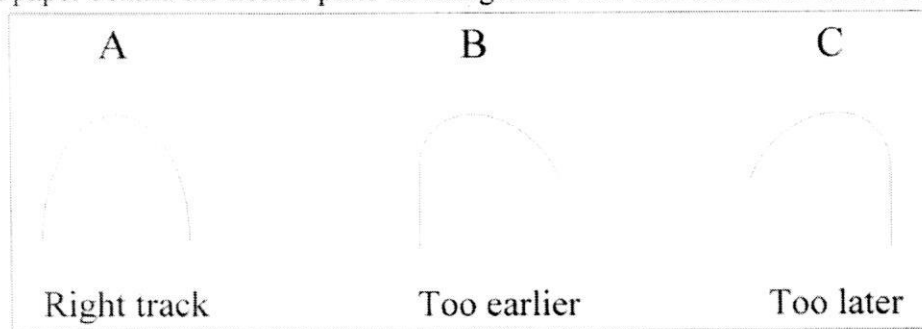


Fig.4

The transporting track is as shown in Fig.4. The track A is right, the track B is too earlier and the track C is too later. The needle transport can be adjusted by change the angle position of eccentric cam(654-1004).

4.5 Position setting of the eccentric cam of needle protector movement (Fig.5)

Turn the handwheel by hand till the needle transporting is finished and the hook needle begin to descend ("A" point as shown in Fig.5). At this time, the barb of hook needle is higher than the tip of needle protector about 3.2mm.

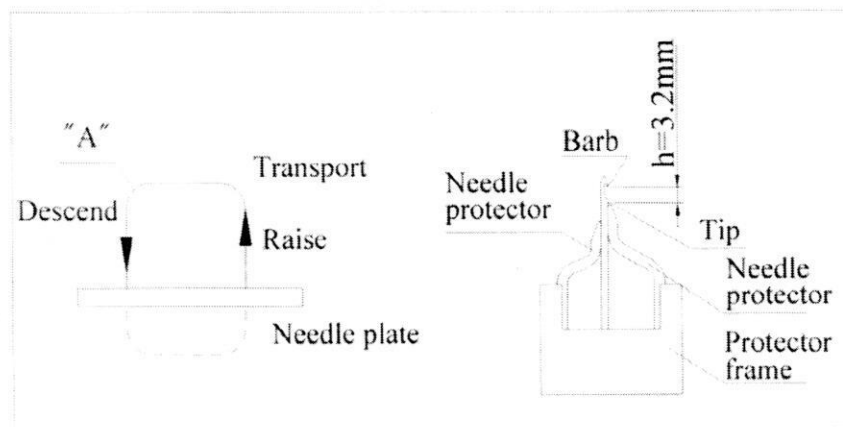


Fig.5

4.6 Adjustment setting of the space between presser foot and needle plate (Fig.6)

The space between presser foot and needle plate should be about half thickness of sewing material. To adjust the space between presser foot and needle plate, proceed as follows:

- (1) Lift the presser foot (654-1049) and put a wood block (Half thickness of sewing material) under the presser foot.
- (2) Put down the presser foot and let it press the wood block.
- (3) Loosen the nut (654-1041) at the top of presser foot bar (654-1048) firstly, then loosen the fastening pin (654-1047).
- (4) Let the sliding block (654-1046) down to the bottom of slot.
- (5) Tighten the nut and the fastening pin (654-1047) at last.

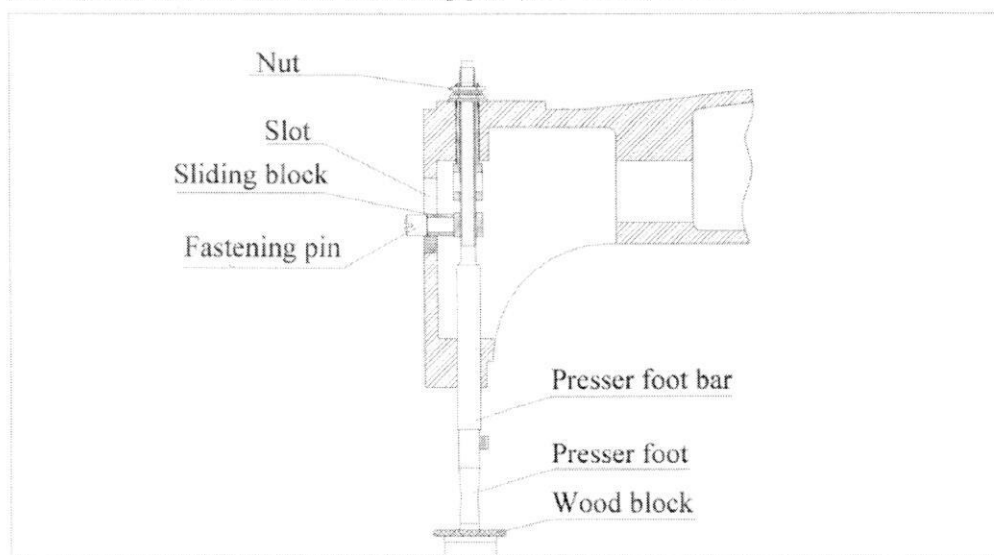


Fig.6

4.7 Assembly and adjustment of the thread winding rod

- (1) Turn the handwheel by hand till the hook needle comes to its highest position and just begin to move breadthwise.
- (2) Loosen the fastening screw of thread winding rocker (654-1026), insert the thread winding rod (654-1029) into the thread winding rocker.
- (3) Loosen the fastening screws of cam(654-1031), turn the cam (654-1031) till the thread winding rod close up the tip of the hook needle. Tighten the fastening screws at last.
- (4) Thread the threads through the holes of thread winding rod and the slots of presser foot, strain the threads towards the back of presser foot.
- (5) Turn the handwheel in the clockwise direction, let the hook needles hook the threads and move downwards. If the hook needles can not hook the threads, the operator can solve it by bend the middle of thread wind rod.

4.8 Adjustment setting of the stitch length (Fig.7)

Turn the adjusting lever (654-1008) upwards to increase the stitch length, and turn it downwards to decrease the stitch length.

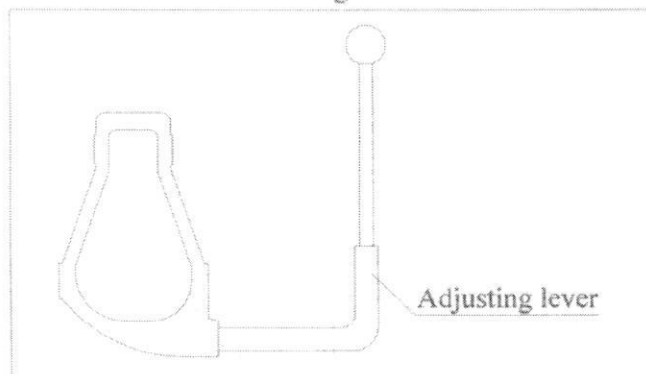


Fig.7

4.9 Adjustment of stopping position

The stopping position is used to control the pause position of the needle bar.

To adjust the stopping position, proceed as follows(Fig.8)

- Loosen the screw of the positioner.
- Adjust the relative position between the positioner and the main shaft.
- After adjustment , tighten the screw of the positioner again

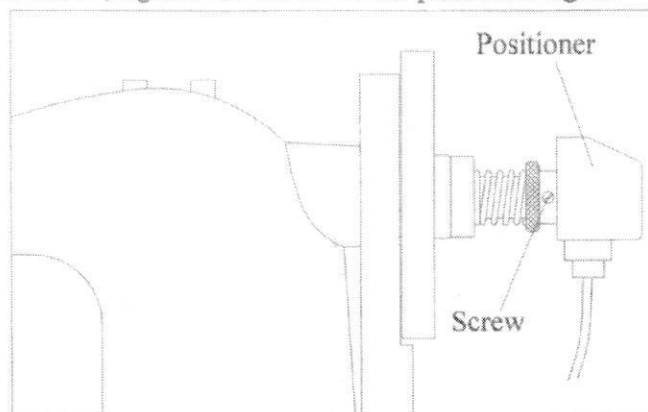


Fig.8

5. THE THREAD, AWL AND HOOK NEEDLE

The thread can be used for this machine: 900D terylene thread. The thread must be dunked in oil before be used.

Hook needle :	HN 84/50.140.23 G 1
Awl :	HN 91/38.140.61 G 201
Needle protector (Long):	PY086/909B
Needle protector (Short):	PY086/909C

6. PARTS DRAWING

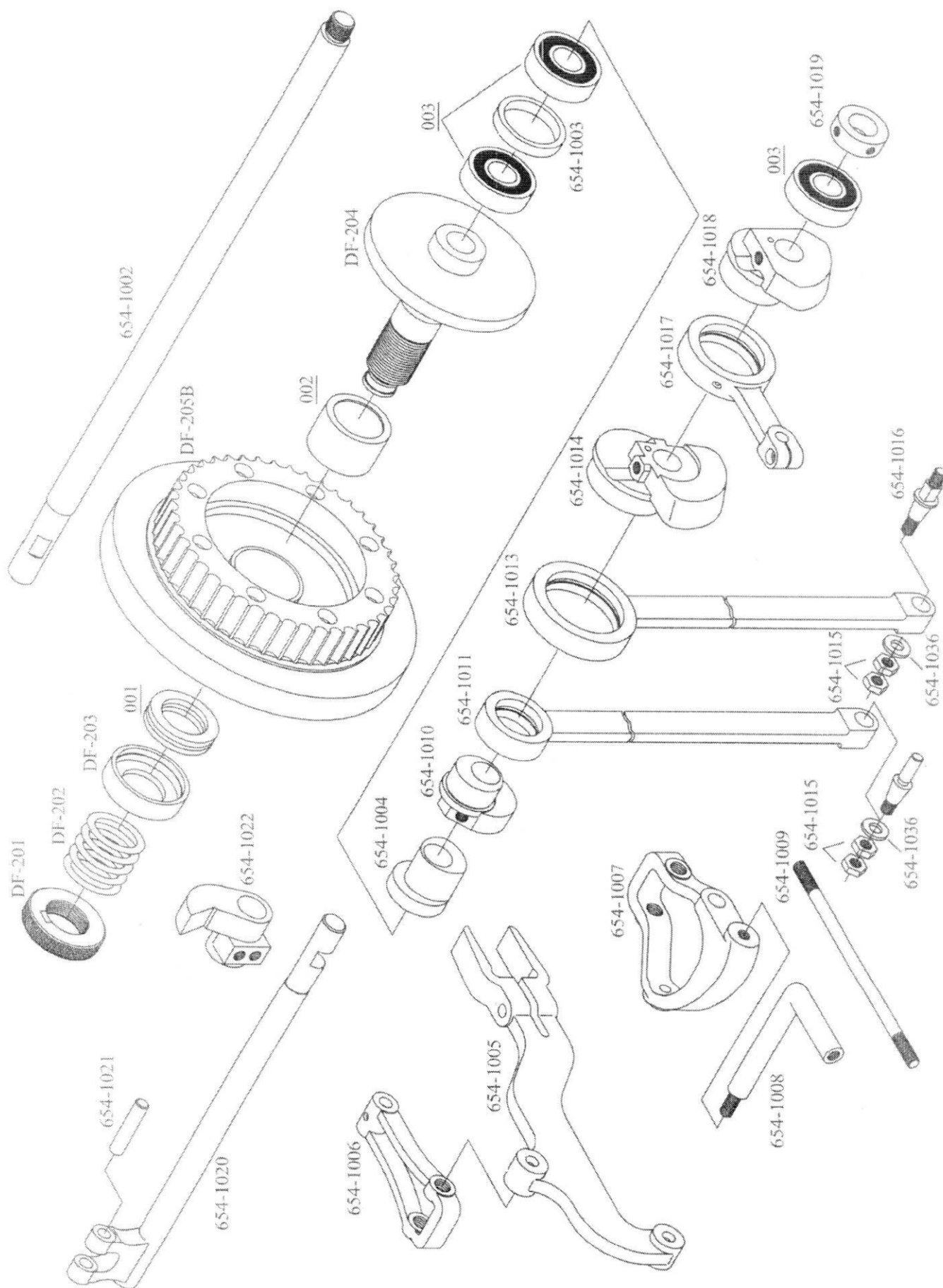


Fig. No.	Parts' name	Quantity	Remarks
654-1002	Main shaft	1	
654-1003	Inter ring	1	
654-1004	Cam	1	
654-1005	Swing rocker	1	
654-1006	Connecting lever	1	
654-1007	Adjusting rocker	1	
654-1008	Adjusting lever	1	
654-1009	Bolt	1	
654-1010	Eccentric cam	1	
654-1011	Crank rocker	1	
654-1012	Connecting pin	1	
654-1013	Crank rocker	1	
654-1014	Eccentric cam	1	
654-1015	Nut	4	
654-1016	Connecting pin	1	
654-1017	Crank rocker	1	
654-1018	Eccentric cam	1	
654-1019	Ring	1	
654-1020	Connecting rod	1	
654-1021	Pin	1	
654-1022	Action block	1	
DF-201	Setting knob	1	
DF-202	Spring	1	
DF-203	Bearing protector	1	
DF-204	Clutch bushing	1	
DF-205B	Handwheel	1	
001	Bearing 8106	1	
002	Bearing HK3530	1	
003	Bearing 6204-2Z	3	

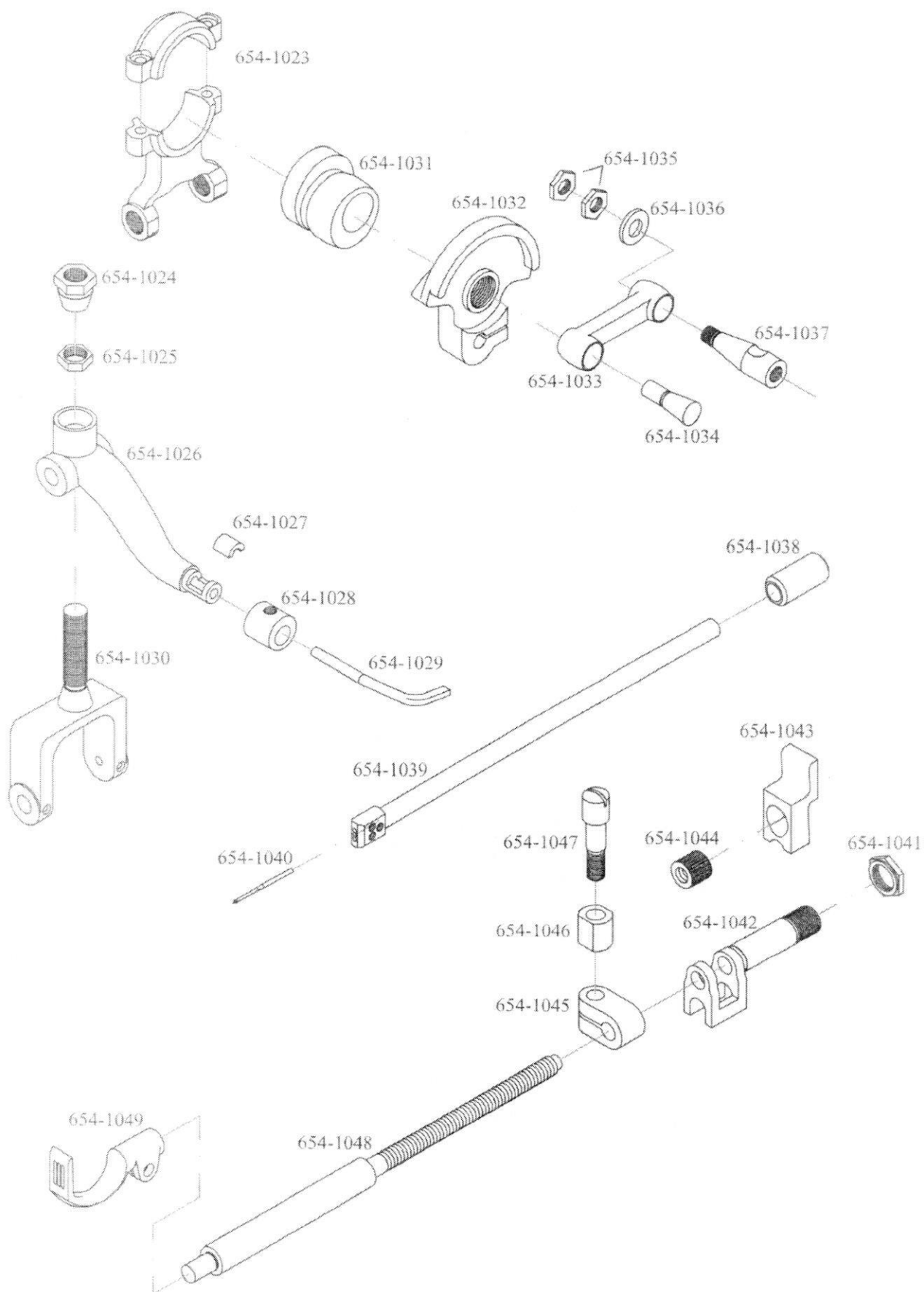


Fig. No.	Part's Name	Quantity	Remarks
654-1023	Socket rocker	1	
654-1024	Cone nut	1	
654-1025	Nut	1	
654-1026	Thread winding rocker	1	
654-1027	Clamp plate	1	
654-1028	Clamp ring	1	
654-1029	Thread winding rod	1	
654-1030	Thread winding bracket	1	
654-1031	Cam	1	
654-1032	Needle bar crank	1	
654-1033	Connecting lever	1	
654-1034	Conical pin	3	
654-1035	Nut	6	
654-1036	Washer	3	
654-1037	Conical fastening pin	3	
654-1038	Bushing	2	
654-1039	Awl bar	1	
654-1040	Awl	3	
654-1041	Nut	2	
654-1042	Bushing	1	
654-1043	Lifting block	1	
654-1044	Lifting nut	1	
654-1045	Presser foot bar clamp	1	
654-1046	Sliding block	1	
654-1047	Fastening pin	1	
654-1048	Presser foot bar	1	
654-1049	Presser foot	1	

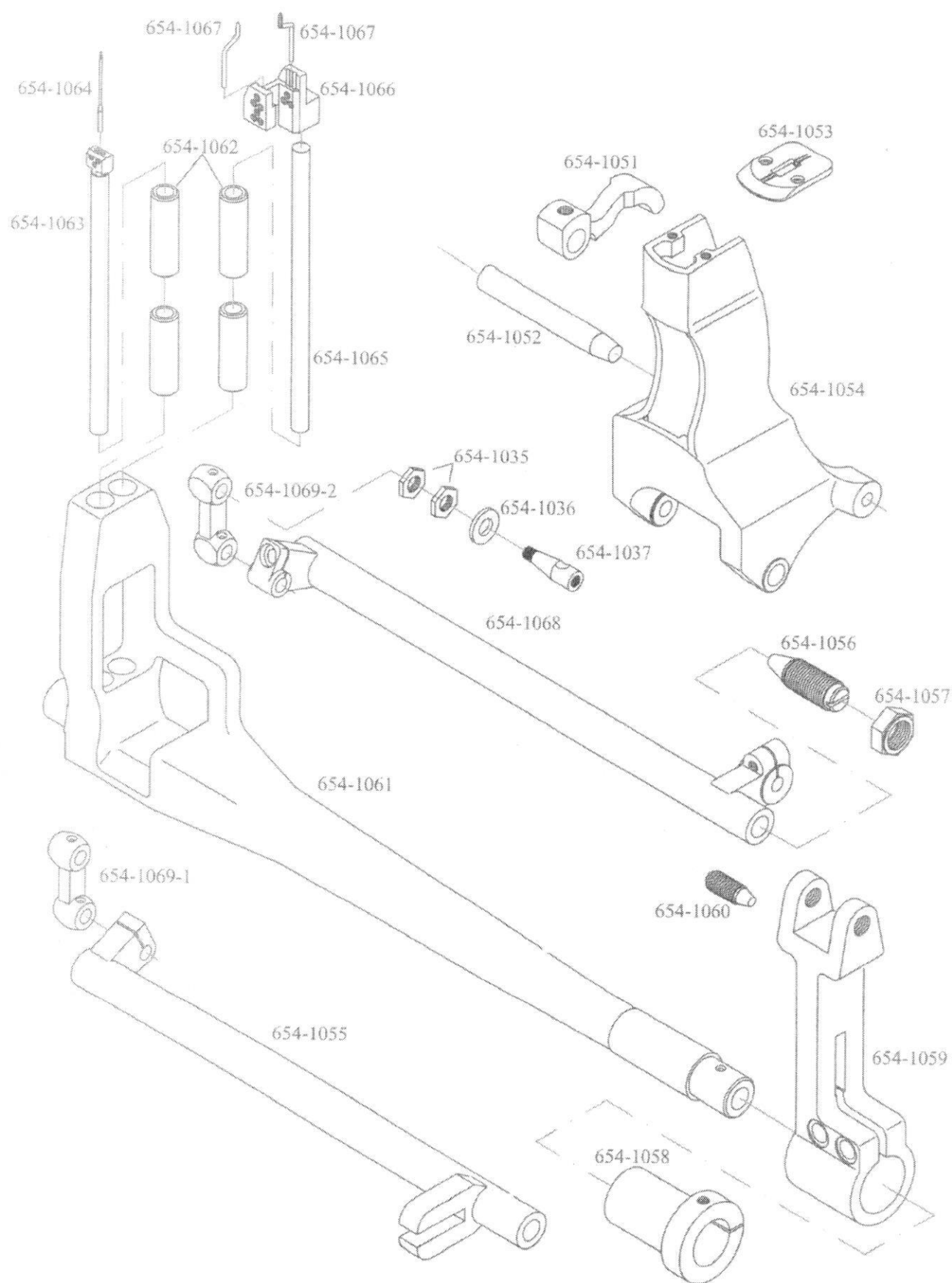


Fig. No.	Part's name	Quantity	Remarks
654-1051	Handle	1	
654-1052	Pin	1	
654-1053	Needle plate	1	
654-1054	Bracket	1	
654-1055	Driving shaft	1	
654-1056	Conical screw A	1	L=50
	Conical screw B	1	L=75
	Conical screw C	8	L=60
654-1057	Nut	10	
654-1058	Eccentric ring	1	
654-1059	Rocker-arm	1	
654-1060	Conical screw A	6	L=30
	Conical screw B	5	L=38
	Conical screw C	1	L=48
654-1061	Needle bracket	1	
654-1062	Bushing	4	
654-1063	Hook needle bar	1	
654-1064	Hook needle	3	
654-1065	Needle protector bar	1	
654-1066	Needle protector frame	1	
654-1067	Needle protector	3	
654-1068	Driving rocker arm	1	
654-1069-1	Connecting lever	1	
654-1069-2	Connecting lever	1	