

**MODEL GY10-1 UNIVERSAL UPPER
CHAIN EMBROIDERY MACHINE
OPERATION INSTRUCTION
AND
PARTS SPECIFICATION**



DESCRIPTION

brand model CY10-1 industrial embroidery machine makes the single thread chain stitch and can be quickly adjusted to make the drop or moss stitch without unthreading the machine. It is designed for ornamenting or embroidering curtains, upholstery, dresses, scarfs, gloves, table covers, lace, etc. The machine also can make linen and towels for hotels, etc., by stitching a name into the material.

The thread may be of cotton, wool, worsted, silk, metal and other threads of similar adaptability. A large variety of fabrics can be embroidered, ranging from fine chiffon to china silk and cloth.

The usual method of producing embroidered designs is to follow a pattern that has been perforated, stamped or traced on the fabric, but with practice the operator can produce embroidery designs without pre-marking the fabric.

SPEED

When first operating this machine, the best results can be obtained by running the machine at approximately 800 stitches per minute. The speed can be increased as the operator becomes more proficient and the nature of the work permits.

TO OIL THE MACHINE

To insure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling.

Oil should be applied to the places designated by unlettered arrows in Figs. 1, 2, 9 and 10.



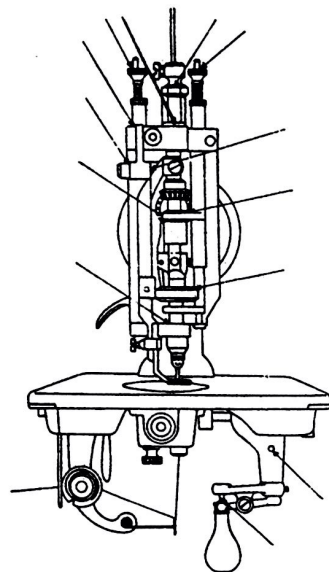


Fig.1. End View of Machine Showing Oiling Points

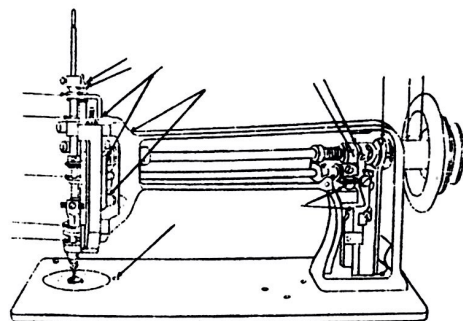


Fig.2. Oiling Points at the Front of the Machine

Fig.2 shows the arm cover removed for the purpose of oiling. This arm cover can be removed after taking out thumb screw W, Fig. 8.

If the machine is used continuously. Oil should be applied at least once each day.

NEEDLES,NIPPLES AND THREAD

Needles for MODEL CY10-1 are catalogue No. 5901 (137 x 1) and are available in Sizes from 1 to 12. These needles have hooks similar in appearance to those of hand crochet needles. The needle must be selected according to the thickness and the style of the thread to be used. The thread must not only fill the Opening of the hook in the needle but must slide freely therein. To correspond with the needle used in the machine a suitable nipple must be selected, as the needle in forming the stitch has to operate through the nipple. The needle must fit in the nipple and slide freely without side play. Nipples are available in size numbers similar to those of the needles, and for general work the number of the nipple should be the same as that of the needle.

TO REMOVE, REPLACE AND SET NEEDLE AND NIPPLE

When it is necessary to change the needle and nipple on the machine, first select another needle and



corresponding nipple. Then lower the presser bar, loosen wing screw B, Fig. 3 and remove needle holder A and needle from top of machine. Unscrew nipple N, using the small wrench provided.

Select the correct needle hole in needle plate D.

NOTE: The needle hole should be slightly larger than the needle, so that the needle, when laid around the needle, will have sufficient space to pass without touching the sides of the needle hole.

Loosen thumb screw L and turn plate D until correct needle hole is in line with needle, then tighten thumb screw L.

Next, screw selected nipple into the lower end of nipple carrier O and tighten securely with the small wrench. Screw selected needle into either end of needle holder A and tighten with pliers provided. Replace needle holder A down into sleeve and adjust its height so that the fabric to be embroidered can just pass under the point of the needle.

Be sure handle K is as far to the front as possible, and that the hook of the needle faces the front. Then tighten wing screw B, which also should face the front.

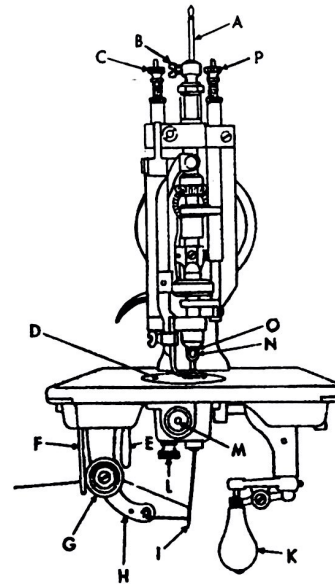


Fig.3.Adjustment on the Machine

- | | |
|---|-----------------------------|
| A. Needle Holder | E. Tension Regulating Lever |
| B. Wing Screw for Needle Folder. | F. Tension Regulating Plate |
| C. Thumb Screw for Regulating Pressure on
Presser Foot | G. Tension Coplete |
| D. Needle Plate | H. Tension Bracket |
| | I. Thread Controller Spring |



K. Handle for Directing Feed and Operating
Stop Motion
L. Thumb Screw for Holding Needle Plate
M. End for Looper Shaft
N. Nipple

O. Nipple Carrier
P. Thumb Screw for Regulating Pressure on
Nipple

TO THREAD THE MACHINE

Place the cone of thread in a convenient position on the floor.

Threading machine according to No. sequence shown on the Fig. 4.

Turn handle K, Fig. 5 to the front or slightly to the left, after pass the thread through thread controller 3, raise presser foot and insert threading wire S in the forward hole 4 of needle plate. With the left hand, catch thread on hook of threading wire S and draw wire and thread up through hole of needle plate. With the left hand, hold end of thread with a slight tension.

With the right hand, turn handle K straight to the left and, having started the machine, quickly bear down and up on handle K so that the needle will pick up the thread for one stitch.

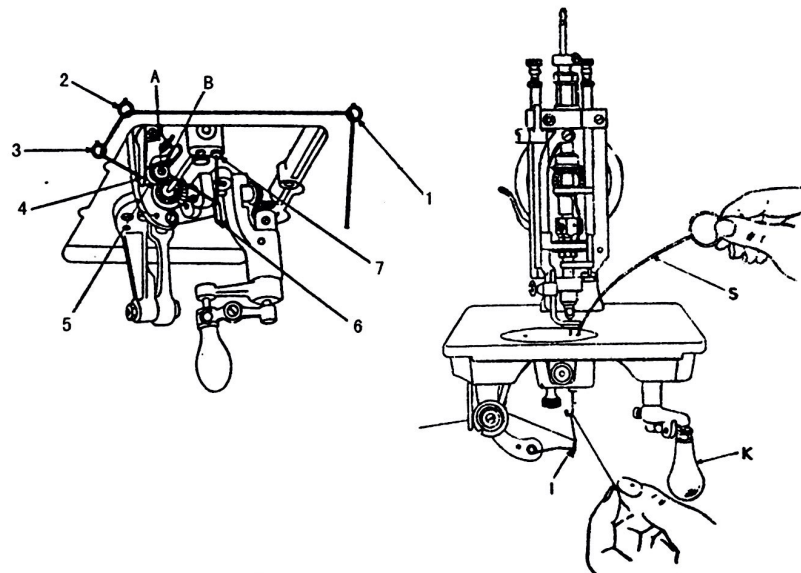


Fig. 4. Threading Machine Fig. 5. Threading Machine

Keep handle K in same position and, with the threading wire, draw thread directly toward you. laying end of thread loosely on needle plate after it comes up through needle hole. The machine is then ready for operation.



LEARNING TO OPERATE THE MACHINE

NOTE: When in operation the machine pulley must always turn over away from operator.
Mark a design (see Fig. 6) on a 12 inch square piece of cloth.

Place cloth under presser foot so that needle will enter cloth at point 1. Turn handle K, Fig. 3 to the right and the hook of the needle will be turned in the same direction. Lower presser foot, start machine pulley by turning it over away from you, grasp handle K and pull it down to start the machine. With handle depressed and to the right, cloth will be fed to point 2, then turn handle to the front and cloth will be fed to point 3, turn handle to the left and cloth will be fed to point 4, etc.

To stop machine raise handle K. Machine will stop with needle as its highest point.

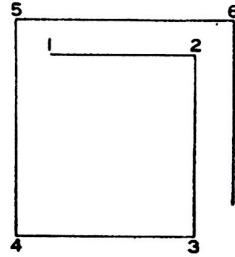


Fig. 6. Diagram for practice

TO OPERATE THE MACHINE

The operator should practice embroidering designs similar to those illustrated below.



Fig. 7. Designs for Beginners

These designs can be sketched on white material such as lawn, and by following them, the operator can soon become proficient enough to attempt more intricate designs or patterns.

TO REGULATE THE PRESSURE ON THE PRESSER FOOT

The pressure on the presser foot is regulated by the thumb screw C, Fig. 3. To increase the pressure, turn the thumb screw over to the right or downward. To decrease the pressure, turn the thumb screw over to the left or upward.

TENSIONS

If stitches are too tight, raise needle holder approximately 1/16 inch.

Various effects can be produced by changing the height of the needle holder as well as by adjusting the length of stitch.

The tension on the thread is regulated by the thumb nut B, Fig. 4 at the left of the tension discs. To increase the tension turn this nut over toward you. To decrease the tension turn this thumb nut over from you. This tension should be only tight enough to prevent the skipping of stitches.



TO ADJUST THE LENGTH OF STITCH

The length of stitch is adjusted by screw T, Fig. 8. To lengthen the stitch, loosen locking lever U and turn screw T over to the left or upward, then tighten locking lever U.

To shorten the stitch, loosen locking lever U and turn the screw T over to the right or downward, then tighten locking lever U.

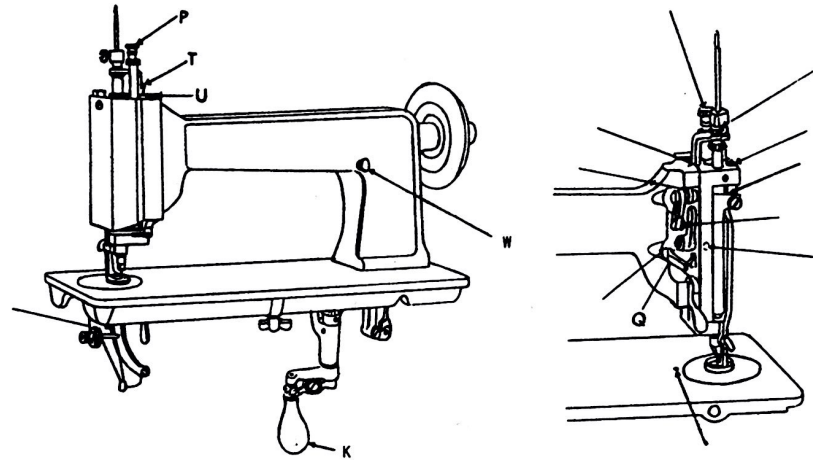


Fig. 8. Adjustments on the Machine Fig. 9. Oiling points and Adjustments at the Back of the Machine

TO REGULATE THE PRESSURE ON THE NIPPLE

The pressure on the nipple is regulated by the thumb screw P, fig. 8 at the top of the machine. To increase the pressure, turn this thumb screw over to the right or downward. To decrease the pressure, turn this thumb screw over to the left or upward.

NOTE: Too much pressure on the nipple may cause the thread to break.

When sewing fine net, it is sometimes necessary to prevent the nipple from touching the needle plate.

To raise the nipple, insert a screw driver in hole R, Fig. 9 and loosen the set screw therein. The eccentric adjusting stud Q can then be turned so that nipple can be set at the desired height; then tighten the set screw in hole R.

THE LOOPER

Allow the stop motion to throw the machine out of action and make sure that it is securely held in its locking position. Raise the needle holder to avoid breaking the point of the needle, remove the needle plate after removing the thumb screw L, Fig. 10. and observe the notch in the looper which, when in its correct position, should be at the rear, slightly to the right of the needle, while the handle K is toward the front.



TO SET THE LOOPER

Turn the machine back on its hinges and turn handle K, Fig. 10 and wing screw B, Fig. 3 to the front. Loosen set screw X, Fig. 10 of the operating worm gear Y, and turn the gear slightly, until the notch in the looper is in its correct position as instructed above. After having set the worm gear flush with the end of the looper shaft M, tighten the set screw X.

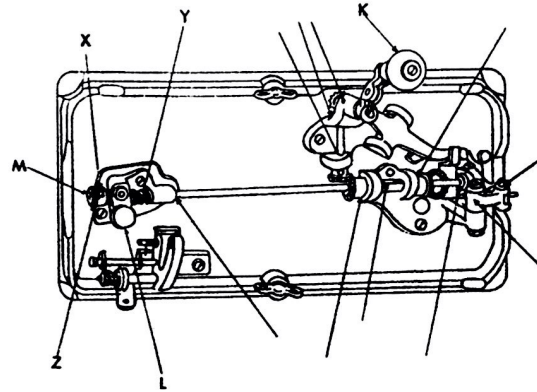


Fig. 10. Oiling points and Adjustments in Base of Machine

PILE OR MOSS STITCH

The raised pile or moss stitch is produced by adjusting the machine so that it will drop the stitches in loose loops on the material. To accomplish this, turn handle K to the front, loosen the wing screw B, Fig. 3 and turn the needle holder so that the hook of the needle will point directly to the back of the machine, then tighten the wing screw. Reach under the bed of the machine with the left hand, grasp the knurled end Z, Fig. 10 of the operating worm gear, draw the worm gear to the left and while holding it turn handle K around to the right directly to the back, then release the knurled end of the gear.

The looper will then be set in the opposite direction to that which is required for the chain stitch, or with the notch of the looper at the front of the needle while handle K is at the front.

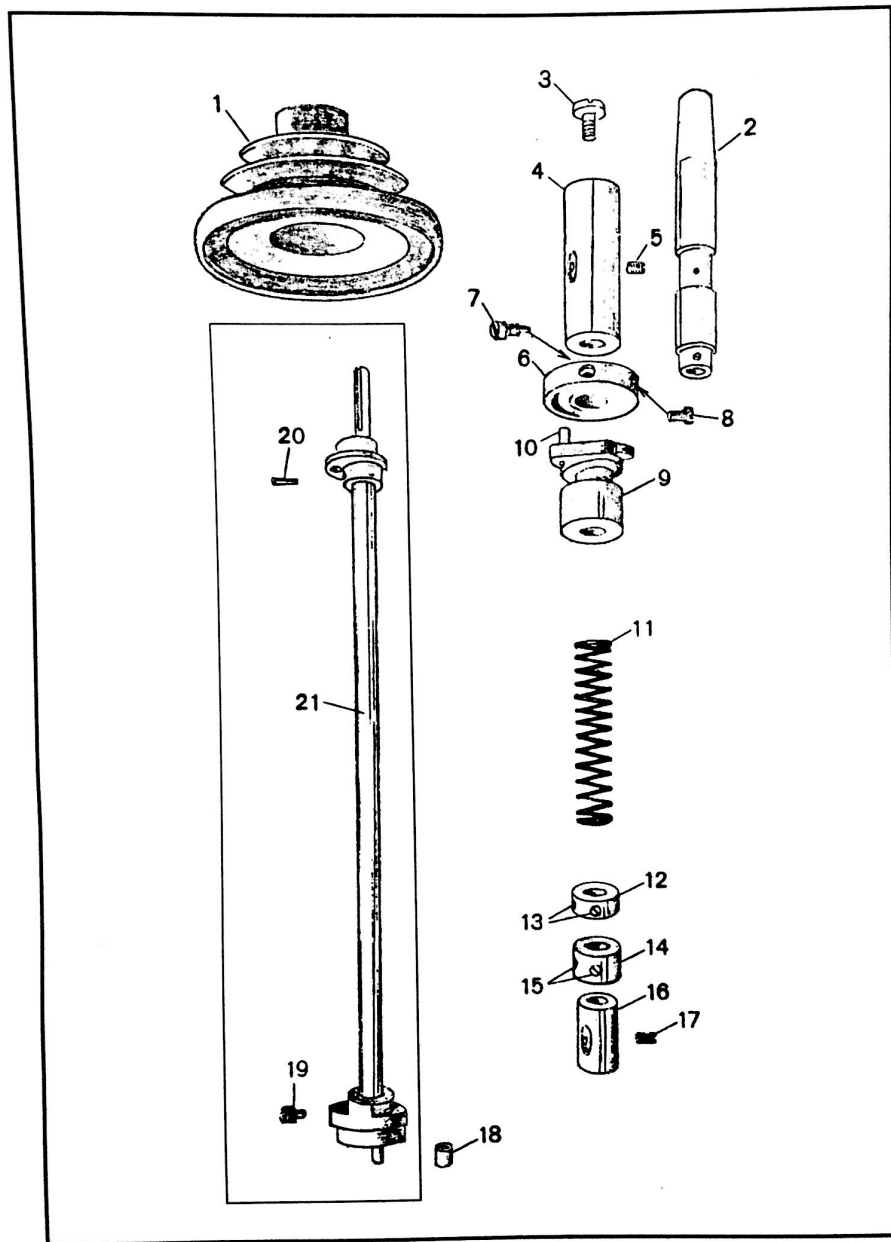
By operating the machine and turning handle K rapidly, so as to make very small circles of dropped stitch loops laid one on the other, raised pile work is produced. The higher the needle is set the longer the loop will be. The size of the thread and thickness of the material used will have to be considered when adjusting the machine for pile stitching.



TROBLES AND CORRECTIVE MEASURES

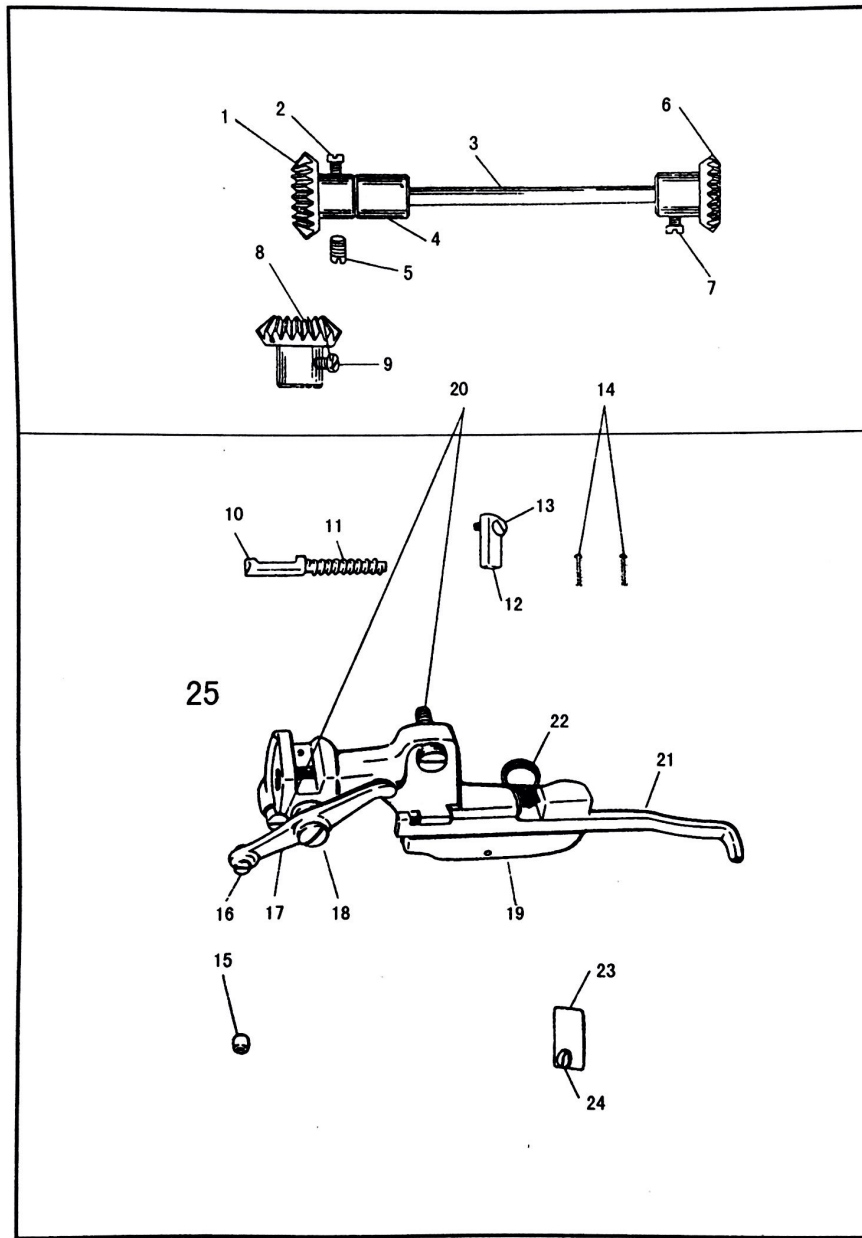
SERIALS	TROUBLE	CAUSE	CORRECTIVE MEASURE
1	Stitch skipping	The timing between the meedle and the looper is bad	Correct the timing between the needle and the looper
2	Breakage thread	Thread and needle are not suitable or thread tension is too high.	Adjust thread tension or replace suitable needle and thread
3	Breakage needle	Needle position is too lower or thread form knots under the needle plate because of feeding retardation or not mastering operation skill	Adjust the height of the needle, check feeding device, master operation skill
4	Feeding cloth retardation	Presser foot doesn't press the sewing material or its pressure is not suitable or feeding device is unfunctioned	Adjust the presser foot height and its pressure, check feeding device
5	Univeral feeding control device is unfunctioned	It's gear screw is loose	Tighten the gear screw





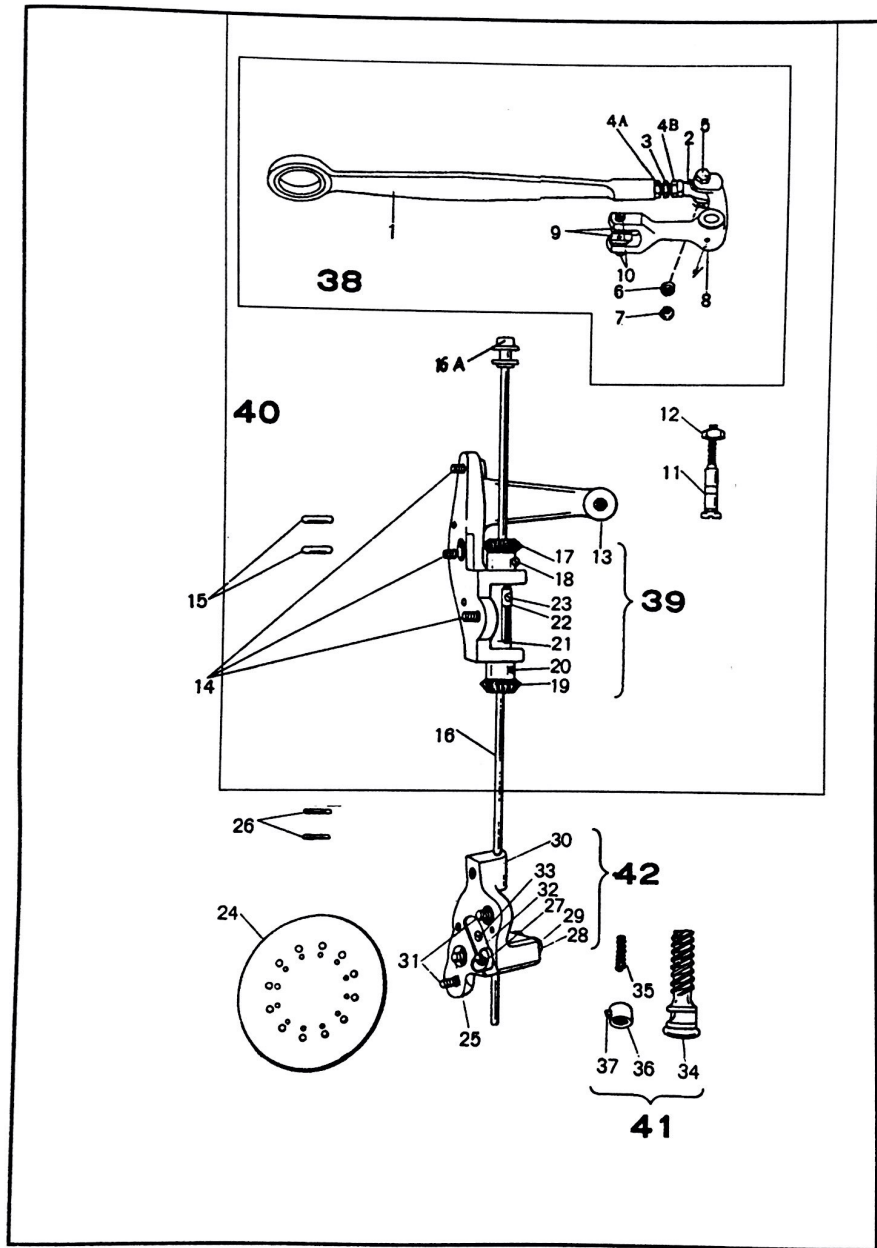
Ref. No.	Parts No.	Description
1	GY10-1 · 1-17	Driving Pulley
2	GY10-1 · 1-20	Driving Pulley Sleeve
3	GY10-1 · 1-21	Driving Pulley Sleeve Screw
4	GY10-1 · 1-18	Driving Pulley Sleeve Bushing
5	GI5-2 · 4014	Driving Pulley Sleeve Bushing Screw
6	GY10-1 · 1-13	Arm Shaft Sriving Flange with Screws
7	GY10-1 · 1-14	Arm Shaft Sriving Flange Position Screw
8	GI5-2 · 1012	Arm Shaft Sriving Flange Set Screw
9	GY10-1 · 1-10	Stop Cam
10	GY10-1 · 1-11	Stop Cam Driving stud
11	GY10-1 · 1-8	Stop Cam Spring
12	GY10-1 · 1-7	Stop Cam Spring Collar with Set Screws
13	GI5-2 · 4035	Stop Cam Spring Collar Set Screws
14	GY10-1 · 1-4	Arm Shaft Collar with Set Screws
15	GI5-2 · 4035	Arm Shaft Collar Set Screws
16	GY10-1 · 1-2	Arm Shaft Bushing
17	GI5-2 · 4014	Arm Shaft Bushing Screws
18	GY10-1 · 1-65	Needle Driving Cam Roller
19	GY10-1 · 1-61	Needle Driving Cam Podition Screw
20	GB117-86	Looper Operating Cam Position Pin
21		Arm Shaft with Looper Operating Cam, Needle Driving Cam, Roller Stud, Position Pin and Position Screw





Ref. No.	Parts No.	Description
1	GY10-1 · 3-3	Stitch Rotating Gear (upper) with Set Screw
2	GN1-2 · 6A2-09	Stitch Rotating Gear (upper) Set Screw
3	GY10-1 · 3-4	Stitch Rotating Gear Shaft,
4	GY10-1 · 3-5	Stitch Rotating Gear Shaft Bushing
5	GI5-2 · 4035	Stitch Rotating Gear Shaft Bushing Screw
6	GY10-1 · 3-23	Stitch Rotating Gear (lower) with Set Screw
7	GN1-2 · 6A2-09	Stitch Rotating Gear (lower) Set Screw
8	GY10-1 · 3-3	Feed Rotating Gear (upper) (rear) with Set Screw
9	GN1-2 · 6A2-09	Feed Rotating Gear (upper) (rear) Set Screw
10	GY10-1 · 3-12	Stop Bracket Interlocking Rod
11	GY10-1 · 3-11	Stop Bracket Interlocking Rod Spring
12	GY10-1 · 3-10	Stop Bracket Interlocking Rod Stop Block
13	GI5-2 · 1002	Stop Bracket Interlocking Rod Stop Block Screw
14	GB117-86 · A3 × 20	Stop Bracket Position Pin
15	GY10-1 · 3-9	Stop Cam Roller
16	GY10-1 · 3-8	Stop Cam Roller Screw Stud
17	GY10-1 · 3-7	Stop Cam Rocking Lever
18	GY10-1 · 3-6	Stop Cam Rocking Lever Hinge Screw
19	GY10-1 · 3-19	Stop Bracket
20	GY10-1 · 1-34	Stop Bracket Screw
21	GY10-1 · 3-29	Starting Trip Lever Slide
22	GY10-1 · 3-13	Starting Trip Lever Slide Spring
23	GY10-1 · 3-18	Starting Trip Lever Slide Cap
24	GI5-2 · 1026	Starting Trip Lever Slide Cap Screw
25		Stop Bracket Complete. (Ref. Nos.) 10, 11, 12 13, 15, 16, 17, 18, 19, 21. 22. 23, 24



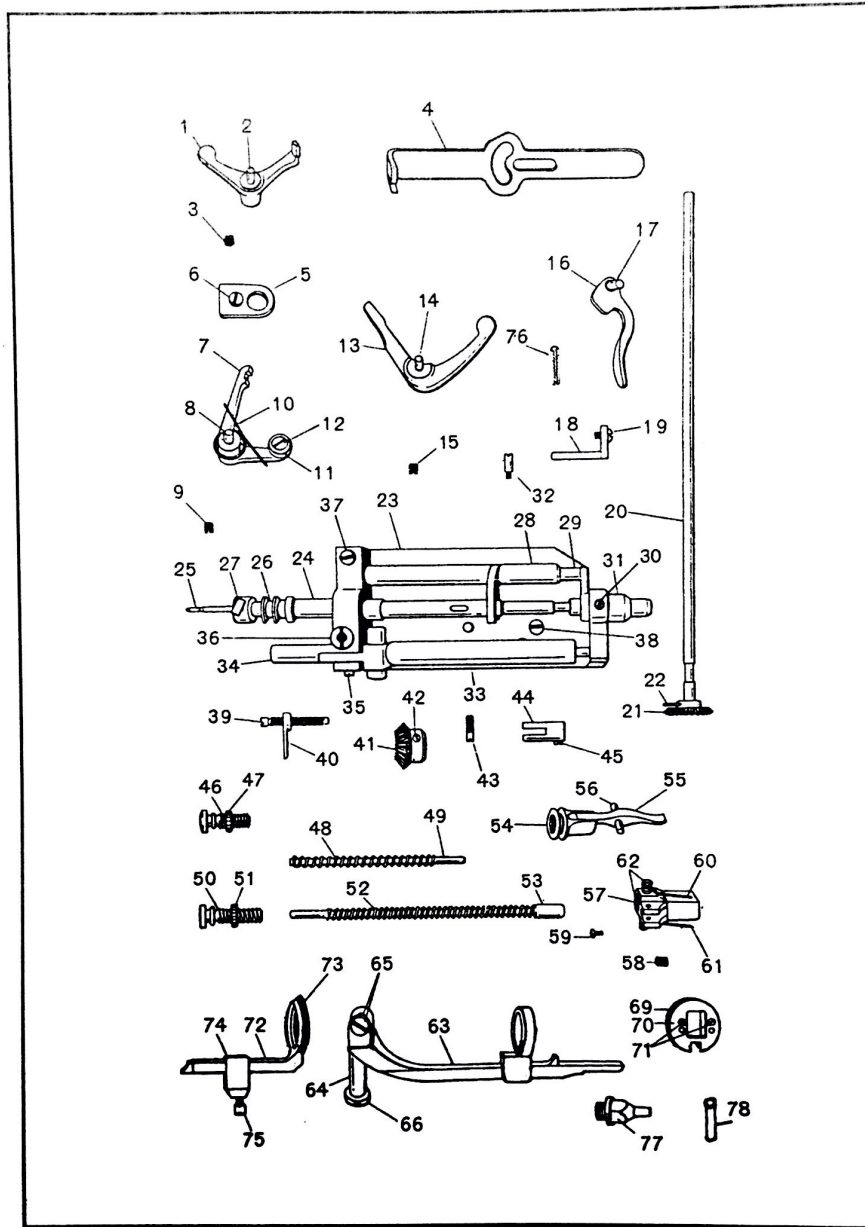


Ref. No.	Parts No.	Description
1	GY10-1 · 3-21	Starting Trip Lever (intermediate)
2	GY10-1 · 3-22	Slerting Trip Lever (intermediate) Hinge Screw
3	GY10-1 · 3-14	Starting Trip Lever Rod
4	GY10-1 · 1-51	Stitch Rotating Gear Bracket
5	GY10-1 · 1-34	Stitch Rotating Gear Screw
6	GB117-86 · A5 × 15	Stitch Rotating Gear Bracket Posotion Pin
7	GY10-1 · 3-27	Stitch Rotating Hand Lever Shaft
8	GY10-1 · 3-26	Stitch Rotating Hand Lever Shaft Gear with Set Screw
9	GN1-2 · 6A2-09	Stitch Rotating Hand Lever Shaft Gear Set Screw
10	GY10-1 · 3-25	Stitch Rotating Gear Bracket Shaft (intermediate)
11	GY10-1 · 3-03	S(iteh Rotating Gear Bracket Shaft (intermediate)
12	GW1-2 · 6A2-09	Gear (back or front) with Set Screw
13	GY10-1 · 3-17	Stitch Rotating Hand Lever with Set Screw
14	GI5-2 · 1035	Stitch Rotating Hand Lever Set Screw
15	GY10-1 · 3-16	Stitch Rotating Hand Lever Handle
16	GY10-1 · 3-15	Stitch Rotating Hand Lever Handle Sleeve
17	GB848-85 · 06	Stitch Rotating Hand Lever Handle Sleeve Washer
18	GI5-2 · 3028	Stitch Rotating Hand Lever Handle Sleeve Screw
19	GY10-1 · 3-29	Starting Trip Lever
20	GY10-1 · 3-30	Starting Trip Leyer Hinge Screw
21	GY10-1 · 3-32	Starting Trip Lever Block
22	GY10-1 · 3-31	Starting Trip Lever Block Screw Stud
23	GY10-1 · 1-38	Tension Bracket
24	GY10-1 · 1-34	Tension Bracket Screw
25	GY10-1 · 1-47	Tension Regulating Lever
26	GY10-1 · 1-39	Tension Regulating Lever Hinge Screw
27	GY10-1 · 1-40	Tension Regulating Lever Hinge Screw Spring Washer
28	GY10-1 · 1-53	Tension Regulating Plate
29	GY10-1 · 1-45	Tension Regulating Plate Hinge Screw
30	GY10-1 · 1-43	Tension Regulating Spring
31	GY10-1 · 1-44	Tension Regulating Spring Screw Stud
32	GY10-1 · 1-52	Thread Controller Spring
33	GI5-2 · 1018	Thread Controller Spring Screw
34	GI5-2 · 1036-1	Tension Thumb Nut
35	GI5-2 · 1036-3	Tension Spring
36	GY10-1 · 1-46	Tension Disc
37	GY10-1 · 1-5P	Tension Stud
38	GI5-2 · 4010	Tension Stud Nut



Ref. No.	Parts No.	Description
39		Stitch Rotating Hand Lever Handle Sleeve (Ref. No.) 16 With 15, 17 & 18
40		Stitch Rotating Hand Lever (Ref. No.) 13 With 14, 19, 20, 21, 22 & 39
41		Stitch Rotating Gear Bracket Complete, (Ref. Nos.) 1, 2, 3, 4, 7, 8, 9, 10, Two 12 & 40
42		Tension Complete, (Ref. Nos.)34, 35, Two 36, 37 & 38
43		Tension Bracket Complete, (Ref. Nos.) 23, 25, 26, 27, 28, 29, 30, 31, 32, 33 & 42



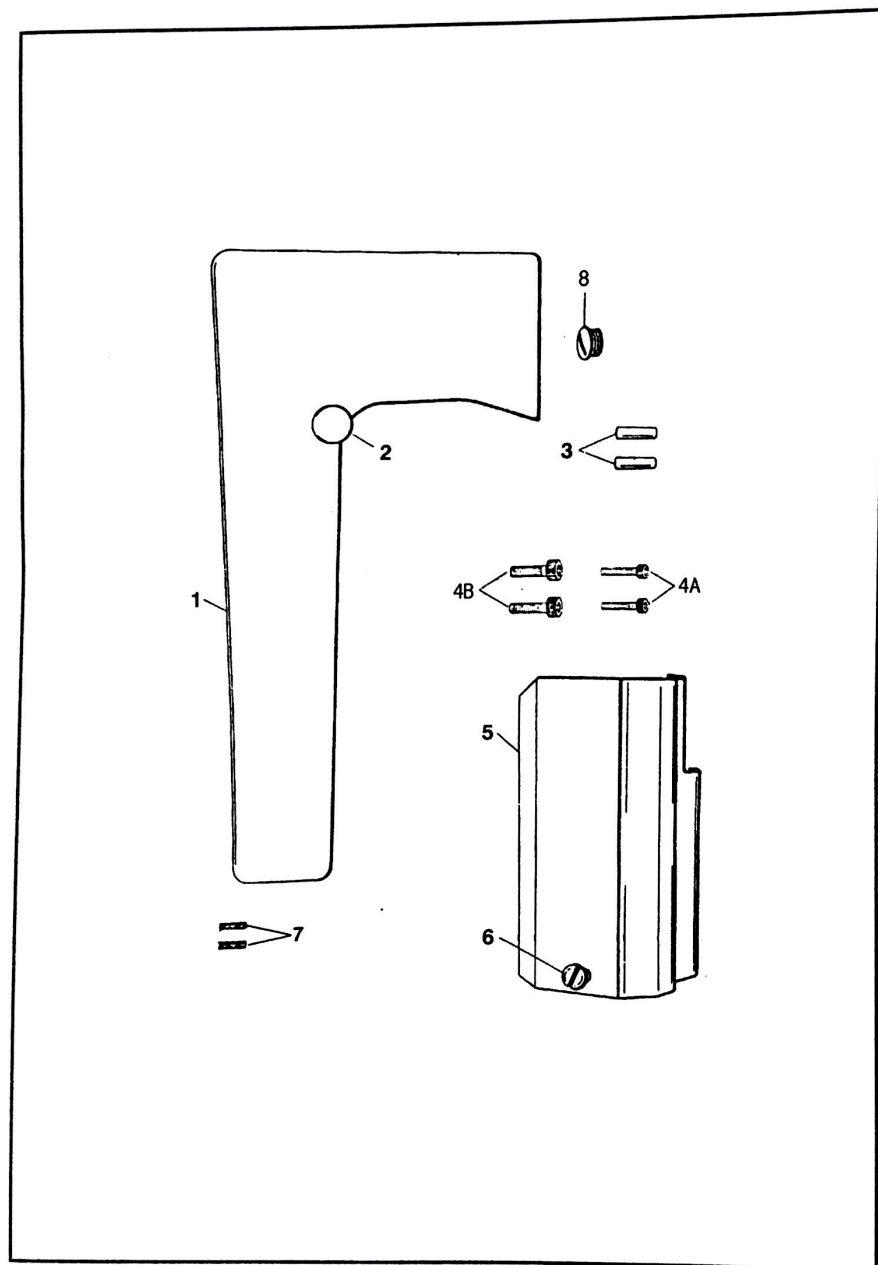


Ref. No.	Parts No.	Description
1	GY10-1 · 2-5	Nipple Carrier Bell Cank
2	GY10-1 · 2-6	Nipple Carrier Bell Crank Hinge Stud
3	GI5-2 · 1037	Nipple Carrier Bell Crank Hinge Stud Set Screw
4	GY10-1 · 2-12	Nipple Operating Slide
5	GY10-1 · 2-17	Arm Head Sleeve Cap
6	GI5-2 · 1012	Arm Head Sleeve Cap Screw
7	GY10-1 · 2-49	Feed Bell Crank
8	GY10-1 · 2-11	Feed Bell Crank Hinge Stud
9	GI5-2 · 1037	Feed Bell Crank Hinge Stud Set Screw
10	GY10-1 · 2-10	Feed Bell Crank Spring
11	GY10-1 · 2-7	Feed Bell Crank Roller
12	GY10-1 · 2-8	Feed Bell Crank Roller Screw
13	GY10-1 · 2-4	Pressr Foot Slide Bell Crank
14	GY10-1 · 2-6	Pressr Foot Slide Bell Crank Hinge Stud
15	GI5-2 · 1037	Pressr Foot Slide Bell Crank Hinge Stud Set Screw
16	GY10-1 · 2-2	Presser Foot Lifter
17	GY10-1 · 2-3	Presser Foot Lifter Hinge Screw
18	GY10-1 · 2-29	Nipple Carrier Guide
19	GY10-1 · 2-28	Nipple Carrier Guide Screw
20	GY10-1 · 3-2	Feed Rotating Shaft
21	GY10-1 · 3-1	Feed Rotating Shaft Gear
22	GB117-86 · A2 × 12	Feed Rotating Shaft Gear Plsition Pin
23	GY10-1 · 2-1	Arm Head
24	GY10-1 · 2-1P	Arm Head Sleeve
25	GY10-1 · 2-14	Needle Holder
26	GY10-1 · 2-13	Needle Holder Clamping Sleeve
27	GI5-2 · 1035	Needle Holder Clamping Sleeve Bushing
28	GY10-1 · 2-34	Nipple Carrier Lifting Screw Stud
29	GY10-1 · 2-30	Feed Slide Bar
30	GN1-2 · 6A2-09	Nipple Carrier
31	GY10-1 · 2-26	Nipple Carrier Sleeve
32	GY10-1 · 2-22	Nipple Carrier Sleeve Bushing
33	GY10-1 · 2-52	Nipple Carrier Lifting Screw Stud
34	GY10-1 · 2-48	Presser Foot Slide Bar
35	GN1-2 · 6A4-16	Presser Foot Slide Bar Guide
36	GY10-1 · 2-37	Presser Foot Slide Bar Adjusting Screw
37	GY10-1 · 2-38	Arm Head Screw (upper) (long)
38	GY10-1 · 2-31	Arm Head Screw (upper) (short)
39	GY10-1 · 2-15	Arm Head Screw (lower)
40	GY10-1 · 2-16	Feed Regulating Screw
41	GY10-1 · 2-20	Feed Regulating Screw Lock Lever Nut
42	GN1-2 · 6A2-09	Arm Head Sleeve Gear with Set Screw
43	GN1-2 · 6A4-16	Arm Head Sleeve Gear Set Screw
44	GY10-1 · 2-49	Presser Foot Slide Bar GuideSet Screw
45	GN1-2 · 6A5-04	Presser Foot Slide Bar Spring Stop
46	GY10-1 · 2-39	Presser Foot Slide Bar Spring Stop Screw Nipple Carrier Thumb Screw



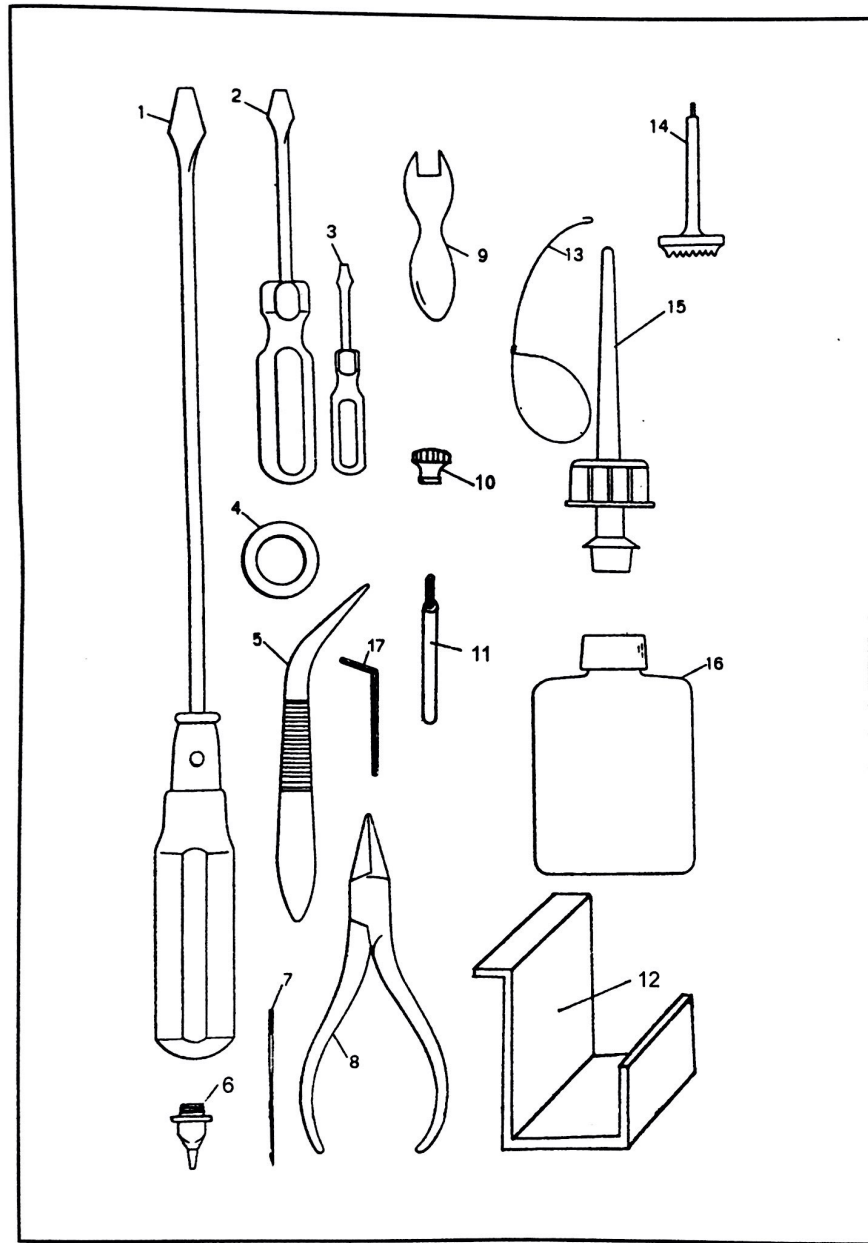
Ref. No.	Parts No.	Description
47	GY10-1 · 2-40	Nipple Carrier Thumb Screw Nut
48	GY10-1 · 2-36	Nipple Carrier Spring
49	GY10-1 · 2-35	Nipple Carrier Extension
50	GY10-1 · 2-41	Presser Foot Slide Bar Thumb Screw
51	GY10-1 · 2-42	Presser Foot Slide Bar Thumb Screw Nut
52	GY10-1 · 2-43	Presser Foot Slide Bar Spring
53	GY10-1 · 2-44	Presser Foot Slide Bar Spring
54	GY10-1 · 2-21	Feed Slide Block
55	GY10-1 · 2-50	Feed Lever
56	GB117-86 · A3 x 15	Feed Lever Hinge Pin
57	GY10-1 · 2-33	Feed Lever Bracket
58	GN1-2 · 6A2-09	Feed Lever Bracket Set Screw
59	GN1-2 · 6A2-09	Feed Lever BracketSet Screw
60	GY10-1 · 2-23	Feed Recovering Spring (left)
61	GY10-1 · 2-24	Feed Recovering Spring (right)
62	GY10-1 · 2-25	Feed Recovering Spring Screw
63	GY10-1 · 2-29	Presser Foot Lever with Feed Lever Bracket Guide Bearing and Pin
64	GY10-1 · 2-46	Presser Foot Lever Swivel
65	GY10-1 · 2-47	Presser Foot Lever Swivel Hinge Screw
66	GY10-1 · 2-45	Presser Foot Lever Swivel Stop Screw
69	GY10-1 · 2-31	Feed Lever Bracket Guide
70	GY10-1 · 2-32	Feed Lever Bracket Guide Cap
71	GN1-2 · 6A5-11	Feed Lever Bracket Guide Cap Screw
72	GY10-1 · 2-56	Presser Foot
73	GY10-1 · 2-57	Presser Foot Shoe (rubber)
74	GY10-1 · 2-55	Presser Foot Clamp
75	GI5-2 · 1035	Presser Foot Clamp Thumb Screw
76	GB117-86 · A3 x 15	Arm Head Position Pin
77	GY10-1 · 2-27	Nipple
78		Position Pin





Ref. No.	Parts No.	Description
1	GY10-1 · 1-5	Arm Side Cover
2	GY10-1 · 1-64	Arm Side Cover Thumb Screw
3	GB117-86 · A6 × 30	Arm Position Pin
4A	GB70-85 · M6 × 20	Arm Screw (long)
4B	GB70-85 · M8 × 20	Arm Screw (short)
5	GY10-1 · 1-1	Arm Head Cover
6	GY10-1 · 2-45	Arm Head Cover Thumb Screw
7	GY10-1 · 1-66	Arm Screw





Ref. No.	Parts No.	Description
1		Screw Driver
2		Screw Driver
3		Screw Driver
4	GY10-1 · 1-57	Presser Foot Shoe (rubber)
5		Tweezers
6	GY10-1 · 1-27	Nipple
7		Needle (137□1)
8		Pliers
9		Nipple Wrench
10		Thread frame belt nut
11		Thread frame bolt
12		Thread frame
13		Screw
14		Threading spring
15		Presser foot (spur)
16		Oiler
17		Oil

