HANDLE OPERATED UPPER CHAIN STITCH EMBROIDERY MACHINE

INSTRUCTION MANUAL & SPARE PARTS BOOK

CONTENT

OPERATING INSTRUCTION MANUAL

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1.Description

The embroidery machine makes the single thread chain stitch and can be quickly adjusted to make the drop or moss stitch. It is designed for ornamenting or embroidering curtains, upholstery, dresses, scarfs, gloves, tale 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 lager 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 pro-marking the fabric.

2.Chief specification

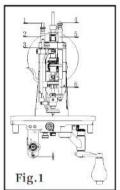
Function	Chain stitch and moss stitch
Max. speed	1000 r.p.m
Needle bar stroke	14mm
Max. Stitch length	4.5mm
Feeding	Universal feed movement
Lift of presser foot	5mm
Needle	PH×1WS(16#); PH×1(21#)
Direction of rotation	Clockwise rotation
Work space	235×98mm
Motor	Clutch motor 4P;250W or Energy saving motor 400W
Lubrication	Engine oil 5W30

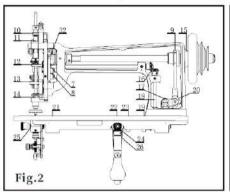
3. Adjustment method of the machine

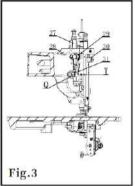
(1).To oil the machine (Fig.1, Fig2, Fig3, Fig.4).

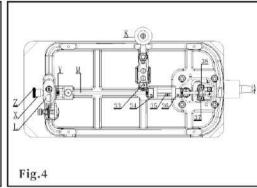
To insure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling. Oil should be applied to the places designated by unlettered arrows from No.1 to No.38 in (Fig.1, Fig2, Fig3, Fig4)

NOTE: If the machine is used continuously, oil should be applied at least once each day.



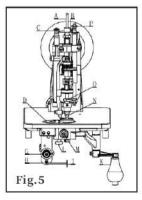






(2). To remove, replace and install needle and nipple(Fig. 5)

- A.Needle holder
- B.Wing screw for needle holder
- C.Thump screw for regulating pressure on presser foot
- D.Needle plate
- G.Tension complete
- H.Tension bracket
- I.Thread controller spring
- K. Handle operating for stitch trend
- L. Thump screw for holding needle plate

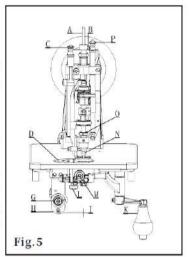


- M. End for looper shaft
- N. Nipple
- O. Nipple carrier
- P. Thump screw for regulating pressure on nipple

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 $\bf B$, and remove needle bolder $\bf A$ and needle from top of machine. Unscrew nipple $\bf N$. Using the small wrench provided . Select the correct needle hole in needle plate $\bf D$.

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 the point of the needle.

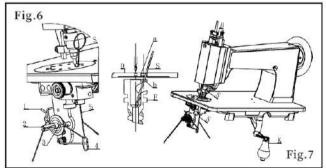
Be sure handle **K** is as far to the front as possible and the hook of needle faces the front. Then tighten wing screw **B**, which also should face the front.



(3).To thread the machine (Fig. 6, Fig. 7)

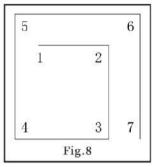
Place the cone of thread in convenient in a position on the floor, Threading machine according to order number shown in (Fig. 6).

Turn handle K(Fig.7), until handle K and screw B to the front of operator, same time, the needle plate hole "a" can be coincide with looper hole "b", then raise presser foot and insert threading wire S in the forward hole "a" and hole "b", 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 \mathbf{K} straight to the left and, having started the machine, quickly bear down and up on handle \mathbf{K} so that the needle will pick up the thread for one stitch.

Keep handle \mathbf{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.



(4).Learning to operate the machine (Fig. 8)

NOTE: when in operation the machine pulley must always turn over away from operator.

Mark a design (Fig. 8) 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, Then hold the handle **K** 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.

(5). To operate the machine (Fig. 9)

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

These designs (Fig.9) 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.



(6) The presser foot pressure adjustment (Fig10)

The pressure on the presser foot is regulated by the thumb screw **C**(Fig.10). To increase the pressure ,turn the thump screw over to the right or downward. To decrease the pressure , turn the screw over to the left or upward .

To raise the presser foot, insert a screw driver in hole V(Fig. 10) and loosen the set screw there in. The eccentric adjusting stud J can

then be turned, so that presser foot can be set at the desired height; then tighten the set screw in hole **V**.

(7). The thread tension adjustment (Fig. 10)

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

Various effects can be produced by changing the height If the needle holder as well as by adjusting the length 1f stitch.

The tension on the thread is regulated by the thumb nut G (Fig.10), 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 .

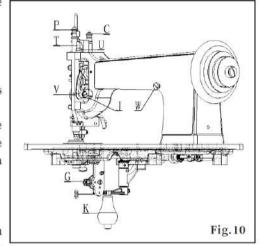
(8).To adjust the length of the stitch(Fig.10)

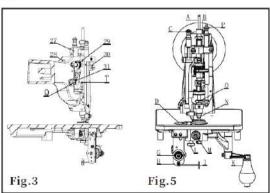
The length of stitch is adjusted by screw T(Fig.10). To lengthen the stitch, loosen locking lever U and turn screw T over to the left or upward ,then tighten locking lever U.

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

(9). The nipple pressure adjustment (Fig. 5, Fig. 3)

The pressure on the nipple is regulated by the thumb screw $\mathbf{P}(\mathrm{Fig.~5})$ 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 .

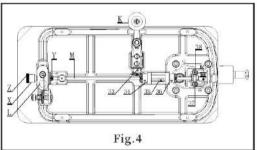




NOTE: Too much pressure on the nipple may cause the thread to break.

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 **T**(Fig. 3) and loosen the set screw there in. 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 **T**.

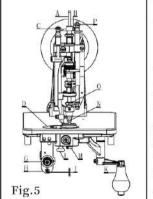


(10). The looper adjustment (Fig. 4, Fig. 5)

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 posing of the needle, remove the needle plate after removing the thumb screw $\mathbf{L}(\mathrm{Fig.4})$, 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 \mathbf{K} is toward are front.

Turn the machine back on its hinges and turn handle K(Fig.4), and wing screw B(Fig.5) to the front. Loosen set screw X(Fig.4) of the operating worm gear Y, and

turn the 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 \mathbf{M} , tighten the set screw \mathbf{X} .



(11). Moss stitch adjustment (Fig. 4, Fig. 5)

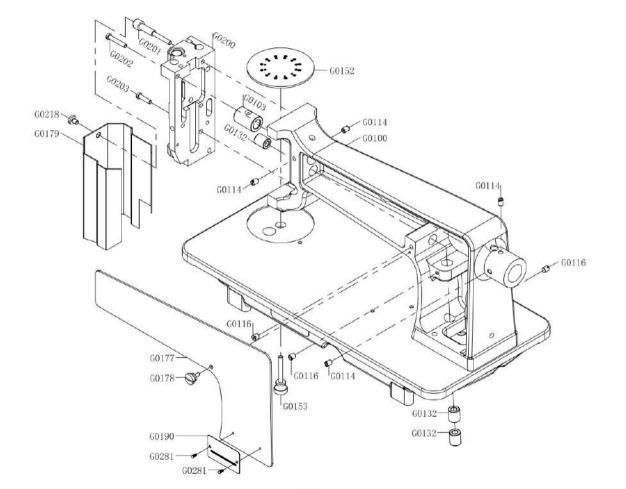
The raised pile or moss stitch is produced by adjusting the machine so that it will drop the stitches in loose loops on the material. To accomplish this, turn handle K to the front, loosen the wing screw B(Fig.5), and turn the needle holder so that the hook of the needle will point directly to the back of the machine, then tighten the wing screw. Reach under the bed of machine with the left hand, grasp the knurled end Z(Fig.4) 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 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.

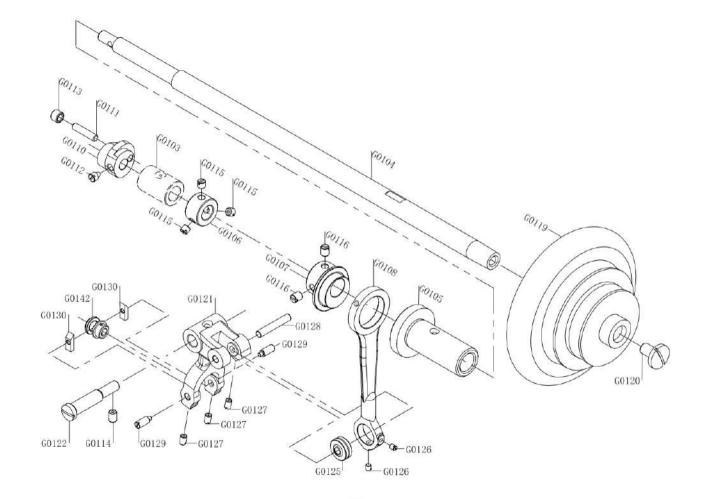
By operating the machine and turning handle \mathbf{K} rapidly, so as to make very small circles of dropped stitch loops laid one on the other, raised pile work is produced. The higher the needle is set the longer the loop will be. The size of the thread and thickness of the material used will have to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

(12). Troubles and corrective measures

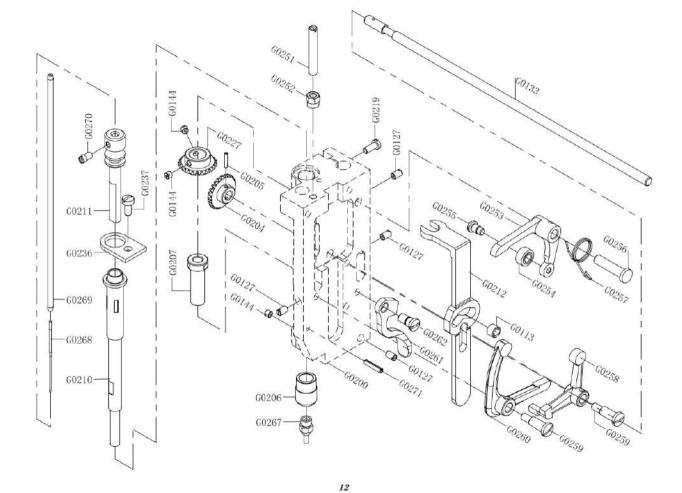
Serials	Troubles	Cause	Corrective measure
1	Stitch skipping	The time between the needle and the looper is bad.	Correct the timing between the needle and the looper.
2	Breakage thread	Thread and needle are not suitable or thread tension is too high .	Adjust thread tension or replace suitable needle and thread .
3	Breakage needle	Needle position is too lower or thread from knots under the needle plate because of feeding retardation or not.	Adjust the high of the needle, check feeding device, master operation skill
4	Feeding cloth retardation	Press foot doesn't press the sewing material or its pressure is not suitable or feeding device failure.	Adjust the presser foot height and its pressure, check feeding device.
5	Universal feeding control device failure.	It,s gear screw is loose.	Tighten the gear screw .



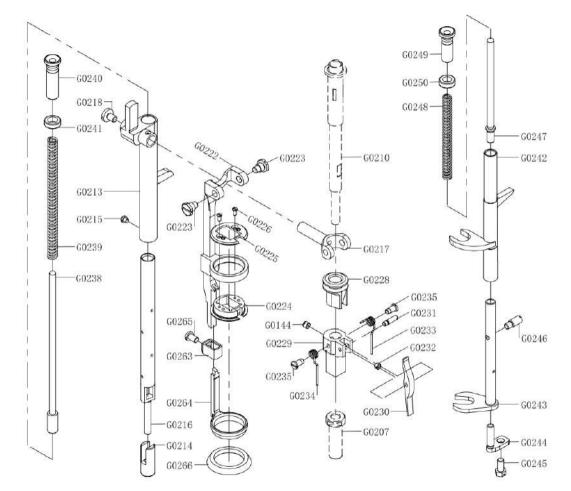
Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0100	Machine frame	1					
G0103	Main shaft bushing front	1					
G0105	Main shaft bushing rear	1					
G0114	Screw	4					
G0116	Screw	3					
G0132	Stitch rotating gear shaft bushing	2					
G0152	Needle plate	1					
G0153	Needle plate clamping thump screw	1					
G0177	Arm head cover	1					
G0178	Arm side cover set screw	1					
G0179	Arm head cover	1					
G0182	Upright shaft bushing lower	1					
G0190	Model plate	1					
G0200	Arm head bracket	1					
G0201	Arm head bracket long screw	1					
G0202	Arm head bracket short screw	1					
G0203	Arm head bracket lower screw	1					
G0218	Arm head cover screw	1					
G0281	Rivet	2					



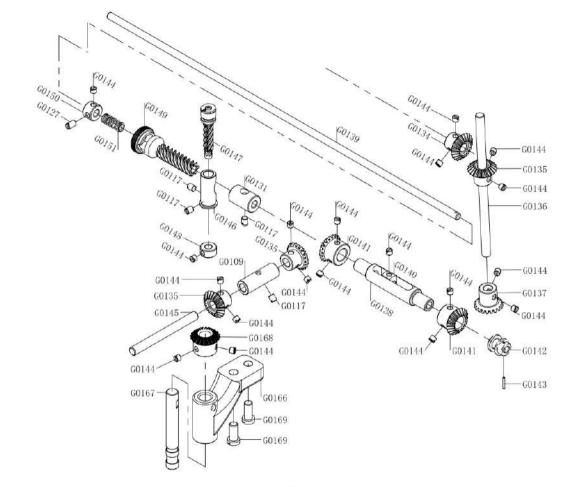
Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0103	Main shaft bushing front	1		G0128	Looper operating connecting rod screw	1	
G0104	Main shaft	1		G0129	Looper operating slider pin	2	
G0105	Main shaft bushing rear	1		G0130	Looper operating bell crank slider	2	
G0106	Thrust collar	4		G0142	Looper operating shaft sleeve wheel	1	
G0107	Eccentric cam	3					
G0108	Looper operating connecting rod	2					
G0110	Needle driving cam	1					
G0111	Needle driving cam roller pin	1					
G0112	Needle driving cam roller screw	1					
G0113	Needle driving cam roller	1					
G0114	Screw	1					
G0115	Screw	1					
G0116	Eccentric cam screw	1					
G0119	Hand wheel	1					
G0120	Hand wheel screw	1					
G0121	Looper operating bell crank	1					
G0122	Looper operating bell crank screw	1					
G0125	Joint bearing	1					
G0126	screw	2					
G0127	Screw	3					



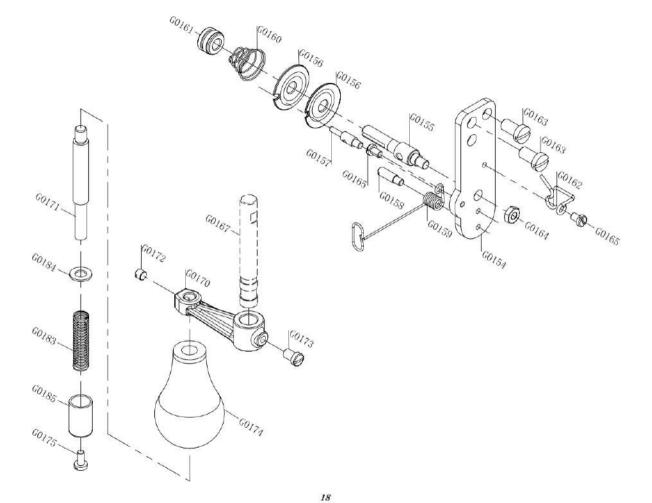
Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0113	Needle driving cam roller	1		G0255	Feed bell crank roller screw	1	
G0144	Screw	3		G0256	Feed bell crank hinge stud	1	
G0127	Screw	4		G0257	Feed bell crank spring	1	
G0133	Feed rotating shaft	1		G0258	Nipple carrier bell crank	1	
G0200	Arm head bracket	1		G0259	Nipple carrier bell crank hinge stud	2	
G0204	Feed rotating shaft gear	1		G0260	Presser foot side bell crank	1	
G0205	Pin	1		G0261	Presser foot lifter	1	
G0206	Nipple carrier sleeve bushing	1		G0262	Presser foot lifter screw	1	,
G0207	Nipple guide	1		G0267	Nipple	1	
G0210	Arm head sleeve assembly	1		G0268	Needle	1	Ph×1 WS
G0211	Nipple holder clamping sleeve	1		G0269	Needle bar	1	
G0212	Nipple operating slide	1		G0270	Screw	1	
G0219	Screw	1		G0271	Position pin A3×14	1	
G0227	Arm head sleeve cear	1					
G0236	Arm head sleeve cap	1					
G0237	Arm head sleeve cap screw	1					
G0251	Nipple space adjusting screw	1					
G0252	Nipple space adjusting screw set nut	1					
G0253	Feed bell crank	1					
G0254	Feed bell crank roller	1					



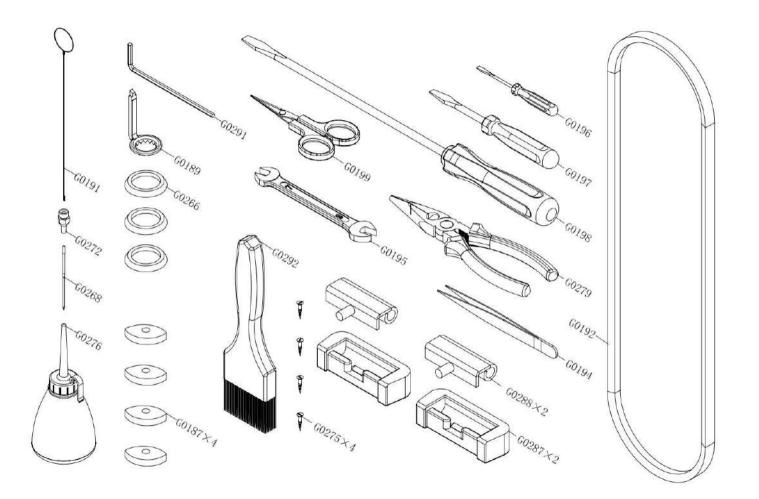
Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0144	Screw	1		G0234	Feed recovering spring right	1	
G0207	Nipple guide	1		G0235	Feed recovering spring screw	2	
G0210	Arm head sleeve assembly	1		G0238	Presser foot side bar spring plunger	1	
G0213	Presser foot side bar	1		G0239	Presser foot side bar spring	1	
G0214	Presser foot side bar spring stop	1		G0240	Press foot pressure adjusting screw	1	
G0215	Screw	1		G0241	Press foot pressure adjusting nut	1	
G0216	Presser foot side bar guide	1		G0242	Feed side bar	1	
G0217	Press foot lever swivel	1		G0243	Nipple carrier	1	
G0218	Press foot lever swivel screw	1		G0244	Nipple carrier guide	1	
G0222	Presser foot bracket assembly	1		G0245	Nipple carrier guide screw	1	
G0223	Press foot lever swivel hinge screw	2		G0246	Nipple carrier lifting screw stud	1	
G0224	Feed lever bracket guide	1		G0247	Nipple carrier extension	1	
G0225	Feed lever bracket guide cap	1		G0248	Nipple carrier spring	1	
G0226	Screw	2		G0249	Nipple pressure adjusting screw	1	
G0228	Feed side block	1		G0250	Nipple pressure adjusting nut	1	
G0229	Feed lever bracket	1		G0263	Press foot clamp	1	
G0230	Feed lever	1		G0264	Presser foot(small size)	1	Large size can be replaced
G0231	Screw	1		G0265	Screw	1	
G0232	Screw	1		G0266	Presser foo trubber shoe (small size)	1	Large size can be replaced
G0233	Feed recovering spring left	1					The second secon



Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0109	Looper operating gear bracket shaft bushing	1		G0150	Looper operating collar	1	
G0117	bushing screw	4		G0151	Looper operating gear spring	1	
G0127	Screw	1		G0166	Stitch rotating gear bracket	1	
G0131	lower shaft bushing	1		G0167	Stitch rotating hand lever shaft	1	
G0134	Gear	1		G0168	Stitch rotating hand lever shaft gear	1	
G0135	Gear	3		G0169	Stitch rotating bell crank bracket set screw	2	
G0136	Stitch rotating gear shaft	1					
G0137	Stitch rotating gear (lower)	1					,
G0138	Looper operating shaft guide sleeve	1					
G0139	Looper operating shaft	1					
G0140	Looper operating shaft guide block	1					
G0141	Looper operating shaft sleeve and gear	2					
G0142	Looper operating shaft sleeve wheel	1					
G0143	Pin	1					
G0144	Gearscrew	19					
G0145	Looper operating gear bracket shaft(intermediate)	1					
G0146	Bushing	1					
G0147	Looper	1					
G0148	Looper operating collar	1					
G0149	Looper operating gear (spiral)	1					



Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0154	Tension bracket	1		G0184	Washer	1	
G0155	Tension post	1		G0185	Spring bushing	1	
G0156	Tension disc	2					
G0157	Tension Pin	1					
G0158	Screw	1					
G0159	Thread controller spring	1					
G0160	Tension spring	1					
G0161	Tension nut	1					,
G0162	THread guide spring	1					
G0163	Looper bracket set screw	2					
G0164	Nut	1					
G0165	Screw	2					
G0167	Stitch rotating hand lever shaft	1					
G0170	Stitch rotating lever	1					
G0171		1					
G0172	Screw	1					
G0173	Screw	1					
G0174	Stitch rotating hand lever handle	1					
G0175	Screw	1					
G0183	Spring	1					



Part No.	Name of part	Qty.	Remark	Part No.	Name of part	Qty.	Remark
G0187	Vibration preventing rubber	2					
G0189	Presser foot(sawtooth type)	1					
G0191	Threader spring	1					
G0192	Belt(O-900/M-37)	1					
G0194	Tweezers	1					
G0195	Open end wrench	1	8-10				
G0196	Screw driver(small)	1					
G0197	Screw driver(middle)	1					
G0198	Screw driver(large)	1					
G0199	Embroidery scissors	1					
G0266	Presser foot rubber shoe	3					
G0268	Needle	1	PH×1 WS				
G0272	Nipple	1					
G0275	Screw	4					
G0276	Oiler	1					
G0279	pliers	1	6"				
G0287	Hingercover	2					
G0288	Hinger	2					
G0291	Hexagonal wrench	1	МЗ				
G0292	Brush	1					