# TYPICAL

GC6717MD DIRECT DRIVE LOCKSTITCH SEWING MACHINE
WITH VERTICAL EDGE TRIMMER

INSTRUCTION BOOK /PARTS CATALOGUE

## ※MAIN TECHNICAL DATA

| Application	Commom materials
Sewing speed	4500 s pm
Max. Stitch length	4 mm
Presser foot·lifting height	6~11mm
Rotating shuttle	Standard automatic oiling
Needle	DB ×1 #9~#16
Trimedge width (mm)	Normal 3.2(mm) special2.4 4.0 4.8 6.4 7.9 9.5

1.INSTALL THE MAGNET
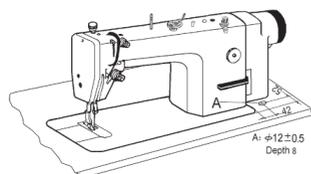
For safty,pedal should be no response when machine overturned.To realize it,a magnet with rubber cover installed into hole A. Note that S-ploes must be upward.
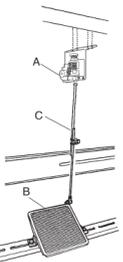
2.MAXIMUM SPEED ADJUSTMENT
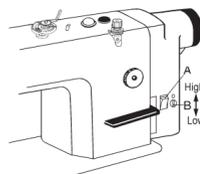
Push switch A,lighting lamp indicate power on.Turn the knob B to adjust the maximun speed, upwards to high and downwards to low.

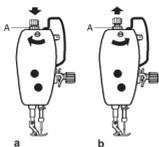## 3.ROTATING HOOK OIL AMOUNT ADJUSTMENT
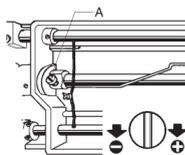
Adjust the oil amount of the rotating hook by turning the oil amount adjusting screw (A). Turn the screw (A) clockwise (in the "+" direction) to increase the oil amount ; turn it counter-clockwise (in the "–" direction) to decrease the oil amount.

4.NEEDLE INSTALLATION

Turning the balance wheel to lift the needle bar to the upper end of its stroke. Loosen the needle clamp screw while keeping the long groove of the needle leftward, fully insert the needle shank up to the bottom of the needle socket, then tighten the needle clamp screw.
Note:please take the drive in our motor cover accessory bag to operate.
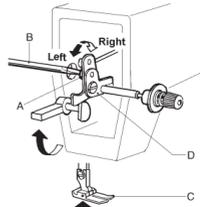
5.CONNECTION OF THE CLUTCH LEVER WITH THE PEDAL

(1) Install speed gorernor A, link speed gorernor A and pedal B with tie barc,keep tie bar C vertical.
(2) The optimum tilt angle of pedal is approximately 15 deg.

6.ADJUST THE OPENING TIME OF THE TENSION DISCS

Within the presser foot lift range , the opening time of the tension discs can be adjusted as follows:
(1)Remove the rubber plug from the back of the arm and Loosen the screw (A) of the knee lift level (left)
(2)Move the tension releasing cam (D) leftward for earlier opening or rightward for later opening.It will facilitate the adjustment if putting a lifting high block under the presser foot lift.

## 7.ADJUST THE PRESSURE OF PRESSER FOOT

Pressure of the presser foot is adjusted in accordance with thickness of materials to be sewn.
First loosen the lock nut (A) , for heavy materials, turn the pressure regulating thumb screw as shown in Fig.(a) to increase the pressure , while for light materials , turn the pressure regulating thumb screw as shown in Fig.(b) to decrease the pressure , the tighten the lock nut (A).
The pressure of the presser foot is recommended to be less as along as normal feeding is ensured.
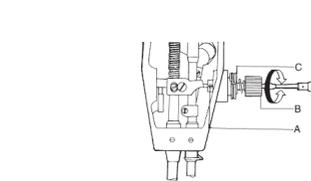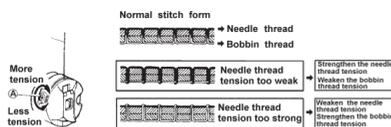
8.ADJUSTMENT OF STITCH LENGTH AND REVERSE FEEDING
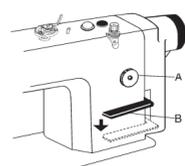
The stitch length can be adjusted by turning the dial knob(A). The figures on the face (B) of the dial show the stitch length in mm. The reverse feed level must be depressed by another hand while adjusting the stitch length (B).The reverse feeding start when the reverse feed lever (B) is depressed, the machine will feed forward again if the reverse feed level is released.
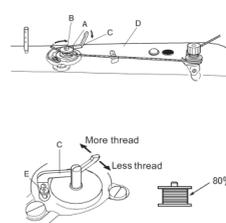
9.THREADING
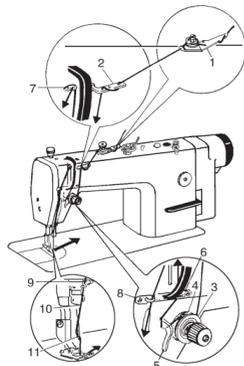
To thread the needle thread, raise the needle bar to the upper end of its stroke, lead the thread from the spool and perform. Threading as shown in To draw the bobbin thread, hold the end of the needle thread and turn the balance wheel to lower the needle bar and then lift it to its highest position. Pull the ends of needle thread and bobbin thread frontward under presser foot.

11.THREAD TENSION ADJUSTMENT

Normal stitch form
Needle thread tension too weak
Needle thread tension too strong

Thread tension should be determined in accordance with the stitch obtained by adjusting the tension of the bobbin thread and needle thaead.
The tension of the bobbin thread:to be adjusted by turning the tension spring regulating screw of the bobbin case,After adjusting , insert the bobbin into the bobbin case and hold the end of the thread from the bobbin case to hang the bobbin case, If the bobbin case falls slowly and evenly, the proper tension of the bobbin thread is obtained.
The tension of needle thread: to be adjusted by turning the thumb nut.

The stroke of the thread take-up spring runs from 6mm to 10mm , when sewing very thin fabrics, reduce the thread take-up spring tension and increase the thread take-up spring stroke , where as increase the thread take-up spring tension and reduce the thread take-up stroke when sewing very thick fabrics.
Adjusting the thread take-up spring tension : First loosen the set screw (A) , Turn the tension stud (B) counter-clockwise to decrease the tension of the thread take-up spring (c) to zero. Then turn the tension stud (B) clockwise till the spring (c) comes to the notch of the tension regulating bushing, and again turn the tension stud (B) halfway back (counter clockwise),After the adjustment, tighten the set screw (A).
Adjusting the thread take-up spring stroke: loosen the set screw (B) turn the stud (C) clockwise to increase the stroke or turn stud (C) counter-clockwise to decrease the stroke after the adjustment. tighten the set screw (B).

10.WINDING THE LOWER THREAD

More thread
Less thread
80%

Turn on the power switch.Place the bobbin (A) onto the bobbin winder shaft (B).Wind the thread several times around the bobbin (A) inthedirection indicated by the arrow.Push the bobbin presser arm(C) toward the bobbin (A).Raise the presser foot with the lifting lever .Depress the treadle. Lower thread winding will then start. Once winding of the lower thread is completed, the bobbin presser arm (C) will return automatically.After the thread has been wound on ,remove the bobbin and cut the thread with the knife (D).
NOTE:
1.Loosen the screw (E) and mover the bobbin presser(C) to adjust the amount of thread wound onto the bobbin.
2.The amount of thread wound onto the bobbin should be a maximum of 80% of the bobbin capacity.

## 12.ADJUST THE SYNCHRONIZATION OF THE NEEDLE WITH ROTATING HOOK
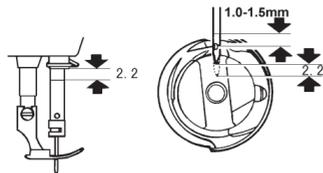
When lifting the needle bar from its lowest posi-tion of the stroke to the distance A, the hook point D of the bobbin should align with the center' line of the needle and be 1.0~1.5 mm above upper end of the needle eye .
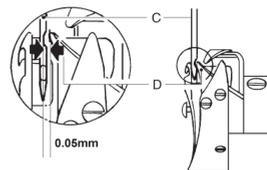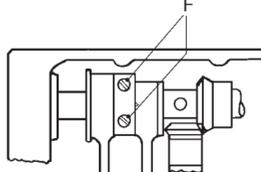
The clearance between the bottom of the needle notch and the hook tip should be 0.05 mm .

13.ADJUSTING THE POSITION OF FEED DOG AND NEEDLE
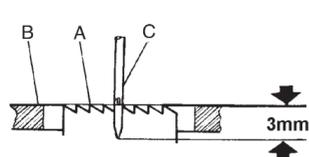
Turn the balance wheel, and lower Feed Dog (A). When the top of the feed dog is flush with needle Plate Surface (B), Needle Point (C)should be 3mm below the needle plate surface.
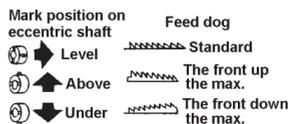
Loosen eccentric wheel screw,turn eccentric wheel and balance wheel separately to adjust the position of needle and feed doy .Tnen tighten the screw.

14.STITCH LENGTH ERROR ADJUSTMENT
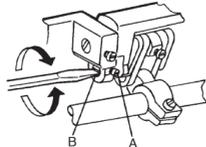
Loosen screw (A) to adjust the stitch length adjusting cam (B). Turn it rightward to narrow the stitch length as forward sewing, and widen it as reverse sewing; turn it leftward to widen the stitch length as forward sewing, and narrow it as reverse sewing .

15.FEED DOG HORIL ONTALLTY ADJUSTMENT

Mark position on eccentric shaft
Level
Above
Under

Feed dog
Standard
The front up the max.
The front down the max.

Heighten the front of feed dog to prevent fabric from wrinkling ,lower the front of feed dog to prevent fabric from defection, breaking of hook thread.
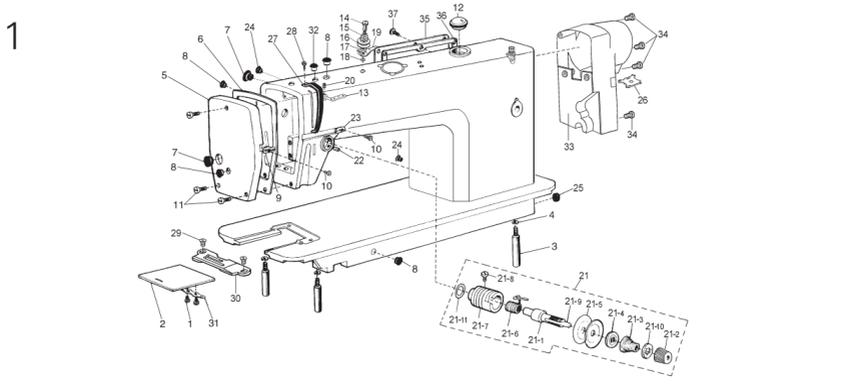
1.ARM AND BED MECHANISM

No.	Ref.No.	Description	Qt.
1	022170003	Screw	2
2	022170001	Slide plate	1
3	048100005	Leg	3
4	S150601004	Spring washer	3
5	258100001	Face plate	1
6	258100002	Face plate gasket	1
7	022130003--v	Rubber plug(Φ19)	2
8	022130004--v	Rubber plug(Φ11.8)	4
9	022130005	Thread guide on face plate	1
10	022130006	Screw	2
11	022100006	Screw	1
12	022180001--v	Oil check window	1
13	022100010	Thread guide	1
14	022150001	Screw	1
15	022150002	Tension spring for pretension	1
16	022150003	Thread tension disc	1
17	022150004	Pretension thread guide pad	2
18	S150620001	Spacer	1
19	022150005	Pretension thread guide	1
20	124100006	Screw	1
21	124130000--w	Thread tension bracket assy	1
21-1	022160001	Thread tension stud	1
21-2	124130001--w	Thread tension nut	1
21-3	124130002	Thread tension spring	1
21-4	022160004	Thread tension releasing disc	1
21-5	022160005	Thread tension disc	2
21-6	022160006	Thread take-up spring	1
21-7	022160007	bushing	1
21-8	022160008	Screw	1
21-9	238100004	Thread tension rleasing pin	1
21-10	022160010	Stop disc	1
21-11	022160011	O-type ring	1
22	022100013--v	Set screw	1
23	022100014	Thread guide	1
24	022100015--v	Rubber plug(Φ8.8)	4
25	022100016	Rubber plug(Φ27)	1
26	238100009	All purpose screwdriver	1
27	BXF9768001-w	Thread take-up lever guard	1
28	022200004--d	Screw	1
29	029100003	Needle plate 1/8'(3.2)	1
30	022100020	Screw	2
31	022170002	Slide plate spring	1
32	022100017--v	Rubber plug(Φ5.7)	1
33	238C12000	Motor cover	1
34	S150216033	Screw	5
35	022140001--w	Side plate	1
36	022140002	Washer	1
37	022100006	Screw	8
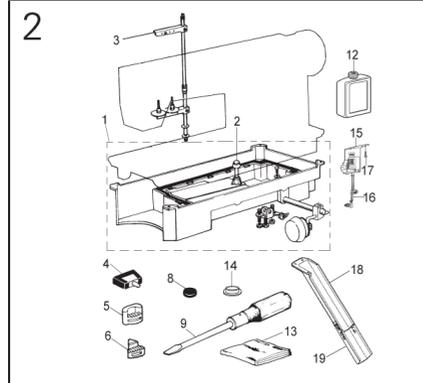
2、OIL RESERVOIR AND ACCESSORIES

No.	Ref.No.	Description	Qt.
1	029F00000	Oil reservoir asm	1
2	165F01001	Knee lifter lifting pin	1
3	006F00030--w	Thread spool asm	1
4	022990000	Hinge with rubber cushion	2
5	022900009--v	Cushion(B)	2
6	022900010--v	Cushion(S)	2
8	W050103001	Magnet block	1
9	W060401018	Screw drive(long)	1
12	022900017	Oil tank	1
13	W060302036	Machine head cover	1
14	238C00006	Magnets	1
15	238C14000	Governor	1
16	238C15000	Rod complete	1
17	S150211002	Wood screw M5x12	4
18	029F00002	Waste bucket (upper)	1
19	028800008	Waste bucket (lower)	1
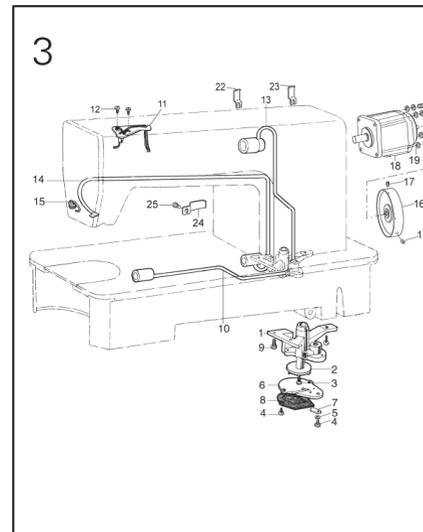
3、OIL PUMP AND MOTOR MECHANISM

No.	Ref.No.	Description	Qt.
1	022800001	Oil pump	1
2	022800002	Oil pump impeller	1
3	022800003	Screw	1
4	022800004	Screw	3
5	S150601003	Springee washer 3	1
6	022800006	Oil pump fitting plate	1
7	022800007	Oil adjusting plate	1
8	022810000	Oil pump screen asm	1
9	022800009	Screw	3
10	036A20N	Oil pump for hook shaft	1
11	022831	Oil braid fitting plate	1
12	022700015	Screw	2
13	022840N	Oil pump for arm shaft	1
14	022800015	Oil return pipe	1
15	036A00002	Oil filter holder	1
16	238710001	Hand wheel	1
17	S150215001	Screw M5x8	2
18	257700001	Motor	1
19	B084050974	Flat Washer S5	4
20	B082050864	Spring Washer	4
21	B048509294	Screw M5x18	4
22	238C00008	Cord holder	1
23	238C00003	Cord holder	1
24	BXF8423009	Cord holder	1
25	022200019	Screw	1
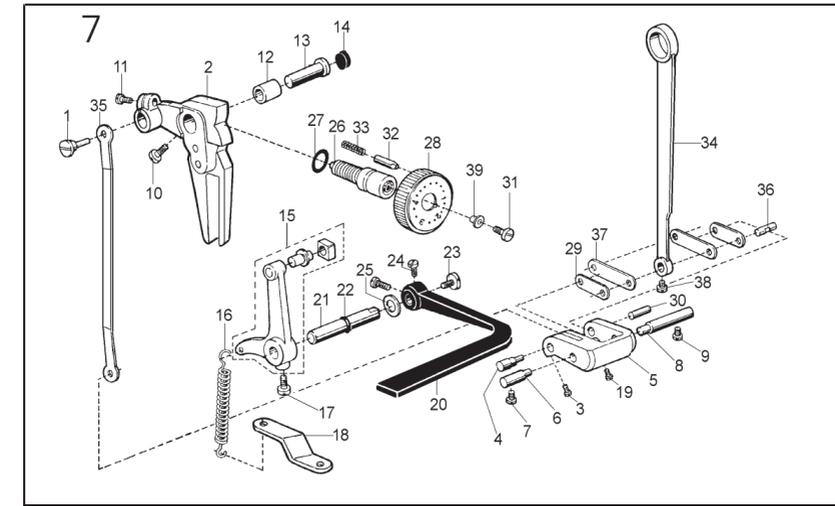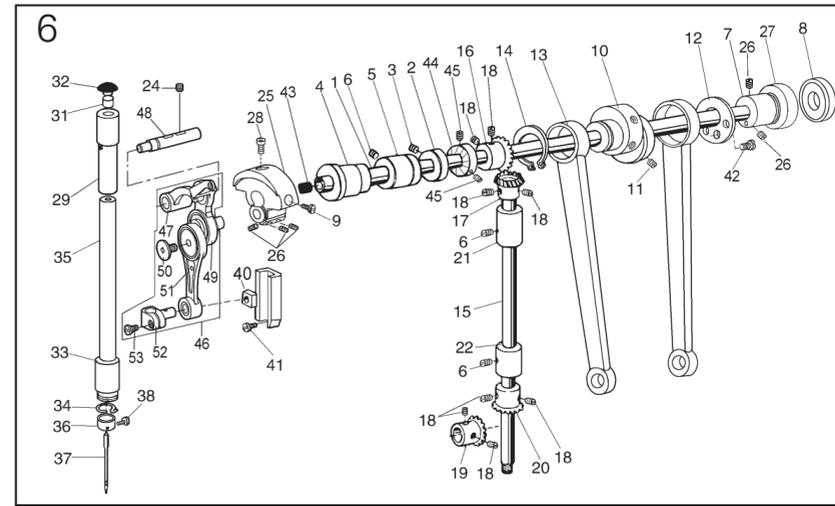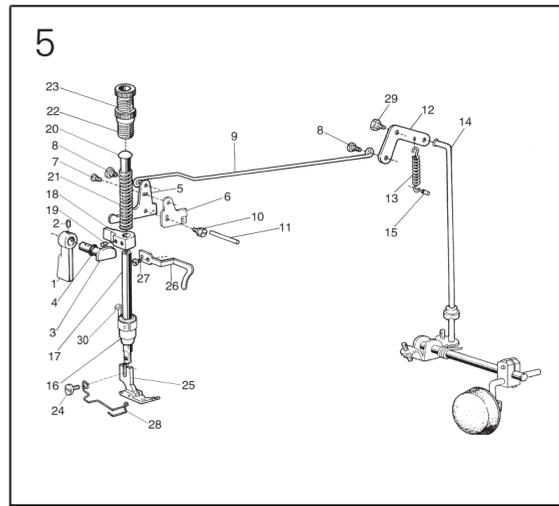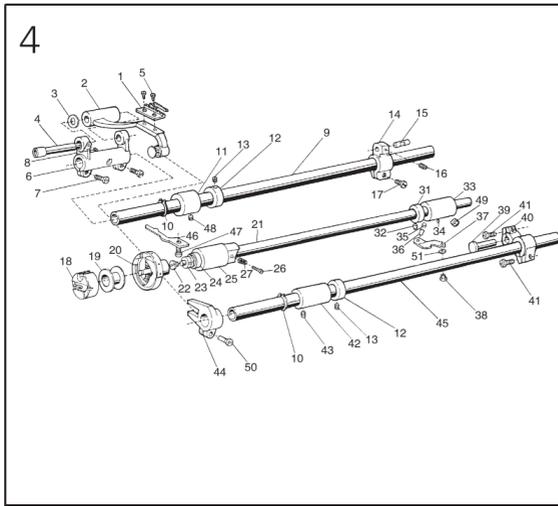
4.FEEDING AND FEED LIFTING AND ROTATING HOOK MECHANISM

No.	Ref.No.	Description	Qt.
1	029600001	Feed dog	1
2	036411000	Feed bar	1
3	022610006	Washer	1
4	036410002	Shaft for feed bar	1
5	022610004	Screw	2
6	022611001	Feed rock shaft crank	1
7	022612001	Screw	2
8	022200019	Screw	1
9	124600002	Feed rock shaft	1
10	S150617006	C-type stop ring 15	2
11	022600004	Bushing for feed rock shaft	1
12	022620001`	Collar for feed rock shaft	2
13	023320002	Screw	4
14	036400003	Feed rock shaft crank(right)	1
15	036400204	Pin	1
16	036550005	Screw	1
17	022640003	Screw	1
18	054A00004	Bobbin case complete	1
19	022471000	Bobbin	1
20	022471000	Rotating hook complete	1
21	036440001	Hook shaft	1
22	022411001	Filter screw	1
23	022411002	Filter	1
24	036470001	Oil seal	1
25	036400010	Hook shaft bushing(left)	1
26	022400005	Oil adjusting screw	1
27	022400006	Coil spring	1
31	022420001	Collar for hook shaft	1
32	022200009	Screw	2
33	036460001	Hook shaft bushing(right)	1
34	022430002	Oil pipe for hook shaft bushing	1
35	036400015	Plunger	1
36	036400016	Plunger spring	1
37	022400010	Guide plate	1
38	022820001	Screw	1
39	022600007	Hinge pin	1
40	036400017	Feed lifting rock shaft crank(R)	1
41	022600016	Screw	2
42	022600012	Bushing for feed lifting shaft(L)	1
43	022200002	Screw	1
44	036484001	Feed lifting fork	1
45	124600003	Feed lifting rock shaft	1
46	022400013	Hook positioner	1
47	022400005	Screw	1
48	022200009	Screw	1
49	022200002	Screw	1
50	022640003	Screw	1
51	S150601004	Washer6	1

OPITIONAL PARTS LIST

No.	Ref.No.	Description	Qt.
1	029100002	Needle plate 3/32"（2.4）	1
2	029100004	Needle plate 5/32"（4）	1
3	029100005	Needle plate 1/4"（4.8）	1
4	029100006	Needle plate 5/16"（6.4）	1
5	029100007	Needle plate 5/16"（7.9）	1
6	029100008	Needle plate 3/8"（9.5）	1

5、PRESSER FOOT MECHANISM

No.	Ref.No.	Description	Qt.
1	022710001--w	Presser bar lifter	1
2	B040600294	Screw	1
3	036620001	Presser bar lifting cam	1
4	S150651010	Oil seal(4.5×1.8G）	1
5	036631001	Knee lifter lever (left)	1
6	022722001	Tension relasing cam	1
7	022723000	Screw	1
8	022720002	Screw	2
9	022720003	Knee lifter rod	1
10	022700005	Screw	1
11	022700006	Thread releasing pin	1
12	022730001	Knee lifter lever (right)	1
13	022730002	Coil spring	1
14	022730003	Knee lifter connecting rod	1
15	022700008	Pin for spring	1
16	022700009	Bushing for presser bar	1
17	022700001	Presser bar	1
18	022740001	Presser bar guide bracket	1
19	022100013	Screw	1
20	022700012	Presser bar spring guide	1
21	022700013	Presser bar spring	1
22	022750001--w	Thumb screw	1
23	022750002--w	Lock nut	1
24	022700015	Screw	1
25	029701000	Presser foot asm	1
26	022700016	Thread guide	1
27	022200004	Screw	1
28	057700002	Presser foot spring	1
29	022730004	Screw	1

6、ARM SHAFT AND VERTICAL SHAFT THREAD TAKE-UP MECHANISM

No.	Ref.No.	Description	Qt.
1	258200001	Arm shaft	1
2	022320001	Collar for arm shart	1
3	022320002	Screw	2
4	022320003	Arm shaft bushing(left)	1
5	022320004	bushing(middle)	1
6	022200002	Screw	3
7	257200002	Bearing	1
8	238200004	oil seal	1
9	022200006	Screw	1
10	036340001	Eccentric whell	1
11	022200002	Screw	2
12	036300004	Spacer	1
13	022343001	shaft	1
14	022342001	Spacer	1
15	022350001	Vertical shaft	1
16	Z0A180891	Bevel gear for arm shaft	1
17	Z0A180892	shaft(upper)	1
18	022220003	Set screw	8
19	Z0A180886	shaft	1
20	Z0A180885	shaft(lower)	1
21	022300011	bushing(upper)	1
22	022300012	bushing(lower)	1
24	022200002	Screw	2
25	029200001	Needle bar crank	1
26	BX87459009	Screw M6×6	2
27	S150801006	Bearing	1
28	022200007	Screw	1
29	153200004	Needle bar bushing(upper)	1
31	022200010	Felt plug	1
32	022200011--v	Rubber plug	1
33	153200005	Needle bar bushing(lower)	1
34	022230002	Thread guide	1
35	029200002	Neddle bar	1
36	029200003	Thread guide for neddle bar	1
37	S150901001	Needle	1
38	022200017	Screw	1
39	022200018	Guide rail for slide block	1
40	022200020	Slide block	1
41	022200019	Set screw	2
42	165330001	Screw	3
43	022310002	Rubber plug(Φ7.4x10)	1
44	207302001	Friction wheel	1
45	S150212006	Screw	2
46	022211000	Thread take up lever asm	1
47	022211002	Thread take-up rod	1
48	022210003	Gemol shaft of thread take up lever	1
49	022210004	Pick line crank	1
	022210005	Needle roller bearings	2
50	022210006	Screw	1
51	022212000	Needle bar connecting rod assembly	1
52	022210008	Needle bar connector	1
53	022210009	Needle bar connector Screw	1

7、STITCH LENGTH REGULATING MECHANISM

No.	Ref.No.	Description	Qt.
1	036500001	Connecting stud	1
2	057500001	Feed regulator	1
3	036550008	Screw	1
4	036550009	Lever link eccentric shaft	1
5	036550010	Lever regulator	1
6	036580002	Pin(left)	1
7	022640003	Screw	1
8	036580001	Pin(right)	1
9	022640003	Screw	1
10	022540004	Screw of feed regulator	1
11	022640003	Screw	1
12	238300001	Feed regulator bushing	1
13	022500004	Feed regulator shaft	1
14	238300002	Rubber plug（Φ16)	1
15	022550001	Back tacking crank	1
16	057520001	Lever spring	1
17	022500013	Set screw	1
18	057500005	Bracket for spring	1
19	036550007	Screw	1
20	124500004--w	Backtacking lever	1
21	036531001	Backtacking lever shaft	1
22	S150651007	O-ring 6.3×1.8G	1
23	022540003	Screw	1
24	022540004	Screw	2
25	022500011	O-ring	1
26	238300003	Feed regulator screw	1
27	124510000	regulating screw	1
28	238300005	Knob	1
29	036558001	Feed rock link	1
30	036550006	Pin	1
31	238300004	Screw	1
32	238300007	Stopper pin	1
33	022500009	Spring for stopper pin	1
34	036550002	rod	1
35	036550003	Feed regulator link	1
36	036400104	Sink shaft	1
37	036558002	Feed rock arm link	2
38	036550005	Screw	1
39	036540004--d	Bush	1

8、BOBBIN WINDER MECHANISM

No.	Ref.No.	Description	Qt.
1	207107000--w	Bobbin winder complete	1
1-1	S150237046	Screw M4X5	1
1-2	S150633007	Washer 4	1
1-3	207107015	Wrench	1
1-4	207107003	Bobbin support	1
1-5	207107004	Bobbin winder support	1
1-6	207107010	Bobbin winder cam shaft	1
1-7	207107002	Spring	1
1-8	207107012	Bobbin winder lever shaft	1
1-9	207107001	Bobbin winder shaft	1
1-10	207107014	Bobbin winder lever	1
1-11	207107005	Spring	1
1-12	S150866067	Bear 625ZZNR	2
1-13	207107011	Bobbin winder cam	1
1-14	S150212013	Screw M5X5	1
1-15	207107013	Spring	1
1-16	207107007	Bear bushing	1
1-17	S150617001	Retaining ting C6	1
1-18	207107006	Bobbin winder crank	1
1-19	S150299012	Screw M4x6	2
1-20	B062060768	Retaining ting E4	1
1-21	207107008	Bobbin winder wheel	1
1-22	207107009	Rubber ring	1
2	BXF9116009--w	Thread tension complete(S)	1
2-1	BX79078009--w	Nut	1
2-2	BX98669009	Washer	1
2-3	B900609089--d	Spring	1
2-4	B965664009	Tension disc	2
3	022830004	Screw SM3.57	2
4	001100009	Knife	1
5	0222100013--d	Screw	1
6	BXF9118909	Screw M5x6	3
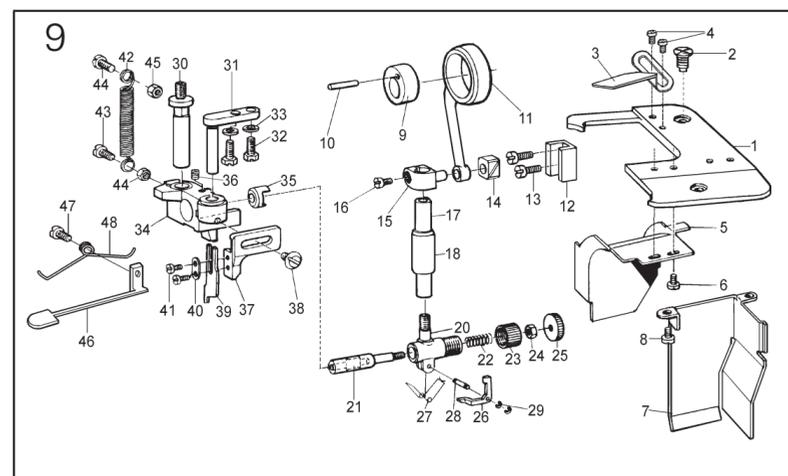
9、CUTTER MECHANISM

No.	Ref.No.	Description	Qt.
1	029800001	Throat plate	1
2	022100020	Screw	2
3	029800002	Waste material guide	1
4	022830004	Screw	2
5	029800101	Waste material chute	1
6	028300034	Screw	2
7	029800104	Waste material guard	1
8	022210009	Screw	1
9	029800006	eccentric cam	1
10	S150403005	eccentric cam pin	1
11	029800007	Knife driving rod	1
12	029800008	Slide block guide	1
13	022200019	Screw	2
14	022200020	Crank slide block	1
15	029800009	connection asm	1
16	036550008	Screw	1
17	029800010	Knife driving stud	1
18	029800011	Bushing	1
20	029800012	retainer	1
21	029800013	Knife driving rod clutch pin	1
22	029800014	Spring	1
23	029800015	Cap	1
24	028100035	Nut	1
25	029800016	Knob	1
26	029800017	Knife release lever	1
27	029800018	Spring	1
28	029800019	Pin	1
29	S150620008	Snap ring	2
30	029800020	Knife driving block stud	1
31	029800021	block	1
32	S150209033	Screw	2
33	217100024	Washer	2
34	029801000	Knife driving block asm	1
35	029801004	Clutch pin bushing	1
36	028700004	Screw	1
37	029800022	Knife holder	1
38	029800023	Screw	1
39	029800024	Knife	1
40	029800025	Washer	1
41	036710006	Screw	2
42	029800026	Tension spring	1
43	022100006	Screw	1
44	022510004	Screw	1
45	022900010	Nut	1
46	029700004	Wrench for knife driring blck	1
47	029700005	Screw	1
48	029700006	Spring	1