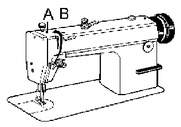
TYPICAL

INSTRUCTION BOOK
PARTS CATALOGUE

GC6150M/H/B SERIES

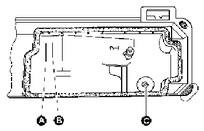
HIGH SPEED LOCKSTITCH SEWING MACHINE

※NOTE



Before putting a new machine into operation, remove the plugs(A) on the top of the arm and replenish sufficient amount of oil, then lift the presser foot and run the machine at a low speed of 2000 spm to check oil distributing condition through oil check window. When lubricating is normal, keep the machine run in at this speed for 30 minutes, then increase the running speed gradually. After one month run-in operation, the machine can be run at the Max speed under normal working

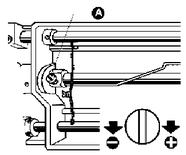
1. OIL FILLING



(1) The oil amount in the oil reservoir is controlled through the reference marks A and B shown in Fig2. The mark A indicates the max oil amount level, the mark B for the min . oil amount level . If the oil amount level is under the mark B replenish the oil reservoir with oil in time reservoir with oil in time.

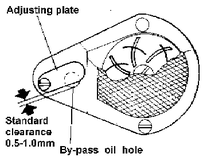
(2) When filling oil, loosen the oil draining screw (c), drain off the remaining oil in the oil reservoir completely, clean the oil reservoir and tighten the oil draining screw(c), then fill the oil reservoir with fresh oil.

2. 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.

3. OIL PUMP ADJUSTMENT

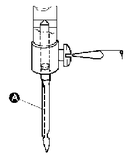


In ordinary operation , adjustment is not required for the oil pump , If oil splashing does not occur in the oil check window when the machine runs at a low speed , close the clearance of the bypass oil hole.

There isn't by-pass oil hole in GC6-9 series.

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.



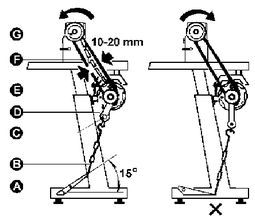
5. CONNECTION OF THE CLUTCH LEVER WITH THE PEDAL

(1) The optimum tilt angle of pedal is approximately 15 deg.

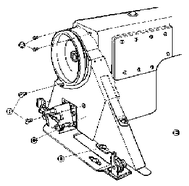
(2) Adjust the clutch so that the clutch lever (c) align with the draw bar (B) as shown in Fig.6

(3) The machine pulley should rotate counter clockwith when viewed from the outside of it. The rotating direction of motor pulley can be reversed by turning the plug of the motor at 180 deg.

(4) Adjust the tension of O-Belt (F) by moving the motor up and down , the proper tension of the O-belt is a slack of 10-20 mm when the belt is depressed at the center of the belt by finger.



6. BELT COVER INSTALLATION

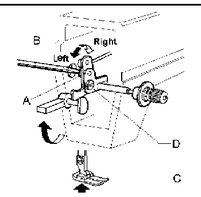


Install the belt cover for the sake of safety.

Install belt cover(C) to arm with screw(A)and screw(B) , and install belt cover(E) on board with screw(D).

Note: there aren't screw(A) and screw holes on belt cover in GC6-9.

7. ADJUST THE OPENING TIME OF THE TENSION DISCS

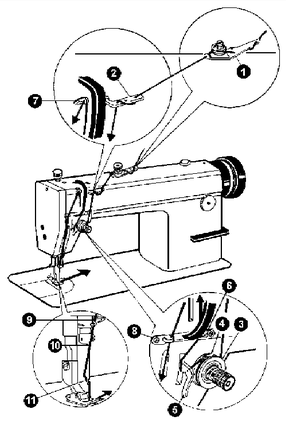


Within the presser foot lift range , the opening time of the tension discs can be adjusted as follows:

(1) Pemove the rubber plug from the back of the arm and Loosen the screw (A) of the knee lift level (left)

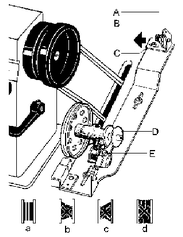
(2)Move the tension releasing cam (D) leftward for earlier opening or rightward for Later opening it will facilitate the adjustment if putting a block under the presser foot lift.

8. 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 Fig9 . 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 fool .

9. WINDNG INSTALLATION AND ADJUSTMENT



The bobbin winder pulley should Align with the V-belt and there should be some clearance between them . When the bobbin winder stop latch lever is depressed, the V-belt should be in touch with the bobbin winder bulley in order that the bobbin winder pulley can be driven by the V-belt.

The thread wound on the bobbin should be neat and tight if not tight , adjust the winding tension by turning the tension stud nut (A) of the bobbin winder tension bracket, when the thread wound on the bobbin does not present a cylindrical shape as shown in Fig.10 (a), Loosen the set screw(B) of the bobbin winder tension bracket and move the bracket (C) leftward or rightward, if the thread is wound as shown in the figure (b), move the bracket leftward or rightward of wound as shown in the figure(c) , move it leftward . After positionting the bracket adequetely, tighten the set screw (B)

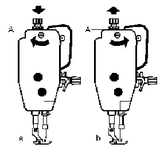
Do not overfill the bobbin, The optimum wound length of the thread will fill about 80% of the bobbin capecity . This can be adjusted by the screw(E) of the bobbin winder stop latch.

10. ADJUST THE PRESSURE OF PRESSER FOOT

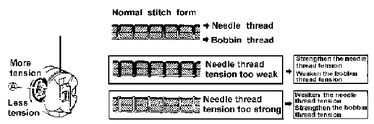
Pressure of the presser foot is adjusted in accordance with thickness of materials to be sewn.

First loosen the lock nut (A) , for heavy materials, turn the pressure regulating thumb screw as shown in Fig.11 (a)to increase the pressure , while for light materials , turn the pressure regulating thumb screw as shown in Fig.11(b) to decrease the pressure , the tighten the lock nut (A).

The pressure of the presser foot is recommended to be less as long as normal feeding is ensured.



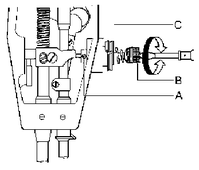
11. THREAD TENSION ADJUSTMENT

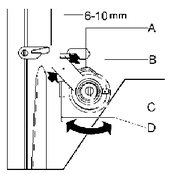


Thread tension should be determined in accordance with the stitch obtained by adjusting the tension of the bobbin thread and needle bension (Fig. 12).

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.



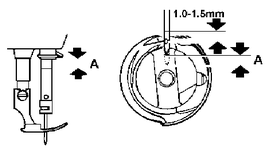


The stroke of the thread take-up spring runs from 6mm to 10mm , when sewing very thin fabrics, reduce the thread take-up spring tension and increase the thread take-up spring stroke , where as increase the thread take-up spring tension and reduce the thread take-up stroke when sewing very thick fabries.

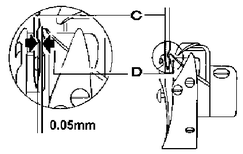
Adjusting the thread take-up spring tension : (Fig. 13) First loosen the set screw (A) , Turn the tension stud (B) counter-clockwise to decrease the tension of the thread take-up spring (c) to zero. then turn the tension stud (B) clockwise till the spring (c) comes to the notch of the tension regulating bushing. and again turn the tension stud (B) halfway back (counter clockwise), After the adjustment, tighten the set srew (A).

Adjusting the thread take-up spring stroke: (Fig. 14) 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).

12. ADJUST THE SYNCHRONIZATION OF THE NEEDLE WITH ROTATING HOOK



When lifting the needle bar from its lowest position 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 (Fig. 15)



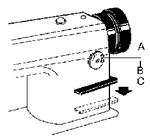
The clearance between the bottom of the needle notch and the hook point showd be 0.05 mm .

	M	H	B
A	202	2	2.4

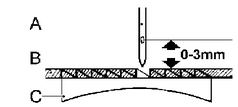
13. ADJUSTMENT OF STITCH LENGTH LENTH AND ADJUSTMENT

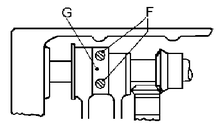
The stitch length can be adjusted by turning the dial (A). The figures on the face (B) of the dial show the stitch length in mm. the reverser feed lever must be depressed by another while adjusting the stiooh length. The reverse feeding starts when the reverse feed lever (c) is depressed, the machine will feed forward again if the reverse feed lever is released.

NOTE: Push the press key "PUSH" to adjust the stitch length. It's designed to prevent knob form rotating at working in GC6-8 and GC6-9 .



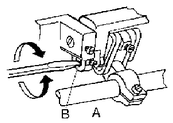
15. ADJUST THE SYNECHRONILATION OF THE NEEDLE MOTION WITH FEED MOTION





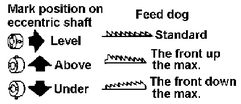
To adjust the feed dog position (C), first should release the two set screw (F) and turn around the balance wheel by hand . When the needle (A) point reaches the surface of the throat plate (B), the top of the feed dog (C) shoud be flush with the throat plate surface.

16. STITCHLENGTH ERROR ADJUSTMENT

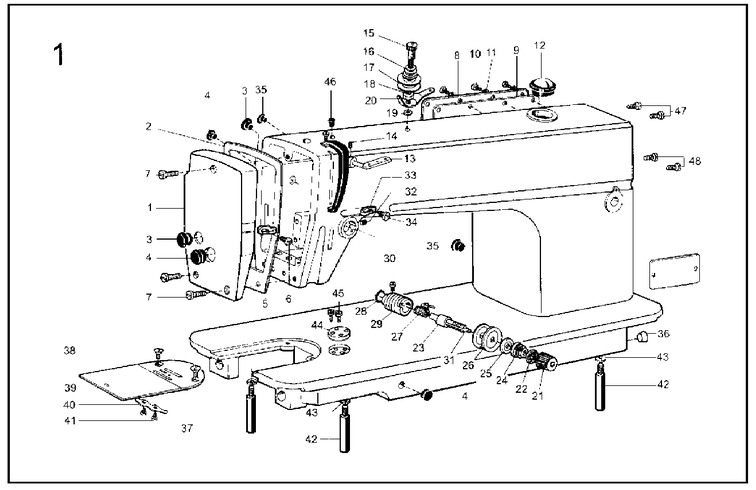


Loosen screw (A) to adjust the stitch length adjusting cam (B). Turn it rightward to narrow the stitch length as forward sewing, and widen it as reverse sewing; turn it leftward to widen the stitch length as foword sewing, and narrow it as reverse sewing .

17. FEED DOG HORIL ONTALLTY ADJUSTMENT



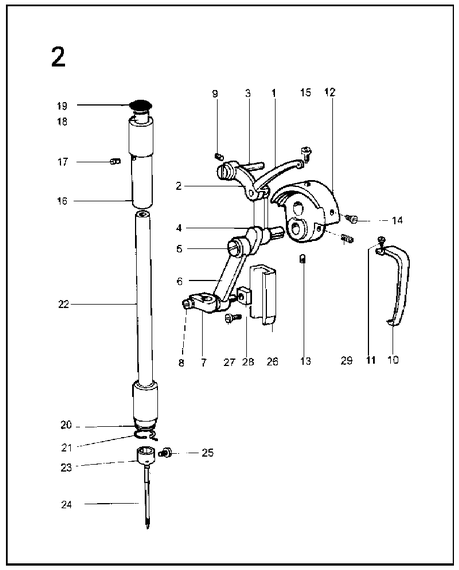
Heighten the front of feed dog to prevent fabric from wrinkling , lower the front of feed dog to prevent fabric from defection, breeking of hook thread.



1. ARM BED AND ITS ACCESSORIES

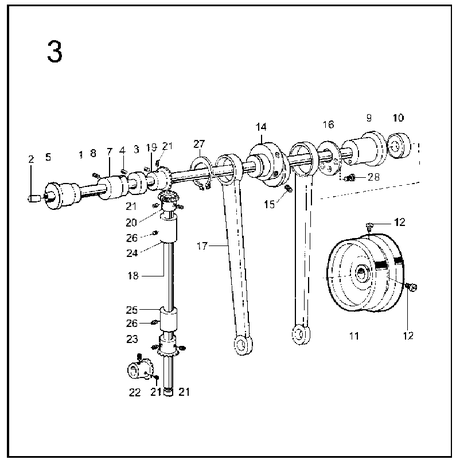
No.	Ref. No.	Description	Qt. M	Qt. H	Qt. B
1	124120001	Face plate	1	1	1
2	124120002	Gasket for Face plate	1	1	1
3	022130003	Rubber plate	2	2	2
4	022130004	Rubber plate	3	3	3
5	022130005	Thread guide on face plate	1	1	
	078130001	Thread guide on face plate			1
6	022130006	Thread guide screw	1	1	1
7	022100004	Face plate screw	3	3	3
8	022140001	Back plate	1	1	1
9	022140002	Gasket for rack plate	1	1	1
10	022100006	Set screw	8	8	8
11	022100007	Washer	8	8	8
12	022180001	Oil check window	1	1	1
13	022100010	Three hole thread guide	1	1	1
14	124100006	Set screw	1	1	1
15	022150001	screw	1	1	1
16	022150002	Spring for pre-tension	1	1	1
17	022150003	Discs for pre-tension	2	2	2
18	022150004	Washer	1	1	1
19	S4A0105006	Spring washer	1	1	1
20	022150005	Thread guide for pre-tension	1	1	1
21	124130001	Knub for thread tension regulator	1	1	1
22	022160010	Thumb nut revdution stoper	1	1	1
23	022160001	Thread tension stud	1	1	1
24	124130002	Thread tension spring	1		
	048110001	Thread tension spring		1	1

No.	Ref. No.	Description	Qt. M	Qt. H	Qt. B
25	022160004	Thread tension releasing disc	1	1	1
26	022160005	Thread tension disc	2	2	2
27	022160006	Thread take-up spring	1		
	048110002	Thread take-up spring		1	1
28	022160011	Rubber ring	1	1	1
29	022160007	Thread tension regulating bushing	1	1	1
30	022160008	Set screw	1	1	1
31	022160009	Thread tension releasing pin	1	1	1
32	022100013	Set screw	1	1	1
33	022100014	Thread guide for arm center	1	1	
	078100005	Thread guide for arm center			1
34	022130006	Set screw	1	1	1
35	022100015	Rubber plug	2	2	2
36	022100015	Rubber plug	1	1	1
37	124100005	Needle plate	1		
	048100004	Needle plate		1	1
38	022100020	Needle plate screw	2	2	2
39	022170001	Slide plate	1	1	1
40	022170002	Spring for slide plate	1	1	1
41	022170003	Screw	2	2	2
42	048100005	Leg	3	3	3
43	S4A0400011	Washer	2	2	2
44	057100008	Ruler plate	1	1	1
45	124100004	Ruler screw	2	2	2
46	022100017	Red rubber plug	1	1	1
47	036550005	Screw	2	2	2
48	022900006	Screw	2	2	2



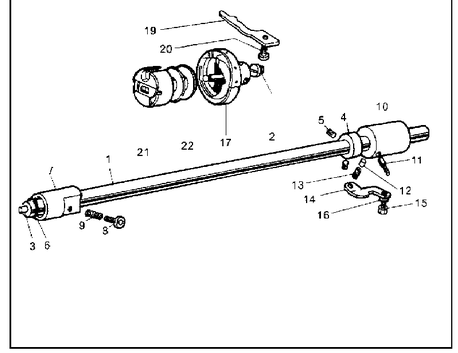
2. NEEDLE BAR AND THREAD TAKE – UP MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	02221	Thread take – up lever	1		
	04821	Thread take – up lever		1	
	07821	Thread take – up lever			1
2	022210002	Thread take – up link	1	1	1
3	022210003	Thread take – up lever hinge pin	1	1	1
4	022210004	Thread take – up crank	1		
	07810002	Thread take – up crank		1	1
5	022210006	Set screw (left hand thread.)	2	2	1
6	02225	Needle bar link ass	1		
	04821002	Needle bar link ass		1	1
7	022210008	Needle bar connecting bar joint	1	1	1
8	022210009	Screw	1	1	1
9	022220002	Screw	1	1	1
10	036200007	Take – up lever guard	1	1	
	078200002	Take – up lever guard			1
11	022200004	Screw			1
12	02220001	Needle bar crank	1	1	
	04822001	Needle bar crank			1
13	048220002	Screw	1	1	1
14	022200006	Screw	1	1	1
15	022220007	Thread take – up crank position screw	1	1	1
16	153200004	Needle bar bushing(upper)	1	1	1
17	022200009	Set screw	1	1	1
18	022200010	Felt plug	1	1	1
19	022220011	Red rubber plug(Ø8.8)	1	1	1
20	153200005	Needle bar bushing(lower)	1		
	124200006	Needle bar bushing(lower)		1	1
21	022230002	Thread guide for needle bar bushing	1	1	1
22	153200003	Needle bar	1		
	078200004	Needle bar		1	1
23	048200004	Thread guide for needle bar	1	1	1
24	022200016	Needle14# DP×1	1		
	S150901012	Needle18# DP×5		1	
	S150901013	Needle22# DP×5			1
25	022200017	Needle clamp screw	1	1	1
26	022200018	Needle bar connecting link guide	1	1	1
27	022200019	Set screw	2	2	2
28	022200020	Slide block	1	1	1
29	022220003	Thread take – up crank position screw	1	1	1



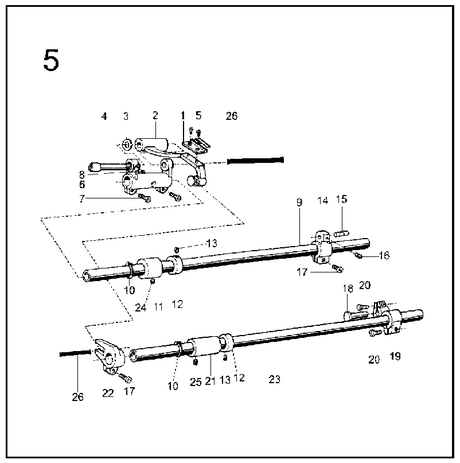
3. ARM SHAFT AND VERTICAL SHAFT MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	124310001	Arm shaft	1	1	1
2	022310002	Rubber plate	1	1	1
3	022320001	Collar for arm shaft	1	1	1
4	022320002	Set screw	2	2	2
5	022300003	Arm shaft bushing(left)	1	1	1
7	022300004	Arm shaft bushing(Middle)	1	1	1
8	022200002	Set screw	1	1	1
9	108300005	Arm shaft bushing(right)	1	1	1
10	124330002	Oil seal	1	1	1
11	153310001	Balance wheel	1	1	1
12	022330002	Set screw	2	2	2
14	036300003	Eccentric wheel	1		
	114300001	Eccentric wheel		1	1
15	022100013	Eccentric wheel screw	2	2	2
16	036300004	Spacer	1	1	1
17	022343001	Crank rod for lifting rock shaft	1	1	1
18	022350001	Vertical shaft	1	1	1
19	Z0A180891	Bevel gear for arm shaft	1	1	1
20	Z0A180892	Bevel gear for vertical shaft (upper)	1	1	1
21	022220003	Set screw	8	8	8
22	Z0A180886	Bevel gear for hook shaft	1	1	1
23	Z0A180885	Bevel gear for vertical shaft(lower)	1	1	1
24	02230011	Vertical shaft bushing(upper)	1	1	1
25	022300112	Vertical shaft bushing (lower)	1	1	
	078300002	Vertical shaft bushing (lower)			1
26	022220002	Set screw	2	2	2
27	022342001	Retaining ring	1	1	1
28	165330001	Screw	3	3	3



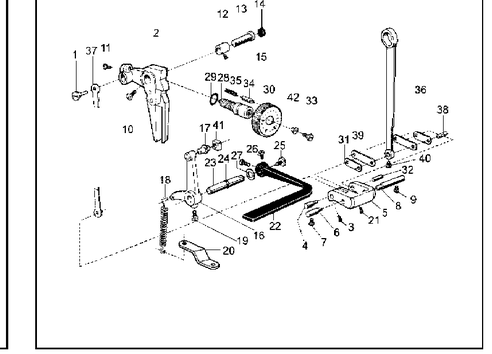
4. ROTATING HOOK MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	036440001	Hook shaft	1	1	
	120400001	Rotating hook shaft			1
2	022411001	Filter screw	1	1	1
3	022411002	Filter	1	1	1
4	022420001	Coller for hook shaft	1	1	1
5	022200009	Set screw	2	2	2
6	022400109	Oil seal for rotationg	1	1	1
7	022400004	Hook shaft bushing(left)	1	1	1
8	022400005	Oil adjusting screw	1	1	1
9	022400006	Spring for oil adjuster	1	1	1
10	036460001	Hook shaft bushing(right)	1	1	1
11	022430002	Oil pipe for hook shaft bushing	1	1	1
12	036400015	Plunger	1	1	1
13	036400016	Plunger spring	1	1	1
14	022400010	Guide plate	1	1	
	078400006	Guide plate			1
15	022900006	Screw	1	1	1
16	S4A0400011	Spring washer	1	1	1
17	02247	Rotating hook	1		
	04842	Rotating hook		1	
	07842	Rotating hook			1
19	022400013	Rotating hook positioner	1		
	048400002	Rotating hook positioner		1	
	078400003	Rotating hook positioner			1
20	022400015	Screw	1	1	1
21	02246	Bobbin case	1	1	
	07846	Bobbin case			1
22	036400006	Bobbin	1		
	048400003	Bobbin		1	
	078400005	Bobbin			1



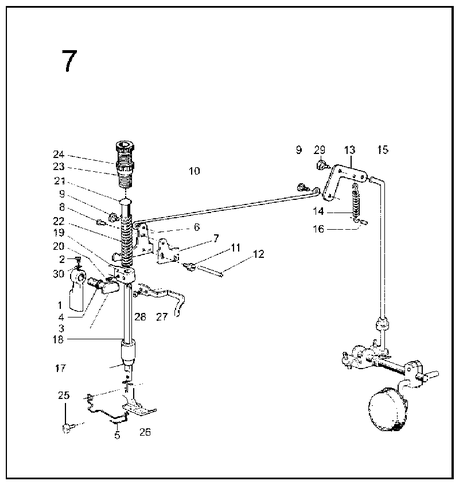
5. FEEDING AND FEED LIFTING MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	022610003	Feed dog	1		
	048610002	Feed dog		1	1
2	036411	Feed bar	1	1	1
3	02210006	Washer	1	1	1
4	036410002	Feed bracket shaft	1	1	1
5	022610004	Screw	2	2	2
6	022611001	Feed rock bracket arm	1	1	1
7	022612001	Screw	2	2	2
8	022200019	Screw	1	1	1
9	124600002	Feed rock shaft	1	1	1
10	S4A0500010	C – type stop ring	2	2	2
11	022600004	Feed rock shaft bushing	1	1	1
12	022620001	Collar	2	2	2
13	022320002	Set screw	4	4	4
14	036400003	Feed rock shaft crank(right)	1		
	114400001	Feed rock shaft crank(right)		1	1
15	036400204	Feed link stod	1	1	1
16	036550005	Set screw	1	1	1
17	022640003	Screw	2	2	2
18	022600007	Hinge	1	1	1
19	036400017	Feed lifting rock shaft crank(right)	1	1	1
20	022600016	Screw	2	2	2
21	022600012	Bushing for feed lifting rock shaft	1	1	1
22	036484001	Feed lifting shaft crank	1	1	1
23	124600003	Feed lifting rock shaft	1	1	1
24	022200009	Set screw	1	1	1
25	022200002	Set screw	1	1	1
26	036410003	Wick	2	2	2



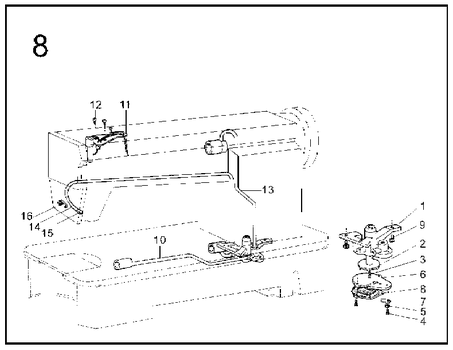
6. STITCH LENGTH REGULATING MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	036500001	Connecting stud	1	1	1
2	057500001	Feed regulator	1	1	1
	124500003	Feed regulator			
3	036550008	Screw	1	1	1
4	036550009	Lever link eccentric shaft	1	1	1
5	036550010	Lever regulator	1	1	1
6	036580002	Pin(left)	1	1	1
7	022640003	Screw	1	1	1
8	036580001	Pin(right)	1	1	1
9	022640003	Screw	1	1	1
10	022510004	Screw of feed regulator	1	1	1
11	022640003	Screw	1	1	1
12	02250003	Feed regulator bushing	1	1	1
13	022500004	Feed regulator shaft	1	1	1
14	022500005	Rubber plug (Ø20)	1	1	1
15	02200002	Set screw	1	1	1
16	022560001	Back tacking crank	1	1	1
17	022561001	Slide block pin	1	1	1
18	057520001	Lever spring	1	1	1
19	022500013	Set screw	1	1	1
20	057500005	Backtacking for spring	1	1	1
21	036550007	Screw	1	1	1
22	124500004	Backtacking lever	1	1	1
23	036531001	Backtacking lever shaft	1	1	1
24	S4A0604005	O – ring 6.3×1.8G	1	1	1
25	022540003	Screw	1	1	1
26	022540004	Screw	2	2	2
27	022500011	O – ring	1	1	1
28	124510002	Feed regulator screw	1	1	1
29	124510003	O – ring for feed regulating screw	1	1	1
30	124510001	Knob	1		
	124510005	Knob		1	1
31	036558001	Feed rock link	1	1	1
32	036550006	Pin	1	1	1
33	036540005	Screw	1	1	1
34	022500008	Stopper pin	1	1	1
35	022500009	Spring for stopper pin	1	1	1
36	036550002	Lever feed connecting rod	1	1	1
37	036550003	Feed regulator link	1	1	1
38	036400104	Sink shaft	1	1	1
39	036558002	Feed rock arm link	2		
	114500003	Feed rock arm link		2	2
40	036550005	Screw	1	1	1
41	022551002	Crank slide block	1	1	1
42	036540004	Bushing	1	1	1



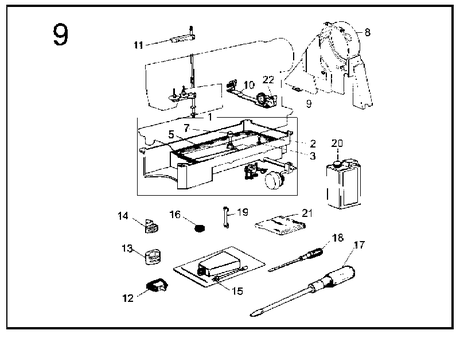
7. 压脚部件

序号	图号	名称	件数		
			M	H	B
1	022710001	压脚扳手	1	1	1
2	022100006	压脚扳手螺钉	1	1	1
3	022700002	压脚扳手凸轮	1	1	1
4	036620002	压紧杆提升凸轮油封(4.5×1.8G)	1	1	1
5	057700002	压脚护簧	1	1	1
6	022721001	膝控提升杆(左)	1	1	1
7	022722001	松线凸轮	1	1	1
8	022723001	膝控提升杆(左)螺钉	1	1	1
9	022720002	铰链螺钉	2	2	2
10	022720003	膝控提升拉杆	1	1	1
11	022700005	松线凸轮螺钉	1	1	1
12	022700006	松线杆	1	1	1
13	022730001	膝控提升杆(右)	1	1	1
14	022730002	膝控提升杆(右)弹簧	1	1	1
15	022730003	膝控提升连杆	1	1	1
16	022700008	弹簧销	1	1	1
17	022700009	压紧杆轴套	1	1	1
18	022700010	压紧杆	1	1	1
19	022740001	压紧杆导架	1	1	1
20	022100013	压紧杆导架螺钉	1	1	1
21	022100012	压紧杆弹簧导柱	1	1	1
22	022700013	压紧杆弹簧	1		
	048700002	压紧杆弹簧		1	1
23	022750001	调压螺钉	1	1	1
24	022750002	调压螺钉锁紧螺母	1	1	1
25	022700015	压脚螺钉	1	1	1
26	02276	压脚组件	1		
	04871	压脚组件		1	1
27	022700016	大线勾	1	1	1
28	022200004	大线勾螺钉	1	1	1
29	022730004	膝控提升杆(右)螺钉	1	1	1
30	022100007	压脚扳手螺钉垫片	1	1	1



8. LUBRICATION MECHANISM

No.	Ref. No.	Description	Qt.		
			M	H	B
1	022800001	Oil pump body	1	1	1
2	022800002	Oil pump impeller	1	1	1
3	022800003	Screw	1	1	1
4	022800004	Screw	3	3	3
5	S4A0400012	Spring washer	1	1	1
6	022800006	Oil pump fitting plate	1	1	
	078800001	Oil pump fitting plate			1
7	022800007	Oil adjusting plate	1	1	1
8	022810001	Oil pump screen complete	1	1	1
9	022800009	Screw	3	3	3
10	022820N	Oil pipe for hook shaft	1	1	1
11	022831	Oil braid fitting plate	1	1	1
12	022700015	Screw	2	2	2
13	022840N	Oil pipe for arm shaft	1	1	
	078800002	Oil pipe for arm shaft			1
14	022800014	Oil returning pipe	1	1	1
15	022800015	Felt pouch for return oil filter	1	1	1
16	036A00002	Spring for oil felt	1	1	1



9. OIL RESERVOIR AND OTHER ACCESSORIES

No.	Ref. No.	Description	Qt.		
			M	H	B
1	036C10001	Oil reservoir complete	1	1	1
2	022910002	Oil drain screw	1	1	1
3	022910003	Washer	1	1	1
5	022910005	Gasket for oil reservoir	1	1	1
7	165F01001	knee lifter lifting rod	1	1	1
8	124920005	Belt guard complete	1	1	1
9	124920001	Belt guard complete(S)	1	1	1
10	006F01001	Thread winder complete	1	1	1
11	006F30030	Spool stand	1	1	1
12	02299	Machine head hinge complete	2	2	2
13	022900009	Cushion(big)	2	2	2
14	022900010	Cushion(small)	2	2	2
15	W050202001	Oil pot	1	1	1
16	W050103001	Magnet	1	1	1
17	W050102050	Screwdriver(long)	1	1	1
18	W050102051	Screwdriver(short)	1	1	1
19	W210105011	Double – open – end wrench	1	1	1
20	W0502020091	Oil tank	1	1	1
21	W060302036	Machine cover	1	1	1
22	006F40001	Bobbin winder stop latch	1	1	
	006F00104	Bobbin winder stop latch			1

GC6150 Series machine´s main technical data

Model / Item	M	H	B
Use for	Common materials	Thick materials	Thick materials
Sewing speed	5000 spm	3500 spm	3000 spm
Max. Stitch length	5 mm	7 mm	
Presser foot lift	13 mm		
Needle	DB×1 11#—14#	DP×5 18#–22#	
Rotating shuttle	Standard automatic oiling	Thick materials automatic oiling	Twice automatic oiling
Motor	Sewing machine motor(370W)		

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