HIGHLEAD

GC20518 Series

Twin-Needle High Speed Lockstitch Sewing Machine

Instruction Manual

Parts Catalog

SHANGHAI HUIGONG NO.3 SEWING MACHINE FACTORY

CONTENTS

PRECAUTIONS BEFORES STARING OPERATION

1. Safety precautions

1) When turning the power on, keep your hands and fingers away from the area around/under the needle and the area around the pulley.
2) Power must be turned off when the machine is not used, or when the operator leaves his/her seat.
3) The power must be turned off before tilting the machine head, installing or removing the "V" belt, adjusting the machine, or when replacing.
4) Avoid placing fingers, hairs, bars etc. near the pulley, "V" belt, bobbin winder pulley, or motor when the machine is operation. Injury could result.
5) Do not insert fingers into the thread take-up cover, under/round the needle, or pulley when the machine is in operation.
6) If a belt cover, finger guard, and/or eye guard are installed, do not operate the machine without these safety devices.

2. Precaution before Starting Operation

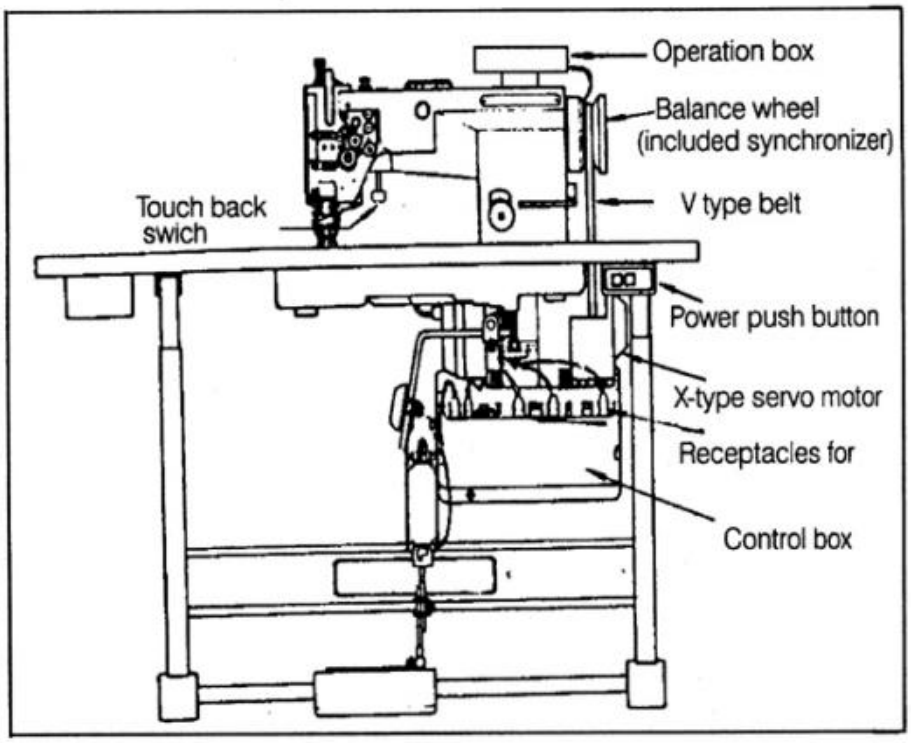
1) If the machine's oil pan has an oil sump, never operate the machine before filling it.
2) If the machine is lubricated by a drop oiler, never operate the machine before lubricating.
3) When a new sewing machine is first turned on, verify the rotational direction of the pulley with the power on. (the pulley should rotate counterclockwise when viewed from the pulley.)
4) Verify the voltage and (single or three) phase with those given on the motor nameplate.

3. Precaution for Operating Conditions

1) Avoid using the machine at abnormally high temperature (35℃ or higher) or low temperature (5℃or lower). Otherwise, machine failure may result.
2) Avoid using the machine in dusty conditions.
   Avoid using the machine in areas where too much electrical noise, resulted from the high-frequency welder and others, is generated.

PREPARATION FOR OPERATION

Overall view of assembled sewing machine



1. Power cable connection

1) Connection to Power Supply

When connecting the power supply connector to the control box, the connector should be completely plugged in the proper receptacle after confirming the connector type and matching direction.

A. In case of three-phase electrical power system, the "U" phase should be connected to the red lead, the "V" phase to the white lead, and the "W" phase to the black lead. The motor rotary direction depends, however, upon the setting of the internal switch in the control box as described in Paragraph 1-(3)

CAUTION: The green wire must be connected to the ground terminal in order to ground the motor properly.

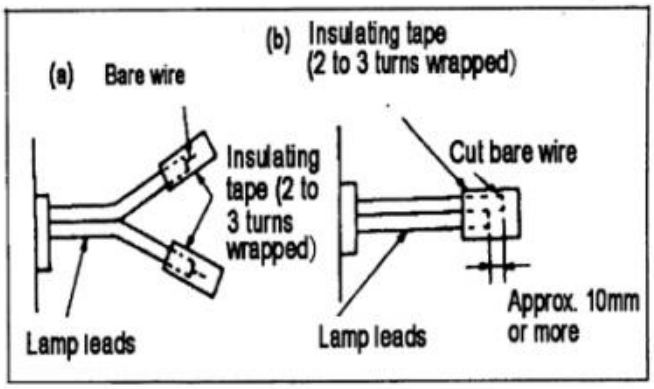
B. The appropriate power fuse capacity is as follows.

Power supply 200V-240V: 10A

100V-120V: 15A

2) Lamp Leads

A. When installing the illuminating lamp (6V,15-20W),The connecting wire is attached on the back of the Control box. It should be removed and connected by removing the insulating tube from the wire and stripping properly.



The wire connections should be, then, insulated by wrapping insulating tape on the wires.

CAUTION: The power switch must be Turned off before connecting the lamp.

B. When the illuminating lamp is not used, the end of the lamp leads must be insulated as (a) or (b) as shown in the figure on right side. If a short circuit occurs failing to insulate, the transformer in the control box will be possibly burned out.

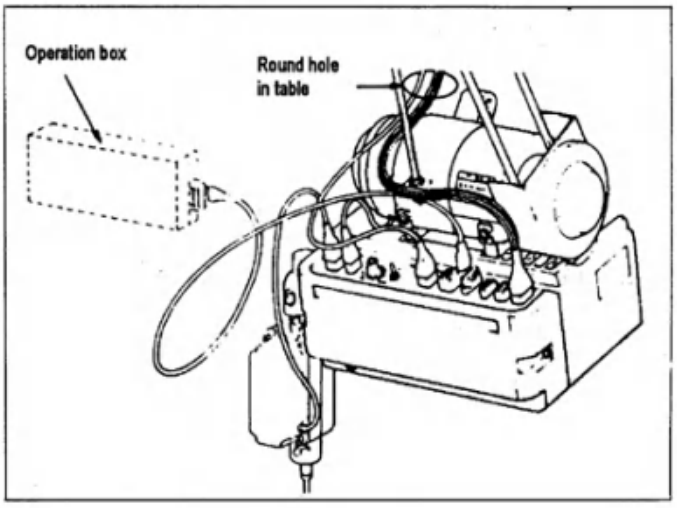
CAUTION: The illuminating lamp must not be connected with any heater, such as a foot warmer and others, in parallel. Otherwise, the load capacity will be exceeded. It may cause transformer winding burned out.

3) Rotary direction

It is possible to change the rotary direction of the motor by removing the rubber cap from the bottom left side of the front cover on the control box, and push the internal direction selector switch. The built-in lamp in the internal switch is off when the motor is rotating counterclockwise as facing to the motor pulley, and on when rotating clockwise. The rotary direction has been set to counterclockwise as facing to the motor pulley, matching with the machine prior to shipping

2. Connection of control box

The control box should be connected as shown to the right.



Note: (1) Be sure to turn the power switch off for safety before connecting or disconnecting the connectors.

(2) The combination of the machine heads with the motor control panels are specified below. Use special care for the correct combination when replacing the machine head or motor control panel.

3. Adjustment of needle bar stop position

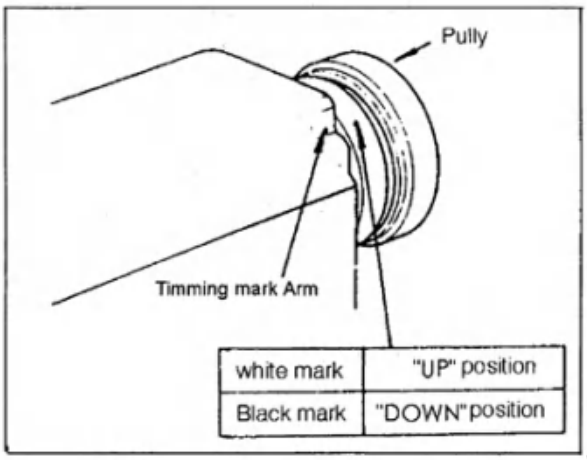
1) Adjust of "UP" position

When the pedal is kicked down by heel, the machine stops at "UP" position. If the marks deviate larger than 3 mm, adjust as follows.

a) Disconnect the plug (12 pins) of cable from the machine head.

b) Run the machine and stop at "UP" position.

c) While holding the pulley, insert the "adjusting



tool" in the hole" A", then remove the tool.

2) Adjust of "Down" position

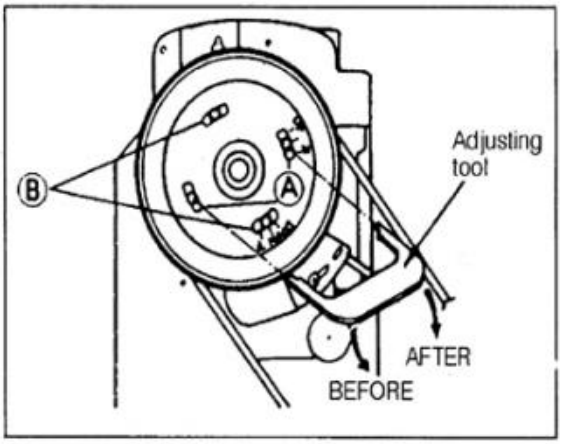
When the pedal is "Neutral" the machine stops at "Down" position. If the marks deviate large than 5 mm, adjust as follows.

a) Disconnect the plug (12 pins) of cable from the machine head

b) Run the machine and stop at "Down" position.

c) While holding the pulley, insert the "adjusting tool" in the hole "B", then remove the tool.

3) Confirm the stop operation, then set the plug (12 pings) coming from the machine head into the receptacle.



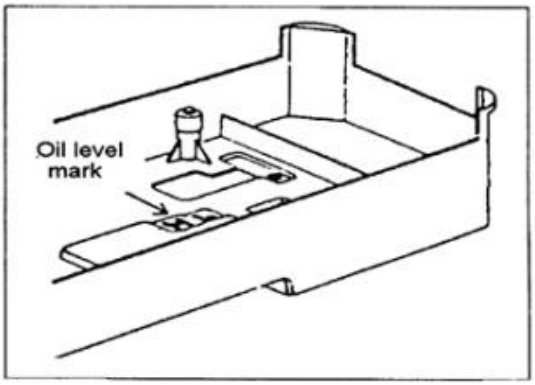
CAUTIONS ON USE

1. Oiling (1)

Fill the oil reservoir with oil up to "H" mark.

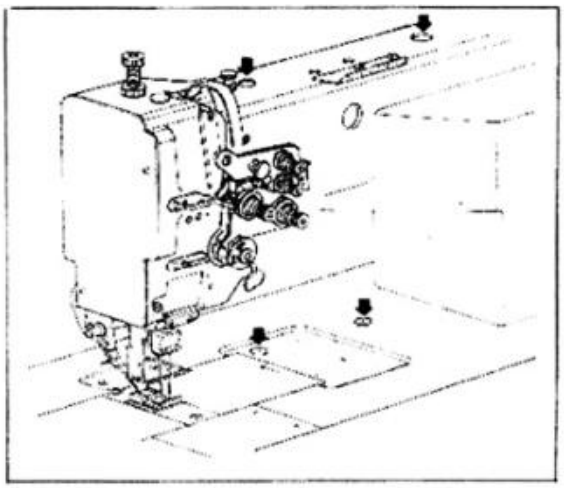
Oil level should be periodically checked. If oil level is found below "L" level replenish oil to "H" level .

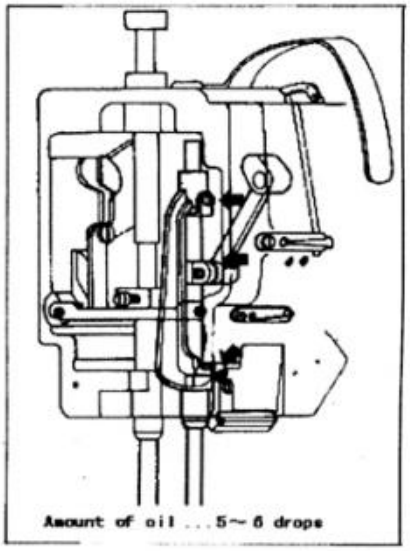
For oil, Use white spindle oil1.



2. Oiling (2)

When a new sewing machine is used for the first time, or sewing machine left out of use for considerably long time is used again, replenish a suitable amount of oil to the portions indicated by arrow in the below figure



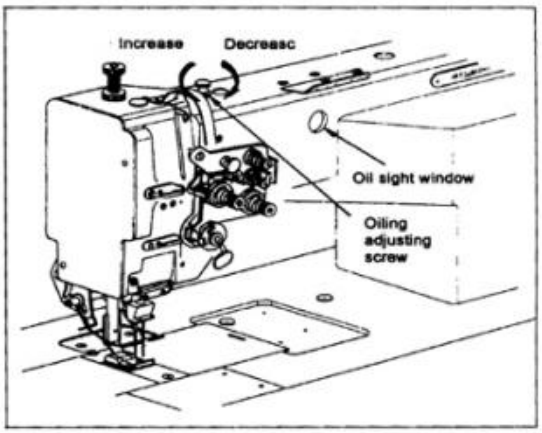


3. Oiling condition

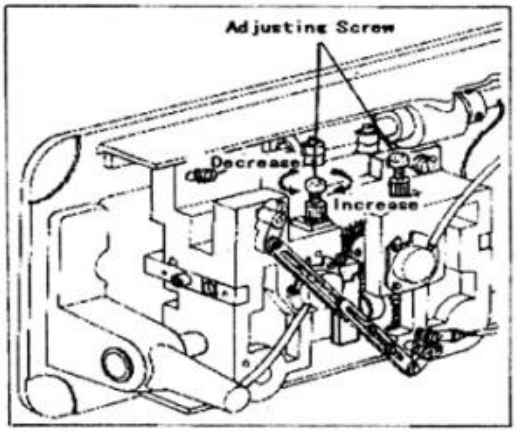
(1) See dripping of oil during operation through the oil sight window to check oiling condition in the

machine arm.

(2) Please use the oiling adjusting screw with respect to oiling to take-up lever mechanism.



4. Adjustment of oiling to rotating hook



5. Cautions on operation

a) When the power is turned on or off, keep foot away from the pedal.

b) It should be noted that the brake may not work when the power is interrupted or power failure occurs during sewing machine operation.

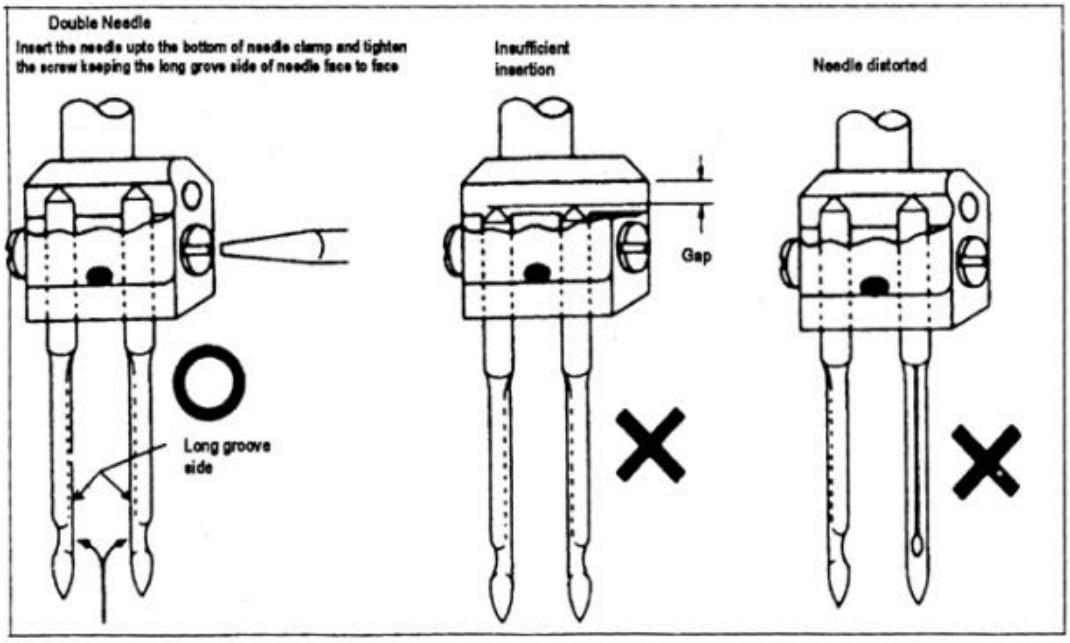
c) Since dust in the control box might cause malfunction or control troubles, be sure to keep the control box cover close during operation.

d) Do not apply a multimeter to the control circuit for checking; otherwise voltage of multimeter might damage semiconductor components in the circuit.

OPERATION

1. Installation of needles

Note: Before installing the needles, be sure to turn off the power.

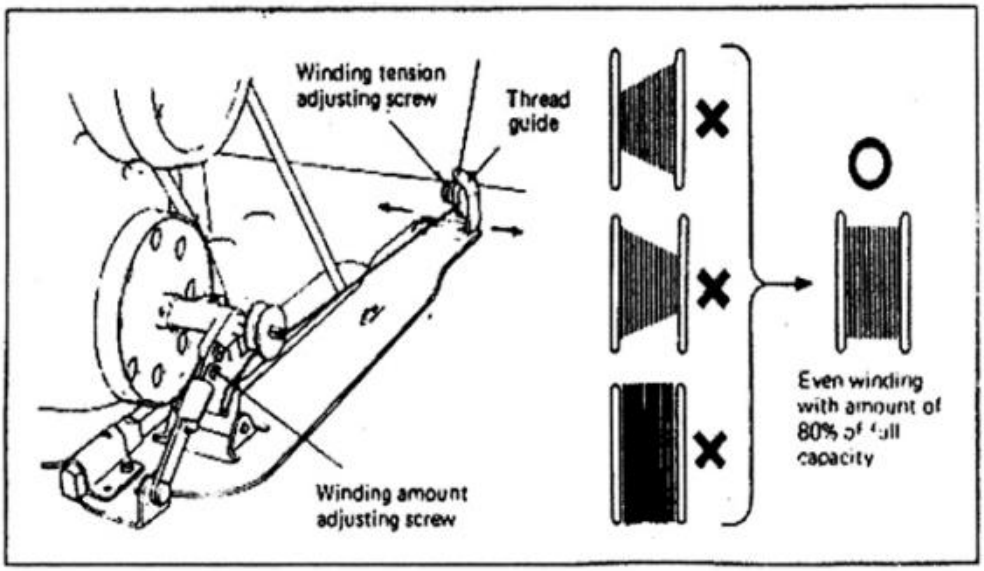


2. Winding of bobbin thread

Note: When bobbin thread is wound, keep the presser foot lifted.

Adjustment:

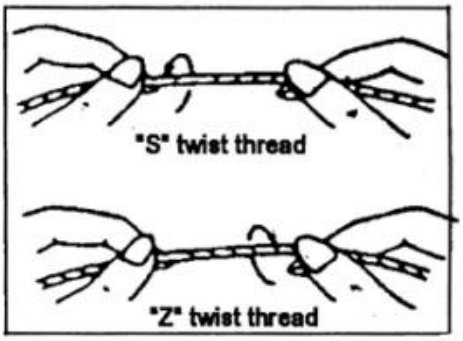
Tension of wound thread	Slack winding is recommended for polyester thread and nylon thread.
Conically wound thread	Move the thread guide toward smaller diameter of wound thread layer.
Length of wound thread	Loosen the thread length adjusting screw to increase length of thread and tighten the screw to decrease length of thread.



3. Selection of thread

It is recommended to use "S" twist thread in the left needle (viewed from front), and "Z' twist thread in the right needle. When discriminate use of needle threads is impossible, use "Z" twist thread in both the needles.

For bobbin thread, "S" twist thread as well as "Z" twist thread can be used.



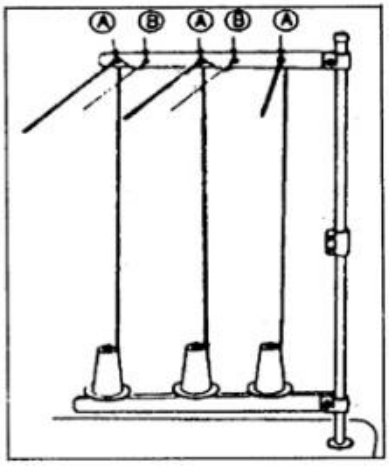
4. Threading of needle threads

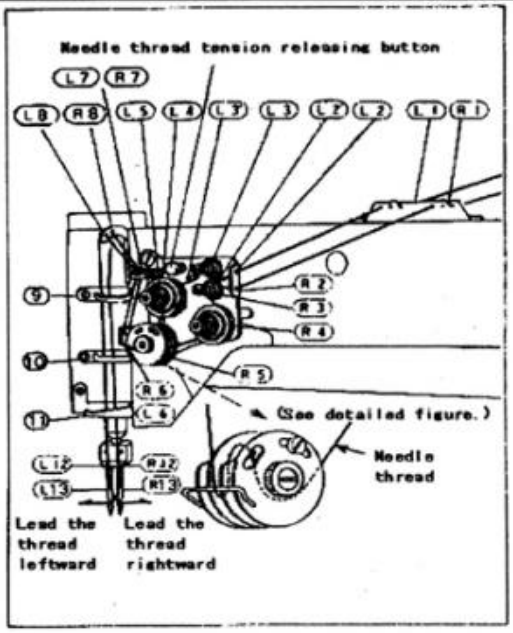
a) Pass each needle thread through thread guide A

Note: When thin slippery thread (polyester Thread or filament thread, for example) is used pass the thread through thread guide B as well.

b) With the take-up lever located at the upper most position, pass each needle thread in the order shown in the following figure.

Note: Pressing the upper thread loosening button shown in the figure below opens the saucer of the upper thread tension adjuster, and the upper thread can easily pulled out.

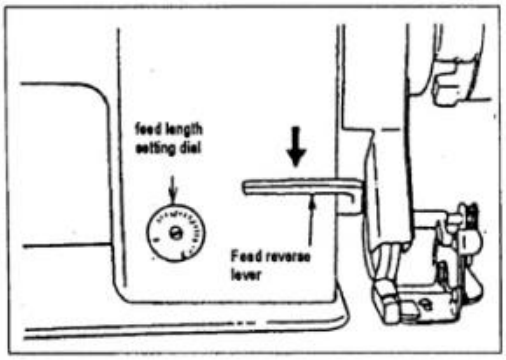


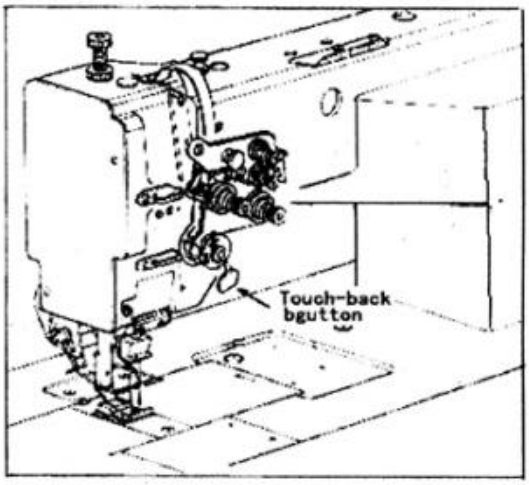


5. Adjustment of feed (stitch) length and stitch reversing (touch back)

Note: To make feed (stitch) length smaller, depress the feed reverse lever and set the feed length setting dial to a desired position

Touch-back button . . . Direction of stitching can be reversed by depressing this button. Stitching goes on in reversed direction while the button is held down, and returns to forward direction when the button is released.

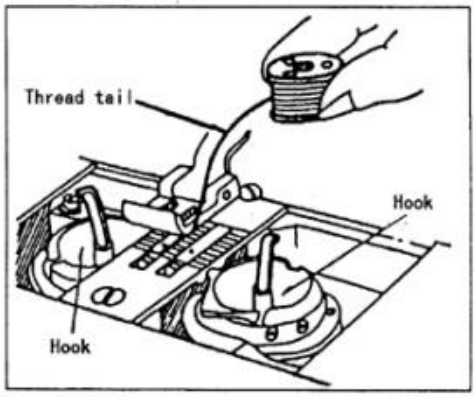




6. Setting of bobbin

a) Pulling out 5.cm thread tail from the bobbin.

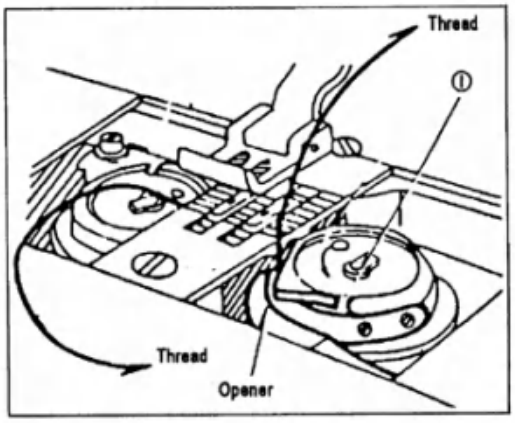
b) Hold the bobbin so that the bobbin thread is would in right direction and put it into the hook.



7. Adjusting of needle thread guide

Please adjust needle thread guide of needle thread tension according to sewing condition.

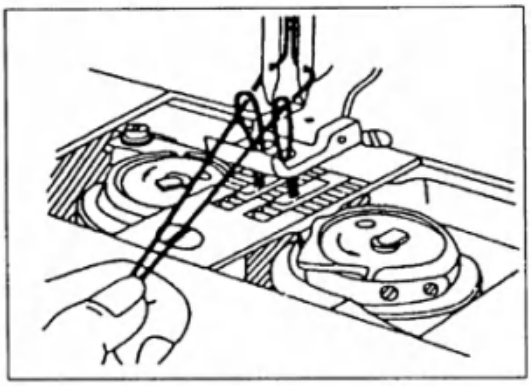
Thread guide position	Left	Middle	Right
Materials	The thicker than standard	L, M, B } Stand-ard	The thinner than standard
Needle thread supply	More	Standard	Less



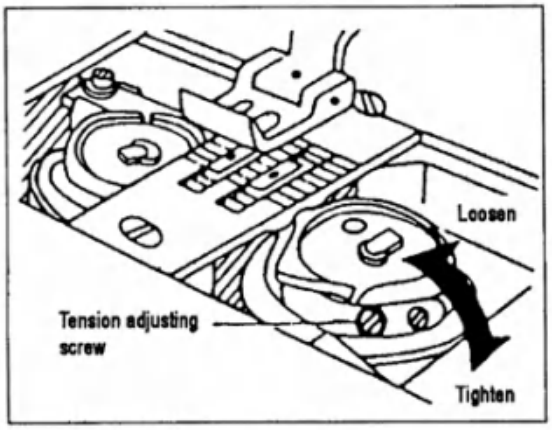
8. Threading of bobbin threads

(1) Put the hook into the bobbin case and press down the latch ①. The thread end should be left on the bed.

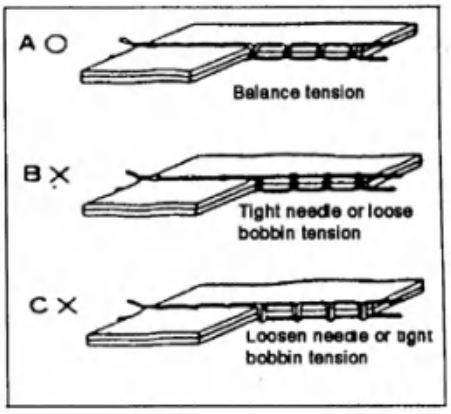
(2) While holding the two needle threads by left hand, rotate the handwheel one turn by right hand. By pulling up the needle threads, as shown in the figure, the bobbin threads will be lifted. Both of bobbin thread and needle thread should be aligned and led backward.



9. Tension adjustment of bobbin threads

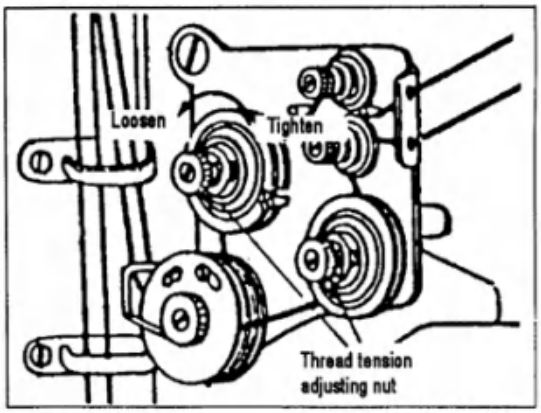


10. Balance of thread tension



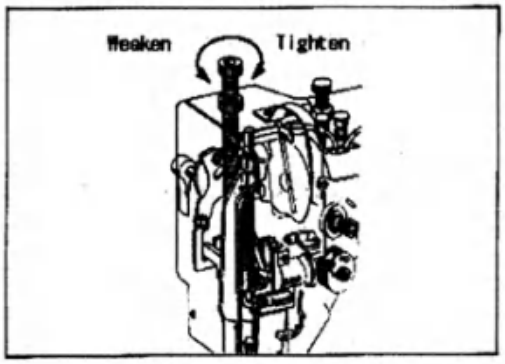
11. Needle thread tension

- Needle thread tension should be adjusted in reference to bobbin thread tension.
- To adjust needle thread tension, turn each tension adjusting nut.
- Needle thread tension can be also adjusted for special fabric and thread by changing intensity and movable range of slack thread adjusting spring.



12. Adjustment of presser foot pressure

Pressure to fabric(s) can be adjusted by turning The pressure adjusting screw.



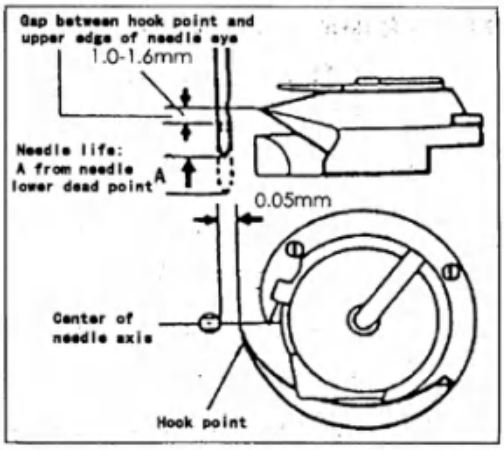
13. Timing between rotating hook motion and needle motion

(1) Set stitch length on the stitch length setting dial shown table.

(2) When needle is lifted A shown table, from the lowest positional, as shown in Figure, the following positional ship should be maintained.

- The upper edge of needle eye should be 1.0-1.6mm below the hook point.
- The hook point should be located at the center of needle axis.
- Gap between the hook point and the side face of needle should be 0.05mm.

Class	-M	-B	-H
Set the stitch length	3	4.5	4.5
Needle life A	2.2mm	2.4mm	2.4mm



• Position adjustment of hook point

Adjust the hook point so that it comes to the center of needle axis.

(1) Lean the machine head backward and loosen three set screws of hook shaft gear (small)

(2) Turn the balance wheel and stop when the needle is lifted A mm shown table from the lowest position.

(3) Rotate the hook by hand to position the hook point to the center of needle axis.

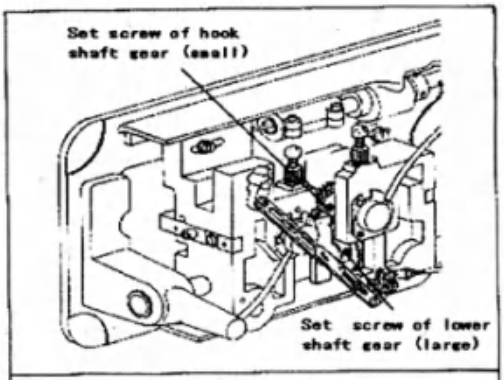
(4) Move the hook bracket leftward or rightward and position it so that gap between the hook point and side face of needle is 0.05mm.For this adjustment, each screws A, B and two of C should be loosened.

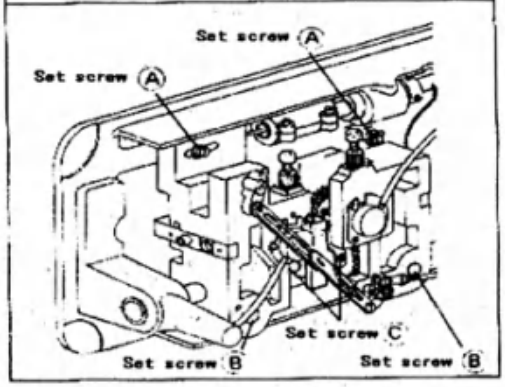
Note: In the adjustment, do not excessively loosen set screws C and always maintain meshing of hook shaft gear and lower shaft gear.

(5) Tighten the set screws in the following order:

a. While pressing the lower shaft gear (large) against the side face of hook bracket, tighten the set screws C first.

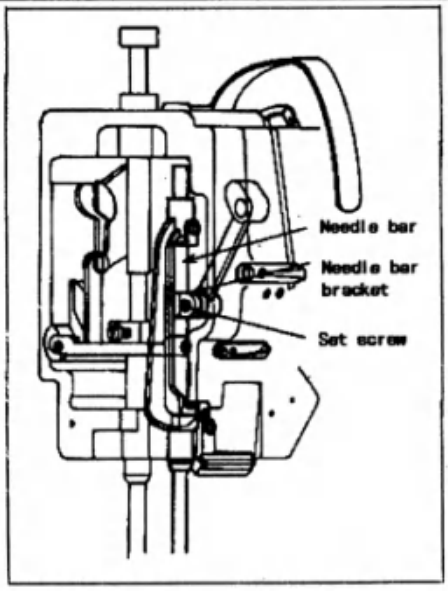
b. After checking gap between the needle and the hook,





tighten the set screws A.

c. Then tighten the set screws B.



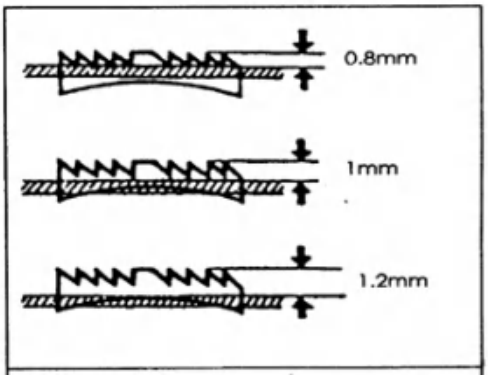
- **Position adjustment of needle point**

Adjust needle position so that gap between the upper edge of needle eye and the hook point is 1.0-1.6 mm when the needle is lifted by A mm from its lowest position shown in before page.

(1) Remove the face plate, loosen the set screw of needle bar bracket and vertically move the bar to adjust.

(2) After the adjustment, tighten the set screw.

14. Adjustment of feed dog height



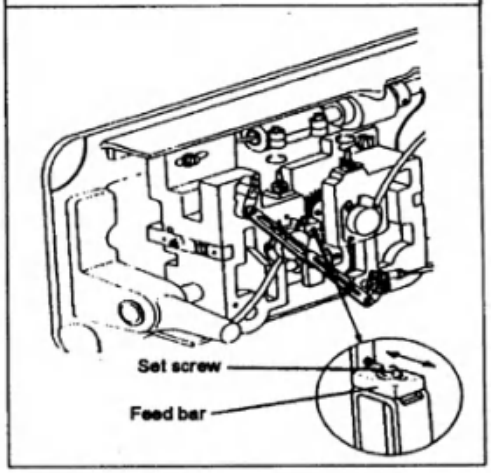
Height of feed dog and pressure of presser foot should be adjusted for individual fabric(s) with the following cautions:

- Fabric will be damaged if the feed dog extends too high, or pressure of presser foot is too large.
- Even stitch length cannot be assured if the feed dog is too low or pressure of presser foot is too small.
- Feed dog height should be measured at the point where the needle is at the top position.

For light fabrics····· Approx. 0.8mm from throat plate

For usual fabrics·····Approx. 1.0mm from throat plate

For heavy fabrics·····Approx. 1.2mm from throat plate



Adjustment procedure

a) Lean the machine head backward.

b) Turn the hand wheel by hand and stop when the Feed dog rises to the maximum height.

c) Loosen the feed bar set screw.

d) Vertically move the feed bar (in the direction indicated by arrow in the figure) to adjust it to adequate height.

e) After the adjustment, tighten the feed bar set screw.

- **The feed dog height is factory-adjusted to 1.0mm**

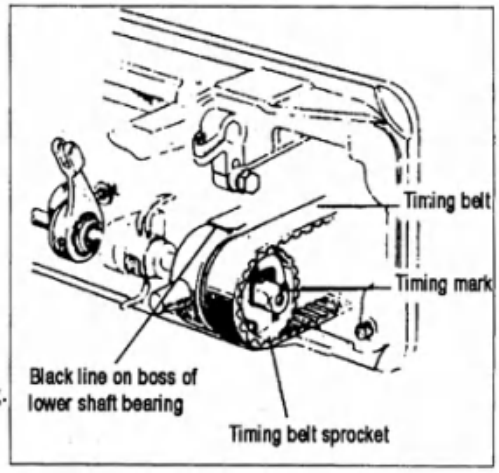
15. Relationship between rotating hook motion and take-up lever motion

When the timing belt (toothed belt) was removed for its replacement, for example, the relationship between rotating hook motion and take-up lever motion should be adjusted as follows:

a) Turn the balance wheel and stop when the take-up lever is lifted to its upper dead point.

b) Lean the machine head backward and make sure the arrow (timing mark) put on the timing belt is in line with the black line on the boss of lower shaft bearing.

c) If the timing mark is not in line with the black line , remove the timing belt and install it again to adjust.

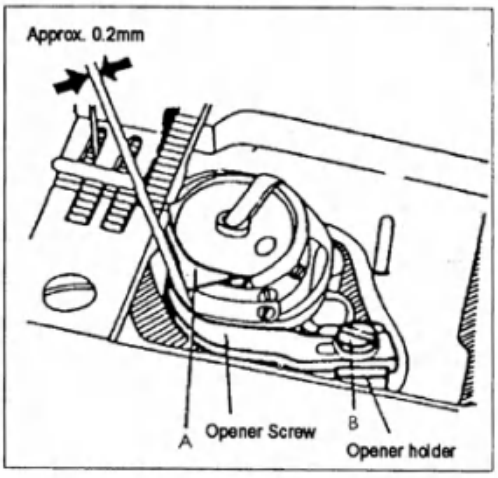


16. Relationship between hook motion and opener motion

a) Turn the balance wheel by hand and stop when the opener holder is located most remotely from the throat plate.

b) Make sure gap between the bobbin case holder A and the opener is approximately 0.2mm.

c) If the gap is too large or small , loosen the opener set screw B and adjust position of the opener.



17. Relationship between needle motion and feed dog motion

- The feet dog should be adjusted so that the needle can plunge into the feed dog needle hole at the center of the hole.

(1) Set stitch length to "0" on the stitch length setting dial

(2) Lean the machine head backward.

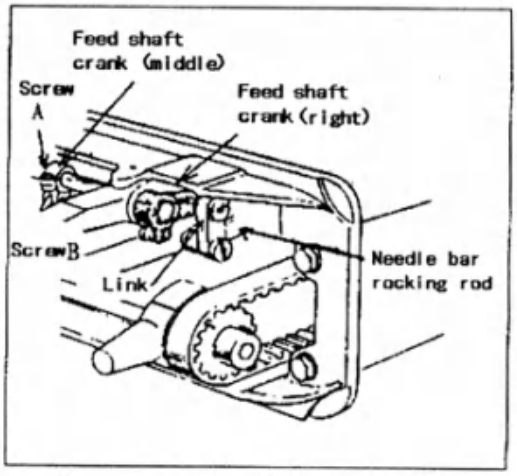
(3) Loosen the feed shaft crank set Screws A and B

(4) Set the needle at the lowest position.

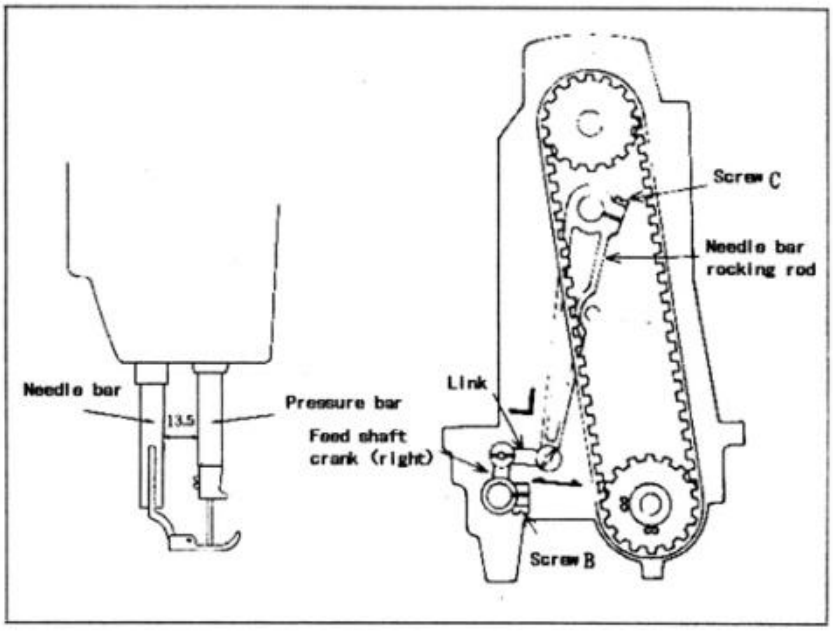
(5) Adjust the distance between the pressure bar and the needle bar to be 13.5, and tentatively tighten the screws A and B of the feed shaft crank.

(6) Check that the right feed shaft crank is connected with the link at right angle, as shown in Figure.

(7) If the connection is not at right angle, remove the back cover, loosen screw C and move the needle bar rocking rod in the arrow direction to adjust.



(8) After the completion of adjustment, fully tighten the screws A , B and C.



Installation of movable knife

(1) Initial position of movable knife

a. Turn the balance wheel and lower the needle bar to the lowest position.

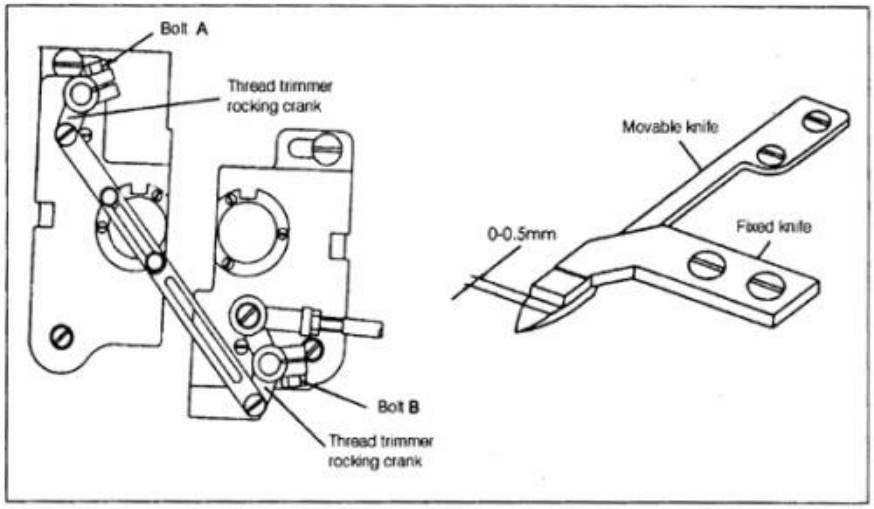
b. Push the cam follower crank so that the cam roller enters into the thread trimmer cam groove.

c. Turn the balance wheel until the black mark point on the arm meets the white mark point on the balance wheel.

Set the cam follower crank at this position with a screwdriver temporarily preventing the cam roller coming out from the cam groove.

d. Loosen the thread trimmer rocking crank clamp bolts A and B.

e. Adjust the movable knife so that the movable knife end slant portion protrudes 0-0.5 mm from the fixed knife, as shown in Figure and tighten the bolts A and B.

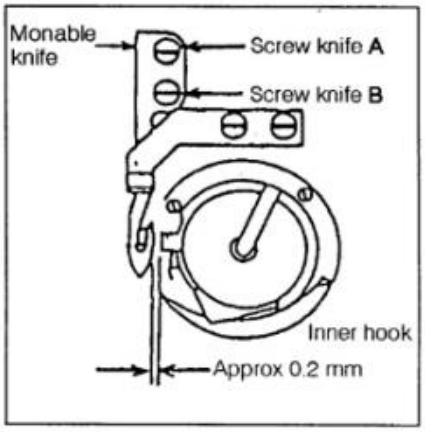


(2) Gap between movable knife and bobbin case holder stopper

a. Turn the balance wheel by hand until needle reaches the lowest position.

b. With the needle at the lowest position, depress cam follower crank, turn the balance wheel until the movable knife reaches the extremity of its stroke.

c. Manually rotate the inner hook in the direction indicated by arrow in Figure and adjust gap between the movable knife and the inner hook stopper to about 0.2 mm (the screws A and B should be loosened for this adjustment).



19. Adjustment of thread trimmer cam

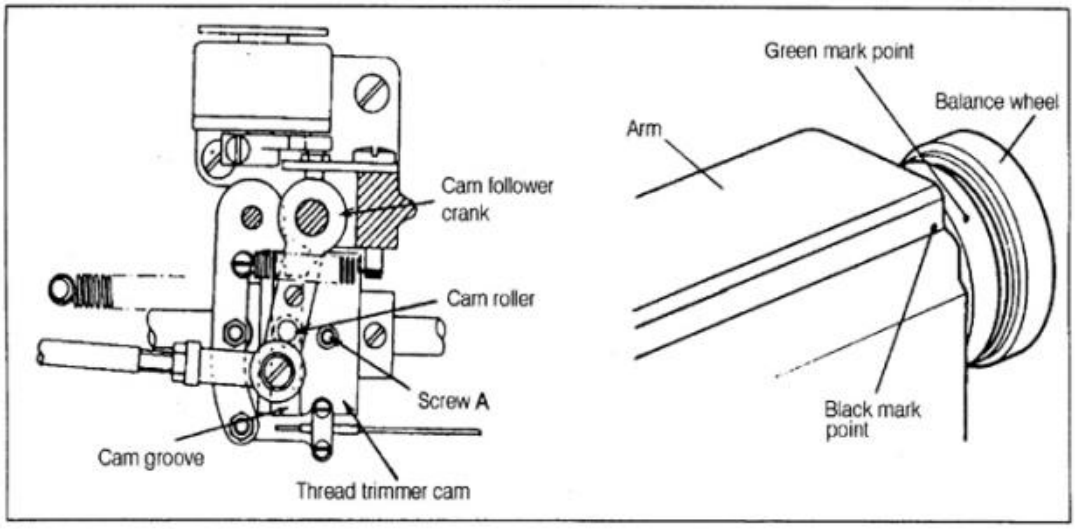
a. Turn the balance wheel by hand until the needles reach the lowest position.

b. Maintaining the needle position, depress the cam follower crank and put the cam roller into the groove of thread trimmer cam.

c. Turning the balance wheel by hand, adjust the thread trimmer cam so that the movable knife starts moving

when the green mark point on the balance wheel comes in line with the black mark point on the arm.

- To adjust, loosen two thread trimmer cam clamp screws A.



20. Adjustment of needle threads tension release assembly

a. Turn the balance wheel by hand until the needles reach the lowest position.

b. Maintaining the needle position, depress the cam follower crank and put the cam roller into the groove of thread trimmer cam.

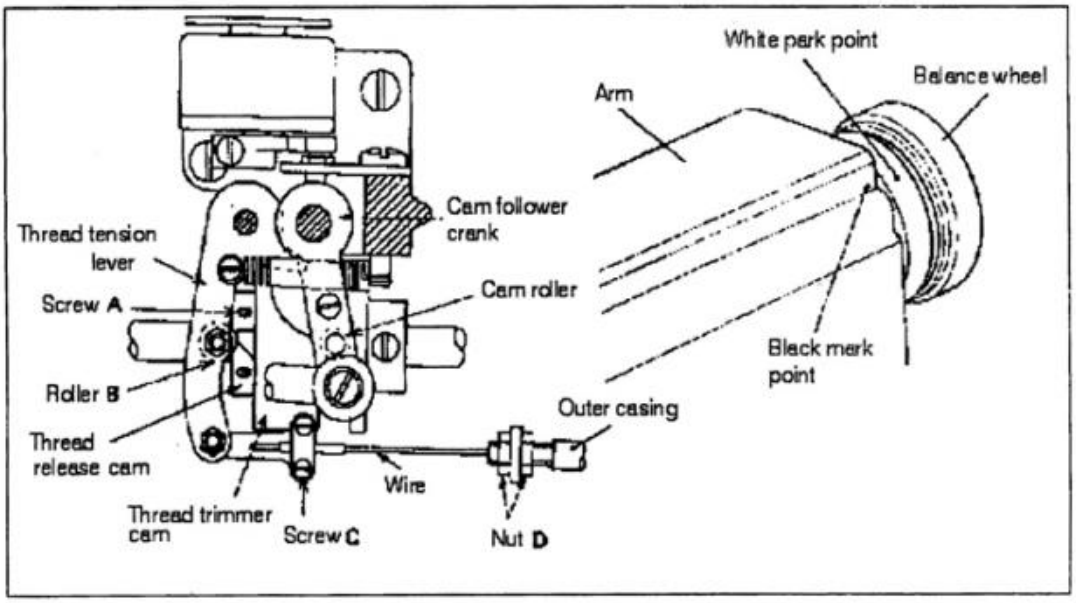
c. Turning the balance wheel by hand, adjust the thread tension release cam so that the tension disc close when the white mark point on the balance wheel comes in line with the black mark point on the arm.

To adjust, loosen two tension release cam clamp screws A.

d. Opening degree of tension disc should be adjusted with the tension release roller B mounted on the convex portion of thread release cam, as shown in Fig.

To adjust, loosen the screws C and draw the wire.

e. Make fine adjustment by loosening the nut D.



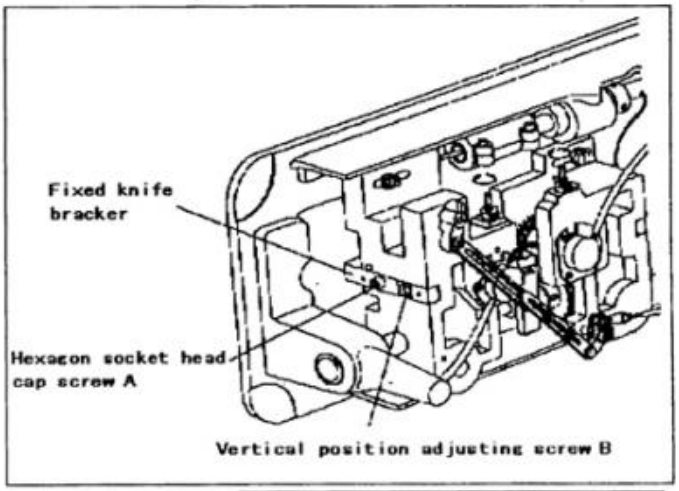
21. Adjustment of meshing pressure of movable knife and fixed knife

a. Loosen the fixed knife bracket clamp bolt A.

b. Turn the vertical position adjusting screw B to adjust meshing pressure and then righter the hexagon socket head cap screw A.

Note: Since excess pressure causes large torque to the thread trimming mechanism and trimming failure, adjust it so that thread can be trimmed with minimum pressure.

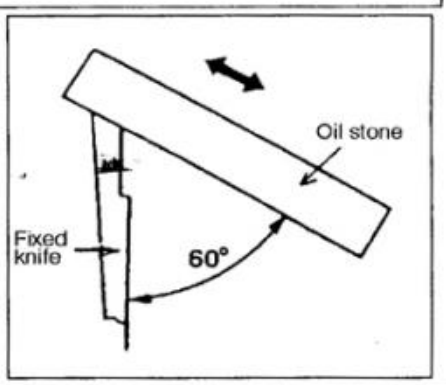
c. Move the movable knife and check that the thread can be sharply trimmed.



22. Sharpening of fixed knife

When the knives dull, the fixed should be sharpened as illustrated in Fig.

Since it is very difficult to sharpen the movable knife, replace it with a new one when it dulls.



23. Adjustment for change of needle gage

(1) Replace the throat plate, feed dog and needle clamp.

(Since the throat plate and feed dog are special parts designed for thread trimming machine, be sure to use those specified by us.)

(2) Lean the machine head backward.

(3) Loosen two connecting link clamp bolts J.

(4) Remove the spring M.

(5) Loosen the hook bracket clamp screws A and B and adjust gap between each needle and hook.

(6) When the needles and hooks have been adjusted, install the spring M.

(7) Contact the rocking cranks C and D to the stopper pins E and F and tighten the connecting link clamp bolt J.

(8) Turn the balance wheel by band until the needles reach the lowest position.

(9) Loosen the nuts G and H.

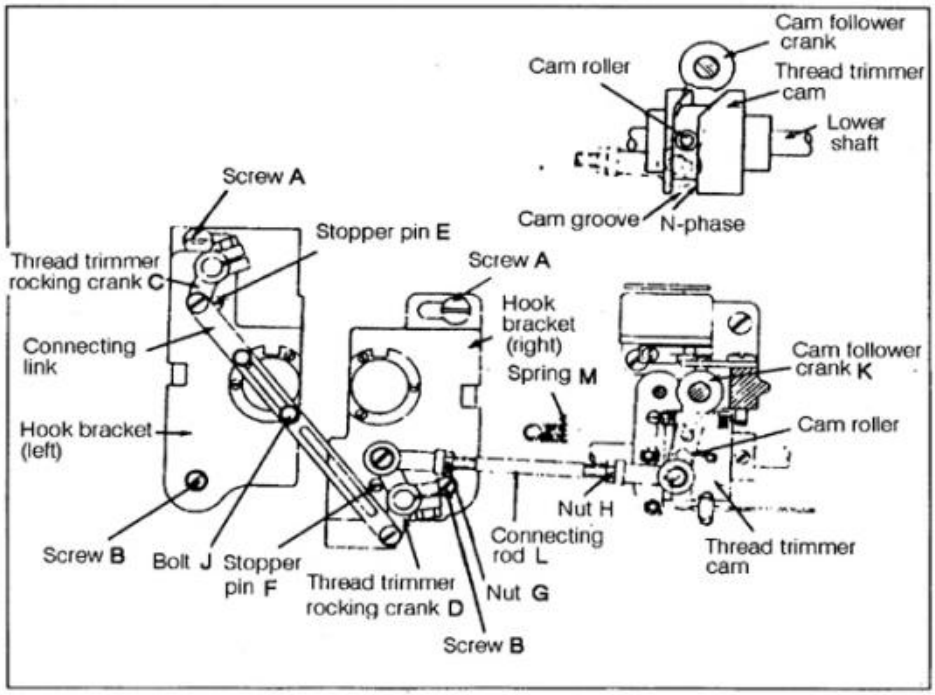
(10) Depress the cam follower crank K and adjust the connecting rod L so that the cam roller can smoothly enter the groove of thread trimmer cam.. Then tighten the nuts G and H .

(11) Adjustment of the cam groove and the cam roller

i. Push the cam follower crank so that the cam roller enters into the cam groove.

ii. Turn the connecting rod L and adjust the clearance between the cam roller and the cam groove surface N as small as possible, and tighten the nuts G and H.

iii. Push the cam follower crank again and check that the cam roller enters into the thread trimmer cam groove smoothly.

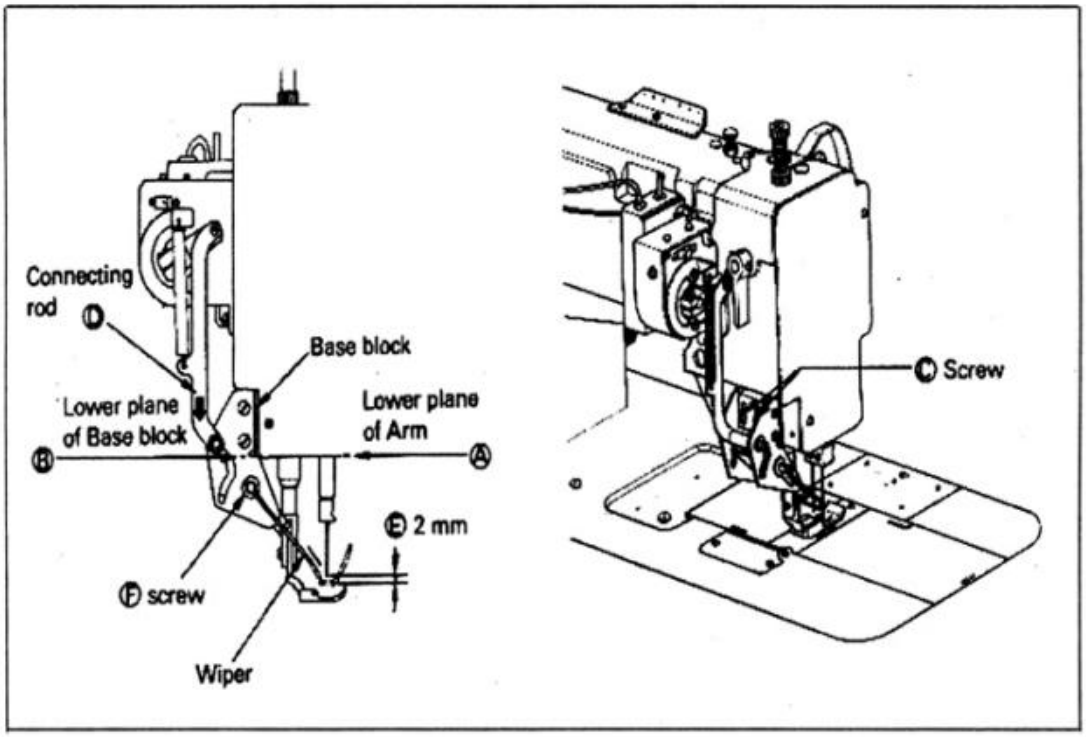


24. Wiper adjustment

a) Run the machine then stop at "up" position.

b) Loosen the screw C ,then adjust the base block so that the line A and the line B are the same plane, then tighten the screw C.

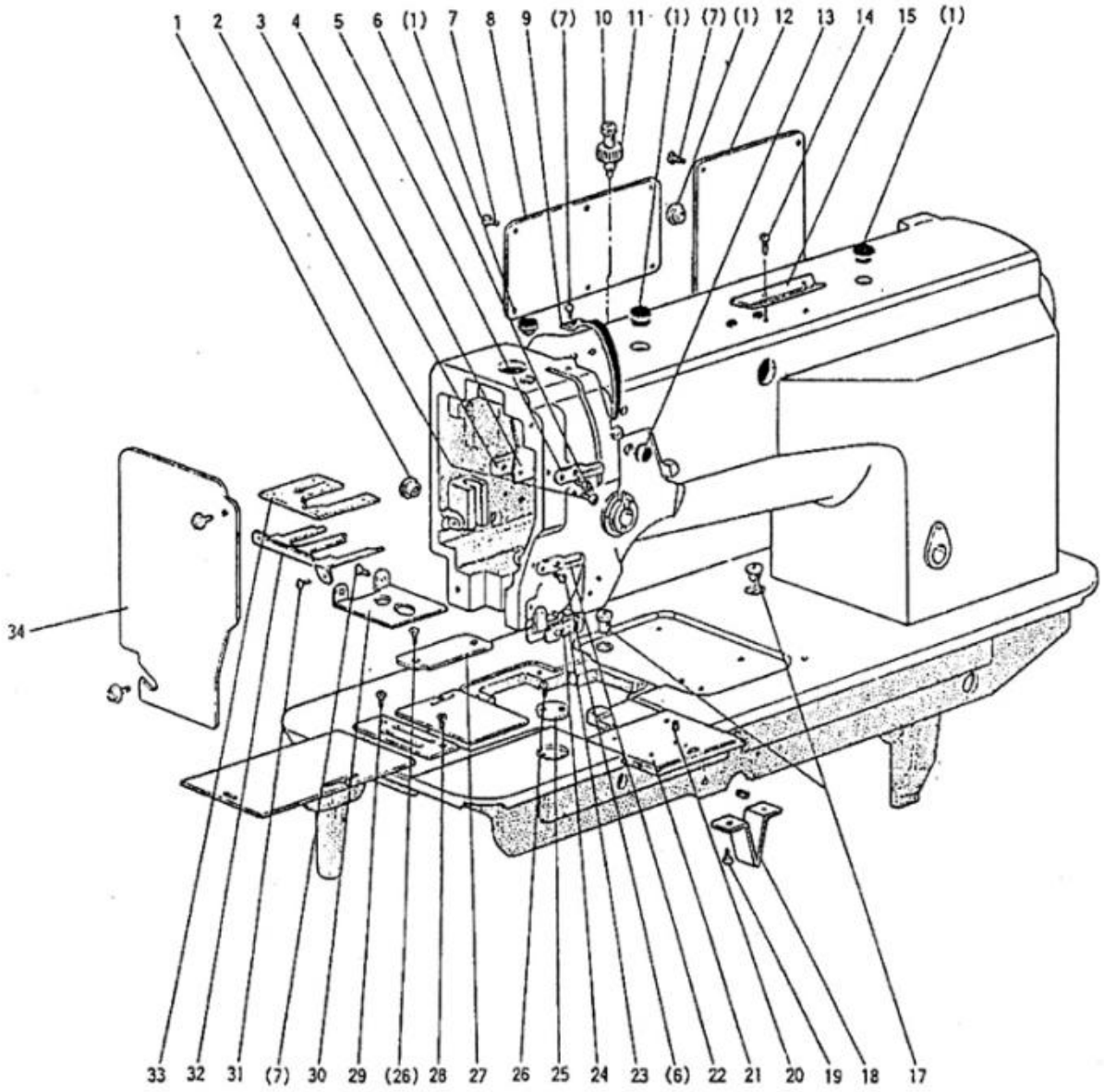
c). Loosen the screw F, then adjust the wiper move so as the E clearance is 2mm, then Tighten the screw F.



SPECIFICATIONS

Model		GC20518-M	GC20518-M-D	GC20518-H	GC20518-B	GC20518-B-D
Number		Double-needle				
Application		Light to medium heavy material			Medium to heavy material	
Max. sewing speed		4000rpm			3000rpm	
Stitch length		0～5mm		0～7mm		
Needle-bar stroke		33. 4mm			35 mm	
Presser-foot stroke		13mm by Leg 7mm by hand				
Needle No.		DP×5 11#-14#		DP×5 18#-22#		
Rotating hook		Standard vertical-axis hook with self-lubrication	Auto lubrication hook (Thread trimming)	Standard vertical-axis hook with self-lubrication	Large hook with bobbin thread pull-back	(Horizontal full-rotating) Large
Auto trimmer.		——	√	——	——	√
Thread take-up lever		Slide lever				
Stitch adjusting system		Dial				
Lubrication system		Automatic lubrication				
Motor		Clutch motor 370W	Servo motor 550W	Clutch motor 370W	Clutch motor 370W	Servo motor 550W
Needle gauge	Standard	6. 4mm				
	Special	2. 4 3. 2 4 4. 8 8 9. 5 12. 7 16 19 25. 4 28. 6 32 38mm				

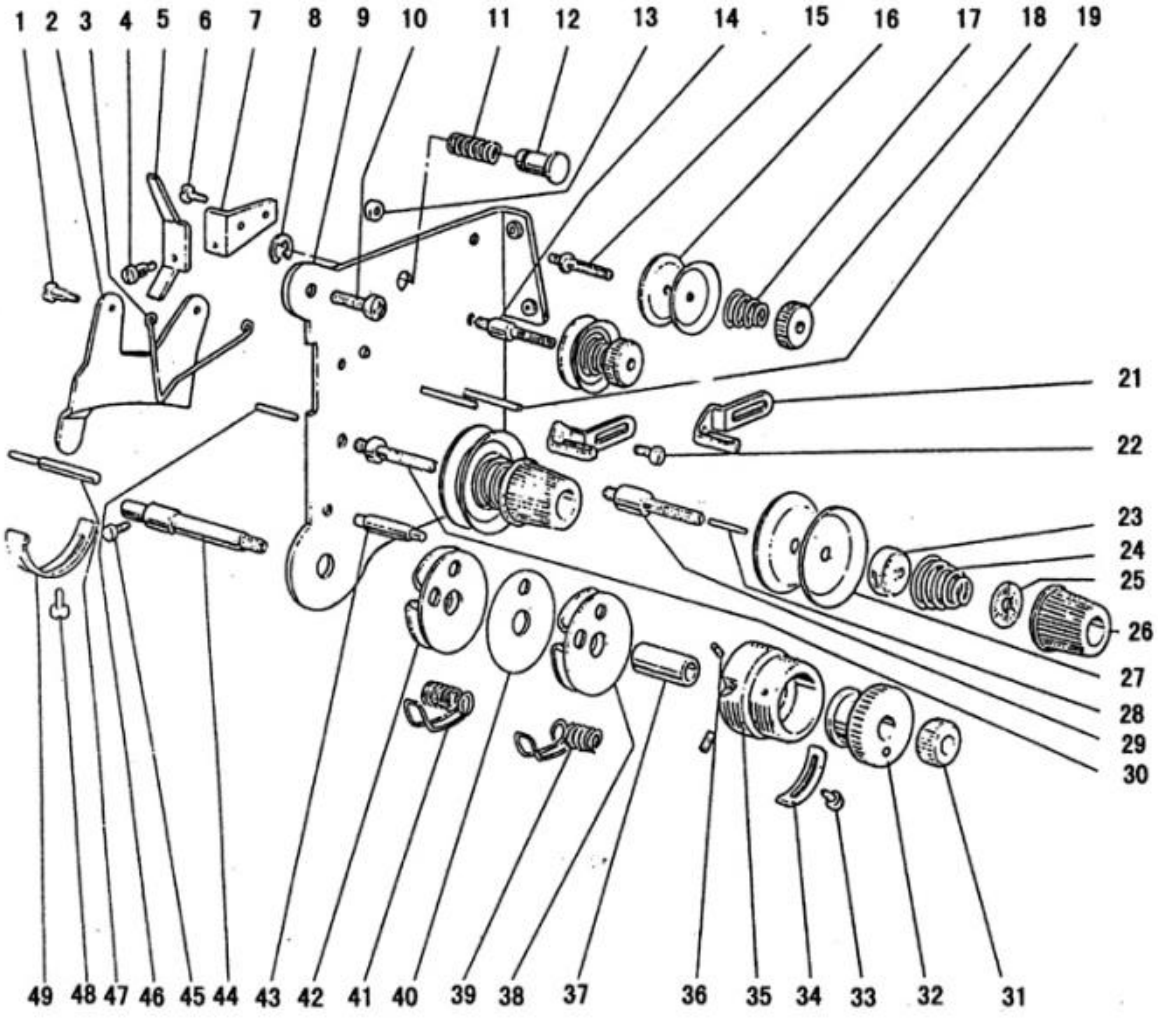
A.ARM BED AND ITS ACCESSORIES



A.ARM BED AND ITS ACCESSORIES

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
A01	H3200B2190	Rubber plug	5	5	5			black
A01	H4715B8001	Rubber plug				5	5	gray
A02	H2400B2080	Screw	2	2	2	2	2	SM3/16 (28) ×11
A03	H2400B2060	Spacer	1	1	1	1	1	
A04	H2400B2050	Oil guard plate	1	1	1	1	1	
A05	H3200B2070	Thread guide	1	1	1	1	1	
A06	H3000D2160	Screw	2	2	2	2	2	SM9/64 (40) ×6.5
A07	HA300C2030	Screw	15	15	15	11	11	SM11/64 (40) ×8
A08	H3200B2030	Side cover (left)	1	1	1	1	1	
A09	H3200B2050	Thread take-up cover	1	1	1			black
A09	H4717B8001	Thread take-up cover				1	1	gray
A10	H3200K0210	Thumb screw	1	1	1	1	1	M10×33
A11	H3200K0220	Special nut M10	1	1	1	1	1	M10×8.5
A12	H3200B2040	Side cover (right)	1	1	1	1	1	
A13	H2000B2010	Rubber plug	1	1	1	1	1	
A14	HA700B2060	Screw	2	2	2	2	2	SM11/64 (40) ×8
A15	H2400B2100	Thread guide	1	1	1	1	1	
A17	H2000M0080	Cap	2	2	2	2	2	
A18	H4913B8001	Supporter				1	1	
A19	H4912B8001	Screw				2	2	SM1/4 (24) ×9
A20	H3200B2170	Screw	1	1	1	1	1	SM13/64(32)×4
A21	H3200B2160	Slide plate	1	1	1	1	1	
A22	H3200B2080	Thread guide (middle)	1	1	1	1	1	
A23	H3212B0066	Thread guide (complete)	1	1	1	1	1	
A24	H3200B2100	Screw				1	1	SM9/64(40)×6.5
A25	H4915B8001	Cover				1	1	
A26	H4914B8001	Screw				4	4	
A27	H4911B8001	Cover				1	1	
A28	HA300B2190	Screw	1	1	1	1	1	SM11/64 (40) ×8
A29	H3200B2120	Screw	1	1	1	1	1	SM9/64 (36) ×6.5
A30	H3200K0240	Cover	1	1	1	1	1	
A31	H2004J0067	Screw	2	2	2	2	2	SM9/64 (40) ×7
A32	H3229K0741	Oil guard plate	1	1	1	1	1	
A33	H3229K0742	Felt	1	1	1	1	1	
A34	H3200B2020	Face plate	1	1	1			black
A34	H3205B0065	Face plate				1	1	gray

B. THREAD TENSION REGULATOR MECHANISM



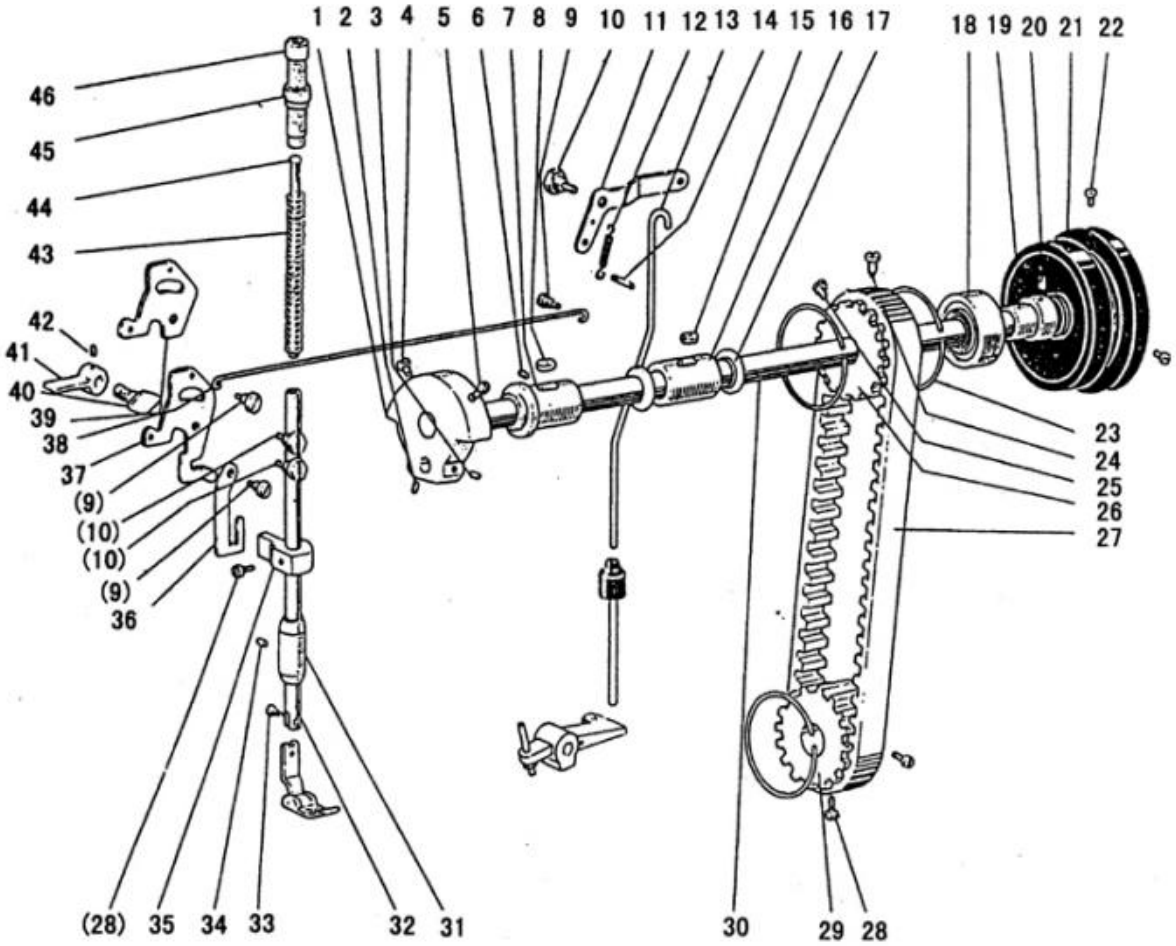
B.THREAD TENSION REGULATOR MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
B01	H3221B6811	Screw	2	2	2	2	2	SM9/64 (40) ×3
B02	H3221B3142	Tension releasing plate	1	1	1	1	1	
B03	H3221B6812	Tension releasing spring	1	1	1	1	1	
B04	H4705C8001	Screw				1	1	SM9/64 (40) ×4.2
B05	H4706C8001	Lever				1	1	
B06	HA7311C306	Screw				1	1	SM9/64 (40) ×4.5
B07	H4707C8001	Mounting plate				1	1	
B08	H007013050	Stop ring				1	1	GB/T896 5
B09	H3221B6820	Mounting plate	1	1	1	1	1	
B10	HA300C2030	Screw	2	2	2	2	2	SM11/64 (40) ×8
B11	H4708C8001	Spring				1	1	
B12	H4709C8001	Push button				1	1	
B13	H3221B6810	Nut	2	2	2	2	2	SM11/64 (40)
B14	H3221B0685	Thread tension stud	1	1	1	1	1	
B15	H3221B0683	Thread tension stud	1	1	1	1	1	
B16	HA112B0693	Thread tension disk	4	4	4	4	4	
B17	H3221B0684	Thread tension spring	2	2	2	2	2	
B18	HA710B0671	Thumb nut	2	2	2	2	2	SM11/64 (40)
B19	H3221B0682	Pin	3	3	3	3	3	
B21	H3221B0687	Thread guide	1	1		1		
B21	H3306B0661	Thread guide			1		1	
B22	HA106B0676	Screw	1	1	1	1	1	SM9/64 (40) ×6
B23	HA310B0702	Thread tension releasing plate	2	2	2	2	2	
B24	HA115B0703	Thread tension spring	1	1		1		
B24	H3300B2040	Thread tension spring			1		1	
B25	HA115B7010	Thumb nut revolution stopper	2	2	2	2	2	
B26	HA310B0701	Thumb nut complete	2	2	2	2	2	
B27	HA310B0705	Thread tension disk	4	4	4	4	4	
B28	H3221B6816	Pin	1	1	1	1	1	
B29	H3221B0689	Thread tension stud	1	1	1	1	1	
B30	H3221B0686	Thread tension stud	1	1	1	1	1	
B31	H32481B721	Thumb nut	1	1	1	1	1	SM1/4 (40)
B32	H32481B621	Take-up spring guide	1	1	1	1	1	
B33	H32481BC21	Screw	1	1	1	1	1	SM9/64 (40) ×6
B34	H32481BB21	Stopper	1	1	1	1	1	
B35	H32481B921	Thread tension post	1	1	1	1	1	
B36	H32481B521	Screw	2	2	2	2	2	SM1/8 (44) ×3.9
B37	H32481B821	Bushing	1	1	1	1	1	
B38	H32481BF21	Plate complete	1	1	1	1	1	
B39	H32481B321	Thread take-up spring	1	1	1	1	1	
B40	H32481BE21	Plate	1	1	1	1	1	
B41	H32481B221	Thread take-up spring	1	1	1	1	1	
B42	H32481BD21	Plate complete	1	1	1	1	1	

B.THREAD TENSION REGULATOR MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
B43	H32481B421	Screw	1	1	1	1	1	SM9/64 (40) ×2.9
B44	H32481B121	Thread tension stud	1	1	1	1	1	
B45	H2004J0067	Screw	1	1	1	1	1	SM9/64 (40) ×7
B46	H3221B6817	Pin	1	1	1	1	1	
B47	H3221B6818	Tension releasing pin	1	1	1			
B47	H4916B8001	Tension releasing pin				1	1	
B48	H3200B2100	Screw	1	1	1	1	1	SM9/64 (40) ×6.5
B49	H3221B6819	Stopper	1	1	1	1	1	

C.ARM SHAFT & PRESSER FOOT MECHANISM



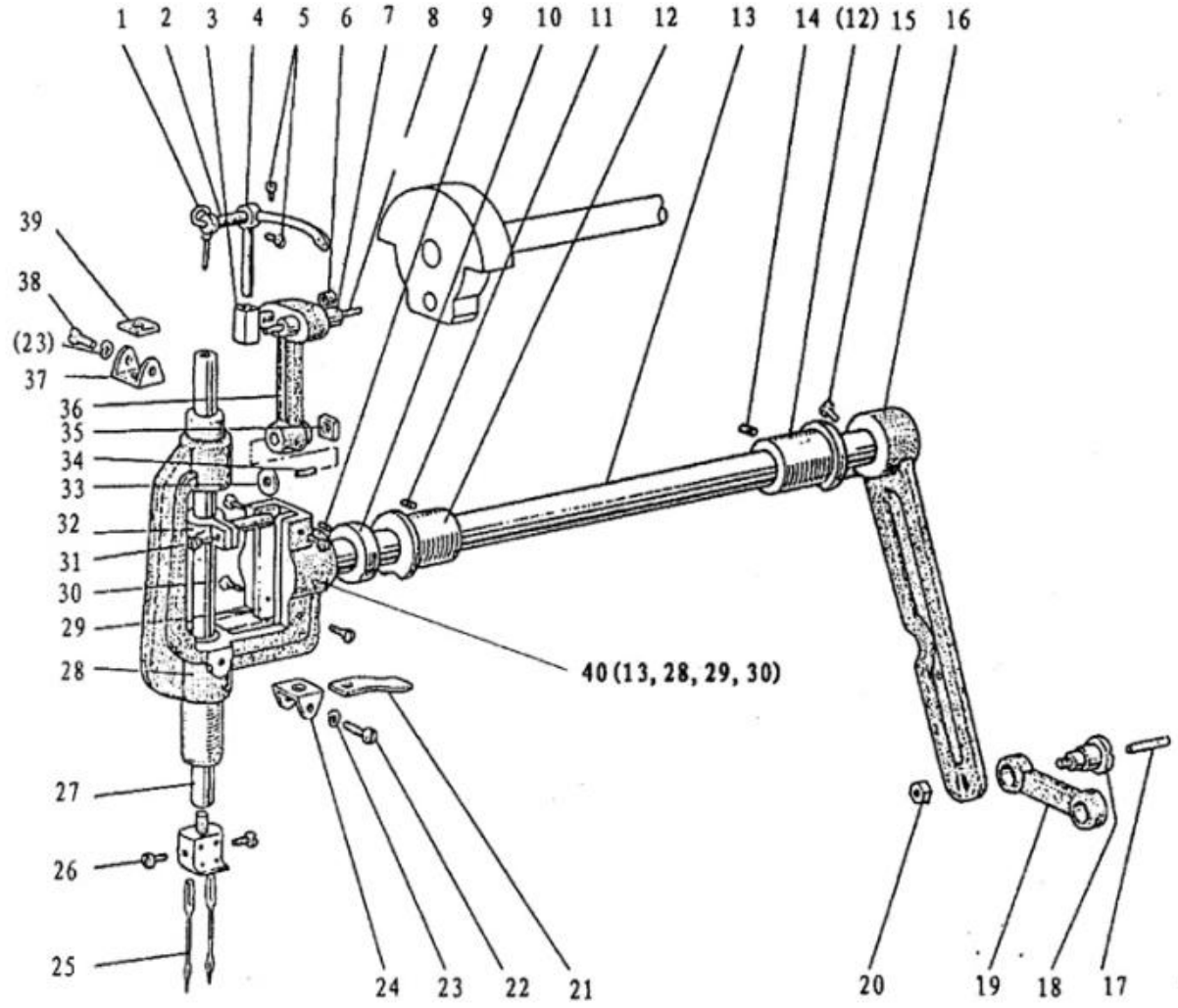
C.ARM SHAFT & PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
C01	H3204C0021	Crank	1	1		1		
C01	H3304C0011	Crank			1		1	
C02	HA105D0662	Screw	1	1	1	1	1	SM1/4 (40) ×3.5
C03	HA307C0662	Set screw	1	1	1	1	1	SM1/4 (40) ×7
C04	HA100C2060	screw	1	1	1	1	1	SM9/32 (28) ×14
C05	HA100C2070	screw	1	1	1	1	1	SM9/32 (28) ×13
C06	H2405D0664	Set screw	1	1	1	1	1	SM15/64 (28) ×14
C07	H3204B0011	Arm shaft bushing (left)	1	1	1	1	1	
C08	H32111B104	Felt	1	1	1	1	1	
C09	HA107H0662	screw	3	3	3	3	3	
C10	HA100H2050	screw	3	3	3	3	3	
C11	H3211E0691	Knee lifter lever (right)	1	1	1	1	1	
C12	H3211E0692	Spring	1	1	1	1	1	
C13	H3211E0693	Knee lifter connecting rod	1	1	1	1	1	
C14	H3200E2090	Pin	1	1	1	1	1	
C15	H32111B104	Felt	1	1		1		
C16	H32175B104	Arm shaft bushing (middle)	1	1		1		
C17	HA109D0070	Oil seal	2	2		2		
C18	H3205J0662	Ball bearing	1	1	1			6204ZZNR/5K
C19	H3205J0661	Bushing	1	1	1			
C20	HA113F0684	screw	2	2	2			SM15/64 (28) ×8.5
C21	H3204J0652	Pulley	1	1	1			
C22	HA110D0672	screw	2	2	2			SM15/64 (28) ×12
C23	H3205C0661	Spring flange	3	3	3	3	3	
C24	HA100F2130	screw	1	1	1	1	1	SM15/64 (28) ×14.5
C25	HA113F0684	screw	1	1	1	1	1	SM15/64 (28) ×8.5
C26	H3205C1021	Pulley(upper)	1	1	1	1	1	
C27	H3200C2030	Cog belt	1	1	1	1	1	
C28	HA104F0654	screw	3	3	3	3	3	SM15/64 (28) ×10
C29	H3207C0671	Pulley(lower)	1	1	1	1	1	
C30	H3204C0651	Arm shaft	1	1	1			
C30	H6906D8001	Arm shaft				1	1	
C31	HA704B0651	Bushing	1	1	1	1	1	
C32	H3200E2010	Presser bar	1	1	1	1	1	
C33	H3200E2020	screw	1	1	1	1	1	SM1/8(44)×9
C34	HA100C2020	screw	1	1	1	1	1	SM15/64(28)×10
C35	H3207E0661	Presser bar guide bracket	1	1	1	1	1	
C36	H3210E0683	Operation plate	1	1	1	1	1	
C37	H3210E0682	Knee lifter lever left	1	1	1			
C38	H3210E0681	Knee lifter rod	1	1	1	1	1	
C39	H6904D8001	Knee lifter lever left				1	1	
C40	H3200E2060	Presser bar lifting cam	1	1	1	1	1	
C41	H3208E0672	Presser bar lifter	1	1	1	1	1	

C.ARM SHAFT & PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
C42	HA100B2110	screw	2	2	2	2	2	SM11/64 (40) ×6.6
C43	H3200E2100	Spring	1	1	1	1	1	
C44	HA100H2120	Presser spring guide	1	1	1	1	1	
C45	HA117H0692	Special nut	1	1	1	1	1	SM1/2 (28)
C46	HA309H0681	screw	1	1	1	1	1	SM1/2 (28) ×49

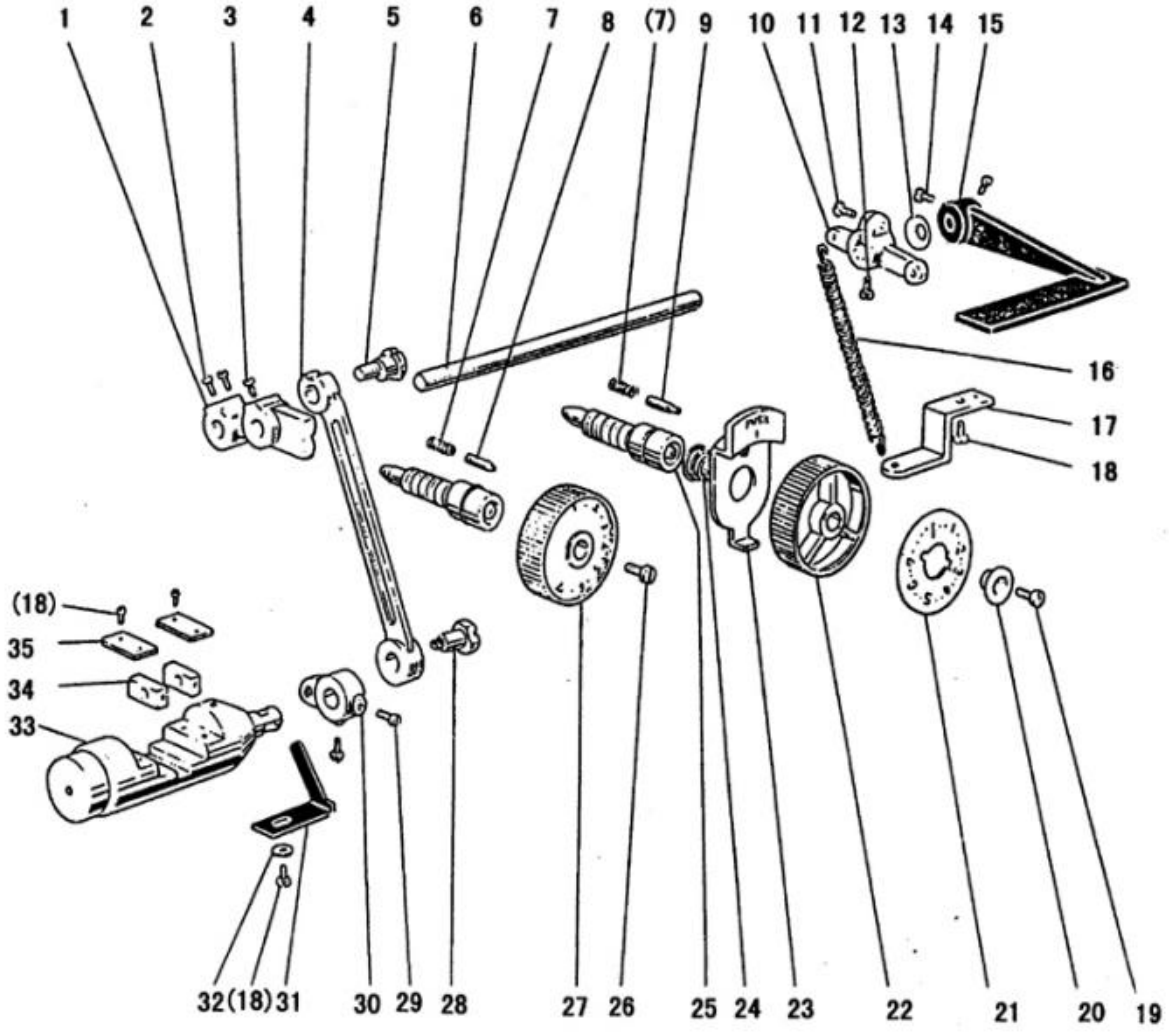
D. NEEDLE BAR ROCKING MOTION MECHANISM



D.NEEDLE BAR ROCKING MOTION MECHANISM

Fig. No.	Part No.	Description	M	H	B	M 1	H 1	Remarks
D01	H2405D1122	Oil wick	1	1	1	1	1	
D02	H32422C108	Thread take-up guide bracket pin	1	1	1	1	1	
D03	H32411C208	Thread take-up link	1	1		1		
D03	H2405D1112	Thread take-up link			1		1	
D04	H32411C108	Thread take-up lever	1	1		1		
D04	H2505D1111	Thread take-up lever			1		1	
D05	HA110D0672	Screw	3	3	3	3	3	SM15/64（28）×12
D06	H24211D305	Plug	1	1	1	1	1	
D07	H2405D0662	Needle bar crank pin	1	1	1	1	1	
D08	H24211D405	Oil wick	1	1	1	1	1	
D09	HA307C0662	Screw	1	1	1	1	1	SM11/64（40）×6
D10	H3205D0661	Coller	1	1	1	1	1	
D11	HA3411D308	Screw	1	1	1	1	1	SM15/64（28）×7
D12	H3204D0652	Needle bar rock shaft bushing	2	2	2	2	2	
D13	H3204D0652	Needle bar rock shaft	1	1	1	1	1	
D14	HA100C2020	Screw	1	1	1	1	1	SM15/64（28）×10
D15	H2012N0652	Screw	1	1	1	1	1	SM1/4（24）×16
D16	H32311D106	Needle bar rock shaft crank	1	1	1	1	1	
D17	H32311D406	Oil wick	1	1	1	1	1	
D18	H32311D306	Screw	1	1	1	1	1	SM5/16(24)×26.2
D19	H32311D206	Link	1	1	1	1	1	
D20	H32311D506	Nut	1	1	1	1	1	SM5/16(24)
D21	H3204D0656	Felt	1	1	1	1	1	
D22	H3204D6510	Screw	2	2	2	2	2	SM1/8(44)×4.8
D23	H005008030	Spring washer	4	4	4	4	4	GB/T93 3
D24	H3204D0657	Holder	1	1	1	1	1	
D25	H3204D0658	Needle	2	2		2		
D25	H3304D0651	Needle			2		2	
D26	H32132D104	Screw	2	2	2	2	2	SM9/64(40)×3
D27	H32111D404	Needle bar	1	1	1	1	1	
D28	H32111D104	Needle bar rock frame	1	1	1	1	1	
D29	H32111D204	Spacer	2	2	2	2	2	
D30	H32111D304	Screw	4	4	4	4	4	SM3/32(56)×4
D31	H32111D604	Screw	1	1	1	1	1	SM9/64(40)×8.5
D32	H32111D504	Needle bar connecting stud	1	1	1	1	1	
D33	H3204D6512	Washer	1	1	1	1	1	
D34	H3204D6513	Felt	1	1	1	1	1	
D35	H32111D804	Square block	1	1	1	1	1	
D36	H32111D704	Needle bar connecting link	1	1	1	1	1	
D37	H3204D0655	Holder	1	1	1	1	1	
D38	H3204D6511	Screw	2	2	2	2	2	SM1/8(44)×3.5
D39	H3204D0654	Felt	1	1	1	1	1	
D40	H321C1D104	Needle bar rock complete	1	1	1	1	1	

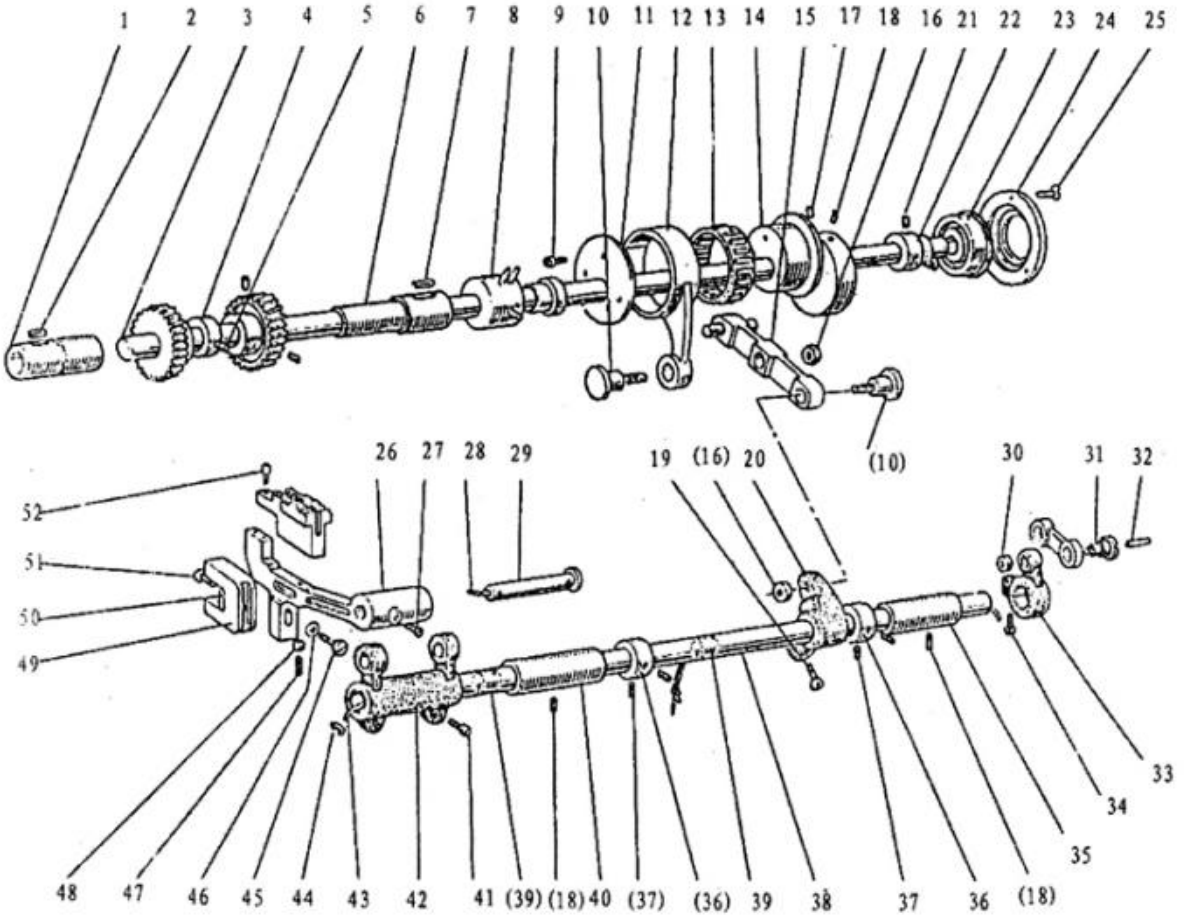
E. STITCH REGULATOR MECHANISM



E.STITCH REGULATOR MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
E01	H3204F0651	Feed regulator	1	1	1	1	1	
E02	HA113F0684	Screw	2	2	2	2	2	SM15/64（28）×8.5
E03	H3200F2020	Screw	1	1	1	1	1	SM15/64(28)×12
E04	H3206F0661	Connecting link	1	1	1	1	1	
E05	HA100G2070	Eccentric shaft	1	1	1	1	1	
E06	H3200F2060	Reverse stitch shaft	1	1	1			
E06	H6904F8001	Reverse stitch shaft				1	1	
E07	H3200F2110	Spring	1	1	1	1	1	
E08	HA100F2080	Pin	1	1	1			
E09	HA700F2030	Pin				1	1	
E10	H3207F0671	Arm	1	1	1			
E10	H4905G8001	Arm				1	1	
E11	HA800F2020	Screw	1	1	1	1	1	SM15/64（28）×16.5
E12	H3207F0672	Screw	1	1	1	1	1	SM11/64(40)×8.5
E13	HA100F2110	Spring washer	1	1	1			
E14	HA113F0684	Screw	2	2	2			SM15/64（28）×8.5
E15	H3216F0071	Reverse sewing lever (complete)	1	1	1			
E15	H4906G8001	Reverse sewing lever				1	1	
E16	H3207F0673	Spring	1	1	1	1	1	
E17	H3200F2050	Bracket for spring	1	1	1			
E18	HA300C2020	Screw	6	6	6	5	5	SM11/64(40)×8
E19	HA720F0686	Screw	1	1	1	1	1	SM3/6(28)×12
E20	HA720F0685	Bushing	1	1	1	1	1	
E21	HA720F0684	Stitch length indicating plate				1		
E21	H9204H8001	Stitch length indicating plate					1	
E22	HA7421F120	Dial				1	1	
E23	HA720F0683	Stopper pin releasing lever				1	1	
E24	HA720F0687	Coil spring				1	1	
E25	HA109F0671	Screw bar				1	1	
E26	HA109F0673	Screw	1	1	1			SM3/6(28)×8
E27	H3213F0702	Dial	1					
E27	H3304F0651	Dial		1	1			
E28	H3206F0662	Bolt	1	1	1	1	1	SM1/4(40)×8
E29	H3210F0681	Screw	2	2	2	2	2	M5×6
E30	H3210F0683	Stitch regulating crank lower	1	1	1	1	1	
E31	H3200F2080	Holding plate of reverse bar	1	1	1	1	1	
E32	HA703R0067	Washer	1	1	1	1	1	
E33	H3212F0692	Reverse bar	1	1	1	1	1	
E34	H3208G0672	Square block	2	2	2	2	2	
E35	H3212F0691	Guide plate	2	2	2	2	2	

F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM



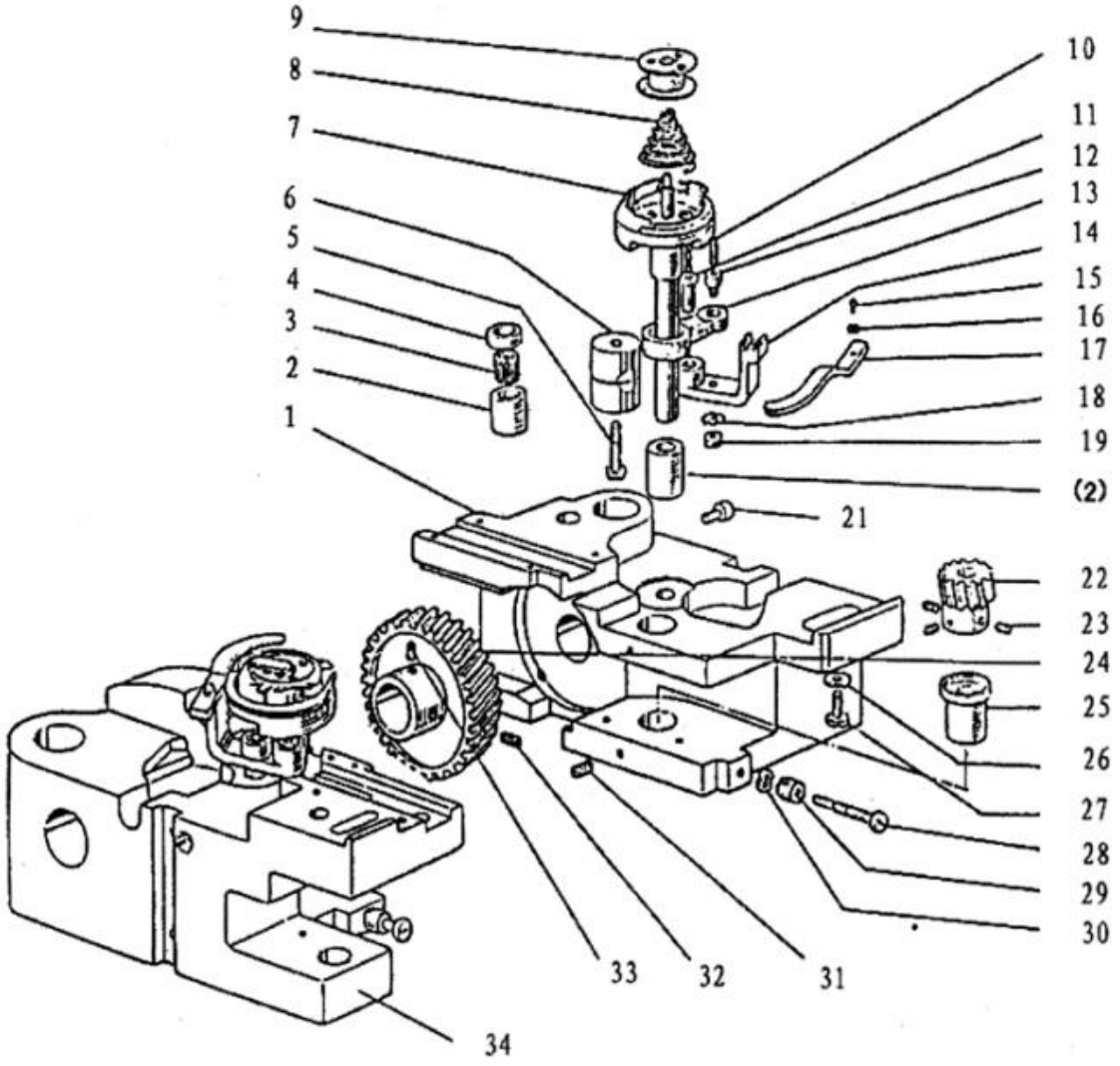
F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
F01	H32132B104	Lower shaft bushing left	1	1	1	1	1	
F02	H32132B204	Oil wick	1	1	1	1	1	
F03	H3200H2010	Lower shaft	1	1	1	1	1	
F04	H3205H0655	Feed lifting cam	1	1	1	1	1	
F05	H3205H0654	Screw	1	1	1	1	1	SM1/4(40)×5
F06	H32143B104	Lower shaft bushing right	1	1	1	1	1	
F07	H32132B204	Oil wick	1	1	1	1	1	
F08	H32154B104	Lower shaft bushing middle	1	1	1	1	1	
F09	HA700F2100	Screw	3	3	3	3	3	SM11/64(40)×7
F10	H3208G0674	Screw	2	2	2	2	2	SM1/4(24)×22
F11	H32372G208	Washer	1	1	1	1	1	
F12	H32372G408	Feed connecting rod	1	1	1	1	1	
F13	H32372G308	Needle bearing	1	1	1	1	1	K32×37×13
F14	H32372G108	Lever feed connecting cam	1			1		
F14	H3305G1011	Lever feed connecting cam		1	1		1	
F15	H32311G108	Link	1	1	1	1	1	
F16	H3208G0675	Nut	2	2	2	2	2	SM1/4(24)
F17	HA100C2020	Screw	1	1	1	1	1	SM15/64（28）×10
F18	H2405D0664	Screw	3	3	3	3	3	SM15/64（28）×14
F19	H3208G0676	Screw	1	1	1	1	1	SM15/64(28)×14
F20	H3208G0673	Connecting rod crank	1	1	1	1	1	
F21	HA105D0662	Screw	2	2	2	2	2	SM1/4（40）×6
F22	H3208H0662	Bushing	1	1	1	1	1	
F23	H3208H0661	Ball bearing	1	1	1	1	1	6004ZZNR/5K
F24	H3200H2060	Bearing holder	1	1	1	1	1	
F25	HA7311C306	Screw	3	3	3	3	3	SM9/64（40）×7
F26	H3205G1111	Feed bar	1	1	1			
F26	H4942H8001	Feed bar				1	1	
F27	H3205G1114	Screw	1	1	1	1	1	M5×5
F28	H3205G0662	Oil wick	1	1	1	1	1	
F29	H32243G205	Feed bar shaft	1	1	1	1	1	
F30	H3206D0674	Nut	1	1	1	1	1	SM5/16(24)×5
F31	H32311D306	Screw	1	1	1	1	1	SM5/16(24)×26.2
F32	H32311D406	Oil wick	1	1	1	1	1	
F33	H32333D106	Feed rock shaft crank (right)	1	1	1	1	1	
F34	H2012N0652	Screw	1	1	1	1	1	SM1/4（24）×16
F35	H3204B0656	Feed rock shaft bushing (right)	1	1	1	1	1	
F36	HA108G0661	Collar	2	2	2	2	2	
F37	HA105D0662	Screw	4	4	4	4	4	SM1/4（40）×4
F38	H3204G0651	Feed rock shaft	1	1	1	1	1	
F39	H3204G0652	Felt	2	2	2	2	2	
F40	HA100G2120	Feed rock shaft bushing (left)	1	1	1	1	1	
F41	HA104G0012	Screw	2	2	2	2	2	SM3/16(28)×12

F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
F42	H3205G1032	Feed rock shaft Crank (left)	1	1	1			
F42	H4905H8001	Feed rock shaft Crank (left)				1	1	
F43	H3205G0662	Oil wick	1	1	1	1	1	
F44	H3200G2030	Holder	1	1	1	1	1	
F45	H3200H2040	Bolt	1	1	1	1	1	SM15/64(28)×18
F46	H005001060	Washer	1	1	1	1	1	GB/T97.1 6
F47	H3205G1112	Screw	1	1	1	1	1	M3×14
F48	H003056030	Nut	1	1	1	1	1	M3
F49	H3205H0651	Feed bar connecting fork	1	1	1	1	1	
F50	H3205H0652	Felt	1	1	1	1	1	
F51	H3205H0653	Screw	1	1	1	1	1	SM1/8(44)×4
F52	H32211G205	Bolt	2	2	2	2	2	SM1/8(40)×7

G.HOOK SADDLE MECHANISM



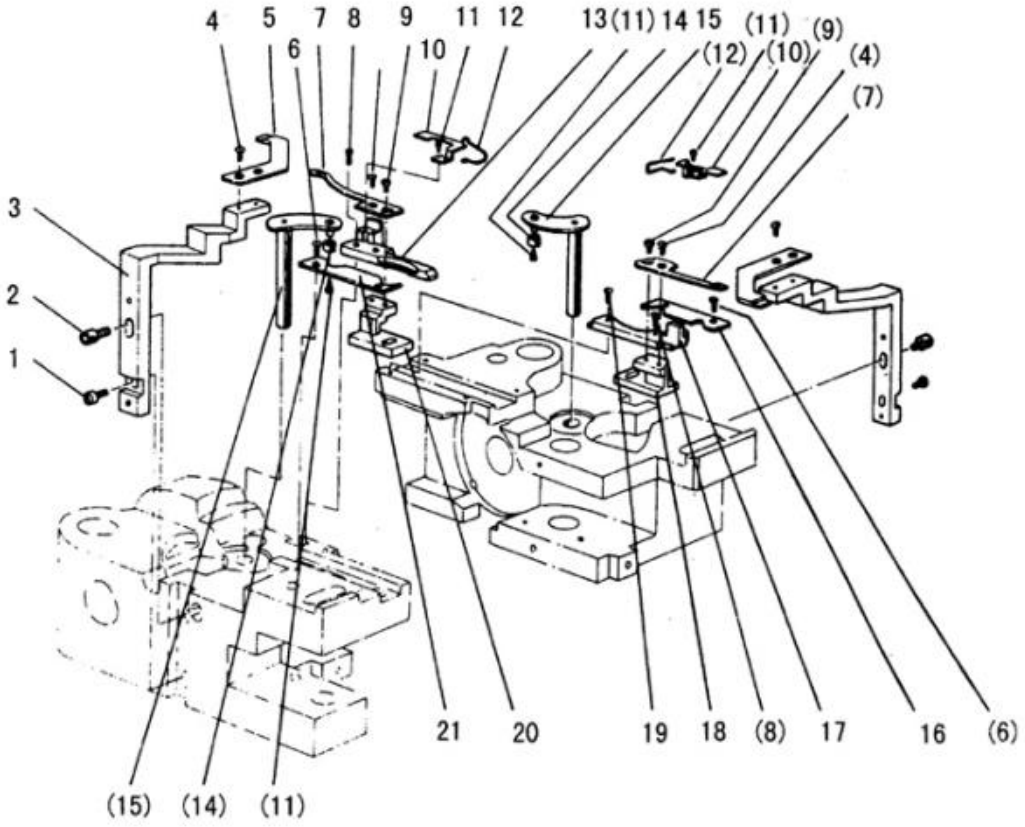
G.HOOK SADDLE MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
G01	H3204I0651	Hook saddle (right)	1	1				
G01	H3304I0651	Hook saddle (right)			1			
G01	H6904H8001	Hook saddle (right)				1		
G01	H4906I8001	Hook saddle (right)					1	
G02	H32121I104	Hook shaft bushing (upper)	2	2		2		
G02	H33121I104	Hook shaft bushing (upper)			2		2	
G03	H32121I204	Needle bearing	2	2		2		K9.5×12.5×9.8
G04	H32121I304	Spacer	2	2		2		
G04	H33121I204	Spacer			2		2	
G05	H3207I0661	Screw	2	2	2	2	2	SM15/64(28)×30
G06	H3207I0066	Bushing	2	2	2	2	2	
G07	H3204I6512	Hook complete	2	2				
G07	H3308I0069	Hook complete			2			
G07	H6909H8001	Hook complete				2		
G07	H9209H8001	Hook complete					2	
G08	H6906H8001	Spring				2		
G08	H4922I8001	Spring					2	
G09	H2400I2020	Bobbin	2	2				
G09	H3300I2060	Bobbin			2			
G09	H6907H8001	Bobbin				2		
G09	H4912I8001	Bobbin					2	
G10	H3204I0656	Oil wick	2	2	2	2	2	
G11	H32153I504	Bobbin case opener holder pin	2	2	2	2	2	
G12	H32153I204	Screw	2	2	2	2	2	SM3/16（30）×7.8
G13	H32153I304	Ling	2	2		2		
G13	H33131I204	Ling			2		2	
G14	H32153I104	Bobbin case opener holder	2	2				
G14	H33131I104	Bobbin case opener holder			2		2	
G15	H2004J0067	Screw	2	2	2	2	2	SM9/64（40）×7
G16	H3200I2030	Washer	2	2	2	2	2	
G17	H3200I2020	Opener	2	2		2		
G17	H3305I0066	Opener			2		2	
G18	H005008050	Spring washer	2	2	2	2	2	GB/T93 5
G19	HA104G0658	Nut	2	2	2	2	2	
G21	H3204I0657	Screw	2	2	2	2	2	SM3/16(28)×14.5
G22	H32142I204	Gear (small)	2	2	2	2	2	
G23	HA105D0662	Screw	6	6	6	6	6	SM1/4（40）×4
G24	H32142I104	Gear (large)	2	2	2	2	2	
G25	H3204I0653	Hook shaft bushing (lower)	2	2	2	2	2	
G26	H2013J0065	Washer	2	2	2	2	2	
G27	H3200I2050	Screw	2	2	2	2	2	SM1/4(24)×23
G28	H3204I0658	Screw	2	2	2	2	2	SM3/16(28)×43
G29	H3204I0659	Nut	2	2	2	2	2	SM3/16(28)×9

G.HOOK SADDLE MECHANISM

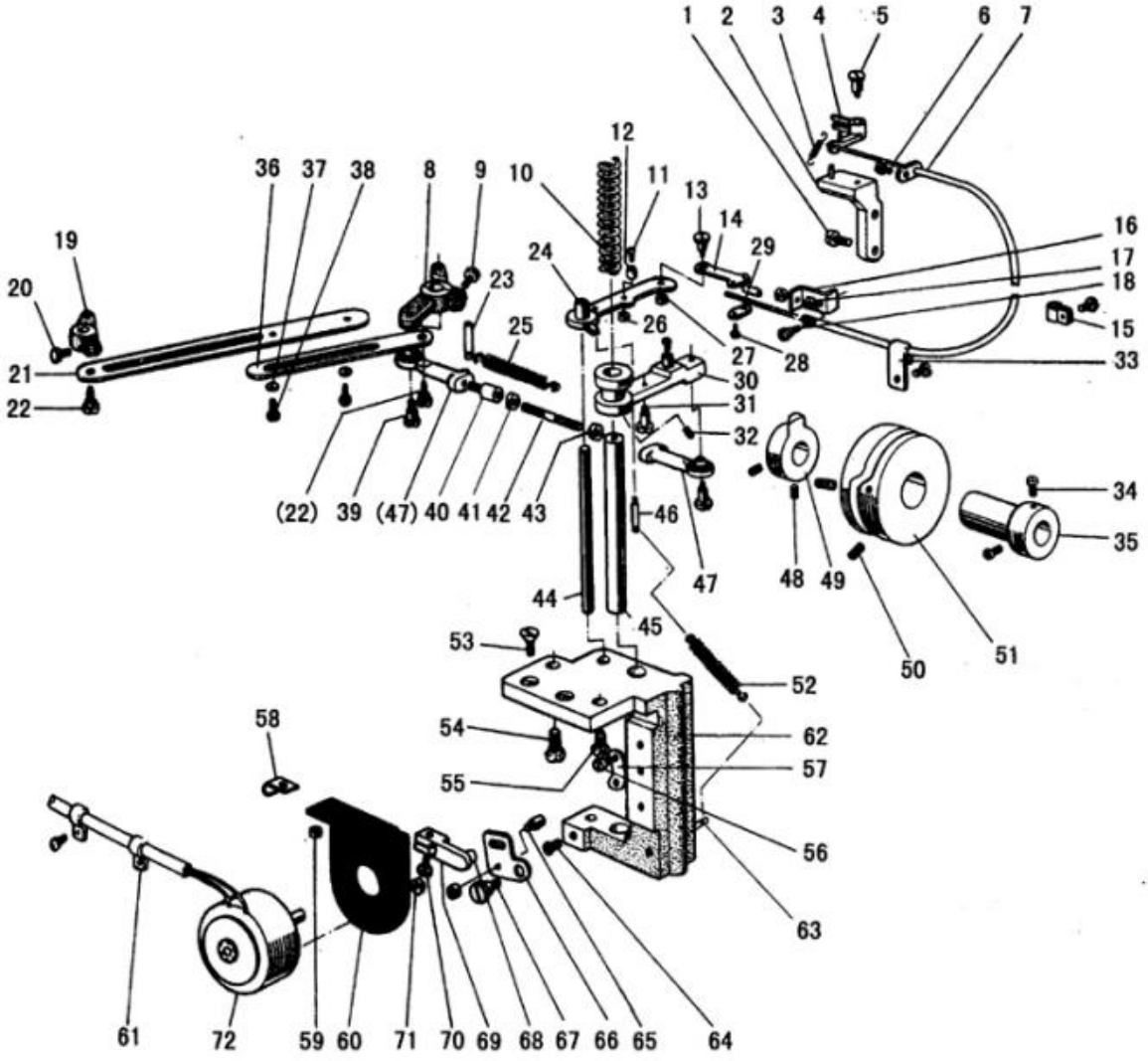
Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
G30	H005014050	Spring washer	1	1	1	1	1	GB/T955 5
G31	HA305E0662	Screw	4	4	4	4	4	SM15/64（28）×4.5
G32	HA307C0662	Screw	2	2	2	2	2	SM1/4（40）×6
G33	H320416510	Screw	2	2	2	2	2	SM1/4(40)×6.5
G34	H320910671	Hook saddle (left)	1	1				
G34	H330710681	Hook saddle (left)			1			
G34	H6905H8001	Hook saddle (left)				1		
G34	H491718001	Hook saddle (left)					1	

H.KNIFE MECHANISM （—）



H.KNIFE MECHANISM （一）

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
H01	H4905J8001	Screw				2	2	SM9/64（40）×7
H02	H4906J8001	Bolt				2	2	
H03	H4907J8001	Trimming knife holder				2	2	
H04	H4908J8001	Screw				6	6	SM9/64（40）×5
H05	H4909J8001	Fixed blade				2	2	
H06	H4914B8001	Screw				4	4	SM9/64（40）×4
H07	H4911J8001	Move knife				2	2	
H08	H4912J8001	Screw				2	2	SM1/8（40）×9.2
H09	H4913J8001	Screw				2	2	SM9/64（40）×4.5
H10	H4914J8001	Spring plate				2	2	
H11	H4915J8001	Screw				6	6	SM3/32（56）×3.8
H12	H4916J8001	Reversing spring				2	2	
H13	H6905I8001	Gulde (left)				1		
H13	H4917J8001	Gulde (left)					1	
H14	H4920J8001	Roller				2	2	
H15	H4921J8001	Lever				2	2	
H16	H4922J8001	Cover (right)				1	1	
H17	H6904I8001	Guide (right)				1		
H17	H4923J8001	Guide (right)					1	
H18	H4924J8001	Knife pad (right)				1	1	
H19	H4925J8001	Screw				1	1	SM9/64（40）×9.5
H20	H4926J8001	Knife pad (left)				1	1	
H21	H4927J8001	Cover (left)				1	1	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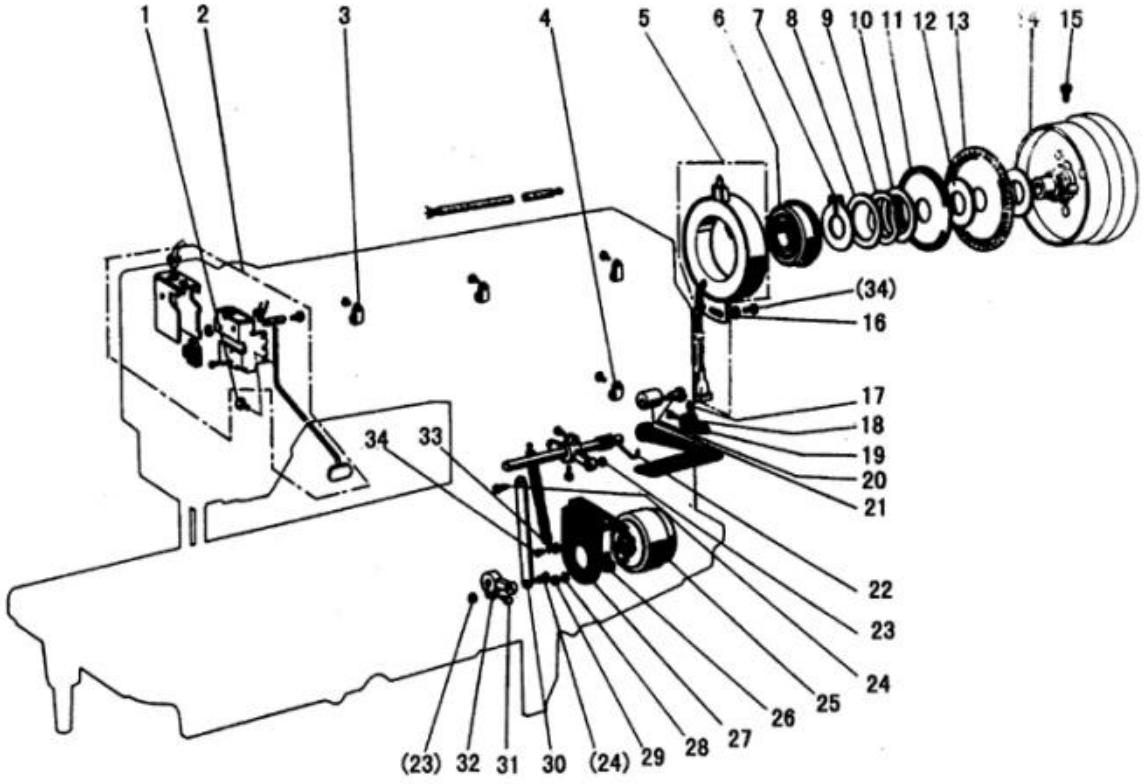
I.KNIFE MECHANISM （二）

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
I01	HA300C2030	Screw				2	2	SM11/64（40）×8
I02	H4915K7101	Thread releading bracket				1	1	
I03	H4918K8001	Spring				1	1	
I04	H4919K7101	Thread releading plate				1	1	
I05	H240012040	Screw				1	1	SM11/64（40）×5
I06	HA300B2170	Screw				4	4	SM11/64（40）×8
I07	H4923K7101	Flexible wire complete				1	1	
I08	H6907J8001	Arm				1		
I08	H4912K8001	Arm					1	
I09	H4913K8001	Bolt				1	1	SM15/64（28）×12.5
I10	H4945K8001	Spring				1	1	
I11	H4950K8001	Screw				1	1	SM11/64（40）×3.6
I12	H4949K8001	Roller				1	1	
I13	H4952K8001	Screw				1	1	SM3/16（28）×5
I14	H4953K8001	Mounting plate				1	1	
I15	HA708P0668	Nylon clip				1	1	
I16	H6905J8001	Mounting plate				1	1	
I17	H003002050	Nut				2	2	GB/T6170 M5
I18	H6906J8001	Screw				1	1	SM3/16（32）×3.5
I19	H4908K8001	Arm				1	1	
I20	H4907K8001	Bolt				1	1	
I21	H4906K8001	Link				1	1	
I22	H4905K8001	Screw				2	2	M5×7.5
I23	HA100H2080	Pin type				1	1	
I24	H4946K7101	Thread releasing lever				1	1	
I25	H4943K8001	Spring				1	1	
I26	H4951K8001	Nut				1	1	SM11/64（40）
I27	H4954K8001	Nut				1	1	SM3/16（28）
I28	H4956K8001	Screw				2	2	SM1/8（44）×7
I29	H4955K8001	Bushing				1	1	
I30	H4957K7101	Vibrating crank complete				1	1	
I31	H4944K8001	Screw				1	1	SM11/64（40）×5.5
I32	H4962K8001	Screw				2	2	SM11/64（40）×5
I33	HA708P0668	Nylon clip				1	1	
I34	HA113F0684	Screw				2	2	SM15/64（28）×8.5
I35	H6904J8001	Bushing				1	1	
I36	H4909K8001	Link				1	1	
I37	H005001050	Washer				1	1	GB/T97.1 5
I38	H4911K8001	Bolt				2	2	
I39	H4936K8001	Screw				2	2	M5×8.5
I40	H4987K8001	Ball joint (left)				1	1	
I41	H4940K8001	Nut (left)				1	1	M5
I42	H4939K8001	Bolt				1	1	

I.KNIFE MECHANISM（二）

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
I43	H003002050	Nut (right)				1	1	GB/T6170 M5
I44	H4964K8001	Shaft				1	1	
I45	H4963K8001	Shaft				1	1	
I46	H4985K8001	Screw				1	1	
I47	H3405D0663	Ball joint (right)				1	1	
I48	H3205G1114	Screw				2	2	M4×4
I49	H4934K8001	Cam				1	1	
I50	HA710E0692	Screw				2	2	SM1/4（40）×9.5
I51	H4932K8001	Cam				1	1	
I52	H4986K8001	Spring				1	1	
I53	H411050160	Screw				2	2	GB/T819.1 M5×16
I54	H2012N0652	Screw				1	1	SM1/4（24）×16
I55	H4983K8001	Screw				1	1	SM1/4（24）×13
I56	H4967K8001	Screw				3	3	SM11/64（40）×7
I57	H4966K8001	Stopper				1	1	
I58	H4981K8001	Holder				1	1	
I59	H003008050	Nut				2	2	GB/T6172.1 M5
I60	H4977K8001	Mounting plate				1	1	
I61	H4980K8001	Holder				2	2	
I62	H4965K8001	Set plate				1	1	
I63	H3700E2080	Pin type				1	1	
I64	H4969K8001	Screw				1	1	SM11/64（40）×8.5
I65	H4970K8001	Screw				1	1	SM11/64（40）×5
I66	H4971K8001	Lever				1	1	
I67	H4972K8001	Screw				1	1	SM11/64（40）×3.5
I68	H4973K8001	Pin				1	1	
I69	H4974K8001	Arm				1	1	
I70	HA111G0683	Screw				1	1	SM11/64（40）×12
I71	HA7111N304	Nut				1	1	SM11/64（40）
I72	H4979K8004	Solenoid complete				1	1	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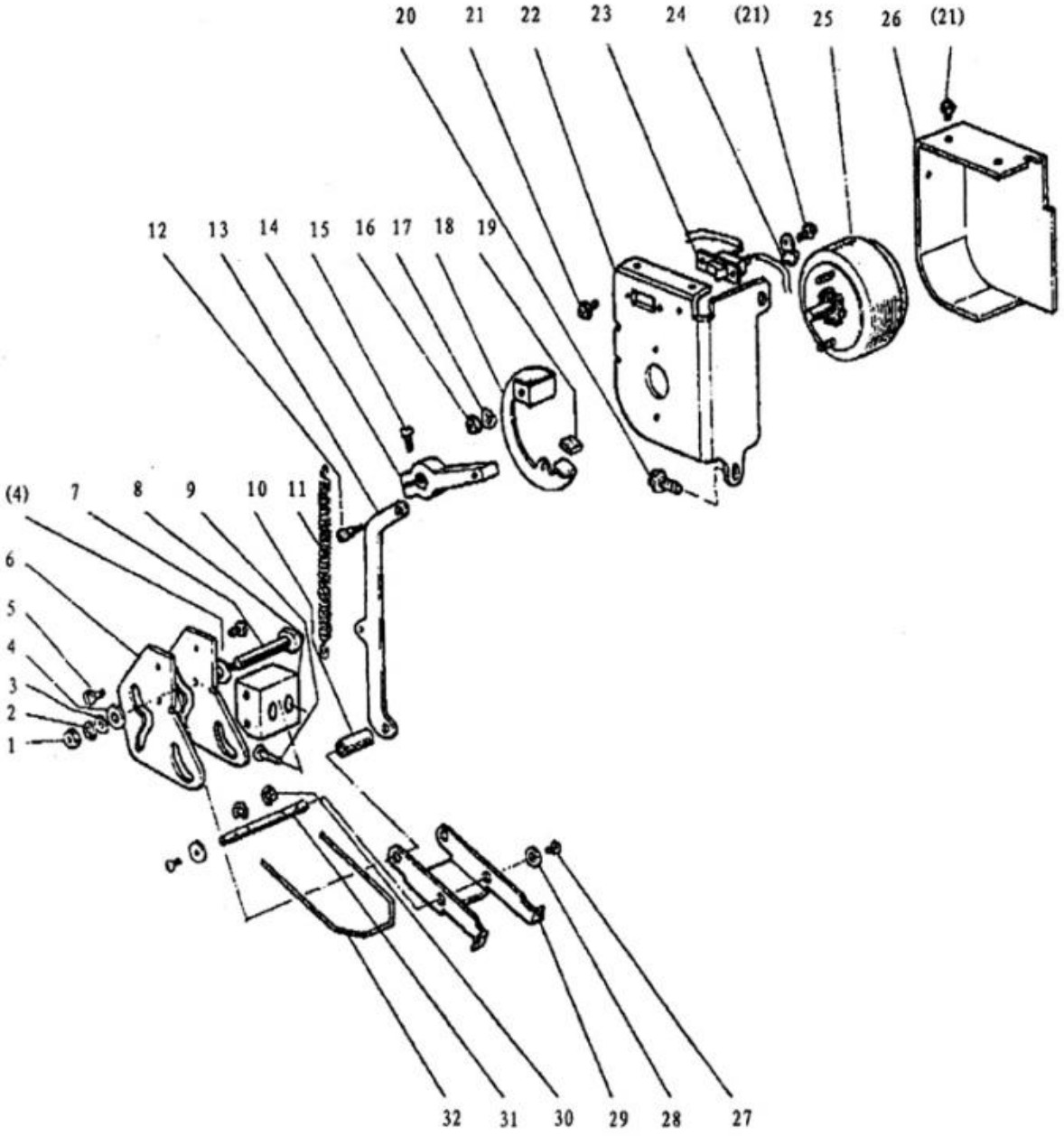
J.TOUCH BACK AND DETECTOR MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
J01	H4918L8001	Screw				2	2	M5
J02	H4905L7101	Touch switch (complete)				1	1	
J03	HA700Q0030	Cord holder				3	3	
J04	H4922L8001	Cord holder				1	1	
J05	HA703R0065	Detector bracket (complete)				1	1	
J06	H3205J0662	Ball bearing				1	1	NTN 6204Z
J07	H007009300	Retaining ring C-type				1	1	GB/T894.1 30
J08	HA700R0060	Washer				1	1	
J09	HA700R0050	Support spring				1	1	
J10	HA700R0040	Spacer B				1	1	
J11	H4928L8001	Speed command disk F20 (up)				1	1	
J12	HA700R0030	Spacer A				2	2	
J13	H4930L8001	Speed command disk F11 (down)				1	1	
J14	H4931L8001	Pulley (complete)				1	1	
J15	HA110D0672	Screw				1	1	SM15/64（28）×12
J16	HA703R0067	Washer				1	1	
J17	HA3411D308	Screw				1	1	SM15/64（28）×7
J18	H4936L8001	Lever (complete)				1	1	
J19	HA113F0684	Screw				1	1	SM15/64（28）×7.5
J20	H4937L8001	Screw				1	1	SM15/64（28）×6
J21	H4938L8001	Rubber ring				1	1	
J22	H4939L8001	Spring				1	1	
J23	H4940L8001	Nut				2	2	
J24	H4941L8001	Screw				2	2	SM15/64（28）×14
J25	H4943L8001	Solenoid (complete)				1	1	
J26	H102080120	Blot				2	2	GB/T5781 M8×12
J27	H6904K8001	Set plate				1	1	
J28	H005008060	Spring washer				2	2	GB/T93 6
J29	H003002060	Nut				2	2	GB/T6170 M6
J30	H4948L8001	Link				1	1	
J31	H4949L8001	Blot				1	1	SM15/64（28）×13
J32	H4950L8001	Arm				1	1	
J33	H4942L8001	Nut				1	1	SM11/64（40）
J34	HA300C2030	Screw				2	2	SM11/64（40）×8

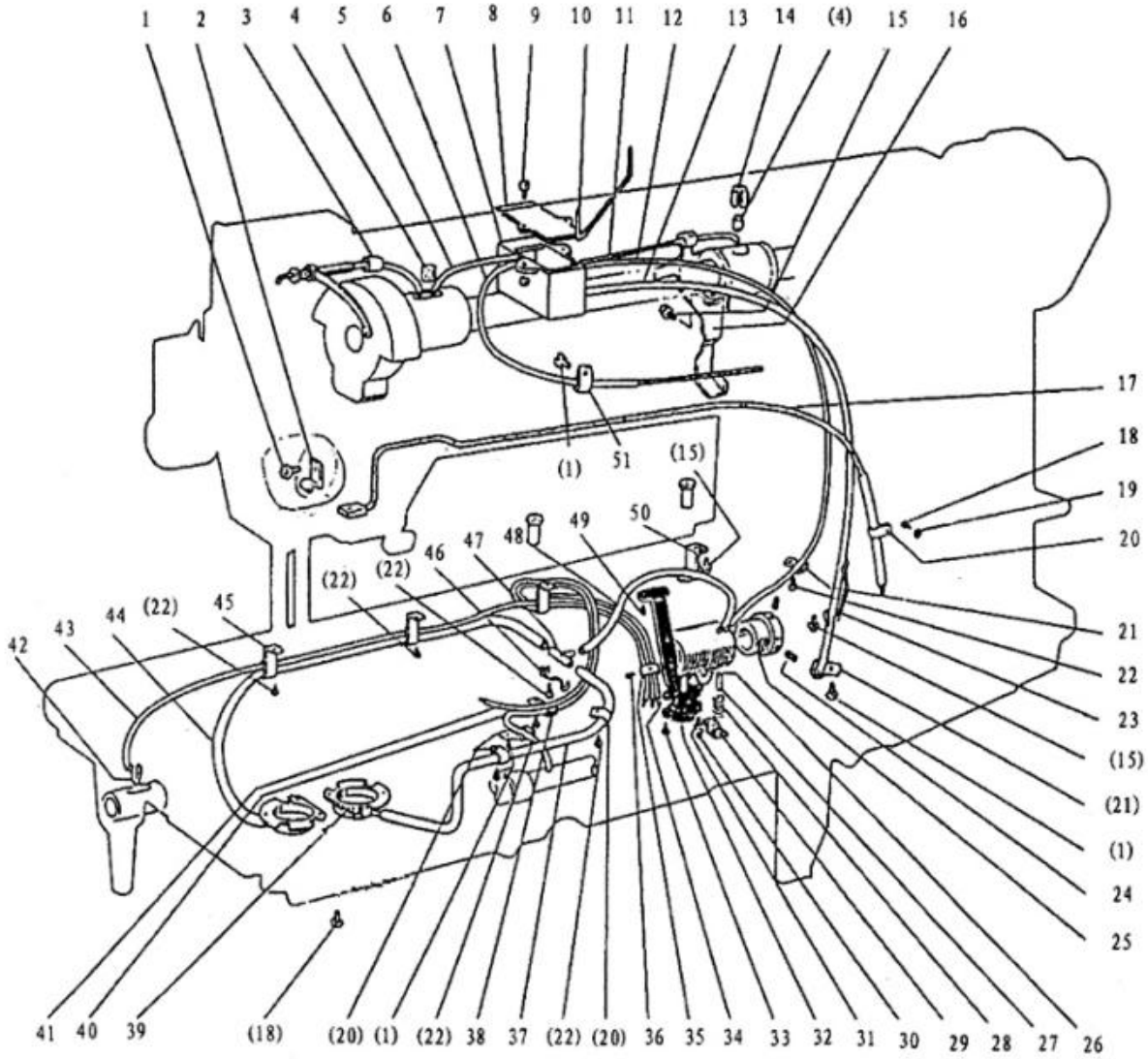
K.WIPER MECHANISM



K.WIPER MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
K01	H003002030	Nut				1		GB/T6170 M3
K02	H005009030	Spring washer				1		GB/T859 3
K03	H005006030	Washer				1		GB/T96 3
K04	H005004040	Washer				2		GB/T848 4
K05	HA300C2030	Screw				4		SM11/64(40)×7
K06	H6909L8001	Cam plate (complete)				2		
K07	H6910L8001	Shaft				1		
K08	H6911L8001	Wiper stand				1		
K09	H6912L8001	Screw				2		SM11/64(40)×20
K10	H6913L8001	Collar				1		
K11	H6914L8001	Spring				1		
K12	H6915L8001	Screw				1		SM9/64(40)×7.4
K13	H6916L8001	Link				1		
K14	H6917L8001	Wiper crank				1		
K15	HA111G0683	Screw				1		SM11/64(40)×11.4
K16	H003002040	Nut				2		GB/T6170 M4
K17	H005009040	Spring washer				2		GB/T859 4
K18	H6921L8001	Stopper plate				1		
K19	H6922L8001	Cushion				1		black
K20	HA100E2150	Screw				2		SM11/64(40)×8.2
K21	H409030060	Screw				6		GB/T818 M3×6
K22	H6924L8001	Solenold plate				1		
K23	HA708P0665	Switch				1		
K24	HA700P0060	Cord holder				1		
K25	H6928L8001	Rotary solenold				1		
K26	H6929L8001	Cover				1		
K27	HA104G0654	Screw				2		SM1/8(44)×6
K28	H6932L8001	Washer				2		
K29	H6930L8001	Wiper silde plate				1		
K30	H007013040	E-type stop ring				2		GB/T896 4
K31	H6927L8001	Wiper shaft				1		
K32	H6931L8001	Wiper				1		

L.OIL LUBRICATION MECHANISM

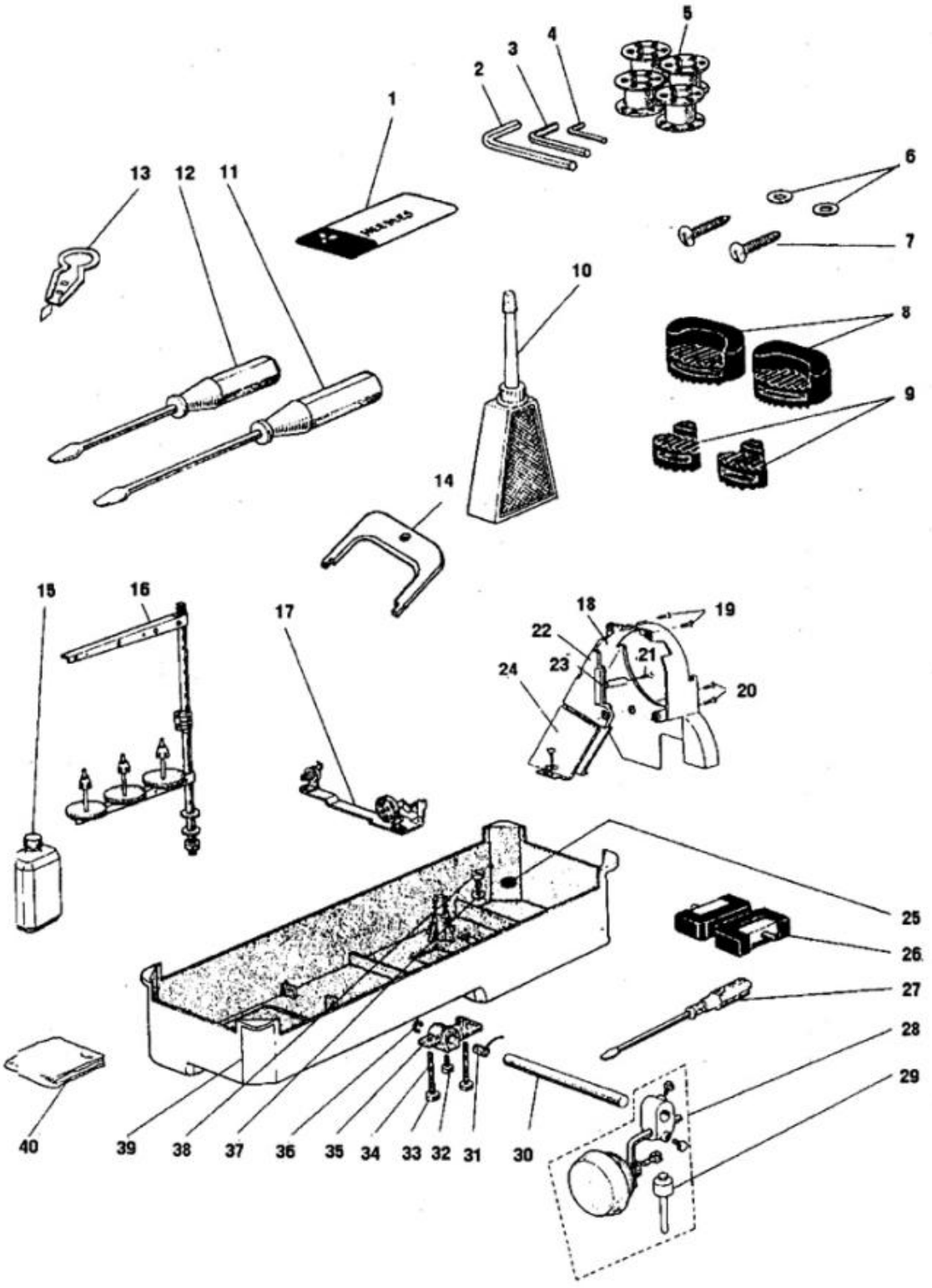


L.OIL LUBRICATION MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
L01	HA300C2030	Screw	3	3	3	3	3	SM9/64(40)×8
L02	H3200K0050	Holder	1	1	1	1	1	
L03	H3210K0672	Pipe	1	1	1	1	1	
L04	H32175B304	Felt	2	2	1	2	1	
L05	H3204K0032	Oil pipe & wick complete	1	1	1	1	1	
L06	H3204K0043	Oil pipe & wick complete	1	1	1	1	1	
L07	H3204K0011	Oil tank complete	1	1	1	1	1	
L08	H3204K0659	Gasket	1	1	1	1	1	
L09	H411040160	Screw	2	2	2	2	2	GB/T819.1 M4×16
L10	H3204K0658	Holder	1	1	1	1	1	
L11	H3204K0074	Oil pipe & wick complete	1	1		1		
L12	H3204K0655	Pipe	1	1	1	1	1	
L13	H3204K0656	Pipe	1	1	1	1	1	
L14	H3200K0230	Pipe	1	1		1		
L15	HA300B2170	Screw	3	3	3	3	3	SM11/64(40) 9
L16	H3200K0040	Holder	1	1	1	1	1	
L17	H3209K0066	Pipe & felt complete	1	1	1	1	1	
L18	HA7311CC06	Screw	7	7	7	7	7	SM9/64(40)×6.5
L19	H005008030	Spring washer	1	1	1	1	1	GB/T93 3
L20	H32311D606	Holder	4	4	4	4	4	
L21	H3200K0190	Holder	2	2	2	2	2	
L22	HA300B2130	Screw	7	7	7	6	6	SM11/64(40)×5.5
L23	H3200K0200	Holder	1	1	1	1	1	
L24	H3230K0751	Screw	2	2	2	2	2	SM11/64(40)×10
L25	H3230K0752	Bushing	1	1	1	1	1	
L26	H3215K0696	Pipe	1	1	1	1	1	
L27	H1100I2070	Pin	1	1	1	1	1	
L28	H1100I2090	Spring	1	1	1	1	1	
L29	H1100I2110	Spring holder	1	1	1	1	1	
L30	H3204D6510	Screw	1	1	1	1	1	SM1/8(44)×4.8
L31	H3215K0693	Screw	1	1	1	1	1	SM9/64（40）×5
L32	H3215K0692	Filter	1	1	1	1	1	
L33	H3215K0694	Screw	1	1	1	1	1	SM9/64(40)×7
L34	H3215K4011	Base plate complete	1	1	1	1	1	
L35	H3215K0695	Holder	1	1	1	1	1	
L36	H3215K0693	Screw	1	1	1	1	1	SM9/64(40)×4.5
L37	H3210K0672	Pipe	1	1	1	1	1	
L38	H3200K0170	Holder	1	1	1	1	1	
L39	H3211K0068	Cover complete	2	2	2	2	2	
L40	H3218K0072	Oil pipe & wick complete	1	1	1	1	1	
L41	H3219K0072	Oil pipe & wick complete	1	1	1	1	1	
L42	H3200K0180	Oil wick	3	3	3	3	3	
L43	H3216K0070	Oil pipe & wick complete	1	1	1	1	1	

L.OIL LUBRICATION MECHANISM

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
L44	H3204K0655	Pipe	1	1	1	1	1	
L45	H3200K0160	Holder	2	2	2	2	2	
L46	H3210K0675	Holder	1	1	1	1	1	
L47	H3210K0671	Oil pipe connector	1	1	1	1	1	
L48	HW48887-18	Pipe	1	1	1	1	1	
L49	HA100E2150	Screw	2	2	2	2	2	SM9/64(40)×10
L50	H3200K0250	Holding plate	1	1	1	1	1	
L51	H3200K0030	Holder	1	1	1	1	1	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M.ACCESSORIES

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
M01	H3204D0658	Needle	6			6		DP×5 #14
M01	H3300L0020	Needle		6	6		6	DP×5-#21
M02	H3208L8001	Socket wrench 2.5				1	1	
M03	H3209L8001	Socket wrench 3				1	1	
M04	H4905N8001	Socket wrench 2				1	1	
M05	H2400I2020	Bobbin	4	4				
M05	H3306I0067	Bobbin			4			
M05	H6910E8001	Bobbin				4		
M05	H4912I8001	Bobbin					4	
M06	HA300J2230	Washer	4	4	4	4	4	
M07	H801045200	Screw	4	4	4	4	4	GB/T99 4.5×20
M08	H3200L0020	Vibration preventing rubber	2	2	2	2	2	
M09	H3200L0030	Vibration preventing rubber	2	2	2	2	2	
M10	HA100J2110	Oiler	1	1	1	1	1	
M11	HA300J2200	Screw driver (middle)	1	1	1	1	1	
M12	HA300J2210	Screw driver (small)	1	1	1	1	1	
M13	H3207L0651	Thread a needle kit	1	1	1	1	1	
M14	HA704S0654	Adjusting plate for speed command disc				1	1	
M15	H3200L0130	Oil can	1	1	1	1	1	
M16	H3200L0120	Cotton Stand	1	1	1	1	1	
M17	H3200L0190	Bobbin winder	1					black
M17	HA109J0068	Bobbin winder		1				black
M17	H3300L0040	Bobbin winder			1			black
M17	HA706S0067	Bobbin winder				1	1	gray
M18	H2008O0068	Belt cover 1	1	1	1	1	1	
M19	HA300B2170	Screw	2	2	2	2	2	SM11/64(40)×8
M20	HA300J2280	Screw	2	2	2	2	2	SM15/64(28)×8
M21	HA300J2250	Screw	1	1	1	1	1	SM4×8
M22	H2008O0070	Belt cover 2	1	1	1			black
M22	H2008O0070	Belt cover 2				1	1	gray
M23	H003008040	Nut	1	1	1	1	1	GB/T6172.1 M4
M24	HA305J0666	Belt cover 3	1	1	1			black
M24	HA305J0666	Belt cover 3				1	1	gray
M25	HA100J2120	Magnet block for reservoir	1	1	1	1	1	
M26	HA307J0067	Hinge complete	2	2	2	2	2	
M27	HA300J2070	Screw driver (large)	1	1	1	1	1	
M28	H3214L0067	Small parts	1	1	1	1	1	
M29	H3214L2011	Knee lifter pin	1	1	1	1	1	
M30	H3213L0662	Knee lifter shaft	1	1	1	1	1	
M31	HA104J0657	Spring	1	1	1	1	1	
M32	HA106J0664	Bolt	1	1	1	1	1	
M33	HA104J6510	Nut	2	2	2	2	2	SM15/64（28）
M34	HA104J0659	Screw	2	2	2	2	2	SM15/64(28)×27

M.ACCESSORIES

Fig. No.	Part No.	Description	GC20518-M	GC20518-H	GC20518-B	GC20518-M-D	GC20518-B-D	Remarks
M35	H3213L0664	Knee lifter crank	1	1	1	1	1	
M36	H007013090	E-type stop ring	1	1	1	1	1	GB/T896 9
M37	HA104J0653	Washer	1	1	1	1	1	
M38	HA104J0652	Screw	1	1	1	1	1	SM5/16(28)×8.2
M39	H3213L0661	Oil reservoir	1	1	1	1	1	
M40	HA100J2180	Vinyl cover	1	1	1	1	1	

Gauge Parts List

						
Gauge Size	Needle Plate	Feed Dog	Presser Foot	Needle Clamp	Slide Plate (L)	Slide Plate (R)
GC20518-M						
3/32(2.4mm)	H3200B2210	H3200G2130	H3214E0065	H3200D2040	H3200B2140	H3200B2150
1/8(3.2mm)	H3200B2220	H3200G2140	H3215E0066	H3200D2050	H3200B2140	H3200B2150
5/32(4mm)	H3200B2230	H3200G2150	H3216E0067	H3200D2060	H3200B2140	H3200B2150
3/16(4.9mm)	H3200B2240	H3200G2170	H3218E0069	H3200D2070	H3200B2140	H3200B2150
7/32(5.6mm)	H3200B2250	H3200G2160	H3217E0068	H3200D2080	H3200B2140	H3200B2150
1/4(6.4mm)	H3200B2110	H32211G305	H3231E0081	H3204D0032	H3200B2140	H3200B2150
5/16(8mm)	H3200B2260	H3200G2180	H3219E0070	H3200D2090	H3200B2350	H3200B2150
3/8(9.5mm)	H3200B2270	H3200G2190	H3220E0071	H3200D2100	H3200B2350	H3200B2150
1/2(12.7mm)	H3200B2280	H3200G2060	H3221E0072	H3200D2110	H3200B2360	H3200B2150
5/8(16mm)	H3200B2290	H3200G2070	H3222E0074	H3200D2120	H3200B2360	H3200B2150
3/4(19mm)	H3200B2300	H3200G2080	H3223E0075	H3200D2130	H3200B2370	H3200B2410
1(25.4mm)	H3200B2310	H3200G2090	H3224E0076	H3200D2140	H3200B2380	H3200B2410
1 1/8(28.5mm)	H3200B2320	H3200G2100	H3225E0077	H3200D2150	H3200B2390	H3200B2410
1 1/4(31.8mm)	H3200B2330	H3200G2110	H3226E0078	H3200D2160	H3200B2390	H3200B2410
1 1/2(38.1mm)	H3200B2340	H3200G2120	H3227E0080	H3200D2170	H3200B2400	H3200B2410
GC20518-H、GC20518-B						
3/32(2.4mm)	H3300B2130	H3200G2130	H3310E0071	H3200D2040	H3200B2140	H3200B2150
1/8(3.2mm)	H3300B2140	H3300G2100	H3307E0068	H3200D2050	H3200B2140	H3200B2150
5/32(4mm)	H3300B2150	H3300G2110	H3311E0072	H3200D2060	H3200B2140	H3200B2150
3/16(4.9mm)	H3300B2160	H3300G2120	H3305E0066	H3200D2070	H3200B2140	H3200B2150
7/32(5.6mm)	H3300B2170	H3300G2130	H3312E0074	H3200D2080	H3200B2140	H3200B2150
1/4(6.4mm)	H3300B2020	H3304G0011	H3304E0065	H3204D0032	H3200B2140	H3200B2150
5/16(8mm)	H3300B2180	H3300G2140	H3306E0067	H3200D2090	H3200B2350	H3200B2150
3/8(9.5mm)	H3300B2190	H3300G2150	H3308E0069	H3200D2100	H3200B2350	H3200B2150
1/2(12.7mm)	H3300B2060	H3300G2030	H3309E0070	H3200D2110	H3200B2360	H3200B2150
5/8(16mm)	H3300B2070	H3300G2040	H3313E0075	H3200D2120	H3200B2360	H3200B2150
3/4(19mm)	H3300B2080	H3300G2050	H3314E0076	H3200D2130	H3200B2370	H3200B2410
1(25.4mm)	H3300B2090	H3300G2060	H3315E0077	H3200D2140	H3200B2380	H3200B2410
1 1/8(28.5mm)	H3300B2100	H3300G2070	H3316E0078	H3200D2150	H3200B2390	H3200B2410
1 1/4(31.8mm)	H3300B2110	H3300G2080	H3317E0080	H3200D2160	H3200B2390	H3200B2410
1 1/2(38.1mm)	H3300B2120	H3300G2090	H3318E0081	H3200D2170	H3200B2400	H3200B2410

Gauge Parts List

						
Gauge Size	Needle Plate	Feed Dog	Presser Foot	Needle Clamp	Slide Plate (L)	Slide Plate (R)
GC20518-M-D						
3/32 (2. 4mm)	H6909B8001	H6909G8001	H3214E0065	H3200D2040	H4732B8001	H4733B8001
1/8 (3. 2mm)	H6910B8001	H6910G8001	H3215E0066	H3200D2050	H4732B8001	H4733B8001
5/32 (4mm)	H6911B8001	H6911G8001	H3216E0067	H3200D2060	H4732B8001	H4733B8001
3/16 (4. 9mm)	H6906B8001	H6912G8001	H3218E0069	H3200D2070	H4732B8001	H4733B8001
7/32 (5. 6mm)	H6913B8001	H6913G8001	H3217E0068	H3200D2080	H4732B8001	H4733B8001
1/4 (6. 4mm)	H6908B8001	H6904G8001	H3231E0081	H3204D0032	H4732B8001	H4733B8001
5/16 (8mm)	H6914B8001	H6914G8001	H3219E0070	H3200D2090	H4746B8001	H4733B8001
3/8 (9. 5mm)	H6915B8001	H6915G8001	H3220E0071	H3200D2100	H4746B8001	H4733B8001
1/2 (12. 7mm)	H6916B8001	H6916G8001	H3221E0072	H3200D2110	H4747B8001	H4733B8001
5/8 (16mm)	H6917B8001	H6917G8001	H3222E0074	H3200D2120	H4747B8001	H4733B8001
3/4 (19mm)	H6918B8001	H6918G8001	H3223E0075	H3200D2130	H4748B8001	H4753B8001
1 (25. 4mm)	H6919B8001	H6919G8001	H3224E0076	H3200D2140	H4749B8001	H4753B8001
1 1/8 (28. 5mm)	H6920B8001	H6920G8001	H3225E0077	H3200D2150	H4752B8001	H4753B8001
1 1/4 (31. 8mm)	H6921B8001	H6921G8001	H3226E0078	H3200D2160	H4752B8001	H4753B8001
1 1/2 (38. 1mm)	H6922B8001	H6922G8001	H3227E0080	H3200D2170	H6923B8001	H4753B8001
GC20518-B-D						
1/8 (3. 2mm)	H9208B8001	H9206G8001	H3307E0068	H3200D2050	H4732B8001	H4733B8001
5/32 (4mm)	H9209B8001	H9207G8001	H3311E0072	H3200D2060	H4732B8001	H4733B8001
3/16 (4. 9mm)	H9206B8001	H9208G8001	H3305E0066	H3200D2070	H4732B8001	H4733B8001
7/32 (5. 6mm)	H9211B8001	H9209G8001	H3312E0074	H3200D2080	H4732B8001	H4733B8001
1/4 (6. 4mm)	H9204B8001	H9204G8001	H3304E0065	H3204D0032	H4732B8001	H4733B8001
5/16 (8mm)	H9212B8001	H9210G8001	H3306E0067	H3200D2090	H4746B8001	H4733B8001
3/8 (9. 5mm)	H9213B8001	H9211G8001	H3308E0069	H3200D2100	H4746B8001	H4733B8001
1/2 (12. 7mm)	H9214B8001	H9212G8001	H3309E0070	H3200D2110	H4747B8001	H4733B8001
5/8 (16mm)	H9215B8001	H9213G8001	H3313E0075	H3200D2120	H4747B8001	H4733B8001
3/4 (19mm)	H9216B8001	H9214G8001	H3314E0076	H3200D2130	H4748B8001	H4753B8001
1 (25. 4mm)	H9217B8001	H9215G8001	H3315E0077	H3200D2140	H4749B8001	H4753B8001
1 1/8 (28. 5mm)	H9218B8001	H9216G8001	H3316E0078	H3200D2150	H4752B8001	H4753B8001
1 1/4 (31. 8mm)	H9219B8001	H9217G8001	H3317E0080	H3200D2160	H4752B8001	H4753B8001
1 1/2 (38. 1mm)	H9220B8001	H9218G8001	H3318E0081	H3200D2170	H6923B8001	H4753B8001

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