

HIGHLEAD

GC1998-MCDZ

**High Speed Semi-Dry Direct Drive Lockstitcher With Edge
Cutter And Thread Trimmer**

**Instruction Manual
Parts Catalog**

SHANGHAI BIAOZHUN HAILING SEWING MACHINERY CO., LTD.

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1. PRECAUTIONS BEFORE STARTING 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,.
- (3) The power must be turned off before tilting the machine head, installing or adjusting the machine, or when replacing.
- (4) Avoid placing fingers, hairs bars etc. nears the pulley, bobbin winder pulley, 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 mini motor 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 machine nameplate.

3) Precaution for Operating Conditions

- (1) Avoid using the machine at abnormally high temperature (35°C or higher) or low temperatures (5°C or lower). Otherwise, machine failure may result.
- (2) Avoid using the machine in dusty conditions.

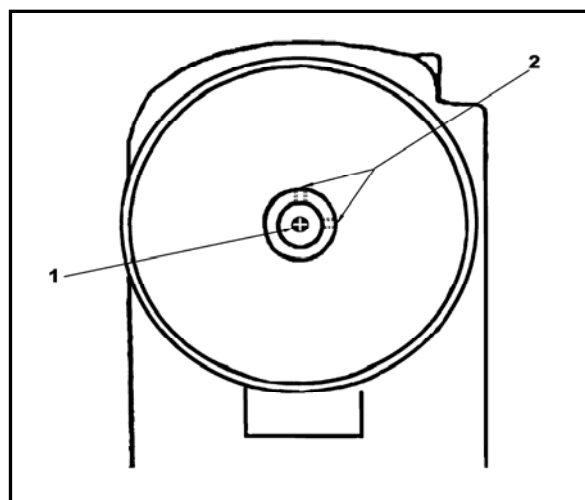
2. PREPARETION BEFORE START TO OPERATE

Adjustment of needle bar stop position

1) Adjust of "UP" position

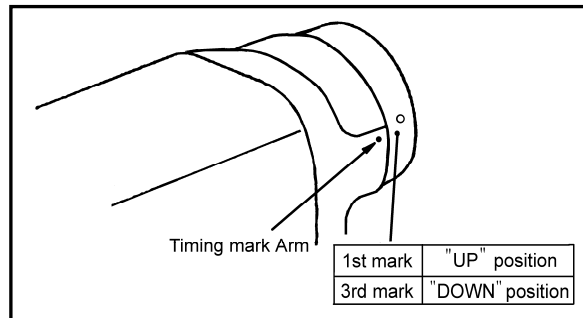
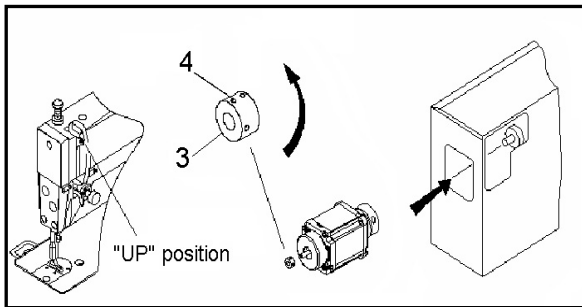
When the pedal is kicked down by heel, the machine stops at "UP" position. If the marks deviate larger than 3mm adjust as follows.

- (1) Loosen the screw 1 and 2,

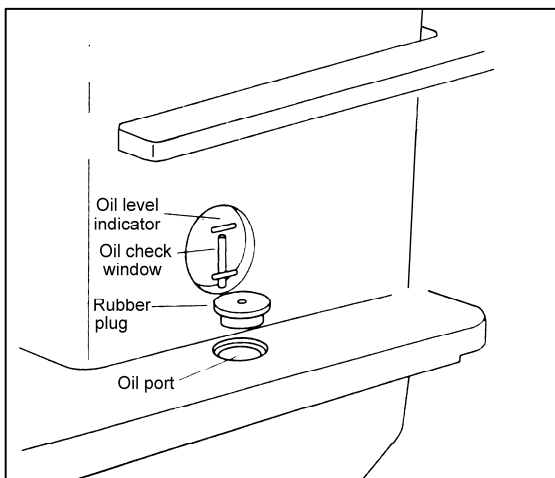


(2) Run the machine and stop at "UP" position. Then turn the magnet base counter clockwise until the screws 4 on the upside and then tight the screws.

(3) When the 1st mark of pulley is align with the timing mark arm, tighten the screw 2, then tight the screw 1.



3. PRECAUTIONS FOR STARTING TO OPERATE



1) Lubrication

Before starting sewing machine operation, fill oil for hook lubrication into the oil tank.

(1) Remove the rubber plug from the oil port, and fill the oil from the oil port.

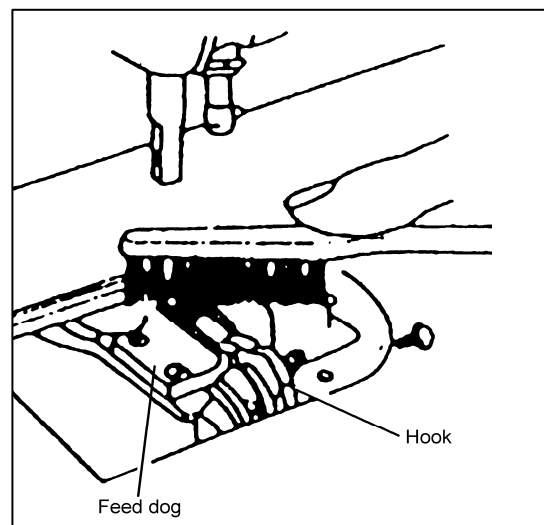
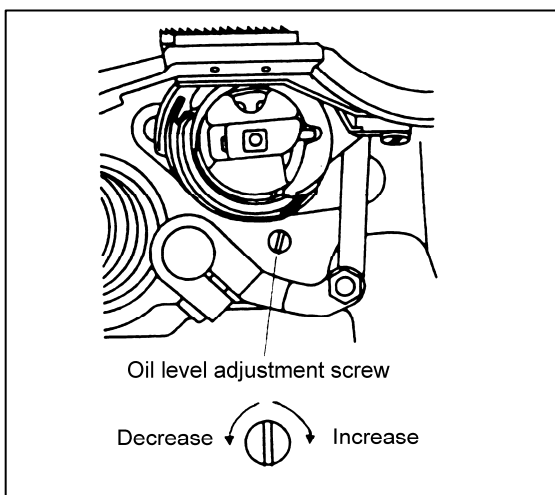
(2) Fill in oil until the tip of the oil level indicator matches the line in the oil check window.

(3) When done filling the oil, set the rubber plug into the oil port.

(4) If the tip of the oil level indicator drops below the line in the oil check window during operation, replenish the oil.

2) Adjustment of the amount of oil for hook

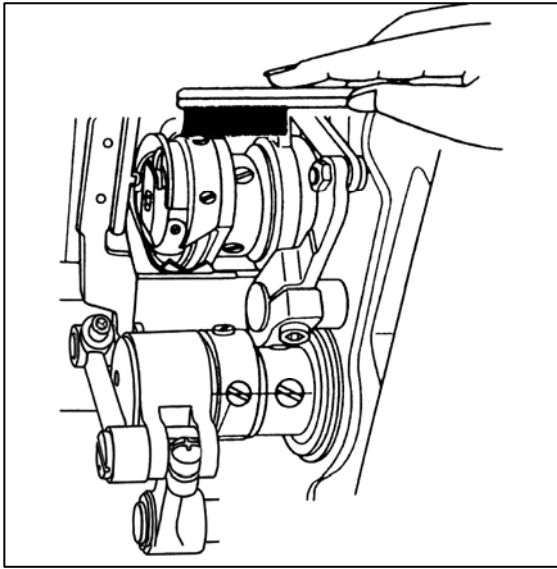
turn the oil level adjustment screw, and adjust amount of oil for hook..



3) Periodical cleaning

a. Machine

(1) Remove the throat plate and clean the feed dog.



(2)Assembling is to be made by screwing in the screw by 2 to 3rotations by hand at first, then tightening them evenly by use of a long size screw driver.

3)Lay down the machine head and clean the hook and inner bobbin case.

b. Maintenance of motor

Remove dust from the motor filter every one or two month.

(If operation is continued with the filter clogged with lint or dust, the motor might overheat.)

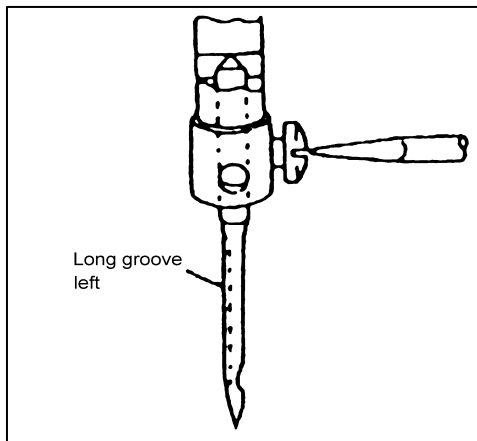
c.Control box

Remove dust from the connector (If the connector covered with dust, machine might misoperation.)

4) Precaution for detector

The lights type detection element is used in the mini motor. Thus, take care not to adhere dust or oil on the detector plate sewing machine pulley is removed for adjustments, etc. If dust or oil does adhere, wipe off with a soft cloth.

4. HOW TO USE THE MACHINE



1) How to attach needle

Note: Before making the following adjustment, be sure to switch off the power source.

Insert the needle up to the bottom of needle clamp and tighten the screw keeping the long groove side of needle forward the left.

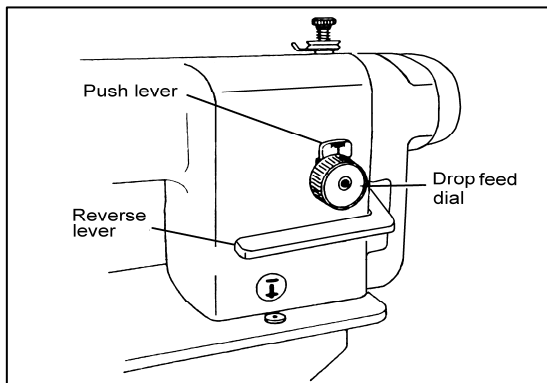
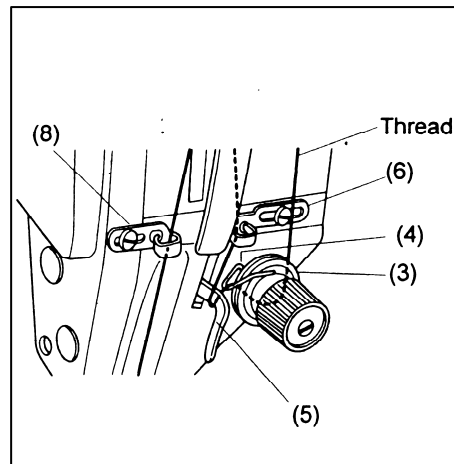
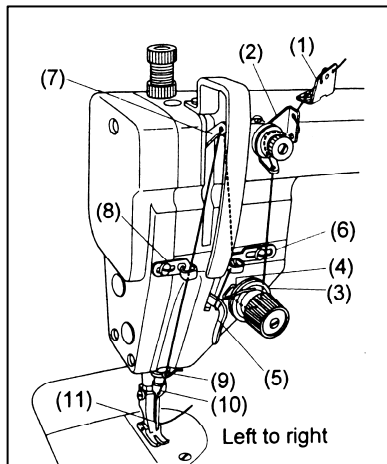
Note: if snapping of thread occurs during back Sewing with polyester threads, it may be avoided by fitting the needle with the long groove Shifted to the front side.

Use DB×1 or DA×1 needle. According to fabric & thread ,please choose the size of needle as follows.

Size of Needle	No. of thread	Fabric
#9	#100 to #80	Extra thin fabric such as de Chin, Georgette, Organdy.etc
#11	#80 to #60	Thin fabric such as Silk, Calico, Poplin. etc.
#14	#60 to #50	General fabrics such as Cotton,Wooden fabric ,etc.
#16	#50 to #30	Thick Cablico,Thick wooden fabric, Water proof cloth, thin leather,ect.
#18	#40 to #20	Thick fabric such as Suiting and Coat material, thin Pouches, Denim , ect.

2) Threading

Raise the thread take-up lever to its highest position and thread the upper thread in the following order.



3) Adjusting of stitch length & reverse lever

(1) Rotate the drop feed dial while depressing the reverse lever and then, pressing the push lever, when making the stitch length shorter.

(2) If the reverse lever is depressed, reverse sewing (backward sewing) will take place.

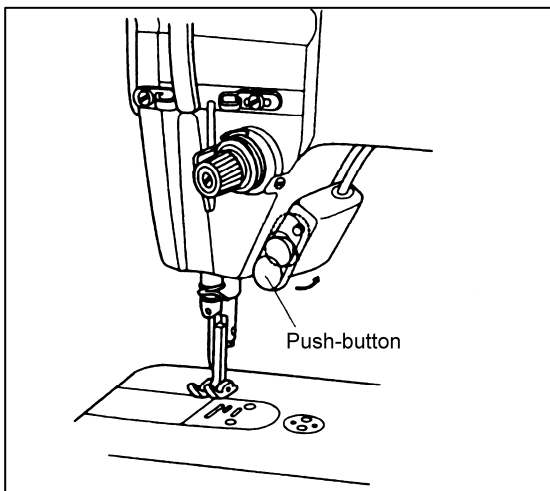
(3) Touchback switch

a. With the push-button (touchback switch) pressed lightly during sewing, reverse sewing can be done.

Reverse sewing will take place while the push-button is pressed.

When the push-button is released, reverse sewing turns into forward sewing.

b. When the push-button is turned 180 degrees in the direction of the arrow, the switch will be locked, and backward sewing will not take place even if the button is pressed.

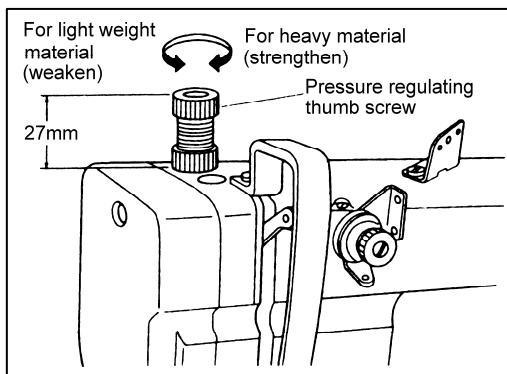


4) Adjusting of the thread guide

	1	2	3
	Left	Middle	Right
Thread guide position			

Materials	Heavy	Medium	Light
Thread(Ref.)	Polyester	Polyester #50 to #60	Polyester #50 to #60
	Cotton Vinylon #30 or more	Cotton Vinylon #50 to #80	

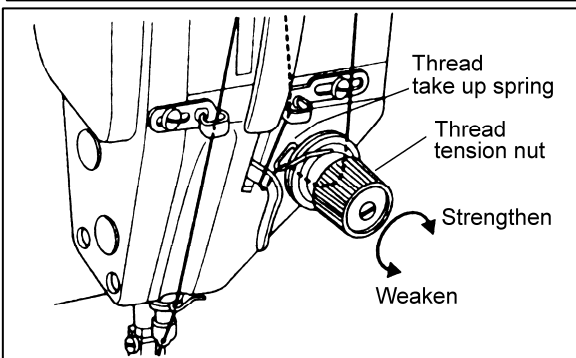
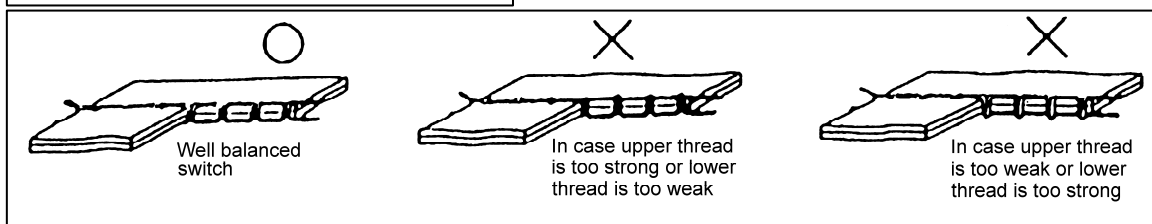
Refer to the table above, and adjust according to the stitching conditions, the material and thread



5) Adjusting of pressure of presser foot

Pressure of the presser foot can be adjusted by turning the pressure regulating thumb screw

6) Adjusting of thread tension

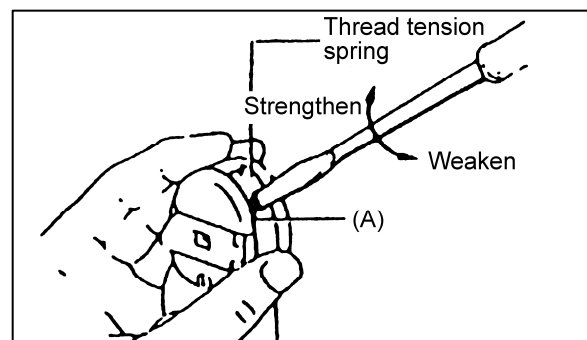


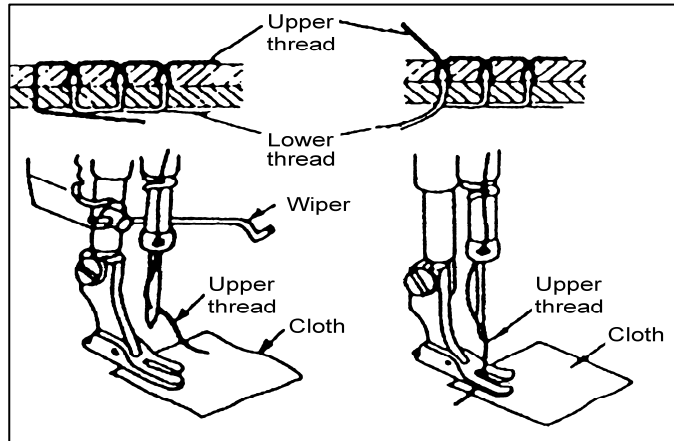
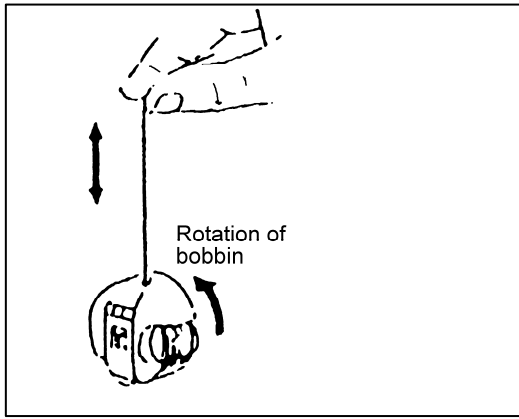
7) Adjusting of upper thread tension

- (1) Upper thread tension can be adjusted by thread tension nut.
- (2) Upper thread is to be adjusted according to the lower thread tension.
- (3) For special fabric sewing with special thread, the desired tension can be obtained by adjusting the strength and operating range of thread take-up spring.

8) Adjusting of lower thread tension

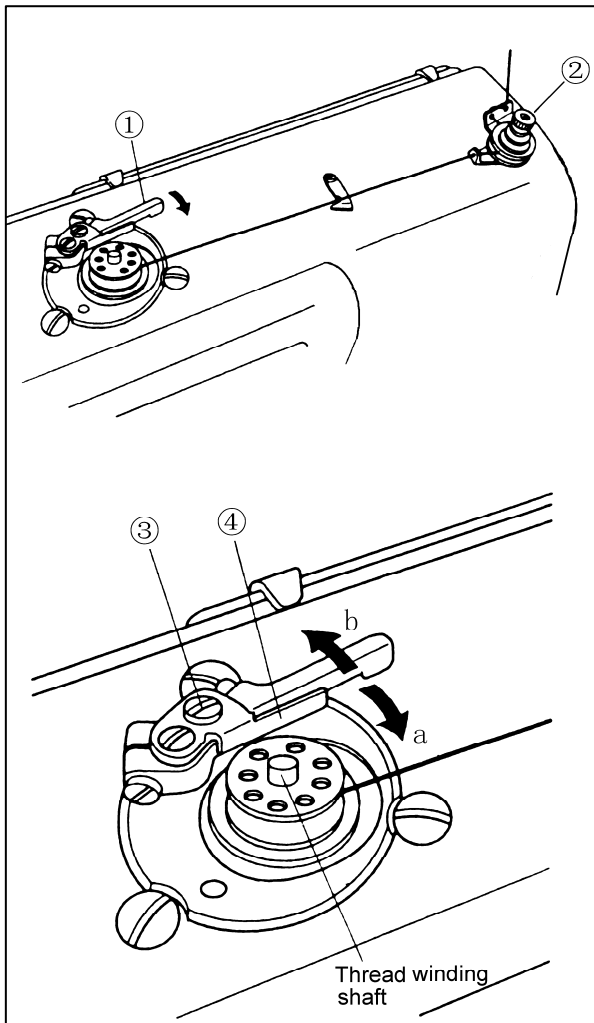
- (1) Lower thread tension can be adjusted by screw (A).
- (2) In the case of cotton thread #60, the thread tension can be checked as the following. Hold the end of pulled out thread and if the bobbin case fall slowly, the tension is proper.





9) Thread wiper(for machine equipped with thread wiper)

- (1) When the thread wiper is operated, in next sewing at starting point the end of upper thread does not remain on the surface of fabric.
- (2) Turn the switch OFF when not required. The switch is located in the wiper solenoid cover behind the arm.

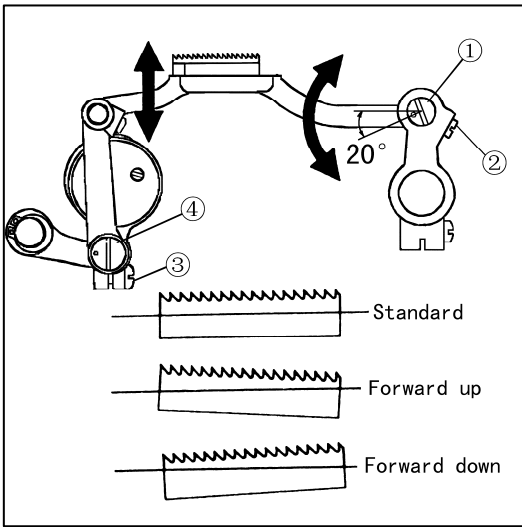


10) How to wind the lower thread on the bobbin

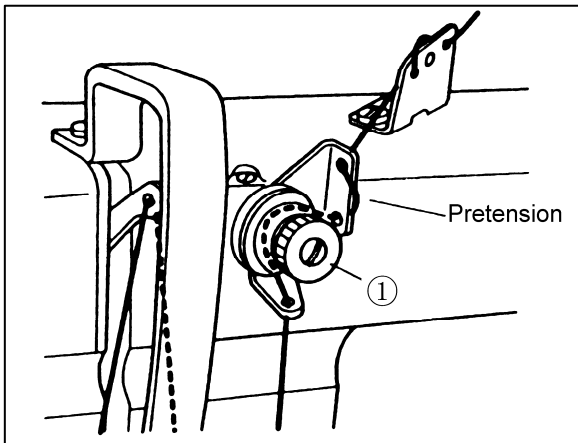
- (1) Press the bobbin onto the thread winding shaft.
- (2) Pass the thread for winding thread as shown in the figure, and wind the end of the thread clockwise around the bobbin several times, then wind the thread on the thread adjuster side counter-clock wise several times.
- (3) Press lever ① in the direction of the arrow, and start the sewing machine.
- (4) The operation will automatically stop when winding is completed.
- (5) Adjustment of thread winding strength
Adjust with the thread adjuster nut ②.
- (6) Adjustment of thread winding amount
Adjust by loosening screw ③ and moving the adjustment plate ④
 - a. The thread winding amount will decrease when moved in the direction of a.
 - b. The thread winding amount will increase when moved in the direction of b.

11) Adjustment of feed dog height and inclination

- (1) As a standard, the eccentric shaft ① mark on the left of the horizontal feed arm is set to the direct left side, and the feed dog height is set to 0.8mm (maximum) as shown in the figure.

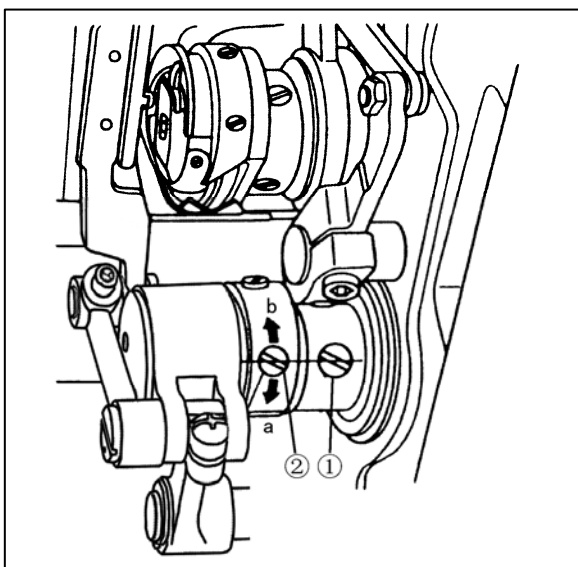


- (2) To adjust the feed dog height and inclination, loosen the screw ③, and turn the eccentric shaft ④, loosen the screw ② at the left of the horizontal feed arm, and turn the eccentric shaft ①.
- (3) When the eccentric shafts are set to "DOWN" position, puckering may be avoided and free loop is less likely to occur.
- (4) When the eccentric shafts are set to "UP" position, misalignment of fabrics is less likely to occur and yarn severance may be avoided.



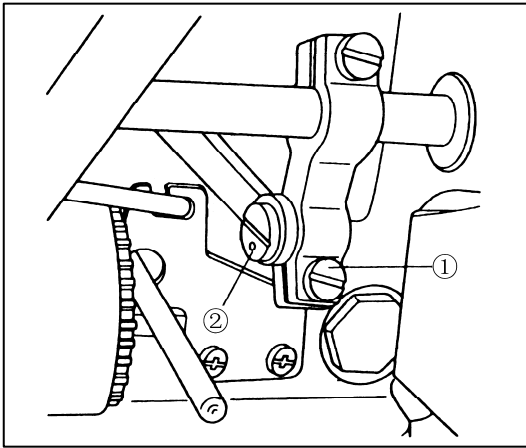
12) Adjustment of remaining needle thread length after thread trimming

- (1) Turn the pretension nut ① and adjust.
- (2) When turned clockwise, the length of thread left in the needle will be short.
When turned counterclockwise, the length of the thread left in the needle will be long.



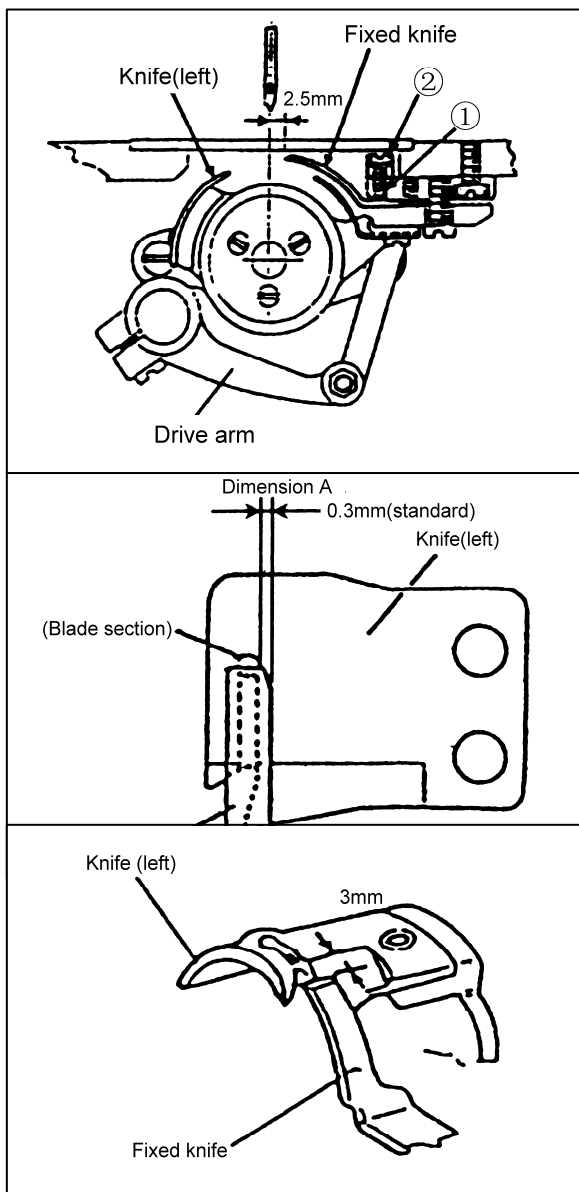
13) Adjustment of feed timing

- (1) Adjust by changing the position of the vertical feed eccentric ring.
- (2) As a standard, the vertical feed timing is set to when the screw ① on the bearing bushing is linear with screw ② on the vertical feed eccentric ring.
- (3) When the eccentric ring is moved in the direction of a, the vertical feed dog will rise earlier.
- (4) When the eccentric ring is moved in the direction of b, the vertical feed dog will rise later.



14) Adjustment of forward/backward stitch length

- (1) Loosen screw ① on the right of the adjustment arm.
- (2) Turn the eccentric shaft ② and adjust.
- (3) The forward stitch length will increase and the backward length will decrease when the eccentric shaft ② is turned counterclockwise.
- (4) The forward stitch length will decrease and the backward length will increase when the eccentric shaft ② is turned clockwise.



15) Adjustment of knife engagement

a. Position of fixed knife

- (1) As a standard, the dimension between the fixed knife's end and the needle center is 2.5mm.
- (2) The standard relation of the knife (left) and fixed knife is shown in the figure. As a standard, Dimension A is 0.3mm.
- (3) When Dimension A is too large, the three piece of threads will be cut, and can cause the needle thread to come out from needle after trimming. If too small, the thread may not be trimmed correctly.
- (4) Adjust by adjusting the installation of the fixed knife.

b. Knife engagement amount

- (1) When the sewing machine is rotated while the solenoid is activated, the knife (left) will be rotated by the thread trimming cam.

As a standard, the knife engagement amount should be 1.5 to 2.0mm when the knife (left) moves the most.

- (2) Adjust by adjusting the installation of the drive arm.

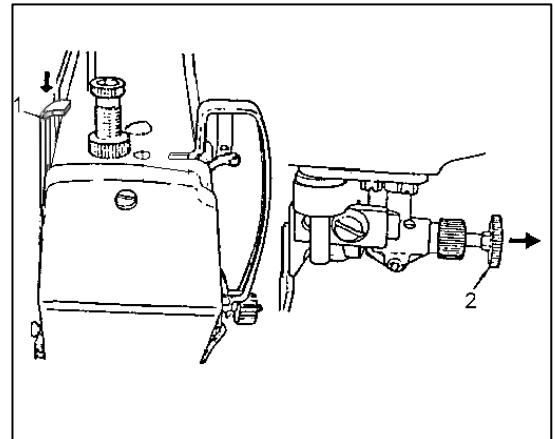
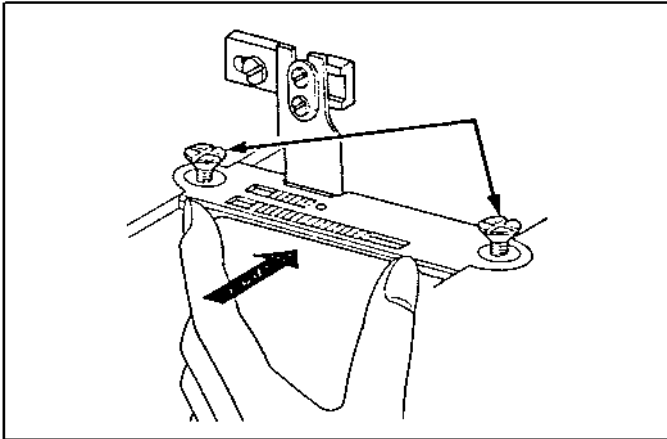
c. Adjustment of knife engagement pressure

- (1) As a standard, the knife (left) and fixed knife should start contacting at the position shown in the figure.

- 2) To adjust the engagement pressure, loosen the lock nut ② and then adjust the adjustment screw ①.

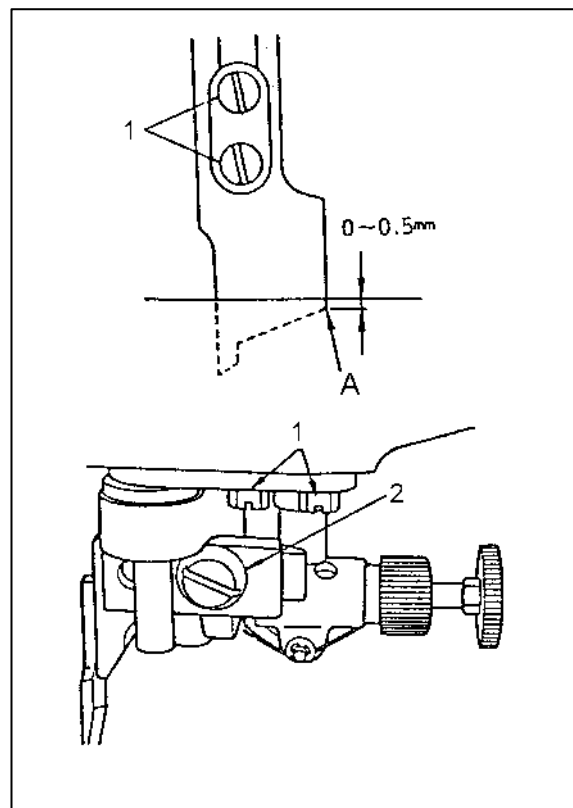
16). Installing of the needle plate

To attach the needle plate, bring the cloth-cutting knife to its lowest position, and gradually tighten the two set screws alternately while lightly pressing the needle plate onto the cloth-cutting knife.



17) Cloth cutting knife

- 1) Operation of the cloth cutting knife
 - (1) To actuate the cloth-cutting knife, press down knife setting plate 1.
 - (2) To stop the cloth-cutting knife and reset the machine to the normal lockstitching mode, pull knob 2 in the direction of the arrow.
- 2) Attaching the cloth cutting knife
 - (1) Raise or lower the cloth-cutting knife so that section A of the cloth-cutting knife is positioned 0-0.5 mm below the top face of the needle plate when the knife is in its lowest position.
 - (2) Loosen two knife set screws 1, and replace the cloth-cutting knife.
- 3) Changing the cutting width
 - (1) The needle plate decides the cutting width. When the needle plate is replaced, loosen knife guiding shaft set screw 1 so that proper parallelism is obtained and the sharpness of the knife blade is increased as shown in the figure.
 - (2) When the position of the knife is changed in accordance with the change of the needle plate size, loosen set screw 2, and position the knife so that the blade of the needle plate comes in contact with the knife blade. Then tighten set screw 2.
 - (3) For the standard machine, a 3.2 mm wide needle plate is installed at the time of delivery.



18) Other replacement parts

The standard cutting width of the machine is 1/8" (3.2mm). We offer the other specs according to your need. Please choose as follow sheet.

Cutting width	Needle plate	Feed dog	Presser
1/ 8 " (3.2)	H5716B7101	H5705B8001	H5705G7101
3/16 " (4.8)	H5724B7101	H5705B8001	H5705G7101
1/ 4 " (6.4)	H5725B7101	H5706B8001	HA316H0070

5. SPECIFICATIONS

Note: Always use a hook and bobbin case dedicated for the thread trimmer use a high quality bobbin that will not deform.

Material weight	GC1998-MCDZ		
Max. speed	4500rpm		
Stitch length	0 to 4mm		
Needle bar stroke	31.8mm		
Presser foot clearance	Hand Lifter	6 mm	
	Knee lifter	13 mm	
Needle type	DB×1 #14		
Hook (for thread trimming)	Full rotation automatic lubrication (standard)		
Touch back	yes		
Thread trimming method	Left knife rotating, right knife fixed engagement type		
Working dimensions	300×135 mm		

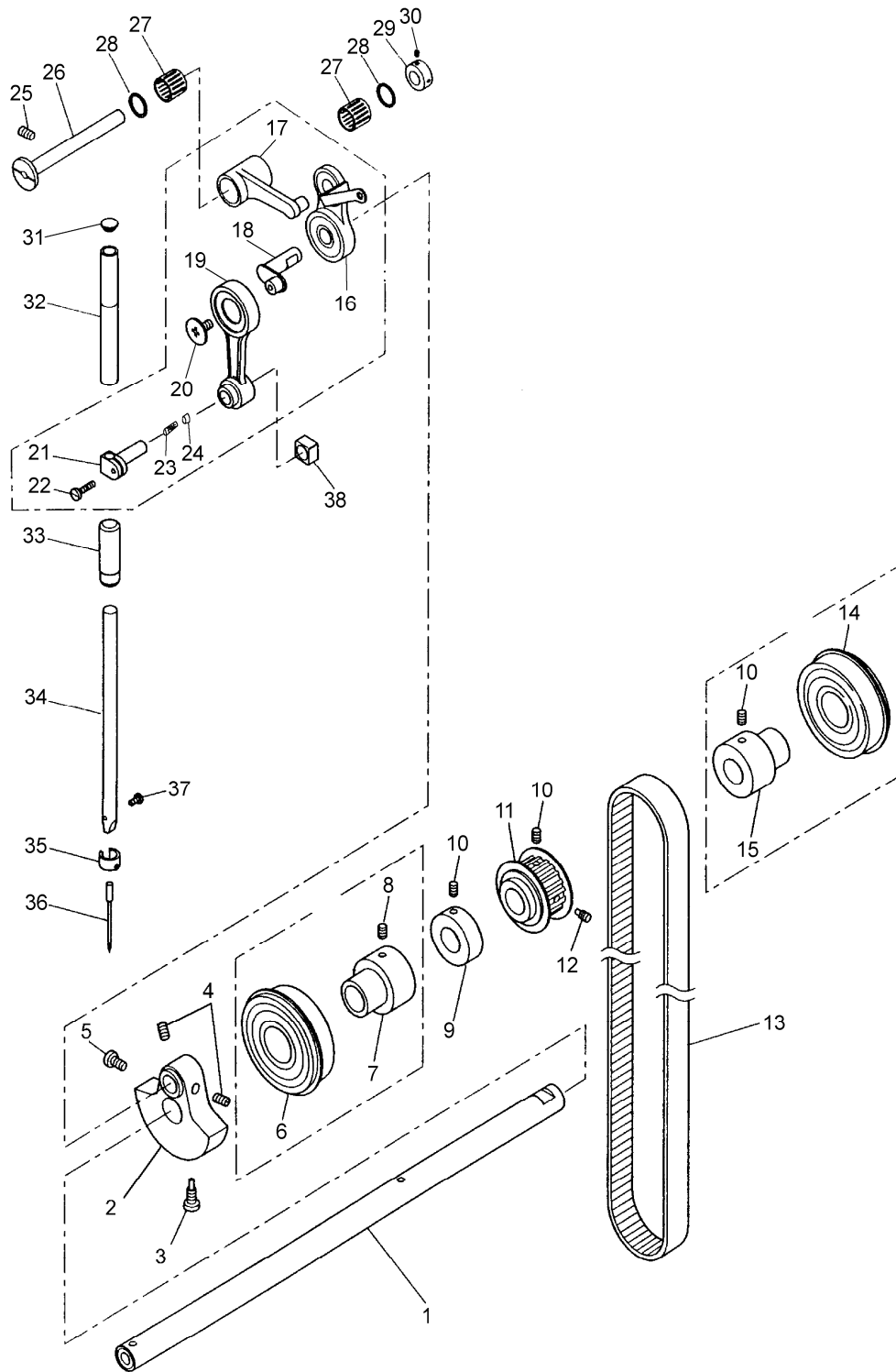
A.ARM BED AND ITS ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Remarks
A01	HB2252N072	Bobbin winder base	1	
A02	H6723N8001	Cam shaft	1	
A03	H6722N8001	Wash	1	
A04	H007013050	E-type stop ring	2	
A05	HA100H2150	Screw	1	
A06	H6721N8001	Adjust plate	1	
A07	H3200B2100	Screw	1	
A08	H6720N8001	Spanner	1	
A09	H6717N8001	Seat	1	
A10	H6716N8001	Shaft	1	
A11	H6715N8001	Spring	1	
A12	H6724N8001	Spring	1	
A13	H6711N7101	Winch	1	
A14	H431040060	Screw	2	
A15	H6719N8001	Rubber rub	1	
A16	H6718N8001	Rub ring	1	
A17	H6725N8001	Cam	1	
A18	H431050060	Screw	1	
A19	HE71B88001	Side cover	1	
A20	HA300B2170	Screw	8	
A21	HA300B2160	Screw	4	
A22	HA307B0674	Rubber plug	4	
A23	HE71B68001	Face plate	1	
A24	HE71B78001	Gasket for face plate	1	
A25	H6732P8001	Holder	1	
A26	H6731P8001	Felt	1	
A27	H6705H8001	Needle bar connecting linkGuide	1	
A28	HA300C2030	Screw	2	
A29	H3204G0652	Felt	1	
A30	HA300B2090	Rubber plug	1	
A31	HA307B0673	Rubber plug	1	
A32	HA700B2060	Screw	1	
A33	HA700B2050	Thread guide	1	
A34	H3107G0662	Screw	3	
A35	H6756B8001	Thread cutter	1	
A36	H6762B8001	Screw	2	
A37	HA710B0671	Nut	2	
A38	H6739B8001	Thread tension spring	1	
A39	HA310B0705	thread tension discs	2	
A40	H6735B8001	Screw	1	
A41	H6736B8001	Thread guide	1	
A42	H6737B8001	Spacer	1	
A43	HG50Q78001	Motor cover	1	

A.ARM BED AND ITS ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Remarks
A44	HZ11050200	Screw	5	
A45	H6760B8001	Spacer	1	
A46	H8844B8001	Bed stud (right)	1	
A47	HA104F0654	Screw	3	
A48	HA800F2020	Screw	2	
A49	HA710B0672	Pre-tension spring	1	
A50	HA112B0693	Thread tension discs	2	
A51	HA710B0673	Screw	1	
A52	HA710B0674	Thread guide	1	
A53	HA100B2110	Screw	1	
A54	H6764B7101	Screw	1	
A55	H6758B8001	O-ring	1	
A56	HA106B0676	Screw	3	
A57	HA100B2140	Thread guide	1	
A58	HB2251I081	Thread take-up cover	1	
A59	HA300B2080	Screw	1	
A60	HDB8168001	Chip guide plate	1	
A61	H5727B8001	Screw	2	
A62	HA500C2060	Thread guide	1	
A63	HA106B0675	Thread guide	1	
A64	H6725B8001	Pin	1	
A65	HA115B7011	O-ring	1	
A66	HA115B0708	Screw	1	
A67	HA310B0703	Thread tension regulator bushing	1	
A68	HA115B0706	Thread take-up spring	1	
A69	HA115B0701	Thread tension stud	1	
A70	HA310B0702	Thread tension releasing discs	1	
A71	HA115B0703	Thread tension spring	1	
A72	HA115B7010	Thumb nut revolution stopper	1	
A73	HA310B0701	Thumb nut	1	
A74	H6727B8001	Bed stud (left)	1	
A75	HA124B0711	Slide plate	1	
A76	HA124B0712	Spring for slide plate]	1	
A77	HA124B0713	Screw	2	
A78	H5716B7101	Needle plate	1	
A79	HA300B2190	Screw	4	
A80	H8810P8001	Screw	1	
A81	H8812P8001	Washer	1	
A82	H5727B8001	Screw	2	
A83	HK62B38001	Chip funnel plate	1	
A84	HK61B58001	Chip funnel	1	
A85	H5721I8001	Clip plate	1	

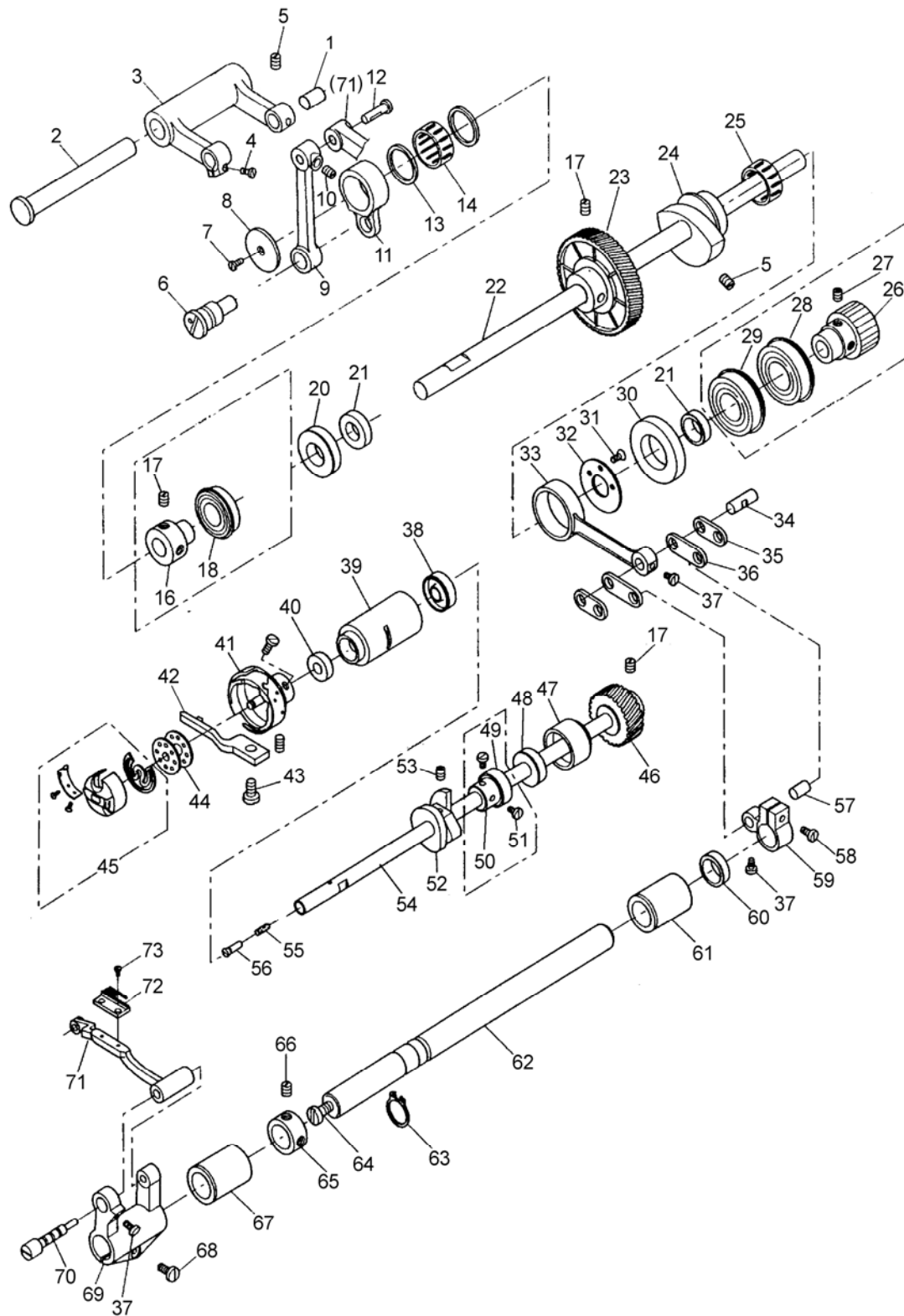
B.NEEDLE BAR AND THREAD TAKE-UP MECHANISM



B.NEEDLE BAR AND THREAD TAKE-UP MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
B01	HM00C48001	Upper shaft	1	
B02	HK60C68001	Crank	1	
B03	HA100C2070	Screw	1	
B04	HA307C0662	Screw	2	
B05	HA100C2060	Screw	1	
B06	H3208H0661	Ball bearing	1	
B07	H6711C8001	Bushing	1	
B08	H431060080	Screw	2	
B09	H6713C8001	Bobbin winder driving wheel	1	
B10	H431060080	Screw	5	
B11	H6708C8001	Belt pulley (upper)	1	
B12	H6715C8001	Screw	2	
B13	H8805C8001	Belt	1	
B14	H3205J0662	Ball bearing	1	
B15	H6717C8001	Bushing	1	
B16	H6706I7101	Thread take-up lever assy.	1	
B17	H6710I8001	Thread take-up lever link	1	
B18	H6711I8001	Thread take-up crank	1	
B19	H6712I7101	Needle bar link assy.	1	
B20	H6715I8001	Screw	1	
B21	HA104C0658	Needle bar holder	1	
B22	H2204C0651	Screw	1	
B23	H24211D405	Oil wick	1	
B24	H24211D305	Plug	1	
B25	HA100C2020	Screw	1	
B26	H6716I8001	Thread take-up support shaft	1	
B27	H6717I8001	Bearing	1	
B28	H6718I8001	Bearing support	1	
B29	H6719I8001	Thrust collar	2	
B30	HA100B2110	Screw	1	
B33	HA300B2090	Bushing	1	
B34	HK61C38001	Needle bar ($\phi 1.62$)	1	
B35	HA500C2030	Thread guide	1	
B36		Needle	1	DB×1 #14
B37	HA100C2170	Screw	1	
B38	H6706H8001	Square block	1	

C.FEEDING AND FEED LIFTING MECHANISM



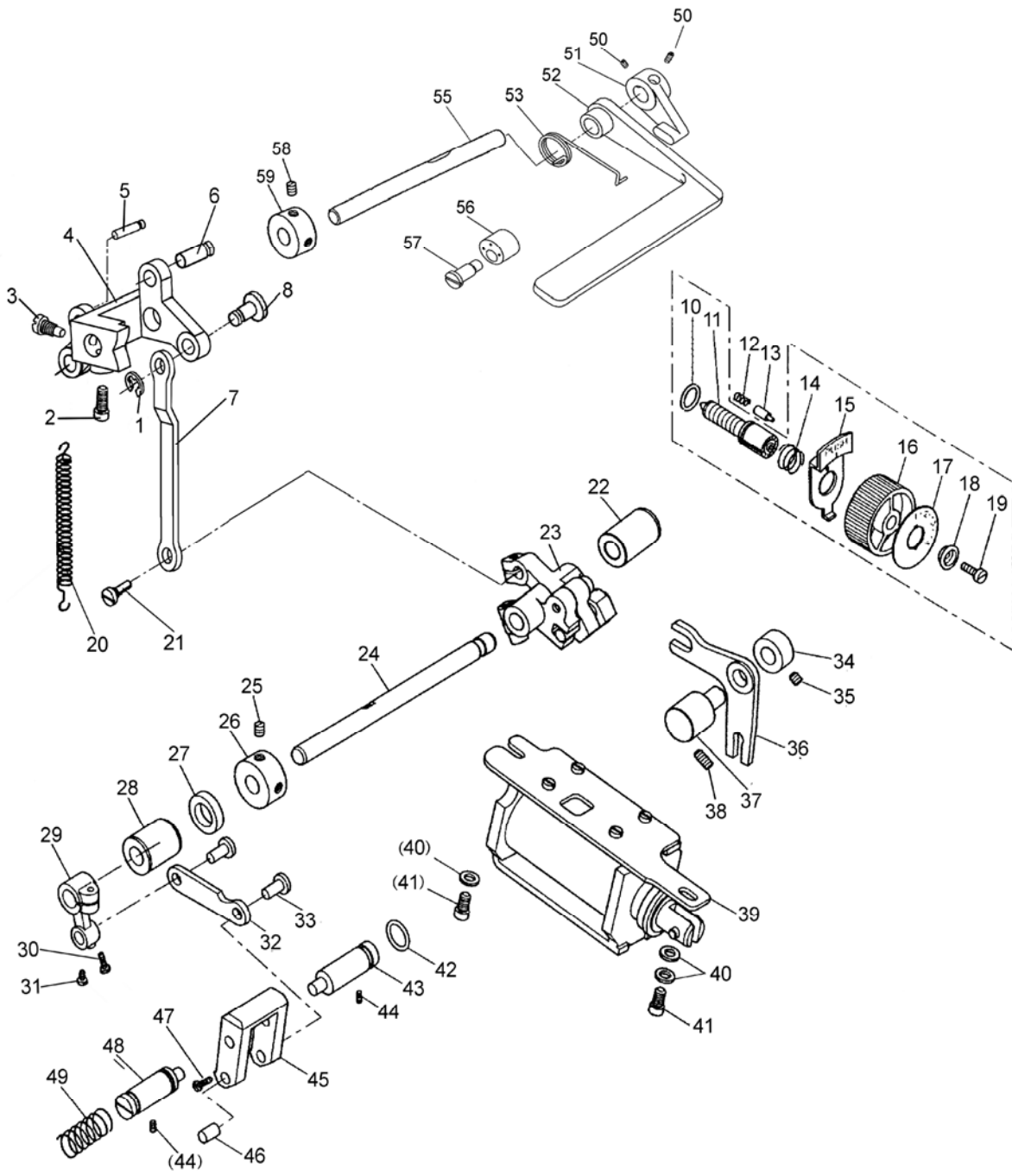
C.FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
C01	HK61D78001	Pin	1	
C02	HK61D88001	Shaft	1	
C03	HK61D38001	Guide crank	1	
C04	HA300B2160	Screw	1	
C05	HA100C2020	Screw	5	
C06	HK61D68001	Eccentric shaft	1	
C07	HA104C0656	Screw	1	
C08	HK60D98001	Thrust collar	1	
C09	H9116E8001	Link	1	
C10	H431050050	Screw	1	
C11	HK60D78002	Feed lifting connecting rod	1	
C12	H6724D8001	Connecting stud	1	
C13	H9108D8001	Bearing support	2	
C14	HK60D68002	Needle bearing	2	
C16	HK61D18001	Bushing	1	
C17	HA307C0662	Screw	6	
C18	H6711D8001	Ball bearing	1	
C20	H6714B8003	Bushing	1	
C21	H6745B8001	Oil seal	2	
C22	H9106D8001	Feed lifting rock shaft	1	
C23	H6708D7101	Gear (large)	1	
C24	H6705E8001	Lever feed eccentric cam	1	
C25	H6720E8001	Needle bearing	1	
C26	H8807D8001	Belt pulley (lower)	1	
C27	H431060080	Screw	2	
C28	H3208H0661	Ball bearing	1	
C29	H8812D8001	Ball bearing	1	
C30	H6714B8001	Bushing	1	
C31	HA7311C306	Screw	3	
C32	H30211C406	Thrust collar	1	
C33	H6706E8001	Lever feed connecting rod	1	
C34	HA706C11B1	Pin	1	
C35	H6724E8001	Link	2	
C36	H6709E8001	Link	2	
C37	HA7311C806	Screw	3	
C38	H6709F8001	Oil seal	1	
C39	H6716B8002	Lower shaft bushing (left)	1	
C40	H6747B8001	Oil seal	1	
C41	H6711F7101	Rotary hook assy.	1	
C42	HA300E2050	Rotating hook positioner	1	
C43	HA100E2150	Screw	1	
C44	HA700E2060	Bobbin		
C45	HA708E0068	Bobbin case assy.	1	

C.FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
C46	H6709D8001	Gear (small)	1	
C47	H8832B8001	Lower shaft bushing(right)	1	
C48	H6747B8001	Oil seal	1	
C49	H6707F8001	Ball bearing	1	
C50	H6708F8001	Bushing	1	
C51	HA300B2130	Screw	2	
C52	HA710E0691	Thread trimmer cam	1	
C53	HA710E0692	Screw	1	
C54	H8804F8001	Lower shaft	1	
C55	H6712F8001	Oil wick	1	
C56	H6726E8001	Screw	1	
C57	HA706C11B2	Pin	2	
C58	HA7311C606	Screw	1	
C59	H6707E8001	Feed rock shaft crank	1	
C60	H6748B8001	Oil seal	1	
C61	H8829B8001	Bushing	1	
C62	H8807E8001	Feed rock shaft	1	
C63	H007009150	Retaining ring-C type	1	
C64	HA300J2280	Screw	1	
C65	HA108G0661	Thrust collar	1	
C66	HA105D0662	Screw	2	
C67	H8828B8001	Bushing	1	
C68	HA104G0012	Screw	1	
C69	H6715E8001	Crank	1	
C70	H6717E8001	Eccentric shaft	1	
C71	H9115E8001	Feed bar	1	
C72	HA104G0653	Feed dog	1	
C73	HA104G0654	Screw	2	

D.STITCH REGULATOR MECHANISM



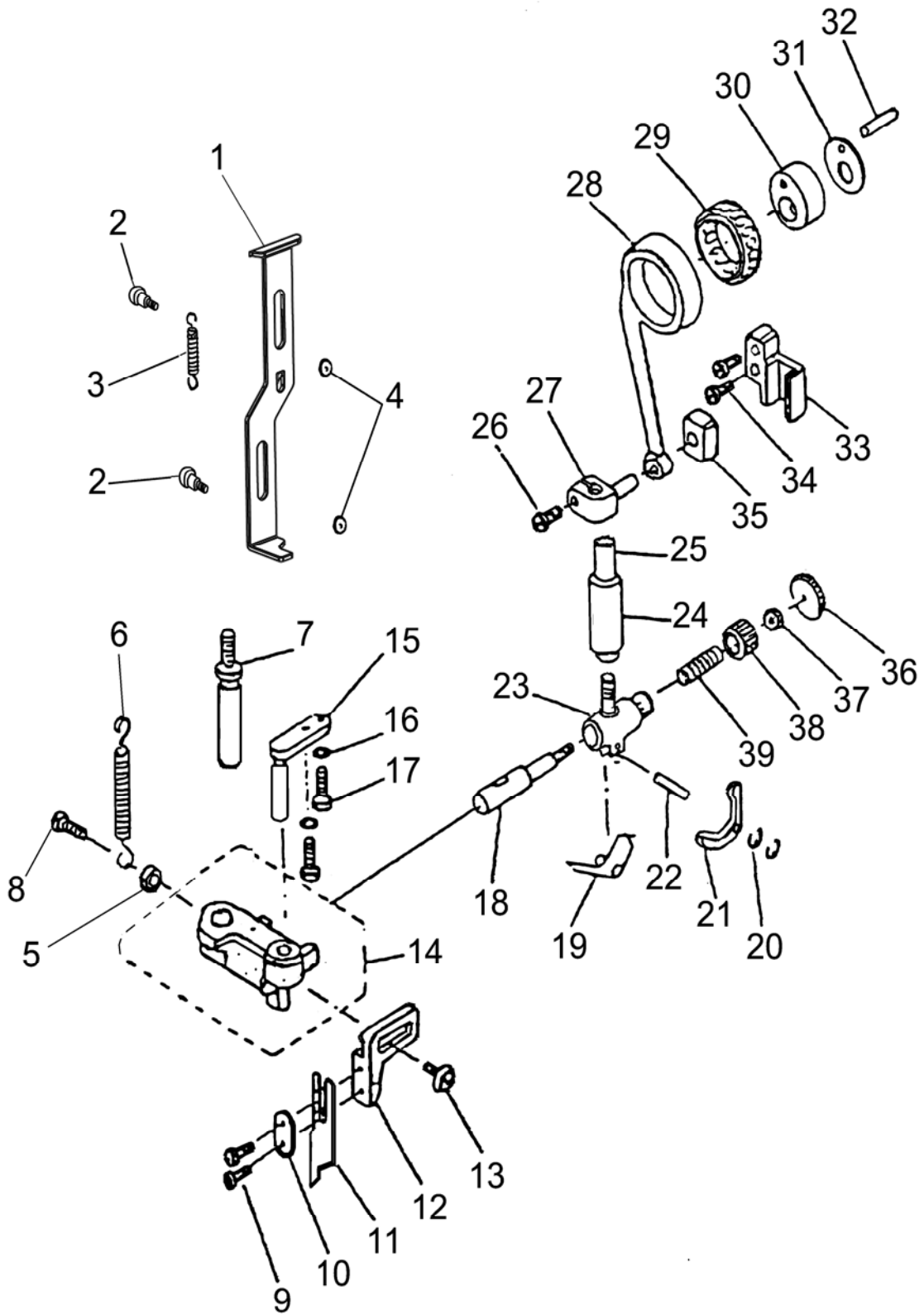
D.STITCH REGULATOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
D01	H007013050	Retaining ring-C type	1	
D02	HA104F0654	Screw	1	
D03	H3200F2020	Screw	1	
D04	HE70G88001	Feed regulating link	1	
D05	H6510H8001	Pin	1	
D06	HD509F8001	Pin	1	
D07	HE71G08001	Feed regulating link	1	
D08	HD543C8001	Pin	1	
D10	HA109F0674	O-ring	1	
D11	HA720F0681	Screw bar	1	
D12	HA100F2090	Spring	1	
D13	HA700F2030	Pin	1	
D14	HA720F0687	Coil spring	1	
D15	HA720F0683	Releasing lever	1	
D16	HA7421F120	Dial for stitch length regulator	1	
D17	HA720F0684	Stitch length indicating plate	1	
D18	HA720F0685	Bushing	1	
D19	HA720F0686	Screw	1	
D20	HE71G68001	Spring	1	
D21	H6710E8001	Pin	1	
D22	H8830B8001	Bushing	1	
D23	HE71G27101	Screw bar assy.	1	
D24	H8810G8001	Shaft	1	
D25	HA307C0662	Screw	2	
D26	HE71G58001	Collar	1	
D27	H6749B8001	Oil seal	1	
D28	H6718B8001	Bushing	1	
D29	H9110E8001	Crank	1	
D30	HA7651B319	Screw	1	
D31	HA7311C806	Screw	1	
D32	H6711E8001	Link	1	
D33	H6710E8001	Connecting stud	2	
D34	H8841B8001	Thrust collar	1	
D35	H431050050	Screw	2	
D36	H8838B8001	Bell-crank	1	
D37	H8839B8001	Bell-crank shaft	1	
D38	HA100C2020	Screw	1	
D39	H8835B7101	Solenoid	1	
D40	HA700P0010	Screw	3	
D41	HA104F0654	Washer	2	
D42	H6721E8001	O-ring	1	
D43	H8809E8001	Feed regulator shaft	1	
D44	H3230K0751	Screw	2	

D.STITCH REGULATOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
D45	H6708E8001	Stitch length adjusting crank	1	
D46	HA7311CE06	Link stud	1	
D47	HA7311CD06	Screw	2	
D48	H6713E8001	Feed regulator shaft	1	
D49	H6723E8001	Coil spring	1	
D50	H431050060	Screw	2	
D51	HG50G68001	Reverse stitching lever block	1	
D52	H4906G8001	Spanner	1	
D53	H4939L8001	Spring	1	
D55	HE71G18001	Shaft	1	
D56	H4938L8001	Rubber band	1	
D57	H4937L8001	Screw	1	
D58	HA307C0662	Screw	2	
D59	H6712G8001	Collar	1	

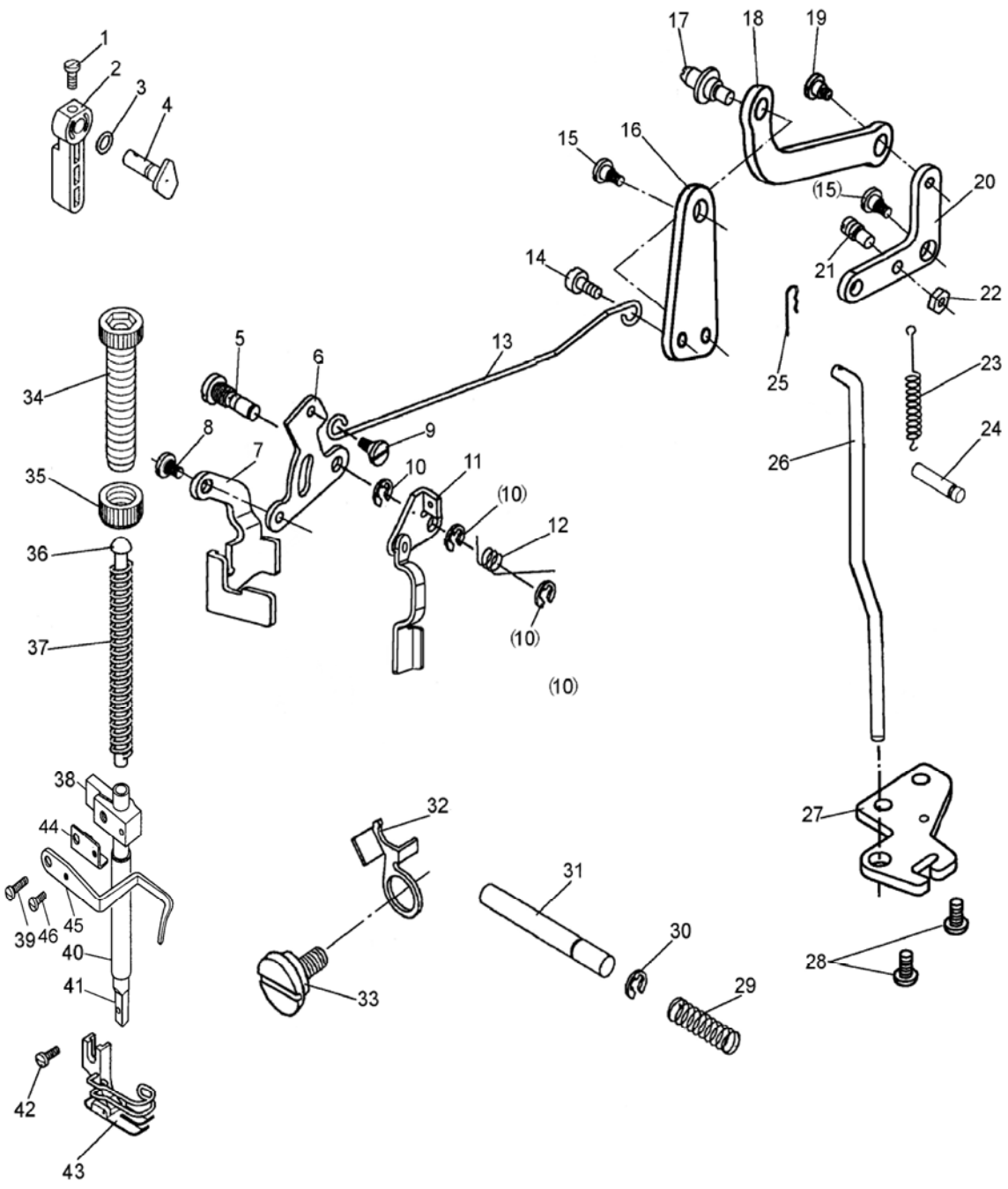
E.KNIFE MECHANISM



E.KNIFE MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
E01	HK60H78001	Knife positioning plate	1	
E02	HK60H88001	Screw	2	
E03	HK60H98001	Spring	1	
E04	H4728H8001	Washer	2	
E05	H5729F8001	Nut	1	
E06	H5317G8001	Spring	1	
E07	HK61H18001	Knife driving block stud	1	
E08	H9009H8001	Screw	1	
E09	HA100C2170	Screw	2	
E10	H5709F8001	Washer	1	
E11	H5710F8001	Knife	1	
E12	H5711F8001	Knife holder	1	
E13	H5733F8001	Screw	1	
E14	H5712F8001	Knife driving block Asm.	1	
E15	HK61H08001	Guide stud for knife driving	1	
E16	H005004050	Washer	2	
E17	H5735F8001	Screw	2	
E18	H5715F8001	Pin	1	
E19	H5716F8001	Spring	1	
E20	H007013015	E-type stop ring	2	
E21	H5717F8001	Knife release lever	1	
E22	H5718F8001	Pin	1	
E23	H5719F8001	Knife driving rod clutch pin guide	1	
E24	H5720F8001	Bushing	1	
E25	H5721F8001	Knife driving stud	1	
E26	HA106B0676	Screw	1	
E27	H5722F8001	Knife driving stud connection	1	
E28	HK60H58001	Knife driving rod	1	
E29	HG612C8001	Knife needle bearing	1	
E30	HK60C78001	Knife cam	1	
E31	HK60C88001	Thrust plate	1	
E32	H5726F8001	Pin	1	
E33	HK60H68001	Slide block guide	1	
E34	HA100C2200	Slide block	2	
E35	HA100C2190	Screw	1	
E36	H5728F8001	Knob	1	
E37	H5729F8001	Nut	2	
E38	H5730F8001	Cap	1	
E39	H5731F8001	Spring	1	

F.PRESSER FOOT MECHANISM



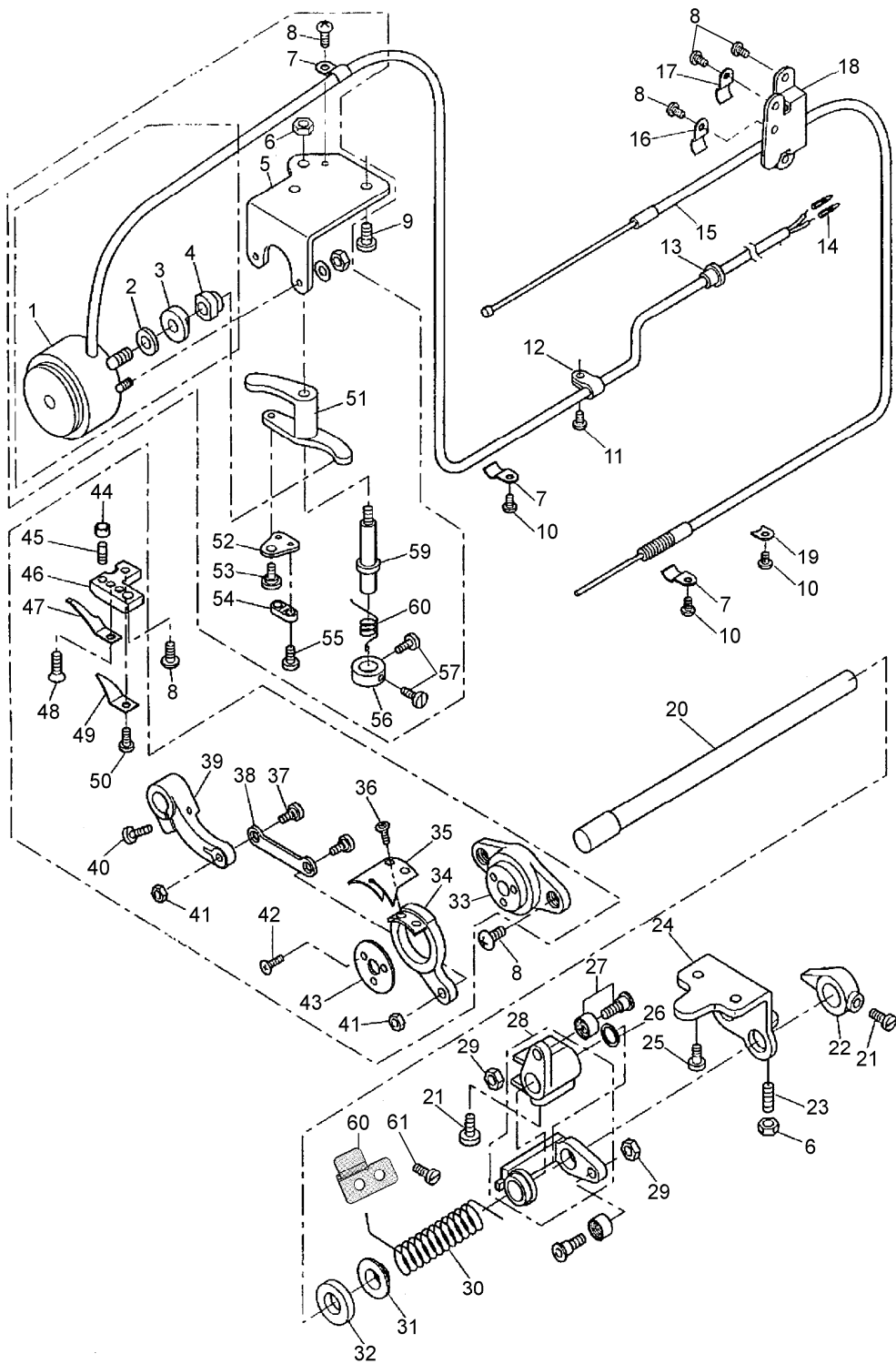
F.PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
F01	HA300B2170	Screw	1	
F02	H1204F0651	Presser bar lifter lever	1	
F03	HA300H2080	O-ring	1	
F04	H6728J8001	Presser bar lifter cam	1	
F05	HE72J78001	Screw	1	
F06	HD510H8001	Knee lifter lever(left)	1	
F07	HE70J88001	Pull up plate	1	
F08	HD511H8002	Screw	1	
F09	HD511H8001	Screw	1	
F10	H007013050	E-type stop ring	3	
F11	HD520H7101	Tension release lever assy.	1	
F12	H6717J8001	Screw	1	
F13	HE70J78001	Knee lifter rod	1	
F14	HA107H0662	Screw	1	
F15	HA100H2050	Screw	2	
F16	HE72J08001	Knee lifter lever	1	
F17	HE72J18001	Lever	1	
F18	HE72J28001	Link	1	
F19	HM026E8001	Screw	1	
F20	HE71J58001	Knee lifter lever(right)	1	
F21	HE71J68001	Screw	1	
F22	HA706N0663	Nut	1	
F23	HE71J98001	Spring	1	
F24	HA107H0662	Pin	1	
F25	H4739E8001	Pin	1	
F26	HE71J78001	Link	1	
F27	HE71J88001	Knee lifter connecting rod guide	1	
F28	HA300C2030	Screw	2	
F29	H6732J8001	Tension release pin spring	1	
F30	H007013030	E-type stop ring	1	
F31	H6727J8001	Tension release pin	1	
F32	HD521C8001	Tension releaser	1	
F33	HK60I68001	Screw	1	
F34	HA309H0681	Screw	1	
F35	HA117H0692	Nut	1	
F36	H6733J8001	Spring guide	1	
F37	HA500H2010	Presser spring	1	
F38	HK60I58001	Presser bar guide bracket	1	
F39	HA7311C606	Screw	1	
F40	H8812B8001	Bushing	1	
F41	H8804J8001	Presser bar	1	
F42	HA100H2150	Screw	1	
F43	H5705G7101	Presser foot	1	

F.PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
F44	H6706J8001	Bracket plate	1	
F45	H6707J8001	Upper thread guide	1	
F46	HA7311CH06	Screw	1	

G.THREAD TRIMMER MECHANISM



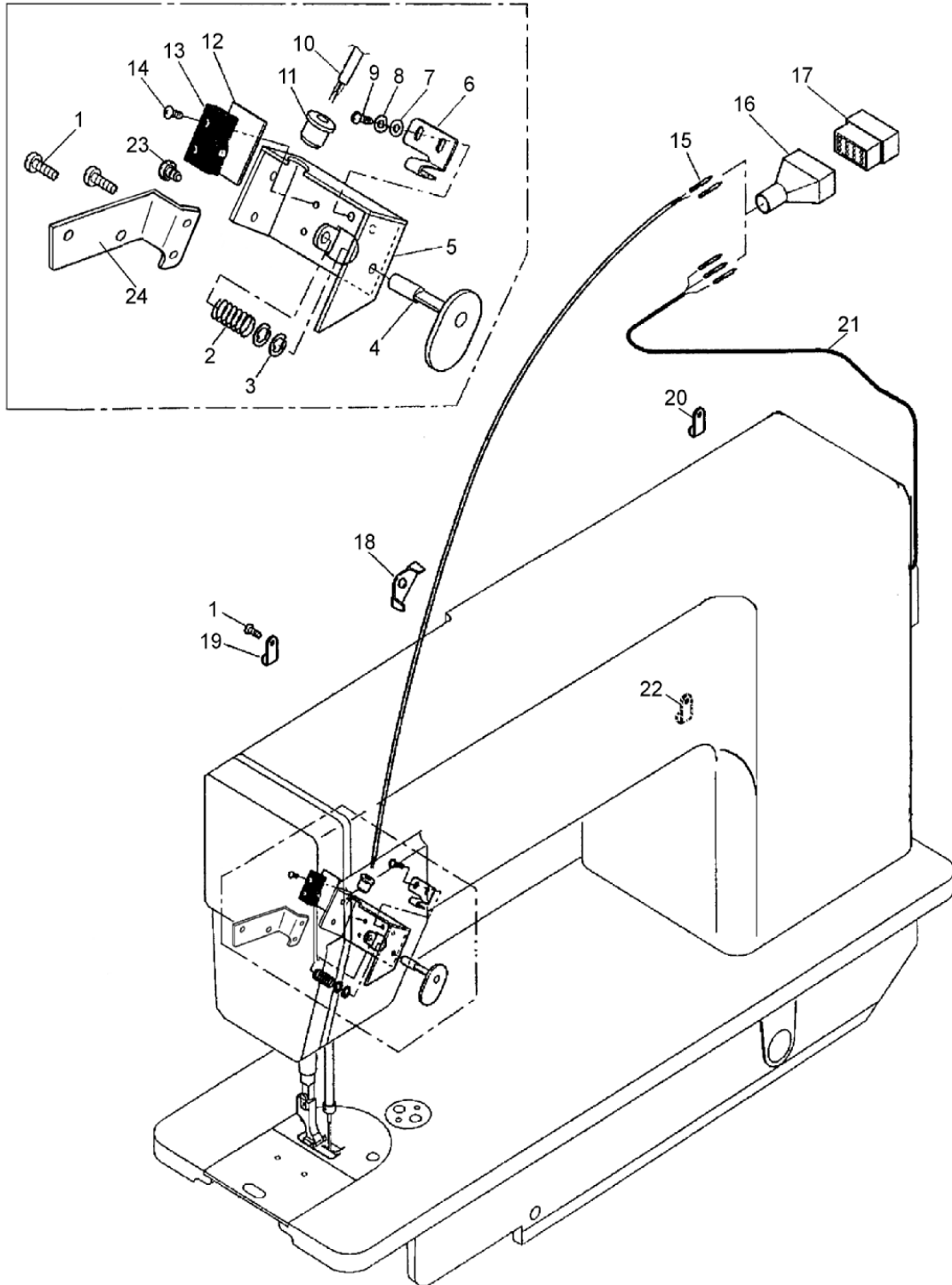
G.THREAD TRIMMER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
G01	H8811K7201	Solenoid	1	
G02	H6718K8001	Washer	1	
G03	H6719K8001	Nut	1	
G04	H6720K8001	Nut	1	
G05	H6715K8001	Solenoid bracket	1	
G06	HA710N0683	Nut	2	
G07	H6732K8001	Holder	3	
G08	HA300C2030	Screw	8	
G09	HA700N0080	Screw	2	
G10	H200000360	Screw	3	
G11	HA300B2170	Screw	1	
G12	H6727N8001	Cord holder	1	
G13	HA70400657	Rubber plug	2	
G14	HA7641B319	Terminal pin	2	
G15	HG50K58001	Flexible wire	1	
G16	H6729K8001	Holder	1	
G17	H32311D606	Holder	1	
G18	H6731K8001	Wire holder bracket	1	
G19	H6733K8001	Washer	1	
G20	H8805K8001	Shaft	1	
G21	HA113F0684	Screw	3	
G22	H6713K8001	Stopper lever	1	
G23	H6735K8001	Screw	1	
G24	H6711K8001	Bracket plate	1	
G25	H6736K8001	Screw	2	
G26	HA706N0664	Washer	1	
G27	HA706N1021	Shoulder screw assy.	2	
G28	HA706N1011	Cam follower crank assy.	1	
G29	HA706N0663	Nut	2	
G30	H6737K8001	Spring	1	
G31	HA700N0050	Bushing	1	
G32	H8807K8001	Spacer	1	
G33	H6707K8001	Knife holding bracket saddle	1	
G34	H6708K8001	Knife base(left)	1	
G35	HA7111N804	Movable Knife(left)	1	
G36	HA7111N704	Screw	2	
G37	HA7111N204	Screw	2	
G38	HA7111N404	Link	1	
G39	H9106K8001	Knife driving crank	1	
G40	HG50K88001	Screw	1	
G41	HA7111N304	Nut	2	
G42	HA704N1114	Screw	3	
G43	H6738K8001	Thrust collar	1	

G.THREAD TRIMMER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
G44	HA7121N704	Nut	1	
G45	HA7121N604	Screw	1	
G46	HA7121N104	Bracket for fixed blade	1	
G47	HA7121N204	Fixed blade	1	
G48	HA7121N304	Screw	1	
G49	HA7121N404	Thread finger	1	
G50	HA7311CH06	Screw	1	
G51	H6721K8001	Thread trimmer driving lever	1	
G52	HA712N6910	Flexible wire holder	1	
G53	HA712N0699	Screw	1	
G54	HA712N6911	Flexible wire presser	1	
G55	HA712N6912	Screw	2	
G56	HA712N0696	Spring support collar	1	
G57	HA7311CC06	Screw	2	
G58	HA712N0697	Trimming lever spring	1	
G59	H6722K8001	Stud bolt	1	
G60	H8842B8001	Spring bracket	1	
G61	HA300B2160	Screw	2	

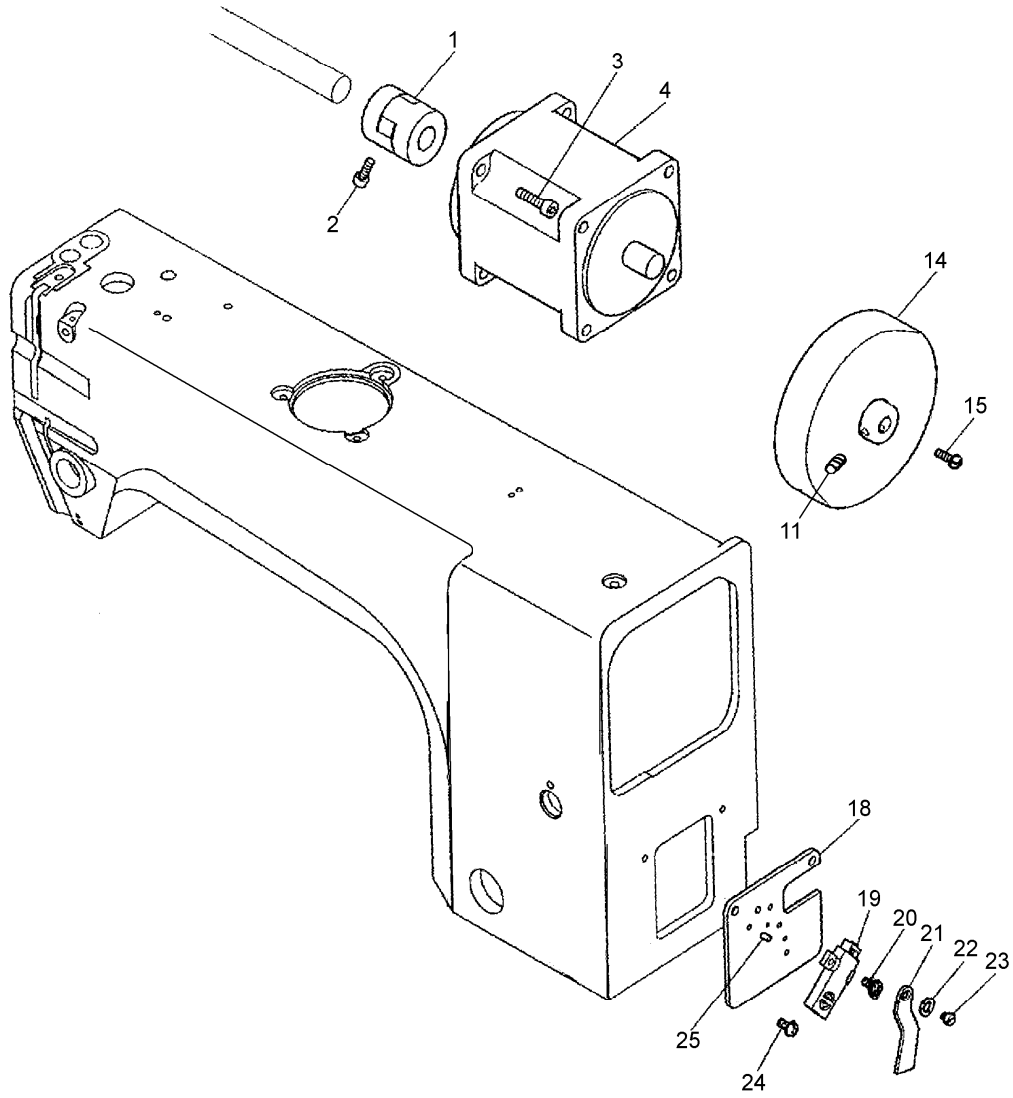
H.TOUCH BACK AND DETECTOR MECHANISM



H.TOUCH BACK AND DETECTOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
H01	HA300B2170	Screw	3	
H02	HA70400653	Coil spring	1	
H03	H007013030	E-type stop ring	2	
H04	HA70400021	Push button	1	
H05	H2205I0661	Bracket for touch switch	1	
H06	HA70400654	Plate spring	1	
H07	HA70406512	Washer	2	
H08	HA70406511	Washer	2	
H09	HA70400659	Screw	2	
H10	H8805L7101	Cord assy.	1	
H11	HA70400657	Rubber plug	1	
H12	HA70400658	Insulator seat	1	
H13	HA70400655	Screw	1	
H14	HA70406510	Screw	2	
H15	HA7641B319	Terminal pin	2	
H16	HG50N68001	Connector cap	1	
H17	HA700Q0010	Nylon connector 12-pole	1	
H18	H6726N8001	Cord holder	1	
H19	H6729N8001	Cord holder	1	
H20	H6648I8001	Cord holder	1	
H21	H8804N7101	Cord assy.	1	
H22	HD44JM8001	Cord holder	1	
H23	HA7221P508	Screw	2	
H24	HD552B8001	Switch mounting bracket	1	

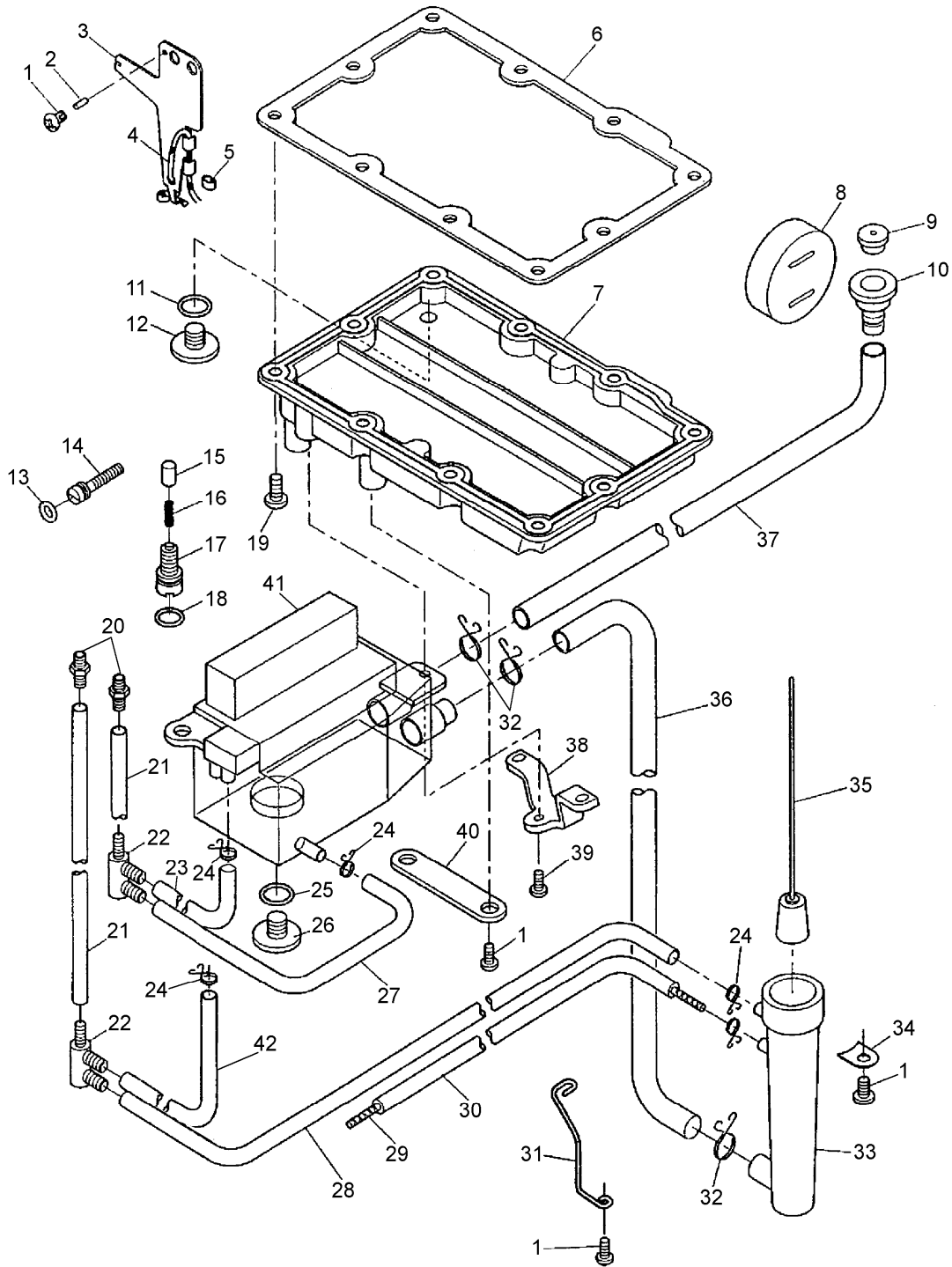
I.MOTOR MECHANISM



I.MOTOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
I01	HG52047101	Coupling	1	
I03	H882908001	Screw	4	
I04	HG51068001	Motor	1	
I11	HG52018001	Screw	2	
I14	HG52008001	Pulley	1	
I15	HG52038001	Screw	1	
I18	HE71B98001	Plate for guide	1	
I19	HG51B98001	Sensor	1	
I20	HZ11030080	Screw	2	
I21	HG51B88001	Switch plate	1	
I22	HA104G0656	Washer	1	
I23	HA107H0662	Screw	1	
I24	HA300B2170	Screw	2	
I25	H609030160	Spring pin	2	

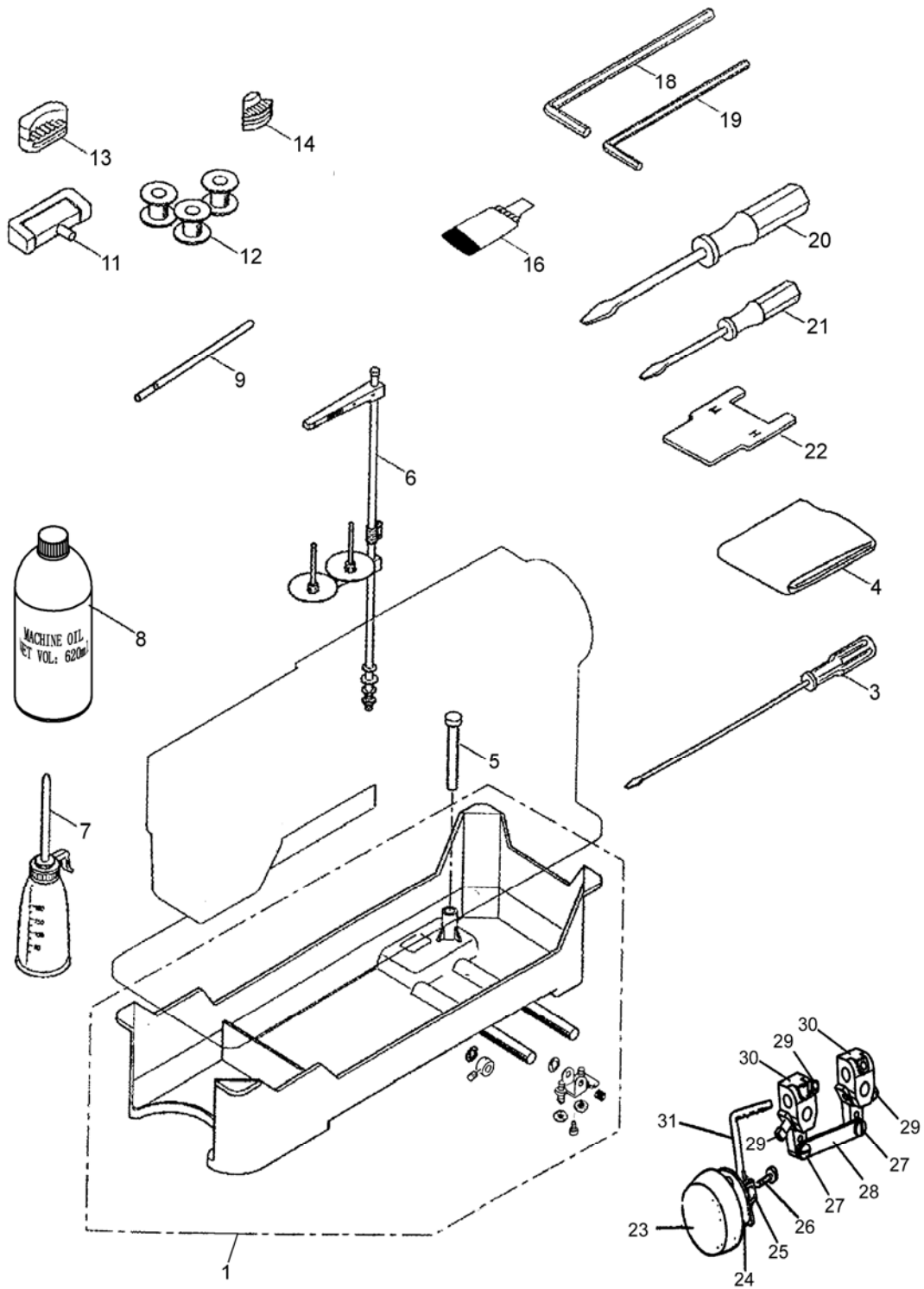
J.OIL LUBRICATION MECHANISM



J.OIL LUBRICATION MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
J01	HA300C2030	Screw	5	
J02	H609020080	Spring pin	1	
J03	H6711P8001	Oil wick holder	1	
J04	H6729P8002	Oil wick	1	
J05	H3200G2030	Holder	1	
J06	H6741B8001	Gasket for bottom cover	1	
J07	H6740B8001	Bottom cover	1	
J08	H6722P8001	Oil sight window	1	
J09	H6712P8001	Oil cap	1	
J10	H6709P8001	Oil inlet	1	
J11	H6757B8001	O-ring	1	
J12	H6707P8001	Screw	1	
J13	H6725P8001	O-ring	1	
J14	H6705P8001	Screw	1	
J15	H6734P8001	Plunger	1	
J16	H6726P8001	Spring	1	
J17	H6704P8001	Screw	1	
J18	HA705C0662	O-ring	1	
J19	HA100I2090	Screw	10	
J20	H6708P8001	Oil pipe connector	2	
J21	H8807P8001	Oil pipe	2	
J22	H6715P8001	Oil pipe connector	2	
J23	H8807P8008	Oil pipe	1	
J24	H6714P8001	Pipe holder	5	
J25	H6757B8001	O-ring	1	
J26	H6707P8001	Screw	1	
J27	H8807P8006	Oil pipe	1	
J28	H8807P8004	Oil pipe	1	
J29	H8809P8001	Oil wick	1	
J30	H8807P8005	Oil pipe	1	
J31	H8806P8001	Pipe holder	1	
J32	H6714P8002	Pipe holder	3	
J33	H6718P8001	Floater case	1	
J34	H6733K8001	Washer	2	
J35	H6719P7101	Floater assy.	1	
J36	H8808P8002	Oil pipe	1	
J37	H8808P8001	Oil pipe	1	
J38	H8805P8001	Cover	1	
J39	HA300B2170	Screw	2	
J40	H8843B8001	Cover	1	
J41	H6713P8001	Oil tank	1	
J42	H8807P8009	Oil pipe	1	

K.ACCESSORIES



K.ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Remarks
K01	H8806Q7101	Oil reservoir complete	1	
K03	HA300J2070	Screw driver(large)	1	
K04	HA300J2190	Cover	1	
K05	H6705Q8001	Knee lifter rod	1	
K06	HA200J2030	Thread stand assy.	1	
K07	H6720Q8001	Oiler	1	
K08	HA120J8001	Oil can	1	
K09	H8826Q8001	Oil gauge	1	
K11	HA307J0067	Table hinge with rubber cushion	2	
K12	HA700E2060	Bobbin	3	
K13	HA300J2050	Vibration preventing rubber	2	
K14	HA300J2060	Vibration preventing rubber	2	
K16		Needle set	4	DB×1 #14
K18	HB00001020	Hexagon socket screw key 2	1	
K19	HB00001030	Hexagon socket screw key 3	1	
K20	HA300J2200	Screw driver(middle)	1	
K21	HA300J2210	Screw driver(small)	1	
K22	H8822Q8001	Up position gauge	1	
K23	HA106J0665	Knee lifter plate	1	
K24	HA106J0668	Knee lifter cover	1	
K25	HA106J0666	Knee lifter plate stopper	1	
K26	HA106J0667	Bolt 15/64(28)×8	1	
K27	H6017L8001	Screw	2	
K28	HG52Q28001	Connecting rod	1	
K29	HA300J2180	Screw 5/16(28)×16	3	
K30	H6006L8001	Knee lifter coupling joint	2	
K31	HA106J0662	Knee lifter shaft	1	

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The description covered in this manual is subject to change for improvement of the commodity without notice

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