

**HIGHLEAD**

## **GC1998 Series**

**High Speed Dry Lubricated Direct Drive Lockstitcher With  
Thread Trimmer**

# **Instruction Manual Parts Catalog**



## ----- CONTENTS -----

1.	PRECAUTIONS BEFORE STARTING OPERATION .....	1
1)	Safety precautions .....	1
2)	Precaution before Starting Operation .....	1
3)	Precaution for Operating Conditions .....	1
2.	PREPARETION BEFORE START TO OPERATE .....	2
	Adjustment of needle bar stop position .....	2
3.	PRECAUTIONS FOR STARTING TO OPERATE .....	2
1)	Lubrication .....	2
2)	Adjustment of the amount of oil for hook .....	3
3)	Periodical cleaning .....	3
4)	Precaution for detector .....	3
4.	HOW TO USE THE MACHINE .....	4
1)	How to attach needle .....	4
2)	Threading .....	4
3)	Adjusting of stitch length & reverse lever .....	4
4)	Adjustment of the thread guide .....	5
5)	Adjusting of pressure of presser foot .....	5
6)	Adjusting the thread tension .....	5
7)	Adjustment of upper thread tension .....	6
8)	Adjustment of lower thread tension .....	6
9)	Thread wiper (for machine equipped with thread wiper) .....	6
10)	How to wind the lower thread on the bobbin .....	7
11)	Adjustment of feed dog height and inclination .....	7
12)	Adjustment of remaining needle thread length after thread trimming .....	8
13)	Adjustment of feed timing .....	8
14)	Adjustment of forward/backward stitch length .....	8
15)	Adjustment of knife engagement .....	9
5.	SPECIFICATIONS .....	10
6.	PARTS CATALOG .....	11
A)	Arm bed & Its accessories .....	11
B)	Needle bar and thread take-up mechanism .....	15
C)	Feeding and feed lifting mechanism .....	18
D)	Stitch regulator mechanism .....	21
E)	Presser foot mechanism .....	24
F)	Presser foot mechanism(Special order) .....	26
G)	Knife actuating mechanism .....	28
H)	Touch back mechanism & Detector mechanism .....	31
I)	Wiper mechanism .....	33
J)	Motor mechanism .....	35
K)	Oil lubrication mechanism .....	37
L)	Accessories .....	39



---

# 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.

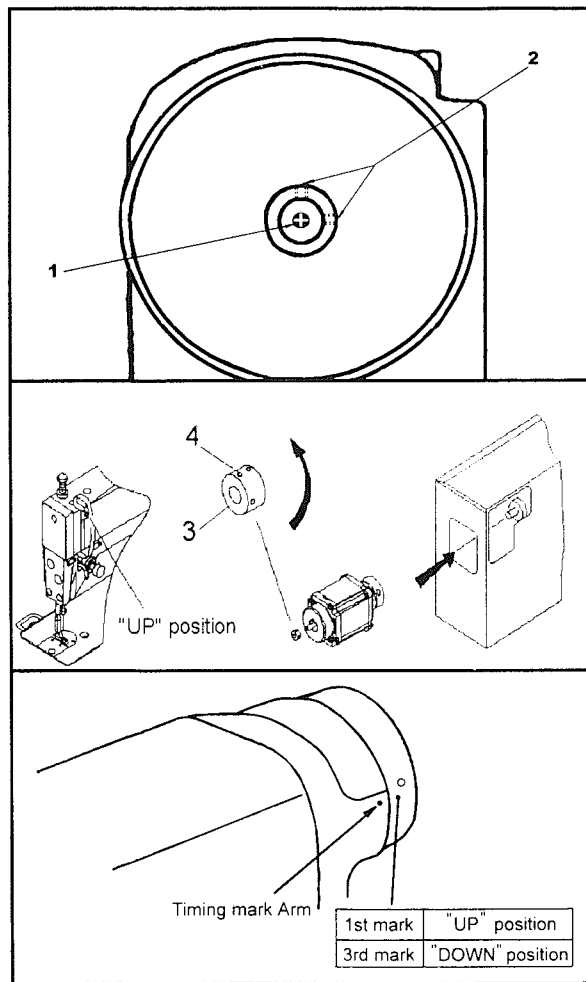
## 2. PREPARATION BEFORE START TO OPERATE

### Adjustment of needle bar stop position

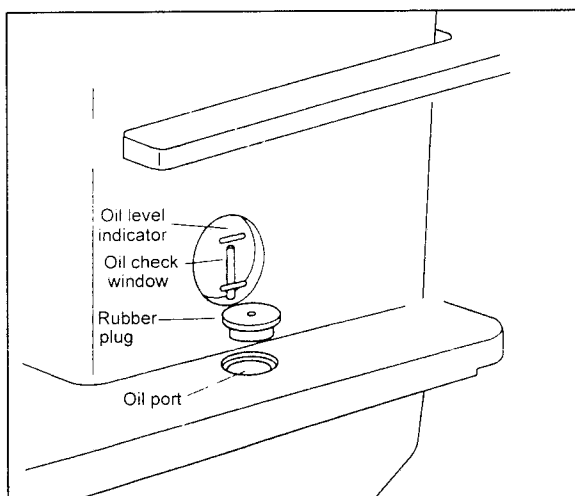
#### 1) Adjust of "UP" position

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.



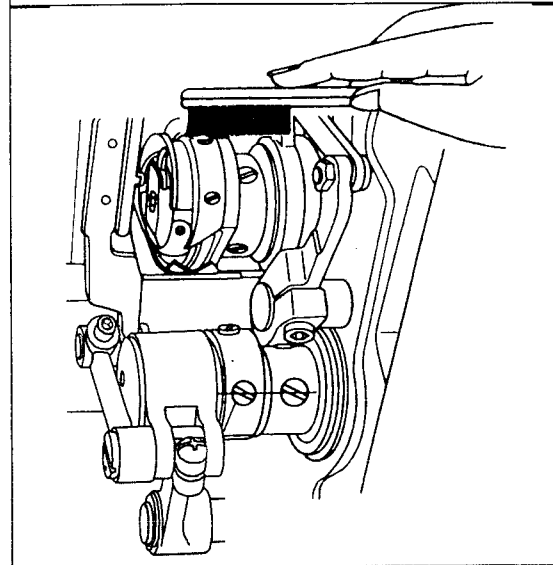
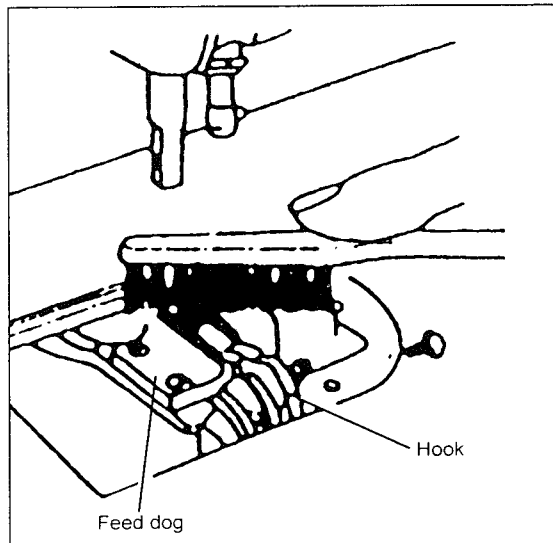
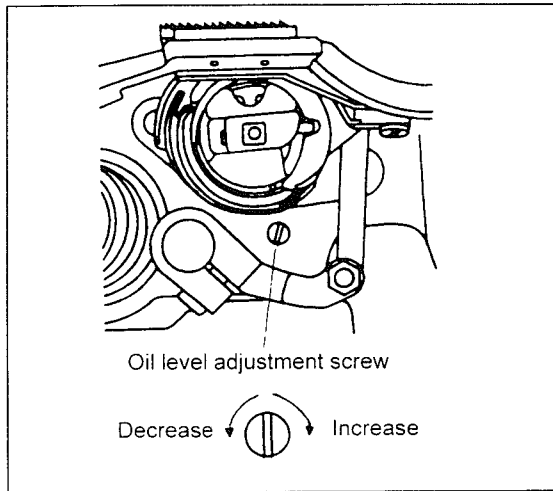
## 3. PRECAUTIONS FOR STARTING TO OPERATE



#### 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 3 rotations 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.)

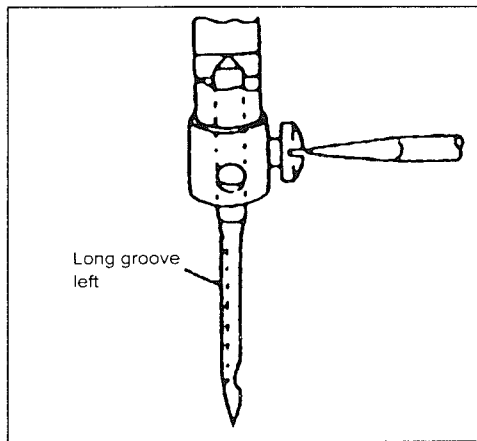
### c. Control box

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.

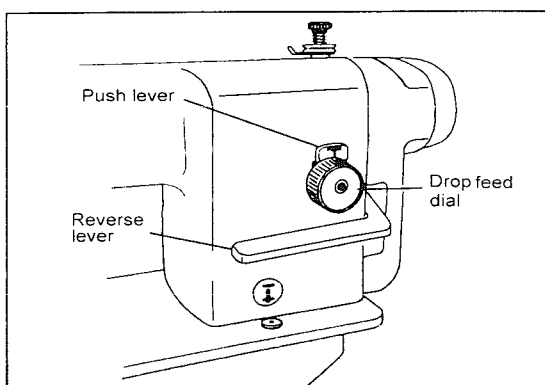
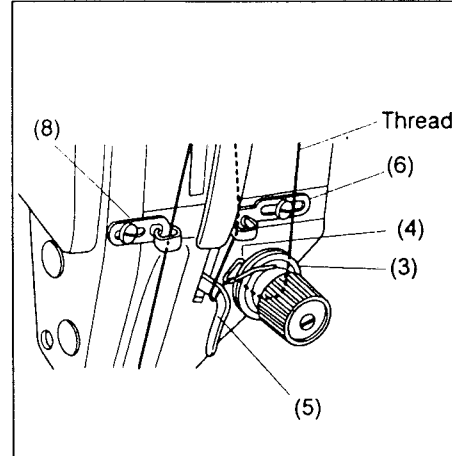
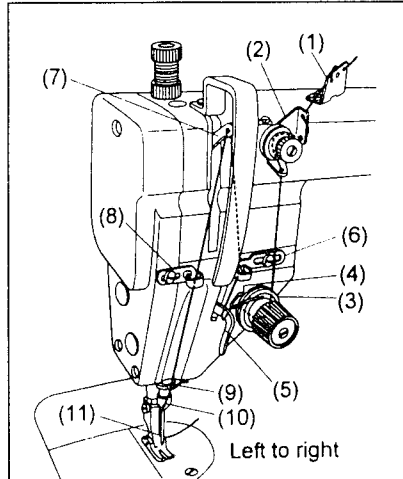
**Note:** if snapping of thread occurs during back Sewing with polyester threads, it may be avoided by fitting the needle with the long groove Shifted to the front side.

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

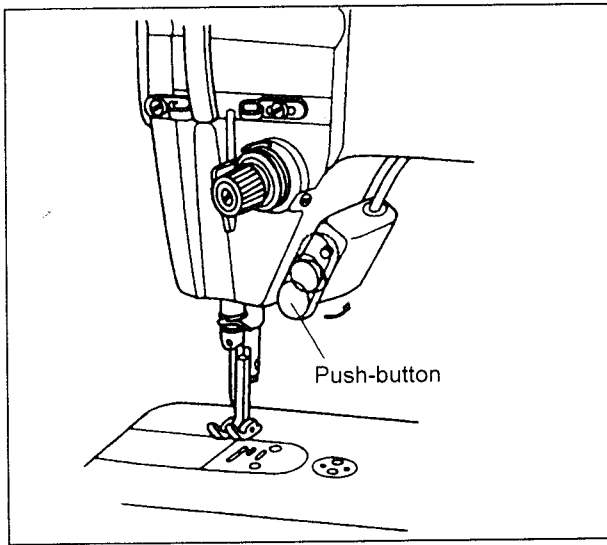
Raise the thread take-up lever to its highest position and thread the upper thread in the following order.



### 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.

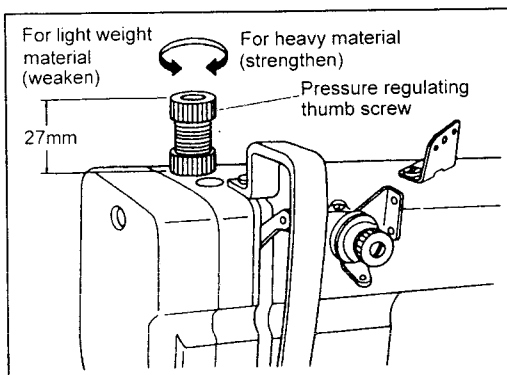
When the push-button is released, reverse sewing turns into forward sewing.

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

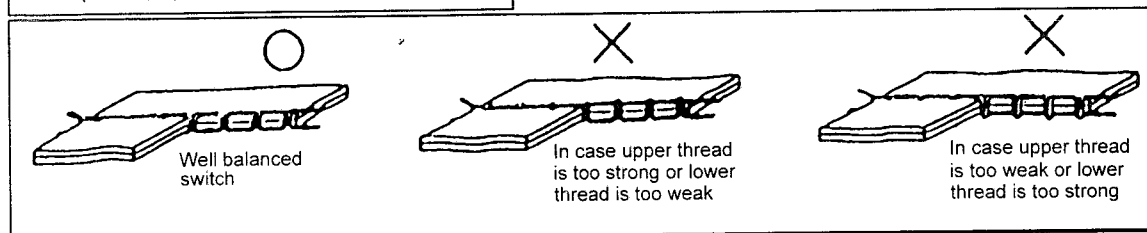
Refer to the table above, and adjust according to the stitching conditions, the material and thread

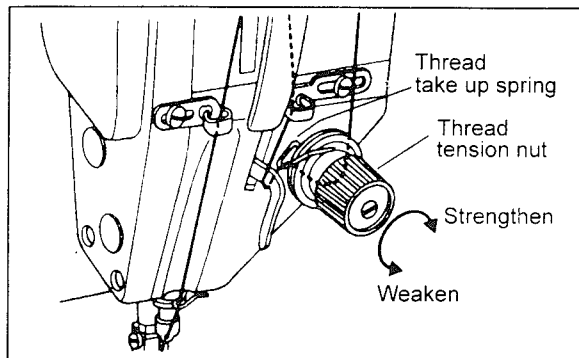


5) Adjusting of pressure of presser foot

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

6) Adjusting of thread tension



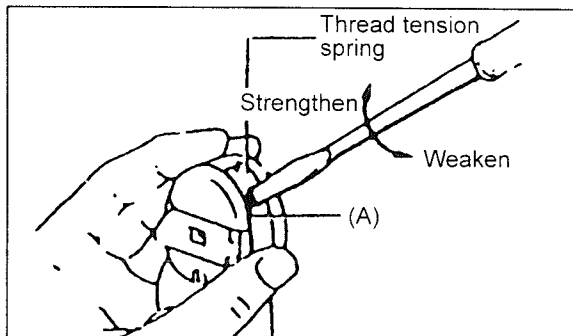


### 7) Adjusting of upper thread tension

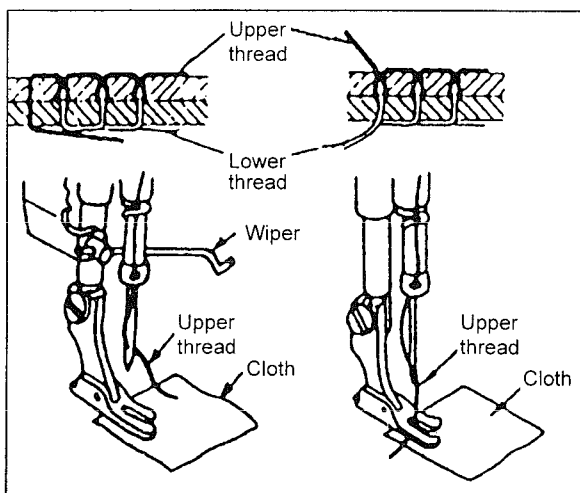
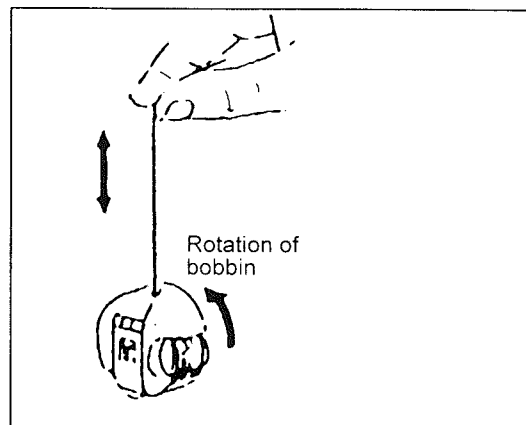
- (1) Upper thread tension can be adjusted by thread tension nut.
- (2) Upper thread is to be adjusted according to the lower thread tension.
- (3) For special fabric sewing with special thread, the desired tension can be obtained by adjusting the strength and operating range of thread take-up spring.

### 8) Adjusting of lower thread tension

- (1) Lower thread tension can be adjusted by screw (A).

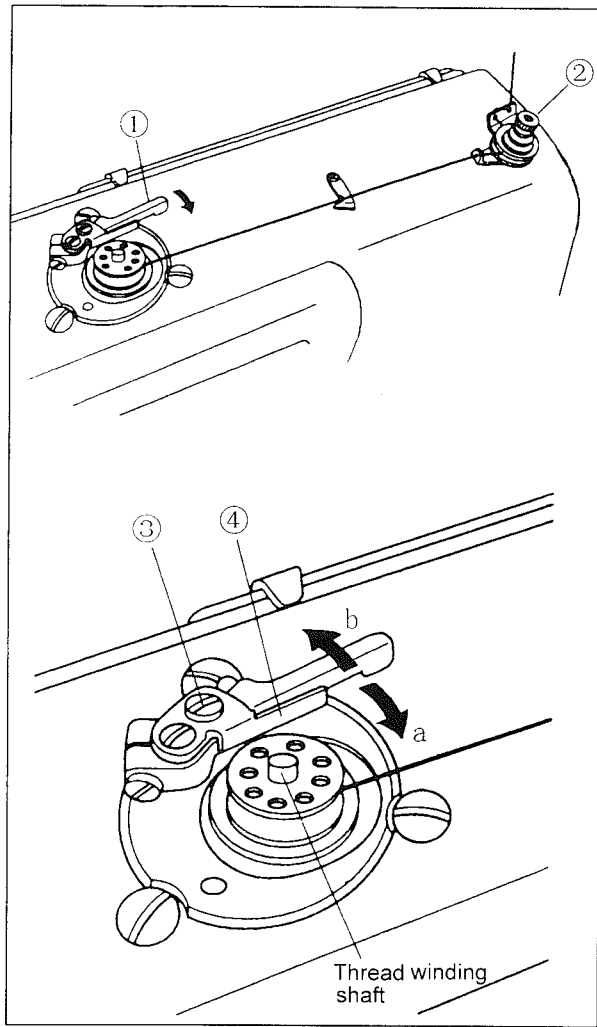


- (2) In the case of cotton thread #60, the thread tension can be checked as the following. Hold the end of pulled out thread and if the bobbin case fall slowly, the tension is proper.



### 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.

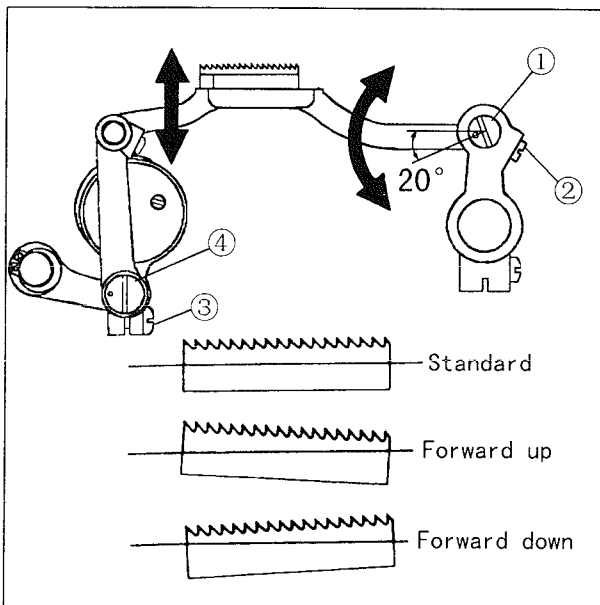


## 10) How to wind the lower thread on the bobbin

- (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.

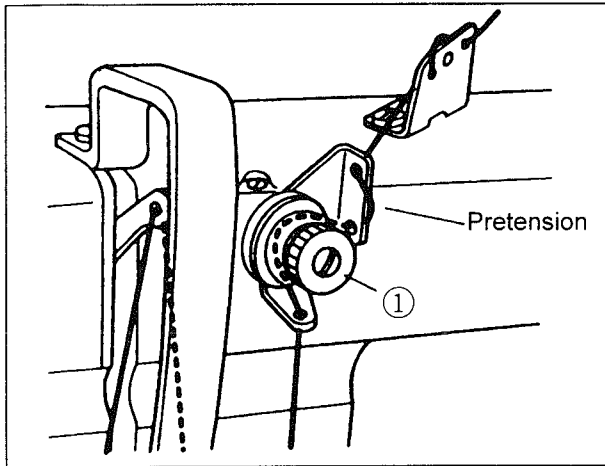
## 11) Adjustment of feed dog height and inclination

(1) As a standard, the eccentric shaft ① mark on the left of the horizontal feed arm is set to the direct 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.

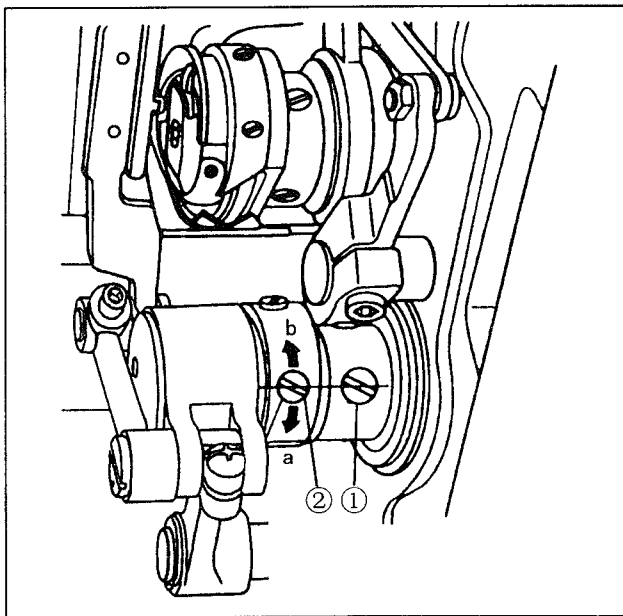
- (4) When the eccentric shafts are set to "UP" position, misalignment of fabrics is less likely to occur and yarn severance may be avoided.



## 12) Adjustment of remaining needle thread length after thread trimming

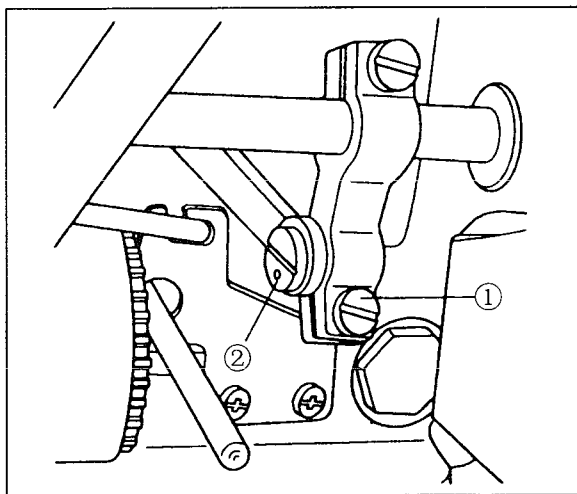
- (1) Turn the pretension nut ① and adjust.
- (2) When turned clockwise, the length of thread left in the needle will be short.

When turned counterclockwise, the length of the thread left in the needle will be long.



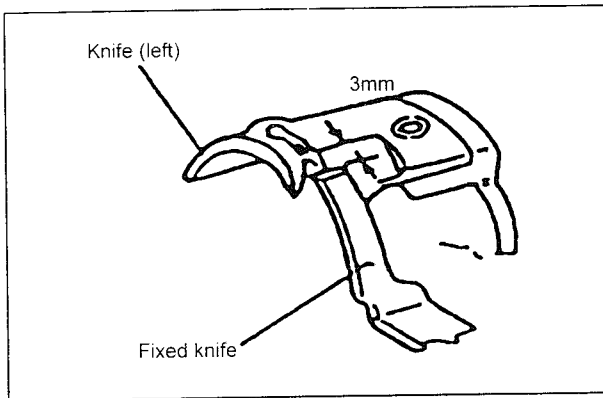
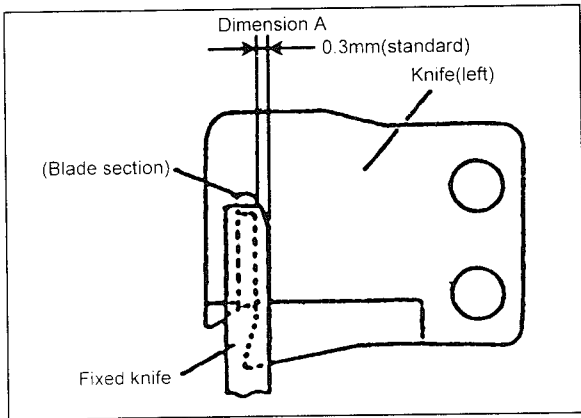
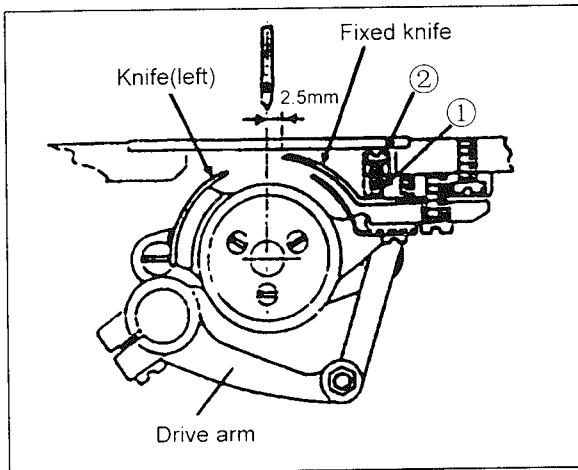
## 13) Adjustment of feed timing

- (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

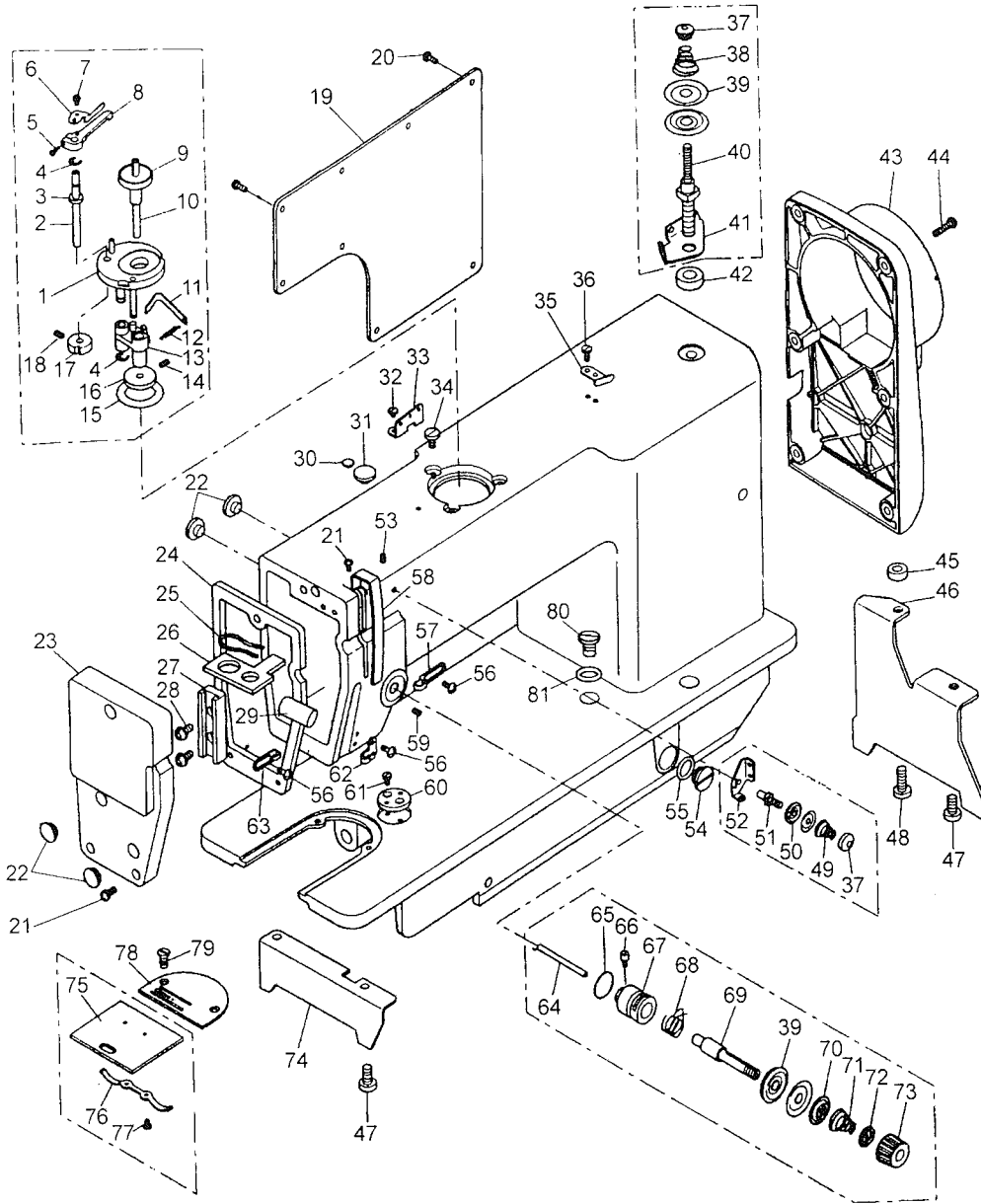
- (1) As a standard, the knife (left) and fixed knife should start contacting at the position shown in the figure.
- (2) To adjust the engagement pressure, loosen the lock nut ② and then adjust the adjustment screw ①.

## 5. SPECIFICATIONS

Material weight	GC1998-MDZ	GC1998-HDZ	GC1998-BDZ
Max. speed	5000rpm	3500	3000
Stitch length	0 to 4mm	0 to 7mm	
Needle bar stroke	31.8mm	34.9mm	
Presser foot clearance	Hand Lifter	6 mm	
	Knee lifter	13 mm	
Needle type	DB×1 #14	DB×1 #22	
Hook (for thread trimming)	Full rotation automatic lubrication (standard)		
Touch back	yes		
Wiper	yes	Special order	
Thread trimming method	Left knife rotating, right knife fixed engagement type		
Working dimensions	300×135 mm		

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

# A.ARM BED AND ITS ACCESSORIES



## A.ARM BED AND ITS ACCESSORIES

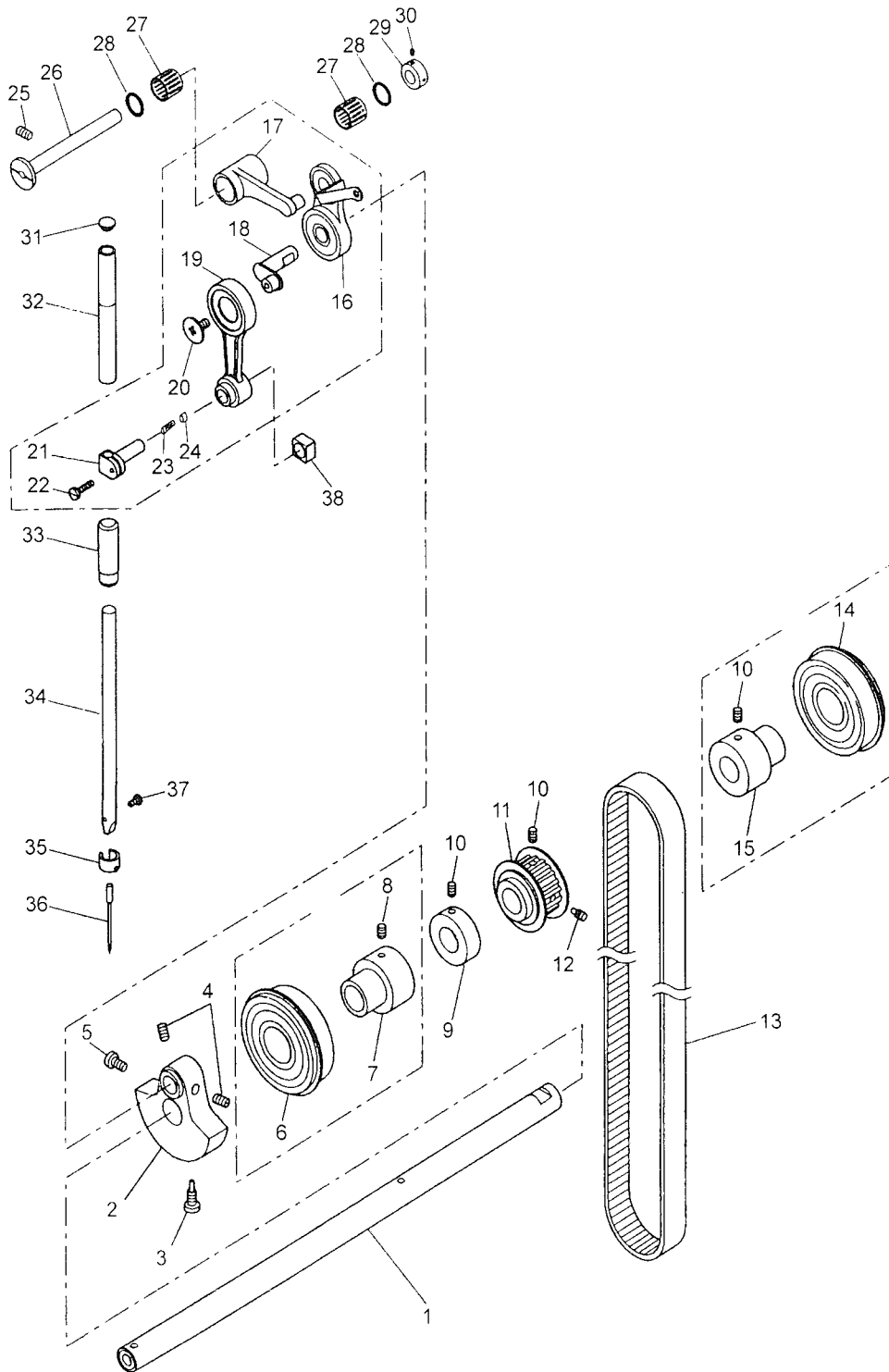
Fig. No.	Part No.	Description	M	H	B	Remarks
A01	HB2252N072	Bobbin winder base	1	1	1	
A02	H6723N8001	Cam shaft	1	1	1	
A03	H6722N8001	Wash	1	1	1	
A04	H007013050	E-type stop ring	2	2	2	
A05	HA100H2150	Screw	1	1	1	
A06	H6721N8001	Adjust plate	1	1	1	
A07	H3200B2100	Screw	1	1	1	
A08	H6720N8001	Spanner	1	1	1	
A09	H6717N8001	Seat	1	1	1	
A10	H6716N8001	Shaft	1	1	1	
A11	H6715N8001	Spring	1	1	1	
A12	H6724N8001	Spring	1	1	1	
A13	H6711N7101	Winch	1	1	1	
A14	H431040060	Screw	2	2	2	
A15	H6719N8001	Rubber rub	1	1	1	
A16	H6718N8001	Rub ring	1	1	1	
A17	H6725N8001	Cam	1	1	1	
A18	H431050060	Screw	1	1	1	
A19	HG510B8001	Side cover	1	1	1	
A20	HA300B2170	Screw	8	8	8	
A21	HA300B2160	Screw	4	4	4	
A22	HA307B0674	Rubber plug	4	4	4	
A23	HB2260B081	Face plate	1	1	1	
A24	H6722B8001	Gasket for face plate	1	1	1	
A25	H6732P8001	Holder	1	1	1	
A26	H6731P8001	Felt	1	1	1	
A27	H6705H8001	Needle bar connecting linkGuide	1	1	1	
A28	HA300C2030	Screw	2	2	2	
A29	H3204G0652	Felt	1	1	1	
A30	HA300B2090	Rubber plug	1	1	1	
A31	HA307B0673	Rubber plug	1	1	1	
A32	HA700B2060	Screw	1	1	1	
A33	HA700B2050	Thread guide	1	1	1	
A34	H3107G0662	Screw	3	3	3	
A35	H6756B8001	Thread cutter	1	1	1	
A36	H6762B8001	Screw	2	2	2	
A37	HA710B0671	Nut	2	2	2	
A38	H6739B8001	Thread tension spring	1	1	1	
A39	HA310B0705	thread tension discs	4	4	4	
A40	H6735B8001	Screw	1	1	1	
A41	H6736B8001	Thread guide	1	1	1	
A42	H6737B8001	Spacer	1	1		
A42	H8311B8001	Spacer			1	
A43	HG50Q78001	Motor cover	1	1	1	



## A.ARM BED AND ITS ACCESSORIES

Fig. No.	Part No.	Description	M	H	B	Remarks
A44	HZ11050200	Screw	6	5	5	
A45	H6760B8001	Spacer	1	1	1	
A46	H8844B8001	Bed stud (right)	1	1	1	
A47	HA104F0654	Screw	3	3	3	
A48	HA800F2020	Screw	1	1	1	
A49	HA710B0672	Pre-tension spring	1	1	1	
A50	HA112B0693	Thread tension discs	2	2	2	
A51	HA710B0673	Screw	1	1	1	
A52	HA710B0674	Thread guide	1	1	1	
A53	HA100B2110	Screw	1	1	1	
A54	H6766B8001	Screw	1	1	1	
A55	H6758B8001	O-ring	1	1	1	
A56	HA106B0676	Screw	3	3	3	
A57	HA100B2140	Thread guide	1	1		
A57	HA600B2050	Thread guide			1	
A58	HB22511081	Thread take-up cover	1	1	1	
A59	HA300B2080	Screw	1	1	1	
A60	HA300B2140	Plate for guide	1	1	1	
A61	HA300B2130	Screw	2	2	2	
A62	HA500C2060	Thread guide	1	1	1	
A63	HA106B0675	Thread guide	1	1		
A63	HA607B0671	Thread guide			1	
A64	H6725B8001	Pin	1	1	1	
A65	HA115B7011	O-ring	1	1	1	
A66	HA115B0708	Screw	1	1	1	
A67	HA310B0703	Thread tension regulator bushing	1	1	1	
A68	HA115B0706	Thread take-up spring	1			
A68	HA806B0671	Thread take-up spring		1	1	
A69	HA115B0701	Thread tension stud	1	1	1	
A70	HA310B0702	Thread tension releasing discs	1	1	1	
A71	HA115B0703	Thread tension spring	1			
A71	HA806B0672	Thread tension spring		1	1	
A72	HA115B7010	Thumb nut revolution stopper	1	1	1	
A73	HA310B0701	Thumb nut	1	1	1	
A74	H6727B8001	Bed stud (left)	1	1	1	
A75	HA124B0711	Slide plate	1	1	1	
A76	HA324B0711	Spring for slide plate]	1	1	1	
A77	HA124B0713	Screw	2	2	2	
A78	HA700B2100	Needle plate	1			
A78	HA500B2030	Needle plate		1	1	
A79	HA300B2190	Screw	2	2	2	
A80	H8810P8001	Screw	1	1	1	
A81	H8812P8001	Washer	1	1	1	

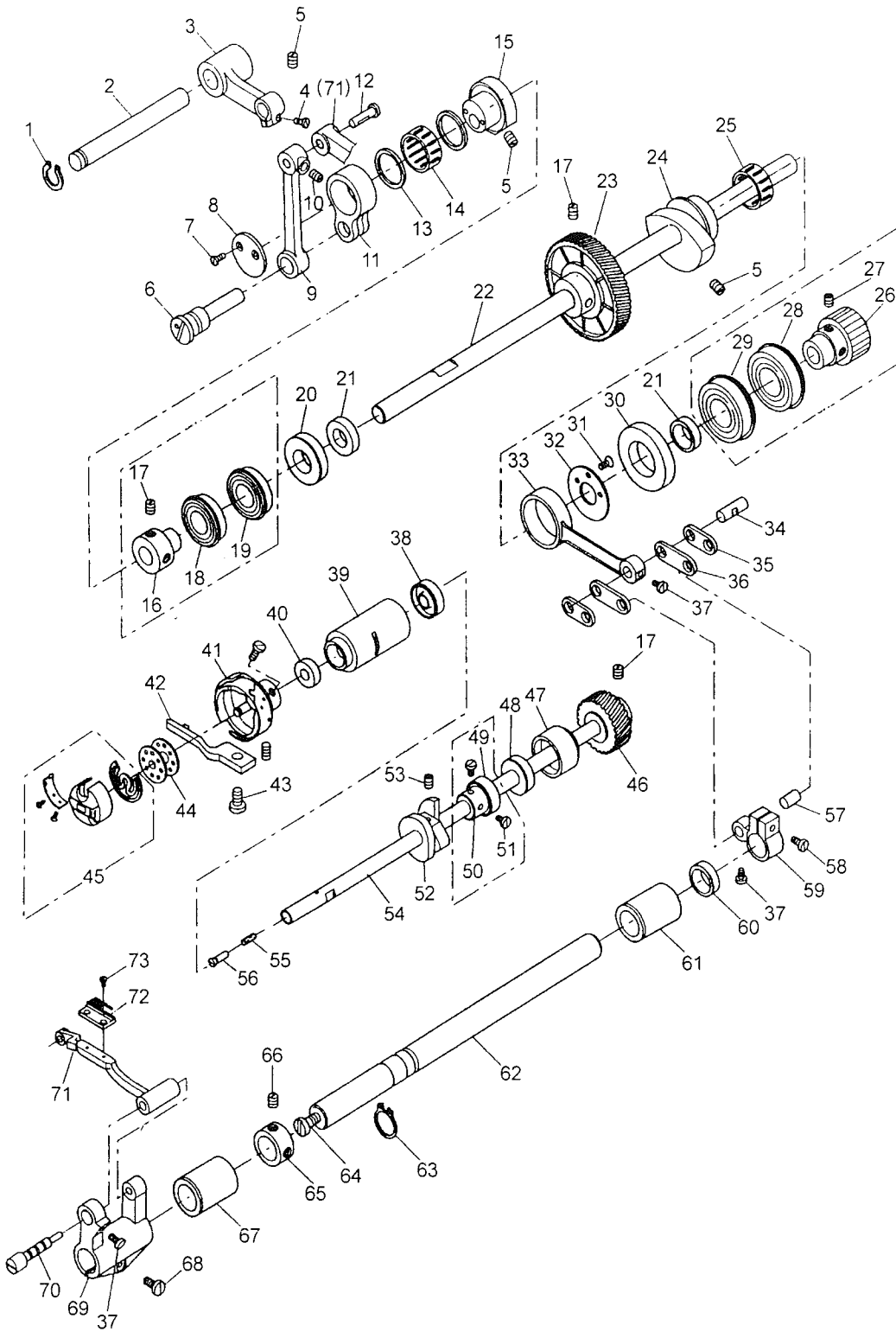
# B.NEEDLE BAR AND THREAD TAKE-UP MECHANISM



## B.NEEDLE BAR AND THREAD TAKE-UP MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
B01	H8804C8001	Upper shaft	1	1	1	
B02	H6706C8001	Crank	1			
B02	H9105C8001	Crank		1	1	
B03	HA100C2070	Screw	1	1	1	
B04	HA307C0662	Screw	2	2	2	
B05	HA100C2060	Screw	1	1	1	
B06	H3208H0661	Ball bearing	1	1	1	
B07	H6711C8001	Bushing	1	1	1	
B08	H6719C8001	Screw	2	2	2	
B09	H6713C8001	Bobbin winder driving wheel	1	1	1	
B10	H431060080	Screw	5	5	5	
B11	H6708C8001	Belt pulley (upper)	1	1	1	
B12	H6715C8001	Screw	1	1	1	
B13	H8805C8001	Belt	1	1		
B13	HM209C8001	Belt			1	
B14	H3205J0662	Ball bearing	1	1	1	
B15	H6717C8001	Bushing	1	1	1	
B16	H670617101	Thread take-up lever assy.	1	1		
B16	H830617101	Thread take-up lever assy.			1	
B17	H671018001	Thread take-up lever link	1	1	1	
B18	H671118001	Thread take-up crank	1			
B18	H910818001	Thread take-up crank		1	1	
B19	H671217101	Needle bar link assy.	1	1	1	
B20	H671518001	Screw	1	1	1	
B21	HA104C0658	Needle bar holder	1	1	1	
B22	H2204C0651	Screw	1	1	1	
B23	H24211D405	Oil wick	1	1	1	
B24	H24211D305	Plug	1	1	1	
B25	HA100C2020	Screw	1	1	1	
B26	H671618001	Thread take-up support shaft	1	1	1	
B27	H671718001	Bearing	2	2	2	
B28	H671818001	Bearing support	1	1	1	
B29	H671918001	Thrust collar	1	1	1	
B30	HA100B2110	Screw	3	3	3	
B31	HA300B2090	Rubber plug	1	1	1	
B32	H6711B8001	Bushing	1	1	1	
B33	H8813B8001	Bushing	1			
B33	HY911B8001	Bushing		1	1	
B34	H8807H8001	Needle bar	1			
B34	HY904H8001	Needle bar		1	1	
B35	HA500C2030	Thread guide	1	1	1	
B36		Needle	1			DB×1 14#
B36		Needle		1	1	DB×1 22#
B37	HA100C2170	Screw	1	1	1	
B38	H6706H8001	Square block	1	1	1	

# C.FEEDING AND FEED LIFTING MECHANISM



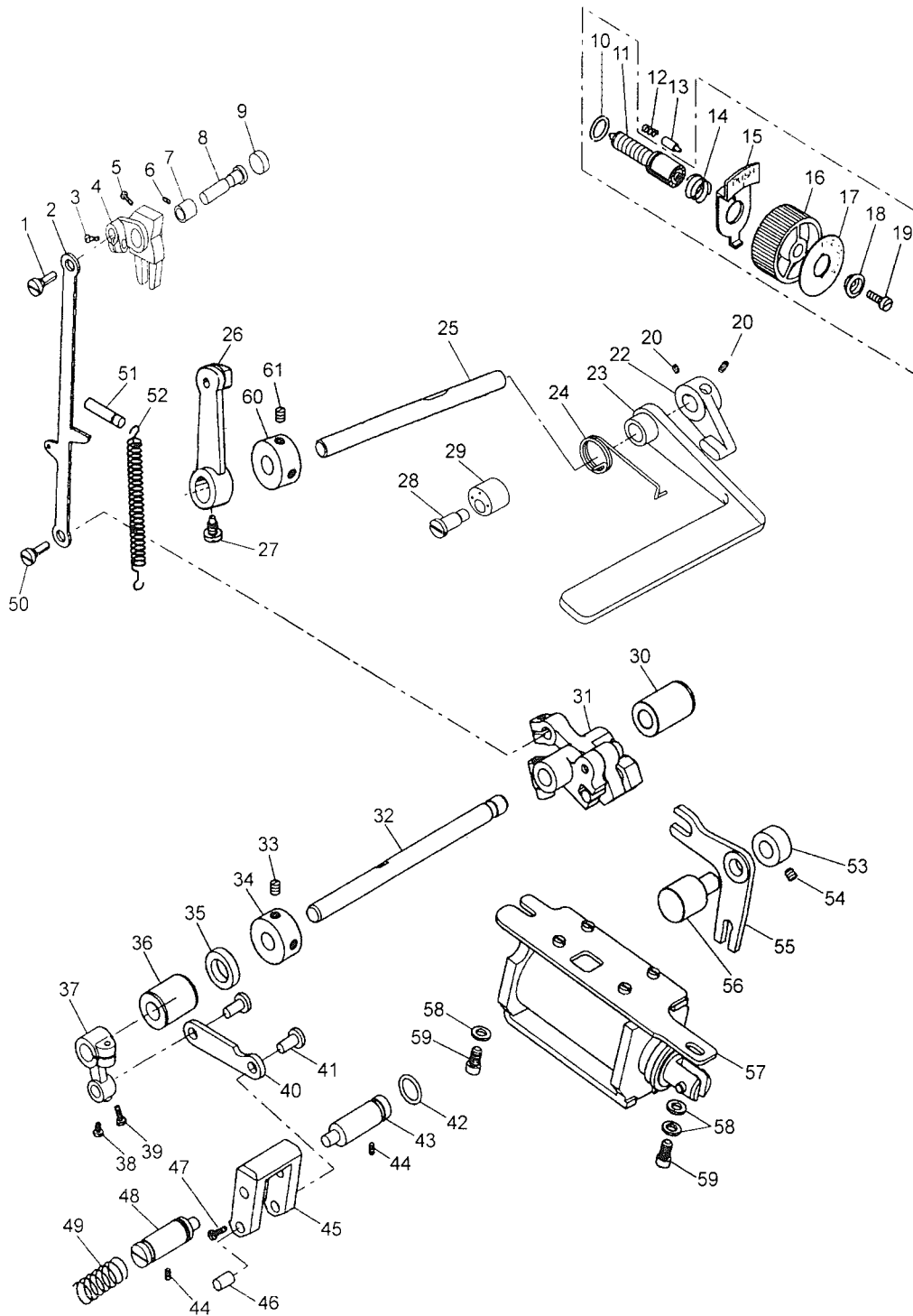
## C.FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
C01	H007009100	Retaining ring-C type	1	1	1	
C02	H9113D8001	Shaft	1	1	1	
C03	H9115D8001	Guide crank	1	1	1	
C04	HA300B2160	Screw	1	1	1	
C05	HA100C2020	Screw	5	5	5	
C06	H9116D8001	Eccentric shaft	1	1	1	
C07	HA106B0676	Screw	2	2	2	
C08	H9110D8001	Thrust collar	1	1	1	
C09	H9116E8001	Link	1	1		
C09	H8305E8001	Link			1	
C10	H431050050	Screw	1	1	1	
C11	H9109D8001	Feed lifting connecting rod	1	1	1	
C12	H6724D8001	Connecting stud	1	1	1	
C13	H9108D8001	Bearing support	2	2	2	
C14	H9107D8001	Needle bearing	1	1	1	
C15	H9105D8001	Feed lifting connecting cam	1	1	1	
C16	H8811D8001	Bushing	1	1	1	
C17	HA307C0662	Screw	6	6	6	
C18	H6711D8001	Ball bearing	1	1	1	
C19	H8813D8001	Ball bearing	1	1	1	6003ZZ
C20	H6714B8003	Bushing	1	1	1	
C21	H6745B8001	Oil seal	2	2	2	
C22	H8805D8001	Feed lifting rock shaft	1	1		
C22	HM205D8001	Feed lifting rock shaft			1	
C23	H6708D7101	Gear(large)	1	1	1	
C24	H6705E8001	Lever feed eccentric cam	1			
C24	H9109E8001	Lever feed eccentric cam		1	1	
C25	H6720E8001	Needle bearing	1			
C26	H8807D8001	Belt pulley(lower)	1	1	1	
C27	H431060080	Screw	2	2	2	
C28	H3208H0661	Ball bearing	1	1	1	6004ZZNR
C29	H8812D8001	Ball bearing	1	1	1	6004ZZ
C30	H6714B8001	Bushing	1	1	1	
C31	HA7311C306	Screw	3	3	3	
C32	H30211C406	Thrust collar	1	1	1	
C33	H6706E8001	Lever feed connecting rod	1	1	1	
C34	HA706C11B1	Pin	1	1	1	
C35	H6724E8001	Link	2	2	2	
C36	H6709E8001	Link	2	2	2	
C37	HA7311C806	Screw	3	3	3	
C38	H6709F8001	Oil seal	1	1	1	
C39	H6716B8002	Lower shaft bushing(left)	1	1	1	
C40	H6747B8001	Oil seal	1	1	1	
C41	H6711F7101	Rotary hook assy.	1			

## C.FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
C41	HA804E0065	Rotary hook assy.		1		
C41	HA906E0066	Rotary hook assy.			1	
C42	HA300E2050	Rotating hook positioner	1			
C42	HA500E2020	Rotating hook positioner		1		
C42	HA600E2040	Rotating hook positioner			1	
C43	HA100E2150	Screw	1	1	1	
C44	HA100E2180	Bobbin	1	1		
C44	HA600E2060	Bobbin			1	
C45	HA708E0068	Bobbin case assy.	1			
C45	HA805E0066	Bobbin case assy.		1		
C45	HA900E2030	Bobbin case assy.			1	
C46	H6709D8001	Gear(small)	1	1	1	
C47	H8832B8001	Lower shaft bushing(right)	1	1	1	
C48	H6747B8001	Oil seal	1	1	1	
C49	H6707F8001	Ball bearing	1	1	1	
C50	H6708F8001	Bushing	1	1	1	
C51	HA300B2130	Screw	2	2	2	
C52	HA710E0691	Thread trimmer cam	1	1	1	
C53	HA710E0692	Screw	1	1	1	
C54	H8804F8001	Lower shaft	1	1		
C54	HM205F8001	Lower shaft			1	
C55	H6712F8001	Oil wick	1	1	1	
C56	H6726E8001	Screw	1	1	1	
C57	HA706C11B2	Pin	2	2	2	
C58	HA7311C606	Screw	1	1	1	
C59	H6707E8001	Feed rock shaft crank	1	1	1	
C60	H6748B8001	Oil seal	1	1	1	
C61	H8829B8001	Bushing	1	1	1	
C62	H8807E8001	Feed rock shaft	1	1	1	
C63	H007009150	Retaining ring-C type	1	1	1	
C64	HA300J2280	Screw	1	1	1	
C65	HA108G0661	Thrust collar	1	1	1	
C66	HA105D0662	Screw	2	2	2	
C67	H8828B8001	Bushing	1	1	1	
C68	HA104G0012	Screw	1	1	1	
C69	H6715E8001	Crank	1	1	1	
C70	H6717E8001	Eccentric shaft	1	1	1	
C71	H9115E8001	Feed bar	1	1	1	
C72	HA104G0653	Feed dog	1	1	1	
C73	HA104G0654	Screw	2	2	2	

# D.STITCH REGULATOR MECHANISM



## D.STITCH REGULATOR MECHANISM

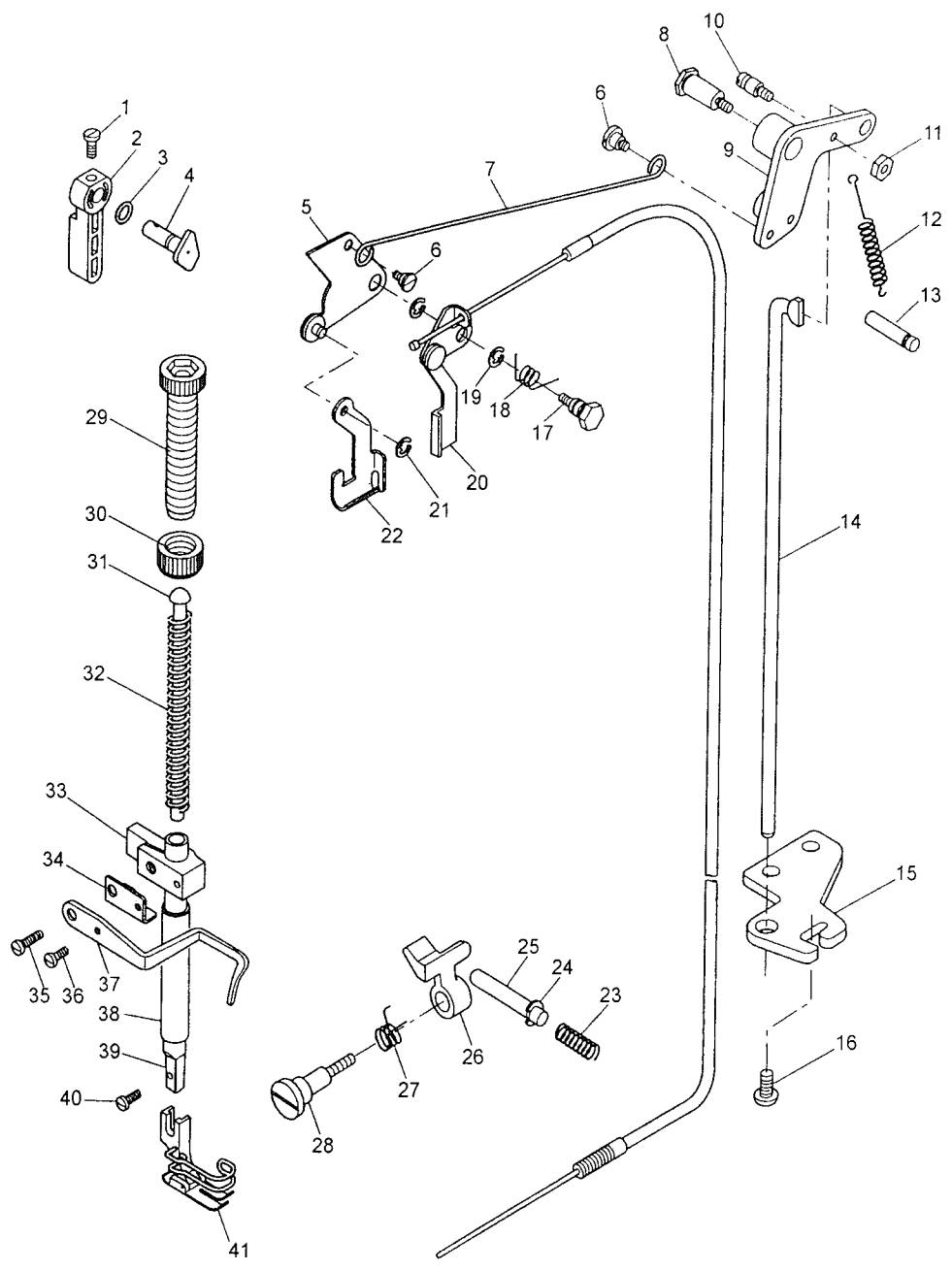
Fig. No.	Part No.	Description	M	H	B	Remarks
D01	HA700C2060	Connecting rod stud	1	1	1	
D02	H8805G8001	Feed regulating link	1	1	1	
D03	HA111G0683	Screw	1	1	1	
D04	HG605E8001	Feed regulating link	1			
D04	HG705E8001	Feed regulating link		1	1	
D05	HA104F0654	Screw	1	1	1	
D06	H2000H2020	Screw	1	1	1	
D07	HB2266B081	Bushing	1	1	1	
D08	HB2254G081	Set pin	1	1	1	
D09	HA700B2120	Rubber plug	1	1	1	
D10	HA109F0674	O-ring	1	1	1	
D11	HA720F0681	Screw bar	1	1	1	
D12	HA100F2090	Spring	1	1	1	
D13	HA700F2030	Pin	1	1	1	
D14	HA720F0687	Coil spring	1	1	1	
D15	HA720F0683	Releasing lever	1	1	1	
D16	HA7421F120	Dial for stitch length regulator	1	1	1	
D17	HA720F0684	Stitch length indicating plate	1			
D17	HA806F0651	Stitch length indicating plate		1	1	
D18	HA720F0685	Bushing	1	1	1	
D19	HA720F0686	Screw	1	1	1	
D20	H431050060	Screw	2	2	2	
D22	HG50G68001	Reverse stitching lever block	1	1	1	
D23	HB2258G081	Spanner	1	1	1	
D24	H4939L8001	Spring	1	1	1	
D25	HB2260G081	Shaft	1	1	1	
D26	HG50G87101	Reverse crank	1	1	1	
D27	H3200F2020	Screw	1	1	1	
D28	H4937L8001	Screw	1	1	1	
D29	H4938L8001	Rubber band	1	1	1	
D30	H8830B8001	Bushing	1	1	1	
D31	H8806G7101	Screw bar assy.	1	1	1	
D32	H8810G8001	Shaft	1	1	1	
D33	HA307C0662	Screw	2	2	2	
D34	H6712G8001	Collar	1	1	1	
D35	H6749B8001	Oil seal	1	1	1	
D36	H6718B8001	Bushing	1	1	1	
D37	H9110E8001	Crank	1	1	1	
D38	HA7311C806	Screw	1	1	1	
D39	HA7651B319	Screw	1	1	1	
D40	H6711E8001	Link	1	1	1	
D41	H6710E8001	Connecting stud	2	2	2	
D42	H6721E8001	O-ring	1	1	1	
D43	H8809E8001	Feed regulator shaft	1	1	1	



## D.STITCH REGULATOR MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
D44	H3230K0751	Screw	2	2	2	
D45	H6708E8001	Stitch length adjusting crank	1	1	1	
D46	HA7311CE06	Link stud	1	1	1	
D47	HA7311CD06	Screw	2	2	2	
D48	H6713E8001	Feed regulator shaft	1	1	1	
D49	H6723E8001	Coil spring	1	1	1	
D50	H6710E8001	Eccentric shaft	1	1	1	
D51	HA100H2080	Pin	1	1	1	
D52	H9108G8001	Spring	1	1	1	
D53	H8841B8001	Thrust collar	1	1	1	
D54	H431050050	Screw	2	2	2	
D55	H8838B8001	Bell-crank	1	1	1	
D56	H8839B8001	Bell-crank shaft	1	1	1	
D57	H8835B7101	Solenoid	1	1	1	
D58	HA104F0654	Screw	2	2	2	
D59	HA700P0010	Washer	3	3	3	
D60	H6712G8001	Collar	1	1	1	
D61	HA307C0662	Screw	2	2	2	

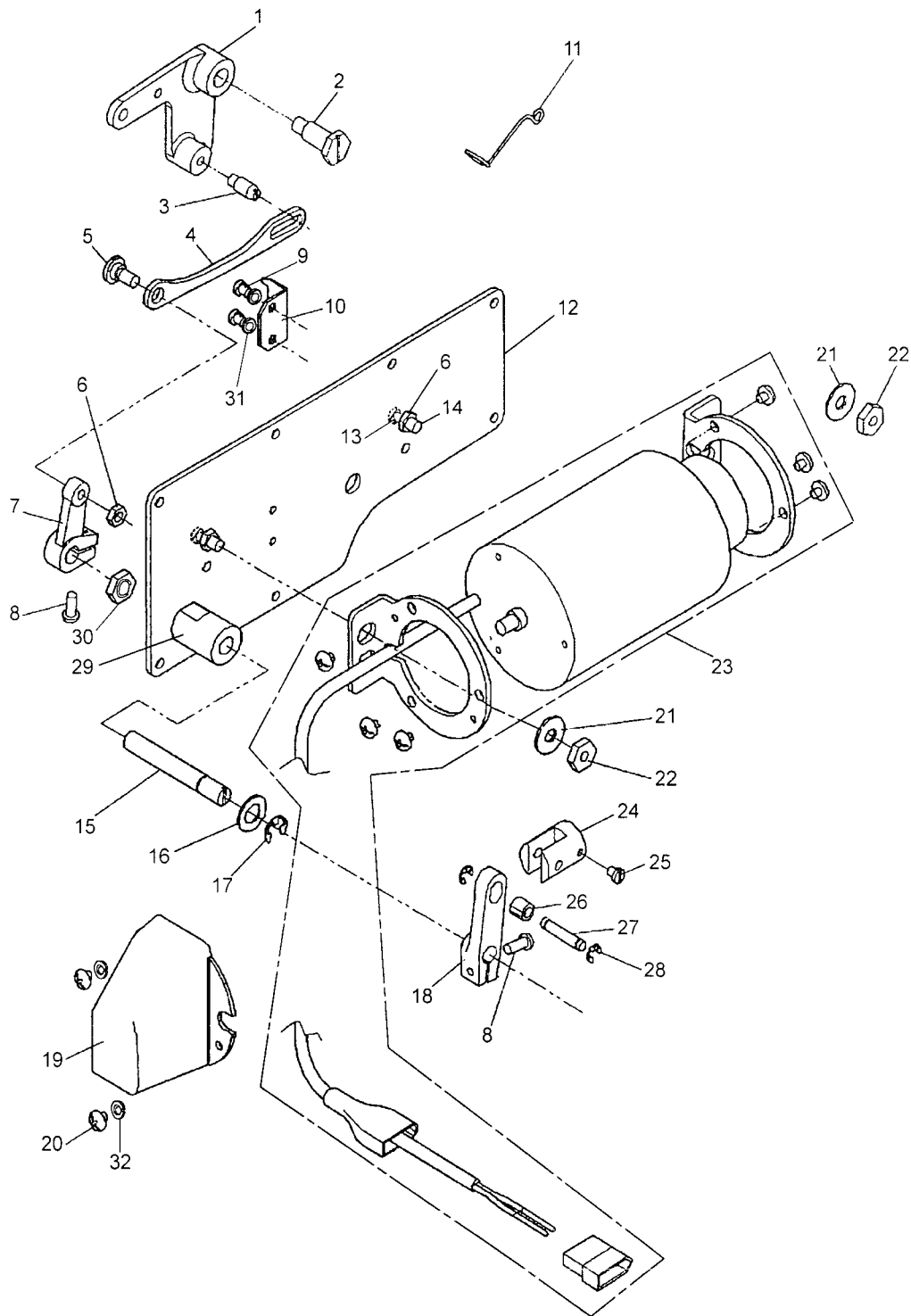
# E.PRESSER FOOT MECHANISM



## E.PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
E01	HA300B2170	Screw	1	1	1	
E02	H1204F0651	Presser bar lifter lever	1	1	1	
E03	HA300H2080	O-ring	1	1	1	
E04	H6728J8001	Presser bar lifter cam	1	1	1	
E05	H6708J7101	Knee lifter lever(left)	1	1	1	
E06	HA107H0662	Screw	2	2	2	
E07	H8806J8001	Knee lifter rod	1	1	1	
E08	HA100H2050	Screw	1	1	1	
E09	H6720J8001	knee lifter lever(right)	1	1	1	
E10	H6721J8001	Screw bar	1	1	1	
E11	HA706N0663	Nut	1	1	1	
E12	H6722J8001	Spring for knee lifter lever	1	1	1	
E13	HA100H2080	Pin	1	1	1	
E14	HG50J88001	Knee lifter connecting rod	1	1	1	
E15	H6724J8001	Knee lifter connecting rod guide	1	1	1	
E16	HA300C2030	Screw	2	2	2	
E17	H6717J8001	Screw	1	1	1	
E18	H6729J8001	Spring	1	1	1	
E19	H007013060	E-type stop ring	2	2	2	
E20	H6713J7101	Tension release lever assy.	1	1	1	
E21	H007013040	E-type stop ring	1	1	1	
E22	H6711J8001	Pull up plate	1	1	1	
E23	H6732J8001	Tension release pin spring	1	1	1	
E24	H007013030	E-type stop ring	1	1	1	
E25	H6727J8001	Tension release pin	1	1	1	
E26	H6725J8001	Tension releaser	1	1	1	
E27	H6730J8001	Spring	1	1	1	
E28	H6726J8001	Screw	1	1	1	
E29	HA309H0681	Thumb screw	1	1	1	
E30	HA117H0692	Nut	1	1	1	
E31	H6733J8001	Spring guide	1	1	1	
E32	HA500H2010	Presser spring	1	1	1	
E33	H6705J8001	Presser bar guide bracket	1	1	1	
E34	H6706J8001	Bracket plate	1	1	1	
E35	HA7311C606	Screw	1	1	1	
E36	HA7311CH06	Screw	1	1	1	
E37	H6707J8001	Upper thread guide	1	1	1	
E38	H8812B8001	Bushing	1	1	1	
E39	H8804J8001	Presser bar	1	1	1	
E40	HA100H2150	Screw	1	1	1	
E41	HA310H0069	Presser foot	1			
E41	HA505H0065	Presser foot		1		
E41	HA604H0065	Presser foot			1	

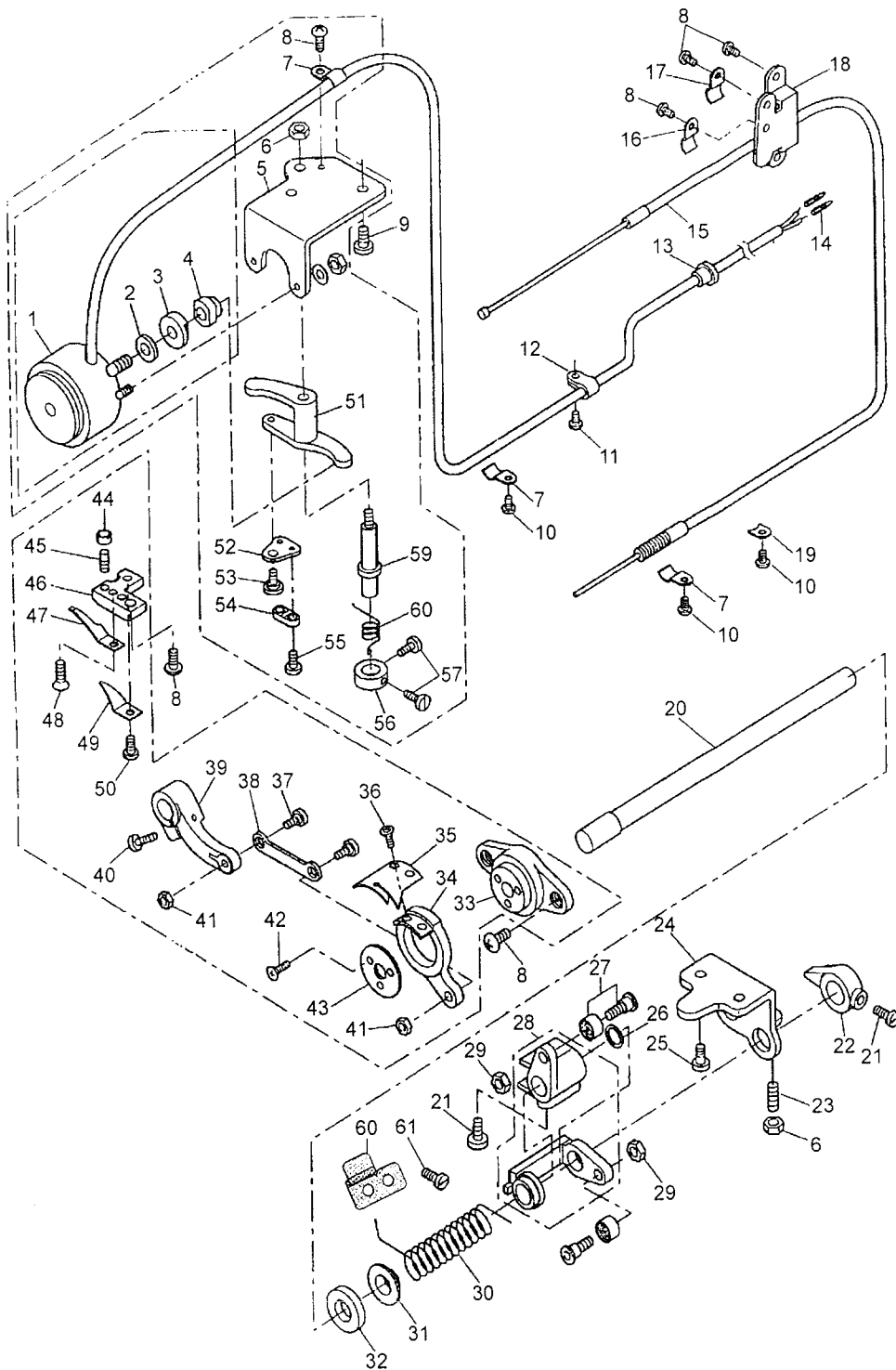
# F.PRESSER FOOT MECHANISM



## F.PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
F01	H8808J7102	Knee lifter lever assy.(right)	1	1	1	
F02	HB2259J081	Stud bolt	1	1	1	
F03	HB2263J081	Pin	1	1	1	
F04	HB2257J081	Link	1	1	1	
F05	HB2266J081	Hinged screw	1	1	1	
F06	H5344B8001	Nut	3	3	3	
F07	HB2264J081	Arm	1	1	1	
F08	HA104G0012	Screw	2	2	2	
F09	H5332B8001	Screw	2	2	2	
F10	HB2258J081	Guide plate	1	1	1	
F11	HB2276J081	Screw	1	1	1	
F12	HG50J68001	Slide cover	1	1	1	
F13	HB2275J081	Washer	2	2	2	
F14	H6736K8001	Screw	2	2	2	
F15	HB2265J081	Shaft	1	1	1	
F16	H7353G8001	Washer	1	1	1	
F17	H007013060	E-type stop ring	1	1	1	
F18	HB2253J081	Arm	1	1	1	
F19	HB2272J081	Cover	1	1	1	
F20	H409040060	Screw	2	2	2	
F21	HB2274J081	Washer	2	2	2	
F22	HB2273J081	Nut	2	2	2	
F23	HB2256J072	Solenoid	1	1	1	
F24	HB2255J081	Collar	1	1	1	
F25	HA300C2030	Screw	1	1	1	
F26	HB2270J081	Roller	1	1	1	
F27	HB2254J081	Pin	1	1	1	
F28	H007013035	E-type stop ring	2	2	2	
F29	HB2269J081	Bushing	1	1	1	
F30	H003021160	Nut	1	1	1	
F31	HB2267J081	Washer	2	2	2	
F32	H005008040	Washer	2	2	2	

# G.THREAD TRIMMER MECHANISM



## G.THREAD TRIMMER MECHANISM

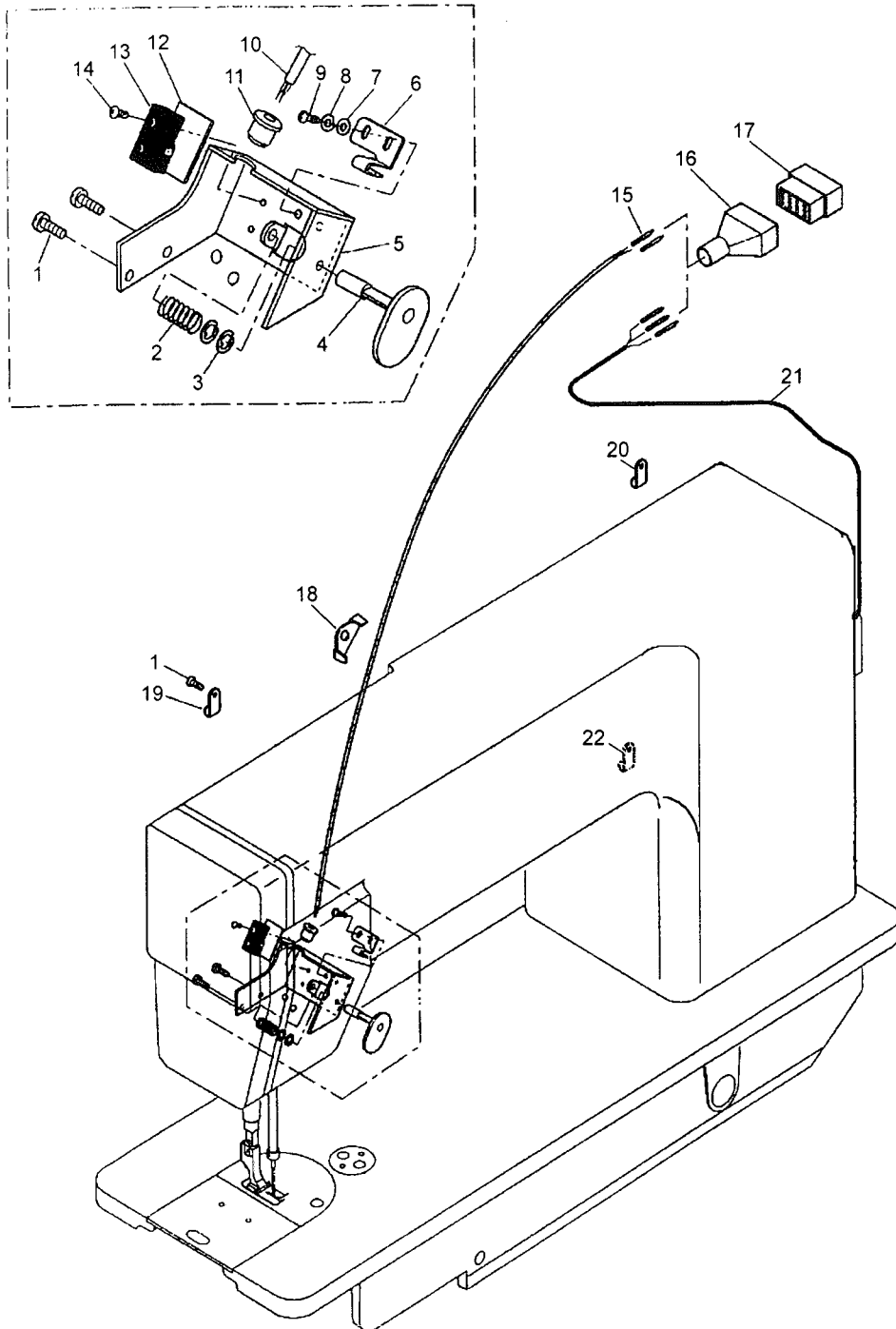
Fig. No.	Part No.	Description	M	H	B	Remarks
G01	H8811K7201	Solenoid	1	1	1	
G02	H6718K8001	Washer	1	1	1	
G03	H6719K8001	Nut	1	1	1	
G04	H6720K8001	Nut	1	1	1	
G05	H6715K8001	Solenoid bracket	1	1	1	
G06	HA710N0683	Nut	2	2	2	
G07	H6732K8001	Holder	3	3	3	
G08	HA300C2030	Screw	8	8	8	
G09	HA700N0080	Screw	2	2	2	
G10	H2000O0360	Screw	3	3	3	
G11	HA300B2170	Screw	1	1	1	
G12	H6727N8001	Cord holder	1	1	1	
G13	HA704O0657	Rubber plug	2	2	2	
G14	HA7641B319	Terminal pin	2	2	2	
G15	H8814K8001	Flexible wire	1	1	1	
G16	H6729K8001	Holder	1	1	1	
G17	H32311D606	Holder	1	1	1	
G18	H6731K8001	Wire holder bracket	1	1	1	
G19	H6733K8001	Washer	1	1	1	
G20	H8805K8001	Shaft	1	1		
G20	HM205K8001	Shaft			1	
G21	HA113F0684	Screw	3	3	3	
G22	H6713K8001	Stopper lever	1	1	1	
G23	H6735K8001	Screw	1	1	1	
G24	H6711K8001	Bracket plate	1	1	1	
G25	H6736K8001	Screw	2	2	2	
G26	HA706N0664	Washer	1	1	1	
G27	HA706N1021	Shoulder screw assy.	2	2	2	
G28	HA706N1011	Cam follower crank assy.	1	1	1	
G29	HA706N0663	Nut	2	2	2	
G30	H6737K8001	Spring	1	1	1	
G31	HA700N0050	Bushing	1	1	1	
G32	H8807K8001	Spacer	1	1	1	
G33	H6707K8001	Knife holding bracket saddle	1	1	1	
G34	H6708K8001	Knife base(left)	1	1		
G34	H8307K8001	Knife base(left)			1	
G35	HA7111N804	Movable Knife(left)	1	1		
G35	HA9111N204	Movable Knife(left)			1	
G36	HA7111N704	Screw	2	2	2	
G37	HA7111N204	Screw	2	2	2	
G38	HA7111N404	Link	1	1	1	
G39	H9106K8001	Knife driving crank	1	1	1	
G40	HA716F0662	Screw	1	1	1	
G41	HA7111N304	Nut	2	2	2	

## G.THREAD TRIMMER MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
G42	HA704N1114	Screw	3	3	3	
G43	H6738K8001	Thrust collar	1	1	1	
G44	HA7121N704	Nut	1	1	1	
G45	HA7121N604	Screw	1	1	1	
G46	HA7121N104	Bracket for fixed blade	1	1	1	
G47	HA7121N204	Fixed blade	1	1		
G47	HA9121N104	Fixed blade			1	
G48	HA7121N304	Screw	1	1	1	
G49	HA7121N404	Thread finger	1	1		
G49	HA9121N204	Thread finger			1	
G50	HA7311CH06	Screw	1	1	1	
G51	H6721K8001	Thread trimmer driving lever	1	1	1	
G52	HA712N6910	Flexible wire holder	1	1	1	
G53	HA712N0699	Screw	1	1	1	
G54	HA712N6911	Flexible wire presser	1	1	1	
G55	HA712N6912	Screw	2	2	2	
G56	HA712N0696	Spring support collar	1	1	1	
G57	HA7311CC06	Screw	2	2	2	
G58	HA712N0697	Trimming lever spring	1	1	1	
G59	H6722K8001	Stud bolt	1	1	1	
G60	H8842B8001	Spring bracket	1	1	1	
G61	HA300B2160	Screw	2	2	2	



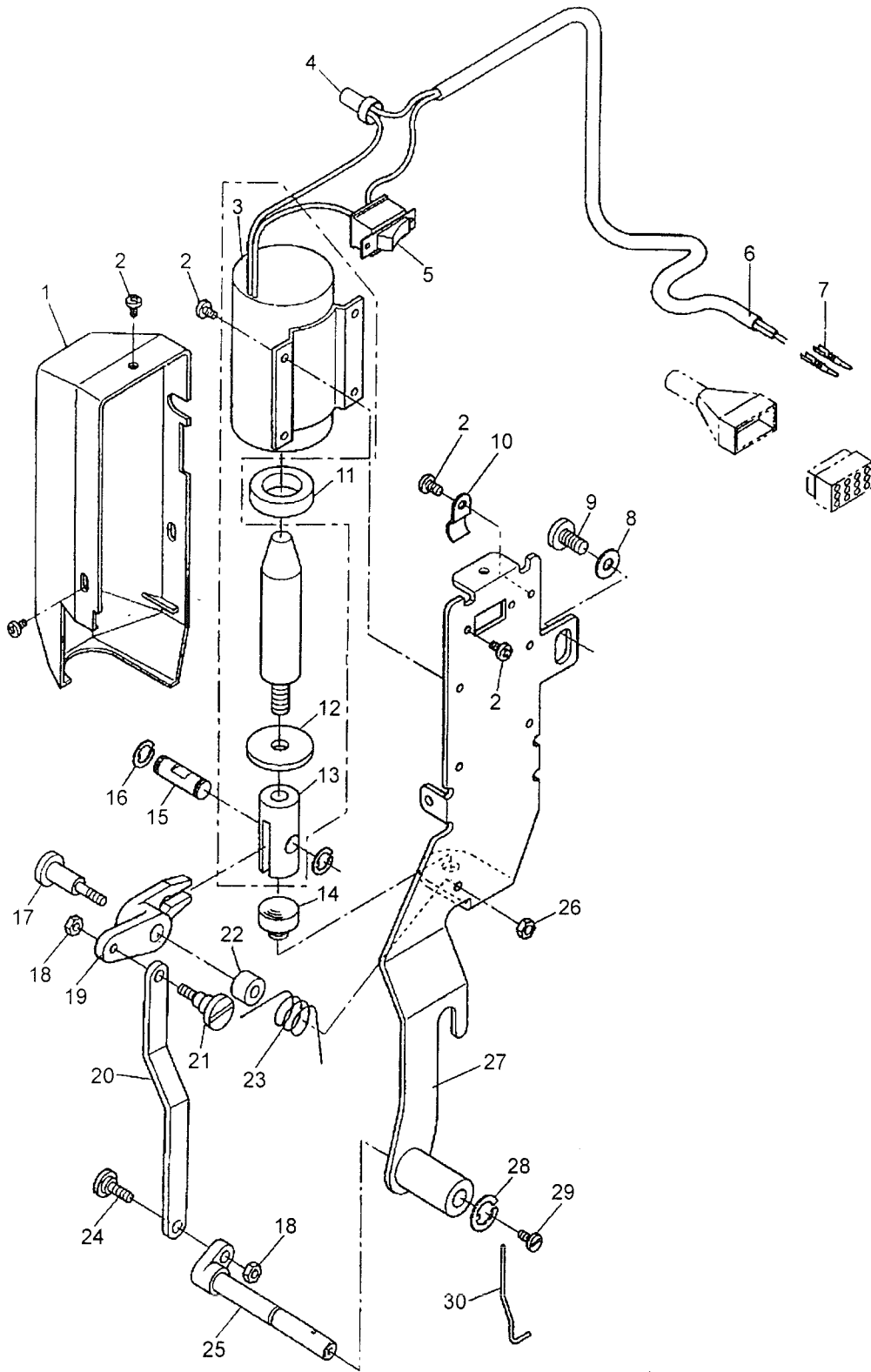
# H.TOUCH BACK MECHANISM & DETECTOR MECHANISM



## H.TOUCH BACK AND DETECTOR MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
H01	HA300B2170	Screw	3	3	3	
H02	HA704O0653	Coil spring	1	1	1	
H03	H007013030	E-type stop ring	2	2	2	
H04	HA704O0021	Push button	1	1	1	
H05	HB2252L081	Bracket for touch switch	1	1	1	
H06	HA704O0654	Plate spring	1	1	1	
H07	HA704O6512	Washer	2	2	2	
H08	HA704O6511	Washer	2	2	2	
H09	HA704O0659	Screw	2	2	2	
H10	H8805L7101	Cord assy.	1	1	1	
H11	HA704O0657	Rubber plug	1	1	1	
H12	HA704O0658	Insulator seat	1	1	1	
H13	HA704O0655	Screw	1	1	1	
H14	HA704O6510	Screw	2	2	2	
H15	HA7641B319	Terminal pin	5	5	5	
H16	H8808N8001	Connector cap	1	1	1	
H17	HA700Q0010	Nylon connector 12-pole	1	1	1	
H18	H6726N8001	Cord holder	1	1	1	
H19	H6729N8001	Cord holder	1	1	1	
H20	H6648I8001	Cord holder	1	1	1	
H21	H8804N7101	Cord assy.	1	1	1	
H22	HD44JM8001	Cord holder	1	1	1	

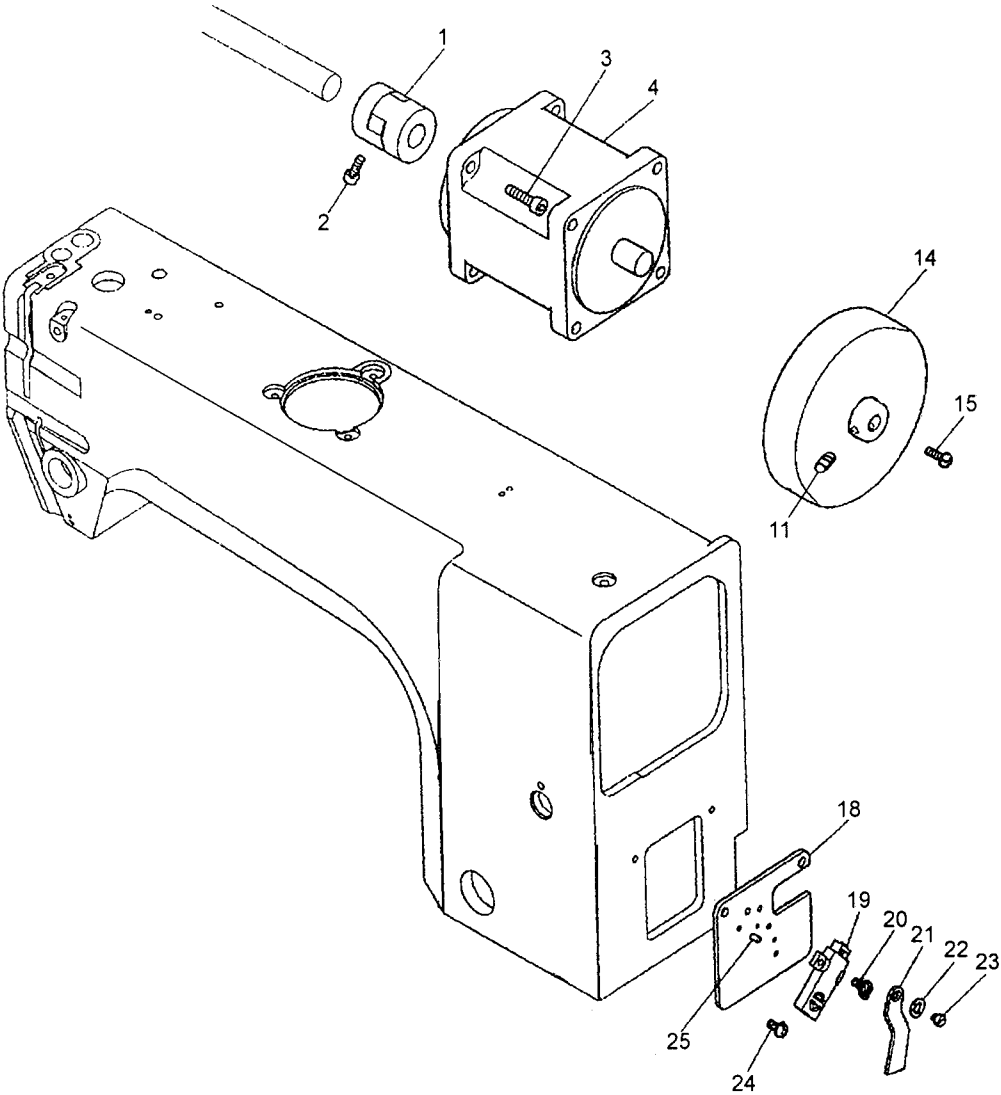
# I. WIPER MECHANISM



# I.WIPER MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
I01	H6708M8001	Solenoid cover	1	1		
I02	HA708P0669	Screw	10	10		
I03	H6711M8001	Wiper Solenoid	1	1		
I04	HA708P6610	Connecting	1	1		
I05	HA708P0665	Thread wiper switch	1	1		
I06	H8808M7101	Cord assy.	1	1		
I07	HA7641B319	Terminal pin	2	2		
I08	HA700P0010	Washer	2	2		
I09	HA104F0654	Screw	2	2		
I10	HA700P0060	Code holder	1	1		
I11	H6713M8001	Rubber cushion	1	1		
I12	H6722M8001	Washer	1	1		
I13	H6712M8001	Connector	1	1		
I14	H007013040	E-type stop ring	2	2		
I15	H6714M8001	Pin	1	1		
I16	H6709M8001	Rubber cushion	1	1		
I17	H6715M8001	Screw	1	1		
I18	HA710P0673	Nut	2	2		
I19	H6716M8001	Wiper driving lever	1	1		
I20	H8804M8001	Link	1	1		
I21	H6719M8001	Screw	1	1		
I22	H6717M8001	Spacer	1	1		
I23	H6718M8001	Spring	1	1		
I24	HA710P0674	Screw	1	1		
I25	H6721M8001	Wiper shaft	1	1		
I26	HA7111N304	Nut	1	1		
I27	H8807M7101	Thread wiper bracket	1	1		
I28	H007013050	E-type stop ring	1	1		
I29	HA104G0654	Screw	1	1		
I30	HA705P0653	Thread wiper	1	1		

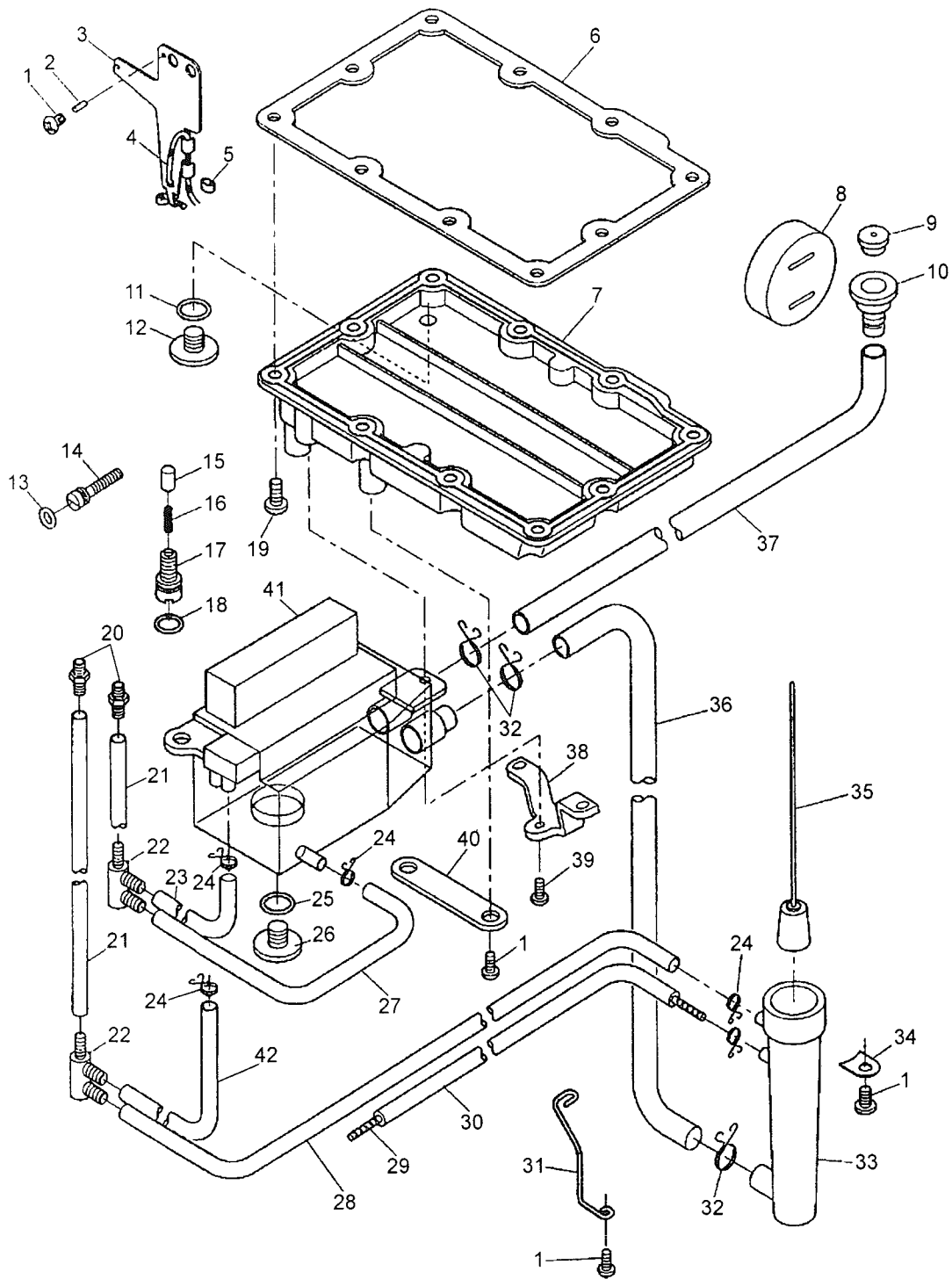
J.MOTOR MECHANISM



# J.MOTOR MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
J01	HB2252C072	Coupling	1	1	1	GB/T 70.1 M6×20
J02	H415030120	Screw	2	2	2	
J03	H8829O8001	Screw	4	4	4	
J04	HG51048002	Motor	1	1	1	
J11	H8831O8001	Screw	2	2	2	
J14	H8807O8002	Pulley	1	1	1	
J15	HZ11040100	Screw	1	1	1	
J18	HG51B18001	Plate for guide	1	1	1	
J19	H8819B8001	Sensor	1	1	1	
J20	HZ11030080	Screw	2	2	2	
J21	H8818B8001	Switch plate	1	1	1	
J22	HA104G0656	Washer	1	1	1	
J23	HA107H0662	Screw	1	1	1	
J24	HA300B2170	Screw	2	2	2	
J25	H609030080	Spring pin	2	2	2	

# K.OIL LUBRICATION MECHANISM

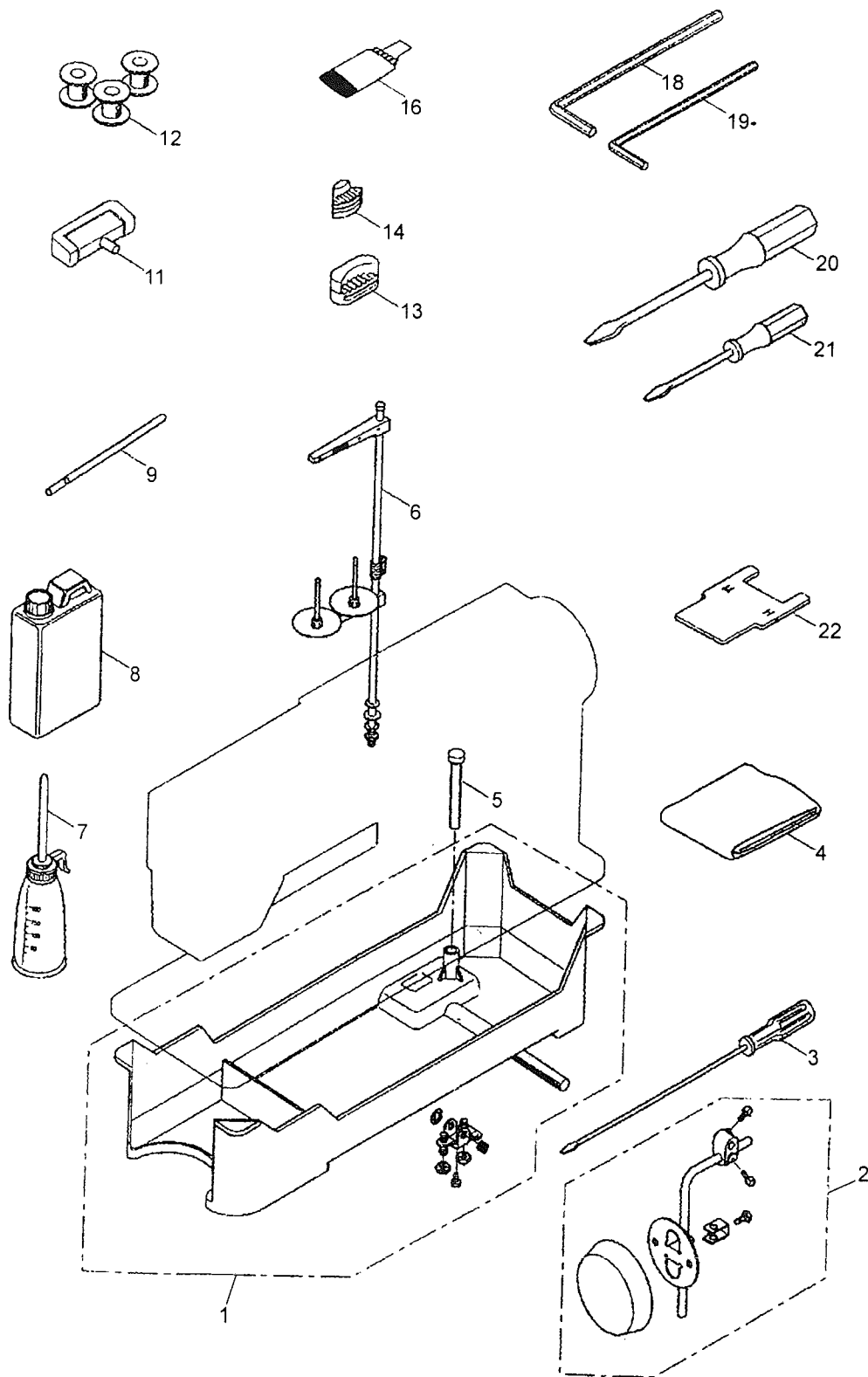


# K.OIL LUBRICATION MECHANISM

Fig. No.	Part No.	Description	M	H	B	Remarks
K01	HA300C2030	Screw	5	5	5	
K02	H609020080	Spring pin	1	1	1	
K03	H6711P8001	Oil wick holder	1	1	1	
K04	H6729P8002	Oil wick	1	1	1	
K05	H3200G2030	Holder	1	1	1	
K06	H6741B8001	Gasket for bottom cover	1	1	1	
K07	H6740B8001	Bottom cover	1	1	1	
K08	H6722P8001	Oil sight window	1	1	1	
K09	H6712P8001	Oil cap	1	1	1	
K10	H6709P8001	Oil inlet	1	1	1	
K11	H6757B8001	O-ring	1	1	1	
K12	H6707P8001	Screw	1	1	1	
K13	H6725P8001	O-ring	1	1	1	
K14	H6705P8001	Screw	1	1	1	
K15	H6734P8001	Plunger	1	1	1	
K16	H6726P8001	Spring	1	1	1	
K17	H6704P8001	Screw	1	1	1	
K18	HA705C0662	O-ring	1	1	1	
K19	HA100I2090	Screw	10	10	10	
K20	H6708P8001	Oil pipe connector	2	2	2	
K21	H8807P8001	Oil pipe	2	2	2	
K22	H6715P8001	Oil pipe connector	2	2	2	
K23	H8807P8008	Oil pipe	1	1	1	
K24	H6714P8001	Pipe holder	5	5	5	
K25	H6757B8001	O-ring	1	1	1	
K26	H6707P8001	Screw	1	1	1	
K27	H8807P8006	Oil pipe	1	1	1	
K28	H8807P8004	Oil pipe	1	1	1	
K29	H8809P8001	Oil wick	1	1	1	
K30	H8807P8005	Oil pipe	1	1	1	
K31	H8806P8001	Pipe holder	1	1	1	
K32	H6714P8002	Pipe holder	3	3	3	
K33	H6718P8001	Floater case	1	1	1	
K34	H6733K8001	Washer	2	2	2	
K35	H6719P7101	Floater assy.	1	1	1	
K36	H8808P8002	Oil pipe	1	1	1	
K37	H8808P8001	Oil pipe	1	1	1	
K38	H8805P8001	Cover	1	1	1	
K39	HA300B2170	Screw	2	2	2	
K40	H8843B8001	Cover	1	1	1	
K41	H6713P8001	Oil tank	1	1	1	
K42	H8807P8009	Oil pipe	1	1	1	



# L.ACCESSORIES



# L.ACCESSORIES

Fig. No.	Part No.	Description	M	H	B	Remarks
L01	H8806Q7101	Oil reservoir complete	1	1	1	
L02	H8810Q7101	Knee lifter complete	1	1	1	
L03	HA300J2070	Screw driver(large)	1	1	1	
L04	HA300J2190	Cover	1	1	1	
L05	H6705Q8001	Knee lifter rod	1	1	1	
L06	HA200J2030	Thread stand assy.	1	1	1	
L07	H6720Q8001	Oiler	1	1	1	
L08	HA100J2170	Oil can	1	1	1	
L09	H8826Q8001	Oil gauge	1	1	1	
L11	HA307J0067	Table hinge with rubber cushion	2	2	2	
L12	HA100E2180	Bobbin	3	3		
L12	HA600E2060	Bobbin			3	
L13	HA300J2050	Vibration preventing rubber	2	2	2	
L14	HA300J2060	Vibration preventing rubber	2	2	2	
L16		Needle set	4			DB×1 14#
L16		Needle set		4	4	DB×1 22#
L18	HB00001020	Hexagon socket screw key 2	1	1	1	
L19	HB00001030	Hexagon socket screw key 3	1	1	1	
L20	HA300J2200	Screw driver(middle)	1	1	1	
L21	HA300J2210	Screw driver(small)	1	1	1	
L22	H8822Q8001	Up position gauge	1	1	1	



**SHANGHAI HUIGONG NO.3 SEWING MACHINE FACTORY**

**ADD: 1418, Yishan Road, Shanghai, China**

**Zip Code: 201103**

**Overseas Business: TEL: 86-21-64853303 FAX: 86-21-64854304**

**E-mail: [highlead@online.sh.cn](mailto:highlead@online.sh.cn) <http://www.highlead.com.cn>**

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

2007.9. Printed