



HIGHLEAD

GC20618-1E

**Heavy Duty Compound Feed Lockstitch
Sewing Machine With Edge Binder**

**Instruction Manual
Parts Catalog**

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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, 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

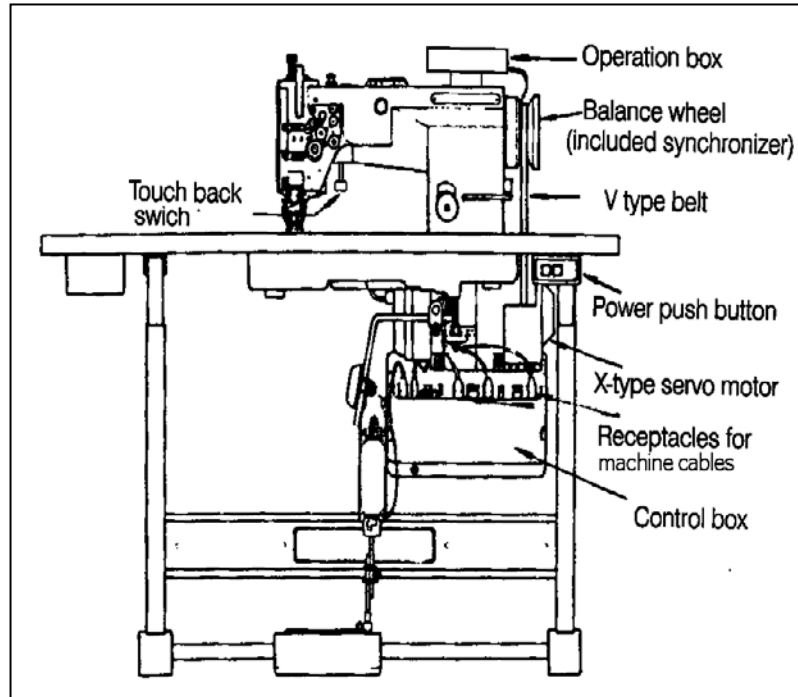
- 1) If the machine’s oil pan has an oil sump, never operate the machine before filling it.
- 2) If the machine is lubricated by a drop oiler, never operate the machine before lubricating.
- 3) When a new sewing machine is first turned on, verify the rotational direction of the pulley with the power 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°C or higher) or low temperature (5°C or lower). Otherwise, machine failure may result.
- 2) Avoid using the machine in dusty conditions.
- 3) 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.

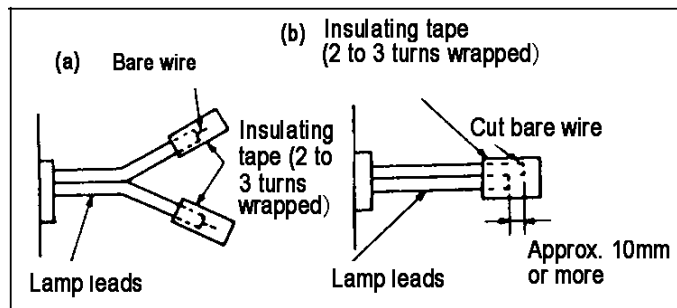
- A. In case of three-phase electrical power system, the “U” phase should be connected to the red lead, the “V” phase to the white lead, and the “W” phase to the black lead. The motor rotary direction depends, however, upon the setting of the internal switch in the control box as described in Paragraph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

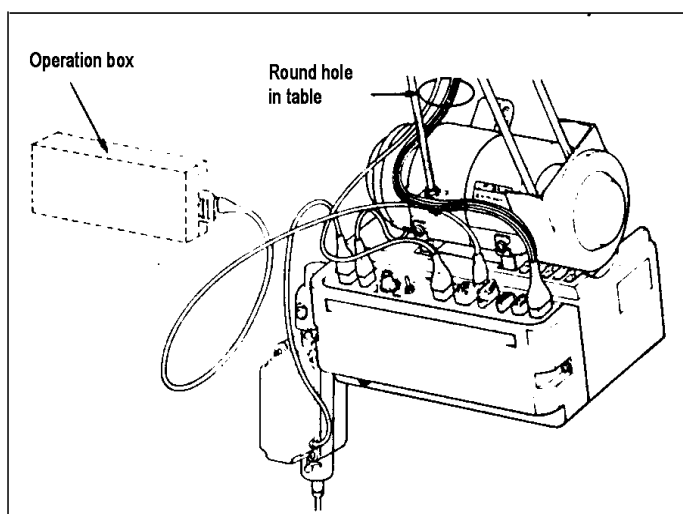
2. Connection of control box

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.

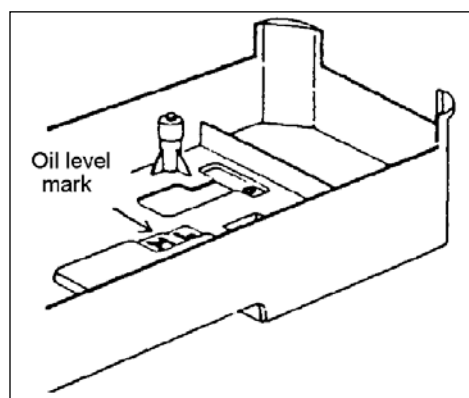
Use special care for the correct

combination when replacing the machine head or motor control panel.

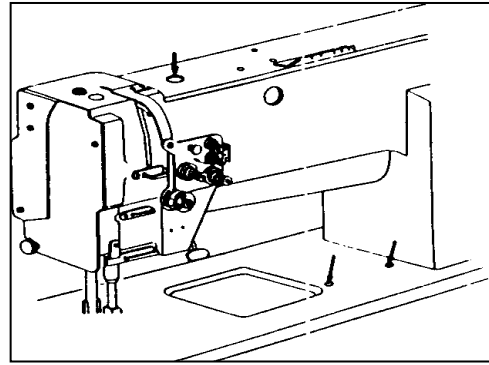
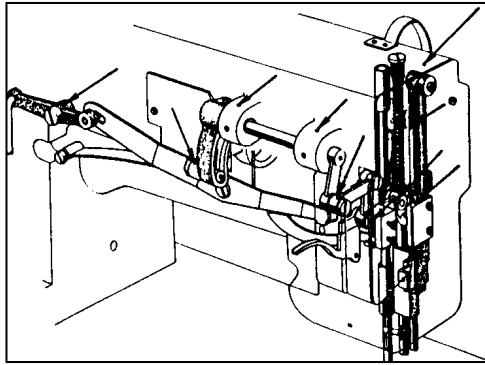


CAUTIONS ON USE

- 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 oil.

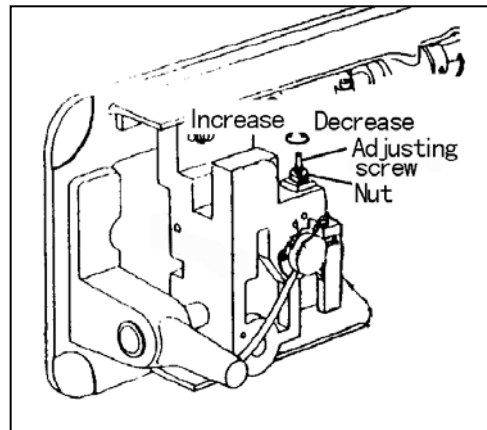
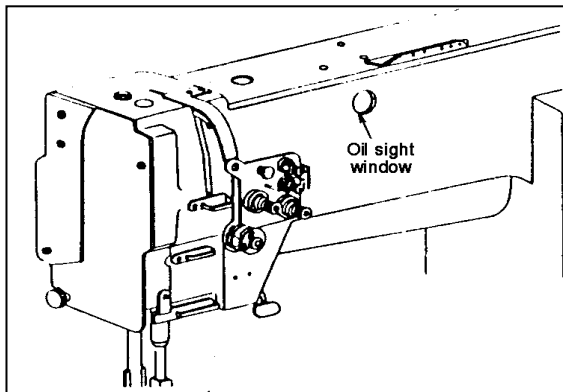


- Oiling (2)** When a new sewing machine is used for the first time, or sewing machine left out of use for considerably long time is used again, replenish a suitable amount of oil to the portions indicated by arrow in the below figure.



3. Oiling condition

See dripping of oil through the oil window to check oiling condition during operation.



4. Adjustment of oiling to rotating hook

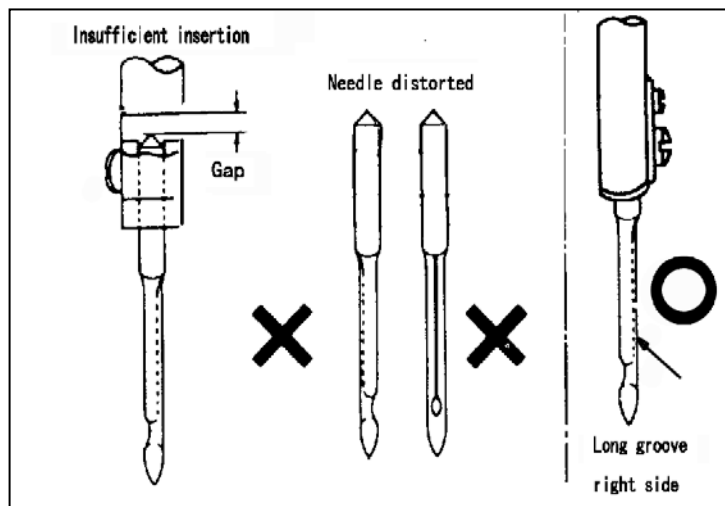
5. Cautions on operation

- When the power is turned on or off, keep foot away from the pedal.
- It should be noted that the brake may not work when the power is interrupted or power failure occurs during sewing machine operation.
- Since dust in the control box might cause malfunction or control troubles, be sure to keep the control box cover close during operation.
- 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.

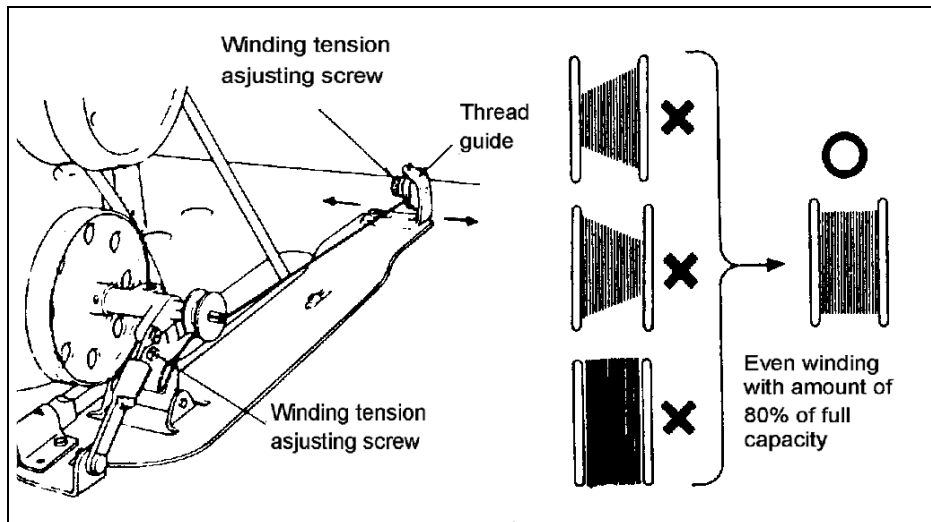


2. Winding of bobbin thread

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. |



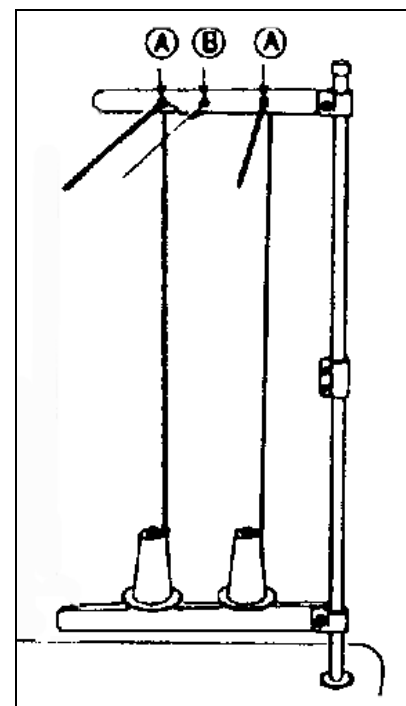
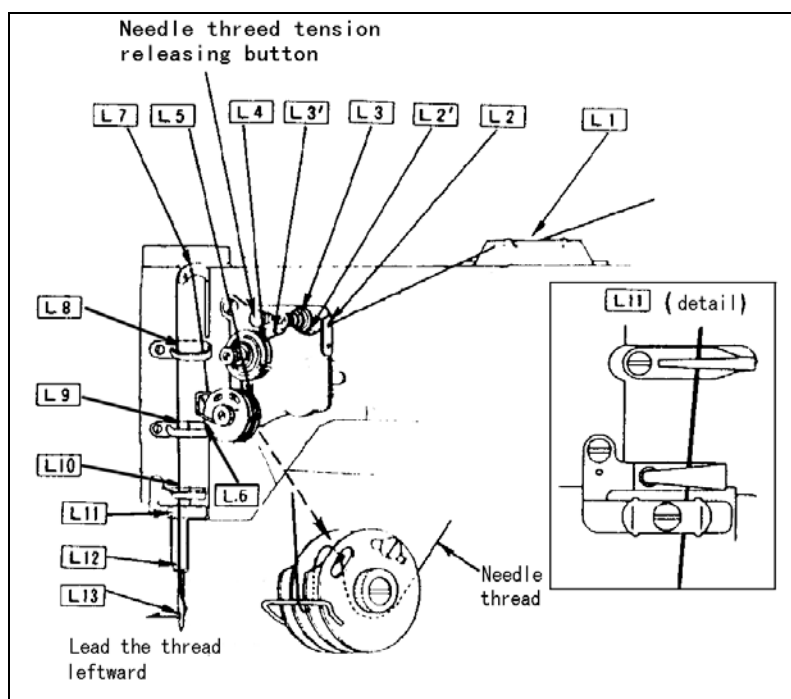
3. Threading of needle threads

- 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.

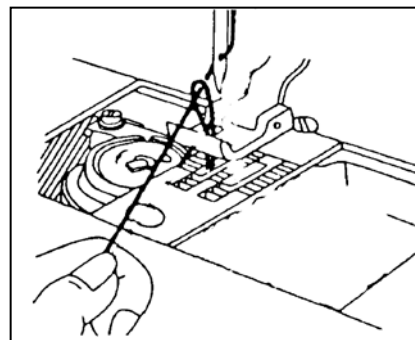
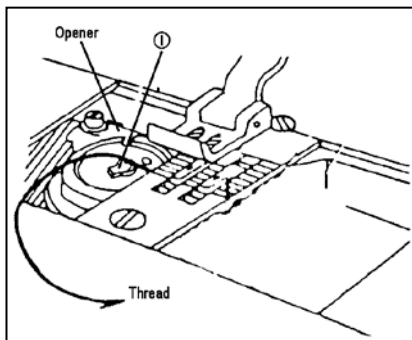


4. Setting of bobbin

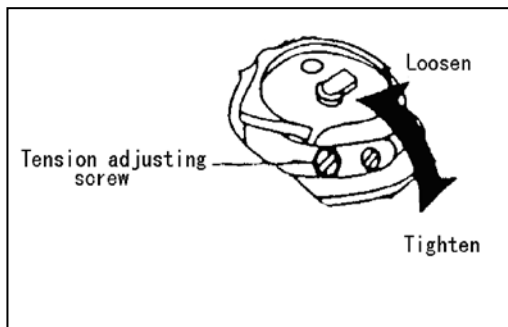
- Pulling out 5cm thread tail from the bobbin.
- Hold the bobbin so that the bobbin thread is would in right direction and put it into the hook.

5. Threading of bobbin threads

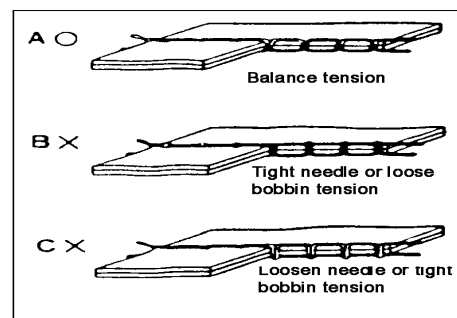
- Put the hook into the bobbin case and press down the latch ①. The thread end should be left on the bed .
- While holding the needle Thread by left hand, rotate the hand-wheel one turn by right hand. By pulling up the needle thread, as shown in the figure, the bobbin thread will be lifted. Each combination of bobbin thread and needle thread should be aligned and led backward.



6. Tension adjustment of bobbin threads

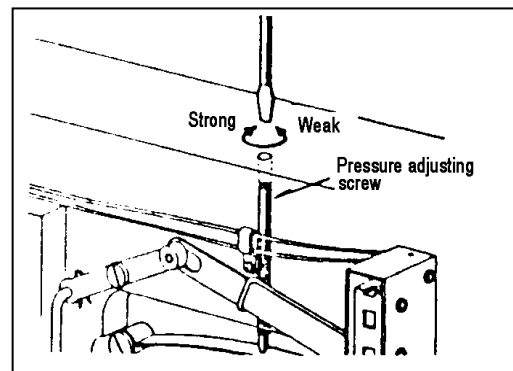
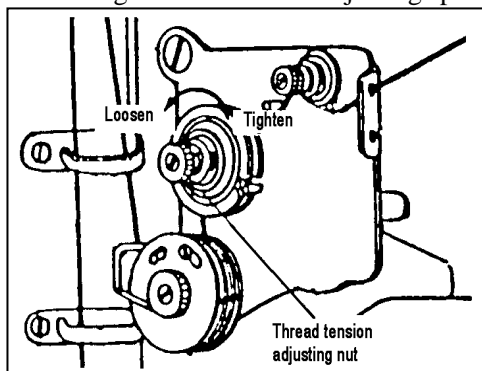


7. Balance of thread tension



8. 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.

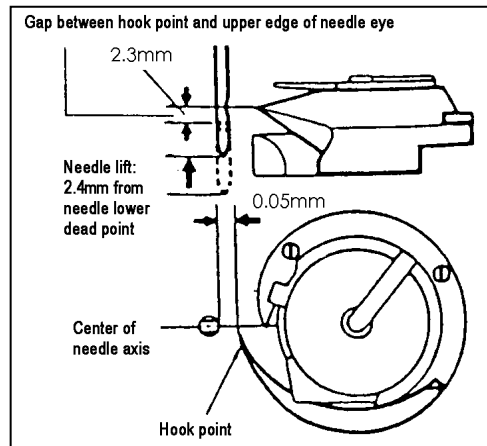


9. Adjustment of presser foot pressure

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

10. Timing between rotating hook motion and needle motion

- (1) Set feed length (stitch length) to “6” on the feed setting dial.
- (2) When needle is lifted 2.4mm from the lower dead point, as shown in Figure, the following positional relationship should be maintained.



- The upper edge of needle eye should be 2.3mm 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.

11. 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.

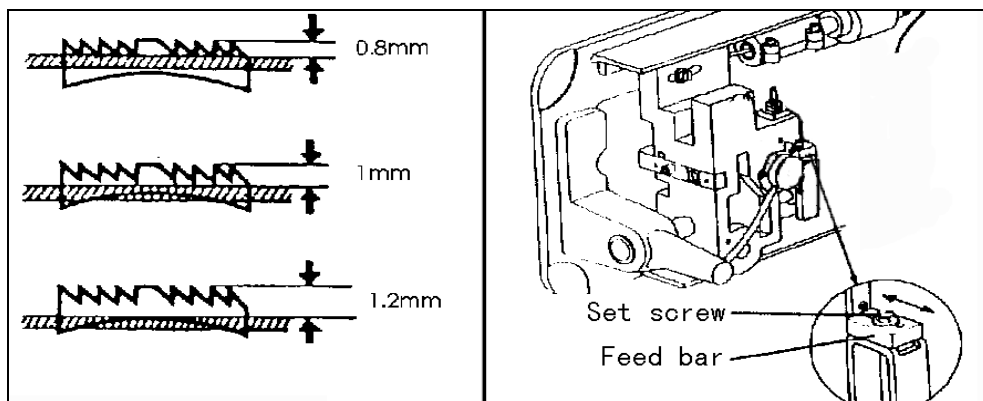
For light fabrics Approx. 0.8mm from throat plate

For usual fabrics Approx. 1.0mm from throat plate

For heavy fabrics Approx. 1.2mm from throat plate

Adjustment procedure

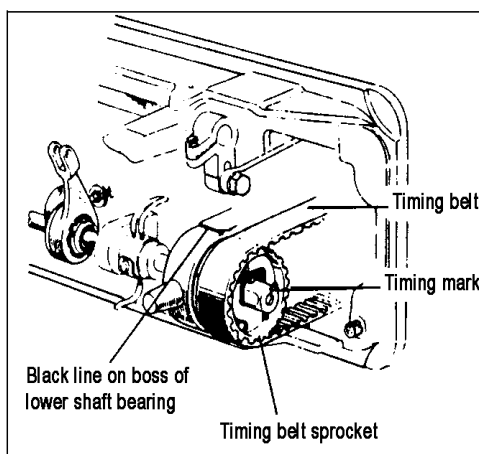
- Lean the machine head backward.
 - Turn the hand wheel by hand and stop when the feed dog rises to the maximum height.
 - Loosen the feed bar set screw.
 - Vertically move the feed bar (in the direction indicated by arrow in the figure) to adjust it to adequate height.
 - After the adjustment, tighten the feed bar set screw.
- ♦ The feed dog height is factory-adjusted to 1.2mm



12. 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:

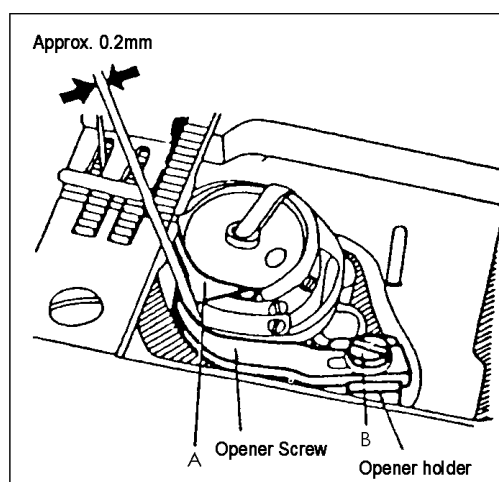
- Turn the balance wheel and stop when the take-up lever is lifted to its upper dead point.
- Lean the machine head backward and make sure the



- arrow (timing mark) put on the timing belt is in line with the black line on the boss of lower shaft bearing.
- If the timing mark is not in line with the black line, remove the timing belt and install it again to adjust.

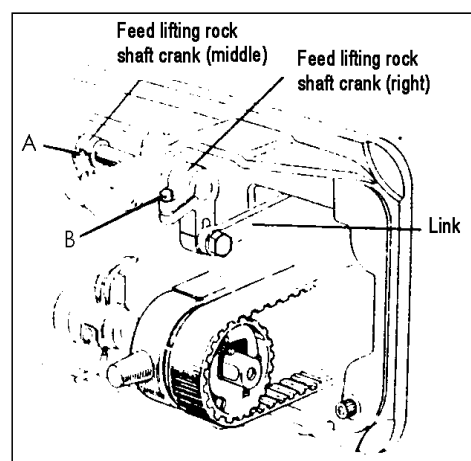
13. Relationship between hook motion and opener motion

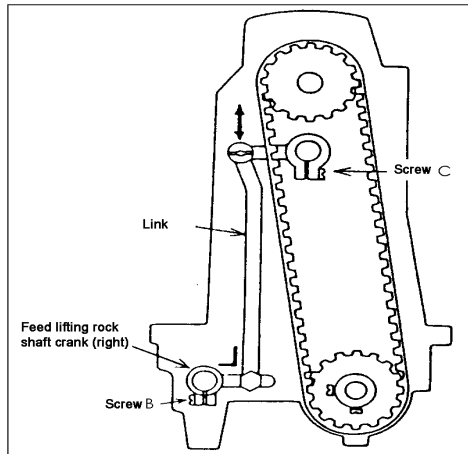
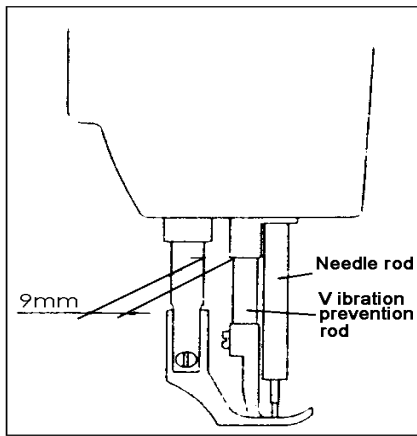
- Turn the balance wheel by hand and stop when the opener holder is located most remotely from the throat plate.
- Make sure gap between the bobbin case holder A and the opener is approximately 0.2mm.
- If the gap is too large or small, loosen the opener holder set screw B and adjust position of the opener.



14. Relationship between needle motion and feed dog motion

- Set feed length to "0" on the feed setting dial
 - Lean the machine head backward.
 - Loosen the feed lifting rock shaft crank set screws A and B.
 - Set the needle at the lowest position.
 - Adjust the distance between presser rod and vibration prevention rod to 9mm and temporarily tighten the feed lifting rock shaft crank set screws A and B.
 - Check that the right feed lifting rock shaft crank is connected with the link at right angle, as shown in Figure.
 - If the connection is not at right angle, remove the back cover, loosen screw C and move the right link to connect the right feed lifting rock shaft with the link at right angle.
 - After the completion of adjustment, fully tighten the screws A, B and C.
- At this time make certain that needle can enter the feed dog needle hole at the center of the hole.



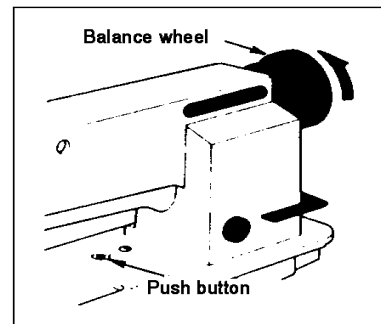
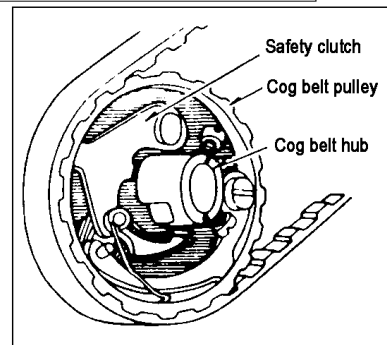


15. Safety clutch device:

Safety clutch device is installed to prevent the hook and cog belt from damage in case the thread is caught into the hook when the machine is loaded abnormally during operation.

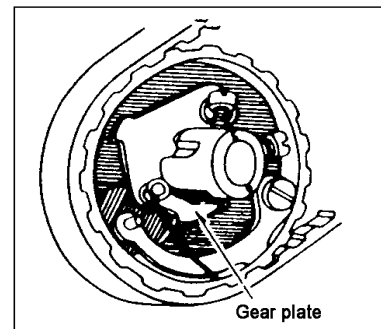
(1) Function of safety clutch.

- a) When the safety clutch acts, the cog belt pulley will be unloaded. then the rotation of hook shaft will stop. The arm shaft only will rotate. Stop the operation of machine.
- b) Clean the thread thoroughly which is caught into the hook.
- c) Turn the cog belt hub by hand, and check whether the hook Shaft rotates lightly and properly, place the clutch device as follows.



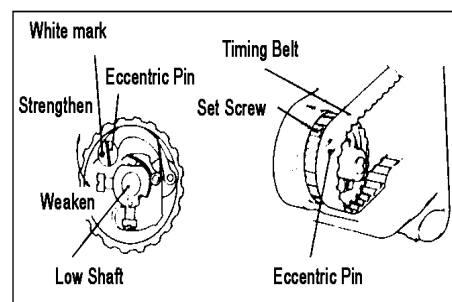
(2) How to set the safety clutch.

- a) While pressing down the push button on the opposite side of bed by left hand, turn the balance wheel slowly by right hand away from you as shown in the figure.
- b) The balance wheel will stop by the gear plate, but turn the balance wheel more firmly.
- c) Release the push button.
- d) As shown in the Figure, the safety clutch device is set.



(3) Force applied to the safety clutch.

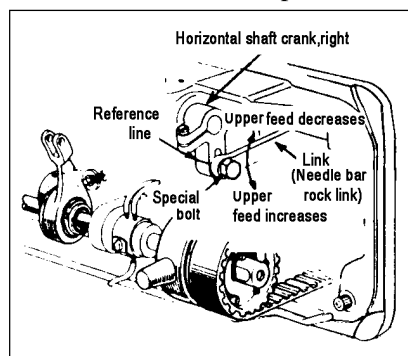
- a) The force applied to the safety clutch is the smallest when the white mark of the eccentric pin faces the center of the lower shaft. The force proportionally increases as the white mark faces the outside.



- b) To adjust the force slide the timing belt, loosen the set screw, and turn the eccentric pin.
- c) After the adjustment, make sure to fasten the set screw.

16. Upper feed adjustment (Needle side)

If the uneven feeding occurs according to the fabric,
Adjust the long hole of the horizontal feed shaft crank
(right) to adjust the upper feed length. (How to adjust)



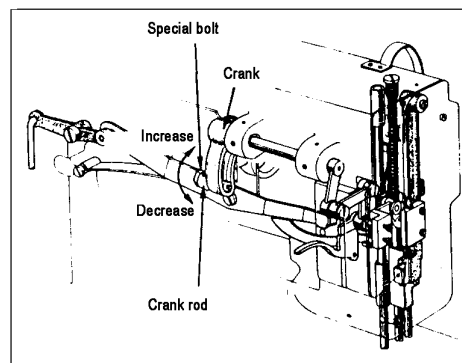
- a) Loosen the special bolt.
- b) Move the special bolt upward to decrease upper feed.
- c) Move the special bolt downward to increase the upper feed. The upper feed and the lower feed theoretically becomes equal at the reference line on the horizontal feed shaft crank.
- d) Securely tighten the special bolt after adjustment.

17. Outside presser foot and inside presser vertical stroke adjustment

When fabric with large elasticity is sewn, or when thickness of fabric changes, the vertical stroke (movable range) of the presser feet should be adjusted as follows:

Adjustment

- a) Loosen the special bolt.
- b) The vertical strokes of the presser feet become maximum when the crank rod is moved upward and set.
- c) The vertical strokes becomes minimum when the nut is moved downward and set.
- d) After the adjustment, fully tighten the special bolt.

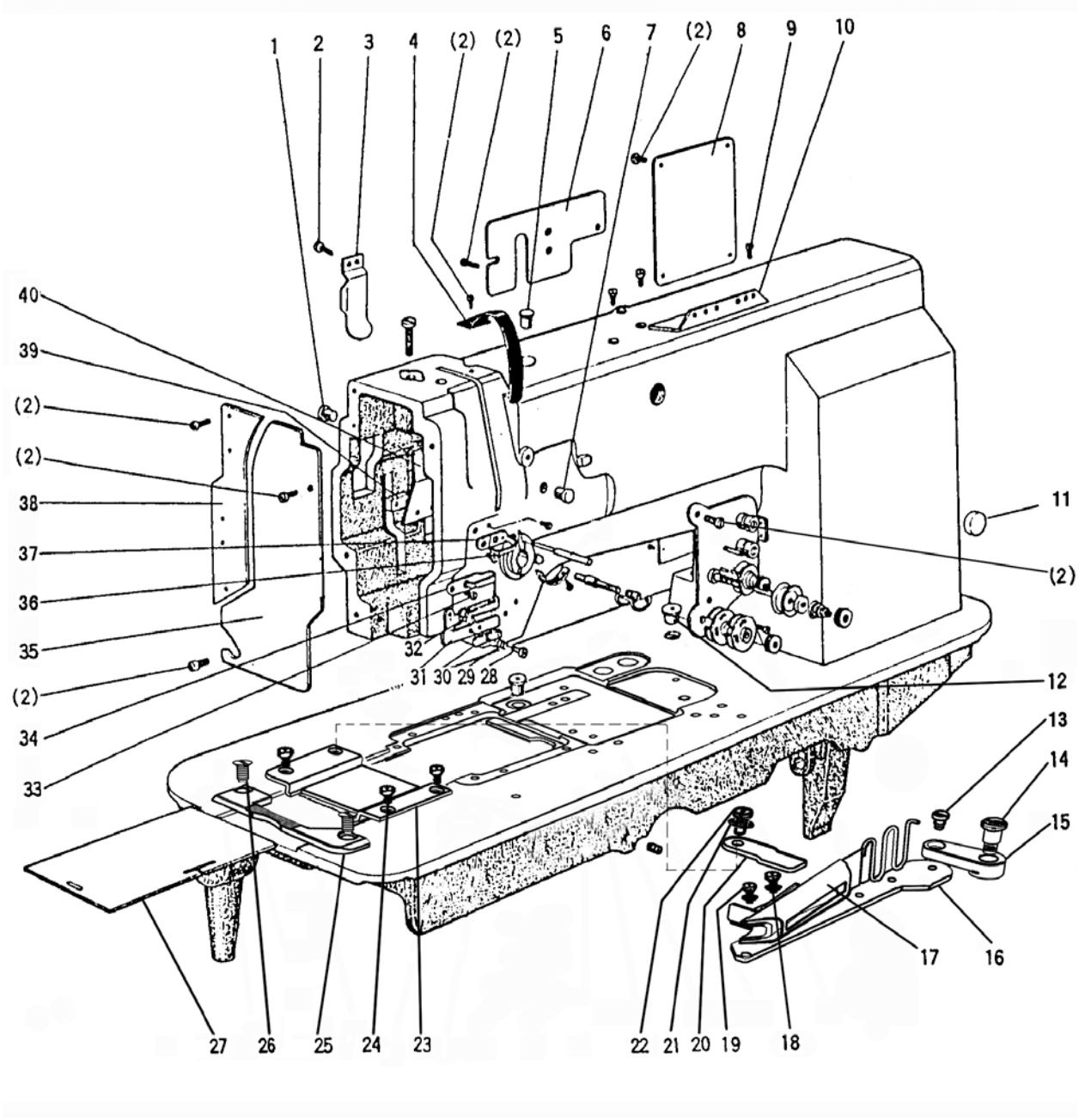


- The vertical strokes of the presser feet can be adjusted within a range from 6mm to 2mm.

SPECIFICATIONS

Model	GC20618-1E
Application	Heavy material
Max. sewing speed	1800rpm
Stitch length	0~10mm
Thread take-up lever stroke	74.5mm
Needle-bar stroke	36mm
Presser-foot stroke	16mm by Leg 8mm by hand
Vertical stroke of upper feed	2~6mm
Needle No.	DP×17 18#-23#
Lubrication system	Automatic lubrication
Edge binder	8mm(Standard)
Motor	Clutch motor 370W

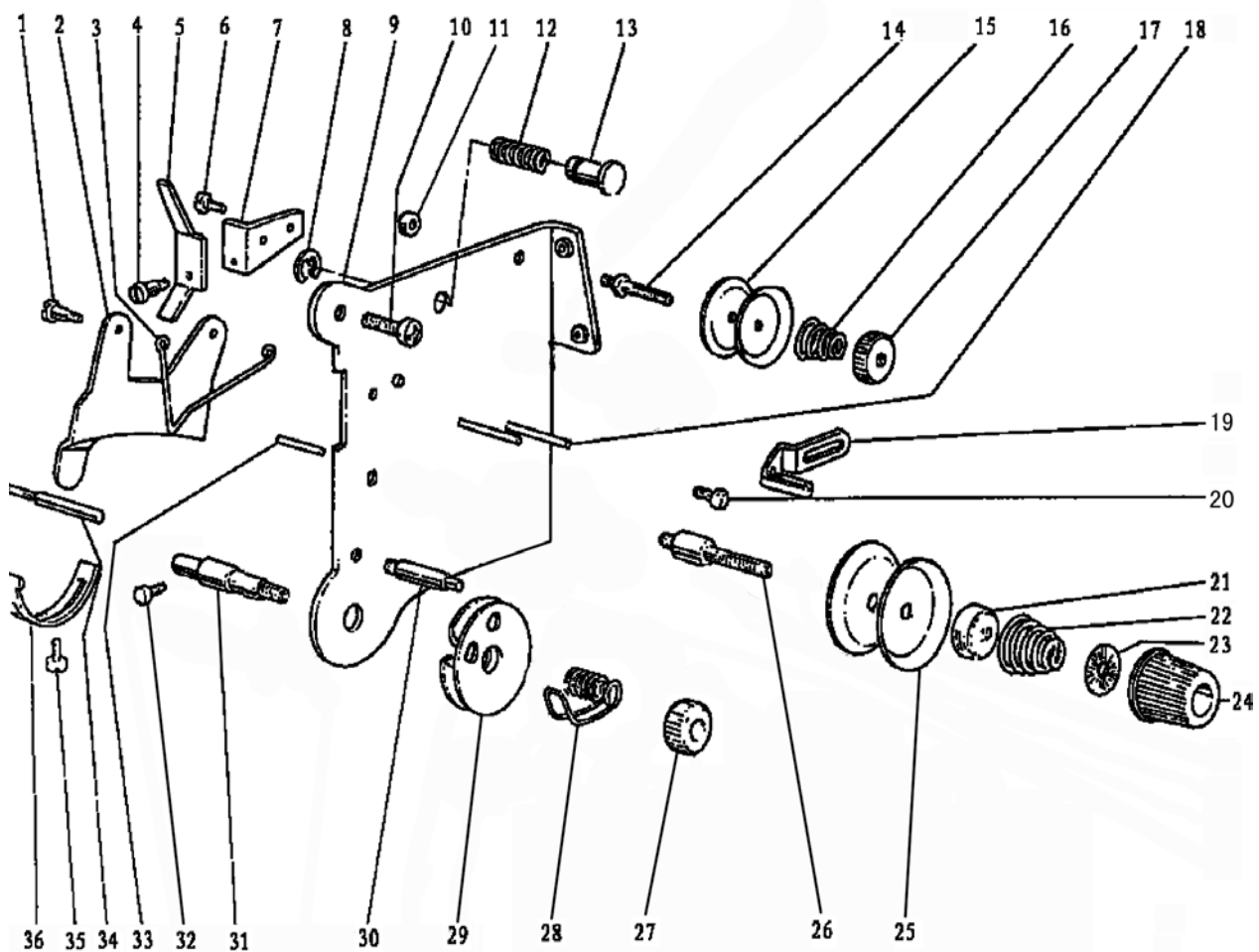
A.ARM BED AND ITS ACCESSORIES



A.ARM BED AND ITS ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Remarks
A01	HA300B2090	Rubber plug	2	
A02	HA300B2170	Screw	15	SM11/64 (40) ×8
A03	H4716B8001	Oil guard plate	1	
A04	H4717B8001	Thread take-up cover	1	
A05	H4715B8001	Rubber plug	1	φ13
A06	H4718B8001	Side cover (left)	1	
A07	H2000B2010	Rubber plug	1	φ13
A08	H4719B8001	Side cover (right)	1	
A09	HA700B2060	Screw	2	SM11/64 (40) ×8
A10	H2400B2100	Thread guide	1	
A11	HA307B0673	Rubber plug	1	
A12	H2000M0080	Cap	2	
A13	HM41B98001	Screw	1	
A14	HN11B28001	Screw	1	
A15	HM41B88001	Lever	1	
A16	HN11B18001	Single needle binders mounting plate	1	
A17	HM32B47101	Single needle binders	1	
A18	H3200I2030	Washer	2	
A19	H415040060	Screw	2	
A20	HN11B38001	Mounting plate	1	
A21	H4722E8001	Washer	1	
A22	HA719B7011	Screw	1	
A23	HN10B88001	Side cover	1	
A24	H5332B8001	Screw	3	
A25	HN10B98001	Needle plate	1	
A26	HA300B2190	Screw	2	SM11/64 (40) ×8
A27	H4732B8001	Slide plate	1	
A28	H4722B8001	Screw	1	SM1/8 (44) ×3
A29	H4723B8001	Spring	1	
A30	H4724B8001	Plate	1	
A31	H4725B8001	Thread guide	1	
A32	H3200B2100	Screw	1	SM9/64 (40) ×6.5
A33	H3000D2160	Screw	1	SM9/64 (40) ×6.5
A34	H4726B8001	Thread guide (middle)	1	
A35	H4727B8001	Face plate	1	
A36	H2400B2080	Screw	2	SM3/16 (28) ×11
A37	H2400B2070	Thread guide (upper)	1	
A38	H4730B8001	Guide mounting plate	1	
A39	H2400B2060	Plate for oil guard	1	
A40	H3200B2060	Oil guard	1	

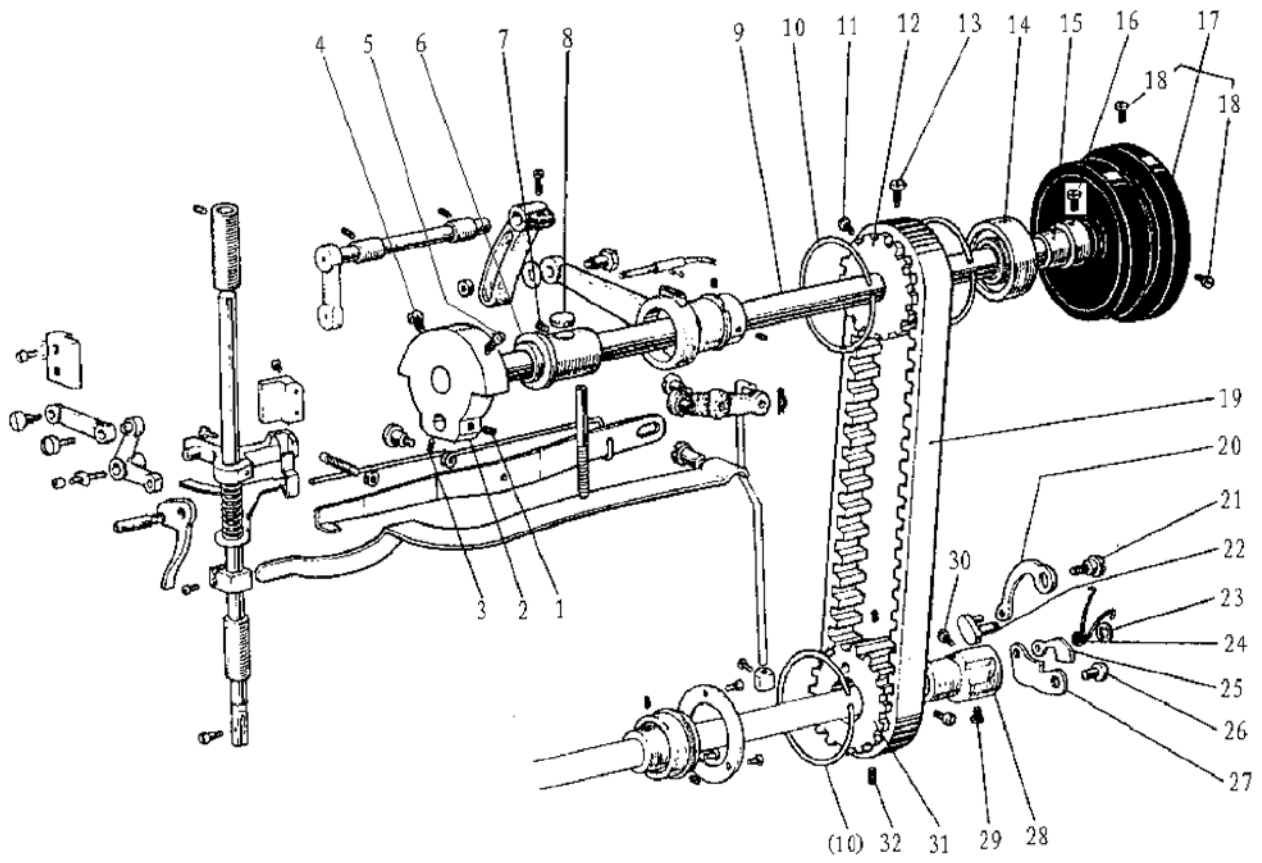
B.THREAD TENSION REGULATOR MECHANISM



B.THREAD TENSION REGULATOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
B01	H3221B6811	Screw	2	SM9/64 (40) ×3
B02	H3221B3142	Tension releasing plate	1	
B03	H3221B6812	Tension releasing spring	1	
B04	H4705C8001	Screw	1	SM9/64 (40) ×4.2
B05	H4706C8001	Lever	1	
B06	HA7311C306	Screw	1	SM9/64 (40) ×4.5
B07	H4707C8001	Mounting plate	1	
B08	H007013050	Stop ring	1	GB/T896 5
B09	H3221B6820	Mounting plate	1	
B10	HA300C2030	Screw	2	
B11	H3221B6810	Nut	1	SM11/64 (40)
B12	H4708C8001	Spring	1	
B13	H4709C8001	Push button	1	
B14	H3221B0683	Thread tension stud	1	
B15	HA112B0693	Thread tension disk	2	
B16	H3221B0684	Thread tension spring	1	
B17	HA710B0671	Thumb nut	1	
B18	H3221B0682	Pin	2	
B19	H3306B0661	Thread guide	1	
B20	HA106B0676	Screw	1	SM9/64 (40) ×6
B21	HA310B0702	Thread tension releasing plate	1	
B22	H4710C8001	Thread tension spring	1	
B23	HA115B7010	Thumb nut revolution stopper	1	
B24	HA310B0701	Thumb nut complete	1	
B25	HA310B0705	Thread tension disk	2	
B26	H3221B0686	Thread tension stud	1	
B27	H32481B721	Thumb nut	1	SM1/4 (40)
B28	H4713C8001	Thread take-up spring	1	
B29	H32481BD21	Plate complete	1	
B30	H4804C8001	Screw	1	
B31	H4805C8001	Thread tension stud	1	
B32	H3230K0751	Screw	1	SM11/64 (40) ×10
B33	H3221B6817	Pin	1	
B34	H3221B6818	Tension releasing pin	1	
B35	H3200B2100	Screw	1	SM9/64 (40) ×6.5
B36	H3221B6819	Stopper	1	

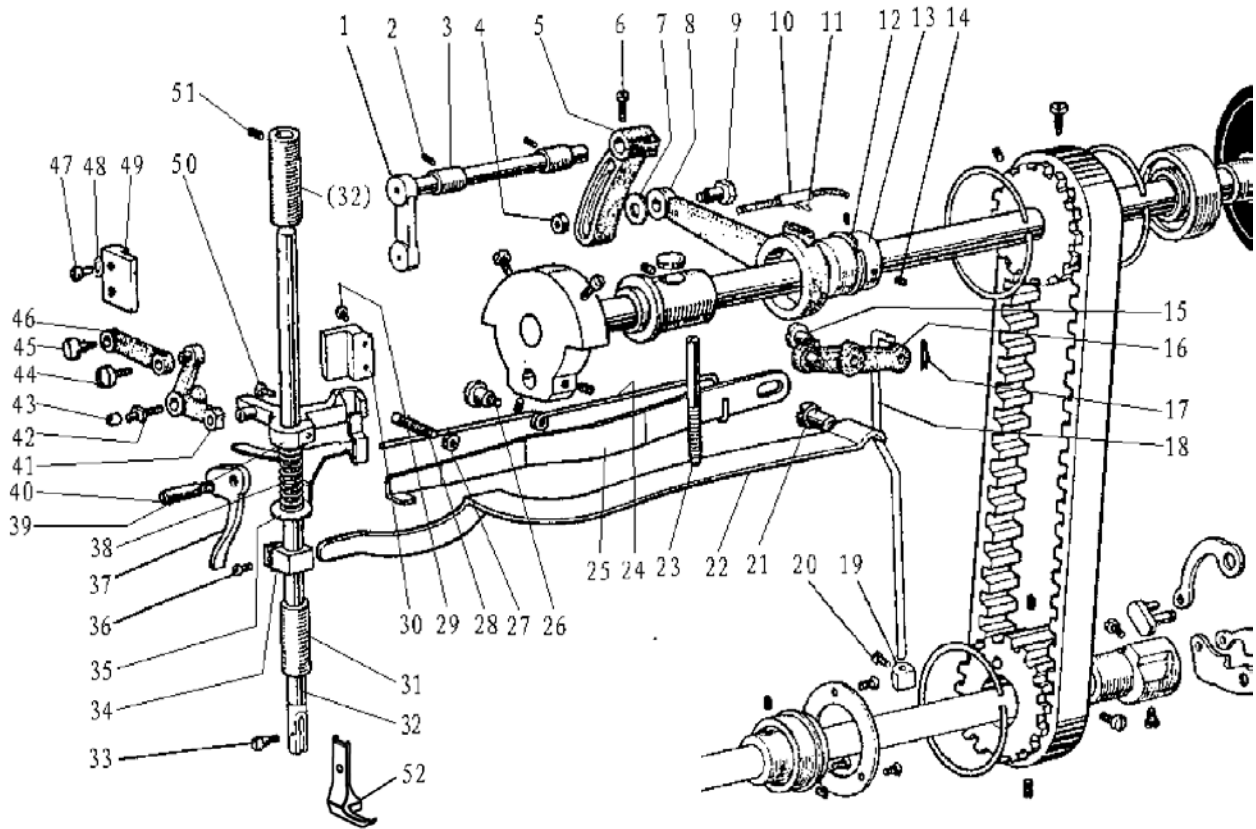
C. ARM SHAFT MECHANISM



C.ARM SHAFT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
C01	HA307C0662	Set screw	1	SM1/4 (40) ×7
C02	H4706D8001	Crank	1	
C03	HA105D0662	Screw	1	SM1/4 (40) ×3.5
C04	HA100C2060	Set screw	1	SM9/32 (28) ×14
C05	HA100C2070	Screw	1	SM9/32 (28) ×13
C06	H32111B204	Arm shaft bushing (left)	1	
C07	H4708D8001	Screw	1	SM1/4 (24) ×13
C08	H32111B104	Felt	1	
C09	H4709D8001	Arm shaft	1	
C10	H3205C0661	Spring flange	3	
C11	HA113F0684	Screw	1	SM15/64 (28) ×8.5
C12	H3205C1021	Belt pulley (upper)	1	
C13	HA100F2130	Screw	1	SM15/64 (28) ×14.5
C14	H3205J0662	Bearing	1	
C15	H3205J0661	Collar	1	
C16	HA113F0684	Screw	2	SM15/64 (28) ×8.5
C17	HF60D58001	Pulley	1	
C18	HA110D0672	Screw	2	SM11/64 (28) ×12
C19	H3200C2030	Cog belt	1	
C20	H4713D8001	Spring plate	1	
C21	H4714D8001	Pin	1	
C22	H4715D8001	Link	1	
C23	H007013025	E-type stop ring	1	GB/T896 2.5
C24	H4716D8001	Twist spring	1	
C25	H4717D8001	Plate	1	
C26	H4718D8001	Pin	1	
C27	H4719D8001	Plate	1	
C28	H4720D8001	Bushing	1	
C29	H4721D8001	Screw	1	SM15/64(28)×10.5
C30	HA104F0654	Screw	1	SM15/64 (28) ×10
C31	H4722D8001	Belt pulley (lower)	1	
C32	H4723D8001	Screw	2	SM15/64 (28) ×4.5

D. UPPER SHAFT & PRESSER FOOT MECHANISM



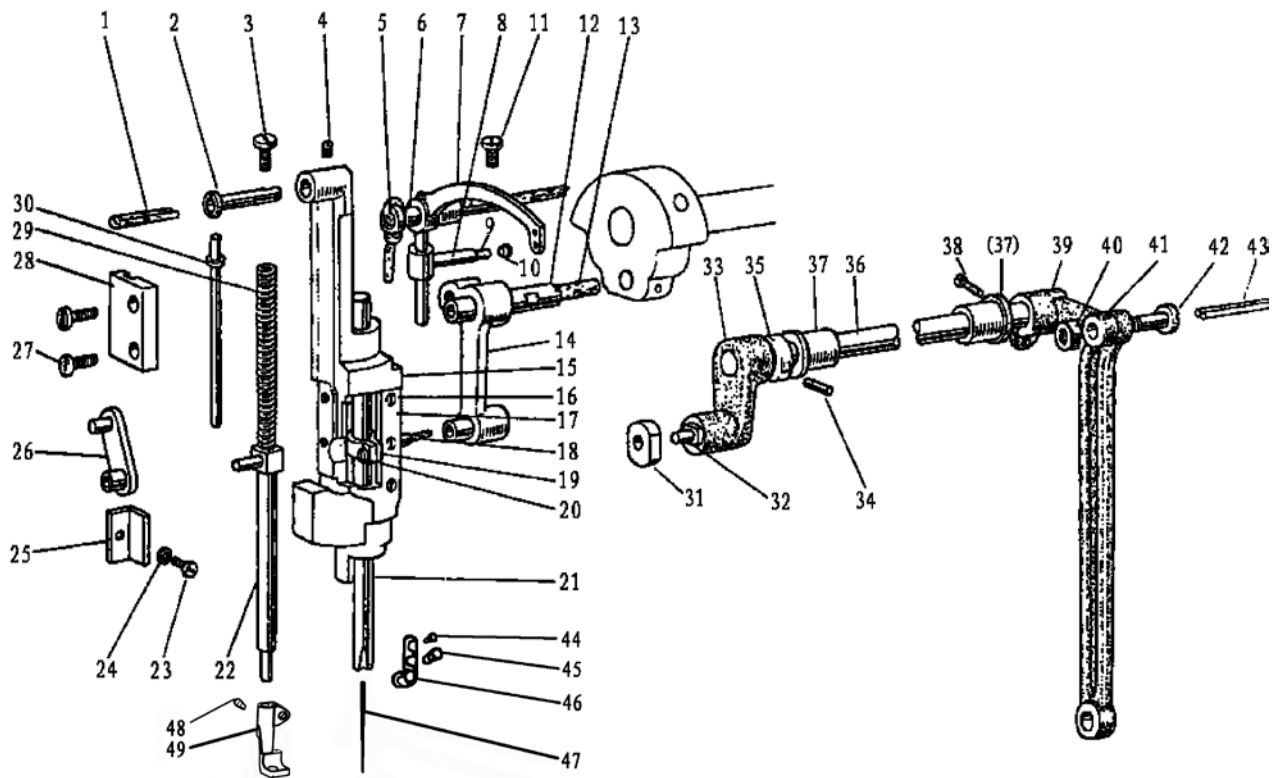
D.UPPER SHAFT & PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
D01	H4705E8001	Feed lifting rock shaft	1	
D02	H4706E8001	Screw	2	SM1/4 (24) ×7
D03	H4707E8001	Bushing	2	
D04	HS91165206	Nut	1	M6×0.75
D05	H4709E8001	Lever	1	
D06	H3115F0671	Screw	1	SM1/4 (28) ×16
D07	H2013J0065	Washer	1	
D08	H2014J0066	Connecting rod	1	
D09	H2000J2100	Bolt	1	
D10	H4713E8001	Oil pipe & wick complete	1	
D11	H20111C106	Spring	1	
D12	H007009250	C-type stop ring	1	GB/T894.1 25
D13	H4714E8001	Eccentric	1	
D14	HA307C0662	Screw	2	SM1/4 (40) ×6
D15	H4732E8001	Screw	1	SM1/4 (24) ×14
D16	H4735E8001	Knee lifter lifting lever complete	1	
D17	H4739E8001	Snap pin	1	
D18	H4738E8001	Operation rod	1	
D19	H4741E8001	Collar	1	
D20	H4742E8001	Screw	1	SM11/64 (40) ×5.5
D21	H3100G2170	Screw	1	SM1/4 (24) ×17
D22	H4730E8001	Lever spring	1	
D23	H4729E8001	Screw	1	SM15/64 (28) ×79
D24	H4727E8001	Twist spring	1	
D25	H4728E8001	Knee lifting lever	1	
D26	H3100G2130	Screw	1	SM1/4 (24) ×7
D27	H4726E8001	Nut	1	
D28	H4725E8001	Screw	1	SM1/4 (24) ×19
D29	HA111G0683	Screw	2	SM11/64(40)×12
D30	H4723E8001	Guide	1	
D31	H4744E8001	Bushing	1	
D32	H4754E8001	Presser bar	1	
D33	H3200E2020	Screw	1	SM1/8(44)×9
D34	H4746E8001	Spring bracket	1	
D35	H4768E8001	Thread releasing plate	1	
D36	H2404I0034	Screw	1	SM9/64 (40) ×8.5
D37	H4748E8001	Lifter lever	1	
D38	H4767E8001	Spring	1	
D39	H4752E8001	Bracket	1	
D40	H4749E8001	Screw	1	SM11/64 (40) ×8.5
D41	H4715E8001	Bell crank	1	
D42	H2004J0655	Support shaft	1	
D43	H4717E8001	Roller	1	

D.UPPER SHAFT & PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
D44	H4718E8001	Screw	1	SM11/64(32)×6
D45	H2004J0662	Screw	1	SM1/4(40)×5
D46	H4719E8001	Link	1	
D47	HA100E2150	Screw	2	SM11/64 (40) ×10
D48	H4722E8001	Washer	2	
D49	H4721E8001	Bell crank guide	1	
D50	H4753E8001	Screw	1	SM11/64 (40) ×14.5
D51	H4708D8001	Screw	2	SM1/4(24)×13
D52	HN10E48001	Lifting presser foot	1	

E.NEEDLE BAR & THREAD TAKE-UP LEVER MECHANISM



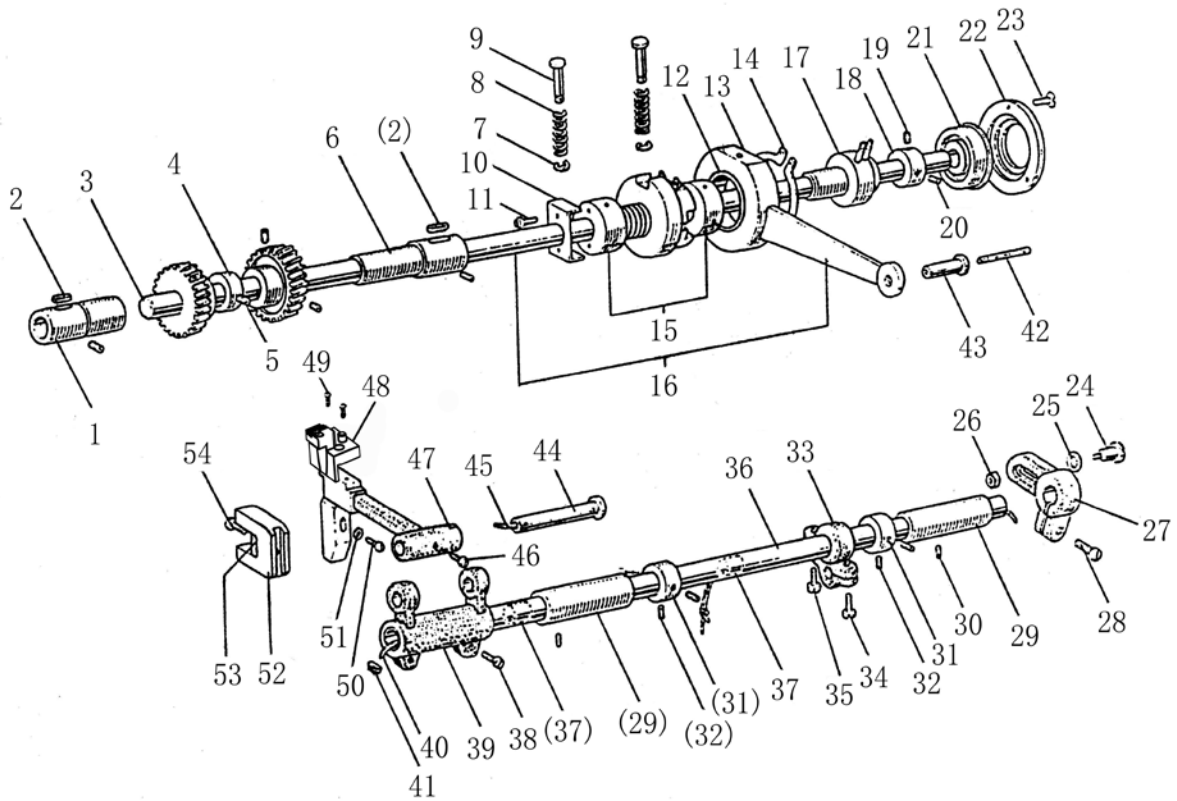
E.NEEDLE BAR & THREAD TAKE-UP LEVER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
E01	H24211DN05	Oil wick	1	
E02	H4706F8001	Needle bar guide bracket stud	1	
E03	H4707F8001	Screw	1	SM5/16 (28) ×10.4
E04	HA100C2020	Screw	1	SM15/64 (28) ×10
E05	H24211DN05	Oil wick	1	
E06	H24211DM05	Thread take-up lever support stud	1	
E07	H4712F8001	Thread take-up lever	1	
E08	H2405D1112	Thread take-up slide brock	1	
E09	H24211D405	Oil wick	1	
E10	H24211D305	Plug	1	
E11	HA110D0672	Screw	1	SM15/64 (28) ×12
E12	H2405D0662	Needle bar crank pin	1	
E13	H4716F8001	Oil wick	1	
E14	H4717F8001	Connecting link	1	
E15	H4719F8001	Needle bar guide bracket	1	
E16	H32111D304	Screw	6	SM3/32 (56) ×4
E17	H4721F8001	Spacer	2	
E18	H3204D6513	Felt	1	
E19	H4722F8001	Needle bar holder	1	
E20	H32111D604	Screw	1	SM9/64 (40) ×8.5
E21	H4806F8001	Needle bar	1	
E22	H4725F8001	Vibrating presser bar	1	
E23	H3400C2020	Screw	1	
E24	H3200I2030	Washer	1	
E25	H3400C2010	Needle bar guide	1	
E26	H4726F8001	Vibrating presser bar link	1	
E27	H4753E8001	Screw	2	SM11/64 (40) ×17.5
E28	H4728F8001	Vibrating presser bar guide	1	
E29	H4729F8001	Spring	1	
E30	H4730F8001	Vibrating presser spring guide	1	
E31	H3410C301P	Square block	1	
E32	H3406C0671	Crank pin	1	SM15/64(28)×10
E33	H3406C0672	Needle bar vibrating crank (left)	1	
E34	H602040240	Taper	1	GB/T117 4×24
E35	H4734F8001	Collar	1	
E36	H4736F8001	Needle bar vibrating shaft	1	
E37	H3204B0652	Needle bar vibrating shaft bushing	2	
E38	H2012N0652	Screw	1	SM1/4 (24) ×16
E39	H3407C0661	Needle bar vibrating crank (right)	1	
E40	H32311D506	Nut	1	
E41	H3407C0662	Connecting link	1	
E42	H32311D306	Screw	1	SM5/16(24)
E43	H32311D406	Oil wick	1	

E.NEEDLE BAR & THREAD TAKE-UP LEVER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
E44	H3129F0691	Screw	1	SM3/32 (56) ×2.5
E45	HA100C2170	Screw	1	SM1/8 (44) ×4.5
E46	H3129F0693	Thread guide	1	
E47	H4740F8001	Needle	1	
E48	HA700F2100	Screw	1	SM11/64 (40) ×7
E49	HN10F48001	Presser loot complete	1	

F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM



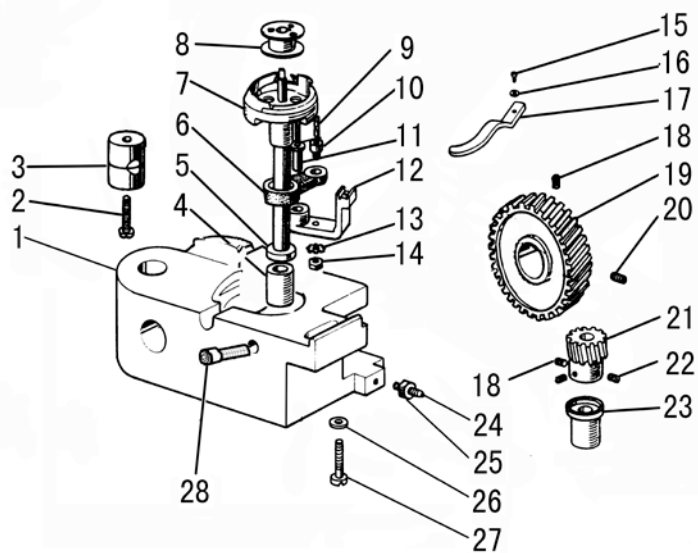
F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
F01	H4706H8001	Lower shaft bushing (left)	1	
F02	H4707H8001	Oil wick	1	
F03	HF60H48001	Lower shaft	1	
F04	HN10H58001	Feed eccentric cam	1	
F05	HN10H68001	Screw	1	SM1/4(40)×4.3
F06	H4712H8001	Lower shaft bushing (right)	1	
F07	H007013050	Stop ring	4	GB/T896 5
F08	H4714H8001	Spring	2	
F09	HF60H78001	Push button	2	
F10	HF61H08001	Stopper	1	
F11	H2405D0664	Screw	4	SM15/64(28)×14
F12	H4719H8001	Bearing	1	
F13	HF62H48001	Feed connecting rod	1	
F14	H007009260	Stop ring	1	
F15	HF60H97101	Feed ragulator comp	1	
F16	HF60H87101	Feed connecting rod comp	1	
F17	H4722H7101	Lower shaft bushing complete (middle)	1	
F18	H4725H8001	Bushing	1	
F19	HA105D0662	Screw	1	SM1/4 (40) ×4
F20	H3205H0654	Screw	1	SM1/4(40)×5
F21	H4723H8001	Ball bearing	1	
F22	H4727H8001	Bearing holder	1	
F23	HA7311C306	Screw	3	SM9/64 (40) ×7
F24	H4729H8001	Screw	1	M6
F25	H4728H8001	Washer	1	
F26	H003055060	Nut	1	GB52008 M6
F27	H4731H8001	Feed connection crank (right)	1	
F28	H2012N0652	Screw	1	SM1/4(24)×16
F29	HA100G2120	Feed rock shaft bushing	2	
F30	H4708D8001	Screw	2	SM1/4(24)×13
F31	HA108G0661	Collar	2	
F32	HA105D0662	Screw	4	SM1/4(40)×4
F33	H4736H8001	Feed connection crank (middle)	1	
F34	H2012N0652	Screw	1	SM1/4(24)×16
F35	HA304G0656	Screw	1	SM3/16(28)×15
F36	H3204G0651	Feed rock shaft	1	
F37	H4740H8001	Felt	2	
F38	HA104G0012	Screw	2	SM3/16 (28) ×12
F39	H3205G1032	Feed connection crank (left)	1	
F40	H3204G0031	Oil wick	1	
F41	H3200G2030	Clip	1	
F42	H3205G0662	Oil wick	1	
F43	HF62H68001	Shaft for feed connecting rod	1	

F.LOWER SHAFT & FEED ROCK SHAFT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
F44	H32243G205	Feed bar shaft	1	
F45	H3205G0662	Oil wick	1	
F46	H429050050	Bolt	1	GB/T78 M5×5
F47	H4805H8001	Feed bar	1	
F48	HN10H87101	Feed dog	1	
F49	H32211G205	Bolt	2	SM1/8(40)×7
F50	H3200H2040	Screw	1	SM15/64(28)×17
F51	H2013J0065	Washer	1	
F52	H3205H0653	Screw	1	SM1/8 (44) ×4
F53	H3205H0652	Felt	1	
F54	H4743H8001	Feed bar forked connection	1	

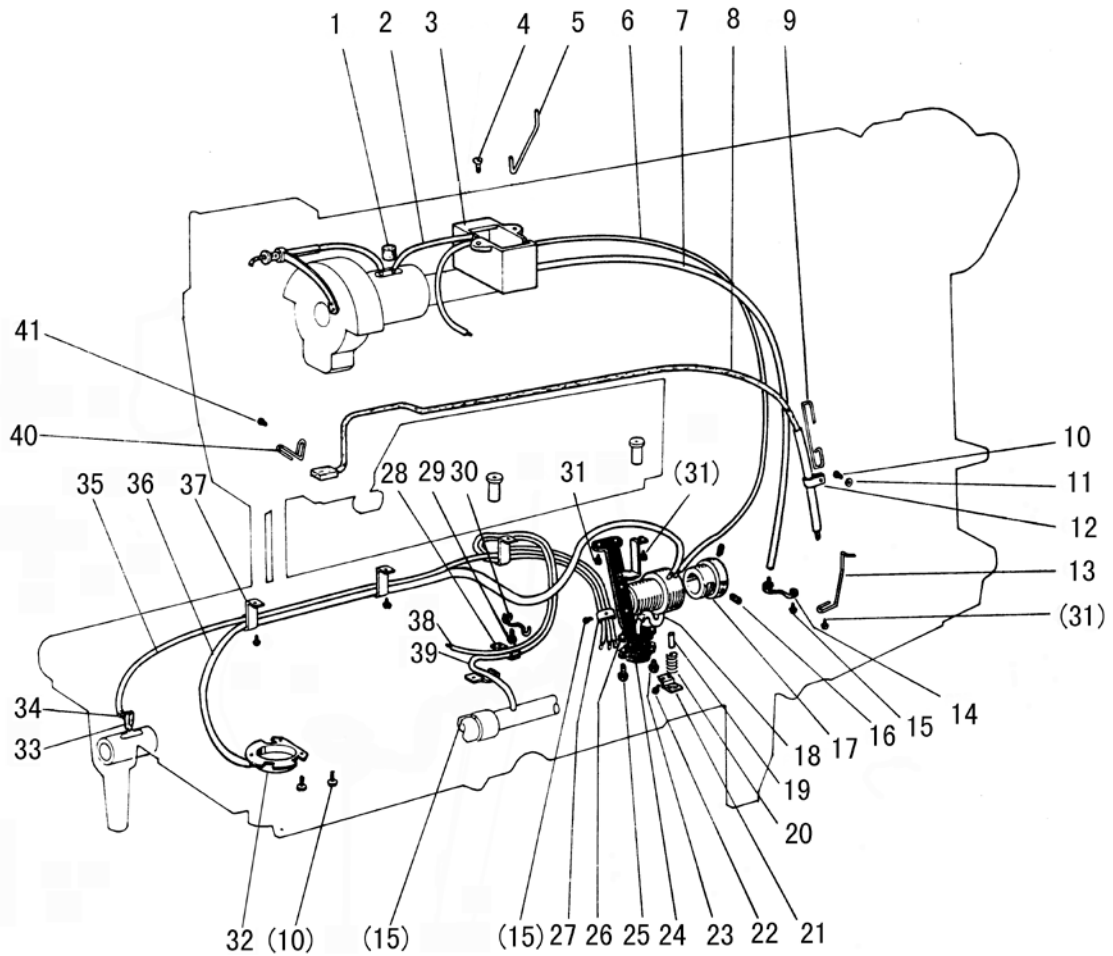
G.HOOK SADDLE MECHANISM



G.HOOK SADDLE MECHANISM

Fig. No.	Part No.	Description	Pcs.	Remarks
G01	H3304I0651	Hook saddle (left)	1	
G02	H3207I0661	Screw	1	SM15/64 (28) ×22
G03	H3207I0662	Bushing	1	
G04	H33121I104	Hook shaft bushing (upper)	1	
G05	H33121I204	Washer	1	
G06	H33131I204	Link	1	
G07	H4708I7101	Hook complete	1	
G08	H3306I0067	Bobbin	1	
G09	H3204I0656	Oil wick	2	
G10	H32153I204	Screw	1	SM3/16 (32) ×7.8
G11	H32153I504	Opener bracket shaft	1	
G12	H33131I104	Opener bracket	1	
G13	H005008050	Spring washer	1	GB/T93 5
G14	HA104G0658	Nut	1	
G15	H2004J0067	Screw	1	
G16	H3200I2030	Washer	1	
G17	H3305I0066	Opener	1	
G18	H4707I8001	Screw	3	SM1/4 (40) ×4
G19	H4706I8001	Hook driving gear (large)	1	
G20	H4708I8001	Screw	1	SM1/4 (40) ×6.5
G21	H4705I8001	Hook driving gear (small)	1	
G22	H4709I8001	Screw	1	SM1/4 (40) ×5
G23	H3204I0653	Hook shaft bushing (lower)	1	
G24	H3204I0658	Screw	1	
G25	H3204I0659	Nut	1	
G26	H2013J0065	Washer	1	
G27	H3200I2050	Screw	1	SM1/4 (24) ×23
G28	H3204I0657	Screw	1	SM3/16 (28) ×14.5

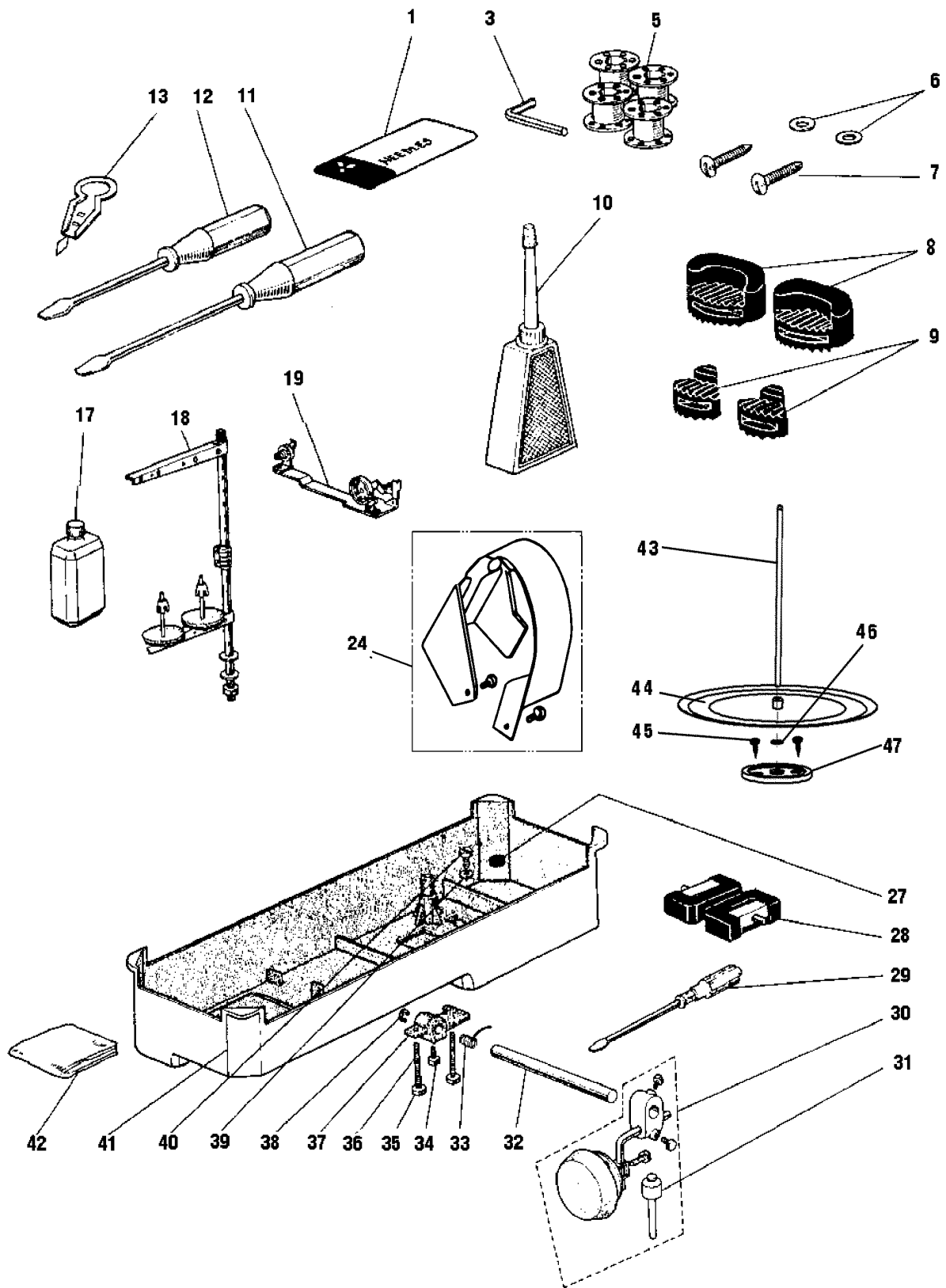
H.OIL LUBRICATION MECHANISM



H.OIL LUBRICATION MECHANISM

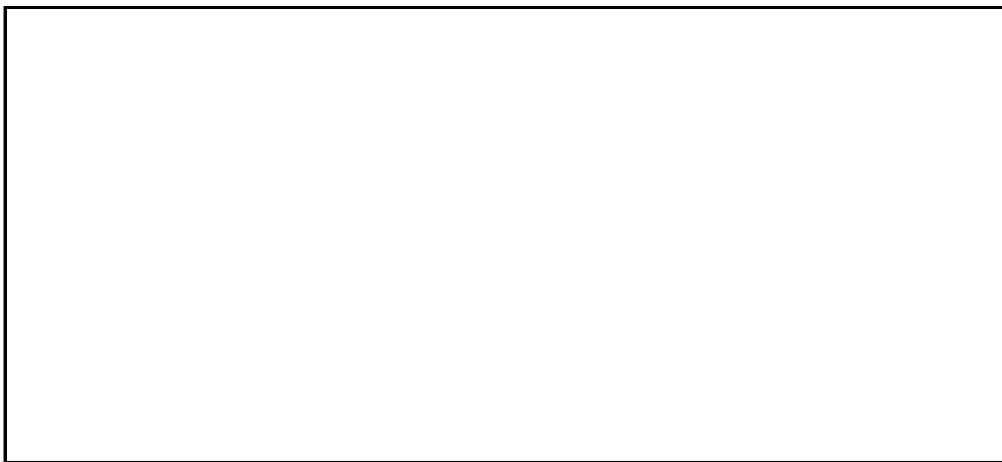
Fig. No.	Part No.	Description	Pcs.	Remarks
H01	H32175B304	Felt	1	
H02	H4705J7101	Oil pipe complete	1	
H03	H3204K0011	Oil reservoir complete	1	
H04	H411040160	Screw	2	GB/T819.1 M4×16
H05	H4707J8001	Holder	1	
H06	H4708J8001	Oil pipe Φ3×1×400	1	
H07	H4709J8001	Oil pipe Φ5×1×360	1	
H08	H4711J7101	Oil reservoir complete	1	
H09	H4713J8001	Holder	1	
H10	HA7311CC06	Screw	4	SM9/64 (40) ×6.5
H11	HA100I2050	Spring washer	1	
H12	H2000M0110	Holder	1	
H13	H4714J8001	Holder	1	
H14	H4715J8001	Holder	1	
H15	HA106B0676	Screw	8	SM9/64 (40) ×4.5
H16	H3230K0751	Screw	2	
H17	H4716J8001	Bushing	1	
H18	H3215K0696	Oil pipe	1	
H19	H1100I2070	Pin	1	
H20	H1100I2090	Spring	1	
H21	H1100I2110	Spring holder	1	
H22	H3204D6510	Screw	1	SM1/8 (44) ×4.5
H23	H3215K0693	Screw	1	SM9/64 (40) ×5
H24	H3215K0692	Filter	1	
H25	H3215K0694	Screw	1	SM9/64 (40) ×7
H26	H4718J7101	Mounting plate complete	1	
H27	H3215K0695	Holder	1	
H28	H3200K0170	Holder	1	
H29	HA7311CC06	Screw	1	SM9/64 (40) ×6.5
H30	H3210K0674	Holder	1	
H31	HA100E2150	Screw	4	SM11/64 (40) ×9
H32	H3211K0068	Oil reservoir complete	1	
H33	H2000M0110	Holder	3	
H34	H3200K0180	Oil wick Φ2.5×35	3	
H35	H4735J8001	Oil pipe	1	
H36	HM90M48001	Oil pipe Φ3×1×535	1	
H37	H3200K0160	Holder	3	
H38	H4725J7101	Oil wick	1	
H39	H4728J7101	Oil wick	1	
H40	H4731J8001	Holder	1	
H41	HA300C2030	Screw	1	

I.ACCESSORIES



I.ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Remarks
I01	H4740F8001	Needle DP×17-23	3	
I03	H3208L8001	Socket wrench	1	
I05	H3306I0067	Bobbin	2	
I06	H3200L0050	Screw	2	
I07	H801045200	Vibration preventing rubber	4	GB/T99 4.5×20
I08	H4700K0020	Vibration preventing rubber	2	
I09	H4700K0030	Vibration preventing rubber	2	
I10	HA100J2110	Oiler	1	
I11	HA100J2140	Screw driver (middle)	1	
I12	HA100J2150	Screw driver (small)	1	
I13	H3207L0065	Thread a needle kit	1	
I17	HA300J2170	Oil can	1	
I18	HA200J2030	Cotton stand	1	
I19	H3300L0040	Bobbin winder	1	
I22	HA300J2280	Screw	2	SM11/64(28)×8
I24	HH404I7101	Belt cover complete	1	
I27	HA100J2120	Magnet block for reservoir	1	
I28	HA307J0067	Hinge complete	2	
I29	HA300J2070	Screw driver (large)	1	
I30	H3214L0067	Small parts	1	
I31	H3214L2011	Knee lifter pin	1	
I32	H3213L0662	Knee lift shaft	1	
I33	HA104J0657	Spring	1	
I34	HA106J0664	Bolt	1	
I35	HA104J6510	Nut	2	
I36	HA104J0659	Screw	2	
I37	H3213L0664	Knee lifter crank	1	
I38	H007013090	E-type stop ring	1	GB/T896 9
I39	HA104J0653	Washer	1	
I40	HA104J0652	Screw	1	
I41	H3213L0661	Oil reservoir	1	
I42	HA100J2180	Vinyl cover	1	
I43	H7323H8001	Shelf	1	
I44	H7320H7101	Plate complete	1	
I45	H801055250	Screw	2	
I46	HA300J2230	Washer	1	
I47	H7326H8001	Seat	1	



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

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