



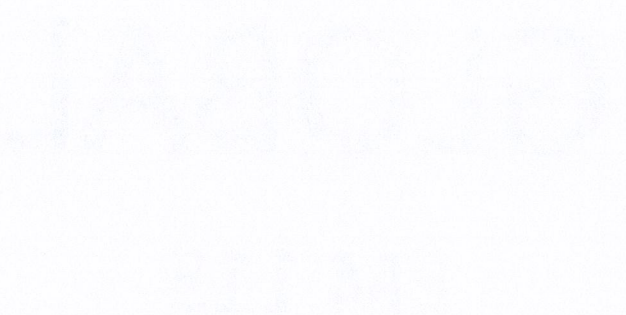
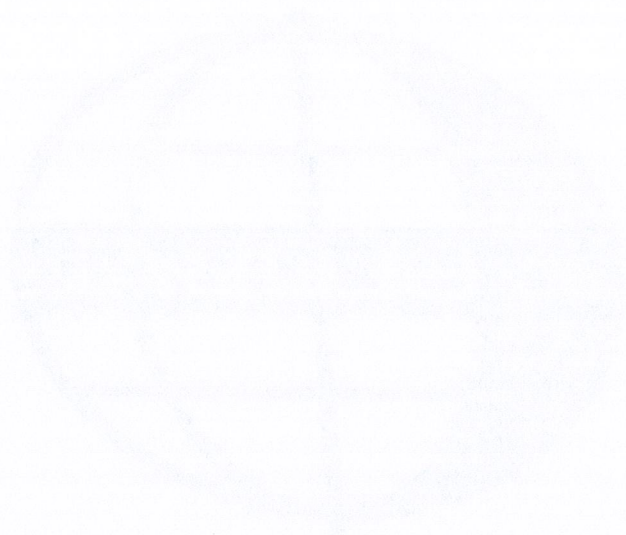
GLOBAL

EM 115

Instruction & Parts manual

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1. Main technical specifications

Application: medium and heavy duty

Max sewing speed: 2000 spm

Stitch length: 0-8mm

Presser foot lift: 7mm by hand

13mm by knee

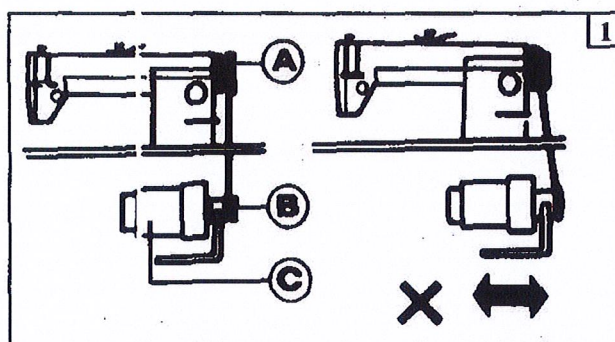
Needle: DB × 1 16 × 231 22#

DP × 5 14#-24#

Lubrication: Auto lubrication

2. Installing the motor (Fig.1)

Align machine balance wheel belt groove (A) with motor pulley belt groove (B) by moving the motor (C) leftward or rightward. Be sure the belt is not touch with table.



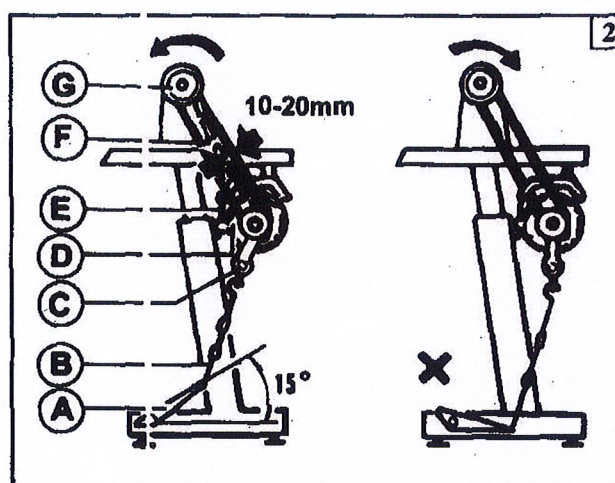
3. Connecting the clutch lever to the pedal (Fig.2)

a. The optimum tilt angle of pedal with floor is approx 15 degree.

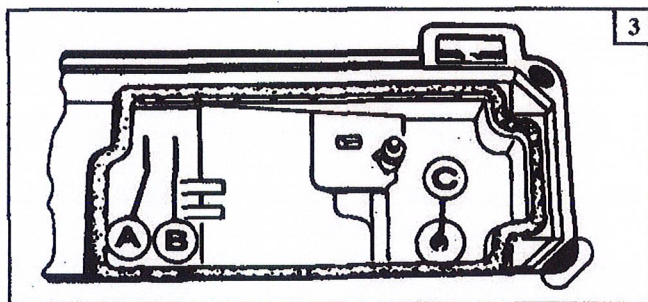
b. Adjust the clutch of the motor so that clutch lever (C) and draw bar (B) run in line as Fig.6, the machine would have stable motion and long using

c. The machine balance wheel should rotate counter clockwise for normal sewing when view from opposite side of the balance wheel. The motor rotates in the same direction. The rotation can be reversed by reversing (turn over 180 deg.) the plug of the motor.

d. Adjust the tension of V-belt by moving the motor vertically. The proper tension of V-belt is a slack of 10-20 mm when the belt is depressed (a : the belt pan) by finger.



4. Preparation (Fig.3)



machine. Turn balance wheel slowly to see if there is any obstacle, collision and uneven resistance between parts. If there is, adjustment should be done before operation.

(3) Lubrication (Fig 3)

a. Oil amount

Oil amount must be oiled according to the mark of drip pan. Mark (A) is the highest situation, Mark (B) is the lowest situation, Note that oil amount couldn't be lower than mark (B). otherwise all parts of machine will appear heat and dead point for not gaining oil.

b. Oiling

In lubrication, HA-18 sewing machine oil or HJ-7 machine oil must be used, Before running, the machine must be oiled at the mark(A).

c. Changing

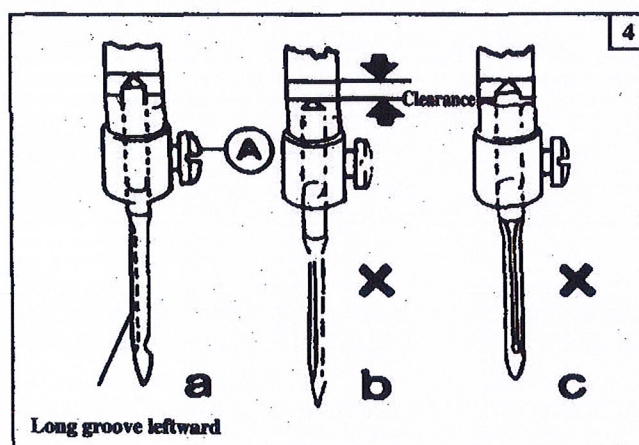
Turn off the screw plugs(C), clean up the dirty oil and the dust of drip pan, then fasten the screw plugs (C), add fresh oil

5. Installing the needle (Fig.4)

Turn the balance wheel to lift the needle bar to its highest point, loosen needle set screw, making the needle groove turn to the left side of an operator, fully insert the needle shank up to the bottom of needle socket, then tighten needle set screw.

Note: Fig. 4 (b) insufficient insertion

Fig.4 (c) Wrong direction of groove

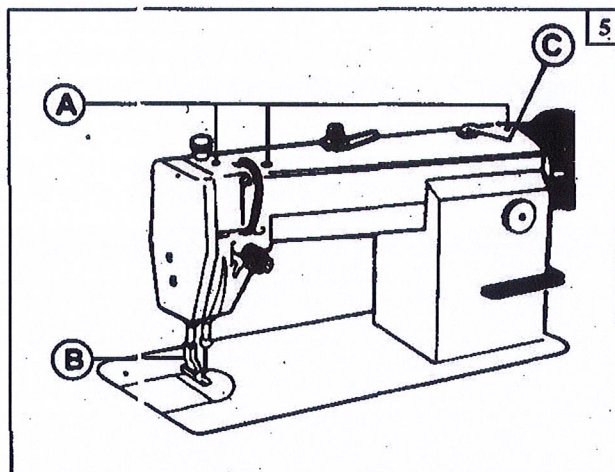


6. Coordination among the needle, the thread and the material

| Needle | Thread | Material |
|--------|---------|-----------------------|
| 14# | 60#-ε | cotton, wollen fabric |
| 16# | 50#-30# | |
| 22# | | Leather, saildothetc |

7. Trial run (Fig.5)

when the machine left out of operation for a quite long time and used again, remove the red rubber plug on top of the machine head, oil it thoroughly. then lift the presser foot and run at a low speed of 1000~1500spm, observe the sparking condition through oil window (C). as the lubrication is well. keep the running test at the low speed about 30 minutes, then increase the speed gradually. after month's running to perfect its performance, then increase up to proper sewing speed.

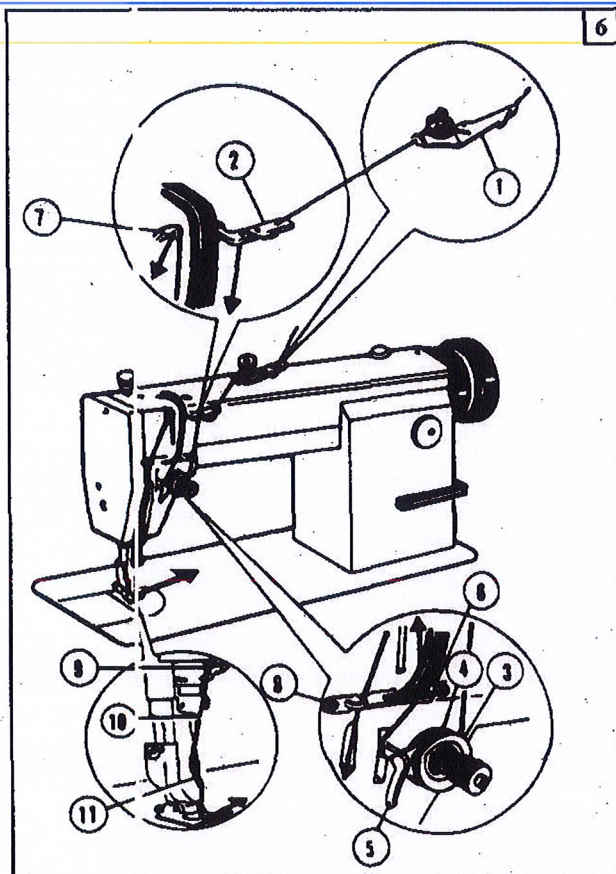


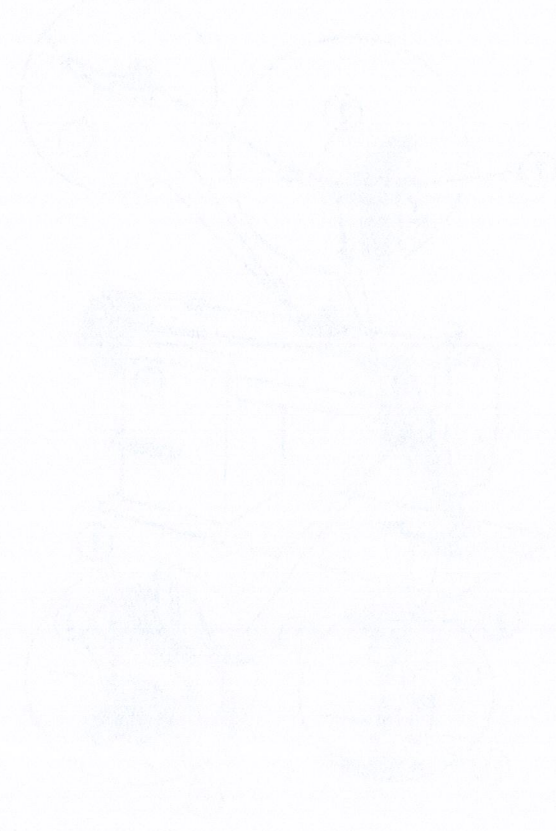
8. Threading the needle thread (Fig.6)

When threading the needle thread, raise the needle bar to its highest position, lead the thread from the spool and pass it in the order instructed.

- (1) Lead the thread down through the three-eye thread guide ① on the top.
- (2) Pass down thru the left hole of thread retainer ②, then down thru the lower hole of thread retainer ②.
- (3) Pass down thru between the two tension disc ③.
- (4) Pass up thru the hook of thread take-up spring ④, thru thread regulator ⑤, thru thread guide ⑥ and up thru the hloe of thread take-up lever ⑦.
- (5) Down thru thread guide ⑧, ⑨, and needle bar thread guide ⑩, then pass the thread from the left thru the aye of needle ⑪, draw out the thread approx 100mm from the needle eye.

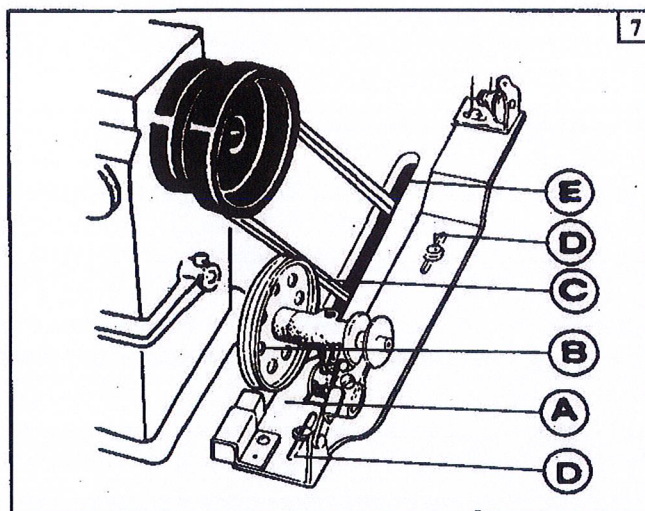
When drawing the bobbin thread, hold the tip of the needle thread by hand, turn the balance wheel to lower the needle bar and then to lift it to its highest position. Pull the needle thread and then the bobbin thread is drawn up, put the tips of the needle and bobbin thread to ward front under the presser foot.





9. Installing the bobbin winder (Fig.7)

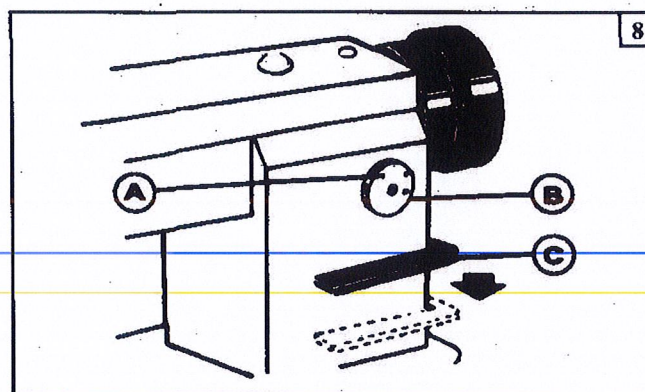
Align pulley (B) of the bobbin winder with the outside of the belt, and there should be a proper clearness between them, so that pulley (B) can be contacted with the belt when stop latch thumb lever (A) is depressed, thereby the belt drives pulley (B) while the machine running, the bobbin winder should be parallel with belt slit (E) of the table, then fasten with two wood screw (D).



10. Setting the stitch length and controlling the reverse sewing (Fig.8)

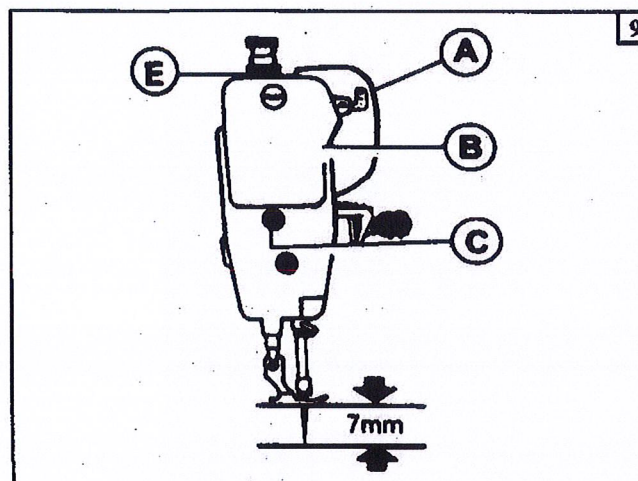
Stitch length can be set by turning stitch length regulating dial (A). The figures on the stitch length regulation dial plate (B) indicate the stitch length.

Reverse sewing can be obtained when feed reverse lever (C) is depressed and forward sewing can be restored automatically when feed reverse lever (C) is released.



11. To adjust the presser bar height (Fig.9)

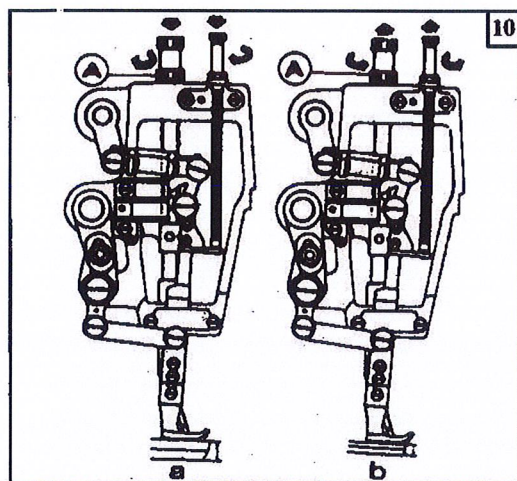
Loosen the nut (E), then loosen adjusting screw (A) remove the rubber of face plate (B), loosen the screw (C), decide the position of the presser bar in the correct position: it is 6.0mm between needle plate and presser footer. When the presser footer rise the top, tighten the screw (C), tuck the rubber, tighten the adjusting screw (A), then tighten nut (E).



12. Adjusting the pressure of presser foot (Fig.10)

Pressure on presser foot is to be adjusted in accordance with materials to be sewn. Loosen lock nut (A). If heavy materials to be sewn, turn pressure regulating thumb screw clockwise as shown Fig. 10 (a) to increase the pressure. While light materials to be sewn, turn the pressure regulating thumb screw counter clockwise as shown in Fig. 10 (b) to decrease the pressure on presser foot, then tighten lock nut (A).

The pressure of presser foot is proper as the sewing materials can be fed normally.



13. Adjusting the thread tension (Fig 11.12)

In general, the thread tension is to be adjusted in accordance with material thread and others.

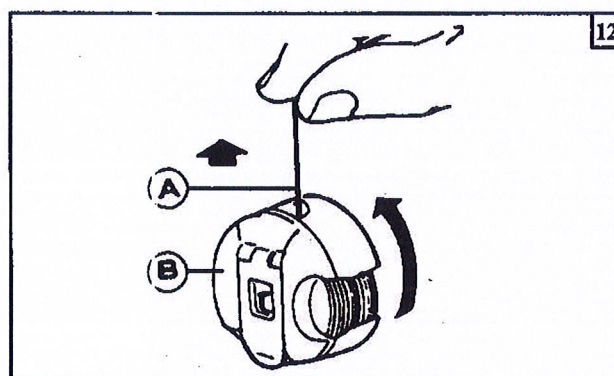
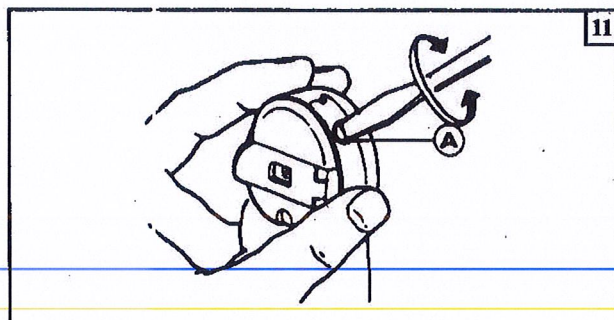
In practice, the thread tension is adjusted according to the stitches resulted to get the normal stitches.

When adjusting the bobbin thread tension, turn bobbin case tension spring screw (A) clock wise for more tension or turn the screw counter clockwise for less tension.

It is a common practice to check the bobbin thread tension. In case of polyester thread 50#, hold the end of the thread. If the bobbin case

falls down slowly the proper tension is obtained.

The needle thread tension should be adjusted with reference to the bobbin thread tension. The needle thread tension can be adjusted by changing tension of the thread take-up spring sewing range of the thread take-up spring tension of tension disc, and the position of thread guide.



14. Adjusting the thread take-up spring (Fig 13.14)

The normal sewing range of thread take-up spring is 8-10mm. For sewing light weight materials (short stitch), weaken the spring tension and widen the sewing range of spring, while for sewing heavy weight materials, strengthen the spring tension and shorten the sewing range of spring.

1) Adjusting the thread take-up spring tension (Fig. 18)

Loosen tension stud set screw (A), turn tension stud (B) clockwise to make the spring get more tension, or turn the tension stud counter more tension, or turn the tension stud counter clockwise to make the spring get less tension. After adjustment, Be sure to tight tension stud set screw (A).

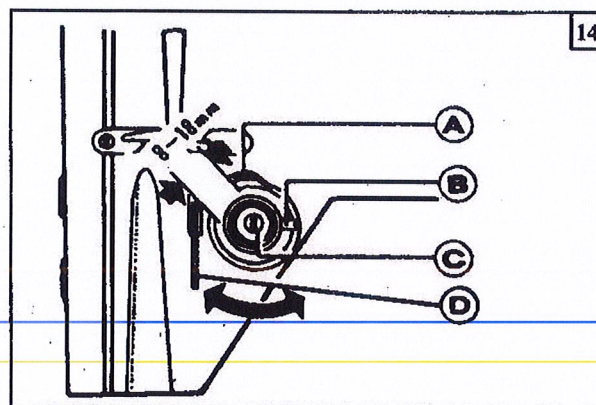
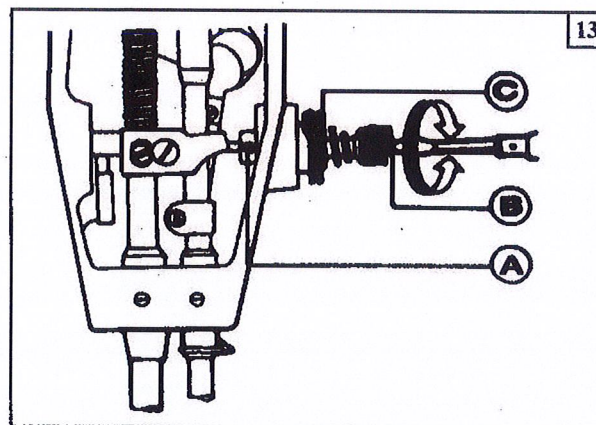
The method of adjustment:

Loose set screw (A) first, then to turn tension stud (B) counter clockwise to release the tension of thread take-up spring (C) to zero, and to turn tension stud (B) clockwise until spring (C) just comes into contact with the stop slot on the thread take-up spring regulator, then to further turn tension stud (B) counter-clockwise by 1/2 turn. After adjustment, tighten tension stud set screw (A).

2) Adjusting the sewing range of thread take-up spring (Fig. 19)

Loosen set screw (B), turn tension complete (C) clockwise to increase the sewing range or turn tension complete (C) counter clockwise to decrease the sewing range.

Before delivery, the thread take-up spring is properly adjusted. Readjustment is needed only in the case of sewing special materials or with special thread.



15. Adjusting the tension of needle thread & bobbin thread (Fig 15.16)

The position of the thread guide affects sewing quality so it must be adjusted according to the materials to be sewn.




| Thread guide position | Leftward | Center | Rightward |
|-----------------------|---|---|---|
| |  |  |  |
| Material | Heavy | Medium | Light |

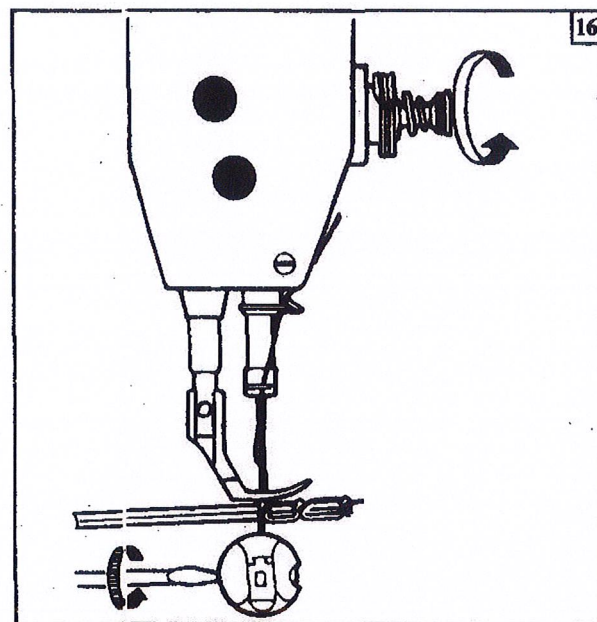
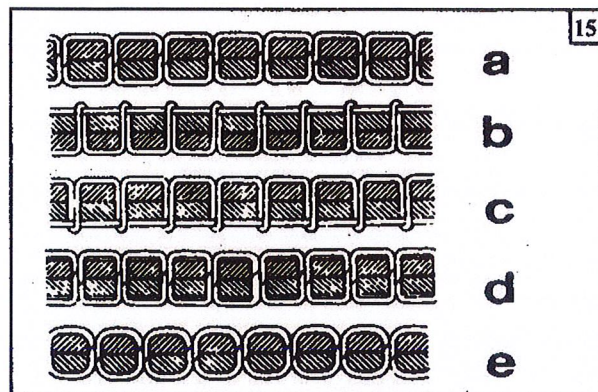
Fig.15 shows the various type of stitch forms.

Normal stitch form should be as shown in Fig. 15 a. When abnormal stitches occur with pucker ring or thread breakage, the tension of needle thread and bobbin thread must be adjusted accordingly.

(a) The needlethread tension is too strong or the bobbin thread tension is too weak, turn the tension regulating thumb nut counter clockwise to make the needle thread get less tension or tighten the bobbin case tension regulating screw with small plastic screw driver to make the bobbin thread get more tension (Fig 16)

(b) The needle thread tension is too weak or the bobbin thread is too strong turn the tension regulating thumb nut clockwise to make the needle thread get more tension or turn the bobbin case tension regulating screw counter clockwise with small plastic screw drive to make the bobbin thread get less tension (Fig 16)

(c) Other abnormal stitches as shown in Fig. 15(d)(e), adjustment can be made which reference to the above methods.

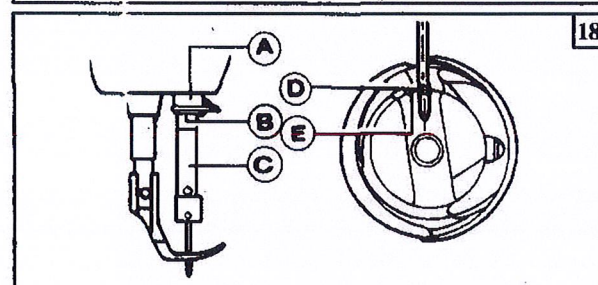
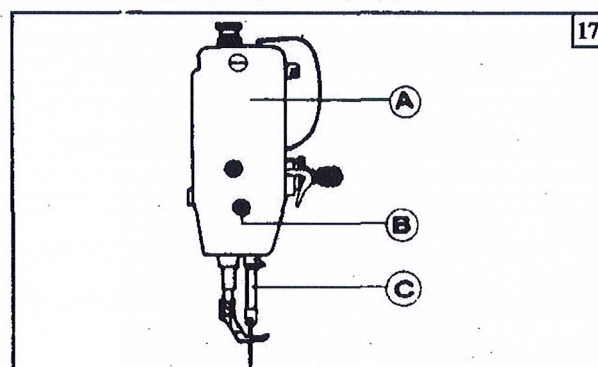
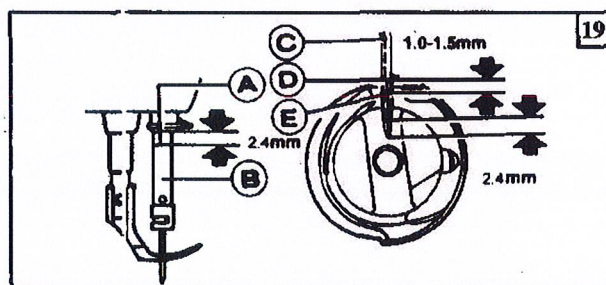


16. Timing between the needle and the rotating hook (Fig 17.18.19.20)

(1) Adjusting the position of needle bar

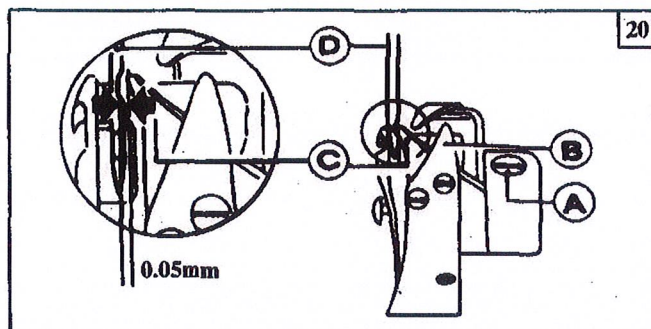
Turn the balance wheel to locate the needle bar (C) at its lowest position. remove the rubber plug in the face plate (A). then loosen the needle bar (C) connecting stud clamping screw (B) and move the needle bar (C) vertically to locate the timing position (The timing position of the needle bar is : when the needle bar at its lowest position, the center of needle eye (D) coincide with inside surface (E) of bobbin case holder as shown in Fig.24). Tighten clamping screw (B). plug the rubber plug.

(2) Adjusting rotating hook point timing with needle.



The motive relation between rotating hook and needle affects the sewing quality. Standard timing relation is: turn the balance wheel to locate needle bar at its lowest position and lift back 2.4mm the rotating hook point (D) should be coincides with needle center line (C), and hook point (D) is 1.2mm above the upper edge (E) of needle eye.

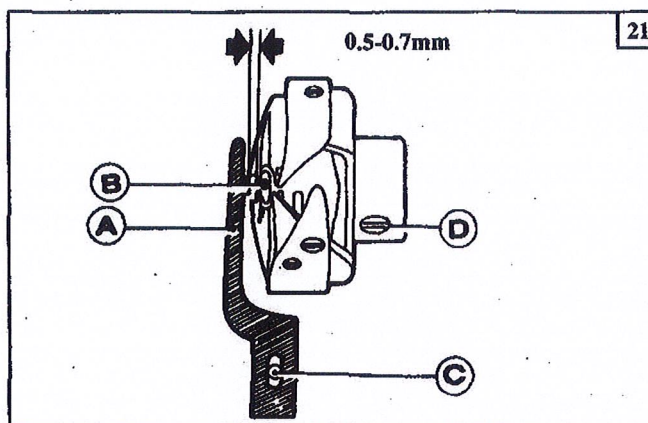
When adjusting the rotating hook point timing also to note the clearance between both bottom of needle (D) and hook point (C) of approx 0.05mm must be maintained.(Fig.20)



17. Removing and installing the rotating hook (Fig.21)

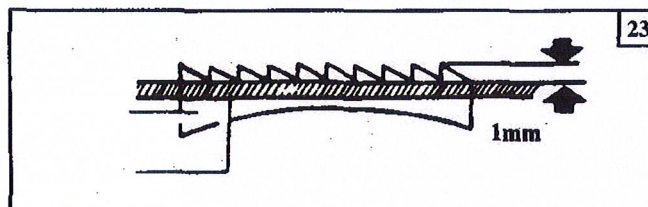
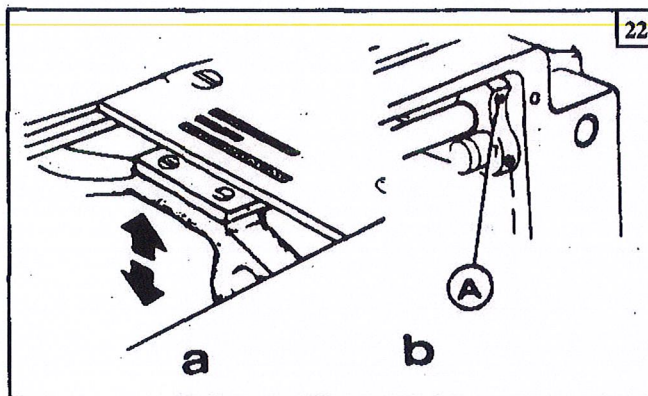
Lift the needle bar to its highest position, remove the throat plate, take down the needle and the bobbin case, loosen rotating hook bobbin case holder position bracket screw (C) and take down position bracket (A), then loosen set screws (D) of rotating hook to keep hook freely, turning around its axis, turn the balance wheel first to raise the feed bar to its highest position, at this time, take down the rotating hook slowly while turning it to keep away from the feed dog support. Installing the rotating hook can be done in reverse sequence.

The projecting flange of the position bracket (A) should be engaged in the notch (B) of the bobbin case holder, and maintain a clearance of 0.5~0.7mm between projecting flange top and the bottom of notch while installing.



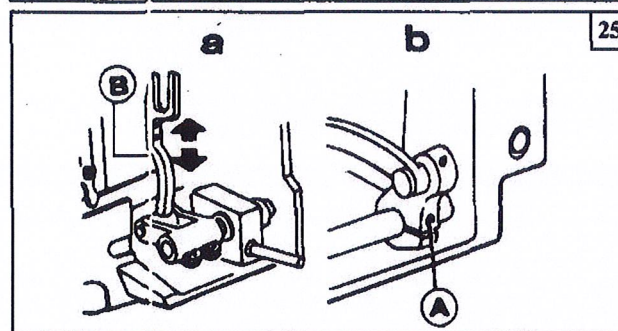
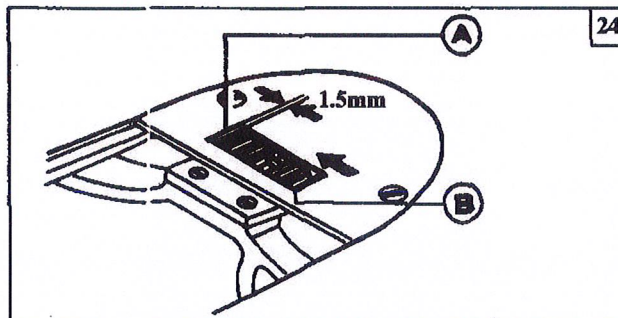
18. Adjusting the feed dog (Fig 22.23)

To adjust the position of feed dog, move feed dog to the front end of throat plate, Loosen Screw A (See Fig 22b), move feed dog support B in the direction shown by arrow (Fig.22a) to adjust. After adjustment tighten Screw (A).



19. Installing feed dog (Fig24.25)

When feed amount is at the max. the front end of feed dog (A) is near the front of throat plate slot. the gauge between the two is 1.5mm This is the standard position of feed dog.

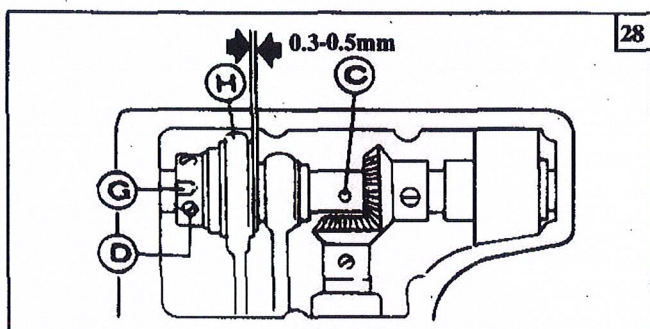
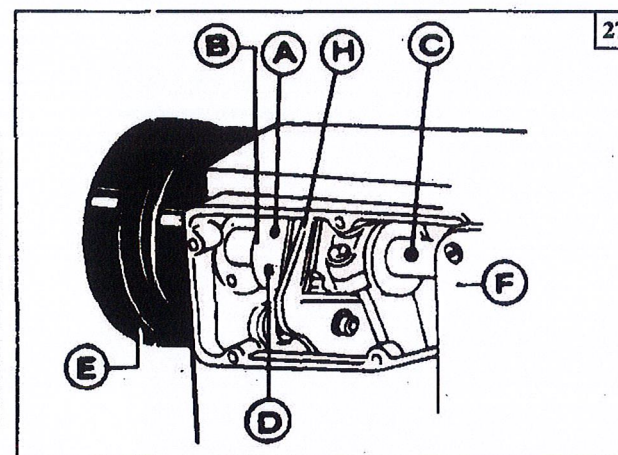
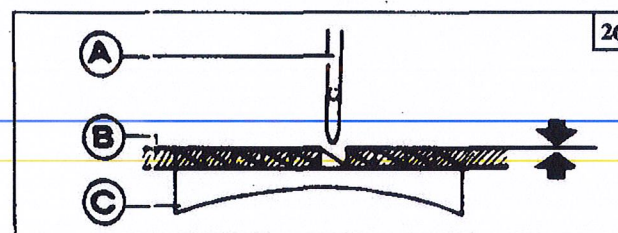


20. Timing between the needle and Feed-Dog (Fig26.27.28)

When needle point (A) locates the surfale of needle ptate (B), the topest of Feed-Dog is also locates same level of needle ptate (B), it is coord ination among the needle. Feed-Dog, needle ptate.

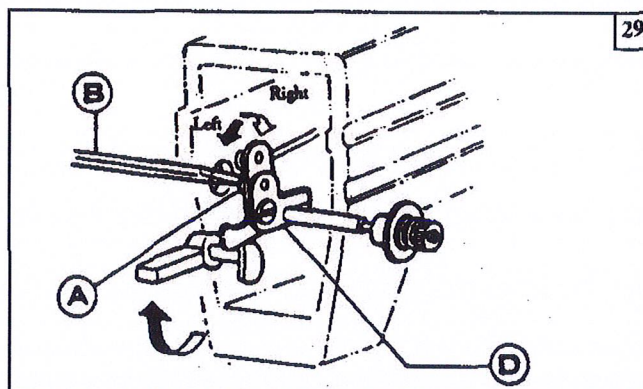
Adjusting the position: open balkside cover(F), loosen screw (A)(D). catch connecfor(B), then turn main shaft(E), adjust the (C) position is same as poifion(G).

When adjusting the batane between "B" and "A" would be 0.3-0.5mm then tighten screw (A.D)



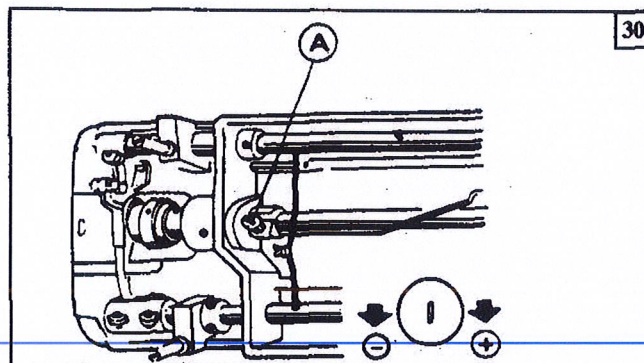
21. Adjusting the tension releasing mechanism (Fig.29)

The tension discs should be pushed apart to open when the presser foot is lifted. But the open timing of the tension discs can be adjusted as follows: Remove face plate and the rubber plug at rear side of arm and loosen screw (A) of the knee lifting lever (loft), then the tension releasing cam can be moved leftward or rightward when the cam is moved rightward, it is later to open, otherwise it is earlier to open.



22. Rotating hook oil amount adjustment (Fig.30)

The hook oil amount can be adjusted by Screw (A). Turn it clockwise("+") to increase amount; counter-clockwise("-") to decrease. The oil amount is adjusted in the range of five turns of Screw (A): Tightning for more: Loosening for less.



23. periodical cleaning (Fig 31.32.33)

1)Cleaning the feed dog

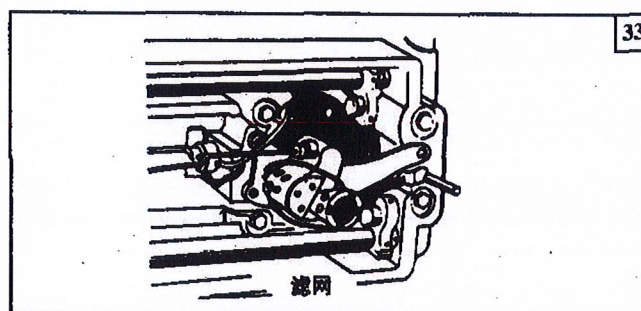
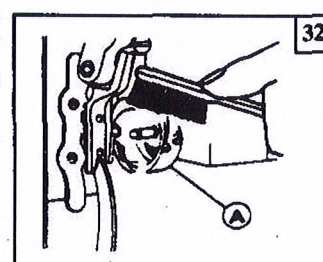
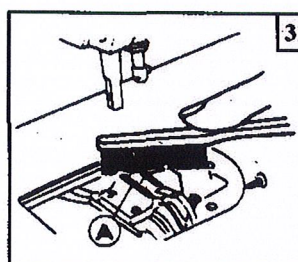
Remove the throat plate, clean off all the dust and lint on the slit of the feed dog(A), the installing the throat plate.

2)Cleaning the rotating hook

Clean off all the dust around the rotating hook (A), and clean the bobbin case with soft cloth.

3)Cleaning the oil pump filter screen

Take off the oil filter, clean off the dust of filter screen (A) with gasoline.



24. Adjusting the top-feeding mechanism (Fig.34)

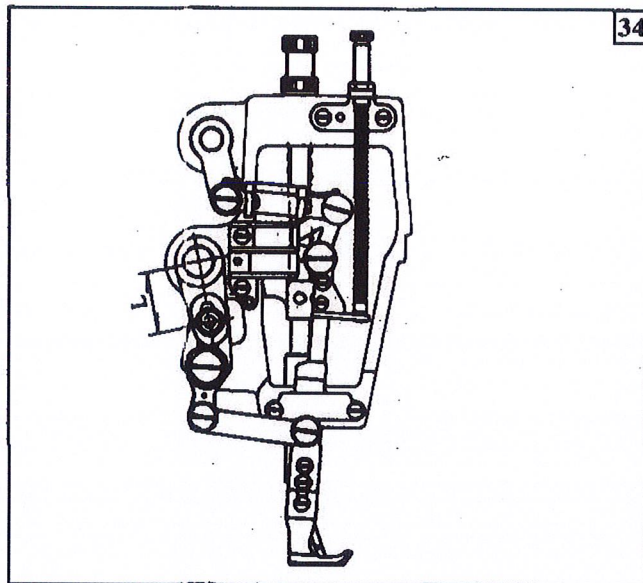
The main feature of this machine is top-bottom feed. In practice of sewing, the length(L) between the center of walking foot shaft and walking foot sliding assembly should be adjusted according to different fraction ratio of materials and requirements of the workpieces.

Method:

The L increase - the top feeding increase

The L decrease - the top feeding decrease

Some workpiece has the special requirement that the top-feeding should be more than the bottom-feeding, which could be realized by the method.

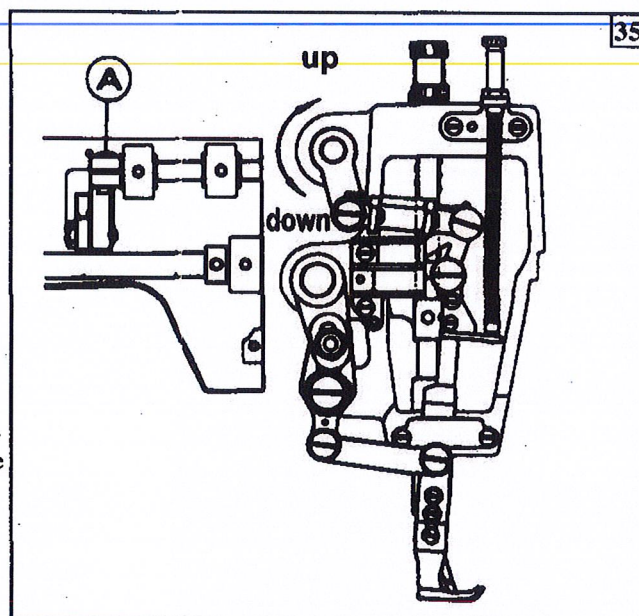


25. Adjusting walking foot and pressure foot (Fig.35)

The height of walking foot and pressure foot can be adjusted in a certain dimension according to the density of materials. For the mid-heavy materials, the height of walking foot is $< 5.5\text{mm}$, and pressure foot $< 3.5\text{mm}$. The plus of the two heights are definite under the circumstance that the other mechanism keeps unchanged. The relation between the two heights is negative ratio in general sense, namely, when the height of the walking foot increase the height of pressure foot decrease while vice versa. Adjusting method: loose the screw A on link adjusting crank and turn the crank upward and the height of the walking foot increase; while turn the crank downward, the height decrease.

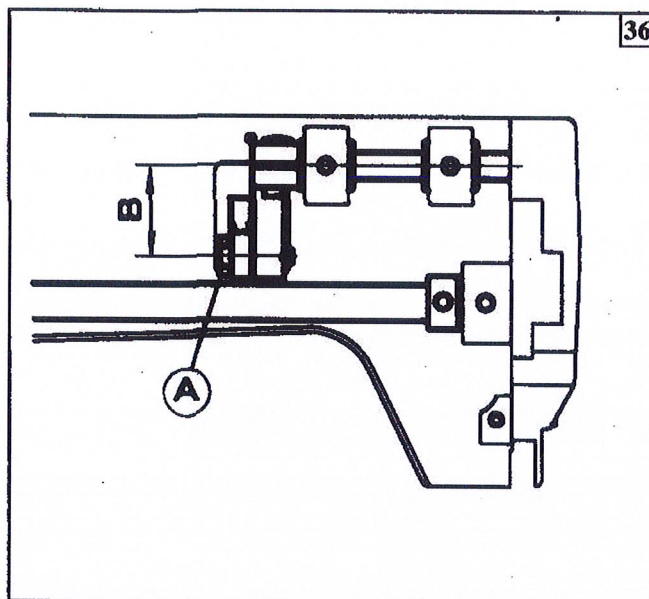
The turning degree of the crank should not be too much.

Afterwards, tighten the screw and turn the balance wheel to ensure everything in normal position.



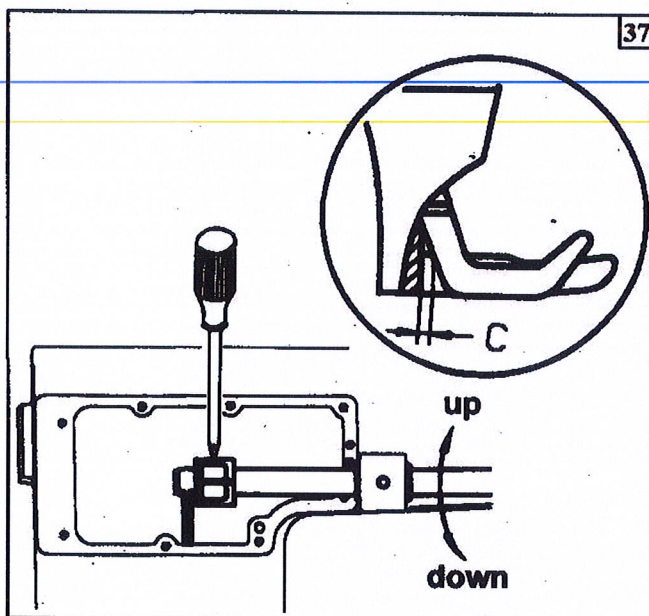
26. Adjusting the lifting amount of the walking foot and pressure foot (Fig.36)

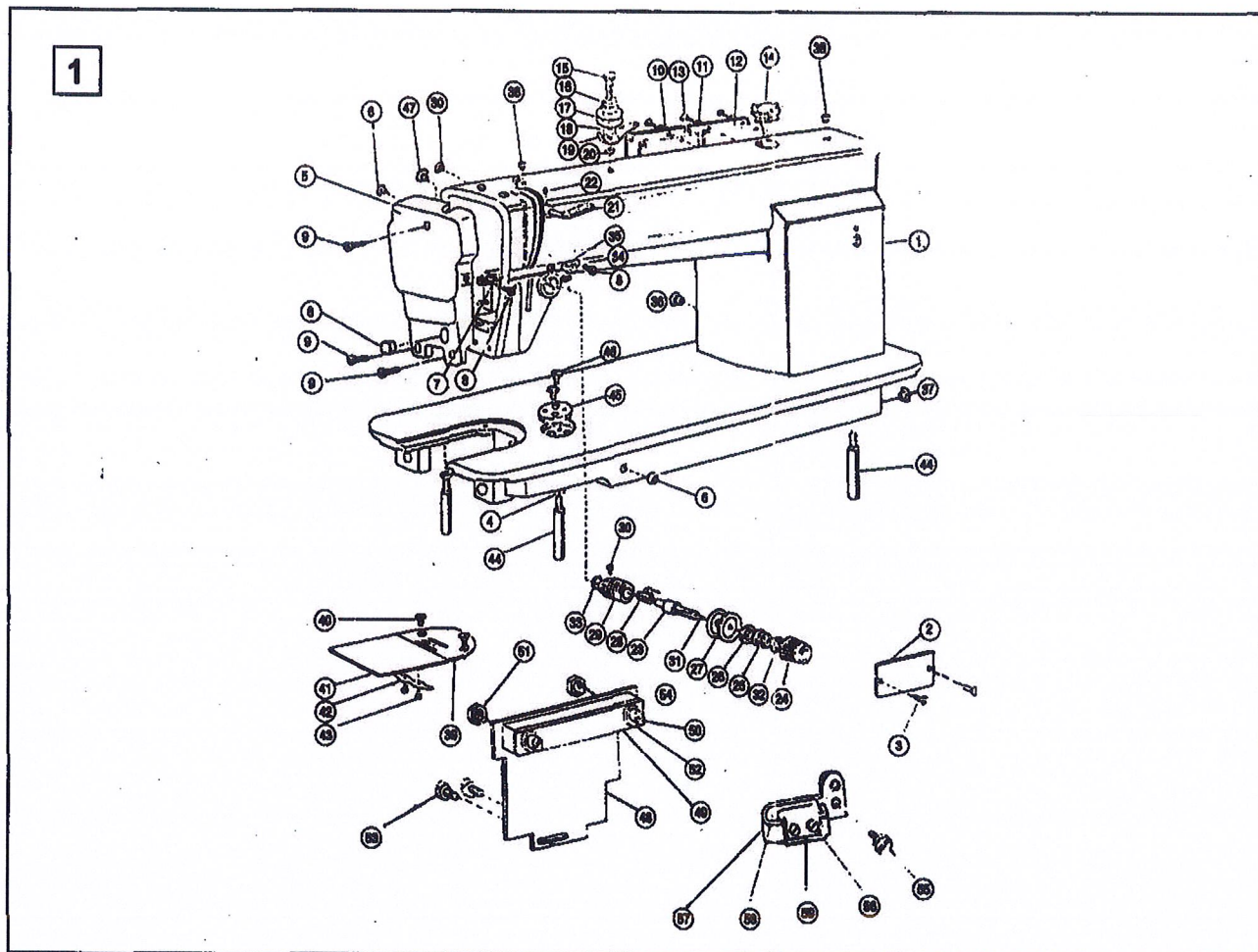
In practice, in order to adjust the height of walk foot and pressure foot, you can adopt the method: Loose the screw (A) on link adjusting crank and adjust the length between the center of the screw and the presser foot lift shaft. If the length decrease, the lifting amount of the two increase, while vice versa. The adjusting amount is in a certain demension and should not be too much. Afterwards, tighten the screw and turn the balance wheel to esure everything in normal coudition.



27. Adjusting the clearance between the walking foot and pressure foot (Fig.37)

In practice, long and short stitch will be utilized alternatively. In long stitch, the moving degree of walking foot is always longer, while vice versa. In order to avoid the hitting between the front cave of the walking foot and the back of the pressure and meanwhile keep a certain clearance C (Gnerally $\pm 1.5\text{mm}$) So, when in short stitch, the walking foot should be closer to the needle bar. Method: loose the screw of the linking adjusting crank and turn the shaft upward to make the walking foot close to the needle. When adjusting, the clearance C must be considered.



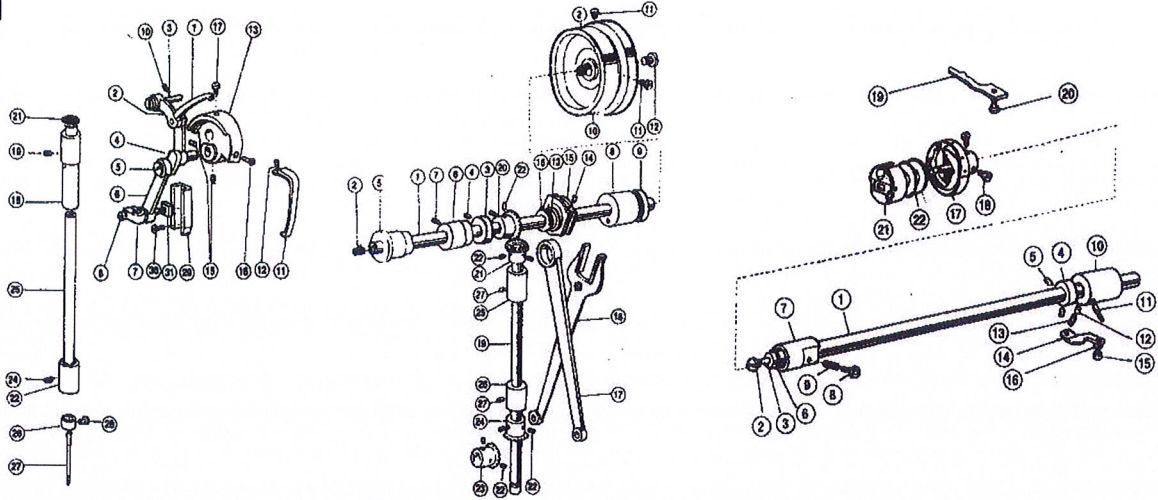


1 Arm Bed Components

| Ref No. | Part No. | Description | Asst Qty | Notes |
|---------|--------------|-------------|----------|------------------------|
| 1 | 618T1-001A1 | | 1 | |
| | 618T1-001A2 | | 1 | |
| | 628DT1-001A3 | | 2 | M10 x 60 |
| | 628DT1-001A4 | | 2 | M12 x 30 |
| | 628DT1-001A5 | | 2 | |
| 2 | 618T1-002B1 | | 1 | |
| 3 | 628DT1-002B2 | | 2 | |
| 4 | 628DT1-023 | | 3 | |
| 5 | 618T1-003C1 | | 1 | |
| 6 | 628DT1-003C4 | | 1 | |
| | | | 1 | Φ11.8 |
| | | | 1 | Φ11.8 |
| | | | 1 | Φ11.8 |
| | | | 1 | Φ11.8 |
| 7 | 628DT1-003C3 | | 1 | |
| 8 | 628DT1-003C6 | | 1 | SM9/64"(3.37) x 40/6 |
| 9 | 618T1-004 | | 3 | SM11/64"(4.37) x 40/10 |
| 10 | 618T1-005D1a | | 1 | |
| 11 | 618T1-005D1b | | 1 | |
| 12 | 618T1-005D2 | | 1 | |
| 13 | 628DT1-006 | | 8 | SM11/64"(4.37) x 40/9 |
| | 628DT1-007 | | 8 | |
| 14 | 628DT1-008H1 | | 1 | |
| 15 | 628DT1-009E1 | | 1 | |
| 16 | 628DT1-009E2 | | 1 | |
| 17 | 628DT1-009E3 | | 2 | |
| 18 | 628DT1-009E4 | | 1 | |
| 19 | 628DT1-009E5 | | 1 | |
| 20 | GB896-76 | | 1 | |
| 21 | 628DT1-010 | | 1 | |
| 22 | 628DT1-011 | | 1 | SM11/64"(4.37) x 40/5 |
| 23 | 628DT1-012F1 | | 1 | |
| 24 | 628DT1-012F2 | | 1 | |
| 25 | 628DT1-012F3 | | 1 | |
| 26 | 628DT1-012F4 | | 1 | |

| Ref No. | Part No. | Description | Asst Qty | Notes |
|---------|---------------|-------------|----------|------------------------|
| 27 | 628DT1-012F5 | | 2 | SM9/64"(3.37) x 40/6 |
| 28 | 628DT1-012F6 | | 1 | |
| 29 | 628DT1-012F7 | | 1 | |
| 30 | 628DT1-012F8 | | 1 | |
| 31 | 628DT1-012F9 | | 1 | SM15/64"(5.95) x 28/6 |
| 32 | 628DT1-012F10 | | 1 | |
| 33 | 628DT1-012F11 | | 1 | Φ88 |
| 34 | 628DT1-013 | | 1 | Φ27 |
| 35 | 628DT1-014 | | 1 | Φ5.7 |
| 36 | 628DT1-015 | | 2 | |
| 37 | 628DT1-016 | | 1 | SM11/64"(4.37) x 40/45 |
| 38 | 628DT1-017 | | 1 | |
| 39 | 618T1-019 | | 1 | |
| 40 | 628DT1-020 | | 2 | SM3/32"(2.38) x 56/22 |
| 41 | 628DT1-021G | | 1 | |
| 42 | 628DT1-021G1 | | 1 | |
| 43 | 628DT1-021G2 | | 2 | SM11/64"(4.37) x 40/5 |
| 44 | 628DT1-022 | | 3 | Φ19 |
| 45 | 628DT1-025 | | 1 | |
| 46 | 628DT1-026 | | 2 | |
| 47 | 628DT1-003C | | 1 | M4 x 8 |
| 48 | 618T1-027 | | 1 | M4 |
| 49 | 618T1-028 | | 1 | |
| 50 | GB67 | | 2 | SM1/8"(3.18) x 44/4.5 |
| 51 | GB52 | | 2 | |
| 52 | GB97 | | 2 | SM9/64"(3.37) x 40/5 |
| 53 | 628DT2-017 | | 2 | SM3/32"(2.38) x 56/2.2 |
| 54 | | | 1 | |
| 55 | 628DT1-003C1 | | 1 | |
| 56 | 628DT1-021G1 | | 2 | |
| 57 | 618T1-032 | | 1 | |
| 58 | 618T1-033 | | 1 | |
| 59 | 618T1-034 | | 1 | |

2

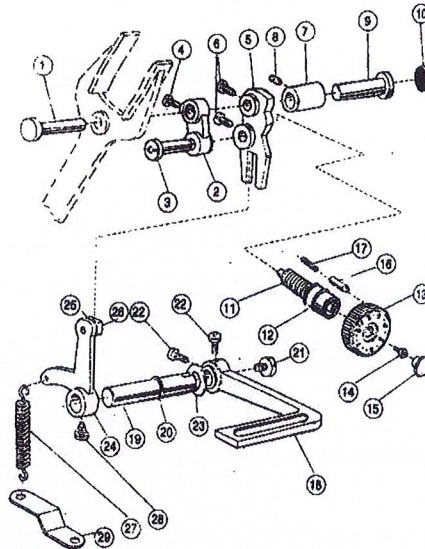


2. Needle Feed Main Shaft

| Ref No. | Part No. | Description | Assy Req. | Notes |
|---------|----------------|-------------|-----------|-------------------------------------|
| 1 | 628DT2-001A1a1 | | 1 | SM ⁹ /64"(3.57) x 40/4.8 |
| 2 | 628DT2-001A1a2 | | 1 | |
| 3 | 628DT2-001A2 | | 1 | |
| 4 | 628DT2-001A3 | | 1 | SM ⁹ /64"(3.57) x 40/6 |
| 5 | 628DT2-001A4 | | 1 | |
| 6 | 628DT2-001A5 | | 1 | SM ¹⁵ /64"(5.95) x 28/10 |
| 7 | 628DT2-001A6 | | 1 | |
| 8 | 628DT2-001A7b1 | | 1 | SM ¹¹ /64"(4.37) x 40/4 |
| 9 | 628DT2-001A8 | | 1 | |
| 10 | 628DT2-001A9 | | 1 | SM ¹ /4"(6.35) x 40/5 |
| 11 | 628DT2-001A10 | | 1 | SM ¹ /4"(6.35) x 40/6 |
| 12 | 628DT2-002 | | 1 | SM ⁹ /32"(7.14) x 28/11 |
| 13 | 628DT2-003 | | 1 | SM ⁹ /32"(7.14) x 28/10 |
| 14 | 628DT2-005B1 | | 1 | |
| 15 | 628DT2-005B2 | | 1 | SM ¹⁵ /64"(5.95) x 28/5 |
| 16 | 628DT2-005B3 | | 1 | |
| 17 | 628DT2-006 | | 1 | Φ 8.8 |
| 18 | 628DT2-007 | | 1 | SM ¹¹ /64"(4.37) x 40/7 |
| 19 | 628DT2-008 | | 1 | |
| 20 | 628DT2-009 | | 1 | |
| 21 | 628DT2-010 | | 1 | DM x 1-2 ⁰ 22 |
| 22 | 628DT2-011 | | 1 | SM ¹ /8"(3.18) x 44/4.5 |
| 23 | 628DT2-012C1 | | 1 | |
| 24 | 618T2-013 | | 1 | SM ¹¹ /64"(4.37) x 40/8 |
| 25 | 628DT2-014 | | 1 | |
| 26 | 628DT2-015 | | 1 | |
| 27 | 618T2-016 | | 1 | |
| 28 | 628DT2-017 | | 1 | |
| 29 | 628DT2-018 | | 1 | |
| 30 | 628DT2-019 | | 1 | |
| 31 | 628DT2-020 | | 1 | |
| 1 | 628DT3-001A1 | | 1 | |
| 2 | 628DT3-001A2 | | 2 | Φ 7.4 x 10 |
| 3 | 628DT3-002B1 | | 1 | |
| 4 | 628DT3-002B2 | | 2 | SM ¹ /4"(6.35) x 40/4 |
| 5 | 628DT3-003 | | 1 | |
| 6 | 628DT3-004 | | 1 | |
| 7 | 628DT3-002 | | 1 | SM ¹⁵ /64"(5.95) x 28/10 |
| 8 | 628DT3-005 | | 1 | |
| 9 | 628DT3-006F | | 1 | |
| 10 | 618T3-007C1 | | 1 | |
| 11 | 628DT3-007C2 | | 2 | SM ¹⁵ /64"(5.95) x 28/12 |
| 12 | 628DT3-008 | | 1 | SM ¹¹ /32"(8.73) x 28/8 |
| 13 | 628DT3-009D1a1 | | 1 | |
| 14 | 628DT3-012F8 | | 2 | SM ⁹ /64"(3.57) x 40/4.5 |
| 15 | 628DT3-009D1a2 | | 1 | |
| 16 | 628DT3-009D1b | | 1 | |

| Ref No. | Part No. | Description | Assy Req. | Notes |
|---------|----------------|-------------|-----------|-------------------------------------|
| 17 | 628DT3-009D1c | | 1 | |
| 18 | 628DT3-009D1 | | 1 | |
| 19 | 618T3-009E1 | | 1 | |
| 20 | 628DT3-010F2a1 | | 1 | Z=27 |
| 21 | 628DT3-010E2a2 | | 1 | Z=18 |
| 22 | 628DT2-005B3 | | 8 | SM ¹ /4"(6.35) x 40/5 |
| 23 | 628DT3-010E2b1 | | 1 | Z=21 |
| 24 | 628DT3-010E2b2 | | 1 | Z=28 |
| 25 | 628DT3-011 | | 1 | |
| 26 | 628DT3-012 | | 1 | |
| 27 | 628DT2-002 | | 2 | SM ¹⁵ /64"(5.95) x 28/10 |
| 1 | 628DT4-001A1 | | 1 | |
| 2 | 628DT4-001A1a1 | | 1 | SM ³ /6"(4.76) x 32/8 |
| 3 | 628DT4-001A1a2 | | 1 | |
| 4 | 628DT4-002B1 | | 1 | |
| 5 | 628DT2-009 | | 2 | SM ¹⁵ /64"(5.95) x 28/4 |
| 6 | 628DT4-003G | | 1 | |
| 7 | 628DT4-004 | | 1 | |
| 8 | 628DT4-005 | | 1 | SM ¹⁵ /64"(5.95) x 28/10 |
| 9 | 628DT4-006 | | 1 | |
| 10 | 628DT4-007C1 | | 1 | |
| 11 | 628DT4-007C2 | | 1 | |
| 12 | 628DT4-008 | | 1 | |
| 13 | 628DT4-009 | | 1 | |
| 14 | 628DT4-010 | | 1 | |
| 15 | 628DT8-009 | | 1 | SM ¹¹ /64"(4.37) x 40/12 |
| 16 | QB93-76 | | 1 | 図 6 |
| 17 | 628DT4-011E | | 1 | |
| 18 | | | 2 | |
| 19 | 628DT4-013 | | 1 | |
| 20 | 628DT4-014 | | 1 | |
| 21 | 628DT4-016F | | 1 | SM ¹¹ /64"(4.37) x 40/10 |
| 22 | 628DT4-016F2 | | 1 | |

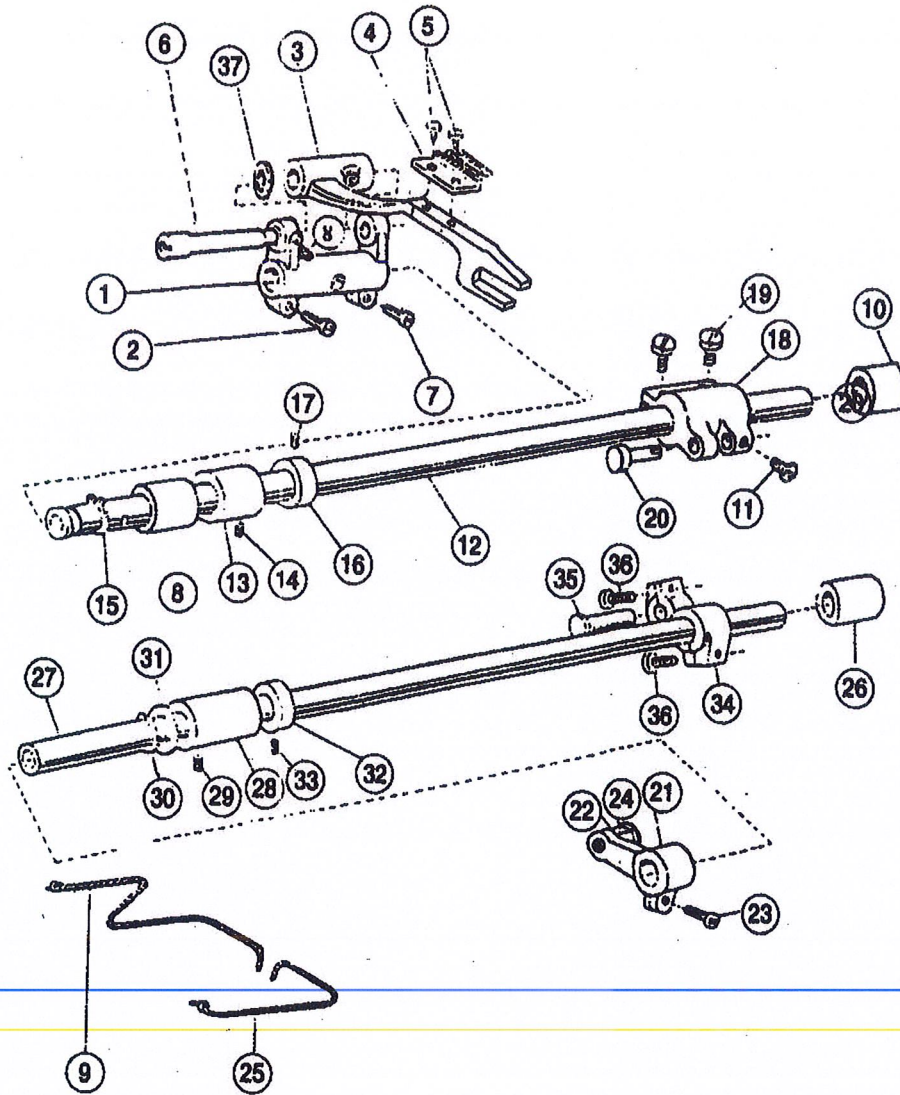
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3. Feed Mechanism Components

| Ref No. | Part No. | Description | Am't Req. | Measure |
|---------|------------------|-------------|-----------|-------------------------|
| 1 | 628DT5 - 001A1 | | 1 | |
| 2 | 628DT5 - 001A2 | | 1 | |
| 3 | 628DT5 - 001A3 | | 1 | |
| 4 | 628DT5 - 001A4 | | 1 | SM15/64"(5.95) × 28/8.5 |
| 5 | 628DT5 - 002B1 | | 1 | |
| 6 | 628DT5 - 001A4 | | 2 | SM15/64"(5.95) × 28/8.5 |
| 7 | 628DT5 - 003 | | 1 | |
| 8 | 628DT5 - 002 | | 1 | SM15/64"(5.95) × 28/10 |
| 9 | 628DT5 - 004 | | 1 | |
| 10 | 628DT5 - 005 | | 1 | Φ20 × 4 |
| 11 | 628DT5 - 006C1 | | 1 | |
| 12 | 628DT5 - 006C4 | | 2 | Φ14 × 2.4 |
| 13 | 618T5 - 006C2 | | 1 | |
| 14 | 628DT5 - 006C3 | | 1 | SM3/16"(4.76) × 28/8 |
| 15 | 628DT5 - 007 | | 1 | |
| 16 | 628DT5 - 008 | | 1 | |
| 17 | 628DT5 - 009 | | 1 | |
| 18 | 618T5 - 010D1 | | 1 | |
| 19 | 628DT5 - 010D2a | | 1 | |
| 20 | 628DT5 - 006C4 | | 1 | Φ9 × 1.9 |
| 21 | 628DT5 - 010D3 | | 1 | SM3/16"(4.76) × 28/6.5 |
| 22 | 628DT5 - 001A4 | | 2 | SM15/64"(5.95) × 28/8.5 |
| 23 | 628DT5 - 011 | | 1 | |
| 24 | 628DT5 - 012E1 | | 1 | |
| 25 | 628DT5 - 012E1a1 | | 1 | |
| 26 | 628DT5 - 012E1a2 | | 1 | |
| 27 | 628DT5 - 012E2 | | 1 | |
| 28 | 628DT5 - 013 | | 1 | SM15/64"(5.95) × 28/6.7 |
| 29 | 628DT5 - 014 | | 1 | |

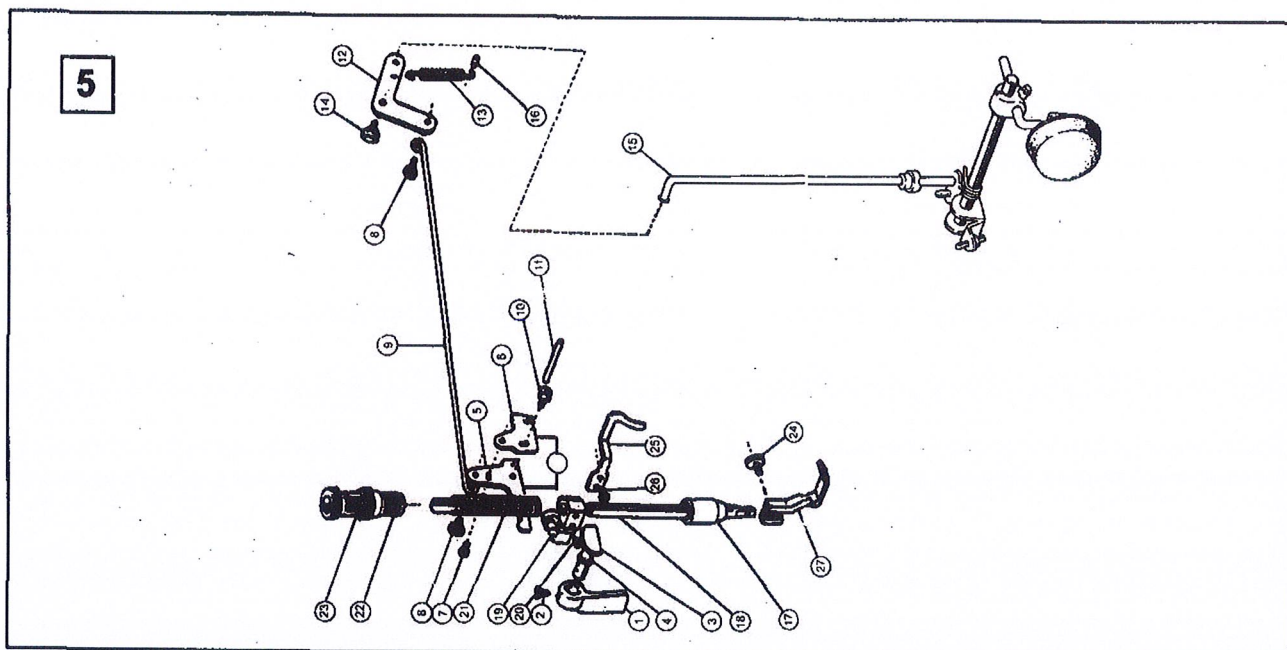
4



4 Feed Mechanism Components

| Ref No. | Part No. | Description | Assy Req. | Notes |
|---------|---------------|-------------|-----------|--------------------------|
| 1 | 628DT6-001A1a | | 1 | |
| 2 | 628DT6-001A1b | | 2 | SM 3/16" (4.76) x 28/15 |
| 3 | 628DT6-001A2 | | 1 | |
| 4 | 618T6-001A3 | | 1 | |
| 5 | 628DT6-001A4 | | 2 | SM 1/8" (3.18) x 44/6 |
| 6 | 628DT6-001A5 | | 1 | |
| 7 | 628DT2-019 | | 1 | SM 1/64" (4.37) x 40/8 |
| 8 | 628DT6-004 | | 1 | |
| 9 | 628DT6-001A7 | | 1 | Φ 2.5 x 3.5 |
| 10 | 618T6-004a1 | | 1 | |
| 11 | 628DT6-010D4 | | 1 | SM 15/64" (5.95) x 28/10 |
| 12 | 628DT6-003 | | 1 | |
| 13 | 628DT6-004 | | 1 | |
| 14 | 628DT2-002 | | 1 | |
| 15 | GB894-76 | | 1 | |
| 16 | 628DT6-003B1 | | 1 | |
| 17 | 628DT3-003B2 | | 2 | SM 1/4" (6.35) x 40/4 |
| 18 | 618T6-006C1 | | 1 | |
| 19 | 628DT6-001A1b | | 2 | SM 3/16" (4.76) x 28/12 |
| 20 | 618T6-007 | | 1 | |
| 21 | 628DT6-008D1 | | 1 | |

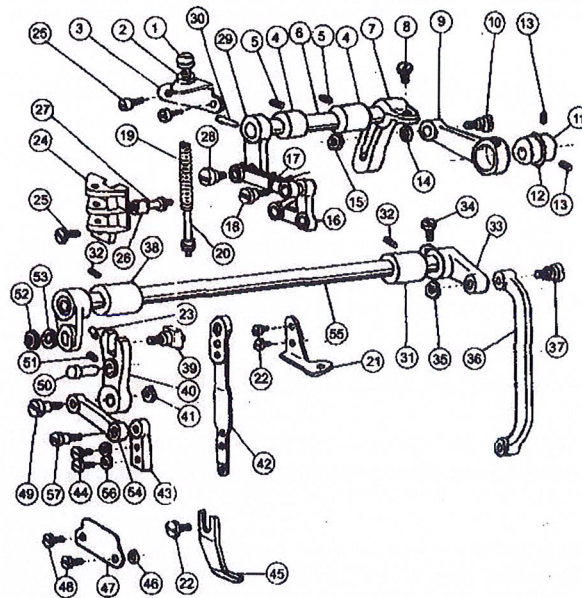
| Ref No. | Part No. | Description | Assy Req. | Notes |
|---------|---------------|-------------|-----------|--------------------------|
| 22 | 628DT6-008D2 | | 1 | |
| 23 | 628DT6-008D4 | | 1 | SM 11/64" (4.37) x 40/12 |
| 24 | 628DT6-009 | | 1 | |
| 25 | 628DT6-010 | | 1 | Φ 2.5 x 7.65 |
| 26 | 618T6-004a1 | | 1 | |
| 27 | 628DT6-011 | | 1 | |
| 28 | 628DT6-012a1 | | 1 | |
| 29 | 628DT2-002 | | 1 | SM 15/64" (5.95) x 28/10 |
| 30 | GB894-76 | | 1 | |
| 31 | 628DT6-013 | | 1 | |
| 32 | 628DT6-003B1 | | 1 | |
| 33 | 628DT6-005B2 | | 2 | SM 1/4" (6.35) x 40/4 |
| 34 | 628DT6-014G | | 1 | |
| 35 | 628DT6-015 | | 1 | |
| 36 | 628DT6-001A1b | | 2 | SM 3/16" (4.76) x 28/12 |
| 37 | 628DT6-001Ab | | 1 | |



5. Presser Asm

| Ref No. | Part No. | Description | Amt Req. | Memo |
|---------|----------|--------------------------|----------|------------------------|
| 1 | 5-1 | Presser foot lift bar | 1 | |
| 2 | 5-2 | Screw | 1 | SM11/64"(4.37) x 40/5 |
| 3 | 5-3 | Presser foot lift bar | 1 | |
| 4 | 5-4 | Oil seal | 1 | Ø8 x 1.9 |
| 5 | 5-5 | Lever(left) | 1 | |
| 6 | 5-6 | Thread releasing cam | 1 | |
| 7 | 5-7 | Screw | 1 | SM11/64"(4.37) x 40/6 |
| 8 | 5-8 | Screw | 2 | SM3/16"(4.76) x 28/3.5 |
| 9 | 5-9 | Knee lifter drawing nar | 1 | |
| 10 | 5-10 | Acrew | 1 | SM5/64"(5.95) x 28/13 |
| 11 | 5-11 | Thread releasing lever | 1 | |
| 12 | 5-12 | knee lifter (evercright) | 1 | |
| 13 | 5-13 | Spring | 1 | |
| 14 | 5-14 | Screw | 1 | SM5/64"(5.95) x 28/10 |
| 15 | 5-15 | Scomecting rod | 1 | |
| 16 | 5-16 | Pin | 1 | |
| 17 | 5-17 | Bushing for presser bar | 1 | |
| 18 | 5-18 | Presser bar | 1 | |
| 19 | 5-19 | Guide for presser bar | 1 | |
| 20 | 5-20 | Screw | 1 | SM15/64"(5.95) x 28/7 |
| 21 | 5-21 | Sping | 1 | |
| 22 | 5-22 | Screw | 1 | |
| 23 | 5-23 | Nut | 1 | |
| 24 | 5-24 | Screw | 1 | SM9/64"(3.57) x 40/11 |
| 25 | 5-25 | Thread guide | 1 | |
| 26 | 5-26 | Screw | 1 | SM11/64"(4.37) x 40/7 |
| 27 | 5-27 | Presser foot | 1 | |

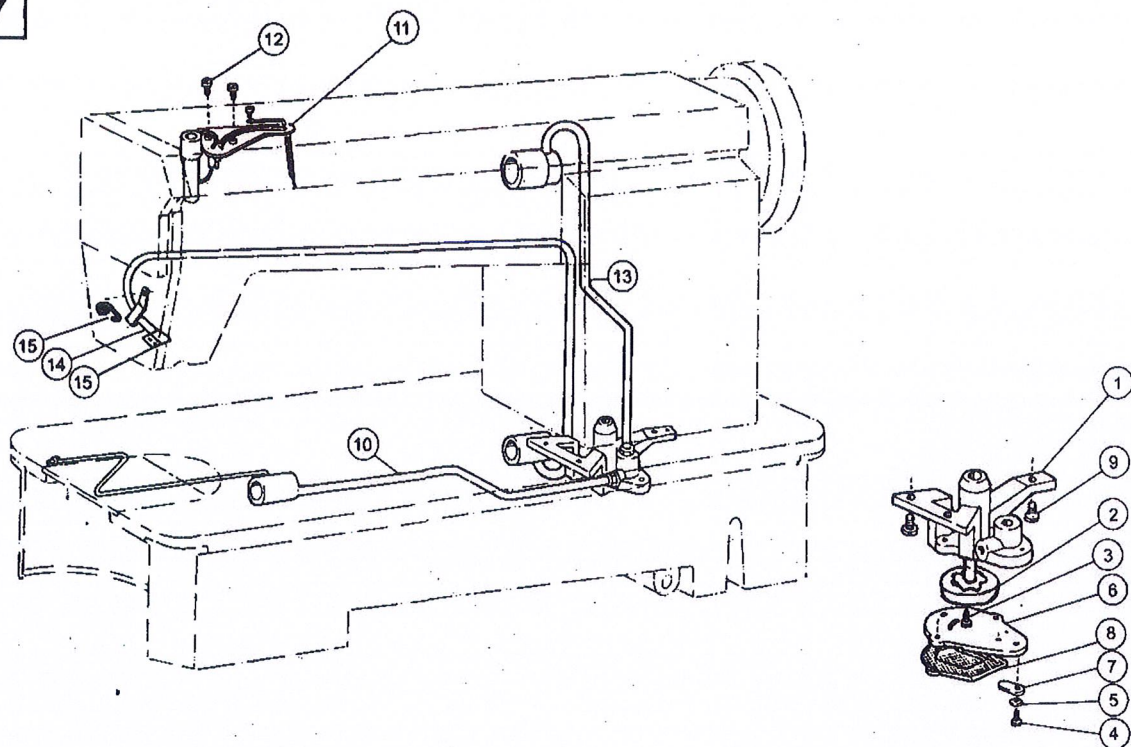
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6. Feed Mechanism Components

| Ref No. | Part No. | Description | Amt Req. | Memo |
|---------|----------|-----------------------------|----------|---------------------|
| 1 | 6-1 | Screw | 1 | |
| 2 | 6-2 | Nut | 1 | |
| 3 | 6-3 | Bracket for adjusting screw | 1 | |
| 4 | 6-4 | Bushing | 2 | |
| 5 | 6-5 | Screw | 2 | |
| 6 | 6-6 | Presser foot lift shaft | 1 | 4 x 20/Shaft 4 x 20 |
| 7 | 6-7 | Link adjusting crank | 1 | |
| 8 | 6-8 | Screw | 1 | |
| 9 | 6-9 | Link complete | 1 | |
| 10 | 6-10 | Screw | 1 | |
| 11 | 6-11 | Eccentric cam | 1 | |
| 12 | 6-12 | Splitring | 1 | Washer 25 |
| 13 | 6-13 | Screw | 1 | |
| 14 | 6-14 | Washer | 2 | Washer 6 |
| 15 | 6-15 | Nut | 1 | M6 x 0.75 |
| 16 | 6-16 | Presser foot feed crank | 1 | |
| 17 | 6-17 | Link | 1 | |
| 18 | 6-18 | Screw | 1 | |
| 19 | 6-19 | Spring | 1 | |
| 20 | 6-20 | Guidepin | 1 | |
| 21 | 6-21 | Set plate | 1 | |
| 22 | 6-22 | Screw | 1 | |
| 23 | 6-23 | Pin | 1 | 3 x 8/shaft 3 x 8 |
| 24 | 6-24 | Guide plate | 1 | |
| 25 | 6-25 | Screw | 2 | |
| 26 | 6-26 | Needle of bearing | 1 | |
| 27 | 6-27 | Guide shaft | 1 | |
| 28 | 6-28 | Screw | 1 | |
| 29 | 6-29 | Crank | 1 | |
| 30 | 6-30 | Pin | 1 | 4 x 24 |
| 31 | 6-31 | Rear bushing | 1 | |
| 32 | 6-32 | Screw | 2 | |
| 33 | 6-33 | Pear crank | 1 | |
| 34 | 6-34 | Screw | 1 | |
| 35 | 6-35 | Nut | 1 | |
| 36 | 3-36 | Link | 1 | |
| 37 | 6-37 | Screw | 1 | |
| 38 | 6-38 | Frontbushing | 1 | |
| 39 | 6-39 | Crank shaft complete | 1 | |
| 40 | 6-40 | Fork lever | 1 | |
| 41 | 6-41 | Nut | 1 | |
| 42 | 6-42 | Walking foot lever | 1 | |
| 43 | 6-43 | Holder for walking foot bar | 1 | |
| 44 | 6-44 | Screw | 2 | |
| 45 | 6-45 | Walking foot | 1 | |
| 46 | 6-46 | Shin | 2 | |
| 47 | 6-47 | Presser plate | 1 | |
| 48 | 6-48 | Screw | 2 | |
| 49 | 6-49 | Screw | 1 | |
| 50 | 6-50 | Pin | 1 | |
| 51 | 6-51 | Screw | 1 | |
| 52 | 6-52 | Nut | 1 | |
| 53 | 6-53 | Washer | 1 | |
| 54 | 6-54 | Link of walking foot | 1 | |
| 55 | 6-55 | Presser foot swing shaft | 1 | |
| 56 | 6-56 | Spacer | 1 | |
| 57 | 6-57 | Screw | 1 | |

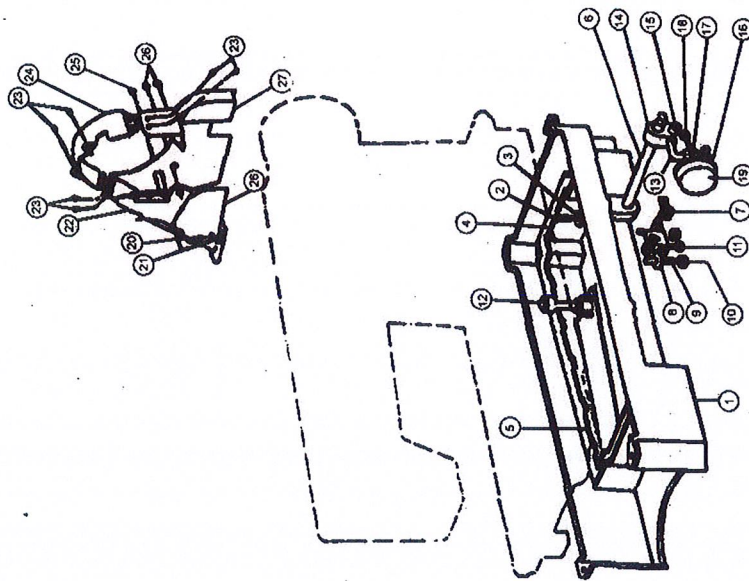
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7. Lubrication mechanism

| Ref No. | Part No. | Description | Amt Req. | Memo |
|---------|----------|----------------------------------|----------|------|
| 1 | 7-1 | Oil pump body | 1 | |
| 2 | 7-2 | Oil pump impeller | 1 | |
| 3 | 7-3 | Screw | 1 | |
| 4 | 7-4 | Screw | 3 | |
| 5 | 7-5 | Spring washer | 1 | |
| 6 | 7-6 | Oil pump filtering plate | 1 | |
| 7 | 7-7 | Oil adjusting plate | 1 | |
| 8 | 7-8 | Oil pump screen complete | 1 | |
| 9 | 7-9 | Screw | 3 | |
| 10 | 7-10 | Oil pipe for hook shaft | 1 | |
| 11 | 7-11 | Oil braid fitting plate | 1 | |
| 12 | 7-12 | Screw | 2 | |
| 13 | 7-13 | Oil pipe for arm shaft | 1 | |
| 14 | 7-14 | Oil returning pipe | 1 | |
| 15 | 7-15 | Felt pouch for return oil filter | 1 | |
| 16 | 7-16 | Spring for oil felt | 1 | |

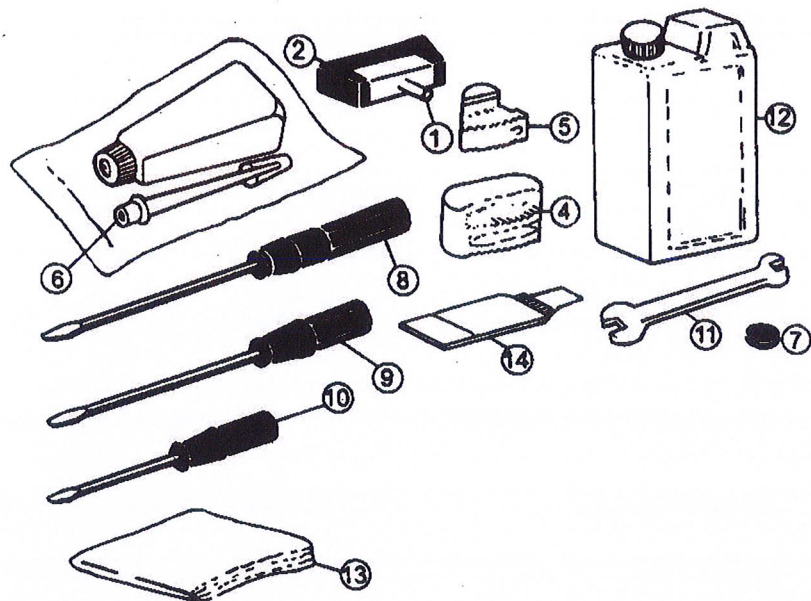
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8. Oil Reservoir & Acce

| Ref No. | Part No. | Description | Amt Req. | Memo |
|---------|----------|----------------------|----------|------------------------|
| 1 | 8-1 | Oil reseroir | 1 | |
| 2 | 8-2 | Screw | 1 | SM5/16"(7.94) x 28/10 |
| 3 | 8-3 | Washer | 1 | |
| 4 | 8-4 | Washer | 1 | |
| 5 | 8-5 | Gasket(big) | 1 | |
| 6 | 8-6 | Hinge pin | 1 | |
| 7 | 8-7 | Spring | 1 | |
| 8 | 8-8 | Frame | 1 | |
| 9 | 8-9 | Screw | 2 | SM15/64"(5.95) x 28/28 |
| 10 | 8-10 | Nut | 2 | |
| 11 | 8-11 | Screw | 1 | |
| 12 | 8-12 | Knee lifter prop bar | 1 | |
| 13 | 8-13 | Bent rod | 1 | |
| 14 | 8-14 | Screw | 1 | |
| 15 | 8-15 | Screw | 2 | SM5/16"(7.94) x 18/16 |
| 16 | 8-16 | Bell | 1 | |
| 17 | 8-17 | Bell bracket | 1 | SM15/64"(5.95) x 28/8 |
| 18 | 8-18 | Screw | 1 | |
| 19 | 8-19 | Pat | 1 | |
| 20 | 8-20 | Screw | 2 | Ø4.5 x 20 |
| 21 | 8-21 | Washer | 2 | Washer 5 |
| 22 | 8-22 | Beltcover top | 1 | |
| 23 | 8-23 | Screw | 6 | |
| 24 | 8-24 | Label | 1 | |
| 25 | 8-25 | Screw | 1 | M4 x 14 |
| 26 | 8-26 | Screw | 2 | SM15/64"(5.95) x 28/8 |
| 27 | 8-27 | Belt cover | 1 | |
| 28 | 8-28 | Beltcoverasm | 1 | |

9



9. Accessories

| Ref No. | Part No. | Description | Amt Req. | Memo |
|---------|----------|-------------------------|----------|------|
| 1 | 9-1 | Machine hinge plate asm | 2 | |
| 2 | 9-2 | Machine hinge plate | 2 | |
| 3 | 9-4 | Washer (big) | 2 | |
| 4 | 9-5 | Washer (small) | 2 | |
| 6 | 9-6 | Oil can (small) | 1 | |
| 7 | 9-7 | Magnet | 1 | |
| 8 | 9-8 | Screw driver (big) | 1 | |
| 9 | 9-9 | Screw driver (Middle) | 1 | |
| 10 | 9-10 | Screw driver (small) | 1 | |
| 11 | 9-11 | Spander | 1 | |
| 12 | 9-12 | Oil cam | 1 | |
| 13 | 9-13 | Dust cover | 1 | |
| 14 | 9-14 | Needle | 4 | |

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