

CE



標準牌
TYPICAL

GC6150 SERIES

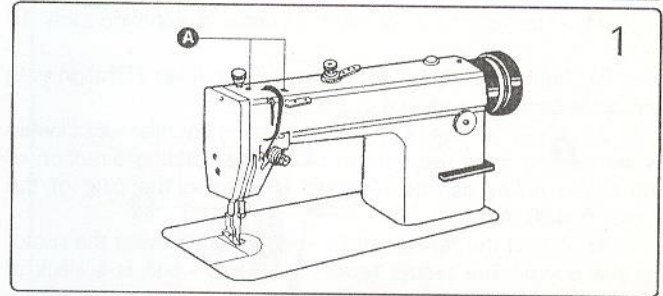
*HIGH SPEED LOCKSTITCH SEWING MACHINE
INSTRUCTION BOOK
AND PARTS CATALOGUE*

ГАЗ АПАН
TYPICAL INDUSTRIES CO., LTD

1. MAIN SPECIFICATIONS

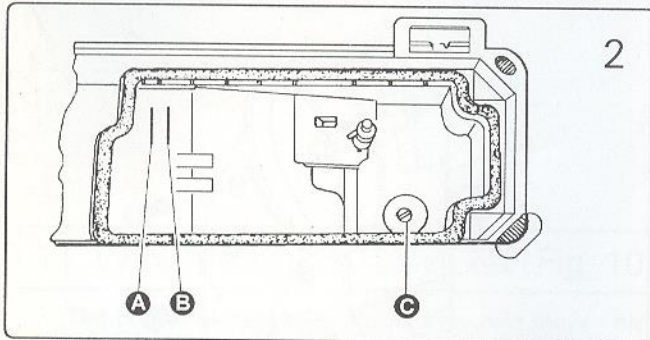
MODEL	M	H	B
MAX. SEWING SPEED (S. P. M)	5000	3500	3000
STITCH LENGTH	5 mm	7 mm	
PRESSER FOOT LIFT	BY HAND	5 mm	
	BY KNEE	13 mm	
NEEDLE	DB x 1 11 # - 18 #	DP x 5 18# - 22#	
REVERSE SEWING DEVICE	yes		
LUBRICATION	automatic lubrication		

2. RUN - IN OPERATION (Fig. 1)



Before putting a new machine into operation, run - in operation is required for a new machine. Remove the red plugs(A) on the top of the arm and replenish sufficient amount of oil, then lift the presser foot and run the machine at a low speed of 2000 spm to check oil distributing condition through oil check window. When lubricating is normal, keep the machine running - in at the speed of 2000 - 2500 spm for 30 minutes, then increase the running speed gradually. After one month run - in operation, the machine can be run at a high speed of 5000 spm under normal working condition.

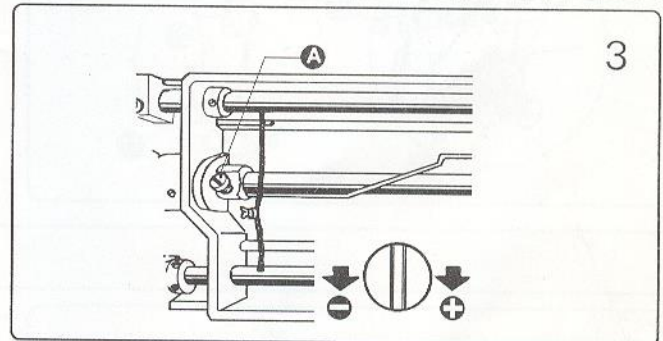
3. OIL FILLING (Fig. 2)



1). The oil amount in the oil reservoir is controlled through the reference marks A and B shown in Fig. 2. The mark A indicates the max. oil amount level, the mark B for the min. oil amount level. If the oil amount level is under the mark B, replenish the oil reservoir with oil in time.

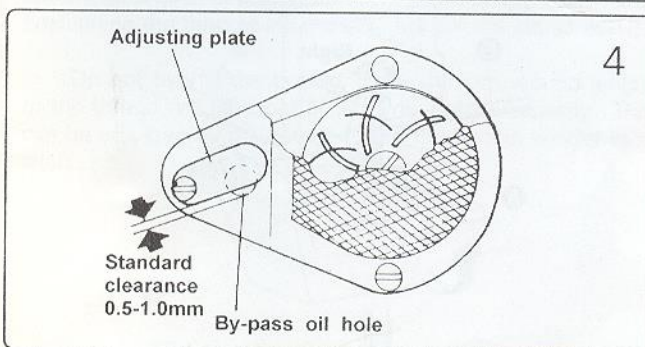
2). When filling oil, loosen the oil draining screw (C), drain off the remaining oil in the oil reservoir completely, clean the oil reservoir and tighten the oil draining screw (C), then fill the oil reservoir with fresh oil.

4. ROTATING HOOK OIL AMOUNT ADJUSTMENT (Fig. 3)



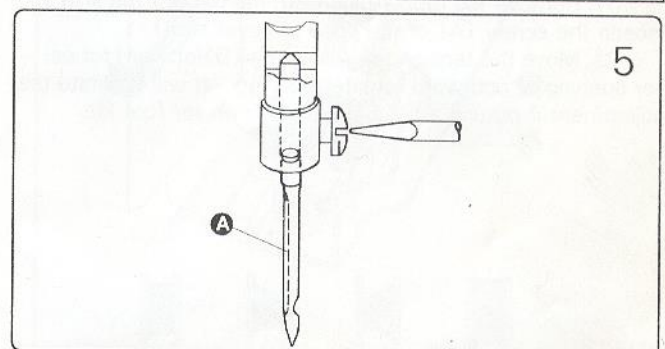
Adjust the oil amount of the rotating hook by turning the oil amount adjusting screw (A). Turn the screw (A) clockwise (in the "+" direction) to increase the oil amount; turn it counter - clockwise (in the "-" direction) to decrease the oil amount.

5. OIL PUMP ADJUSTMENT (Fig. 4)



In ordinary operation, adjustment is not required for the oil pump. If oil splashing does not occur in the oil check window when the machine runs at a low speed (approx. 2000 spm), close the clearance of the bypass oil hole.

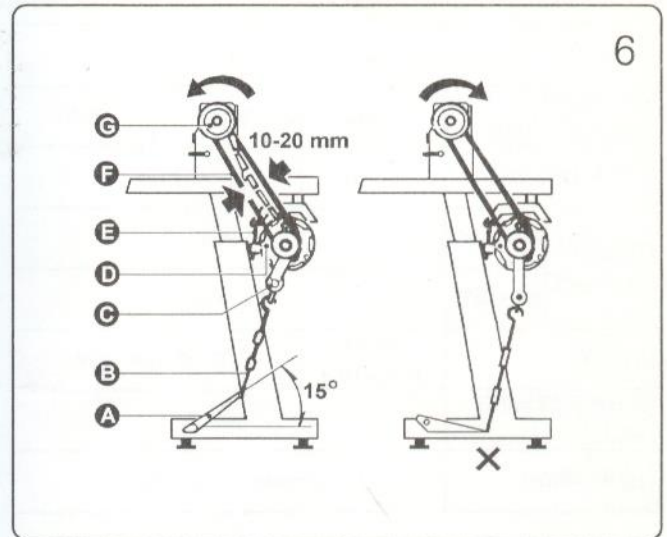
6. NEEDLE INSTALLATION (Fig. 5)



Turning the balance wheel to lift the needle bar to the upper end of its stroke. Loosen the needle clamp screw while keeping the long groove of the needle leftward, fully insert the needle shank up to the bottom of the needle socket, then tighten the needle clamp screw.

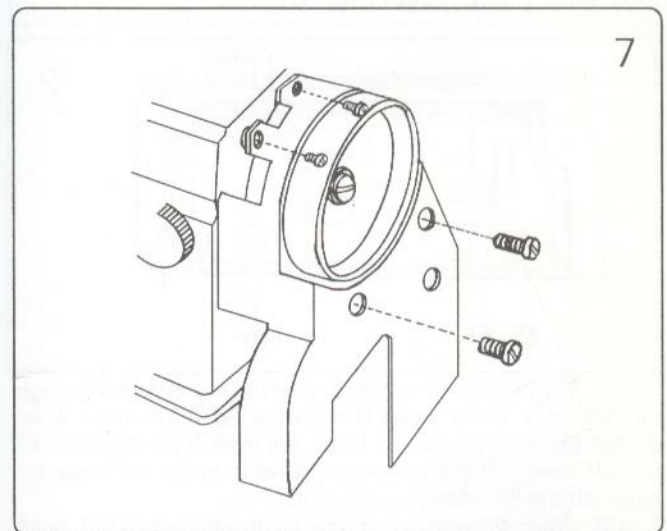
7. CONNECTION OF THE CLUTCH LEVER WITH THE PEDAL (Fig. 6)

- 1) . The optimum tilt angle of pedal is approximately 15 deg.
- 2) . Adjust the clutch so that the clutch lever (C) align with the draw bar(B) as shown in Fig. 6
- 3) . The machine pulley should rotate counter – clockwise when viewed from the outside of it. The rotating direction of the motor pulley can be reversed by turning the plug of the motor at 180 deg.
- 4) . Adjust the tension of O – belt(F) by moving the motor up and down. The proper tension of the O – belt is a slack of 10 – 20 mm when the belt is depressed at the center of the belt by finger.



8. BELT COVER INSTALLATION (Fig. 7)

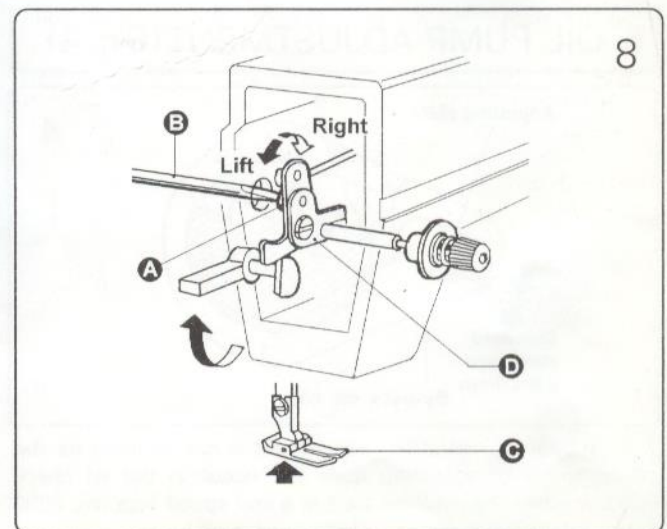
Install the belt cover for the sake of safety.



9. ADJUST THE OPENING TIME OF THE TENSION DISCS (Fig. 8)

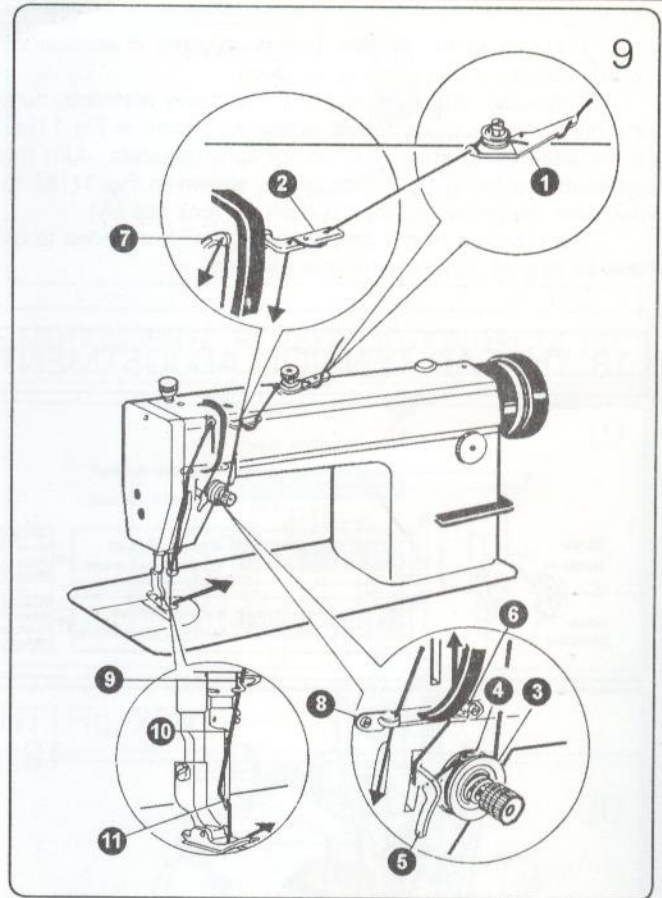
Within the presser foot lift range of 2 – 7 mm, the opening time of the tension discs can be adjusted as follows:

- 1) . Remove the rubber plug from the back of the arm and loosen the screw (A) of the knee lift lever (left).
- 2) . Move the tension releasing cam (D) leftward for earlier opening or rightward for later opening . It will facilitate the adjustment if putting a block under the presser foot lift.



10. THREADING (Fig. 9)

To thread the needle thread, raise the needle bar to the upper end of its stroke, lead the thread from the spool and perform threading as shown in Fig. 9. To draw the bobbin thread, hold the end of the needle thread and turn the balance wheel to lower the needle bar and then lift it to its highest position. Pull the ends of needle thread and bobbin thread forward under presser foot.

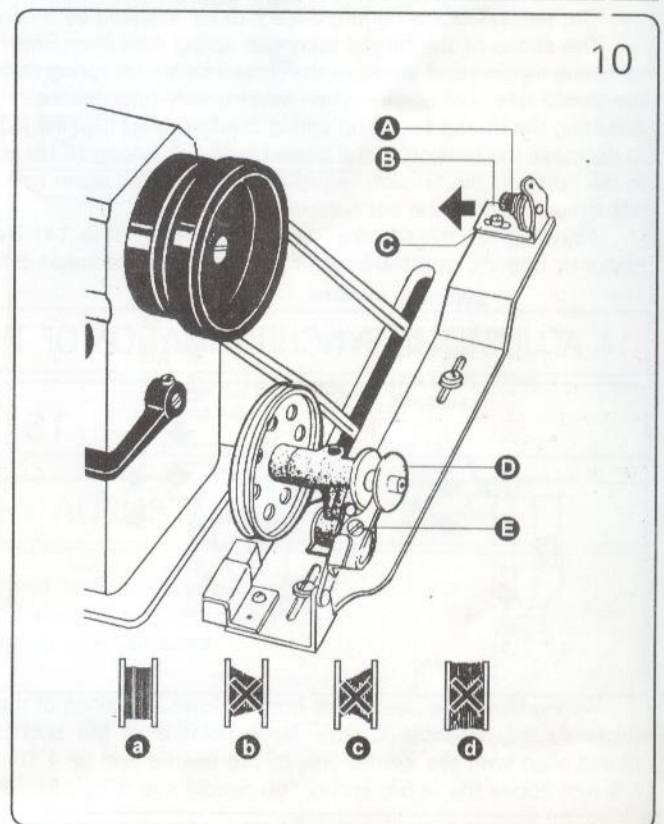


11. WINDING ADJUSTMENT (Fig. 10)

The bobbin winder pulley should align with the V-belt and there should be some clearance between them. When the bobbin winder stop latch lever is depressed, the V-belt should be in touch with the bobbin winder pulley in order that the bobbin winder puller can be driven by the V-belt.

The thread wound on the bobbin should be neat and tight, if not tight, adjust the winding tension by turning the tension stud nut (A) of the bobbin winder tension bracket. When the thread wound on the bobbin does not present a cylindrical shape as shown in Fig. 10(a), loosen the set screw (B) of the bobbin winder tension bracket and move the bracket (C) leftward or rightward. If the thread is wound as shown in the figure (b), move the bracket rightward or if wound as shown in the figure (c), move it leftward. After positioning the bracket adequately, tighten the set screw (B).

Do not overfill the bobbin. The optimum wound length of the thread will fill about 80% of the bobbin capacity. This can be adjusted by the screw (E) of the bobbin winder stop latch.

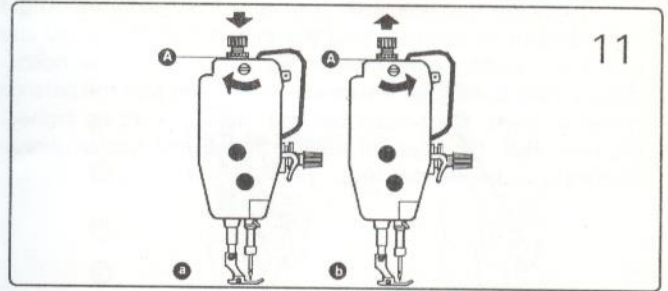


12. ADJUST THE PRESSURE OF PRESSER FOOT (Fig. 11)

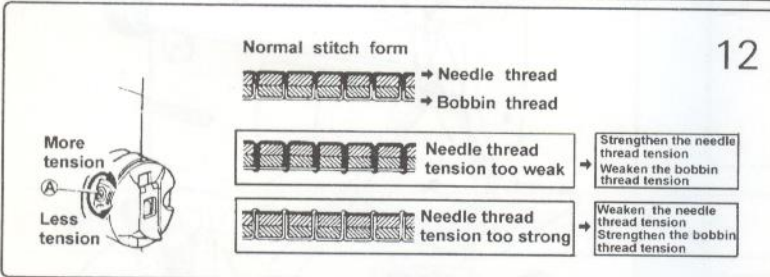
Pressure of the presser foot is adjusted in accordance with thickness of materials to be sewn.

First loosen the lock nut (A), for heavy materials, turn the pressure regulating thumb screw as shown in Fig. 11(a) to increase the pressure, while for light materials, turn the pressure regulating thumb screw as shown in Fig. 11(b) to decrease the pressure, then tighten the lock nut (A).

The pressure of the presser foot is recommended to be less as long as normal feeding is ensured.

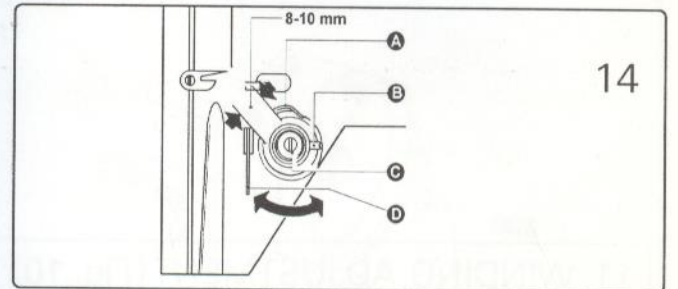
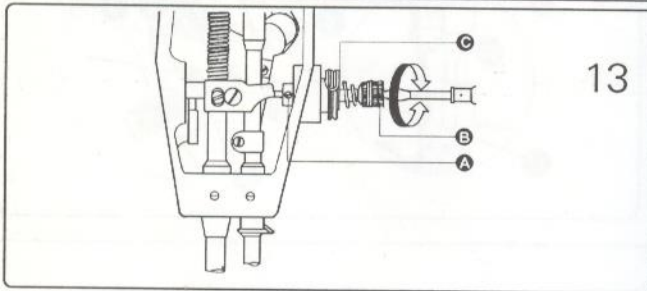


13. THREAD TENSION ADJUSTMENT (Fig. 12, 13, 14)



Thread tension should be determined in accordance with the stitches obtained by adjusting the tension of the bobbin thread and needle tension (Fig. 12).

The tension of the bobbin thread: to be adjusted by turning the tension spring regulating screw of the bobbin case. After adjusting, insert the bobbin into the bobbin case and hold the end of the thread from the bobbin case to hang the bobbin case, if the bobbin case falls slowly and evenly, the proper tension of the bobbin thread is obtained.



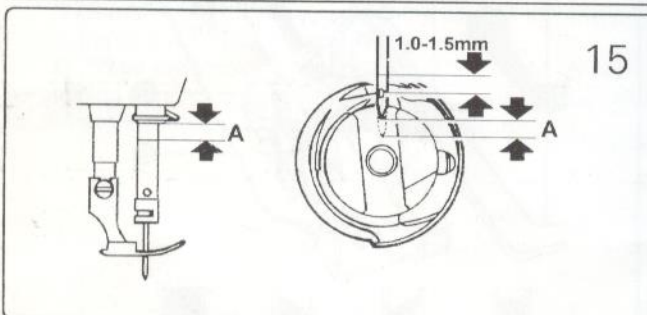
The tension of the needle thread: to be adjusted by turning the thumb nut.

The stroke of the thread take-up spring runs from 8mm to 10mm. When sewing very thin fabrics, reduce the thread take-up spring tension and increase the thread take-up spring stroke, whereas increase the thread take-up spring tension and reduce the thread take-up stroke when sewing very thick fabrics.

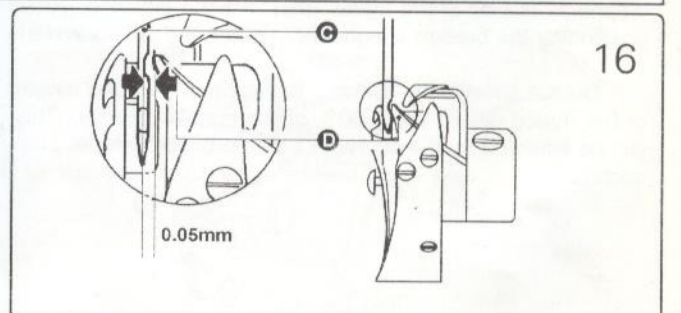
Adjusting the thread take-up spring tension: (Fig. 13) First loosen the set screw (A), turn the tension stud (B) counter-clockwise to decrease the tension of the thread take-up spring (C) to zero, then turn the tension stud (B) clockwise till the spring (C) comes to the notch of the tension regulating bushing, and again turn the tension stud (B) halfway back (counter-clockwise). After the adjustment, tighten the set screw (A).

Adjusting the thread take-up spring stroke: (Fig. 14) loosen the set screw (B), turn the stud (C) clockwise to increase the stroke or turn the stud (C) counter-clockwise to decrease the stroke. After the adjustment, tighten the set screw (B).

14. ADJUST THE SYNCHRONIZATION OF THE NEEDLE WITH ROTATING HOOK (Fig. 15, 16)



When lifting the needle bar from its lowest position of the stroke to the distance A, the hook point D of the bobbin should align with the center line of the needle and be 1.0 - 1.5 mm above the upper end of the needle eye. (Fig. 15)



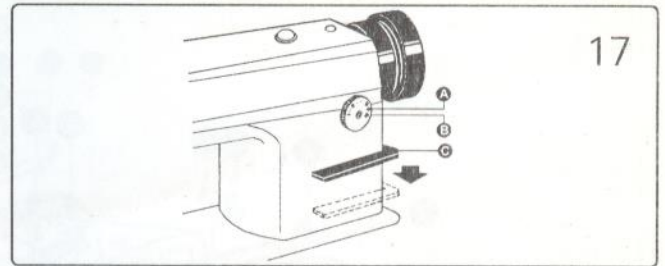
The clearance between the bottom of the needle notch and the hook point should be 0.05 mm (Fig. 16).

MODEL	M	H	B
A	2.2mm	2mm	2.4mm

15. ADJUSTMENT OF STITCH LENGTH AND REVERSE FEEDING (Fig. 17)

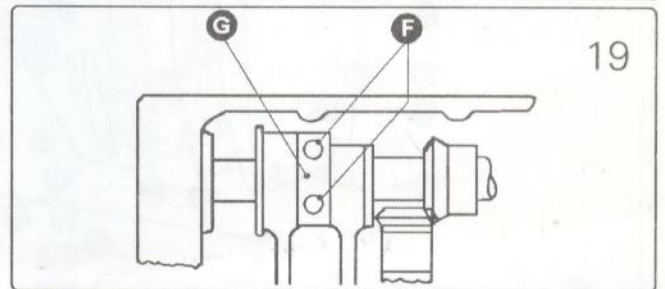
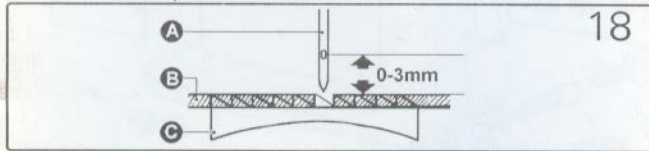
The stitch length can be adjusted by turning the dial (A). The figures on the face (B) of the dial show the stitch length in mm.

The reverse feeding starts when the reverse feed lever (C) is depressed, the machine will feed forward again if the reverse feed lever is released.



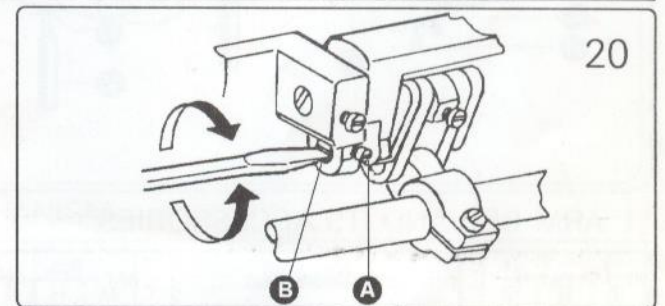
16. ADJUST THE SYNCHRONIZATION OF THE NEEDLE MOTION WITH THE FEED MOTION (Fig. 18, 19)

To adjust the feed dog position (G), first should release the two set screw (F) and turn around the balance wheel by hand. When the needle (A) point reaches the surface of the throat plate (B), the top of the feed dog (C) should be flush with the throat plate surface.



17. STITCH LENGTH ERROR ADJUSTMENT (Fig. 20)

Loosen screw (A) to adjust the stitch length adjusting cam (B). Turn it rightward to narrow the stitch length as forward sewing, and widen it as reverse sewing; turn it leftward to widen the stitch length as forward sewing, and narrow it as reverse sewing.

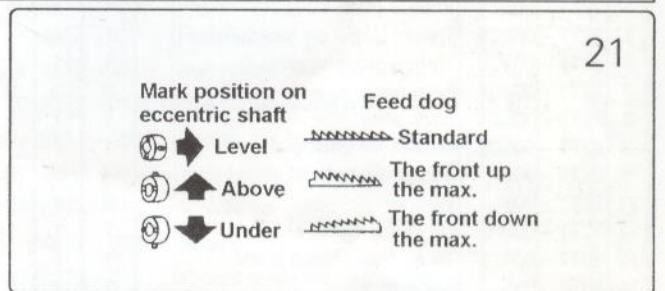


18. FEED DOG HORIZONTALITY ADJUSTMENT (Fig. 21)

The feed dog is horizontal and 0.8 mm above the throat plate. When the sewing condition requires the tilting of the feed dog, then adjust it.

- 1). Loosen the feed support crank shaft screw (A);
- 2). Press with a screwdriver in the groove of the feed dog support crank eccentric shaft so that the eccentric shaft can turn right and left;
- 3). Tighten the screw (A).

To lift the front part of the feed dog can prevent sewing material from sliding away and prevent the bobbin thread from breaking.



19. THREAD TAKE-UP LEVER OIL SUPPLY ADJUSTMENT (Fig. 22)

Before the machine is carried away from the factory, the thread take-up lever oil supply adjusting pin has already been adjusted in the proper state and the user doesn't need the readjustment. As the oil supply amount of the thread take-up lever is too large or too small, the adjustment is needed.

Adjust as the followings:

When the dot mark on the oil adjusting pin is the upper position, the oil is the maximum. (Fig. a)

When the dot mark on the oil adjusting pin is the lower position, the oil is the minimum. (Fig. b)

Turn the adjusting pin to a certain degree with a screwdriver to make it reach the necessary oil amount position (Fig. c)

