

**SINGER**  
269W

ESSENTIAL ADJUSTMENTS

on

269W MACHINES

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MARKETING SERVICES DEPARTMENT - INDUSTRIAL PRODUCTS DIVISION

THE SINGER COMPANY

ESSENTIAL ADJUSTMENTS

on

269W CLASS MACHINES

Stop Motion Adjustments

1. Provide approximately  $1/32$ " clearance between the interlocking arm and the high point of the camming surface on the machine pulley (tight) when the starting bell crank pawl is in the first or coast notch in the starting bell crank.

This is obtained by turning the starting lever starting rod adjuster on the starting lever starting rod. Remove any excess end play from the armshaft before doing this  
\* See NOTE below

2. Insure that the "V" belt drops between  $1/32$ " and  $1/16$ " when the machine goes from run position into stop position.

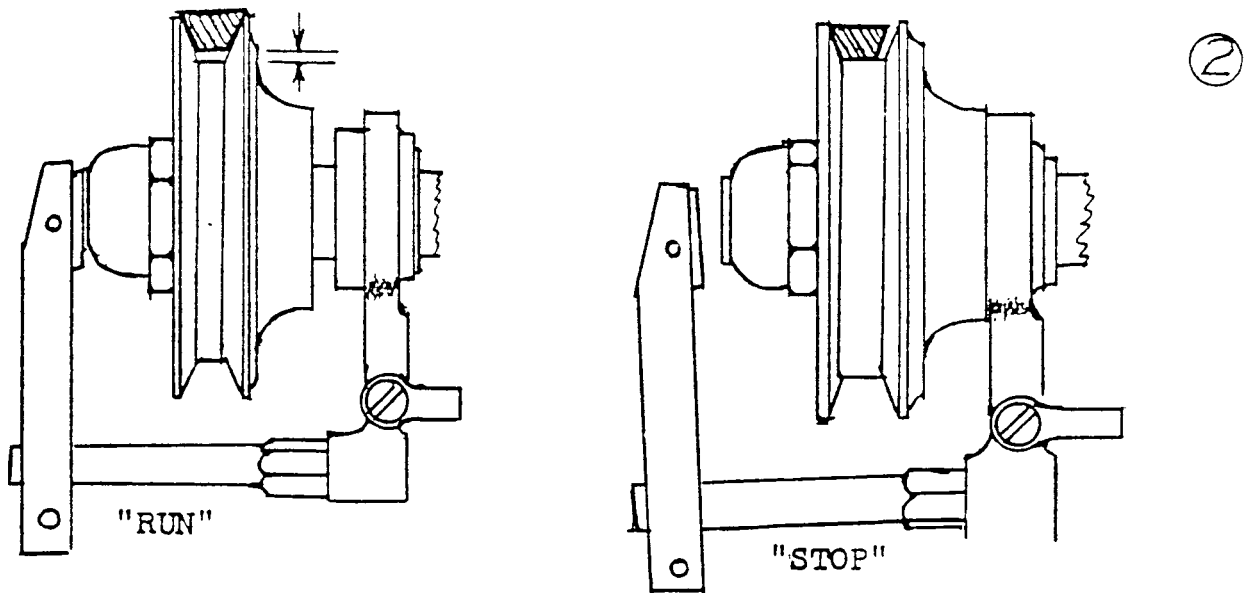
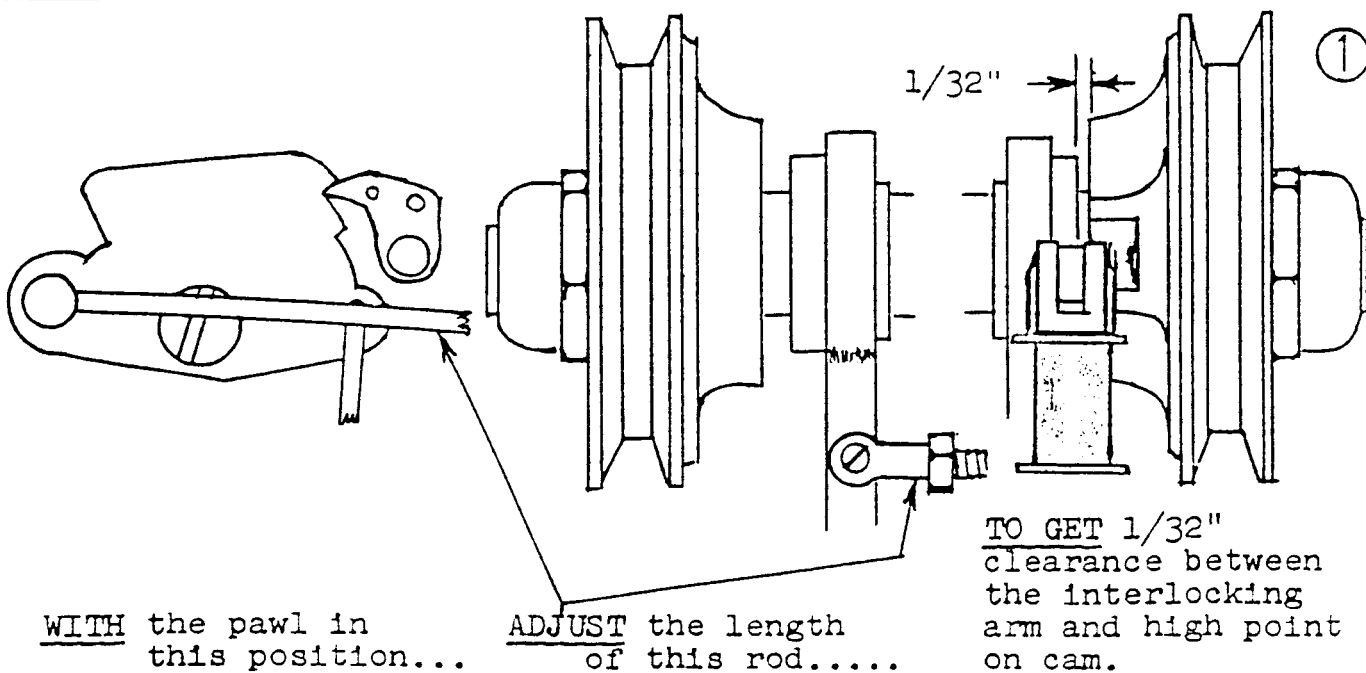
This is accomplished by positioning the machine pulley (loose) engaging arm in or out of the stud.

3. The tension on the "V" belt should be just sufficient to operate the machine. After turning the motor off while the machine is in the middle of its cycle, grasp the machine pulley (tight) at its small forward diameter, pull down on one side of the "V" belt thereby determining the amount of "drag" or drive available in the present setting. This tension can be varied by raising or lowering the motor by means of the motor bracket adjustment. Remember that excessive tightness of the "V" belt will not improve the performance of the machine but can cause damage to the machine parts.

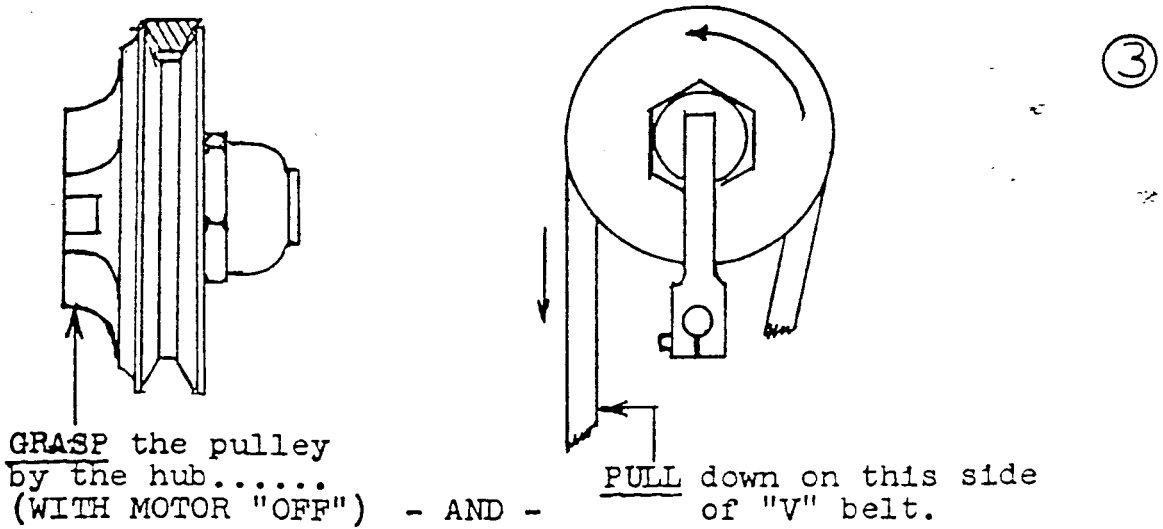
Adjustment of the "V" belt tension should be made in connection with Step #2 - the adjustment of the engaging arm - they can interfere with or complement each other.

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NOTE: If the machine is equipped with Starting Lever 239548, set the stop screw to limit the downward movement when the starting bell crank has  $1/32$ " to  $1/16$ " clearance beyond the second or "run" notch. This should be set with the "V" belt removed.



Belt should drop about 1/16" from "run" to "stop."



269W MACHINE

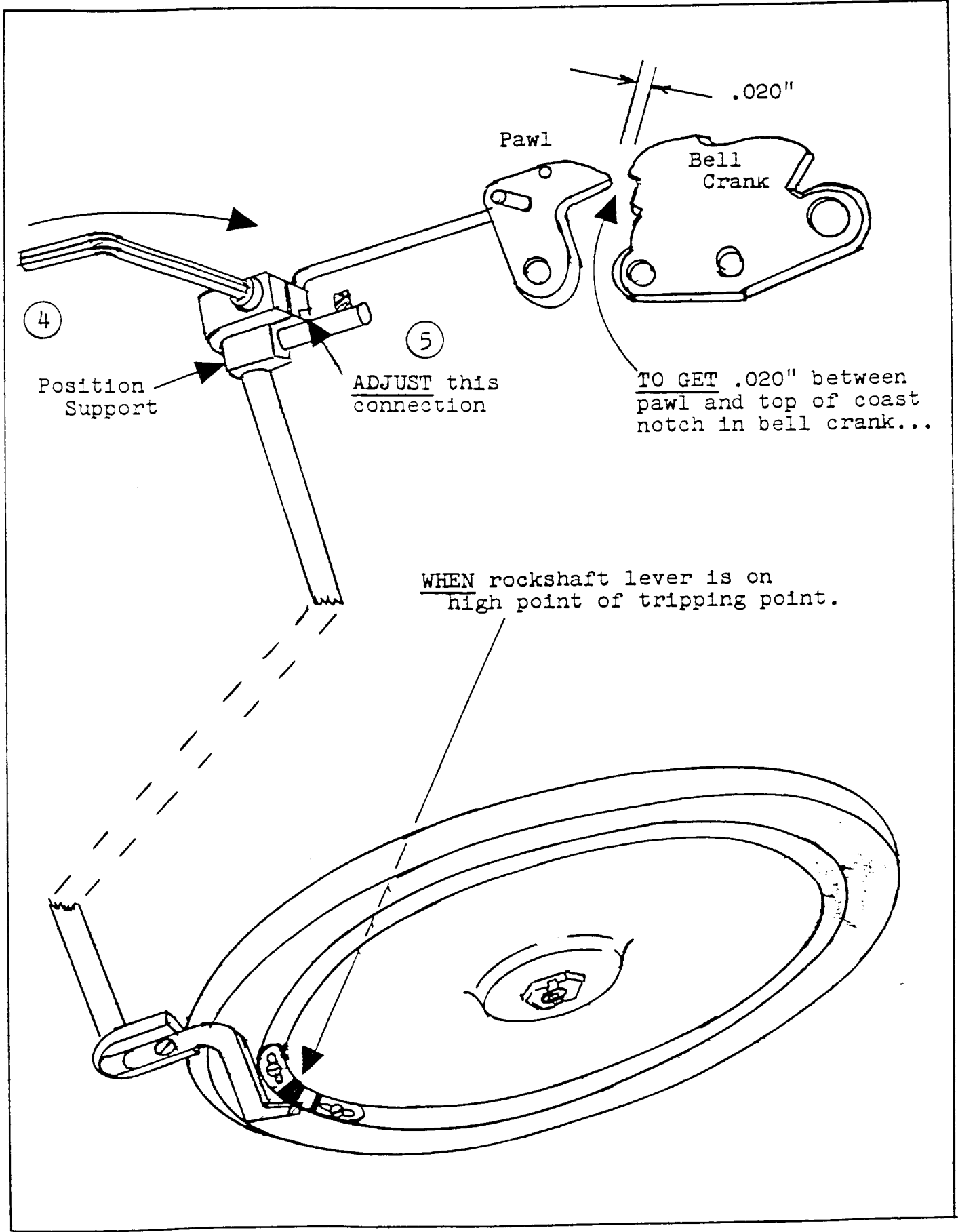
Stop Motion Linkage

4. Position the tripping rock shaft support to hold the rock shaft without binding it. Make sure that the set screw is tight.
  
5. Adjust the tripping rock shaft connection on the rock shaft to insure the starting bell crank pawl lifting far enough out of the notches on the bell crank for the machine to go into stop when actuated by the tripping point located on the feed cam.

To accomplish this:

- a) Locate the tripping point on the high point of the tripping rock shaft lever arm.
- b) Loosen the rock shaft connection pinch screw and hold the high point of the rock shaft lever against the tripping point.
- c) Keeping the Allen wrench in the pinch screw pull forward to remove all play in the tripping rock shaft connection rod.

Now pull the wrench forward far enough to raise the point of bell crank pawl approximately .020" above the top of the notch of the starting bell crank and tighten Allen pinch screw.



269W MACHINE

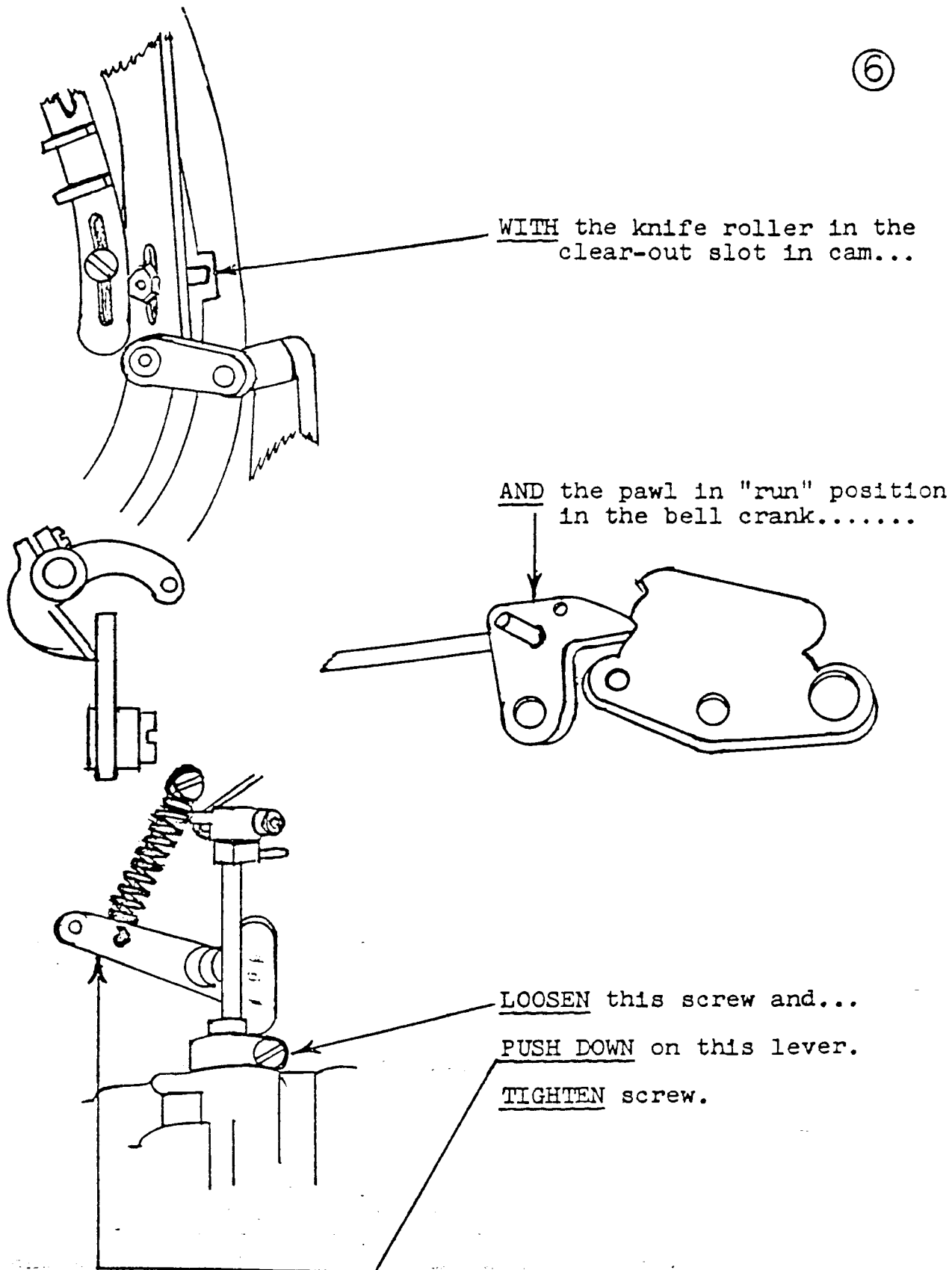
Knife Actuating and Clamp Lifting Linkage

6. Insure the correct setting of the safety interlock (preventing the clamp being lifted while the machine is in run position and vice versa).

This is done by:

- a) Having the knife roller in the clearout slot in the feed cam and the starting bell crank in the run position.
- b) Loosening the knife bar driving lever pinch screw.  
Pushing down on the clamp lifting lever arm, thus bringing the lug on the lifting arm against the back of the starting bell crank.
- c) Making sure that the knife roller is in against the cam. Tighten the pinch screw.

⑥





269W MACHINE

Knife Actuating and Clamp Lift Linkage

7. When lifting the clamp and operating the knives, the first upward movement of the arch clamp lifting bar should separate the needle thread tension, releasing the tension when the machine is in "stop" position.

To obtain this condition:

- a) Loosen the tension set screw and move the tension (complete) all the way in. Tighten the set screw.
- b) Loosen the lifting link connection screw and move the lifting link connection into the rock shaft until it projects out of the shaft approximately  $1/64$ " to  $1/32$ ".
- c) With the machine still in stop position, loosen the pinch screw in the lifting arm. Push up on the arch clamp lifting bar until the tension discs just begin to release the thread.

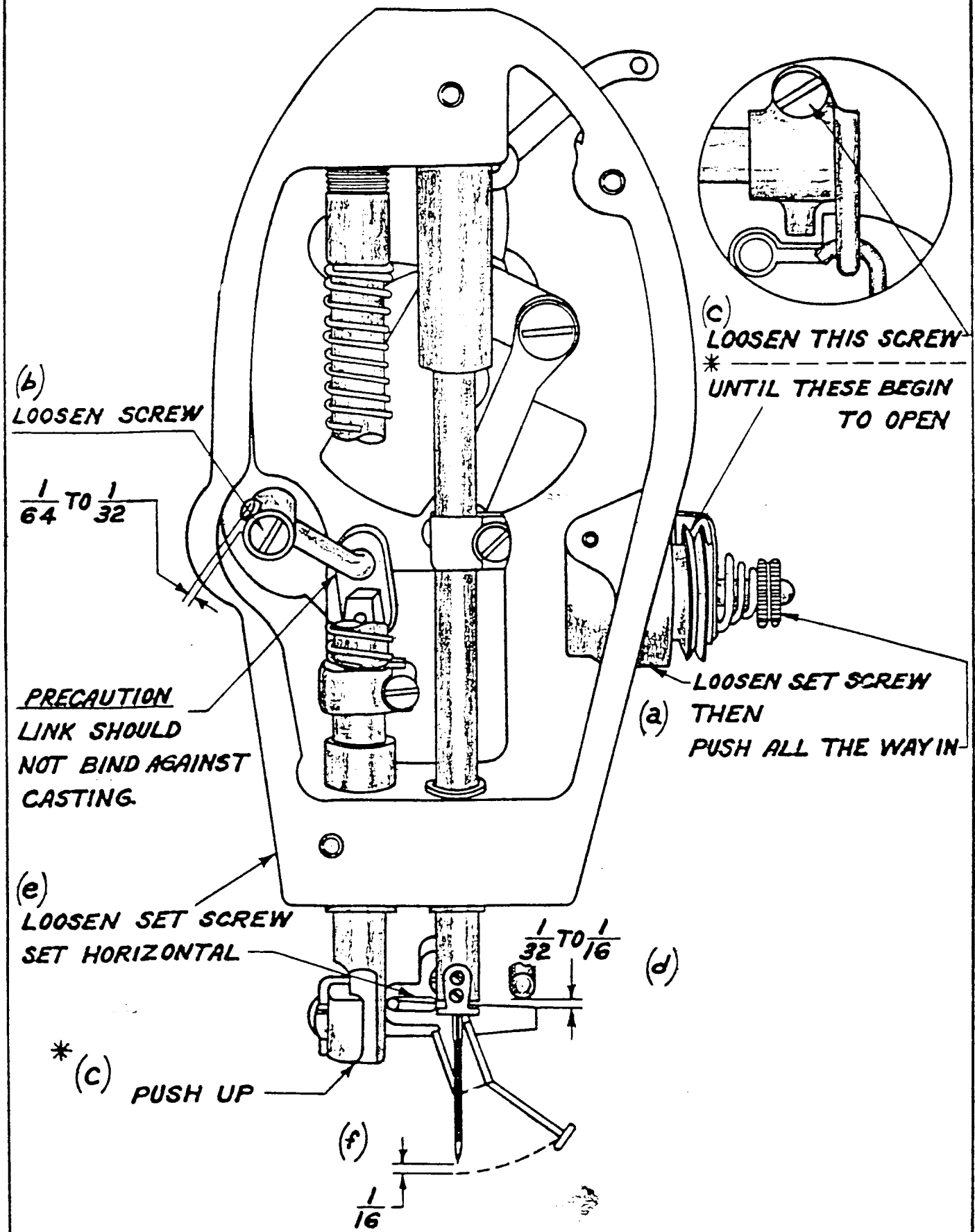
Tighten the lifting arm pinch screw, making sure that the lifting arm is up against the forward shoulder on the rock shaft.

- d) The arch clamp foot lifter can now be set approximately  $1/32$ " to  $1/16$ " below the clamp feet shank pins and parallel to the front of the machine.
- e) The thread wiper body support height should be set by loosening the set screw and raising or lowering the support until the body finger slot is approximately horizontal, then tighten the set screw.
- f) Position the wiper wire to clear needle by approximately  $1/16$ ".

PRECAUTION

After the first five stitches in the machine cycle (the knives have been retracted at this point) check to make sure that the lifting link does not bind against the side of the arm casting. A check can be made at this point to make sure that thread wiper is not binding.

7



(b) LOOSEN SCREW

$\frac{1}{64}$  TO  $\frac{1}{32}$

PRECAUTION  
LINK SHOULD  
NOT BIND AGAINST  
CASTING.

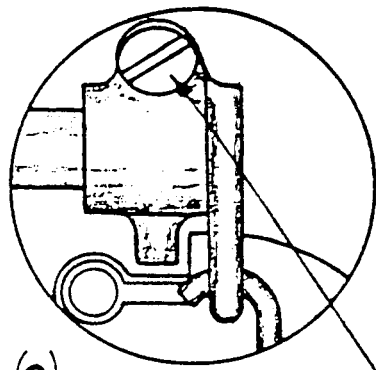
(e) LOOSEN SET SCREW  
SET HORIZONTAL

$\frac{1}{32}$  TO  $\frac{1}{16}$

\* (c) PUSH UP

(f)

$\frac{1}{16}$



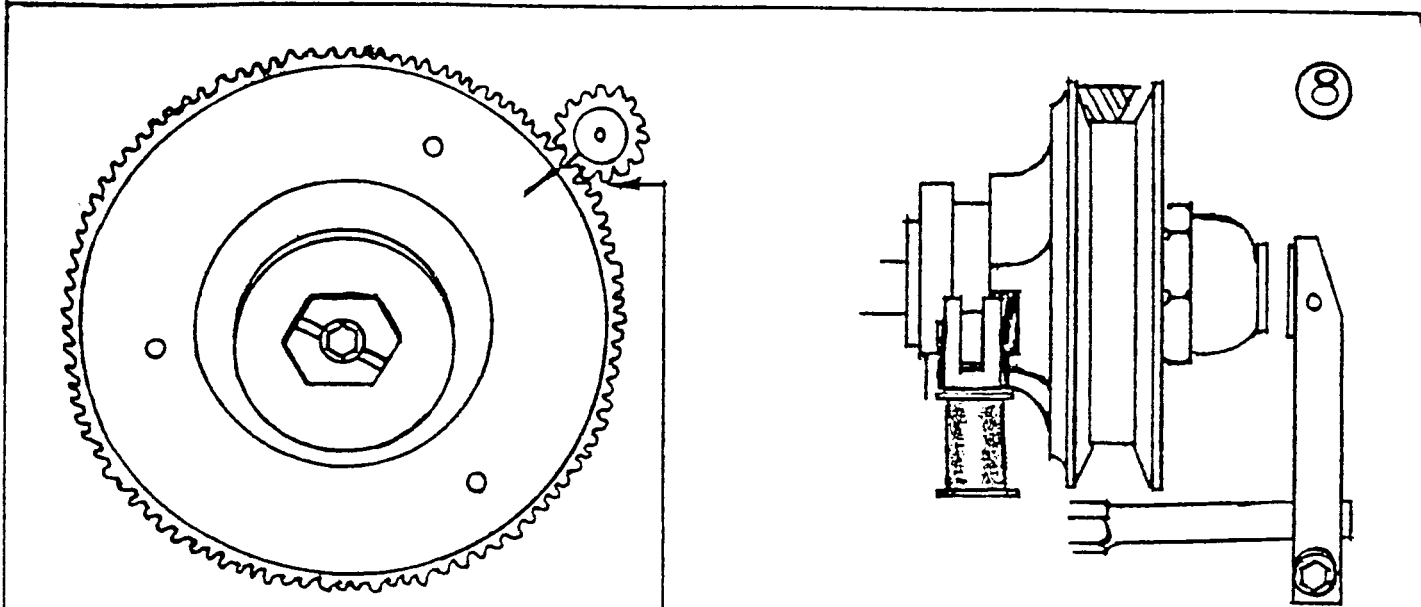
(c) LOOSEN THIS SCREW  
\* UNTIL THESE BEGIN  
TO OPEN

(a) LOOSEN SET SCREW  
THEN  
PUSH ALL THE WAY IN

269W MACHINE

Feed Driving Linkage (Gears)

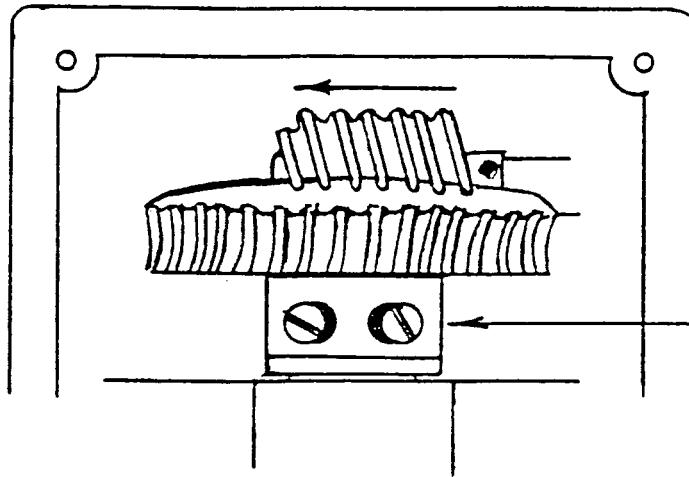
8. Insure that, when the machine is in stop position, the timing marks on the cam support gear and the vertical shaft pinion gear are aligned (tolerance 1/2 tooth).
  - a) Remove excess play between the worm gear and worm. This is accomplished by moving the worm forward on the arm shaft.
  - b) When the worm gear is properly assembled on the vertical shaft, the spot and set screws should be equally accessible through the side opening in the arm casting, when the two gear timing marks are aligned.
  
9. There should be a minimum of play between the vertical shaft pinion gear and cam supporting gear.
  - a) Reaching through the hole in the center of the cam supporting gear screw, loosen the supporting gear bracket socket head screw.
  - b) By means of the "hex" head on the supporting gear screw, turn the bracket (which is eccentric) until only the minimum amount of play exists between the gears. Then re-tighten the socket head screw.



WHEN the timing marks on gears are aligned.....

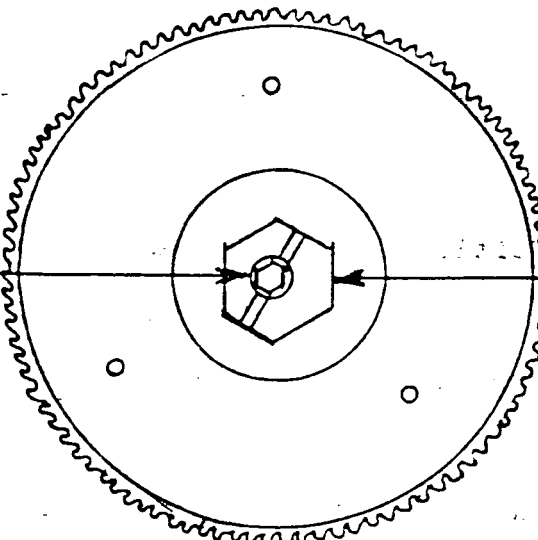
AND the interlocking arm is in stop position

REMOVE play between worm and gear. Move worm forward on shaft.



Spot and set screws accessible.

FIRST, loosen the Allen screw



...THEN turn the hex-head screw to adjust for minimum play between gears.

TIGHTEN Allen screw.

269W MACHINE

Centering Lateral Feed

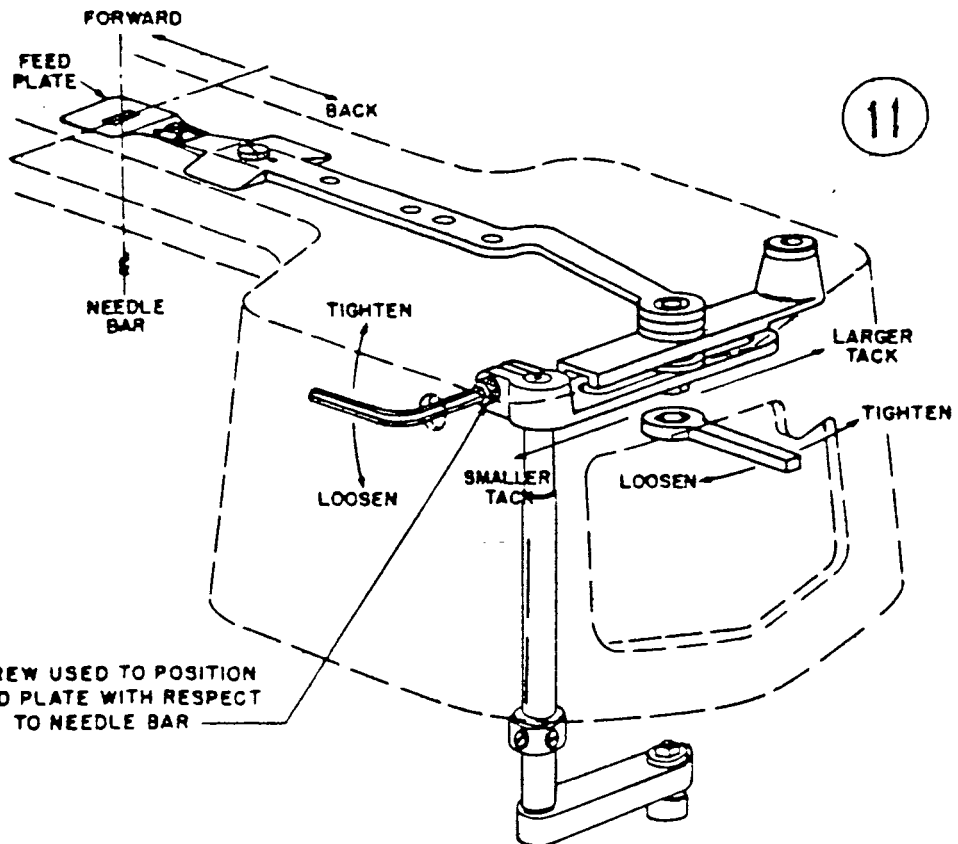
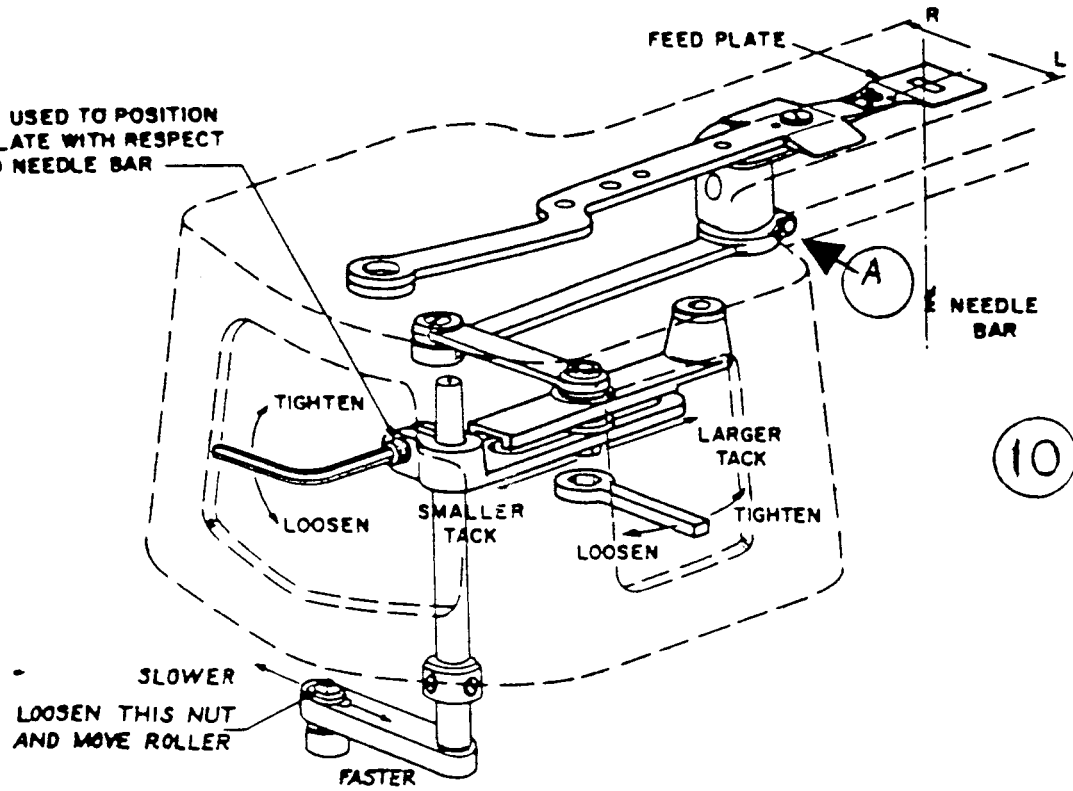
10. Centralize the lateral feed linkage to insure that when the length of tack is changed, it will change in size equally on both sides of the center of the clamping feet.

a) When the feed plate carrier bar is centered with the machine cylinder, the lateral feed rock shaft driven arm and the driving arm should be directly in line with each other (parallel). If this condition does not exist, it can be obtained by loosening the lateral pivot driving arm pinch screw "A" and the driving arm pinch screw "B" and correctly positioning the linkage, then tightening the pivot driving arm pinch screw "A".

b) To regain the correct position of the tack with the clamping feet and feed plate, shift the feed carrier bar to the original position and tighten the lateral driving arm pinch screw "B".

11. To position the arch clamping feet in relation to the needle (so that the needle will not strike the feet when the tack is widened), reach through the access hole in the left-hand side of the cylinder standard with a wrench and loosen the longitudinal rock shaft driving arm pinch screw. After positioning the arch frame, re-tighten the pinch screw.

**B** SCREW USED TO POSITION  
FEED PLATE WITH RESPECT  
TO NEEDLE BAR



SCREW USED TO POSITION  
FEED PLATE WITH RESPECT  
TO NEEDLE BAR

269W MACHINE

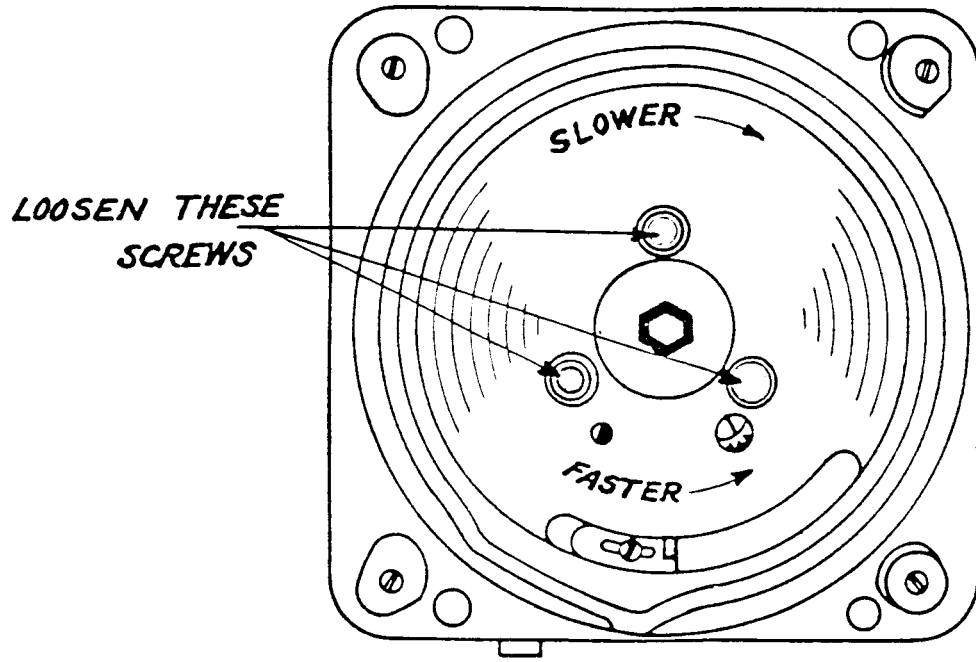
Feed Timing

It is important to have the movement of the Feed Bar stopped before the needle enters the work and conversely the feed bar should not begin to move before the needle leaves the feed plate height.

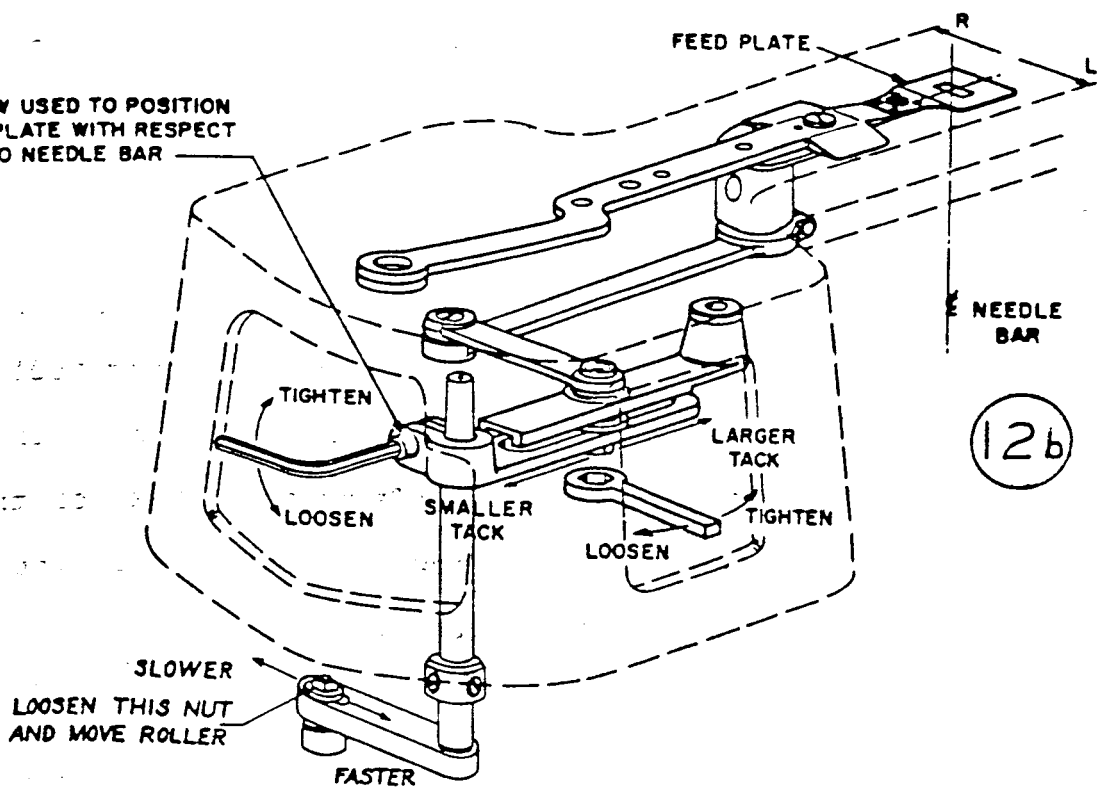
12.

- a) The longitudinal feed time is changed by loosening the three socket head feed cam mounting screws and rotating the feed cam, then re-tightening the screws. When viewing the feed cam from the bottom, rotating the cam in counter-clockwise direction will speed up the feed in relation to the movement of the needle and a clockwise rotation will slow down the feeding.
- b) The lateral feed, or across the cylinder, can now be timed by loosening the lateral rock shaft roller stud nut to the left for slow feed time and to the right for faster feed time when viewing the machine from the rear.

12  
a



SCREW USED TO POSITION  
FEED PLATE WITH RESPECT  
TO NEEDLE BAR



12b



269W MACHINE

Feed Driving Linkage (Size of Tack)

13. Adjustment for width (lateral) and (longitudinal) length of the tack.

a) Lateral:

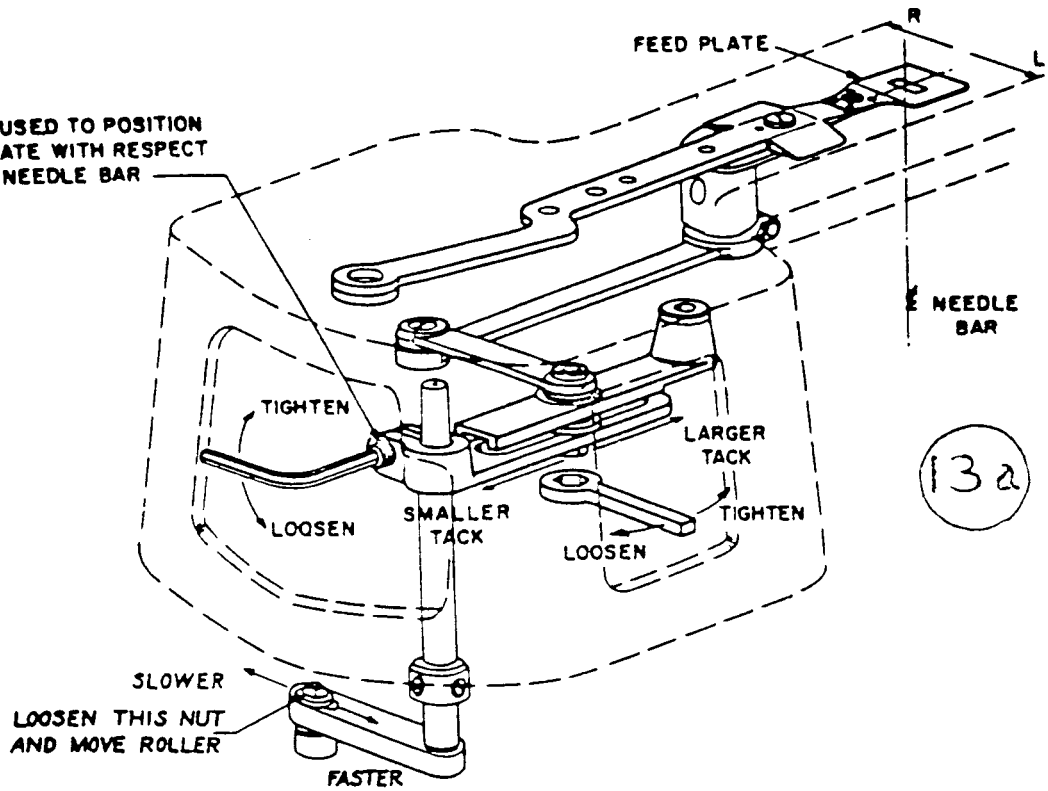
1. Remove the two screws which fasten the cylinder cover (side) and remove the cylinder cover.

2. Loosen the driving arm screw stud nut. Moving the stud toward the front of the machine will increase the length of the tack. Moving it toward the rear of the machine will decrease the length of the tack.

b) Longitudinal:

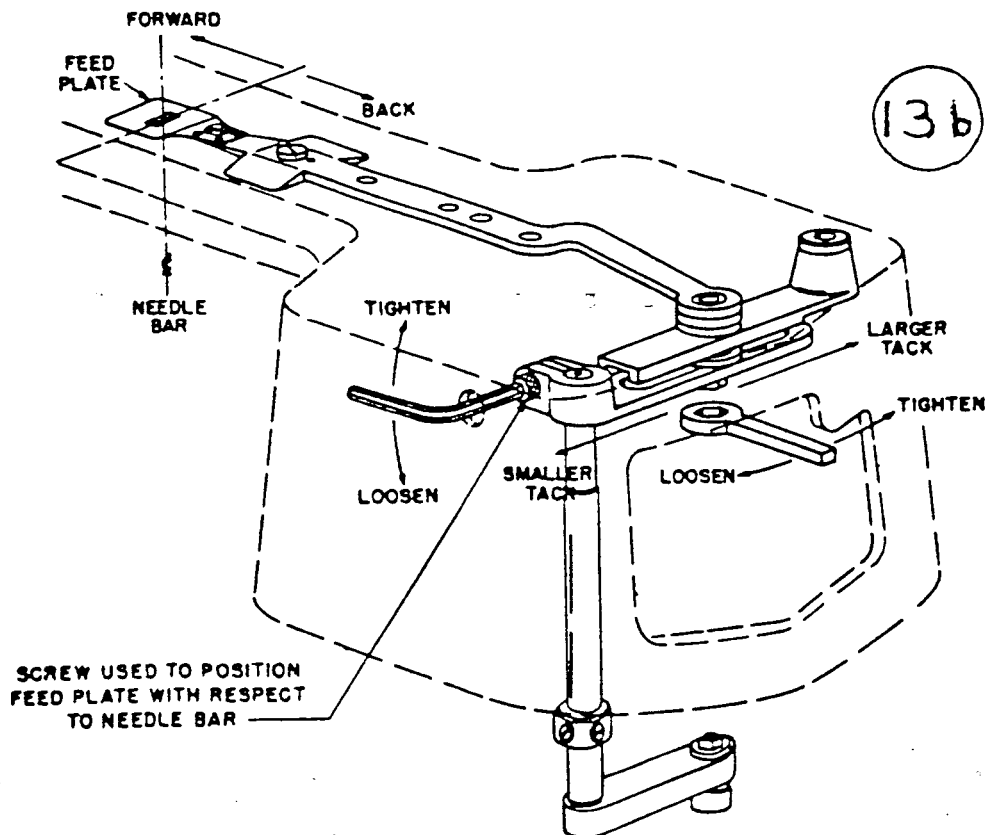
By means of the rear access hole in the cylinder casting, loosen the longitudinal driving arm screw stud nut and move the stud to the left (facing the rear of the machine) to narrow the tack and to the right to widen the tack.

SCREW USED TO POSITION  
FEED PLATE WITH RESPECT  
TO NEEDLE BAR



13a

FORWARD  
FEED PLATE  
BACK



13b

SCREW USED TO POSITION  
FEED PLATE WITH RESPECT  
TO NEEDLE BAR

269W MACHINE

Stop Motion (Tripping Parts)

14. Set tripping point (positive) on cam so that the interlocking arm is dropped back onto the camming surface of the machine pulley (tight) just as the notch passes the interlocking arm.

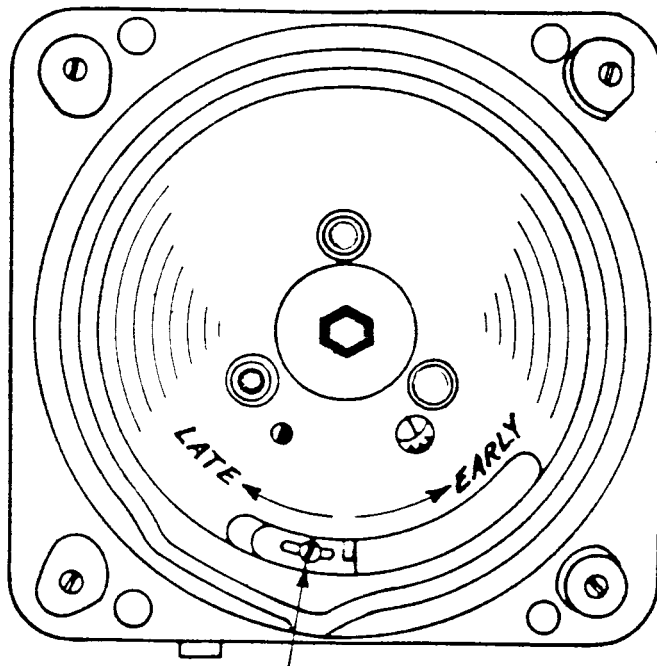
a. Cast Iron Cam:

To set the tripping point on the cast iron cam, loosen the screw and move to the right to trip off sooner and to the left to trip off later. (This is looking at the cam with the machine tilted back on its hinges). In the case of the two stop cam, both tripping points must be adjusted independently.

b. Phenolic Cam:

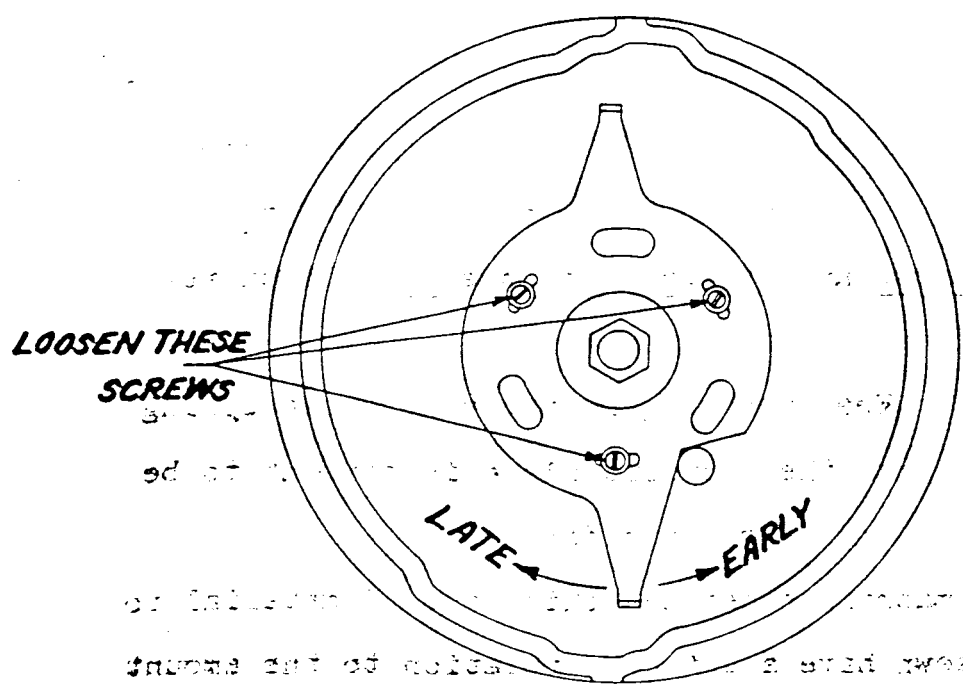
To set the tripping point plate such as is used with a phenolic cam, it is necessary to loosen the three screws; then, set the same as (a) above.

14  
(a)



LOOSEN SCREW

14b



LOOSEN THESE  
SCREWS

269W MACHINE

Adjustment of the Stop Motion Brake

15. To set the proper clearance between the brake shoe (leather) and the machine pulley (tight) when the machine is in "run" position.

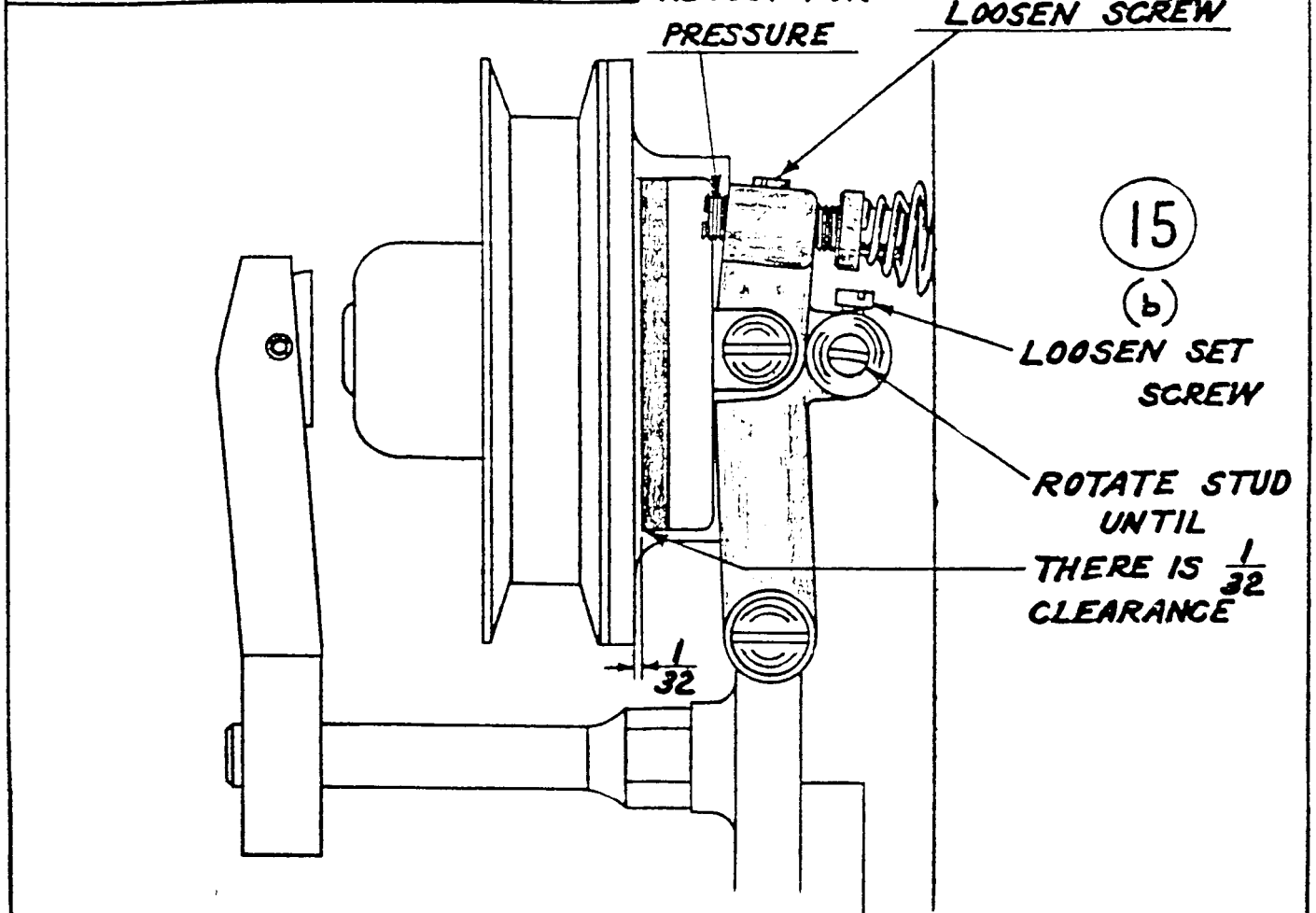
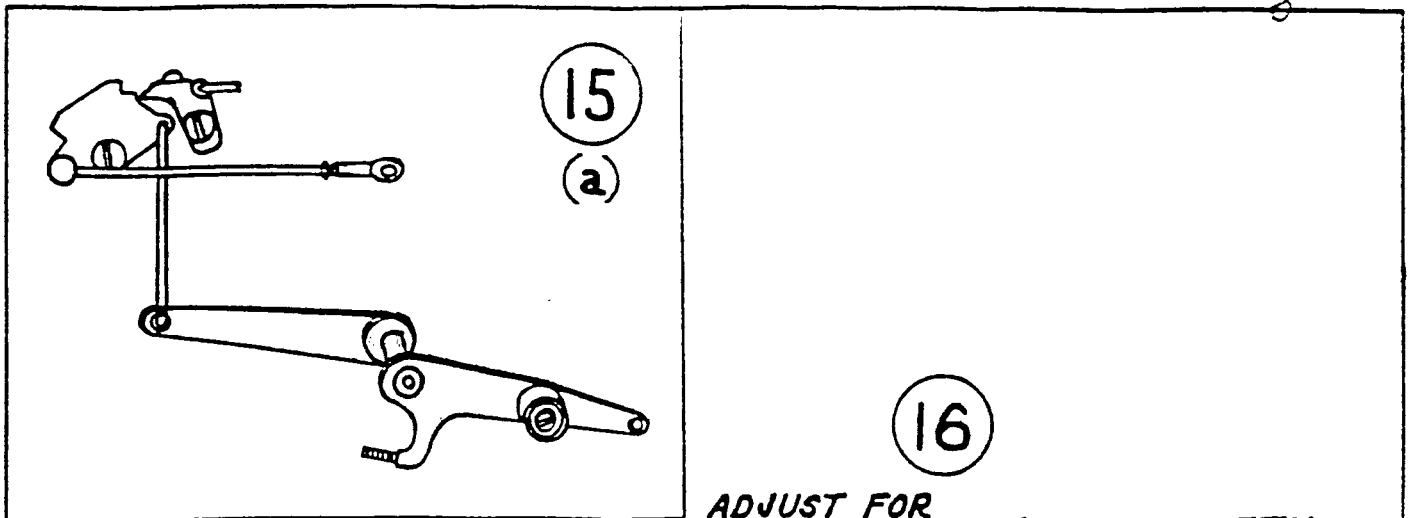
- a) Push down on the starting arm until the starting bell crank is locked in the run position or in the second notch by the pawl.
- b) Loosen adjusting stud set screw and rotate the adjusting stud, by means of the screw driver slot until the brake shoe (leather) clears the machine pulley (tight) by approximately  $1/32$ ". Then retighten the set screw.

16. Adjust for proper brake pressure to prevent machine from going into stop too hard and damaging machine parts.

- a) Loosen pressure spring adjusting screw pinch screw and turn adjusting screw in for more pressure and out for less pressure. Then retighten the pinch screw.

NOTE: When removing or applying brake spring pressure, the heaviest place in garment to be tacked should be considered.

The machine speed and thickness of material to be sewn have a definite relation to the amount of brake pressure required.



Check this adjustment periodically.

Once every month under normal circumstances.

This will compensate for any tendency to wear.

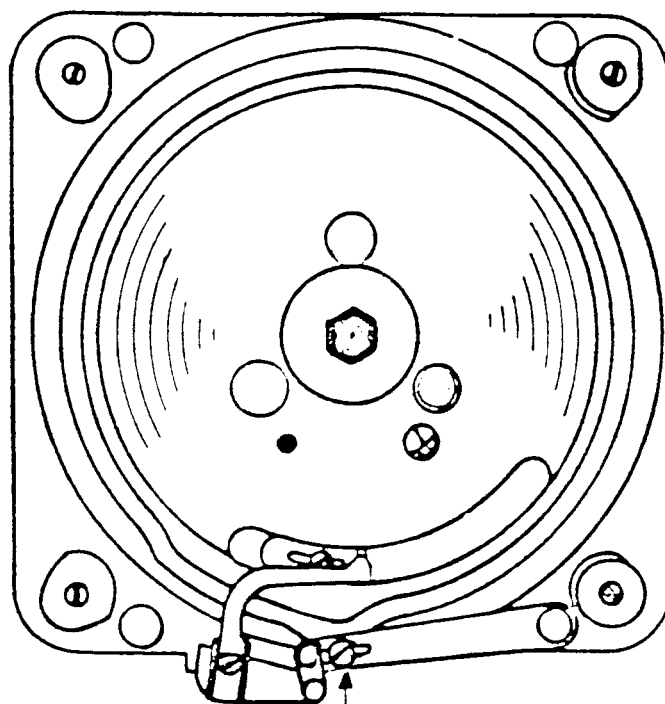
269W MACHINE

Knife Timing and Positioning

17. The correct knife timing (when the knives move in relation to the needle) can be obtained by loosening the knife roller nut and moving the knife roller in the slot in the knife follower arm. When viewing the bottom of the feed cam, the knife time will be slow in relation to the movement of the needle and the shuttle and driver, if the knife roller is moved to the right. The knife time is made faster by moving the roller to the left.

- a) To check the knife time, turn the machine cycle to the stitch before the bobbin knife moves across the needle hole (two-needle penetration before machine goes into stop).
- b) Tilt the machine back on its hinges in the table. Turn the machine over by means of the tight pulley and observe the motion of the shuttle in relation to the bobbin thread knife.
- c) When the "pocket" (the space between the heel of the shuttle and the shuttle driver) comes within 1/8" of the end of its stroke, at the top right hand side of the race, the bobbin thread knife should start moving toward the right side of the machine.

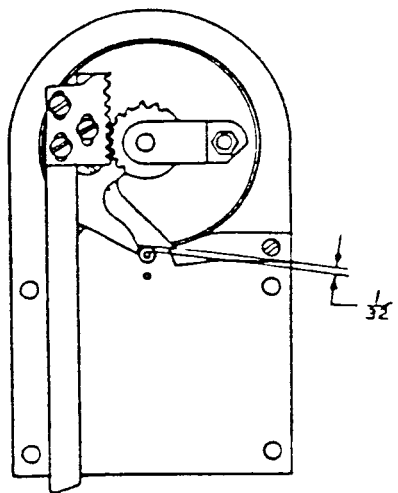
17



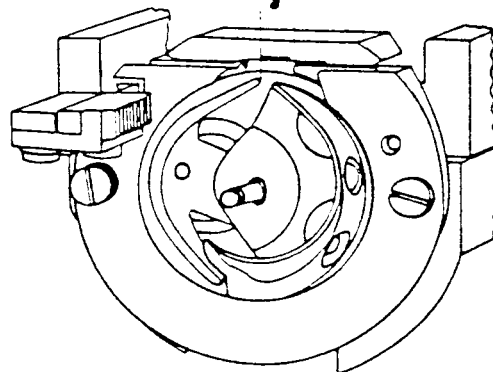
FASTER ← → SLOWER

↑  
LOOSEN NUT

17a

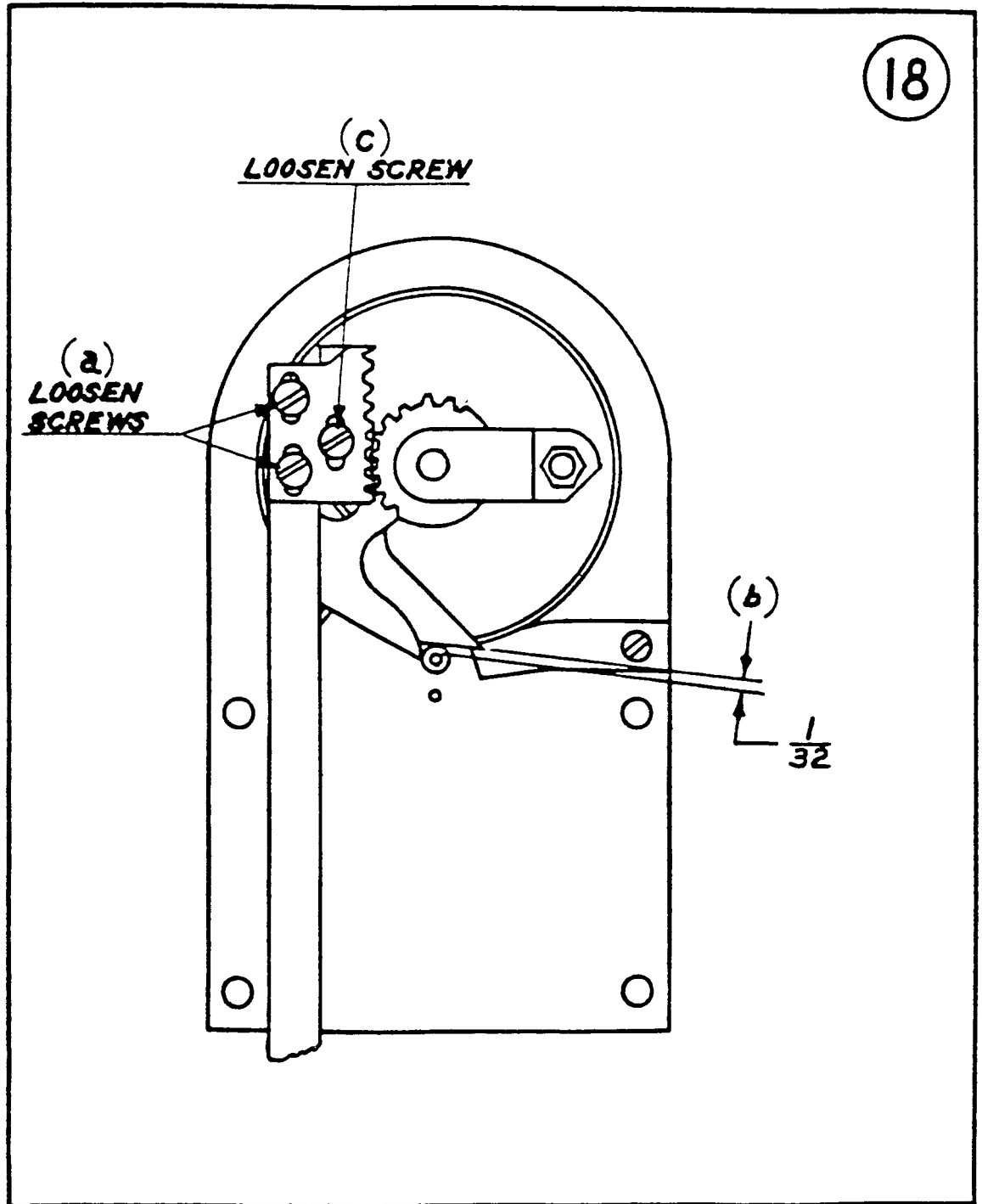


17b





18



269W MACHINE

Timing and Positioning the Sewing Mechanism

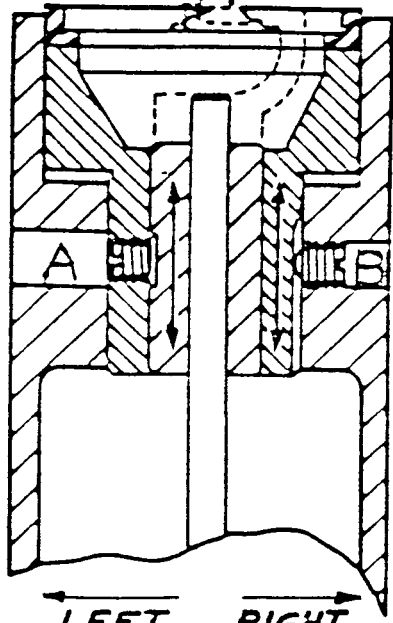
19. Position the shuttle driver in relation to the needle to provide sufficient needle guard to prevent the needle striking the points of the shuttle. To accomplish this:
  - a) Loosen the shuttle driver pinch screw and the shuttle shaft bushing (front inner) set screw "A". Move the shuttle driver and the bushing as close to the needle as possible without deflecting it, when the needle bar is at the bottom of its stroke. Tighten the shuttle shaft bushing (front inner) set screw "A".
  
20. Time the shuttle to pick up the needle thread loop properly.
  - a) Tilt the machine back on its hinges. Turn the arm shaft over by hand until the needle bar is at the very bottom of its stroke. Loosen the shuttle driver pinch screw through the opening in the bottom of the cylinder.  
  
Holding the shuttle driver shaft forward (to take out the end play) rotate the shuttle driver, by means of the Allen wrench, until the shuttle point is approximately .135 to the left of the center of the needle. Remember to compensate for the play between the shuttle and shuttle driver, which should be approximately .020 or .022. Tighten the shuttle driver pinch screw.
  - b) Using Needle Bar Height Gauge 239369, set the needle bar to the proper height.

Turn the arm shaft until the needle bar is at the bottom of its stroke.

Loosen the pinch screw in the needle bar connecting stud and adjust needle bar to suit the gauge (approximately .840" from the butt of the needle to the top of the throat plate for a 1.330" needle).

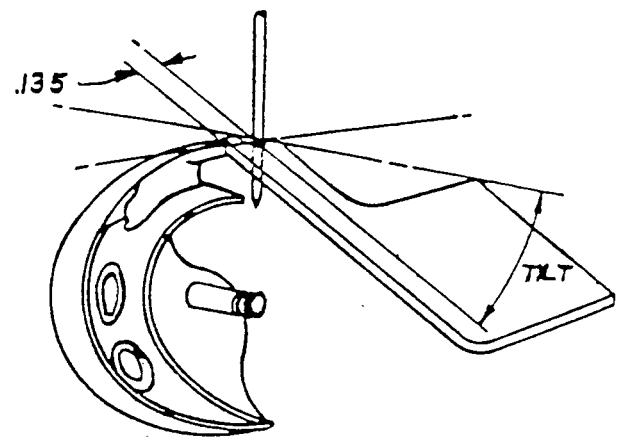
19a

SHUTTLE POINT  
NEEDLE GUARD  
ON  
SHUTTLE DRIVER

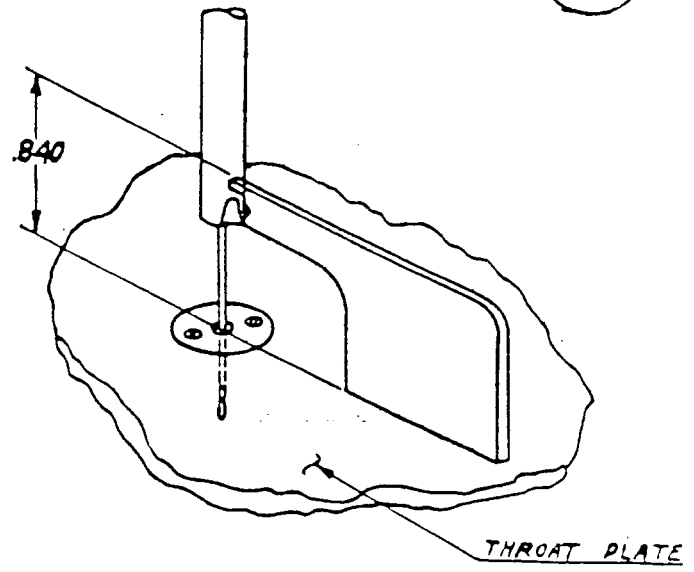


LEFT RIGHT  
BOTTOM VIEW

20a



20b



269W MACHINE

21. Position the shuttle race bushing in relation to the needle (front to back) to insure the shuttle point sufficient opportunity to pass between the needle thread and the rear of the needle.

To obtain this condition:

Loosen the bushing (front outer) set screw "B" and the bushing (front inner) set screw "A".

Exerting pressure on the outer bushing (toward the front or back), locate the shuttle point in relation to the back of the needle, so that with the shuttle pulled forward in the race (to remove play), the shuttle point just touches the back side of the needle.

Tighten both set screws.

