GBC®

SICKINGER

TWINSERTER

Set Up and Operating Instructions

TWINSERTER
SET UP AND OPERATING INSTRUCTIONS

WARNING:

SUPERVISORS PLEASE NOTE:

THESE PRECAUTIONS MUST BE FOLLOWED WHEN OPERATING OR SERVICING THIS MACHINE.

- **ALL OPERATORS MUST BE PROPERLY TRAINED PRIOR TO USING THIS EQUIPMENT.**
- **READ INSTRUCTION MANUAL BEFORE OPERATING OR SERVICING THIS MACHINE.**
- **ONLY A TRAINED, QUALIFIED TECHNICIAN SHOULD SERVICE THIS MACHINE.**
- **DO NOT ATTEMPT SET-UP CHANGES UNLESS FULLY TRAINED.**
- **FOLLOW ALL STATE, LOCAL AND FEDERAL POWER LOCK OUT / TAG OUT STANDARDS WHEN SERVICING THIS EQUIPMENT.**
- **HAVING MACHINE UNDER POWER WHILE MAKING ALTERATIONS CAN RESULT IN SERIOUS BODILY INJURY.** ***ALWAYS DISCONNECT ELECTRICAL POWER AND AIR SUPPLY BEFORE MAKING ALTERATIONS.***
- **NEVER OPERATE MACHINE WITHOUT ALL GUARDS IN OPERATING POSITION.**
- **SAFETY GLASSES SHOULD BE WORN AT ALL TIMES WHEN OPERATING THIS MACHINE OR MANUALLY CLIPPING WIRE.**
- **KEEP HANDS AND LOOSE CLOTHING AWAY FROM ALL MOVING PARTS.**

LOADING THE SPOOL

4. Lay the wire inside the storage chute and thread the scrap paper between both drive rollers and wind it up on the scrap take-up spool in a counter-clockwise direction (*See Figure 3*).

NOTES:

1. The scrap paper should be wound taut to prevent it from breaking when the spool drive starts up.
2. The storage chute has a sensor at the bottom to control the spool drive. The sensor will start and stop the spool drive on demand to replenish the supply of wire to the storage chute.

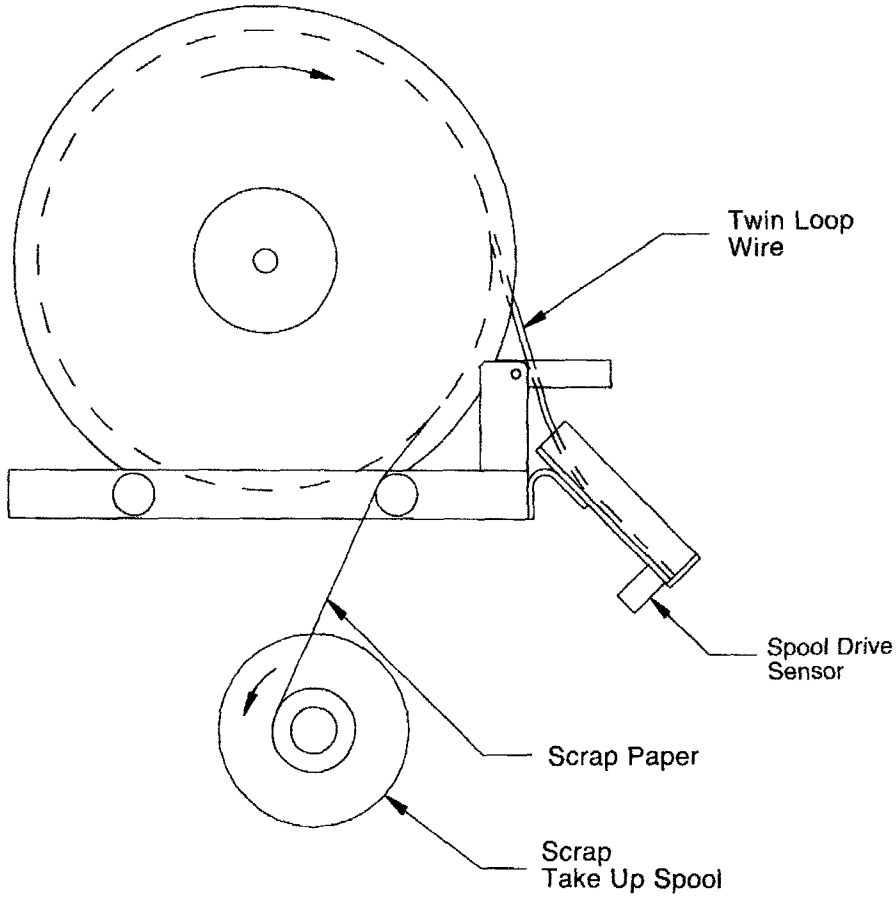


Figure 3

SPOOL AND SUPPLY CHUTE
LOADING THE SPOOL

When viewing from the back of the machine, the spool of Twin Loop wire will rotate in a clockwise direction (*See Figure 1*). For loading a new spool the following steps are recommended:

1. Place the spool onto the two rollers with the wire unspooling from the top of the spool.
2. Make sure the end boards of the spool are riding between the flanges of the idler roller (*See Figure 2*). This will place the end boards on the knurled portion of the drive rollers.
3. Unspool approximately 5 feet of wire from the top of the spool. Place the wire over the top of the cross bar and between the two side guides (*See Figure 1*).

NOTE:
To unspool the wire, hold the leading edge of the wire in your left hand and pull up on the red "START/STOP" button (see Figure 8) with your right hand. Push down on the button when enough wire is unspooled.

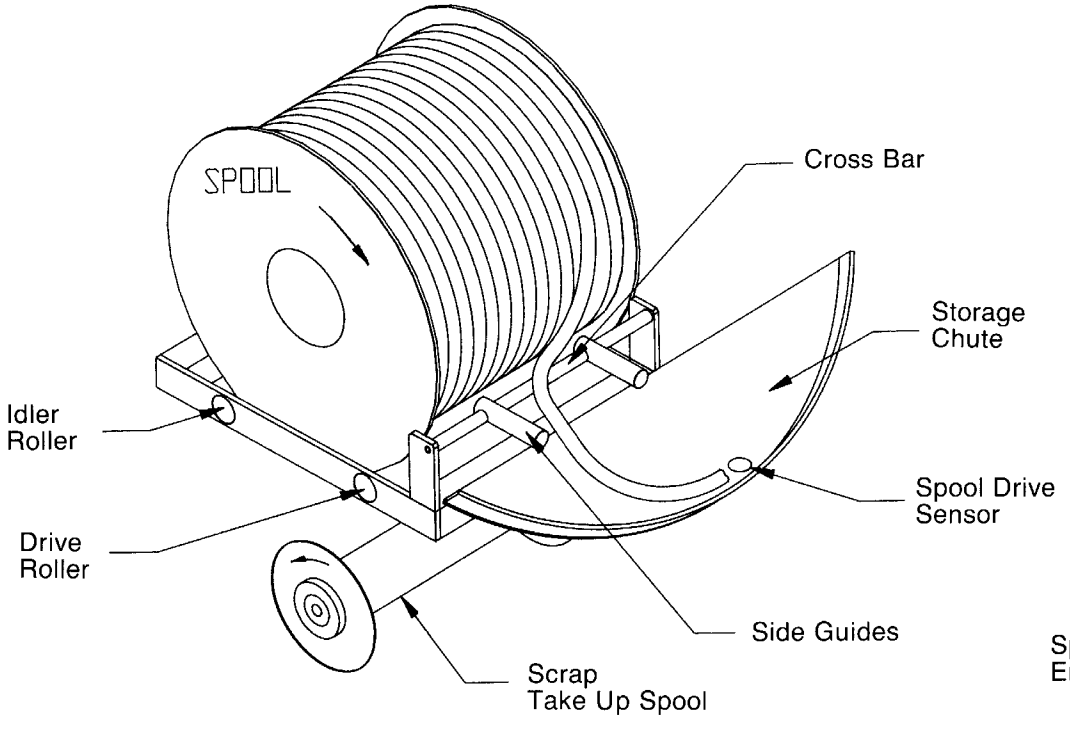


Figure 1

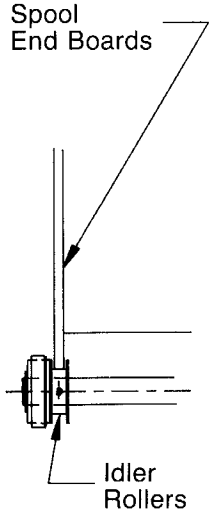


Figure 2

SPOOL AND SUPPLY CHUTE
ADJUSTING THE SUPPLY CHUTE

The supply chute is designed to be used in three different positions (see Figure 4). The upper position is for larger size wire - 1'' and 1-1/4''. The middle position is for medium sizes - 9/16'' through 7/8''. The lower position is for the small size wire - 1/4'' through 1/2.'' The smaller sizes need more weight inside the supply chute to prevent the wire from unspooling on the bottom side of the spool. On the other hand, the larger and medium sizes will stretch too much, causing missfeeds in the feed area if left in the lower position.

For The Small And Medium Sizes:

1. Loosen the handle and slide the storage chute to the required position.
2. Tighten the handle to secure the storage chute.

For The Larger Sizes:

1. Remove the right and left hand supply chute brackets and replace them with brackets #4270035 and #4270036 which are included with the machine.
2. Fasten the right hand bracket to the upper mounting hole (see Figure 4).
3. On the left side swing the supply chute adjustment bracket over and fasten the left bracket as shown in Figure 4.

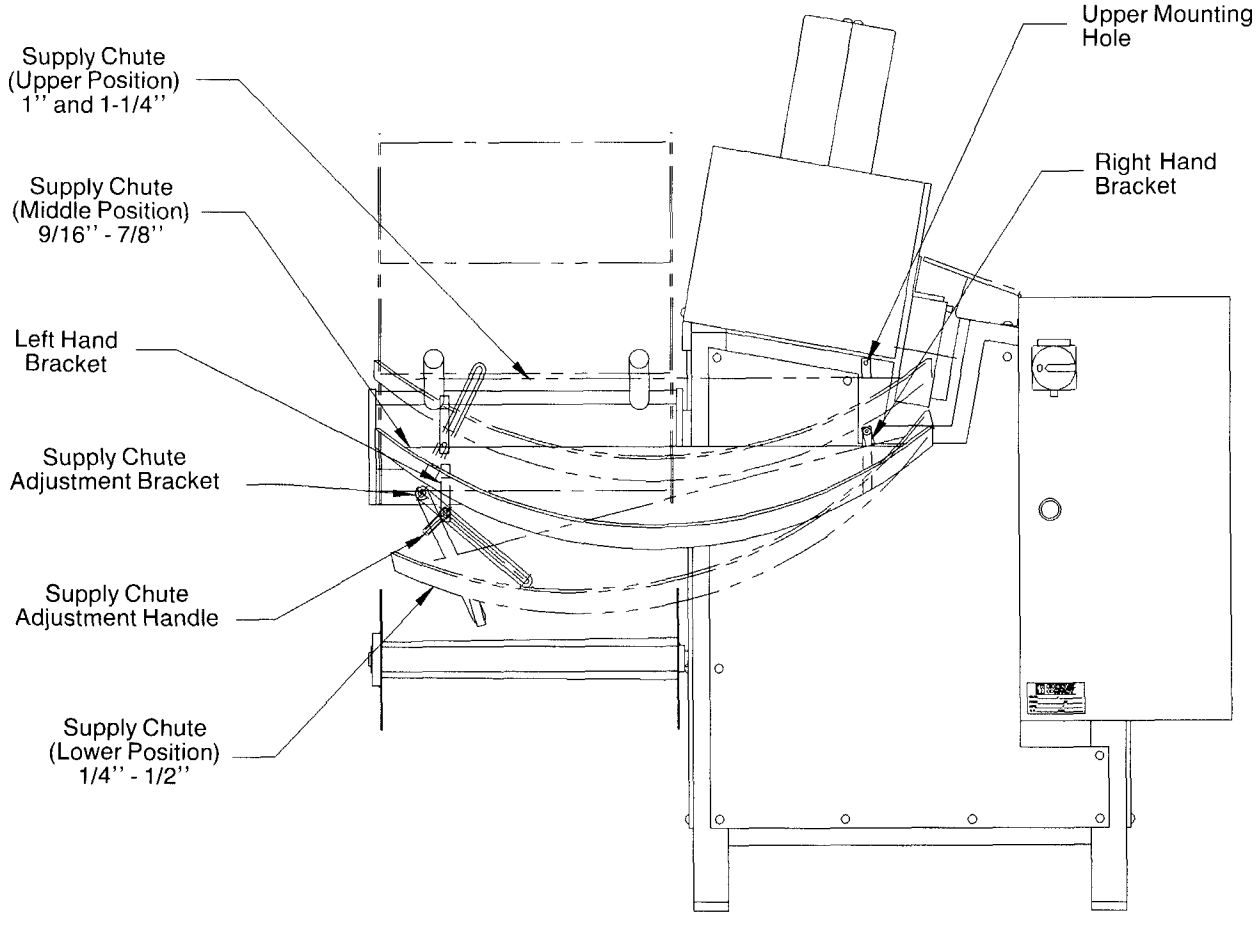


Figure 4

FEED AND CUT
SELECT PROPER PITCH

Before you make any other adjustments to the feed area, the pitch selection button located on the top of the main electrical enclosure must be depressed for the proper pitch (see Figure 5). This will position the proper feed sprocket for that pitch.

See Table A for pitch selection.

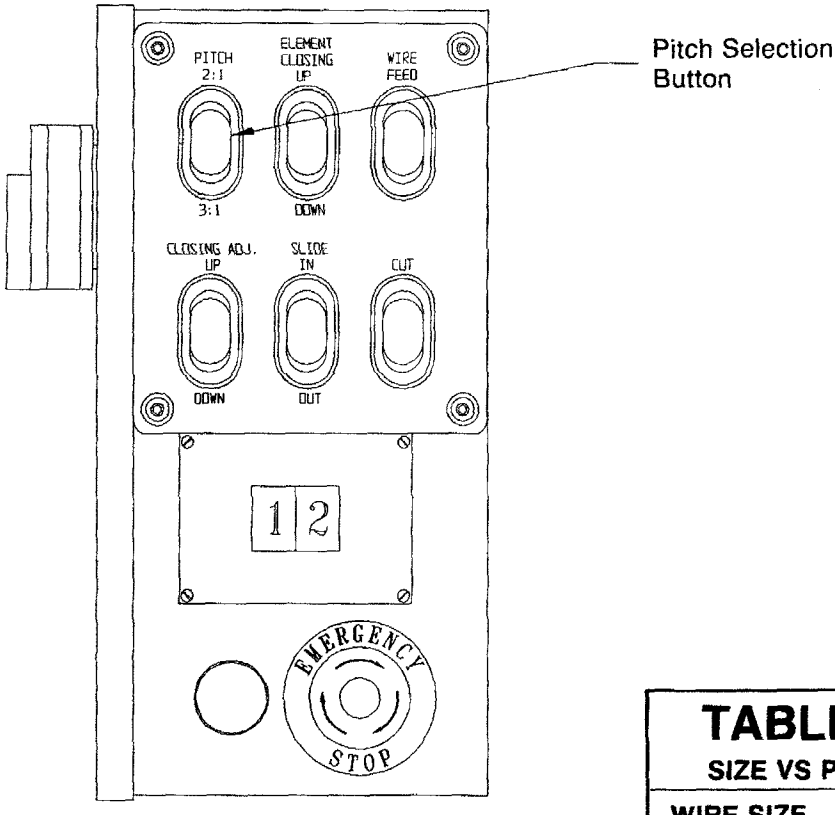


Figure 5

TABLE A SIZE VS PITCH	
WIRE SIZE	**PITCH**
1/4	3:1
5/16	
3/8	
7/16	
1/2	
9/16	
5/8	2:1
3/4	
7/8	
1"	
1-1/4	

FEED AND CUT
FEED WHEEL GUIDE ADJUSTMENT

The outboard guide on the feed wheel (*See Figure 6*) should be adjusted so that there is approximately 1/16'' *(.06)* clearance for the wire. Make sure the outboard guide does not rub against the feed wheel. See Figure 6 for the correct orientation of the wire.

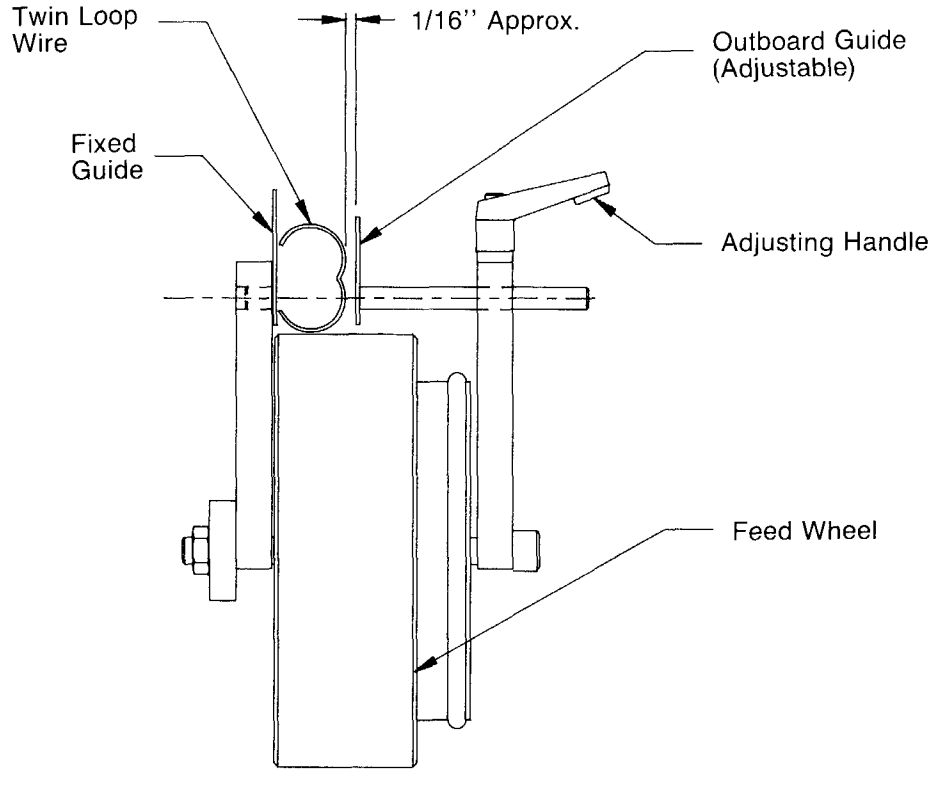


Figure 6

FEED AND CUT
HEIGHT AND WIDTH ADJUSTMENT OF GUIDES

The upper and side guides should be adjusted so that the Twin Loop wire will travel back and forth freely (*See Figure 7*) but without too much room to move around.

The following steps are recommended:

1. Cut a 12" long piece of Twin Loop wire element from the supply chute and use it as a set-up sample.
2. Loosen the two adjustable handles for the upper guide and the side guide (see Fig. 7).
3. Insert the 12" long sample as shown in Figure 7.
4. To set the .01 clearance, use three (3) sheets of 20# bond paper as a gauge. Hold the open side of the wire up against the sideplate of the feed assembly. Insert the three sheets of paper and slide the guide up against the paper. Tighten the handles to secure the guide and remove the paper.
5. Repeat Step 4 for the upper guide.

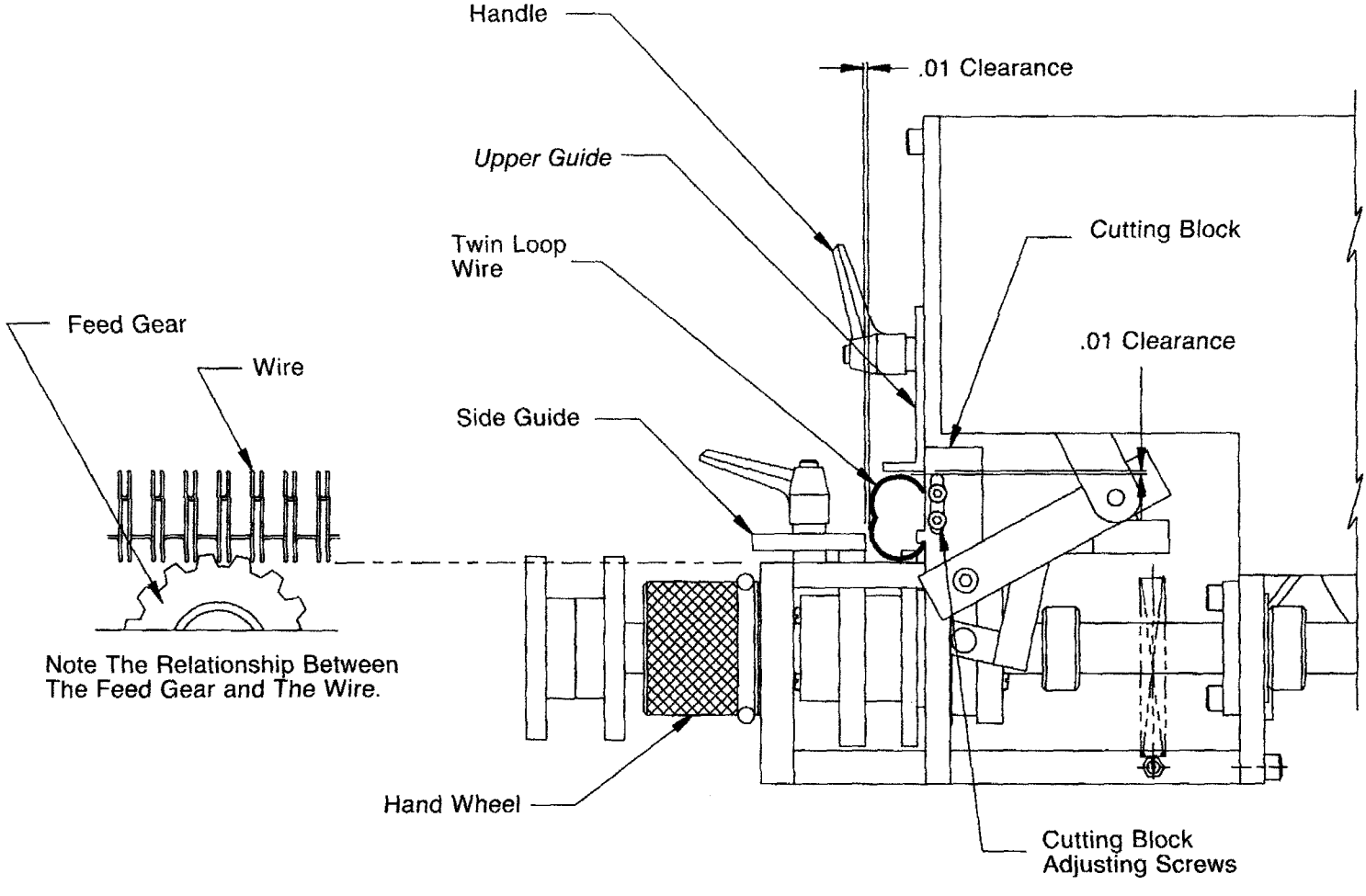


Figure 7

FEED AND CUT
HEIGHT ADJUSTMENT OF CUTTING BLOCK

1. Using a 5/32 hex key, loosen the two (2) screws which secure the cutting block *(see Figure 7).* Adjust the height of the cutting block to allow the Twin Loop wire to pass freely under it. Tighten the screws to secure the cutting block. ***NOTE: The height of the cutting block must be adjusted for each wire size.***

The set-up of the feed area is now complete. To double check, insert the 12" long sample piece again, into the guides. Slide the sample forward until it is stopped by the feed sprocket. Now rotate the handwheel (see Figure 7) in the clockwise direction and continue feeding the sample all the way through and past the cutting block. If the element does not go through freely, repeat Step #4 in the "Height and Width Adjustment of Guides" section on page 8 or repeat the above step.

SETTING THE LOOP COUNTER

1. The two-digit thumbwheel located on top of the main electrical enclosure (*See Figure 8*), is used to select the desired number of loops needed to bind your product. Turn the numbers up or down to change the number of loops. Upon the next cycle of the machine, the new length of the Twin Loop wire element will be fed.

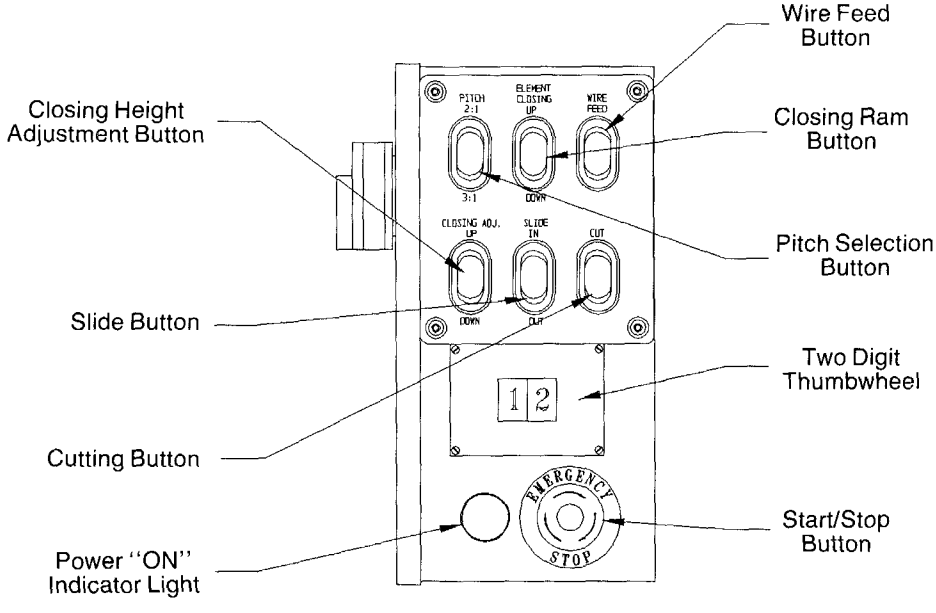


Figure 8

LOADING AREA

Before you load a book for binding, you will need to make a few adjustments to the loading area. The following steps are recommended:

1. **Adjusting the wire holder:** Using your 12" long sample piece of wire, feed it through the feed assembly (By turning the hand wheel, see Figure 7) right up to the loading area. Adjust the height of the wire holder (see Figure 9) by loosening the two adjusting knobs which hold the holder in place. Slide the holder up or down to allow for free movement of the wire. Enough room should be provided so the wire sits back on a 15 degree angle as shown in Figure 9. This angle will make it easier to load the book. Tighten the two adjusting knobs to secure the wire holder.

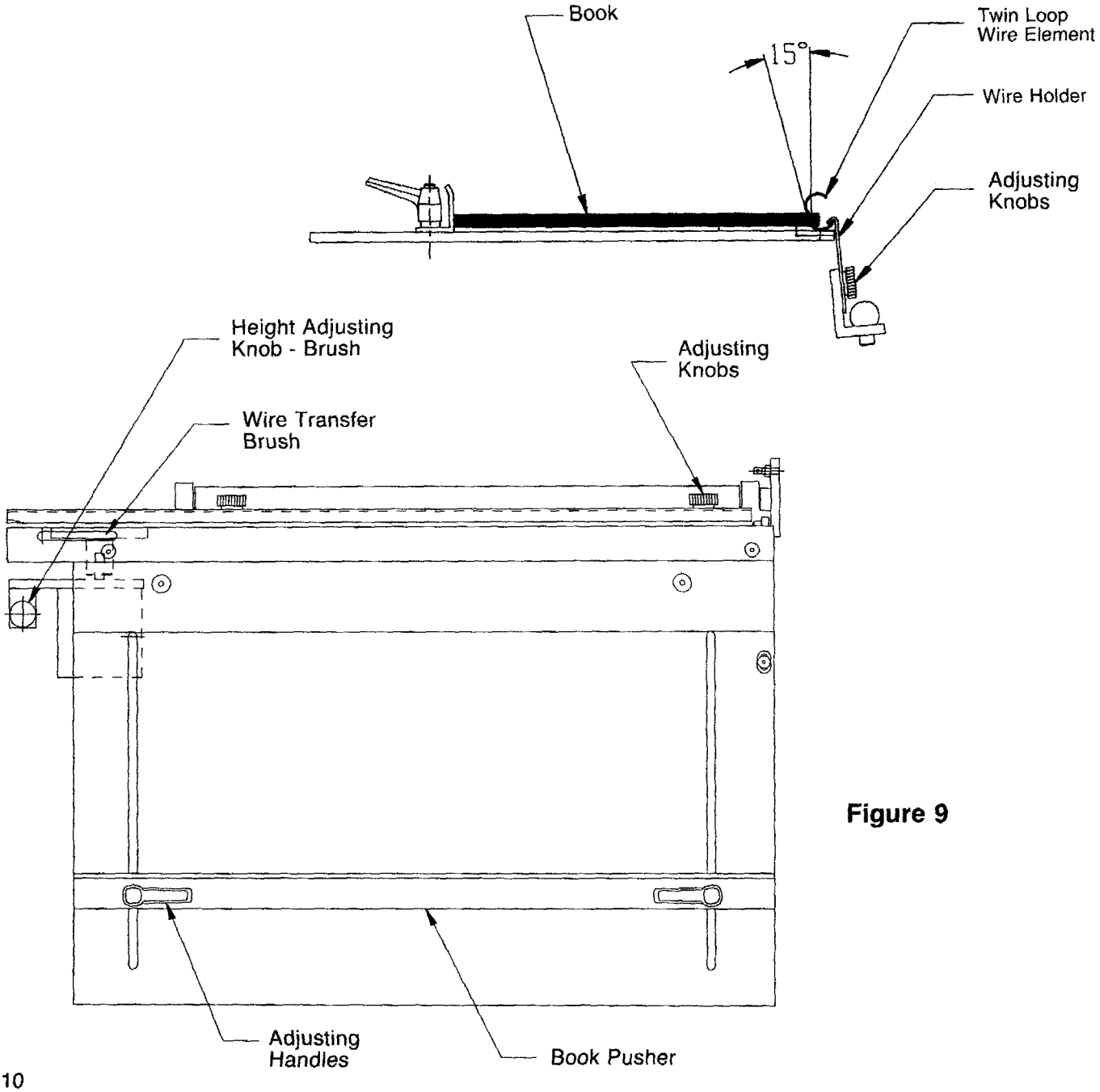


Figure 9

LOADING AREA

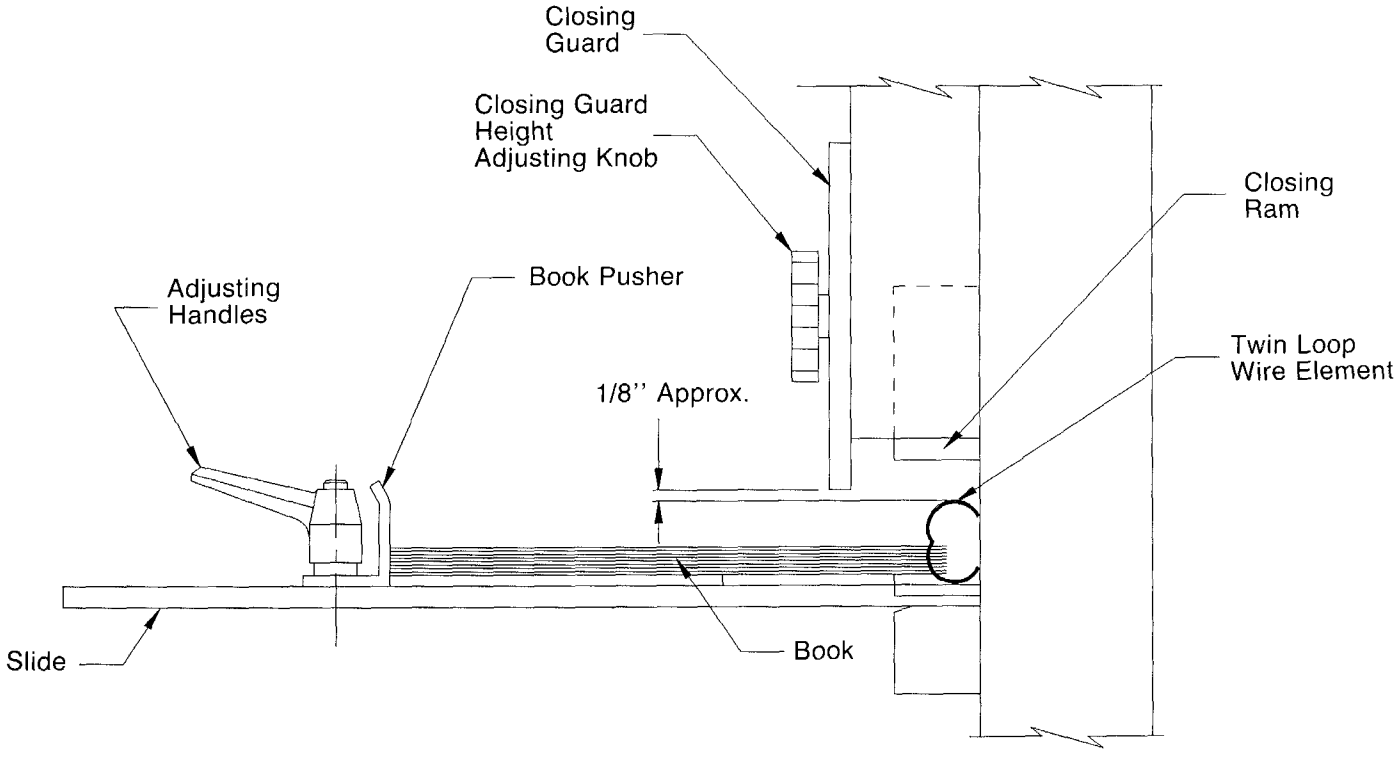


Figure 10

LOADING AREA

2. **Adjusting the wire transfer brush height:** The height of the transfer brush can be adjusted by turning the adjustment knob. (*See Figure 9*) Turn the knob clockwise to lower and counter-clockwise to raise the wire transfer brush. The height of the brush should be adjusted high enough so that after the knife cuts the wire the brush will move the cut piece of wire to the right approximately 4 inches. This will provide room for your left hand when loading a book onto the wire. *NOTE: If the transfer brush is adjusted too high, it will cause inconsistent cutting.*

3. **Adjusting the book pusher and closing guard.**

A. Loosen the two adjusting handles which secure the book pusher (*See Figure 10*). Slide the book pusher all of the way back.

B. Load the book onto the wire as described in the "Loading The Book" section of this manual.

C. Adjust the closing guard all the way up (*See Figure 10*).

D. Pull up on the red "Start/Stop" button to supply power to the machine (*See Figure 8*).

E. Move your hands away from the loading area and push the slide button to the "In" position (*See Figure 8*). This will advance the slide area forward, placing the wire under the closing ram (*See Figure 10*).

F. Adjust the book pusher forward so that the open side of the wire element is up against the back of the closing area. Do not apply any pressure to the book. Tighten the adjusting handles to lock the book pusher in position.

G. Adjust the height of the closing guard by loosening the two knobs (*See Figure 10*). Position the guard approximately 1/8" above the unclosed wire. Tighten the knobs to secure the guard.

H. Return the slide back to the "Home" position by pushing the slide button to the "Out" position.

CLOSING HEIGHT ADJUSTMENT

To adjust the height of the closing ram the following steps are recommended:

1. Hold the closing height adjustment button (*see Figure 8*) in the "UP" or "DOWN" position to change the closing height.
2. The pointer for the Twin Loop Size Gauge (*see Figure 11*) will move up or down. Release the closing height adjustment button when the pointer reaches your desired size. (NOTE: *A handwheel is provided on the right side of the closing area. This handwheel can also be used to adjust the height.*)
3. The size gauge is used to accurately adjust the closing height. After closing a sample book, you may need to make further fine adjustments to get the proper closing of the wire. See Figure 12 for the proper closing of Twin Loop elements.
4. Never cycle the closing ram under power without checking the size gage first.

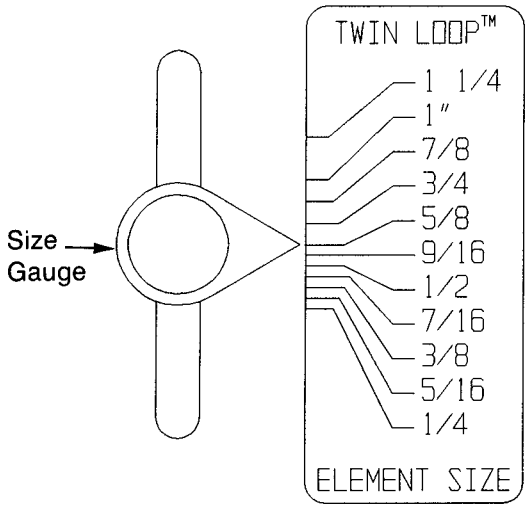


Figure 11

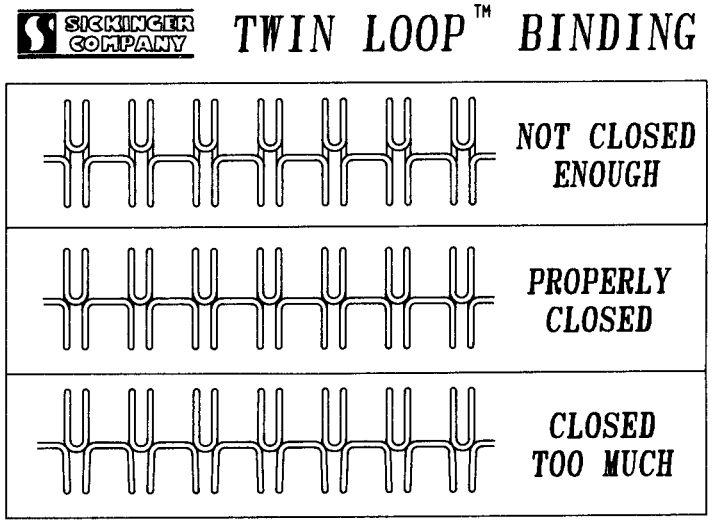
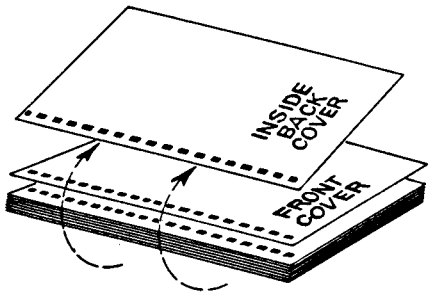


Figure 12

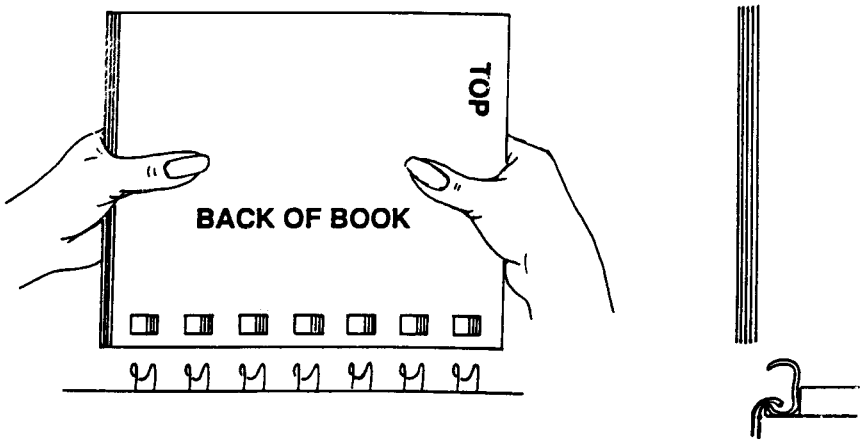
LOADING THE BOOK

BOOKS WITH 2-PIECE FLUSH CUT COVERS:

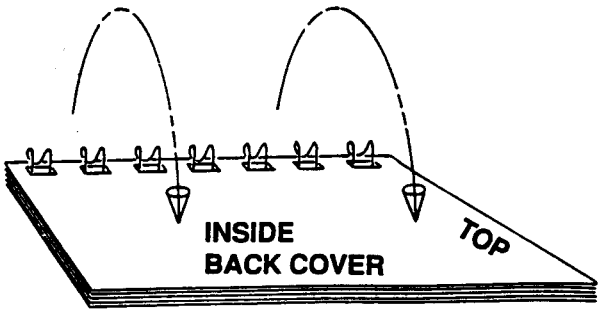
Stack the books with the front covers up, rotate the back cover to the top. This ensures that the wire loop closure will be inside and in the back of the book.



Pick up the two covers and the body of the book, jog it on the slide with the binding edge down. The back page (*not the back cover*) should face the operator.



Align the holes with the Twin Loop tines and lay the book towards you and press the cycle button which is located on the right hand side of the machine.

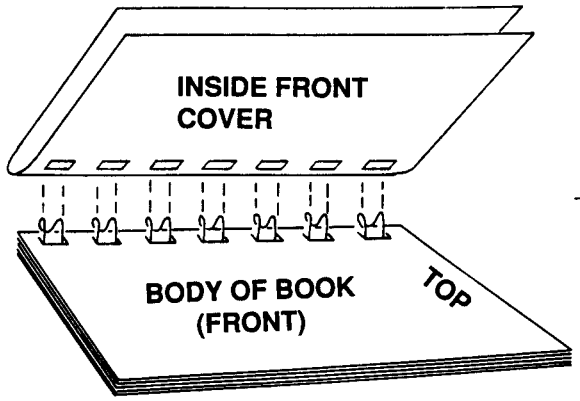


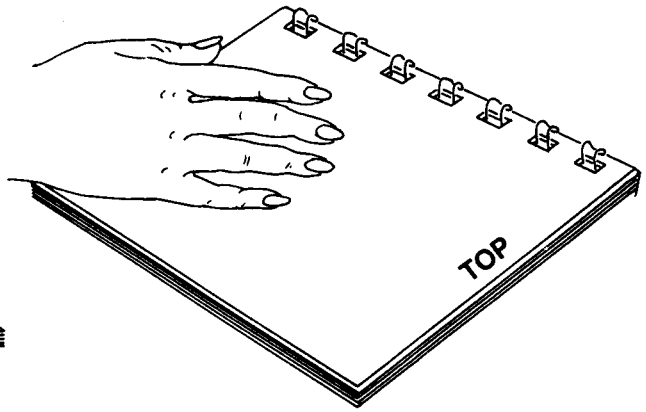
LOADING THE BOOK

BOOKS WITH OVERSIZE OR WRAP-AROUND COVERS:

Due to it's design, the Twinserter is well suited for non-standard cover styles.

Load the body of the book (front) onto the Twin Loop tines; then load the covers (folded back to back) on the tines and push the cycle button.





WORN PARTS

FEED AND CUT AREA

The only wear item in the feed area is the knife blade (see figure 13). If the wire has a burr on it after cutting, or, if a groove has worn into the cutting edge of the knife blade, it is time to rotate the blade. The knife blade has four cutting edges on it. **To switch to a new cutting edge the following steps are recommended:**

A. Disconnect air and electrical power from the machine.

B. Remove feed cover.

C. Using a 5/32'' hex key, loosen the two screws which secure the cutting block.

D. Loosen the jam nut and remove the pivot screw.

E. Flip the blade over to a new cutting edge.

F. Apply grease to the pivot screw and the mating surfaces of the cutting block and the knife blade.

G. Install the knife blade by tightening the pivot screw enough so the blade pivots freely with zero clearance to the cutting block.

H. Tighten the jam nut to secure the pivot screw.

I. Apply grease to the pin for the upper pivot joint and attach the knife blade.

J. Mount the cutting block.

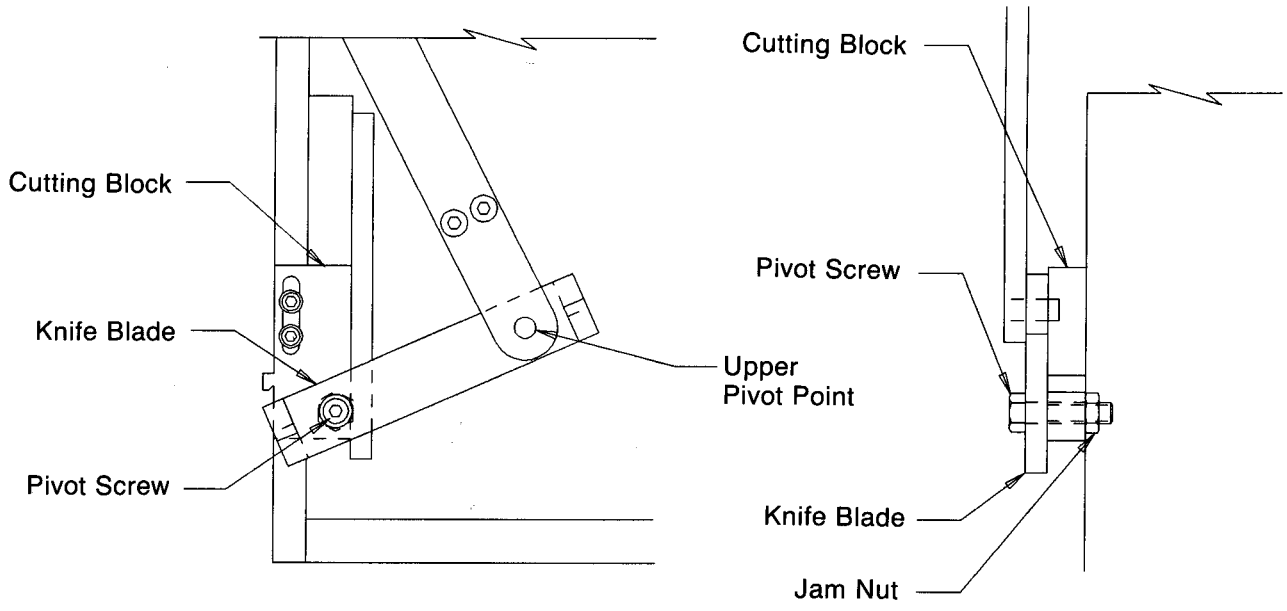


Figure 13

LUBRICATION

LOADING AREA

1. There are two oil access holes located in the panel under the slide (see Figure 14). These oil access holes are used to apply oil to the guide shafts for the slide. A lightweight machine oil should be used to lubricate the shafts approximately every two weeks. **The following steps are recommended:**

   A. Pull up on the red "START/STOP" button (see figure 15) to supply power to the machine. Move your hands away from the loading area and push the slide button to the "IN" position (see figure 15). This will advance the slide forward, exposing the oil holes.

   B. Drip 2 or 3 drops of oil into both access holes.

   C. Return the slide by pushing the slide button to the "OUT" position.

   D. Cycle the slide in and out a few times to distribute the oil onto the shafts.

   E. Turn the power off by pressing down on the red "START/STOP" button.

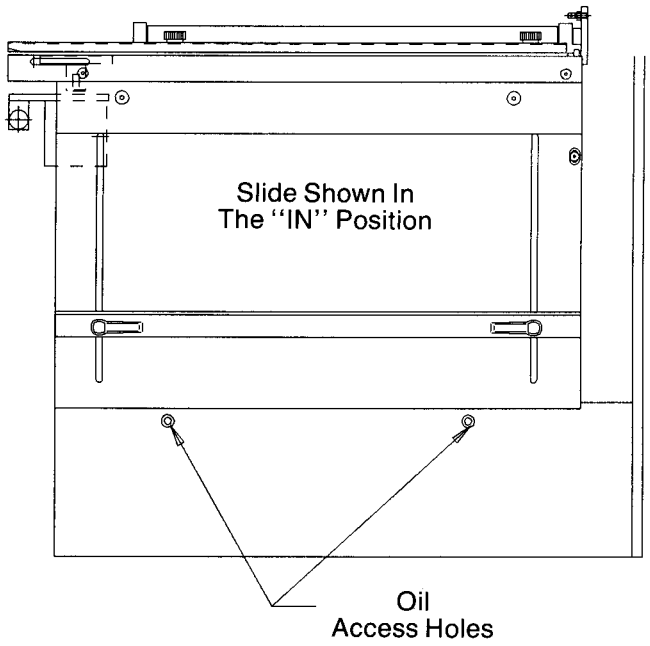


Figure 14

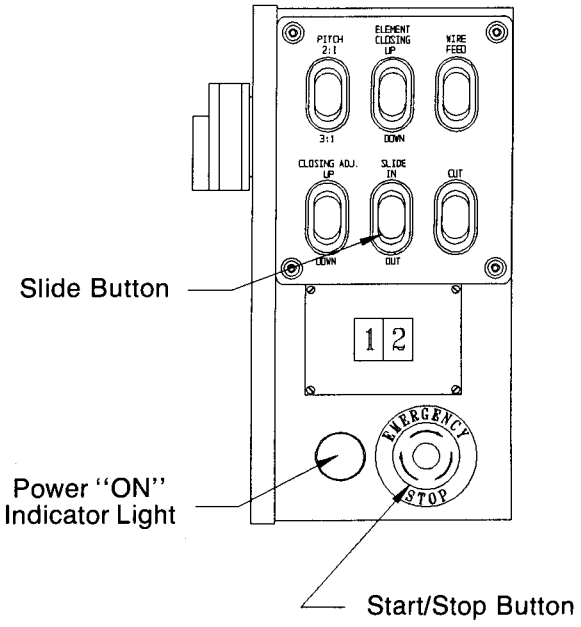


Figure 15

FILTER/REGULATOR/LUBRICATOR (FRL)

1. The filter portion (see figure 16) of the FRL is used to remove moisture from the compressed air supply. Before the water level reaches the "MAX. LEVEL" line (see figure 16), you should drain the water. How often you have to drain depends on the amount of humidity in the air. To drain the filter, turn the knob on the bottom of the filter in the "O" (open) direction. Turn the knob in the "S" (shut) direction after all of the water has drained. *NOTE: a 1/4 inch soft nylon tube can be attached to the end of the drain so that the water can be emptied into a container.*

2. The regulator portion (see figure 16) of the FRL is used to regulate the air pressure being supplied to the machine. The proper setting is 80 PSI. To adjust the pressure, pull the regulator knob down and turn clockwise to reduce the pressure and turn counter-clockwise to increase the pressure. Push the knob back up to lock it into position.

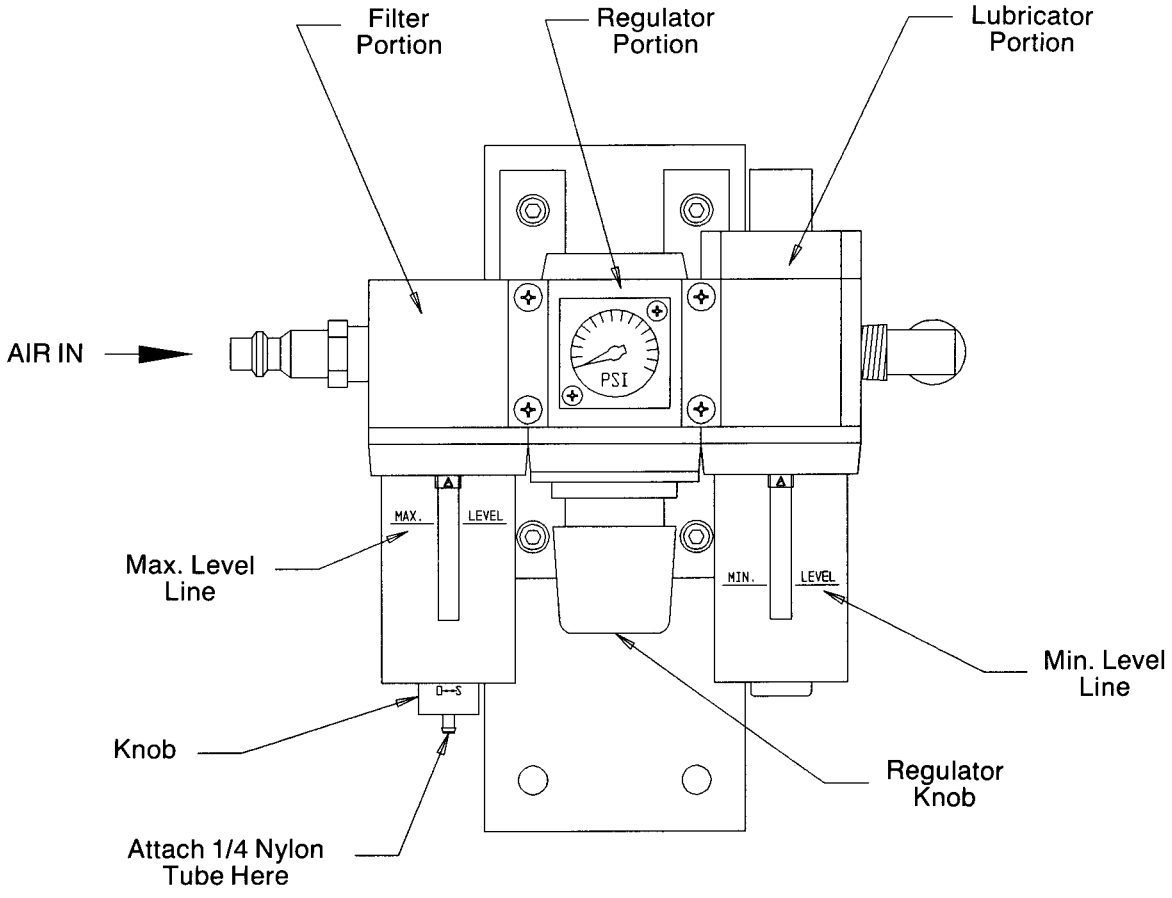


Figure 16

FILTER/REGULATOR/LUBRICATOR (FRL)
(Continued)

3. The lubricator portion (see figure 16) of the FRL is used to lubricate the compressed air supply. The lubricator should be filled with an air compressor oil before the oil level reaches the "MIN. LEVEL" line (see figure 16).

   To fill the lubricator, turn the "SHUT/OPEN" valve (see figure 17) on the top of the lubricator to the "SHUT" position. Oil can be added thru the holes on top of the lubricator, or the bowl can be removed by turning it clockwise and pulling downward. After filling the bowl, insert it back into the lubricator and turn it counter-clockwise to lock it into position.

   NOTE: Be sure to turn the "SHUT/OPEN" valve to the "OPEN" position after filling.

   The amount of oil being supplied to the air is set at the factory.

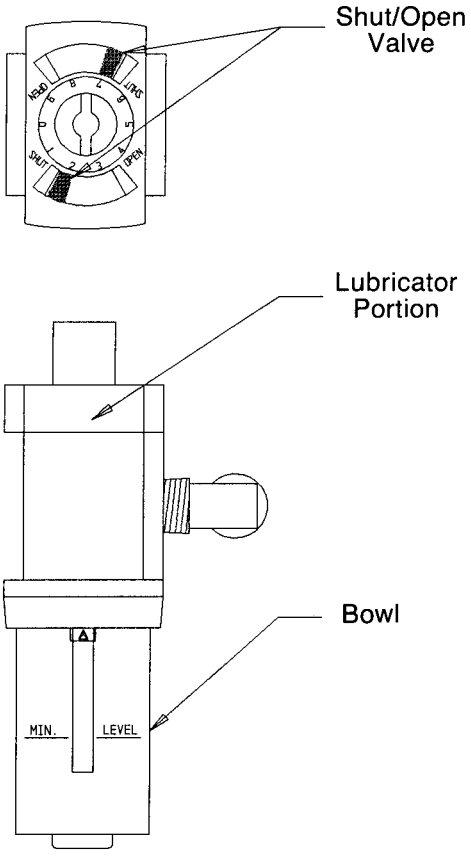


Figure 17