Manual/Parts Lists
Provided By

Golden West Industries
750 Arroyo Ave
San Fernando, CA 91340
800-548-5444 (Outside CA)
818-365-3946 (Inside CA)
818-365-8725 (Fax)
www.goldenwestind.com
goldenwestind@msn.com

Sales, Parts, Repairs, Rentals, Installation
Trap, Skeet and Sporting Clays
Pay and Play Card System
Voice Release

Beomat, Due Matic, Lincoln Traps,
Pat Trap, Winchester

INSTALLATION - SAFETY - MAINTENANCE

Manual

PAT

AUTOMATIC DOUBLES

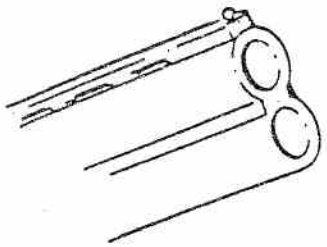
TRAP

Singles To Doubles In Seconds!

Serial #: _____

Date: _____

SERIES "G"



WARNING

This Manual discloses details of a patented apparatus or device for throwing clay targets. The apparatus is clearly disclosed and claimed in our **U.S. Patent No. 5249563 and 6176229**. It is unlawful under United States Patent Law to practice; i.e. to make, use or sell a patented invention without the express permission of the owner/inventor thereof. Permission is expressly granted, only to the purchaser, or their designees and members of the household of the purchaser, ***only to use***, the patented apparatus. The unauthorized making, using or selling of the patented apparatus constitutes patent infringement. It is the intent of the owner/inventor to prosecute infringers of the Patent to the full extent of all applicable laws.

TABLE OF CONTENTS

The PAT-TRAP®

NEVER STAND IN FRONT OF A TRAP MACHINE. THE TRAP MACHINE MUST BE TURNED OFF AND THE SPRING RELEASED *BEFORE* ENTERING THE TRAP HOUSE. IF YOU ARE UNFAMILIAR WITH THE TRAP MACHINE:

DO NOT TOUCH - GET HELP

NEVER ATTEMPT TO LOAD THE TRAP WHEN IT IS COCKED. ALWAYS RELEASE THE TARGET FROM THE TRAP MACHINE.

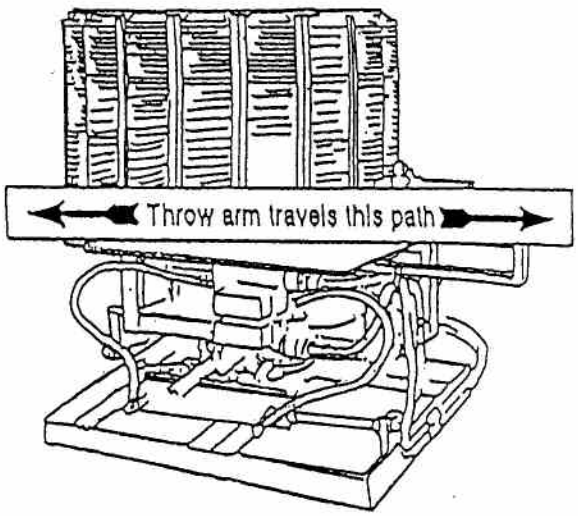
NEVER ADVANCE THE THROW ARM BY HAND WHEN THE ON/OFF/RELEASE SWITCH IS IN THE *ON* POSITION. THIS MAY DAMAGE THE MACHINE.

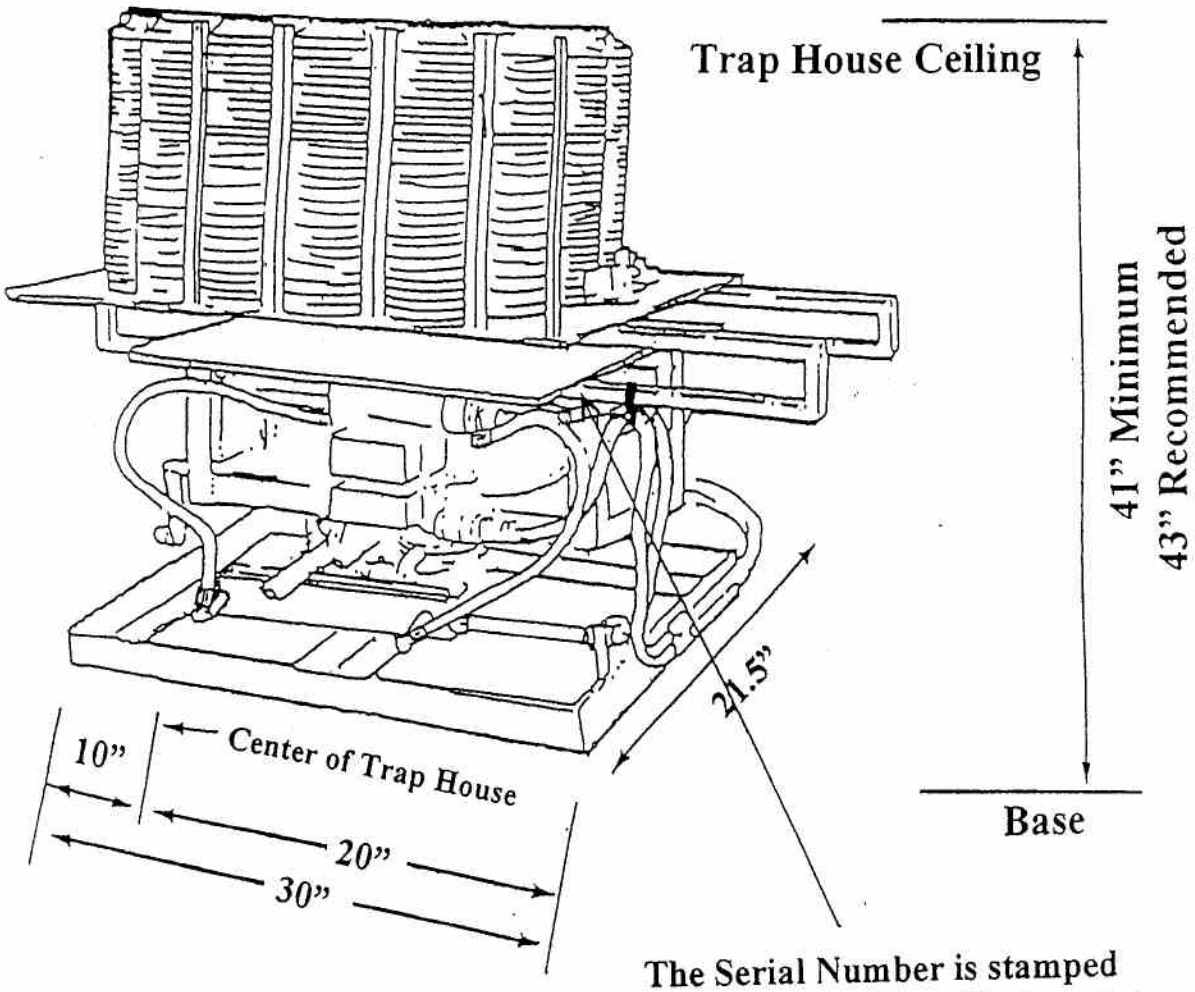
The target throw arm extends 4" beyond the plates. Keep away from the moving parts. Never stand in front of the trap machine.

When the machine is turned ON the throw arm will travel forward to the cocked position through the danger zone.

When the throw arm is fired, the arm will travel through the indicated danger area zone.

The throw arm can be fired by pushing the pullcord button. It can also be fired by hand; by pushing the arm forward off the brake when the machine is either On or Off.




Trap House Ceiling
41" Minimum
43" Recommended
21.5"
10"
Center of Trap House
20"
30"
Base
The Serial Number is stamped
on the edge of the ¼" steel plate.

(Diagram 1)

INSTALLATION
OF THE
TRAP MACHINE AND PUMP

1. Place the trap machine in the trap house with the front of the machine as close as possible to the front wall. The platform which the trap machine sits on *must be level*. See Diagram 2. If necessary, the turret may be removed from the machine to place the trap into the house. Please refer to the directions below.

2. The trap is to be set *off center* of the trap house. See Diagram 2

   Measure and mark the center of the trap house. The front of the base is marked with a scratched line at 10" in from the left – facing the front of the machine. Set the machine so that this line is now at the center of the trap house. The base of the trap machine should be set at 41" minimum from the ceiling; however, a setting of approximately 43" is best for loading targets.

3. Holes are provided in the corners of the base to screw down/secure your machine.

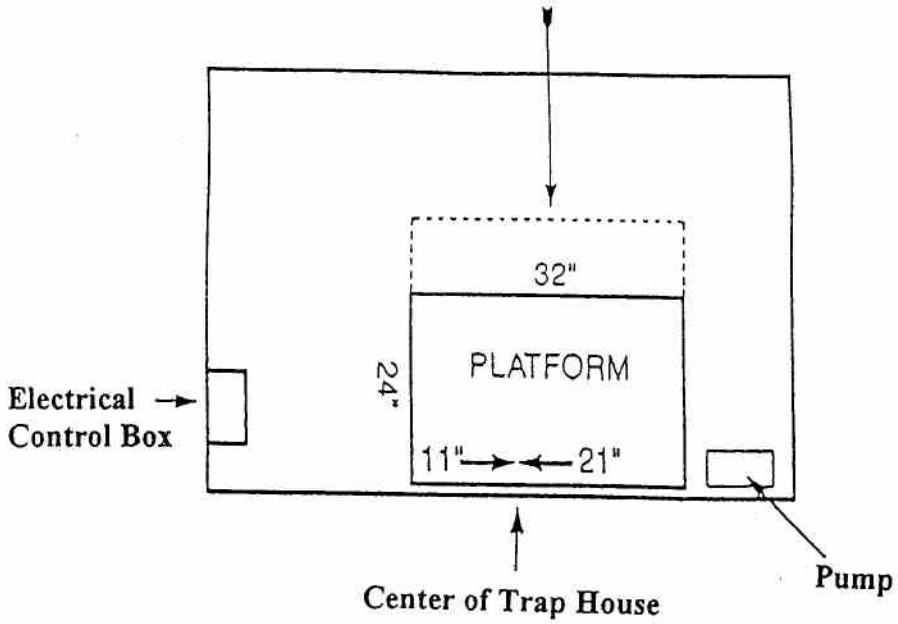
4. The pump reservoir is filled at the factory.

5. Place the pump on the floor – on the left side of the trap house. See Diagram 2

6. If not already connected, connect the quick release fittings from the hydraulic hoses to the front of the trap machine; slide back the outer sleeve of the female fitting while pushing onto the male fitting. Allow the female sleeve to slide forward to lock. Gently tug on the connections to check that they are securely fastened. See Diagram 5

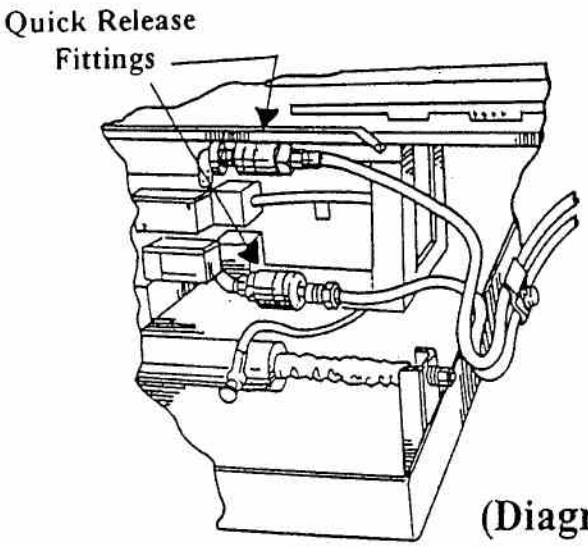
7. To hold the hydraulic hoses in position, clamp to the rear side of the machine approximately 3 feet (of hose) from the quick release fittings. Hoses must be positioned so they do not rub against each other (*or* the wall of the trap house) when oscillating. See Diagram 6

The platform can be extended back if you
Want a place to set targets or tools.

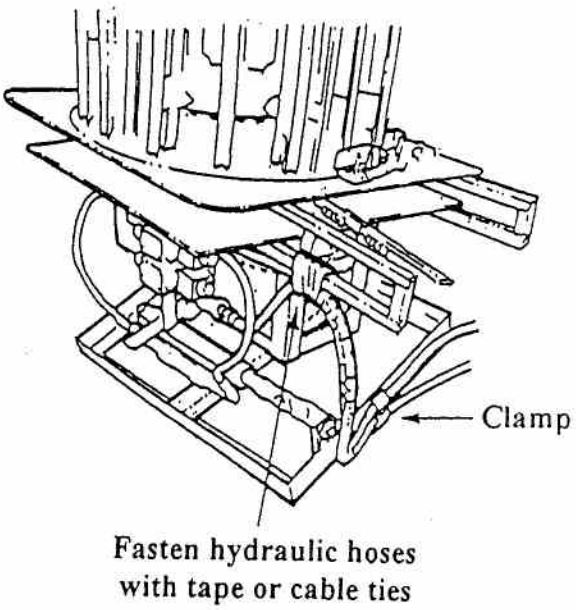


(Diagram 2)

(Diagram 6)



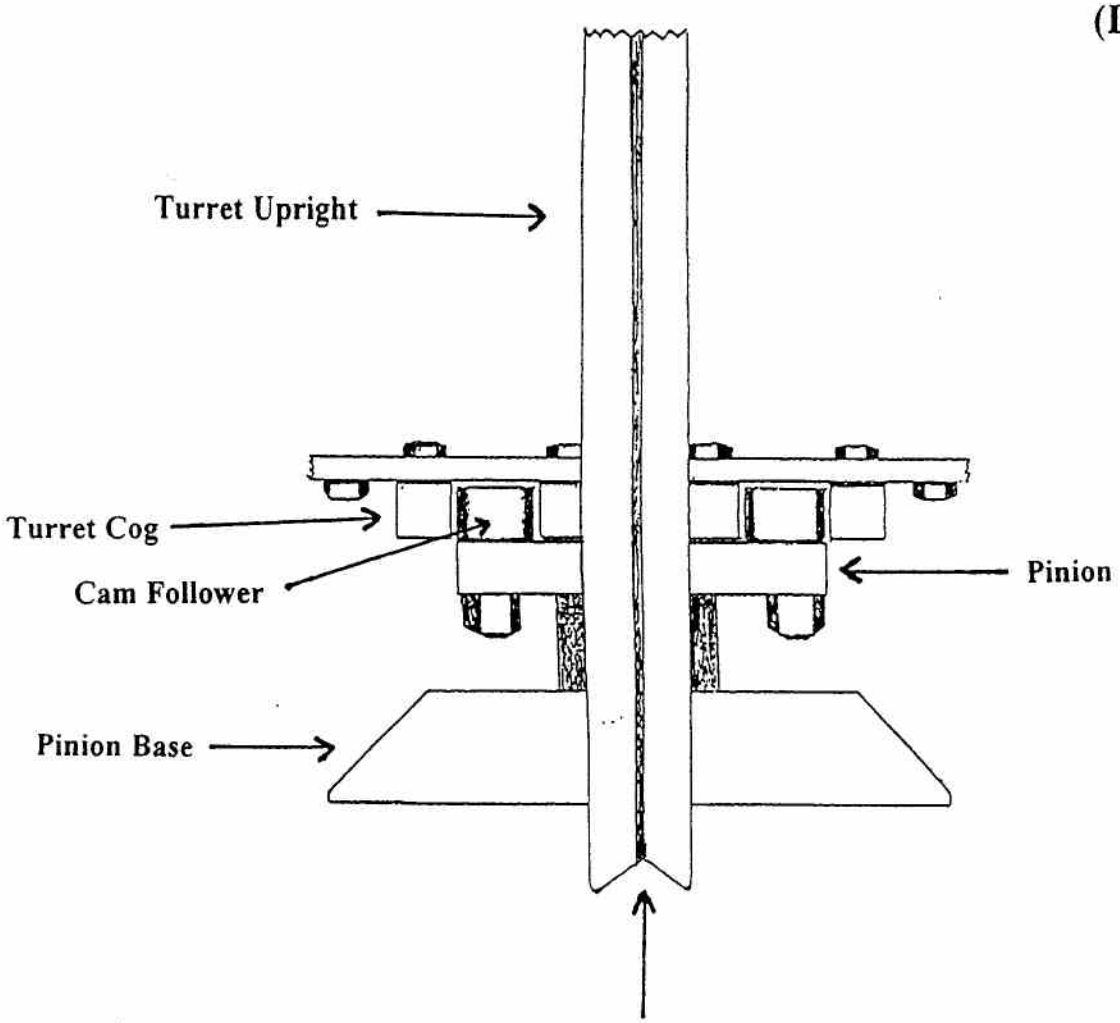
(Diagram 5)



REPLACEMENT OF THE TURRET

WARNING: To <u>prevent damage to your machine</u> the turret must be replaced the same way as it was removed.

(Diagram 42)



Be aware that the turret upright will be aligned with the center of the pinion when the pair of cam followers are meshed with a pair of cogs

1. Observe how the cogs are meshed with the cam followers: i.e., the <u>*pair* of cam followers</u> have to mesh with a <u>*pair* of cogs</u>.

2. Two people, one on each side of the machine, must lift evenly to remove the turret. Place the machine inside the trap house. Replace the turret in the same way that it was removed.

MOUNTING
THE
POWER CONTROL BOX

Mount the power control box just inside the trap house on the right wall near the ceiling of the trap house. This should be the side of the trap where personnel enter/exit the trap house. The power control box should be easily accessible so that it can be operated by placing your hand around the corner of the wall and not exposing your body to the front of the trap machine. The power control box will also be accessible to trap personnel when setting the machine for Doubles. Proper location of the control box is important to insure safety. *Remember:* Never stand in front of a trap machine without having first released the target. See Diagram 2

CONNECTING THE TRAP
TO THE
POWER SOURCE

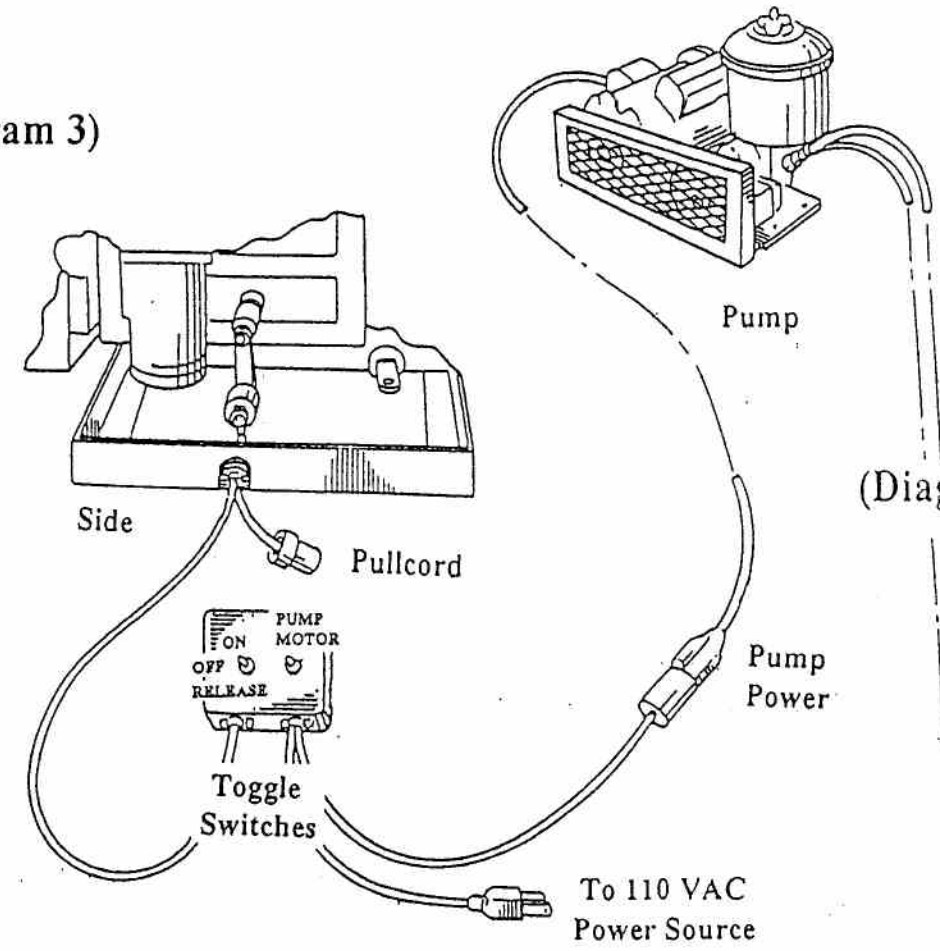
1. Check the power control box to confirm that the *motor* and the *on/off/release* switches are in the OFF position. When both toggle switches are snapped downward they are in the off position. See Diagram 3

2. Connect the pump to the power control box by plugging the pump motor into the outlet coming from the power control box. See Diagram 4

3. The trap machine uses 110 volt AC power. Connect the trap machine to the power source using the plug from the power control box.

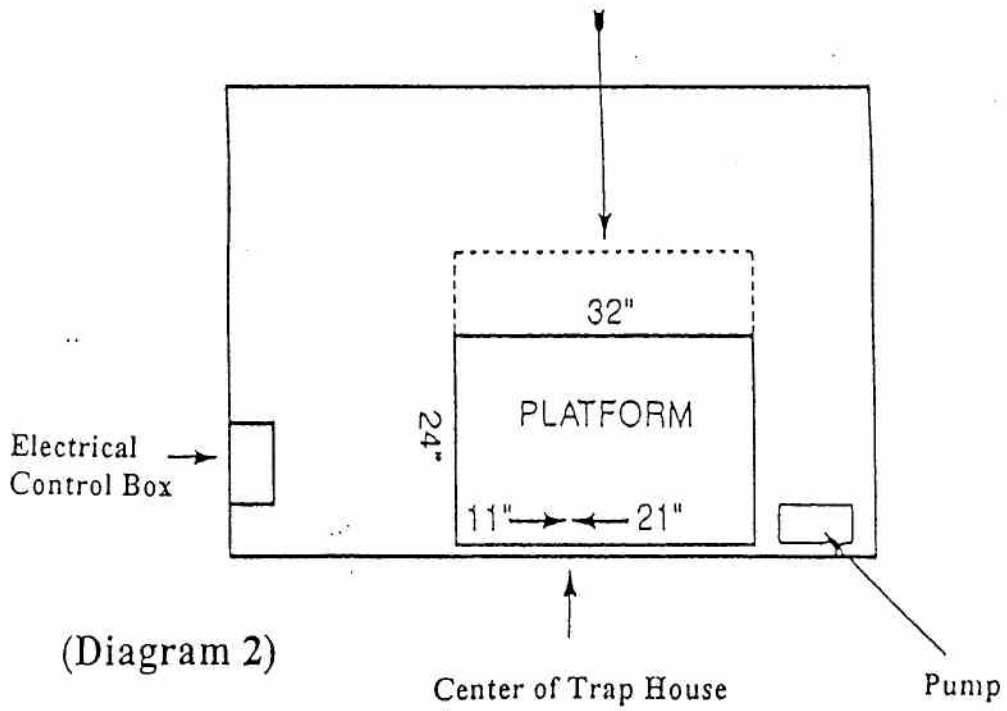
4. Connect the pullcord to the machine. The pullcord must have a male Bryant adapter (Winchester type pullcord). See Diagram 3

(Diagram 3)



(Diagram 4)

The platform can be extended back if you Want a place to set targets or tools.



(Diagram 2)

HOW THE PAT-TRAP® AUTOMATIC DOUBLES MACHINE WORKS

Turn on the pump and the trap machine. The elevator rises to receive a target while the throw arm and turret advance. When a target is loaded, the elevator goes down and the throw arm advances the target until the Activator comes to the #2 and #3 switch bracket. The throw arm is now at the brake (in the cocked position) and the target is set. See Diagram 32

When the pullcord button is pushed, Switch #1 overrides Switch #2 which then advances the throw arm off the throw arm brake causing the machine to fire. See Diagrams 9 and 10

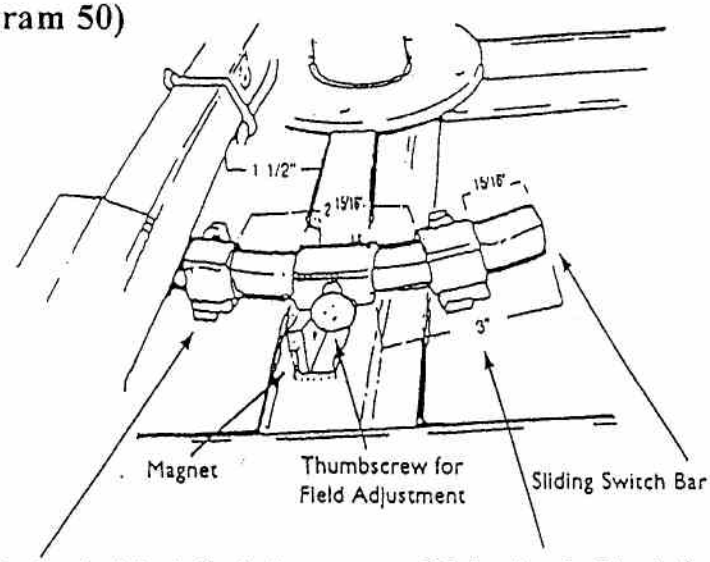
When the activator leaves Switches #2 and #3, the #2 switch closes and begins a new cycle of loading a target. The #3 switch also closes, which starts the oscillation interrupter for a pre-determined length of time*

* The machine oscillates to the left until it comes to Switch #12 activating Relay #2 causing the machine to change direction to the right. Switch #11 holds the Relay engaged until the machine reaches it, breaking the circuit which then disengages Relay #2 causing the machine to oscillate left. See Diagrams 25 and 50. The switching sequence is the same for the wobble machine. See Diagrams 51 and 52

Switch #1	Pullcord button switch
Switch #2	Throw arm limit switch
Switch #3	Oscillation interrupter switch
Switch #11	Right-angle limit switch (black wire)
Switch #12	Left-angle limit switch (red wire)

Field-Angle Adjustment
Up to Serial # 2739

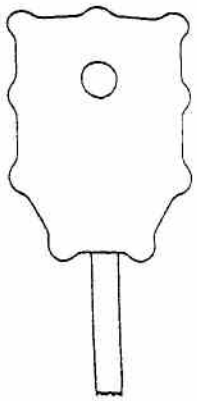
(Diagram 50)



Left-Angle Limit Switch
Switch #12
(Red Wire)

Right-Angle Limit Switch
Switch #11
(Black Wire)

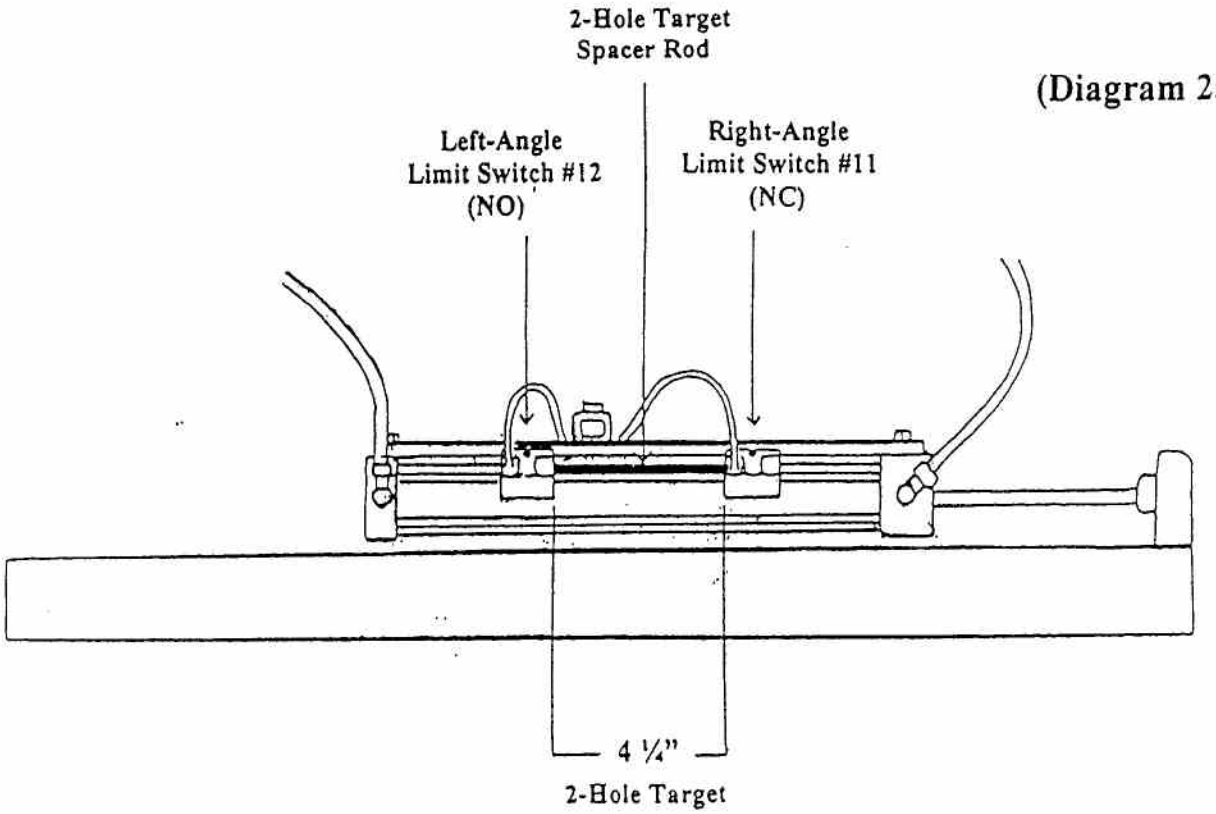
(Diagram 9)



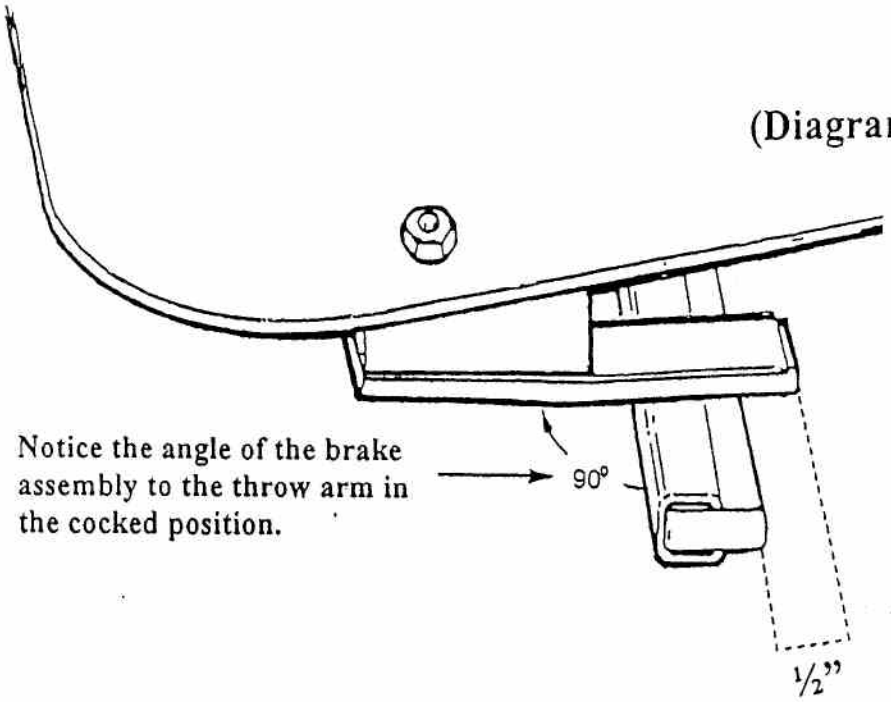
Pullcord Button
Switch #1

Field-Angle Adjustment
From Serial # 2740 ...

(Diagram 25)

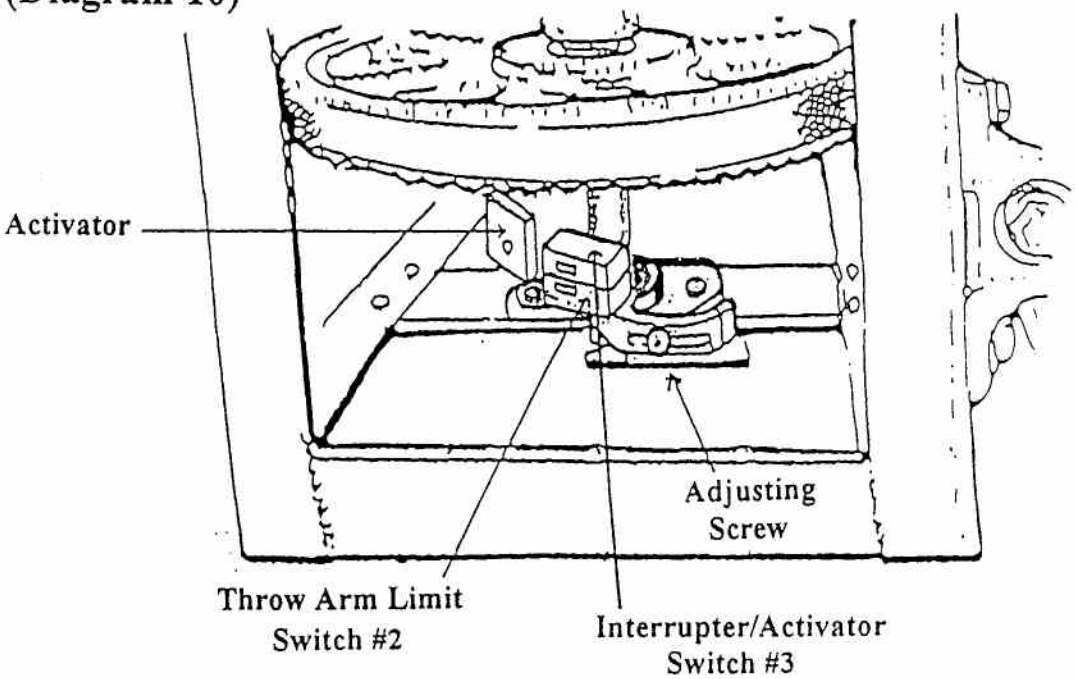


(Diagram 32)

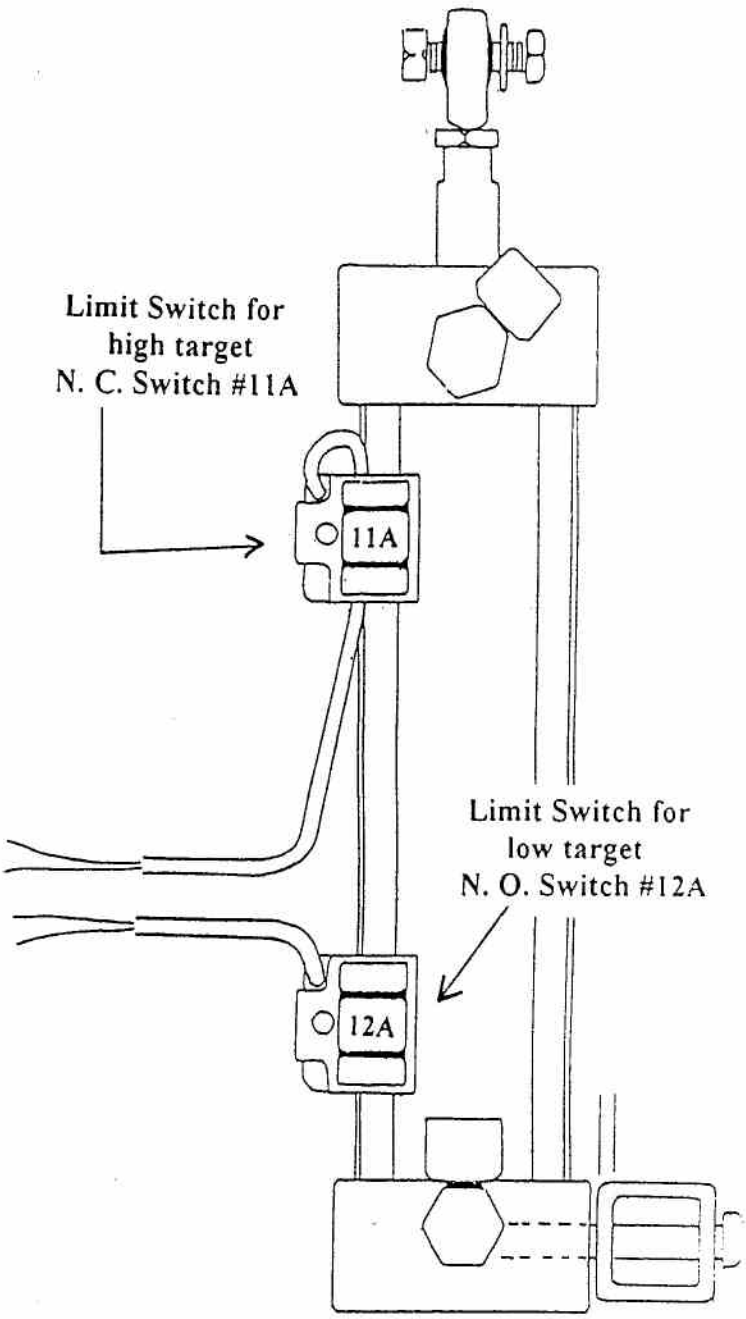


**The stopping position of the throw arm on the brake is approximately ½" behind the end of the brake

(Diagram 10)

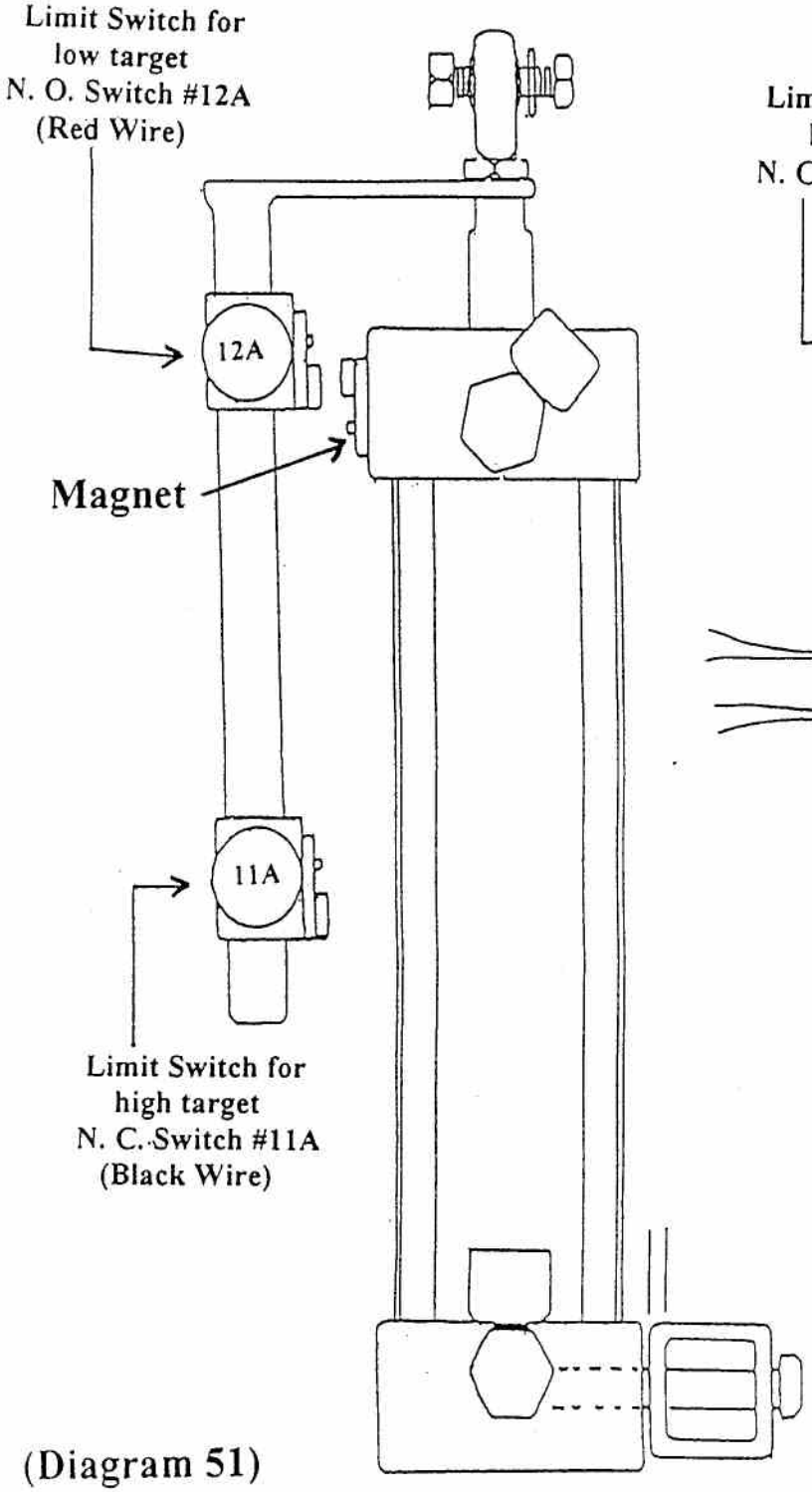


From Serial # 2805 ...



(Diagram 52)

Up To Serial # 2804



(Diagram 51)

TURNING THE PAT-TRAP® MACHINE "ON"

1. **Push the Pump Motor toggle switch UP to the "ON" position. See Diagram 11**

   IMPORTANT: **Turn the motor switch on *first* so that the hydraulic system is pressurized to prevent any air from entering the system. Allow the pump to warm up the hydraulic oil *before* operating the machine. In warm weather this will not matter. Cold temperatures may cause the throw arm to cycle repeatedly if the hydraulic oil is not warm. (see pages – Cold Weather Adjustment)**

2. **Push the On/Off/Release toggle switch UP to the "ON" position.**

TURNING THE PAT-TRAP® MACHINE OFF

1. **Standing outside, and to the side of the trap house, push the On/Off/Release toggle switch all the way DOWN to release and let go. The trap will throw the target and not cock the spring.**

2. **Push the Pump Motor toggle switch DOWN to the Off position.**

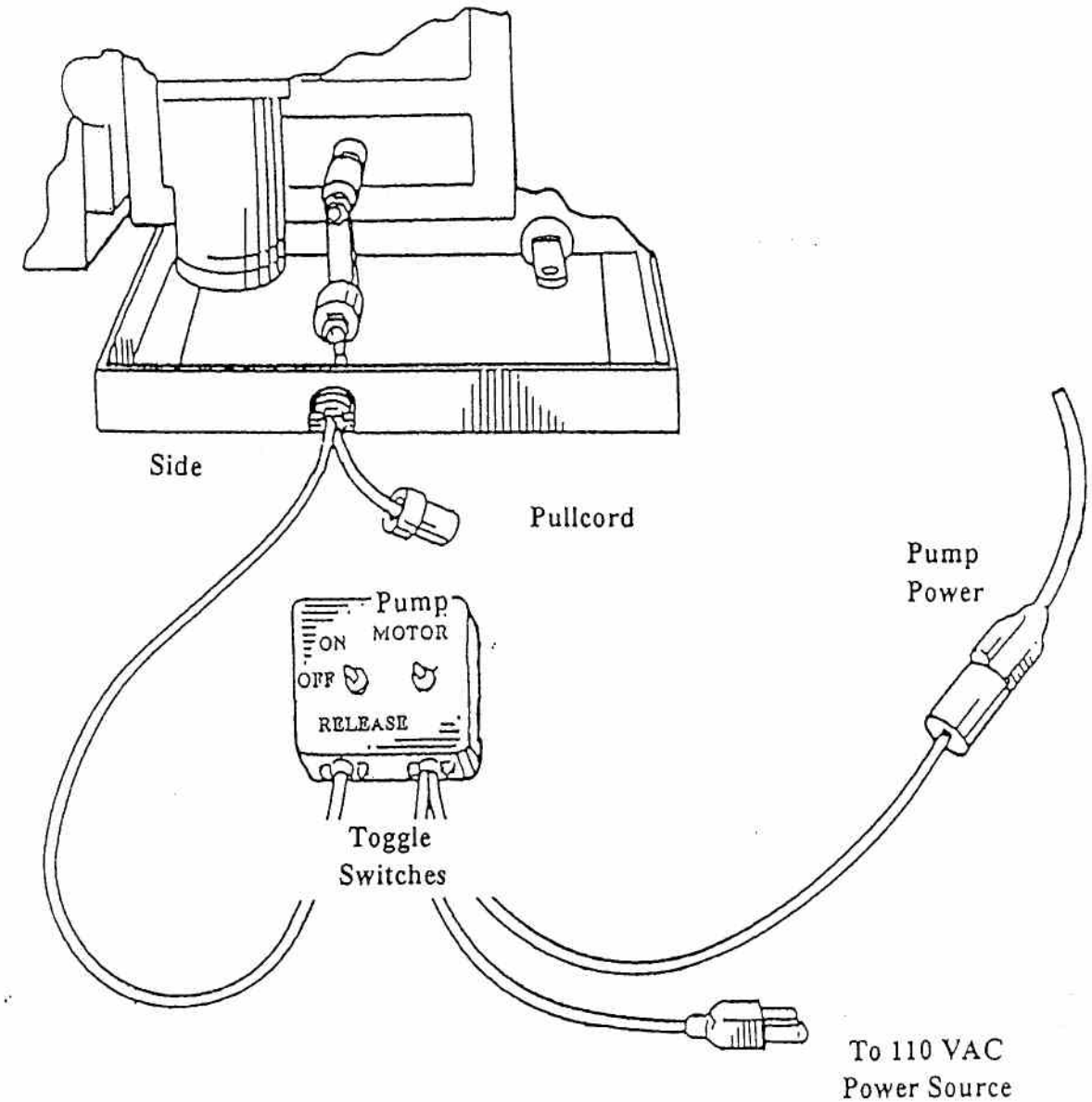
LOADING THE PAT-TRAP® MACHINE

The Pat-Trap® machine holds four (4) full cases of clay targets.

NEVER **attempt to load the clay targets without first releasing the trap machine.**

IMPORTANT: **If the machine is not released, the throw arm may accidentally be hit and discharge a target.**

(Diagram 11)


Side
Pullcord
Pump
Power
Pump
MOTOR
ON
OFF
RELEASE
Toggle
Switches
To 110 VAC
Power Source

PAT-TRAP® SINGLES

1. Standing clear of the trap machine, *release the target.* Push the On/Off/Release toggle switch all the way down to the release position.

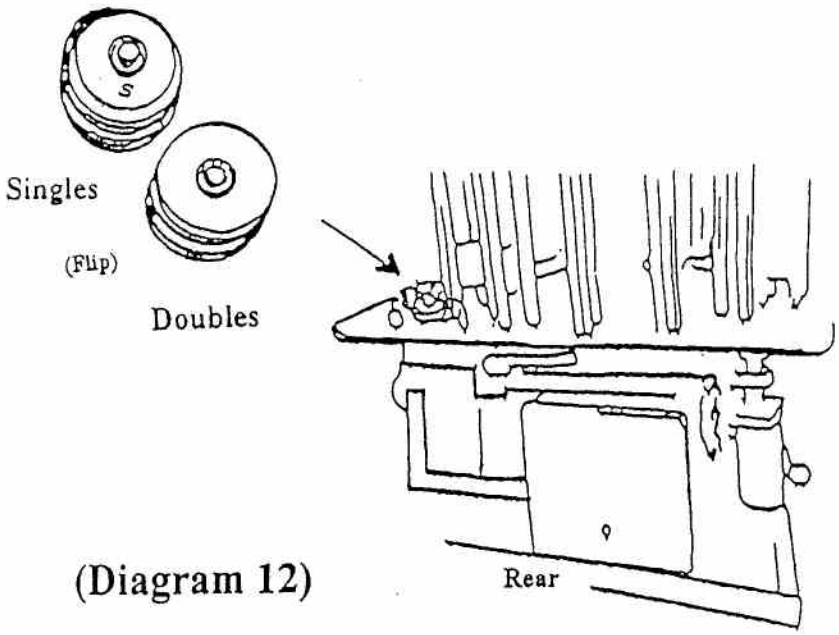
2. The lower roller must be turned so that the stamped "S" is facing upward. Slide the roller off, invert and replace the roller. See Diagram 12

3. The spring tension can be adjusted by rotating the spring crank *clockwise* to *increase tension*; *counter-clockwise* to *reduce the tension.* When changing from Doubles to Singles, rotate the spring crank counter-clockwise the same number of turns that were used to increase the tension for Doubles --- approximately 8 rotations. See Diagram 13

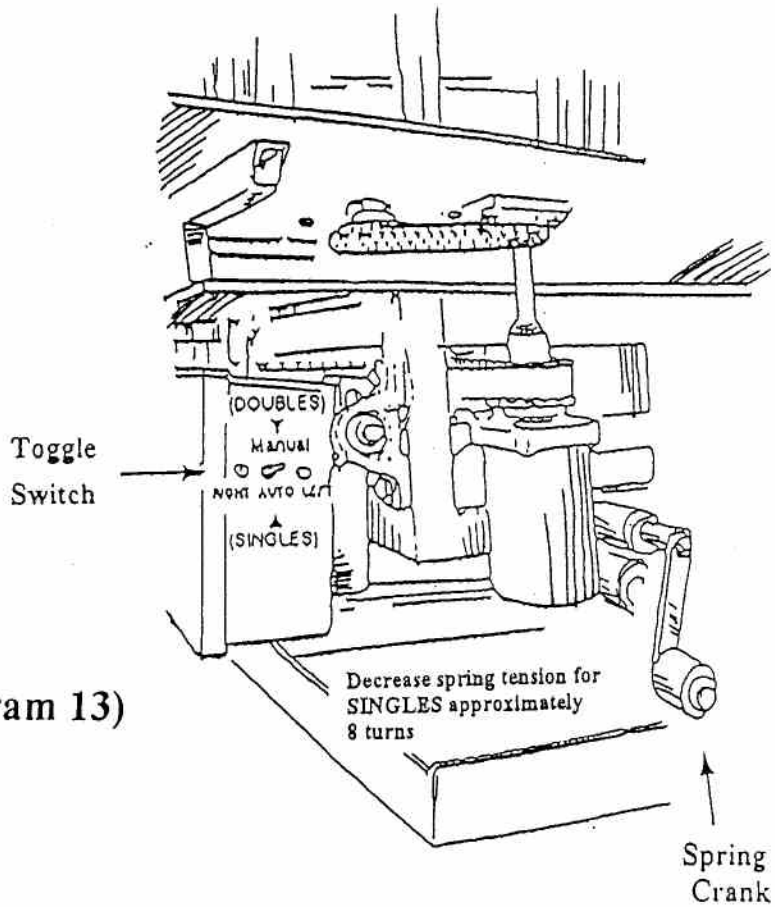
4. On the trap machine electrical box, the toggle switch must be pushed down to the Auto position. This will return the machine to automatic horizontal oscillation. See Diagram 13

5. *Before exiting* the trap house, staying clear of the trap, reach over to the power control box and *release the target* to prevent *accidental* target release.

6. Once out of the trap house, push the On/Off/Release toggle switch up to the ON position.



(Diagram 12)



(Diagram 13)

PAT-TRAP® DOUBLES

IMPORTANT: BE SAFE – stay clear of the throw arm travel path and *NEVER stand in front of the trap machine*

1. *Release the target.* The power to the pump motor can be left on.

2. The lower roller must be turned so that the stamped "S" is facing downward. Slide the roller off, invert and replace the roller. See Diagram 16

3. The spring tension must be *increased* to throw Doubles. Rotate the spring crank *clockwise* approximately 8 rotations from the Singles setting. See Diagram 15

4. On the trap machine electrical box, the toggle switch must be pushed up to the *Manual* position. See Diagram 15. This will stop the automatic horizontal oscillation and will activate the Right and Left buttons. The trap machine must be *ON* to operate the Right and Left buttons. When the trap is On the throw arm is ready to fire. The throw arm can be fired by pushing the pullcord button. It can also be fired by hand: by pushing the arm forward off the brake when the machine is either *On or Off*. Staying clear of the trap machine, reach over to the power control box and turn the On/Off/Release switch to the On position. See Diagram 3

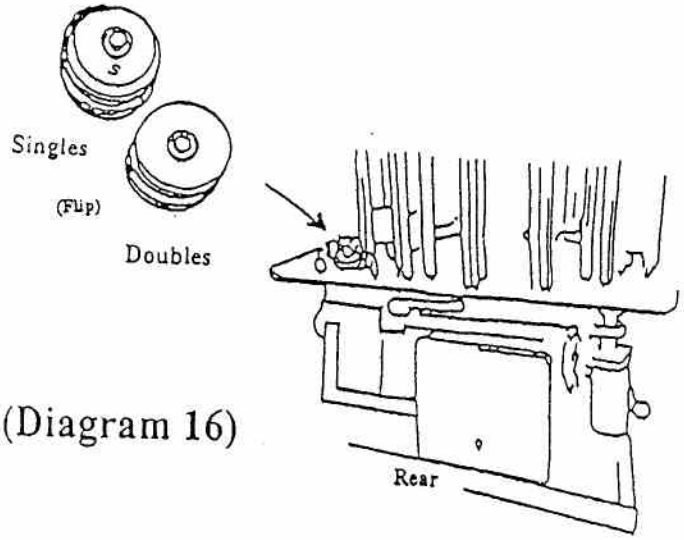
   Use the Right or Left button to move the trap machine to the center..

5. *Before exiting* the trap house, staying clear of the trap, reach over to the power control box and *release the target* to prevent *accidental* target release.

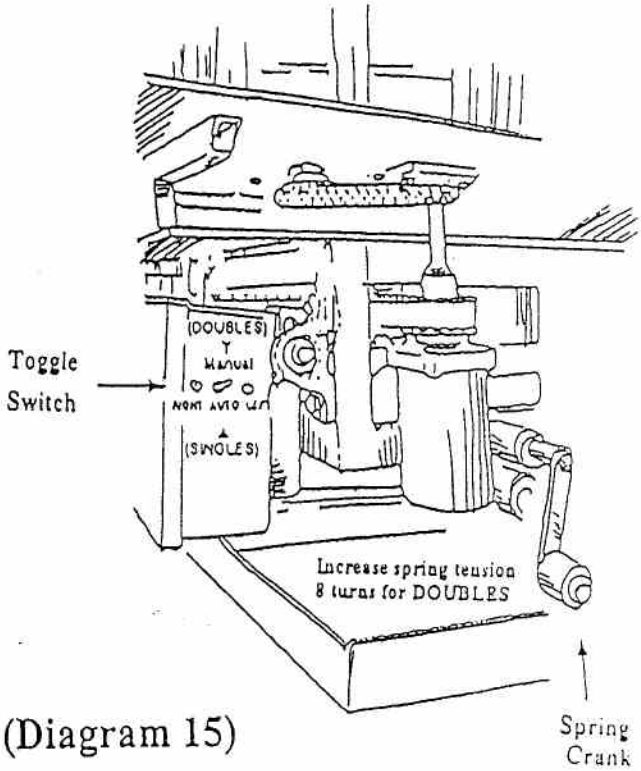
6. Once out of the trap house, push the On/Off/Release toggle switch up to the ON position.

ADJUSTMENT FOR DOUBLES

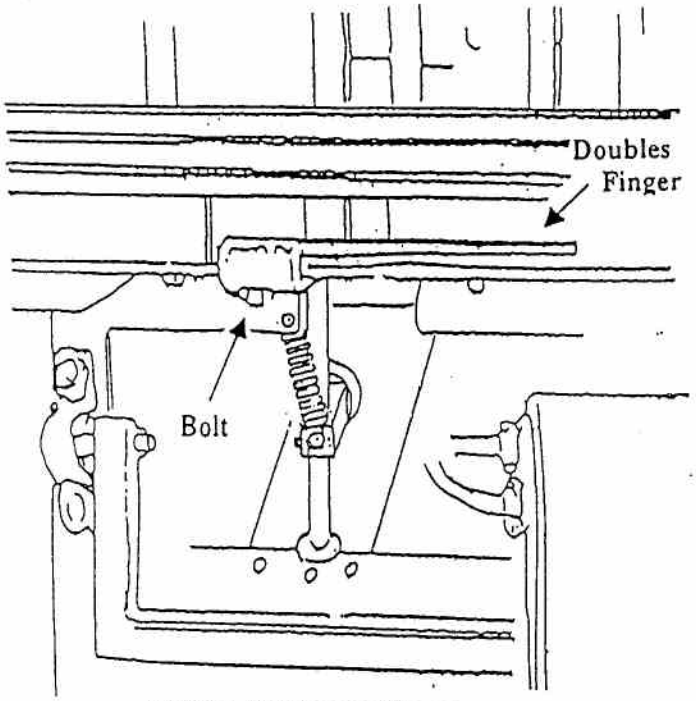
The adjustment for Doubles should only need to be done the very first time the machine is used. Using a 7/16" wrench, loosen the bolt, move the Doubles Finger in 1/8" increments. Pull the Doubles Finger towards *self* to *lower* the height of the right target. Push *in* to *raise* the height of the right target. Tighten the bolt. See Diagram 17. Refer to the section for correct positioning of the Doubles Finger ("X" Finger).



(Diagram 16)

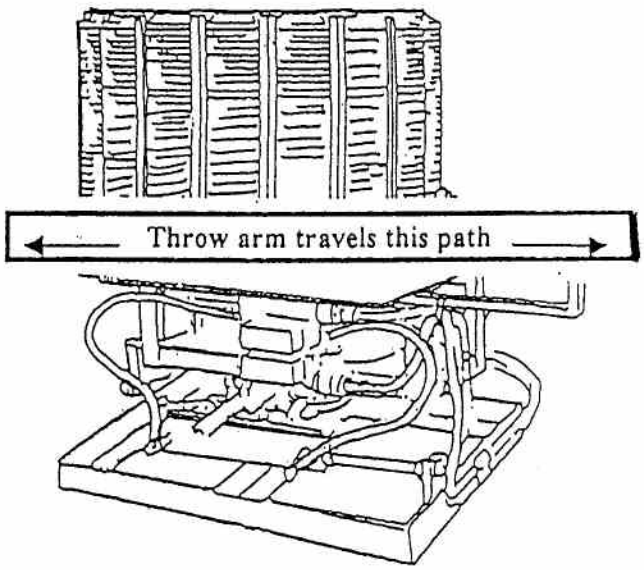


(Diagram 15)



DOUBLES Target Finger Adjustment

(Diagram 17)



(Diagram 18)

PAT-TRAP® WOBBLE

The PAT-TRAP® with Wobble can be used in any of the following modes:

STATIONARY

- X Singles
- X Doubles

OSCILLATING HORIZONTAL

- X Singles
- X Doubles

OSCILLATING VERTICAL

- X Singles
- X Doubles

OSCILLATING HORIZONTAL/VERTICAL

- X Singles
- X Doubles

The PAT-TRAP® with Wobble has an interrupter for the horizontal and vertical modes.

NOTE: If the machine is located inside a trap house, oscillating doubles targets may hit the trap house walls.

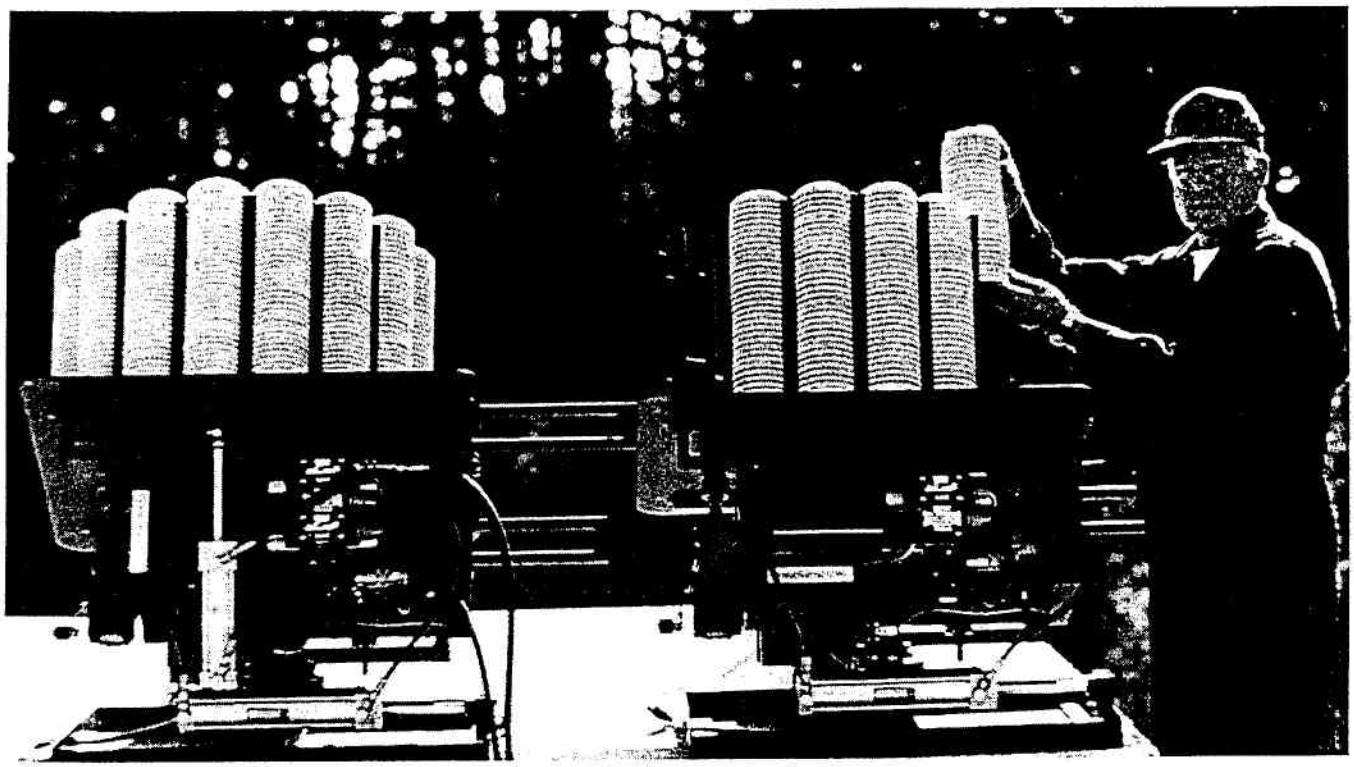
CHANGE OVER TO WOBBLE

Stand clear of the trap machine. Release the target. Use all safety procedures as stated in the previous "Singles" and "Doubles" section of this Manual.

The Oscillation Switch and the Wobbles Switch must be pushed down to the AUTO position on the trap machine electrical box. This engages the machine to the automatic horizontal/vertical oscillation mode.

HEIGHT ADJUSTMENT FOR SINGLES/DOUBLES WOBBLE

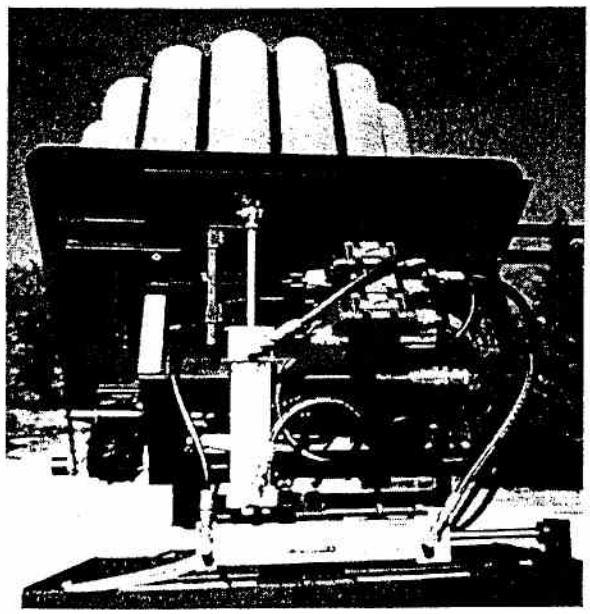
On the trap machine electrical box, the horizontal switch must be moved to the MANUAL position. For desired height, push UP switch to go up; push DOWN switch to go down.

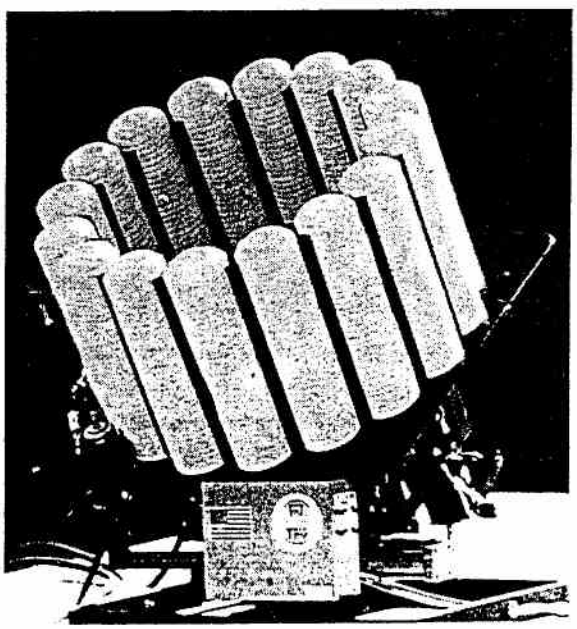


Pat-Trap® w/Wobble

Pat-Trap®

Stuart
Patenaude





SETTING DISTANCE/SPEED

Clockwise rotation of the crank *increases* the spring tension thus increasing the speed of the target and the distance it travels.

Counter clockwise rotation of the crank *decreases* the spring tension. Continued counter-clockwise rotation will remove the tension from the crank and the spring tension lock-nut with hold. The elastic lock-nut holds the spring at the set minimum tension.

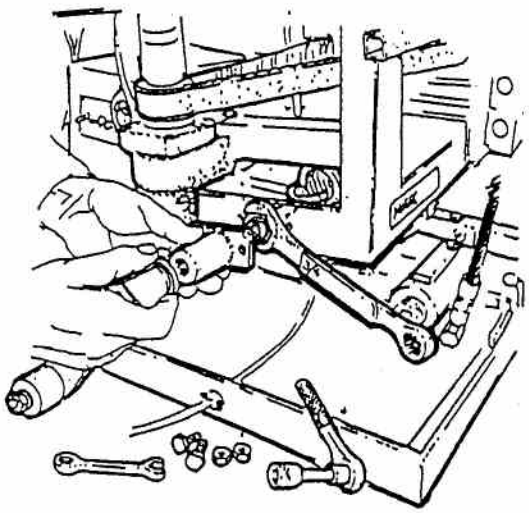
The standard minimum tension should be set so that the spring tension for a Singles target is as follows:

1. Remove the crank by rotating it counter clockwise
2. Remove the nylon washer
3. Remove the two (2) ¼" bolts from the stand off collar
4. Remove the stand off collar
5. See the elastic lock-nut. Use a ¾" wrench on this nut to adjust the distance/speed.
6. When proper/desired distance/speed is achieved, back off the elastic lock-nut three (3) turns.
7. Re-assemble the parts.
8. When the crank becomes snug, continue to turn three (3) more times for the proper setting.

Whenever a Singles distance is to be set, back off the crank to neutral, crank back to snug; then give another three (3) turns for proper setting.

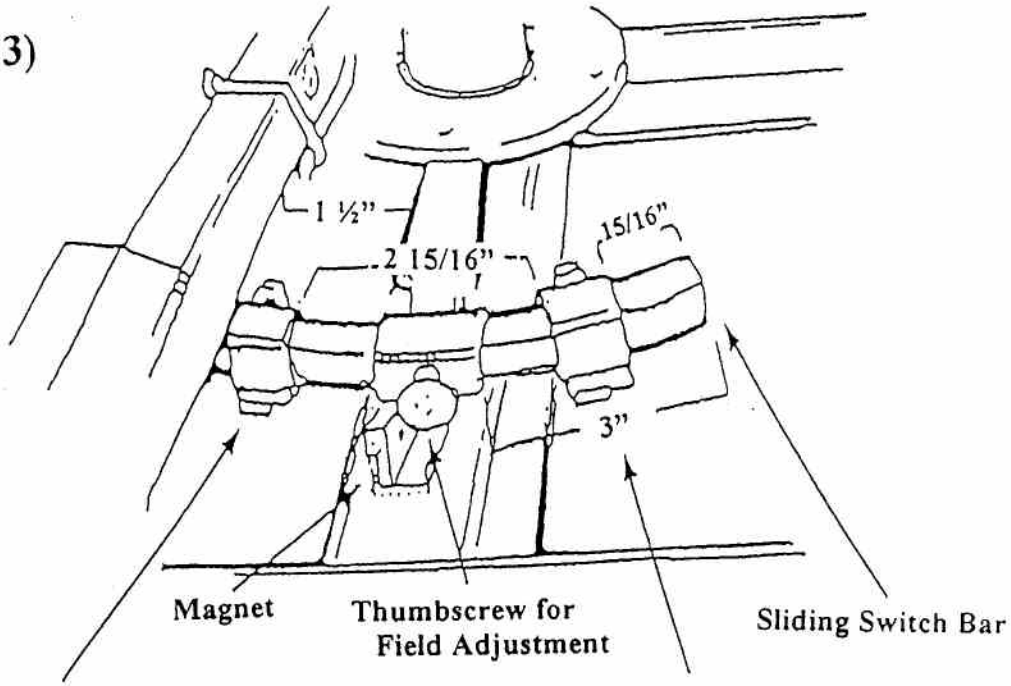
NOTE: Singles are always set first, then follow the procedures for Doubles as outlined in that section.

(Diagram 21)



FIELD-ANGLE ADJUSTMENT
Up to Serial #2739

(Diagram 53)



Left-Angle Limit Switch #12 (Red Wire)	Loosen Thumbscrew To Adjust	Right-Angle Limit Switch #11 (Black Wire)

The measurements in the above diagram are for 2-hole targets. The 2 15/16" spread between the switch holders allows 5 7/8" of total cylinder rod travel --- which equals a 2-hole target. 7" of travel equals a 3-hole target.

If the flight-paths of both the right and left targets are too far to the left, slide the switch bar to the right. 1/8" will make a significant difference.

IMPORTANT: Be sure that the power is off and the trap machine has been released. NEVER attempt to make any adjustment when the arm is cocked. NEVER stand in front of a cocked trap machine. NEVER increase the limit switches beyond the travel path of the cylinder. This may cause the hydraulic cylinder to "bottom out" and damage the cylinder.

ADJUSTING HEIGHT OF TARGETS
Up to Serial #2739

Tilt the table by pushing *up* on the front of the machine. The elevation cog can be positioned up or down. See Diagram 22.

ANGLE ADJUSTMENTS

STRAIGHT-AWAY TARGETS

Set the toggle switch to the manual position. Use the right and left buttons to achieve Straight-Away Targets. See Diagram 13

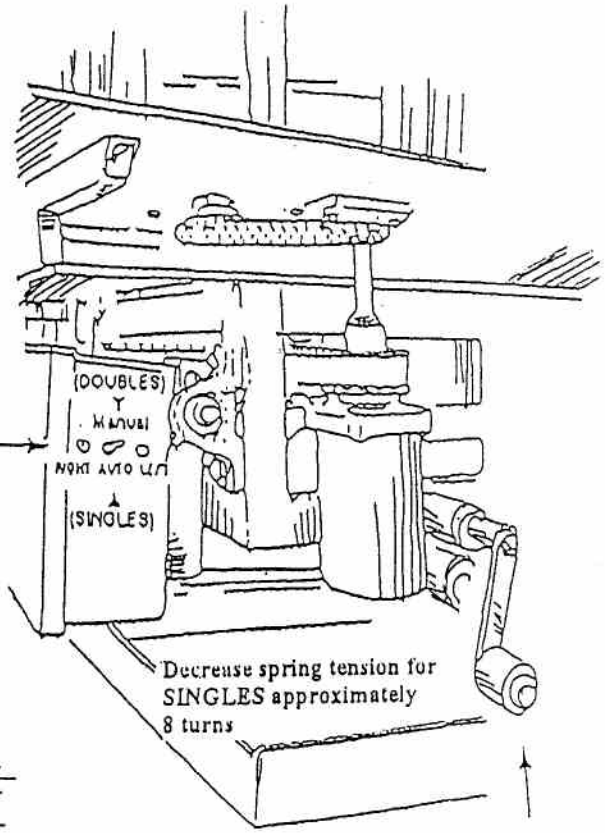
2-HOLE TARGETS

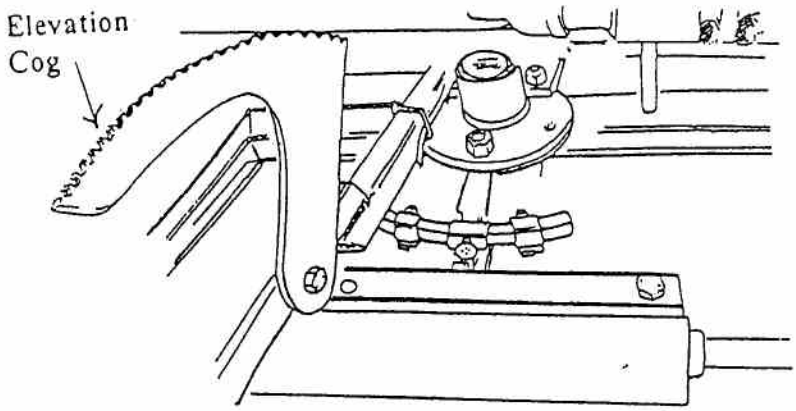
The measurements in Diagram 53 are for 2-hole targets. The 2 15/16" spread between the switch holders allows for 5 7/8" of total cylinder rod travel --- which equals a 2-hole target. Seven (7) inches of travel equals a 3-hole target.

Loosen the screws. Slide the angle switch toward the "magnet" to *decrease* the angle. Slide the angle switch away from the "magnet" to *increase* the angle. Re-tighten the screws to hold the switch in place. See Diagram 53

IMPORTANT: *Be sure that the power is off and the trap machine has been released. Never attempt to make any adjustments when the arm is cocked. Never stand in front of a cocked trap machine. Never increase the limit switches beyond the travel path of the cylinder. This may cause the hydraulic cylinder to "bottom out" and damage the cylinder.*

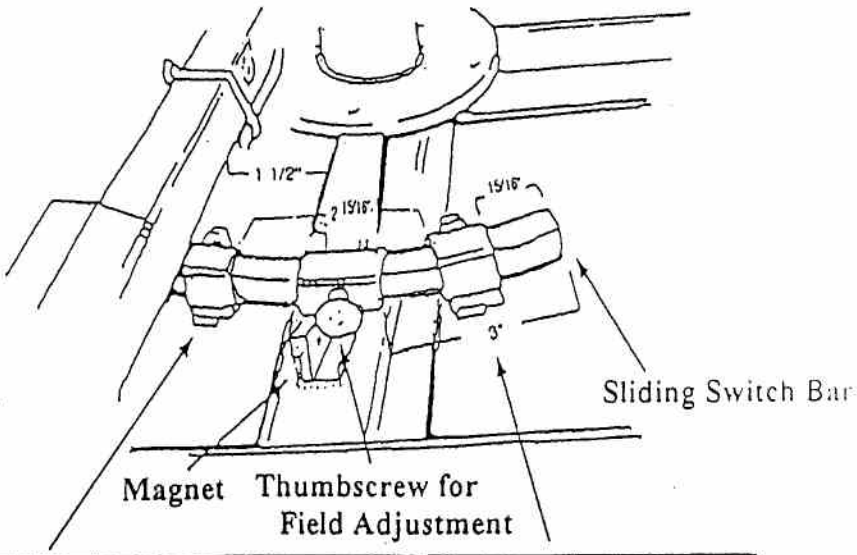
(Diagram 13)





(Diagram 22)

(Diagram 53)



Left-Angle Limit Switch #12 (Red Wire)	Loosen Thumbscrew To Adjust	Right-Angle Limit Switch #11 (Black Wire

ADJUSTING HEIGHT OF TARGETS
From Serial # 2740 ....

Tilt the table by pushing *up* on the front of the machine. The elevation cog can be positioned up or down. See Diagram 22.

ANGLE ADJUSTMENTS

STRAIGHT-AWAY TARGETS

Set the toggle switch to the manual position. Use the right and left buttons to achieve Straight-Away Targets. See Diagram 13

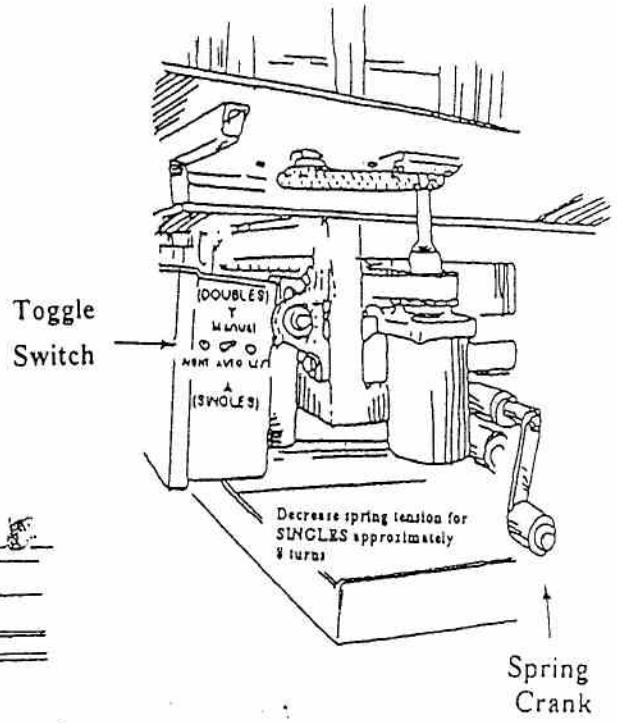
2-HOLE TARGETS

The measurement in Diagram 25 is for 2-Hole Targets. The 4 ¼" spread between the switches allows for 5 7/8" of total cylinder rod travel --- which equals a 2-Hole Target. The 5 ¼" spread between the switches allows for 6 7/8" of total cylinder rod travel --- which equals a 3-Hole Target.

SHIFTING THE TARGET FIELD

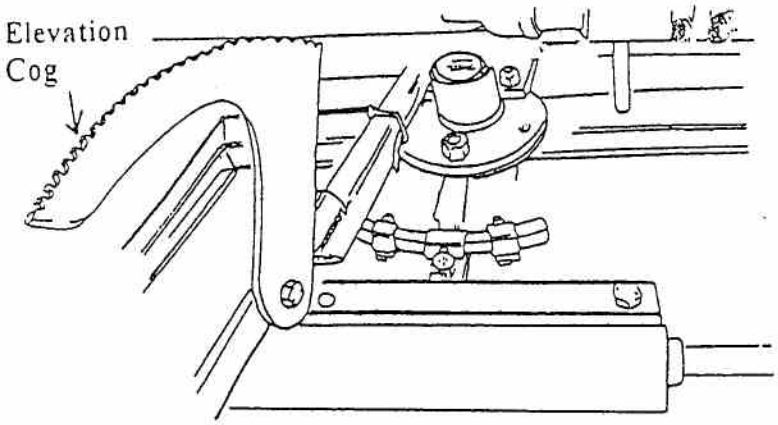
The 9/64" hex head set screws on the limit switches are already pre-set. A spacer rod that is 4 ¼" long is provided for setting a 2-Hole target field width. The field can be adjusted by sliding the limit switches in the direction you want to move the the field; to move the field to the right, slide the switches to the right as you are facing the machine. Use the spacer bar to maintain the proper field width. The set screws are lightly set so that you can slide the limit switches without adjusting the set screws.

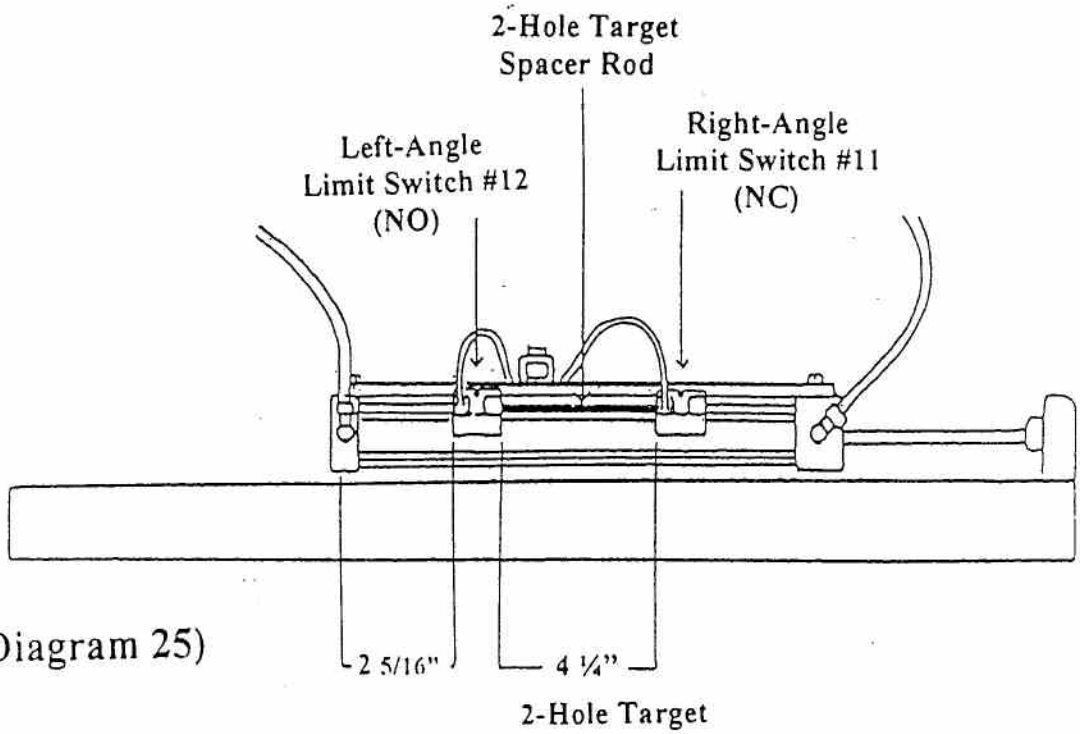
IMPORTANT: *Be sure that the power is off and the trap machine has been released. Never attempt to make any adjustments when the arm is cocked. Never stand in front of a cocked trap machine. Never increase the limit switches beyond the travel path of the cylinder. This may cause the hydraulic cylinder to "bottom out" and damage the cylinder.*



(Diagram 13)

(Diagram 22)

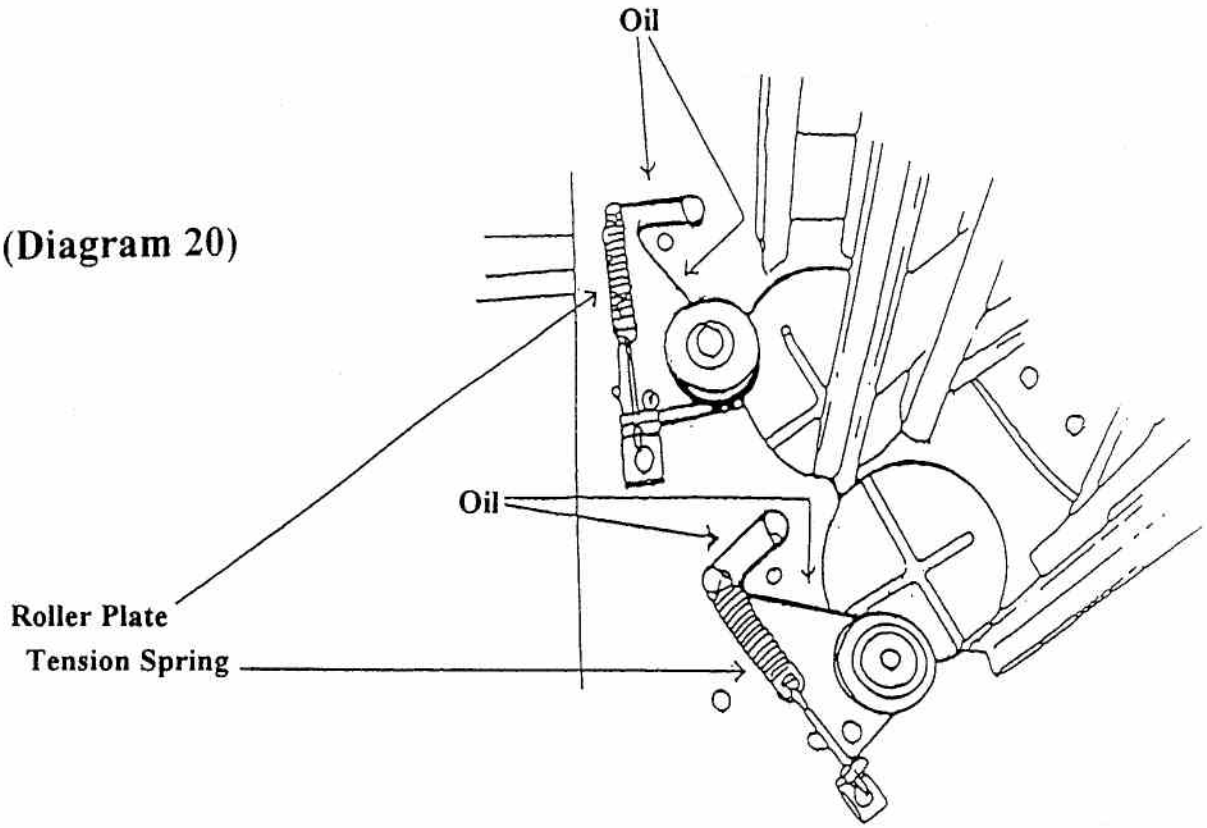




(Diagram 25)

ROLLER PLATE MAINTENANCE

(Diagram 20)



NOTE: There needs to be enough spring tension to keep the stack of targets from slipping down past the target rollers. The tension is pre-set at approximately fourteen (14) pounds.

PROBLEM:

1. Dropping Doubles while in Singles mode
2. Breaking targets

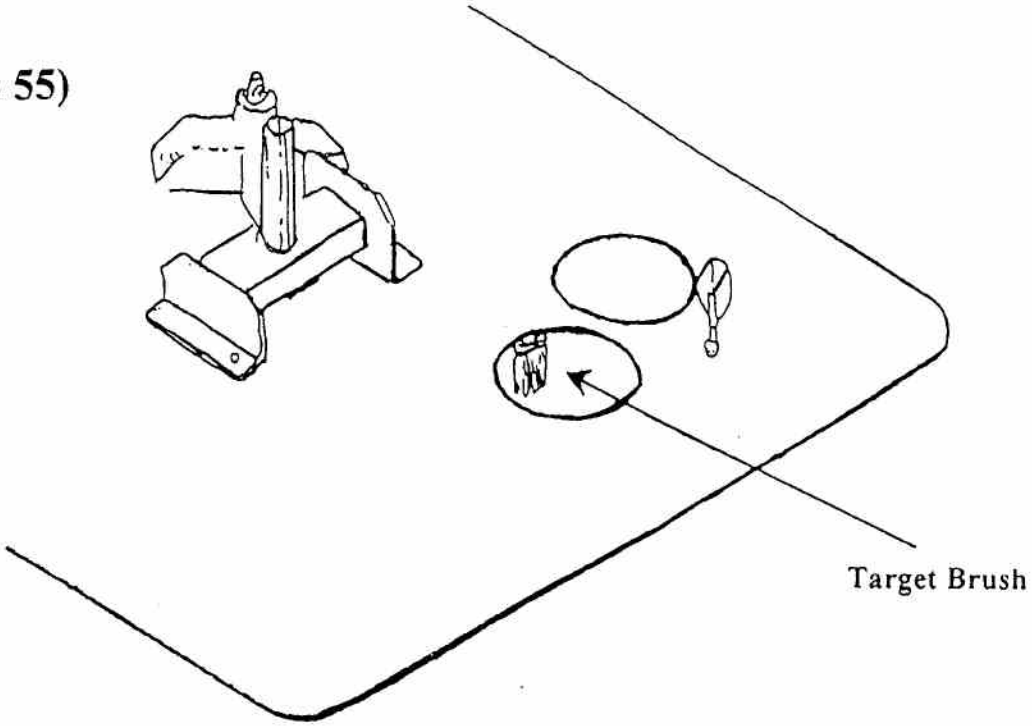
SOLUTION:

Place a *few* drops of light oil under the top edges of the roller plates. Be sure to *inspect the roller plates every three weeks* by pulling back and forth on the wheel to see that they slide smoothly. Any excessive oil might drop down onto the throw arm and brake causing the machine to cycle.

Do not use sprays such as RemOil, WD-40 or other such oils as they may dissolve the clay target dust. Use 3 & 1 oil or a synthetic lubricant with teflon----such as Super Lube.

TARGET BRUSH MAINTENANCE

(Diagram 55)



PROBLEM:

1. Breaking targets
2. Targets being thrown further to the right

SOLUTION:

It may be time to change the target brush. When the target brush becomes worn out, the target can be bumped ahead *and/or* slide down the throw plate. This can cause either the target to break or be thrown further to the right.

PURPOSE:

The purpose of the target brush is to hold the target against the throw arm when the throw arm advances to the cocked position.

MAINTENANCE:

When the brush begins to "flair out", loosen the screw and turn the brush 180 degrees. The brush needs to be aligned within it's slot. Replace the brush when needed.

COLD WEATHER ADJUSTMENT
TEMPERATURE/RELEASE TIME
STOPPING THE THROW ARM ON THE BRAKE

In very cold weather, the pump motor should be turned on 30 to 60 minutes before operating time to warm up the hydraulic oil. If the On/Off/Release switch is turned on too soon, the machine will keep cycling (throwing targets).

Extreme temperature changes may affect the stopping position of the throw arm. Very cold temperature may cause the machine to keep cycling by itself. Very warm weather may stop the throw arm too soon and cause slow pulls. Refer to the figure of the throw arm brake assembly for the proper stopping position of the throw arm. See Diagram 32

ADJUSTING RELEASE TIME
CORRECTION OF CYCLING PROBLEM

There are two switches on the left side of the trap machine which are mounted on a bracket. Loosen the thumb screws *or*, with a hex key, loosen the set screw. Move the switch bracket by increments of 1/16" to the left (toward the front of the trap house) to *stop cycling* --- or lengthen the throw time --- causing the arm to stop further back on the brake.

To *shorten* the throw time, move the switch bracket to the right --- toward the back of the trap house --- causing the throw arm to stop further forward on the brake. See Diagram 27

For proper stopping position of the throw arm on the brake, please refer to Diagram 35.

CAUTION

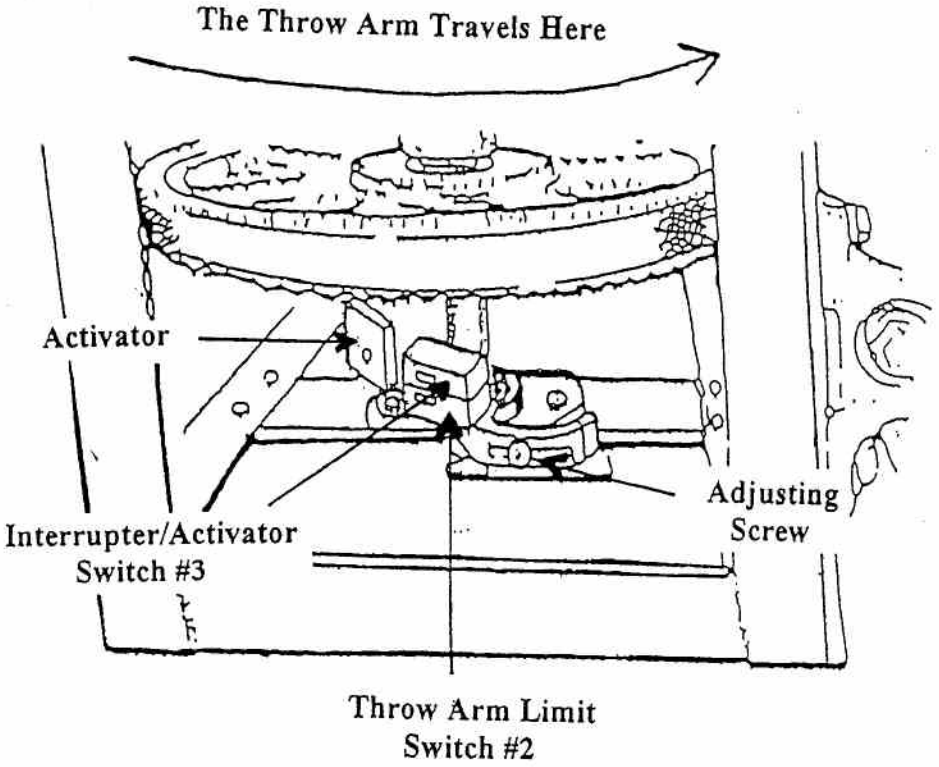
When the machine is turned ON the throw arm will travel forward to the cocked position through the danger zone.

When the throw arm is FIRED, the arm will travel through the indicated danger area.

The throw arm can be fired by pushing the pullcord button. It can also be fired by hand, by pushing the arm forward off the brake when the machine is either On or Off.

DANGER ***DANGER***

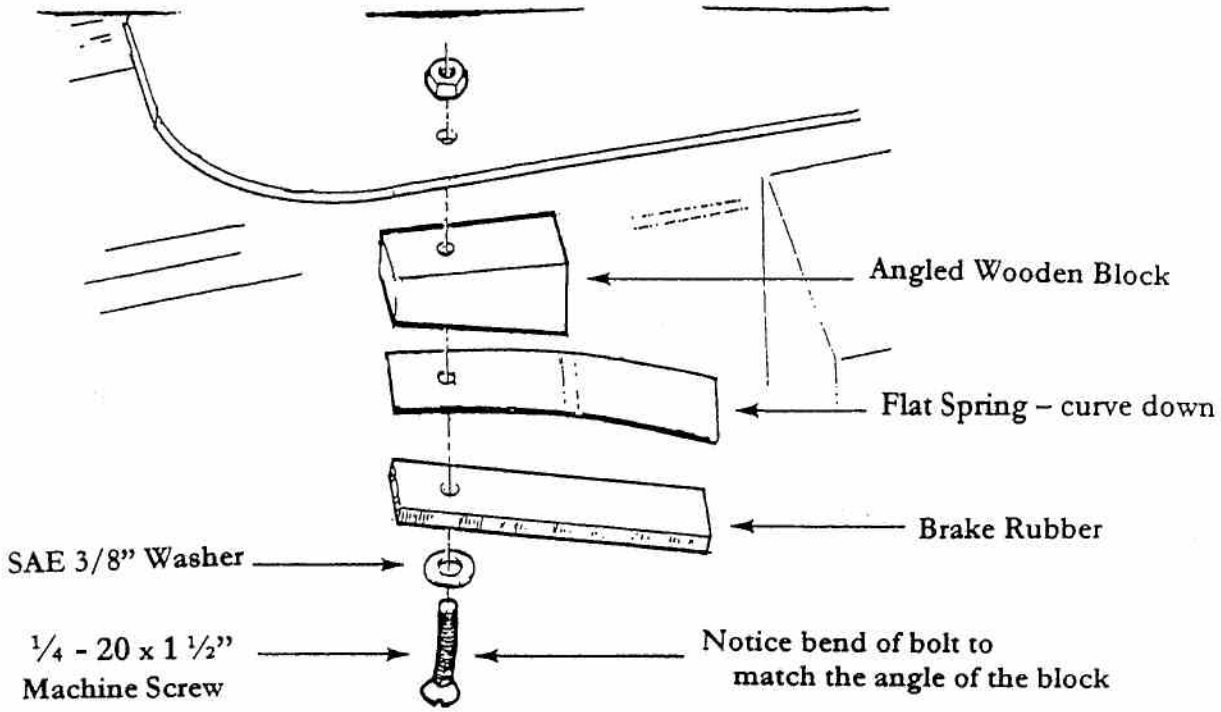
DANGER



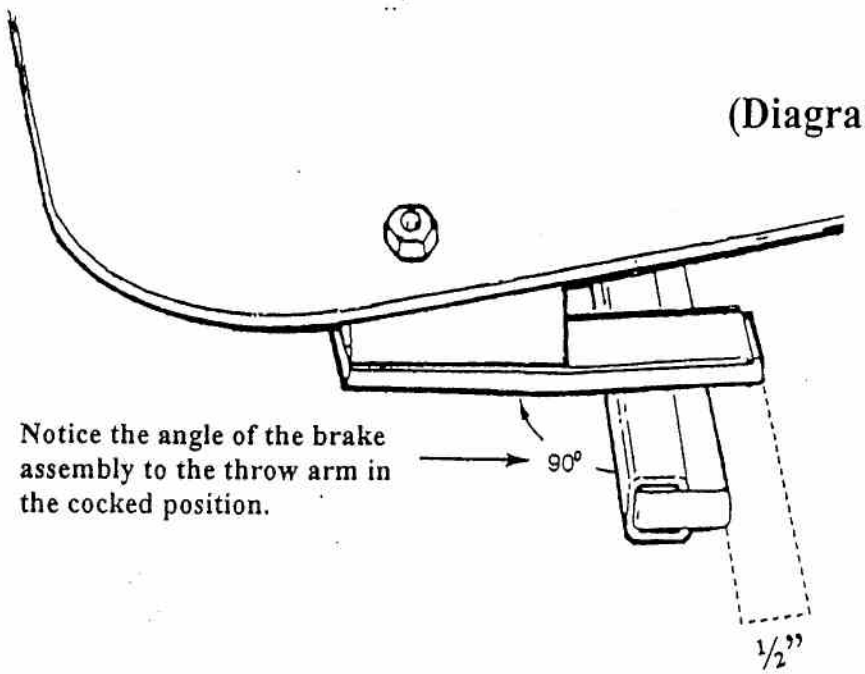
(Diagram 27)

ASSEMBLY OF THROW ARM BRAKE

(Diagram 31)



(Diagram 32)



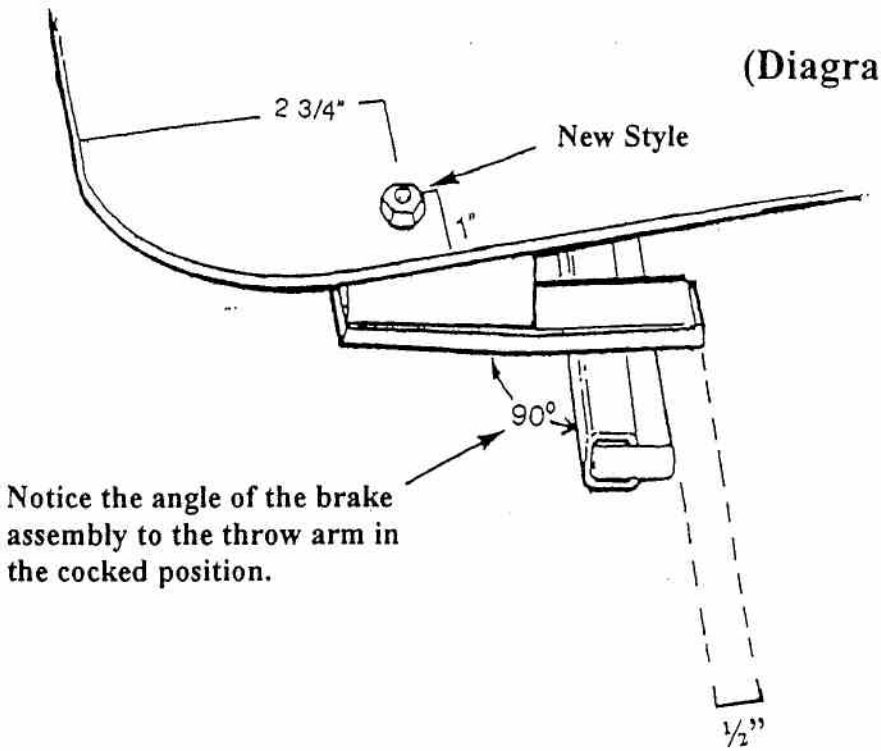
**The stopping position of the throw arm on the brake is approximately ½" behind the end of the brake

INSTALLATION
OF THE
THROW ARM BRAKE

NOTE: Proper position of the throw arm brake depends upon the style of the throw arm being installed. On the "new style" throw arm the rubber is ½ inch further ahead than the "old style". If installing an "old style" throw arm on a new machine you will have to drill a ¼ inch hole ½ inch further back (left) of the existing hole. Please refer to the diagram below.

1. Stand back from the machine. Release the target and turn off the machine.
2. Remove the brake assembly.
3. Measure the placement of the hole, if necessary. Drill a new hole using a ¼ inch drill bit.
4. Install the brake assembly.

(Diagram 35)



Notice the stopping position of the throw arm on the brake: approximately ½ inch behind the end of the brake.

MAINTENANCE

Keep surfaces dry where the throw arm contacts the brake rubber.
Replace the brake rubber when it begins to wear out.

REMOVAL
OF
THROW ARM

NOTE: *Be sure that the power is off and the trap machine has been released. Never attempt to make any adjustments when the arm is cocked. Never stand in front of a cocked trap machine.*

1. Remove *and/or* disconnect the main spring. Refer to the Disconnecting The Uni-Band section in this manual.

2. Rotate the throw arm to a place where you can reach the nut. Use a $7/16^{th}$ socket on ratchet with an extension to loosen the nut on the throw arm.

3. Move the arm to the area between the braces. Use a pry bar or a long screwdriver, place by the throw arm shaft and pry *up* on the throw arm to remove.

   NOTE: The arm might come off more easily if you wiggle the arm, slightly, up and down while prying up.

4. Pry downwards to put on the new throw arm.

INSTALLATION OF THE THROW ARM

1. **Release the throw arm.** ***Never attempt to work on your machine while it is in the cocked position.***

2. **Turn off the machine and "drop" the machine to the lowest elevation of easier working conditions.**

3. **Disconnect the main spring *before* working with the throw arm. Refer to the Disconnecting the Uni-Band section in this manual.**

The height of the bottom of the throw arm rubber needs to be ½ inch above the throw plate. (This measurement allows for 1/32" between the lip of the target and the throw arm rubber.) The nut on the throw arm can be torqued a maximum of 15 ft/lbs.

With the *main spring disconnected,* check to be sure that there is 1/32" but no more than 1/16" of clearance between the target and the throw arm through the area that the target travels --- especially the area where the target leaves the throw plate surface. Also check to see that the finger on the throw arm scraper has clearance where it passes by the "doubles" finger. If necessary, the "doubles" finger can be bent down using a pair of water pump pliers. A screwdriver can be used between the "doubles" finger and the throw plate to pry it up.

ASSEMBLY
THROW ARM COCKING PIN

The plastic spacers slide onto the bolt easily. The rubber bushings are sometimes a tight fit; use a vise to put them on. One at a time, set the rubber bushings on the flat area of the vise and use a hammer to start the bolt into the bushing. Open the vise slightly more than the width of the bolt and carefully drive the bolt through the bushing. Make sure that the assembly of the spacers and bushings are snug against the head of the bolt. See Diagram 23.

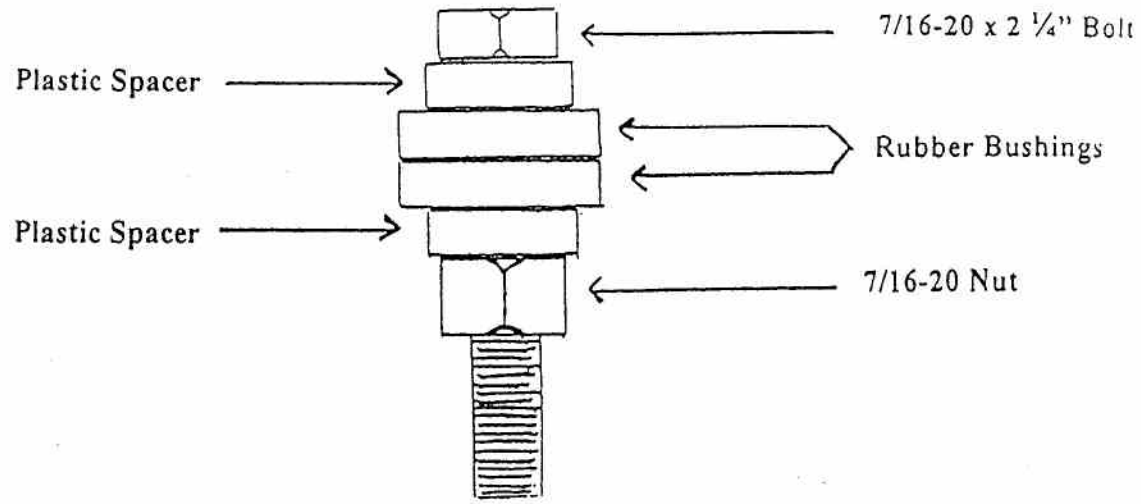
Turn the nut on by hand until it is snug against the spacer.

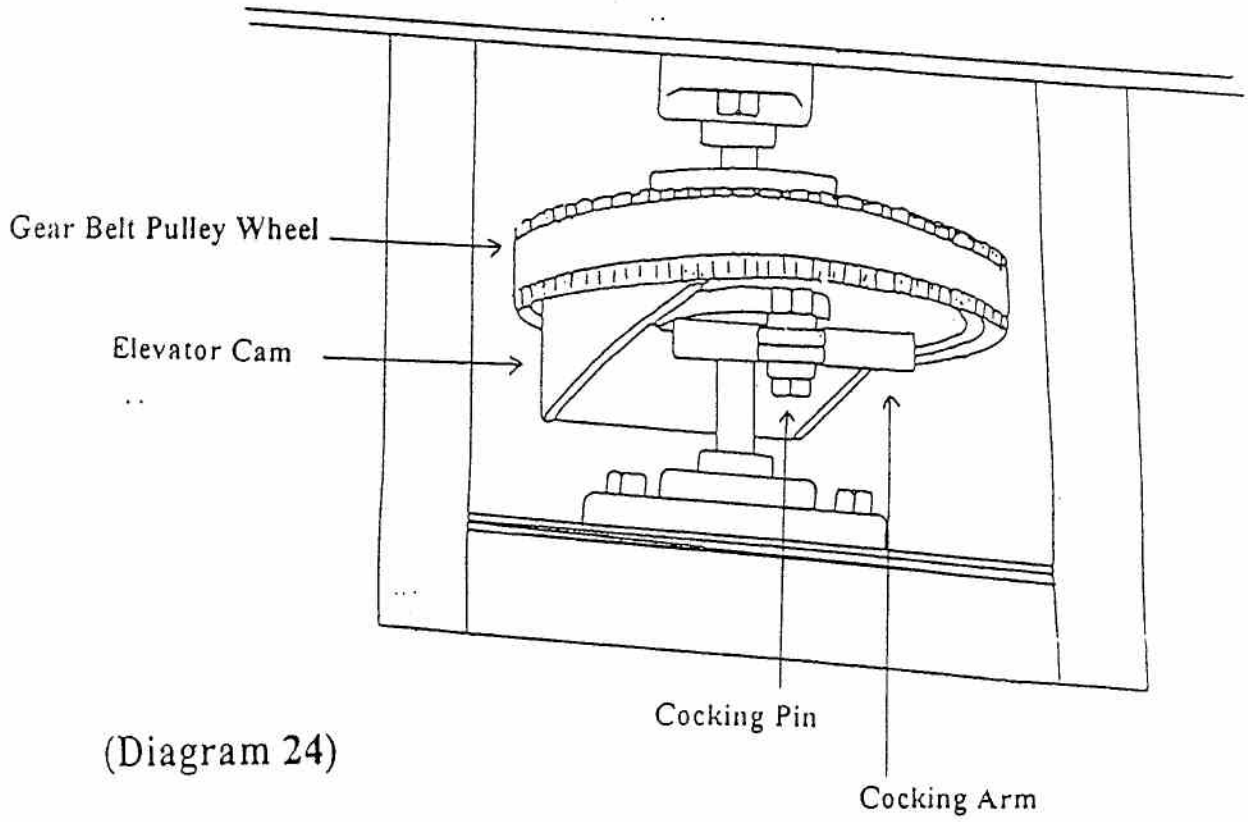
Screw the Cocking Pin Assembly into the gear belt pulley wheel until the nut contacts the wheel.

Now, tighten the nut against the wheel as tight as possible. See Diagram 24.

IMPORTANT: Do not tighten the bolt against the nut because it will compress the rubber bushings and defeat their purpose.

(Diagram 23)





(Diagram 24)

INSTALLATION
OF
THE "X" DOUBLES FINGER

1. Release the throw arm and turn off the machine.

2. Remove the old Doubles Finger and replace with the "X" Doubles Finger.

3. Set the "X" Doubles Finger so that the right-hand end measures 7/8" up from the bottom edge of the throw plate. Tighten the bolt. This is the approximate position of the Doubles Finger for level double targets. See Diagram 34

4. Loosen the nut on the Singles Finger and move the Singles Finger downwards so that the right-hand tip of the Singles Finger measures 4 3/8" from the left-hand end of the "X" Doubles Finger. When tightening the nut, hold back on the Singles Finger so that it does not rotate upwards.

5. Check to see that the throw arm clears the "X" Doubles Finger.

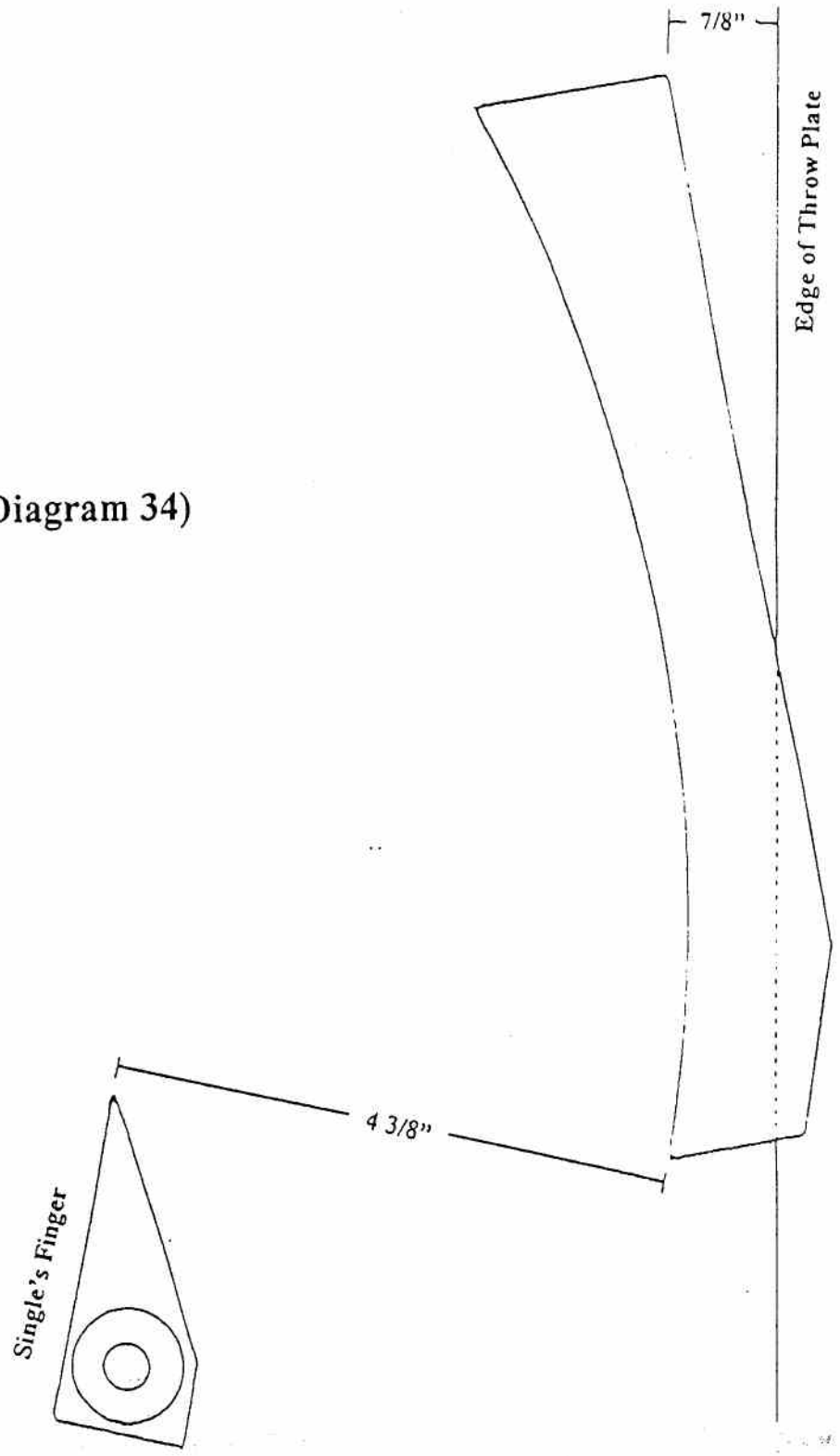
    A. Reduce the main spring tension (unwind the crank handle)

    B. Disconnect the Uni-Band (main spring) --- see appropriate section in this manual.

    C. Move the throw arm manually past the brake and through the area of the "Doubles Finger" to check clearance. Water-pump pliers can be used if the Doubles Finger needs to be bent downwards. A long screwdriver can be used if the "Doubles Finger" needs to be pried upwards.

Presuming the machine is sitting on a level platform, with no wind; these directions should yield a level pair of Doubles.

DOUBLES
"X" FINGER



(Diagram 34)

DISCONNECTING
THE
UNI-BAND (MAIN SPRING)

Release the target before entering the trap house. Never attempt to make any adjustment when the arm is cocked. Never stand in front of a cocked trap machine.

1. **Release the throw arm and turn off the machine.**

2. **Reduce the main spring tension (unwind the crank handle).**

3. **You can now loosen the set screw on the connecting block of the Uni-Band. Pull back and down on the Uni-Band to remove it from the bearing. See Diagram 28. (If there is a high amount of pre-tension on the Uni-Band, you can create some slack by loosening the elastic lock-nut.)**

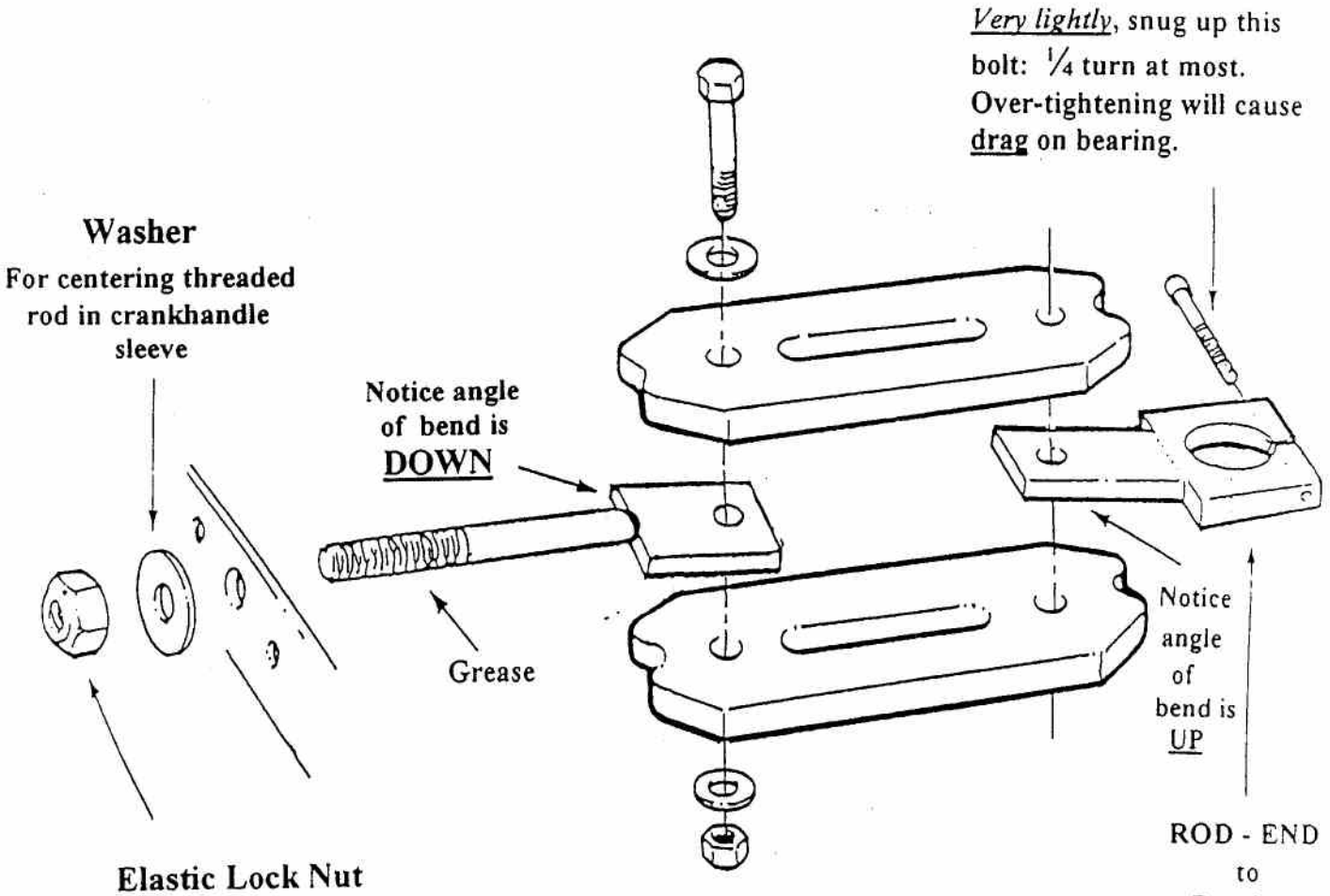
4. **The throw arm can now be freely moved around the throw plate.**

5. **Refer to diagrams 21 and 28, respectively, for re-assembly directions.**

NOTE: **When disconnecting the Uni-Bands from a main shaft clutch system** *see page 37.*

ASSEMBLY/INSTALLATION OF THE UNI-BAND (Main Spring)

TOP



(Diagram 28)

INSTALLATION
OF
MAIN SHAFT CLUTCH

1. Release the throw arm and turn off the machine.

2. Move the throw arm so that it is 6 ¾" from the right hand corner of the throw plate. See Diagram 61.

3. Clamp a vise-grip onto the throw plate with the throw arm at 6 ¾" to prevent the throw arm from moving forward.

4. See Diagram 62. Do not loosen the throw arm crank bolt.

5. Remove the crank handle, the crank handle stand-off collar, the elastic lock-nut and the 7/16" washer. Completely remove the existing Uni-Band assembly from the machine by loosening the rod-end bolt (5/32" hex head wrench). See Diagram 28. Pull down on the rod-end to remove. Remove the small (1 9/16" OD) bearing and the two washers from the bottom of the throw arm crank.

6. Remove the clutch from the rod-end of the new Uni-Band assembly. Align the keyed bushing with the throw arm crank and use the included 3/8 – 24 x 1½" Grade 8 bolt and one washer to fasten it. See Diagram 60. Hold back on the throw arm and torque the bolt to 35 ft/lbs. minimum -- 40 ft/lbs maximum.

7. Put the threaded rod-end through the hole in the frame, then pull the rod-end onto the clutch. Refer to Diagram 60 for proper positioning of the clutch within the rod-end (note 1/16" gap). Firmly tighten the rod-end to the clutch using a 5/32" hex head wrench, while keeping the rod-end level to the clutch.

8. Put the 7/16" washer onto the threaded rod-end. Then screw on the elastic lock-nut. Refer to the section in the manual on *Setting Distance and Speed*, regarding spring tension and adjustment of the elastic lock-nut. Once the proper distance and speed have been set, re-attach the crank handle, stand-off collar and the crank handle.

9. Remove the vise grip from the throw plate.

10. Inspect the hydraulic hoses to make sure that the rod-end does not rub against them.

    WARNING: Do not work on the hoses when the throw arm is cocked. The throw arm must be released and the machine turned off when performing any work on the Pat-Trap®.

11. Begin normal operation of the machine.

CHANGING A PAIR OF UNI-BANDS ON A MAIN SHAFT CLUTCH SYSTEM

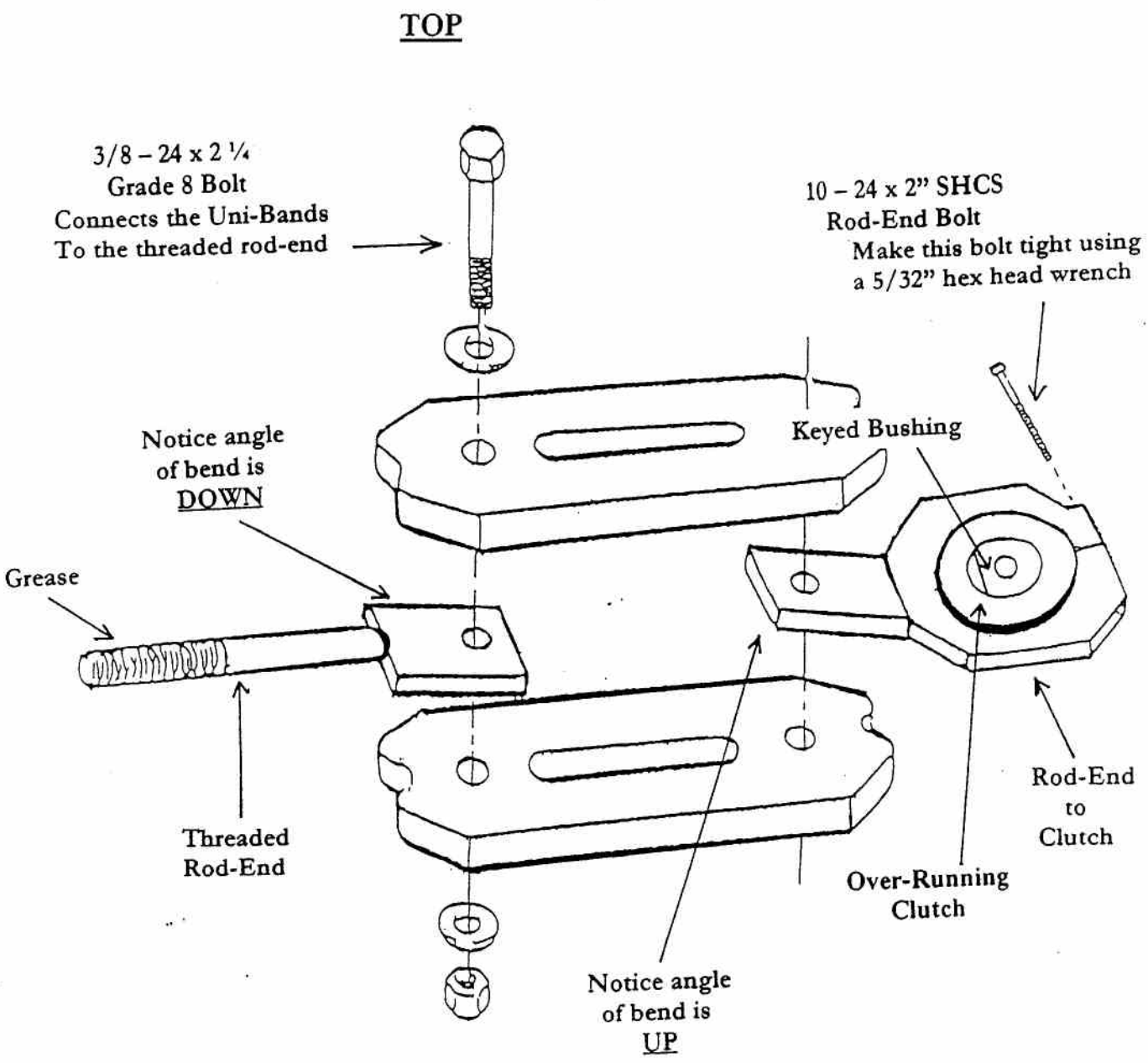
1. Let off the crank handle tension.
2. Turn the machine on to cock the throw arm.
3. When the throw arm stops at the throw arm brake, turn the machine off without releasing the throw arm.
4. WHEN THE THROW ARM IS COCKED, BE SURE TO STAND BEHIND THE TRAP AND STAY CLEAR OF THE THROW ARM. To completely release the tension on the throw arm carefully, manually, release the throw arm by first looping a rope or cord around the end of the throw arm. Then, holding back on the rope at 90 degrees to the throw arm, slowly move the throw arm past the brake and guide it around to the front of the machine.
5. Move the throw arm so that it is 6 ¾" from the right hand corner of the throw plate. See Diagram 61
6. Clamp a vise-grip onto the throw plate with the throw arm at 6 ¾" to prevent the throw arm from moving forward.
7. See Diagram 62. Do not loosen the throw arm crank bolt.
8. Changing the Uni-Bands can be done without removing the threaded rod-end from the machine.
9. Remove the Uni-Band connecting bolts. Disconnect the rod-end from the clutch by loosening the rod-end bolt using a 5/32" hex head wrench; pull down on the rod-end to remove it. See Diagrams 59, 60 and 61
10. When re-assembling with the new pair of Uni-Bands, leave the 3/8 –24 x2 ¼" Grade 8 bolts slightly loose at first. Then, pull the rod-end onto the clutch. Refer to Diagram 60 for proper positioning of the clutch within the rod-end (note 1/16" gap). Firmly tighten the rod-end bolt using a 5/32" hex head wrench. Keep the rod-end level on the clutch. Refer to Diagram 59 for right side up.

Align the Uni-Bands as follows: See diagrams 59, 60 and 61

   A. Keep the clamp in front of the throw arm at 6 ¾" (Step 2)
   B. With the rod-ends and Uni-Bands in alignment to one another, torque the bolts to 10 ft/lbs.
   C. Tension the Uni-Bands with ten turns of the crank handle.
   D. Use two 9/16" wrenches. Hold back on the bolt head (on top) while tightening the nut (on bottom)
   E. Put equal pressure on both of the wrenches and torque the bolts to 35 ft/lbs minimum – 40 ft/lbs maximum

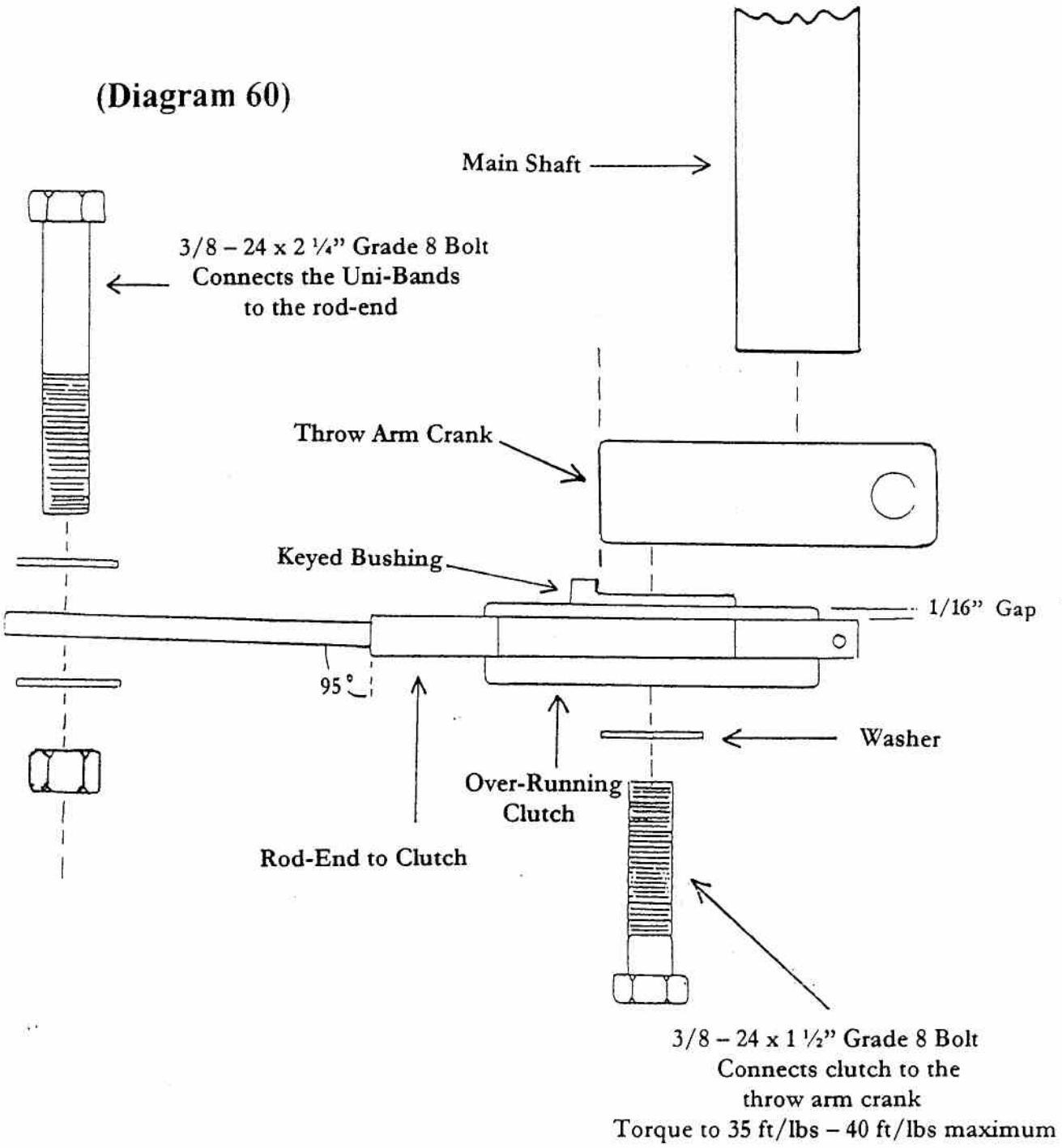
11. Remove the vise grip from the throw plate.
12. Refer to the section on *Setting Distance and Speed*, regarding minimum spring tension and adjustment of the elastic lock-nut.
13. Begin normal operation of the machine.

ASSEMBLY/INSTALLATION
OF THE
UNI-BAND (Main Spring) to the MAIN SHAFT CLUTCH

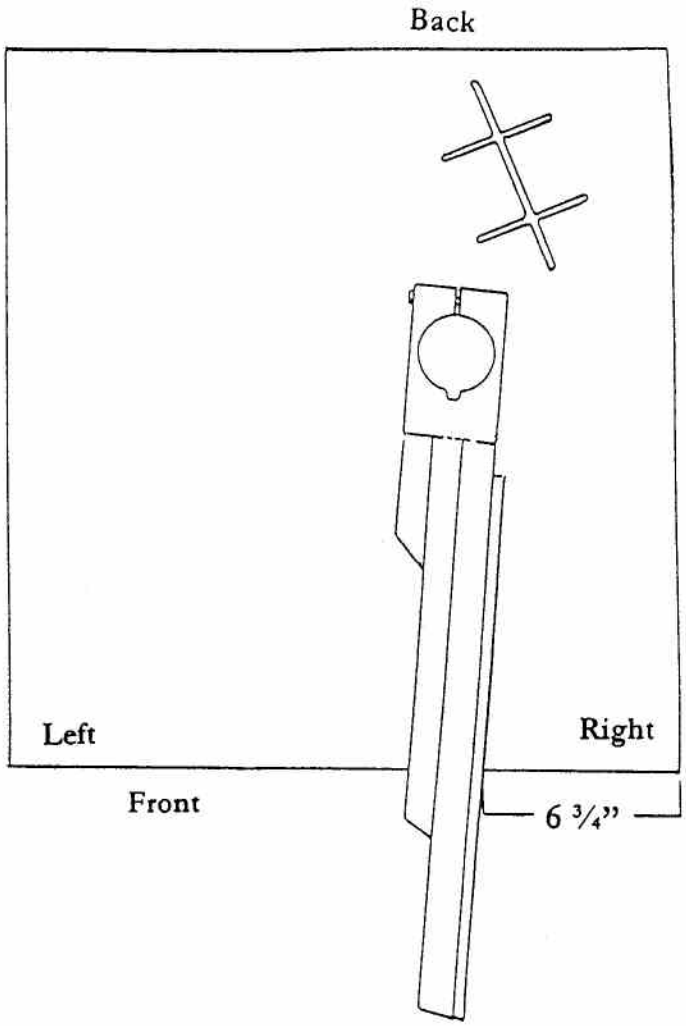


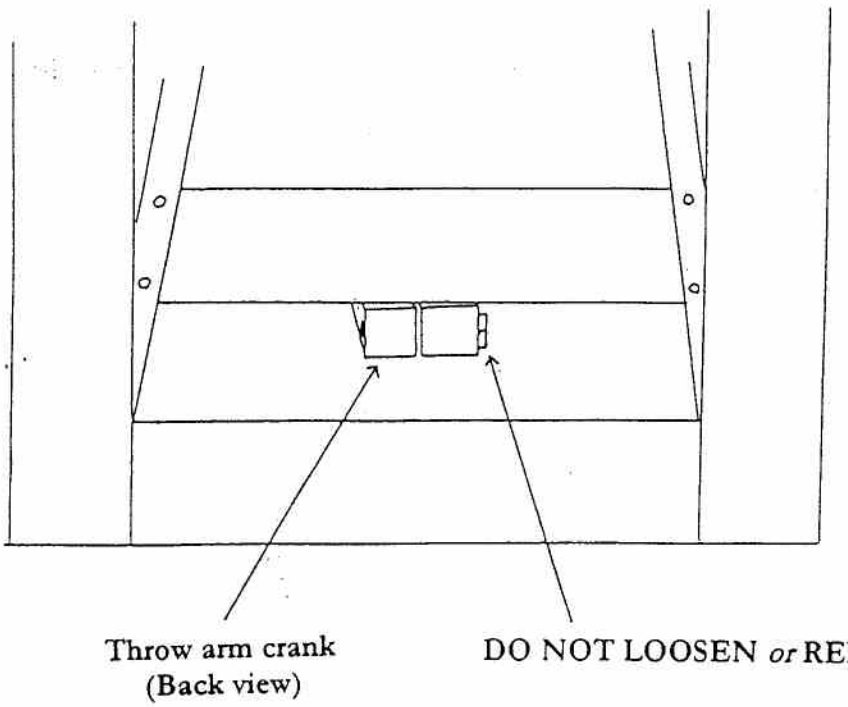
(Diagram 59)

(Diagram 60)


Main Shaft
3/8 – 24 x 2 ¼" Grade 8 Bolt
Connects the Uni-Bands
to the rod-end
Throw Arm Crank
Keyed Bushing
1/16" Gap
95°
Washer
Over-Running
Clutch
Rod-End to Clutch
3/8 – 24 x 1 ½" Grade 8 Bolt
Connects clutch to the
throw arm crank
Torque to 35 ft/lbs – 40 ft/lbs maximum

(Diagram 61)





(Diagram 62)

REPLACEMENT
OF THE
ELEVATOR SPRING

***<u>IMPORTANT</u>: Do not loosen or remove either the lock screw that the bottom of the spring hooks onto or the set screw. The screws are holding the bearing block in position so that the bearing is in alignment with the cam.

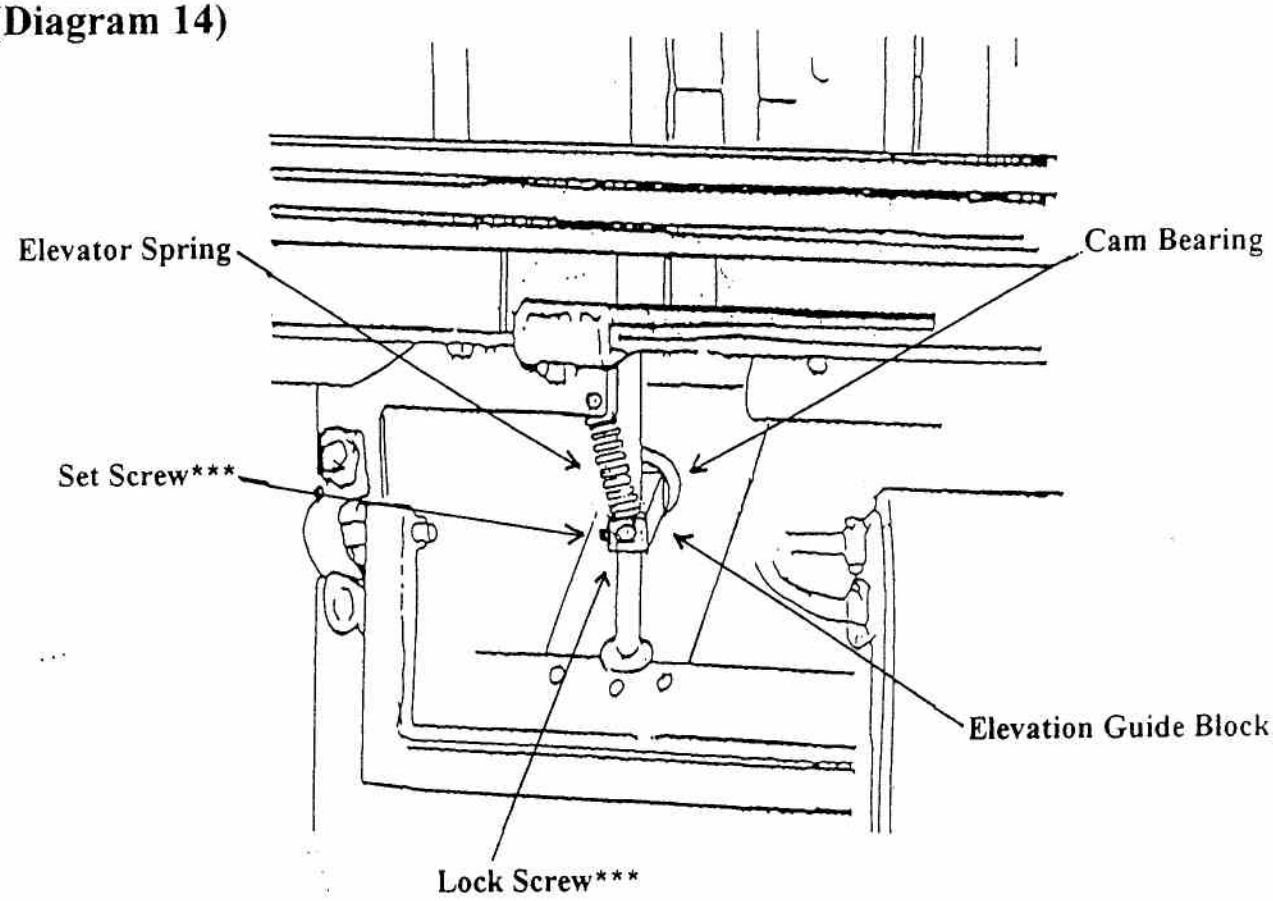
1. Turn the machine on.

2. Fire the throw arm and then turn the machine off as soon as the elevator goes up. (When the cam leaves the cam bearing.)

3. If disconnecting the spring: remove the top end first.

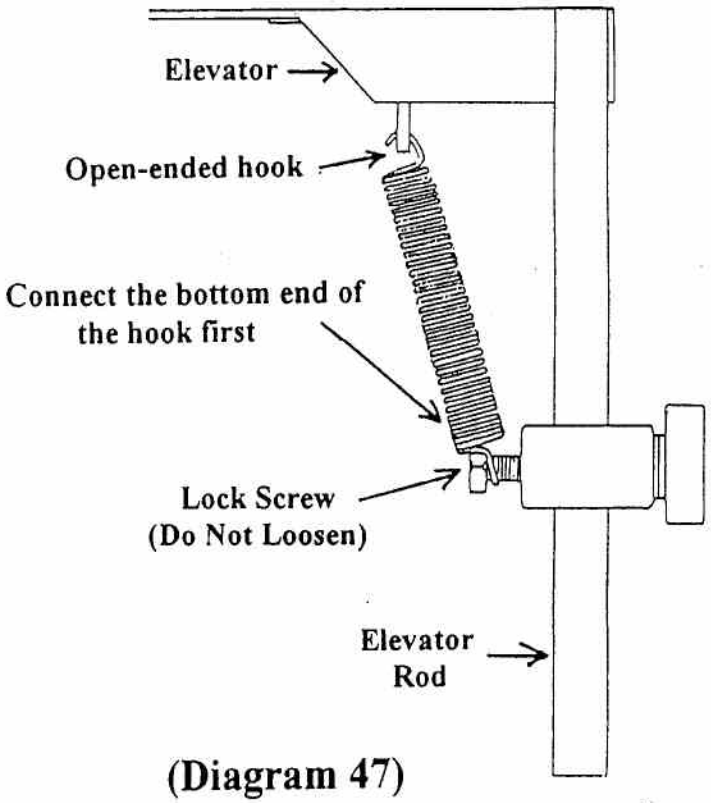
4. If connecting the spring: connect the bottom end first. Refer to Diagrams 47 *or* 48,

(Diagram 14)



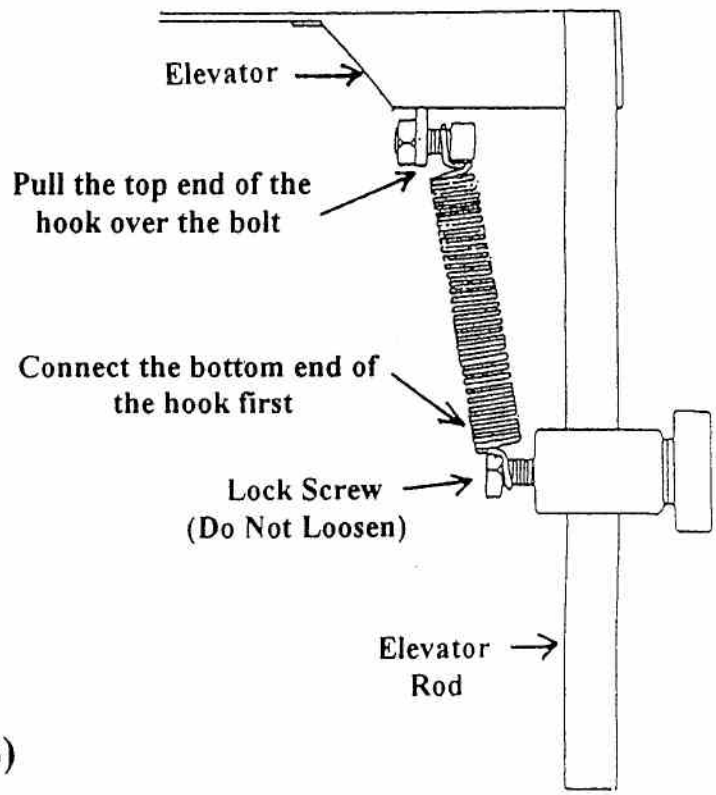
ELEVATOR SPRING CONNECTION

Up to Serial # 2804



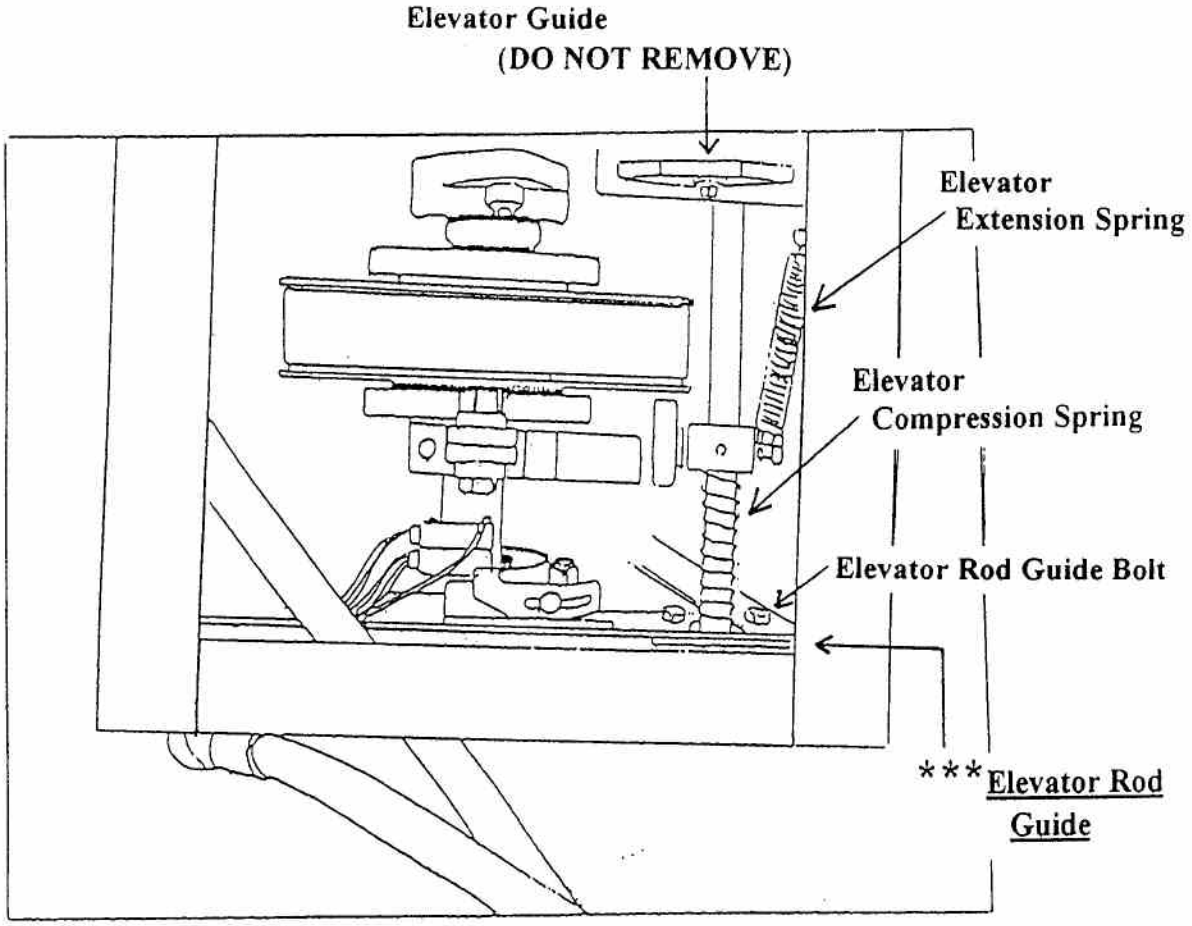
(Diagram 47)

From Serial # 2809 .....



(Diagram 48)

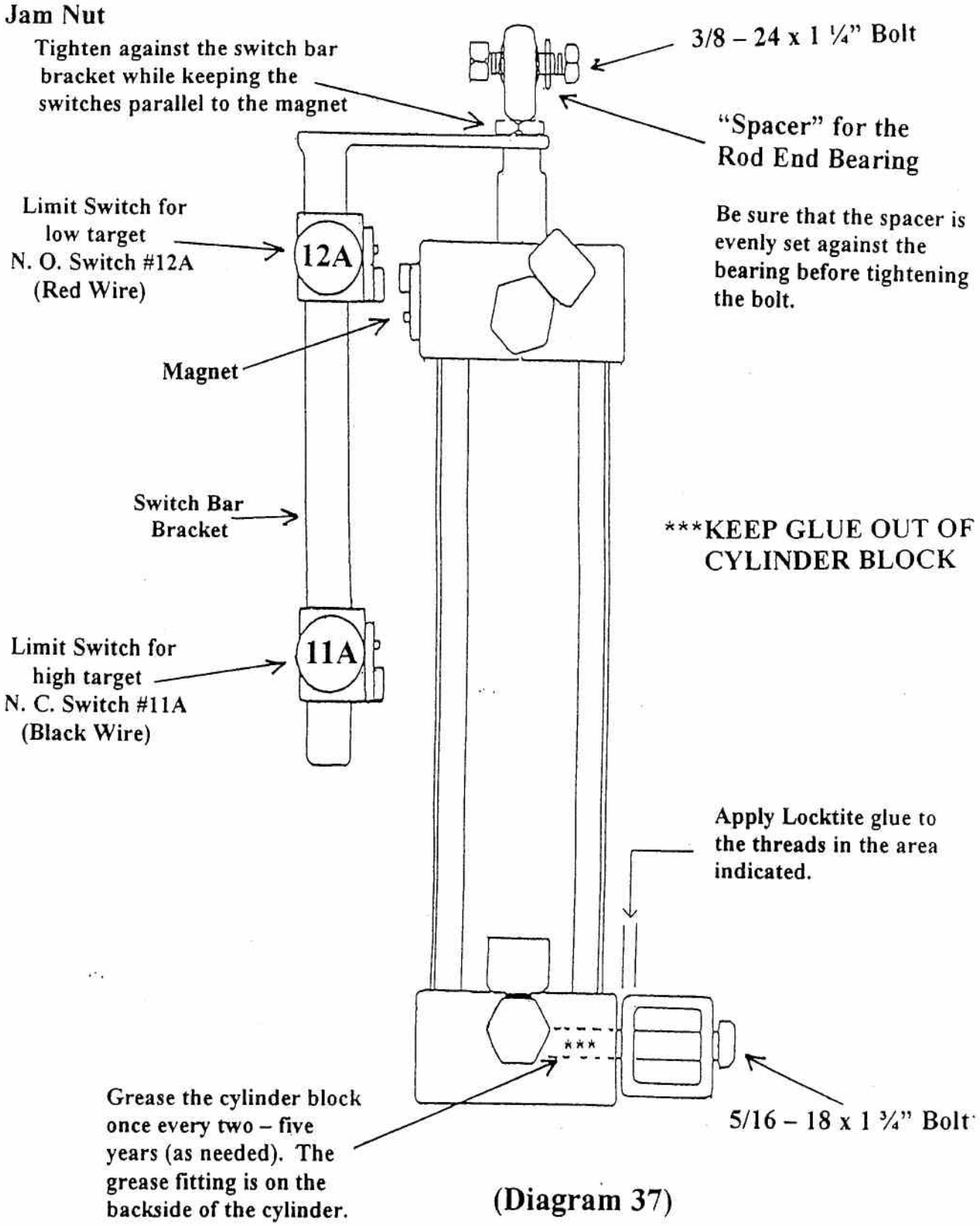
INSTALLATION
OF THE
ELEVATOR COMPRESSION SPRING



(Diagram 54)

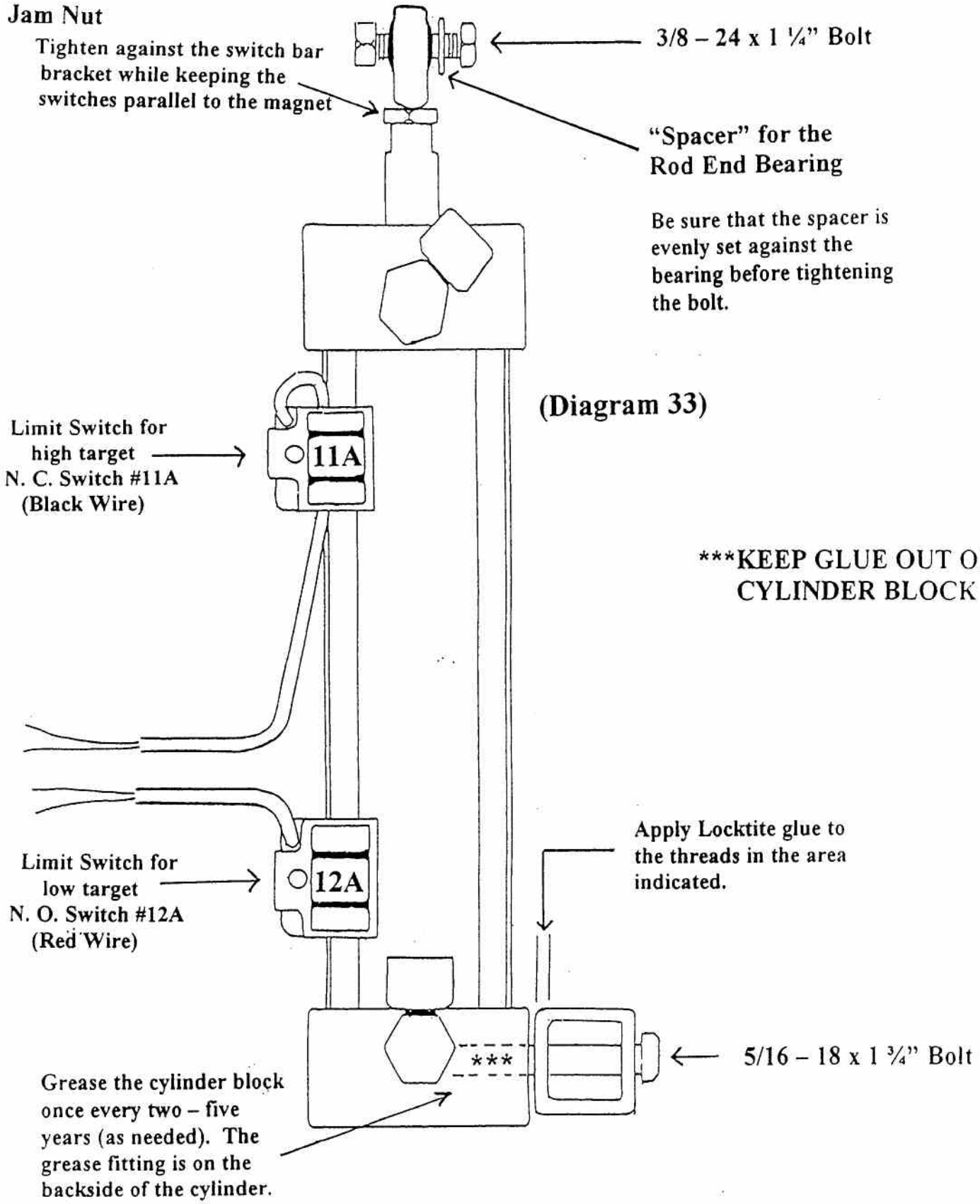
1. Turn the machine on. As soon as the elevator goes up, turn the machine off.
2. Remove the two elevator rod guide bolts (7/16" wrench)
3. Remove the *** ELEVATOR ROD GUIDE (This must be replaced the same way as it was found).
4. Put the compression spring on over the elevator rod.
5. Replace the Elevator Rod Guide
6. Fasten the two bolts only slightly snug; over tightening will deform the material.

HYDRAULIC CYLINDER FOR WOBBLE
Up to Serial # 2804

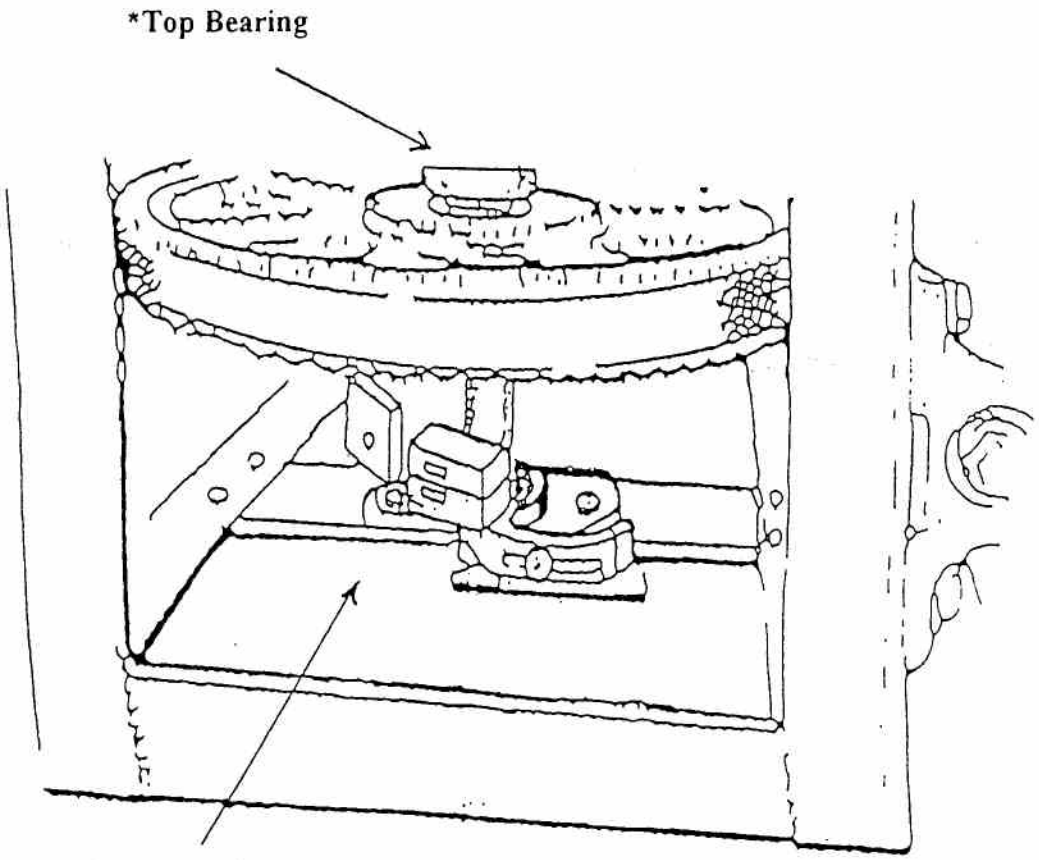


(Diagram 37)

HYDRAULIC CYLINDER FOR WOBBLE
From Serial # 2805 .....



THROW ARM SHAFT BEARING MAINTENANCE

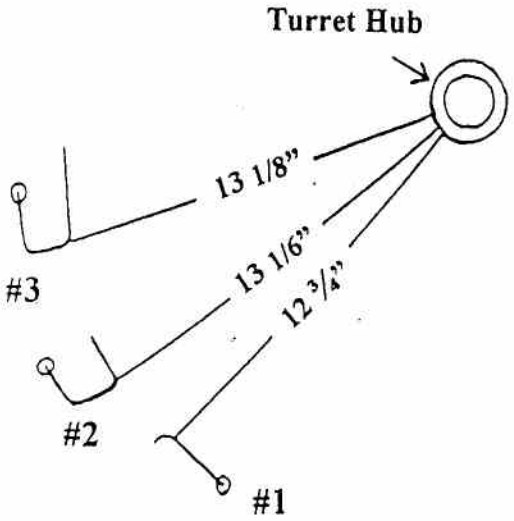


(Diagram 41)

*Grease both the top and bottom throw arm shaft bearings every 1 ½ to 2 years.

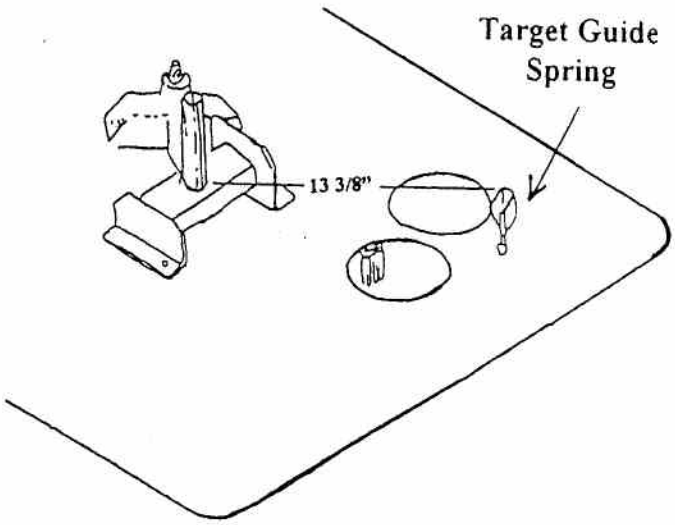
TARGET GUIDE SPRING POSITION

Up to Serial # 2729



(Diagram 56)

From Serial # 2730...



(Diagram 19)

Measuring to the Guide Spring(s) with the turret off : from the face of the king pin measure 13" to Spring #1. Measure 13 3/8" to Springs #2 and #3. See Diagram 19

Measuring to the Guide Spring(s) with the turret on: remove the targets from the appropriate column. A tape measure easily fits underneath the turret. Measure 12 ¾" from the face of the turret hub to Spring #1. Measure 13 1/8" to Springs #2 and #3. See Diagram 56

Also note that the Guide Spring mounting bolt is tilted back slightly, so that the top of the Guide Spring is further away from the targets than the bottom.

If the Güide Spring needs to be replaced use a 7/64" hex drive wrench to remove the two socket cap screws. Then pull the spring out of the mounting bolt slot.

The spring can be changed without removing the mounting bolt. You will have to remove the roller plate extension spring to gain access to the socket cap screws.

NOTE: Beginning with PAT-TRAP® # G2730, Target Guide Springs #1 and #3 are no longer used.

PROCEDURE
TO
FLUSH HYDRAULIC OIL

Please read completely before proceeding.

1. Remove the targets from the machine.

2. Turn the machine on, press the RIGHT oscillation button and oscillate all the way to the right until the cylinder bottoms-out.

3. Leave the throw arm in the cocked position and turn the machine off.

4. Stand clear of the throw arm and disconnect the return-line hose (the bottom coupling).

5. A male coupling with three or four feet of hose now needs to be connected to the bottom coupling to direct the flow of oil into a pail.

6. The throw arm should still be in the cocked position. Turn the pump on and run until drained. Then, take the disconnected return-line hose and hold at full length above the pump and depress the ball valve to drain the oil from the hose. NOTE: You need to use the tip of your thumb or a screwdriver when depressing the ball so that the hose isn't blocked.

7. Leaving the throw arm in the cocked position, turn off the pump.

8. Fill the tank with new oil. USE --- MOBIL 1: OW-30.

9. The next steps require having the pull cord release switch in your hand. First, turn the on/off/release switch ON.

10. Depress the pull cord button.

11. Turn the pump switch ON. The throw arm will fire and the turret will index.

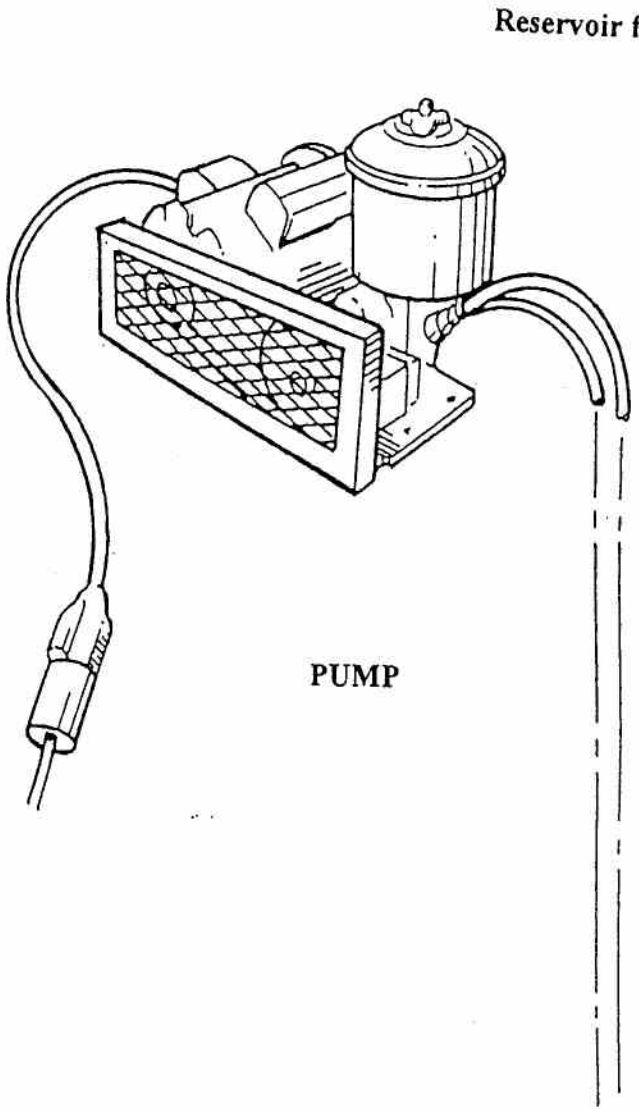
12. Turn OFF the pump switch IMMEDIATELY when the throw arm has re-cocked.

13. Press the LEFT oscillation button and hold *in* while turning the pump switch ON. As soon as the cylinder bottoms-out, turn the pump OFF.

14. Re-connect the return-line hose. (See instruction 4)

15. The machine is now full of oil. Fill the tank to within one inch of the top.

PUMP MOTOR MAINTENANCE



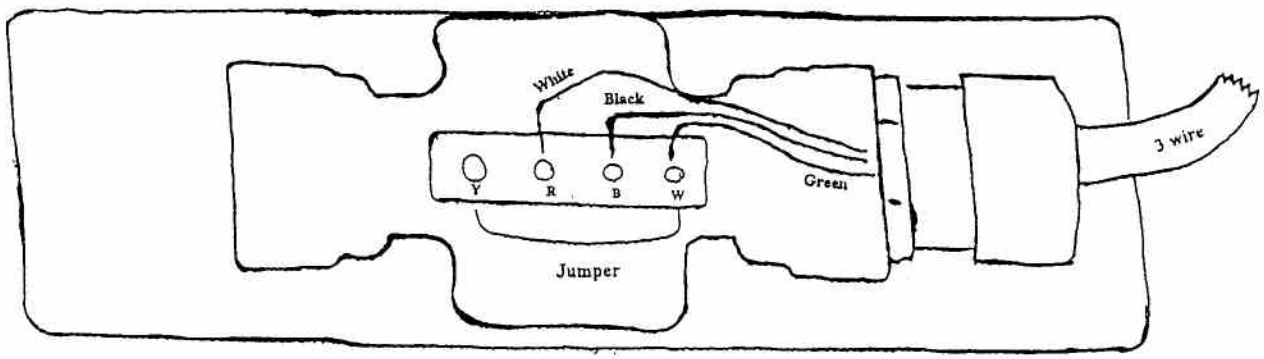
(Diagram 38)

For pump motor fluid use: Mobil 1: OW-30

OSCILLATION SOFT SHIFT VALVE
WIRING GUIDE
Up to Serial # 2609

The top valve on a standard PAT-TRAP®
The top *and* bottom valves on a PAT-TRAP® WOBBLE
(The middle valve on the Wobble *is NOT* a soft shift valve)

The guide for wiring the Soft Shift Valve on a PAT-TRAP® is as pictured:



Parker Soft Shift Valve

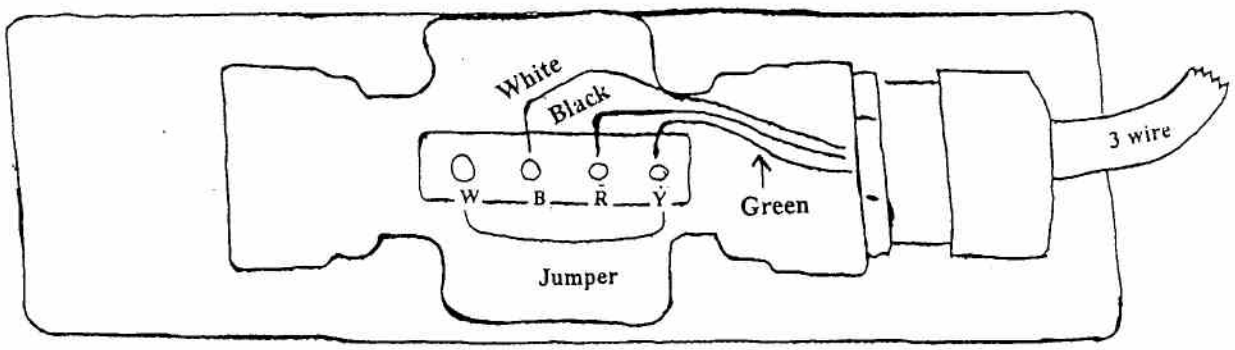
(Diagram 8)

1. The Black Wire goes to the Black terminal
2. The White Wire goes to the Red terminal
3. The Green Wire goes to the White terminal
4. The Jumper Wire goes from the Yellow terminal to the White terminal

OSCILLATION SOFT SHIFT VALVE
WIRING GUIDE
From Serial # 2610 .....

The top valve on a standard PAT-TRAP®
The top *and* bottom valves on a PAT-TRAP® WOBBLE
(The middle valve on the Wobble *is NOT* a soft shift valve)

The guide for wiring the Soft Shift Valve on a PAT-TRAP® (beginning with PAT-TRAP® #G2610) is as pictured:



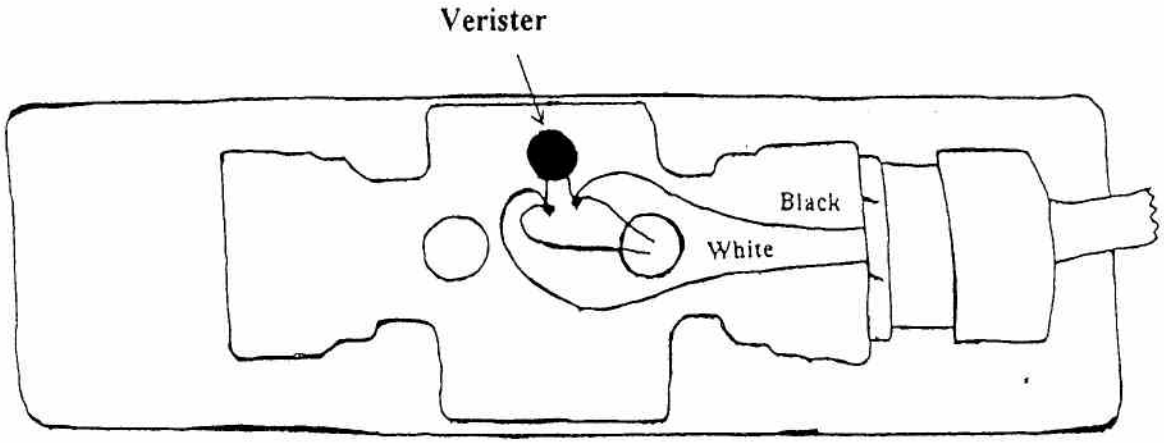
Parker Soft Shift Valve

(Diagram 58)

1. The Black Wire goes to the Red terminal
2. The White Wire goes to the Black terminal
3. The Green Wire goes to the Yellow terminal
4. The Jumper Wire goes from the Yellow terminal to the White terminal

THROW ARM/TURRET VALVE
WIRING GUIDE
"G" Series

The bottom valve on a standard PAT-TRAP®
The middle valve on a PAT-TRAP® WOBBLE

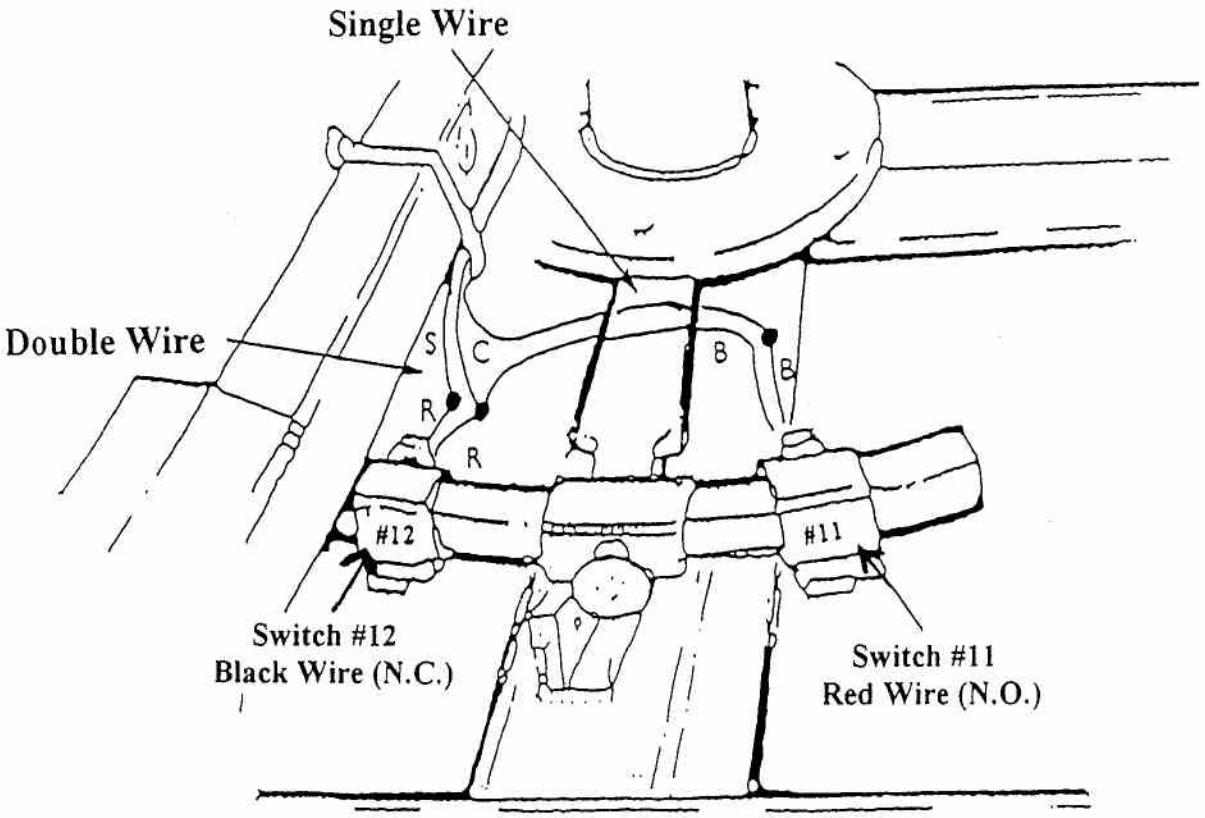


Parker Standard

(Diagram 43)

NOTE: *Release the throw arm and turn off the machine.*

WIRING GUIDE
#11 and #12 SWITCHES
Up to Serial # 2739



(Diagram 40)

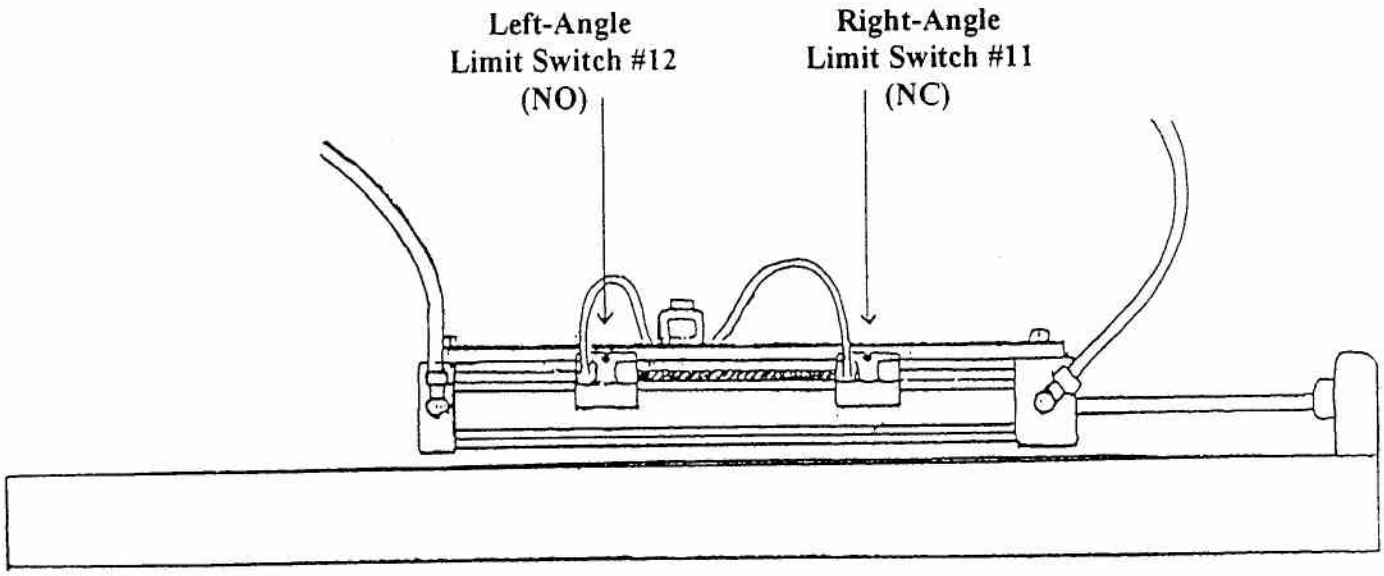
B = Black Wire

R = Red Wire

S = Silver Wire

C = Copper Wire

WIIRING GUIDE
#11 and #12 SWITCHES
From Serial # 2740 .....



(Diagram 57)

CONNECTIONS TO THE #2 RELAY

SWITCH # 11 (NC):

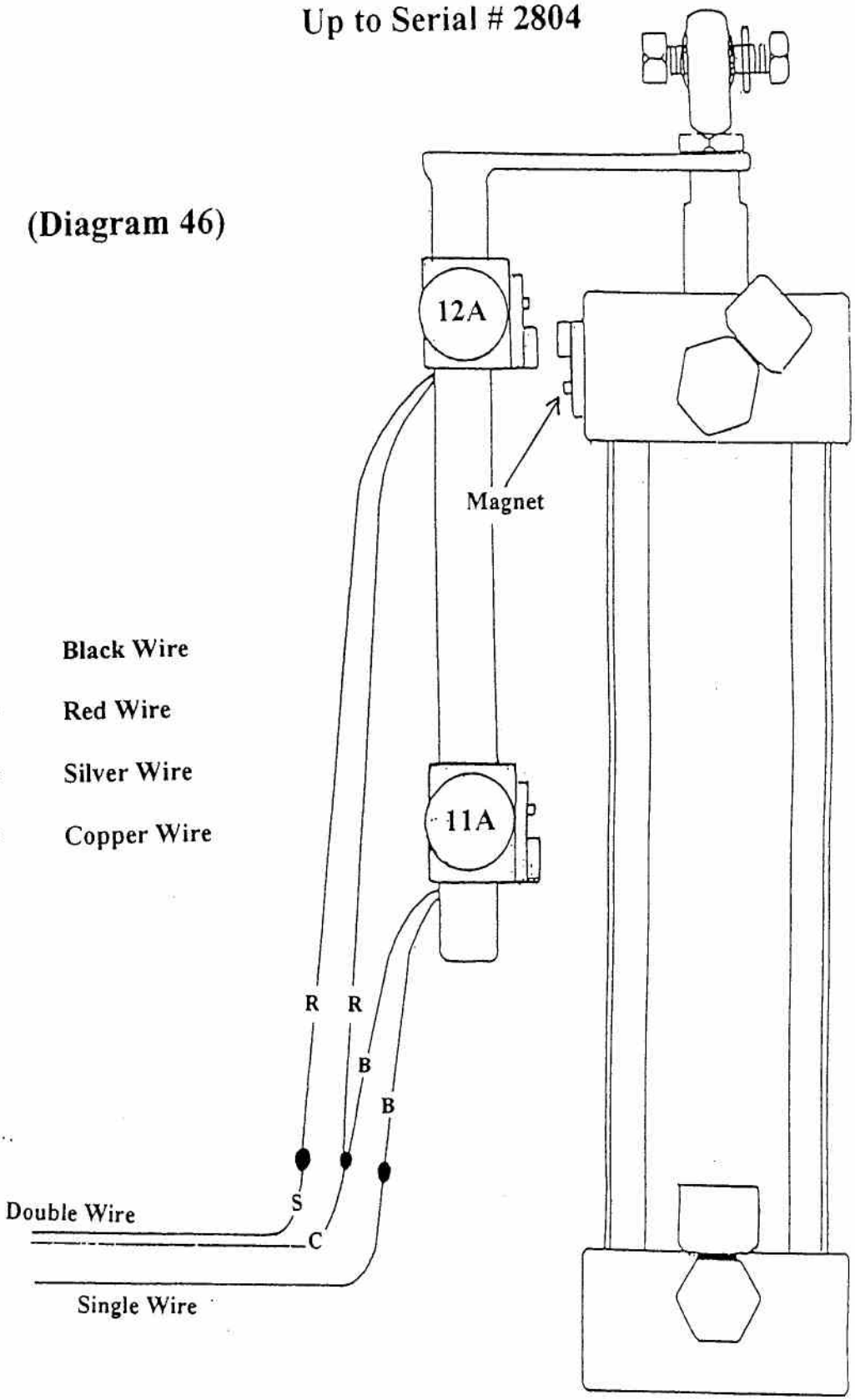
Red wire to pin #3
Black wire to pin #2

SWITCH # 12 (NO):

Red wire to pin # 1
Black wire to pin # 2

HYDRAULIC CYLINDER FOR WOBBLE
WIRING GUIDE
Up to Serial # 2804

(Diagram 46)



B = Black Wire

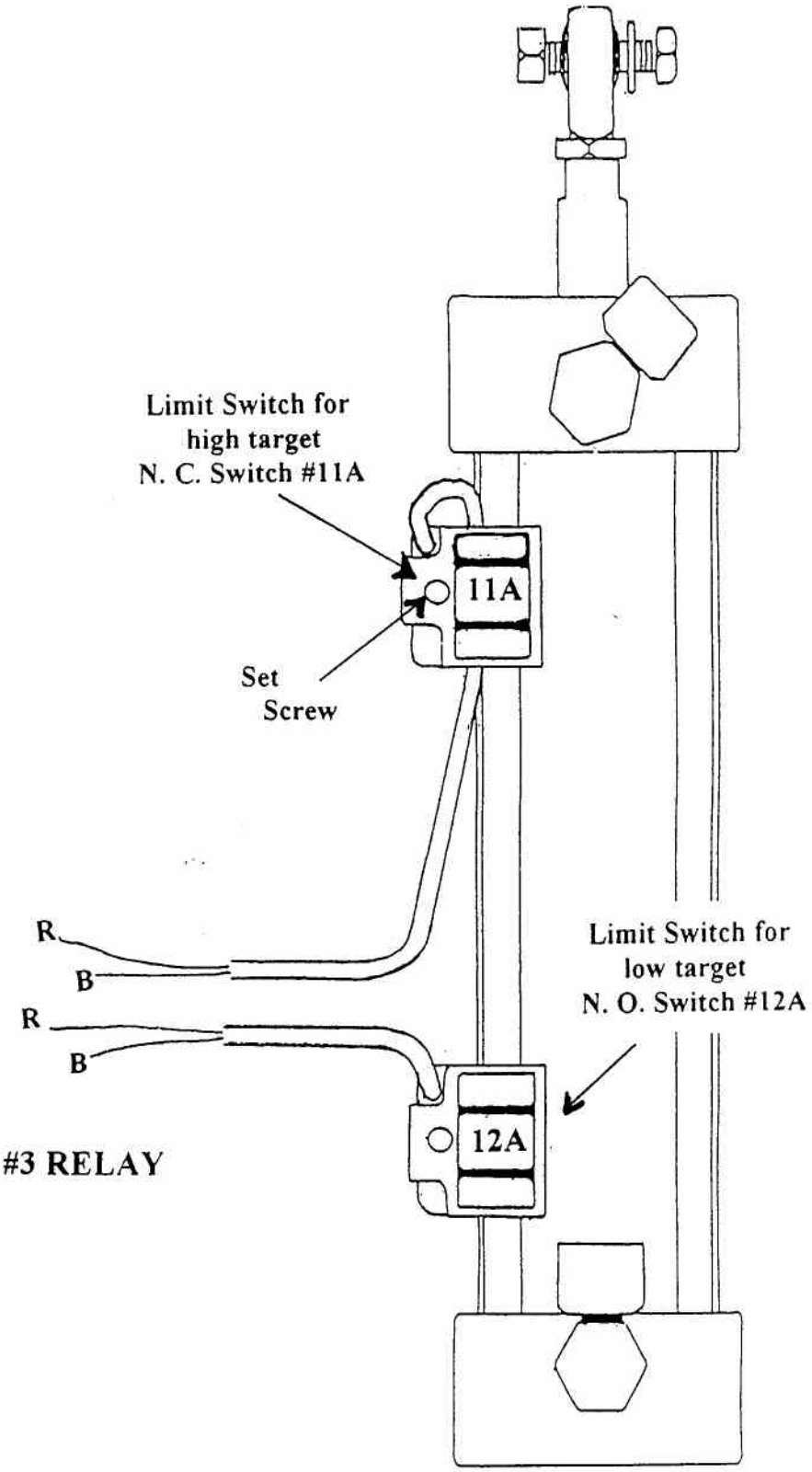
R = Red Wire

S = Silver Wire

C = Copper Wire

HYDRAULIC CYLINDER FOR WOBBLE
WIRING GUIDE
From Serial # 2805 ...

(Diagram 49)



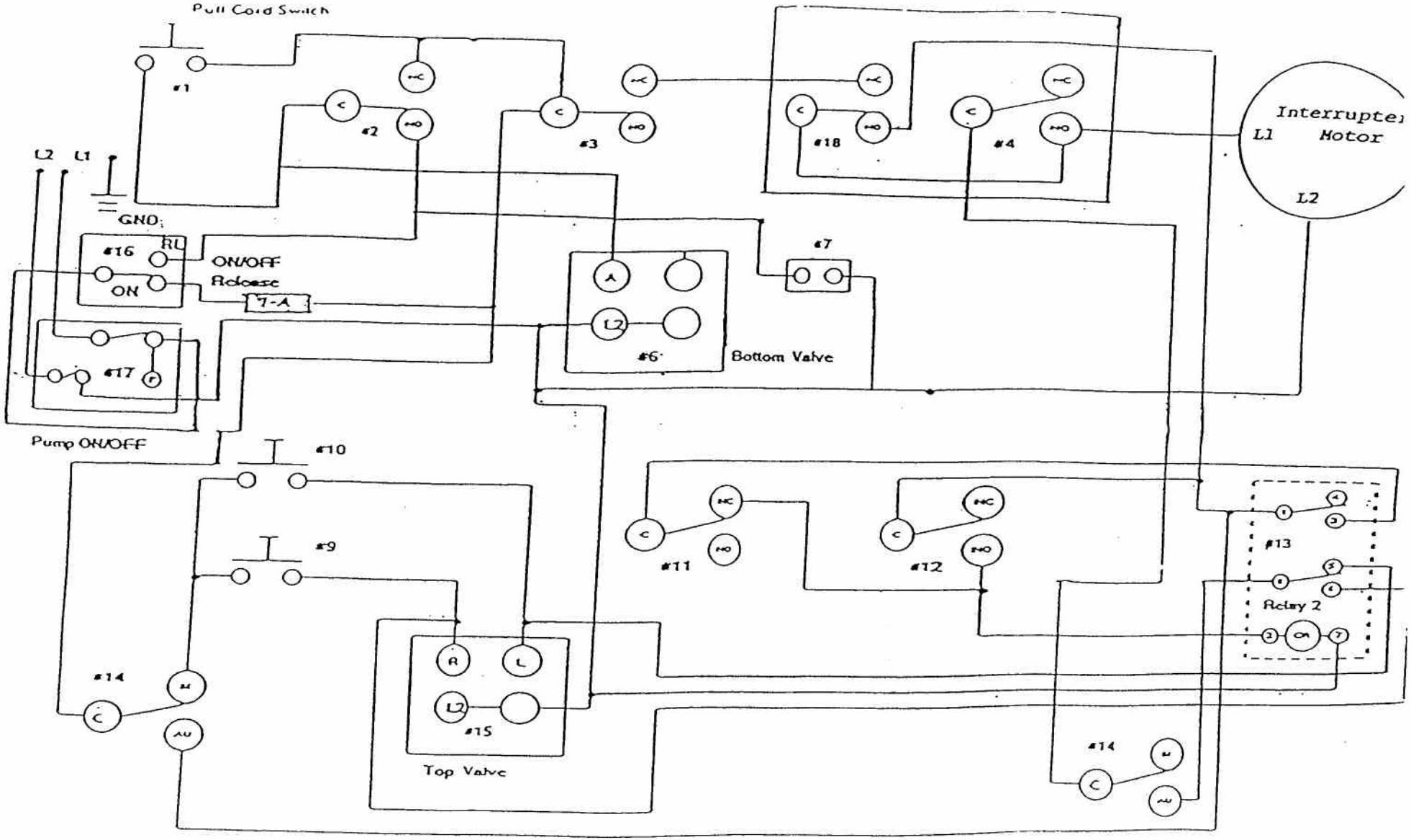
CONNECTIONS TO THE #3 RELAY

SWITCH #11A (NC):

Red wire to pin #3
Black wire to pin #2

SWITCH #12A (NO):

Red wire to pin #1
Black wire to pin #2



"C" SERIES

PAT TRAP® - Wiring Diagram

INDEX

Diagram

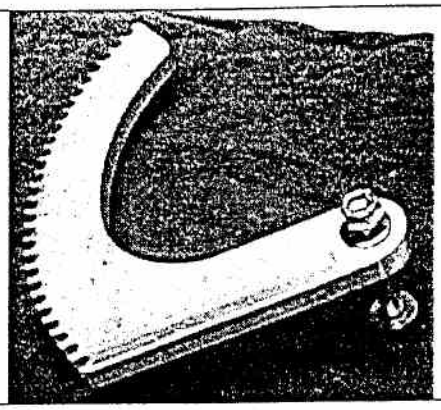
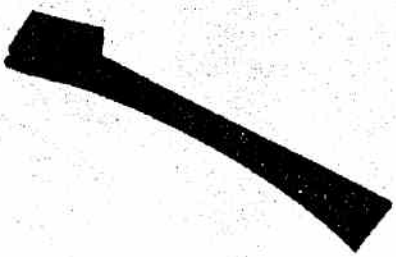
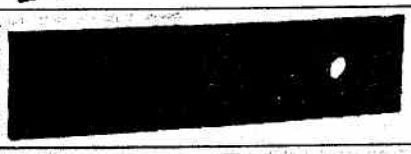
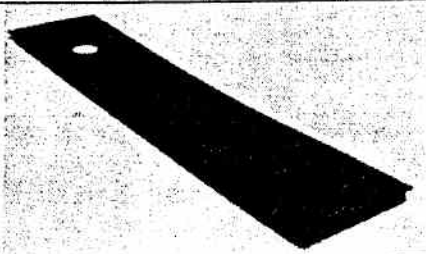
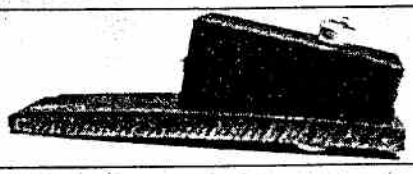
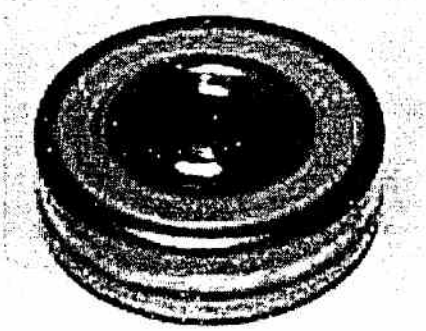
"G" SERIES PRICE/PARTS LISTING

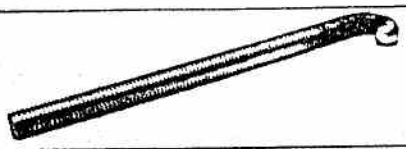
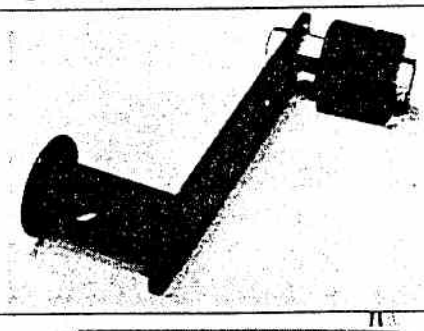
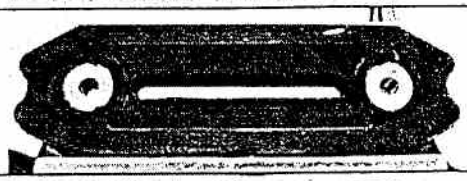
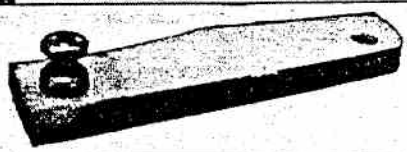
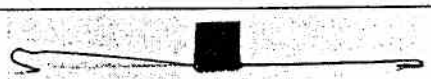
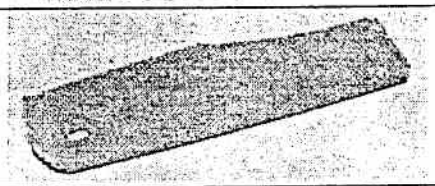
****Prices are subject to change without notice. Price does not include shipping.

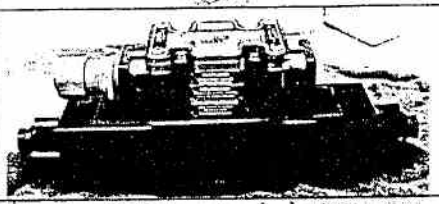
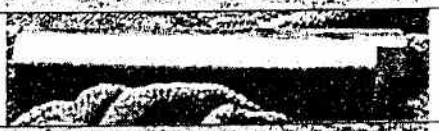
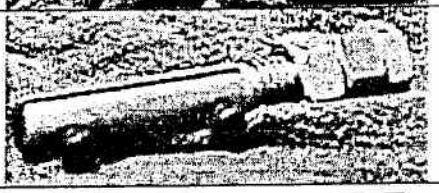
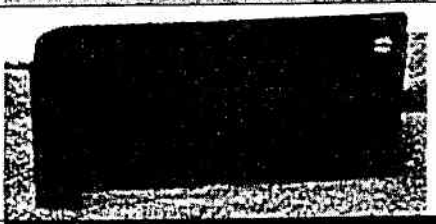
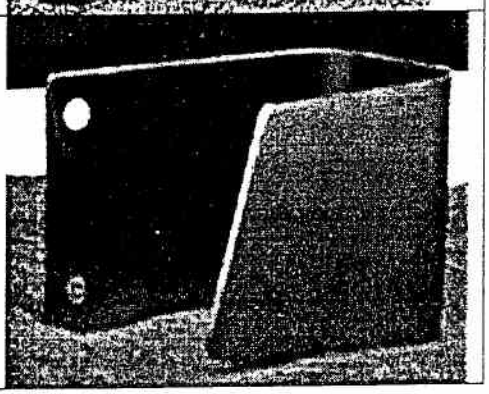
PART #	DIAGRAM #	DESCRIPTION	RETAIL
9012	25	Oscillation Cylinder, Complete	$185.00
9013	37, 46	Oscillation Cylinder, Complete - WOBBLE	$246.00
9017		3/8" Hydraulic Hose to Cylinder	$12.00
9023	30	Singles Finger, Plastic	$6.00
9024	22	Elevation Cog	$28.00
9025	30, 17	X Doubles Finger	$28.00
9026	32	Throw Arm	$128.00
9026B		Repair Throw Arm Rubber	$20.00
9027	31	Throw Arm Brake Rubber	$6.00
9027A	31	Throw Arm Brake Flat Spring	$6.00
9027B	31	Brake, Complete	$24.00
9029	28	Uni-Band Anchor Bolt, Threaded Rod (Main Spring)	$40.00
9029A	29	Uni-Band Bearing Connector	$53.00
9031	21	Main Spring Crank Handle	$33.25
9032	28	Uni-Band/pair (Main Spring)	$33.25
9034	59, 60	Main Shaft Clutch Assembly	$150.00
9035	23	Cocking Pin Assembly	$19.00
9036	23	Cocking Pin Bushings/pair	$6.00
9037	23	Cocking Pin Spacers/pair	$6.00
9041	44A	Target Brush	$6.00
9048	13, 15	Hydraulic Motor	$225.00
9060	43	Hydraulic Valve	$145.00
9061	8	Soft Shift Valve	$178.00
9077	14, 4, 48	Elevator Spring(s) -- Extension	$6.00
9078	54	Elevator Spring (s) -- Compression	$6.00
9095	44	Target Guide, Spring Mount	$14.00
9098	19	Target Drop Guide Spring #2	$10.00
9100	20	Extention Spring/Roller Plates	$3.00
9101	20	Eye Bolt	$1.00
9102	20	Eye Bolt Anchor Bracket	$3.25
9104	12	O Ring(s) -- Roller	$0.50
9105	20	Singles Roller Plate	$100.00
9106	20	Doubles Roller Plate	$125.00
9107	12	Doubles Roller	$95.00
9107A	12	Singles Roller	$95.00
9129	38	Pump, Vickers VTM 42	$285.00
9129A	38	Pump Filter	$22.50
9130	38	Pulley for Pump	$5.00
9131	38	Electric Motor	$138.00
9132	38	Pulley for Electric Motor	$4.50
9133	38	V-Belt	$7.50

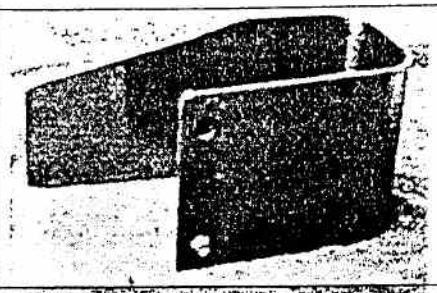
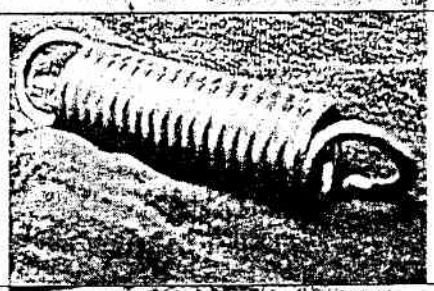
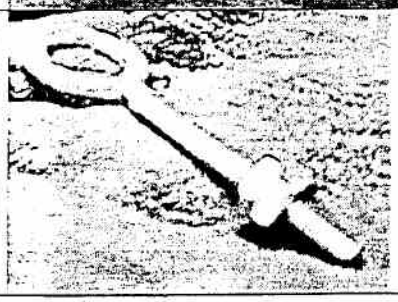
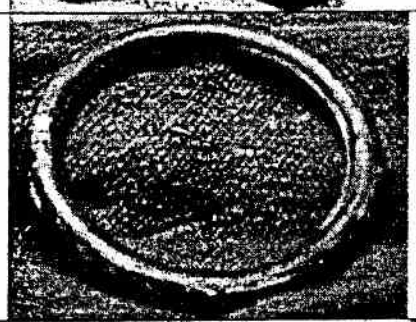
"G" SERIES PRICE/PARTS LISTING

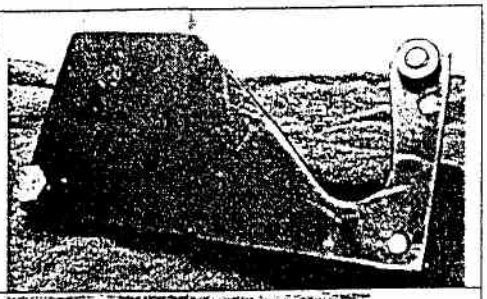
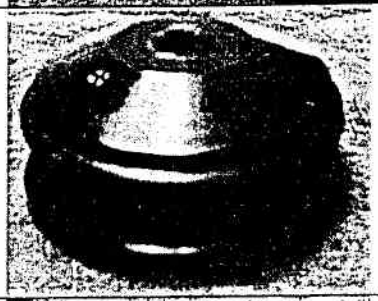
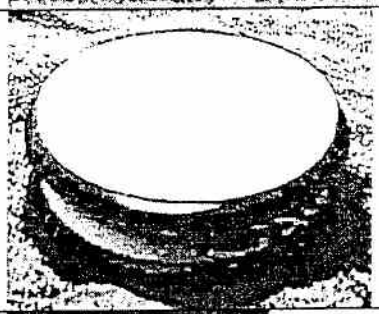
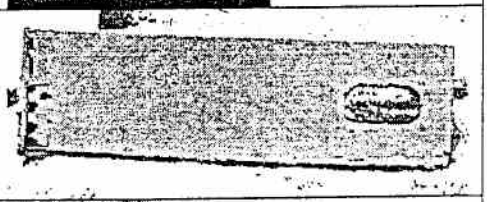
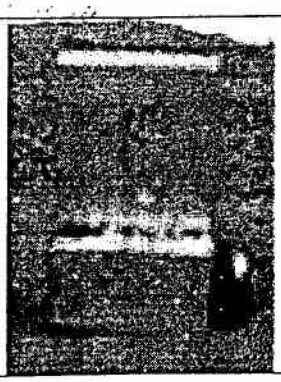
PART #	DIAGRAM #	DESCRIPTION	RETAIL
9134	38	Mobil 1: OW-30, Quart	$6.00
9138	38	Pump Unit, Complete	$725.00
9139	5, 6	8' High Pressure Hydraulic Hose, 3/8"	$25.00
9141	5, 6	8 1/2' Hydraulic Hose Return, 3/8"	$10.00
9142	5, 6	O-Ring for Coupling	$1.00
9144	5	Hydraulic Coupling, Female	$14.50
9145	5	Hydraulic Coupling, Male	$8.00
9198		Valve Wire (3-wire)	$1.50
9200		Counter	$30.00
9201	3	Male Connector for Pullcord	$15.25
9202	3	Female Lock Cap Connector for Pullcord	$20.50
9207		Fuse (7 AMP)	$1.00
9208		Relay #2 -- 8-Pin (10 AMP)	$13.00
9209B		#2 & #3 Switch Bracket	$133.00
9210A	27	1 1/8" Activator Bolt for # 9210B	$8.00
9210B	27	#2 & #3 Activator	$10.00
9211	10, 25, 27, 39	Proximity Sensor (N/C- Black Wires)	$8.50
9212	8, 10, 27, 39	Proximity Sensor (N/O- Red Wires)	$8.50
9213		Roller Switch #2 & #3 with wire leads	$8.00
9215	8, 23A	Magnet (Hamlin)	$4.50
9216		Timer/Interrupter	$48.00
9218		Push Button Manual for Left/Right	$6.00
9219	13, 15	Toggle Switch -- Auto/Manual	$6.00
9220	11	On/Off Switch	$6.75
9221	11	On/Off/Momentary Switch	$6.75
9222	25	Reed Switch for Angle Limit -- N/O	$39.00
9223	25	Reed Switch for Angle Limit -- N/C	$39.00
9300		Turret, Complete	$925.00
9301	42	Upright	$24.00
9302		Side Loader Upright	$49.00
9303		Side Loader Upright, Top Piece	$24.00
9304		Turret Bushing Cap	$1.00
9305	50, 53	Switch Bracket for Angle Limit Switch	$33.25
9320		Pullcord, Complete	$100.00
9321	9	Trap Release for Pullcord	$34.00
9322	9	Switch for Trap Release	$10.00
9400-G		"G" Series Manual -- Red	$8.00
9425		Singles Score Pad(s) -- 50 sheets	$3.00
9430		Doubles Score Pad(s) -- 50 sheets	$3.00
P		Parts Kit -- G Series	$50.00

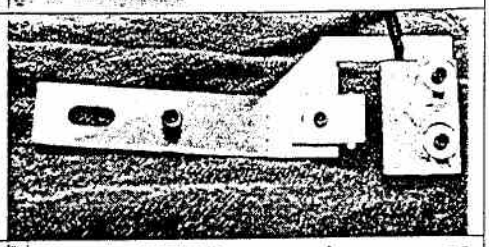
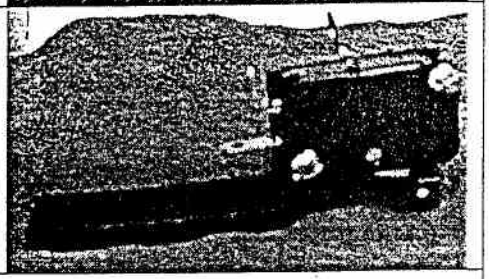
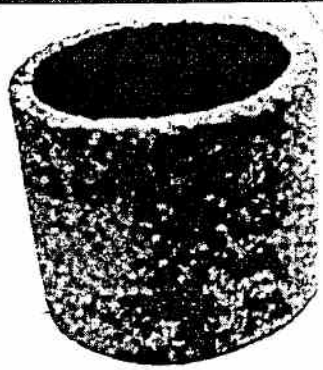
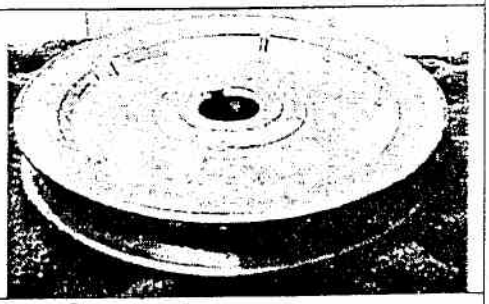
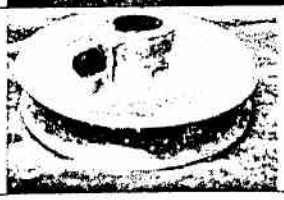
PT9024	Elevation Cog	
PT9025	X Doubles Finger	
PT9026	Throw Arm	
PT9026A	Throw Arm Throw Rubber	
PT9027	Throw Arm Brake Rubber	
PT9027A	Throw Arm Brake Rubber	
PG9027B	Brake, Complete	
PT9029		

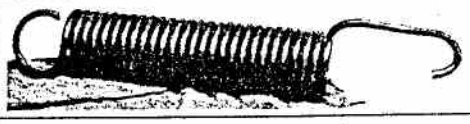
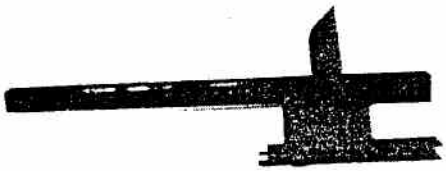
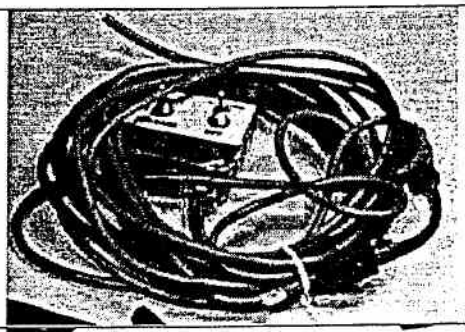
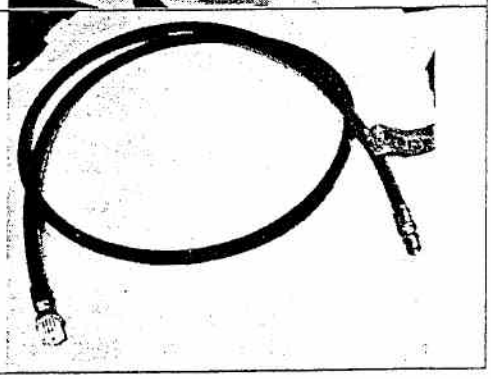
PT9030	Main Spring Anchor Bold (Threaded Rod)	
PT9031	Main Spring Crank	
PPT9032	Uni-Band/Pair (Mainspring)	
PT9039	Throw Arm Backstop, Complete	
PT9040	Throw Arm Backstop, Spring	
PT9040A	Throw Arm Backstop Bolt W/Nut ¼-28	
PT9040B	Throw Arm Backstop, Plastic	
PT9040C	Throw Arm Backstop Flat Spring	
PT9041	Target Brush	

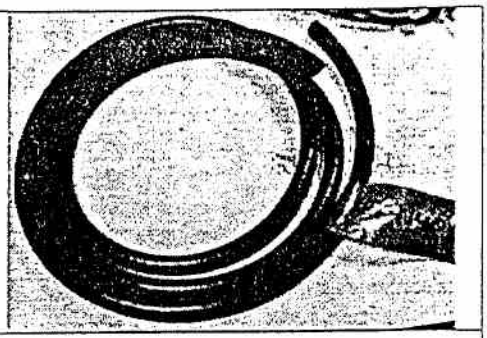
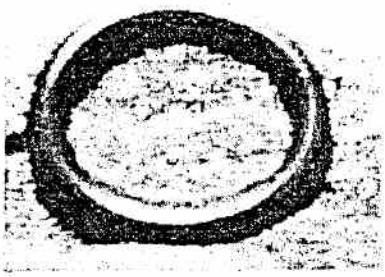
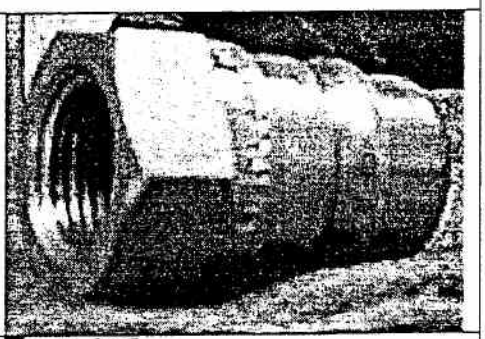
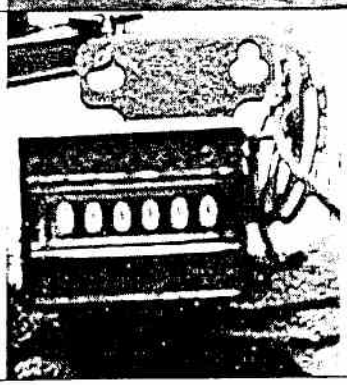
PT9048	Hydraulic Motor	
PT9061	Soft Shift Valve	
PT9075	Hydraulic Cylinder Target Elevator	
PT9076	Elevator Guide Rod	
PT9095	Target Guide Spring Mount	
PT9097	Target Guide Spring #1	
PT9098	Target Drop Guide Spring #2	

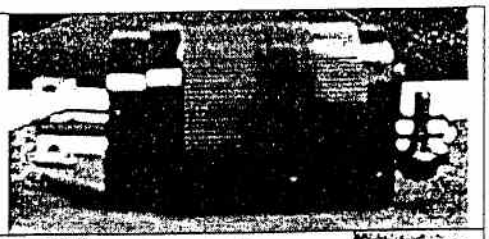
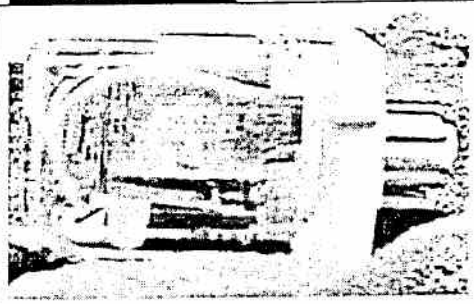
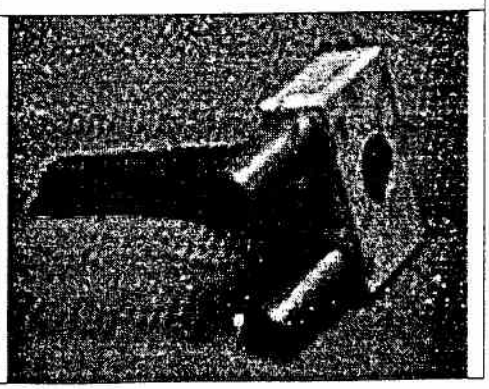
PT9099	Target Drop Guide Spring #3	
PT9100	Extension Spring/Roller Plates	
PT9101	Eye Bolt	
PT9102	Eye Bolt Anchor Bracket	
PT9104	O Ring/Roller	
PT9105	Single Roller Plate	

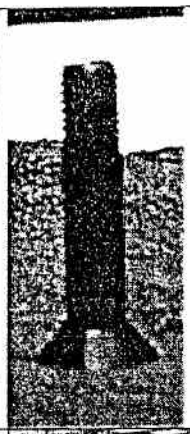
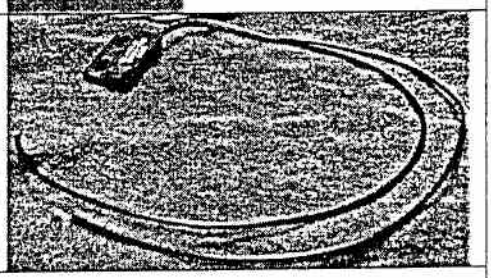
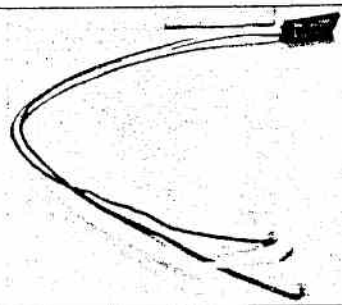
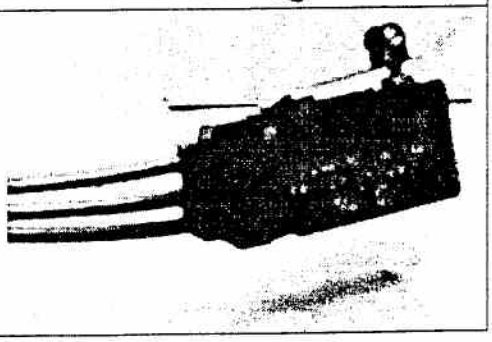
PT9106	Double Roller Plate	
PT9107	Doubles Roller	
PT9107A	Singles Roller	
PT9108	Bronze Roller Bushing	
PT9123A	Pinon Backstop Spring (L-Shape)	
PT9123B		

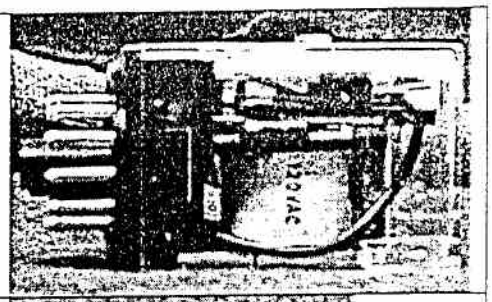
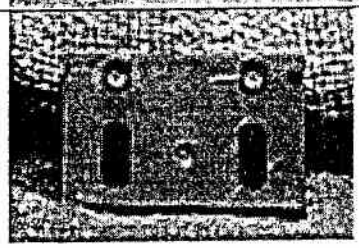
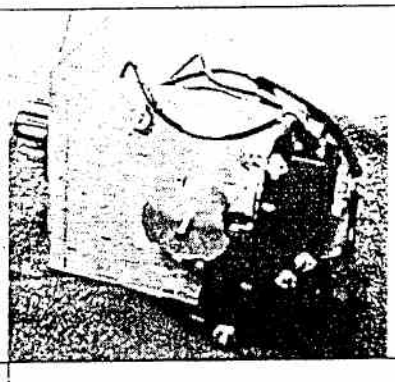
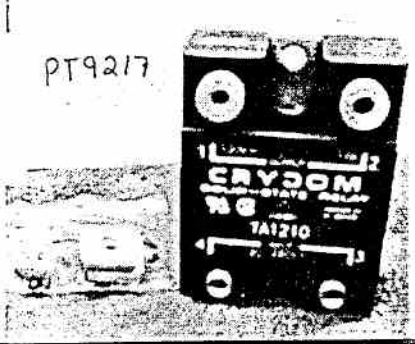
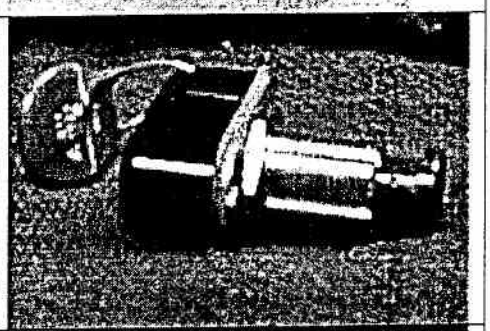
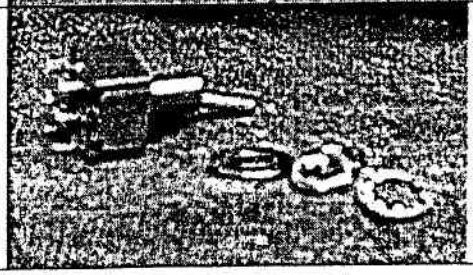
PT9123C	Plastic Pinon Backstop	
PT9124	#4 Snap Action Switch/Interrupter Switch	
PT9125	#4 Switch Bracket, New Roller Style (Micro) Complete	
PT9129A	Pump Filter	
PT9130	Pulley For Pump	
PT9132	Pulley For Electric Motor	

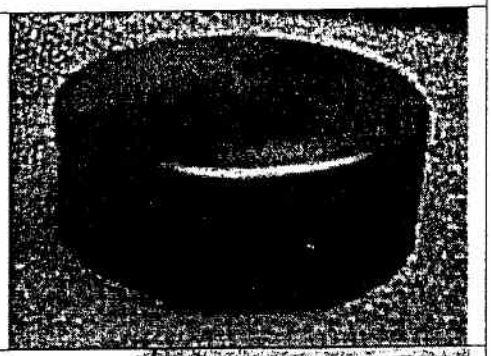
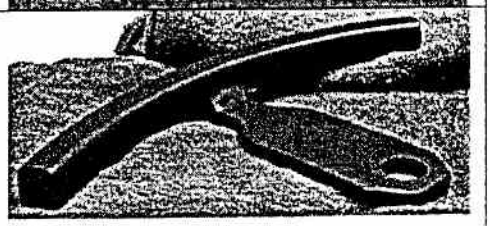
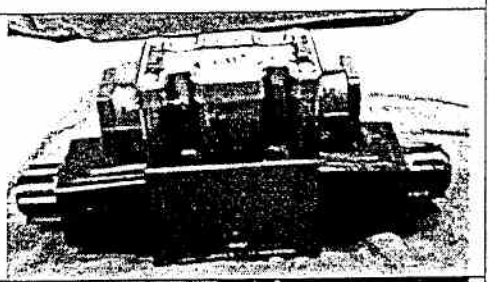
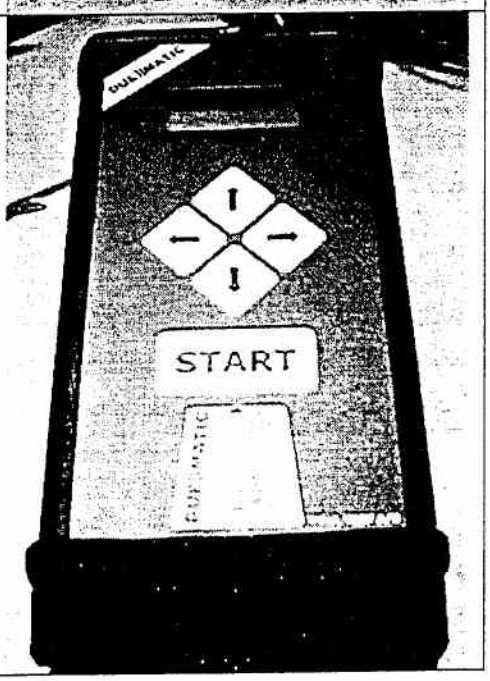
PT9133	V-Belt	
PT9135		
PT9136		
PT9137		
PT9138	Pump Unit, Complete	
PT9139	Hydraulic Hose	

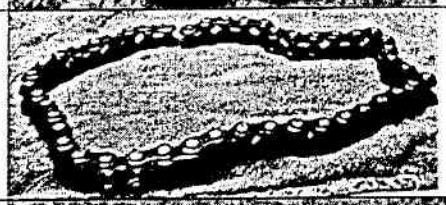
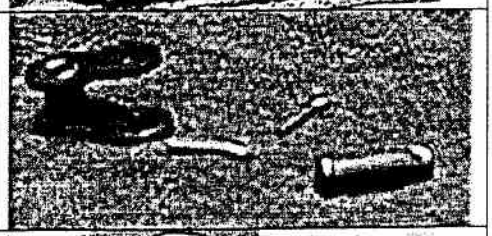
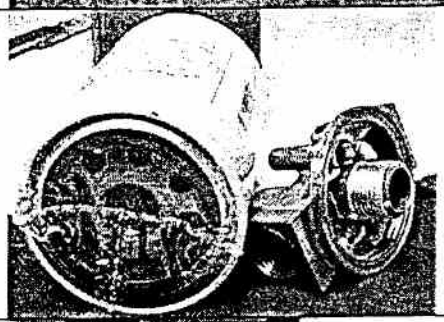
PT9140	Hydraulic Hose Return, 3/8"	
PT9142	O-Ring For Coupling	
PT9144	Hydraulic Coupling, Female	
PT9145	Hydraulic Coupling, Male	
PT9200	Counter	

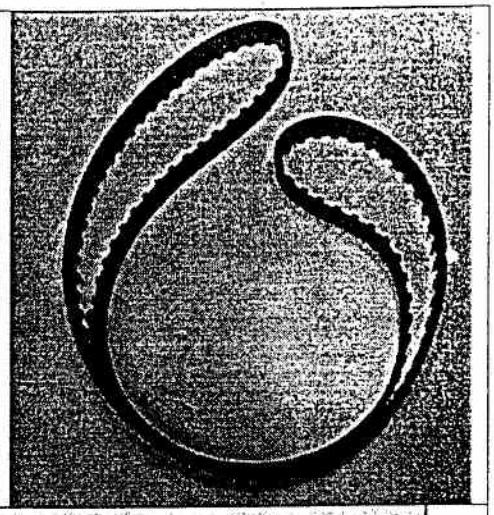
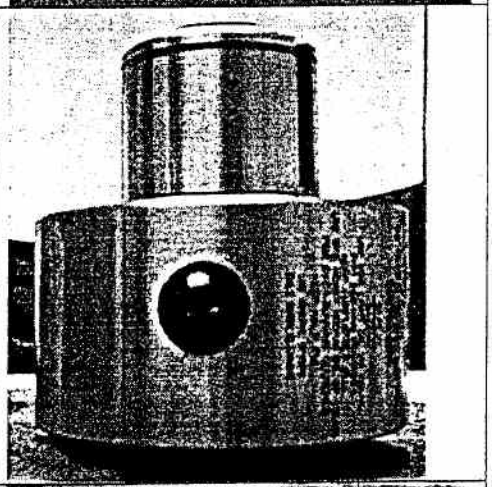
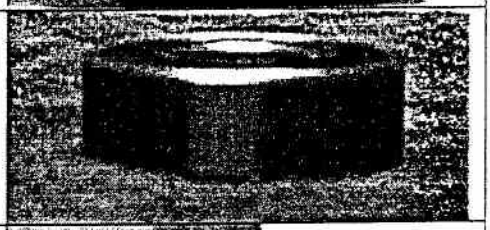
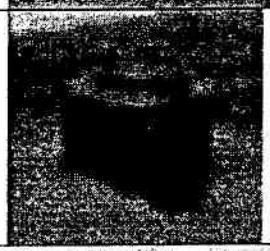
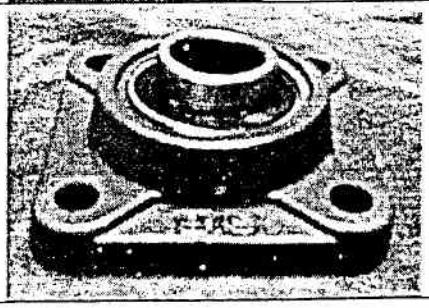
PT9201	Hubble Male Connector	
PT9202	Hubble Female Lock Cap	
PT9207	Fuse (7 Amp)	
PT9208	Relay #2 10 Amp (8-Pin)	
PT9209	Double Magnet	

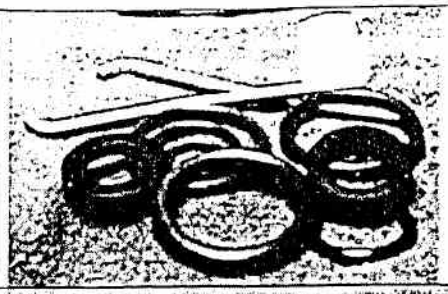
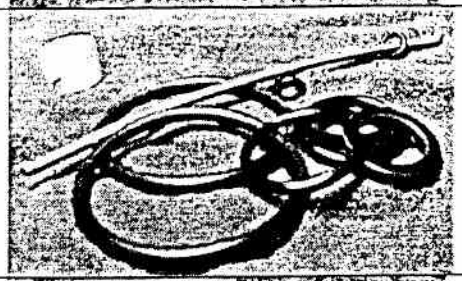
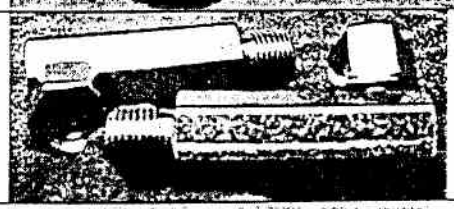
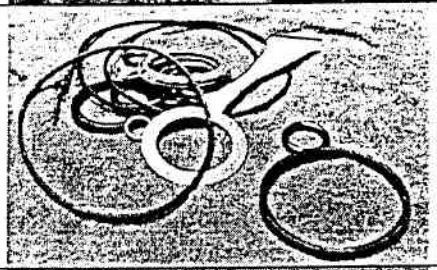
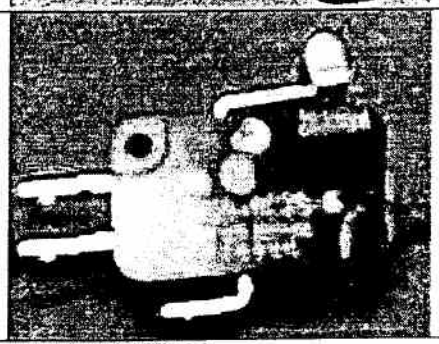
PT9210	Activator Bolt For PT9209	
PT9211	Prox Sensor (N/C Black Wires)	
PT9212	Prox Sensor (N/O Red Wires	
PT9212A	Prox Sensor 3 Wire	
PT9213	Roller Switch #2 And #3	

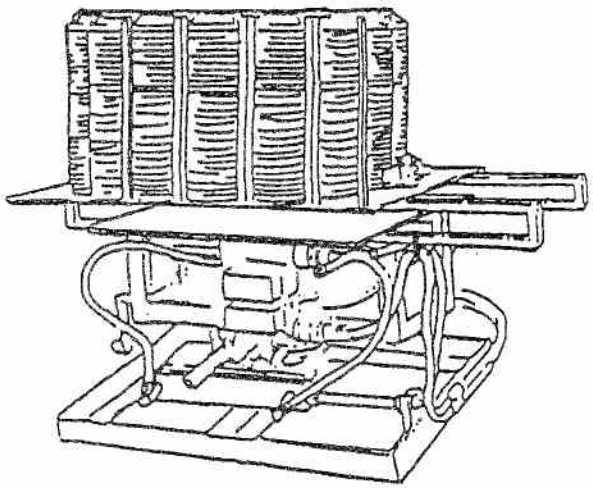
PT9214	Relay #1 (11-Pin)	
PT9215	Magnet (Hamlin)	
PT9216	Timer/Interrupter	
PT9217	Relay, Solid State	
PT9218	Push Button Manual For Left/Right	
PT9219	Toggle Switch Auto/Manual	

PT9303	Side Loader, Upright Top Piece	
PT9304	Turret Bushing Cap	
PT9305	Switch Bracket for Angle Limit Switch	
		
Tester		

Part #	Description	Photo
PT1	Chain Sprocket	
PT3	Chain And Link	
PT30	Full Link	
PT37	Filter Assembly	
PT38	Filter	

PT39	Browning Belt	
PT41	Clutch for Large Pulley Wheel	
PT48	6202RS Bearing	
PT49	Bushing For Roller Plate	
PT50	Pillow Block Bearing	

PT51	Packing Kit For Elevator	
PT52	Seal Kit For Oscillation Cylinder	
PT53	Long Elbows	
PT54	Seal Kit For Drive Motor (Replaces PT 9048)	
PT57	Switch For PT9125	
PT9023	Singles, Finger, Plastic	



U.S. PATENT(s): 5249563, 6176229

Pat-Trap®

AUTOMATIC DOUBLES

Manufactured by:

Pat-Trap, Inc.
110 Western Avenue
Henniker, New Hampshire 03242

Telephone: (603) 428-3396 Fax: (603) 428-7340

Pat-Trap, Inc. warrants the PAT-TRAP® Automatic Doubles machine against defects in material or workmanship for a period of one year from the date of the original purchase; and agrees to repair *or*, at our option, replace any defective unit without charge.

IMPORTANT: This warranty does not cover transportation costs. Nor does it cover any damage resulting from accident, misuse or abuse, and any modifications or alterations including attaching the unit to other than the recommended receptacle or voltage.

NO RESPONSIBILITY IS ASSUMED FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.