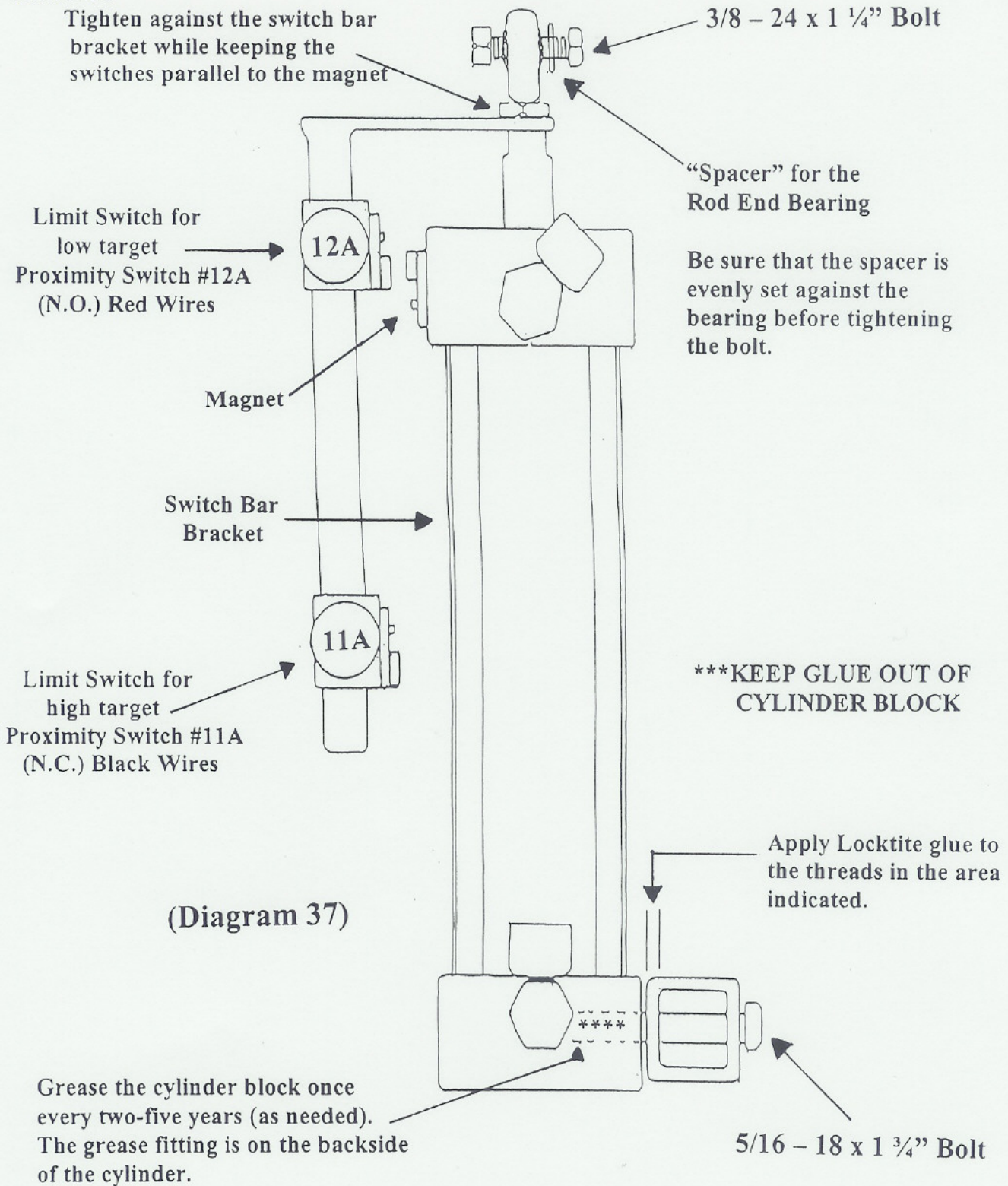


HYDRAULIC CYLINDER FOR WOBBLE

Up to Serial # 2804

JAM NUT

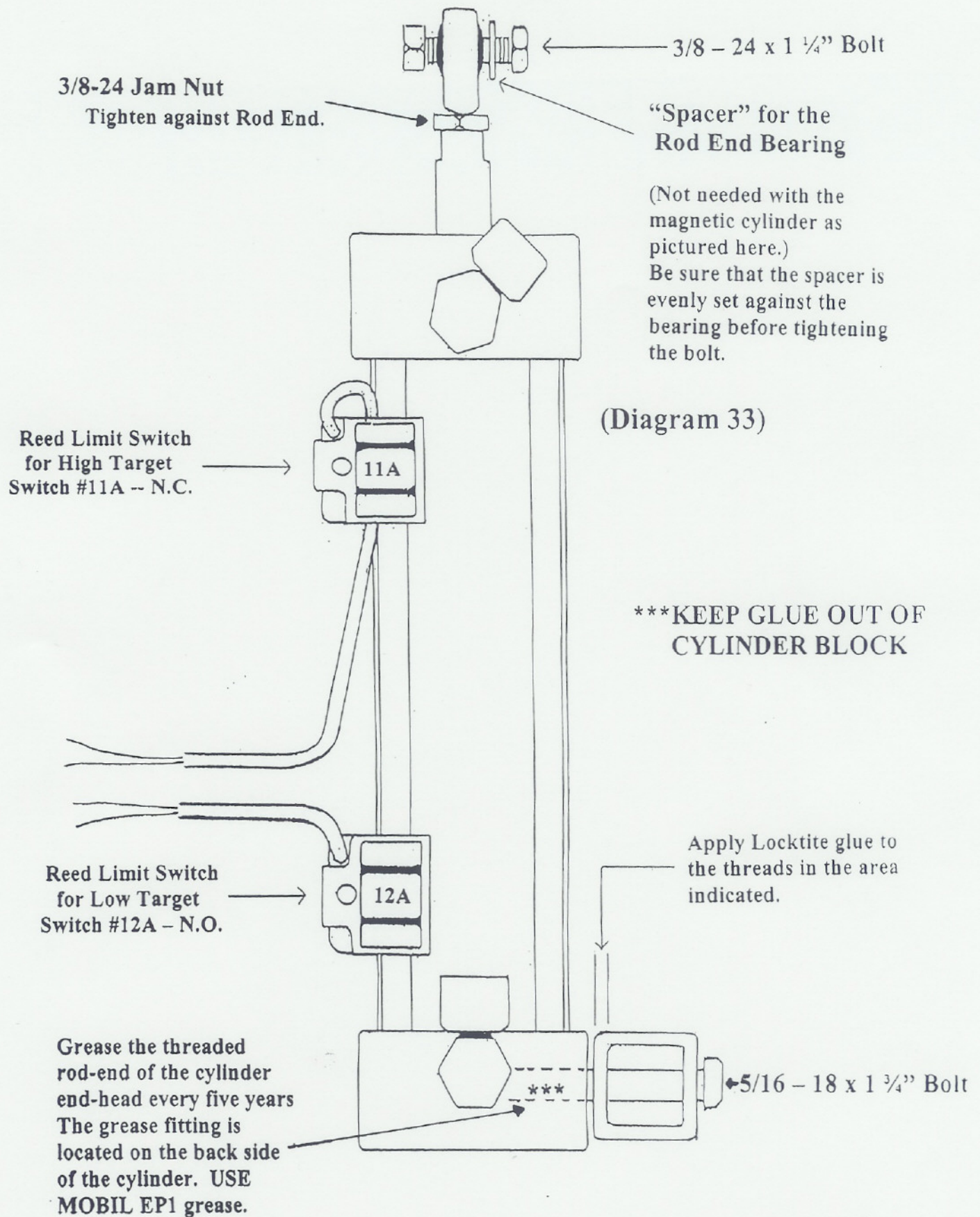
Tighten against the switch bar bracket while keeping the switches parallel to the magnet



(Diagram 37)

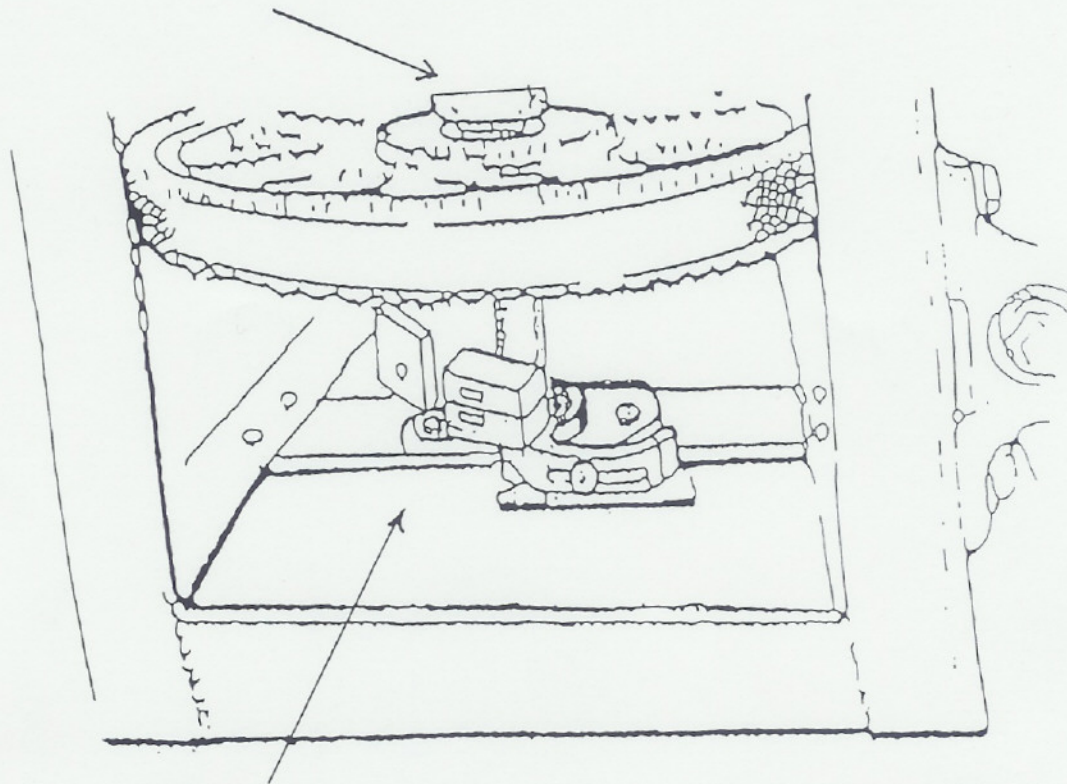
MAGNETIC HYDRAULIC CYLINDER FOR WOBBLE

From Serial # 2805



THROW ARM SHAFT BEARING MAINTENANCE

*Top Bearing



*Bottom Bearing

(Diagram 41)

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

REPLACEMENT OF OSCILLATION CYLINDER

TOOLS: 9/16" wrench (ratchet or speedy wrench will help), 13 mm or ½" wrench, 5/8" and 11/16" wrenches (or adjustables)

1. Stand back, release the throw arm and turn off the machine.
2. Loosen the cylinder bar bolts with a 9/16" wrench.
3. Remove the cylinder rod-end bolt using a 13 mm or ½" wrench on the milled end of the rod and a 9/16" wrench on the rod-end bolt. (Do not lose the bushings or bushing caps.)
4. Remove the cylinder bar bolts.
5. Now that the cylinder is free, remove the hoses.
6. When putting on the new cylinder, first secure the cylinder to the cylinder bar.
7. Tighten the rod-end bolt to the cylinder rod, making sure that the bushings and bushing caps are in place.
8. Make sure that the cylinder bar bolts are tight.
9. Connect the hoses. When tightening, make sure that the hoses are turned slightly away from the frame of the machine. This is done so that the hoses won't rub against the machine when at the extreme left and right angle limits.
10. After installing the new cylinder, turn on the machine. Put the Auto/Manual switch into the manual position. Push the left button and run the cylinder to the end. Push the right button and run the cylinder to the end. Now the air is out of the cylinder. Move the cylinder back to center and begin normal operation.

Diagram 92

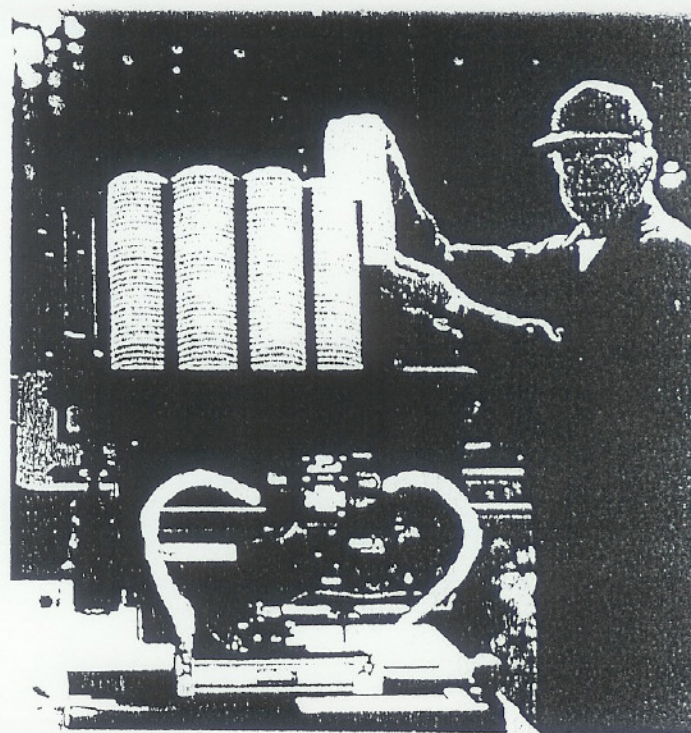
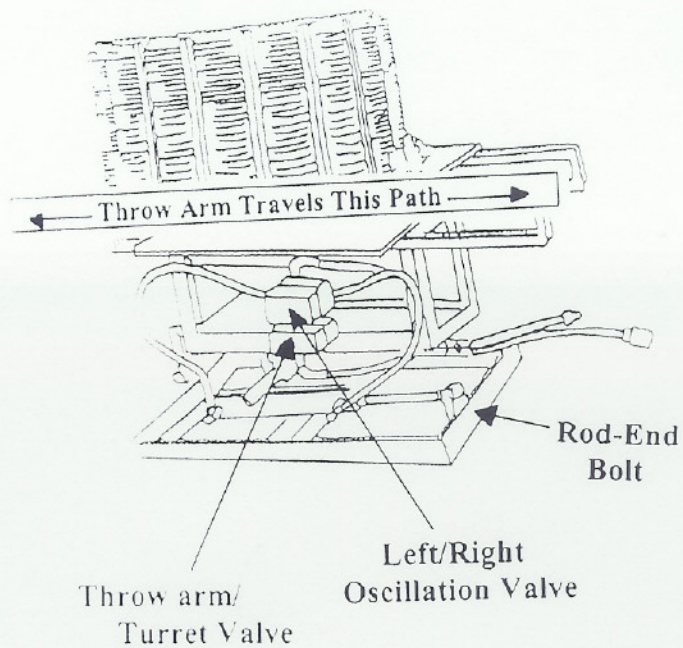


Diagram 90

Notice the angle of the hydraulic hose fittings

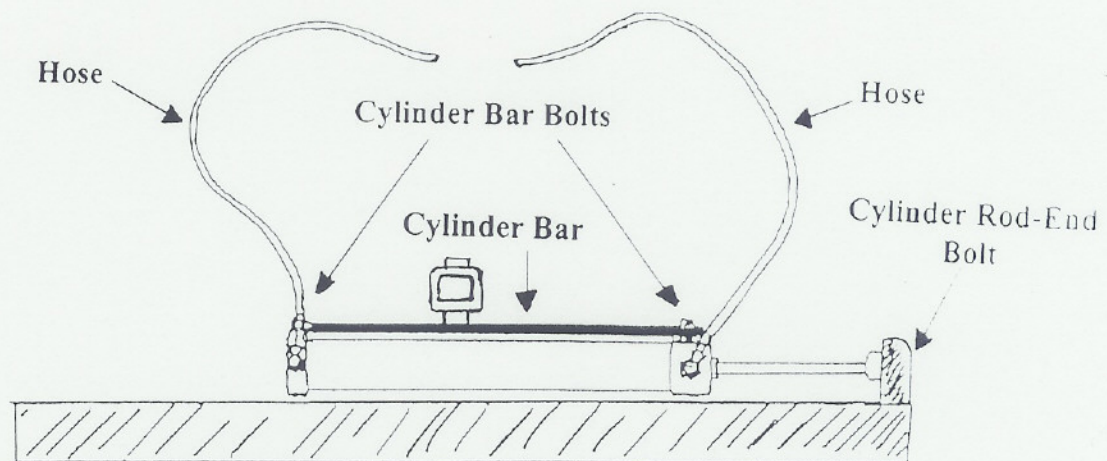
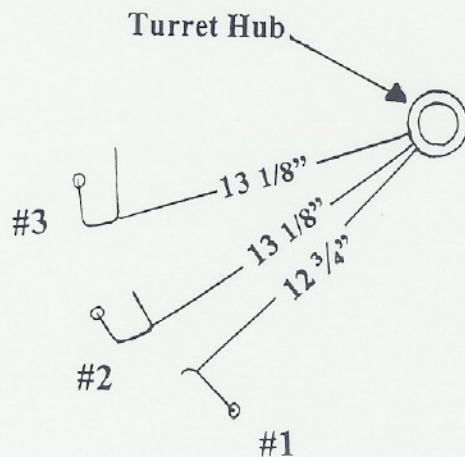


Diagram 95

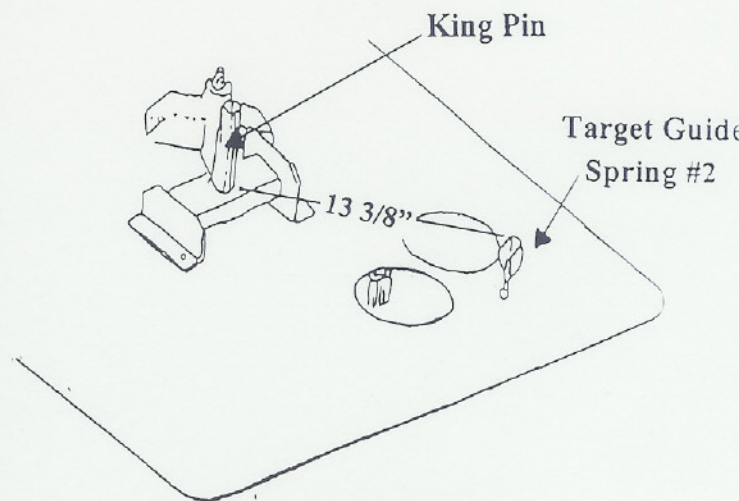
TARGET GUIDE SPRING POSITION

Up to Serial # 2729
(Turret ON)



(Diagram 56)

From Serial # 2730...
(Turret OFF)



(Diagram 19)

Measuring to the Guide Spring(s) with the turret off : from the face of the kingpin 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 3/4" 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 is tilted back slightly, so that the top of the Guide Spring is further away from the targets than the bottom.

If the Guide 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.