

Ball Lift Rod Spring Conversion 12-862944-000

Fits all Brunswick Pinsetters

Packaging

Item

No.	Qty.	Description
1	1 Ea.	Arbor Stem
2	1 Ea.	Threaded Stem
3	1 Ea.	Nut, Spring Retainer
4	1 Ea.	Spring
5	1 Ea.	Jam Nut 7/8-14 (not illustrated)

Installation



WARNING! Remove all power from pinsetter by throwing main breaker and disconnecting power cord at control box.

1. Remove jam nuts (P/N 11-125208-000), washer (P/N 12-400139-004) and rubber bumpers (P/N 12-400123-000). Retain this hardware including flange bushing (P/N 12-400803-000) for future use. Remove the old spring.
2. Clean spring rod and hardware using machine cleaner and inspect (if badly worn, replace them). Lube spring rod, bushing and wear surfaces with grease.

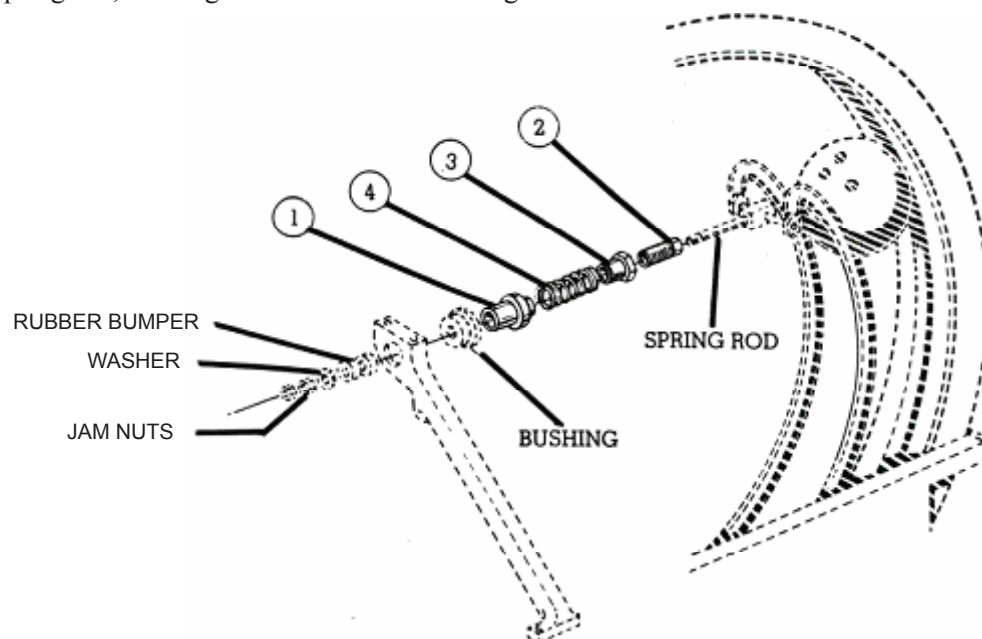
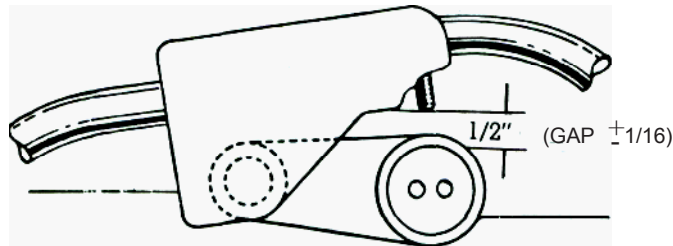


Figure 1

3. Install Jam Nut 7/8-14 and Spring Retainer Nut onto Threaded Stem.
4. Install the Threaded Stem and nut assembly, then the Spring and next the Arbor Stem onto Spring Rod.
5. Replace bushing (P/N12-400803-000) and reassemble rubber bumper, washer and jam nuts.

Adjustments

1. Place a standard size ball between the ball lift rods and ball elevator wheel and manually rotate the ball elevator wheel until the ball wedges itself, thus lifting the ball lift rods. Loosen the jam nut and turn the adjusting screw on the clapper block until the bottom of the screw is 1/2 inch ($\pm 1/16$) from the surface of the lower clapper block stem. Refer to *Figure 2*.



LOWER CLAPPER BLOCK STEM

Figure 2

2. Place a standard size ball between the lift rods and bail elevator wheel near the top of the lift rods. Loosen jam nut (P/N 11-125208-001) and turn the adjusting nut on the spring rod until a 3/8" (+1/16-0) gap is obtained between the rubber bumper and the ball trip bracket. Tighten the jam nut against the adjusting nut. Refer to *Figure 1*.
3. To increase or decrease riser rod tension on the ball, simply turn the Spring Retainer Nut to obtain the proper pressure (ideally this is the minimum pressure required to elevate an oily ball).



IMPORTANT: Do not allow the spring to reach less than 7/16" open; the spring will not function at solid height.

4. Place a standard size ball at the lower center of the ball wheel so that it is resting against the rear ball lift rod. With the pit shaker in its rear most position, there should be 1/16" minimum clearance between the lower portion of the ball and the rear edge of the pit shaker clamping plate.

5. If the clearance is less than $1/16''$, check the elevator guide roller adjustment, pit shaker adjustment and elevator frame adjustments. If all the above adjustments are correct, the ball lift rods must be raised to increase the dimension. To raise the ball lift rods, loosen the lock nut on the upper clapper block and turn the adjusting screw in until the $1/16''$ dimension is obtained; tighten the jam nut. Refer to *Figure 3*.

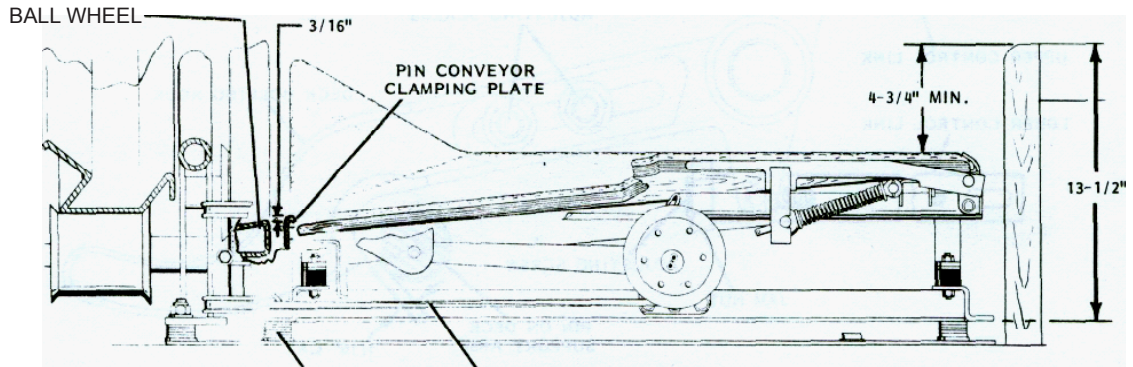


Figure 3