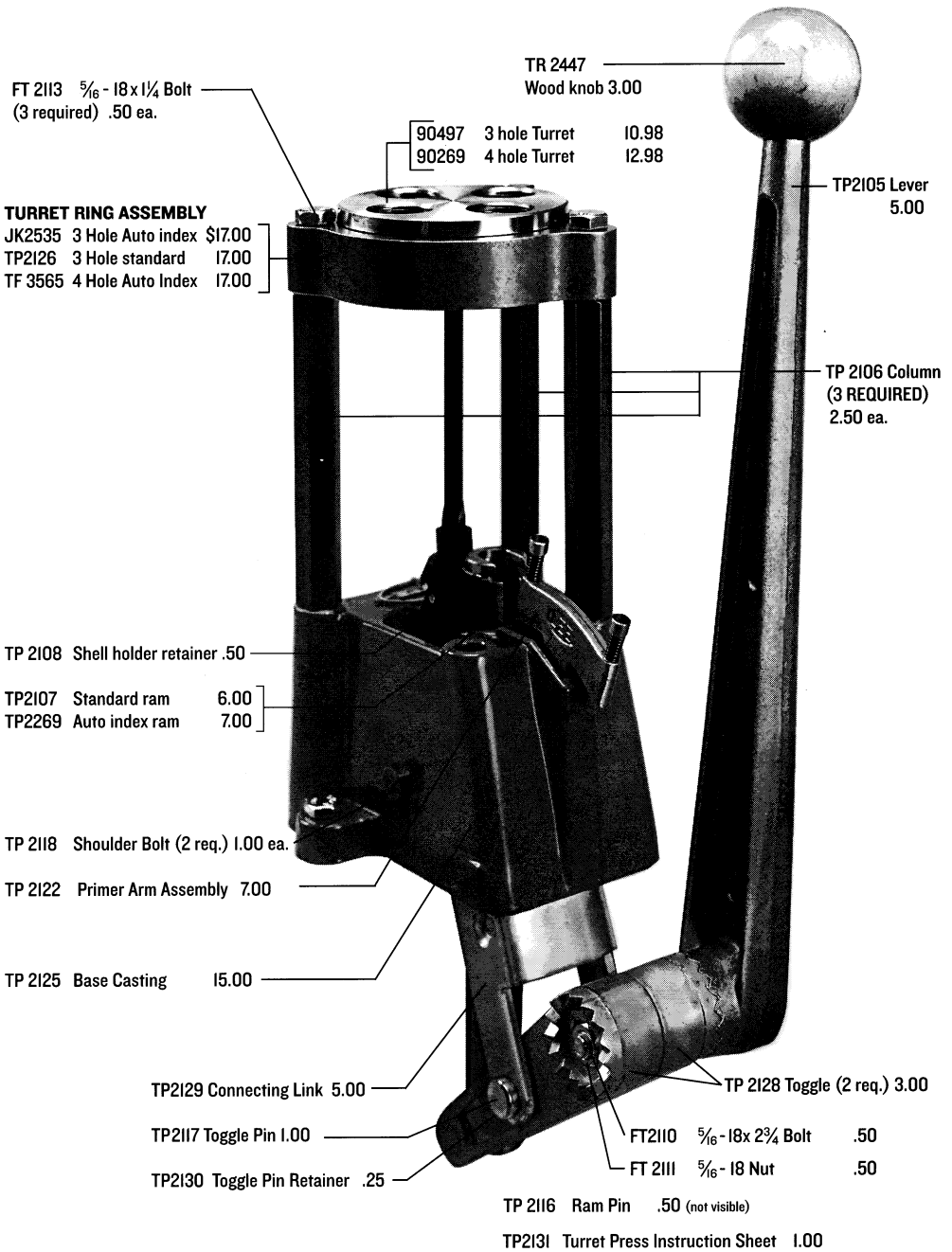


TP2131

# Lee Turret Press



**CAUTION**

Ammunition reloading can be dangerous if done improperly and should not be attempted by persons not willing and able to read and follow instructions exactly. Children should not be permitted to reload ammunition without strict parental supervision. Always wear safety glasses when reloading and shooting. Ammunition loaded with these tools and data should only be used in modern guns in good condition. We do not accept responsibility for ammunition loaded with these tools or data as we have no control over the manufacture and storage of components or the loading procedure and techniques. Primers and gun powders, like gasoline and matches, can be dangerous if improperly handled or misused.

**LEE**

# BEFORE YOU START RELOADING

## SETTING UP YOUR LEE TURRET PRESS

### BENCH INSTALLATION

Mount the press on the front edge of a sturdy workbench using three (3) 1/4" nuts and bolts of a suitable length. Be sure the ram does not rub against the bench edge. Attach the handle with the 5/16 x 2 3/4" nut and bolt. The best way to mount the handle is to have the ram all the way up and position the handle for maximum comfort. Tighten the nut and bolt with a wrench. After some experience, you may find different adjustments to better suit your needs.

### RELOADING SAFETY

Keep powder away from heat and open flames — Don't smoke

Store powder and primers in their original containers in a cool, dry place

Read and follow instructions exactly

Be sure you have the correct powder, measure and bullet of the correct weight

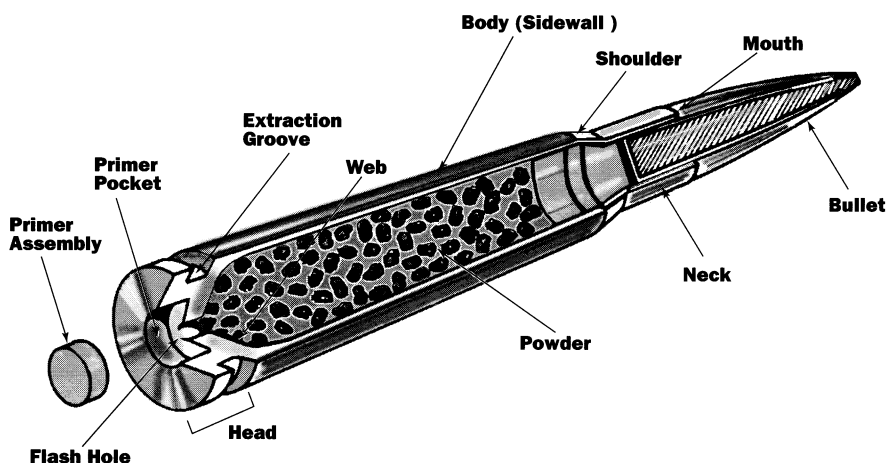
Any mixup can be dangerous

Exercise care and common sense at all times

**WEAR SAFETY GLASSES WHEN RELOADING OR SHOOTING**

**LEAD WARNING** Primers contain lead: a substance known to cause birth defects, reproductive harm, and other serious physical injury. Wash hands after exposure.

### CROSS SECTION OF A TYPICAL CARTRIDGE



### RELOADING IS QUITE A SIMPLE PROCESS

- 1 Case is sized to original dimensions and the spent primer is removed
- 2 Install a new primer
- 3 Add a charge of powder
- 4 Seat a new bullet and crimp if desired



Remove spent primer and size case



Install new primer



Add powder



Seat a new bullet

### IT IS YOUR RESPONSIBILITY TO ENSURE THE SAFETY OF YOUR LOADS

The following are factors that will increase pressures. Some will be dangerous.

- **DO NOT USE** more powder than recommended
- **DO NOT USE** a heavier bullet than recommended
- **DO NOT SEAT** the bullet deeper than normal
- **DO NOT USE** magnum primers unless using a slow burning ball powder
- **Greatly oversize bullets, excessively hard bullets or cases that are too long will cause higher pressures.**
- **High temperatures, or cartridges that were stored in a hot car or car trunk will produce higher pressures**

## CASES

The easiest and best way of getting cases is to simply save those from your factory loaded rounds. New and used cases can also be purchased. Cases must be clean and safe. Do not use cases that have cracks or splits. If they have been used more than twice, they should be checked to see that none of them have become too long for safe use. The easiest way is to trim them is with a Lee Case Trimmer. This automatically cuts them to the correct length and no gauging or measuring is needed. After trimming, be sure to chamfer both the inside and outside of the case. A Lee Chamfer Tool works best, but it can be done with a pocket knife.

Straight sided cases, such as those used by most handguns, are loaded with a 3-die set.

## MILITARY CASES

Used military cases are readily available at low cost. Usually, these have primers that are crimped in place. This is to prevent the primer from coming loose in automatic weapons and jamming the action at an inopportune time. The crimp must be removed before repriming. This can be done with a primer pocket reamer or swaging tool. Even a Lee Chamfer Tool can be used to ream the crimp.

## POWDER

Powder is usually classified as smokeless and black powder. There is also Pyrodex, which is a substitute for black powder. We will be using only smokeless powder for reloading.

Each set of Lee Dies is supplied with powder measure and charge table with a generous selection of loads. Additional load data is available from all the powder manufacturers and bullet makers. This is excellent information and should be followed exactly.

Different powders are available to do different jobs. Bullets having a high sectional density (long length in relation to their diameter) require a slow burning powder. This permits sustained peak pressure to gain maximum acceleration within working pressure limits.

Short, light bullets use quicker burning powder for complete combustion within the barrel. A wide selection of powder is readily available. Powders should always be stored in their original containers. While smokeless powder is not an explosive and not as dangerous to handle as

gasoline, it would be foolish to handle it carelessly and store excessive amounts. Follow the powder manufacturers' recommendations for storage and use.

## PRIMERS

Rifle and pistol cartridges require different primers. Rifle primers have a thick and stronger cup to withstand the higher pressure. Pistol primers have a thinner cup for easy detonation with a lighter hammer blow. Both rifle and pistol primers are available in regular and magnum. Use regular for all loads except if the load data specifies magnum primers.

Primers must always be stored in their original containers. It is always a wise idea to wear safety or shooting glasses when shooting or reloading.

## BULLETS

Commercial rifle bullets usually have a soft lead core with a copper jacket. Point shapes come in a variety of styles, but usually have some soft lead exposed to properly mushroom on impact.

The jackets serve a dual purpose: to control the bullet expansion and act as a bearing surface for its high speed travel down the bore. Some bullets have a crimping groove called a cannelure. This groove must be seated almost entirely in the case when crimping the case. The very end of the case mouth is turned into this groove by the bullet seating die used in a tubular magazine gun and most revolver ammunition.

Cast bullets are very popular with the hand-loader. These are very economical to use and for all guns where the velocity is less than 2,000 feet per second and can be as accurate as jacketed bullets. They do not normally expand as well as soft lead jacketed bullets on game. Therefore, it is poor economy to use them for hunting.

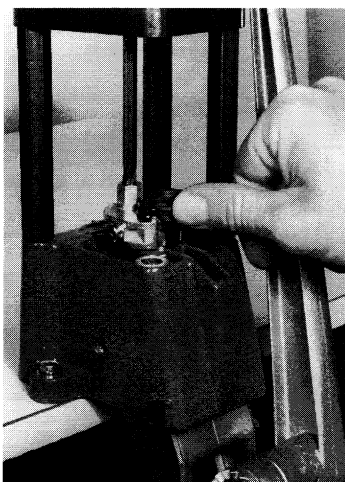
## CRIMPING

Ammunition loaded for hunting should always have the bullets crimped in place, as should ammunition used in tubular magazine and auto-loading rifles. It could ruin your hunt if a bullet wedged in the chamber or pushed back into the case. Best accuracy is usually obtained with crimped ammo as the crimp has an effect on ignition, velocity, pressure and ballistic consistency. No die does a better job crimping than the patented Lee Factory Crimp Die.

# THE LEE GUARANTEE

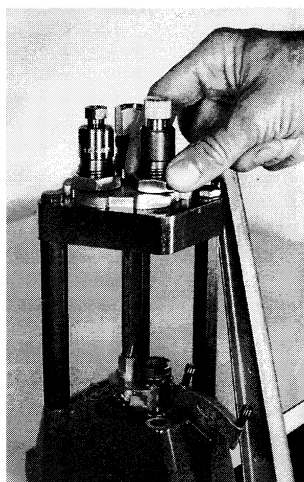
**Lee Reloading products are guaranteed not to wear out or break from normal use for two full years, or they will be repaired or replaced at no charge if returned to the factory. Any Lee product of current manufacture, regardless of age or condition, will be reconditioned to new, including a new guarantee, if returned to the factory with payment equal to half the current retail price.**

## DIE INSTALLATION



**A** Snap the shell holder into the ram. Rotate the shell holder to most convenient position. Screw the full length sizer finger tight against the shell holder. Lower the ram and turn the die in another 1/4 to 1/2 turn. **Exception** Do not turn carbide dies in the extra 1/4 to 1/2 turn. Tighten the lock ring.

**B** The other dies should be screwed in until they just touch the shell holder and then backed out one full turn. The die will then be about 1/16" above the shell holder. Further adjustment may be needed and it will be explained later.



**NOTE** To remove the turret, lift while rotating

The Auto Index is usable on cases with overall length of  $2\frac{5}{16}$ " or less. To deactivate auto index, simply remove index rod

## YOU CAN NOW BEGIN RELOADING

For a lifetime of service, oil the turret, ram and all pivot pins before each use



Carbide dies need no lubrication

The following sequence demonstrates steps necessary to load a single round. While it may look complicated, it is really only two or three strokes of the lever.

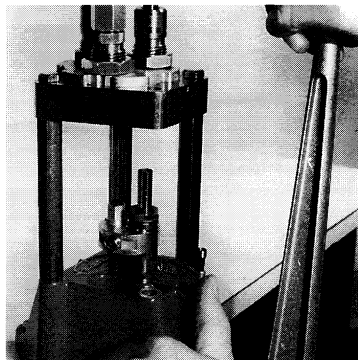
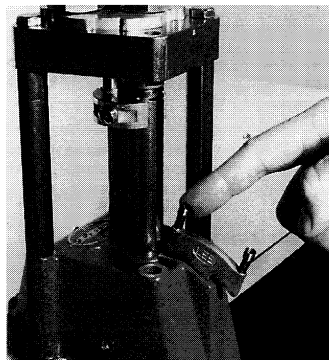
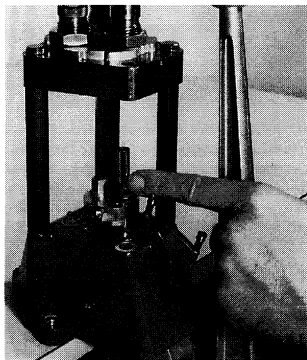
**1 PREPARE YOUR CASES** Inspect your cases while lubricating them. Discard all cases with split necks, indications of head separation or other defects. Wipe on a thin film of Lee Case Lubricant with your fingers. Fingers are the best way of lubing a case as any grit that could damage the die is wiped away. The case may be immediately sized or you can let the lube dry.



**RIFLE DIES ONLY** Be sure to lube the inside of the case neck with a cotton swab.

### CAUTION

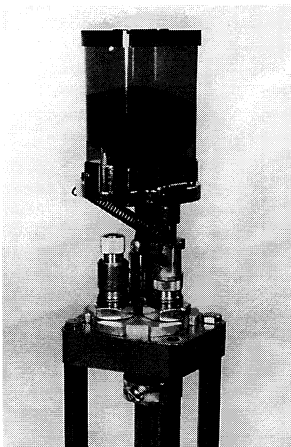
If for any reason you do not use Lee Resizing Lubricant, be very careful not to contaminate the powder or primers. All other brands are oil based and they have serious, detrimental effects on powder and primers. Because of the stickiness, they also attract grit that can damage the die. Lee Resizing Lubricant costs less and is so superior that is worth the effort to insist upon it or order direct from the factory.



**2 SIZE THE CASE**  
Place a shell in the shell holder. Rotate the turret to position the full length sizer over the case. Firmly raise the ram to the top and stop.

**3 PLACE A PRIMER**  
in the primer arm open side up.

**4 PRIME** while pushing the primer arm into the slot. Continue lowering the ram until you can feel the primer seat. Check the primer to see if it is fully seated. Rotate the turret to the next station. Automatically on presses with the Auto Index.

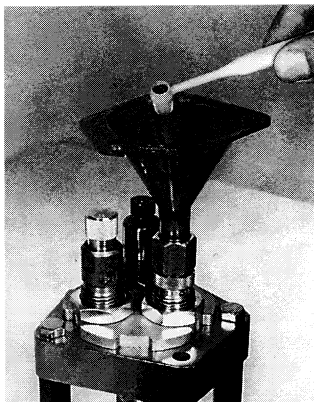


**Auto Disk Powder Measure** pictured. The case actuates the measure to automatically drop the exact charge while expanding the case mouth.

**CHARGING THE CASE**

Regardless of how you charge the case, be absolutely certain you have the correct amount and type of powder for the bullet you have selected.

**NEVER try to seat the primer deeper after the powder has been added.**



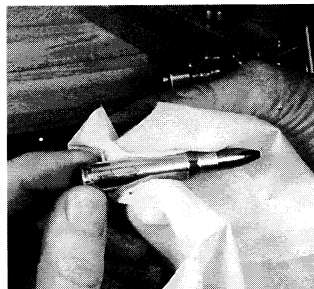
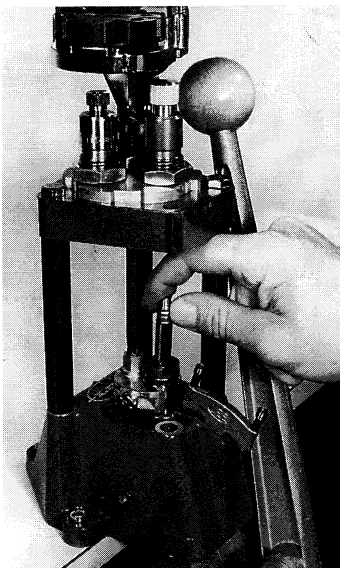
THIS STEP IS OMITTED WITH MOST RIFLE DIES

**5 FLARE CASE MOUTH** for ease of bullet installation.

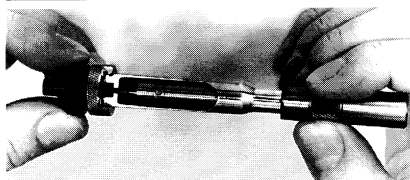
Raise the ram to expand the case neck. To increase the flare, screw the die in deeper. Always adjust to provide the minimum flare needed to start the bullet. After proper adjustment, tighten the lock ring.

**6 SEAT THE BULLET**

on the case mouth and guide it into the die. If you are using a three hole turret press you must carefully adjust the bullet seating die body so that a crimp is applied as the bullet is seated. Follow the instructions included with your die set. If you have a four hole turret press, most users find it easier to seat and crimp in separate operations. The Lee Factory Crimp die is best, as it gives factory like feed and dependability to your reloads.

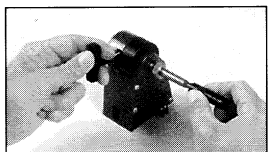
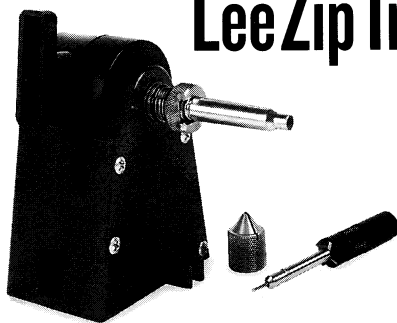


**7 IF LOADING** maximum loads, it is a good practice to remove all traces of case lubricant with detergent and water. This will reduce pressure against the bolt.

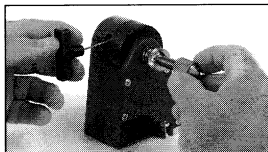


After a few loadings, cases tend to get longer. This could be dangerous if the case were so long that it would pinch the bullet in the end of the chamber. Pressure high enough to damage the gun could result. The simplest way to check the case and trim to the correct length is with the Lee Case Trimmer.

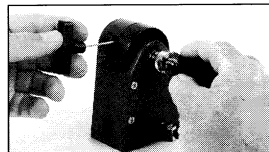
**Lee Zip Trim**



Trim the case using the Lee Case Trimmer



Chamfer the case inside and out



Polish case with steel wool, scouring paid or crocus cloth

# 3-HOLE AUTO-INDEX MAINTENANCE INSTRUCTIONS

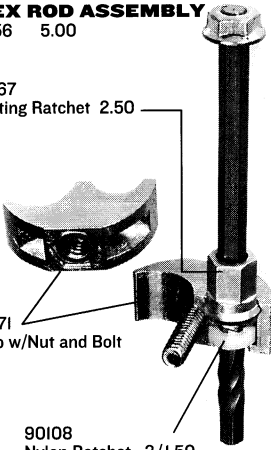
If the auto index no longer advances the turret to the correct position it is out of adjustment or the Nylon hex ratchet is worn.

## INDEX ROD ASSEMBLY TA2356 5.00

TA2367  
Adjusting Ratchet 2.50

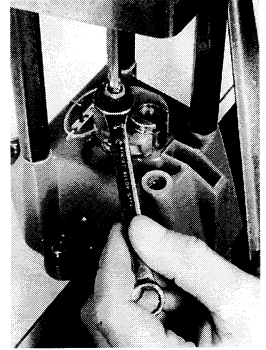
TA2371  
Clamp w/Nut and Bolt  
6.00

90108  
Nylon Ratchet 3/1.50



To check adjustment, raise and lower ram. With the ram at the bottom of the stroke, rotate the hex adjusting ratchet counter-clockwise with a 7/16" open end wrench until the turret snaps into position. Cycle the ram up and down again to check for proper index.

If you cannot obtain a complete index, the Nylon Hex ratchet needs to be replaced. Remove the clamp halves and fit a new nylon hex ratchet to the index rod and reassemble. **DO NOT OVERTIGHTEN.** Adjust the index position as described in first paragraph.



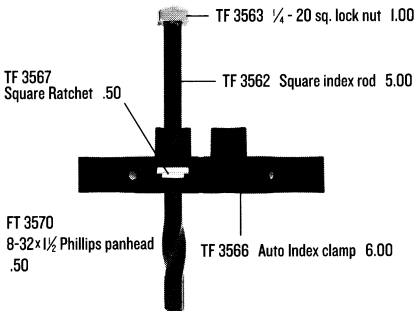
Should the Auto Index still not function after performing the above actions, it is likely the clamp halves were overtightened. There are two "home cures" to fix this problem.

- 1 Grind down the OD of the Nylon Hex ratchet so the clamp halves will no longer grab the nylon during index.
- 2 Shim the clamp halves apart by wrapping a paper shim around the Hex Adjusting ratchet where it is clamped by the clamp halves. A narrow strip of masking tape wrapped a round or two on the Hex adjusting ratchet works well.

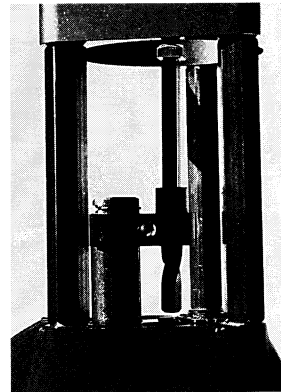
## CONVERTING THE 3-HOLE TURRET PRESS TO A 4-HOLE VERSION

- 1 Install new turret ring. Tighten 3 bolts making sure a wrench flat is facing the turret on the rear two bolts. Option: To obtain perfect alignment, remove lever linkage and slide ram into one of the turret holes while tightening.

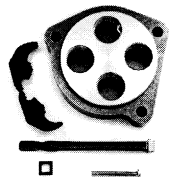
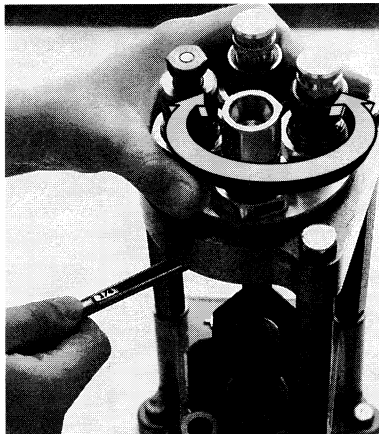
### Parts List For the Four Hole Auto index



- 2 If your press had an auto index, you can fit the 4 station auto index at this time. Install the clamp with square ratchet as shown. If your press did not have the Auto Index option— you are in luck. You can update by ordering a replacement ram part number TA2269.



- 3 Cycle the press up and down. If the turret does not stop in the correct position — follow these instructions. With the ram in the down position, place a 1/4 inch wrench on the index rod and hold in position. Now rotate the turret into the correct position. Never use a pliers as index rod damage will occur.



**Four hole turret update kit**  
90933 \$20.00  
Includes: Turret ring, turret, index rod, Auto index clamp and hardware