### 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 stored in a hot car or car trunk will produce higher pressures



**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

**Bead 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

### 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 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 substitue 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 explo-

# **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

sive and not as dangerous to handle as gasoline, it would

he foolish to handle it carelessly and store excessive

amounts. Follow the powder manufacturers' recommen-

Rifle and pistol cartridges require different primers. Rifle

primers have a thick and stronger cup to withstand the

higher pressure. Pistol primers have a thipper 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

Primers must always be stored in their original con-

tainers. It is always a wise idea to wear safety or shooting

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 pron-

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

Cast bullets are very popular with the handloader.

They are very economical to use 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

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 igni-

tion, velocity, pressure and ballistic consistency. No die

does a better job crimping than the patented Lee Factory

dations for storage and use.

PRIMERS

magnum primers.

BULLETS

erly mushroom on impact.

most revolver ammunition.

CRIMPING

Crimp Die.

poor economy to use them for hunting.

glasses when shooting or reloading.

**4** Seat a new bullet and crimp if desired



Remove spent primer and size case Install new nrime



Seat a new hullet



### Lee Case Trimmer Simplest and safest way to check the case and trim to the correct length.

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. Notice how the case length gauge passes through the case and stops against the lock stud and trims every case to the correct length.







Trim the case using the Chamfer the case inside and out

Lee Case Trimmer

LOW PROFILE STEEL

BASE WITH THROUGH RAM PRIMER DISPOSAL

LeeZipTrim

Polish case with steel wool, scouring nad or crocus cloth

Lee Safety Powder Scale 90681

F-1

It is the easiest to use, most accurate and sensitive powder scale made exclusively to weigh gun powder. The Lee Safety Scale has magnetic dampening and an approach to weight lifter enclosed within its heavy metal base. The exclusive safety beam has a stainless steel razor edge for maximum sensitivity. You can be sure that the Lee Safety Scale will retain its original factory accuracy for as long as it is not physically broken.

Lee Value Turret Press 90932

Proven design with compound leverage. No spring

in this turret design. The turret is locked into a solid

steel ring with big rifle bolt type lugs. Exclusive design

puts the lugs on the circumference so there can be

no tipping. The linkage is so powerful that the largest

magnum cases are sized with ease. Effort required is

so small that the usual heavy bench is not essential.

The Lee Turret Press has built-in primer catcher and

a comfortable roller handle. Even if you do not need

all of these features, why pay more for anything less?

## HP3539 <sup>5</sup>/<sub>16</sub>-24 Bolt HP3607 Lock nut (opposite) not visible HP2500

HP2499

HP3539 HP3607 Lock nut (opposite) not visible

handled or misused.





LEE PRECISION, INC. 4275 Hwy. U · Hartford WI 53027 www.leeprecision.com

HP2497 Hand Press Frame





## DANGER

CAUTION

nition reloading can be dangerous if done improperly and can result in serious injury or death. Selecting and charging powder is the most important thing you can do for both the safety and accuracy for your reloads. Be absolutely certain you have the correct type and amount of powder before you attempt to reload any cartridge.

 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. 2 Always wear safety glasses and hearing protection 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

WARNING Handling live primers and spent primers may expose you to lead or other chemicals, which are known to the State of California to cause reproductive harm and cancer. For more information, go to www.P65Warnings.ca.gov.

WARNING Steel parts in this product may be alloved with trace amounts of lead and other elements which are known to the State of California to cause reproductive harm and cancer. For more information, go to www.P65Warnings.ca.gov. To prevent exposure, do not alter the product by welding, grinding, etc.



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# **BEFORE YOU START RELOADING**

# **YOU CAN NOW BEGIN RELOADING**



# THE LEE BREECH LOCK HAND PRESS

is ideally suited for use while seated. A right handed person should hold the tool in his left hand and let the lever rest against the left leg. By pushing the tool against your leg, you can move the lever and raise the ram, freeing your right hand to insert the case, primers or bullets.

You will shortly find that you can quite comfortably sit in your favorite chair with your left elbow resting on the arm for lengthy loading without tiring.

# Your press features the Lee Breech Lock Quick-Change Die Bushings



Thread your die into a guick-change bushing and lightly snug the lock ring

Once your dies are set you can instantly remove them and replace them to the exact same position. If cost is more important than convenience, you can leave the Breech Lock bushing permanently installed and screw your dies in and out as in any conventional press.



Insert bushing into the press, turn clockwise 1/2 turn to secure. Adjust die in or out for proper operation.



Remove the die by rotating the die 1/6of a turn counterclockwise. Lift out and change to your next die.



(1) INSTALL SHELLHOLDER



(2) INSTALL SIZING DIE Insert a Breech Lock bushing and screw the sizing die in until it touches the shell holder and moves the lever off the stop  $\frac{1}{4}$ ". When properly positioned, tighten the lock ring. NOTE: DO NOT move the lever off the stop when using carhide dies.



# 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 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 it is worth the effort to insist upon it or order direct from the factory.

# (4) PLACE THE LUBRICATED CASE in the

shell holder and squeeze the levers together. Open the levers and remove the case. Do this with all of the cases before proceeding to the next step. CAUTION After every box of 20 rounds, remove the shell holder and dump out the spent primers.

### LEAD WARNING

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







lock ring.





lube dry.

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

(5) **PRIME** your case with one of the optional priming tools. Follow instructions included with the tool.







NEW AUTO PRIME Hand held, with the new folding tray-built-in primer flipping feature allows direct filling from large primer boxes. Requires special, but inexpensive shell holders



(6) **INSERT** a Breech Lock bushing and screw the Expanding Die one turn short of touching the shell holder. This die flares the case mouth for easy bullet insertion. Turn deeper to increase the flare. Adjust to minimum flare needed to start the bullet. Powder may be added through Lee Expanding Die.

## **⑦** CHARGE 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.



(8) **INSERT** Breech Lock bushing and screw bullet seating die in until it touches the shell holder - then back out three full turns. Lightly finger tighten the



crimp will crush the case. For proper crimp, all cases must be trimmed to the same length. For best utility and accuracy, consider the Lee Factory Crimp Die. You will never crush a case; no crimp groove is required and trim length is not critical.

**9** SEAT THE BULLET Place a bullet on the case mouth and guide it into the die. Raise the ram to the top and withdraw. The adjusting screw controls the bullet seating depth. Adjust to suit. Usually, seating to the same depth as a factory round works fine. If you desire to crimp, be sure the bullet crimp groove is almost completely inside the case. Then screw the die in just enough to apply a good crimp. Attempts to apply excessive



Lee Factory Crimp Die

(1) **IF LOADING MAXIMUM** loads, it is a good practice to remove all traces of case lubricant with detergent and water. This reduces pressure against the bolt.