Lee Deluxe Rifle Die Set

Complete Instructions for Lee Deluxe Rifle Die Sets

You’re going to be delighted with the Deluxe Die Set. It was introduced with the experienced loader in mind. There simply is no better, or more accurate way to reload rifle ammunition than with the Lee Collet Neck Sizing Die. If you’re like most of us, you have a ready source of fired brass at little or no cost, but unfortunately, many times it has been fired in another gun, making it unsuitable for use without first full length resizing. The addition of the full length die to the world-record setting Collet Neck Sizing Die gives you the best of both worlds. Use the Collet Neck Sizing Die whenever possible.

It will reward you with ten times case life, no lubrication, reduced trimming and best possible accuracy.

1. Inspect your cases to be sure they are safe for reloading. Cases with a split or signs of head separation should be discarded. If you are using the Collet Neck Sizing Die, try the empties in your gun chamber before you start to reload. If they do not fit freely, you must full length resize them.

2. Full Length Sizer

Screw the full length sizer in until it contacts the shell holder. Then lower the ram and screw the die in ¼ to ½ more. Raise the ram and finger tighten the lock ring. 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 felt and can be wiped away. Be sure to lube the inside of the case neck with a cotton swab. The case may be immediately sized or let the lube dry.

Die Maintenance — Lightly oil the die before storing it to prevent rust. The decapper is retained by a collet. Should it be overstressed by an obstruction; it simply slides up without damage. To reset, loosen the decapper clamp and position the decapper flush with clamp end and retighten. Considerable torque may be necessary. Use a ½” and ¾” wrench.

If you forget to lube a case, the rim will be pulled off and the case will remain stuck. If this happens — loosen, but do not remove, the decapper clamp. Use a ½” drift punch and a large hammer to tap on the decapper rod and drive the stuck case free.

3. Prime the case

According to the instructions supplied with your press. For maximum accuracy, speed and convenience, we suggest the use of a Lee Ergo-Prime. It’s the fastest, most convenient way to prime cases off the press; it’s perfect for those that clean primer pockets or prefer to prime in their easy chair. The Ergo-Prime uses special, inexpensive shellholders so there’s no need to endlessly swap shell holders from your press. Built-in primer flipper turns them right side up. Primers are automatically fed and installed just as fast as you can place the shell in the holder.

4. Charge the case

Select a load from the chart on the reverse side. This is the most critical decision you must make. An overcharge can blow up the gun and injure the shooter or persons nearby. It is dangerous to use a bullet of a greater weight with a charge for a lighter bullet.

Never select a load intended for a bullet lighter than you are using. Loads for a slightly heavier bullet are safe. The Lee Dipper is the safest and easiest powder measure to use. Adjustable powder measures should be double checked with a scale. Use the starting loads. You may work up to the NEVER EXCEED LOADS gradually, provided you know how to watch for pressure signs.

CAUTION

After charging the case, the only operation that should be done is to seat the bullet. Never try to seat a primer after powder has been added.

5. Dead Length Bullet Seating Die

Screw the die in until it touches the shell holder— then turn it ¼ turn more. This removes all play from the press and insures each bullet will be seated to a uniform depth. Bullet depth is controlled by the adjusting screw. This die will not crimp the bullet in place.

Bullet seating depth plays an important part in accuracy. Many shooters prefer to seat the bullet .020 to .030 inches away from the rifling. Others prefer to place it just touching the rifling. Only you can determine which is best for your rifle. You can be sure that your Dead Length Bullet Seater will seat your bullets more uniformly than any other die made, regardless of the cost.

NOTE: Accuracy is not guaranteed if bullets are seated with any tool other than the Lee Dead Length Bullet Seater.

Buckled shoulders

If your Collet Die buckles the case shoulder, it is due to the collet being closed and the case cannot enter. This is caused by closing the press without a case in the die and/or the die adjusted too tightly. If your Collet Die buckles the case shoulder, it is due to the collet being closed and the case cannot enter. This is caused by closing the press without a case in the die and/or the die adjusted too tightly. Remove the collet from the die and spring it open. It is best done by pushing a tapered drift punch into the collet neck. If none available, use the round shank of a Phillips head screw driver to pry the collet open. Cases that have been excessively annealed into the shoulder area may buckle even though the collet is open.

Factory Crimp Die Not Included

Bullets do not need a crimp groove as the LEE FACTORY CRIMP DIE will form one while crimping. However, it requires a hard push on the press lever to form the crimp. Your die set does not include the Lee Factory Crimp but you should consider it for all ammunition used for hunting. It improves accuracy on loads that do not have the bullets seated to touch the rifling—seating depth is less critical.

Speer advises that Speer Bullets not be used with certain Lee Dies. All other brands work great!