

Now, I Remember When.....
We use to size with 310 tools



When I first started casting, most of the small time shooters had no lubricator/sizer as we are blessed with today. Nor were there the nice clean bullet lubes that we have today.

The Ideal/Lyman #45 was available as was the big Star and Saeco lubricator/sizers. A host of earlier sizers were also available but the quality and parts as well as the initial cash outlay was beyond the financial reach of most small time cast bullet loaders. The only bullet lube that I was aware of was the old Lyman graphite lube. There may have been others but I was not privy to that information.

I expect that most of the old guys at one time had an Ideal/Lyman 310 tool in some vintage or another. I had one and I started out with one for loading the .30/06. I purchased one of the early Lyman "Ammunition Maker" sets and a .311" sizing chamber for the 310 tool came as a component complete with matching punch for the #311291 bullet as that mould also came stock with the set.

It truly was an "ammunition maker" set. All you had to supply was the pot for melting lead, primers, gas checks (in this particular caliber) and powder and you were ready to load.

I got to thinking about the old days not long ago and dropped Randy Davis at the 310 Shop an e-mail. Yep!, he had loads of them in all sizes. I ordered up a .358" chamber with a punch for the #358311 bullet and will see how bad we really had it back then. I already had a 310 tool and die set in .38 Special/.357 Magnum.

If you get the urge to try this experiment, you can contact Randy at:

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310 Sizing Die

The 310 sizing die is a two-piece die. It has a plunger that is flat or slightly rounded on one end and the other end was made to fit the bullet nose like a top punch. Sizing is base first. Nose first sizing is a possibility but a longer push rod with a flat end would have to be fabricated as the one furnished with the sizing die is too short to push the bullet all of the way through the sizing chamber.

The sizer is bored through for about 2/3s of it's length slightly over bullet size. Then about 2/3s of the way through, it is precision bored to the sizing diameter. This precision step is what does the actual sizing. The larger portion is so that a lubed bullet may be started with the fingers.



Ideal Sizer Die Assembly
Top: Sizer Die (.358)
Bottom: Push Rod (#311 for bullet #358311)

Pan Lubing

Before bullets can be sized, they need to be lubed. In the old days, this was done using a method caused pan lubing.

Pan lubing is taking a shallow metal container, setting the bullets in it and pouring melted lubricant around them. After the lubricant sets up hard enough to handle, the bullet is cut out with a device known as a kakecutter. This gives you a lubricated bullet that is ready to size.

If the bullet to be lubed is a gas check design, the gas check should be installed before lubing or the lube may be removed during the process of installing the check.

The Kake cutter below was made from a discarded .35 Remington case. At one time, Ideal/Lyman offered them for sale but most casters made their own for the sake of economy. The split neck was cut off the mouth of this case and was expanded to loosely accept the as cast bullet. The base was cut off with a Dremel tool to allow the lubed bullet to be removed from the tool.



Top: Home made Kakecutter
Bottom: Sized 358311 bullet

In this operation, I used the bottom of an IMR powder can cut to about a 5/8" height and cut rings of lube and placed

them in the “pan”. Then I suspended this over my RCBS furnace until the lube was liquid. Insure that the container is not too full of lube or it will overflow using this method when bullets are placed in it.

If an alternate heating source is used, insure that the lube does not overheat as a fire hazard exists with the flammable lube. Also insure that you wear gloves while handling the lube due to the burn potential.



Melting Lube



Bullets Placed in Lube

(Note that lube is hardening around cold bullets.)



Cutting bullets from lube with Kakecutter



Pan lubed bullets Ready for sizing

As you can see, there are ample opportunities for messes with this process. Imagine doing this with a graphite based lube and you'll see why the "management" (wife) prefers a lubricator sizer.

Sizing with the 310 Tool

Now that we have lubricated bullets, it's time to size them. I chose the Lyman 358311 and it's HP version as I wanted to make a few loads for my wife's Model 15 Smith & Wesson in .38 Special using this bullet and the sizer die I had ordered was a .358" sizer with a #311 push rod.



**Figure 1: 310 tool set up with die installed.
Push rod and bullet are positioned for insertion of bullet**

The die is installed in the 310 tool handle and screwed in as far as it will go. The setup above (**Figure 1**) shows how the bullet is placed....base first as there is a #311 concave in the small end of the push rod.



Figure 2: Inserting the bullet in the die

The next step is to insert the bullet, base first into the sizing die (**Figure 2**).



Figure 3: Inserting push rod

Next, take the push rod and with the fingers, push the bullet through the sizer die until it stops. It should be in about the position shown in **Figure 3**.



Figure 4: Close handle and size bullet

The next step is to close the handles and size the bullet. Note the base of the sized and lubed bullet emerging from the die at the extreme right of **Figure 4**.



Figure 5: Bullet base emerging from sizer



Figure 6: Bullet base

When bullet emerges from sizer, **Figure 6**, the base will have lube on it from the previous bullet. Wiping the base is required at this time.

After the base has been wiped, remove the bullet from the sizer with your fingers, remove any lube from the nose and store base down in some kind of container.



Figure 7: Lubed and sized bullets

Congratulations! We have just sized and lubed some #358311s and #358311 HP bullets the old fashioned way (**Figure 7**). Accuracy??? Several I measured ran .3585" and that's pretty close to what this die is suppose to run.

Alternate Use

Lacking a 310 tool, this sizing die with the use of a 7/8 X 14 T.P.I. adapter (available from Lyman) can be used in a regular press as a sizer. The bullets will still have to have the lube applied using some method.

In Summary

When you look back over this process, you'll see now that we have it pretty good in these times as bullet casters. Much better than the old days when a night's work might produce 200 sized and lubed bullets of questionable quality.

You have to remember that back in those days, we didn't have the financial assets to buy expensive sizer/lubricators and couldn't afford the components for the quantity of shooting we do today.

This sizing setup along with a 310 tool was all that most of us had along with a pound of Unique or Bullseye and a thousand primers and a thousand gas checks if the bullet called for them.

With a can of powder at \$5 a pound, primers at \$6 a thousand and gas checks at \$5 a thousand, a \$25 Ammunition Maker kit allowed a lot of shooting for a fellow with an old .38 Special pistol or a DCM 1903A3 Springfield.

It's an old concept in reloading but it worked pretty well then and as far as my efforts in this project go, it still does now.

If you have a hankering for some old nostalgic reloading, Contact Randy and he'll fix you up with the tools.

John Goins/akabeagle