



Technical Newsletter From Your Ballistic Technicians

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A Case for Longevity or How to Make Your Cases Last Longer

by Carroll Pilant

Talking to people day in and day out, we find that many people will have 2 or 3 guns in the same caliber. Many of these shooters never make any attempt to keep the cases fired in that rifle, specifically for that rifle. Instead, they mix all the brass together and size it till it fits in all the rifles. Since most rifles usually don't have chambers that are the same size, the cases fired in a larger chamber will have to be sized an excessive amount to chamber in a firearm with a smaller chamber. All the stress on the case, work hardens the case and shortens case life severely, plus affecting your accuracy also. It is a good policy to keep the brass segregated to that particular rifle by either using different headstamps (say Remington cases in your

Remington, Winchester in your Winchester, and say you have a Savage, you could use a nickel Remington case). That way, with just a glance at a case, you can tell which case goes to what rifle. Another thing you can do, if you prefer a specific brand of case is to file a small notch or two in the rim, with a small triangle file. Then, you can size your cases accordingly, where they will just chamber in the rifle it belongs to, without being sized excessively. Accuracy will improve, case life will be much longer, and you won't run into cases chambering hard in one gun and falling into another. Try it, and you will be pleased with the gains you receive.



Charles Rogers of Alaska with his trophy taken with Sierra's .30 caliber 125 grain SPT ProHunter.

Reloading Classes

by Duane Siercks

The Sierra Ballistic Technicians have taken advantage of the opportunity to become "NRA Certified Reloading Instructors" and to teach the Basic Reloading Classes during 2000. This has been a rewarding experience, and has provided the opportunity to meet and have personal contact with people who are interested in shooting sports, and to help them become more proficient in their particular hobby.

Teaching these courses is also a very effective means to promote our sport/industry, to encourage youth participation, and general interest in the benefits of reloading. In one reloading course held in a Clinton, Missouri gun shop the goal was to create more interest in reloading. This location's reloading component sales have increased 150% since the class was conducted.

If you are interested in either taking the course or becoming an Instructor, contact the NRA at 1-800-672-3888, or mail at:

The National Rifle Association
11250 Waples Mill Road
Fairfax, VA 22030

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Incremental Reloading

by Rich Machholz

Seldom does a day go by that I don't get asked, "How much should I adjust —". These are some guidelines I use to keep myself and those around me safe and my firearms intact. Powder charges are perhaps the most common increments adjusted. An easy and safe method to establish the proper increment for increases is to use one of the cases you are going to reload and fill to the case mouth with the powder you intend to use. Lets say this is a 270 Winchester and you intend to use IMR4350. This case will hold about 60 grains of this coarse powder and a safe increment of increase is 1 percent of the total case capacity 60-grains/100% or 6/10ths (.6) of a grain. Another popular example is the 223 and H335. A normal 223 case will hold about 29 grains of this very dense powder so your incremental increase would be .3 or 3/10ths of a grain of powder rounded up.

Bullet seating is another area that is easy to abuse or go overboard. It is usual to locate the lands then back off slightly. How much is slightly? No more than .010", working back, off the lands in .010" increments until a total of .050" of an inch total adjustment is made. This will give you small enough increments to find the

"sweet spot" and not shoot through your accuracy corridor. Once you have established the general proximity try .005" on each side to establish exactly how much leeway your rifle will tolerate.

Setting up a Full Length Resizing die is a commonly overlooked incremental adjustment. Naturally the case should not fit the rifle in the beginning. It is usual for precise die setup to begin a turn and a half to two turns of the die body off the shellholder. Haste makes for less than desirable results in this operation. So, adjust your die 1/4 of a turn at a time down, towards the shellholder and try the case in THE rifle you are going to use. Make sure you quit just before you can close the bolt. Then change the increment to 1/8th of a turn until you feel you are very close to closing the bolt. Now for the final increment of 1/16th of a turn until the bolt will just close with little feel or perhaps no feel is perfect for most shooting requirements. Dangerous game will require effortless bolt operation of course as will a wilderness hunt. The idea is to size the case just enough to ensure proper operation in THE rifle you are going to shoot but not size it so much as to set the shoulder back and shorten case life.



The USA U-21 World Champions from Bisely, UK in July 2000. The team was coached by Ian Cheeseman and captained by Michelle Gallagher.