TUBB®

6XC and 33XC/37XC die set instructions

Since 2004 Superior Shooting Systems has produced the very best die set for your 6XC cartridge. 2018 gave the new 33XC cartridge (also 37XC) the same (forward thinking) die set system. These instructions will provide you with the information needed to get the best performance and accuracy from these record-setting cartridges.

Sizing Die

The A7 tool steel body is not just another sizing die! The TUBB® designed resizing dies have distinct advantages over conventional neck bushing style dies.

1. With TUBB® dies, both the neck and shoulder are included in the bushing, not just the neck. This allows excess sizing lubricant a place to escape and not cause a dimple on the shoulder of the case. It also allows easy changing of the bushing to make a neck diameter or even a caliber change. You can effectively use the TUBB® 6XC die for any caliber and any shoulder angle as long as you use the correct parent case. Several use the 6XC body as a .308 small base resize die.

2. By having an integral neck and shoulder bushing, the entire case neck is able to be resized, unlike a neck bushing only full-length sizing die in which the very bottom of the case neck is NEVER resized. Plus, having the neck and shoulder bushing consolidated preserves the concentricity during the sizing operation.

3. Since the neck and shoulder area are one piece, it is also possible to adjust the amount or extent of case body sizing. You can accomplish full length sizing of the case body size (die touching the shell holder) and then adjust the height of the neck/shoulder bushing independently to specify the amount of case shoulder set back.

4. Both the TUBB® 33XC/37XC dies and the TUBB® 6XC dies come with two different bushings for use in sizing, and a third bushing designed to be used to determine cartridge case headspace when used in conjunction with a set of dial calipers. The use of this “gauging bushing” will be explained

later. The two sizing bushings have different neck diameters and thus will result in different amounts of case neck tension. The bushing diameter is clearly indicated on each bushing.

Due to differences in wall thickness and brass characteristics, different brands and lots of brass may size “differently” than others. The best way to proceed is to size a few cases using each bushing and see what the end results are by measuring outside case neck diameters before and after seating a bullet into them. This is the sure way to determine your desired case neck tension, and therefore, which bushing to choose for routine sizing use.

Gauging Bushing Use

We have included a special neck/shoulder bushing that has an extra-large diameter neck area. This bushing is intended as a means to gauge case shoulder set back and act as an aid to determine the correct amount of sizing as well as determine correct sizing die adjustment to attain proper cartridge headspace.

Take your fired case and place the gauging bushing over the case neck, it will stop on the case shoulder. Using a suitable caliper, measure from the base of the case to the top end of the gauging bushing (take several readings and average). This is an excellent measurement of the chamber headspace in your rifle.

Next, adjust the sizing die downward, checking progress using the caliper and gauging bushing, until the gauging bushing shows the sized case 0.003-0.004” shorter. This indicates that the case shoulder has been “set back” that amount. Setting the case shoulder back that 0.003-0.004” will ensure that the resized cases will function easily and reliably through the rifle.

NOTE – applying imperial sizing wax to brass will give the best results when using the resize die.

Seating Dies

The bullet seating dies for the 33XC/37XC and the 6XC are designed for minimum bullet runout of your loaded round. These dies feature a spring-loaded, sliding chamber sleeve that accepts and supports the cartridge case prior to moving it up to seat a bullet.

The forward portion of the case body as well as the neck and shoulder are supported adequately by these dies to seat their respective bullet into the case with minimal runout.

Adjust the seater into your press for use by placing a new case into the shell holder with the press ram run fully “up” and then threading the die into the press until the seating die stops. This indicates that the case shoulder is bottomed out inside the sliding sleeve on the seating die. Back the die out a few revolutions. The 33XC/37XC seating die is designed to work for either bullet diameter.

If you’d like to learn more about all topics addressed in these instructions (fire forming, sizing, etc.) I suggest getting a copy of Handloading for Competition by Zediker Publishing. The web site is www.ZedikerPublishing.com or call 662-473-6107.

I also have a facebook page in which I answer questions regarding 6XC as well as the 33XC and 37XC. You can find this facebook page by sending a member request to “TUBB® original 6XC and 33XC/37XC run by David Tubb.” I also periodically post on my business page titled “David Tubb – Superior Shooting Systems.”

YouTube links regarding TUBB® 33XC/37XC die sets and information about necking 33XC to 37XC are found in links below. You may need to copy and paste each link in your web browser to view.

https://youtu.be/kcSpOnwpdbw

https://youtu.be/eMZbETJPcS0

YouTube link to the TUBB® 6XC seating and resize die is below. You may need to copy and paste link in web browser to view.

https://youtu.be/ECUcleak7CM

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