

April 29, 1968

Mr. Russell Ellis
5816 Greeley N.
Portland, Oregon 97217

XP-100
Design

Dear Mr. Ellis:

This letter is in answer to your request for information about rechambering your XP-100 Fireball Pistol.

If you rechamber to a 222, 222 Magnum or 223 you will effectively reduce the velocity at the muzzle and increase muzzle pressure, which in turn makes the gun noisier and hard on the ears, as well as affects accuracy.

The first XP-100 was tested out in a 222 Caliber. The accuracy was mediocre, muzzle pressure high, and the noise unbearable. This was all done in a gun with a barrel approximately 12" long. This proved to us, then, that a new cartridge needed to be developed that had the inherent rifle accuracy of the 222 but could be accomplished in a short barrel. Ballistically, then, it was necessary to reduce the cartridge volume, the result being the "Fireball" cartridge, and still utilizing the fine accuracy of the 222 bullet. It was necessary that the barrel be exactly 10 1/2" and no shorter in length, to obtain an average muzzle velocity of around 2700 fps. Very careful handloading will improve this muzzle velocity.

Several of our customers have rechambered their XP-100's as you have suggested, but did chambering first and asked questions later, much to their dismay.

Recent bench rest matches on the West Coast revealed that the XP-100 with the 221 Fireball has been producing 5 shots in extreme spread at 100 yards of under .5"; some even as low as .3". I know you will be very disappointed in making this change; therefore, recommend you leave the system as is.

Very truly yours,

W. E. Leek,

Manager - Firearms Research & Design
Ilion Research Division

WEL:T