Blue Grass Viper — One Tough Rifle

By Phil Sanders

Photos by Jean Genton
Supplied by Bluegrass Armory

The Viper X-15 from Bluegrass Armory is one of a few new fifties on the market trying to carve out a niche for itself. Since it has only been available since 2002, I suspect many of you may not be familiar with it as of yet. While a more extensive evaluation is in the works for a forthcoming edition, the primary focus of this article will be the review of an interesting video clip of the Viper that's been circulating on the Internet. If you have access to the Web this video is definitely worth the download. It can be found at: http://www.bluegrassarmory.com

A short introduction is in order to familiarize those of you not already acquainted with the Viper. Externally it shares a resemblance to that of the more familiar Barrett M-99; however, other than sharing some superficial styling similarities, it is in fact a firearm of its own unique design. The bolt measures approximately 4½" in length, and is shorter than that of most .22 rifles. While it's obviously much more substantial than any rim fire bolt, it does strike a nice balance between that of the short shell-holder or heavy full-length bolt designs. The bolt head resembles that of other three-lugged designs, such as the Wichita or Browning A-bolt, although on a much larger scale. It certainly seems more than adequate for the job at hand.

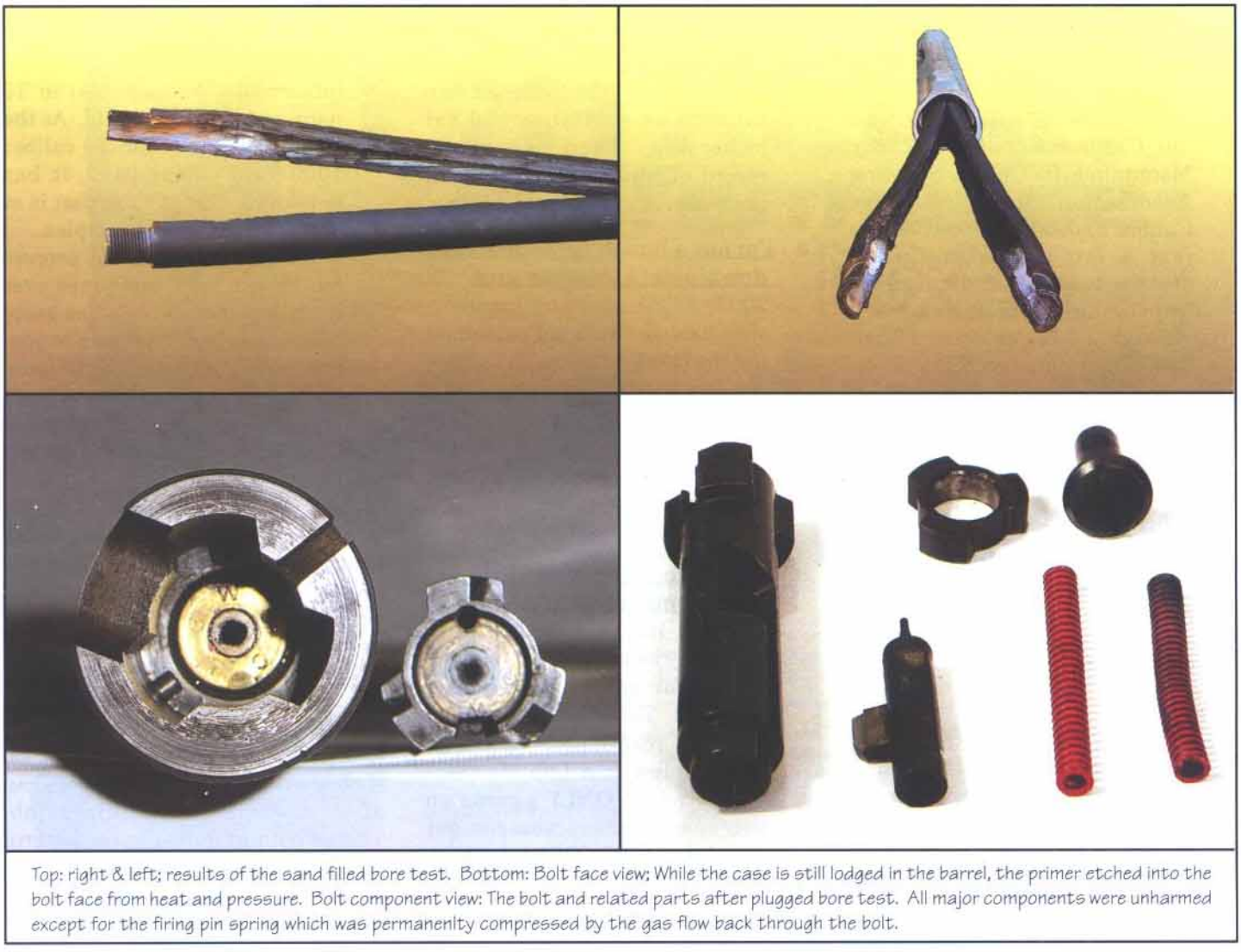
It is not sure if anyone actually felt the need to question the strength of the bolt or the action or if the folks at Bluegrass just wanted to see how much abuse the Viper could take. Either way, the engineers decided to attempt the destruction of one and hopefully get some interesting video to boot, so they took a perfectly good rifle and proceeded to try and unhinge it.

For those of you without Internet access I'll try and summarize the results. The Viper was remotely fired in a series of tests that were escalated in severity. Care was taken to fire the rifle remotely from behind a large hill to ensure the safety of the shooters. Needless to say, neither Bluegrass nor the author accepts any responsibility for anyone who attempts to repeat any of the tests. Not only is it a waste of a good gun, it's filled with many inherent dangers, most of which cannot be predicted nor controlled.

In the first test the rifle was fired in its stock configuration to establish a baseline. While there was certainly recoil involved in the firing nothing out of the ordinary occurred.

During the second test the muzzle brake was removed and the rifle was once again fired remotely. Judging by the large increase in recoil it's clear that the muzzle brake has a serious influence on the amount of energy transmitted to the gun. It appears likely that firing this (or any) fifty without a brake could provide an opportunity for serious personal injury.

The third firing of the rifle was where the serious fun should have started. The last several inches of barrel were packed with mud, and then the gun was fired — but nothing



Top: right & left; results of the sand filled bore test. Bottom: Bolt face view: While the case is still lodged in the barrel, the primer etched into the bolt face from heat and pressure. Bolt component view: The bolt and related parts after plugged bore test. All major components were unharmed except for the firing pin spring which was permanenlty compressed by the gas flow back through the bolt.

happened. Apparently the pressure wave that preceded the bullet was adequate to remove the obstruction from the bore prior to the projectile slamming into it. Consequently, there was no visible damage but obviously that couldn't be good for the bore.

Since the mud test didn't result in failure, the barrel was then filled and packed with sand in order to provide a more strenuous assessment. Upon firing the barrel did indeed rupture and nearly spilt its entire length, yet the rest of the firearm remained unscathed.

In an effort to ensure catastrophic failure, a short and very thickly walled section of barrel was fitted to the action. The muzzle of the barrel was threaded to accept two 9/16 x 1½ inch setscrews. The first plug was threaded 2 inches into the bore, and then the second setscrew was cranked down tightly on top of the first. It's obvious that this blockage would result in a very dramatic outcome. After all, those thousands and thousands of foot-pounds of potential energy need to go somewhere. It was envisioned that this test would result in bolt disintegration, barrel shattering or some other form of failure. Unbelievably, nothing visually extraordinary happened upon firing, just some hissing, smoking and shuddering.

While the Viper was still smoking, the bolt was hammered out of the action with a large hammer. Frankly, I would have waited a few hours to have even approach the Viper, just to be on the safe side, because in my mind it was unknown if high pressure gas was still lurking inside the action!

Upon preliminary examination there was no apparent damage to the rifle. This was later proved by magnafluxing the receiver and bolt for cracks. Upon examination it was verified that they indeed had sustained no damage!

So what happened you ask? Upon firing, the bullet slammed into the first setscrew then transferred its energy to the outermost setscrew, which then flew out of the barrel leaving the bullet captive. The brass remained in the chamber, but the pressure and heat burned out the primer pocket, which pushed the firing pin back in the bolt crushing the substantial firing pin spring. The gas then escaped through the bottom of the trigger guard. Amazingly the bolt and receiver held. The Viper is one tough rifle!

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