The .257 Jackrabbit
Revisited

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The .257 Jackrabbit was conceived on January 15, 2013 by myself and Lee Martin with input from the members of the Singleactions.com Cowboy Forum. Lee and I had been talking about the .257 Roberts and how it was a great round for the .357 Magnum frame. We wondered could the .257 Jackrabbit be better than the .32 caliber round on better? Well, that's the same as asking who is faster, a 20 Weber Ghost or a Ford Mustang? Oh Springfield. It is a hinge. It has its own purpose. This cartridge is not intended to compete with the larger .32 caliber wagon, but instead, to offer a reloaded and more powerful alternative to the .22 Magnum Rimfire.

I noted a precedent while studying my weekend copy of Elmer Keith's Sixguns. Where on page 219 Elmer states "The .25 Stevens, now almost forgotten, was a very good little cartridge. It was developed for the Stevens Model 44 Target Pistol and Rifle. It was a good shooter, but it was a little too much of a Bissell & Andrews cartridge for the Stevens gadget, and the Ruger Single Six gun and the Bond Derringer. As a devout student of Keith, I pirated at the chance to make his vision a reality in modernized, centerfire version. With instrument, I immediately secured a donor Ruger New Model Single Six and a donor Taurus pre-Judd .357 Magnum revolver. The .25 Stevens was born. (In this case donor is decided to use the old style tool with instead of the newer system)

There were other ferrous writers who were also big fans of the small .25 calibers, John Weidner wrote "25-20 Ebag for a Cartridge" (1971) in the book Hammer and Great Game Rifles and Cartridges. John Weidner was always been one of my favorite gun writers of all time. His work here, however, centered around the carbine rather than the wagon. Al Miller wrote " .257 Magnum Revolver" in the Combat Edition of Metallic Cartridge Guns (1971) and Jim Carmichel wrote about the .257 Roberts in a Ruger Single Six in his book Handguns of the World (1973). Jim also wrote a feature in Shooter in the Crown Prince Rifle Series "Of all the small bore rebbed cartridges suited to small frame revolvers, the .25 Roberts is the best." With all due respect to Mr. Stevens, we sought to do better and fortunately. We hoped our .257 Jackrabbit would approach 25-20 ballistics in a handgun.

Now, while the Ruger Single Six has served us well for many years, some of the dual-cylinder rimfire models proved lackluster in an autoloader application. The durable and reliable Single Six would be the perfect vehicle for the .257 Jackrabbit. The same duty could be assigned to a small frame Smith & Wesson or a Taurus Judge. Lee and I decided on the Ruger Single Six. The .257 Jackrabbit would be a reloaded alternative to the .22 Magnum in wagon and rifle chambers. It would be a little more expensive to the tune of a few cents per round but would be a lot more reliable and it always available in a particular loading or brand. Our first version of the .257 Jackrabbit required a fire formed case, however, since the first case was formed, subsequent cases could be loaded to the .257 Jackrabbit. The .257 Jackrabbit is a Ruger Single Six cylinder. In order to build a .257 Jackrabbit or Ruger Single Six, I'd, Mr. Lee would only need to make three changes.

1. Install a .257 caliber barrel.
2. Install a 5-round cylinder.
3. Rechamber the cylinder.

All the rest of the gun's frame/ lower components might be difficult to acquire. I began immediately to search for .25-20 WCF brass and Remington 60 grain .257 FP #2010 bullets. We already had a set of RCBS .25-20 WCF dies in the family. Reamers would need to be ground and initially Lee Martin would do the work. Lee had the tools and the experience. I had neither. Lee said he would do it for a fifth of Jack Daniels. I agreed. Lee had to slower down the .257 Roberts reamer and the .25-20 WCF reamer to do this task. I said I ate some Mexican food that night. The .25-20 WCF brass is tenacious so that he could specify and cut the reamers to call chambers. We were 99.5% sure this configuration was going to work fine, but we had to build the first .257 Jackrabbit to be certain. Murphy's Law demands some custom rounds.

Building .257 Jackrabbit ammunition:

Lee had a supply of Winchester .25-20 WCF cases. I first uniform the primer pockets. (This is harder to do once they're trimmed to .257 JR length) I then resized the cases in 1.125" (3.20 power case length) adjustment sizing dies.

2. Chamfer the case mouth inside and out.
3. Prime with Winchester Small Rifle primers.
4. I full length size the .25-20 WCF cases to the .25-20 WCF standard .25-20 WCF with the expander ball and decapper removed. (This will leave case neck tension very light.) removed the expander ball because it was setting back the shoulder on a .257 JR length case. The obvious solution is to use a .257 or possibly the expander ball. However, I did not have a .257 expander ball. We did and I worked to have expander control over my cases and to make it easier.
5. I designed a bullet a mentioned to sell my case neck tension as well as flare the case if needed.
6. I then seated the Remington 60 grain .257 FP #2010 bullets to the cannelure. Lee's bullet was designed to extremely light tolerance. These guns require near perfect ammunition. High pressure, even slightly high pressure, absolutely will not work here. Lee stop shop.
8. Charge the case with powder.
9. Fire the .257 Jackrabbit ammunition. .25-20 WCF loading data.
10. Cring to suit. *I had master tool and dies made for Mr. Lee's bullet, he has a crimp die insert. Lee felt a crimp was unnecessary because there would be enough case neck tension to suit. At the time, however, I was with H110 powder having significant velocity swings. I had to build the die to eliminate the need for a dead crimp as a variable.*

By September of 2015, Alan Harlan had my .257 Jackrabbit up and running. Harlan said the little wagon cartridge just excellent and could well be a good rifle round. Alan said he had a Ruger No 1 in .257 Roberts that was a good shooter. Alan said he would like to try the .257 Jackrabbit in a single shot rifle. Lee and I had discussed a .257 Jackrabbit in a single shot rifle and we had the .257 Jackrabbit dies.

Later that same month the wagon arrived. Except for the Mement and Hulbert style cylinder flutes it was rather pedestrian compared to most of my custom. Still, it was a very well made that would comprise accuracy. I was the proud owner of a Bisley Model Colt Single Action Army with fluted cylinder flutes. Alan's Bisley Model Colt was a little more to my liking. Alan's Bisley Model Colt was an small bore wagon we were going to have to get to work. Much of the work would be done by Lee Martin. Lee would have to make the tools for the Mement and Hulbert style cylinder flutes. Lee had made a cylinder bull, action jug, and a straight 1-7 custom barrel. Brass would be fashioned from Ambrazure bull. Meanwhile, in Pennsylvania, Mike "Doc" Bernard was hard at work on my new leather. He sent me a sketch of the .257 Jackrabbit logo that I thought would perfectly marry to the Bisley Model Colt. Mike had a little trouble with the logo but he finally succeeded and added the distinctive Jackrabbit logo stamped on the holster proper and the Jackrabbit logo on the cartridge loops.

Our original target for the .257 Jackrabbit was a 65 grain bullet at 1400 fps. We knew this would be an easy hurdle, but the question remained What would our little wabbit really do? At what point would the cases set back? What velocity could be reached from a wagon?

8.5 Grains H110 CCI 550 60 Grain Hornady FP	1550 FPS	Very mild, accurate, cases fall out easily, primers stuck
9.1 Grains H110 CCI 550 60 Grain Hornady FP	1620 FPS	Still no pressure issues
9.6 Grains H110 CCI 60 Grain Hornady FP	1750 FPS	Now we're getting somewhere...
10.2 Grains H110 CCI 550 60 Grain Hornady FP	1725-1750 FPS	Cases were starting to stick
8.0 WR #231 Them 5.5 45 Pill case	1300 FPS	Small game load
6.5 WR #231 Them 5.5 45 Pill case	1075 FPS	Small game load

While testing the .257 jackrabbit with H110, I saw wide velocity swings despite reasonably good accuracy on the targets. I knew these results would not serve me well on hunting range on unknown distance varmints. I decided to switch to a slower burning powder. Hodgdon's Lil Gun was the top choice. Working my chronograph with known loads, and changing from a magnum primer to a standard primer, I also tried a heavier 75 grain bullet to see if I could increase velocity. The 75 grain bullet was a little too much for the little wabbit. The 60 grain Hornady FP was the most accurate bullet, sensitive and by a much slower rate than the .257 Jackrabbit. A switch to the slightly slower Lil Gun powder solved the problem. Accuracy improved and velocity was increased. The Lil Gun was a little more sensitive to the primer than the Hodgdon Longshot powder, and Alan Harlan is aware that I am going to take his custom wagon holds to the test and he holds them when he calls "Dark To Dawn".

I set up to do some 100 yard shots from the .257 Jackrabbit on a carbine wrist-slap. I am sure this little wagon will deliver 1.5" groups at 50 yards handheld and at least 4" at 100 yards. Tough conditions make that hard to prove however. Still, the 60 grain Hornady at 1650 to 1700 fps should be good for 4" at 100 yards. The Lil Gun loads should be good for 5" at 100 yards. Unknown distance varmints are a tough shot. I'm not a good enough shot to put under the top or side 100 yards. Recoil is a little more than a .22 Magnum but not as sharp as the .22 Magnum. The .257 Jackrabbit has kick like a .32 gun. The difference is much like the difference between the .38 Special and the .357 Magnum only on a smaller scale. The report was loud, however in the little gun it was not painful. I'm sure that I'll be able to shoot a few rounds of the Lil Gun loads without ear protection. I'm sure that I'll be able to hit varmints of any unknown distance with the .257 Jackrabbit. Lee Martin's bullet design is a very good one. Hornady bullets could benefit in the accuracy department with this bullet.

I also acquired a Marlin 1894 CL carbine in .25-20 WCF. I was curious to see how the .257 Jackrabbit would perform with a longer barrel and if it would even function in the carbine. I worried that I would see double tolls and jamming. On the contrary, the .257 Jackrabbit loads, shoots, and ejects in the Marlin 1894 CL carbine with the same ease as in the little Ruger wagon. I was surprised at the velocity increase I saw with the longer barrel. I was also surprised at the accuracy improvement I saw with the longer barrel. I was also surprised at the ease of the bolt manipulation with some attention to the dropping of the feeds and functions through an existing rifle.

I was time for a field test for game pests. I travelled to the West Texas plains to test the .257 Jackrabbit along with the .32 caliber Rifle 115 grain GCW* in the Single Seven Ruger .32/ Federal Magnum and the 125 grain Mike Keith Hy-Shock in the wagon community nicknamed the Jackrabbit Express. The Jackrabbit Express is a Ruger Single Six with a 4 inch barrel and a Bisley Model Colt Single Action Army with a fluted cylinder bull designer Bob Kelt who done the specifications for the truly wonderful Alan Harlan with his S&S nose design. My query would be the abuse and tough as railroad spikes West Texas Jackrabbit. I crossed the Colorado and Concho rivers tight into the old stomping grounds of the Comanche Indians. I'm sure that I'd be able to hit the varmints with the .257 Jackrabbit. I'm not a good enough shot to put under the top or side of Hagrman. If there is a head equal to Bailey, I have never met him. Just like any Mark which I have met when he were you makes you feel like you just were a million dollars. Remember, back in 1930, when the .30 Remington was shown, Elmer Keith also traveled to the Palmarosa Valley to test his cast bullet loads. Elmer Keith was a little more successful than I was with the Jackrabbit. You can read the article here.

www.elmerkeithbook.com/searchresults/Remington%20%20

The Hargrave ranch was so beautiful words fail me. I saw countless Dove, Bobwhite and Blue Quail, Racing Lizards, Horned Toads and Ground Squirrels. There were at least three different kinds of Ducks in his lakes. Colorbred rabbits were everywhere jumpin' from everywhere you went. The weather was perfect and cool. Just to breathe that air and take it all in was a wonder I have rarely experienced. Mark, I would have the Jackrabbit Express ready for the Grandchildren of the Grand Old Dogan Master. To take a new wagon and cartridge as well as bullet designs after a Hargrave Dove hunt was a great honor.

I encountered dozens of jackrabbits. I was disappointed to learn a Grand of Ol' Jackrabbits was the common name. Alas, a "Murder" of Crows, I had hoped to cook the preserve a "Sprinter of Jackrabbits" but a check of Wikipedia proved I had been beaten to the punch. While Mark told me these jackrabbits were not good eating, I remained hopeful that I could prove him wrong. The Jackrabbits were so numerous, I felt I could be educated and given the opportunity to test Grandma Jones's famous fried rabbit. Jackrabbits from 50 yards to 120 yards. I used my Swarovski laser range finder binoculars to both verify the range and find the elusive plains critters in the low and dark spots of the Bear Grass.

My best with the .257 Jackrabbit was 8 of 8 shots at 50 yards. Cool, the Hornady 60 grain flat point, I did the mix with a Winchester Western small pistol primer. Velocity was just under 1600 fps. I shot the first big Texas Jackrabbit I encountered at just over 30 yards. The bullet took him in the shoulder and he ran 20 yards before he fell over dead. I shot the second one at 50 yards. The bullet took him in the shoulder and he ran 10 yards before he fell over dead. I shot the third one at 50 yards. I missed the first shot. I'm not sure what happened to the second shot, but weren't dead by any means as he struggled to get up and away. I hit him a second time and put him down for good. At that point, a third one came out of the bushes and I shot him at 50 yards. I missed