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The .257 Jackrabbit was conceived on January 13, 2013 by myself and Lee Martin with input from the members of the Singleactions.com community. Our purpose was to bring back a true small game cartridge that suited a small frame sixgun. The obvious question was: What would be .257 Jackrabbit do that the .32 caliber could not do better? Well, that's the same as asking why have a .270 Winchester when you have a .30 -06 Springfield. It is a bridge, it has its own purpose. This cartridge is not intended to compete with the larger .32 caliber sixguns, but instead, to offer a reloadable and more powerful alternative to the .22 Magnum Rimfire.

I noted a precedent while studying my weathered copy of Elmer Keith's *Sixguns*. Where on page 275 Elmer states "The .25 Stevens, now almost off the market, is a far better rimfire cartridge for small game hunting, and should be retained." He goes on to say, "We would like to see the Smith & Wesson K-models chambered for this cartridge, also the Ruger Single Six and the High Standard Sentinel." As a devout student of Keith, I jumped at the chance to make his vision a reality in a modernized, centerfire version. With excitement, I immediately secured a donor Ruger New Model Single Six Bisley. Just in case, I also purchased a Old Model Ruger Single Six. (This was done in case I decided to use the old style lock work instead of the newer system)

There were other famous writers who were also big fans of the small .25 caliber calibers, John Wootters wrote " .25-20 Elegy for a Cartridge" (1971) In the book *Varmint and Small Game Rifles and Cartridges*. John Wootters has always been one of my favorite gun writers of all time. His work here, however, centered around the carbine rather than the sixgun. Al Miller wrote " .257 Magnum Revolver" in the *Combo Edition of Wildcat Cartridges Volume II*. I found his work extremely insightful, why? Because it was a useful guide where no other existed. Finally, none other than Hamilton S. Bowen in *The Custom Revolver stated "Of all the small bore wildcat cartridges suited to small-frame revolvers, the .25 Flea is the best." With all due respect to Mr. Bowen, we sought to do better ballistically. We hoped our .257 Jackrabbit would approach 25-20 ballistics in a sixgun.*

More, while the Ruger Single Six has been around for many years, some of the dual cylinder rimfire models proved indifferent in an accuracy 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 double action if desired. The benchmark we hoped to achieve was 1400 FPS or better with a 60 grain bullet. This version would outperform the .22 Magnum in a sixgun as well as offer the ability to tailor accurate loads to the task at hand: The .22 Magnum is neither reloadable nor is 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 tenant of this project was simplicity we opted to simply shorten the .25-20 WCF to fit a Ruger Single Six cylinder. In order to build a .257 Jackrabbit on a Ruger Single Six .22 RF, one would only need to make three changes:

1. Install a .257 caliber barrel.
2. Convert from centerfire to rimfire.
3. Rechamber the cylinder.

At the outset of this project, I knew components might be difficult to acquire. I began immediately to search for .25-20 WCF brass and Hornady 60 grain .257 FP #2510 bullets. We already had a set of RCBS .25-20 WCF dies in the family. Reamers would need to be made and initially Lee Martin agreed to custom grind the chamber reamers but later we decided to order them for the sake of time. I asked master sixgunsmith Alan Harton to order some .257 caliber 1:14" twist barrel stock and secured a slot in his shop for this build. I sent Lee some new Remington .25-20 WCF brass to measure so that he could specify and set up the reamers to cut tight chambers. We were 99.9% sure this configuration was going to work fine, but we did need to build a "Proof of Concept Sixgun" which would require some custom ammunition.

Building .257 Jackrabbit ammunition

1. Starting with new full length .25-20 WCF case, I first uniform the primer pockets. (This is harder to do once they're trimmed to .257 JR length)
2. I trim these cases to 1.130" (A power case trimmer adaptor is advised here)
3. Chamfer the mouth inside and out.
4. Any decapping is done with a universal decapper.
5. I full length size a .25-20 WCF case in a RCBS standard .25-20 WCF with the expander ball and decapper removed. (This will leave case neck tension very tight) I removed the expander ball because it was setting back the shoulder on a .257 JR length case. The obvious solution is to turn down or polish the expander ball. However, I did not have a .25 caliber "M" style die and I wished to have complete control over my case neck tension.
6. I designed a built a mandrel to set my case neck tension as well as flare the case if needed.
7. I prefer to prime using a Lee Auto Prime Tool. Today's custom sixgunsmiths build our sixguns to extremely tight tolerances. These guns require near perfect ammunition. High primers, even slightly high primers, absolutely will not work here. (see step one)
8. Charge the case with powder.
9. Seat the bullet with a standard .25-20 WCF seating die.
10. Crimp to suit. I had master tool and die maker, Ramon "Ray" Ayala build me 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 this die to eliminate the need for a stout crimp as a variable.

By September of 2015, Alan Harton had my .257 Jackrabbit up and running. Harton said the little sixgun came out just excellent and could well be the original target for the .257 Jackrabbit to blue it and test fire it. With all this innovative work I felt the project deserved special leather. I asked famed shuck maker Mike "Doc" Barranti, also a student of the old masters, to carve me a custom logo to commemorate the new .257 Jackrabbit.

Later that same month the sixgun arrived. Except for the Merwin and Hulbert style cylinder flutes it was rather pedestrian compared to most of my customs. Still, no shortcuts were taken that would compromise accuracy. I was by now well under the gun based on John Taffins editorial schedule. If we were going to get the .257 Jackrabbit into his new book on small bore sixguns we were going to have to get to work. Much remained to be done. The .257 Jackrabbit came from Harton with a long oversize six shot cylinder, a tiered long range front sight, oversize cylinder bolt, action job, and a straight taper 7 1/2" custom barrel. Stocks were fashioned from Amboyna burf. Meanwhile, in Pennsylvania, Mike "Doc" Barranti 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 project sixgun. We decided on a Longhorn Companion design with the distinctive Barranti hammered background on the holster proper and the Jackrabbit logo on the belt slide.

Our original target for the .257 Jackrabbit was a 60 grain bullet at 1400 fps. We knew this would be an easy reach, but the question remained: What would our little wildcat really do? At what point would the cases set back? What velocity could be handled from a sixgun?

8.5 Grains H110 CCI 550 60 Grain Hornady FP	1550 FPS	Very mild, accurate, cases fall out easily, primers normal
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	1700 FPS	Now we're getting somewhere...
10.2 Grains H110 CCI 550 60 Grain Hornady FP	1725-1750 FPS	Cases were starting to slick
8.0 IMR 4227 Rem 5 1/2 65 PB cast	1300 FPS	Small game load
6.5 IMR 4227 Rem 5 1/2 65 PB cast	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 at long range on varmints. I tried several solutions including weighing each charge, building a crimp die for a tight crimp, checking my chronograph with known loads, and changing from a magnum primer to a standard primer. I also tried a heavier 75 grain bullet but that showed no improvement. This took several range trips and considerable time before I came to the conclusion that H110 was position sensitive and thus a poor choice for the .257 Jackrabbit. A switch to the slightly slower Lil' Gun powder solved the problem. Accuracy improved and the velocity was much more stable. I must state again, as you approach my loads, be sure and work up. Alan Harton is aware that I am going to take his custom sixgun builds to the limit and he builds them what he calls "Tank Tough".

I set out to do some 100 yard test firing with the .257 Jackrabbit on a rather windy day. I am sure this little sixgun will deliver 1.5" groups at 50 yards hand held 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 proved to be shockingly flat to 100 yards. Said a different way, with the little sixgun sighted to hit the top of the front sight at 50 yards, the bullets are just under the top edge at 100 yards. Recoil is a whole 'nother issue. It is so mild, it makes the .327 Federal feel like a "big" gun. The difference is much like the difference between the .38 Special and the .357 Magnum only on a smaller scale. The report was stout, however in the field I did not seem to even notice it. Thus, I am quite sure, if one can hold it, one could plant a searing jacketed lead core bullet within the confines of any urinary Jackrabbit who has not been warned of our little wildcat out to pretty long range. Harton really outdid himself in the accuracy department with this build.

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 feeds and jamming. On the contrary, the .257 Jackrabbit loads, shoots, and feeds fine in my example. I went ahead and mounted (go ahead and call me scandalous) a older Leupold 3-9X scope to better see what I was doing. This was an unexpected bonus to our .257 Jackrabbit as while other .257 Wildcats exist, with some others on the drawing board, ours feeds and functions through an existing rifle.

It was time for a field test on live game. I travelled to the West Texas plains to test the .257 Jackrabbit along with the .32 caliber Miha 115 grain GCHP in the Single Seven Ruger. .327 Federal Magnum and the 135 grain Miha bullet my friends in the sixgun community nicknamed the "Ferminator" cast GCHP in my Harton 327/32-20 WCF custom sixgun. The true credit for these very successful cast bullet designs belongs to bullet designer Bob Kell who drew the specifications for the truly wonderful lead hammers with his 640 nose design. My quarry would be the elusive and tough as railroad spikes West Texas Jackrabbit. I crossed the Colorado and Concho rivers right into the old stomping grounds of the Comanche warriors of western lore. There, I met up with my long time good friend and hunting partner as well as master pistol shot Mark Hargrove. If there is a host equal to Mark, I have never met him. Just the way Mark smiles when he sees you makes you feel like you just won a million dollars. Remember, back in 1935, when the .357 Magnum was new, Elmer Keith also traveled to the Pahrimer Valley to test his cast slugs and loads. In doing so, he and his companion killed over 100 Jackrabbits. You can read the article here:

www.elmerkeithshoot.org/AmericanRifleman/Keith357pdf

The Hargrove 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 tanks. Cottontail Jackrabbits were practically under foot everywhere you went. The weather was cool, crisp and clear. Just to breathe the air and take it all in was a wonder I have rarely experienced. More, I would have the opportunity to follow up in the footsteps of the Grand Old Sixgun Master. To take a new sixgun and cartridge as well as bullet designs afield to test against the tough Texas Jackrabbit.

I encountered droves of Jackrabbits. I was disappointed to learn of "Drove" of Jackrabbits was the correct phrase, like a "Murder " of Crows. I had hoped to coin the phrase a "Sprinter of Jackrabbits" but a check of Wikipedia proved I had been beaten to the punch. While Mark told me these Jackrabbits had not been hunted some plumb cleared the horizon on sight at top speed. The others who lingered had obviously not been educated and gave me the opportunity to test my guns, loads, and marksmanship. I shot Jackrabbits from 30 yards to 130 yards. I used my Swarovski laser range finder binoculars to both verify the range and find the elusive plains Hares in the low and dark spots of the Bear Grass.

My load with the .257 Jackrabbit was 9.3 grains of Lil' Gun, the Hornady 60 grain flatpoint, and I lit 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 ribcage right behind the shoulder. He immediately hunched up and looked very sick. I could tell he wasn't going anywhere. A second Jackrabbit showed himself and bounded out a few yards further. I immediately thumbed back the Bisley hammer and took him through the torso. He fell over, but wasn'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 Jackrabbit revealed himself and moved a bit out past the 50 yard line and stopped in the Bear Grass. I switched from offhand to resting my elbow and as tough as railroad spikes West Texas Jackrabbit. I crossed the Colorado and Concho rivers right into the old stomping grounds of the Comanche warriors of western lore. There, I met up with my long time good friend and hunting partner as well as master pistol shot Mark Hargrove. If there is a host equal to Mark, I have never met him. Just the way Mark smiles when he sees you makes you feel like you just won a million dollars. Remember, back in 1935, when the .357 Magnum was new, Elmer Keith also traveled to the Pahrimer Valley to test his cast slugs and loads. In doing so, he and his companion killed over 100 Jackrabbits. You can read the article here:

That's pretty much how it went with the .257 Jackrabbit with my load of 9.3 grains of Lil' Gun and the little 60 grain Hornady flat point. I would say over 80 percent of the Jackrabbits I shot required a "finisher". The little 60 grain Hornady bullet simply was not expanding at sixgun velocities and on impact behaved much like hardball or hard cast semi wadcutter bullets. The only exceptions were those Jacks I hit in the spine or the head. I was moving about the countryside in a John Deere Gator. There was no windshield and as the day went on I discovered I could put my boots on the dash and support my sixgun between my knees in the very stable Seated Backrest Position. This allowed me to get my bifocal lenses exactly where I needed to see my sights quite clearly and I was able to make a number of very tough shots. Two of the .257 Jackrabbit one shot kills of note were a 84 yard head shot (all I could see) and one Jack who actually stood up on his hind legs to take a good look at me at 110 yards. He looked like bowling pin. The .257 Jackrabbit dropped him in his tracks with a solid spine hit. I also mistakenly killed a Cottontail at 110 yards. In my defense, he was in the shadows of Mesquite tree, but to me, quite overweight, and behaving furtively. The little Cottontail was no match for the .257 Jackrabbit and went out like he had a light switch.

After recovering about a dozen Jackrabbits killed with our little wildcat, I switched to the Ruger Single Seven. .327 Federal loaded with 13.0 H110, the Miha 115 GCHP cast at 10 BHN, and a CCI 550 Magnum Pistol Primer. Average velocity from my 7 1/2 Single Seven was 1488 fps. This load delivered quite a leap in stopping power over the .257 Jackrabbit. No Jackrabbit shot with the 327/115/H110 combination required a second shot. Many were dead in their tracks. Some did kick a little before they expired, but the difference in the expansion of the load was spectacular. The 115 Miha caused huge wound cavities and arrived with a definitive "POP". I had quite a run of one shot kills going with the .327 Federal with the average shot being some 65 to 85 yards. I did kill one at 130 yards as well. I was clearly having a good day, but then again, I had done my homework with my sixguns. I had shot and tested them a good deal. I did not find every Jackrabbit I killed as I almost always engaged pairs and sometimes even 5 and 6 of these incredibly tough animals. After 5 hours of hunting hard, I did recover 28 Jackrabbits and one overweight Cottontail. I killed well over 30.

Later in the day, I reluctantly set my Single Seven aside so that I could try out the Sledgehammer bullet. My 7 1/2" Harton custom .32-20 Ruger Old Model Bisley sends the 135 grain Miha Sledgehammer GCHP burning out the gracefully tapered octagon barrel at over 1500 fps. A maximum load in my "Tank Tough" sixgun for sure. I strongly recommend you approach any of these loads with all due caution. No sense in bending your expensive custom sixgun with an overloaded cartridge. By now, I was "tuned" in. Most of my misses had come from holding too high on the Jackrabbits torso. It was very easy with the flat shooting loads to shoot over his back. To say the Sledgehammer bullet, also cast about 10 BHN, and running over 1500 fps, delivered severe destruction on the Jackrabbit would not be an understatement. It hit very hard and caused extensive tissue damage. Some of the Sledgehammers traveled through the rangy torso of the Jackrabbit and took a leg off on the way out. At one point, a Jackrabbit stopped right in the middle of the dirt road. I lashed him at 105 yards. I held just under his rib cage with my custom Harton 32-20 and made a less than center hit. It was clear from the wound even at over 100 yards he wasn't going anywhere. Immediately a second Jackrabbit came out of the fence line brush over to his fallen comrade to see what happened. I modified my hold and made on solid hit on the second jack and put him down like a safe fell on his head. He made for considerable gore and so much blood they were hard to pick up without getting just and whatnot on by boots.

The morning of the second day was quite cool and bright. Mark was with me now and I sighted in the 25-20 Marlin carbine in with my .257 Jackrabbit ammunition. I was determined to find out if the boost in velocity would help the little 60 grain Hornady flat point deliver better terminal ballistics from the longer barrel of the carbine. I was pretty fired as I had pretty much driven the day before from 6am until almost 8:30PM stopping only for a quick lunch. While there were many Jackrabbits out there yet to be hunted, I had pretty much had my fill and only wanted to see what the Marlin 1894 CL had to offer. The answer was the velocity boost made quite a bit of difference leaving a ping pong ball size hole in the Jackrabbit I took with it. I should note that I later chronographed this load at 2180 fps from the Marlin 1894 CL. This was a bit more than 600 fps faster than the sixgun demonstrated with the same load.

Clearly, we are going to need a more suitable jacketed or cast bullet for the .257 Jackrabbit. The accuracy and velocity are there. We were asking the little 60 grain Hornady to do something it was not designed for, to expand violently at sixgun velocity. This is not to say that this particular load has no merit in the sixgun. On the contrary, if for example one wanted to take a Tom Turkey, this is a perfect load that would not turn the breast meat to jelly. For hunting Jackrabbits, I believe a 50-55 grain gas checked cast hollowpoint or a purpose built Hornady XTP would be far more suitable. It is also a bit unfair to compare the .257 Jackrabbit to the bigger .327 Federal Magnum or the 32-20 WCF as it was designed to compete with the .22 Rimfire Magnum. As a benchmark, my custom .22 Magnum by Harton with CCI 40 grain Maxi-Mag JHPs gives 1461 fps.

In an attempt to improve the terminal performance of the Hornady 60 grain flat point from the .257 Jackrabbit sixgun, I ordered a hollowpoint tool from Forster. I cut a hollowpoint cavity with a 1/4" drill bit and changed the bullet weight to 56 grains. Testing these modified bullets at 50 yards from my little custom sixgun was a shock. The accuracy went out the window! To prove to myself I had not completely lost my mind, I shot an additional target with my .327 Federal magnum with predictable results. After I moved to myself I could still shoot. I tested the modified hollowpoint ammunition in the carbine and got a tidy little group. Somehow, I made the bullet unstable at sixgun velocity. Remember, we are treading on unexplored territory here and every aspect should be tested thoroughly.

So for now, the search for a better Jackrabbit slug is on. I consulted with Veral Smith of LBT and ordered two different bullet molds, one long flat nose and the other a wide flat nose design. An order with Miha of MP molds in Slovenia has been placed for a 55 grain 640 GCHP design as well. A number of empty water jugs have been set aside for bullet expansion tests. We should know more soon. So stay tuned, this is only chapter one of the .257 Jackrabbit saga. Our voyage will continue as we look to those dusty trails and deeds of the past Masters for guidance.

.257 JACKRABBIT



1. The first version of the .257 Jackrabbit.

.257 Jackrabbit



2. The final version of the .257 Jackrabbit.



3. This is the first 3 shot group by Alan Harton at 25 yards. He felt this little sixgun might well be a "game changer".



4. The .257 Jackrabbit sixgun and a Barranti six shot belt slide on the hood of the Gator.



5. A 10 hollowpoint group with the Hornady 60 grain JFP modified into a hollowpoint configuration via the Forster Hollow point tool. Bullet weight was reduced by 4 grains which was enough to destabilize this bullet at sixgun velocity.



6. This target was shot on the same day to "prove" my shooting at 55 yards was not what was causing the lousy results from the hollowpointed .257 Jackrabbit loads.



7. When testing the hollowpointed .257 Jackrabbit loads at carbine velocity they proved quite stable and accurate. Top left shot is the cold bore shot. The rest clustered nicely.



8. Using the best equipment only increases your chances for excellent results. Shown is my Harton custom 32-20 WCF octagon and ivory stocked sixgun. The 32-20 WCF loads with the 135 grain Sledgehammer GCHP, Swarovski Laser Rangefinder binoculars and my beautiful Barranti hand carved Longhorn Companion.



9. Elmer Keith in 1935 testing the then new .357 Magnum.



10. As a faithful student of the Grand Old Sixgun Master I only stumble along a few of his long cold and dusty trails.



11. An example of a target shot with the H110 powder which in the end proved to be position sensitive and thus a poor propellant choice for the .257 Jackrabbit.



12. The special Barranti Longhorn companion build for this project. The hammered background on the holster proper against the custom carved .257 Jackrabbit logo.



13. The Ruger Single 7 converted to Bisley configuration alongside the 7 shot Barranti belt Slide.



14. The Lil Gun load target wart and all showing the accuracy potential of the .257 Jackrabbit.



15. The .257 Jackrabbit sixgun with the special Merwin and Hulbert style flute by Harton.



16. A standard 25-20 WCF case next to our little warrior the .257 Jackrabbit.



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17. Not only an artist on leather, Mike Barranti made this sketch to highlight our Jackrabbit project.



18. The 7 1/2" .257 Jackrabbit and the 5 1/2" Harton 22 Magnum.

