

## THE REVOLVER CHECKOUT: Ten Year Anniversary Edition

by Jim March – May 20<sup>th</sup> 2011 – [jim.march@gmail.com](mailto:jim.march@gmail.com)

“So you're buying a revolver. New, used, doesn't matter, you want a good one, right? How do I check one over without firing it, right at the dealer's counter or gun show table?”

I posted those words just over 10 years ago, on February 12<sup>th</sup> 2001. In the few days that followed several other very experienced folk made suggestions and corrections that were added to the main body of the instructions...so this was never a solo effort.

For this update the additions will be based on what I've learned from many others in that decade. I'll try to name the source folks where I can but...I'll be honest, I'm just not going to be able to recall them all. So at a minimum, please view me as a disseminator and collector of info rather than a primary source.

The main difference with this edition is the make and in some cases model-specific info. There's also some pictures scattered throughout. It will be available at the same TFL link as the old thread, which will get archived and linked to from there. A printable PDF will also be available at the main link.

This document can be re-printed intact elsewhere if unmodified. Here's the link to the original TFL thread: <http://thefiringline.com/forums/showthread.php?t=57816> - this will in turn always link back to the original supporting comments over the years, right up to the present.

**Important:** ALWAYS ask permission before doing anything to somebody else's gun(!), and explain to the seller what you're doing as you go through the checkout, working the action, looking it over. *If the gun is a "collector piece" of some sort, they may not allow some or all of the tests.* This checkout isn't written for collectors, rather this is about scoping out "working grade guns". I'm not a collector, I don't know near enough about collector values or that market to offer much advice along those lines.

**NOTE: the last page is a one-page quick-guide to the checkout process.**

**A quick moment:** if you've found this guide useful, please consider chipping in \$20 or less – not for me, but to fund a really important election-related lawsuit in Arizona that has national implications. See also: <https://www.wepay.com/donate/AZCARE> – THANKS!

### **Sidenote: what if the gun has been customized?**

The gun may gain some value only if the gunsmith is a fairly "big name" - esp. Bowen, Linebaugh or other nationally-known smiths. Many times you'll encounter guns that have been "tuned" by a completely unknown source – possibly even an amateur. After all, many guns are sold after the original owner died. Sometimes you'll encounter a gun that appears to be "tuned" or even customized to a high degree and the seller has no clue it's modified. If the piece is a "collectable" this is probably going to harm the value. If however you're buying something to shoot and/or carry, a mild or even wild custom may be something you want. In general, Rugers respond best to tweaking with S&W a close second. Replacement parts are easy to get and install in both cases, esp. anything fairly recent. *The more obscure or older the gun, the riskier the modifications get.*

## **The Checkout** *(For best results, try this once on a gun you own.)*

1) SAFETY FIRST: holding the wheelgun in your hands, make sure it's unloaded while maintaining muzzle direction and finger-off-trigger discipline. Check that unloaded status again. NEVER lose track of the muzzle direction. You are trying to convince the seller that you know what you're doing. If he ends up staring down his own barrel, even briefly, that's...well, kinda blown.

2) External Once-Over: do whatever it takes to look at the back end of the barrel, either by swinging the cylinder out (modern DA wheelguns), removing the cylinder (most single-actions), taking the barrel off (Colt percussion open-top guns) or whatever it takes. Ask the owner for help if you're not sure.

*Gun-specific notes on getting the cylinder open or removed for examination:*

*On S&W, Taurus, Rossi and most other DA revolvers, the cylinder release switch just to the left of the hammer is pushed forward to release.*

*On the Taurus "Raging" series, it swings out like any DA wheelgun but there's two latches that both need to be tripped at once – one forward of the cylinder like a Dan Wesson (slide down), the other is in the "normal" S&W/Taurus position. Again: trip both at once to unlock the cylinder. Yeah, one-handed reloads on these critters is a mess :).*

*On Ruger double-action revolvers (ALL), there's a button you push inwards on the left side of the gun right behind the cylinder. Note that on most this button trips two different releases, one behind the cylinder and one in front. So if you don't push it in quite far enough, it may release one but not the other.*

*On Colt DA revolvers the cylinder release switch is pulled rearwards to unlatch.*

*On most single action revolvers, you get the cylinder out by pulling the "base pin" which is the axle that the cylinder revolves on. Most of the time there's a side-to-side "switch" on the frame just in front of the cylinder to release it. In some cases the base-pin will have a set-screw holding it in, either a hex key type or a screw. If you DO see such a screw or hex set-screw, that's a sign it's either a quality gun or has had a good aftermarket base pin installed, probably made by Belt Mountain. I would consider this a plus. Once the base pin is out, open the loading gate and gently remove the cylinder.*

*On break-open revolvers, they "break forward" based on a latch found either near the rear sight or in some cases the rear sight itself doubles as the latch. Pull the latch upwards to release the "break". Near that latch and/or rear sight area will be a release system for the cylinder, either spring-loaded or screw-removable. In some cases the cylinder gets un-screwed once the cylinder retainer system is pushed or unscrewed, in other cases it'll slide right out.*

*On open-top percussion guns like the Colt Walker, Dragoon, 1851 and 1861 types or the "conversion" guns based on the same frames, there's a "key" going sideways through the barrel ahead of the cylinder. It will have either a latch, a screw-release or both. Once the key is out the barrel comes forward and off, and the cylinder comes right out.*

*In ANY event, if you don't know how to get the cylinder out or it feels "stuck", **ask**.*

## SPECIFIC POINTS OF INTEREST:

2a) Are the screws boogered anywhere on the gun? That's a sign of low-grade repairs or upgrades. I would worry about this least with Ruger single action revolvers as they tend to respond well to "shade-tree gunsmithing" :). Still problematic.

2b) Look at the frame for cracks. Most likely areas are on the frame near the back of the barrel, or on the frame near the rear sight. Look very carefully at the area where the barrel meets the frame.

2c) Look carefully at all areas where there's metal-to-metal fit, especially the edges of any "sideplates" as are common on Colt DA revolvers, all S&Ws, all Taurus/Rossi and the like. You'll be able to tell if there's a side-plate involved if there are screws going sideways into the frame from one side or the other.



*The sideplate boundary lines on this S&W are easy to spot and are pointed out in red. Access to the gun's "innards" are via this plate.*

*This plate extends under the grip panels.*

*Image (c) S&W, used via Fair Use for technical illustrative purposes.*



*The red line is pointing to the place in the frame where topstrap erosion is most likely. With the cylinder swung out, look at the inside area of the frame just above the barrel. Hot gasses spray out from the barrel-to-cylinder gap and can "burn" the frame. This is more likely with either strong calibers, aluminum frames or both. Image (c) Taurus, used under fair use for technical illustrative purposes.*

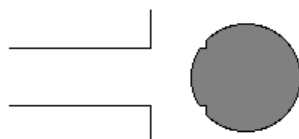
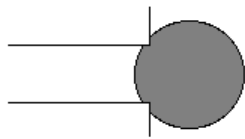
2d) Now look at the back of the barrel. This part is important – look for cracks. On some, there'll be a "weak spot" where there's less metal at one area of the barrel's rear end. K-frame S&Ws have a "notch" at the lower-rear of the barrel – if cracks are going to happen it'll be there first.

2e) Pay particular attention to the underside of the frame's "topstrap" above the barrel. Hot gasses can cut in there and weaken the gun. If the gun's frame is aluminum or "Scandium" (actually an aluminum alloy) there will probably be a small steel "heat shield" at that location...make sure that hasn't popped out. I think a few aluminum guns have been made without it, in which case it will be obvious there was never one there (no mounting holes or slot). Topstrap erosion often starts but then stops at a reasonable point on it's own. Be more wary on an aluminum or scandium-frame gun!

2f) Shine a light in one end of the barrel, look down it from the other. The main thing you want is a shiny, smooth barrel with no obvious warping or bulging. If it's dirty, ask for cleaning gear and wipe it down – any store should have some around, at a gun show this may be more difficult. If the seller is selling a dirty gun, that's not a good thing. "Dings" at the barrel's business end are bad, but fairly easy to fix by re-crowning the end, and if the gun is stainless there's no re-blue needed. TIP: use aluminum or brass cleaning rods and NEVER stick anything made of steel down the barrel. Ever.

2g) Look the cylinder over. Look inside each bore like it was a barrel, with a light. Smooth is important, with an even constriction at the business end of each chamber (called the “throats”). You don’t want any nicks in the throats, any more than you’d want nicks on the end of the barrel.

ADVANCED CYLINDER EXAM TECHNIQUE: To really do this right, bring some dead soft oversize lead balls along – in other words, 36cal percussion balls are perfect for checking .38Spl and .357 (but you can use .44s), 50cal lead balls are perfect for .44s, etc. To use these, shove one into the “business end” of one of the cylinder bores, gently. Push just hard enough to press a “ring” into the face of the ball – you do NOT need to cram it through, which is why you can use an oversize ball. (Hell, you can use a fishing weight if you want.) Then, gently spin the ball – is it easy, or is the cylinder’s throat out-of-round? Take that same ball and see if it sockets into the other chambers easily – this will tell you if there’s variances between bores. If you have a REALLY good micrometer handy you can measure the throats but honestly, I wouldn’t go there unless I was buying a high-dollar target critter. The throat size won’t matter that much with jacketed ammo and with cast or hardcast you can adjust the bullet size to whatever throat size you need. Uniform throats on the other hand are nice as are truly round throats and a quick test with a lead ball will take you there. The round “nick” in the lead ball need not be deep – go easy.



*This small round lead ball jammed into a cylinder bore can be spun to check for roundness and then compared to other bores.*

NOTE: certain low-cost reloading tools don’t do a full-length case resize, such as Lee’s “Classic Loader” for about \$25. These will work with revolvers only so long as you only reload the cases that were shot in the gun you are reloading for, AND the cylinder bores, throats and chambers are uniform. Hence, if you want to get into el cheapo reloading, knowing the uniformity of your chambers is important. See notes on Ruger SAs on page 9 – some newer Ruger SAs have cylinder bores made with the same bit/reamer set leading to uniform chambers and hence compatibility with these tools.

2h) Look at the front and rear sights – do they look centered? If either are replaceable or adjustable, are they on tight? Sometimes Ruger adjustable rear sights are loose enough that a tighter-fitting Bowen rear sight body improves accuracy (just under \$100). Finally, if they’re tritium, look at the date codes on the side – tritium has a half-life of 12 years so by that point they’ve faded pretty badly – don’t pay the “tritium premium” for old sights!

2i) Check the trigger feel – you can usually do this without dry firing by “catching” the hammer. If it’s a hammerless, ask permission before dry-firing. DO NOT fully dry-fire a rimfire. Trigger feel is subjective but a “gritty” feel is the worst, a “clean surprise break” is best.

3) Mechanical fit and finish issues: so the parts look good, do they work good?

3a) Re-install the cylinder or otherwise close the action, confirming yet again that it’s unloaded.

3b) Cock it, and while holding the hammer back pull the trigger and then gently lower the hammer. Keep holding the trigger back, and the gun is now in it’s “full lockup” state – same as it will be during firing. Technically this isn’t necessary for all revolvers but it’s easier to remember this as a single step for all guns. If the gun has no available external hammer, you’ll have to dry-

fire it at this point – ask permission first!

3c) With the gun still in full lockup, trigger still back, check for “cylinder jiggle”. “Forward/backward” wiggle is called “endshake” and you want as little of that as possible on any revolver. The more powerful the caliber, the worse this is – too much and the cylinder acts as a battering ram forward and backward. Zero endshake is best, barely detectable is OK. But it’s something to be wary of on aluminum-frame guns or a heavy caliber like the 357Mag or above horsepower. “Rotational wiggle” is OK to a small degree on revolvers with “loose lockup”, not good on guns designed to be “tight”. All Ruger, Taurus and S&W revolvers are supposed to have a little bit of rotational slop, as will all single action revolvers (Colt included) that I know of with the exception of Freedom Arms. Colt double-action revolvers and early Charter Arms revolvers with a fully exposed ejector rod (no “housing” around it) are meant to be “tight lockup” guns – the cylinder will feel “frozen in place” when the gun is in the “full lockup” position. NOTE: if a gun that’s supposed to be a “slightly loose” type (S&W, Ruger, etc.) isn’t, don’t panic :). This may be a sign the gun has been highly tuned up at some point. You’ll want to check the “rotational play” at all the cylinder bore positions (in other words, check six times or however many chambers it has) to make sure it was done right, and in general pay close attention to this gun to make sure the gunsmithing was done right. **At step 3e we’re going to see if the barrel/cylinder alignment is any good.**

Sidenote: the guns designed for “slightly loose” rotational lockup tend to last longer but be slightly less accurate. The bullet itself is forming the final alignment between the barrel and cylinder. The guns with “tight lockup” tend to be more accurate (think “Colt Python”) but if the cylinder is held rock-solid-tight in a mis-aligned state...whoops. That’s not good. The gun will try and beat itself to death with every shot. Charter Arms used to do “tight lockup” and under the more recent incarnations of the company have switched to loose. With the 44Spl and 357 flavors available now, this was probably a very good idea.

3d) With the trigger still held back, we want to check the gap between the barrel and cylinder. You check the gap by holding the gun up sideways to a decent light source – most indoor lighting will do, or a sunny window or whatever. A flashlight works if you have nothing else. We want the gap fairly tight, and we want the barrel’s rear end to be parallel to the cylinder’s front end – in other words, the gap should be dead even top to bottom instead of “wedge shaped” (usually fatter at the top, narrower at the bottom). When you see a “wedge” the cylinder bores probably aren’t pointing straight down the barrel! The bullet is going to have to “turn south” a bit going from the cylinder to the barrel, or something else is out of whack. Regarding the gap: ten years ago I said .002” was optimum. I now think I was mostly wrong. Mostly. I can make a case for a gap that tight on a snubby revolver where you want max velocity, but in reality a gap out to .004” won’t spit bullets any slower...or if it does it’ll be very hard to measure. With serious calibers like the 357Mag on up, you can run into “soot chunks” with some brands of ammo that are bigger than .002” and you want to blow them out so the gun’s action doesn’t get stiff at the range. Upshot: for general use .003” to .004” is probably optimal, .002” will work if you’re willing to wipe it off once in a while at the range, and .006” is about as big as I’d ever want and I’d really prefer smaller. Yes, you measure this with feeler gauges if you want to do it right. SAFETY WARNING: watch your muzzle direction when holding the gun up to a light!

**Special note for cowboy action shooters:** some classes require black powder cartridge loads. If you're ever going to shoot "Holy Black", you need a BIG gap!!! As in .008" and possibly more. Ask around over at the SASS Wire forums or other CAS/SASS resources for more details – this isn't really my thing. You may be able to mitigate this "large soot particle problem" with black powder substitutes like GOEX. Maybe. Again: check into this if you're going to go there. And yes, worst case having a gap expanded is possible and won't cost all that much.

3e) Now we need to make sure the cylinder bores line up properly with the barrel. This is the last of the checks we'll do still holding the trigger back, hammer down, gun in "full lockup". There's two ways of doing this: you either stick a "range rod" specific to your caliber down the barrel and "feel" that the cylinder bore is lining up with the barrel, or you use the "flashlight trick". With the latter, with the gun UNLOADED!!!, shine a bright flashlight in sideways at the back of the cylinder, pointed right at the firing pin. You then look down the barrel and visually make sure that the barrel is lining up with the cylinder bore – you'll see a "circle in a circle" effect. You need to do this with all the chambers, one at a time.

This is harder with either a longer barrel, a smaller caliber or both. For example, with a snubby 38 it's easy. With a 9" barrel .22 it's a pain – less light further away. The other thing is, with some guns there won't be a lot of gap at the rear of the cylinder to let light in. You can still usually do it though, especially if you use a high-grade "tactical" flashlight of 120 lumens or more. You aren't pointing the flashlight right at your eyes so there's no practical limit to how much light you can use. In many cases a "keychain size" LED light can actually work well because you can stick the tip of the LED right in close to the firing pin.

Check each cylinder bore, make sure they each line up with the barrel. If they don't but it's a "slightly loose rotation" type of gun (Ruger, S&W, etc. - refer to note 3c for a semi-complete list) you want the cylinder to be able to rotate fairly loosely into a fully aligned position. If you can do that, the gun is safe to fire. If you **need** to do that, the gun won't be quite as accurate as one that falls neatly into a properly aligned state, but it may still shoot surprisingly well if everything else is solid. (Are you buying a close-combat gun or a long-range plinker?)

3f) For each cylinder bore hold one finger or thumb along the cylinder to slightly drag it's rotation and then cock it slowly, making sure it goes "click" properly into place. You're making sure that the gun is pushing the cylinder properly all the way into it's lockup point. Do this for each cylinder bore. If it won't do this on some or all chambers, the "carry-up" is bad and it needs a gunsmith's attention. Probably won't be too expensive, but...annoying, at a minimum.

3g) Look at the rear end of the cylinder, at the "star" in the middle. This is basically a gear that the gun pushes on to get the cylinder to spin. Does that "gear" look clean, or does it look chewed up and spat out? A gun can work sometimes with a surprisingly "fugly" star but...it's a sign it's been shot at a high rate of fire a lot, or the metallurgy was crap, or it was badly machined (the last two issues infamous to Taurus, sad to say).

3h) With the cylinder swung out or removed, look at the condition of the "bolt" - the thing that sticks up and stops the cylinder by fitting in those notches. Is it chewed-up or rounded looking?

#### 4) Safety checks!

4a) Assuming the gun can be cocked single action, with the gun unloaded, cock it. Now, with your finger off trigger, grab the hammer and gently wiggle it around. Give it some forward/backwards action, push forward on it (gently but with some pressure, don't go gorilla on it), then give it some side to side. You don't want it slipping off with no finger on the trigger! Any failure here and it's going to need a pro gunsmith before it's safe to fire.



4b) If the gun has an internal safety, it'll be either a "hammer block" or "transfer bar" type. A transfer bar is fairly easy to spot – see picture this page. Hammer blocks are the reverse of a transfer bar – a piece of metal buried deeper in there blocks forward travel of the hammer unless a deliberate trigger pull moves the block out of the way, allowing the hammer to fall. Both can be very safe! To test either, you need to unload the gun and make sure that when you pull the trigger and (gently!) lower the hammer, the firing pin moves into position to hit the primer, and then when you come off the trigger, the firing pin should "auto retract" back into the frame. With most guns you'll be able to hold it up to a light sideways and just look at the firing pin as you lower the hammer with the trigger pulled – you'll see it right there in the gap to the rear of the cylinder. Ease up on the trigger, you'll see it retract. Perfect. When you can't see that due to the cylinder being the "recessed" type (no visible gap at the rear of the cylinder), you can still check by gently manipulating the hammer and trigger that last little bit while holding an un-sharpened flat-faced pencil or similar rod down the barrel. You use that to "probe" for the firing pin's position. But usually even on these "no gap" guns there's enough of a gap back there to spot the firing pin in profile as it moves in and out depending on whether or not the trigger is pulled.

*Transfer bar safety on a Ruger "New Model" single action from 1973 forward. The piece of metal in front of the frame-mounted firing pin is the transfer bar. With no finger on the trigger, the bar will retract downwards as the hammer goes forward. The hammer itself cannot hit the firing pin; instead, it hits the transfer bar when it rises due to trigger pressure up between the hammer and firing pin, "transferring" the hammer's energy to the pin. Upshot: if you drop it and there's no finger on trigger, it cannot go "boom". Pics (c) Ruger, used here for fair use technical illustration.*

4c) Pull the grip panels if the seller will let you, and look for evidence of a mutilated mainspring. If it's a coil spring, look for the old "cut some coils off to improve the trigger" trick, or with a flatspring the old-school trick was to put a leather washer on the lower bolt that holds the spring in. This can cause rust at the base of the spring and do weird things to the trigger pull. If they were really smart they'll do this with a small rubber O-ring...evidence of a "Bubba with brains", which...might be a good thing, y'know? On a Ruger single action, look at the trigger return spring at the top under the grips – see if one leg is removed from its post...another common "Bubba tune-up" trick and although it actually works halfway OK, spend the \$20 and put a real spring kit in there for God's sake :). This is all about looking for amateur-hour modifications. Most of this is easy to fix but...hmmm...what else did they do? It should make you wonder...

## Make/Model Specific Notes!

### Colt:

- The vast majority of the double action revolvers use “tight lockup” actions – they’re not supposed to have any rotational play. Be very careful checking the barrel/cylinder alignment at test 3e because gunsmiths who know how to wrench on vintage Colts are all retiring or dying out :(.
- On the pure aluminum frame guns (some of the snubby 6-shot 38s like the “Agent”) watch for endshake. Once it starts it can get bad, fast. DO NOT use +P ammo.
- The Colt SAA is usually a top-notch single action revolver. However, for a period running from **roughly** 1985 to 2002 or so, quality...um...well, it slipped. By some accounts, “went into the toilet” is more like it. If you’re buying one to shoot, I would research this issue in more detail and not just buy whatever looks good...because you are likely NOT going to be able to do most of these checkout procedures on a \$1,000+ Colt! Follow? The latest “4<sup>th</sup> Generation” SAAs with the replaceable cylinder bushing are allegedly very, very good guns per sources I respect.
- The Colt “Cowboy” is sometimes seen for sale at \$1,000+ by unscrupulous sellers hoping the buyer will assume it’s an SAA. Trust me, it’s not. The “Cowboy” was a very different gun and suffered from severe quality control problems in the early runs that basically doomed it forever. There was a lot of outsourcing leading to problems.

### Smith & Wesson:

- Any DA S&W made before WW2 has a hammer-block safety that’s not really up to modern standards. Not recommended as a carry gun. Anything post-war is fine. The issue is NOT “hammer block is bad” - it’s a question of which revision hammer-block are we dealing with.
- On K-frames (including model 10, 12, 14, 15, 19, 64, 66, or similar made before the “numbers”) check very carefully at the back of the barrel, lowest point. There’s a “notch” there – a thinner point at the rear of the barrel where it’s clearanced for the ejector rod parts. If you’re going to get cracks at the rear of the barrel, that’s where they start. Pay particular attention to 357Magnum models.
- On anything made of “scandium” (actually aluminum with trace amounts of scandium) look for any signs of frame cracking where the barrel screws into the frame. This includes large-frame scandiums, not just the little snubbies.
- On the pure aluminum frame guns (model 12 and some of the snubby 5-shot 38s) watch for endshake. Once it starts it can get bad, fast. +P ammo is not a good idea!
- Weird thing about the vintage six-shot large-frame 38s and 357s (N-frame model 27, 28, or the old “Heavy Duty” 38s): when they get shot at high rates of fire with light ammo, that’s basically their “kryptonite”. The cylinder’s star, the pawl, the “bolt” that stops the cylinder in the right place (rising up from the bottom to meet those notches in the cylinder) all get beat to hell. The cylinder is massive – starting and stopping it quickly eats the gun alive. Shoot it at a slower pace with strong ammo and it’ll live forever. Go figure. Look carefully at those areas on these guns.



## Ruger:

- On the LCR38s, check for topstrap erosion at the frame just above the barrel. A small number appear to be having problems, looks like maybe one or two “batches” (however many that is?) missed a step in the frame’s finish or heat-treat. Ruger will make good. These are otherwise very good guns for their weight class.
- On the single actions made prior to 1973 (the “old models” or “three screw”), they originally lacked a safety and need to be carried five-up, hammer down on an empty chamber. Ruger did a free “safety upgrade” for the Old Model guns but the resulting internals are...umm...Rube Goldberg would love it. Anybody else? Well it’s weak and the trigger feel will always be sub-standard. If the gun is “safety converted”, always ask if they have the little baggie with the original internals in it – that adds at least \$100 to the value. (The “New Model” action from 1973 forward is a much better design and even with the safety intact can have a very good trigger feel. Especially with a spring kit.)
- On large-frame single actions, the ones made from about 2007 forward have a new cylinder manufacturing technique that results in much more uniform chambers. All six (or in one case eight!) chambers are done in sequence with the same bit/reamer set, instead of six bit/reamer sets all going at once. The new system makes for a more accurate gun. To ID these guns, look for Ruger’s normal “lawyer’s warning label billboard” **under** the barrel instead of on the side – under means new, side means old. There’s an exception: in 2006 the 50<sup>th</sup> Anniversary 44Mag Flattop Blackhawk (not marked “Super”) was the first large-frame to get the new cylinder and has a side-warning.
- All of the mid-frame Ruger single actions are made with the new improved cylinder process, from 2004 forward, regardless of where the “billboard” is – under-barrel, side-barrel, shaved off, it’s all good. As of spring 2011 the mid-frame models are: “New Vaquero”, Montado, “50<sup>th</sup> Anniversary 357Mag Flattop Blackhawk” and all of the Ruger 44Spl single actions (some of which are marked “Vaquero” even though they’re actually NewVaqs) and the 44Spl Blackhawks and Bisley variants.
- On all Ruger revolvers with an external hammer, SA or DA, check for “transfer bar pinch”. Unload it, cock it, pull the trigger and ease the hammer down, then with the trigger still back push forward on the hammer. Now ease up slowly on the trigger. Does the trigger stick back while the hammer is pushed forward? You have “transfer bar pinch” - too much pressure is being applied to the transfer bar and this is suspected as a cause of transfer bars breaking. The preferred solution is to cock it, wrap a small rag around the base of the hammer, and take a jeweler’s file to the part of the hammer that touches the transfer bar. Go slow, clean the dust up and test it frequently as you go, and stop filing right when the transfer bar pinch problem goes away. I did mine in a couple of hours while watching TV – those hammers are HARD, and thankfully hardened all the way through. (*Special thanks to user “Flatgate” at [rugerforums.com](http://rugerforums.com) for this tip!*)
- Ruger New Model single actions are easy to work on and respond well to “shade tree gunsmithing”. You’ll find tons of examples of “FrankenRugers” made out of different pieces grafted on from across Ruger’s single action product line plus aftermarket bits...weird combinations of parts never seen in Ruger’s catalog. If it’s an oddity you like when buying used, I would examine it thoroughly but not exclude it from consideration even if you have no idea who built it. Is there some risk? Sure...but esp. if you’re willing to learn to wrench on these yourself, the risk is fairly low as long as you look for basic indications of excess mutation. *One tip though:* the first rule of FrankenRugers is, we don’t discuss FrankenRugers with RUGER! Send back a FrankenRuger and they’ll go

bananas. Ruger's post-sales support is excellent...on stock guns. Capische? This is one reason why custom Rugers don't retain much extra value if any, and are really seriously bad investments unless maybe they're built by a top-name gunsmith with a rep and a long waiting list (Bowen, Linebaugh, a handful of others).

- Ruger Vaqueros (older large frame) and New Vaqueros in blue are usually see with a "fake case color" finish that has...issues. It looks a bit cheesy, fades easily and sadly doesn't protect well against rust. Ruger recently switched to a tasteful all-blue on the New Vaquero. However, if you have the older fake-case finish and don't like it, Ruger will switch it to all-blue at a very modest price and possibly free...unless of course it's too extreme a "FrankenRuger" :). (Whoever gets my piece when I croak is gonna freak out.)

### **Taurus:**

- Check everything! And then go buy something else. Sorry, but...QC issues.

### **Rossi:**

- Remember what I said about Taurus? Yeah, well *Rossi is the Taurus budget line.*

### **Italian single actions:**

- Uberti and Pietta both upgraded their factories circa 2000-2001 or so. Both can make a pretty decent gun today. They're not as good as a Ruger mechanically, and they don't have safeties you can trust while carrying with all six chambers live (empty under the hammer please!) but they do work and most look better than a Ruger.
- Uberti's highest level of finish and quality control (plus US-source springs) is called the "El Patron" as of this writing. If you buy one from Taylor's it's called the "Running Iron" or "Smokewagon" depending on options – again, it's still an Uberti made as good as Uberti can make 'em. From Cimarron this level is called the "Evil Roy" and possibly some others, with additional tuning by Cimarron's smiths stateside in the Roy.
- A Beretta is an Uberti with a transfer bar safety that can be carried six-up like a Ruger. Good idea, but according to the SASS players they don't hold up to very high round counts as well as a traditional-innards no-safety Uberti. Probably OK for most folks though. Personally, I'd rather have a Ruger...and I do :).
- Piettas are mostly imported by EMF under the "Great Western II" brand name and Cimarron is starting to sell some. I've not shot them but they have a very respectable rep among the SASS guys. Heritage has a variant with a transfer bar safety – I've not seen it.
- Avoid Armi San Marcos ("ASM") guns.

### **Breakopen wheelguns – all makes and models, old and new.**

- Check the pivot hinge for "slop" with the gun open for ejecting, and check the latch near on in the rear sight to make sure it's closing securely with no "wobble" left when closed. With one hand on the grip and the other on the barrel, see if there's any "up and down wobble" to the barrel indicating a loose latch or hinge. Don't go gorilla on it, just do a little bit of up and down wobble test with the gun latched closed. With the barrel swung open, move the barrel's muzzle sideways back and forth (gently!) to see if there's any side-to-side play in the hinge area. Most of these are old guns – be **gentle!**

## **BONUS SECTION: Understanding The 38Spl and 357Magnum In Various Sized Guns**

Since all 357Magnum guns can fire 38Spl and 38+P ammo, the two can be considered “one caliber” across a broad spectrum of power levels. When choosing a gun in these calibers, what weight gun you have will determine roughly what kind of bullet power you can practically shoot in it. You can buy a 12.5oz “357” gun and another weighing 42oz, but if you expect both to be able to shoot all 357 ammo...no, try again. This chart will show what various gun types can really handle.

10.5oz: the lightest 38Spl I know of was a crazy critter made by S&W. They were marked “120gr or more” because the lightweight 110gr or less slugs with huge powder charges would BBQ the topstraps. It gets worse: with 158gr lead slugs the bullets you haven’t shot yet would yank right out of the shells under recoil from previous shots, turning the gun into a doorstop before it was even empty. Recoil was insane with any load above target wadcutters (700fps 148gr slugs).

12oz-15oz: at this level normal 357Mag recoil is like slamming your hand in a car door. Repeatedly. You still get some “bullet yanking” with the 38+P 158gr loads. Speer’s 135gr 38+P works great though, as does Winchester’s 130gr JHP in 38+P and a few others. So with the right ammo, this size range (Ruger LCR38, S&W 442, Charter Undercover Lite, others) can work well. Stout 38+P recoil will be *high* but not painful for an average healthy adult. Recommended for experienced shooters only.

17oz-20oz: there are lower-powered 357 loads that are “not too crazy” in this weight class – Speer has a 135gr “357 short barrel special” that’s not much hotter than a stout 38+P. Cor-Bon’s 357 DPX 125gr is also controllable in experienced hands as is the Remington Golden Saber 125gr 357. In 38+P all loads work well, lead rounds won’t “yank” under recoil, and Buffalo Bore’s “king of the hill 38” 158+P monster is a serious option. S&W’s plain steel five-shot 38 snubbies are at the high end of this weight range, Charter’s classic Undercover 38 is at the low end as is Ruger’s LCR357. At this weight range, most of the milder 357s are still “for experienced shooters only” but 38+Ps can be adapted to by most shooters. Also at this weight range, people with physical limitations due to age/arthritis/etc. can find and control some good 38Spl standard pressure options such as Hornady’s new Critical Defense 110gr. (Such folks might also consider switching calibers to the 32H&RMagnum or if necessary .22Magnum if the limitations are extreme.)

24oz-28oz: in experienced hands the full-power 357Magnum 125gr loads are a wild ride but still controllable. The heavyweight hardcast hunting loads (180gr on up) are a major handful, recommended only in a pinch! The Ruger SP101 is the standard in this weight class, but we also see nice vintage S&W steel S&W K-frame sixguns in 38 and 357, and some variants of Ruger’s older “DA Six” series like the wonderful old Speed Six with a shorter barrel. All 38+P ammo is completely controllable even in older or arthritic hands unless the infirmity is extreme. However the weight of the gun will start to be an issue in range practice, so such folk might be best off overall with a 20-21oz steel snub or the like.

35oz+: all standard factory ammo from Remington, Winchester, Speer and the other major ammo houses will be completely controllable in all bullet weights by the average adult of either gender. The very hottest “near thermonuclear” stuff by Buffalo Bore, DoubleTap Ammo a few other small “radical” ammo outfits may still be painful, especially with improper and/or checkered grips.

PROPER GRIPS ALWAYS HELP, in any size range gun! Ruger’s LCR non-laser grips made by Hogue with the “air bubble” are superb for their size range. Smooth wood grips can be surprisingly good if well designed, because they slip slightly in the hand instead of transmitting the full power to you. If they fit your hands, look at Badger Grips for their fairly radical finger groove setups.

## THE ONE-PAGE VERSION OF THE CHECKOUT – take it with you when buying...

SAFETY FIRST! Make sure it's unloaded and always, always watch your muzzle direction!

Get the cylinder swung open, removed or whatever else it takes to get to a point where you see the back of the barrel.

External once-over – look for:

- \* Boogered screws.
- \* Cracks: pay particular attention to the back of the barrel and the frame where the barrels goes in.
- \* Proper fit at any place there's metal-to-metal edges.
- \* Look under the “topstrap” just over the barrel for signs of flame-cutting. A little is OK on a steel gun but does indicate wear/age. It's bad on anything aluminum or scandium/aluminum. Look to see if a small “heat shield” has gone missing!
- \* Check the barrel. You need a light at one end – look for bulges, pitting, nicks, esp. near the muzzle. Look for signs of cracks or erosion at the back of the barrel.
- \* Look at the cylinder's “star” at the rear: make sure it's cleanly machined, not chewed-up looking.
- \* Check each cylinder bore like it was a small barrel. Smooth is good. Erosion at the business end isn't.

With the gun reassembled and unloaded, cock it, then lower the hammer with the trigger still held back. This is “full lockup” - the state the gun will be at during firing. Check the following:

- \* Make sure the cylinder doesn't wiggle front/back (parallel to the barre) – that's endshake, which is bad. A tiny amount is OK, esp. with a lesser caliber, steel gun or both. In a stout caliber and/or a lightweight gun (esp. aluminum/scandium/magnesium) it's a scary thing.
- \* Check for “rotational wiggle”. A little is OK on S&Ws (all), Rugers (all), Taurus/Rossi, anything Italian, etc. Umm...except for those crazy Matebas and Rhinos, I have no clue on those :). On double-action Colt revolvers there's supposed to be zero rotational play.
- \* Shine a strong light right at the firing pin behind the cylinder and look down the barrel. Don't see any light? UNLOAD it. You want to see the cylinder bore on each chamber (done one at a time) line up behind the barrel in a “circle behind a circle” effect. It's easy to spot. If it's off a fraction and it's one of the “loose rotational lockup” guns (S&W/Ruger/etc.) see if it's possible to “nudge” the cylinder into alignment. If so, the gun is safe to shoot but will take a small accuracy hit.
- \* Check the gap between barrel and cylinder. Hold it up to a light – is it even top to bottom? Use a feeler gauge set - .002 is minimal, .003” to .004” optimal on most guns esp. snubbies or anything where you need max velocity, beyond .006” I'd be unhappy with it.
- \* Drag one finger gently on the cylinder while slowly cocking it. Make sure the gun pushed the cylinder completely into it's next “click”.
- \* Cock it, wiggle the hammer, make sure it doesn't slip off.
- \* Make sure that pulling your finger off the trigger causes the firing pin to retract, if the gun has a hammer block or transfer bar safety! You can usually see the firing pin with the trigger pulled and the hammer down, if you hold it up to a light sideways.
- \* Pull the grip panels, look for signs of crude mainspring alteration, rust, etc.
- \* Check anything specific to the gun type, such as Ruger “transfer bar pinch” issues, breakopen hinge looseness, etc.