



PERSONAL SECURITY

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Special Report: **How to Buy a Used Revolver**

by Grant Cunningham



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www.personalsecurity.us email: info@personalsecurity.us

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How To Buy A Used Revolver

INTRODUCTION

If you're in the market for a defensive revolver (or even just one to add to your collection), buying used is tremendously appealing! You can save some money, get a gun that you like which might no longer be made, and perhaps receive some historical interest into the bargain.

There are lots of used revolvers on the market, largely because they just last so long. It's pretty hard to wear a revolver out; not impossible, mind you, but pretty hard. It takes many thousands of rounds to really cause much wear to a quality revolver, and very few people fire that many rounds through a single gun. As a result there are lots and lots of used and perfectly serviceable revolvers on the used market. You can find them at any gunshow or gunstore which carries used guns (which most do!)

Unfortunately, though, like any mechanical device revolvers can break down. Like used cars, some owners decide to 'dump' a malfunctioning gun rather than having it fixed. Over the years I've found some very honest and forthright used gun dealers, but some completely unscrupulous ones as well. Even the best of them don't go out and test every gun they bring in, if any, so in any case you need to know how to check that used bargain before laying down your hard-earned money!

In this Guide I'll show you what to look for; how to test a used revolver to make sure that you're getting a deal — not a lemon!

ABOUT THE AUTHOR



Grant Cunningham is the Co-Founder and Director of the Personal Security Institute. He is a renowned author and teacher in the fields of self defense, defensive shooting education and personal safety. He's written several popular books on handguns and defensive shooting, including *The Gun Digest Book of the Revolver*, *Shooter's Guide To Handguns*, *Defensive Revolver Fundamentals*, *Defensive Pistol Fundamentals*, and *Practice Strategies for Defensive Shooting* (Fall 2015.) Grant has also written articles on shooting, self defense, training and teaching for many magazines and shooting websites, including *Concealed Carry Magazine*, *Gun Digest Magazine*, and the popular Personal Defense Network training website. He's produced a DVD in the National Rifle Association's Personal Firearm Defense series titled *Defensive Revolver Fundamentals* and teaches defensive shooting and personal safety courses all over the United States.



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TOOLS YOU'LL NEED

Doing a thorough revolver checkout doesn't take much in the way of tools. A few easily carried items will be sufficient:

- Hoppe's Bore Snake in the appropriate caliber
- Business card with one blank white side, cut in half lengthwise
- One piece of white copier or printer paper, about the size of the trimmed business card

I'll explain the use of all of these as we go along.

This may not seem like much in the way of tools to check out a firearm, but I've found I don't usually need anything else. That being said, you may find that a small flashlight is helpful; I also occasionally use the magnifying glass of my Swiss Army knife to see some details (of course, that's largely because I wear bifocals! If your eyes are still young and healthy, you can probably get away without magnification.)

SAFETY, OF COURSE, ALWAYS COMES FIRST!

It's tempting to allow yourself to be drawn into a state of complacency in a gun store or at a gun show, believing that all the guns are unloaded. That's when trouble happens! Accidental discharges at gun shows are a fairly common occurrence, and they happen at gun stores with some frequency as well.

You'll need to check the revolver for proper operation, which means that you'll be handling it and doing some dry firing. Attention to detail here will keep you and everyone around you safe!

Throughout the checkout process you should follow the primary gun safety rule: ***keep the muzzle pointed in a generally safe direction as much as possible***. What is a generally safe direction? One in which, should the gun fire, it will not injure anyone. This means that you don't point it at the friendly clerk as you check the sights!

While you're at it, keep in mind that you're in control of a device that, if used negligently or maliciously, could injure or kill you or someone else. Keep all ammunition away from your work area, and don't allow yourself to be distracted. Keep your mind on what you're doing!

Before doing anything, clear the gun

Clearing a revolver is easy: push the cylinder release, open the cylinder, and push the ejector rod to force any rounds or spent brass out. It's good practice to invert the gun and push the ejector rod



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even if you see that it's empty, because doing so serves as a double-check in case you forget to look (or looked so quickly you didn't actually see anything!)

Once you've push the ejector rod, look at each chamber and verify that it's empty. Feel the face of the cylinder and verify by touch that there are no rounds in the chambers. Sound like overkill? *When it comes to safety, there is no such thing!*

With the revolver having been double-checked, and a proper attitude with regard to safety and the potential for disaster should you waver in your commitment, you're ready to do a safe checkout!

FIRST CHECK: OVERALL CONDITION

You can tell a lot about the care of a gun's previous owners just by looking at its general condition.

Start by looking at the finish; is there any rust or corrosion? How about finish wear? If you see wear spots, look at where they are: around the muzzle might mean the gun spent a lot of time in the holster, but that same wear in the areas where the hands would contact in a shooting position often means that the gun has been shot a great deal.

Check for any dents or abraded edges or corners; these often signify that the gun has been dropped. Pay particular attention to the muzzle, as a drop (particularly onto concrete) can do enough damage to affect the accuracy of the gun. Dropped guns often land on their sights, and if you see the telltale rash of impact with the ground it's a good bet that the sights will need to be adjusted (or even replaced.)



Rust, of course, is usually a bad sign — but if it's very light, very confined, and only on the external surfaces it might simply mean that the gun hadn't been perfectly dry when it was last stored. (It can also mean that the gun had been stored in a cloth bag or sock that retained some moisture; this is easy to tell because the rust will show a definite fabric texture.) As long as the rust isn't on any



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operating surfaces or in the bore (we'll cover that in a bit), it may be a good bargaining chip to snag an otherwise sound revolver!

Look at the external screws, such as those holding the grips: are they in good shape, or are they chewed up and damaged? My general rule is that if someone is that ham-handed with a simple screw there's no telling what he might have done to the more delicate internal parts! Look for other unusual wear or damage, paying close attention to whether they affect just the gun's cosmetics or whether they suggest function problems.

SECOND CHECK: THE CYLINDER

Problems with cylinders can affect accuracy, safety, and even longevity. It's worth the time to check carefully!

Open the cylinder; note if it's extremely tight or extremely loose. A very tight hinge usually means that the retention screw is mismatched to the gun, but it can also signal abuse; if it's extremely loose it may signal that the gun has more wear than may be apparent on the outside.

While the cylinder is open you'll want to look in three different places. First, look at the back end of the barrel (called the breech end or the forcing cone). You're looking for any cracking or signs of erosion (pitting or cratering of the metal.)

Cracked or corroded forcing cones require barrel replacement, which is an expensive proposition. Unless you have a good gunsmith who works cheap *and* the gun is a rare piece, pass on one that shows these problems!

Now look at the area above the forcing cone, on the underside of the upper part of the frame. That's called the topstrap, and you're looking for any erosion above the barrel. Erosion in that area is called 'flame cutting', because it's caused by the hot burning gases which escape the gap between the cylinder and the barrel. The effect is almost like an acetylene torch, and a gun showing more than a trace of flame cutting has likely been heavily used. It may still be a good value, but be careful: heavy flame cutting is a strength and safety issue. You may see it more often on the aluminum-





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framed revolvers; I won't buy an aluminum revolver that shows flame cutting unless it's a very rare model that I don't plan to shoot much. As a defensive tool? No!

The third spot is the recessed area below the firing pin hole. That's where the revolver's ejector star (also known as a 'ratchet') hits the frame in recoil. You'll likely see some light wear, but what you don't want to see are deep impressions in the shape of the star. This is called 'battering' and can signal serious issues. Steel frames aren't usually a problem in this regard, but the softer aluminum alloys will show battering very quickly if used heavily or abused. I generally won't buy a revolver that shows significant frame battering.

Next take a look at the ejector star; check for any burrs or mutilation, particularly if the part looks like someone took a coarse file to it; it's a sign of amateurish gunsmithing.

Chambers are critical to accuracy and function!

Take your bore snake and run it through each of the chambers, then hold the revolver up to the light and look at each one. You're looking for any pitting or erosion in the chambers which signals the presence of rust. Also look for tool marks from the factory; some revolvers are notorious for roughly finished chambers, which can make extraction exceptionally difficult (especially with higher-pressure cartridges.)



Close the cylinder slowly and gently. The latching mechanism should make a solid sound as the cylinder is closed. If you don't hear the telltale 'click', push the cylinder firmly into the frame. If the cylinder finally latches, it may be a sign that the crane (also called the 'yoke'), the part on which the cylinder rotates, is slightly bent (known as 'sprung' in the trade.) This is usually the result of flicking the cylinder open and closed by flipping the wrist. This maneuver, almost universally referred to as 'Bogarting the gun', results in bent cranes and very often ruins the revolver's timing.

If I find a revolver showing signs of a sprung crane, I almost never buy it unless it's a very desirable model and the price is right. A sprung crane can be fixed, but it's a sign the revolver hasn't been properly treated.



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Barrel gap

The space or clearance between the barrel's forcing cone and the face of the cylinder is called the barrel gap. A certain amount of gap is necessary so that the cylinder can rotate freely without rubbing on the forcing cone. On the other hand, a gap that's too big will let an excess of combustion gases escape, which is detrimental to accuracy, velocity, and shooter safety. Generally a minimum of .003" is desirable; the maximum varies from maker to maker, up to .009", but many experts will say that .006" is about as big as they'd like to see. I'm in that group!

How to measure that gap? You'll need your business card and the piece of printer paper. First, hold the gun up to the light so that you can look through the gap and see a sliver of illumination. It may take some maneuvering, so look carefully! On occasion you'll find a revolver with no discernible gap, and I'd recommend you pass on those unless you know a gunsmith who can fix the issue (it may be due to excessive wear, and there may be several issues to fix.)

The likelihood is that you'll see some light. Take your business card and gently attempt to push the corner it into the gap. If it goes in easily the gap is too big; a typical business card is around .012", which is well over even the most generous factory specs.

If the card wouldn't go in, take your piece of paper, fold it in half, and firmly iron the crease with your fingernail. Insert it into the gap; if it goes in with a little drag, the gap is acceptable (the doubled piece of paper will be in the .0065" range.) If you couldn't get it into the gap easily, unfold it and try one thickness. If it still won't go in the gap is below most factory specs. I'll often buy a revolver with a slightly tight gap, as I know how to fix them, but if you don't know a gunsmith it might be better to look at another gun.



Endshake (aka 'endplay')

If you're satisfied with the barrel gap, check for movement of cylinder on its longitudinal axis (i.e., back-and-forth.) Hold the revolver firmly with one hand and grasp the cylinder with the thumb and forefinger of the other hand. Try to move it back and forth in the frame; there should be only the very slightest amount of play. You'll need to estimate: is it more than the thickness of a piece of paper? If



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so, the endplay is too much. Excessive endplay can affect safety and has a wearing effect on the cylinder timing. Depending on the gun, the fix can become expensive.

While you're at it, try rotating the cylinder. It should be firmly locked and not move more than roughly the thickness of a sheet of paper. Excessive rotation, like excessive endshake, is often the sign of a well-worn gun.

Checking the timing

Timing simply refers to the cylinder being locked in place when the round is ignited. If the cylinder is not locked with the chamber directly in line with the barrel, the bullet can hit the forcing cone on one side. The result is often a deformed bullet, shavings from which exit the cylinder gap and may cause injury. If the timing is quite a bit off, the firing pin will hit the primer off-center which reduces ignition reliability.

All revolvers, if they're used much, will sooner or later have a timing issue. It's a normal maintenance point, but it's also important to know if the gun you're looking at is in need of that



maintenance NOW! Also, be aware that fixing the timing on a Colt or a Dan Wesson is a more involved and expensive prospect than doing so on a Ruger or a Smith & Wesson.

You'll need to check the timing, preferably in both double action (DA) and single action (SA - if available.) Here's how.

Hold the gun with a finger resting on the cylinder. Your finger serves as a brake to keep the cylinder from accelerating as you cock the hammer, which would cause it to reach lock artificially. The goal is to have the mechanism drive the cylinder's rotation, not inertia!





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As your finger is resting very lightly on the cylinder — you don't need to apply any actual pressure — slowly cock the hammer. The cylinder should reach its lock position with a quiet 'click' before the hammer reaches the point where it's cocked. Check this on every chamber; the first few times you do it, you may have to go around the cylinder a couple of times just to get the feel.

If the hammer reaches the cocked point before the cylinder is latched, leave the hammer cocked and gently rotate the cylinder to its lock point. The amount of rotation needed will tell you how far out of time the gun is. (Keep in mind that if it is out of time at all, it needs adjustment!)

Ruger cylinders will reach lock long before the hammer is cocked, while Smith & Wessons will reach lock a little before the hammer cocking point. Colts, on the other hand, will only reach lock just the hammer does.

Do the same thing in double action. This takes more care and effort, and you need to move the trigger very slowly. (Generally if the single action is in time, the double action will be as well — except on Colts, where they can be individually adjusted. With anything gun other than a Colt you can usually check it in single action and call it good, but with a Colt you need to check both!)

THE ACTION TEST

Even the best revolver with a bad action will be difficult to shoot and cost you the amount of an action job. You'll therefore want to test the feel and weight of the trigger in both double and single action. You're checking for weight, any grittiness in the feel as the trigger moves, and how quickly it resets.

It's helpful, if you don't have a trigger gauge, to check the feel of a few factory guns before judging the used revolver. Generally, a typical factory double action trigger from Smith & Wesson or Ruger will weigh in between 9lbs and 12lbs and a single action will run between 3lbs and 5lbs.



Revolvers that have had action jobs might be a well under those figures. Keep in mind that double action triggers under 9lbs need to be carefully tested, as low weights are usually the result of spring replacements or alterations — either of which can result in erratic ignition.



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In single action, the trigger should feel very similar to a factory trigger, which puts them between 3lbs and 5lbs. Anything less than the minimum should be tested very carefully, as accidental discharges increase with light triggers. Unlike a semiauto pistol, a revolver's single action trigger usually requires far less movement and has no 'take up' before the trigger breaks. Low-weight single action revolver triggers are much easier to trip inadvertently.

As the trigger moves in either single or double action, pay attention to how it feels. Any stuttering, sand-like feel, or hesitation may mean that the internal parts are rough — but can signal that the gun hasn't been cleaned and lubricated in a long time!

Finally, the trigger should return to its forward position quickly and without hesitation. A sluggish return may mean the gun is very dirty inside, but it could also mean that someone has messed with the springs.

Checking for “push off”

If the revolver has single action capability, it's very important that the action be checked for 'push off'. This is a common condition when the single action weight is under that 3lb minimum; if the trigger seems very light, do this test!

Cock the hammer, then take your finger and try to push the hammer forward (with your finger off the trigger, of course.) It should not budge, even if you apply several pounds of pressure. If the hammer drops, it means that the action has been tampered with. A gun which exhibits push off is considered unsafe and must be repaired.



THE BARREL

The barrel is the heart of the revolver; if the rifling is not in good condition, the revolver may not shoot well. Spending a little time carefully inspecting the barrel may save you headaches!

First take a good look at the muzzle. As noted at the beginning, dropping a revolver on a hard surface can nick the muzzle and dramatically affect performance. A nicked muzzle can often be



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economically fixed by a gunsmith (it's done by cutting a new crown), but that kind of damage should be reflected with a very low price.

The next step is to examine the rifling through the full length of the barrel. You'll need the bore snake and the business card I mentioned at the beginning.

In my experience, most gun sellers seem to rarely clean the bores of the guns they offer for sale. It's not unusual to look down the barrel and see all manner of dirt and grime, which must be removed to see what's really underneath! That's what the bore snake is for.



(Of course you should always ask permission to swab the bore. In those cases where a clerk or owner won't let me, I usually don't buy the gun. It's just that important.)

Open the cylinder, drop the bore snake into the barrel, and pull it all the way out through the muzzle end of the barrel. I'll often do this two or three times before even bothering to look at the bore, mainly because I hate looking and finding that I needed to do it again anyhow!

Now, take your white business card and put it into the frame in front of the forcing cone. The idea is to reflect the overhead lights off the card and into the barrel, illuminating the rifling. It takes just a bit of practice to get the right angles, but once you get the knack it's really quite easy.

With light in the now-clean bore you can look for rust or corrosion, the most common ailments in poorly maintained barrels. If you see any telltale pitting, reject the gun; having a new barrel fitted to a revolver is an expensive job, and unless the gun is quite rare (and cheap) it's probably not worth the combined cost of the gun and the replacement barrel.

MISCELLANEOUS CHECKS

* Check the grips to make sure that they're tight. If not, try tightening them; if they can't be tightened, the material may have shrunk over the years. The only sure cure is to replace the grips.



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* If the rear sights are adjustable for windage and/or elevation, make sure that the sight blade doesn't wobble. Some sights, particularly those from Ruger, have a tendency to work themselves loose which may limit the achievable shooting precision.

By following these simple steps you'll lessen the risk of buying someone else's lemon, and get a revolver you can happily shoot for many years to come!

