I didn’t fully understand. And I’m sorry now about the guys who took them off my hands.

The Hawkeye Borescope is a very simple but very high-tech device. It lets you examine the inside of every millimeter of your gun’s bore with a handy, self-illuminated “microscope.” It is ridiculously easy to use. Gradient’s basic Hawkeye Slim 17-inch Shooting Edition Borescope Kit includes a Hawkeye Borescope with focusing eyepiece, Mini-Maglite light source and batteries, Mirror Tube, and lens cleaning supplies in a fitted lockable metal case. The standard kit lens tube outside diameter is 0.165 inch; the mirror tube outside diameter is 0.188 inch. Gradient’s MSRP for the kit is $805. Real-world price is currently $773.95 from Brownells- Sinclair.

Worth Every Dime

Yes, that’s as much or more than the price of many good new rifles and as much as many high-quality scopes. But if I’d had one of these things 50 years ago (heck, if I’d had one five years ago), I would have gotten that money back many times over. If only I’d had a borescope kit tucked under my arm every time I walked into a gun show or a gunshop and came home with a used gun that looked just fine with a simple horn light and my naked eye. Got any friends? Go out right this instant and buy a Hawkeye Borescope together.

To use a Borescope you simply thread the supplied Mini-Maglite onto the lens housing, turn it on, and look through the eyepiece. Adjust the Mini-Maglite’s light beam brightness and intensity as you would normally. (Optional higher-intensity light sources are also available at www.gradienltens.com.) Use the dial on the eyepiece to focus the lighted and highly magnified image you see through the tube. Focus is from 1mm to infinity. The lens tube used alone has a 42-degree field of view. That’s fine for close inspection of open surfaces, but you’ll need to

Gradient’s Hawkeye Borescope lets you see the nitty-gritty of a firearm’s bore, and that can save you money and help keep your guns shooting their best.

If you’ve never used a Gradient Lens Corp. Hawkeye Borescope to look at the inside of one of your rifle, handgun, or shotgun barrels, you’re in for a revelation. I don’t care how scrupulously you maintain your guns. I don’t care how often or how thoroughly you clean their bores (or how thoroughly you think you clean them). You have no idea what they really look like in there. I only wish I’d had one of these devices when I was first getting serious about guns and shooting about 50 years ago. I’d have saved myself a lot of money since. I’d have ruined a lot fewer good guns through ignorance and inadvertent neglect. I’d still have a lot of those good guns instead of having gotten rid of them because they “went bad” on me for reasons
use the included 90-degree mirror tube to look directly at the walls of a bore. The mirror tube slides over the lens tube and can be rotated to view 360 degrees with its knurled base, which has a tactile index notch so you’ll always know which way you’re viewing. This is very helpful because the mirror tube inverts the image so that right is left and up is down. But you’ll get used to that—just like shaving in a mirror.

The 17-inch standard tube is long enough for virtually everything. If your barrel is longer than that (and most rifle barrels are), you can come at it from both ends and still cover every millimeter. And if you happen to have a barrel longer than 34 inches, well, 22-inch Borescope versions are also available, but they’re priced considerably higher.

Standard Shooting Edition Borescope Kit tubes will work in .200-caliber bores and larger. If you shoot 17-caliber rifles, you’ll need one of the 14-inch or 17-inch Hawkeye Pro SuperSlim Kits, which have a mirror tube outside diameter of .156 inch. The drawback here is that the technology necessary to shrink down the diameter is expensive, so the SuperSlim kits cost about twice as much as the standard kits. But if you’re serious about 17-caliber shooting, you’ll need one to truly monitor your gun. Ultrahigh-velocity 17-caliber centerfires can be hard on bores.

What You Can See

The first thing you’ll probably do is check to see just how well you’ve been maintaining and caring for your most prized personal guns. Be prepared for some surprises. When the Hawkeye Borescope kit arrived for review, I had just “finished” preparing one of my personal favorite Thompson/Center Contender deer-hunting barrels for long-term storage. It’s a many-years-old 14-inch 7-30 Waters. (What can I say? I love 7mms, and I’m a sucker for the rare ones.) I had given it a thorough brushing/vac/patch treatment, applied copper-fouling removal foam

per all instructions, and run a final protection-tube swab down the bore. Clean as a whistle. Looked bright, crisp, and pristine with a light held to its other end. Done, right?

It was still clamped in my bench vice, so I screwed the Borescope together, dialed up the light, and ran the mirror tube in from the chamber end. First thing I discovered was some clear rust pitting about 2 inches in front of the chamber. No way I would swear that I had always cleaned and oiled that bore after every use. But obviously I hadn’t. Or I had not always sufficiently treated the bore to resist rust during the months it spent in storage between hunts over all the years I’ve had it. Moving on down the bore, about 2 inches back from the muzzle I encountered streaks of copper fouling that had obviously not been completely removed by my just-finished cleaning treatment. Well, I hadn’t been as thorough as I’d thought.

None of this was in any way visible to my naked eye with a bore light. The barrel was still shooting sub-MOA just like it had when it was new, so I hadn’t hurt it too badly yet. But it was highly concerning nonetheless. So I treated it again with copper-fouling remover (yes, gene now, the Borescope showed), and before I put it away I made sure that I used enough bore-protection treatment to last for months of storage. And of course you can guess how I spent the next two days—checking all my favorite rifles and hunting handguns to see just how badly I’d screwed them up, too. Don’t even ask me what I found.

What can you see through a Borescope? You’ll certainly see just how well (or not) you’ve been treating your guns. You can also locate and identify any bore problems even before they appear to the naked eye or begin to show up in performance. You’ll learn a lot about what really affects accuracy and what doesn’t, and how bore fills progress. If you’re thinking about a used gun, or

encounter. Thankfully, none of my own guns looked quite that bad. If you do invest in a Borescope, you might also want a Digital Camera Coupler (MSRP: $299) for taking images of what you see and keeping a record of, or if you’re a gunsmith, to show your customer why he really

How much will a stainless steel bore rust in a day if left untreated? The Hawkeye Borescope can show you.

Would you buy this rifle as a collectible at a gun show? Maybe not if you had a Borescope to look at its beautiful “alligator-skin” erosion pattern.

The true depth and severity of a rust pit can only be seen using a digital bore-scope. A DCC is useful for checking handgun bores for rust. Certainly, you can use the same tool to check a shotgun, rifle, or pistol barrel.

This amount of copper fouling is utterly invisible when using a simple bore light, but it definitely will affect accuracy.

The accompanying images provided by Gradient Lens Hawkeye Borescope are a serious tool for serious shooters.

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