

ELECTRONICALLY REPRINTED FROM

**GUNS & AMMO**

# THE COMPLETE BOOK OF THE **MODEL 1911**

THE COOPER EDITION



**JEFF COOPER**  
1920 - 2006



  
**CHRISTENSEN**  
1911 GOVERNMENT

# Metallurgy

**CHRISTENSEN  
ARMS MASTERS  
THE ART OF  
WORKING WITH  
TITANIUM AND  
CREATES THE  
ULTIMATE  
IMPULSE BUY.**



BY ERIC R. POOLE // PHOTOS BY SEAN UTLEY

**S**ure, there are a number of shops that create one-off examples, but no other company producing a significant quantity of 1911s offers a standard model with a titanium frame. It's hard to imagine someone finding a way to carve out another niche in the crowded 1911 market, but that's exactly what Christensen Arms has figured out.

"When we first started," says Cole Newman, engineer at Christensen Arms, we were considering using 1911 frames made of stainless or aluminum, but the owners asked, 'Is this the gun you would love to have?' The owners came from the aerospace industry, so when they learned of an option to make frames out of titanium, they went crazy over it."

Gunsmiths and vendors did everything they could to warn Christensen Arms about the difficulties in working with titanium and discourage their efforts, but the pistolsmiths at Christensen Arms never backed down. Titanium has the highest strength-to-weight ratio of any metal and a low density. Its hardness means that machining requires precautions with tool use and the cooling process. The result, however, is one that guarantees longevity and provides the user's pistol with excellent resistance to corrosion.

## **THE LEARNING CURVE**

Two years ago, Christensen Arms jumped into the 1911 business with a unique twist on Browning's masterpiece that blended its signature use of carbon fiber and a titanium frame. Jim Tarr featured Commander and Tactical models in "Executive Protector," an article appearing in last year's "Complete Book of the 1911." Though these were fully viable pistols, Christensen Arms was working out how to deal with the idiosyncrasies associated with working with titanium.

## SPECIFICATIONS

### CHRISTENSEN ARMS CARBON 1911 OFFICER

<b>TYPE</b>	Single-action semiauto
<b>CALIBER</b>	.45 ACP
<b>CAPACITY</b>	7
<b>WEIGHT</b>	1 lb., 14 oz.
<b>BARREL</b>	3.65 in., Storm Lake
<b>OVERALL LENGTH</b>	7.38 in.
<b>HEIGHT</b>	4.97 in.
<b>FINISH</b>	Frame: Natural titanium Slide: Black Cerakote stainless
<b>SIGHTS</b>	Trijicon Novak, 3 Dot
<b>TRIGGER</b>	3.75 to 4.5 (4 lbs. tested)
<b>SAFETY</b>	Thumb lever, beavertail grip
<b>GRIPS</b>	CA G10
<b>MSRP</b>	\$3,295
<b>MANUFACTURER</b>	Christensen Arms 435-528-7999 christensenarms.com

Titanium has a tendency to gall when friction is created with other metals. To improve reliability, they called upon Bill Laughridge of Cylinder & Slide, a master pistolsmith with a considerable amount of experience working with titanium frames in custom 1911s. Laughridge suggested that Christensen Arms apply a tungsten carbide coating over the titanium frame rails. It adheres as if it is welded to the frame and reduces the surface friction. It also makes the hard titanium surface even harder. If you take the slide off the frame, you'll notice a matte finish. That's the tungsten carbide coating. Problem solved.

"The first guns manufactured about a year and a half ago did not have tungsten carbide running on the rails," says Newman. "When you worked the slide, you could feel a gritty friction between it and the frame. That's gone, and it feels much smoother."

#### THE SUM OF ITS PARTS

Regardless of the model, you can't deny that every Christensen Arms 1911 is built using the best parts available: Storm Lake barrels, Novak sights from Trijicon, Cerakote finishes, (real) carbon fiber

A bushingless barrel from Storm Lake is fitted to every Carbon 1911 Officer model. The tapered profile helps the barrel to lock up tight with the slide providing accuracy that rivals a 5-inch Government model. The most important benefit is that this barrel offers users better reliability than a short-barrelled 1911 utilizing a bushing.

grips, a titanium grip safety on all models...and the list keeps going. When you factor in the fact that it takes a pistolsmith 50 percent more time to work with titanium parts over carbon steel and stainless, and that everything they work with starts out as an oversize part that has to be hand-fitted, you begin to see why a 1911 from these guys can cost anywhere between \$3,195 to as much as \$5,000.

The basis for any Christensen 1911 starts with a machined slide and frame from Caspian. The titanium frame can be ordered in a Classic, Officer or Tactical model with accessory rail. Among the list of options is a 3½-, four- or five-inch barrel profile constructed from either a stainless steel (that can be Cerakoted) or Damascus steel (for just \$1,400 more).

"We did a lot of homework to get the best parts in our gun," says Newman. "Storm Lake worked with Caspian to put a combination together for a great fit between the two. You'll also see that we use a Storm Lake bushing because they come in matched sets."

The Officer model maintains most of the same characteristics as the other 1911s, but Christensen Arms has opted for the bushingless barrel.

"When you get play between the bushing and a slide," says Newman, "it can pull concentricity off. If you were to put a bushing on that short of a barrel, you increase your potential for binding. It really does come down to reliability."

Beneath the barrel on most of Christensen's 1911s is a stainless steel, full-length guide rod. Bill Laughridge made a strong recommendation that they stay with it, though they will insert a standard guide rod if a customer wants it that way. However, when it comes to quality, the



typical customer purchasing one of these pistols tends to associate a full-length guide rod with a high-quality setup.

Though another manufacturer's 1911 might feature a stainless steel slide and frame, this or that, most companies use a carbon steel sear, disconnect, hammer and so on. If you're going to be carrying a 1911 for protection, duty or other reason, there's a good chance you're going to come into contact with moisture at some point. And where do you think that moisture goes? And how many people tear down their pistols occasionally for rust-preventative maintenance? In keeping with using corrosion-resistant parts, I discovered that Christensen Arms is doing something that no other production company is doing. If you completely disassemble one of these 1911s you're going to find stainless steel internals.

If they hadn't pointed it out, I might have overlooked the fact that the beavertail on all models are now made of titanium. The samples I received for T&E wore a black Cerakote finish, so I never thought to investigate that. It might come off as unnecessary, but you have to remember that a grip safety falls



Most Carbon 1911s created by Christensen Arms go out to dealers and are equipped with stainless steel full-length guide rods. Though a typical client perceives an added value associated with a full-length guide rod, any of these pistols can be ordered with a standard-length guide rod installed.

one. But for the user who has been trained to send the slide forward on a fresh mag using his hand over the top of the slide or pinching the rear serrations like a sling shot, an extended slide stop is loathed. For those customers, a low-profile slide stop is readily available (as is an ambidextrous thumb safety and oversize magazine release). For Christensen, what gets put on one of these 1911s ultimately comes down

to the customer's personal preferences.

The trigger shoe is constructed of aluminum and mated to a stainless steel bow to reduce mass and provide a lighter, crisper feel. Christensen lists the trigger pull between  $3\frac{3}{4}$  and  $4\frac{1}{2}$  pounds. If a customer specifically asks for a  $3\frac{1}{2}$ -pound trigger pull, they'll happily tune it for what is asked, but the majority of pistols are spec'd for guns shipping out to dealers. Both samples used in this evaluation were measured at four pounds, to be exact.

And when the trigger is pulled, the skeletonized hammer drops and strikes the stainless steel firing pin. The important fact is that Christensen only uses a certain stainless steel hammer. There are different grades of stainless to consider regarding the hardness necessary for the disconnect areas. Not only does it offer corrosion resistance, the trigger pull will remain the same longer than a carbon steel alternative.

Outwardly, Christensen primarily utilizes Novak three-dot night sights from Trijicon, although an adjustable Novak and Heinie types are also available. When you operate the slide, chances are you're going to notice the unusual bite of the serrations on the slide. If you look closely, you'll notice that they mimic the shape of ram curls seen in the company's logo.

within the critical parts list and you're asking it to frequently plunge in and out of a titanium frame. And as far as I can tell, Christensen is also the only major manufacturer of 1911s offering a protective beavertail grip safety machined from titanium.

The slide stop and thumb safety are carefully fitted and operate as designed every time. It's a fact that multiple pistolsmiths will check the functionality of the controls and each safety before it's test fired. When the thumb safety is put into the Safe position, you can feel it click and lock. When you take it off Safe, it's even a crisper click. The long life of this important feature is guaranteed by an integral plunger tube that's machined into the frame. Two-piece plunger tubes have been known to give up and create the environment for a pistol rendered useless.

In addition to the Tactical models, many Christensen 1911s ship to customers with an extended slide stop. I've noticed that for many recreational shooters not involved with serious training, an extended slide stop is appreciated and viewed as a high-end option. Occasionally, I'll see a competitive shooter using

## SPECIFICATIONS

### CHRISTENSEN ARMS CARBON 1911 GOVERNMENT DAMASCUS

<b>TYPE</b>	Single-action semiauto
<b>CALIBER</b>	.45 ACP
<b>CAPACITY</b>	8
<b>WEIGHT</b>	2 lbs., 4 oz.
<b>BARREL</b>	5.05 in., Storm Lake
<b>OVERALL LENGTH</b>	8.7 in.
<b>HEIGHT</b>	5.37 in.
<b>FINISH</b>	Frame: Natural titanium Slide: Damascus steel
<b>SIGHTS</b>	Trijicon Novak, 3 Dot
<b>TRIGGER</b>	3.75 to 4.5 (4 lbs. tested)
<b>SAFETY</b>	Thumb lever, beavertail grip
<b>GRIPS</b>	CA carbon fiber
<b>MSRP</b>	\$4,595
<b>MANUFACTURER</b>	Christensen Arms 435-528-7999 christensenarms.com

“What ended up happening is that we created a primary and a secondary serration,” says Newman. “You have traction in one direction, but less resistance in the other direction.”

To test this, soak your hand with gun lube and try to rack the slide. You'll notice positive traction you won't find with other scale-like designs. Run your hand toward the muzzle as if you were drawing the pistol from a holster and your hand will glide right over it.

## FINISHING TOUCHES

Most of the pistols sold by Christensen feature a corrosion-resistant, stainless steel slide. What's really interesting is how many of those orders are for one of Christensen's Cerakote colors. Cerakote is a tough and durable ceramic finish that offers a variety of colors. Though my Officer arrived topped with a black slide, a new bronze color has surpassed it in popularity within the last three months. What's even more surprising? More and more customers are coating the titanium frame.

The Damascus slide option does have the propensity to rust, so it undergoes a little different process. With a standard matte finish, Christensen will put on a



Christensen Arms obtains Damascus barstock through Caspian Arms before cutting the aggressively tactile "ram's curl" serrations into the slide and machining out the dovetails for the sights. The slide is subjected to a unique acid process to enhance the color of the swirls, then protected with a special clearcoat.

light bead blast followed by a separate acid process to bring the colors out in the swirls. Then, it's sealed with a special clearcoat.

And there's nothing more signature to a 1911 than a unique set of grips. My Officer sample features a bi-directional textured set of G10 slabs, but the Damascus Government model wears a pair of smooth carbon fiber stocks. Being that Christensen Arms is known for its carbon-wrapped barrels, it only makes sense that most carbon fiber is a popular check in the box for those ordering one of these 1911s. Retail price for these grips by themselves is currently \$100.

"It's not fun making carbon fiber grips," says Newman, "but you have to remember that our owners came from the aerospace industry. They bring a lot of expertise and knowledge in working with these materials. It's a difficult process, but we have experts doing it. There are a couple of other carbon grips on the market, but they are usually single ply over a plastic resin. Our grips are



full carbon with a small core center. We don't cut corners."

## TESTING

Before I tested each of these two pistols, they had to prove themselves at the factory that they could shoot a 2½-inch group as a minimum from 25 yards. And before they were tested for accuracy, they were tested for function and with two additional pistolsmiths for safety.

"We don't want any of that slipping past us," says Newman.

John Houghton, sales manager with Christensen Arms, recommended that I give each pistol a break-in period of 500 to 600 rounds, which is typical for a custom gun. In the time I had to evaluate these, I shot 800 rounds between the two. In that time, I experienced only three malfunctions: one failure to feed on round number 15 and two failures to go into battery. I couldn't quite determine the exact cause for each of these, but the pistol was properly lubricated, though I did notice some sluggish behavior in the slide of the five-inch Government model with low-velocity ammunition. I never experienced a malfunction with the Officer model or with Black Hills TAC-XP and Hornady Critical Defense ammunition in the Government model.

That aside, I did experience incredible accuracy out of both guns—quite similar results, actually. Both guns exceed Christensen's 2½-inch five-shot group standard at 25 yards like it's a joke. With its longer sight radius, the Government model fared only slightly better with a best group measuring 1.51 inches, while the Officer model kept all five within a 1.81-inch group. Interestingly, both pistols preferred Federal's stout 230-grain HST tactical load. You don't see much marketing support from gun magazines for this ammo type, but it's 100 percent reliable and offers an energy-dumping defensive bullet that doesn't overpenetrate. While testing, the Federal load was the slowest to recover a sight picture after recoil, but velocity numbers on the chrono were consistent and fast out of each barrel length.

**WHAT THE HELL?**

Just one magazine? That's my only complaint with either of these pistols. No, I don't personally care for the extended slide stop that came on my Government model, but that's a subjective point. In my opinion, if you're going to drop more than three grand on a 1911, it better come with at least two magazines. (Three to be practical.) When I contacted Christensen Arms about this, my sales manager's reply was, "Because we'd have to charge you more to buy additional magazines. A lot of people have cult followings with a brand or type of magazines, so we hate to feed a customer and charge him for a magazine he's going to go out and replace anyways."

**THE FUTURE**

For now, Christensen Arms is focused on manufacturing 1911s chambered for .45. In 2013, you're going to see a lot of differences in the Cerakote colors offered, for sure. With that said, not much is going to change.

Christensen Arms has successfully established themselves above what's readily available from a high-production 1911 manufacturer that cuts corners to squeak out profit. If you're one who would never consider spending more than \$600 on a 1911, then you probably don't care about what goes into one of these handmade

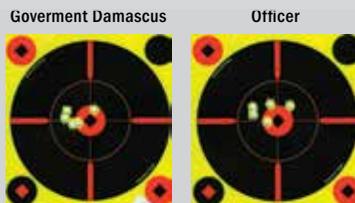
**ACCURACY RESULTS**

**1911 GOVERNMENT DAMASCUS**

Type	Velocity (fps)	Standard Deviation	Avg. Group (in.)
Black Hills w/Barnes TAC-XP 185 gr.	944	19	<b>1.52</b>
Federal Tactical HST 230 gr.	926	19	<b>1.51</b>
Hornady Critical Defense 185 gr.	1,040	21	<b>1.74</b>
Nutmeg (remanufactured) RN 230 gr.	822	14	<b>1.85</b>

**1911 OFFICER**

Type	Velocity (fps)	Standard Deviation	Avg. Group (in.)
Black Hills w/Barnes TAC-XP 185 gr.	846	18	<b>2.11</b>
Federal Tactical HST 230 gr.	822	14	<b>1.81</b>
Hornady Critical Defense 185 gr.	907	25	<b>1.97</b>
Nutmeg (remanufactured) RN 230 gr.	788	31	<b>2.03</b>



Shown above are the best groups fired during the accuracy testing of each pistol at 25 yards.



customs to justify the price. For some, it's an impulse buy. For others, a pistol like this is a timepiece that's handed down for generations. Unlike grandpa's old service auto, your kids won't have to restore this one. It'll keep forever. 📍



All Government, Commander and Tactical models from Christensen Arms feature an extended slide stop and thumb safety standard (shown above), but the Officer model (shown left) comes with a lower-profile thumb safety and slide stop. Any model can be ordered any way.