Test and Evaluation Results
of
Wilson Combat / Les George Eagle Framelock Titanium Flipper
Item WTK-EAGLE
by
Kevin Hutchison
21 November 2016

INITIAL IMPRESSION

Upon examining this knife for the first time, my immediate impression was highly favorable; it radiates extreme quality. The body of the knife is thin yet substantial, and while its solid construction is obvious, I feel that it's lighter in weight than other knives of similar size. The stone-washed finish is smooth and conforming, and every curve and angle has either been rounded or beveled for maximum user comfort. The flipper action is as smooth as oriental silk, allowing the blade to open with ease. The lockup is unyieldingly tight, and the blade's edge is extremely sharp and uniform. The tip is equally robust, backed up by a lot of heavy metal. This knife definitely has a "wow" factor.

ROCKWELL HARDNESS SCALE

I believe that anyone who appreciates a quality knife needs to have an elementary understanding of the Rockwell Hardness Scale and how it influences knife manufacturing. If you look at the knives offered on Wilson Combat's website, you will frequently see Rockwell numbers listed within the specifications portion of these listings.

Simplified, the Rockwell Scale is a measurement system that's been around for nearly 100 years. It involves a series of tests that tells the metallurgist how hard a piece of steel is. The Rockwell system for knives is known as HRc. There are other scales for different types of steel. The information provided by the results of the Rockwell tests help the knife maker understand the most important factors influencing their knives: edge hardness, overall toughness and flexibility.

On the Rockwell scale, knife hardness tends to run anywhere from 55 to 66. The higher the number, the harder the steel. This is significant because harder steel tends to hold an edge
better than softer steel, but if it's too hard, it can break. The blade smith's task is to find the right piece of steel with the highest Rockwell rating that will offer the user the greatest degree of serviceability, reliability, and longevity.

The knife being tested today has a Rockwell hardness rating of 60, which for this blade's type of steel appears extremely good.

**HANDLE**

The handle measures about 4 3/4" in length, 1/2" thick, and about 1 1/4" in height at its tallest point. It consists of two pieces of titanium, each measuring just over 1/8" in thickness.

This knife's substantial titanium handle is a tremendous asset because of its inherent nature. Titanium is extremely strong, less dense than most steels (lighter weight), durable and highly resistant to corrosion. When mixed with other elements, titanium is used in a wide variety of top-end industries, such as the military, aviation, marine, and medical. It is also used in fine jewelry and, of course, knives.

Grades of titanium that are close to 100% pure have a tensile strength of 63,000 PSI. Tensile strength is generally defined as the greatest longitudinal stress a substance can bear without tearing apart. This essentially means that titanium is one massively tough material. The process of extracting titanium from its host elements in the earth's crust is costly, which, in turn, makes it an expensive product for manufacturers and consumers. Because of its hardness, it can also be rough on production tooling, thereby also increasing end-user costs. Due to its numerous and profound attributes, however, titanium is a perfect handle for high-end folding knives.

Because titanium polishes well, it can become incredibly smooth and slippery. The surface of the knife's handle must have some type of texture in order to help one obtain and maintain a positive and safe grip. In this case, the handle has been formed with Wilson's highly effective and attractive Starburst pattern. You will see this same pattern on many of Wilson's pistol grips.

The handle contains one finger groove, making a comfortable home for one's index finger. With my large hands, I can comfortably hold the knife and still have room to spare. Those with smaller hands will fare even better. From the concave finger groove, the bottom of the handle flows slightly outward and then retracts, simply adding more comfort.
Attached to the handle on its right side is a metal pocket clip measuring 2". It is securely attached to the handle with three screws and possesses significant tension. The closed portion of the clip is located at the end of the handle, directly below a 5/32" chamfered hole drilled through both grip panels allowing the user to install a lanyard. The clip is not reversible.

Another wonderful feature of the knife's handle is that one can easily see into the internal workings. It's like looking into a glass house. A problem with typical folding knives is that their internal mechanisms are often closed to one degree or another and are notorious for collecting and holding lint and other foreign debris. Eventually, this matter can gum up the action and is often difficult to clean. The action of this folder can easily be cleaned with a Q-Tip, brilliant!

This knife is a framelock. This simply means that part of the handle (or frame) has been engineered to lock the blade open and keep it open until the user decides to close it. This mechanism is both durable and ingeniously simple. Essentially, part of the handle's right side has been cut horizontally causing it to block, through the application of tensional forces, the back end of the blade upon opening. This is what locks it into a secure position. It is highly effective.

Some manufacturers provide secondary locking devices on the handles of their knives as an added degree of safety to ensure that the blade does not close prematurely. This knife does not have a secondary system. This knife's locking mechanism is so robust and strong that, in my opinion, it does not need one. To help substantiate my belief, I donned a pair of heavy duty leather gloves and tried to close the knife by exerting as much energy as I could on the blade while securely holding the handle. I could not get the blade to close. In fact, the locking mechanism would not even budge. The blade is not going to close until the user makes a conscious effort to do so.

Summation: Everything about the handle is superb. It's built like a Patton tank, it's well-finished and feels great in the hand. If only all knives were this nice.

**BLADE**

The blade measures 3 3/4" in length and approximately 1 1/4" in height at its tallest point. It is also about 5/32" thick at its widest venture. This is a drop-point style blade, indicating that the point or tip drops below the level of its spine. The advantage to this is that it increases the strength of the tip and offers the user pinpoint control while cutting.

The blade has an ideal belly. The belly is the curved portion of the cutting edge that runs from the tip back. The belly is important because it determines the primary purpose for which the
knife is best suited. For example, a knife with no belly would be a dagger: excellent for piercing but not good for general cutting. A knife with a substantial belly would be best suited for cutting and preparing game animals but would not be very good for piercing. In my view, the best belly that a knife of this size can have is one that is capable of performing a number of different tasks well. I feel that the belly of this knife is about as close to ideal as one could reasonably expect.

This blade has a feature known as a recurve. In a nutshell, this feature describes the cutting edge behind the belly taking on a on concave appearance as it progresses back toward the handle. In some cases, a recurve can be slight (as it is in the case of the Wilson/George), and in others it can be quite pronounced.

Probably the two most frequent comments one will hear about recurve blades is that they provide good cutting leverage and that they are harder to sharpen. I can see elements of truth in both trains of thought. I think that a fixed blade knife would benefit from a recurve far more than would a folding knife. I can equally envision this style of blade being more difficult to sharpen. On a folding knife, I don't believe that a recurve offers any practical benefit above and beyond that of a traditional style blade. Referring to our Wilson/George, the slight recurve does give the blade a sleek and flowing appearance. Good looks never hurt anything.

For one searching for a high-end knife, not knowing anything about the type of steel used in the blade's construction is akin to buying a car without knowing what kind of engine it has. The blade of this knife is made from CTS-HXP steel. It was invented by the Carpenter Steel Company of Pennsylvania and was originally intended for use in the aviation industry.

Carpenter Steel has been around for over a century and are top dogs in their field. The letters CTS are simply Carpenter's trademark. HXP is the steel itself. HXP is a powdered steel that is passed through a die and then is exposed to heat and pressure so that it becomes solid matter. My research indicates that this steel should easily outperform many other high-end blade steels.

This knife's hand-honed cutting edge appears precise from the tip to the flip (the flipper that is used to open it - which we'll look at later). It is also seriously sharp. The tip is equally refined and quite strong, being reinforced by a substantial blade.

Yet another practical feature of this blade is that it has 1 1/8" of serrations on its spine at the aft end (opposite the tip). With the knife open, one's thumb has a natural tendency to rest atop these serrations thereby further enhancing a positive grip.
The blade, handle and pocket clip have a beautiful stonewashed finish. This process essentially involves tumbling the pieces in an abrasive compound (rather like cleaning empty ammunition brass in a case tumbler) until the desired visual effect is achieved. The process provides four significant attributes: the finish is less reflective than polished blades, it hides scratches well, it's low maintenance, and maintains its appearance over time.

Summation: The blade is outstanding in every respect.

OPENING THE KNIFE

Flippers are so named because of the flipping action required of one's index finger to open and lock the knife into a secure position. The flipper on our Wilson/George knife rises about 5/16" above the top of the handle and is easy to reach yet does not interfere with any aspect of the knife. It is 3/8" in length at the point where it enters the handle. Just like the rest of the knife, the body of the flipper has been rounded for comfort. The portion of the flipper that comes into contact with one's index finger is serrated, allowing for secure contact.

If one has no experience with this style of knife, one might initially find the opening process a bit awkward. With just a few minutes of practice, however, one will find the procedure is simple, Viking-rugged, ultra-smooth, and incredibly easy to manipulate. In fact, when one masters the process, the blade can be opened with lightning speed. With just a bit more practice, the user can even open the knife with one's weak hand with comparable ease and velocity. The internal Teflon bearings play a welcome and instrumental role in this process.

The process of opening the knife involves the user holding the body of the knife in the strong hand and placing the pad of the index finger against the serrated portion of the flipper. With smooth and forceful effort, simply push down on the flipper and the blade will open. It will lock into place if you have applied enough energy. If you have not applied enough energy, the blade will not open fully. If this is the case, simply close the knife and try it again or open the knife the rest of the way with your free hand. Another fine feature is that once open, the blade's flipper acts as a guard to protect one's finger and hand.

The flipper is substantial enough to allow one to wear gloves and still be able to open it. I tried this process while wearing common, lightweight general purpose work gloves. No problem. I then tried it while wearing leather, winter-weight, gloves and had no difficulty opening it either. I repeated each process numerous times with total success. Whether one is right-handed or left-handed, opening is a snap and gloves are not a barrier to this process.
Summation: This flipper is so fast, smooth, and efficient that you may never want to use anything else.

CLOSING THE KNIFE

The closing process involves one pushing the framelock apparatus outward with one's thumb until such time as it clears the aft end of the blade. When this happens, get your thumb out of the way and close the knife.

Summation: Closing is simple and fast.

CARRYING

Although the size of this knife is significant, it carries and conceals well. I normally do not like having things in my front pants pockets because while seated they tend to gouge and become uncomfortable. Because of its slim and dehorned physique, I found carrying the knife for 8 to 12 hours per day to be pretty comfortable. Whenever one carries or conceals something on one's person, it must be comfortable, otherwise one simply won't have the item on him/her. If you were to need your knife and then realize that you left it home because it's a pain to carry, what's the point of having it?

This knife is also comfortable and concealable while worn around one's neck. I wore this knife for a few days around my neck beneath a shirt while it was suspended from a typical, ball-type chain. I then replaced the chain with a section of Para-Cord and wore it for a few more days. I found the Para-Cord a bit more comfortable. If maximum concealment is a necessity, carrying the knife in this fashion may be a reasonable possibility.

The knife also carries well on the ankle. I had an old revolver ankle holster that has seen better days, so I removed the holster from the strap that secures it to one's leg/ankle and simply slipped the knife's pocket clip over it. Although the knife felt relatively secure during this method of carry, it had a tendency to move around as I walked. To avoid this and the possibility that the knife might become detached from the leg strap during activity, I took a ballistic nylon single magazine pouch having a velcro-style back and attached the pouch to the leg strap. After that, the knife was secure beyond question and carried comfortably. If one requires maximum concealment, this is an effective and comfortable way to go.

Summation: Because of its design, low-profile, and top-end components, this knife carries and conceals well.

TESTING PROCESS
The testing process involved using this knife to methodically cut, pierce, chop, and slice a variety of items. Many of these tests clearly meet the definition of abuse and should not be performed as a normal course of action. Doing so will void the knife’s warranty and may cause unnecessary and irreparable damage. Keep in mind that knives are intended to cut soft elements only: they are not multi-purpose tools such as a Leatherman. This Wilson/George is a very high quality instrument and should be treated as such.

The Tip

The tip is usually the most delicate part of a knife. As previously mentioned, the tip of this blade is sharp and appears quite strong, being substantially reinforced by a lot of steel.

My first trial was to forcefully puncture a hard plastic (frozen) cooler pack from an ice chest. I plunged the point into the pack three times. It pierced with little effort and without damage to the tip.

During another test, I taped together several pieces of cardboard until it reached a thickness of 1”. Using a single downward thrust, the point pierced each layer with little effort. No damage to the finish, the point, or the cutting edge was noted.

I stabbed the point into the wooden exterior of an outdoor storage building five times. No damage was observed, at least not to the knife.

One should never use a knife as a prying implement, so I used the first two inches of the tip/blade to help remove a damaged board from a privacy fence. It worked and I detected no issues.

Using an old and rather stout plastic ice chest, I pushed the knife into and through the body several times with the aid of a rubber mallet. I could not find any signs of wear or damage.

The tip penetrated three layers of level IIA Kevlar body armor and sustained no damage.

My final process involved taking a section of a wooden 2 x 4 and stabbing the knife directly into the wood until it (the knife) was completely vertical. I forcefully slammed the body of the knife downward onto the face of the wood. The end result was that the applied force caused the point to eject a piece of the 2 x 4. I performed this process a total of five times. Upon completion, neither the point, cutting edge nor the finish showed any damage or wear.
Summation: All but one of these tests are abusive. In spite of this, the tip held up beautifully.

The Cutting Edge

I began the edge evaluation by cutting a section of beef into small pieces for stew meat. Before beginning, I covered the entire knife with cooking oil to see if being wet or slippery would adversely influence my ability to maintain a safe grip during the process. The knife cut as well as my quality kitchen knives. Even though the cooking oil made everything slippery as a greased eel, I felt that my grip was secure. Clearly, Wilson's Starburst pattern was responsible for keeping my fingers attached and me out of the emergency room.

Keeping in mind that knives are designed to cut soft material, the thinking user will evaluate his cutting needs and then select the tool best suited to fulfill these requirements. The items listed below represent a respectable variety of things that tend to crowd the boundary of practical knife utilization and were used during my testing process. These items included a wooden dowel, a bungee cord, an old canvas military duffle, a nylon towing strap, heavy plastic tubing, thick zip-ties, a leather strap from an aging satchel, a varied assortment of plastic containers, an old pair of leather boots, electrical cords, and a plastic garden hose. Although some items were easier to cut than others, this knife performed quite well on each material. These items were cut multiple times from different angles with varying levels of applied force. The cutting edge of the knife was inspected after each material had been tested. None of the above items damaged the edge or tip.

My final test was to cut a soda can in half, a substantial breach of sensibility. The blade sliced through the can with nearly no effort and the cutting edge appeared to be sound.

Upon completion of the testing process, the blade looked pretty much as new. I very lightly went over the blade with some 4-ought steel wool and an application of Wilson's Lite oil. This made it appear out-of-the-box new.

Glass Breaking Capability

If one is a first responder such as a paramedic or fireman, there are knives available that have been specifically engineered to meet their unique requirements, such as having to quickly and efficiently break automobile glass or cut seatbelts. It's critical that one select a knife that will best fulfill one's needs.
Unless a knife is equipped with an appendage intended for breaking glass, such as Wilson's superb Cop Tool, it should never be used for this purpose except in dire circumstances where no other reasonable implements are available. Realistically, using the wrong tool on a given job has the potential to damage the tool itself and could cause personal injury.

Although the handle of the Wilson flipper is not equipped with a glass breaking device, and therefore not intended to perform this process, I believe it is durable enough to take on the job. I banded together four pieces of 8" x 10" picture frame glass with duct tape and was able to smash them all with no damage to the handle. Automotive glass is a different story.

Because automobile glass undergoes a heat treatment process known as tempering, which makes it very hard and shatter-resistant, it is far stronger than other glass. I have not had the opportunity to pit this knife against vehicle glass. In spite of this, I personally feel that it has the potential to successfully assist in this process should the need arise.

Summation: Any knife will cut. The question is how well does it cut? What can it cut? How much can it cut before it needs to be sharpened? How much can it cut without sustaining damage? The answers to these questions are what separate a true superior-quality knife from a lesser version. I am convinced that the Wilson/George Flipper is an incredibly strong knife that holds its edge extremely well. It has been designed to perform a variety of utilitarian tasks, and is capable of dealing with extreme issues should they arise.

**WARRANTY**

A product warranty can reveal much about the product itself as well as the manufacturer. Here is Les George's warranty exactly as it appears on his website.

For as long as I am making knives, I Guarantee my knives to be free from mechanical defects, As long as the knife is used for its intended purpose (to cut soft material) by the original owner, the knife will be repaired or replaced free of charge. This Guarantee does not cover finishes, natural materials, normal wear & tear, modification or damage caused by misuse or neglect. Knives are not to be used as a prybar or screwdriver!

**CLOSING COMMENTS**

The American-made Wilson/George Framelock Flipper is one of the finest folding knives that I've had my hands on in quite some time. Intended for everyday use, this is a no fluff, no frills, heavy-duty companion produced with the highest quality materials. There's something magical
about it, because although its design is simplistic, it simultaneously possesses an undeniable air of superiority. It's a serious knife for those who take knives seriously. I'm certain that one can find folding knives costing more, but I don't see how they could perform any better. In my view, this knife sits at or very near the top of the cutlery mountain. I've used and been around knives for more than 35 years and have never encountered a folder that I like more than this.