



Gun Evaluation

Gun Smith & Wesson M & P 15 Sport Caliber 5.56 NATO/.223 MSRP \$739
Street Price Under \$700.

Date 8/16/12 by Joe Piazza

Construction Materials – Aluminum parts are 7075 –T 6 forged in house and then CNCd to final tolerances. Barrel is 4140 steel alloy

Finish - Aluminum parts are Hardcoat anodized, Barrel exterior and bore Melonite coated

Specifications

Weight Empty – 6.5 lbs

Action Type - Semi Auto

O/A Length – 32” to 36” Depending on adjustable butt stock adjustment

Grip – Mil Spec

Barrel Length - 16”, medium profile/weight, 1 in 8” twist, 5R rifling, Melonite finish/surface treatment, flash hider/muzzle brake

Trigger type and Function - Single stage, mil spec minus select fire. For the purposes of drop in kit specs, this trigger takes the smaller diameter pins.

Trigger Weight SA – 6.45 lbs

Trigger Travel Pre Engagement Travel - .060” Engagement to Discharge - .045”

Over Travel - .041” Total Travel - .146”

Trigger Operation Perception - Very shootable for intended purpose, light creep and clean break

Capacity - 30 Rd. mag supplied

Mag Release – Mil Spec Right Side

Sights – Fixed Front Typical AR Adjustable post, Mag Pull MBUS flip up rear

Sight Perception – The smaller aperture on the MBUS produced slight apparition making it appear as if dirt were in it. The larger aperture was fine. Newer Sports are shipping with Gen II MBUS rear sights that are somewhat improved.

Safety – Mil Spec

Features – 6-Position Collapsible Stock, adjustable A2 Front Sight, Flash Suppressor/Compensator with solid bottom to eliminate dust up, Picatinny Rail on upper, Integral trigger guard, Mag Pull 30 rd magazine

Disassembly Time – Typical for AR, no anomalies

Reassembly Time – Typical for AR, no anomalies

Pre Range Impressions - Very positive. Construction, fit and finish is as good or better than most ARs at double the price. I liked the fact that that it did not have the mil spec trigger guard that requires a link to close the bottom as there is always that junction that rubs your finger under certain circumstances and short of glacial habitats, will never be utilized for optional oversized links. I really like the fact that the bottom of the flash hider/muzzle brake is solid and I don't know why all flash hidens aren't constructed like this. Shooting prone with an open bird cage can really dust up with dry dirt or sand or supporting the piece over the hood, trunk or roof of a car can damage glass or paint and and unfortunately I know this first hand. Many moons ago the concussion from a Weatherby blew the back window out of my Camaro when I was sighting it in over the trunk. While the .223 report is not nearly on the same level as a Weatherby caliber, neither is the glass in newer cars being much thinner and more fragile.

The 5 R rifling was originally developed by the Russians and there are 2 major differences between 5R and conventional rifling. As the name implies there are 5

lands and grooves instead of the traditional 6 so that every land is directly opposite a groove. The sides of each land are cut at a 65 degree angle versus 90 degrees for conventional rifling. This is supposed to cause much less bullet deformation, because it does not cut into the bullet so deeply, and at such a radical angle, and consequently produces less fouling with overall better accuracy. This was verified by S & W owned Thompson Center who rigorously researched the rifling issue and decided that 5 R could make a positive difference in the M & P 15 line through better accuracy and consistency. This is also the rifling used on the Thompson Center Venture, Dimension and Icon so it is not just a shortcut or gimmick. TC is staking their entire reputation in bolt actions on 5R. One more note on the barrel, Smith's choice of a medium weight/contour, while aiming for a 6.5 lb overall goal, again reinforces the fact that they wanted to maximize accuracy potential and not just fill a niche in their offerings.

While the gas key and tube are chromed lined, the barrel bore and exterior are coated with Melonite which according to Smith will at least equal the life of chrome although they fully expect it to exceed chrome's longevity. This is also the newest coating used on S & W handgun slides and frames. Melonite is the result of a salt bath ferritic nitocarburing process and is 10 to 20 microns thick with a hardness in the 55 to 65 HRC range depending upon the steel alloy. The coefficient of friction is less than half that of chrome which also means less heat and fouling and easier cleaning. The most interesting fact to me was that Melonite coatings increase the strength of notched, as in rifled, steel by about 50%. Try this link for more information from an engineering company that applies industrial finishes, http://www.burlingtoneng.com/wear_resistance.html. This is the real deal and not gun company hype. All the charts, graphs and scientific explanations with ratings and comparisons to other treatments are there.

The Sport does not have a dust cover on the ejection port or a forward assist and this is part of the reason for the lower price and weight. These items cannot be added to this piece without changing the upper. Some may consider this a show stopper but these ARs are not bound for the Serengeti or rice paddies and will in all likelihood be reasonably well maintained as compared to Vietnam era ARs that required compensation for a much more primitive version of this classic Stoner

design. For me this is a non-issue in a piece for home and family defense, survival, or as the primary arm in an Armageddon plan. I have yet to get it to bobble a round during all the rigors and abuse of actual daily use. In point of fact the forward assist is a somewhat vestigial device developed as a solution to the original AR design that is now the beneficiary of almost 50 years of improvements and fine tuning. Before the forward assist, the solution to the out-of-battery condition, caused by rounds not fully chambered, was a notch cut into the side of the bolt that was meant to provide a purchase for your thumb so that the operator could “thumb” the bolt into battery. This notch is provided in the Smith bolt as well and as a system, works well without the dust cover. It is as solid a piece as any of today’s 1911s. The gas and bolt systems have both benefitted from refinements and today’s ARs have a much different reputation than the originals first deployed to Vietnam.

The duality of ammunition and chamber specifications, .223 vs. 5.56 NATO, also contributed to chambering and function problems. Without getting too technical, the specifications for the 2 rounds is just different enough that ARs chambered for the .223 would often malfunction when fed the NATO round while those chambered for the NATO round would usually accept the .223 ammo. These problems are also resolved for most ARs that now have the NATO chamber capable of functioning with either round. The AR currently holds the title of most popular long arm in the country and is manufactured to stringently interchangeable mil spec standards by the greatest number of manufacturers that ever made rifles/components for a single action/caliber combination, in history.

With the addition of the Melonite bore treatment, 5R rifling, over 5 decades of evolution, better ammo and correct chambering, added to the fact that there isn’t any other massed produced battle rifle with this feature, I would say that Smith made a bold but correct decision. To my knowledge this is the most amount of improvement in the most important accuracy related component, in the recent history of factory ARs.

Range Impressions

It is beyond accurate enough for it's purpose and certainly the price, staying around 1.25" @ 100 yds with most ammo and an 8X scope. This is super performance out of the box, and in light of similar entry level ARs by other manufacturers, I think it speaks directly to Smith's desire to differentiate themselves through performance modification in rifling and bore treatment. You have to recognize how solid this performance is for a 16" medium profile barrel, on a stock, bare bones, 6.5 lb AR at any price. With this level of accuracy I am tempted to improve the trigger somewhat, but not radically, and I would expect to shave a little more off of group size. Other than your optics preference based upon the intended purpose, your location and other pieces in your battery, it is just fine stock. Along with bench shooting I did a fair amount of close in drills while standing and moving, with multiple targets. For this I attached a Sig Sauer red dot sight that is very small and light in staying with the theme. This AR rocked out in drills with 6.5 lbs balanced totally between the pistol grip and the mag well it moves as quickly as you can, but has just enough heft to feel solid.

Overall

Let me say up front that I am not a 223/5.56 fan but this is exactly an AR I would want for daily carry and as proof of that, I bought it to do patrol and varmint control while on a temporary assignment running a fishing lodge in the Appalachians of North GA. As a side note, in an emergency/survival situation I would also prefer to scrounge for this caliber ammo as opposed to something like say the 6.5 Gendel which would be my performance ideal for the AR platform limitations. What I wanted for this job specific application was exactly the features that ARs in this configuration can be good at, lightness, compact size, firepower, versatility and ammo availability. Otters, raccoons, coyotes, oversized wharf (Norway) rats, wild hogs, bears and poachers were all on the daily menu of interlopers there and the M & P AR Sport was a very comfortable rifle that could be easily stowed in a vehicle or carried for a few miles when necessary. I never found it burdensome or lamented the portage even in the heat of the summer. With the high humidity GA is known for and the dampness of a forest shadowed river valley, the finish remained like new with little to no maintenance. The M & P certainly was not babied and rode either muzzle down on the floor in the jeep or

the UTV or on my back on the daily 3 mile morning and evening hike to check traps and feed fish. The Sport was usually coated with a layer of trout chow dust or remnants of trap line bait and it landed in the greasy Georgia clay more than once and took a dunking, with it's owner, while wading across the river with a chain saw and gas can. Other than wiping it off occasionally, it never really got broken down and cleaned in it's 6 month tour of daily duty with the exception of that unscheduled dunking. The M & P Sport took it's share of pests along with some meat for the freezer and never failed to do anything that I asked of it during this 200 round deployment. I have handled and shot a few ARs and, like everything else, they can run the gamut in weight, sophistication, gingerbread, accuracy, reliability and price. You can make it a looker, a one holer or something out of a sci-fi movie, all it takes is money and the muscle to schlep it around after you piled on the gizmos. If you actually have to carry it around every day, much like your concealed carry handgun, a minimalist approach with an accuracy and reliability mandate will make this M & P Sport a great choice for half the money of most. At 6.5 lbs your next step down in weight *is* a pistol which will most probably cost *more* than the Smith AR Sport. With a street price under 7 Franklins, for most civilian work here at home, you can't go wrong and you will never complain about the missing 2lbs. My thanks to Ken in the customer service department at S & W for technical info on the materials.

Regards.... Joseph Piazza