

## KNOXX INDUSTRIES AXIOM ULTRA-LIGHT RIFLE STOCK

Highland Sport is offering a new innovative hi-tech polymer recoil-reducing stock for bolt-action rifles. The Axiom is a replacement for the traditional stock on the Howa 1500.



The Axiom stock transforms the Howa 1500 into a "black" rifle with military undertones, but it reduces the felt recoil by from to 54 to 95 percent, depending on the calibre.

**BLACKHAWK! HAS WON** a reputation for making high quality products for the U.S military and law enforcement agencies. These include military packs, ballistic vests, hydration systems, tactical holsters and special ops accessories among many other items. They also set out to woo hunters and shooters with a spin- off range of hunting packs, boots and other outdoor equipment. Best of all though, was the recoil reducing Knoxx CompStock which had a scientifically designed cam roller extension spring housed in the butt that compressed on firing so that the amount of felt recoil was substantially reduced. The reduction in recoil was claimed to be from 54 to 95 percent depending on the stock and the calibre.

Blackhawk! also makes a SpecOps stock which is adjustable for length of pull and fitted with two recoil reducing systems; one in the pistol grip and one in the buttstock. Another Knoxx recoil solution was a traditional looking CompStock shotgun stock.

The latest Knoxx recoil solution is the Axiom rifle stock, a Buck Rogerish-looking replacement for the traditional Howa 1500 stock. The durable, reinforced polymer forestock has aluminium pillar bedding and completely free-floated barrel. A rifle's accuracy effectiveness or even its purpose isn't dependent upon its looks, but just because a firearm has a black polymer stock with machinegun-style pistol grip doesn't make it an assault weapon.

For testing I removed the factory stock from a Howa Model 1500 in .308 Winchester and fitted the Axiom stock in its place. The forward section of the Axiom stock is a precise fit for the bottom of the Howa action, thus no bedding is needed. The result made the rifle look slightly sinister, like a bolt-action assault rifle, ugly in the conventional sense, and did nothing but increase its practicality. The factory stock weighed a neat 454 grams and the Axiom 700 grams - a negligable increase in heft.

Fitting is easy enough if you follow the instruction booklet that accompanies the Axiom, although I did use a different sequence. After removing the factory stock I

## **Test Report**





TOP: Primary recoil is dampened by a spring powered cam spring housed in the pistol grip backed by a second spring in the butt.

ABOVE: The rear section of the forend slides up an inclined ramp to activate the recoil spring in the grip and another spring in the butt. installed the barreled action and trigger-guard floorplate assembly in the forestock and tightened the two action screws to the recommended torque of 65 inch lbs. The forearm slopes downward so that it doesn't make contact with the barrel anywhere and there's a gap of at least 15mm between barrel and forearm at the tip. The barrel doesn't just float, it flies!

The flat-bottomed forestock is skeletonized with vents alongside the barrel's chamber section and ten oval vents in the underside. Three longitudinal grooves running the full length of the forearm on either side afford a gripping surface and there's an elongated recessed panel on each side of the receiver.

Next, I removed the rear pistol grip portion of the stock; loosening off a grub screw allowed it to be slid off. The rear end of the forearm was attached to the pistol grip portion. by carefully aligning the square protrusion on the front of the butt with a matching square socket in the rear of the forearm. The two sections were secured in place by tightening the pre-installed bolt and lock washer using the 1/4-inch ball end Allen wrench provided through a hole in the bottom of the buttstock. The assemblage was completed after I reinstalled the rear portion of the Axiom stock together with the high cheek rest.

In its original form the Axiom had a release lever in the bottom side of the stock which when pressed released a lock, allowing the butt section to slide freely along the tubular section on the rear of the pistol grip to adjust the length of pull from 286mm to 387mm. For some

inexplicable reason Australian Customs deep-sixed this arrangement and it has been replaced by a grub screw which fits through the a hole in the underside of the tube making it a fixture that on my sample Axiom stock set the length of pull to be 358mm.

That translates into a length of pull of 35cm 14 inches) which will be too long for the average shooter thus creating a problem with too-long eye relief. Unless the scope has a long tube which allows enough rearward movement to shift the eyepiece back closer to your eye, you won't be able to get the full field of view without stretching your neck. Another possible solution would be to bore another hole farther forward for the grub screw in order to shorten the length of pull to suit the shooter's build. However, with regard to the way the Axiom's recoil system works, it would be hazardous to shorten the pull too much.

For testing I topped off this wicked-looking outfit by mounting a Nikko Stirling GameKing 4-16x44 LRX scope in Weaver- style rings using a Howa 1500 Picatinny rail mount. The appearance of the outfit wasn't pretty in the traditional sense, but rather met the definition of a businesslike, somewhat macho outfit. Shooters are either going to love or hate the Axiom stock with equal fervour. If it contributes to function and accuracy that's fine, and this is after all a working rifle. A tool.

How does the Axiom stock feel and handle? I get firm but not tight cheek contact when I'm peering through the scope. Length of pull is a bit on the long side, but wasn't too bad after I shifted the scope fully to the rear. The black, non-reflective finish on the cheekpiece doesn't rasp the face. The straight machinegun-style grip is comfortable and allows one to pull the butt back solidly into the shoulder. All told, the stock was a good fit and enabled me

## **Test Report**

to control the .308's recoil better than the original factory stock did. The grip feels comfortable and the forearm fills my hand without feeling bulky. The straight butt presses firmly onto the shoulder.

That's all very fine, but where does the Axiom get its kickability from? Admittedly, the .308 doesn't "kick" much, but some shooters are more sensitive to recoil than others. Most don't enjoy shooting any rifle that kicks much harder than a .243, and are struggling to even tolerate a .308.

Blackhawki's Axiom uses two recoil-reducing mechanisms. The primary one is a cam roller extension spring in the butt. Upon firing, the upper component of the pistol grip, which is attached to the forend section of the stock by a large screw, slides in relation to the rest of the buttstock against the resistance of the spring-powered cam mechanism in the grip. Secondary recoil reduction is provided by a telescoping spring- loaded section of the buttstock. On firing, the rear section of the buttstock shortens as the spring is compressed and the rifle moves rearward.

The Axiom for bolt-actions combines Blackhawk!'s Spec Ops recoil reducing stock with a lightweight, fibreglassreinforced forearm. When the rifle is fired, recoil moves the forestock rearward over the pistol grip and up an inclined surface for a distance of 26mm. As with the Spec Op stock, it is important to use a scope with adequate eye relief to prevent the eyepiece striking the shooter's eyebrow.

Blackhawk! warns the shooter to maintain at least a 26mm space between your cheek and the flare in the stock



and hold the head upright without pressing down too hard on the cheekpiece. Nor is it necessary to hold the stock hard against your shoulder: simply hold the pistol grip firmly and set the butt firmly into the pocket of your shoulder. This technique will allow the recoil mechanism to function most effectively. The forend is vented and flat on the bottom to sit steady on a rest.



## **Test Report**



The buttstock slides over a tubular extension of pistol grip and the cheekpiece snaps on over the top.



The barrel doesn't touch the forend and gives new meaning to the term "fully freefloating." It's only there to hang onto. Fired on the range, with Highland Ax 150gn .308 Winchester ammo, the Howa 1500 produced hardly any kick and softened the recoil to feel more like shooting a .22-250. Accuracy with the Axiom/Howa combo was no different with the original stock or the Axiom. Five shot groups at 100 metres averaging 1.5 MoA.

The stock fulfills its intended purpose of mitigating recoil and was pleasant to shoot over the bench. The raised cheekpiece positioned the eye dead-in-line with the scope, and the flat- bottomed beavertail forend sat squarely atop the rest. The lack of the adjustment button which made it quick and easy to adjust the stock's length of pull proved no real handicap.



Accuracy was par for the course with a normal timber or synthetic-stocked Howa.

The Blackhawk! Axiom stock is scientifically engineered to reduce felt recoil to a minimum and can be fitted to any Howa or Weatherby Vanguard rifle whether short or long action. It will be a welcome addition to anyone's Howa rifle.

Stocks on sporting rifles have changed a great deal since I was a gun-crazy kid just after World War II, but this Axiom is a radical departure from the modern classic stock currently in vogue for the bolt-action. Call it extreme or bizarre and offbeat if you like, but it is plainly utilitarian and makes a hard kicking rifle pleasant to shoot. In essence then, that's what the Axiom stock was designed to do, and it does its job well.

Trade enquiries contact Highland Sports. Website: www.highlandsports.com.au