



A HOWA M 1500 EQUIPPED WITH A VIXEN 2.5 – 15 X 50 ILLUMINATED SCOPE IS THE PERFECT OUTFIT FOR SAMBAR. THE LONG TUBE OF THE VIXEN ENABLES IT TO BE MOUNTED LOW - JUST 43MM ABOVE THE BORE.



VIXEN 2.5 -15 X 50 CLOSE-UP. NOTE HOW EASY IT IS TO READ THE SILVER- WHITE PRINTING.

NOTE GRIP GROOVES ON SAFETY CATCH

I received the Howa M-1500 barrelled action, Vixen LVF 2.5–15x50 illuminated reticle scope and the “after-market” Bell & Carlson stock for review towards the end of 2014. I also received a couple of boxes of the excellent Hornady 165gn 30 calibre GMX lead free “monolithic” projectiles as part of the review.

I wasted no time in fitting the stock, buying a set of reloading dies and developing hand loads. Howa M-1500 rifles have a good reputation and I've used a mate's Howa 270 on and off over a few years for a total of about 10 hours range and hunting use. I have also used Vixen scopes for almost a year, so I have some experience with both.

HOWA M-1500

Stainless 300WSM

&

VIXEN 2.5–15x50

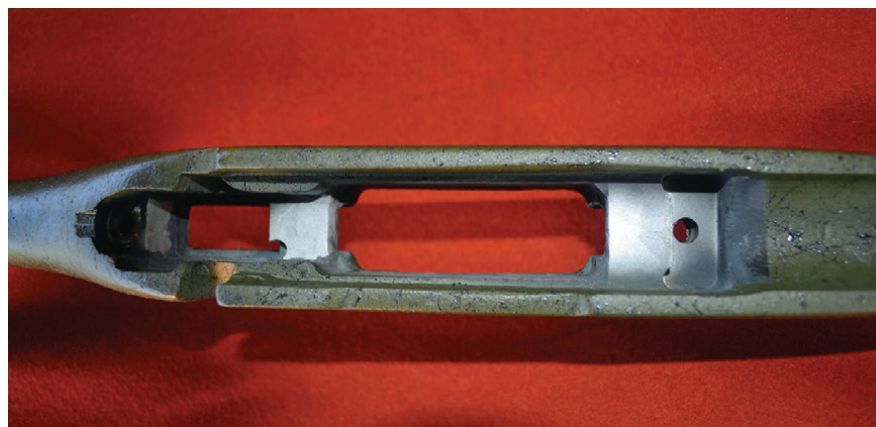
Illuminated Scope

By Bob Gough



THE POWER ADJUSTMENT RING, SHOWN HERE SET AT 4X IS GROOVED FOR POSITIVE GRIP AND THE LUG IS ALIGNED WITH 2.5 MAGNIFICATION.

THE CHEEK PIECE OF THE 'AFTER-MARKET' BELL & CARLSON STOCK IS THE PERFECT HEIGHT FOR SCOPE USE. PACHMAYR RECOIL PAD AND UNCLE MIKES SWIVELS ARE STANDARD.



THE INTEGRAL ALUMINIUM BEDDING BLOCK IN THE BELL AND CARLSON STOCK.



BOLT FACE SHOWING PLUNGER EJECTOR AND EXTRACTOR CLAW.

The Howa is well designed and finished, demonstrating excellent Japanese manufacturing and for a budget rifle, it has some very good features that will be discussed in detail. The point of balance with the Vixen scope mounted as low as possible is forward of the magazine compartment, level with the front action screw, and slightly barrel forward, which I found to balance nicely between my hands. The rifle weighs 3.75kg (8lb) with scope and mounts. I hunted and carried this rifle with and without the Safari Sling for over 30 hours in the hills and found it easy to carry.

THE HOWA M -1500 ACTION

The action is of medium length stainless steel, chambered for 300WSM calibre, a flat shooting short magnum that is a very capable calibre for deer sized game. The internal magazine is of acceptable length to allow hand-loaders to seat bullets closer to the rifling lands for greater accuracy. Magazine capacity is three rounds - plenty for a deer hunter. The rifle is loaded from the top and the hinged floor plate releases easily to allow safe unloading.

The action is threaded to accept either one or two piece bases. I chose

Warne style bases and Leupold QRW medium height rings which allow the scope to be quickly removed for cleaning, or replaced with another pre-zeroed scope or reflex sight as the situation demands. Despite the Vixen having a 50mm objective, the design of the M -1500 action enabled it to be mounted low for good "cheek weld" and rapid target acquisition. As the objective cleared the barrel by 3mm, the scope could have been mounted in Leupold QRW low rings, but I had mediums on hand and that height worked perfectly for me with the high comb on the Bell & Carlson stock.

The underside of the action is flat and the receiver recoil lug fits into the aluminium bedding plate built into the stock. This prevents torsion or bending of the action and ensures consistent bedding pressure. I found the action to be smooth with the bolt sliding along two opposing grooves that reduce binding.

The Bolt

The bolt is bead blasted stainless steel with two locking lugs. The extractor claw is located in the upper left of the bolt face and the plunger ejector is located in the upper right of the bolt face. The bolt is smooth with no binding discernible and disassembly for cleaning is simple.

The main spring and firing pin are well made and solid so they will give trouble free operation. The rear of the firing pin housing protrudes from the rear of the bolt to act as a cocking indicator. The low bolt lift allows just about any scope to be mounted low - even the Swarovski Z6i which has a large eye piece.

Feeding, Extraction & Ejection

I experienced no feeding problems whilst firing over 100 rounds during load development, testing and practice and found the action smooth and reliable.

The Howa 1500 uses a sturdy and reliable plunger type ejector and claw extractor on the bolt that throw the fired case well clear of the action. Firers may extract cases by hand by partially drawing the bolt rearward until the case is ejected. The ejection and loading port gives good clearance.

Safety Catch

The 3 position safety catch is located to the right of the bolt, directly above the trigger and allows for the bolt to be locked down and for the rifle to be unloaded while in the "Safe" position. The safety catch surface is notched to provide a non-slip surface and using the thumb is easily pushed forward to "fire" and rearward to "safe". I found

the safety detents to be very positive so it will be difficult to bump from safe to fire. Downwards pressure of the thumb when moving the safety catch to "fire" prevents any inadvertent noise that could alert a deer.

Trigger

The Howa in 300WSM was delivered to me after the trigger was adjusted by a gunsmith to lighten the release to 1.75kg (3lb). I have spoken to several Howa owners and all have found them to shoot accurately once the heavy factory trigger has been lightened by a competent gunsmith. I tested the trigger ten times with my trigger gauge and confirmed it had a consistent release with minimal creep.

Floor Plate & Trigger Guard

The floor plate and trigger guard are made of stainless steel and alloy and are bead blasted to reduce glare. The floor plate release catch is located in the usual place at the outside front of the trigger guard. It functions smoothly and the magazine follower relocates easily when the rifle is unloaded via the floor plate so unloading is simple.

The Barrel

The hammer forged barrel is 610mm (24in) long with a 1:10 twist and is listed as a #2 profile. It is light but not too light for a hunting rifle and of sufficient mass to reduce muzzle flip. I found the barrel length and profile balanced the rifle very nicely for fast handling and offhand shooting.

The Stock

Bell & Carlson (B&C) stocks are built with a full length aircraft grade aluminium "chassis" that extends from the front sling swivel through the pistol grip and into the butt. They are 100% solid fill which makes for a very rigid stock with no hollow sound when you bump it while hunting. The action sits on a very stable aluminium bedding platform and the stock cannot flex under firing conditions.



WINDAGE ADJUSTMENT DRUM. WINDAGE AND ELEVATION ARE ADJUSTED IN 7MM CLICKS, AND THE DRUMS PULL OUT FOR SETTING.



The features of the German # 4 reticle are evident as is the fine illuminated red dot. The Howa's low bolt lift easily clears the Vixen's eyepiece making for easy, snag free bolt operation. Although the scope has a large 50mm objective, its long tube enables it to be mounted low as the objective lens drops down into the barrel slim. A short tubed scope would not allow this so it would have to be mounted higher which often causes the head to be lifted off the stock. That breaks that all important "cheek weld" which is essential for accurate shooting.

This means that firers can use a bipod connected to the front sling swivel, or they can place the rifle on sandbags or other shooting rests and know that the stock will not flex and contact the barrel regardless of the position of the rifle on the rest.

The stocks are fitted with “Uncle Mikes” sling swivel studs and a Pachmayr® Decelerator® recoil pad. The well designed cheek piece lifts the comb just enough so the eye is aligned perfectly for shooting with a low mounted scope.

Whilst there is no checkering or special grip surface on the stocks, during testing I confirmed that the finish provides an excellent non slip grip even while wearing gloves or when hunting in summer with sweaty hands. The stock weighs about 1kg and is covered by a limited lifetime warranty.

Bell & Carlson stocks are mostly designed to be a “drop in” fit without modification. However the makers do advise that it may be necessary to remove minimal material from the magazine and/or barrel channel area with sandpaper or perhaps a “Dremel” tool if there is any contact between stock and barrel.

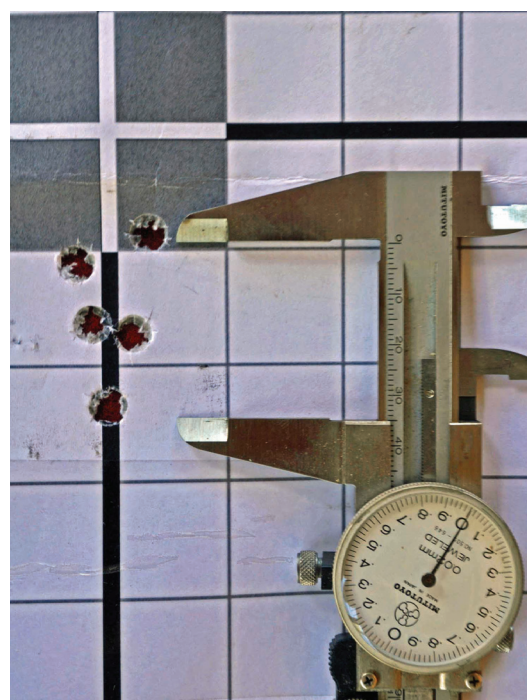
The stocks come with detailed fitting instructions and the B & C website also has tips for fitting various actions. This work is easy to complete yourself, but if you are “time poor” or lack the pre-requisite carpentry skills you can get your gunsmith to fit it.

Bell & Carlson advise that their stocks will withstand temperature extremes, moisture and hard use. B & C also advise that their stocks are designed to reduce recoil by increasing contact with the shoulder and because the comb angle allows the cheek to fall away from the stock. When shooting the 300WSM over the bench felt recoil was mild plus the rifle handled well as the B & C has the perfect

amount of “heft” so that it feels just like a timber stock. B & C stocks also have increased angle in the pistol grip which gives the hand a comfortable position on the stock. While the stock is designed for right handed firers I found it very comfortable to carry and fire left handed, so left handed firers who use right handed rifles should not shy away from these stocks.

Bell & Carlson stocks are great for “lefties” too!

Bell and Carlson advise that their Howa stock is right hand only. I am normally a left handed firer, so I fired the Howa both left and right handed and could notice no difference, with the rifle performing very well either side.



LEFT: COLD CLEAN BORE TEST. THIS FIVE SHOT GROUP FIRED FROM A COLD, CLEAN BORE SHOWS NO SIGNIFICANT POI SHIFT IN THE TRANSITION FROM A CLEAN, COLD BORE TO A DIRTY, WARM BORE.

HORNADY GMX PROJECTILES

(supplied by Outdoor Sporting Agencies)

Hornady GMX projectiles are a “monolithic” projectile made of copper alloy. GMX bullets deliver controlled expansion to 1.5 x the original calibre while retaining around 95% of their original weight. This means they deliver excellent terminal performance across a wide range of velocities. Hornady advise that GMX projectiles will perform at velocities from 2000 - 3400 fps.

Being of streamlined design and lighter than lead bullets of similar weight, GMX projectiles have a higher Ballistic Co-efficient that will translate into flatter trajectories. I also found that the copper alloy construction and double cannelures reduce fouling.

The double cannelures also reduce the bearing surface and Hornady advise that reloaders can use lead bullet reloading data for developing loads with GMX projectiles, with the caveat that all loads should start at least 10% below maximum.

In developing loads for the 300WSM and also for a 30-06, I found the GMX projectiles to be accurate and the projectile I recovered from a dirt bank on the range was at least 1.5 times the original caliber and had retained 96% of it's weight.

VIXEN 2.5-15 X 50 WITH ILLUMINATED RETICLE

Vixen scopes are gaining popularity as word is spreading of their high performance for cost. Having used these scopes for the past 6 months on two other rifles and also having used Vixen binoculars almost daily for around 4 months, I can attest that they are waterproof, reliable, robust and of the finest quality.

Although it has a 50mm objective lens, this scopes generous tube length enabled me to lower its large objective down into the barrel slim and as result I was able to mount it low so the height above the bore from the centre of the bore to the centre of the scope is 43mm on the Howa.

The Eyepiece

The diopter adjustment on the eyepiece ranges from +1 -1 diopter which is ample. The diopter ring is firm enough to retain position, but can be rotated to left or right to focus the scope for your eye. I appreciated that while the magnification numbers are small, they are a bright silver/white and easy to read up close, even in low light which is important. The grooves on the power adjustment ring give good grip and there is a large lug aligned at 2.5 power so you know where the scope is set even in the dark. The zoom ring has the perfect tension – it's neither too stiff nor too easy to turn.

Illuminated Reticle

The Vixen uses a German #4 reticle with heavy centre wires that I really like because they don't get lost in trees or other foliage like fine cross hairs and when combined with the fine illuminated red dot, the scope is even faster to aim in low light when sambar move most. The illuminated reticle is an excellent aid to low light shooting and with 11 brightness settings, I found it was easy to “dial in the dot” to suit the available light conditions, such as pre dawn and late evening.

Another important point is that because the illuminated red dot is very fine it covers little of the target, even at 300m and is perfect for zeroing at 100m. In addition, because the red dot is so fine it does not diminish your low light vision at dusk and dawn when you need it most. In low light illuminated reticles that are too bright narrow your eyes pupil when you need it at its largest aperture so it can draw in all available light.

All Vixen scopes use the commonly available CR2032 battery and while the operating time is not stated, in the 6 months I've been using Vixen scopes I have not had to replace a battery. I expect it will last countless hours due to the tiny amount of voltage required to illuminate the fine red dot.

Eye Relief, Field of View, Length & Weight

Eye relief on the 2.5-15 x 50 is 95mm at 2.5x through to 93mm at 15x. This long eye relief is comparable to the best European scopes.

Field of View

Field of View at 100m is 13.5m at 2.5x and 2.3m at 15x. The scope is 353mm long, has a 30mm tube and weighs 580gm. The 50mm fully multi coated lenses are very bright, sharp and clear from edge to edge.

Windage and Elevation Increments & Side Focus

The windage and elevation scope caps are easy to remove. Increments are 1/4 MOA, which is 7mm per click at 100m. Each “click” is clearly felt as the dial is rotated. The windage and elevation drums slide out and rotate free for ease of setting to zero. This feature also allows windage and elevation adjustments to be made in the field, with the scope dialled back to zero easily. The side focus drum which also adjusts for parallax, located on the left of the scope is firm to rotate so it cannot be easily bumped or rubbed off setting.

On the Range & in the Field Hand Load Development

I worked up some 165gn hand loads using Hornady GMX projectiles and as often happens, I obtained the best accuracy from them with ADI AR 2206H driving the 165gn GMX at just over 2900fps for 3 shots cutting at 100m.

I have deliberately not given propellant details as you will need to tailor the charge to your own rifle starting 10% below the minimum load and increasing in half grain (0.5gn) increments until you get the most accurate load, which I have always found to be less than the fastest load regardless of calibre. I load for accuracy rather than velocity as you can always hold over for a slightly slower but more accurate and repeatable load, whereas an erratic ultra high velocity load will often fail to give repeatable results.

If you don't hand load I would recommend trying several brands of ammunition to find the most accurate in your rifle. Range practice is always useful too, and hunters who don't practice at least monthly on the range are putting themselves at a disadvantage in the field. It pays to practice with a scoped (preferably with the same reticle) .22 rifle or air rifle as they are cheap to shoot and will reveal any faults in your technique such as flinching, canting and trigger snatch.

Range Testing

I was looking forward to seeing if the Bell & Carlson “after market” stock would improve the handling and accuracy of this rifle. To test for point of impact (POI) variation between the first shot from a cold barrel and subsequent shots, I deliberately fired a 5 shot group in less than 5 minutes to warm the barrel. This allowed me to simulate hunting conditions with a cold clean barrel and also to see if the group would “string” upwards as the barrel warmed, and if so, by how much.



CONCLUSION

The Howa 1500 300WSM in the B & C stock and fitted with the Vixen 2.5-15 x 50 illuminated scope is a very versatile, flat shooting deer hunting outfit which is robust and handles nicely. Fitted with a bipod and set at 10 - 15x it would be suitable for longer shots in open country or for hunting sambar "Face to Face". With the magnification set at 2.5x it is also perfect for bush stalking. The fine illuminated red dot speeds up target acquisition and it wasn't until I hunted with it that I came to appreciate the many advantages that an illuminated red dot provides.

When I fired the rifle on the range at 100m I was very happy with the performance. As you can see in the accompanying photographs, the group did string upwards minimally but the overall variation was only 35mm over 5 rounds, with any three of the shots well under 25mm at 100m, so I was very impressed with both the rifle and the B & C stock. The first round fired was the lowest in the group, so cold barrel POI variation was minimal.

Tracking Test & POI Shift at Varying Magnification

Before range testing, I used a laser bore sight to check the tracking (ability to return to zero) and the Point of Aim (POA) check at 2.5x, 8x and 15x. I then validated these findings on the range and can report that the scope returned to zero every time and there was no appreciable change in POI between magnifications.

In The Field

Armed with my 165gn Hornady GMX handloads I headed away for a weekend in the hills, and carried the Howa/Vixen outfit for two full days in some pretty steep country. I saw a number of sambar but none I could take safely. It was the same story for an afternoon stalk through some lightly timbered snowgrass country, where I stalked 1000m in 3 hours but saw no deer. That said, you don't need to kill a deer to test a rifle and scope, and during those hunts carrying the Howa and Vixen outfit I found the Vixen exceptionally clear and bright with excellent low light performance. The illuminated reticle and thicker centre wires made the scope very usable, and I hunted with it set on 2.5x to give a wide field of view and to allow rapid target acquisition and a good view of the target and background in "same face" bush country where I hunt.

Howa M-1500 barrelled action supplied by Outdoor Sporting Agencies.
Email: sales@osaustralia.com.au
rrp \$765

Vixen LVF 2.5-15x50 scope supplied by Errol & Lynne Mason. See Vixen retailers p.112
Email: errolmason@sambardeer.com
rrp \$1249.

Bell & Carlson Stock was supplied by Steve Sayers
Email: steve@sjstradingco.com.au
rrp \$450

Hornady 165gn 30 calibre GMX lead free projectiles supplied by Outdoor Sporting Agencies.
Email: sales@osaustralia.com.au
rrp \$65 per 50

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