

Product Review: Barr & Stroud Series 5 8 x 25 Pocket Binocular



The Barr & Stroud Series 5 8 x 25 package.

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Product: Barr & Stroud Series 5 8 x 25

Country of Manufacture: China

Field of View: 119m @1000m(6.8 angular degrees)

Eye Relief: 13mm

Exit Pupil: 3.13mm

Dioptre Compensation: +/- 3 dioptres

Close Focus: 2m (advertised) 3.02 m measured

Chassis: Rubber armoured Magnesium Alloy

Coatings: Fully broadband Multicoated, phase corrected and silvered BaK-4 Schmidt Pechan Roof Prisms.

ED Glass: No

Nitrogen Purged: Yes

Waterproof: Yes (1.5m for 3 mins)

Inter-pupillary Distance: 38-72mm

Dimensions: 10.8×10.6×4.3cm

Weight: 296g advertised (310g measured).

Warranty: 10 years

Supplied Accessories: Tethered objective lens caps, rain guard, carry strap and protective carrying case, instruction sheet, warranty card.

Price: £99.00(UK)

Binoculars are life enriching tools. They bring the world a whole lot closer, revealing details of the natural world that fascinate a curious mind. In my three year walk through the fascinating world of binocular optics, I have identified binocular categories that interest me more than others, and one of these is the so-called pocket binocular:- small (less than 30mm) aperture, ultraportable units that can be folded up and stored in an ordinary pocket, where they can go with you, where ever your curiosity carries you.

Of all the categories of binoculars I've explored, it is arguably pocket binoculars that I have bought in and tested the most. The pocket binocular market is growing rapidly, especially since the onset of the pandemic, where people began pursuing new hobbies and new pursuits to entertain themselves. Top companies like Leica, Zeiss and Swarovski have been constantly updating and improving their pocket binocular range. For example, Swarovski Optik has recently introduced an even smaller pocket binocular than their well-thought-of CL Pocket range. Called the CL Curio, it's a 7 x 21mm model, with an impressive 7.7 angular degree field of view. *Curiously*, the 7 x 21 Curio is now about £100 more expensive than the larger CL pockets!

Not so long ago, it wasn't really possible to acquire excellent optical quality from a pocket binocular without paying a heavy financial outlay. But astounding advances in optical technology has changed that forever. More and more cost-effective models are now being launched to cater for the public's growing appetite for portable optical excellence. As a case in point, I wish to discuss the ergonomic and optical properties of a new line of pocket binoculars launched by Barr & Stroud, and in particular, the Series 5 8 x 25 model I bought in for field testing.



The all-new Barr & Stroud Series 5 8 x 25 pocket binocular.

First Impressions

The package arrived double boxed, well protected from knocks and bumps. Inside I was excited to see a scaled down box used by Barr & Stroud in the packaging of their larger Series 5 binoculars. When I removed the 8 x 25 from its black soft padded case, I was delighted to see that this little instrument was very well made. The tough, Magnesium alloy chassis is overlaid by a British racing car green rubber armouring, with wonderful side texturing for more secure gripping.



The textured rubber side armoring of 8x 25 Series 5 is very easy to grip.

Although the supplied carry strap was not of the highest quality, I decided instead to borrow the lanyard from my Leica Ultravid when carrying out field tests of the Series 5 8 x 25. That said, getting the lanyard through the strap lugs was a little frustrating, as they are very narrow.

What I found most endearing however, was the petite tetherable rubber rain guards and objective lens covers that attended the instrument.



How sweet is that! The little Series 5 8 x 25 comes with high quality tethered rubber rain guard and objective covers.

Ergonomics

Tipping the scales at just over 300g, this is a lightweight binocular by most anyone's standards. It has a dual hinge design, which means that it can be folded down into a pocket-sized package for easy transport. Because the hinges have firm stops on them, they are best aligned with your eyes simply by swinging the left barrel all the way out to the stop and then swinging the right barrel into position until the images merge. I've found that this is the easiest and most consistent way to get perfect alignment with your eyes without having to fiddle too much with the binocular.

The dioptre ring is located under the right ocular. It moves smoothly and has a satisfying amount of friction to keep it firmly in place. The dioptre ring is also clearly marked with plus and minus symbols that help you quickly find and make a mental note of your preferred setting.



The dioptre ring is easy to grip and moves smoothly, with just the right amount of tension. The twist up eyecups are made from machined metal, overlaid with soft rubber.

The twist-up eyecups are nicely made and comfortable to use. Like most pocket binoculars, there are no intermediate positions. They are either pushed up or down, and they stay in place.

The objectives are quite deeply recessed for a pocket binocular – a very good move in my opinion – as this protects the lenses from rain, dust and stray light.



The objective lenses on the Series 5 8 x 25 are nicely recessed for added protection against the elements and stray light.

The ocular field lenses are a little smaller than those found on say the Zeiss Terra, for example, and more reminiscent of those found on less expensive models, such as the Olympus WP II or Kowa SV DCF, which initially concerned me, as I remember not having much fun with either of those. But as it turned out, my concerns were completely put to rest when I started to look through the little Barr & Stroud glass, as we shall see a little later.



The ocular field lens on the Series 5 8 x 25 are smaller than those found on other 8 x 25 units, such as the Zeiss Terra pocket glasses.

The focus wheel is nice and large and easily accessible in the middle of the bridge. It can be operated perfectly using a single finger and moves very smoothly, with no backlash or stiction, turning through about one and half revolutions from one end of its focus travel to the other.



The central focus wheel is located on the bridge and is beautifully designed. It moves very smoothly using just one finger.

In the hands, the binocular is easy to hold steady. To my mind, it has very similar ergonomics to the Swarovski CL pocket models, but with the focus wheel pushed further forward on the bridge. Compared with say the Zeiss Terra pockets, for example, the Barr & Stroud Series 5 mini glasses have a better and more robust build quality. All in all, the Series 5 8 x 25 gets high marks for fit, finish as well as handling, but what about the optics?

Optical Evaluation

The Series 5 8 x 25 arrived perfectly collimated. Examining the exit pupils in both barrels shows good circularity, with a nice annulus of dark surrounding them.



Left eye pupil.



....and right eye pupil.

As I said on previous occasions, pocket binoculars are harder to make well in comparison to larger ones, owing to their much less forgiving design tolerances. That's why so many pocket binos don't pass muster, especially if you keep your budget low. That also explains why good pocket glasses are relatively expensive; good designs require real skill to execute and those skills need to be rewarded!

So, it was with some trepidation that I began to test this new Series 5 8 x 25, as I was hoping that at least some of the same magic that went into the larger models would also be inherited by these pocket glasses. Well, as soon as I brought the instrument to my eyes, I was amazed to see a brilliant, sharp and high contrast image, full of rich details and vibrant colours, with

a large and generous sweet spot! I immediately got the impression that I was looking through a larger instrument because the view was so comfortable and immersive. A field of view of 119m at 1000m is big as pocket binoculars go, and while certainly not class leading in this regard, is up there amongst the widest in this pocket class.

Like its bigger siblings, control of glare is exceptional in this little 8 x 25. How shall I put it; in side-by-side testing, it performed just as good, if not even a little bit better, than a world class optic now costing close to six times the retail price of this Series 5. One of the main reasons I have enjoyed Barr & Stroud binoculars is their consistently excellent suppression of glare and this little 8 x 25 was strutting its stuff with grace! Exceptional too is the binocular's control of veiling glare. By looking at some bushes on a bright and hazy afternoon just below the Sun, the Series 5 8 x 25 was in a completely different league to two other pocket binos with much heftier price tags, which I tested at the same time. Make no mistake about it: this Barr & Stroud 8 x 25 has world class suppression of veiling glare! Having tested a multitude of pocket binoculars over the last three years, there's simply nothing to touch them in this regard without moving to a larger, premium instrument.

Colour correction is excellent. Indeed, pointing the binocular up through several layers of early autumn leaves against a bright overcast sky only revealed the merest traces of secondary spectrum. The reader should not be surprised by this finding. As I related in other reviews, a well-made binocular can achieve excellent control of chromatic aberration without the need for ED glass. You just have to look through a Leica Trinovid or Ultravid pocket glass, or test drive a Swarovski CL pocket bino to see what I mean. In my experience, the addition of ED glass lens elements are much more important in the design of larger binoculars, such as the 32mm, 42mm and 50mm aperture classes, and for mainly daylight applications.

The image remains pin-point sharp within a large sweet spot, and only becomes progressively softer in the outermost 20 per cent of the field. I tested how good the field was by conducting some observations at night on the stars under a clear sky. The results were very encouraging; stars remained acceptably tight and sharp over most of the field, only bloating modestly near the field stop. Most of this off-axis aberration could be focused out, showing that the main culprit is field curvature. And comparing it to a world class pocket bino with exceptional off-axis performance, the B&S Series 5 8 x 25 fared very well indeed. Good job Barr & Stroud!

Further Notes from the Field



Champion pocket glass!

The central focus knob is buttery smooth to operate, allowing one to quickly change focus on moving targets. Just a fifth of a turn of the wheel takes you from several metres to infinity. Close focus on this unit was considerably larger than that advertised. Instead of the quoted 2 metres, I measured it to be 3.02 metres. That's a little bit of a set-back if you like using your binocular as a long range microscope, but it's nowhere near as long as some other pocket binos I've encountered in the past, such as the Leica Trinovid BCA 10x 25, which had a whopping 5 metres close focus!

The supplied soft storage case fits the binocular with quite a bit of room to spare. And while it will certainly do the job, I elected instead to store the instrument inside a smaller, zip-

closable, leather pouch with a sachet of silica gel desiccant to keep the interior as moisture free as possible.

Eye relief is a little tight for spectacle wearers- just 13mm. That didn't present a problem for yours truly as I don't wear spectacles while glassing. I did check to see how I got on with glasses however. I was able to see a substantial amount of the field but not the entirety of it.

Whilst glassing very close to the Sun one afternoon, I did pick up a couple of internal reflections. Depth of focus is good but not enormous; it fell a bit short of a top rated 8 x 20 pocket glass. I experienced little in the way of blackouts with the Series 5 8 x 25, despite its small exit pupil size and greater sensitivity to eye placement. This is something I have experienced more with small binoculars possessing advanced ultra-wide eyepiece designs.

The dioptre setting stayed in place solidly even after removing the instrument from its case about a dozen times. I'm confident that it will only need very occasional tweaking going forward.

The binocular does not have a means of mounting to a tripod which employs a bracket, but such a small instrument rarely if ever requires a tripod. That said, it can be affixed to a simple mounting block using Velcro. Indeed, I used this mounting technique to ascertain the accuracy of collimation, and to adjust the dioptre setting for my own personal use.

Out and About with the Series 5 8 x 25 Pocket Glass



Ideal for a forest walk.

The little Series 5 is an excellent companion for walks in the woods. The silky-smooth focuser makes honing in on nearby targets and far away ones very easy to negotiate. This time of year, the forest floor is littered with all sorts of weird and wonderful fungi, and the Series 5 8 x 25 helps me see exquisite details of their morphology. As Summer gives way to Autumn, the beautiful shades of orange and red are appearing on the dying leaves, and when dappled in sunlight, create the most amazing light shows. The full waterproofing and nitrogen purging affords solid protection from the elements. Brushing by wet leaves and shrubs, or even crossing a shallow ford will not cause anxiety carrying this small binocular. It's ideal for garden birding, hiking, travel and exploring rural landscapes, towns and cities. Are you a theatre goer or like spectator sports? This glass might come in very handy! It is small enough to fit in a purse or a trouser pocket, so will make little demand on space.

As stated previously, the view through the 8 x 25 feels like a larger binocular; more similar to 30mm than to 20mm in my estimation. It's fairly wide field of view really helps create this interesting perspective. After consulting with Barr & Stroud, I learned that the prisms are silver coated, the same as on the larger Series 5 models, which ensures very good light transmission but could be further improved by going to higher reflectance dielectric coatings in the future. In this capacity, there's always room for improvement! That said, in one low light test with an older but otherwise similar pocket glass with silvered prisms, I detected a slight difference in brightness between it and the Series 5 8 x 25, with the nod going to the latter. The older pocket glass is most likely ten or twelve years old, which might have reduced the reflectivity of the silver coating, thereby reducing its light transmission by a shade. The fact that the interior of this little Series 5 has neither moisture nor reactive oxygen, should help maintain that silvered prism sheen that little bit longer.

Concluding Thoughts & Recommendations

Good pocket binoculars are difficult to make well. As a result, the market is flooded with many poor performers that you can pay sizeable sums for. But when you have a company that puts real effort into designing a pocket binocular and offers it at a reasonable price, then you have a real bargain. The Barr & Stroud Series 5 8 x 25 is a very well-designed miniature glass, with many of the same quality features of the larger Series 5 binoculars I've showcased on other blogs. It offers bright, sharp, high-contrast images with exceptional glare control. Its light weight and small, foldable ergonomics means you can take it with you wherever you want to go. With a retail price of just £99.00, you get a very smartly made product with a proven optics team behind it. Those interested in a 10x glass may also be interested to know that B & S market a 10 x 25 Series 5 as well, and for the same price!



Birds of a feather stay together!

Pocket glasses are all the rage!

I would recommend these great little picket glasses to anyone. They punch well above what their modest price tag suggests and will reward the user with many years of no-nonsense performance. I, for one, will be keeping this handy little optic in my stable, where it will join its larger sibling in offering delightful views in a fine, ultraportable format.

Thanks for reading!

Dr Neil English has been testing optics since he was knee high to a grasshopper. His ambitious tome, *Chronicling the Golden Age of Astronomy*, celebrates four centuries of telescopic visual astronomy.