

Sigma 70-200mm f/2.8 EX DG OS HSM lens

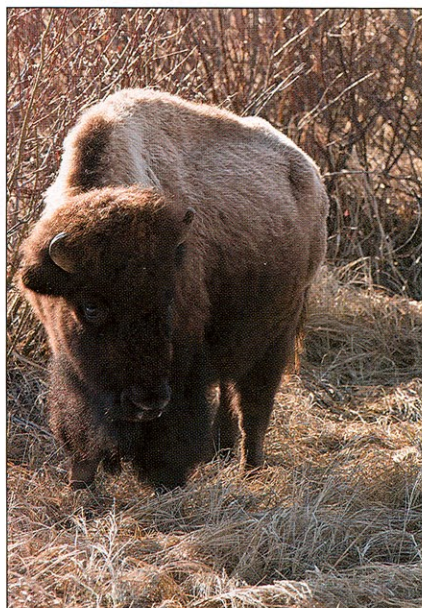
For many professional photographers, a 70-200mm f/2.8 pro-grade lens is a must-have. For some amateur photographers it's what I call a 'lust lens' — something that they really would like to have but just can't justify the price of one to their spouse. So what's the big deal about a 70-200mm f/2.8 pro-grade lens? First, it's a very versatile, short to mid-range telephoto zoom lens designed for full-frame sensor DSLRs that's very useful for a number of different photographic situations, including landscape, portrait, candid and action photography. Second, since it has a fast maximum aperture of f2.8 at all focal lengths, it has great light gathering abilities so that one can shoot in low light conditions, use faster shutter speeds and have a shallow depth of field for isolating the subject from the background. Because of the high image quality demands that professional photographers require, these pro-grade 70-200mm f/2.8 lenses are some of the best optics available, and they are built to withstand the adverse conditions that professional photographers may have to work in. The downside of 70-200mm f/2.8 pro-grade lenses is they are relatively heavy (approx. 1,500 g or 3.3 lbs) and fairly expensive (\$2,400 to \$2,500).

In regards to the cost issue, there are some less expensive alternative 70-200mm f/2.8 lenses available, one of which is the Sigma 70-200mm f/2.8 EX DG OS HSM that has a suggested retail price of \$1,599.99, which is significantly more affordable than the models from the major camera manufacturers. But does it have what it takes to be considered a pro quality 70-200mm f/2.8 lens? Let's take a look at how it stacks up.

The Sigma 70-200mm f/2.8 EX DG OS HSM is a DG lens, which means it's designed for use with full frame or FX-sized sensor digital cameras, but you can still use it with APS-C or DX cameras as well, giving it a focal length of 105-300mm (on a 1.5X crop sensor). Its build quality is quite impressive, especially given its price relative to the competition. It has a robust feel and a very pleasing finish. However, it lacks the weather seals found on the Nikon and Canon equivalents, but for most photographers this shouldn't be a major issue unless they are constantly shooting in wet or dusty conditions. It's not a lightweight lens (1,430 g or 3.15 lbs), but weighs a tad less than most of its competitors. The built-in tripod collar/mount is excellent, large and rugged, giving rock-solid support to the lens and camera.

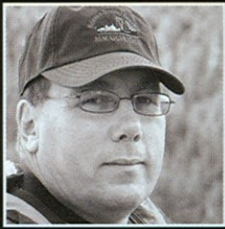
Optically it has 22 elements in 17 groups, with two FLD and three super-low dispersion glass elements, which help to reduce distortion and chromatic aberration. As a result of the unique grouping of the lens elements, the zoom ring is found near the front of the lens and the focus ring is immediately behind it, which is different from the previous Sigma 70-200mm f/2.8 model and from the pro-level Nikon, Canon and Sony 70-200mm f/2.8 lenses. For some photographers this new arrangement of the zoom and focus rings might be an issue, but I found that it was very convenient, as I didn't have to reposition my hand when switching between zooming and focusing. Also, depending on which camera brand you are using, the focusing and zooming directions may be backwards (i.e., Nikon and Pentax), but I found that it wasn't that big of an issue with my Nikon system.

The auto-focus is relatively fast, quiet and accurate, snapping to focus quickly thanks to the built-in hyper-sonic motor (HSM). In addition, the auto-focus can be manually over-ridden so you can fine tune your focus to get the perfect result. Having a maximum



Bison, Elk Island National Park, AB
Gear: Nikon D300, Sigma 70-200mm f/2.8 EX DG OS HSM lens handheld at 200mm (300mm equivalent), f16@1/200 sec.

aperture of f2.8 helps to improve the auto-focus speed. One feature that's missing is a focus limiter switch, so if the auto-focus can't pick up its subject it will 'hunt' for it, causing frustration and wasting battery power. It has



Hopefully by the time you're reading this issue summer is in full swing and you're out enjoying this fleeting season, getting some great images. Here are a few photography products that you may find useful to help you capture some great photographs.

a large zoom ring and the focus ring is large enough to make manual focusing easy to do. The internal focusing system allows the lens to focus without changing its length and the front of the lens doesn't rotate when focusing or zooming. This makes it much easier to use filters, especially polarizer and neutral density grads, on the lens. The minimum focusing distance of 1.4 m is not as close as I would prefer; it's the same or just slightly farther than its competitors (i.e., 1.2 m). There is no 'macro' function, so if you want to use it for close-up photography you will need to use extension tubes or a teleconverter.

Overall, the image quality of the Sigma 70-200mm f/2.8 EX DG OS HSM lens is very good to excellent, both on full-frame sensor cameras and APS-C sensor cameras. Overall it's sharp through most of its entire focal length range, being a little softer at the 200mm end. It's very sharp across the frame when stopped down to the middle apertures ($f8$ to $f11$), but loses a little of its edge sharpness when wide open ($f2.8$). Image sharpness isn't the only indicator of image quality; contrast, light fall-off, distortion and chromatic aberration are also important factors. Because of the high-quality elements used in this lens, it has an almost lack of chromatic aberration, great colour rendition, overall good contrast (a little low at $f2.8$) and essentially no distortion at any focal length. Light fall-off is good but more noticeable on full-frame sensor cameras. The lack of chromatic aberration and colour fringing greatly helps to improve overall edge-to-edge sharpness.



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It's a relatively fast lens, with a maximum aperture of $f2.8$ at all focal lengths. Although this creates a larger diameter lens, it has better light gathering abilities, which makes it easier to focus in dim light. Also, by having a maximum aperture of $f2.8$ it has a very shallow depth of field that can be useful in blurring the background, helping to isolate the subject, which is one of the reasons that it's so popular with professional photographers. In addition it has a nine-blade circular aperture that creates a pleasing circular appearance of out-of-focus background highlights. However, since it's an $f2.8$ lens, that means it has a large front element (77 mm) and as a result is susceptible to lens flare (as are all 70-200mm $f2.8$ lenses) when shooting towards the sun or other bright light sources. Using the included well-designed lens hood will greatly reduce lens flare issues.

If you decide to hold the lens in your hand you will definitely want to take advantage of the built-in optical stabilizer (OS) function. The OS switch is located on the side of the lens (below the 'auto-focus/manual focus' switch) and has three positions: 'Off,' '1' for stabilization in both axes and '2' for stabilization in the horizontal axis for panning. Both the OS and the focus switches are large enough for convenient use. The built-in OS will definitely allow you to get sharper handheld images while using shutter speeds two to three stops slower than you would be able to do without the OS function. However, I wasn't able to match the four-stop performance that Sigma claims you can get with the OS on.

In my opinion, the Sigma 70-200mm $f2.8$ EX DG OS HSM is a versatile, strong all around zoom lens, and it has all the required features to be considered a professional quality lens. It has a rugged build and should stand up very well to the use that most photographers will put it through. The image quality and sharpness is very good to excellent, especially when the lens is stopped down to the middle apertures ($f8$ to $f11$). The built-in image stabilization allows you to hand-hold the lens using shutter speeds two to three stops slower than you could without it, which is an important advantage with this relatively heavy lens. The Sigma 70-200mm $f2.8$ EX DG OS HSM lens is definitely worth checking out and is available for Nikon, Canon, Sony, Pentax and Sigma cameras.