

The Race to the Biggest Ferris Wheel

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Architecture has always had a degree of global one-upmanship to it, but most of the time, you see it happening in the form of skyscrapers. Ever since they were first possible, they've been used as displays of affluence and ingenuity, hundreds-meters tall "hey look what I can do's. Modern wonders of the world, if you will.

What you might not expect, however, is that that same one-upmanship has started drifting into other fields. It's also become a point for the last few decades with Ferris wheels.

And this is the weirdest trend to actually try to go back and follow, because it came out of nowhere. When the first Ferris wheel was created in 1893, not a whole lot of competition ever rose to follow it. For almost a full century, things wouldn't get any bigger than the 100-meter tall Grande Roue de Paris built in 1900.

And the Grande Roue itself wouldn't even still be around to be eclipsed in the first place, having been dismantled nearly

the 1989 Yokohama Expo, it was a giant, 107.5-meter tall wheel that also doubled as the world's biggest clock, built smack in the middle of Japan's bubble economy. But even after that bubble burst, Japan kept building more Ferris wheels. In '92, one in Otsu just barely squeaked out a half meter taller than the Cosmo Clock. Then another record-holder in Osaka in '97. Then one in Odaiba in '99.

Since then, the title of tallest Ferris wheel has gone on a world tour — England, China, Singapore, and finally, the U.S., where the High Roller in Vegas has worn the crown since its completion in 2014.

And with all these massive Ferris wheels come some massive components. The High Roller has some monstrous 8.8 ton spherical roller bearings, some of the largest SKF's ever made.

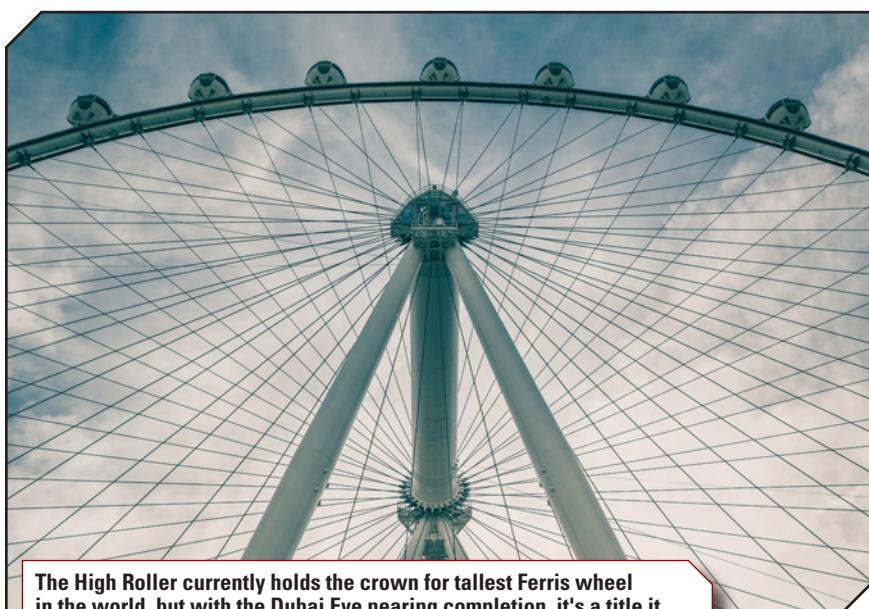
But on the gearing front, things are a little bit smaller. Instead of building increasingly larger equipment, most Ferris wheels go with the more practical option of using multiple gearboxes to get the job done. The recently cancelled New York Wheel, for example, was supposed to be rotated by 32 planetary gearboxes from Dana, who also provided the High Roller's gearboxes.

That New York Wheel, in fact, was meant to eclipse the High Roller as the tallest Ferris wheel in the world, so it's no surprise that the manufacturer for one project would be the natural first pick to be tapped to try and one-up themselves. And of course, even if the New York Wheel's been cancelled, that doesn't mean the High Roller can rest easy on its throne, because of course, there's another contender already under construction that wants to dethrone the king. You'll be shocked to learn that it's in Dubai.

The Ain Dubai (Dubai Eye in English) is a 210-meter tall monstrosity. It doesn't just edge out the High Roller, it's a full 25 percent taller. It's the centerpiece for Dubai's Bluewaters Island, which is itself a colos-

sal manmade construction, an entire artificial island just off of Dubai's coast meant to be a premiere entertainment and tourist district.

As a Chicago local, I've heard this one before. A supersized Navy Pier sounds like a pretty spectacularly frivolous way to blow billions of dollars, but nobody said architectural-measuring contests were pragmatic exercises. While I can't imagine the Dubai Eye being much more than a tourist trap, the real prestige comes from saying they've got the biggest wheel, that they pushed the boundaries of architecture further than it's ever gone. And while they're pushing those boundaries, these ever-taller Ferris wheels will keep forcing component manufacturers to push theirs. 



The High Roller currently holds the crown for tallest Ferris wheel in the world, but with the Dubai Eye nearing completion, it's a title it probably won't hold for long. (Photo taken by Tony Webster, CC BY 2.0).

70 years before its would-be competitor rose. Nor would any of its competition. In perhaps the most amusing anecdote, the Wiener Riesenrad, the longest-lasting wheel of its generation of record-holders, was supposed to be torn down in 1916, and the only reason it lasted until it burned down on its own in '44 was because there weren't enough funds to dismantle it (though in an even more ironic twist, it was also rebuilt a year later). For all intents and purposes, you would think the Ferris wheel was beyond dead, or at least the race to brag about how big your's was should have been.

And then, almost randomly, taller and taller Ferris wheels began springing up in Japan one after another. First came the Technocosmos in 1985, but Japan wouldn't build a world record-sized Ferris wheel until the Cosmo Clock 21. Part of