

Big Gears: Seeing is Believing

Matthew Jaster, Senior Editor

This is the timely and relevant sequel to our Nov/Dec 2018 Addendum article, "Safety Guaranteed."

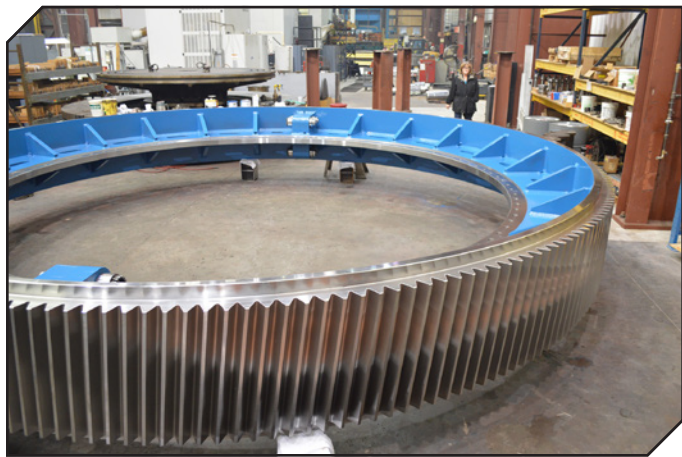
In the original article will looked at some incredible gear applications from the safety of our desktop computers and smartphones. Who knew we would be spending most of 2020 doing the same exact thing?

Big gear applications continue to amaze and astound engineers across the world—a perfect example of this is the kind of coverage a massive gear project video gets on Twitter or LinkedIn. It's one thing to write about these enormous components; but watching the manufacturing of these gears takes it to another level. Here are some recent examples:

Horsburgh & Scott

Horsburgh & Scott has in-house capabilities in gas carburizing, induction hardening, stress relieving and through-hardening. Many of these gear operations are discussed in the pages of Gear Technology, but it's a completely different experience to see firsthand the heat and flames needed to meet today's large gear requirements. Learn more here:

www.youtube.com/watch?v=5H0qfWrijgWA



Courtesy of HMC.

ATA Gears

ATA Gears offers intelligent mechanical power transmission solutions. These diverse applications offer improved availability, durability and safety. And the best part? The gears are animated!

www.youtube.com/watch?v=_XrSGdNJMuI

P. van der Wegen Gears

Time lapse videos are some of the best on the Internet and this time lapse video of a big gear from P. van der Wegen shows the remarkable ingenuity needed to assemble these massive components. P. van der Wegen Gears is a family-run business (4th generation) that began in 1880 as a service shop for the textile industry.

www.youtube.com/watch?v=ApqvxH2vsNs

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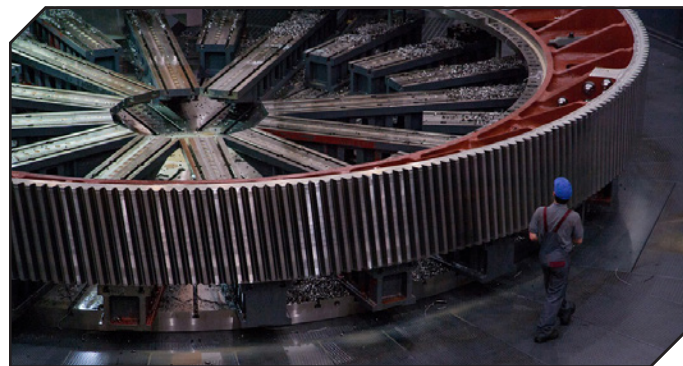
The MAAG CPU Gear unit represent the classic central drive for ball mills. With it's two-stage planetary gear arrangement it delivers high productivity for ball mills.

www.youtube.com/watch?v=wu4XPC0ESCw

Ferry Capitain

Ever wonder how these massive gear components get where they need to go? This short demo video from Ferry Capitain examines a gear mounting project in France in July 2019.

www.youtube.com/watch?v=auws5MOT4t0



Courtesy of Ferry Capitain.

X-Machines

You can't typically brag about producing the largest gear in the world because by the time you publish the news, someone is making something bigger. That doesn't stop a popular YouTube destination called X-Machines from showcasing some of the most unique and biggest gears in our industry here:

www.youtube.com/watch?v=mtV8Zu5EtUE

Girth Gear at HMC

This step-by-step video of the manufacture of a girth gear at HMC highlights the impressive ingenuity needed to complete a component like this in-house.

<https://www.youtube.com/watch?v=OILZgEQHutw>

While it's amazing to watch these machine tools produce enormous components, the Addendum team longs for the days when a shop visit would allow us to see some of these engineering marvels up close and personal. Hopefully by the middle of 2021, we'll be back on the road taking in the sights and sounds of the future of gear manufacturing—live and in-person! ⚙️

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