

Making It in America

Most firms in the gear industry we've talked to over the past year are making more gears than ever, generating more sales, and filling up their schedule books into next year and beyond.

In fact, it's hard to talk with a gear manufacturer these days who isn't telling you about his new machine tools, robots or other new technology, as most are extremely proud of the investments they've made in their factories—expanded facilities, the newest machine tools, manufacturing cells, lean processes and automation.

I recently came across a newspaper article that confirmed many of the observations we at *Gear Technology* have made over the past year. The article, "If You Can Make It Here...", appeared in the Sunday, September 4 edition of *The New York Times*. It details how despite huge drops in the manufacturing employment rate, the United States surprisingly still accounts for nearly a quarter of the world's manufacturing output, measured as value added, a statistic that hasn't changed significantly since 1982.

The article also details the stories of some American manufacturers that have prospered with a focus on making goods at home. The first is Harley-Davidson Inc. Although Harley-Davidson buys some components from overseas—those no longer made domestically—the company still makes most of its parts, including all of the important ones, like engines and transmissions, right here in the United States. In fact, the domestic content of Harley-Davidson's motorcycles is higher today than it was 15 years ago.

The article attributes much of Harley-Davidson's success to creative arrangements with labor unions that have helped the company control costs. But a big part of the success is also due to increases in productivity through better technology.

The second company featured was Haas Automation. Now here's an American machine tool company that sells, builds and installs an astonishing 900 machine tools per month out of its factory in Oxnard, CA. While most of the world's machine tools

***U.S. Manufacturing is
Alive, Well and Prospering***

are manufactured outside America, Haas is thriving by producing machine tools not only in the United States, but in California no less, a state not often mentioned as friendly to business or inexpensive.

According to the article, the Haas factory is highly automated. Machine tools run unattended overnight, and labor amounts to just 10% of production costs.

While the article points out some high-profile examples, there are plenty of American gear manufacturers also doing well.

Take the example of Delta Research of Livonia, MI, which we wrote about in the July/August issue. Not too long ago, Delta Research manufactured transmission prototypes. Now they've installed the latest machine tools in a fully automated gear manufacturing cell to produce transmission gears, with no human hand touching them from hobbing through grinding, roll testing, deburring, rustproofing and washing.

Also, we recently talked with Mark Garfien, president of U.S. Gear in Chicago. For him, the future of gear manufacturing is summed up in one word: automation.

Last issue, in an article by Tom Lang of Kapp Technologies, he observed the growing demand for automation in smaller, more agile shops. Automation clearly isn't just for the big companies anymore.

Over the past year, we've covered a number of advances in machine tools that help manufacturers get parts out faster. Machine tool manufacturers are eliminating wasted cycle time by adding spindles, incorporating multiple functions into single machines and integrating automation into the machine tools as standard packages. All this is on top of advances in technology, like dry hobbing, brought about by better machines,

tool materials and coatings, all of which allow for production levels never seen before.

The companies incorporating these technologies are the ones doing well today. America's successful manufacturers aren't worried about Chinese companies taking away their business. Instead, they're wondering how they can take advantage of one of the world's fastest growing

markets. According to the newspaper article, both Haas and Harley-Davidson are exporting to China, and both companies look at that market as one of huge potential growth.

The key to being successful at manufacturing in America is increasing your productivity.

If you'd like to know how it can be done—how to make more gears, better and faster—you'll never have a better opportunity than by visiting Gear Expo in Detroit, October 16–19. There, you can see all of the latest technology. You can also visit the booths of gear manufacturers who have made the investments described above. Gear Expo provides you the chance to go and talk to the experts in machine tools, cutting tools, heat treating, materials and coatings, the people who know and supply the technology that can help your company survive, compete and even prosper—no matter where you manufacture.



Michael Goldstein

Michael Goldstein, Publisher & Editor-in-Chief