



MAGAZINE

Building a Harley Faster

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It's the Economy

By ADAM DAVIDSON

While working the line at Harley-Davidson's factory in York, Pa., Mark Dettinger noticed a small problem. The plastic piece that held electrical parts to the front of a motorcycle, a piece about the size of a hardcover book, wasn't fitting correctly. Every time a new bike came down the line, it took a few extra shoves to push it into place. In fact, it took an extra 1.2 seconds. But Dettinger, who had spent some 20 years at the York plant, knew that every second counted. With 400 motorcycles built each shift, on two shifts a day, an extra 1.2 seconds per bike added up to 2,200 lost bikes annually. Millions could be lost in revenue. Maybe it wasn't such a small problem.

Before the great recession, Harley-Davidson didn't have to worry about counting the seconds. There was little competition for their core customers — “fat white guys,” as one Harley employee called them. Harley charged a huge premium for its bikes, and its customers waited as long as 18 months to receive them. (“Easy Rider” isn't about a Kawasaki.) Inefficiency was part of the charm. Jim Waltermeyer, the union representative at the York plant, said workers could assemble motorcycles at their own pace, music blaring, while sitting on chairs — if they even showed up at all. “We had 30 percent absenteeism every Monday and Friday,” Ed Magee, the York plant manager, told me. This all worked fine until, all of a sudden, it didn't anymore. By 2009, during the worst of the recession, the company was close to collapse. Its stock

price had fallen from nearly \$75, at its peak, to \$8. The inefficiency wasn't charming anymore.

Harley's York factory represents an alternative to the common narrative of American manufacturing. In recent decades, countless sleepy Northern manufacturers suddenly awoke to global competition. They often responded by breaking their unions, by moving to a Southern right-to-work state or out of the country altogether, and by employing robots on the assembly line. This strategy has been repeated so many times that even as overall manufacturing output has grown by nearly 25 percent, manufacturing jobs have fallen by 30 percent since 2000.

Union representation on factory floors has fallen even faster. There are two standard explanations for this phenomenon: Many business leaders and economists have argued the companies had no choice but to stop paying high union wages and benefits; others, especially on the left, argue that this is shortsighted, saying that unions, with their emphasis on skill and tenure, can make companies — and the country over all — richer.

Harley-Davidson seemed like a great place to test this theory. Keith Wandell, the chief executive, told me that even during the company's worst days, management never considered busting its union. Frankly, it couldn't. The company has an "American blue-collar, working man" brand, Magee said, and to get rid of its union or to make its motorcycles in Mexico would have been catastrophic. The company knew it had to keep employing members of the International Association of Machinists and United Steelworkers, who were paid far more than nonunion workers in the South and several multiples of the going rate in Mexico. The company could only compete by redesigning the production system so that each worker created more value than they cost.

Harley tore down the existing plant and built a new one. Unlike most factories I've seen lately, the new plant in York has people everywhere. There are no robots on the main assembly line (they have various peripheral jobs); instead, hundreds of workers, operating in teams of five or six, manually build each motorcycle. This seemed like an expensive way of doing business, but Magee said that experienced, skilled workers, unlike robots, can constantly adjust to new information. The York plant makes four basic styles of

motorcycle, but each has an array of customizable options. There are around 1,200 different configurations, and a new bike starts its way through the production line every 80 seconds. Virtually each one is unique, and workers have no idea what's coming 80 seconds later. Surprisingly, robots can't adjust on the fly like that.

Human beings can also solve thorny problems that lead to major inefficiencies, like that plastic piece that took an extra 1.2 seconds to install. Dettinger and a small team quickly came up with a fix — a tiny plastic latch needed to be set at a different angle — and saved Harley millions. (On the day I visited, he solved two other problems.) In fact, his entire job is to continuously monitor his small section of the production line and search for better ways to make motorcycles. There are 150 problem-solvers like him in the factory.

Harley's very existence was in question in 2009. Today it is a manufacturing role model, and that has a lot to do with its workers. The average tenure of a line worker at the York plant is 18 years, and these workers are extremely devoted to the company. ("How many factory workers have the company logo tattooed on their arm?" Dettinger asked me.) Magee said there was no question that the workers were earning their relatively higher wages. Costs have fallen by \$100 million at the plant and quality has improved even more significantly. Customer demand is extremely high, especially now that people can get a bike within a couple weeks of ordering rather than waiting a year and a half. Harley's stock price is back near the peak it reached at the top of the bubble in 2006. Craig Kennison at the research firm Baird told me that "it's certainly the best turnaround I've ever seen." Recently, the York plant won the Oscars of manufacturing: an IndustryWeek Best Plants award.

This sort of success wasn't without a cost. The machinist union agreed to let Harley lay off 1,000 plant workers and implement a multiyear pay freeze. But every machinist I spoke with said that he understood that the alternative would be no jobs at all in York. I also wondered, as I watched Dettinger run off to solve yet another problem on the line, if Harley would have been able to turn it around without experienced union workers. It reminded me of the notion of "beneficial constraints," in which government policy, notably in

Germany, creates powerful work councils, which force manufacturers to pay and treat workers well. This has, arguably, turned much of Germany's manufacturing sector into the equivalent of the York plant. German companies have no choice but to focus on making high-quality precision goods that merit the higher costs that can cover a more expensive work force. Motor-vehicle workers in Germany make around \$60 an hour, well above hourly U.S. auto wages. It did strike me that while only 10 percent of American manufacturing workers are in unions, more than 30 percent of the IndustryWeek Best Plants finalists have been unionized.

Harley's lesson is complex, but also clear. Organizing a nonunion plant does not guarantee manufacturing success, but for certain companies — with strong brand associations, customizable product lines and world-class equipment and processes — union workers can be not a cost but an asset. And that's good news for much of the manufacturing industry. The United States, after all, is in the midst of the long shift from commodity competition, in the form of low-cost generic goods, to, well, just that kind of work.

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Harley-Davidson is built for making a statement and grabbing the spotlight and nothing attracts more attention than this blue and gold custom soft tail. The motorcycle is quite an engineering feat as well and features a single-sided swingarm and a bespoke exhaust. 9 Deus Ex Machina Harley-Davidson Sportster 1200. Via Hell Kustom. This modified 1200 Harley can easily pass for a sophisticated Italian machine. This project comes from Deus Ex Machina and the Australian custom shop has swapped the standard wheels with alloys that are wrapped in Michelin tires. The brakes are from a GSXR 600 and the Building a Harley Faster. Credit...Illustration by Kelsey Dake. By Adam Davidson. Jan. 28, 2014.Â Harley-Davidson seemed like a great place to test this theory. Keith Wandell, the chief executive, told me that even during the companyâ€™s worst days, management never considered busting its union. Frankly, it couldnâ€™t. The company has an â€œAmerican blue-collar, working manâ€ brand, Magee said, and to get rid of its union or to make its motorcycles in Mexico would have been catastrophic. The company knew it had to keep employing members of the International Association of Machinists and United Steelworkers, who were paid far more than nonunion workers in the South and several multiples of the goi