Modular Rage
Automakers Look to Revamp the Auto Industry — and Its Labor Relations

by Jane Slaughter

Although the auto industry is the pace-setter for the rest of the manufacturing world when it comes to production techniques, the car companies, especially General Motors, are also known for leaping from fad to fad. Sometimes it is hard to tell the difference. In this century Detroit has shown other U.S. companies the way to the assembly line, robots, union givebacks, labor-management cooperation and lean production — all initiatives that stuck. This year the buzzword from Detroit is “modular,” the ultimate in contracting out.

With familiar hyperbole, Ward’s Auto World, an industry publication, calls modular assembly the “Automotive New World Order.” Automotive Industries magazine writes of company execs “drooling” over higher profits and calls modular “a trend that is more revolutionary than the moving assembly line.”

Managers may be salivating, but the jury is still out on just how widely modular manufacturing can be adopted, and on whether it is a qualitative change or simply an intensification of the outsourcing that is already well advanced in the industry. What everyone seems to agree on is modular’s effect on auto workers: well-paid jobs will be replaced with cheaper ones.

In its most advanced form, modular manufacturing will leave assembly plant workers little to do. No longer will hundreds of suppliers transport thousands of parts daily to the assembly plants, where thousands of unionized workers put them together into a finished vehicle. Instead, most of the work is to be done by supplier companies, who will deliver large chunks of the vehicle (“modules”) already assembled. One company might provide the chassis, another the “cock-

Assembling door latches at a Ford plant.
duction. Now, they are looking at defining what the strategic competencies they need to have really are, and are seeing their responsibility as defining the vehicle and then developing the brand, marketing and distributing it.

Design, market and distribute, but don’t build. This pretty much defines a “virtual corporation.”

**VIRTUAL VW**

Virtuality is closest to reality at a Volkswagen truck and bus operation in rural Resende, Brazil. This plant is the dream-come-true of former VW executive J. Ignacio Lopez, who before that was purchasing director at General Motors. Lopez, a self-styled “warrior,” taught GM how to control suppliers and bully them into price cuts. When GM didn’t buy his maximum plan, though — a factory he said would make the traditional assembly line obsolete — Lopez bolted for VW with his vision in a cardboard box.

Resende’s buses are made up of four modules, each delivered by a different company: cabin, chassis, engine/transmission and suspension/axles/wheels. What’s most unusual is that the suppliers build these modules inside the VW plant, each with its area marked off by yellow lines on the factory floor. As the chassis moves along the main line, each supplier is assembling its components nearby. Workers from one supplier install the axles and brakes; those from another bolt on the cabin. These are all jobs that in a traditional plant would be done by VW employees. The Resende workers earn about a third the pay of unionized VW, Ford or Mercedes workers in Brazil’s auto capital, Sao Paulo.

At the other end of the scale from heavy trucks and buses, a joint venture between DaimlerChrysler and watchmaker Swatch, called Micro Compact Car, is building a tiny Smart car in France. Module-suppliers work inside the factory, reportedly no more than 30 feet from the final assembly line.

**CONDO CAMPUS**

The less radical version of modular is for suppliers to set up nearby, in a “campus” or “condo.” Brazilian factories owned by DaimlerChrysler, Ford and GM use this model, as do Ford’s European plants that build its subcompact, the Focus. Modular’s beachhead in North America will be what GM has been calling “Project Yellowstone.”

Yellowstone is GM’s plan to go modular at its Saturn complex, in Tennessee, and at small car plants in Ramos...

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**AUTO INDUSTRY EXECs say there are many benefits of modular:**

- Design and engineering costs can be shifted to suppliers. Says Automotive Industries, “An automaker still has to pay for that in the piece price, but if there’s a recession or the vehicle doesn’t sell, the supplier is stuck with carrying the overhead, not the car company.”
- Factories — and thus construction costs — can be much smaller; estimates are a third to a half the size of traditional plants.
- Assembly times are faster, so car buyers can receive their orders more quickly.
- Labor costs are cut: the assembler’s workforce shrinks to the few workers needed to snap together the modules, and supplier workers are paid 40 to 50 percent less.

It is possible to see the modular revolution as simply a continuation of what is already a very strong trend. Steve Babson, an auto industry watcher at Wayne State University in Detroit, says the hype over modular may be unjustified. “As it’s now implemented,” says Babson, “modular is outsourcing dressed up as a ‘system.’ What we’re really talking about is subassembly, which is a fundamental feature of auto making for the last 50 to 60 years. Engines are delivered as modules, a transmission is delivered as a module. In any assembly plant, the subassemblies that are built inside the plant are installed as a module.”

“What they’re really talking about is taking a subassembly that’s already been modular and making it somewhere else,” he says.

There’s a point, however, at which many such quantitative changes become a qualitative change, Babson adds. Under modular, outsourcing, rather than taking a big bite of a centralized production system, now becomes its organizing principle.

Some industry-watchers are raising alarm bells about modular’s unproven claims. The pioneer VW plant in Resende, Brazil is still operating only at very low volume, and the French minicar had serious initial quality problems. Influential consultant James Harbour, who issues a periodic “report card” on auto plants’ comparative productivity, warns that the automakers could lose control over quality and costs, leading to higher car prices. And repair prices could skyrocket too, if replacement “parts” are available only as modules.

Harbour sees only two reasons to choose modular methods for high volumes: “Either you want to get rid of labor, or you are already so inefficient you can’t hurt yourself. … Efficient companies like Toyota, Honda, Ford and others could only go backwards.”

Indeed, it is the European companies with their relatively high labor costs, followed by the Americans, that are thus far deepest into modular; the Japanese companies who pioneered job-cutting “lean production” methods so successfully have shown little interest.

If nothing else, modular promises to shake up relations between the automakers and their suppliers. The number of “Tier One suppliers” — those who deliver directly to the assembly companies — could shrink from 3,000 today to just 150 within the next decade, with a few “mega-suppliers” dominating the field. Big suppliers such as Lear, Magna and TRW are already gobbling up smaller ones and looking to deal with fewer Tier Two and Tier Three firms. Those tertiary suppliers will also have to deliver their products in module form.

Magna, for example, says it wants to provide the entire interior of a car as a “single part number,” and Visteon, Ford’s parts-making arm, showed a single-module cockpit at the 1998 Paris Auto Show.

— J.S.
Arizpe, Mexico; Ingersoll, Ontario; Lansing, Michigan; and Lordstown, Ohio. The company has bargained a new contract with the Canadian Auto Workers (CAW) and until recently was negotiating with two United Auto Workers (UAW) locals for work rule changes, dangling the promise of brand-new — but much smaller — plants in Lansing and Lordstown.

According to Bill Caroline, a 33-year employee at Lordstown and recently defeated candidate for union shop chair, local leaders were willing to make these concessions, and others, such as allowing GM to contract out all janitorial work. But UAW International leaders stepped in and broke off bargaining, hoping to negotiate a single, national-level method of dealing with modular and thus keep individual locals from undercutting each other by making concessions to compete for corporate favor. Caroline says that GM's plan was to staff the plant with just 1,980 hourly workers, down from the current 5,800. Nearby, a "condo building" would house suppliers, employing another 2,000 workers.

The company planned to offer buy-outs to induce 3,000 workers — those with more than 28 years seniority — to retire. Those remaining — and Caroline thinks most would decline to retire — could transfer to the condo building, where they would become employees of the suppliers, not GM. Their wage would be $14 an hour, rather than their current $21.

There is precedent at Lordstown for such an arrangement. Earlier, GM closed down the plant's cushion room, where seats were put together as a subassembly, and gave the work to a large Tier One supplier company, Lear. Cushion room workers were given the right to transfer to Lear. Their wage there — $14.01 — was topped up to the GM rate, with the money coming from a national UAW-GM joint fund that finances cooperation projects. (The UAW subsequently organized the Lear plant, so that workers there are now in the same local union as the assembly workers.)

GM also had a second big pay concession on the table at Lordstown: the right to hire interim employees at $11 an hour, to continue operating the old plant until the new one was ready.

A small local in Michigan illustrated the danger of locals making their own deals on modular when members voted last December to make work rule concessions to attract modular work. "We need to position ourselves above all others as the corporation decides whom to award new work," Local 1618 officers warned members. The local president met with GM Vice President Mark Hogan, the company's chief champion of modular, to plead the case for his site.

**WHAT WILL THE UNION DO?**

At the UAW's Bargaining Convention in Detroit in March, president Steve Yokich denounced modular, calling it "just another word for ... outsourcing, ... another way to destroy good-paying jobs and benefits." But Yokich did not say what demands the union would make around modular, when national contracts with the Big Three expire September 14.

Indications are that union leaders are adjusting to the notion that a large percentage of former Big Three jobs will soon be moved down the food chain. International representatives are telling local union leaders at suppliers that they will soon be the biggest sector in the union.

For that scenario to come true, however, far more parts workers would have to join the union. For many years now, union organizing has failed to keep pace with the Big Three's outsourcing. Over half unionized in 1981, by 1998 only 21.5 percent of workers at supplier firms belonged to unions, according to Sean McLinden of the University of Michigan's Office for the Study of Automotive Transportation. The UAW says it had 24 percent of the parts industry in 1978 (mostly the larger companies), but by 1997 only 10 percent were UAW members. The pay gap between all parts supplier workers and all Big Three workers widened accordingly: 50 cents an hour in 1978, but $7.20 by 1997.

How did this happen? The workforce in assembly and stamping plants dropped from 320,000 in 1978 to 258,000 in 1998. The reasons were new technology, speed-up and outsourcing. Take seat cushions, for example (suppliers did). Formerly, they were stitched together inside assembly plants, and the workers who sewed them (this was a "women's job" for many years) were counted as assembly workers. Nowadays, almost all in-plant cushion rooms have been closed, and that work outsourced to firms such as Lear. Thus seat cushion makers are now counted as "parts sector workers."

Because of such transfers of work, those counted as parts
workers rose from 352,000 in 1978 to 437,000 in 1998. In fact, the total number of jobs in the auto industry has actually increased in the last two decades—from 760,000 to 780,000. McAlinden points out that 275 Japanese-owned auto parts facilities have opened in the United States since the 1980s, with 80,000 workers total. But only a couple of those plants are union. In other words, it is not auto jobs that have been lost, but well-paying, union auto jobs. In Michigan, for example, the average wage for nonunion supplier workers is $10.06. In Detroit’s “empowerment zone,” $7 is closer to the norm.

Of course, at the same time the Big Three were substituting supplier labor for assembly plant labor, they were getting rid of their own parts-making workers as well. In 1996, Daniel Luria of the Industrial Technology Institute estimated that GM made only 45 percent of its parts in-house, Ford 39 percent and Chrysler 36 percent. Those figures are lower now and will drop dramatically when Ford and GM spin off their parts-making subsidiaries, Visteon and Delphi, into independent companies.

**UNION OPTIONS**

How the UAW will approach the challenge of modular remains unclear. If the past is prologue, prospects are not bright for the union. When Ford, Chrysler and GM entered into joint ventures with Japanese companies in the 1980s, they adopted “lean production” methods of speeding up work and tightening control. The UAW embraced the lean system — then touted as an automaker revolution, the way modular is today — in exchange for union recognition at the new factories. As the Big Three spread lean methods to existing plants, each local was left to fend for itself. Competition among local unions flourished, as management whipped-up plant against plant to see who would make the most concessions.

It appears that this time around, Yokich wants a uniform national solution — but once again, the union may trade off acceptance of the new system for union recognition. Yokich of course wants to keep membership numbers up, and to preserve the union's clout in the industry. Most likely, UAW bargainers will ask the Big Three for commitments to pressure their module suppliers to accept the union. This would be a shortcut, if at all, method of organizing that could keep modular from cutting UAW membership as much as it otherwise would have. The union may also seek transfer rights to suppliers and income supplements for those who transfer.

GM execs, at least, have indicated their willingness to see their suppliers unionize. But management at those companies may not be so happy to sign on. GM awarded the largest single contract at Yellowstone to Magna International, the most anti-union supplier and the one most hated by both the UAW and the CWA. Of its 83 facilities in the U.S. and Canada, Magna has not a single union plant.

Referring to Magna, Babson says, “It’s hard to imagine that leopard changing its spots just because of a memo from [GM Chairman] Jack Smith. ‘Dear Leopard ...’”

Dave Yetta, co-chair of the reform caucus within the UAW, the New Directions Movement, makes a similar point about another major supplier. Former GM Vice President Alan Smith now controls a supplier called Mackie Inc. that, Yetta says, “has many of our GM jobs. Smith has fought union representation in his operations tooth and nail.”

The UAW may thus need other strategies for organizing the thousands of new supplier workers. One possible approach, which could be adapted for a modular set-up, was used by the CWA a few years ago at a GM plant in St. Catharines, Ontario. One chunk of the complex was essentially sold off to a newly-created company, American Axle. But the union took the position that St. Catharines was still one facility covered by GM’s contract. The workers continue to be GM employees, draw a GM paycheck and work under the same contract as before, with transfer rights between the different parts of the complex.

If modular results in more workers changing employers during their lifetimes, some old demands become relevant: portable pensions, industry-wide seniority, even industry hiring halls.

Finally, the new arrangements would seem to give the UAW some extraordinary power for already-organized workers to help nonunion workers achieve recognition. Sean McAlinden points out that the supplier mergers, “according to traditional organizing theory, should make it easier for unions to get a grip on this.” It should be easier to organize one large company than 10 small and scattered ones where workers feel isolated — and no one product is key to producing an automobile. Because a strike at a module supplier instantly shuts down one or more Big Three assembly plants, workers in unionized module plants will have a great deal of clout. They could use it to help nonunion workers’ organizing drives.

“At TRW Lucas Varity [a large, recently merged supplier],” says McAlinden, “less than half the plants will be union. Many will make very large modules. The union plants at TRW will have a large bottleneck power.” To get TRW, for instance, to recognize the union, “they could bottleneck strike some of these new modular suppliers.”

The UAW has recently restructured its organizing department so that at the national level the union will focus on the auto parts sector (rather than the public employees, graduate students and miscellaneous workers the union has recruited instead in recent years). That move comes as the shift to modular promises to multiply auto parts plants. The question is whether the union will seek a quiet, back-door solution to maintaining membership numbers — one that uses corporate power rather than union power — or whether leaders will help workers themselves to take advantage of their new kind of leverage.

The shape that modular manufacturing will take in the future is perhaps less important than the union response it is engendering today. Even James Harbour, whom union members have long resented for his aggressive advocacy of job cuts, thinks that GM’s touting of modular is less about factory methods and more about scaring the union. “It’s an effort to bust the union,” he says. “They lost money [on the 1998 UAW strikes], and now it’s payback time.”

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