

# Chicago Daily Law Bulletin®

Volume 157, No. 170

Tuesday, August 30, 2011

## Patents help auto industry remain competitive, efficient

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Greensfelder, Hemker & Gale P.C. attorney Thomas A. Hallin speaks from experience when he says that intellectual property is critical to players in the automotive industry who want to beat their competitors in efficiency and innovation.

Hallin, who served as chief litigation counsel for the IP practice group at Ford Motor Co. and also handled IP matters for General Motors, Chrysler, Mazda and Toyota, said the past few years brought rapid change to the industry, particularly as the government pushes for one million hybrid and electric vehicles on the road by 2015 and a fuel economy standard of 60 miles a gallon by 2025.

"It's critical to the automotive industry, the American industry in particular, to be developing this IP," he said. "With American companies, we can invest in this technology and research and gain our own patent protection that we can license out and get a source of revenue.

"If we don't do that, at some point, we're going to be forced to accept licenses and pay royalties to the German manufacturers and the Japanese manufacturers and even to Chinese and Indian manufacturers."

In the recent engineering revolution, car manufacturers began to move away from the traditional internal combustion engine and toward hybrid and electric variations that require more technological support and investment, Hallin said. For example, the Chevy Volt's drivetrain encompasses the protection of more than 200 patents, he said.

"You're going to see a lot of proliferation with regard to patented technology," he said.

"The automotive industry is bouncing back, and if it's going to stay competitive on a global scale, technology is at the root."

Robert W. Fieseler, a shareholder at McAndrews, Held & Malloy Ltd., also saw IP become increasingly important to his automotive clients over the years.

He got involved in alternative fuel vehicles in 1990 when he represented Ballard Power Systems, a Canadian company that developed fuel cell technology.

Even though Ballard's technology became too expensive and ran into storage and delivery issues, its patents became attractive to car manufacturers like Daimler-Chrysler and Ford. The two companies later acquired Ballard.

"Every one of these big hitters, when they assess whether to join forces with a smaller technology venture like Ballard will say, 'Do we need to work with these guys or can we work around them?'" Fieseler said. "If they say they can work with these guys, it's a testament to the strength of the patent portfolio. Because if they thought they could work around them, they would."

Fieseler also represented Westport Innovations, a Canadian company that designed natural gas fuel injectors that worked with diesel engines, in the mid-to-late 1990s. The company closed deals with Cummins, Volvo and General Motors, indicating the vast appeal of its patented technology.

"For natural gas, it was how do you feed it into an engine and get it to combust in the way conventional fuel used to, and then how do you store it on board a vehicle?" he said. "Patents surround those two technologies, because the developers need to recover and profit from the investment they made and the

innovation they've applied."

Elias P. Soupos, an associate at Leydig, Voit & Mayer Ltd., who formerly worked as a design and development engineer

in the automotive industry, agreed that manufacturers want to make vehicles more efficient to increase their competitive edge and reduce their ownership cost.

Manufacturers often rely on IP to meet those goals, since they need to produce a high volume of products to offset high overhead costs, Soupos said.

"It's even more crucial for an automotive company to have good offensive and defensive positions in its patent portfolios to be able to compete," he said.

In recent years, Charles H. Mottier, a member of Leydig, Voit & Mayer, worked with a large manufacturer of off-road vehicles and construction equipment to develop IP that protects improvements made to its engines and transmissions.

"That started quite some time ago, and now they're to the point where they have worked their engines to meet upcoming efficiency requirements, and they've already started looking at efficiency requirements for the next phase," he said.

Soupos and Mottier said they expect their clients to continue to increase efficiencies of current technologies, but also focus on others like fuel cells that could further innovate their industry.

"For an automotive company, the average development period is maybe five to seven years," Soupos said. "If they start making prototype fuel cell cars now, they've probably been working on it, and a lot of the patent applications are already on file."