

AMERICAN SOCIETY OF SAFETY ENGINEERS NORTH FLORIDA CHAPTER

SEPTEMBER 2015 NEWSLETTER

Ralph Nader and My Father's Car Lot

While reading over The History Channel's *This Day in History* webpage, my mind drifted towards automobiles, one of my favorite subjects. It then drifted towards finding a topic for this month's newsletter. The result of my mind's wanderings is a bit of information on how motor vehicle safety has progressed, and regressed, in the past fifty years.

In 1965, 32-year-old lawyer Ralph Nader published a book entitled *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile*. His book prompted the passage of the National Traffic and Motor Vehicle Safety Act of 1966 and seat-belt laws in 49 states. Additionally, part of the credit for today's automobiles having padded, plastic dashboards instead of chromed metal ones goes to Mr. Nader. Further, it can also be said that Mr. Nader prompted the movement to have the standard *PNDLR* gear shift pattern in early automatic transmissions changed to *PRNDL*. The *PNDLR* pattern reportedly caused many an incident as drivers of manual transmissions were not used to seeing reverse gear

located below drive and low gear when driving a car with an automatic transmission. Moreover, Mr. Nader can also likely be credited with the Chrysler Corporation discontinuing its use of a push button gear selector for their transmissions.

It has been stated that Mr. Nader's book popularized some harsh truths about automobiles and automobile manufacturers that auto-safety advocates had known of for quite some time. In one chapter of *Unsafe at Any Speed*, Mr. Nader speaks out against the Chevy Corvair. This car, introduced in 1959 by General Motors, was built with a swing axle and rear-mounted engine. Recalling the days of my youth, my dad owned a used car lot that had several of these beauties on it. To me, there always seemed to be way more problems with synchronizing the Corvair's four, one-barrel carburetors and just getting the car to run than with the car's suspension. In any event, Mr. Nader argued that this particular car embodied the triumph of "stylistic pornography over engineering integrity." His contention was that its rear swing axle made the car's back end unstable, causing it to tuck under during turns and thereby skid or roll over much more frequently than other cars did.

Coincidentally, as Mr. Nader began to speak out against the Corvair's axle design, several changes were made by General Motors to its suspension for 1964 models. These changes included a standard front anti-roll bar and a transverse-mounted rear spring. These items had been deleted by GM from previous model years, ostensibly to lower manufacturing costs; but they were available as options. Unfortunately, not many consumers were even aware of the need for them and few Corvairs were ordered with these options. In 1965, however, the Corvair's suspension was completely redesigned and utilized a fully independent rear suspension that eliminated the challenges of previous model years. Reportedly, Corvairs from 1965 forward were not prone to tuck-under crashes.

Interestingly a 1972 government study vindicated the Corvair, finding that it was just as safe as any other car. Who you choose to believe, Mr. Nader or our government, is entirely up to you. But in thinking about this entire situation, GM could have and likely should have addressed the issue in 1959. But it took someone like the outspoken Mr. Nader

to make needed safety improvements a reality.

Fast forward to February 7, 2014 when we witnessed GM recall 800,000 cars due to a faulty ignition switch. Later that year, GM recalled over a million more cars for faulty power steering. By mid-2014, approximately 29 million automobiles had been recalled by GM. That number, according to the Bureau of Transportation Statistics, is close to eleven percent of the total number of registered passenger vehicles in the United States as of 2012. And let's not leave out Toyota. In 2010, approximately nine million automobiles were recalled for Sudden Unintended Acceleration, or SUA. In 2010, Chrysler recalled 35,000 Dodge and Jeep models for SUA. In 1999, Ford recalled 898,739 vehicles for SUA. And way back in 1980s, Audi initiated several recalls for SUA with its 5000 model.

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Article Sources and Hyperlinks of Interest

<http://www.history.com/this-day-in-history/unsafe-at-any-speed-hits-bookstores>

https://en.wikipedia.org/wiki/Unsafe_at_Any_Speed

https://en.wikipedia.org/wiki/Passenger_vehicles_in_the_United_States

https://en.wikipedia.org/wiki/2014_General_Motors_recall

https://en.wikipedia.org/wiki/Sudden_unintended_acceleration

<http://www.safetyresearch.net/blog/articles/sudden-unintended-acceleration>

The list of various recalls with automobile manufacturers is almost endless. And in many cases, manufacturing engineers for the aforementioned companies foresaw the potential for problems to occur with the systems that they had designed. Some of them warned management and fought for changes. Others, after predicting the possibility of a system failure, proclaimed the possibility of said event ever occurring to be unlikely; and they stood idly by as these systems were installed in untold numbers of automobiles. So if you find yourself facing a similar moral dilemma one day, sit back and ask yourself what Ralph Nader would do.

Bob Dooley



Photo credit:
<http://www.jalopyjournal.com/forum/threads/vintage-ads.375810/>

Next ASSE Local Chapter Meeting

Our next membership meeting will be held at the Northeast Florida Safety Council on Sept 16th at 11:30 a.m. The meeting topic will be employee medical cases and workers compensation. The speaker will be Dr. Chapa, who is Occupational Health Director at UF Health. Please RSVP to Steve Wilson at steven_wilson1@me.com.

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