



Ralph Seekins

Automotive technology has come a long way from the early days. Let's take a very quick look.

The first steam-powered vehicle was built by Captain Nicolas-Joseph Cugnot - a French military engineer in 1769. It was a three-wheeled, steam-powered vehicle that could carry four with a top speed of about 2 miles per hour. Interestingly, Cugnot crashed into a wall with one of his vehicles (even though the top speed was only 2 MPH), thereby also being the first person to have an automobile accident.

Sometime around 1835, a Scotsman, Robert Anderson, came up with the first electric vehicle. It was powered by a bank of non-rechargeable batteries. However, rechargeable batteries did soon become available and by 1900, electric vehicles outsold all other types of cars.

Nikolaus August Otto produced the first practical four stroke gasoline engine in 1876. His engine was the first to burn gasoline using a four stroke piston inside a cylinder. It was the most efficient engine at that time

DIZZYING TECHNOLOGY

and is the ancestor of almost all the engines found in vehicles today.

It was German, Karl Benz, in 1886, who first attached one of Otto's engines to a three-wheeled carriage. About that same time, German, Gottlieb Daimler attached one of Otto's engines to a stagecoach resulting in the first four wheeled "automobile."

In 1895, George Selden was granted a patent for the two-stroke gasoline engine. It is reported that his patent did more to hinder than help development of the automobile.

The first diesel engine was produced in 1897 by German engineer, Rudolf Diesel. The engine did not use spark but rather used the heat of compression to ignite the fuel which, at that time was kerosene.

As the world entered the 1900s, a whole lot of improvements started coming on the automobile scene. Engines were moved to the front. Steering wheels replaced the early tillers. Rubber tires replaced steel covered wooden wheels. Front and rear bumpers came into being. Electric lights and electric starters replaced lanterns and hand cranks. The race was on as more and more automobile builders entered the picture.

About 1910, gasoline and diesel vehicles finally overcame steam and electric powered vehicles. They still dominate the industry today.

In 1914, Henry Ford started his assembly line process where a single worker did a single task as the vehicles traveled down the assembly line. This reduced the time it took to complete a Model T from about 12 hours to only 93 minutes. 16 million Model T Fords were produced in the next 13 years. Assembly lines are the standard even in today's most modern automobile manufacturing plants.

Today, the modern automobile is a continuing marvel of high-technology. Relatively few automobile manufacturers (compared to the hundreds of start-ups) have survived. And, in this highly competitive industry, those who have are giving it their best to come up with new ways to produce safer, more fuel efficient vehicles. They are vigorously pursuing hydrogen engines, electric vehicles, hydrogen/electric hybrids, gasoline/electric hybrids, smaller more powerful turbocharged gasoline and diesel engines, and more. They are using more metal alloys and high strength composites to make vehicles stronger and lighter. Using computers for everything from designing new vehicles to controlling the engines to produce the lowest possible emissions and highest possible mileage has even picked up the technology pace. That pace is dizzying - even for those of us in the industry! But, of one thing I am certain, the competition for lighter, stronger, safer, more fuel efficient cars and trucks is good for all of us who use the roads every day. Our families will be all the safer, more economical and more comfortable than ever before. Who knows what vehicles will be doing for us in another 50 years?

Ralph Seekins has more than 41 years' experience in the automotive industry. He started as a mechanic, worked in sales, and for the past 34 years, has been the owner of Seekins Ford Lincoln.