

YOU CAN GO HOME AGAIN

Eighty year old John Rasmussen and his nearly century old Model T return to the birthplace of his beloved automobile

On a cool day in late September 2011, one of the 15 million Model T's produced at Ford's Highland Park assembly plant returned home again as John Rasmussen brought his vintage Ford for a ride around the place where it was built some 94 years ago. Echoes from the past seemed to be in the air as John motored his way past 91 Manchester Street, the address on the wall of the place that put America on wheels. One must wonder if in 1910 when the first Model T's rolled off the Highland Park assembly line if Henry Ford knew how important this facility would someday become not only to Detroit but also to the rest of the world.

John Rasmussen's love for the Model T or Tin Lizzie as it's called goes back nearly 70 years. Thanks to his uncle George, John was able to build his first Model T. Uncle George owned a farm in Marlette, Michigan and during the winter season when there was little to do on the farm, George would do mechanical work for Jubb Ford, a local dealership in town. Instead of taking cash for his work, George was paid in car parts, specifically Model T parts. Over the years, George's barn became filled to the brim and when John was a young boy of ten, his uncle George told him that if he wanted to, he could build a car out of some of the parts in the barn. John jumped at the offer, quickly putting together a running chassis. While it didn't have a body, fenders or a seat (he sat on the gas tank), it was enough of a car for him to learn how to drive around the farm. At the age of 13, in 1945, John bought his first complete Model T for the paltry sum of \$9.

Fast forward to 1969 and the purchase of his current Model T. Up to this point in his life John had already owned 7 Model T's but was always on the lookout for another one. While attending a Veteran Motor Club meeting John heard about a 1917 Model T sitting in a barn near Durand, Michigan that was for sale. After several failed attempts to purchase the Model T, John finally took ownership on October 27, 1969 paying \$930 for the non-running Tin Lizzie. Don't be fooled to believe the odd selling price was due to rounds of high pressure negotiations. It was simply the amount the seller needed to purchase a snowmobile.

What was most amazing about his purchase was that this Model T was for the most part un-restored. There had been some minor paint touchup but other than that the car had most of the same parts on it as the day the car was produced in 1917. After thoroughly cleaning, rebuilding of the carburetor and flushing the fuel tank the old Ford came to life ready to travel the roads once again.

John made the decision to leave the car mostly as he purchased it. The only update was installing an auxiliary transmission originally designed for Model T trucks. The auxiliary transmission gives quicker acceleration and a higher top speed thanks to its overdrive although John likes to keep speeds under 35 mph for safety reasons.

Driving around the Highland Park plant brought back images when thousands of Model T's that were produced each day. Bringing his car back to the same factory proved memorable not only for John and his Model T but also for those many people who stopped by to take a photo of it during the shoot. Yes..... there times you can go home again.

Henry's Glass Palace *The factory that changed the world*

In 1903 Henry Ford formed the Ford Motor Company and during the next seven years Ford vehicles were produced at either his Mack Avenue factory or Piquette Street factory in Detroit, Michigan. Ford products became so popular that by 1908 Henry found it necessary to build a larger factory. Ford purchased fifty-eight acres of land in suburban Highland Park, Michigan for his new assembly plant. His vision was to build a world class factory using the latest architectural technologies.

Well respected architect Albert Kahn was tapped to design Ford's new facility. Kahn had earlier designed Packard's East Grand Boulevard assembly plant that was at the time considered to be the most modern facility in the world. Kahn's reinforced concrete support system allowed for a much larger building with multiple levels. Ford's new facility in Highland Park, later known as the Crystal Palace because of the 50,000 square feet of rooftop glass became the ultimate automobile factory.

Its location was at the corner of Woodward and Manchester Avenue in the sleepy hamlet of Highland Park, a town located within the city limits of Detroit. Just a few miles from his Piquette Street plant, the property was chosen because it bordered three major rail lines, vital at the time to the automobile business.

Work began in early 1909. The original design called for a main office, powerhouse, engineering building and a four-story assembly plant located behind those buildings. By January 1st, 1910, the 75 X 865-foot four-story building was ready to pump out Model T's. Over the next several years, an L-shaped four-story building was erected well behind the main factory creating a U-shaped facility. A one story machine shop was built between the two buildings. In the middle of the machine shop, an 880 X 57-foot crane-way ran north to south transporting materials from one section of the plant to another. Additional floor conveyors powered and chains powered by steam ran along the facility bringing heavy parts from the foundry to the work areas.

Ford began producing Model T's at Highland Park on January 1st, 1910 using the traditional station build process, the same process as used at his Piquette Street facility. Unfinished cars rested in a stationary location while teams of workers moved from car to car, assembling components brought to them by an employee pushing a hand-truck full of parts. But Ford quickly realized he needed to produce vehicles much faster than the station build process allowed. While

at the Piquette facility Ford had tinkered with mass production processes and was ready to try them out at Highland Park but he needed more room.

By July 1911 ground was broken for two six-story buildings east of the existing plant. Included in the buildings was a six-story high crane-way that traversed the entire length of the building. His assembly line process was first tested on the flywheel magneto assembly. Until now, one person assembled a complete magneto, producing 35 to 40 per day. Ford broke down the process into 29 separate operations with 14 workers assembling only a small portion of each magneto. Those 14 workers could now produce 1,335 magnetos per day averaging 95 magnetos per person even though the workday was reduced from 9 to 8 hours.

After his success with the magneto production, Ford was ready to add more mass production at Highland Park. Overhead conveyers were built bringing everything from gas tanks to wheels directly into the assembly area for the person responsible for installing that part. Body painting and assembly, interior assembly and other miscellaneous part production stations were located on the second, third and fourth floor. Chassis assembly was on the first floor. When mass production was ready to be introduced in April 1914, the twin final assembly lines were moved from the early four-story buildings to the six-story buildings on Manchester Ave. And at that time, the final line was doubled in length to 327 feet. Ford's mass production eventually revolutionized the entire automobile industry. Prior to moving to Highland Park, Ford's Piquette plant, in 1908, used 450 workers to produce 10,607 vehicles. By 1921, 32,679 workers at Highland Park produced 933,720 vehicles. Ford's market share rose from 9.4% in 1908 to 48% by 1914.

With mass production putting more money into his bank account, Ford, in 1914, decided to stun the world by increasing workers pay to \$5.00 per day. His new pay scale allowed his workers to purchase a new Model T with the equivalent of only four months pay. Ford also instituted an on-site safety and health department, hospital, drug store, butcher shop, grocery store, shoe store and a trade school for boys as well as two factory apprentice schools for adults.

Eventually the plant grew to almost 3 million square feet of floor space. Eventually, the Highland Park Plant would produce over 15 million Model T's and employ more than 50,000 people. Because of plant efficiencies, the price of a Model T, dropped from \$950 in 1909 to \$290 in 1925. On May 26th, 1927 the 15 millionth Model T was built. Production ended later in 1927 as Ford readied his Rouge River factory for the new Model A Ford.

Today, portions of the Highland Park facility remain intact. While the powerhouse and main office were demolished to make room for a strip mall called Model T Plaza, much of the original factory buildings remain. Ford's Glass Palace holds a special place in history as the factory that put the world on wheels.