**Women at the Forefront**

**1. Executive Decisions**

In 2014, Mary Barra became the CEO of General Motors, making her the first woman to ever lead a major auto company. She took the job amid GM’s ignition switch scandal and pulled the company into a strong comeback. She’s now looking to GM’s future, which will include rolling out more electric cars and breaking into the autonomous vehicle market, in addition to the company’s regular cars and trucks.

(Make a Wish - <https://www.wheelsforwishes.org/news/9-times-women-changed-the-automobile-industry/>)

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2. On November 10th, 1903, “Mary Anderson patents the windshield wiper.”

(History-<http://www.history.com/this-day-in-history/mary-anderson-patents-windshield-wiper>)

3. In 1909, at the age of 22, Alice Ramsey was the first woman to drive across the United States. (Smithsonian - <http://www.smithsonianmag.comWhat/history/alice-ramseys-historic-cross-country-drive-29114570/>)

4. It was 1914 when silent film star, Florence Lawrence “invented the first mechanical turn signal AND mechanical brake light…” “In 1914, Lawrence devised a mechanism that served as a signaling arm for drivers wishing to turn. Through the push of a button, her invention raised and lowered a flag on the rear bumper to inform other drivers where the car was headed next.”

(Historic HVA Vehicle Assoc. - <https://www.historicvehicle.org/florence-lawrence-automotive-inventor-worlds-first-movie-star/>)

5. Wilma Russey made history in 1915 in the city of New York when she became the first woman taxi driver. “She was an expert mechanic and had significantly more experience with automobiles than most men! She worked in Dalton’s Garage for over year as a respected mechanic until she decided to take up taxi driving.”

(Lauren wants to know - <http://www.laurenwantstoknow.com/2015/10/wilma-k-russeys-taxi/>)

6. Helene Rother was “the first female automotive designer, a refugee and a single mom.” She went to work for GM in the early 1940s and then on to Nash Motors in 1947. “There, she sketched interior concepts and designed key features like door handles, speedometers, and medallions.”

(Timeline - <https://timeline.com/helene-rother-64363eb9f8aa>)

7. Denise McCluggage loved her race cars! In 1959, Ms. McCluggage became the first woman to win the feature sports-car event at Thompson Raceway in Connecticut, with a Porsche RS.

(The New York Times - <https://www.nytimes.com/2015/05/10/sports/autoracing/denise-mccluggage-auto-racing-pacesetter-dies-at-88.html>)

8. 1965 Shirley “Cha Cha” Muldowney “Becomes first woman licensed by National Hot Rod Association (NHRA) to drive a dragster”

Professional drag racing driver Shirley "Cha Cha" Muldowney is not just "good for a girl." Though she was the first woman to accomplish many feats in the sport, many of her records and claims are for the sport as a whole, regardless of gender—she is one of the most successful drag racers in history.

(Encyclopedia - <http://www.encyclopedia.com/people/sports-and-games/sports-biographies/shirley-muldowney>)

**9. Margaret A. Wilcox, Chicago**

**The Car Heater 1893**

Before the electric car heater was created, Margaret Wilcox designed a way for the car engine to open and disperse hot air into the front cabin of the vehicle in 1893.

Margaret was a mechanical engineer born in Chicago.

(GGBailey - <https://blog.ggbailey.com/6-women-inventors-pioneers-of-the-automotive-industry>)

**10. Bertha Benz, Germany**

**First Long Distance Trip in a Motorized Vehicle, Brake Pads 1888**

You may be familiar with her last name-- Benz. Bertha was Karl Benz’s wife and helped promote her husband’s invention of the “motorwagen” by packing her and her sons into their motorwagen for a 66 mile road trip to her mother’s.

This 1888 road trip sparked her innovative design known as the brake pads since she noticed the brakes were not functioning at ideal capacity during her journey.

(GGBailey - <https://blog.ggbailey.com/6-women-inventors-pioneers-of-the-automotive-industry>)

Bertha herself would undertake a long-distance journey from Mannheim to Pforzheim, and show the world what the automobile could do.

<https://www.mercedes-benz.com/en/mercedes-benz/classic/bertha-benz/>

**11. Hedy Lamarr, Austria**

**Wireless Transmission Technology-- WiFi/ GPS 1941**

Known for her starring roles in Samson and Delilah, Algiers and The Strange Woman to name a few, Hedy was born in Vienna, Austria and a film star. However, there is more to Hedy than just her cinematic performances and beauty.

Her resume also includes inventing wireless transmission technology during World War II. This laid the framework for future technologies, such as WiFi and GPS that help navigate your road trip travels. For this work she was inducted into the National Inventors Hall of Fame in 2014.

(GGBailey - <https://blog.ggbailey.com/6-women-inventors-pioneers-of-the-automotive-industry>)