



TRACING MICHIGAN'S TRACTOR HISTORY

Tractors carrying the Ford brand name were especially popular through the 1940s. Courtesy of iStock.com.

Iowa can claim to be the state where the prototype of the first tractor was developed. And Illinois may be the place that perfected it. But Michigan made an impact, too, with more than a half dozen companies contributing innovations.

By Kimberly Ingalls

In 1892, a contract thresherman named John Froelich grew tired of dragging his crew of hired hands and his heavy, hazardous, steam-powered machine through the fields of Iowa and the Dakotas. With help from a blacksmith, Froelich mounted a gas-powered engine on his steamer's running gear. He then headed to a nearby field to see if the engine could power the thresher. It did.

That machine became the prototype for the first tractor and sparked the development of the first tractor manufacturing business: the Waterloo Gasoline Traction Engine Company. Founded in 1894 by Froelich and several businessmen, the company went on to produce the popular Waterloo Boy model at its facilities in Waterloo, Iowa.

One hundred and fifty miles away, a farm implement manufacturer called Deere & Company took notice. Seeking to diversify its business, Deere purchased Waterloo in 1918. Around this same time, several companies in Michigan began to experiment with their own versions of the tractor.

Co-op, Fitch, Fordson, Ford-Ferguson, Friday, Love, and Parrett were some of the tractors to carry the "Made in Michigan" stamp.

Fordson

Of all the tractors built in the state, the most recognized name is the Fordson. Known as "the Model T for the soil," the Fordson gained popularity because of its low price, small



Irish inventor Harry Ferguson and American industrialist Henry Ford famously built a tractor business together based on nothing but a handshake. Courtesy of The Henry Ford.

size, and sophisticated distribution network.

Young Henry Ford, who disliked horses and the drudgery of farm labor, experimented with tractor production around the same time he developed the Model T automobile. Hoping to create a small, inexpensive tractor that farmers could afford, he continued to tinker intermittently with tractor design through 1909, when he patented a frameless

tractor. By 1916, Ford undertook the work in earnest.

As word spread about Ford's interest in tractors, the company gained the attention of British authorities. World War I had just about depleted Europe's farm horse population as well as its manual labor, and the British Ministry of Munitions was looking for tractors to ease the shortages. On July 27, 1916, Henry and his son Edsel incorporated Henry Ford & Son to build 6,000 tractors for the ministry. These farm machines were the predecessor to the world's first mass-produced tractor: the Fordson.

Fueled by kerosene and weighing a little over a ton, the first Fordsons sold for \$750 in 1918. Mass production dropped the price to \$395 in 1922. By 1927, more than 750,000 Fordsons had been sold worldwide, monopolizing more than 50 percent of the market.

Problems plagued the first tractors that rolled off the line. The lightweight tractor was hard to start, and a gear below the seat produced enough heat to make it uncomfortable to drive. Fordsons also had a disturbing tendency: If a plow it was pulling hit a large rock, the plow would stop, and the tractor would try to keep going. Many would rear up and flip over, sometimes killing the driver.

Despite these problems, the Fordson sold very well for several years and rapidly became the most popular tractor in America.

Ford-Ferguson

By the 1920s, an agricultural depression proved too much for America's favorite little tractor. In 1928, domestic production ceased.

Ford abandoned the tractor business for a decade, after which the company began a new partnership with a man named Harry Ferguson. An Irish engineer and inventor, Ferguson was eager to see his own Type A tractor mass-

produced, and he turned to Henry Ford for help.

One of 11 children, Ferguson showed mechanical aptitude at an early age. While still in his teens, he entered into his brother's car and cycle repair business, soon developing a motorcycle and race car of his own. In 1909, he made the first powered flight in Ireland in a machine of his own design.

In 1914, Ferguson began selling tractors at his car business.



The Parrett brothers met with early success when their tractor design was licensed by a Canadian firm. Later, the Fordson drove them out of business. Courtesy of Charlie Wood.

Seeing firsthand that hooking a heavy farming implement to a tractor was a major task involving hoists and numerous helpers, Ferguson designed a plow that could be attached to a tractor with a hydraulic-controlled three-point hitch.

Ferguson demonstrated his attachment system to Henry Ford in the garden at the industrialist's Dearborn estate. Ford was so impressed that the two men quickly worked out a partnership deal and shook hands on it. Their joint effort, the Ford-Ferguson 9N tractor, was introduced in 1939.

The tractor sold for \$600—about \$100 more than the leading competitor, Farmall, made by the International Harvester Company. But Ford claimed his tractor could do more work. By 1942, the Ford-Ferguson's popularity had grown to capture 20 percent of the market, compared with Farmall's 40 percent.

By the mid-1940s, though, the Ford-Ferguson partnership was beginning to crumble. Ferguson wanted to increase production to a million tractors a year, and Ford's tolerance of the handshake deal was growing thin. A questionable

accounting study claimed that the American was losing money on the arrangement.

In 1945, a frail 82-year-old Ford turned over his company to his grandson, Henry Ford II. The grandson told Ferguson that the handshake agreement would end mid-year, and announced plans for a new and improved Ford 8N tractor. Ferguson sued for patent infringement, claiming the Ford company was using his patents and inventions. After years in court, the Irish inventor eventually settled for \$9.25 million.

Despite the lawsuit, Ford continued to build tractors. In 1986, the company expanded by purchasing New Holland Machine Company in Pennsylvania. The Ford-New Holland name appeared on machinery until 1990, when the automaker sold a majority of its interest in farm machinery operations to Fiat, with the agreement that the Ford name be dropped in 10 years.

Parrett/Bradley

Complementing Henry Ford's lengthy history of tractor production was the work of Dent Parrett.

In 1913, Dent and his brother designed a compact and lightweight tractor, manufacturing it in Ottawa, Illinois. Two years later, the Parrett operation was moved to Chicago, where it met with some success—especially after Massey-



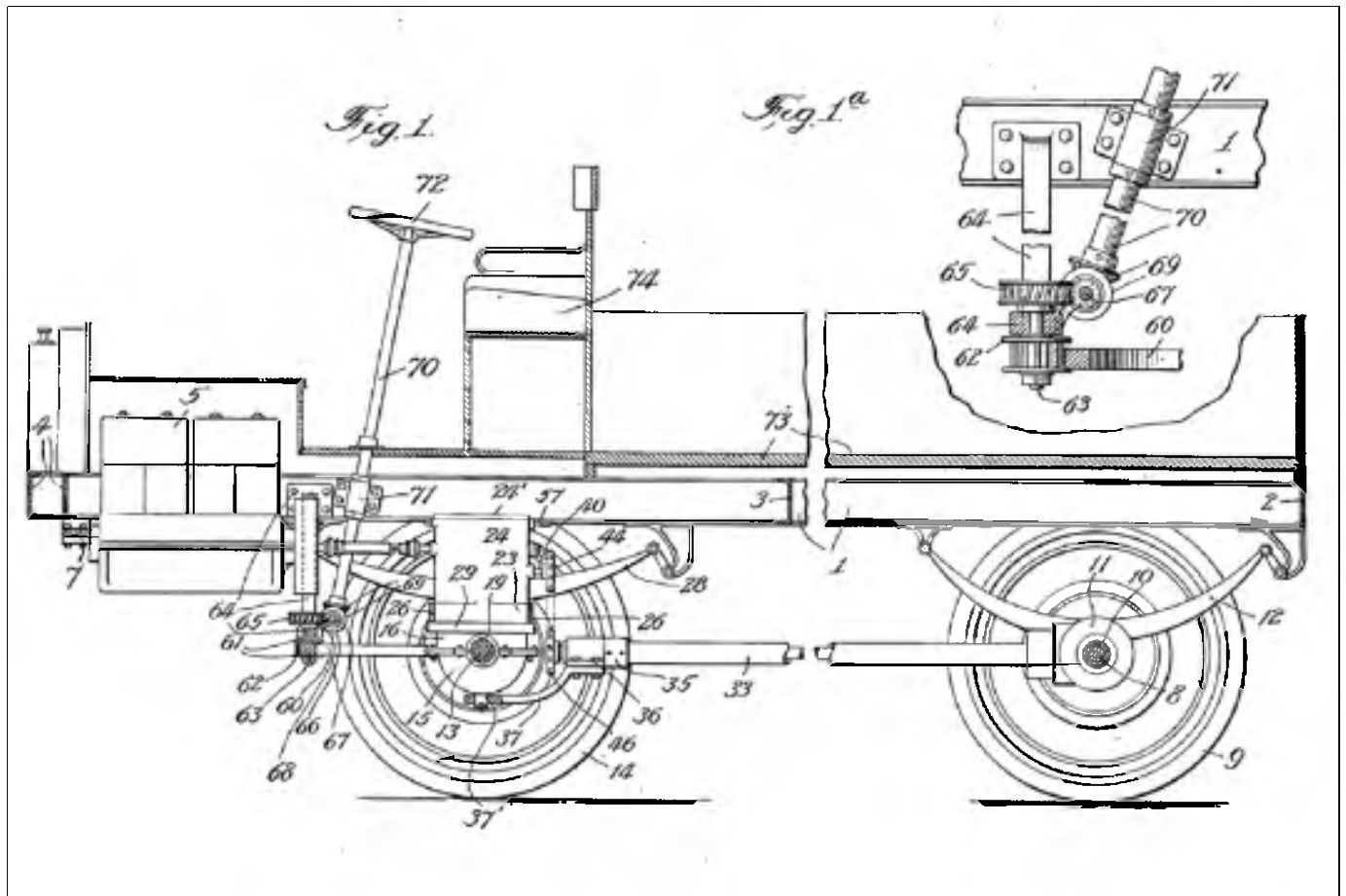
Left: Dent Parrett went on to lend his engineering expertise to a handful of other firms. Courtesy of Elizabeth Parrett Glendening. Below: A Ludington farmer-millwright named John H. Fitch was the first to patent a four-wheel-drive version of a tractor. Courtesy of Google Patents.

Harris, a well-known farm machinery manufacturer, licensed the Parrett design and started producing its own version in Canada.

But the tractor took a tumble when the Fordson came on the market. Unable to compete with that tractor's low price tag, and hindered by the cancellation of the Massey-Harris contract, the company stopped production of the Parrett in 1923.

That didn't deter Dent; a born inventor, he continued to design farm machines for other companies. The Parrett name reappeared in the mid-1930s, when Dent created a new tractor for the Ross Carrier Company of Benton Harbor.

Founded in 1918 by H.B. Ross, the Ross Carrier Company





manufactured machines to transport lumber and freight, and was considered one of Benton Harbor's most successful industries at the time. Ross Carrier began turning out small farm tractors in 1931, marketing and delivering 600 of them the first year under the name "Bradley."

Dent didn't stay with Ross Carrier very long; by the late 1930s, company records didn't even list him. He had apparently moved on to another venue and another tractor: the Co-op.

Co-op

In the 1930s, Co-op tractors were produced in Battle Creek. Funded through collective ownership to keep costs low, they were sold through farmers' cooperatives in Indiana, North Dakota, Minnesota, and Missouri. Early models, made from various Chrysler car components, were designed by Dent Parrett.

Production of the Co-op in Michigan was short-lived; by 1938, manufacturing was moved to a new

Above: Fitch moved his business to Big Rapids in 1916, where eight models were manufactured. Courtesy of Chris Dixon. Right: The Love tractor's innovative design, featuring a rounded hood, balloon tires, and fenders, made it ideal for orchard work. Courtesy of James Tworow.

facility in Indiana. World War II slowed production of the tractor in 1941, and demand for the Co-op machines was cut into by the competition. Co-op was eventually bought out by the Canadian-based Cockshutt Plow Company, which was looking for a way to sell its own tractor design in the U.S. By 1952, the Co-op brand was discontinued.

Fitch Four Drive

One of the first successful four-wheel-drive tractors was the product of the Four Drive Tractor Company. Formed in 1915 in Ludington, the business relocated to Big Rapids later that year.

A millwright by trade, John H. Fitch came up with the idea for a four-wheel-drive tractor in 1914, after observing several of the new "horseless carriages" getting stuck along the roads that bordered his farm. Noticing that the front wheels of these automobiles had no power to push or pull, Fitch came up with a design for a tractor that sent power from the engine to all four wheels.

The company produced as many as eight models of the rugged tractor, which gained a reputation for enormous power, generated by a driveshaft instead of chains or belts.

The company struggled to make a profit throughout its entire existence, as it couldn't compete with the lower-priced Fordson. It is unknown exactly when the company folded, but it is thought to have gone under after the stock market crash of 1929.

Friday

The Friday, notable for its unusual name as well as its unique style, got its start during the late 1930s in Hartford, Michigan.

Unable to afford a new tractor in the midst of the Great Depression, a farmer named David Friday used parts from old Ford Model Bs, Ford trucks, and Fordsons to build his own machine, which he christened the "Doodlebug." Friday



entered his strange-looking, half-tractor/half-pickup truck in a local plowing contest in Hartford, competing against manufactured tractors. The Doodlebug ran circles around the competitors, plowing the allotted half acre in 22 minutes—two minutes faster than any of its rivals. It used less fuel than the others, too.

But Friday's interest in building the Doodlebug was short-lived. During World War II, he focused his attention on developing tractors for Love Industries in Eau Claire.

Love

Jabez (sometimes called Jacob) Love was a resident of the fruit belt in southwest Michigan. Like David Friday, he too experimented with a combination tractor-truck—not for row crops, but for orchard use. The Love tractor, readily identifiable by its rounded hood, could move along rows of trees with minimal damage to branches, blossoms, and fruit.

With Friday's expertise, it was also able to reach speeds of 60 miles per hour, making it a road-worthy machine that could be used to haul trailers loaded with crates of fruit from orchard to market.

By the end of the war, Friday had bought the company and started manufacturing tractors from Dodge and Chrysler parts under his own name. The last Friday tractor was built in 1959, but the company continued on until 1993, building lift trucks, pruning vehicles, and other farm-related equipment.

Examples of all the Michigan-made tractors mentioned in this article can still be seen at museums and tractor shows around the country and, in the case of Fordson tractors, around the world.

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GENERAL MOTORS BUILT TRACTORS OUT OF STATE



Samson tractors were noted for their unique wheels that gripped Midwestern soil without becoming mired in it. Courtesy of Bernie Smith.

In 1917, Billy Durant, then president of General Motors (GM), noticed the success that Henry Ford was having with his tractor business. So he pushed to purchase the Samson Sieve-Grip Tractor Company of Stockton, California. A year later, GM also acquired a farm implement producer, the Janesville Machine Company of Wisconsin, and combined the two companies at the Janesville location. The consolidated organization became known as the Samson Tractor Company Division of General Motors.

The Samson Model M was put into production in May 1919 and advertised at \$650. It was a good, solid tractor priced a little higher than the Fordson, but fenders, a platform, and belt pulley were included. Unfortunately, the small profit it earned did

not compensate for the losses associated with Samson's other tractor of 1919: the Model D Iron Horse.

The Model D operated as its name advertised: It was guided by reins tied to levers, just as a horse would be. Also, it could pull the old horse-drawn implements, saving the farmer the expense of purchasing more new equipment. Despite these unique features, the Iron Horse was a dismal failure for the automaker. It turned out that the engine's heavy canvas belts shrunk in hot or humid weather and, more importantly, the tractor was easily tipped over.

GM lost \$33 million on the Samson venture. After the plug was pulled on the operation in 1923, the Janesville assembly plant was converted to automobile, truck, and SUV production. GM ceased all operations there in 2008.