



Ferguson Belfast Black tractor.

Ferguson's 'Black Tractor' Back Home In Belfast

In 1933, Harry Ferguson produced a prototype black 'Irish Tractor' with his patented 3-pt. linkage, known as the Ferguson System. Its innovative design combined the tractor and plow into a safe and efficient operation with automatic draft control.

Today, over 80 percent of the world's tractors use the Ferguson System, commonly known as a 3-pt. hitch. In 2024, Ferguson's Belfast Black prototype tractor, nearly 90 years old, was brought back to Northern Ireland. It's currently displayed at the Ulster Transport Museum in Belfast, not far from

where Ferguson grew up. It had been housed for years in London's Science Museum. Supporters of Ferguson's inventions are working to raise funds for a dedicated Harry Ferguson Museum of Innovation. His history of inventing includes tractors, implements, an airplane and even a 4-WD Formula 1 race car.

Harry Ferguson was born in 1884 and raised on his parents' farm near Dromore, in Northern Ireland. Slightly built, rebellious and unfit for hard manual labor, Ferguson joined his brother Joe's car and cycle repair shop to learn mechanical skills. With a

flair for technical thinking and marketing, he modified motorbikes as a 20-year-old and raced them in competitions to promote his brother's business. Five years later, in 1909, he and his engineering friends built an airplane.

In 1917, Ferguson and Willie Sands were invited to improve the output of tractor-powered tillage. They fitted a Model T Ford, known as the Eros, with a rigid mounted plow. When Henry Ford launched the Fordson tractor in North America in 1917, Ferguson and Sands, along with Archie Greer and John Chambers, focused on building their own tractor and implements. Ferguson said it was clear to him that the only way forward was to build a custom tractor that would incorporate his own inventions and be useful to small and large farms.

Ferguson demonstrated early versions of his mechanical 3-pt. hitch on Fordsons in 1920 and 1921. New development produced a hydraulic version that was patented in 1926. The prototype Ferguson Black arrived in 1933. It was the forerunner of the TE20, known as the Fergie, which was prominent on farms in Britain and around the world in the 1940s and early 1950s.

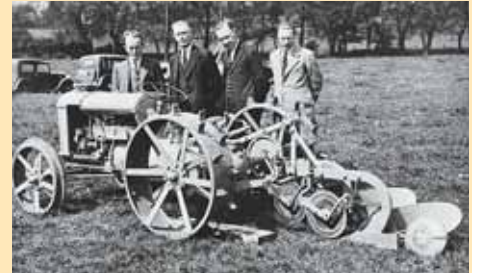
Ferguson's patented 3-pt. system was so innovative that, in 1938, he made a handshake agreement with Henry Ford to allow its use

on Ford-Ferguson 9N and 2N models. Over 306,000 were produced until Henry Ford II terminated the deal in 1946.

Ferguson sued Ford for plagiarizing his idea for the newly introduced 8N. The suit was settled for \$9.25 million in 1952, allowing Ford to continue using the components. In 1953, Massey-Harris acquired the Ferguson tractor and machinery company. Today, the Ferguson name lives on in the Massey Ferguson brand, an important entity of Agco, Inc.

Although Ferguson lived a life of innovation and success, he told friends that his one major regret was not being able to manufacture his famous Black Tractor in Belfast.

Contact: FARM SHOW Followup, Ulster Transport Museum, 153 Bangor Rd., Cultra, Holywood, County Down, BT18 0EU (www.ulstertransportmuseum.org).



Harry Ferguson (far right) along with Archie Greer, Willie Sands and John Chambers designed four different mounted implements for the Belfast Black tractor.

There's A Red Oliver In An Iowa Museum

Anyone seeing a red-bodied tractor with bright green wheels in or around Charles City, Iowa, in early 1954 might've wondered who on earth came up with that scheme. Manufacturing Oliver equipment was a significant industry in Charles City at the time, but their tractors were green with red wheels and a yellow grill. The bright red tractor was a prototype known as the XO-121. The X identified it as experimental, the O signified Oliver, and the 121 identified its 12:1 compression ratio. Since 1987, the rare and restored tractor has been housed in the Floyd County Museum in Charles City.

The XO-121 grew from a joint venture between Oliver engineers and the Ethyl Corporation of Michigan. The idea was to develop a high-compression gas engine that would run on high-octane (premium) fuel, gaining better performance with lower fuel consumption. The Ethyl Corporation in Michigan liked the idea because they thought diesel engines could possibly overtake gasoline engines in popularity.

Oliver engineers modified the front frame of an Oliver Row Crop 88 to accept a custom Hercules diesel engine block with multiple main bearings. Oliver built three of the test engines but only one tractor. The tractor used tin from the 88 with special identifying badges on each side. The engine was painted silver, the body and metalwork bright red and the wheels Oliver Meadow green. A chrome grill replaced the traditional Oliver yellow version.

Tests conducted in 1954 in Charles City and then at the GM Proving Grounds in Michigan showed that the engine provided 43% more power with 28% less fuel. Although the XO-121 never saw a full production rollout, the research on it proved beneficial for future Oliver engines and even those of other tractor companies. Oliver credited the research with improving its Super 88 and 1800 engines. A whitepaper and film titled "Getting Ahead of Tomorrow" documented the collaborative research and development that produced the tractor.

By 1960, the tractor had served its research purpose and was donated to Iowa State University in Ames for use in its Ag Engineering department. Twenty years later, it moved to the Living History Farms in Urbandale, Iowa. It was painted green and used to pull wagons carrying guests.

In 1987, Wayne Wiltse, a senior engineering student at Iowa State from Charles City, saw the tractor and said it was almost unrecognizable. Wiltse notified the Floyd County Historical Society in Charles City, whose president, Ken Johnson, asked the Living History Farms if the tractor was available. The organization said yes, and the Mason City organization bought it.

Soon, a group of local farmers resurrected the 121 engine. They speculated that it had been running on low-grade fuel, which had caused the engine issues. Over time, the XO-121 was completely repainted and restored. These days, it welcomes year-round visitors at the museum and is brought out for special events, including Hart-Parr Oliver collector's shows.



One-of-a-kind Oliver with an innovative engine that reduced fuel consumption and improved power output.

Contact: FARM SHOW Followup, Floyd County Museum, 500 Gilbert St., Charles City, Iowa 50616 (ph 641-228-1099; fcmiowa@gmail.com; www.floydcountymuseum.org).

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