

Henry Ford — the Tractorman!

By Ian M. Johnston — The Tractor Historian



Mention the name Henry Ford and most people conjure up thoughts of Model Ts and V8 engines. It is not widely appreciated that the illustrious Henry, whilst administering his automobile empire, also became the world's most successful tractor manufacturer!

In 1878 Henry Ford was a gangly 15-year-old who spent most of his time toiling on his father's Michigan farm. The work was hard and arduous, but it was the monotony that bothered him the most. His young fertile mind enabled him to comprehend the futility of walking behind a sweating draught horse for days on end, in order to plough one acre by each nightfall. There had to be a better way!

Often in the cool of the evening, Henry would sit under the stars and dream of a future in which mechanisation would replace the drudgery of farm labour. But unlike many philosophers and theorists, the young Henry emerged into adulthood as man of great innovation and enterprise.

It is now well documented history that in 1900, at age 37, Henry Ford commenced production of a number of prototype cars and that by 1910 the Model T Ford was well on its way to becoming the car that revolutionised human mobility. He is also credited with pioneering the assembly-line method of vehicle construction.

Despite the challenges of creating an

automobile empire, Ford never forgot the demoralising farm work of his youth and his commitment to reducing the crippling backbreaking toil of agricultural labourers.

In 1907 Ford put together a small team of creative thinking engineers under the leadership of a Bulgarian named Joseph Galamb, who was purloined from the Ford vehicle design plant. Ford challenged the team to produce a tractor that could pull a two furrow mouldboard plough and drive a threshing machine with an endless belt. Importantly, it had to be priced so that a small-holder could afford its purchase.

During this era of embryo tractor development, all the North American examples were huge heavyweights with similar characteristics to their steam cousins. Accordingly, their high price structures restricted sales to wealthy land barons and large contracting firms.

Henry Ford passionately wished to produce a tractor that he could sell to the world's farmers in the same way as his Model T car was selling to the masses, in many countries around the globe.

The Ford Company executives were frequently perplexed by the sudden absence of their boss, sometimes for days on end. They were unaware that he was secretly spending time on his farm with his tractor team, helping to test experimental models and iron out the inevitable technical problems.

Initially, modified Model T's were trialed, but without much success. Larger capacity engines were introduced, but again without providing Ford with the results he was hopeful of achieving.

Following some years of this constant trial and error routine, Ford sacked his tractor team and brought together some fresh minds, under the direction of another Bulgarian engineer named Eugene Farkas.

Farkas convinced Ford that the engine and transmission should have sufficient inbuilt strength, enabling these two major components to be bolted together as one unit. He argued that this would eliminate the need for chassis rails, which were costly to manufacture and tended to flex when subjected to the torsional stresses experienced in tractor work.

Ford agreed with the Farkas logic and a prototype was built. The tractor proved under tests to embrace all the original requirements stipulated by Ford.

In 1917 the tractor was ready to be put into production at a specially built factory within the Ford manufacturing complex at Dearborne, Michigan. The tractor was named the Model F in recognition of Eugene Farkas.

The engine was a relatively crude four cylinder side valve unit which relied upon splash lubrication to supply oil to its innards. It developed 20 hp at a leisurely 1000 rpm and its 4x5 inch bore and



"The futility of walking behind a sweating draught horse for days on end, in order to plough one acre by each nightfall" (see text).



A Fordson Model F, fitted with an Athens mid mounted twin disc plough, taking part in a vintage tractor ploughing competition in Victoria. The owner and driver is Mal Brinkmann.

stroke displaced 251.3 cubic inches. The magneto was built into the flywheel to supply the sparks and initially a Holly carburettor mixed the fuel and air. The wet clutch ran in oil and the final drive was a phosphor bronze worm gear.

Henry Ford rushed his legal boffins to the Federal Patents Office to register the brand name of 'Ford' for his tractor. He was later shocked to learn that a Minneapolis entrepreneur of questionable ethics had already grabbed the name and applied it to a backyard made ineptly designed tractor!

The problem was quickly resolved by registering the name 'Fordson' (this answers the often asked question — why the tractor was named 'Fordson' and not 'Ford').

Across the Atlantic, the British government had been carefully monitoring the progress of the Fordson Model F. The country was at war with Germany and there was a pressing need to mechanise British agriculture in order to boost the production of food and fibre.

A Fordson was freighted to England, where it was thoroughly tested by the War Department. This resulted in the largest ever single order for tractors. No less than 6000 units were ordered from the Dearborne plant for export to Great Britain during 1917-18.

Following the fulfilment of this order, the Fordson Model F was ready for distribution to the North American and world markets. There was a ready made sales and service outlet in many country towns, as each rural Model T Ford dealer was automatically a potential Fordson tractor agent.

Within 12 months of entering production, 34,000 Fordsons were working on



A historic photograph of an industrial version of the Fordson Model F, complete with solid tyres, hauling two converted horse carts loaded with salt. The photo was taken at Edithville, SA.

farms. Henry Ford delivered his undertaking to provide a tractor that was affordable. The Model F price was around half that of other tractors of similar horse power.

As a result, scores of opposition tractor firms went out of business. Others, including International Harvester, Wallis, John Deere, Huber, Eagle and Avery, were obliged to slash their prices to remain in business.

Between 1917 and 1928, 250,000 Fordsons were produced at Dearborne. An additional factory at Rouge, Michigan, accounted for a further 500,000 units. This amounted to a staggering 750,000 tractors — more than 50 per cent of the world's total tractor production in this period and with just one model! A truly amazing marketing achievement, that could only be the dream of a tractor manufacturer today, as such a market domination will never again be experienced.

So how good was the Fordson Model F?

Even with numerous minor mechanical upgrades, it remained noisy and rough to drive. But more significantly, it had a lethal habit of rearing over backwards, on account of the worm gear final drive, if the drawn implement encountered an immovable object such as a rock or stump.

Cranking the engine could incur a broken arm, if the manual spark control had not been sufficiently retarded. The kick-back from the direct steering, sprained many a wrist. Engaging a gear first thing on a cold morning, when the oil was thick, could be a gut wrenching experience. The design of the fuel tank could result in fuel starvation, when operating across the side of a hill, with the tank less than half full.

Despite all these shortcomings, the alternative to operating a Model F was either the purchase of a tractor costing at least double the price (financially out of

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Another view of Mal Brinkmann's Model F illustrating the extension to the front axle, required to make space for the two furrow disc plough.



Several North American manufacturers designed after market crawler track gear, for fitting to the Fordson Model F. Pictured is a Model F, owned by Norm Bates of WA, equipped with tracks manufactured by the Bell City Mfg Co, Racine, Wisconsin.



This 1924 Fordson Model F is mounted on a pair of Trackson crawler tracks, a product of The Full-Crawler Co, of Milwaukee, Wisconsin. The diameters of the rear driving sprockets are the same as the steel wheels they replaced, thus providing the equivalent driving speeds. The tractor pictured is part of the world-class collection of tractors at the Booleroo Steam and Tractor Preservation Society Inc. of South Australia.



The Fordson Model F was replaced by the Model N — see text. This photo shows a 1936 Fordson Model N being driven through the main street of Yass by the former leader of the Australian National Party and Deputy Prime Minister, The Hon. Tim Fischer. The tractor is owned by Warren Kemp.


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the question for most farmers) or the continuing drudgery of walking behind a team of bullocks, horses or mules.

Production of the Fordson Model F was discontinued in 1928. A slightly improved version, to be known as the Model N, would take its place. But Henry Ford somewhat dramatically announced that the replacement model would be manufactured at a new plant located at Cork, Ireland! This was the birthplace of his grandfather and he had a burning desire to create much needed additional employment in this beautiful but impoverished region.

The first Cork Fordsons came off the new assembly line in 1929. Within 12 months, 4000 Model Ns had been assem-

bled. But the political scene in Ireland changed and once again the entire production plant was moved, this time to Dagenham, England.

In 1945 the Model N was superseded by the Fordson E27N Major which, until the advent of the Ferguson, became Britain's top selling tractor. 

IAN'S MYSTERY TRACTOR QUIZ

QUESTION: Can you identify this tractor with the unbelievably uncomfortable driving position?

CLUE: It's design is a disgrace to the British tractor industry of the late 1940s.

DEGREE OF DIFFICULTY: If you have studied tractor 'lemons' then you will pick this one straight away. If not — then just turn to the answer.

ANSWER: See page 88.



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This 1922 advertisement appeared in a number of Australian rural publications.