

# John Deere - the facts!

By Ian M Johnston



## LOGIC

I have not checked the statistics recently in order to establish precise figures, but one doesn't require a degree in agricultural economics to be aware that John Deere tractors enjoy a very healthy share of the total tractor market in Australia. It is impossible to motor through any of our broadacre farming districts without sighting at least a few of these green and gold machines toiling away.

Having personally owned and farmed with John Deere tractors, I can understand the reason for their popularity. But I must hasten to add, I do not intend this article to be a promotional advertisement for Deere and Co! I mean to say – all tractors are pretty good today. Well, aren't they?

I am merely thinking that as there are so many J.Ds. around, it therefore logically follows that legions of farmers own them, and according to my somewhat paroxysmal syllogistic reasoning (phew) it is justifiable to assume that a significant percentage of these said owners would at least be mildly interested in becoming acquainted, that is assuming they are not already so, with precise and accurate information relating to the origins of John Deere tractors, upon which they could contemplate during their ensconcement within the air conditioned confines of their tractor cabins, as they diligently navigate the big machines around the workings of their respective paddocks.

Gee – did I write that?



**Pictured is the very first tractor designed and manufactured by Deere and Co in 1914. The complicated three-wheel design proved to be inefficient and unreliable and was not developed beyond the prototype stage. (PHOTO: Courtesy Deere and Co archives)**

(Before proceeding, please note – I was not involved in the script writing of Sir Humphrey's lines in 'Yes Minister'!)

## MISINFORMATION BY ALLEGED 'EXPERTS'

At the risk of being labelled a 'smarty', believe me when I state categorically that the majority of tractor scribes get it wrong, when explaining the genesis of John Deere tractors. The frequent misconception is that Deere and Co of Moline, designed its first tractor in 1918 and named it Waterloo Boy.

Not so!

So how come I should know better and what makes me right?

Simple really. Back in the 1990s I was invited to spend as much time as I wished, exploring the Deere and Co archives. These were housed in a climate controlled sanctuary, which occupied a complete upper floor of the vast JD harvester assembly building in East Moline, perched on the banks of the Mississippi.

Les J Stegh, the company's senior archivist and his dedicated staff, had filed and computerised tonnes of records, many of which dated back to the mid 1800s, all of which were made available for my perusal.

During the visit, my endless requests for information and the inspection of specific

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**A historic photo of The Big Four operating at the beginning of the twentieth century in the Parkes district. Note the three horse ploughs which the big tractor would have hauled effortlessly. John Deere entered the world of farm tractors with a marketing arrangement of the Big Four with the Transit Thresher Company of Minneapolis which, during that period manufactured The Big Four.**

(PHOTO: Courtesy Pioneer Park Museum, Parkes, NSW)

documents, were greeted with extreme tolerance and good humour. I am grateful to Les J Stegh and his competent staff for their warmth and cooperation.

So there you have it! The reason for being virtuously confident of my facts, is that I performed indepth research into my subject, instead of cobbling information from other's writings, as regrettably is the custom of many 'modern' alleged tractor historians and writers.

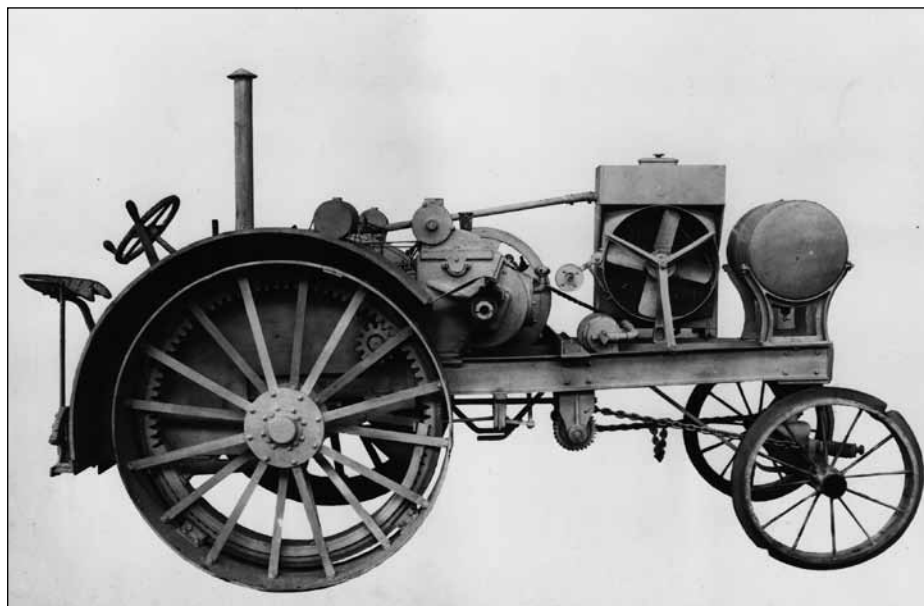
Egotistical! Who me? Guilty as charged m' Lud.

Now for the serious bit.

### THE TRUE FACTS

During the first decade of the 20th century, the Deere and Co management team observed with some anxiety that a number of their farm machinery competitors were becoming involved with tractors. They were particularly concerned that brands such as International Harvester, Sawyer Massey, Hart Parr, Rumely, Minneapolis and Case would expand, to the detriment of John Deere, which at that time had not entered the tractor arena, and thus would be left behind with the new technology.

Accordingly, in 1910 the company negotiated an arrangement with the Gas Traction Company of Minneapolis, to distribute its tractor known as The Big Four. The mammoth tractor, weighing around 10 tons, was designed by D. M. Hartsough and had been successfully marketed since 1904. It was so named as it was claimed to



**A studio photo of a Waterloo Boy Model R. Note the ring gear drive in the rear wheel and the crude chain steering. (PHOTO: Courtesy Deere and Co archives)**

be the first American tractor powered by a four cylinder engine. But Deere's association with The Big Four failed to return the profits anticipated and the agreement endured only for a short period.

As a consequence, in 1912 the President of Deere and Co, William Butterworth, gave approval to his senior engineer, C. H. Melvin, to proceed with all due haste, the design and production of a medium-weight tractor. The project took two years and despite the incorporation of many engineering innovations, was finally abandoned, to the dismay of management, following unsuccessful attempts to

overcome mechanical problems with the three-wheeled prototype.

The Vice President, Joseph Dain, took it upon himself to pursue the tractor project and succeeded in convincing the board to allocate the substantial funding required for the commencement of an entirely different tractor design.

In 1916 Dain's all-wheel-drive John Deere tractor went into production. The first of these three-wheeled machines proved to be underpowered and subsequent units were equipped with a Mac Vickers designed four cylinder engine, which produced 24 belt hp resulting in a satisfactory 3000 pounds drawbar pull (at an unstated speed). The tractor was equipped with a complicated two-speed transmission, which could be changed on the move under full power.

But still there were problems. The price of the Dain John Deere three-wheeled tractor proved uncompetitive, largely owing to the complexities of the all-wheel-drive design. Only an estimated 200 units were produced before the project was discontinued.

With a degree of urgency the board looked around for an alternative tractor to market. They focused their attention upon the Waterloo Gasoline Engine Company, which had been manufacturing Waterloo Boy tractors at its plant in Waterloo, Iowa, since 1913. H. W. Leavit, the firm's chief engineer, originally designed a tractor named the Big Chief for a rival company. Upon joining the Waterloo Gasoline Engine Company, Leavit simply redesigned the Big Chief, but with numerous improvements, and thus created the Waterloo Boy.



**Deere and Co released its second in-house designed tractor in 1916. Note the three-wheel drive configuration. Although a reasonable performer, the cost of production rendered it uncompetitive and only around 200 units were manufactured. At least one example remains in the US and is insured for a figure in excess of one million US dollars. (PHOTO: Courtesy Deere and Co archives)**

In 1918 Deere and Co purchased the Waterloo Gasoline Engine Company, together with the Waterloo Boy tractor and the services of H. W. Leavit. By this time over 8000 Model R and N twin-cylinder Waterloo Boy tractors had been purchased by farmers around the world, who were more than pleased with their new tractor. Some were exported to Britain, where they were marketed as the Overtime Model N. (Interestingly, Ulsterman Harry Ferguson became their distributor in Ireland.)

Despite the Deere and Co acquisition of the Waterloo Boy design, it was decided to continue to sell the tractor under the brand name of Waterloo Boy until 1923, when the all new John Deere Model D was released. Significantly, around six years had elapsed since Dain's three-wheeled tractor went out of production.

The twin-cylinder John Deere Model D became a legend. It was commercially one of the most successful tractors of all time. It also had the longest production life of any model of any tractor. Including several upgrades, it was produced from 1923 until 1953. During this period, nearly 200,000 were manufactured.

Throughout the 30-year production life of the Model D, and up to 1960, a comprehensive range of other twin cylinder John Deere tractors was produced. Included were row crop, broadacre and orchard tractors, also crawlers and industrial units, plus diesel variations.

In recent years, twin cylinder John Deere tractors have become greatly treasured by collectors and museums around the world.



**A historic photo of an early Waterloo Boy hauling a set of disc harrows in Iowa.**  
(PHOTO: Courtesy Deere and Co archives)



**Photo shows an early example of a John Deere Model D. Note the spoked flywheel, which proved extremely hazardous to the operator, when pulling the flywheel over to start the engine.** (PHOTO: Courtesy Bart Cushing, New Hampshire, US)

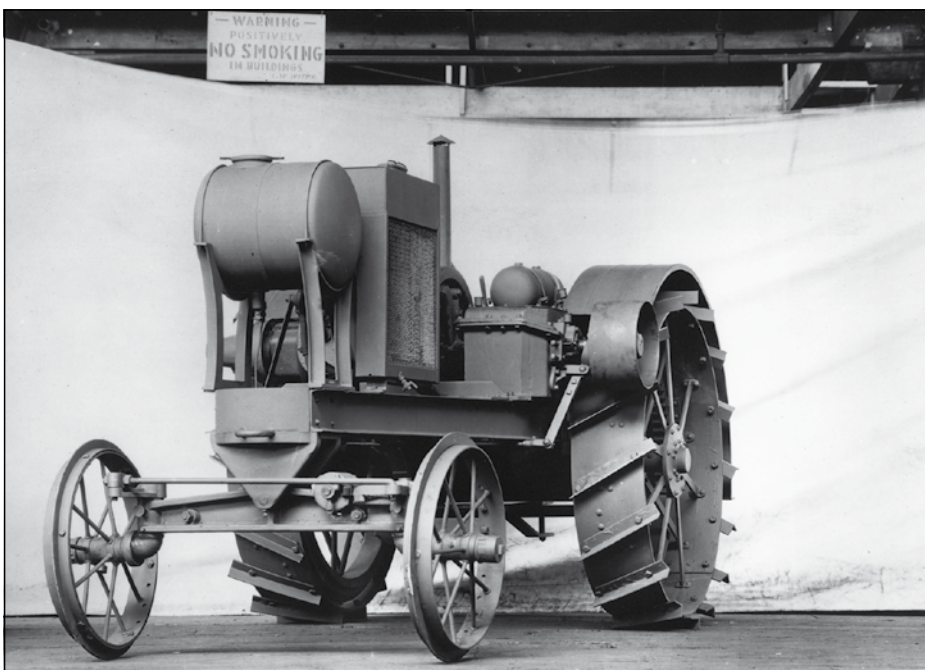
## IAN'S MYSTERY TRACTOR QUIZ

**Question:** This is the dashboard and control centre of which tractor?

**Clue:** It was made in Moline, Illinois.

**Degree of Difficulty:** Only REAL tractor men will pick this one! Although the clue is revealing!

**Answer:** See page 56.



**A studio photo of a 1920 Model N Waterloo Boy tractor. Note the later design Ackerman steering.** (PHOTO: Courtesy Deere and Co archives)