

Huber — the forgotten tractor

By Ian M. Johnston — The Tractor Historian



The name of Edward Huber would mean little to today's modern farmers. Only historians and vintage tractor enthusiasts, who have researched the evolution of mechanised farming, would appreciate the innovative greatness of this tractor pioneer. The tractors which bore his name were widely respected throughout North America and Australia for their integrity of design.

Edward Huber was born in 1837 at Kelso, Indiana, the son of a German immigrant cabinet maker. He served his time as an apprentice blacksmith, before moving to the nearby industrial centre of Marion. There, he and his brothers founded The Huber Manufacturing Co in 1874, specialising in the manufacture of hay rakes and grain thresher mills.

Within a few years, the first of a long line of highly regarded Huber steam stationary and traction engines appeared, with production continuing into the third decade of the 20th century.

In 1898 the Van Duzen Co of Cincinnati was acquired by Huber. Van Duzen had been producing crude single cylinder internal combustion engines since 1891. A 16 brake hp version was used in 1892 to propel a Froelich, accepted as being the world's first internal combustion engined tractor. With a bore and stroke of 14 inches, this engine had a whopping displacement of 2155 cubic inches or

35.313 litres!

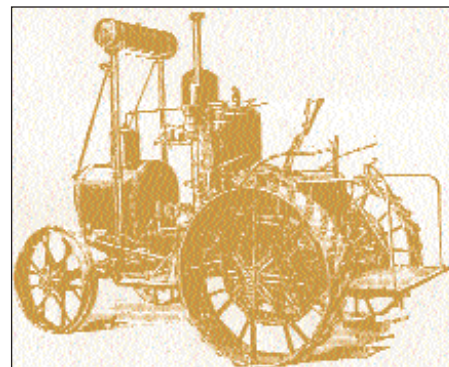
The Huber Manufacturing Co entered into tractor production in 1898, when it built 30 primitive heavyweight units, powered by Van Duzen conceived single cylinder petrol engines. These were started by a shot gun cartridge, then relied upon the heat retained in a platinum strip to give the next charge. Exposed iron spur gears delivered the power to the two five feet tall driving wheels. The cast iron chassis was "borrowed" from the Huber steam tractor engines.

PROBLEMS FOR PIONEERS

To describe the inaugural Huber tractors as "...clumsy and inefficient engineering disasters", as suggested by one high profile tractor historian, is an uncharitable simplification of the truth. It must be remembered that in 1898 tractor manufacturers were pioneers. There were no reference or text books to which they could consult. Lubricants, fuels, carburation, metallurgy, clutch and engine designs were in the embryonic stage of their development.

Accordingly, farmers in 1898 must have stared with amazement at the sight of a clattering piece of ironmongery doing the job of a team of horses. Only a rare few citizens had even witnessed an automobile in 1898, far less a tractor!

Therefore they would not have been surprised if the machines required frequent repairs, or were cankerous to fire-up on a



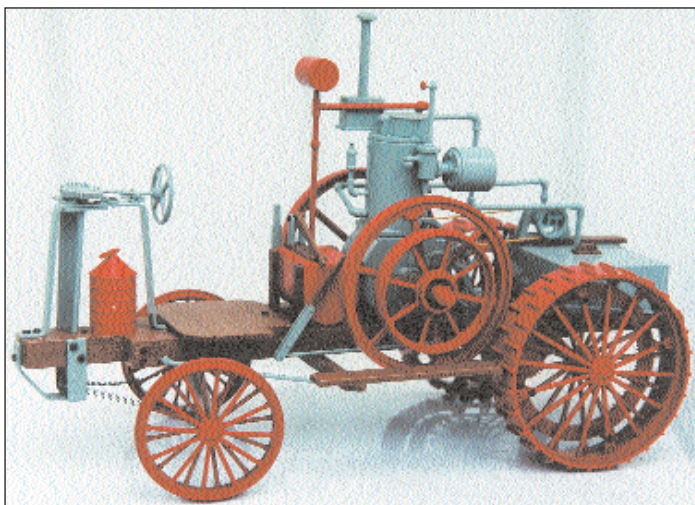
A drawing of an 1898 Huber tractor, powered by a Van Duzen designed single cylinder engine. Note the elevated fuel tank, necessary for the gravitational feed to the crude carburettor. (Drawing from Huber promotional material)

cold morning. We, of today, must not let our modern acceptance of tractor reliability influence our views relating to those cutting-edge 1898 machines.

Notwithstanding, Huber refrained from introducing additional tractor models for a period of 13 years, during which time intensive research and trials were carried out, whilst a close watch was maintained on the products emerging from rival companies including Kinnard-Haines, Otto, Lambert, Transit, Hart Parr, Russell and McVicker.

In the meantime, Huber continued with its range of excellent steam traction

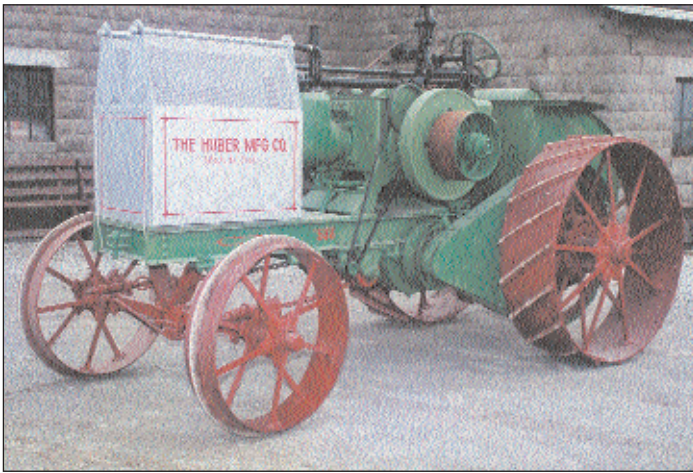
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The engine powering this 1892 Froelich tractor (the world's first) is a 35.3 litre single cylinder Van Duzen. Huber purchased the Van Duzen Co in 1898. (Photo IMJ)



Pictured is a 1910 30 hp Huber Steam Traction Engine, with a boiler shell diameter of 44 inches and a thickness of 0.375 inches. Thirty steam flues of 101 inches had a diameter of 2.5 inches. The unit weighed around 12 tonnes. Huber steamers were highly regarded and compared more than favourably with their other North American counterparts. (Photo courtesy W. Johnson)



Dan Ehlerding of Ohio owns this magnificently restored example of the 1914 Huber 15/30. This was perhaps the only Huber that proved to be unworthy of the manufacturer — see text. (Photo IMJ)



Pictured is a 1928 Huber 22/38 Super 4, No. 9048, belonging to Australian collector Les Burns. The tractor is provided with two forward speed and one reverse gear. Note that for transportation purposes the steel grips have been removed from the wheels. (Photo IMJ)

◀ 62...CLASSIC TRACTORS

engines. In 1910 a great deal of interest was created when the New Huber Traction Engine line was introduced. It featured an advanced design of flue which drew the flames and hot gases through the boiler and then re-directed them through a patented return flue. This had a result of producing twice the steam, compared with

the conventional single direction flue, using the same amount of fuel. In addition, a patented Super Heater drew the steam through the hottest part of the fire immediately prior to delivering it to the cylinder, creating a greater expansive force.

In 1911 Huber re-entered the tractor market when it released its "Farmer's Tractor". A 15 hp twin cylinder horizon-

tally opposed engine was positioned longitudinally mid-ship and had a 5.75 x six inch bore and stroke. In an unusual twist, the operator was positioned out front and a tower water cooling system located at the rear of the short wheelbase tractor.

Other models followed the original Farmer's Tractor, including in 1914 a massive Huber 30/60 powered by a four cylinder 60 belt hp engine, which required 95 gallons of cooling water to dissipate the heat generated.

Also in 1914 the smaller 15/30 was added to the range, which proved to be an unreliable and badly engineered tractor. Owing to its poor performance, only 150 units were produced. The heart of the problem was the twin cylinder engine

AS STEADY AS THE MILL WHEEL!

It works all day—every day

The Mill Wheel turns as long as there is water in the chute. You must know that your tractor will "go" as long as there is fuel in the tank.

12 H. P. on Draw Bar
25 H. P. on Belt Pulley

THE HUBER Light Four

Draws three bottoms
Turns an acre an hour

This advertisement was featured throughout North American farming magazines in 1922. The Light Four was powered by a Waukesha 25 hp engine mounted crosswise across the chassis. (Huber promotional material.)

IAN'S MYSTERY TRACTOR QUIZ

QUESTION: This oddball design engine is powering which tractor?

CLUE: The engine has two cylinders.

DEGREE OF DIFFICULTY: This is a stinker! If you know the answer, you are a classic tractor expert.

ANSWER: See page 80.



made by Sintz Wallen of Grand Rapids, Michigan. Its twin cylinders were longitudinally horizontally opposed.

A single carburettor was placed at the top end of the number two cylinder inlet manifold and therefore the petrol/air mixture had to travel the full length of the engine for number one cylinder to fire. This led to erratic combustion and rendered fine tuning impossible.

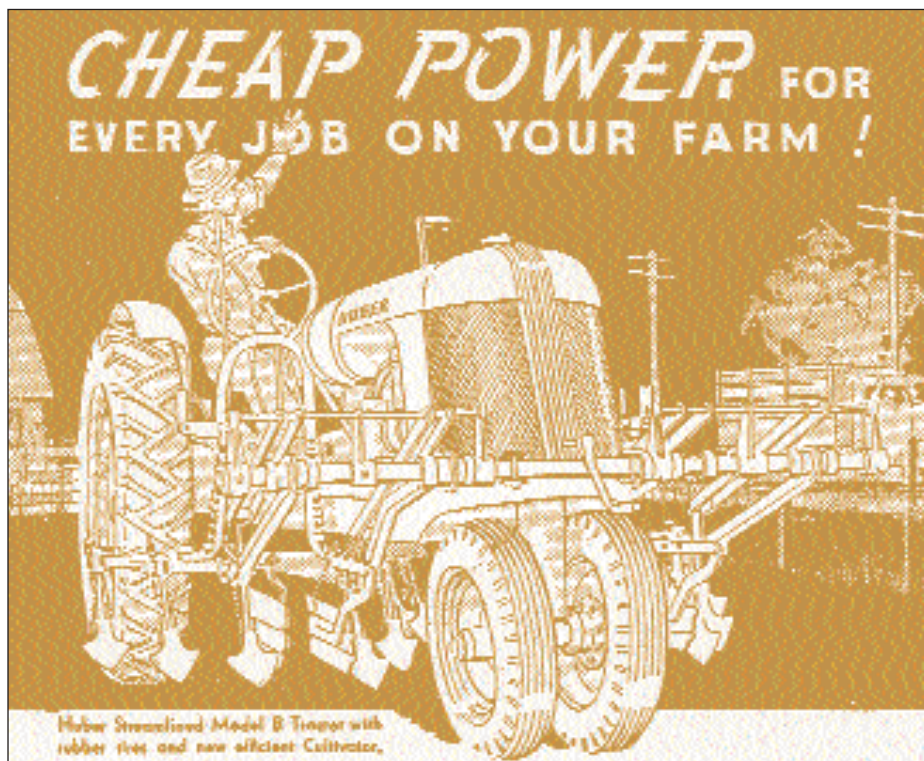
The Sintz Wallen engine had been designed primarily as a stationary unit for driving a constant load such as a pump. In this application its performance would probably have been satisfactory, but installed in the Huber 15/30 tractor it had to respond to the constant load of the flying governor and it simply could not cope.

The cone clutch, which delivered the power to the two forward and single reverse speed gearbox, was also a problem as it frequently resisted all efforts to disengage.

FACING UP TO FORDSON

In 1922 Huber tractor sales, along with those of other US tractor manufacturers, were suffering because of the competition from the Fordson Model F (which by then had captured an incredible 50 per cent of the world's tractor sales). The Huber marketing strategy was to release a budget priced "Light Four" selling for \$985. The engine used was a four cylinder 25 belt hp Waukesha of 4.5 x 5.75 bore and stroke, mounted cross-wise behind a fan cooled radiator.

Possible Huber's most widely known tractor was the "Super 4" series released in 1926. Of these the 22/38 (an uprated version of the 18/36) proved an outstanding but expensive heavyweight unit, ideally suited for the North American and Australian broadacre grain belts. A Sterns four cylinder engine was utilised, having a 4.75 x 6.5 inch bore and stroke. It developed



The Huber Model B appeared in 1937 and was the last of a long line of Huber tractors. Pictured is the row crop version with mid mounted cultivators. (Huber promotional material)


its maximum 43.15 bhp at a leisurely 1000 rpm.

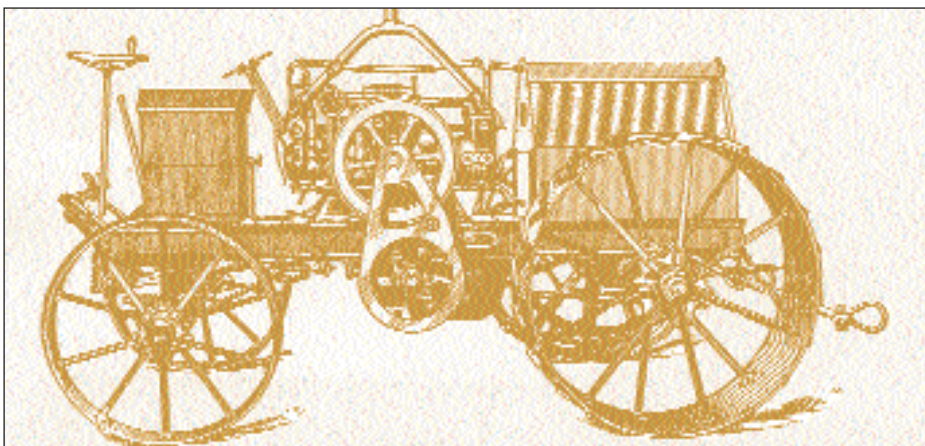
Like all American tractors of the era, the Huber 22/38 had a rapacious thirst for its kerosene fuel, being able to consume four gallons per hour under normal loads.

Huber remained in the farm tractor business until 1939. The final model unveiled in 1937 was the "styled" Model B powered by a Buda four cylinder engine. Although having attractive modern lines, the Model B was no real contender against the marketing might of International Harvester, Massey Harris, John Deere and the other giants of the tractor industry.

For some years after World War II the

company persevered with a range of road building machinery, until finally succumbing to the effects of global competition.

Today the proud name of Huber is remembered by only a few. Yet the contribution by the Huber Manufacturing Co to the evolution of both steam and internal combustion engined mechanised farming, is considerable and undoubted. 



The Huber Farmer's tractor was released in 1911. Note the frontal driving position and the tower cooling radiator located at the rear. (Huber promotional material)