

The well bred Baker

By Ian M. Johnston, the Tractor Historian

Lately it seems, tractor books coming onto the market are full of glitzy pictures of the commonly known early farm tractors, but regrettably are often accompanied by sketchy ill-informed technical information. Thankfully however, there are still a few authors who do produce well documented works which dedicated classic tractor enthusiasts find informative.

Significantly, there are a number of obscure old tractors that are rarely examined in any tractor book. Presumably this is mainly on account of the amount of arduous delving and research that is required to unearth precise facts relating to them, necessary for the creation of an informed article.

The Baker is one such tractor that falls into this category.

EARLY DAYS

Abner D. Baker was born in Ohio in the mid 19th Century. His early career was spent in the metal industry, where he became accomplished in several related trades. He was a man of great ambition and supremely confident in his abilities. In 1884 he opened his own engineering works at Swanton, Ohio, conveniently adjacent to the Toledo Junction rail centre.

In the same year, Baker released his first steam engine. It was equipped with his own design valve gear, which was considered revolutionary at the time. (Indeed by 1920, no less than 12,500 American steam rail locomotives were equipped with the patented Baker valve gear).

In 1900 the firm was incorporated as A.D. Baker and Co., and thus received a welcome injection of capital from the new shareholders. Perhaps wisely, Baker resisted the temptation to rush into the realms of internal combustion engine tractors. He preferred to remain with steam while he sat back and watched his competitors, including Rumely, IHC Sawyer Massey and Hart Parr, struggle with the new tractor technology.



The Baker 16–30 steam tractor was introduced in 1921. It featured an automatic coal stoker and front mounted fan cooled condenser, which gave it the resemblance of a conventional tractor.

However Baker believed that the conventional design of steam traction engines could be improved and thus perhaps reverse the drift to tractors by North American farmers.

THE BAKER STEAM TRACTOR

Accordingly, in 1921 Baker surprised the industry by releasing a highly innovative steam tractor built along the lines of the developing petrol/kero engined tractors. It even looked like a conventional tractor with a tubular radiator mounted at the front, which actually served as a condenser.

The cross compound steam engine was pressurised to 300 psi and the boiler had an automatic stoker. Remarkably, and unlike all other steam traction engines, the gear train was totally enclosed. The compact steam tractor, known as the Baker 16–30, tipped the scales at a mere four tons, less than half the weight of most conventional traction engines.

The initial 30 belt hp unit was closely followed by a 45 belt hp model. But production was discontinued after only two years, as it became obvious that farmers preferred the instant start advantages of the new petrol/kero tractors.

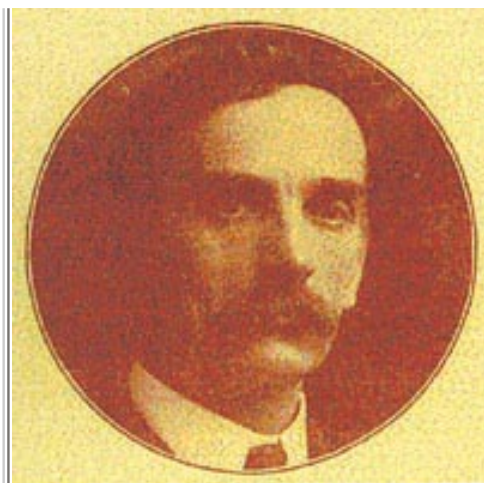
THE BAKER PETROL TRACTOR

Baker introduced his first petrol fuelled tractor in 1926. It was fitted with a Beaver ohv four cylinder engine with a 4.75 x 6 inch bore and stroke. At 1000 rpm it produced a leisurely but meaningful 40 belt hp.

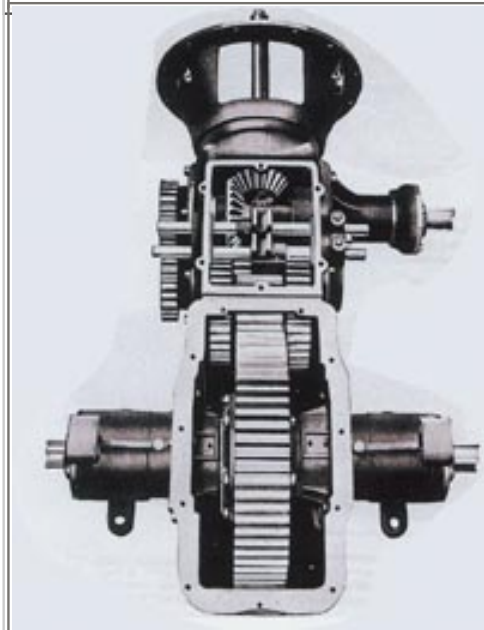
The 3.25 ton tractor was equipped with a transmission, custom built by Foote and Co. of Chicago. Although providing only two forward gears, the ratios could be altered by swapping the near-side pick off gears, effectively providing four forward and two reverse speeds. This was a design feature it shared with the Australian built Ronaldson Tippett tractors.

A year later — in 1927 — the Baker 25-50 was unveiled. A Wisconsin overhead valve engine was used in this four ton heavyweight. It had a 5.5 x 6.5 inch bore and stroke and Baker claimed that in the 25–50 it achieved 50 belt hp.

When tested at Nebraska in May 1929, the 25-50 was powered by a LeRoi ohv engine with a 5.5 x 7 inch bore and stroke which produced 67 belt hp and 75.88 brake hp. The drawbar pull



Abner D. Baker — President of the A.D. Baker Co.



The AD Baker Co. purchased its massively strong tractor transmission from Foote and Co., a well known gear manufacture of Chicago. Although providing only two forward gears, the ratio could be altered by swapping the near-side pick off gears — effectively providing four forward and two reverse speeds.

was a commendable 7840 lbs at 2.67 mph.

As a result of the Nebraska figures the 25–50 was rebadged as the 43–67.

The AD Baker Co. continued to manufacture tractors well into the late 1930s. By that time, despite the ruggedness and integrity of their design, the tractors had become old fashioned. The firm apparently did not have the considerable capital available to instigate a major redesign program. Baker tractor sales declined against the competition from Case, IHC, Oliver, John Deere and the other American manufacturers which had introduced new technology and styling into their tractor range.

BAKER THRESHERS

It is worth mentioning that the AD Baker Co. was not only one of America's first manufacturers of steel mobile grain thresher mills (as distinct from timber construction) but one of the first to include roller bearings supporting the various shafts.

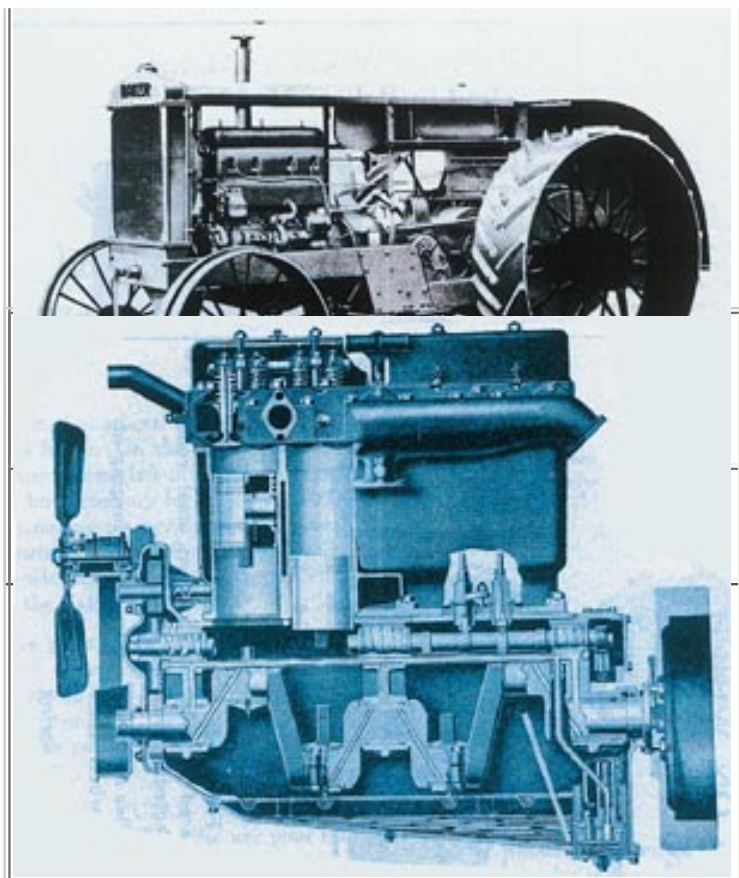
In total there were four Baker Steel Thresher sizes. This permitted farmers to choose the appropriate model to match the belt drive horsepower of their tractor.

It should be noted that the AD Baker Co. had no corporate connections with the following tractor companies that also produced 'Baker brand tractors' and which were totally different in design to those described in this article:

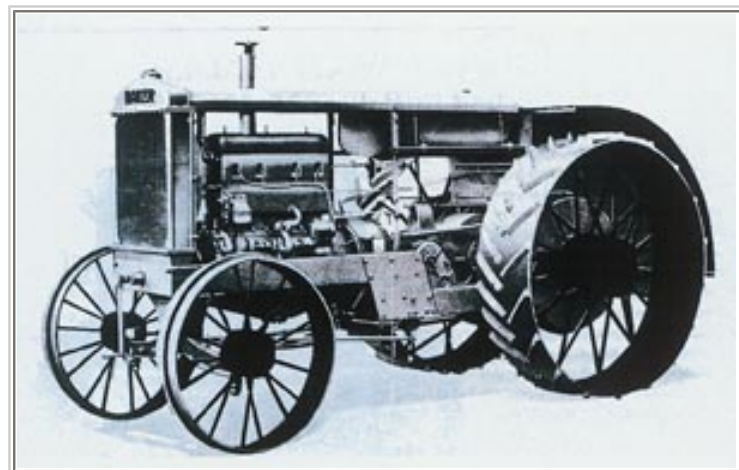
- Baker and Baker of Royal Oak, Michigan;
- Baker Manufacturing Co. of Springfield, Illinois; and,
- Baker Tractor Corporation of Detroit, Michigan.

Research has failed to discover any Baker tractors coming to Australia. The company was relatively small when compared with the big corporate farm machinery giants that enjoyed volume export sales around the world. In fact apart from Canada, it is unlikely that any Baker tractors were exported in quantity, if at all.

Author's note: Some of the above data relating to the AD Baker Co. and its tractors is at variance with previously published information by other writers. My material is authentic having been sourced from original company publicity information.

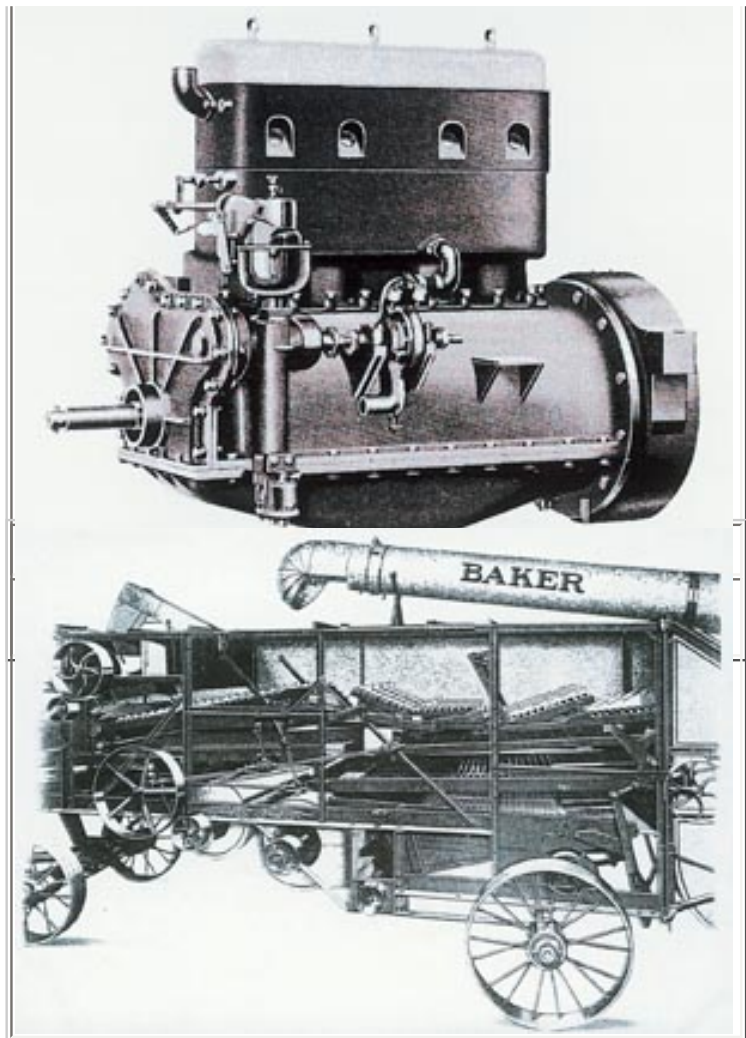


A cut away drawing of the Beaver engine fitted to the Baker 22–40 tractor.



This 1927 Baker 25–50 is powered by a Wisconsin 50 belt hp engine. Later versions were equipped with a 67 belt hp LeRoi.





While the AD Baker Co. was respected for its well engineered tractors, it was probably better known for its range of excellent mobile threshing mills. This steel fabricated model was equipped with 36 x 62 inch threshing drum (fitted with 155 teeth) which rotated at 950 rpm. Shafts were supported on roller bearings and the unit weighed around four tons.