The Farmall 100 Series. (1954-1956)

The Farmall 100. (1954-1956)
The Farmall 200. (1954-1956)
The Farmall 300. (1954-1956)
The Farmall 400. (1954-1956)
The Farmall Cub. (2nd style) (1954-1957)

These tractors embody all the power increases, design improvements, and new features that had been so thoroughly tested in the Super Letter Series.

All the 100 models have live hydraulics. The new Fast Hitch was available on all five.

The Cub and the 100 had a one-point Fast Hitch option. The others had two-point Fast Hitch. Initially, IH produced two sizes of Fast Hitch.

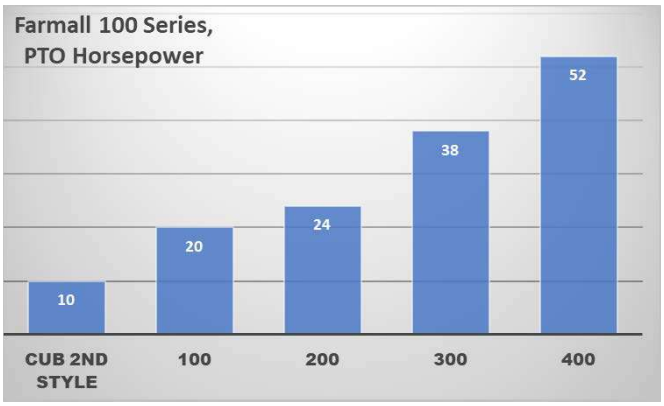
The 200, 300 and 400 have disc brakes.

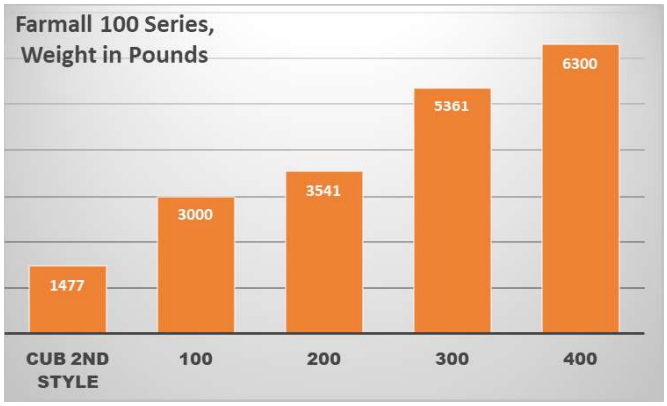
The Fast Hitch had been tested on Super C's and Super M's.

Fast Hitch is a mechanical system that simplifies hitching to rear mounted equipment. Fast Hitch includes a weight transfer system branded combination of Fast Hitch and Traction Booster did a good job of duplicating, perhaps even improving on Ferguson's three-point-hitch system which was still under patent protection.

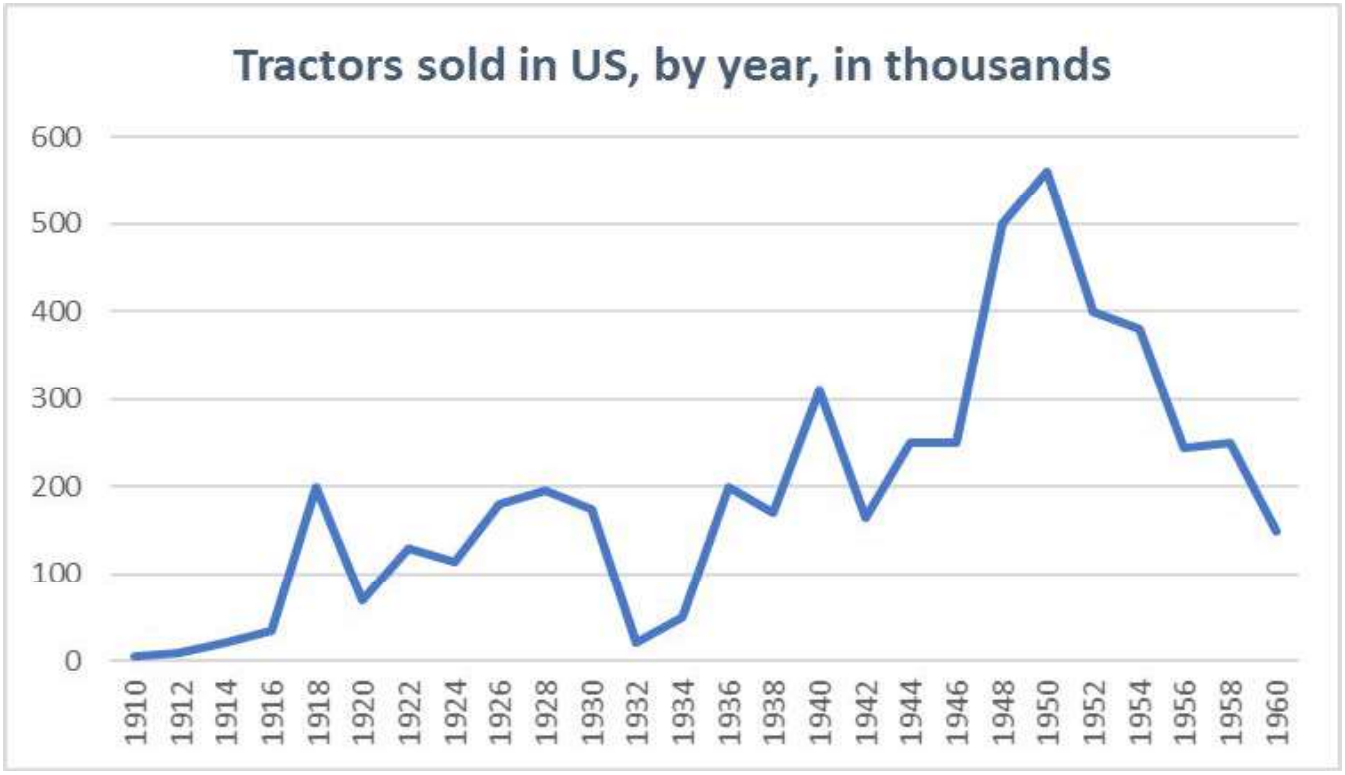
The new Torque Amplifier (TA) doubled the available speeds by providing two ranges. The TA also enabled a clutch-independent PTO. The TA was available on the 300 and 400. The TA had been tested on the SMTA and Super W-6TA

Farmall 400, 300, 200, 100 and the restyled Cub.





***ABOVE:** These graphs for the 100 Series show a widening horsepower gap between models. With each new series, IH increased the horsepower of the larger tractors to meet farmer's need for larger machinery. The smaller tractors are not increasing because they are anchored by the needs of small farms. The 14 horsepower gap between models is becoming too big.*



***ABOVE:** The graph above shows a steady increase in tractor sales from 1910 until about 1916. Then a spike occurs which is caused by WWI around 1918. By 1920, sales return to a steady increase until the Great Depression which begins after 1930. By the mid-1930s business is picking up again. Another spike is caused by the beginning of WWII around 1940. Later in the war, material shortages cut sales. There were no materials or manufacturing capacity available for tractors. Everything is dedicated to war machinery until 1945. After the war, tractor sales sky rocket and peak in 1950.*
Sales begin to drop in the early 1950s because most farms are mechanized by then.
The number of farms begins to drop in the mid-1950s at the same time tractors are getting larger.
Those two factors put tractor unit sales on a permanent slide downward.

The Farmall 100. (1954-1956)

The successor to the Super A.

The Farmall 100 was a restyled version of the Super A1 and its predecessor the Super A.

I do not have a listing for the Super A1. It was produced for some months in 1954. The Super A1 carries the same decals as the Super A. The difference is that with the Super A1, IH went from an 113 cubic inch engine to a 123 cubic inch engine. That change increased the horsepower of the line by 25%. The 123 engine was used in the successor models, 100, 130 and 140.

The Farmall 100 retained the unit body, offset seat and planetary final drive that came out with the A in 1939.

It was sold with an optional one-point version of the Fast Hitch.

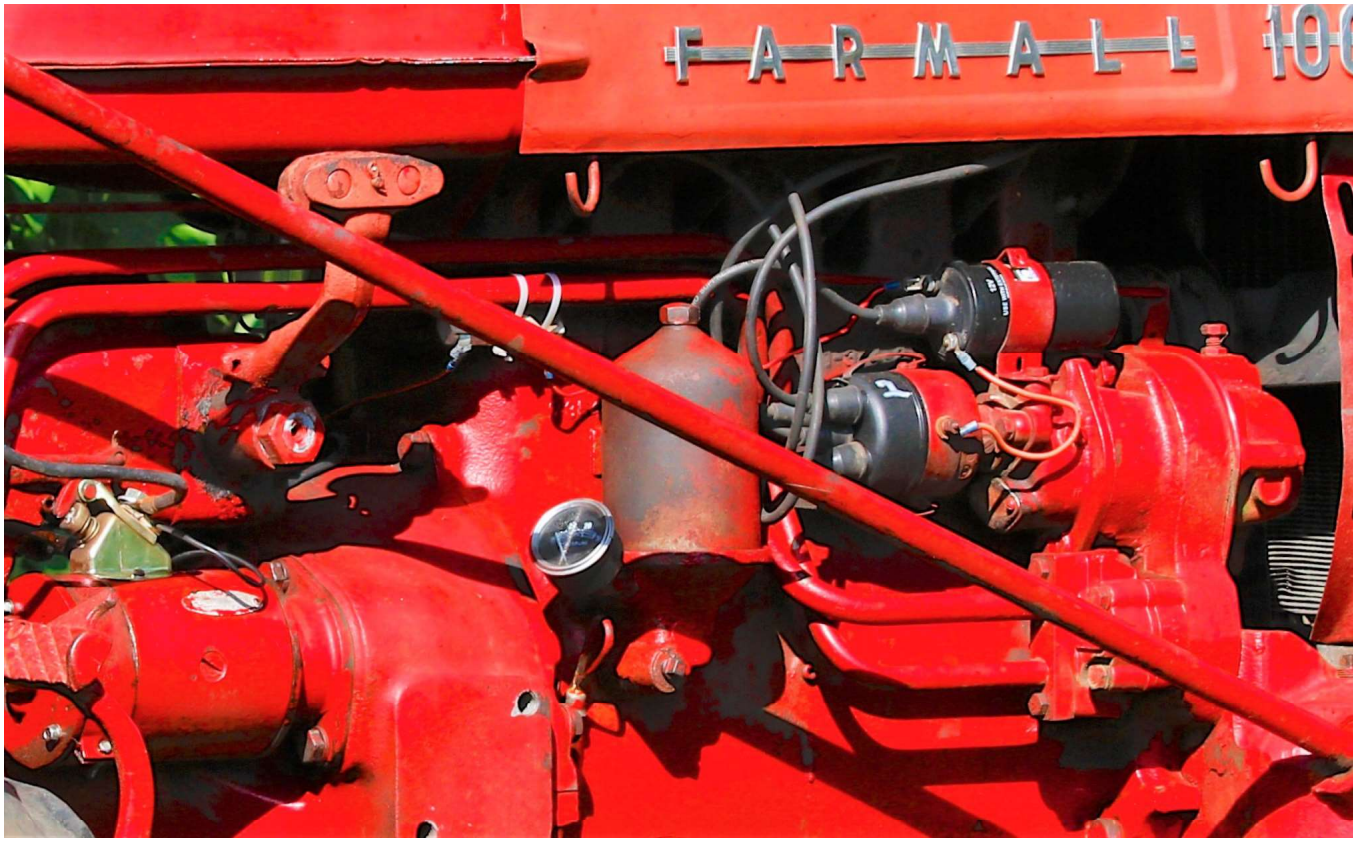
That basic design, with ongoing enhancements, was so solid that it remained fundamentally unchanged for over three decades.

Unfortunately, the 100 retained the band brake system of the original 1939 A. Those bands are hard to access and replace.

Overall, a delightful, usable, and durable little tractor.

A high clearance version was also available.

ABOVE: Except for a restyled grill, this member of the "A" family is much like the tractors that came before it, and the three models that came after it. The models were improved with new features and refinements but the tractor was fundamentally the same. It had found its niche as a versatile and adequate tractor for light tasks and small farms.



ABOVE: Nothing unusual about this "A" family member. The upright cylinder in the center is the engine oil filter. The oil pressure gauge is next to it. The steering shaft runs diagonally through the photo. Starter motor on the lower left, Ignition components center right. Fan far right.

BELOW: This 100 has a drawbar but no swinging element. It has good tires but they do not match. It is a good running tractor. IH made 19,000 100s but they are hard to find. They 100s are priced significantly higher than As and Super As.

Farmall 100 Specifications

21 Horsepower on the Belt
18 Traction Horsepower
123 Cubic Inch Engine
In Production from 1954 to 1956
Total Manufactured, 19,000
This 100 was Manufactured in 1956
Engine RPM, 1,400
Fuel Tank Capacity, 11 Gallons
Standard Rear Tires, 9 X 24
Speeds, 2.3, 3.7, 4.8, 10.0, Rev. 3.0 MPH
Standard Weight, 3,000 pounds
Price in 1954, $1,400

The Farmall 200. (1954-1956)

The Farmall 200 replaced the popular Super C.

The 200 was the first of the 100 series to hit production. It premiered IH's new Fast Hitch system.

IH promoted the Fast Hitch heavily. IH put together a group of trained tractor drivers to perform a four-tractor dance routine with 200s and Fast Hitch implements.

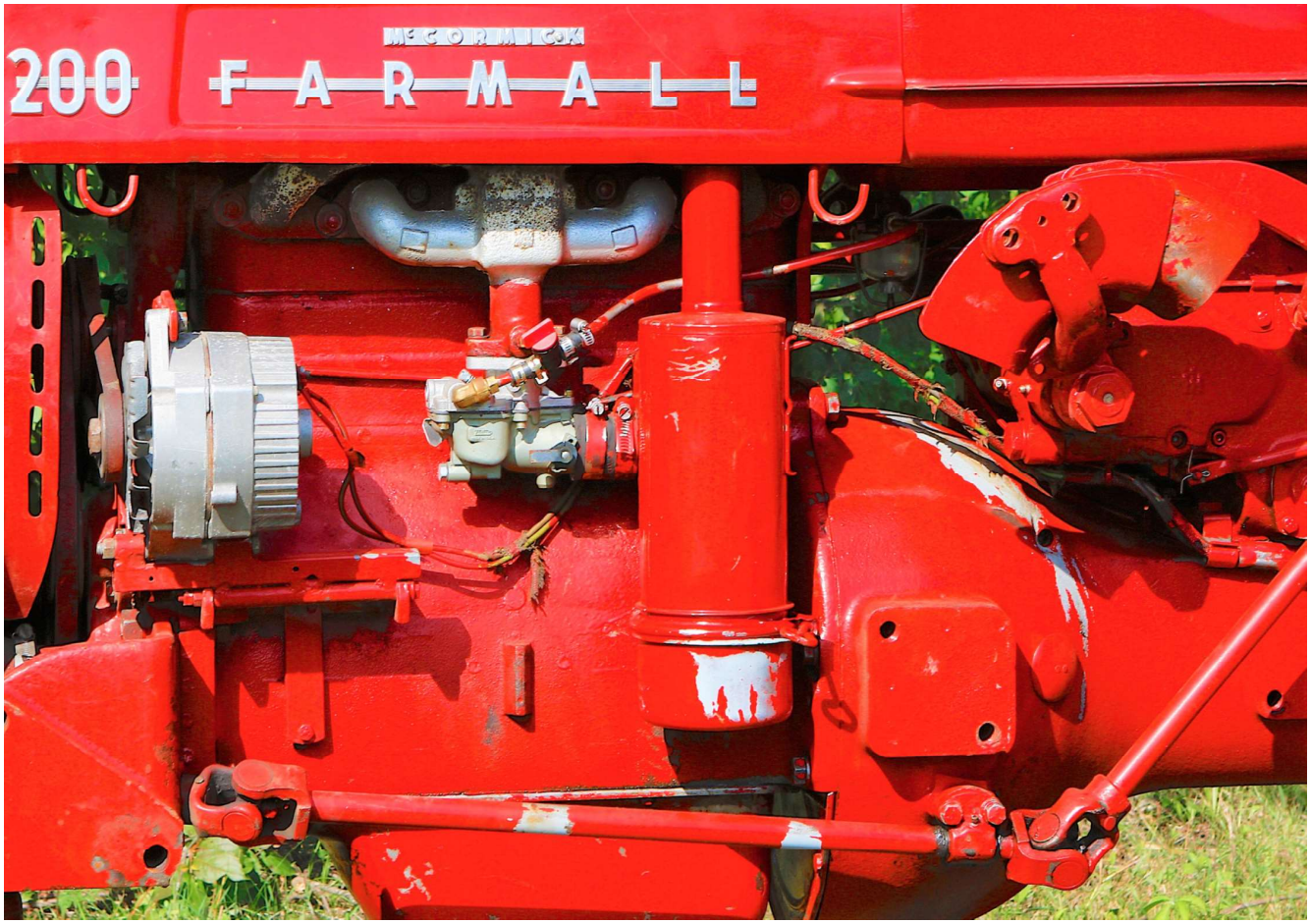
In 1954 agriculture was still a major part of the Minnesota State Fair. I was an eight-year-old farm boy. I was mesmerized as the drivers, on four shiny 200s, did a fast-moving rendition of a square dance. The drivers were dressed as cowboys wearing straw cowboy hats with the IH emblem. They sped about the IH pavilion to music and in perfect coordination. Hitching and unhitching various implements to square dance music and a caller.

They did shows on the hour. I watched the performance over and over.

Sales of the 200 were only 9,000 per year versus the Super C which was clipping along at over 20,000 per year. I do not know a good reason why.

The Super C listed for $1700, the 200 for $1970.

ABOVE: The Farmall 200 was little different from the Super C.
From this left side view, the simple steering mechanism can be seen. An extended shaft from the steering wheel, a universal joint to a horizontal shaft, and a second universal knuckle into the gear box. The gear box transfers the rotational force to the front wheel post.



ABOVE: The early generations of the C Family have the same engine and unitized body as the A family. Because the Farmall 200 lacks a rail frame, implements must be mounted directly to the body. The two threaded mounting holes in the lower-right-center of the photo and the two similar mounting holes in the lower-left serve that purpose. This tractor has been modified with an alternator and 12 volt, positive ground system.

Farmall 200 Specifications

24 Horsepower on the Belt
21 Traction Horsepower
123 Cubic Inch Engine
In Production from 1954 to 1956
Total Manufactured, 11,000
This 200 was Manufactured in 1955
Engine RPM, 1,400
Fuel Tank Capacity, 11 Gallons
Standard Rear Tires, 10 X 36
Speeds, 2.5, 3.9, 5.1, 10.6, Rev. 3.1 MPH
Standard Weight, 3,541 pounds
Price in 1956, $1,970

BELOW: The Farmall 200 debuted IH's new Fast Hitch. You can see the mechanism below. The arms are raised and lowered hydraulically. Numerous implements can be loaded into the receivers.

The Farmall 300. (1954-1956)

The successor to the Super H.

The 300 was, and still is, a good all-purpose farm tractor. It had more power than the Super H. In fact, the 300 had more power than the original M.

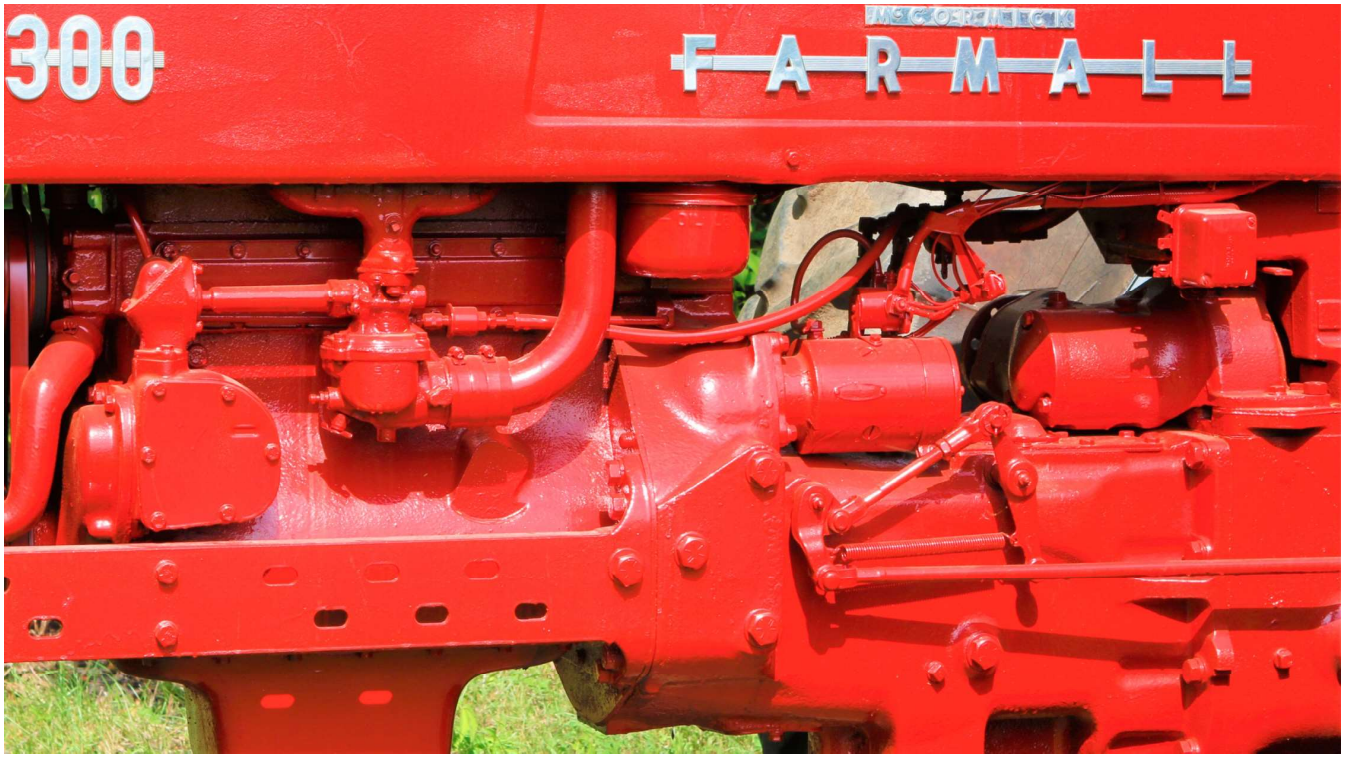
Live hydraulics, live PTO, disc brakes, optional power steering, good ergonomics, good handling and good looks.

Many think the Farmall 300 in all red, or its successor the 350 in red and white were the handsomest tractors of all.

Almost 30,000 were sold. A high percentage of those are still working. No longer big enough for primary field work but still quite useful for chores.

The 300 came with an automotive style key starting switch.

ABOVE: The Farmall 300 is in the opinion of many, one of the best looking tractors, ever.
This 300 had these enormous rear tires when I bought it. I cannot imagine why. Neither could the young man I bought it from.
The tractor was not set up for "pulling". Perhaps a previous owner just had this huge tires and rims lying about. In any case, the tires are in good shape. I may just leave them on. The 300 is in good shape. It starts and runs great. With excellent power steering it handles like a huge toy tricycle. Besides, Russ likes it this way.



ABOVE: This right side engine view looks remarkably like the H and Super H that preceded it. Starting from the left, the governor, the carburetor, the air cleaning system, the starter and the belt pulley drive were essentially perfected 20 years before. The new mechanism in the 300 is the TA. Its linkage mechanism is shown in the lower right of the photo. This early TA was prone to failure.

LEFT: Like this Farmall 300, most 300s sold in the Midwest came equipped with the new Fast Hitch.

Farmall 300 Specifications

38 Horsepower on the Belt
34 Traction Horsepower
169 Cubic Inch Engine
In Production from 1954 to 1956
Total Manufactured, 29,000
This 300 was Manufactured in 1956
Engine RPM, 1,750
Fuel Tank Capacity, 17 Gallons
Standard Rear Tires, 11 X 38
Speeds, 2.5, 3.8, 5.2, 6.6, 16.1, Rev. 3.1 MPH
Standard Weight, 5,361 pounds
Price in 1956, $2,900

The Farmall 400. (1954-1956)

The successor to the Super M.

The 400 has 40% more power than the M and 11% more power than the Super M.

Power steering was optional on both the 300 and 400. Both tractors were frequently equipped with front-end loaders. With a mounted loader, power steering was a virtual necessity.

Like the 300, the 400 had live hydraulics, live PTO, disc brakes, and good ergonomics

The Farmall 400 was a big tractor at the time. A great workhorse for Midwestern farms.

The 400 had a key starting switch.

ABOVE: The Farmall 400, although larger and more powerful than the 300, looks almost identical. The 400 too, is a beautiful tractor. IH had improved ergonomics greatly when Lowey designed the Letter Series tractors. Nevertheless, the seat lagged behind. The seat mechanism itself has good springs but those springs still support the basic "pan" seat.

RIGHT: Although most 400s came with Fast Hitch, this one has a simple, M style swinging drawbar. Fenders were always an option.

ABOVE: This right side view of the Farmall 400 looks very much like its predecessors. The live power hydraulic pump, is incorporated into the distributor drive mechanism at the end of the two metal oil supply lines.

BELOW: This Farmall 400 has fenders. Few row-crops do. Fenders probably improve safety and reduce dust to the operator. However, fenders can make it harder to mount and dismount the tractor. Mounting means were almost totally ignored by tractor manufacturers until the late 1950s.

Farmall 400 Specifications

52 Horsepower on the Belt
48 Traction Horsepower
264 Cubic Inch Engine
In Production from 1954 to 1956
Total Manufactured, 41,000
This 400 was Manufactured in 1956
Engine RPM, 1,450
Fuel Tank Capacity, 21.5 Gallons
Standard Rear Tires, 12 X 38
Speeds, 2.5, 3.8, 4.8, 6.7, 16.7, Rev. 3.3 MPH
Standard Weight, 6,300 pounds
Price in 1954, $3,500

The Farmall Cub. (2nd style) (1954-1957)

The Cub that was re-introduced in the mid-1950s was re-styled to have the 100 Series look.

The popular little tractor had been receiving upgrades and improvements since its introduction in 1947.

By 1954, it commonly came with live hydraulics, electric start, lights and a generator.

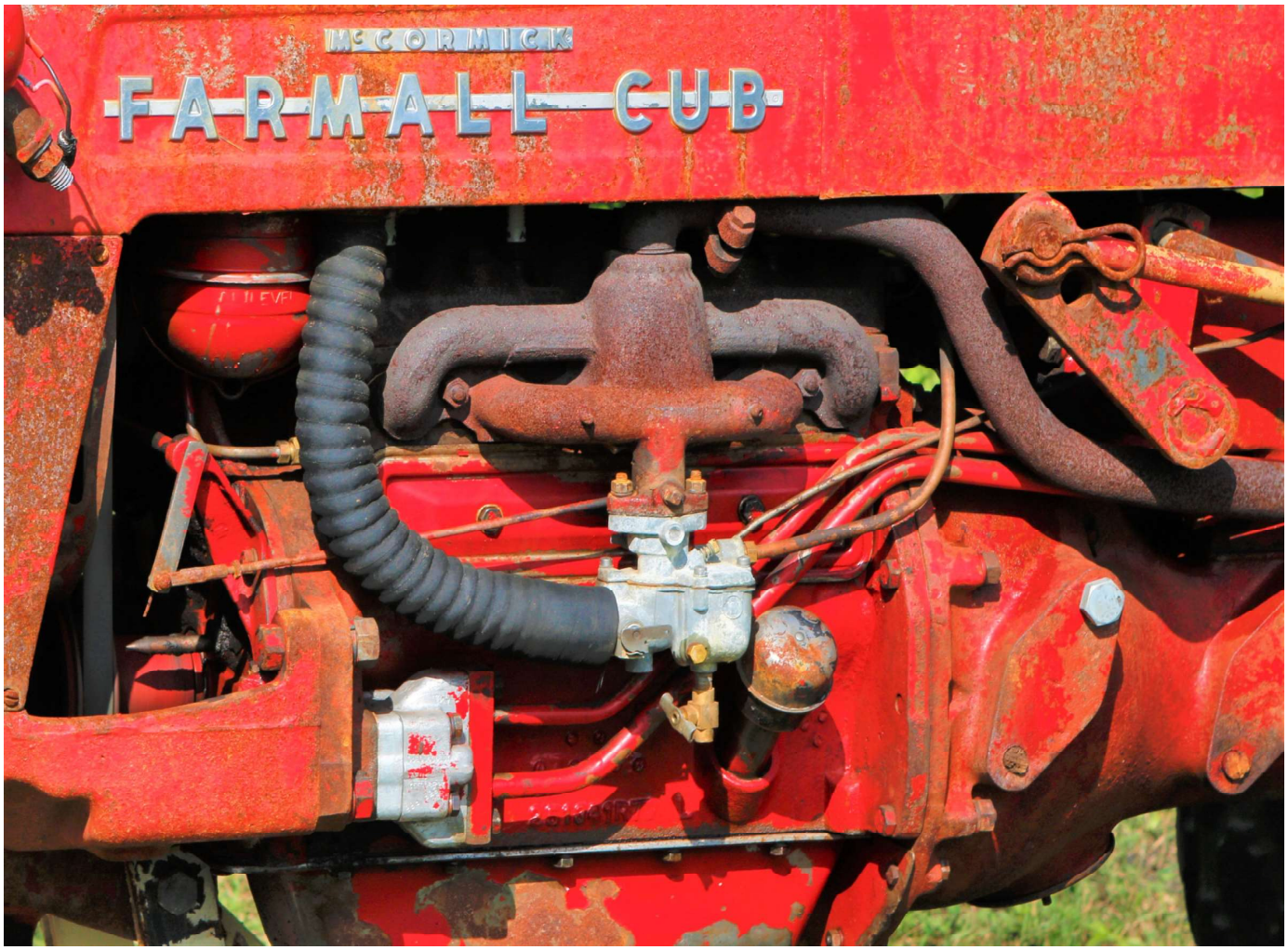
A one-arm version of the Fast-Hitch was designed for it. Essentially the same as for the Farmall 100.

The Cub continues to be a versatile, reliable, economical tractor for the small farm or large country home.

It is often equipped with a front blade or a belly mower.

ABOVE: This Cub has a mounted blade. It is a lightweight blade and the Cub is a lightweight tractor. Blades were popular on Cubs but they were really only rugged enough and the Cub is only powerful enough for use on a concrete driveway or hard packed road.

LEFT: This Cub, manufactured in 1956 has knobby turf tires. Turf tires are designed to minimize damage to grass when used on lawns and golf courses. Turf tires are not good on muddy or soft soil. Chances are this tractor was equipped with a belly mower and used for golf course maintenance.
The one armed Fast Hitch is visible in this photo. IH sold a complete set of implements for the Cub Fast Hitch. Including a petite plow, a disc, and cultivators.



ABOVE: The black hose is the clean air supply connection between the air canister above and the carburetor in the center. The hydraulic pump is in the lower left with two oil pipelines connected to it. The rusty curved pipe in the upper right is the exhaust pipe. The muffler is out of sight to the rear of the tractor.

BELOW: The Cub grill and sheet metal were redesigned to match the other 100 Series tractors. Not much else was different about this "new" Cub. IH had been making improvements to the Cub all along.

Farmall Cub (2nd style) Specifications

9 Horsepower on the Belt
8 Traction Horsepower
60 Cubic Inch Engine
In Production from 1958 to 1964
Total Manufactured, 36,000
This Cub was Manufactured in 1956
Engine RPM, 1,600
Fuel Tank Capacity, 7.5 Gallons
Standard Rear Tires, 8 X 24
Speeds, 2.4, 3.2, 7.3, Rev. 2.7 MPH
Standard Weight, 1,500 pounds
Price in 1957, $1,082

Electricity and Tractors

Modern tractors are started by electric motors.

The electric-starter-motor is powered by the tractor's battery. Whenever the engine is running, the battery is being recharged by a generator.

Accessory uses such as lights, draw power from the battery and/or the generator.

In 1920 tractors did not have starters, batteries or generators.

Gasoline engines use spark plugs for fuel ignition.

Without batteries, early tractors used a device called a magneto to develop electrical energy and deliver a spark to each plug at exactly the correct time.

A magneto is actually very similar to the mechanism used in wall telephones until the 1950s. Those wall phones had a small crank, which the caller used to generate electric energy that produced the ring tones.

Without a starter motor, all tractors before 1930 had to be crank started.

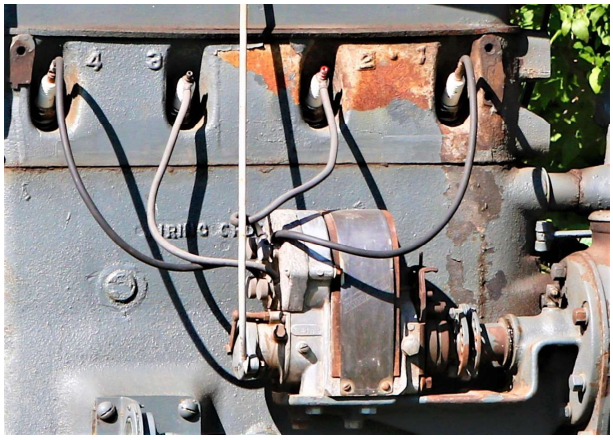
That worked pretty well, if the tractor was perfectly tuned up and if the weather was warm.

That was not always the situation, however.

I broke my arm in three places crank-starting our Farmall B when I was ten.

Starter motors work by engaging with a large diameter ring-shaped gear that is attached directly to the motor. It turns the engine over just as cranking does.

By 1940, most tractors had batteries, electric starters, lights, and generators.



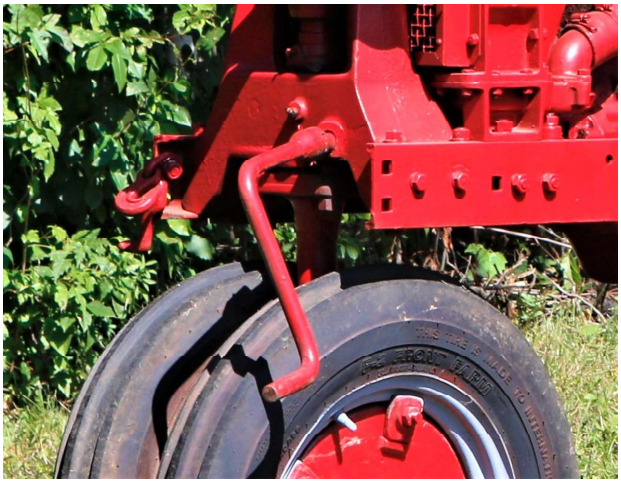
In the mid-1940s, magnetos were replaced by improved devices that used the battery power to supply a hotter spark. The new devices are called "distributors" but that is an informal title. Magnetos are actually distributors also. The difference between magnetos and distributors is not in distribution of the spark but rather the source and method of spark development.

Many tractors that were built with batteries and magnetos, have been upgraded to distributors.

Magnetos are used primarily on battery-less, crank start tractors.

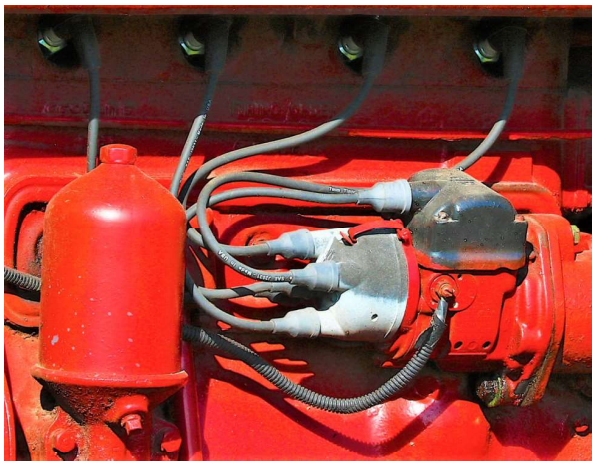
Around 1960, generators were replaced by alternators on most newly manufactured engines. Alternators, which are actually a type of generator, are far superior to simple generators. Alternators produce much more power, they are substantially longer lasting and, they are cheaper.

Many older tractors have been upgraded from the original generator to an alternator.



ABOVE: The starting crank is left to hang in place on tractors without a starter motor. The crank is disengaged in this position. It actually rests in this location quite securely. The spacing is such that the front wheels clear it on turns. An internal spring must be overcome to engage the engine.

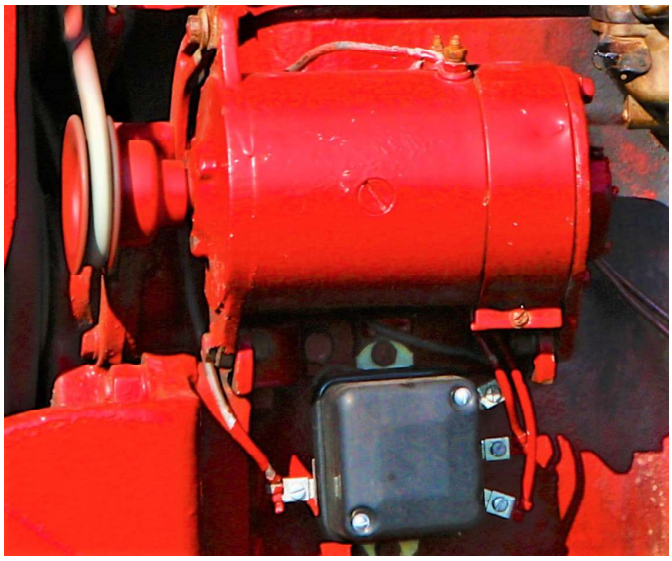
LEFT: This device is the magneto on a Farmall Regular. When the engine turns over it causes the magneto to generate sparks. The sparks are timed to occur exactly when required to ignite the fuel in the cylinders.



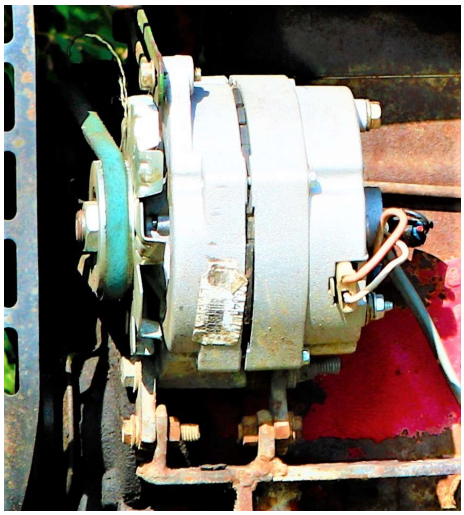
ABOVE: This is a later version of a magneto on a W-4. It is original equipment. Identifiable not by the distributor cap but rather by the black hemi-cylindrical box from which the single spark wire emanates.

ABOVE: The starter motor is in the center of the photo. This motor is securely mounted near the rear of the engine. When activated during starting, the motor drives a small diameter gear that meshes with a large diameter ring gear. The ring gear is fixed directly to the engine and causes the engine to revolve.

ABOVE: This distributor can be identified by the ignition coil. The ignition coil, which is powered by the battery, is the black cylinder from which the single spark wire emanates to the distributor cap.



ABOVE: This generator happens to be on a Farmall Super C, but all generators look like this one. The generator is mounted to run off a fan belt at the front of the engine. The rectangular, black box below the generator is the voltage regulator. It contains a set of voltage and current sensitive relays that regulate the power to the battery. Alternators do not require an external voltage regulator.



LEFT: This an alternator. It is on a Farmall H. An alternator does the same function as a generator but in a different way. Modern alternators are significantly better, more reliable and less expensive than old style generators.