

The Super Farmalls.

(1947-1954)

The Farmall Super A. (1947-1954)

The Farmall Super C. (1951-1954)

The Farmall Super H. (1953-1954)

The Farmall Super M. (1952-1954)

The Super Farmalls, as the name implies are improved versions of the Letter Series Farmalls. With the Super Series, IH introduced and validated many important innovations.

IH introduced the Supers gradually over the period from 1947 to 1953.

The first Super was the Super A which replaced the A in 1947.

Next came the Super C in 1951, followed by the Supers H and M in late 1952.

IH did not produce a Super version of the B. The B was replaced by the C in 1948.

Nor was a Super Cub produced.

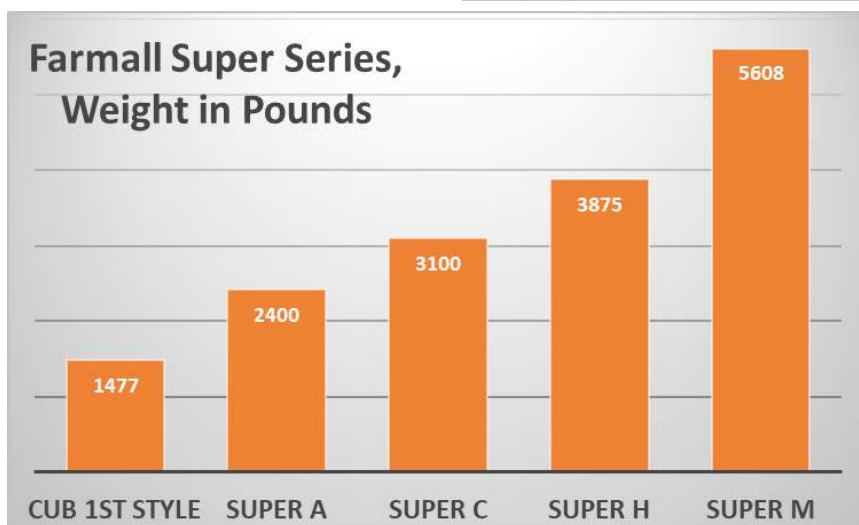
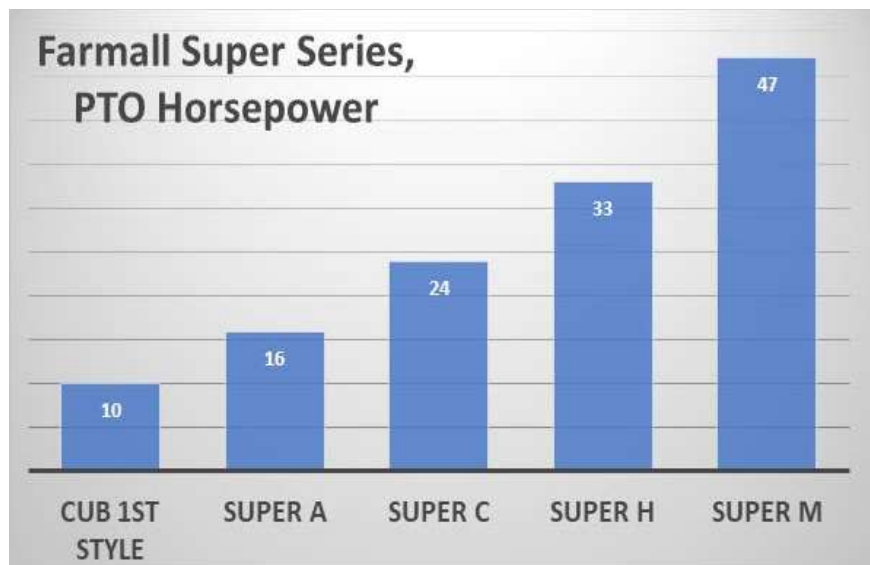
The Super Series of A, C, H and M were replaced by the 100 Series in 1954.



Super M, Super H, Super C, Super A, Cub (First Style).



IH did a remarkably good job of spacing these five tractors for power and weight.



Lionel Wilkinson, Gail's Dad, and Grandpa Ed, cleaning up after a windstorm. The wind blew down the barn on their farm in south-central Minnesota, near Franklin. The Farmall M has a home-built loader. Circa. 1980.



Granddaughter Hazel



The Super A. (1947-1954)

The successor to the A.

The Super A was introduced in 1947 to replace the A.

The Super A debuted an improved, dual hydraulic system branded “Touch Control”. This was a “live hydraulic” system. Live hydraulics are a great benefit to tractor operators. The dual system allowed for single side movement of cultivator shanks for more precise cultivation.

With added mechanical arms the Super A and its successors could be equipped with three-point hitch.

In later models live hydraulics and multiple outputs became normal and necessary features.

The Super A came with a modern electrical system of lights, generator and starter as standard equipment.

Other than that, its mechanical design and structure were virtually identical to the A.

It was a good machine that sold over 100,000 from 1947 to 1954.

In 1954, IH briefly produced a Super A1. The Super A1 was the direct forerunner of the Farmall 100. It is not clear why IH produced that model.

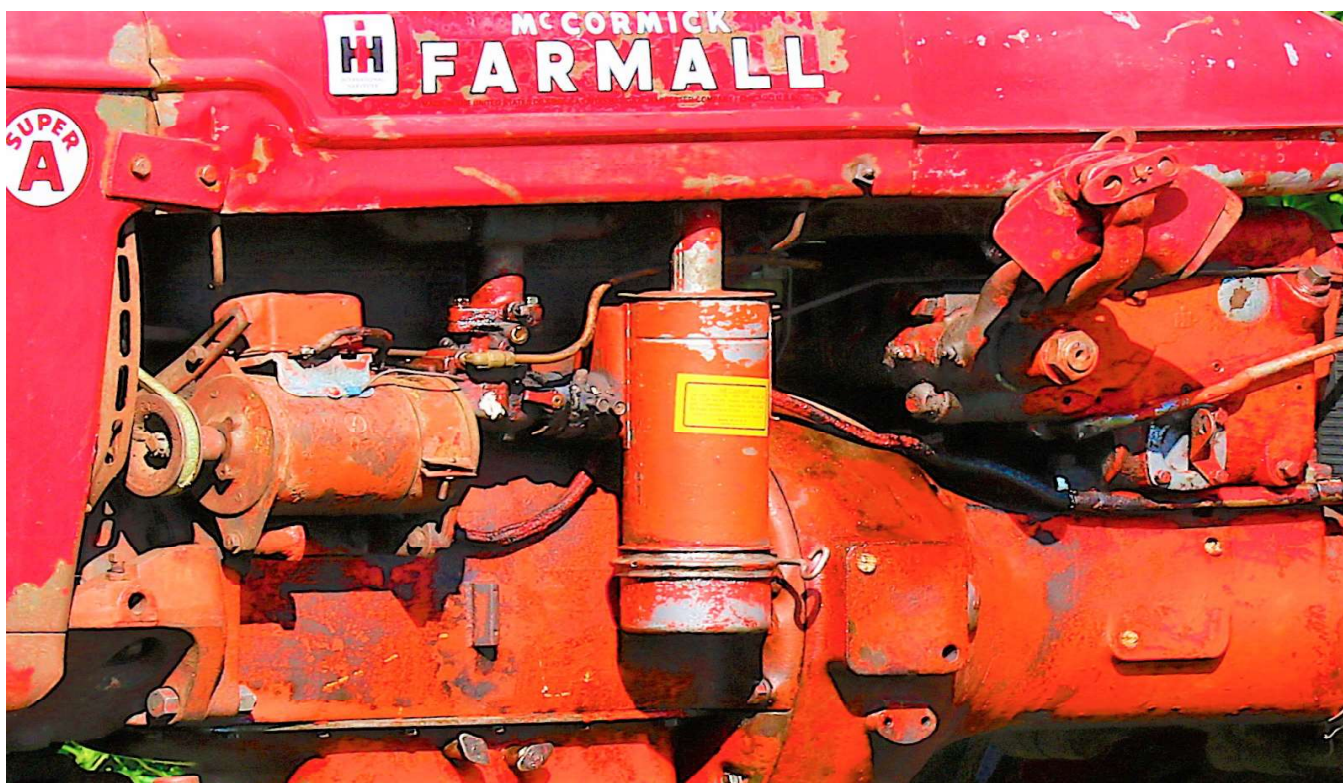
IH also produced an International Super A and International Super A1.

The International versions were not different than the Farmalls.

A high clearance version, designated Super AV were also produced.



ABOVE: *The members of the A family, and particularly the Super A, continue to be useful tractors on vegetable farms, small farms, and hobby farms. They are small, rugged, and useful. These small workhorses have retained higher resale value than their bigger cousins, the C, H and M.*



ABOVE: A left side close-up of the Super A's engine. It has the original generator in the lower left, the partially hidden carburetor in the left center, the air cleaning canister and the hydraulic drive mechanism on the right.

Farmall Super A Specifications

18 Horsepower on the Belt
 16 Traction Horsepower
 In Production from 1947 to 1954
 Total Manufactured, 108,000
 This Super A was Manufactured in 1948
 113 Cubic Inch Engine
 Engine RPM, 1,650
 Fuel Tank Capacity, 11 Gallons
 Standard Rear Tires, 9 X 24
 Speeds, 2.3, 3.6, 4.8, 10.0, Rev. 2.8, MPH
 Standard Weight, 2,400 pounds
 Price in 1954, \$1,400.



RIGHT: This rear close-up of the Super A shows the swinging drawbar in the bottom of the photo, the belt pulley and PTO shaft in the upper center and the hydraulically driven lift arms near the top. Those several elements are a good illustration of the versatile features of this sturdy little tractor.



The Super C. (1951-1954)

The successor to the C.

The Super C carried all the features of the Super A, including live and dual hydraulics. It also introduced a new “Fast Hitch” system by IH that simplified and improved connection to rear mounted equipment. That system also included a weight sharing system branded “Traction Booster”.

The bore of the Super C engine cylinders was increased to give a 15% increase in power.

The Super C also introduced disc brakes. Disc brakes were a substantial improvement over the band brake mechanisms that had been in use since the 15-30.

The Super C still retained the transmission that it inherited from the B. That transmission had four forward speeds, the top speed being ten MPH.

All together these features made the Super C, an exceptionally versatile and useful tractor. The tractor has great visibility and is a joy to drive.

IH sold almost 100,000 Super Cs in just four years of production. It was the bestselling tractor of the Super Series.



The Super C is a tractor that filled a fleeting niche. It has the stance and apparent size of an H, but the engine and power of an A. It is a well designed tractor that is simply fun to drive.

Apparently the Super C hit the market at the right time in 1951. The tractor enjoyed excellent sales for several years. By the mid 1950s it had become too small. The Super C is still a good tractor but it is not big enough for chores on crop farms. At the same time, it is not as well suited as the A family of tractors for small farms. A typical Super C sells for only half the price of a Super A.



Farmall Super C Specifications

24 Horsepower on the Belt
 21 Traction Horsepower
 In Production from 1951 to 1954
 Total Manufactured, 98,000
 This Super C was Manufactured in 1953
 123 Cubic Inch Engine
 Engine RPM, 1,400
 Fuel Tank Capacity, 11 Gallons
 Standard Rear Tires, 10 X 36
 Speeds, 2.4, 3.8, 5.0, 10.3, Rev. 3.0 MPH
 Standard Weight, 3,100 pounds
 Price in 1954, \$1,700

RIGHT: The Super C has a live hydraulic power and a good hydraulic pump. Its hydraulic fluid reservoir is too small. It has enough capacity to operate the built-on lift arms but it is far short of the capacity needed to operate external hydraulic cylinders or motors. The view to the right shows one example of the homemade valves that were required to make the hydraulics useful. This Super C, like many others had a user-added oil reservoir.

ABOVE: This Super C has been converted from 6 volt generator to 12 volt alternator for better winter starting

RIGHT: The Super C has a swinging hitch but the drawbar is narrow.



The Super H. (1953- 1954) **The successor to the H.**

The Super H replaced the H in 1953. The engine bore and compression were increased to produce 30% more horsepower. A big increase.

The power boost made the Super H a true two plow tractor.

Disc brakes were also standard.

IH only made the Super H for two years but they changed the design mid-way through.

Some folks call the two different versions, Type I and Type II.

Type II had live hydraulics. That required moving the battery location to make space for an oil reservoir and valving.

Obviously, Type II Super Hs are worth more.

The Super H was a fine tractor but not the right size for the times. Sales were relatively slow.

IH only sold 14,000 Super Hs per year.

Significantly less than the smaller Super C or the larger Super M.



LEFT and BELOW: This is a Type I Super H produced in 1953. Type I means it has the enlarged “Super” engine and the new disc brakes. The hydraulic system is still powered by the belly pump. Type II, Super Hs had the more powerful engine and disc brakes, plus “live” hydraulic power. Live hydraulic power was produced by a pump mounted beneath the distributor.

Both versions have a larger clutch and increased gear speeds.





ABOVE: The Super H is a more powerful version of the venerable H with several significant improvements. It was sold as a good two plow tractor in heavy soil. An adequate three plow tractor in lighter ground. IH made a mounted corn picker at the time. The Super H could handle that well.

RIGHT: The Super H was sold with a perfectly capable swinging drawbar, PTO and pulley. It did not have "live" PTO, however.

Farmall Super H Specifications

33 Horsepower on the Belt
 31 Traction Horsepower
 In Production from 1953 to 1954
 Total Manufactured, 29,000
 This Super H was Manufactured in 1953
 164 Cubic Inch Engine
 Engine RPM, 1,650
 Fuel Tank Capacity, 17 Gallons
 Standard Rear Tires, 11 X 38
 Speeds, 2.4, 3.8, 5.0, 10.3, Rev. 3.0 MPH
 Standard Weight, 3,875 pounds
 Price in 1954, \$2,100



The Super M. (1952-1954)

The successor to the M.

The Super M replaced the M in 1952. The Super was produced in several versions. There was a Super MD with a diesel engine. A Super MTA with a new feature branded the Torque Amplifier (TA). IH also made a Super MV, the V meaning high clearance for vegetable farming. And to add to the variety, IH made a Super MD-TA and a Super MDV. You can decipher those.

The Torque Amplifier essentially doubled the number of gears available. It allowed shifting between the normal and a lower ground speed in each gear on the go, without using the clutch.

Using the TA, the operator could shift to a lower ground speed and increase the wheel torque in tough spots or on hills. The TA was a great

advancement in tractor design. The mechanism was essentially tested on the SMTA tractors and then used in the larger IH tractors for many years.

The Super M was only produced for three years.

The Super MTA was only produced in 1954.

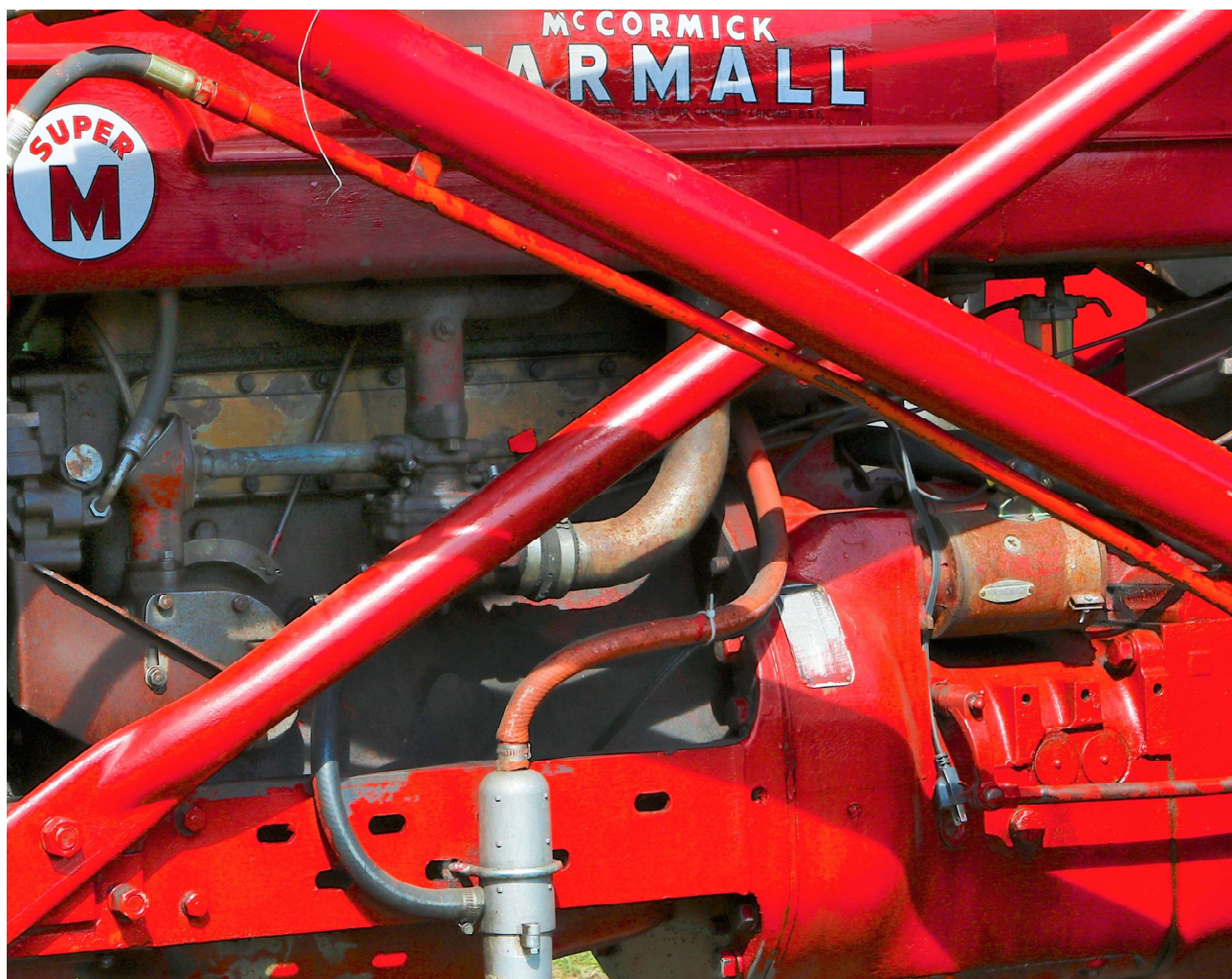
The proliferation of Super M variations and the overlap of features makes it hard to nail down the exact numbers produced. IH used the same serial number series for all Super M types. It is safe to write that more than 75,000 were built.

Overall, the Super M models were extremely successful. The Super Ms, especially the diesel and TA variations are still in high demand over sixty years later.

I bought this tractor from our friend Russ. It belonged originally to Russ' family in eastern South Dakota.



ABOVE and LEFT: The Super M was a great farm tractor in its time. This Super M has an aftermarket wide front. A loader as heavy as this one was dangerous on a narrow front tractor. The inertia of a heavy bucket load could cause the tractor to tip. I did that a couple times myself. Wide front wheels make the tractor much stabler. Later tractors have front wheel assist. That is a terrific advantage for front loader work.



Farmall Super M Specifications

47 Horsepower on the Belt

44 Traction Horsepower

In Production from 1952 to 1954

Total Manufactured, 77,000

(all Super M variations combined)

Super M (gas) 44,551

Super MD 5,199

Super MTA 26,924

Super MV 245

Super MDV 89

This Super M was Manufactured in 1953

264 Cubic Inch Engine

Engine RPM, 1,450

Fuel Tank Capacity, 21 Gallons

Standard Rear Tires, 12 X 38

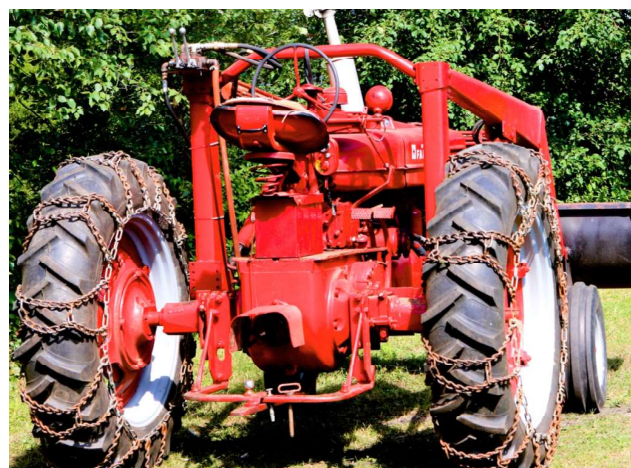
Speeds, 2.6, 3.8, 5.0, 6.8, 16.6, Rev. 3.8 MPH

Standard Weight, 5,608 pounds

Price, Super M, in 1954, \$2,500

ABOVE: I use this Super M as a winter loader tractor. Hence, the electric powered heater on the lower center. That preheats the engine for easy starting.

BELOW: I keep rear wheel chains on the Super M year around. It needs the extra grip to handle a full bucket of snow or wood.



The Belt Pulley, the Power Take Off, (PTO) and, “Live PTO” power.

In the decades before 1920, tractors were capable of two tasks. Pulling large tillage implements and powering stationary machines. Most often, the large tillage implements were huge plows used to break tough prairie sod. Sod busting was an important task in the western US and the enormous prairies of Canada.

A typical pulling tractor of the early 1900s would weigh over 10 tons and pull a 10 to 16 bottom plow. If all was going well, at least two men were required. One to operate the tractor and one to operate the plow.

The stationary machine was most often a threshing machine or separator.

The threshing operation required a lot of work to set up. It was done infrequently. Once each day at the most. For that day, the big tractor would stand in one location with the wheels locked. A large continuous belt, was used to transfer power from the tractor to the machine. That belt system was a well-designed mechanism. The long belt transferred energy efficiently. The belt's length kept the engine, with its inherent spark and fire danger, far from the straw. The inertia of the moving belt provided an excellent fly wheel effect. The belt could be set up with one, two or no twists to provide a direction change. The belt also acted as a safety stop. If a large slug of material plugged the machine, the shock would often cause the belt to fly off the pulleys.

To standardize machine operation, most tractors were set to move the belt between 2,600 and 3,000 feet per minute. That was when the tractor was running at the optimum engine RPMs. The diameter of the tractor pulley could be changed to fine tune belt speed.

All tractors from 1900 until the late 1950s came with a belt pulley or had a belt pulley option.

*The **PTO** drive via splined shaft was invented around 1900. IH provided a PTO on the first McCormick-Deering and Farmall models and all subsequent models.*

Power was transmitted from the PTO, not by a belt but rather by a spinning steel shaft. That shaft was connected directly to a machine that was connected to the tractor's rear drawbar.

The PTO can be used much like the belt pulley for stationary work, but it has the advantage of being useful on moving machinery.

That means the tractor can power machines while pulling those machines through the fields. By 1950 all manner of farm machines had been developed for PTO operation.

The use of the belt pulley diminished, while PTO use expanded.

By 1960, all tractors had a PTO.

Tractors no longer came with a belt pulley.

In this article, “Live” power refers to PTO use.

To be “Live” means that the PTO can be controlled separately from the driving wheels and tractor motion.

There is a separate article in this book that addresses live hydraulic power.

Live PTO (LPTO) allows the tractor operator to stop or change the driving motion, without stopping the PTO. That ability is very advantageous. For example, a large slug of crop material might enter the machine at once. If the operator cannot stop forward motion and allow the machine to process that slug, the machine may plug or it can be damaged.

LPTO began to appear on some tractors in the late 1940s. It was common by the late 1950s and live power became a requirement by the 1960s.

For IH tractors, LPTO became available with the Torque Amplifier, (TA), in the early and mid-1950s. The TA was a first step toward hydro-static (or automatic gear shifting).

Live power also applies to the hydraulic system of farm tractors. Hydraulic power has many uses on a farm tractor, from lifting implements to driving hydraulic motors. Live hydraulics have advantages similar to LPTO. IH introduced live hydraulics in the 1948 Super A. All subsequent “Supers”, and later models had live hydraulics.

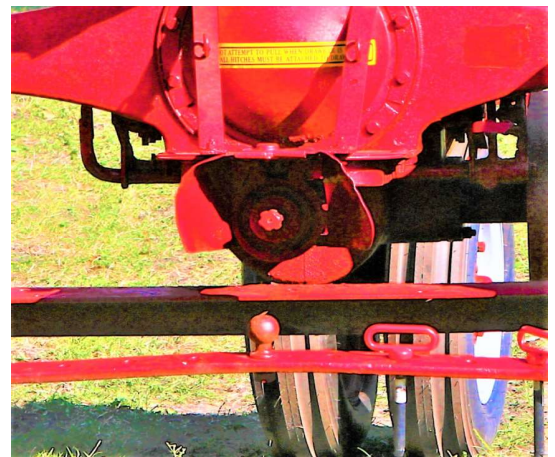
PTO Standards: The American Society of Agricultural Engineers sets the standards for connections between tractors and implements. The Association first set standards for PTOs in 1927. Tractors designed after 1927 are standardized for PTO shape, rotational speed, height and distance from the drawbar etc. The 22-36 in the upper right photo preceded that date and has a difficult to use, non-standard PTO. The other PTOs on this page, meet the 1927 standard.



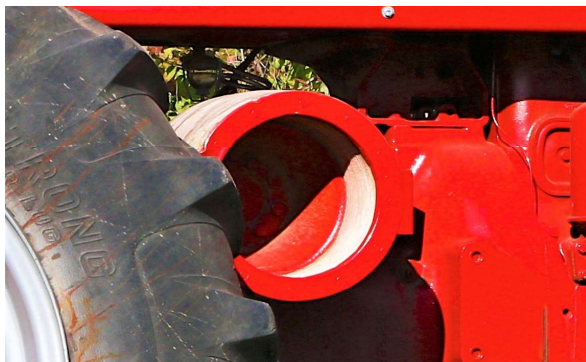
ABOVE: IH added the PTO accessory to its Standard tractors in 1921. On this 22-36 it is beneath the four-bolt cap.



ABOVE: Tractor pulleys were initially made of steel. This steel belt pulley is on a 1924 McCormick-Deering 15-30.



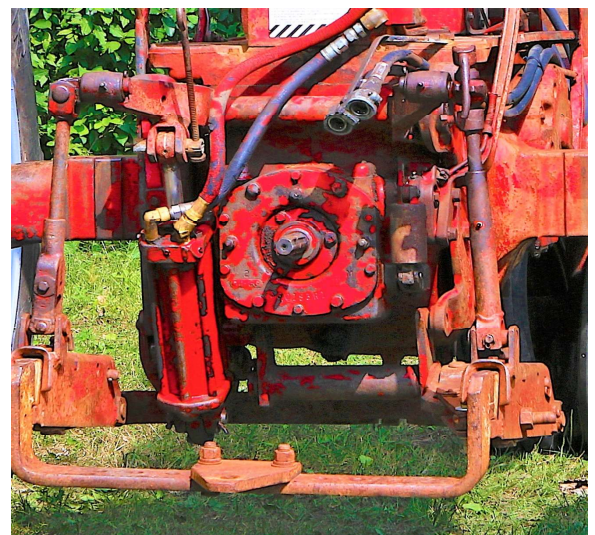
ABOVE: By the 1930s, when this F-20 came out, the PTO dimensions and location had been standardized by the industry.



ABOVE: Around 1940, IH switched many of their pulleys to combinations of wood, paper, leather, and canvas, for better belt-to-pulley contact.



ABOVE: The Farmall B and A came with PTO and rear-mounted steel pulley.



ABOVE: The PTO on this 1956, Farmall 450 meets the same specifications.