The Farmall 30 50 Series. (1956-1958)

The Farmall 130. (1956-58)
The Farmall 230. (1956-58)
The Farmall 350. (1956-58)
The Farmall 450. (1956-58)

By the mid-1950s, small farms were failing rapidly. The land was picked up by the surviving neighbors. The average farm size was increasing fast. Farmers needed more power to cover more acres per day.

The tractors of the 30-50 series responded to the need for greater power. Other than squeezing more power out of the existing engines, the 30-50 series of tractors are mechanically very similar to the 100 series tractors.

IH added white trim to the 30 and 50 tractors. Because the tractors were so similar to the 100 series, many farmers “upgraded” their 100 series tractors with white paint.

This was a good line of Farmalls but the farm economy was tough and sales were down.

Farmall 450, 350, 230, 130 and Cub.

The 30-50 series tractors were the first IH tractors to use white trim. This series came out just two years after the introduction of the 100 series in 1954. They were not much different than the 100 series A few improvements and a little more power. That caused many 100 series owners to simply add white trim to their tractors. Many of those retrimmed tractors are around yet today.

Tractor Companies in 2020

There are many large agriculture machinery companies in the world.

Three of the biggest hold the remains of companies that were once well known in North America.

AGCO

(Massey Ferguson claims to be the most widely sold brand of farm machinery in the world.)

AGCO includes Massey-Ferguson (Massey-Harris), Deutz, Allis-Chalmers, Hesston, White, Gleaner, Fahr, New Idea, Glencoe, Farmhand, Fendt, Valtra, Spra-Coupe, Wilmar, Ag-Chem, Challenger, Oliver, Cockshutt, Minneapolis-Moline, Landini, McCormick.

Deere

(Claimed to be the Largest Ag Equipment company in the world, 2018)

Deere includes, John Deere, Lanz.

CNH (Case New Holland)

CNH includes Case, International Harvester Corp, New Holland, David Brown, Tenneco, Steiger, Steyr, Ford, Ferguson, FIAT,

CNH divested Versatile in 2002.

Mahindra

Mahindra Tractors in 2010 claimed to be the world's highest-selling tractor brand by volume. Mahindra's largest consumer base is in India, China, North America, and a growing market in Australia

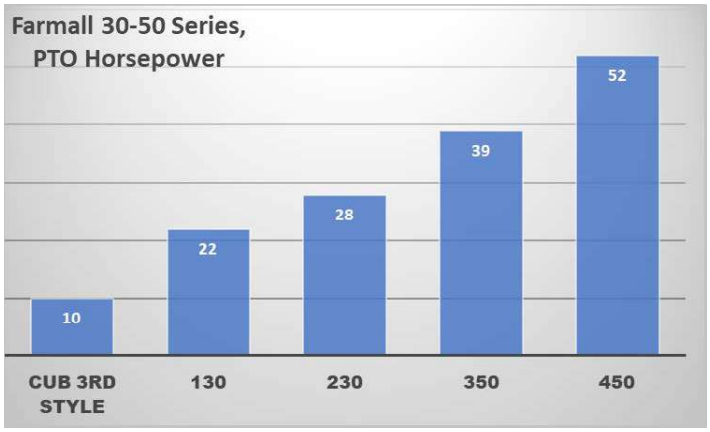
Other significant players are

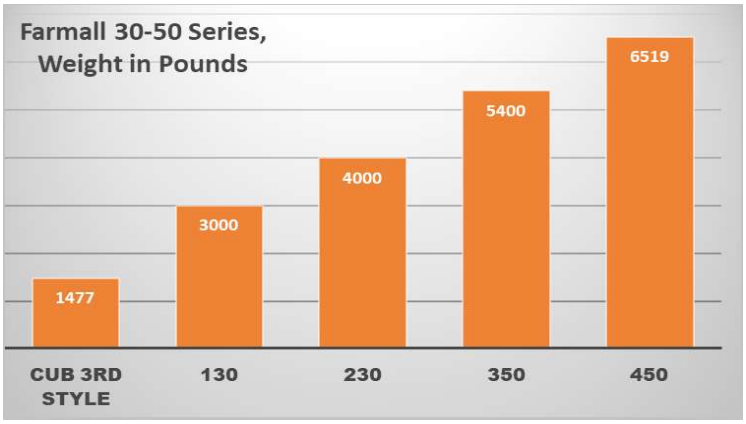
Steyr Landmaschinentechnik AG Escorts Group (India)

Daedong-USA, Inc.

Kubota Corporation

Same Deutz-Fahr Group (Italy)





GRAPHS: In the 30-50 tractor series, IH did a good job of smoothing the gaps in horsepower and weight. They did that by increasing the RPMs of the Farmall 230 to 1800 and adding 500 pounds.

The Farmall Cub. (3rd style) (1956-58)

The Cub of 1956 was updated with the white trim of the 30-50 series. Not much else was changed.

The Cub had been receiving upgrades and improvements since its introduction in 1947.

By 1956, it commonly came with live hydraulics, electric start, lights and a generator.

A one-arm version of the Fast-Hitch was designed for it when the 100 series came along.

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

This Cub is equipped with a homemade front blade.

RIGHT: These old Cubs are so common that you can buy a new carburetor on the Internet for under $40. The engines are sleeveless for economy but they seem to run forever anyway.

BELOW: There is not a lot to write about this 3rd style Cub. The Specifications are little changed. So I dropped in the photo below. Cindy, our friend and photographer has a great eye for pictures. I had just moved the Cub out of the way and parked it under this birch tree. We were photographing in one of the horse pastures near the Snake River. The bison skull was used some years previous by Lakota elders who built a sweat lodge here. The many wild flowers just belong there. Nothing staged. We get to live like this.

The Farmall 130. (1956-1958)

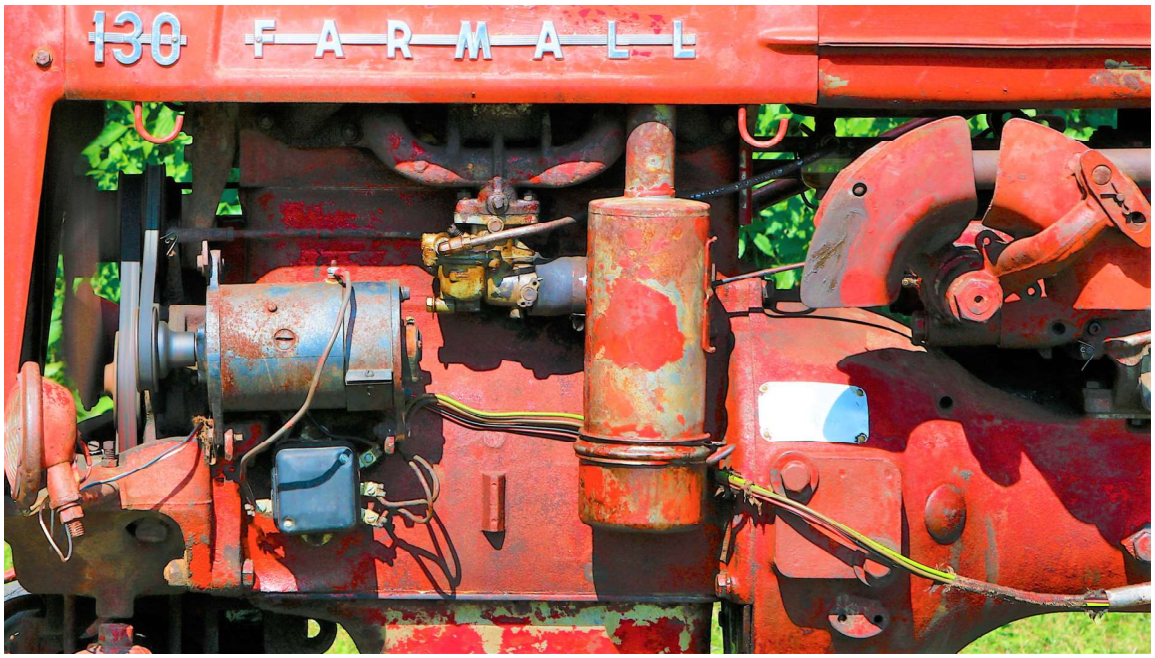
The Farmall 130 engine has higher compression than the 100 it replaced. That yielded slightly more power. Beyond that, the 130 was a reproduction of the Farmall 100 with several minor changes and flashy white trim. This one is in very nice running condition.

Farmall 130 Specifications

22 Horsepower on the Belt
20 Traction Horsepower
123 Cubic Inch Engine
In Production from 1956 to 1958
Total Manufactured, 9,197
This 130 was Manufactured in 1957
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. 2.9 MPH
Standard Weight, 2,800 pounds
Price in 1958, $2,000

130

RIGHT: This 123 cubic inch engine is pictured many times in this book. It is a bored out version of the 113 ci engine of the original A. Which is an improved version of the 113 CID engine used in the F-12 and F-14.



BELOW: Except for the addition of modern accessories like electricity and hydraulics, the A family of tractors changed little from 1939 to 1974. An incredible testament to the superb engineering that went into the letter series tractors.

The Farmall 230. (1956-1958)

The Farmall 230 replaced the Farmall 200.

The 230 had a compression increase over the 200. That increase meant the 230, which descended from the A, though the C, now was more powerful than the original H.

Beyond the engine improvement the 230 was a reproduction of the Farmall 200 with a number change and white trim.

ABOVE: The 230 has the same engine as the 130, except it is revved up to produce a few more horsepower. The 230 also has greater weight because of its heavier rear end. The 130 and the 230 are terrifically different tractors to drive.

RIGHT: Gail helped position the tractors while Cindy took photos. This was the first time she drove a C family tractor. They are fun tractors to drive. Great visibility and responsive to handle. She seems to be enjoying it.

ABOVE: This tractor has the original generator. Many have been converted to alternators. The three threaded holes on the clutch bell housing held a mounted implement until recently.

BELOW: This 230 has Fast Hitch. The white drawbar slides into the receivers that would receive the arms of a mounted implement such as a two bottom plow.

Farmall 230 Specifications

28 Horsepower on the Belt
25 Traction Horsepower
123 Cubic Inch Engine
In Production from 1956 to 1958
Total Manufactured, 7,671
This 230 was Manufactured in 1957
Engine RPM, 1,800
Fuel Tank Capacity, 11 Gallons
Standard Rear Tires, 11.2 X 36
Speeds, 2.7, 4.3, 5.6, 11.7, Rev. 3.4 MPH
Standard Weight, 4,600 pounds
Price in 1958, $2,100

The Farmall 350.

The Farmall 350 replaced the 300 with increased power from slightly larger engines, both gas and diesel.

The 350 which descended from the H, was now more powerful than an M.

The 350 had a key and a push-button starter switch.

The Fast Hitch was improved with the addition of a depth guide. Other than that, the 350 was a reproduction of the Farmall 300 with a number change and white trim.

ABOVE: This sturdy Farmall 350 has fenders, PTO, TA, belt pulley, and Fast Hitch. It came fully equipped. Indications are that it was well cared for and shedded for most of its 63 years.

ABOVE: The pan seat on this 350 still has much of the canvas cover and cushion. It may well be the original. Further evidence that this lucky tractor spent much of its existence out of the weather.

RIGHT: A good view of the 350's control panel. The 450 is much the same. The three necessary gauges on all tractors are radiator coolant temperature, engine oil pressure, and ammeter. With the 100 series, IH began adding a tachometer to the larger models. The 50 series tractors have both a key switch and a push button to energize the starter motor.

Farmall 350 Specifications

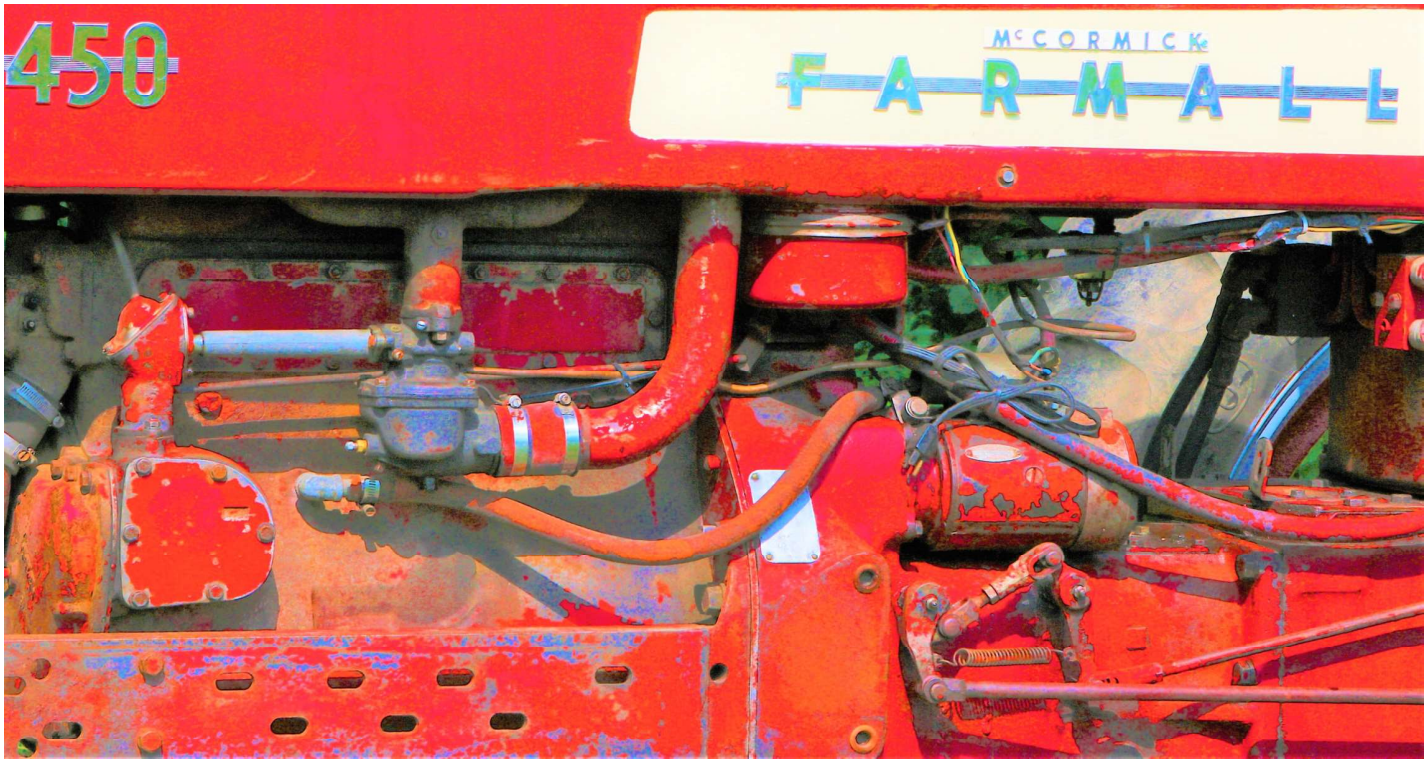
38 Horsepower on the Belt
34 Traction Horsepower
175 Cubic Inch Engine
In Production from 1956 to 1958
Total Manufactured, 17,215
This 350 was Manufactured in 1956
Engine RPM, 2,000
Fuel Tank Capacity, 17 Gallons
Standard Rear Tires, 11 X 38
Speeds, 2.5, 3.8, 5.2, 6.6, 16.1, Rev. 3.1 MPH
Standard Weight, 5,361 pounds
Price in 1958, $3,100

The Farmall 450.

The Farmall 450 replaced the 400 with a slightly larger engine and more power. Otherwise the 450 was a reproduction of the Farmall 400 with some refinements and white trim.

ABOVE: The Farmall 450 is the result of starting with a good machine, the Farmall M, field testing that design for millions of hours and working for almost two decades to improve the design.

RIGHT: This is a pretty good view of the Fast Hitch assembly on a 450. The frame of the Fast Hitch is fastened to the belly of the tractor. Two vertical life arms connect to the movable drawbar. The lift arms are driven up or down by a hydraulic cylinder. The Cylinder is visible just left of the PTO shaft. The drawbar itself, is easily removed by lifting two latches and sliding it rearward. IH developed many Fast Hitch implements.



ABOVE: This engine produced over 55 horsepower. That was the result of continuous power increases from the F-30 at 33 HP, the M at 37 HP , the Super M at 47 HP, and the 400 at 52 HP.

Farmall 450 Specifications

55 Horsepower on the Belt
51 Traction Horsepower
282 Cubic Inch Engine
In Production from 1956 to 1958
Total Manufactured, 21,871
This 450 was Manufactured in 1958
Engine RPM, 1,800
Fuel Tank Capacity, 21.5 Gallons
Standard Rear Tires, 12 X 38
Speeds, 2.5, 3.8, 4.8, 6.7, 16.6, Rev. 3.3 MPH
Standard Weight, 6,519 pounds
Price in 1958, $2,100

Brakes

There are two brake topics.

One is about the braking mechanisms.

The other is the evolution of the dual brake pedal.

Tractor brakes work by applying force to a drum or disc-like device that is connected directly to the rear wheels. The drums or discs, turn whenever the rear wheels are moving.

The brake puts a restraining force on the spinning drum or disc restrain the rear wheels.

During the period we are concerned with, from 1921 until 1960, brake mechanisms were pretty simple.

Initially, the restraining device was a metal band that wrapped around the drum. The metal band was lined with a very tough, high friction materiel.

When the brake mechanism was engaged, the band was tightened around the drum. That slowed or stopped the drum and did the same to movement of the tractor. A side effect was heat. Normally the heat is not a problem. But, if used continuously the brake mechanism could get very hot.

Band brakes were not new in 1920. They had been around for some years. They were normally open to the elements, and they failed quickly. The first IH Standards and all the Farmalls enclosed the brake mechanism. That by itself was a significant improvement.

A later innovation, disc brakes, came with the "Super" models.

Disc brakes are an improved design that provides more brake-friction-surface. That helped to reduce heating by spreading it over a larger area. The disc design was also a major improvement in brake maintenance. Disc brakes are much easier to work on than the older band brakes.

In the 1920s all tractors had steel wheels, normally with aggressive steel lugs.

Steel lugs minimize the need for brakes. The rolling friction of a tractor with lugs is very high. Under normal circumstances it will remain nailed in place as soon as the driving force is stopped.

For an early Standard tractor, the greatest need for a brake came when powering a stationary machine via a belt. Then a wheel brake was required to prevent the force of the belt from creeping the tractor and thus loosening the belt.

For that, only one brake mechanism was required. In the early tractors that mechanism was engaged by a lever, not a pedal. That lever had a latch lock like the emergency brake on automobiles.

The Farmall Regular introduced a new concept. The designers saw the need to brake each wheel independently. The row crop tractor needed to spin in a very short radius at the end of the row. This was necessary so that the farmer could turn and cultivate the adjacent two rows. That pattern was followed from one side of the field to the other, until all rows were cultivated.

There were other possible patterns of course. For example the farmer could skip every two rows and then do those rows on a returning pattern.

The problem was that horses could do the every-two-row pattern.

To sell farmers, the tractors needed to do what horses could do.

A similar issue was with mowing hay. Horses could make square corners. To replace horses, tractors needed to do at least as well.

For the first Farmalls, IH engineers developed automatically engaging brakes. The inside wheel was braked automatically by a cable during the end-of-row turn. The brakes were essentially driven by the steering wheel.

The cable system was operated when the front wheels were turned.

Braking the inside rear wheel to effect a tight turn was the right idea.

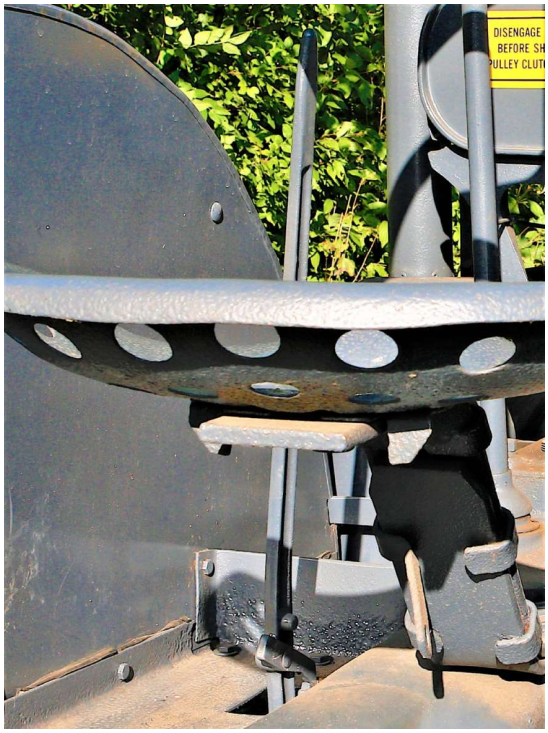
The implementation was wrong, however.

The original Farmall had the automatic cable system plus a hand lever on each side for the operator. Apparently the engineers did not think farmers would use the brakes much. The levers were hard to reach and hard to use.

There is a correlation between steel wheels and levers; rubber tires and pedals. Apparently if a

tractor was sold with steel wheels, it came with levers. If sold with rubber tires, it came with pedals.

Rubber tires were not available in 1930. They were perfected for tractor rears in the mid -1930s. By 1940, steel wheels were rare.



ABOVE: This 10-20 Standard, made in 1929, has a single brake lever. It is vertical in the center-left of the photo. The locking latch is near the floor.

ABOVE: This F-30, made in 1931 is still cursed with hard-to-reach, hard-to-use, hand-brake levers.

Farmers often welded pedals to the levers.

By 1939, conveniently located, dual brake pedals, became absolutely standard on all models and all brands of farm tractors.

ABOVE: This Farmall Regular, made in 1927 has pedals welded onto the original hand levers.

ABOVE: This 1938 F-20 has the clutch pedal on the left and two nicely placed brake pedals on the right. This is the final configuration.