The Great Letter Series Farmalls. (1939-1954)

The Farmall H	(1939-1953)
The Farmall M	(1939-1954)
The Farmall A	(1939-1947)
The Farmall B	(1939-1947)
The Farmall C	(1948-1951)
The Farmall Cub	(1947-1954)

In 1939 IHC replaced the F series Farmalls with the Letter Series. Well over a million of these versatile, reliable, farmer-friendly tractors were sold.

At the time of this writing, eighty years has passed since the Letter Series tractors were introduced.

Although too small now for serious field tillage, many of these durable tractors are still in daily use.

The Farmall Letter Series was the most successful tractor family ever.

The appearance, styling and ergonomics of the Letter Series were designed by Raymond Lowey. The classic Farmall look, actually the classic farm tractor look, came from this new design.

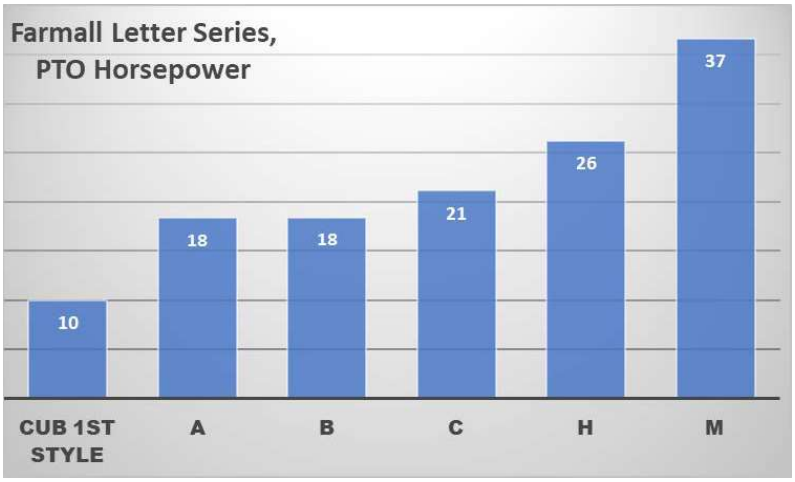
The letter series incorporated many new features such as generators, lights, electric start, and hydraulics.

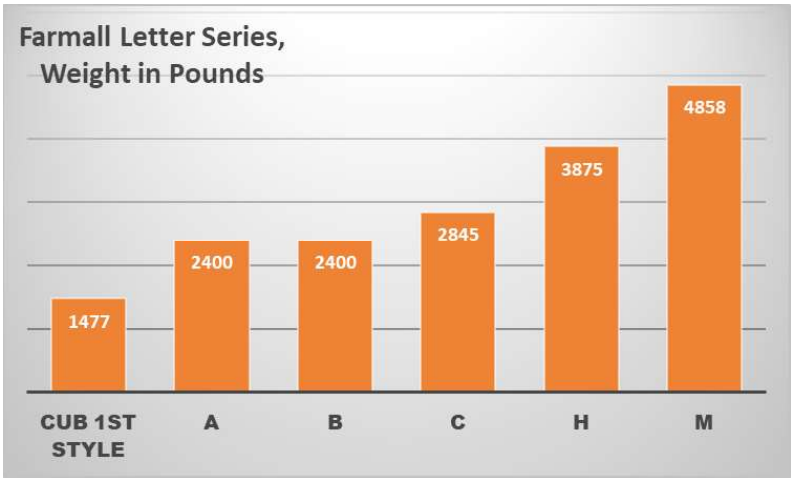
Ergonomically, the letter series was a great improvement.

These tractors had high seating, a working platform, easy to monitor gauges and accessible controls.

FARMALLS, M, H, C, B, A, Cub.

GRAPHS. The A and B are the same tractor with different wheel spacing. The two tractors are identical in the graphs for horsepower and weight.
The C is also quite similar to the A and B. It uses the same engine. The C produces three more horsepower because its engine is set to run at 1650 RPMs vs. 1400 RPMs for the A.





LEFT: Gail with her 1947 Cub. A useful yard tractor. It runs great.

ABOVE: Issac on the Farmall B. There is no good way to mount or dismount a B, A, or Cub. Issac is demonstrating his unique "jump off" technique.
Not recommended for men over 60.

BELOW : Gail spreading leaves with her Cub and our ancient, ground drive, IH manure spreader.

The Farmall H. (1939-1953)
The successor to the F-20.

The Farmall H replaced the F-20 which had replaced the Regular. It was similar to the F-20 for horsepower but used a smaller, more efficient engine. Hydraulics, PTO and belt pulley were standard on virtually all variations of the letter series.

Initially, electric start, generators and lights were optional, but these features soon became standard equipment.

The H had hydraulics. The hydraulic system was so-so on IH tractors of the 1940s. Needed and useful, but not great.

The H came with a fifth forward speed. That highest speed was three times as fast as the next lower gear. This new speed of 16.4 mph was not a working speed but rather for road travel. In fact, it became known as “road-gear”.

Virtually all future tractors were designed with a road-gear.

The H was easy to handle, durable, and dependable, with enough power for most farms of the time.

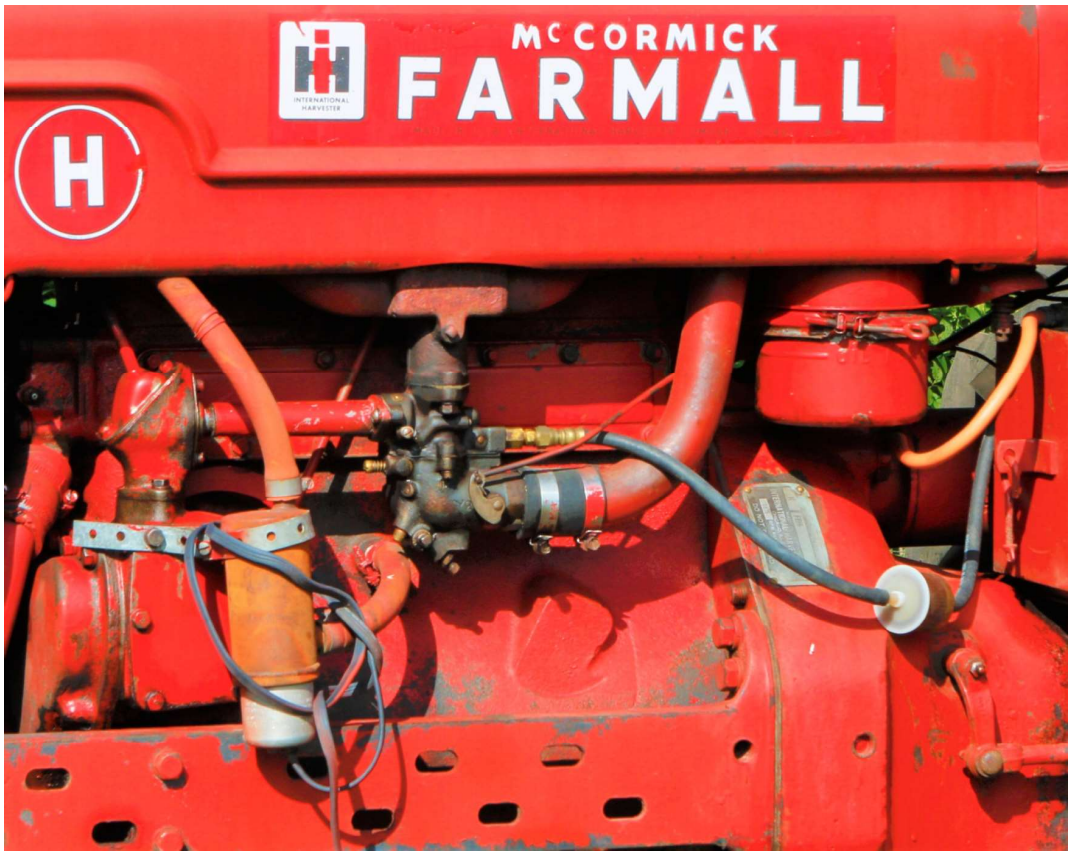
The H was an incredibly successful tractor. Over the next 14 years, almost 400,000 were sold.

The H was also produced in a high clearance (HV) version for cane or vegetables.

The Standard version of the H is the W-4.

The H was replaced in 1953 by the Super H.

ABOVE: The H is the most popular IH tractor and one of the most popular tractors of all time. It is versatile, rugged, comfortable to drive and big enough for most farm tasks of its time.
Because it came with a 6 volt battery, it was only so-so for below zero starting. This H has a 120 volt radiator tank heater near its front. That helps a lot for winter starting. .



LEFT: The left side of the H's engine is similar to the F-20. The air cleaner is to the right of the engine.
The electrical radiator fluid heater is the orange device that is tacked on to the left center.
The metal gasoline line to the carburetor has been replaced with a black rubber hose. A paper fuel filter has also been added. Many operators add these filters because the old fuel tanks are rusty inside. That rust will plug the carburetor ports.

BELOW-RIGHT: The common hitch for an H is shown in this photo. It has a moderately wide drawbar and a swinging hitch.
The frequently used PTO was now in the right location for common use. This H has a belt pulley also. That belt pulley was still in frequent use in the 1940's and early 1950's.
Fenders, a good safety feature, were often removed to make it easier to mount and dismount the tractor's operating platform.

Farmall H Specifications

26 Horsepower on the Belt
24 Traction Horsepower
In Production from 1939 to 1953
Total Manufactured, 391,000
This H was Manufactured in 1949
152 CID Engine
Engine RPM, 1,650
Fuel Tank Capacity, 17.5 Gallons
Standard Rear Tires, 10 X 38
Speeds, 2.6, 3.5, 4.3, 5.1, 16.4, Rev. 2.8 MPH
Standard Weight, 3,875 pounds
Price in 1953, $2,000.

The Farmall M. (1939-1952)
The successor to the F-30.

The Farmall M replaced the F-30. It had a new engine that was smaller but more powerful than the F-30.

It produced 37 horsepower at the PTO and 33 pulling. Hydraulics and electric start were common.

Through the 1940s and early 1950s, the M was the grand workhorse on full-sized farms of the Midwest.

Like all the models of the letter series it was terrifically durable, rugged and dependable.

Powerful, yet nimble.

Like the F-20 and the F-30 before them, the H and M are similar, except for size. They are hard to distinguish from a distance.

The Farmall M was almost as common as the H. In fact, many farms had an M and an H. The two tractors were a complementary pair for many of the farm tasks of the time.

The M provided enough power and traction to pull a silage chopper and wagon through the fields.

The H was the right size to haul the wagon loads home. Another H on the belt could power the silage blower to move the fresh crop into the silo.

Like the H, and most future tractors, the M had a road-gear.

A popular engine variation of the M was the MD for diesel.

The MD was an excellent tractor and tens of thousands were produced. The MD used the gas-start, diesel-run technique. IH used that tactic on all its diesels until the direct start engine was introduced in 1958. In 1958 IH introduced the six-cylinder diesel that is used in the 560 and 660.

The M was also produced in a high clearance form labeled the MV. And an MDV.

The Standard form of the M is the W-6.

The M was replaced by the Super M in 1952.

The M in the photos has a single front wheel. A dual wheel, narrow front was standard. Wide fronts and single wheels like this were optional.

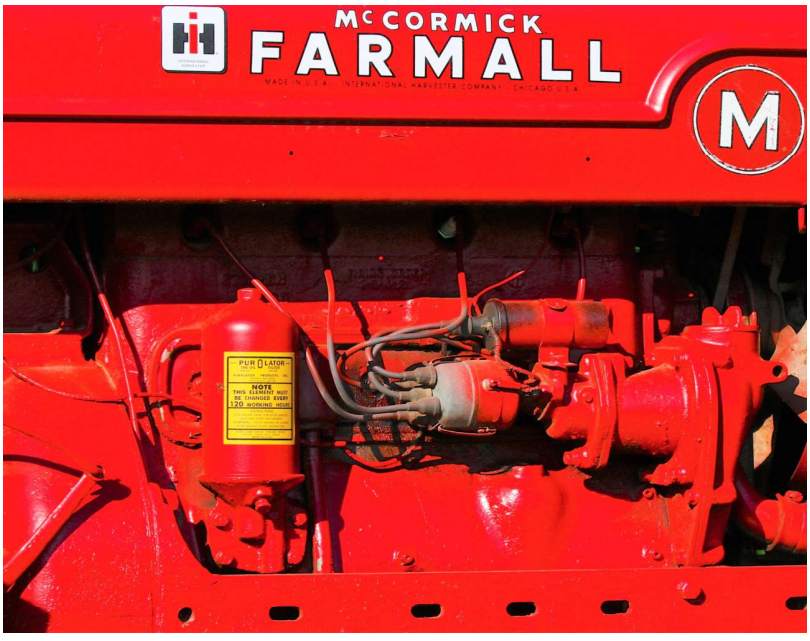
The single wheel was not particularly popular. It had the advantage of even shorter radius turning but the disadvantage of reduced flotation.

Farmall M Specifications

37 Horsepower on the belt
33 Traction Horsepower
In Production from 1939 to 1952
Total Manufactured, 270,000
This M was Manufactured in 1945
248 CID Engine
Engine RPM, 1,450
Fuel Tank Capacity, 21 Gallons
Standard Rear Tires, 11.25 X 38
Speeds, 2.6, 3.5, 4.3, 5.1, 16.4, Rev. 3.1 MPH
Standard Weight, 4,860 pounds
Price in 1952, $2,400.

ABOVE: The rear view of an M is similar to the rear view of an H. The two popular tractors were quite similar in all features. The H was considered a "two plow" tractor and the M a "three plow" tractor.

ABOVE: This M is a true "tricycle", meaning three wheels. In many parts of the country, including the Midwest, all narrow front tractors were called tricycles. But, that is technically incorrect. True tricycles, like the one above, can turn in a shorter radius than a normal two-front-wheeled row-crop tractor. True trikes were uncommon.



RIGHT: This right side view of the M looks a lot like the F-30 that preceded it. The engine oil filter canister is prominent in the left center. This M has a distributor in place of the F-30's magneto. Early Letter Series tractors were sold with magnetos. At various times during the 1940s, IH switched all models to distributors. Distributors are powered by the tractor's battery. They give easier starting and better running performance.
This M was produced in 1945. It is likely that its distributor is original equipment.

The Farmall A. (1939-1947)

The Farmall A replaced the F-14 but retained the 113 cubic inch engine. The engine had numerous improvements of course.

The A is substantially more nimble and agile than the F-14.

It has more power, but weighs 1,000 pounds less.

With the 1939 letter series, IH switched the planetary drive rear ends from the larger models, to the smaller tractors. The larger models, the H and the M, got the straight axles that were formerly on the smaller F-12 and F-14.

That change became permanent.

Before 1939, the standard system for lifting mounted implements out of the ground consisted of long, manually operated levers.

Both the A and B came with optional pneumatic lift systems. A lift system was important because these tractors were very commonly driven by boys cultivating corn.

The pneumatic system was driven by exhaust gas from the engine. I can tell you from much personal experience that the pneumatic systems were often leaky and performed poorly.

When the Super A was introduced in 1947, the pneumatic systems were forever replaced by hydraulics.

The A has a comfortable operator's station. The seat and pedals are offset to the right. The offset seating gives the driver an excellent view of the row crop. That view was branded "Culti-Vision". This new design worked. It was used on the A's close relatives and descendants for decades.

The A was specifically designed to convince farmers of the mid-south that they could do their hay making and crop cultivating without horses or mules.

Before the A, tractors were not agile enough for many small farmers when it came to jobs like mowing hay or cultivating tobacco.

IH designed a mower that mounted directly to the A. That combination was so responsive it could mow corners better than a team of well-trained horses.

For row crop work, the A, which was always sold with a wide front, was billed as a one row tractor. That was done to appeal to farmers who cultivated one row at a time.

The B which was very similar to the A, was promoted as a two-row tractor.

That marketing tactic probably worked.

The A was particularly popular in the south, especially on 40-acre farms.

The A and B were also designed with a road gear. In this case it was a fourth gear that was added. In road gear these tractors traveled about 10 mph. Not blazing fast, but fast enough for a small tractor.

IH produced an industrial version of the A. It was branded "International" instead of Farmall. Labeling industrial versions as International became a common practice by IHC over time. It was the norm by the mid-1950s.

The industrial A was little different from the Farmall A except that it had a foot pedal accelerator.

There is also a high clearance form of the A, the AV.

The Farmall A was replaced in 1948 by the Super A.

Gail bought this beautiful Farmall A, with mower, from our friends Dave and Sue.

ABOVE: The A with a closely mounted mower was designed specifically to convince farmers that they could mow hay with a tractor driven machine. This unit was sometimes referred to as a "horse killer."

BELOW: The PTO driven mower is mounted in place of the drawbar. It takes an hour or more to mount the mower. I leave mine on the tractor all year round. It is a good machine.

Farmall A Specifications

18 Horsepower - 113 Cubic Inch Engine
In Production from 1939 to 1947
Total Manufactured, 118,000
This A was Manufactured in 1945
113 CID Engine
Engine RPM, 1,400
Fuel Tank Capacity, 10 Gallons
Standard Rear Tires, 9 X 24
Speeds, 2.3, 3.6, 4.8, 10.0, Rev. 2.9 MPH
Standard Weight, 2,400 pounds
Price in 1947, $750.

BELOW: Notice the grease gun in the upper left. The mower requires frequent grease applications when in use.

The Farmall B. (1939-1947)

A companion version of the Farmall A.

The Farmall B was the second part of a two-tractor replacement of the F-14.

The differences between the A and B are minor and could be viewed as simply marketing segmentation features.

The A always came with a wide front and the B always came with a narrow front. A second difference is that the A had a long axle on the right and a short axle on the left. The B had long axles on both right and left.

Those two features gave the A its narrow stance, best suited for one row work. The broader wheel base of the B was well suited for two row work.

That had the overall effect of making the A an ideal tractor for the 40-acre farmer of the south.

The B was a small, two-row tractor. It was a handy machine to have as a second or third tractor on a 160-acre farm in the Midwest.

That seems to be what IH marketers had in mind and that is how it worked out.

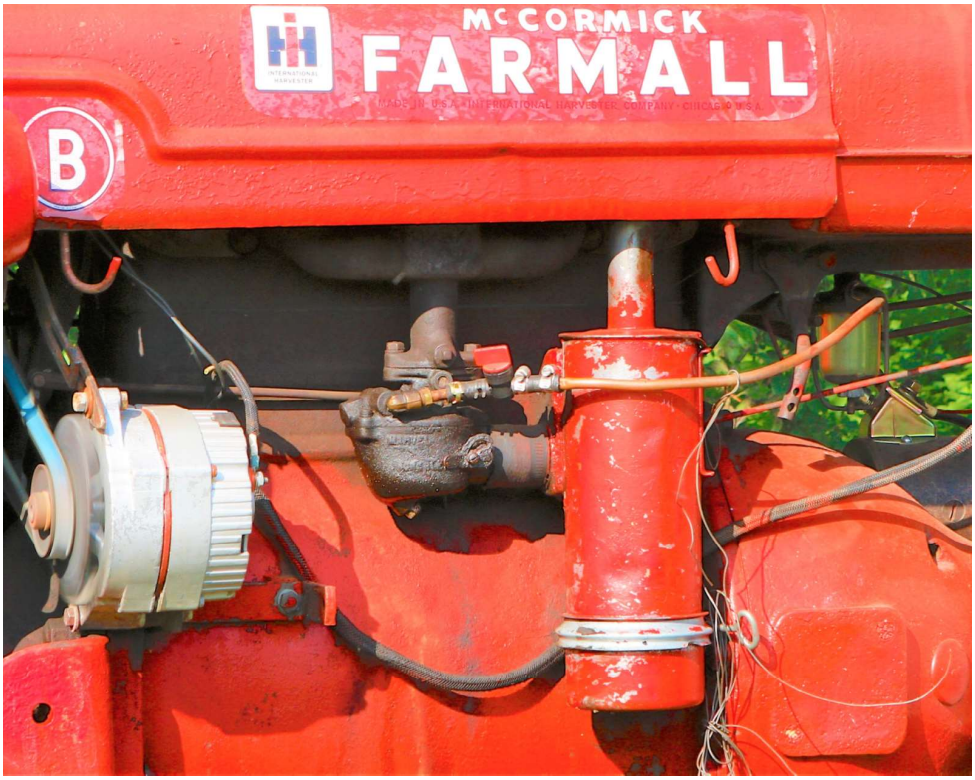
Even today, you will see many more A's in the southern states, more B's to the north.

The combined sales for the two models over an eight-year span were almost 200,000.

The B was offered with an optional pneumatic lift system that was powered by engine exhaust gases. It seemed like a good idea at the time. It worked well when everything was just right. It tended to be leaky and hard to maintain in practice.

The B was offered in a narrow version called the BN. If you are wondering why IH made a narrow version of the B, when the B itself was simply a wider version of an A, so am I.

The B was discontinued and replaced by the significantly different Farmall C in 1947.



LEFT: My Father bought this B, used, in about 1955. In its first years we used it for cultivating corn and raking hay. The two row cultivator was mounted on the tractor to facilitate precise cultivation of very small corn plants. In those years, before herbicides, we would start cultivating as soon as the corn rows were visible. The B was manufactured with a pneumatic system for lifting the cultivator. That lift system was troublesome and unreliable.
The B was too small for tillage work, but excellent for raking hay and many other farm chores.

ABOVE: The Letter Series tractors were equipped with generators. This B, like many others, has been converted to an alternator system. Alternators have lower maintenance needs, are longer lasting and have much higher output.

Farmall B Specifications

18 Horsepower on the Belt
16 Traction Horsepower
113 CID Engine
In Production from 1939 to 1947
Total Manufactured, 75,000
This B was Manufactured in 1947
Engine RPM, 1,400
Fuel Tank Capacity, 10 Gallons
Standard Rear Tires, 9 X 24
Speeds, 2.3, 3.6, 4.8, 10.0, Rev. 2.9 MPH
Standard Weight, 2, 400 pounds
Price, $770.

BELOW: The B has planetary rear drive and a wide drawbar like the F Series Farmalls.
The belt pulley is on the rear just above the PTO.
The long left-side axle provides a good "buddy seat".
Many, many, kids took their first tractor ride on that axle-seat.

The Farmall C. (1948-1951)
The replacement for the Farmall B.

The Farmall C was designed for a position between the popular A and H Farmalls.

It looked much like an H, with an upright stance and a work station. But it was mechanically much like an A or B.

It had slightly more power and weight than an A. It uses the same engine as the A and B but is designed to run at 1,650 RPMs. That produced a two-horsepower increase.

It was 445 pounds heavier than an A.

Taken all together, a little more power, more weight and with larger diameter tires the C is significantly more capable in the field. Not as substantial as an H but significantly more than an A or B.

The C is nimbler than an H.

The C is just fun to drive.

The C was the top selling Farmall for several years.

I recall cultivating corn for a neighbor as a boy with his then new C. We owned a B which I had used a lot but I felt the C was a lot more tractor.

The C also came with dual control hydraulics. One control lever for each side of a two-row cultivator. The new hydraulics worked wonderfully, especially compared to the pneumatic systems of our B.

ABOVE: Although the C looks much bigger than the A or the B, it shares the same engine and transmission. The straight rear axles and the upstanding operator's platform make it appear bigger. It is a very easy handling tractor, nimble and quick.

ABOVE: This photo is of the right side of the Cs engine. The hydraulic pump is the small, cubical device in the lower, right-center of the photo. Two metal tubes connect to the pump. On the right end of the pump, it is bolted to an enclosed gear assembly which runs off the engine. Anytime the engine is running, the pump is being driven. That is "live" hydraulic power. Meaning the hydraulics are available at all times. Earlier Farmalls had the hydraulic pump mounted after the foot clutch. That meant that the hydraulics were not available whenever forward movement was stopped by depressing the clutch. Imagine depressing the clutch to stop forward movement but then not being able to lift the machine you were operating such as a mower or cultivator. Live hydraulics were a huge improvement.

Farmall C Specifications

21 Horsepower on the Belt
19 Traction Horsepower
113 CID Engine
In Production from 1948 to 1951
Total Manufactured, 80,000
This C was Manufactured in 1948
Engine RPM, 1,650
Fuel Tank Capacity, 10 Gallons
Standard Rear Tires, 9 X 36
Speeds, 2.4, 3.8, 5.0, 10.3, Rev. 3.0 MPH
Standard Weight, 2,850 pounds
Price in 1948, $1,500

The Farmall Cub. (1947-1954)
The smallest Farmall.

With the Cub, the IH marketers took another shot at selling a tractor to the high number of farmers on small acreages. Since they already had used the letter “A” something different was needed for an even smaller tractor. The Cub name has worked just fine.

The Farmall Cub was steadily improved over the years from its introduction in 1947 until its replacement in 1965. It kept the same basic appearance and function throughout.

The Cub was configured very much like the A, just smaller. The Cub used a 60 CID engine and produced about half the power of an A.

It was of course much lighter at under 1500 pounds.

Three forward speeds and reverse.

The Cub has a road-gear, but barely. Road-gear on a Cub is 6 MPH.

Like the diminutive W-12, I have heard it described as “darling” or “adorable”.

A very useful, economical, and durable tractor for small farms and light work.

There are many variations of the Cub. It was almost continuously improved and modified.

I will document four versions in this text using re-styling as demarcation points.

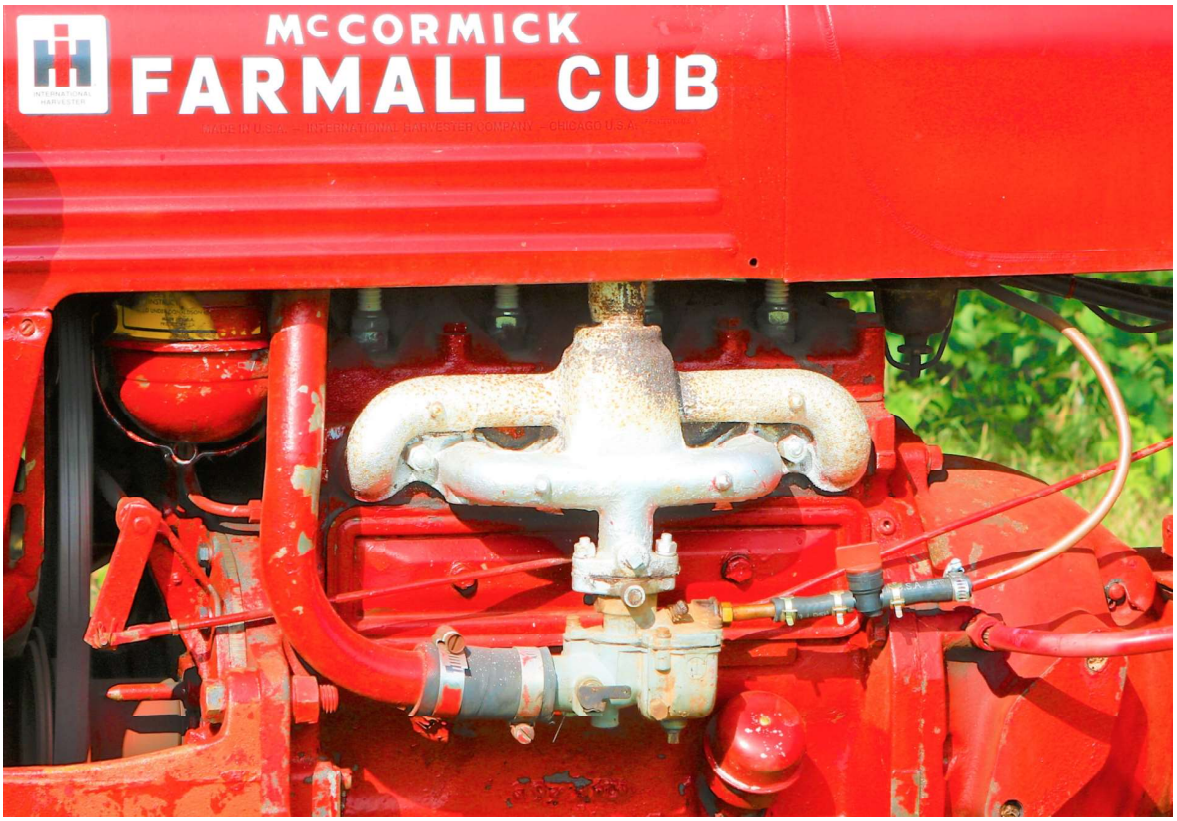
Over 200,000 were sold in its 18-year production run.

This is the first style which was produced from 1947 to 1953. This style has no hydraulics, only mechanical lift levers. It normally has a wire screen grill.

The second style has hydraulics and a 100 series grill. The second style Cub is included with the 100 Series Farmalls, (1954 to 1957).

The third style has a 30-50, white grill.

The fourth, and last style has a horizontal bar grill to match the styling of the Farmall 40-60 series tractors.



LEFT: The Cub’s engine produces only ten horsepower at 1600 RPMs. That is much less than today’s riding lawnmowers. Yet the tractor in these photos is over 60 years old. It runs beautifully. A great testament to good engineering.

ABOVE: IH engineers did an excellent job when designing the Cub. The petite, versatile and useful tractor was little changed over its almost 30 year run.

BELOW: All versions of the Cub used a planetary drive rear end. Among other advantages, planetary drive allowed greater crop clearance beneath the tractor.

Farmall Cub Specifications.
First Style.

9 Horsepower on the Belt
8 Traction Horsepower
60 CID Engine
In Production from 1947 to 1953
Total Manufactured, 162,000
This Cub was Manufactured in 1948
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 1947, $545

Tractor Types. Standard, Row Crop, Wheatland, Western, High Clearance, Cane, Orchard, Fairway, Utility or Industrial tractor

Farm tractors come in two basic forms. Row crop and Standard.

Standard tractors came first. A Standard tractor has a wide and relatively low stance.

It has two large drive wheels on the rear and two smaller steering wheels on the front.

The wheels are fixed in location. They cannot be easily adjusted for width.

The McCormick W-6 exemplifies a Standard tractor.

IHC developed the first row crop tractor. They branded it the Farmall. Row crop tractors have a higher stance to allow space for growing crops to pass underneath. A typical row crop tractor has two closely spaced steering wheels on the front.

A row crop tractor has a high power to weight ratio, it is relatively nimble and can turn in a small diameter.

All those characteristics improve the row crop tractor's ability to work in planted fields.

A Farmall H is a good example of a row crop tractor.

Both Standard and Row Crop tractors were produced in numerous variations for special uses.

Standard tractors were produced in Wheatland, Orchard, Vineyard, Rice, Industrial and Utility versions.

A tractor designated as a Wheatland or a Western was very close to or the same as the Standard version. It normally had fixed wheel width, was loaded with weight for improved traction, had hydraulics, PTO and a belt drive pulley.

An Orchard or Vineyard tractor had sweeping fenders and added sheet metal to minimize snags on limbs or vines. The exhaust and air intake lines were mounted to avoid obstruction. Often the exhaust exited beneath and to the rear of the tractor.

An ideal Orchard tractor is low, relatively small, with rear entry for the operator.

A Rice tractor has extra wide tires for flotation. The lugs on the rear tires are deeper and more aggressive. A Rice tractor also has special covering on all exposed parts to keep mud and water out. Rice tractors were chosen from the larger models.

An Industrial version often had beefed-up or reinforced parts such as the front axle, to endure heavy, rough use. The Industrials commonly had a foot pedal accelerator in addition to the fixed lever accelerator.

They might be smaller for airport or factory use, or large for highway construction.

These tractors were frequently painted yellow or another unique color as prescribed by the buyer.

A Utility tractor is normally smaller and highly maneuverable. It is designed to carry mounted loaders, blades and even backhoes. Because of those extra attachments, Utility tractors need excellent, multi-port hydraulics. These tractors were most often designated for farm chores, but were also requested for commercial yard and factory use.

Row Crop tractors were produced in Fairway, High Clearance and Cane versions.

Fairway tractors have smoother tires front and back to minimize scuffing of grass. These tractors are often equipped as light in weight as possible for the same reason. When IH introduced the first row crop tractor in 1924, which was simply designated the "Farmall", they also introduced a version for golf courses designated the "Fairway".

High Clearance tractors, often referred to as "High Clears" are just that. The wheels or axles are designed to raise the body of the tractor from 8 inches to several feet above normal. That extra space allows the use of the tractor in growing or mature crops. High Clear tractors often have the letter "V" added to their model designation. The V may have stood for Vegetable originally.

Cane tractors had special tires, front and rear. Front tires were often single rib. The lugs on the

rear tires are deeper and more aggressive. Because cane farming is a commercial operation, Cane tractors worked in a different environment in many ways. They received hard and heavy use by hired workers, not by farmer-owners. These tractors were often worked in a corrosive coastal environment.

ABOVE: Farmall H row crop. Narrow front, adjustable with rear wheels, high clearance all identify a row-crop.

ABOVE: This W 450 Standard that can be further identified as a Wheatland (or Western as you prefer) by the over-the-tire fenders.

ABOVE: This International 350 is a classic Utility tractor. Low, wide stance, lots of hydraulics, versatile FAST HITCH drawbar, lights and shield fenders.

ABOVE: McCormick W-6 Standard. Swinging drawbar, fixed, widely spaced wheels, and semi-closed operator's platform all help to identify a Standard.

ABOVE: This O-12 Orchard model is easily identified by the sweeping sheet metal and lack of obstructions such as air inlet and muffler.

ABOVE: The International 240 Utility is not an original Fairway. Those were specially manufactured row crop tractors. This tractor is what passed for a golf course (fairway) tractor in the 1960s. Note the special turf (grass) tires.