

Winter 2017  
Issue #44

# THE PLOWSHARE

History for John Deere Collectors



JOHN DEERE

JOHN DEERE'S  
FIRST EXPERIMENTAL  
TRACTOR PLOW, 1912



100  
YEARS

## JOHN DEERE TRACTORS SINCE 1918

On March 14, 1918 John Deere purchased the Waterloo Gasoline Engine Company in Waterloo, Iowa. This \$2.25 million acquisition not only marked Deere's permanent entry into the manufacture of stationary engines and tractors, but forever changed the future of the company.

In 2018, the company will mark 100 years of John Deere tractors and engines. As an introduction, the next five issues of *The Plowshare* will explore the eight years of research and development, discussion and debate, investments and expectations, that ultimately led to the introduction of the John Deere tractor.

This first installment outlines John Deere's decision to begin development of a "tractor plow." Installments will include the

development of the company's full line of agricultural equipment, development of stationary engines and tractors at the Waterloo Gasoline Engine Company, Deere's navigation of the early tractor industry and World War I, and tractor experimental work from 1912-1917. The final installment, in early 2018, will kick off the 100th anniversary of John Deere's purchase of the Waterloo Gasoline Engine Company.

## Welcome to the February Issue

In this edition of *The Plowshare*, you will read about the John Deere Dealer Parts and Service Expo that was recently held in Austin, Texas. I was fortunate to help with shipping three of the company's historical tractors to the Aftermarket Parts Marketing group.

It was nearly twenty years ago that I first attended the Dealer Expo as a dealership employee. Although the event features the latest and greatest parts and service tools offered by Deere, there are many other opportunities. While there, dealer representatives get to meet with suppliers, interact with Deere factory teams who produce anything from the OEM replacement parts, and most everything in between. It's a great place to network and help each side of the business better understand the needs and successes in the industry.

As I walked through the convention floor, I was amazed to see so many suppliers that recognized me from all those years ago. I was even fortunate to run across a few brothers—Phil, Warren and Myron—that I meet when I attended my first Expo. Their dad Ernie was the owner of a family owned dealership, while we were the young pups who looked like it was our first time off the farm in a big city.

The years have come and gone, flying by faster and faster. Ernie has passed and today, those three brothers are running the family dealerships. Sure, all of us are a little slower, a little heavier and definitely a lot more gray—or in my case just a lot less hair. And though times have changed, it was exciting to be introduced to the next generation of service techs, parts people, and dealership support members that will deliver some of the industry's best customer service as we pass the famous green and yellow torch.

I know from experience that service does not just happen—it takes years of commitment from the dealership owners to grow the reputation of having great service in a community. And it is commitment that shows the customer support and service that puts a John Deere dealer head and shoulders above the next.

To all of you in the dealership, I tip my hat to you for what you do each and every day. And more importantly to those who buy the John Deere brand—I thank you.

Keep your hand on the throttle and your plow in the ground.

### BRIAN HOLST

Historical Equipment Manager  
Deere & Company

### OUT OF THE VAULT VIDEO LINK:

From *Out of the Vault*, a special clip from the video *The Blacksmith's Gift*, starring Monte Blue as John Deere. This video was featured at the 1937 Centennial Celebration, which you will read about later in the issue. In this clip, an epic moment is featured in which John Deere builds the first steel plow in 1837.

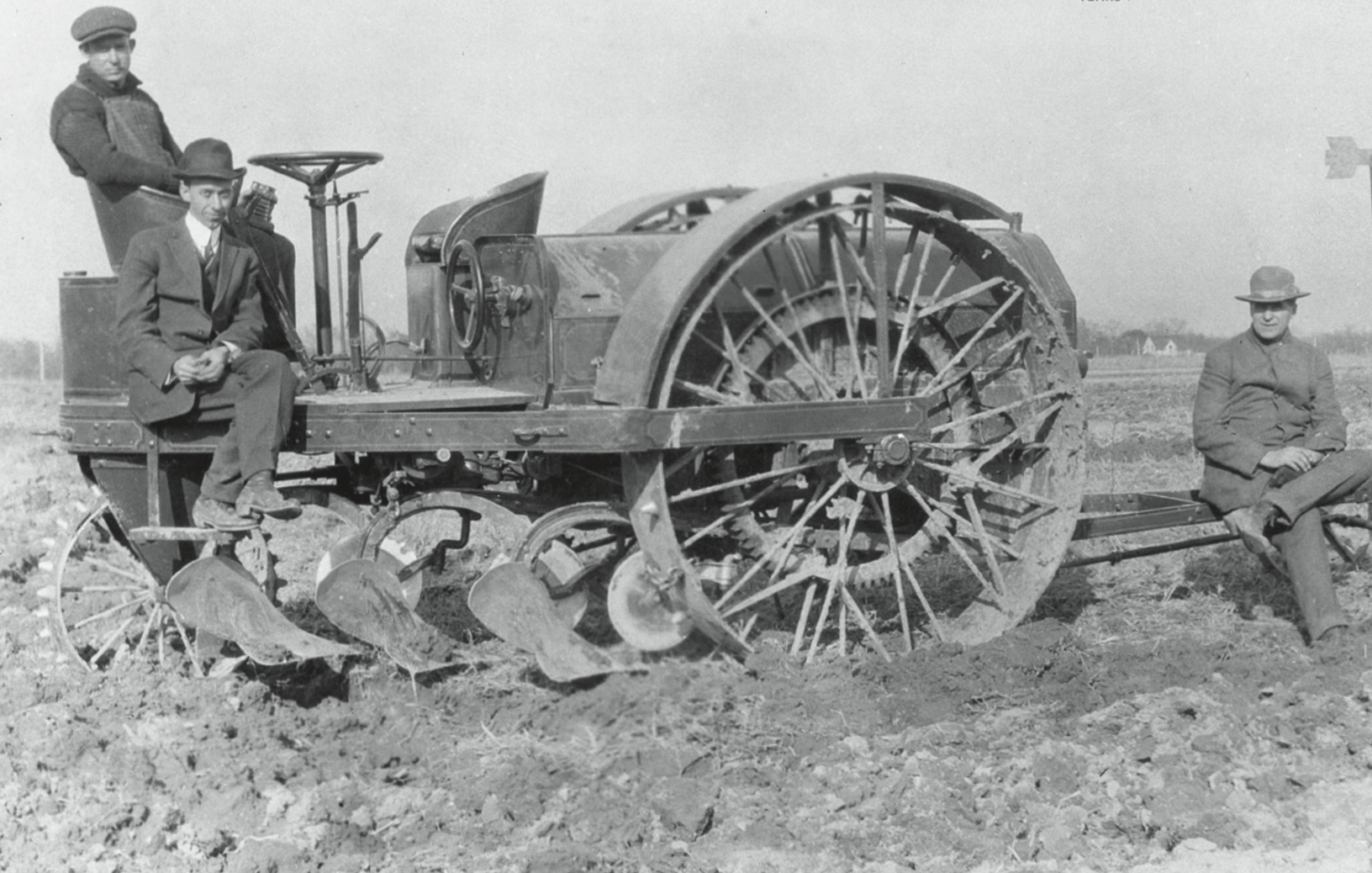


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# *the* JOHN DEERE TRACTOR PLOW

## *Twentieth Century Deere & Company*

John Deere was building a new company in the beginning of the 20th Century. Already in existence for over 70 years, the company passed into the hands of its third president, William Butterworth, in 1907. Butterworth led the company through a series of acquisitions to position the company for the 20th Century. Deere rebuilt its organizational structure, integrated product lines, and created,

for all operational purposes, an entirely new company. In all, company sales grew from \$5.3 million in 1909 to over \$30 million in 1913. Acquisitions included now familiar names: Dain Manufacturing Company, Van Brunt Manufacturing Company, Syracuse Chilled Plow Company, Marseilles Company, and the Kemp & Burpee Manufacturing Company, to name just a few.

In addition to the acquisitions and reorganization of existing factories and branch houses, Deere also invested in the construction of a new factory, the John Deere Harvester Works. For many on the Board of Directors, their work was complete. But another emerging technology was also being watched closely, and in 1911, Deere's leadership began to seriously address the opportunity.

*Unidentified operators take a break from a field test of Melvin's tractor. The tractor had two centrally located seats so it could be driven in either direction depending on the work.*

## Distribution Legacy

Deere was a company well familiar with past efforts to produce traction plows. In 1858, John Deere himself witnessed a 30-horsepower Fawkes steam plow in action at the Illinois State Fair. As a result, he got to the work of building one himself, telling the newspaper that “It will be a great day when Illinois can show a steam engine taking along a breaking plow, turning over a furrow ten or twelve feet in width as it goes.” That effort never came to fruition, but the 20th Century brought both innovations in technology and a growing demand from customers.

Over the last half of the 19th Century, Deere kept within arm’s length of further development. In 1879, the Deere, Mansur & Company Pocket Companion included an advertisement for the “Watertown” steam engine. The 1892 Mansur & Tebbetts Implement Company catalog (No. 53) included “Star” Traction Engines, built by C. Aultman & Co., of Canton, Ohio.

At the 1909 Winnipeg Agricultural Motor Competition, one of the earliest shows to feature tractors, Deere and Cockhsutt were the plows of choice. Deere delivered the largest, a fourteen-bottom gang plow. A seven-bottom version was hitched by the Gas Traction Company to its Big Four “30” tractor. The combination of the Big Four “30” and the Deere plow won the gold medal for the over-30-horsepower class. Gas Traction’s Big Four “30” was a giant among tractors of the day, weighing in at 19,000 pounds, with drive wheels reaching 8-feet in diameter.

The 4-cylinder engine was a self-proclaimed industry first for the Gas Traction Company. The pair was a good match, and Deere saw the benefits of future partnerships. By 1912, Deere’s Atlanta and St. Louis branches were offering the Big Four in their sales catalogs.

Meanwhile, in the summer of 1911, Willard Velie told the company’s Executive Committee they “had better consider the matter of securing selling alliances

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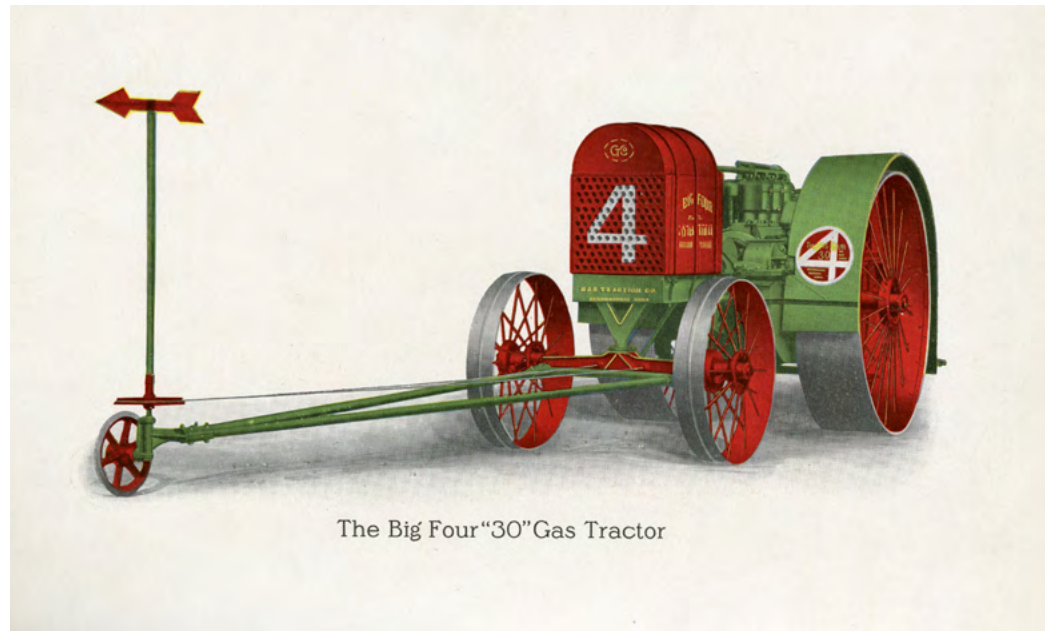
Gas Traction’s Big Four “30” was a giant among tractors of the day, weighing in at 19,000 pounds, with drive wheels reaching 8-feet in diameter.

with manufacturers of tractors.” Soon, distribution would turn to discussion of acquisition and manufacturing. While a risky business proposition, the potential impacts of mechanized farming and the role of what many in the industry was now calling a “tractor”, could not be denied.

Deere & Company considered three options: 1. acquisition, 2. sourcing, 3. internal manufacture. A first option was the acquisition of the Gas Traction Company. The Board soon learned that the Gas Traction Company had already sold out.

In April 1912, Deere researched the Aultman-Taylor Machinery Company of Mansfield, Ohio. Aultman-Taylor was a large company with a variety of harvesting products and offered a good, reliable tractor line. Unfortunately, there are no known notes on a formal proposal from Deere.

In May, George Morris of Racine, Wisconsin, was considered. Morris was a successful steam-engine designer for J.I Case, but



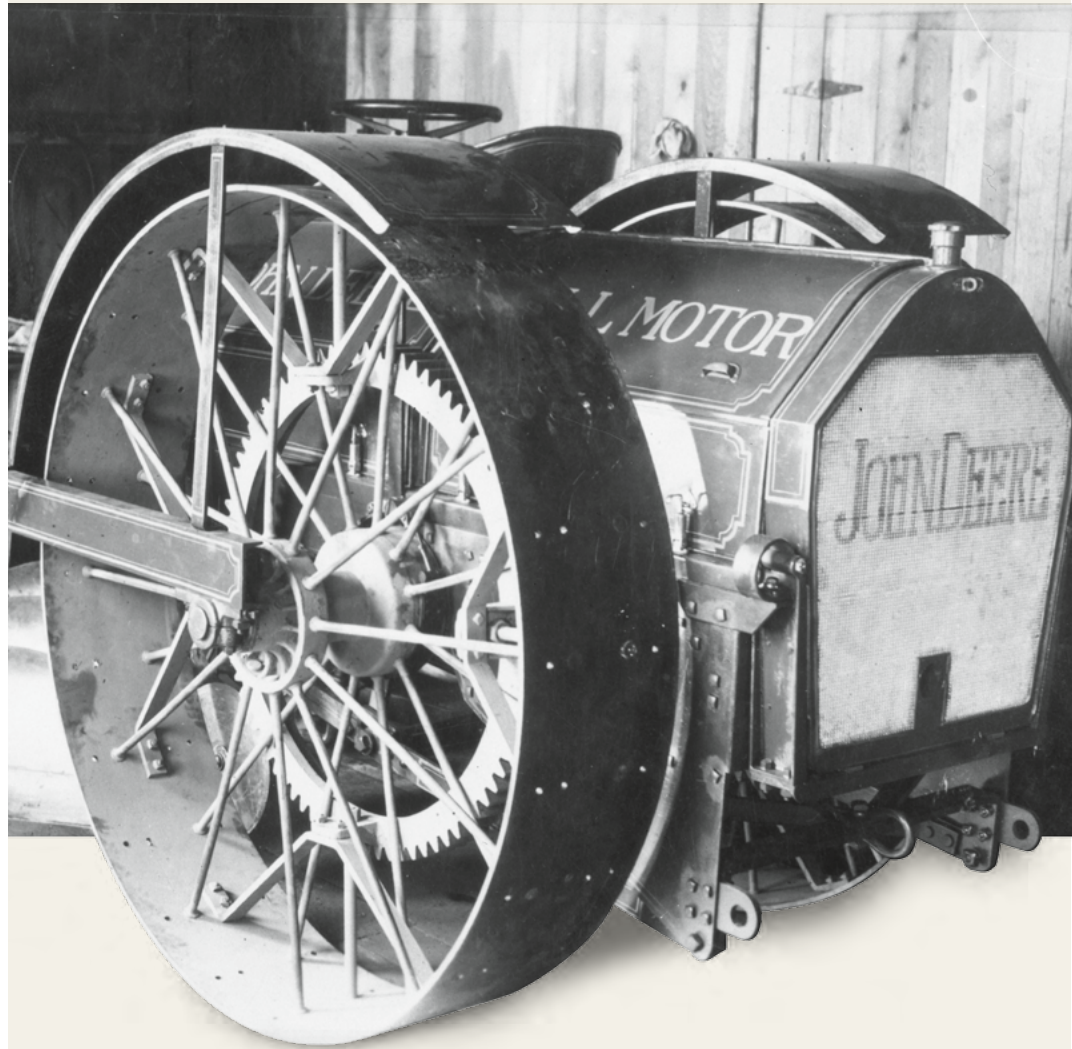
The Big Four “30” Gas Tractor

*Big Four “30” Gas Tractor as advertised in John Deere Plow Company Catalog L (St. Louis, New Orleans, Nashville), 1912.*

he wanted to develop his own gas tractor. Unfortunately, he did not have the capability to manufacture a large number of tractors. Finally, Diamond Iron Works of Minneapolis, with its proposed American line tractor, was analyzed. It too was passed over.

Interest shifted towards development with existing suppliers. Root & Vandervoort Engineering Company of East Moline, Illinois, was Deere's contracted manufacturer for the stationary engine line since 1902. It also built engines for automobile start-ups including the Moline and later the Stevens. But by that time, Root & Vandervoort was focused on engines and automobiles, not tractors. (Check out the newly published book "[The R&V Story: Providing Power for a New Age](#)" for more on Root & Vandervoort.)

The next supplier was even closer to Deere and the family. The Velie Engineering Company of Moline was run by John Deere's grandson and Deere & Company board member, Willard L. Velie. The company produced carriages, autos, and trucks, which were sold through Deere branch houses. They had the manufacturing facilities and were capable of designing a tractor, but there was concern with potential conflicts of interest, and the issue was tabled. (Velie would soon after go on to produce his own tractor, the Bilt-Well 12-24).



### ***Internal Development: The Tractor Plow***

After a year of investigation, the Deere & Company Board of Directors passed a resolution on March 5, 1912 to fund the research and development of a new "tractor plow." A small team began to travel to field tests of existing tractors, visit the factories of current manufacturers and suppliers, and most importantly, to talk to customers and dealers.





On May 23, 1912, Vice President of Manufacturing, George W. Mixter, head of engineering Max Sklovsky, and designer Charles H. Melvin reported on their research into existing tractor designs. They identified the best tractors in three classes:

- Aultman-Taylor in the heavy class
- Avery Company of Peoria, Illinois, in the small class
- Hackney Manufacturing Company of St. Paul, Minnesota, in the motor plow class

Melvin further submitted a [report dated May 10, 1912](#) outlining his personal investigation into the “merits of the Hackney Motor Plow.” The Hackney was a three-wheeled design with a 22-40-horsepower rating and three forward speeds. The auto plow also had a power lift system.


Two months later Melvin was transferred from the Plow Works Experimental Department for the purpose of designing and building an experimental tractor. Melvin’s \$6,000 budget was soon spent on the production of one tractor loosely based on the Hackney Motor Plow. Two driving seats with centrally located controls allowed the tractor to be driven forward in two different directions. But field trials were disappointing, and by early 1914 the Melvin design was abandoned.

Meanwhile, Deere saw mounting evidence of customer interest in tractors. In late 1913, the First Annual National Power Farming Demonstration was held in Fremont, Nebraska. Forty tractors plowed a total of 65 acres for a crowd of 40,000 people. The promise of what a tractor could do was on display for all to see.

*Field test of Melvin with an integrated disc plow.*

In addition to Melvin’s design, and perhaps in competition, Max Sklovsky had also produced drawings for a machine based on the Hackney, but neither were built. More will come from Sklovsky soon as the Melvin design is put aside, and the Sklovsky A-2, B-2 and D-2 become the focus of the next round of tractor experimental work.

In the next issue of The Plowshare we will explore the emerging tractor industry and John Deere’s quest to determine if the tractor could truly change the future of agriculture.

 [Click here to check out the Melvin photo gallery.](#)

# 1937 CENTENNIAL

## A MULTI-GENERATIONAL LEGACY

When Gene Holmes' military service ended in 1948, the Waterloo West graduate said he "lazed around a week or two" before he returned to work.

Gene applied to John Deere Waterloo Works in Waterloo, Iowa, where many of his relatives worked, got hired and started that day. Holmes put in 34 years of service before retiring and helped contribute to his family's combined 245 years and three generations of work with the company.

Gene has now been retired from Deere & Company almost as many years as he worked there, but he can't get the green and yellow out of his blood. Perhaps one of his most memorable John Deere experiences was as a child when he experienced the 1937 centennial celebration at the National Dairy Cattle Congress grounds in Waterloo, Iowa.

To witness such a celebration was monumental and life changing, especially for nine-year-old Gene. "It was amazing that the Waterloo Works hosted a sit down dinner for employees' families," said Gene. "I was so proud to be a part of John Deere and knew that I wanted to be a part of the team someday."

This legacy has passed down to the next generation to Gene's son and collector, Drew Holmes. "From the time I was a little boy, I remember every family gathering was centered around John Deere," said Drew. "We have had twelve farms in the family and were bleeding green from the time I was born. It was really special to our family"

Gene and Drew's first tractor that they restored together was the 1953 model R—the company's first diesel engine tractor. The duo now owns eight machines together and have continued to bond over tractor restoration over the past eight years.

"It means so much to be able to collect and farm with my son today," said Gene. "John Deere was such a great place to work. I always enjoyed what I was doing every day and now I get to experience that in a new way."



Gene Holmes driving a restored family tractor.



Holmes featured four tractors at the last Two-Cylinder Club expo at Waterloo Cattle Congress.



Gene driving a model "R" at the 90th anniversary of the John Deere Waterloo Works in 2008.

"It means so much to be able to collect and farm with my son today."

from  
**VINTAGE  
TRACTORS**  
to  
**INNOVATIVE  
TECHNOLOGY**

John Deere Parts Expo offers the value of choice to customers and collectors.



The 2016 Service Parts Expo in Austin, Texas, was an inspirational experience filled with new products and services, as well as old machines making a debut.

Expo is John Deere's largest sales and training event. During the 10-day-long event, the parts marketing organization trained and educated more than 3,000 dealers to better serve their customers. One central message of the Expo was emphasized on the value of choice and offering the right part for the right price to customers.

Phil Lauer, product line marketing manager, emphasized the importance of the event. "This is also a great experience to support our dealers to win in the aftermarket," said Lauer, "The value of choice helps to reenergize our dealers to focus on what matters the most—serving customer needs."

Dealers offer the value of choice by providing three options to meet customer and collector parts needs – Genuine John Deere parts, John Deere Reman and aftermarket alternatives from A&I Products and Sunbelt Outdoor Products. Through offering a variety of

parts options to meet the unique needs of customers and collectors, dealers are able to offer the right part with the right fit at the right price.

To highlight this message, the 4440, 4960, and 7810 tractors (*pictured right*) were featured at this year's Expo, refurbished with unique value of choice parts options. "We brought these old tractors to help reenergize efforts toward older tractors to invest energy into this area of business," said Lauer. "We really want our customers to know that we are here for them with their parts needs in all seasons of the life of their machine."

Perhaps the most impressive was the 1981 4440 tractor that was manufactured at John Deere Waterloo Works in Waterloo, Iowa. This 4440 was the 2 millionth tractor that was produced at Waterloo Works and currently only has 26 hours run on it.

The 4440 is currently in storage at the John Deere Archives, where it is preserved as a historical artifact. To learn more about the 4440, [check out this special interview](#) with Phil Lauer at the Parts Expo in Austin, Texas.



[Click to check out the digital Parts Expo tractor photo gallery.](#)







*Called the biggest move in local history, it took 250 vans and four moving companies to move into the new headquarters in 1964.*

## DEERE HEADQUARTERS FEATURED IN NEW PBS DOCUMENTARY

In December 2016, a PBS documentary was released featuring the work of Eero Saarinen, the Finnish architect who designed the John Deere World Headquarters in Moline, Illinois.

Saarinen's death at the age of 51 "cut short what continues to be one of the most influential legacies in American architecture, a body of timeless work that stands apart from the clutter of contemporary design and continues to inspire architects today," recounted a summary at [imdb.com](http://imdb.com).

There were many exciting artifacts discovered by the archives while producing the documentary. "One of the greatest parts of the PBS project for me was, we had archival footage of Eero Saarinen, which hadn't been found from his other corporate clients, of one of the boardroom presentations of his design," said Neil Dahlstrom, manager of corporate history and archives at John Deere.

"It was such a privilege to work on this project," said Deb Wood, senior photographer. "The video was so well done and really captures the spirit of their visit and what it means to be at John Deere."

Despite his untimely death, Saarinen's legacy will live on through his work. Saarinen was known for his influential designs of national historic landmarks, such as the St. Louis Gateway Arch in 1965, the General Motors Technical Center in Michigan, and New York's TWA Flight Center at Kennedy National Airport.

[Click here](#) for more information on the documentary, "Eero Saarinen: The Architect Who Saw the Future."

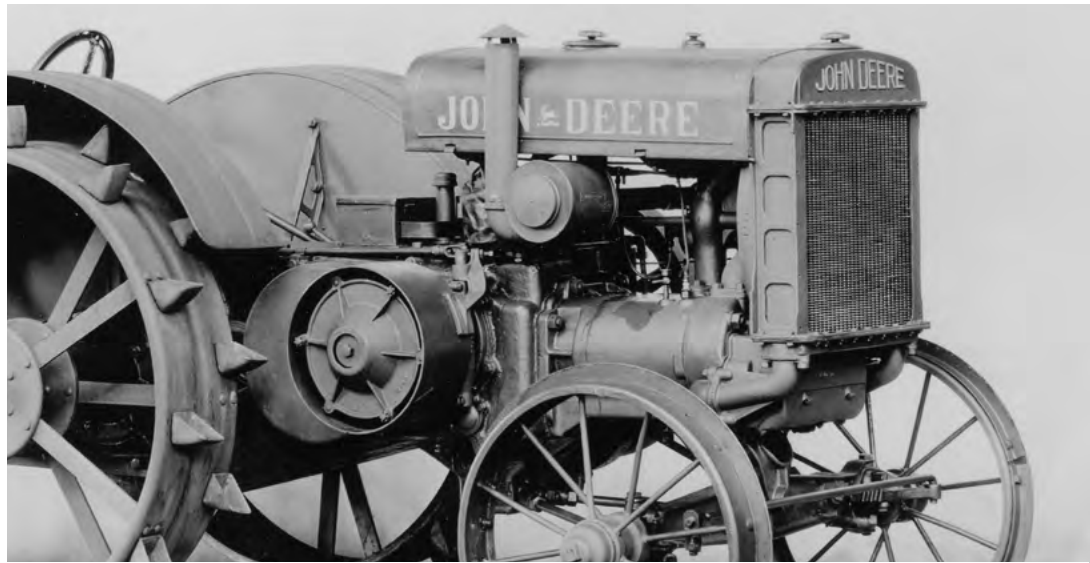


*Hewitt and Saarinen reviewing the interior design using a larger scale model.*



*A view from the Deere & Company parking lot in late 1962.*

# FROM THE ARCHIVES



## 100 YEARS | JOHN DEERE TRACTORS SINCE 1918

2018 will mark the 100th anniversary of John Deere's acquisition of the Waterloo Gasoline Engine Company. To celebrate this milestone, here are a few of our favorite vintage tractor photos from the John Deere Archives.

