LAKE REGION PIONEER THRESHERMENS ASSOCIATION



"THE PAST IN ACTION"

Dalton, Minnesota

"Home of the Giants"

13th Edition



Dedication

Lake Region Pioneer Threshermen's Association dedicates this 13th edition book to all the old equipment manufacturers who left us with a legacy and a source of present day enjoyment and especially to the manufacturers of John Deere, which equipment is noting its 150th anniversary.

> Cover Picture: Tom Johnson's "A" John Deere

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Custom Built

By LeRoy E. Anderson 1020 W. Cavour Ave. Fergus Falls, MN

These pictures are of the 1/3 scale working model of an original Sageng self-propelled threshing machine. The original threshing machines were made on a farm near Dalton, Minnesota between 1908 and 1912.

The 1/3 scale model will be on display in Dalton, Minnesota at the 34th Annual Lake Region Pioneer Threshermen's Assoc. meeting September 11-13, 1987. Lorne Lund, Enderlin, North Dakota; his son Keenan of Nome, North Dakota; and Alfred Stiedl of Fingal, North Dakota built the 1/3 scale. Since they started January 14, 1987 to mid-April, there



This 1/3 scale Sageng threshing machine will be on display at the 2nd Annual North Dakota Farm Toy Show on Saturday, June 20. Pictured from left to right are: Keenan Lund, Alfred Stiedl and Lorne Lund.

have been over 1400 hours invested in the project. They used an old blueprint and three old pictures they enlarged. Each picture showed a slightly different design but nothing too difficult for these three "model engineers". One of the biggest problems with the old pictures were the numerous people in front of and on the machine that wanted their picture taken which blocked some of the important design features. Not one of the three men had ever seen the real machine.

A large portion of the needed parts had to be handmade. Some parts came from old Maytag washers, pump jack

gears, Allis Chalmers and John Deere gears.

The motor they are using is a 4 cylinder Hercules which is 20 inches long, just the width of the machine.

This story does not do justice to the work the three men have done. This machine is worth a long trip just to see it, so make plans to come to Dalton, Minnesota this fall and see it on display in September.

If anyone out there has any pictures, brochures, sales literature, etc. or knows where a real live machine is, please contact this writer as the Lake Region Pioneer Threshermen would like to add this to their show.



President's Message ...

Welcome to Our 34th Annual Threshing Show!!

We are celebrating 150 years of John Deere! Each year we feature a different line of tractors. In 1988, we will feature the Oliver line. Oliver fans, get your tractors ready now!!!

You probably haven't seen a lot of changes in the last year on buildings or on the grounds, but we have purchased more land. We have purchased land to the south and east of our land.

Our railroad is slowly growing. It seems everytime we have a work day, it's 90° out and too hot to work.

In closing, I would like to say a great big thanks to all the directors and the members for all the support in all the years I have been president. I thank all the people who help put on the show and the people who attend. Without these great people, this reunion would not be possible.

LAVERN SIMDORN,

President



Work Day on the Grounds

















A Brief History of the Rumely Co.

The founder of the M. Rumely Co. was Meinrad Rumely, who was born in 1823 in Germany. He learned the millwright trade in France and after serving in the military he decided to come to America. Two of his brothers, Jacob and John, had preceded him to America. Meinrad first worked with Jacob in a pump factory and then with John for the Russell Co. of Massillon, Ohio. After working in several other jobs, Meinrad learned that railraod being built between Toledo and Chicago would locate its shops in La Porte, Indiana. In 1852 or 1853, Meinrad along with his brother, John, set up a shop in La Porte. They did general mechanical repairs and their first products were corn shellers and horsepowers. A few years later, they added threshing machines and the machines were an immediate success. The Rumely threshing machines won 1st prize at the Illinois State Fair and the United States Fair in Chicago in 1859.

In 1878, the Rumelys built their first portable steam engine. In 1882, Meinrad bought out his brother, John's, interest in the company for a reported 50,000 dollars. In the 1887, the company was incorporated under the M. Rumely Company name. Meinrad ran the company with the help of his two sons, Joseph and William, until his death in 1904.

In 1907, Dr. Edward Rumely, the son of Joseph, joined the Rumely Co. after studies at Notre Dame, Oxford University in England, Heidelberg University in Germany and earning his M.D. at Freilberg University in Germany. As a student in Germany, he met Rudolph Diesel, who perhaps influenced Edward in his development of the Oil Pull tractor. Another important man in the development of the Oil Pull was John Secor, who Edward sought out and persuaded to join the company in 1908. March 15, 1910, the first Oil Pull tractor was shipped. By 1911, Rumely was third in tractor sales in the United States behind International Harvester and Hart-Parr. Over 56,000 of these machines were produced.

Edward Rumely then turned his attention to enlarging the M. Rumely Co. Many of the other farm equipment manufacturers had merged and branched out to become full line equipment manufacturers and Rumely was going to do the same. First Rumely purchased the Advance Thresher Co. and along with it an interest in the American-Abell Co. of Toronto. Having an interest in a Canadian manufacturer gave Rumely a way around the Canadian tariff. Later, Rumely purchased the remaining interest in the American-Abell Co. In 1911, the M. Rumely Co. also acquired Gaar-Scott and Company of Richmond, Indiana. Gaar-Scott was one of the largest threshing machinery manufacturers at this time.

The M. Rumely Co. also acquired the Northwest Thresher Company of Stillwater, Minnesota, the Seager and Olds line of gas engines, the Watts Corn Sheller and Adams and Falk kerosene engines.

At this time, things looked good for the Rumely Co. but trouble was waiting. A combination of over expansion, credit problems due to slow collections for goods sold, cut throat competition among farm equipment manufacturers and management problems led to the M. Rumely Company filing for receivorship, January 19, 1915. At this time, the Rumely stock sold for about \$1.50 per share. A few years before it had been over 100 dollars per share. December 9, 1915, the Advance-Rumely Company and the Advance-Rumely Thresher Company purchased the M. Rumely Company and the Rumely Products Company at a receiver's sale. The Advance-Rumely Company continued until 1931 when it was purchased by the Allis Chalmers Co.



30-60 Oil Pull. Used in Iowa for many years on road work.



25-45 Oil Pull.



20-35 Oil Pull.



15-25 Oil Pull.



16-30 Oil Pull Aldrick Carlson also owns this fine running machine.



Rumely DO-ALL. An early attempt at a row crop tractor. Dale Akerman of Ashby owns this unique tractor.

Curtis Leighty of Rochester, Mn. owns the 30 h.p. Double Rumely. Used for threshing during its working days.











The giant 36 h.p. Rumely steam engine. The largest built by the M. Rumely Co.









25 - 45 Rumely OilPull Type "B"

The type "B," or 25-45 OilPull, was designed primarily for threshing but will successfully handle the other power needs of the average farm. It delivers 25 horsepower in traction and 45 horsepower on the belt. It furnishes steady, smooth power for threshing and the necessary "pull" for economical plowing and hauling. Altogether the OilPull is an exceedingly economical and comparatively inexpensive farm power, of incalculable value to the farmer whose desire is to lower his cost of production and realize greater profits.



A Canadian Harvest

In the summer of 1928, I had a letter from my aunt in Canada asking if I would consider coming up there and helping with the housework during harvest and threshing. There had been a few years of crop failure due to drought, frost or hail, but this summer everything looked good for a bountiful harvest. I was a young girl at this time and decided that I would like to make the trip as I had not been that far away from home before.

On August 18, my parents took me to Elbow Lake where I boarded the Soo Line train in the afternoon. The first night seemed long, but when daylight came, I could look out the window and see all those huge grain fields. Some fields in Saskatchewan stretched out as far as my eyes could see. I arrived at my destination at midnight and was glad to see my aunt and family and get to her home.

The grain was starting to ripen and would soon be ready for harvest. I remember those big, beautiful wheat fields on my uncle's farm. They were so clean and free from weeds, the straw stood up so tall and straight and were heading out with plump beards of grain. I remember going for a walk one beautiful "full moon" night and that big wheat field close to the house was just waving its golden grain like waves of the sea. It was just breathtaking and a sight which I have not forgotten.

When the grain was ripe, my uncle and his hired help got busy with harvest. He used an Rumely Oil Pull and also an I.H. Tractor 15-30. When the fields were cut and shocked (I belive they used the words "putting up stooks" in Canada.) that too looked so great when you looked across the prairie.

When it was time to thresh, my uncle hired approximately 10 men and they were of several nationalities: French, Scotch, English, Russian, Swede and even one Norwegian. We didn't get to know them on a first name basis, but it didn't take me long to put a "nick-name" on each one and my aunt had some good laughs about that.

The crew slept in a bunk house about 500 feet from the house but we served them meals in the house. There was a lot of cooking and baking as threshing lasted two weeks. We had to get up early in the morning and sometimes it got quite late at night before we could get to bed. One evening it was late before we finished dishes and I went to hang a pan in the basement stairway. It was dark as they didn't have electric lights then. I missed my hook and the pan fell down and my aunt said, "leave it till morning," so we went to bed. Getting up early to make breakfast and forgetting about the pan, I opened the basement door to go down and get the bacon. Guess what!? I stepped right on the pan and went sliding and rattling all the length of the stairway and my aunt had a good laugh! The thought of it is funny now, but at the time it really shook me up.

After the threshing crews left, my uncle hired a Russian boy to stay on through the plowing and fall work. He was short and stocky and we called him "Shorty." The nights had been cold so there was a small heating stove in the bunk house to keep him warm. One night a terrific wind storm came up and when my uncle got up in the morning, he looked out and saw the bunk house tipped upside down. He just yelled and ran out there as fast as he could and hollared "Shorty", "Shorty" - there was no answer at first but soon he came crawling out, with soot on his face and straw in his hair and said, "what happened?". He had slept through the whole ordeal. Talk about a good night's sleep! Fortunately, the fire had gone out of the heater or it might have been a tragedy.

Another happening that I remember well is the burning of the straw stacks. There was mainly grain farming there and they had no use for all the straw, so one night when there was no wind, the farmers went out to set fire to their straw stacks. We went out after dark and looked all directions and saw these fires scattered around the countryside and it was really a beautiful sight.

I arrived back in Dalton the first of December with a lot of experience and good memories of the time I spent on the Canadian prairie in a year they harvested a super, bumper crop!

Mrs. Ralph Melby



Part of Willard and Bev Norton's collection arriving at the show.



Part of Melvin and Donna Mickelson's collection. Minneapolis Molines



1941 "U" Minneapolis Moline - Lavern and Dolores Simdorn.







Harvesting on the Jim Hill farm at Humbolt, MN in 1905. Notice the Buffalo Pitts steam engine powering the separator.



Never Argue with a Mule

by Red Larkin

I suppose in relating this tale of an old style harvest incident, I should begin by saying "it was long ago and far away" as stories were always narrated to me when I was but a lad in the old nostalgic yesteryear. However, the year 1935 doesn't seem all that far down the long old back trail and the locale was only a few counties south of here or about eight miles west of Graceville, Minnesota, up in the county very aptly named for the size of the boulders lying around.

My parental grandfather was one of the early day settlers in that area, homesteading and tree claiming land in 1880. A small depression in the ground on the shore of Fogarty Lake still identifies the site of his first habitation, a sod shanty dug into a side hill. He had migrated from Ireland because of lack of land, overpopulation, potato famines, etc. He did quite well farming and managed to accumulate a couple sections of land and a goodly sum of the green stuff known in any language as the "where-with-all" before he passed on. My dad was engaged in several businesses, including farming and heavy road grading and was quite successful until the depression of the "dirty thirties" came along. We moved to St. Paul in the fall of 1933 when the going was getting pretty tough.

Those were the days of the dust storms, twelve cent corn, farm foreclosures, W.P.A., C.C.C., etc. My mother, may God rest her soul, was one of those persons who didn't know the meaning of the word "quit" and was a trojan for work. At one time she cooked for a fourteen bundle rack steam thresh crew with the help of one other lady. She rented a three story house in St. Paul and began furnishing board and room to several people to the tune of thirty dollars a month apiece and managed to feed the rest of us in the process. My Dad was on W.P.A. and now and then managed to pick up a little extra work. For instance, he and I unloaded coal at Fort Snelling, scooping it out of open gondolas, for ten cents a ton. Bear in mind the fact that I was fourteen years old and weighed only about 130 pounds at the time. My dad was well up into his fifties. So it was by no means easy money.

In the summer of 1935, I had what might be described as almost a white collar job. Electric refrigeration was not too prevalent as yet, so the ice companies were still in their glory. You could buy ice off the trucks as they covered their routes or go to small ice houses scattered around town. The ice companies hired kids to run them and sell ice. You bought a couple of 500 pound cakes in the morning and retailed it out in about 50 pound pieces. A person always tried to estimate as closely as possible how much he could sell without losing too much to melting. A young fellow could make a buck to a buck and a half a day, which was good for those days. All you did was sit in the shade, saw off a piece of ice, weigh it and sell it. I guess there just wasn't enough activity with that job, as along about the middle of July 1, decided to go back out to Big Stone County and make the grain harvest, shocking and hauling bundles. So I right fast pulled the pin on the ice company, hitchhiked out the 160 miles and got a job shocking wheat the next day.

In those days, when you were shocking in the States or stooking in Canada, the boys on both sides of the line called it "setting up bouquets." It wasn't too long before all the wheat and oats was standing up in bouquets drying. We then started the thresh run; and, if my memory isn't playing me false, they had a 28 inch Minneapolis separator with straight feeder and no center board using four bundle racks. The belt power was a 17 - 28 Twin City and a Case. I can't remember the model, probably an L or C.C. We could keep the machine running most of the time as it was all short haul. We got the munificent sum of \$2.00 a day, plus board and room with lunches in the morning and afternoon. However, there were a lot of men wanting to earn that \$2.00 a day. I was not quite sixteen years old and hauling bundles with grown men. They knew all the short cuts and it was up to me to learn them as fast as possible to get that \$2.00 a day. I was there when the last bundle went in, so either I got the job done or the farmer let me get by.

The boss gave me a nice team of mares to drive on a bundle rack. Everything went fine till one morning I went to the barn to harness my team and found one mare down. Maybe some of you can recall a certain scourae that was rampaging through the farms in the mid-thirties. It was called Equine Encephalomyelitis, which is a \$2.98 name for sleeping sickness in horses. Sure enough, my mare had it. So the boss assigned a big jack mule to hitch with the other mare. Now a mule is a curious animal of dubious descent. But by no means is a mule dumb! A mule knows when to quit eating and when to quit drinking. Some of the genus Homo sapiens don't! I was one of those saps many a time. Mules are like men in certain respects. They are born with or develop traits which are peculiar to each individual. Some men are baseball enthusiasts, others can't be pried away from a football game. Then you have that breed of cat who is never happier than when he or she has an old gas tractor, steam engine or similar piece of machinery rolling along.

My big jack mule had made up his mind early on that he didn't like backing up or being made to lead behind a car or wagon, and furthermore he had no intention of performing either of the aforesaid maneuvers come hell or come high water. I found this out the hard way. We moved to another farm on the thresh run about 10:00 a.m. and the ladies were serving lunch right in the farmyard. I pulled the team into a right angle fence corner and had my lunch and coffee. I jumped back into the rack and was going to head for the field to get a load, but there was no way that hard-jawed jack mule was going to back out of that corner. So there was nothing to do but unhitch, push that bundle rack by hand and rehook the tugs. Just about then is when I discovered the whole gang peeking around the corner enjoying my misery and probably seeing if they could learn a few new words. The boss then told me that when he had bought the mule he had tied him behind a Model T and headed for home. Glancing back, he saw the mule dragging along on its side. He called the vet, who got a big club and hit the mule right between the eyes. The mule jumped up spry as you please but had to be driven the rest of the way home. The mule and mare made a very good bundle team as long as a person didn't try to infringe on any of that mule's no-no's.

Yes, some men and some mules are much alike in more ways than one. As I told the landlady one time when moving into a rooming house, "I have certain idiosyncrasies." She said, "That's all right. I'll dust them." Well, at any rate, we finished the thresh run and I got paid about fifty dollars. I kept two bucks and mailed the rest to my mother. I hitchhiked back to St. Paul and beat the mail home. My dear old Irish mother opened the letter, gave me a buck and told me not to spend it all in one place. When I look back on it, that was one of my proudest moments. I was on many a thresh run afterward. I spike pitched on 36 inch machines, pitching seven loads out of eight. I hauled bundles from under a shock leader one fall, etc. But none stand out in my memory like that first one and the big jack mule.

My better half sometimes intimates or infers that I am a wee bit windy; however, I always take that with a grain of salt as I don't consider it windy until something like the following happens. I saw a car with all four tires flat and asked the tow truck driver what had happened. He said that a high wind blowing around a corner had created almost a complete vacuum, sucked the valve cores right out of the valve stems and almost turned the tires inside out. Now that is a lot of wind!! My very best regards to everybody.



With a gasoline-powered machine, a woman had reading time on washday.



"A" International



Steaming up at the show!

One 1948, 4 cylinder "G" Minneapolis Moline and one brand new experimental 1948 6 cylinder "G" Minneapolis Moline were made into a 4 wheel drive tractor in 1952 by Dotzenrod Implement of Wyndmere, ND. When plowing, they pulled 11 - 16's with packers. The Dotzenrod Bros. have a very large collection of Minneapolis Moline tractors, gas engines and many others.

Thanks alot Alvin for the picture.









150 Years of John Deere

In 1937, John Deere, a 33 year old blacksmith, forged the first successful self-scouring plow. His innovation changed the face of agriculture and laid the foundations for the world's largest manufacturer of farm equipment which was incorporated as Deere & Company in 1868. Through the late 1890's Deere & Company's main product was the steel plow. Then in the early 1900's the modern company began to take shape as John Deere acquired several different lines. Deere and Mansur (planters and cultivators), Dain Manufacturing (hay equipment), Van Brunt Manufacturing (grain drills), Waterloo Gasoline Engine Company (Waterloo Boy Tractors) and Moline Wagon Company (wagons) helped to make John Deere a full line equipment supplier.

In the early 1900's, Deere & Co. was also experimenting with tractor designs. Some of these include the Gas Traction Company's "Big 4" the Velie "Biltwell" and the Dain "All Wheel Drive". But it was the Waterloo Boy and its forerunner the Froehlich Tractor that really put John Deere into the tractor business.

In 1892, John Froehlich of Froehlich, Iowa built the first gasoline tractor to propel itself both forward and backward. Two were sold and later returned by dissatisifed buyers. Later that year Mr. Froehlich joined with others to form the Waterloo Gasoline Traction Engine Company. Other models of tractors were introduced but were not successful and the company turned to the production of gas engines for income. In 1985, the company was reorganized and the word "Traction" was dropped from the new company's name. But tractor experimentation continued and in 1912, the Waterloo Gasoline Engine Company introduced the first "Waterloo Boy". In 1915, the Model N replaced the "R". It had two forward speeds compared to the "R" 's one. By 1918 when John Deere acquired the Waterloo Engine Co. more than 8,000 "Waterloo Boys" had been produced. Then "N" remained in production until 1924 when it was replaced by the John Deere "D".

For the next four decades all John Deere tractors made in Waterloo shared 3 characteristics - the name, green and yellow paint and 2 cylinder horizontal engines. Known as two-lungers, poppin Johnnies and other names, the two cylinder John Deeres were very popular. Two cylinders meant fewer parts to wear, adjust and repair. Each part could also be made larger and more rugged which helped John Deere tractors to become known for their dependability. The two cylinder horizontal design also made the tractor simpler and easier for the owner to work on himself. Why was this design dropped much to the fear of many who thought it meant an end to the Company. By the 1960's there was a demand for tractors with more power. To get that increased



Model "N" Waterloo Boy-1916-192 REOSER WATERLOO BOY CONTROL OF CONTROL OF



power from a two cylinder design meant a tractor with too great of a physical size for working between rows. Also two cylinder engines were not as well suited for the shift-up, throttle-back type of operation used for lighter work. They were just not as flexible as the new models. So a great era ended, but not completely since there are still a lot of two cylinder John Deeres out there working just like they always have.

In March of 1923 John Deere came out with the "D". Many factors made this tractor popular. It had a low initial cost which put it in reach of farmers who were strapped by the Post World War I Depression. It pulled 3-14's in most soils, burned low cost fuel and repairs could be done by the farmer himself. The "D" stayed in production until July 1953.

In 1928, production was begun on the "GP" or General Purpose. This tractor was the first row crop tractor with four sources of power. A drawbar for pulling, a belt pulley, a power take off and the first power lift to raise and lower such equipment as planters and cultivators. The "GP" with its arched front axle and high clearance rear end could cultivate three rows. The first orchard tractor was a "GP" which had fender skirts which covered the rear wheels, pulley and flywheel, preventing tree limbs from catching in the spokes. The "GP" was rated at 10 drawbar and 20 belt pulley horsepower and was made from 1928 to 1935.

Corn Belt farmers liked the power lift and 3 row cultivator of the "GP" but cotton farmers preferred 2 or 4 row cultivation. In 1929, the "GP" wide tread was introduced. It had a long rear axle to straddle two rows and a tricycle front end that fit between the two rows that the front end straddled. In 1932, the "GP" Wide Tread was improved with a tapered hood, better steering, adjustable cushion spring seat, individual rear brakes and relocated controls.

In 1934 John Deere introduced the Model "A", the most popular tractor in the company's history. This tractor had two industry firsts - adjustable wheel tread and a one piece transmission cover providing high axle clearance. The "A" had several variations such as the "AR" and "AO" which were introduce in 1935; the "AN" with narrow front and "AW" with wide front introduced in 1936; and two high crop models produced in 1937, the "ANH" and the "AWH". The "A" and its variations were the first John Deere tractors to be offered with rubber tires. The "A" was discontinued in 1952 and the "AR" in 1953.

Smaller farmers liked the features of the "A" but wanted a smaller tractor suited to their needs. In 1935, John Deere introduced the "B", which was described as being two thirds the size of the "A". It had all the features of the "A" and also had such variations as the "BR", "BO", "BN" and "BW". The "B" was made from 1935-1952 and the "BR" from 1936-1947.

For the larger farmer who wanted more power, John Deere manufactured the "G" which was a larger version of the "A". The "G" was produced from 1937-1952.

John Deere's first utility tractor was the "L". It was built by the John Deere Wagon Works in Moline, Illinois. It had a two



"A"-1934-1952



cylinder vertical Hercules engine and a foot clutch. The engine was offset to aid visibility while cultivating. In 1941 the "LA" was introduced. It could pull one 16" plow while the "L" could pull one 14 inch plow. The "L" was built from 1937-1946 and the "LA" was built from 1941-1946.

In the late 30's, John Deere hired Henry Dreyfuss, a well known industrial designer, to restyle its tractor line. In 1938, came new styling for the "A" and "B". The new styling was adopted on the "D" in 1939 and on the "G" in 1942.

In 1939 John Deere introduced the model "H". It had the same new styling as the "A" and "B" and shared many features with the larger tractors. There were four variations of the "H". The original "H" with dual front wheels, the "HN" with single front wheel, the "HWH" with wide front and high clearance and the "HNH" with single front wheel and high clearance. The "H" was discontinued in 1947.

During World War II only variations of existing models were introduced. 1947 saw the introduction of the first tractor built at the new factory at Dubuque. It was the "M", a general purpose utility tractor. The first variation of the "M" was the "MT" or "M" tricycle. It was available with single front wheel, dual front wheels, Roll-A-Matic or adjustable front axle. The "M" was produced from 1947-1952 and the "MT" from 1949-1952.

1947 also brought several improvements to the entire tractor line, Powr-Trol for hydraulic control of implements, electric starting and lighting systems as standard and interchangable front ends.

From 1940 to 1947, the Lindeman Brothers of Yakima, Washington modified "BO" tractor chassis with crawler tracks. These were known as John Deere Lindeman Crawlers, but the first John Deere crawler was the "MC" which was manufactured in Dubuque from 1949-1952.

In 1949, the model "R" was introduced, the largest tractor that John Deere had ever produced. It was rated at 34.27 drawbar h.p. and 43.32 belt h.p. In the early years of World War II, John Deere engineers had begun to design a tractor to replace the "D". Their goals were more power and use of a diesel engine. The "R" was the result of their work. The "R" had an auxiliary starting engine to make starting and warmup of the tractor easy. The "R" was also the first John Deere tractor to be offered with a steel cab. The "R" was produced until 1952.

In 1952, John Deere came out with the first numbered tractors, the 50 and 60, which replaced the "B" and "A". These tractors had duplex carburetion (a separate carburetor for each cylinder), a "live" powershaft to provide continuous power for operating PTO equipment whenever the tractor engine was running and a "live" Powr-Trol to provide hydraulic power independent of the transmission clutch or power take-off. The 50 and 60 were offered with a variety of front end options such as the single front wheel, Roll-A-matic, 38" fixed tread front axle, or front axle adjustable in four steps from 56" to 80". A long rear axle also offered adjustable rear wheel tread from 62" to 97".



1939 "L" — Mike Kammrud



1941 "H" - Mike Kammrud



1942 "B" — Mike Kammrud









1950 "G" - Mike Kammrud





"BO"-1936-1947





In 1953, the model 70 was introduced. It was available with gasoline, "all-fuel", or LP engines and later was offered as the first John Deere row crop diesel. In 1954, the 50, 60 and 70 became the first row crop tractors to be equipped with power steering. Also available at that time was the "801 Hitch" which was a weight transfer hitch that transformed implement draft into downward pressure on the rear wheels. The 50, 60 and 70 model production ended in 1956.

In 1953 the 40 replaced the "M" and the 40C crawler replaced the "MC" crawler. These tractors were produced until 1955.

In 1955, the 80 diesel replaced the "R". It featured a "live" powershaft, Powr-Trol, a 6 speed transmission and optional power steering. The 80 was a big tractor weighing over 8,000 pounds with options and powerful with 57.49 h.p. on the belt and 46.32 drawbar h.p. It was also efficient setting an all time record for fuel economy when tested at Nebraska. The 80 was produced for two years before being replaced by the 820. The 820 originally used the same engine as the 80, but later the 820's power was increased. The 820 was rated at 52.25 drawbar h.p. The 820 was produced from 1956-1958.

In 1956 through 1958, the 40, 50, 60 and 70 series of tractors were replaced by the 420, 520, 620 and 720. The 320 was also introduced at this time. Custom Powr-Trol was introduced along with Load-and-Depth Control which kept implements at uniform depth and transferred weight to the rear wheels to maintain traction. Other improvements included improved engine design, Float-Ride seat with foam rubber seat and backrest and optional arm rests. A new two tone paint job was also introduced at this time.

With the 30 series tractors in 1958 came new style fenders for greater protection from the elements and accidents. Lighting was improved. Steering was redesigned to allow for a tilt steering wheel. A new instrument panel was designed and it was lighted for night work. The 730 also offered electric starting for diesels as an alternative to the starting engine system. The 830 diesel was the biggest and most powerful tractor that John Deere had built up to this time. The 330, 430, 530 and 630 were built until 1960. The 730 and 830 were built until 1961 and that was the end of the two cylinder era.

In August of 1960 over 6,000 John Deere dealers from around the world met in Dallas, Texas to see the New Generation of Power: The four cylinder 1010, 2010 and 3010; and the 6 cylinder 4010 tractors.

Remembering . . .

by Richard Birklid Rte. 1 Box 28 Nome, ND 58062

As a young boy I remember the first tractor Father bought. It was a General Purpose or G.P. as they were called. The first time I drove the G.P., we were plowing down sweet clover, pulling 2-16's in second gear. One thing that interested me was the small metal pin that stood up from the crankcase that I guess was the oil pressure gauge.

My dad bought a new "B" John Deere tractor in the fall of 1939 which cost \$700.00. This was the first of the styled models. (Pict. 1) These new styled models were a little more powerful.

1939 "B" J.D. with Ralph Birklid driving. Edgar Birklid on binder.

My Uncle Lars Birklid, better known as the "Texas Ranger", played the guitar and violin for WDAY in Fargo for 30 years. Lars bought a new "H" John Deere in 1942 for about \$900.00. Here is a picture of our outfits plowing (Pict. 2). The front tractor is a model "H" with 2-14's, Leon Birklid, driver. The second tractor is a 1939 "B" driven by Lars Birklid. Last is a 1941 "A" tractor driven by Edgar Birklid. This was really plowing in those days.

My other uncles, Sedar Opgaard and Martin Warmbo, had an "H" John Deere and are harvesting grain in this picture. (Pict. 3) Sedar is operating the binder and Martin is on the tractor.

Martin Warmbo with his "H" J.D. and Sedar Opgaard on binder. 1940's.

The Birklids threshed in early days with a company rig, several owners, with a Case steam engine. Later they sold the engine and bought a Minneapolis tractor to power the rig. In the 40's, they bought a 28'' John Deere thresher and powered it with the 1941 John Deere "A" tractor. (Pict. 4)

L. to r.: Kermit Sorby and Richard Birklid front of wagon. Art Sorby pitching bundles.

First - Mod. "H" J.D. driven by Leon Birklid, 2-14's. Second -1939 "B" J.D. driven by Lars Birklid pulling 2-14's. Third - 1941 "A" driven by Ed Birklid pulling 3-14's. This was really plowing. In 1951, I bought the first tractor of my own which was a 1951 "B" with Roll-O-Matic at a cost of \$1992.00. In 1952, Uncle Edgar bought a new "A" just before the "60" series came out at a special price of \$2000.00. Our neighbor bought one at the same time. (Pict. 5) We were in town and drove them home from Enderlin, ND, 18 miles away. These new model "A"s had unbelievable power and could walk away with 4-14's. These were the high compression gas models and they had lots more power than the older all fuel models.

Art and Walt Westphal had the Enderlin Implement. We were one of the first to buy John Deere tractors in our area and they always said we were the ones who started them out in our area. I remember one time, we were in Enderlin after parts and remarked that we should of had a new binder, but couldn't afford to buy one. Anyway, a few days later, where come Art Westphal with a new 10 foot power binder on the truck out to the farm and says, "Here's your new binder." My Dad asked him when he thought he would get paid for it? Art replied, "Oh, someday, we aren't worried about it. Why should you worry?" Anyway they made good use of the new binder and after 3 years they decided they had better pay for it and asked the Westphals what they needed for it. They come up with a price and the deal was made. No papers or orders were ever made out on this deal. Boy, you wouldn't make any deals like that now in this day and age!

We still miss the Enderlin Implement with the Westphals, as we still remember them having parts on hand when we needed them. I remember having the 1941 "A" tractor in for a ring job and went over everything and Art says, "That's a flat hour rate for that job of 8 hours labor." So the bill was \$40.00 labor and some parts.

In 1953 we bought a J.D. 55 combine and at that time this was one of the bigger combines in the area for a few years. We did a little custom combining for neighbors who sometimes had a heavy field of grain that was a little tough for the little six foot combines that most people had then.

Well as years went by we stayed with the long Green Line of John Deere as much as we could and I must say that we had good luck with them. We went to the "70" diesel tractor and on to the 4020, 4320, 4440 and now the 4450's which we have today.

New "A" J.D. in 1952 by Westphal Bros. Imp. at Enderlin, N. Dak. \$2000.00 bucks just before the 60 series came out. L. to r.: Stanley Slattum and Kermit Sorby.

"A" John Deere — Billy Aasness

"D" John Deere — Jack Mopels

The John Deere has proved a dependable tractor with plenty of power for combine work.

At the 1984 Dalton Show.

Here we show the John Deere General Purpose operating a Papec Silo Filler. Silo filling is an important early fall job on many farms.

John Deere tractors at work in the fields in the earlier years.

"60" LP-Gas

"60"-Adjustable Front Axle "60"-Single Front Wheel

"70" Row-Crop

"70"-Single Front Wheel

"70" Row-Crop Diesel

"60" Standard

"60" and "70" Hi-Crops

"60" Grove

"70" Standard Diesel

"70" Standard LP-Gas

"80" Diesel

"40"-Adjustable Front Axle

"40" Crawler

"40" Two-Row Utility

"40" Standard

"40" Tricycle

"40"-Single Front Wheel

"40" Hi-Crop

"40" Special

"40" Utility

"50" LP-Gas

"50"-Adjustable Front Axle

1928 Model "D" - Tom Johnson

1937 Model "D" - Dave Johnson

1935 Model "A" — Tom Johnson

1941 Model "H" - Roy Combs

1936 Model "B" - Tom Johnson

1943 Model "H" - Tom Johnson

JOHN DEERE PLOW COMPANY

JOHN DEERS & GAVE TO THE WORLD THE STEEL PLOW OMAHA, SIDNEY AND SIQUX FAILS

OMAHA, NEB.

See Your John Deere Dealer.

Resumma & Lokhe Wakonda, So. Dak.

Dear Sir:

Your John Deere dealer advises you are one of the leading practical farmers in his territory and that you are always interested in reducing the cost of production and increasing your farm profits. Your cost of operation can be reduced with the use of a John Deere Model "D" Tractor.

In selecting a Tractor, you want one that will do the work at the lowest cost of operation from a standpoint of power, fuel and lubrication. Light weight, simplicity and durability should be considered.

You are familiar with the various farm implements manufactured by John Deere. You know they are leaders in their line. This is especially true of the John Deere tractor, it being the cheapest tractor on the market to operate, having the fewest number of parts to wear, power being supplied with a slow speed engine with heavy-duty parts, requiring less fuel and oil for horsepower development.

Note the force-feed oiling system, oil being forced through the main bearings and crank shaft to the connecting rod bearings, and then through the connecting rods to the piston pin. This oiling system is used on all high-grade automobiles today. It is considered the most perfect system ever devised. A perfect oiling system adds years of service to every part on the John Deere Tractor.

In building the John Deere tractor, every part was arranged for accessibility. You can make all adjustments and save repair bills.

Your John Deere dealer will be pleased to tell you about and demonstrate the John Deere tractor on your farm. You will be agreeably surprised with its performance on a three-bottom plow and on heavy-duty belt work. Your John Deere dealer will tell you about many satisfied John Deere Tractor owners.

Yours truly,

JOHN DEERE PLOW COMPANY.

WATERLOO BOY "California Special"

Side view of tractor ready for business.

Farmer Demand Made This the Largest Single Tractor Plant in the Country

II N 1924, the John Deere Tractor was first put on the market. It offered the farmer new and important advantages—it filled a long-felt need for practical and economical farm power. For that reason it was enthusiastically received by farmers. Manufacturing facilities soon proved inadequate to meet the demand. Factory expansion became necessary. The factory has been enlarged to more than four times its 1924 capacity but still production has failed to keep pace with sales.

Today this plant occupies more than 30 acres of floor space. It is the largest and most modern single tractor plant in the country.

This huge plant is fitted with the very latest machinery—assurance of the precision and uniformity in manufacture so essential to high-quality production.

Before a John Deere Tractor goes out on the farm every working part is carefully inspected—not once but many times as each part is assembled with others to make a complete tractor.

Finally each finished tractor is given a rigid test on both drawbar and belt to prove its power, fuel economy and correct assembly. Each tractor must meet certain high standards and must develop a liberal surplus of power before it is approved and is run under its own power into cars.

In the John Deere Tractor you are getting a highly dependable product, quality built, that will do your work with satisfaction and profit to you. The pages that follow tell you about it. A battery of John Deere Tractors operating on the large acreage of the Peru Canning Company, Peru, Indiana. They own seven John Deeres.

A part of the John Deere Tractor fleet on the 8000-acre grape and fig plantation of the Pacific Development Company, Romoland, California. Tractors are sold in such numbers only after the buyer has made a thorough investigation.

The Bastanchury Ranch Co. of Fullerton, Calif., bought one John Deere Model D in 1928. Today they have 21 John Deeres in operation on their 11,00-acre ranch. Eleven of them are shown in the picture to the left.

Gas Engines

1886

T is not necessary that we attempt anything more in this introduction than to notify our friends, customers, and the public that we are "still at it, at the old stand," with every facility that money can command or ingenuity devise for the prosecution of the business that has grown, in **Thirty-seven Years**, from small beginnings to its present extensive proportions.

We offer to purchasers for the season of 1886 our usual complete line of machinery, consisting of-

- First—Our Traction Engines, from eight to fifteen horse power, and Portable Engines, from six to thirty horse power, admitted everywhere to be the standard for power, durability and efficiency.
- Second—Our Peerless Thresher, now in the front rank of all threshers made. It is fully described and illustrated on page 8, and following.
- Third—Our Modern Apron Thresher, a new departure in this style of machine. Illustrated and described on page 14.

We have succeeded in adapting our Patent Combination End Shake Chaffing Riddles and Side Shake Shoe and Cleaning Riddle to each of our styles of threshing machines, making undoubtedly the **BEST GRAIN CLEANERS** ever used.

- Fourth—Our Standard, Pony, and Plantation Saw Mills are fully equal if not superior to any made in the country.
- Fifth—Our "Gaar-Scott" Clover Huller is offered as the BEST IN USE. See description on page 16, and following.
- Sixth—Our New Mounted Stacker, which has been favorably received by all who have seen or used it. It is fully described and illustrated on the inside cover of this pamphlet.

There was, owing to the partial failure of the winter wheat crop in 1885, less facility than usual for the favorable showing of a season's work by threshermen, yet we are able to give the testimony of many threshermen, in the certificates herein published, that our threshing machinery never failed, under any circumstances, to thresh, separate, and clean grain, whether wet or dry, shriveled or plump, in the best possible manner, and to give the very highest satisfaction under all circumstances.

We ask your attention to the following pages.

Yours Respectfully,

GAAR, SCOTT & CO.

January 1, 1886.

IMPROVED TRACTION ENGINE,

With WOOD-BURNING CHIMNEY, Iron Wheels, Reverse Link Motion, Compensating Gear, and New Patent Steering Attachment.

The experience of each succeeding year develops the real worth and merit of the different threshing engines now made and sold throughout the country. Many purchasers have had bitter disappointment and heavy pecuniary loss by getting low grade of inferior engines. Oftentimes the weak points of such engines do not show themselves until the second or third year, and at the end of four or five years they are worthless. This should serve as a caution to parties who buy such engines because they can get them \$50 to \$100 cheaper, but soon find they made a mistake in buying them at any price.

We believe we are safe in saying that a Gaar-Scott Engine is worth much more after six to eight years in use than nine-tenths of other make of engines are after three years' use. This, in addition to profit and satisfaction in using an engine of the proper construction and strong power that is universally conceded to our engines.

These facts have been brought forcibly to our attention in the last two or three years by the great number of parties wanting to trade Plain Portable Engines for our Traction Engines. In all such cases we make a personal examination of the old engine and boiler, and with a few exceptions we are compelled to decline trading, because of the bad condition and inferior construction of the engines offered us.

In every State where Traction and plain Portable En-gines are used, the Gaar, Scott & Co.'s make stands at the head for effective power, durability, and profit to the owners. Hundreds of our engines are now running and doing firstclass work, all the way from ten to twenty-four years old, while many of the common class cheap engines are worn out with four to eight years' use. Other manufacturers are copying and applying our im-

provements as far as they can, but the important features

Gaar, Scott & Co.'s Improved Traction Engine,

With COAL-BURNING CHIMNEY, Iron Wheels, Reverse Link Motion, Compensating Gear, and New Patent Steering Attachment.

Tank in Front (Extra); Fuel Boxes on Platform (Extra); Independent Pump (Extra).

All Hand-Steering Traction Engines are also Furnished with Tongues for Horses.

of our TRACTION ENGINES are covered by letters patent, and all manufacturers and users will be held to strict accountability for infringement of our claims.

Parties desiring to examine our patents are respectfully referred to Re-issue No. 9,819, dated July 26, 1881; patents No. 229,715, issued July 6, 1880; No. 254,223, dated Febru-ary 28, 1882; No. 257,444, dated May 2, 1882.

Our TRACTION ENGINE is adapted to being guided by

horses, or run by hand-steering arrangement without horses. It has power to pull the Separator and water tank up hill and down, across creeks, over rough country roads, through plowed fields, and over stubble ground. It is under the easy and perfect control of the engineer, who, by a simple motion of the lever, can start it, stop it, reverse it,

and hold it, or back it up hill, or in any position at will. The form of our Engine is convenient. The main driving pulley is up and out of the way of the front wheel; the oper-ator has easy access to every part. The boiler is made with circular fire-box and wrought water front, with water space both in front and beneath the fire box, steam riveted, of the best charcoal hammered extra No. 1 and best extra flange iron,

large heater, strong bed-plate, and all working parts nicely adjusted and thoroughly tested. It has a dry steam pipe leading from the upper portion of the dome inside the boiler to the steam chest, thus providing dry steam to the cylinder under all circumstances. This steam pipe is provided with an air cock at the elbow under the steam chest, by the use of which it can be drained in cold weather. The air cock is easily reached by taking off the small hand hole plate near it.

No device has proven so desirable or reliable as the straight train of solid spur gearing which we use, reaching from the main shaft to the counter-shaft that connects with the driving wheels. Using small pinions at the main shaft and at the driving wheel, the power communicated is practically unlimited, and obstacles that stop engines made on other plans do not trouble our engines at all. By the use of the best known and universally approved "Jack-in-the-Box," or differential gear, we provide readily and comfortably for short turns and easy passages of curves of any radius.

We use the genuine reverse link motion on all our Traction Engines, such as is used on all locomotive engines.

A History – and an Ideal

On April 1, 1929, the agricultural world received the announcement of the formation of the Oliver Farm Equipment Company, an organization formed by the merger of three pioneer farm machinery builders — Hart-Parr Company, Oliver Chilled Plow Works and Nichols and Shepard Company — manufacturers who merged in order that they might be of greater service to farmers of the world.

The basis of the merger was that the three manufacturers were building non-competing lines, each one of which supplemented the other, and all three of which could be well — even better than before — handled by the same dealers. It was evident that such a merger would also be desirable from the fact that the three manufacturing organizations brought together under the same mangement would offer great advantages to the dealer in the way of added profit and great advantages to the farmer through the possiblity of greatly increased quality and much better engineering design through greater purchase ability of the larger organization.

There were, however, several types of tools needed by the new company to complete its line and thus better serve its dealer organization. So, during the year, even before the general announcement of the merger, this new company acquired through purchase the American Seeding Machine Company, bringing another group of machines to round out the Oliver line. Later the McKenzie Potato Machinery Company was purchased, giving Oliver a complete line of potato machinery.

Then, in the fall of 1929, dealers were able to contract for a complete line of tractors, a line of harvesting and threshing machinery, a complete line of plows and tillage tools, drills and seeding machinery, potato machinery, soil improvement machinery — practically everything their customers and prospects could call for.

1930 was a period of development for this newcomer among the full-line machinery manufacturers. During the previous three years both the Oliver and Hart-Parr divisions of the company had been perfecting general purpose tractors. Their efforts were coordinated and the Row Crop tractor, with its great variety of equipment, was introduced. This tractor incorporated many new and revolutionary features of great merit including the large diameter "tip toe" wheels which do not pack the soil.

Hart-Parr had also been developing two new standard tractors, and these were introduced during the year — tractors which promise to change all previous conceptions of what tractors should be.

Constant demand for better tractor plows prompted the plow division to design a new group of plows which were also introduced during the year. The American Seeding Machine division also saw possiblity of the development of an entirely modern spreader, a machine which would meet the demands of new day farmers — and at the same time supply Oliver dealers with another absolutely superior product.

The Nichols and Shepard division introduced a two row corn picker-husker, and new type bean threshers, truly superior machines advanced in design and construction.

Thus, Oliver has added to the already famous line which included such tools as the Big Base plows, the furrow drill, the fallovator, Nichols and Shepard combines and threshers, and a complete line of standard farm equipment.

The policy back of Oliver's effort to bring to farmers and dealers a very complete line of most modern farm machinery is twofold. The primary desire is, of course, to be of service to the farmer — to give him machinery which will make his farming easier — to allow him to lower his cost of producing crops — to make his life more enjoyable.

But closely allied to this desire is that of serving the dealer — of giving him a line of machinery he can conscientiously recommend to his customers — his friends who come to him for advice on their farm equipment problems. And above all is the hope to work with the dealer on such a basis that his efforts in behalf of the sale of Oliver equipment will be amply rewarded.

It all simmers down to the fact that as a company Oliver is intensely human. It hopes to deal humanly with everyone with whom it associates. Oliver is performing its work well when it is of real service to every farmer and dealer with whom it comes in contact.

Oliver pledges itself to keep its line of farm equipment thoroughly modern, to cooperate with its dealers so that farmers of the world will look to the Oliver organization for those tools best suited to the territory in which they live.

The metal plow which would actually scour, and which would allow the farmer to handle bigger areas of ground, really opened the modern era of agriculture after the middle of the 19th century, not only in the United States, but all over the world. It was invented by Oliver.

Oliver Chilled Plow Works, like every other division of the Oliver Farm Equipment Company had a humble start.

James Oliver, founder, was for years the entire company. He designed the plows, built the first ones, owned the foundry in which they were built, and even in later years, when Oliver had grown to its tremendous proportions of the largest manufacturer of plows in the world, he was still at the reins, wisely guiding the company.

James Oliver came from Scotland to this country in 1834. For two years he worked on a farm in New York State, and then moved with his family to Indiana, to the town of Mishawaka. From farm hand he turned to work in a small foundry in Mishawaka where he learned his first principles of smelting iron.

It was not until 1855 that James Oliver was in position to buy an interest in a foundry in the town of South Bend — the total investment was something like \$88.00 — and to realize some of his dreams of a really good plow.

Cast iron plows were part of the production of this little foundry, but James Oliver knew plows from his farm experience and was convinced that the really good plow was yet to be developed. The ordinary cast plow could not be polished highly enough and methods had not been discovered for properly chilling a moldboard.

James Oliver's determination to develop a plow which could be polished so it would scour under all conditions led to his discovery of the method of chilling plow bases properly.

James Oliver, inventor of the Chilled Plow and Founder of the Oliver Chilled Plow Company, was one of the great men of the implement industry. His genius and skill gave to agriculture the one tool which more than any other has helped to make this country the world's leader in agriculture, and earned for the company he founded the proud title of "Plowmakers for the World".

Of course, that first Oliver Chilled Plow, built in 1855 was not a perfect plow. In fact, it was 12 years before the process was so perfected that James Oliver was willing to turn the manufacture of his plows over to other supervision and turn his own attention to the important problems of development and business management.

In the meantime, the fame of Oliver Plows had spread. Demand was growing — varying conditions were being met. There must be management of the business, and development of variations from the original plow to meet the multitude of different soil conditions in which Oliver plows were being put to work.

One of the first steps in the organization of the business was the incorporation of "The South Bend Iron Works" in 1868. The company prospered, so popular were its plows, and James Oliver looked toward the future — the growth of bigger farms, the need for greater speed and ease of handling large acreages. One of the products he developed, and it was a remarkable forward step in those times, was the James Oliver No. 11 Sulky, one of the first sulky plows ever built, and certainly the most successful, since for a low lift sulky, even today's most modern developments have brought no big improvement on that great little plow.

With the passing of James Oliver his son, Joseph D. Oliver, became the head of the company. He brought to the company a rare gift for organizing and merchandising. Under his skillful guidance the company steadily grew. New factories were built. Trade expanded and soon Oliver plows and tillage tools were standard farm equipment in every agricultural country of the world.

With the advent of the tractor Oliver was in the forefront building the tremendous independent beam plows that later became standard as tractor plows. Then with the introduction of the light tractor, Oliver pioneered the manufacture of true light-tractor plows. The flat-bar heat-treated steel beam and frame that give great strength and rigidity with lighter weight, developed by Oliver, was Oliver's next contribution to the science of building tractor plows.

The Big Base Plow, the outstanding moldboard plow in the country today, was Oliver's last great achievement prior to the formation of the new company, but since that time progress by the Oliver Plow Division of Oliver Farm Equipment Company as shown in this book has marked it still the leader in the design and construction of better tillage tools.

Oliver "88" Row Crop Tractor and Oliver "88" Standard Tractor.

Oliver Row Crop and Standard

General Specifications

(Subject to change without notice)

Engine: Six cylinder, four-cycle, vertical, valve-in-head. Engine speed, 1600 r.p.m. Bore, $3\frac{1}{2}$ "; Stroke, 4". Displacement, 230.9 cubic inches. Four main bearings, removable precision-type, steel back, babbitt lined. Connecting rod bearings, removable precision-type, steel back, babbitt lined. Pistons, nickel iron, with three compression and one oil ring above the pin. Removable wet-type nickel iron cylinder sleeves. Heavy crankshaft dynamically balanced. Crankcase ventilation by breather on top of rocker arm cover. Water temperature and oil pressure gauges. Electric starter regular equipment.

Ignition: Modern battery-type distributor, sealed against dust. Centrifugal automatic spark control at all engine speeds.

Governor: Centrifugal, variable speed type. Fully enclosed and automatically lubricated. Hand control at steering wheel.

Lubrication: Engine lubrication is by means of pressure from large capacity oil pump located in sump, "Floato" screen oil pump inlet. Oil capacity in crankcase, 6 quarts. Oil capacity in transmission and final drive, $4\frac{1}{2}$ gallons. Chassis lubrication by grease gun through pressure fittings.

Oll Filter: Improved type. Element easily replaceable and filter base attached directly to crankcase. No tubes or fittings.

Air Cleaner: Oil wash type. Cup easily removed for cleaning.

Cooling System: Full length water jacket for uniform cooling. Water circulation by pump on fanshaft. Water temperature controlled by a by-pass type thermostat. Fan and pump directly driven by V-belt from crankshaft. Fan belt is tightened by increasing effective diameter of driving pulley which results in improved cooling as belt wears and requires adjustment.

Fuel System: Gravity from fuel tank. Capacity of fuel tank, 20 gallons. Fuel strainer and removable sediment bowl between fuel tank and carburetor.

Clutch: Single plate, dry-type, 10 inches in diameter. Selfadjusting spring loaded and foot pedal operated.

Seat: Pan-type. Rubber block cushioning. Adjustable forward and back.

Transmission: Selective sliding spur gears, alloy steel, carburized and hardened. Shafts are heat-treated alloy steel, mounted on ball and roller bearings. Six speeds forward; two reverse. Transmission fully sealed and running in oil. Special combination for applications requiring it—four speeds forward, four reverse.

Brakes: Disc-type, self energizing brakes. Fully enclosed, external adjustment. Foot operated either individually or equalized.

Belt Pulley: (Special equipment). 117/8" diameter, 71/4" face. 992 r.p.m., 3080 ft. per min. Pulley or entire mechanism removable.

Power Take-Off: Direct-drive type, independent of main clutch. Shaft 13%" diameter, 6B spline. Rotates clockwise at 533 r.p.m. Located on centerline of tractor in separate housing with own clutch. Safety shields.

THE OLIVER CORPORATION

Additional Specifications for Row Crop "88"

Steering: Worm and gear type. Enclosed and operating in oil. Front wheel post mounted on tapered roller bearings.

Wheels & Tires: Front wheels: two (dual) cast semi-steel, demountable rims, 6.00-16 tires. Mounted on tapered roller bearings. Front wheels adjustable to increase the normal tread by $2\frac{1}{2}$ or 4". Rear wheels: two cast semi-steel, demountable rims, 11-38, 12-38 or 13-38 tires. Distance between rear wheels adjustable from 60 to $92\frac{1}{2}$ inches. (See Instruction Manual for tread adjustments.)

Speeds: Forward: First, 2.49 m.p.h.; Second, 3.22 m.p.h.; Third, 4.28 m.p.h.; Fourth, 5.55 m.p.h.; Fifth, 6.82 m.p.h.; Sixth, 11.75 m.p.h.; Reverse low, 2.55 m.p.h.; Reverse high, 4.38 m.p.h. These are rated speeds of tractor at rated 1600 r.p.m. engine speed.

Drawbar: Adjustable. Vertical adjustment, 913/16'' to 18''; five fixed positions. Lateral adjustment, 207/16'' total.

Power Lift: (Special equipment) Mechanical. Simple, fast, positive with easy-to-reach control pedal. Operates whether tractor is moving or standing still.

General Dimensions: Length overall, 143^{9}_{16} inches. Width overall, 80^{1}_{4} inches. Height to top of radiator, 64^{1}_{8} inches. Wheelbase, 90^{11}_{16} inches. Crop clearance, 25^{5}_{8} inches. Approximate field weight, 4650 lbs. (Weight does not include wheel weights, liquid ballast, or extra equipment.) Weights and dimensions given are for 12-38 tires.

Additional Specifications for Standard "88"

Steering: Recirculating ball-type. Enclosed and operating in oil.

Wheels & Tires: Front wheels, two (dual) cast semi-steel, demountable rims, 6.00-16 tires, mounted on tapered roller bearings, Rear wheels, two cast semi-steel, demountable rims, 12-26, 13-26 or 14-26 tires. Front wheel tread, 483/4" to 541/2". Rear wheel tread 54" or 62". (See Instruction Manual for tread adjustments.)

Speeds: Forward: First 2.48 m.p.h.; Second, 3.22 m.p.h.; Third, 4.27 m.p.h.; Fourth, 5.53 m.p.h.; Fifth, 6.80 m.p.h.; Sixth, 11.70 m.p.h.; Reverse low, 2.54 m.p.h.; Reverse high, 4.36 m.p.h. These are rated speeds of tractor at rated 1600 r.p.m. engine speed.

Drawbar: Adjustable. Vertical adjustment, $11\frac{3}{6}$ " to $18\frac{5}{6}$ "; five fixed positions. Lateral adjustment, $20\frac{7}{16}$ " total.

General Dimensions: Length overall, 1331_{16}^{3} inches. Width overall, 76% inches. Height to top of radiator, 599_{16}^{9} inches. Wheelbase, 791/4 inches. Ground clearance, 13 inches. Approximate field weight, 4560 lbs. (Weight does not include wheel weights, liquid ballast or extra equipment.) Weights and dimensions given are for 13-26 tires.

400 West Madison Street, Chicago 6, Illinois

OLIVER HART-PARR 18-28

1930 - 1937

Beginning with this series in 1930, the 18-28 and all subsequent Oliver tractors have had vertical cylinder engines. Featuring a 4-1/8" bore, 5-1/4 inch stroke and pressurized lubrication, the engine of the 18-28 had four cylinders, used either gasoline or kerosene fuel, and operated at 1190 rpm. It was mounted on modern, practical, yet rugged tractor frame. The 18-28 Series was offered in four models: Standard, Western, Ricefield, and Orchard, The tractor, which weighed 3800 pounds, had "live" power take-off, three forward speeds, and could be equipped with a choice of eight different rear wheel lugs. The "18" and "80" were industrial versions of this tractor. Figure 29 shows co-founder C. H. Parr with a new 18-28 Standard and old Hart-Parr 18-30 No. 3 taken in 1930.

OLIVER HART-PARR "28" POWER UNIT

1930 - 1937

The engine of the 18-28 was sold as a power unit for all types of stationary power requirements. Other manufacturers also used this engine to power road graders, packers, and other construction machinery. Figure 30 shows engine and transmission assembly with special clutch arrangement.

OLIVER HART-PARR 28-44

1930 - 1937

OLIVER HART-PARR "44" POWER UNIT

31

1930 - 1937

The engine of 28-44 was sold as a power unit for stationary power requirements. Other manufacturers also used this engine as power source in equipment such as road construction and maintenance machinery. Figure 32 shows engine and transmission assembly with special clutch arrangement.

OLIVER HART-PARR ROW CROP 18-27 (SINGLE)

The first practical tricycle Row Crop tractor ever built which was also available in Standard, Western Special, Wide Front End, and Four-Wheel type was the Row Crop model shown in Figure 33. It had a 29-inch diameter single front wheel with an 8-inch concave steel tire. Rear tip-toe wheels, which had a 9/16-inch tire, were 59-1/2 inches in diameter. Cultivating and planting equipment mounted forward on front frame. High crop clearance was a feature of this Row Crop tractor. Engine, operating at 1150 rpm, was basically the same as engine in 18-28 tractor. Figure 33 shows the first four-cylinder Row Crop model which in 1937 became the "80" series.

OLIVER HART-PARR 1931 - 1937 ROW CROP 18-27 (DUAL)

This series had 24-inch diameter steel dual front wheels on standard Row Crop model shown in Figure 34. A six-degree camber on each wheel provided easier steering. Motor and transmission were basically the same as those in the 18-28 series. Tractor featured high crop clearance and actually delivered 82% of its belt horsepower to the drawbar. It handled two large plow bases and was nimble enough for all cultivating and harrowing work. Three forward speeds up to 4.15 mph and one reverse speed of 2.9 mph were standard. This Row Crop model was the forerunner of the "80" Row Crop in 1937 which was the first diesel-powered tractor.

OLIVER HART-PARR "18" IND.

1931 - 1937

The "18" was an 18-28 tractor especially designed for industrial use. Engine, clutch, transmission, etc. were all separate units which could be repaired easily without disturbing other components. Tractor had three forward speeds up to 9.2 mph and one reverse speed. Unit which had no platform or fenders weighed 5,370 pounds, and had wheelbase of 121 inches. Shown in Figure 35 is an "18" with hood sides removed to view engine and showing all four wheels mounted on solid rubber tires.

In 1932, the "18" was discontinued in favor of an 18-28 Industrial with optional pneumatic rubber tires. This tractor weighed 4,582 pounds.

OLIVER HART-PARR "28" IND.

1931 - 1937

Oliver first used high- or low-pressure pneumatic rubber tires on the "28" Industrial (See Figure 36) which was a version of the 28-44 tractor. Regular equipment included upholstered seat with backrest, emergency brake, dual air cleaner, single dry plate type clutch, and power take-off. Head lights, hood side doors, and belt pulley were optional as were dual rear wheels and spring mounted front end. Also available as optional equipment were rear wheel mud scrapers for steel wheels. Tractor had three forward speeds up to 7.05 mph and weighed 6,156 pounds. Refer to "90" and "99" series of 1937.

OLIVER HART-PARR 80 IND.

1932 - 1947

The 80 Industrial had its real beginning in the 18-28 because it was an improved "18" (18-28) Industrial having a four-cylinder engine which until 1937 used either gasoline or kerosene fuels only. Beginning in 1937, however, a Row Crop diesel model of the "80" was also available-another "FIRST" for Oliver. An optional transmission with three speeds up to 3.17 mph was also available for Orchard tractors. Figure 37 illustrates a 1937 Industrial model with a four-cylinder engine.

OLIVER HART-PARR 99 IND.

1932 - 1947

The 28-44 Industrial with four-cylinder engine became the "99" Industrial while other models of the 28-44 were continued until 1937. The rubber tired "99" shown in Figure 38 was first known as the Oliver Special High-Compression 28-44 Tractor and weighed 6,935 pounds. Ricefield and Thresherman's Special models of the "99" were also built. This industrial high-compression model was conservatively rated at 32 - 50 horsepower. It had four forward speeds up to 6.14 mph and one 3.56 mph reverse speed.

OLIVER HART-PARR 70 ROW CROP

1935 - 1937

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OLIVER HART-PARR 70 STANDARD 1935 - 1937

Row Crop, Standard, Orchard, and High Clearance Row Crop were models of the "70" tractor, first introduced in 1935. George W. Bird, former plant manager (1944-1961), is shown standing by a Standard model in Figure 40 when he was shop superintendent. This model had same engine as 70 Row Crop previously discussed. Expanding differential disc brakes were standard; optional equipment included "live" PTO, electric starter, and lights.

OLIVER 70 ROW CROP

The Hart-Parr name was dropped during the 1935 - 1937 period and only the "OLIVER" name used on all products. As shown in Figure 41, a streamlined 70 Row Crop, which was introduced in 1940, featured new grille, hood and frame. Engine was basically same as that used in the 1935 model (See Figure 39). Electric starter, battery, and lights were available as optional equipment. Other models besides Row Crop were the Standard, Industrial, and the Orchard which was a version of the Standard model. This tractor was the beginning of the Oliver Fleetline Series including 70, 80 and 60 models.

OLIVER 70 ORCHARD

1937 - 1948

The Orchard model was a version of the 70 regular Standard tractor. It provided sheet metal protection for rear wheels and offered underslung seat for operator. Pneumatic tires were becoming regular equipment on most models. Figure 42 shows compactness necessary in a tractor for orchard work.

OLIVER 25 AIRPORT

1937 - 1948

The 70 Standard was especially redesigned to provide this 25 Airport model (See Figure 43) for airport general utility work. It had a six-cylinder, four-cycle, valve-in-head engine with 3-1/8 inch bore and 4-3/8 inch stroke and operated at 1500 rpm. Six forward speeds up to 12.12 mph and one 2.31 mph reverse speed were provided with 10-24 tires. Standard equipment included electric starter, both foot and hand-lever brakes, lights, front and rear drawbars, side exhaust and an upholstered seat.

OLIVER 35 INDUSTRIAL

1937 - 1938

Four-cylinder Industrial tractors and power units were offered to augment the larger "70" series. Figure 44 illustrates a 1937 Oliver 35 for both industrial and agricultural usage.

OLIVER 50 INDUSTRIAL

1937 - 1948

This four-cylinder industrial unit was a version of the 32-50 high compression 99 Industrial shown in Figure 38. In Figure 45 at right, an Oliver 50 model with hood, lights, and pneumatic tires is shown.

OLIVER 80 ROW CROP

1937 - 1948

The Oliver 80 Row Crop series, which was a continuation of the Row Crop series introduced in 1930, had the first diesel engines ever used in a tractor. The 1940 Oliver Row Crop 80 diesel engine had a Buda-Lanova designed combustion system with American-Bosch injection. Later, an Oliver designed diesel engine replaced the Buda-Lanova. Gasoline and KD engines for 80 series were also available. The 80 series was second in Fleetline Series of 70, 80, and 60 models introduced in 1935, 1937, and 1940, respectively. An Oliver 80 Row Crop diesel is shown in Figure 46.

OLIVER 90

1937 - 1953

This tractor was an improved Agricultural model of the 18-28. Its four-cylinder, valve-in-head engine with 4-3/4 inch bore and 6-1/4 inch stroke, operating at 1125 rpm, used gasoline, kerosene or distillate fuels. The 90 series featured a self-starter, pressure lubrication, centrifugal governor, "live" PTO, and a four-speed transmission with speeds up to 5-1/2 mph. Tractor had 80-inch wheelbase, weighed 5,700 pounds and measured 126 inches overall. Production of a later six-cylinder model in the 90 series was moved from Charles City, Iowa to South Bend, Indiana in 1952 but was discontinued in 1953 when increased emphasis was placed on the 99 series. Figure 47 illustrates a 1942 model of an Oliver 90.

OLIVER 99

1937 - 1957

The 99 series had the same general features as the 90 except it had a high compression, four-cylinder engine designed to operate on 70-octane gasoline only. Tractor, which weighed 5,900 pounds, had four forward speeds up to 5-1/2 mph plus one 3 mph reverse speed and was rated to pull a five-bottom plow. Main features included PTO, belt pulley, dry disc clutch, and high tension magneto. Production of a later six-cylinder model in the 99 series was moved from Charles City, Iowa to South Bend, Indiana in 1952. Shown in Figure 48 is the six-cylinder 99 series, a more modernly designed tractor than 90 series illustrated in Figure 47.

OLIVER E. O. A. UNITS

1938 To Date

For many years, Oliver has produced complete transmission assemblies designed specifically for Engine-Over-Axle applications by manufacturers of other equipment such as road and construction machinery. E. O. A. models 35, 50, 350 and 500 were a few of the many that have been manufactured. Shown in Figure 49 is the current model 500 Engine-Over-Axle transmission.

OLIVER 60

1940 - 1948

1940 - 1948

1945 - 1951

The Oliver 60 had a four-cylinder, distributor-type engine with 3-5/16 inch bore and 3-1/2 inch stroke which operated at 1500 rpm and used gasoline or kerosene - distillate fuels. It was rated at 16-1/2 horsepower with gasoline engine and 14 horsepower with KD engine. This tractor was the last of the Oliver "Fleetline" series which included models 60, 70, and 80. Each of these models was available in Row Crop, Standard or Industrial versions. Figure 50 illustrates a 1941 dual wheel Row Crop 60.

Figure 51 shows a 1946 Standard 60 model. See description opposite Figure 50 above. Compression ratio of its engine was 6:1 for gasoline (HC) model and 5:1 for KD model.

OLIVER 900 INDUSTRIAL

This Industrial tractor had a four-cylinder, high compression (5.1:1) valve-in-head engine with 4-3/4 inch bore and 6-1/4 inch stroke delivering 64 corrected belt horsepower at 1200 rpm. It had a high tension magneto with impulse coupling, key switch, and used any commercial grade fuel. Transmission provided four forward speeds and one reverse speed with top forward speeds of 10 mph at 800 engine rpm and 16 mph at full governed rpm. Production of this unit was moved from Charles City, Iowa to South Bend, Indiana in 1950. Shown in Figure 52 is a 1949 Oliver 900.

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anniversary (1948) of Oliver and was a fitting tribute marking the beginning of a second century of progress for the corporation. Standardization of many engine and tractor parts was emphasized.

OLIVER 88

Both gasoline and kerosene-distillate (KD) engines, plus transmissions with either six forward speeds and two reverse speeds or four forward and four reverse speeds were available for all models of the "88". Also featured were independent PTO, self-contained belt pulley mechanism, metered engine lubrication, and by-pass thermostat cooling. The six-cylinder gasoline (HC) engine with 3-1/2 inch bore and 4-inch stroke had a 6.75:1 compression ratio and operated at 1600 rpm. A diesel engine of Oliver design having 15:1 compression ratio replaced the KD in 1949. The Oliver 88 weighed 5,180 pounds, was rated at 38 belt horsepower and could pull a three- or four-bottom plow.

The Oliver 88 was the first of Oliver's NEW Fleetline series which included 88, 77, and 66 models superseding the 80, 70, and 60 series. This NEW 88 series was introduced in connection with the 100th

Rear wheel and rim equipment was standardized as much as possible on all three models. The 88, 77 and 66 series were available with Row Crop single or dual front wheels or with adjustable front axles. Standard front end models were also available for Orchard tractors.

Illustrated in Figure 53 is an 88 Row Crop Single Front; Figure 54 shows an 88 Row Crop Extra-Hi Clearance; Figure 55 shows an 88 Industrial with dual rear wheels; and Figure 56, three NEW Fleetline Orchard models - 66, 77, 88.

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1948 - 1954

Oh! Did I Have Fun at Dalton . . .

Let's Go Back Next Year!

Front: Amy Christopherson, Little Queen; 1986 Queen of Steam, Jackie Behrens; and Little King, Justin Ohren. Back: Dayna Larson, Robin Gullickson and Jody Simdorn.

1985 Queen of Steam, Sheri Thompson, Sarah Melby, second runner-up and Theresa Sterns, first runner-up.

Florence Evavold and Mrs. Ralph Melby.

