

TWO-CYLINDER CLUB

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NEWSLETTER NUMBER 4 - 1987

EXPO!

The Antique John Deere Tractor Expo, held in celebration of the 150th Anniversary of Deere & Company, took place at Waterloo, Iowa, on July 16-19, 1987. Total attendance of the event has been estimated at approximately 100,000 persons entering the grounds, recognizing that many visited on more than one day. There were 160 two-cylinder tractors on display, all but a few restored. There was duplication of models only in a few instances, and then primarily to exhibit a variation in equipment. A dozen stationary engines were also displayed, as well as about a dozen choice pieces of antique equipment.

It seems that photographs are the best way to describe the Expo, so the following several pages are devoted to the tractors and activities of the event. Space is limited, of course, because there are also several pages needed for this newsletter's featured tractor. Consequently, additional photos of the Expo will appear in the next newsletter.

Almost seeming as it should be, one of the very first tractors to arrive was this Model "D", owned by the Layhers of Wood River, Nebraska. This was the oldest John Deere tractor at the Expo.



There were earlier Waterloo Boys, but this "D", serial number 30432, is a fine example of those unusual first 50. Note the radiator sides; the small, rounded letters on the radiator top; and the steel weldment front axle. The first production "D" was serial number 30401. Many changes were made at serial number 30450. The early "D" will be featured in a future newsletter.



One of the other early arrivals was this fine Model "720" owned by Marvin Schaffer of Northfield, Minnesota. Note the empty north end of the display area in the background.



Emi, Rodney and Ramon Kuntz of Grafton, Iowa, arrived a week prior to the Expo to help in final preparation of the grounds and general organization of the event. Driving the golf cart is Dave Trumbauer. In the background, just to the right of Raymon, is the first tractor to take it's position on the grounds. It's a Model "BI" still owned by John Deere. More details about the tractor appear later in this newsletter.



The first people were just arriving here on the morning of the 16th. The main office is on the right. One of the Two-Cylinder Theatres is at the left. The news media is setting up in the area in the center of the photo.



Opening ceremonies were scheduled for 1:30 p.m. on Thursday, the 16th. As one o'clock approached, the Dome began to fill with visitors.



By 1:15 p.m. there was standing room only and the press was moving into place.



Press view of the opening ceremonies. Speaking is Robert A. Hanson, Chairman of Deere & Company.



Shown speaking is Robert A. Hanson, Chairman of the Board, Deere & Company. Mr. Hanson remained at the Expo for the remainder of the afternoon to view the tractors and talk with the visitors and exhibitors. Seated to the left is Waterloo Mayor Bernie McKinley. To the right is Iowa Governor, Terry A. Branstad. We were very pleased that the Governor was able to attend and present an enthusiastic speech despite having a temporary but very uncomfortable eye problem. Governor Branstad also walked the grounds afterwards and the next thing we knew he was driving around on an early Model "A" (serial number 410059 owned by Ronald Coy, New Richland, Minnesota). Two weeks earlier Governor Branstad declared July 13-19, 1987, as John Deere Week.

Participants in the opening ceremonies are (left to right): Waterloo Mayor Bernie McKinley,



Robert A. Hanson, Governor Branstad, Cedar Falls Mayor Doug Sharp (arm in cast and in casual dress since he couldn't get a suit on over the cast), Guest of Honor Harley A. Waldon (former Waterloo Tractor Works Manager and retired Manufacturing Director at Deere & Co.), and Michael J. Mack, Director of the Product Engineering Center and Master of Ceremonies for the Expo opening ceremony.



In addition to the two-cylinder tractor display, an area adjacent to the grounds was set aside for the new product display. Entry to the new product display was through this pathway through the cornfield. Note two of the 50 state flags flying, which bordered the Antique Tractor Expo.



Approach from the east side of the new product display offered this view of an 8850.



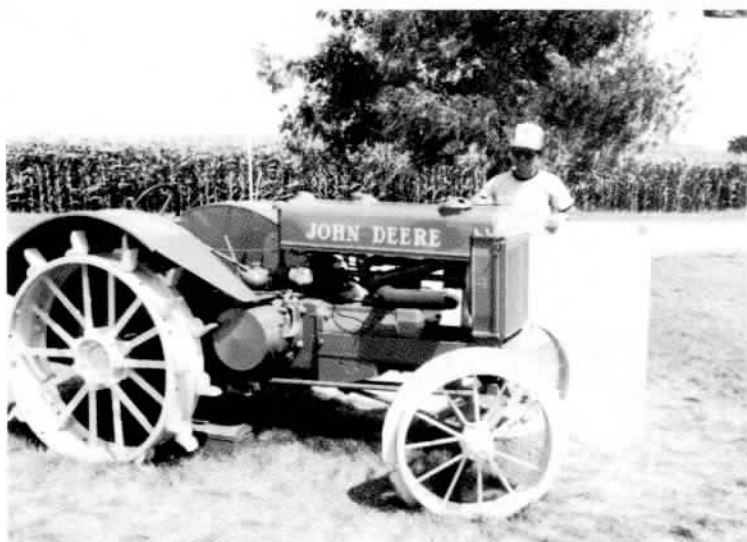
A view of a portion of the new product display.



Activities at the Expo included private and public coverage of the event. Here Rodney Kuntz of Grafton, Iowa, provided details of his consecutively serial numbered AN and AW to a video camera-man.



Meanwhile Lowell Kroneman, also of Grafton, Iowa, has lined up his "30" Series tractors at the request of the Deere & Company photography team.



A familiar face at the Expo, Don Huber of Deere & Company Advertising coordinated their efforts. Here Don is preparing a photographic reflector to control light while photographing the orchard tractors.

There were so many fine items on display, it won't be possible to show them all in this and the next newsletter. Consequently, we made a totally random choice by just pulling these from the stack without looking or selecting in any manner. Some were done with 35mm cameras, others with a larger format. Those in the larger format are also larger photos, again selected totally at random.



This "430" LP Hi-Crop attracted plenty of attention. It is owned by Verlan Heberer of Belleville, Illinois.



Gerry Ter Hark brought his "70" Diesel Standard Tread from Freeport, Illinois.



There was a continual crowd around this beautifully restored Model "60" Cutaway, owned by Tim Trostel of Ft. Loupton, Colorado. For protection from the weather, it was displayed at the edge of the stage in the Dome.



Danny Witter of Mercersburg, Pennsylvania, brought his "630" LP Standard Tread. The state flags alternate with Two-Cylinder Club flags, as can be seen in the background.



Don Dufner of Buxton, North Dakota, and his BWH-40. This tractor is not restored, but was so rare that Don agreed to bring it to fill the gap.



This Waterloo Boy tractor (one of seven at the Expo) belongs to Darold Sindt of Keystone, Iowa. This tractor was exhibited in the "Varied Display" section with a variety of other models.



Another tractor in the "Varied Display" was this "BR" owned by Marjorie and Elwood Vanek of Pemberville, Ohio.



William Waits of Rushville, Indiana, brought this Model "60" with rear exhaust and demonstration "buddy" seat.



Bob Waxler of Olney, Illinois, purchased his Model "70" Diesel new in 1957. One of the few one-owner tractors at the Expo.



Several "E" engines were displayed, and this 1 1/2 hp unit was set up with a pump jack circulating green colored water through the system. Robert and Shirley Dufel of Zaneta, Iowa, (population 6) are the owners.

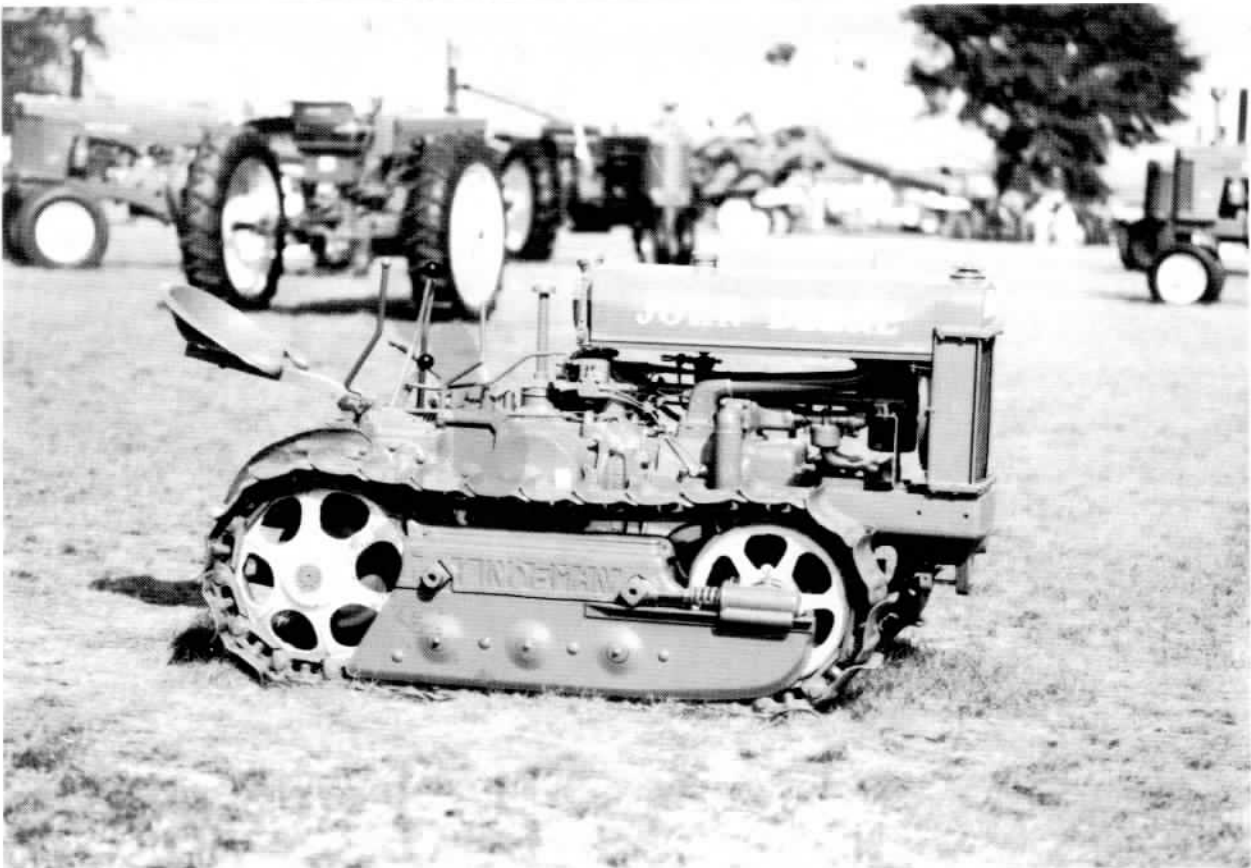


Hold it. That's not a tractor! Nope. That's Two-Cylinder Club Director Jack Cherry (seated backwards on the golf cart) during the informal exhibitor's meeting held on Saturday evening. Earl Scott of Marysville, Ohio, is the other fellow in the cart. Earl knows which direction to sit.

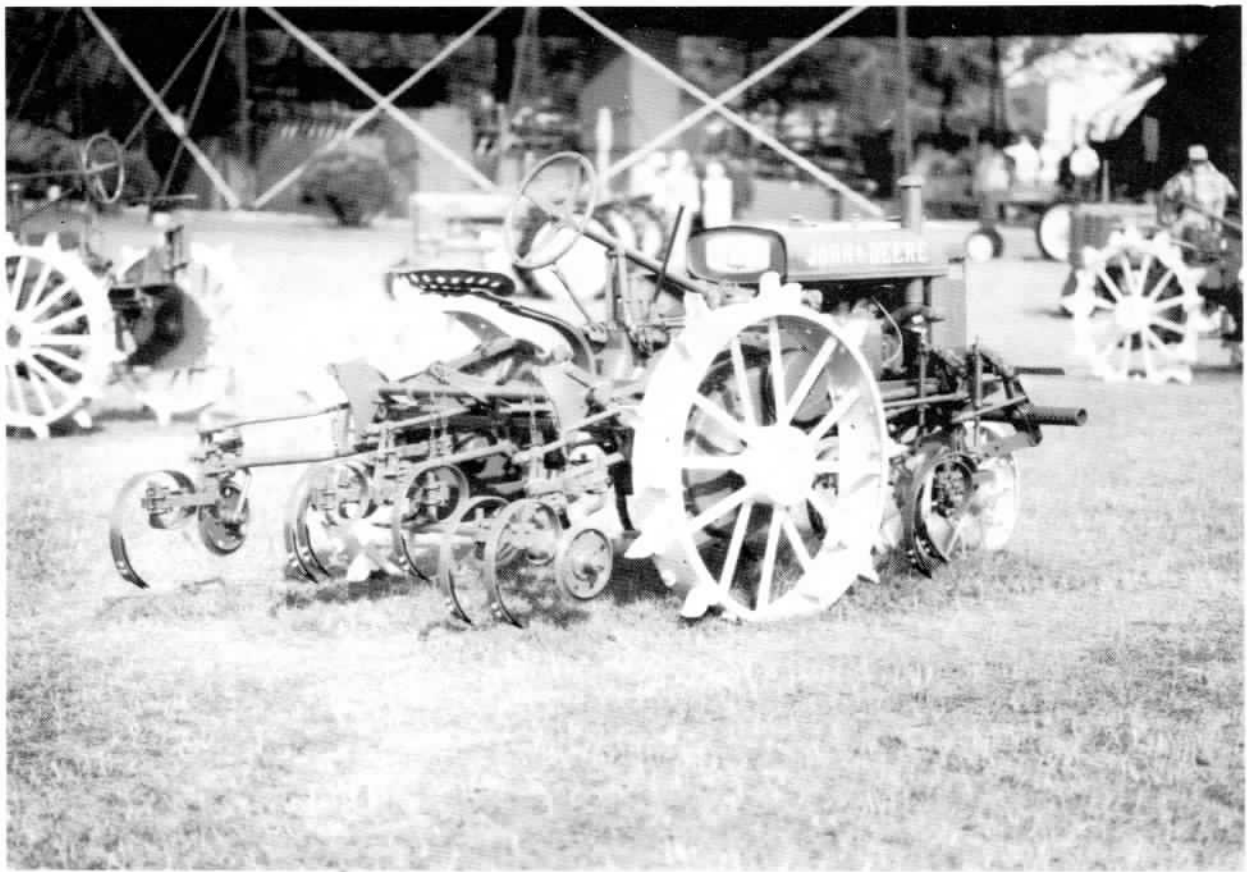
The larger photos of tractors begin on the next page.



"530" LP Paul Franken Clarksville, Iowa



"BO" Lindeman L. E. Stevenson Bartlett, Illinois



"GP" Wide-Tread Series "P" Fred Cobler Family Ottumwa, Iowa



"840" Industrial with Hancock Scraper Darrel Fischer Watseka, Illinois



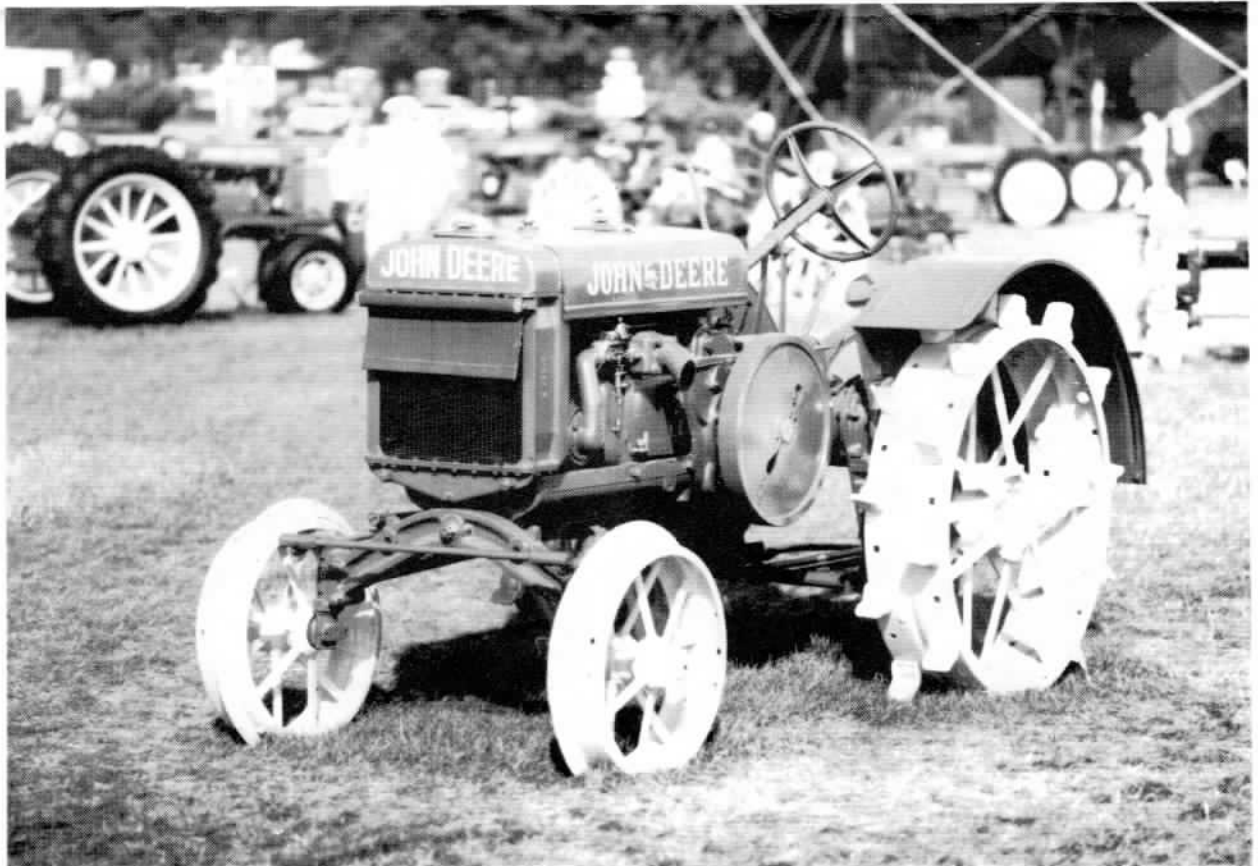
"101" Harold Schieler Kewanee, Illinois



Model "62" Ronald Jungmeyer Russellville, Missouri



"730" Standard-Adjustable Stephen Waldbillig Greenwich, New York



"GP" Standard Eugene Olson Minden, Nebraska



"G" Hi-Crop Steve English Evansville, Indiana

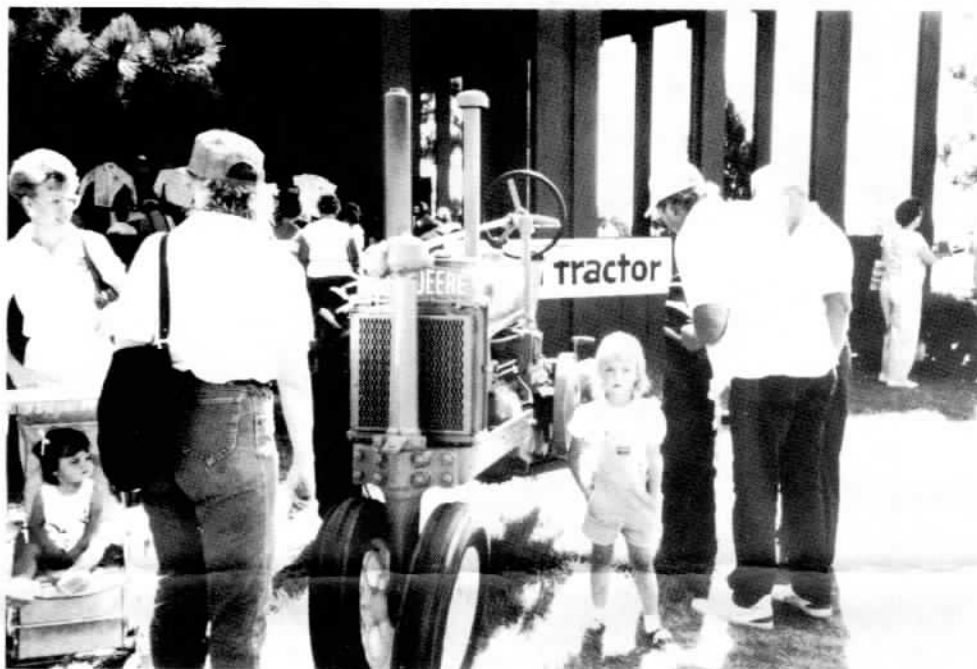


"BI" Deere & Company Moline, Illinois



Model "60" Orchard Jack Bible & David Vanaman New Market, Tennessee

It would not have been possible to select the "best" tractor or "most perfectly restored" tractor at the Expo. There were simply too many that approached perfection. We did, however, engage in informal conversation with a number of exhibitors and well-known tractor enthusiasts and posed the hypothetical question, "If you could only have one tractor ever for your collection, which one of these do you think you would pick?" Generally this led to some head scratching, a long pause and comments back like, "Boy, I don't know... but don't you think such and such is sure a dandy?" So, while it was a totally informal poll, the answer that we heard more than for any other tractor was the Model "60" Orchard shown on page 16.

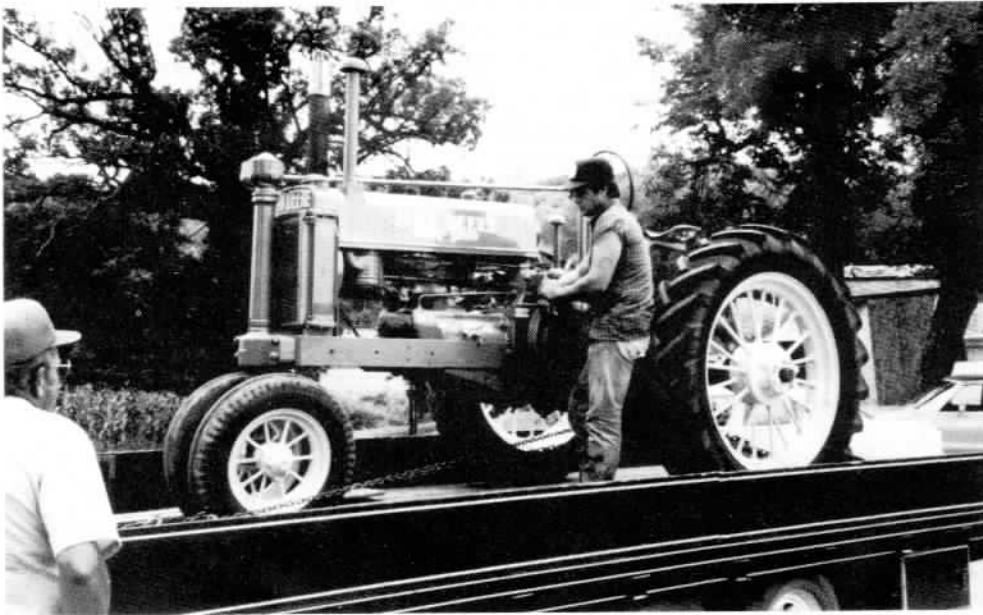


One of the popular attractions at the Expo was the opportunity to win one of four restored John Deere two-cylinder tractors. Winner's names were drawn from a rotating drum by a John Deere security guard in the afternoon of the 19th. The winners are:

"GP" Standard	Roger Marten	Norwalk, Wisconsin
Model "A"	Jeff Steffenhagen	Red Wing, Minnesota
Model "B"	Richard Benson	Newport, North Carolina
Model "D"	Tom Hofacker	Port Clinton, Ohio



Roger Marten was the first to pick up his tractor and is shown here standing next to the "GP" a few days after the Expo.



Robert Dufel of Zaneta, Iowa, (lower left corner) made arrangements with Jeff Steffenhagen (on trailer) to deliver his Model "A". The 51-year-old tractor is going back to work in the fields.



Tom Hofacker says he's really enjoying the "D". It's attracting a lot of attention around that part of Ohio. Tom says most folks around there have never seen one like it.

Richard Benson was the last to get his tractor, and we don't have a photo of him yet.



There were two very notable evening attractions:

Joe and Heidi Jelasic provided easy listening music in the Dome for several hours consisting mainly of songs from Broadway shows and from the big band era.

The other was the short but spectacular fireworks display to close the Expo on Thursday, Friday and Saturday nights. It was a real ground shaker for noise with as many as 150 shells and aerial salutes a minute being fired. It ended with a two-story high John Deere 150th Anniversary Logo set piece.



Those of you that attended the Expo are familiar with the wooden "buck" and "half buck" that were used in place of currency at the concession stands. We have a number of these left over and the enclosed order blank tells how you can get some of these great souvenirs for free.

Shown next to the wooden coins is one of the exhibitor's plaques. These plaques, constructed of walnut with a brilliant 24k gold-plated Two-Cylinder Club logo attached, have been sent to each of the official exhibitors.



Most of the exhibitors had loaded up and departed before dark on Sunday. The photograph above shows one of the more unique methods of transportation. Exhibitor Travis Jorde of Rochester, Minnesota, (at the left) is shown with his 1916 Waterloo Boy Type "T" engine on the bed of his 1953 Chevrolet truck. At the right is Travis' 1914 Waterloo Boy on the bed of friend Robert Hall's (Northwood, Iowa) 1946 Chevy. Standing in the center are Graeme Howden, Lew Peek and Keith Howden of New Zealand.

MODEL "D" CRAWLER

One of the tractors absent from the Expo was the Model "D" Crawler. None of these tractors are known to exist today. It is hoped that the information presented in this newsletter will serve as a catalyst to bring more information forward, and possibly even help to recover one of the tractors. Relatively little is known about these units. Attempts to generate additional information was even made through some of the John Deere retirees who worked at Waterloo during the period that the tractors were produced, but not much was uncovered.

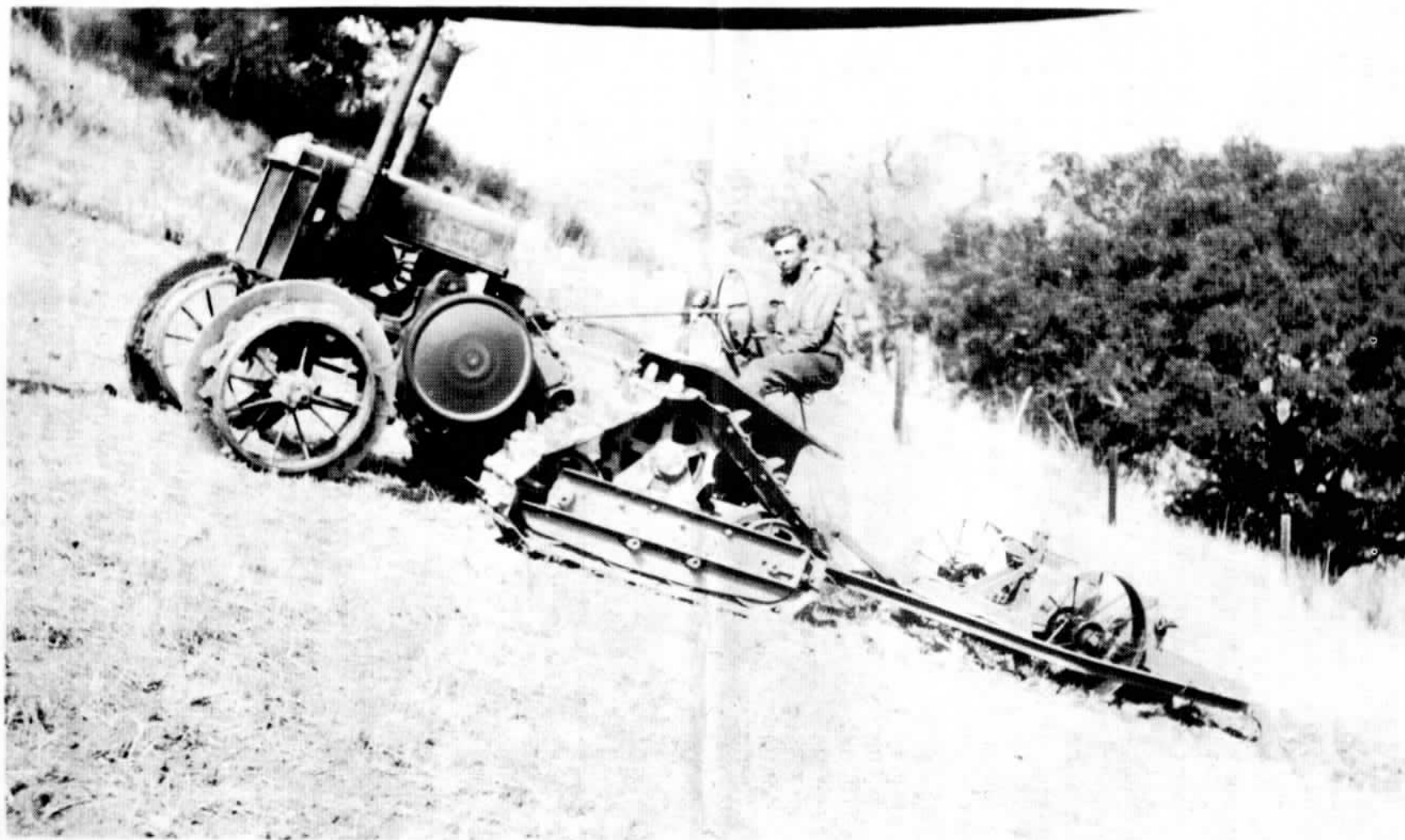
The experimental tractor record book indicates that ten (10) crawler type Model "D"s were built. A cross check of the serial numbers, however, does not clearly reveal that all ten of the numbers provided were definitely crawler tractors; and, in fact, provides evidence that some were "Exhibit B" tractors, which were 1930 tractors fitted with 1931 features for experimental and test purposes. Only two of the ten clearly state in the production records that they were actually crawler type tractors. To assist in the search for these tractors, all ten of the serial numbers shown in the experimental records are listed here:

<u>Experimental Number</u>	<u>Old Serial Number</u>	<u>Build Date</u>	<u>Shipped To</u>
DX23	107039	July 12, 1930	Havre, MT
DX24	107042	July 12, 1930	Havre, MT
DX25	107043	July 11, 1930	San Francisco, CA
DX26	107040	July 09, 1930	San Francisco, CA
DX27	107048	July 10, 1930	Spokane, WA
DX28	107041	July 09, 1930	Spokane, WA
DX29	107047	July 11, 1930	Burlington, IA
DX30	107033	July 12, 1930	Fargo, ND
DX31	107034	July 16, 1930	San Francisco, CA
DX32	107001	July 22, 1930	JD Experimental

Some of these tractors were later reshipped to other locations. Some were apparently rebuilt back into production units. Others may have been scrapped. The only two that are listed as crawlers in both the experimental records and the production records are DX23 and DX24. Possibly all ten were crawlers. We tend to doubt it.

What did they look like? We have located two photographs of what may be one of these tractors. Keep in mind that the later design features of 1931 could have easily been fitted to these tractors since they were built in the mid-1930s at about the time of the "Exhibit B" tractors. The best of the two photos is shown on page 24. The other (not shown) is a faded rear view. Does this look like the territory around Havre, Montana? If so, perhaps we have some evidence of what the first Crawler "D"s looked like.

The first ones? Yes. There was at least one built later... that one with a Lindeman design crawler attachment. Shown on pages 25-30 is a copy of a report by Deere engineer Theo Brown dated May 5, 1933, that describes the Lindeman Crawler attachment for the Model "D" tractor, and includes two photographs of the tractor. The report has been visually enhanced to bring out the faded original, and has been reduced just slightly in size to provide satisfactory side margins.



Is this one of the factory-produced John Deere Model "D" Crawler tractors?

Photograph is an enlargement of original from AHP files.

May 5, 1933

LINDEMAN CRAWLER ATTACHMENT FOR MODEL "D" TRACTOR

In order to determine the approximate drawbar horse power and the drawbar pull in pounds for both low and high gear of the Lindeman Crawler Attachment for the Model D Tractor, dynamometer tests were made at the Experimental Farm on May 2nd and 4th.

A recording dynamometer with an hydraulic cylinder was used. The tests were made on firm cinders and the distance traveled one hundred feet. The time was taken by a stop watch and the load was obtained by pulling both a Model D and a Model GP Tractor, both tractors being in low gear and working against compression. Additional load was obtained by the differential foot brakes.

Before the test the tractor was serviced by one of the John Deere Plow Co. of Moline service men and put in first class condition. This tractor has the serial number 115052, showing it was built about October 1931. It is of the current model.

It must be borne in mind that these tests must be considered as approximate only, as the speed of the motor or the belt horse power was not obtained. A series of tests were run and the averages taken.

One point that it was felt important to determine was whether the weight distribution on the Lindeman Tractor is such as to give the greatest efficiency. On regular crawler type tractors, the center of gravity is placed much farther ahead than on this Lindeman model.

It was noticed in the tests that the lugs on the crawler tread did not sink into the cinders under the front end of the tread, and that there was some slippage under the rear of the tread, the cinder roadway being cut and pushed back to a noticeable extent.

Four hundred and eighty pounds were added far enough in front of the tractor to move the center of gravity ahead six and one-half inches. The center of gravity was found by balancing the tractor on a log. With the center of gravity moved ahead, there was a very noticeable improvement in the traction. The lugs on the tread penetrated to a uniform depth for the length of their travel, and track left in the cinders showed no slippage.

The tests showed that the center of gravity moved ahead six and one-half inches increased the drawbar pull and speed.

The Model D Tractor has not been tested at Nebraska since 1927, so in the following table the figures given are approximate and are furnished by Elmer McCormick as representing the performance of the regular Model D Tractor. The figures for the Model D equipped with the Lindeman attachment are taken from the tests just made. The figures for other tractors shown are copied from the Nebraska tests.

2.

<u>Name</u>	<u>Weight as Tested</u>	<u>Cylinders</u>	<u>Bore and Stroke</u>	<u>Rated R.P.M.</u>	<u>Belt H.P. Max.</u>	<u>Gear</u>	<u>Draw-bar H.P.</u>	<u>Draw-bar Pull lbs.</u>	<u>Miles Per Hour</u>
John Deere Model D	4822 Dry 5300 *	2	6-3/4 x 7	900	42	Low Second	32.5* 31.9*	5000* 3548*	2.5 3.25
Lindeman Att. (As built)	8425	2	6-3/4 x 7	900	42	Low Second	31.1 30.7	6000 4744	1.94 2.33
Lindeman Att. (Center of Gravity 6½" ahead)	8905	2	6-3/4 x 7	900	42	Low Second	33.3 33.6	6375 5100	1.96 2.47
John Deere G. P.	4265	2	5-3/4 x 6	950	24.97	Low Second Third	17.24 16.85 13.93	2489 1837 1060	2.6 3.44 4.93
Cletrac "20"	5560 Dry 6100	4	4 x 4½	1250	26.94	Low Second Third	20.97 22.14 20.07	4444 3008 1887	1.77 2.76 3.99
Cletrac "25"	7275	6	3-3/4 x 4½	1250	33.11	Low Second Third	26.22 26.79 23.31	5206 3613 2191	1.89 2.78 3.99
Cletrac "35"	9700	6	4¼ x 4½	1450	45.64	Low Second Third	40.66 39.77 33.94	7580 4912 2870	2.01 3.04 4.43
Caterpillar "15"	4750	4	3-3/8 x 4	1500	20.39	Low Second Third	16.24 16.99 15.66	3105 2507 1707	1.96 2.54 3.44
Caterpillar "20"	6325	4	3-3/4 x 5	1250	27.43	Low Second Third	21.88 22.18 20.80	4252 3267 2207	1.93 2.55 3.53
Caterpillar "25"	8087	4	4 x 5½	1100	32.95	Low Second Third	26.74 27.11 26.01	6011 4068 2746	1.67 2.50 3.55
Caterpillar "35"	12830	4	4-7/8 x 6½	850	43.80	Low Second Third Fourth	35.77 36.22 34.42 31.36	8169 5542 4005 2574	1.64 2.45 3.22 4.57
McCormick-Deering TracTractor	10790	6	3-5/8 x 4½	1600	46.48	Low Second Third Fourth Fifth	41.78 42.72 40.17 39.76 38.89	9399 7490 5586 4752 3683	1.67 2.14 2.70 3.14 3.96

(* Estimated)

3.

It would appear that the Lindeman Crawler Model D Tractor, considering its weight and drawbar pull, must be compared to the Cletrac "35" or the Caterpillar "35" rather than with the smaller tractors. It comes somewhere between the Caterpillar "25" weighing 8087 lbs., and the Cletrac "25", weighing 7275 lbs., and the Cletrac "35", weighing 9700 lbs.

It is really an in-between type. The regular Model D, according to the table, shows the model D tractor has a drawbar pull of 5000 lbs., at a speed of two and one-half miles per hour (provided traction is good), which is not much more than equalled by the Lindeman Tractor with center of gravity moved six and one-half inches ahead. This in high gear gave a drawbar pull of 5100 lbs. at 2.47 miles per hour. With the Lindeman Tractor as built, in high gear the maximum drawbar pull was 4744 lbs. at 2.33 miles per hour. The excess drawbar pull obtained in low gear was at the expense of speed.

The clearance under the tractor at the lowest point is 8 $\frac{1}{4}$ ". It has been thought that nine inches should be a minimum.

The Lindeman Crawler Tractor is built with the following Model D parts left off:

- Front Wheels, with Caps, Bearing Cups and Cones.
- Rear Wheels.
- Guide Bands, with Bolts, Nuts and Washers.
- Spade Lugs, with Bolts, Nuts and Washers.
- Platform, Fenders and Seat.
- Drawbar.
- Steering Device.
- Front Axle.
- Miscellaneous parts such as Bolts, Nuts and Washers which would come off when the above parts are omitted.

From the table on Page 2, it would appear that a GP Tractor with the Lindeman Crawler Attachment would be about the equal of the Caterpillar "15" as to drawbar pull.

It is claimed that the Cletrac "20" will pull a three-bottom plow anywhere and four bottoms in easy conditions. But it is felt that the speed would be slow.

Current List Prices are as follows:

John Deere Model D	\$1050 f.o.b. Waterloo
John Deere Model D, w/ Lindeman Att., about	2300 f.o.b. Portland
John Deere Model GP, Standard	825 f.o.b. Waterloo
Cletrac "20" (Starter included)	1450 f.o.b. Cleveland
Cletrac "25" (" ")	1850 f.o.b. Cleveland
Cletrac "35" (" ")	2475 f.o.b. Cleveland

4.

List Prices (Continued)

Caterpillar "15" (Starter not included)	\$1100 f.o.b. Peoria
Caterpillar "20"	1450 f.o.b. Peoria
Caterpillar "25"	1900 f.o.b. Peoria
Caterpillar "35"	2400 f.o.b. Peoria
McCormick-Deering T.40 TracTractor	2485 f.o.b. Factory

In order to get a comparison between the various crawler type of tractors, the following table is given. The drawbar pull is reduced to two miles per hour in every case. This is estimated by a ratio of proportion from both lower and higher speeds, and is believed to be substantially correct. The weights are as shown in the Nebraska tests, which means the additional weight of operator and with filled tanks.

<u>Name</u>	List Price f.o.b. <u>Factory</u>	Weight Nebraska <u>Test</u>	Maximum Belt <u>H.P.</u>	Est. Drawbar Pull at <u>2 M.P.H.</u>	Wt. in Lbs., per Lb. of <u>Drawbar Pull</u>	Price per Lb., Per Lb. <u>Drawbar Pull</u>	List Price per <u>Lb.</u>
Caterpillar "25"	\$1900	8087	32.95	5050	1.60	.38	.235
Cletrac "25"	\$1850	7275	33.11	4920	1.48	.38	.254
Lindeman Crawler Att. for "D"	\$2300 *	8425	42.	5800	1.45	.40	.273
Caterpillar "35"	\$2400	12830	43.80	6743	1.90	.36	.19
Cletrac "35"	\$2475	9700	45.64	7620	1.27	.32	.255
McCormick-Deering T.40 TracTractor	\$2485	10790	46.48	7964	1.36	.31	.23

(* f.o.b. Portland, Ore.)

It must be borne in mind that the Lindeman Crawler Attachment tractor is not as efficient as if the center of gravity was moved further ahead. Also, the clearance is not quite as much as desired. These features, of course, cannot well be altered when making an attachment for a wheel tractor.

Respectfully submitted,

TB:HS



The "Lindeman D"

John Deere Model "D" tractor with Lindeman Crawler attachment.

