

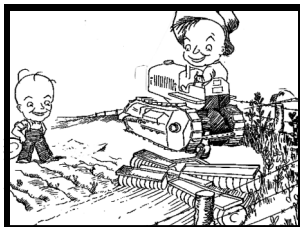


# The Line Shaft

*The Official Newsletter of the*

**NORTH JERSEY ANTIQUE ENGINE & MACHINE CLUB**

August 2013



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**Our Web Address: [njaemc.org](http://njaemc.org)**

*Founded on October 15th, 1979 by: Arthur Goble, Fred W. Westbrook, John Snook, Roy Bischoff & Lewis Quince*

Our July meeting was held at the shed and had 31 members in attendance. Anne Marie read the financial report and it was approved.

The newly acquired and refurbished peanut machine arrived...and will debut at this years fair. We will continue to use Blace's machine and hopefully maintain the peanut supply in-line with the peanut demand. They will sell for \$2.00 per bag this year.

We started a general clean-up and will continue meeting at the shed each Thursday evening to prepare the shed and displays for the upcoming fair.

The 50-50 was won by Dick Haskins and generously donated back to the club...thank you Dick!

## COMING EVENTS

**New Jersey State Fair  
(Sussex County Farm & Horse Show)**

**August 2nd thru 11th**

Please consider supporting the club by donating some hours during the fair time.



**A fresh batch of CLUB tee shirts are now available!  
Buy-Em!**

*Our next meeting will be the State Fair*

## The Lindeman-John Deere BO-Crawler



The tractor was built by Jesse G. Lindeman a self-taught, agricultural-equipment "practical" engineer who was noted for designing dependable crawler tractors and other agricultural implements. Born in Iowa in 1899, he attended school thru the 8th grade. The Lindeman brothers, Jesse, Harry and later Ross and Joe, established the *Lindeman Power Equipment Company* in the early 1920's, with an original investment of \$300.00. It was a retail implement business, based in the Yakima, Washington area, with a small machine shop and forge and included the Holt Crawler Tractor franchise. In the 1925 Holt-Best merger (Caterpillar) they were canceled. They immediately signed with Cletrac and by the late 20's they were a Cletrac top 10 dealer. In the early 30's they signed on with John Deere, whose wheeled tractors complimented the Cletrac crawler line.

Soon Jesse realized that western agriculture, particularly the fruit-growing industry, needed crawler tractors more than their wheeled counterparts and the Deere line could be converted to a very cost-effective crawler... a decision that would cost him the Cletrac franchise. In the mid-1930's he installed a highly modified *Best-Lombard* undercarriage on a Deere Model D and he was on his way to becoming a crawler manufacturer. They built approximately a dozen *Best-Lombard* conversions for both the D and GP series tractors. At about this time Deere and Company became very interested in what the Lindeman's were doing...particularly the Oregon and Washington dealer network.

Since the orchard operators were already using the new John Deere Model "BO" tractors, the rubber tired, orchard version of the Model "B" tractor, Jessie engineered a track design to fit this tractor. As he exclaimed: "It just looked as though Deere had deliberately built a chassis to take crawler tracks!" He designed the "total system, including: track frame, final drives, steering clutches, tracks and rollers. He then cast the needed parts in his small foundry and along with his brothers, machined all the parts in their own shop. The first tractor was manufactured in 1939. After several design changes and ironing out the bugs, they were in the crawler manufacturing business.

The basic John Deere Model "BO" was shipped "new" from the John Deere factory as a power unit and transmission assembly only. The Yakima built crawler components were then installed on it. The steering clutches and final drives were mounted to the side of the transmission case and driven off the drives of the John Deere transmission case. The final unit weighed in at 4,420 lbs. with 16.44 drawbar horsepower. The Lindeman tractor was such a success that the small factory could barely keep up with orders. Not only did the crawler become a hit with the mountainous orchards of the northwest but also in the northeast and in the logging industry.



Jesse also developed the BO-Lindeman with an eye toward the US Navy, and in particular with the intent to bid on several major government contracts, but failed to get an order...it going to Clark (CA-1) and now arch-rival Cletrac (M-1). However, the Navy and the War Production Board continued to express interest in his crawler innovations, allowing production of the small crawlers to continue throughout the war, and authorizing both Deere and Lindeman to act as sub-contractors and produce transmissions and final drives respectively for the Cletrac M-1 towing tractor project. Jesse got a piece of the contract he had so badly wanted.

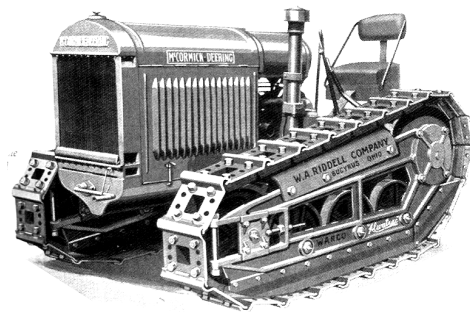
The BO-Lindeman was built from 1939 to 1947. Between these years, the small Lindeman company produced 1,675 machines, selling for slightly over \$1,300.00 each. Since the main structure of the tractor was the John Deere power unit and bore the John Deere name on the hood and radiator, it was generally known as the BO-Lindeman or BO-crawler, however its real name was the Lindeman-John Deere BO Crawler. It generally (but not always) had the Lindeman name cast into the side of each track frame.

In 1947 Deere stopped production on the BO and introduced the Model M and on January 1st 1947 "bought" the Lindeman company. Deere paid \$2,245,000 (approximately \$11,000,000 in 2012 \$) and as part of the purchase, Jesse went along with the deal. He was hired to help with the development of the MC...the M Crawler. Originally transferred to Moline Illinois, Jesse hated the mid-west and returned to Yakima and continued to run Deere's crawler engineer department until the plant closed in 1954. He left Deere and returned to the farm implement side of the business...building new and better rotary tillers, special equipment for fruit handling, orchard disc harrows, land slopers, two-way plows, hydraulic hitches and tool carriers.

Jesse Lindeman, his brothers and the Lindeman-John Deere BO Crawler became the "foundation" of the *John Deere Construction Equipment Division*. Jesse Lindeman, a pioneer of early crawler equipment, passed away in 1992.

It should be noted that the *Lindeman Power Equipment Company* was only one of several independent manufacturers of crawler undercarriage and crawler track conversions for wheeled equipment during the 1920s thru the 1940s.

***Bates Manufacturing*** produced both 1/2 track and full track conversions for McCormick-Deering tractors, ***Hadfield/Penfield*** and ***Moon Track*** produced 1/2 track conversions for Fordson tractors, ***WARCO (W.A. Riddell)*** produced full and 1/2 track conversions for "all-brands" of tractors, ***Bell City Manufacturing*** and ***Electric Wheel Co.*** produced full track conversions for Fordson tractors, ***Mandt-Friel*** produced full-track conversions for McCormick-Deering tractors and ***Trackson*** produced full-track conversions for both International Harvester and Allis-Chalmers wheeled tractors.



The difference between the above manufacturers and Lindeman is the close, near partnership relationship between the *Deere* and *Lindeman* companies. Their product, the *Lindeman-John Deere BO Crawler* was a first market (OEM-new) purpose built machine. The other manufactures sold aftermarket conversions direct to dealers and end-users for "field installation" on mostly used tractors.

*The picture just above is of a WARCO undercarriage installed on a 1929 McCormick-Deering 15-30 tractor*

# MARKETPLACE

**WANTED** 14.9 x 24 USED TIRES! *contact* Ken Reuter (973) 670-1646

**FOR SALE** International CUB CADET 102 \$400.00! *contact* Paul (201) 835-5924

**FOR SALE** Steam bent Ash hardwood walking PLOW HANDLES! *contact* Bruce Mitchell (973) 627-3706

**FOR SALE** Antique Ford and John Deere TRACTORS! *contact* Don Donofrio (973) 627-3706

**FOR SALE** 1976 Ford Super cab PICKUP, Trailer Special, 460 cubic inches, automatic transmission. Asking \$3,500.00 or partial trade for antique tractor! *contact* Jim Dunlap (973) 219-9694

**FOR SALE** Allis Chalmers GARDEN TRACTOR 912 Hydro/914 Shuttle, Simplicity 3416 Shuttle with many extra parts and attachments. Make me an offer I cannot refuse! *contact* Mark Giovanetti (973) 986-5051

**WANTED** Flat Fender POWER WAGON! *Contact* Jeff Brooks

