

TWO 2 CYLINDER

MAY-JUNE 1999

John Deere "B" Series

Standard-Tread Tractors

"BR" Standard • "BO" Orchard

"BI" Industrial

Lindeman-John Deere Crawler



The John Deere Model "B" Standard-Tread Tractors

The Model "B" Series Standard Treads are among the top contenders for the correct answer in the game of "If you could only have one tractor, what would it be?" To some people, they're absolutely perfect. You know there are collectors who still insist that if a tractor has a grille, it isn't right for them. And in an ever-increasingly crowded world, they fit in small places. With safety around younger enthusiasts as a mandatory consideration, the fender-shielded platform and their great stability make a lot of sense.

You say you want a collecting challenge? Brother, it's there. You can go the route of acquiring just one sweet example of the series, or knock yourself out trying to capture all four. Forget about all of the varieties within the models. Only one person on earth can even start to bring that dream to reality, the one who owns the only Lindeman-John Deere "BI" Crawler Tractor ever built. So stay realistic, and pick your favorite from this lineup: Model "BR", Model "BO", Model "BI", or Lindeman-John Deere "BO" Crawler (hereinafter often referred to as Lindeman "BO"). Information on each model follows:

Model "BR"

These tractors were designed primarily for small-grain farming where even the "AR" was considered to be too large. The "BR" was rated as a 2-bottom (14-inch) plow tractor that could turn over about an acre of soil an hour. In a ten-hour day it could single disk 50 to 70 acres with a 15-foot harrow, drill 20 to 30 acres, cut 25 to 35 acres with a power mower, harvest 25 to 35 acres with an 8-foot binder, or combine up to 17 acres with the No. 11-A Combine.



After the war, more "BR" Tractors were built with electric starting and lighting equipment. The slotted disc front wheels were adopted in 1940.

Decision No. 5600, published July 24, 1935, set the stage for production of the "BR":

To meet the field requirements for a smaller, lighter, and less powerful standard-tread tractor than the Model "AR" we will adopt the Model "BR" Standard-Tread Tractor, having its major parts common with the Model "B" and retaining the advantages of this design:

The advantages are as follows:

- 1. Low Manufacturing Cost: The reduced dry weight of 2800 lbs. is directly reflected in lower material cost.*
- 2. Low Operating Cost: Low operating cost of this lightweight tractor results from use of the Model "B" engine with low specific fuel consumption.*
- 3. Superior Field Performance: Lightweight, low center of gravity, and proper weight distribution provide satisfactory stability and control.*
- 4. Adaptable to Specific Service Requirements: Reduced overall dimensions of 115" length, 49-1/4" width, and 50-1/2" radiator height, render this tractor particu-*

larly suitable for orchard and vineyard operations when a low air stack is used, and all other classes of service where small size is of importance.

- 5. In-Built Power Shaft: The in-built power shaft provided as regular equipment widens the range of the tractor's utility.*
- 6. Four-Speed Transmission: The design provides a four-speed transmission. When equipped with the 1:2.05 standard overdrive, the speeds are as follows:*

<i>1st: 1.91 mph</i>	<i>2nd: 3.02 mph</i>
<i>3rd: 3.92 mph</i>	<i>4th: 6.20 mph</i>
<i>Reverse: 3.13 mph</i>	

This range of speeds anticipates the more general use of Pneumatic Tires, and makes it possible to better obtain the full benefits of their use in farm and industrial service.

To accomplish the above, the following changes are required from the Model "B" design:

- A. Rear Wheels: The standard 48"x5-1/4" drive wheels are replaced by 40"x8" drive wheels, bolted to flanged rear axles. The design provides rear wheel treads of 41-1/4" with wheels in standard position, and 44-1/4" in reversed position. Four-inch standard lugs are supplied as regular equipment.*
- B. Rear Axle: To provide the 41-1/4" rear wheel tread, the rear axle housing is shortened. The clutch pivot and steering shaft support bracket is secured to the housing top face, the fenders and platform are supported from suitable bosses on the housing arms, and the seat is supported from the rear axle housing cover.*

C. *Transmission:* The transmission case is revised to permit mounting of the steering sector housing directly on the top face, and to provide for a steering shaft tube. The forward face is drilled and tapped for the front axle brace pivot.

The differential shaft is lengthened to permit external mounting of a locking brake on the left end which is extended outside of the transmission case. In this way, the action of the brake is applied equally to both rear wheels.

To compensate for the reduced drive wheel diameter, second speed sliding and counter-shaft gears are changed to maintain second and fourth speeds approximately equal to the Model "B" Tractor.

As required by orchard service, the operator's position has been lowered and moved to the rear, and the design of the gear shift mechanism and transmission case cover has been revised to bring the controls within easy reach. The clutch lever pivot support is removed from the first reduction gear housing to the steering shaft rear support bracket. To provide the necessary stiffness in the longer clutch rod, the diameter has been increased from 1/2" to 9/16."

D. *Engine:* The manifold has been redesigned to permit the mounting of an orchard-type muffler on the side. This muffler may be placed as desired by the operator either vertically downward, vertically upward, or horizontal forward. The intake passage and location of carburetor has not changed.

E. *Belt Pulley and Clutch:* The clutch has been redesigned to reduce its width, providing adequate clearance between the belt pulley and drive wheel with 4-1/4" tread.

F. *Fuel Tank, Fittings, Piping, and Hood:* The shortened wheelbase necessitates a reduction in fuel tank length, which is compensated for by the elimination of the taper, whereby the capacity is increased to approximately 12 gallons.

G. *Cooling System:* The closer spacing of the radiator to the engine requires shortening of the upper and lower water pipes and fan shaft.

H. *Stability:* The reduced wheelbase necessitates the addition of extra weight to secure adequate stability. This extra weight has been provided in the front end support, front wheels, radiator top tank, and increased water capacity.

I. *Front End, Front Axle, and Wheels:* The front axle construction follows that of the Model "AR" and 24"x5" front wheels are provided.

The steering mechanism likewise follows "AR" construction, with the steering gear housing attached to the top of the transmission case, a vertical steering shaft extending down through a tube in the crankcase, with an arm mounted on its lower end, and a drag link connected to the right steering knuckle.

J. *Drawbar:* A drawbar with supports of revised design is provided to secure the maximum ground clearance below the side support angles. These angles are attached to the lower face of the rear axle housing with their vertical legs extending upwards. By offsetting the drawbar channel in a vertical plane, three vertical drawbar hitch points of 12", 14", and 16" are obtained, with a horizontal adjustment of 24."

K. *Domestic Shipping:* The length of the tractor permits loading crossways in a car, and blocking practice similar to the Model "AR" is followed throughout. No new or special parts are required for this purpose."

Even before the "BR" was introduced, it has been said that it was a factor in getting the model designation of another tractor changed. The decision to produce the Model "AS" (for "A Standard") was published January 3, 1935, and the early literature for this tractor indeed called it the "A Standard" rather than the Model "AR". Regular production got underway in April 1935, but the concept of producing a similar "B"-sized tractor was already being discussed. Consequently, after realizing that the model designation for a "B" Standard wasn't quite what they were looking for, management quickly changed the "AS" designation to "AR".

Decision No. 5400, published March 15, 1935, stated:

At the request of management, we will change the designation of the Model "A Standard Tractor from "AS" to "AR" and adopt designations of "AW" and "BW" for general-purpose Models "A" and "B" Tractors equipped with adjustable-tread front axles."

Model "BR" Tractors went into production in September 1935, subsequently being joined by the "BO" and "BI". All were serial numbered together beginning with 325000.

The "BR" had the highest production level of "B" Series Standard Treads, but even so it is not regarded to be particularly common. Total production recorded in the *Production Log* was 6404 tractors, being divided into two groups. Model code 120 ran from the start of production in September 1935 with serial number 325000, into June 1938 ending with serial number 328884. Model Code 138 began with serial number 329000 on June 14, 1938, and ended with serial number 337514, at the end of "B" Series Standard-Tread production, on January 16, 1947.

There were 29 Model "BR" Tractors shipped to Lindeman Manufacturing at Yakima, Washington, all presumably to be built into Lindeman-John Deere

Crawler Tractors. A number of these extremely rare units are known to be in the possession of collectors.

It is becoming increasingly difficult to find Model "BR" Tractors in readily restorable condition. Many of them shipped with steel wheels were converted to rubber, which is probably one of the more frequent and usually difficult problems to solve.

NEW



**JOHN DEERE
MODELS AO and BO
TRACTORS for Grove,
Orchard, and Vineyard**

NEW in Performance

Here are grove and orchard tractors with all the simplicity, economy, dependability of other John Deere Tractors . . . built for extra years of service.

NEW in Speed

Four speeds forward—2, 3, 4, and 6-1/4 miles per hour—adapt these tractors to a wide variety of uses, including hauling. There is a reverse of 3 miles per hour.

NEW in Economy

The engines in the Models AO and BO are of the exclusive John Deere two-cylinder design. They burn the low-cost fuels that save you money.

NEW in VALUE

Get the feel of the Model AO or BO—out in the field. Notice how easily it handles . . . the convenience of all controls . . . the perfect view of the work . . . the comfort of the dust-proof full-skirted fenders . . . the wide, roomy platform . . . the easily adjusted hitch . . . not a thing has been overlooked.

GET THE FEEL OF THE WHEEL . . . ASK YOUR DEALER FOR A DEMONSTRATION

Announcement published in 1935

Model "BO"

Only about one out of 60 Model "B" Series Tractors produced was a "BO". Beyond that, of the 5083 built (as recorded in the *Production Log*), 1645 were sent to Lindeman Manufacturing at Yakima to become Lindeman "BO" Crawlers. That leaves just 3438 "BO" Tractors, now from 52 to 64 years old. They're becoming scarce.

Overall, the "BO" is the same size as the "BR". At least the footprints are the same. However, the absence of an intake stack puts the overall height at just 52-1/2 inches.

Decision No. 5701, covering the Model "BO" Orchard Tractor, was published September 11, 1935:

To adapt the Model "BR" Tractor design to Orchard requirements, we will adopt a Model "BO" Orchard Tractor, differing from the "BR" Tractor in being provided with Differential Brakes for short turning, lowered air stack, and shields for air stack and fuel and gasoline tank filler caps.

The design of the steering brake differs from that of the Model "B" in that each brake is an entirely self-contained unit complete with locking cam; a porous bronze bushing is provided for the outer brake shaft bearing, lubrication is from an oil reservoir through the porous

**JOHN DEERE
TRACTORS and EQUIPMENT
for FLORIDA**



A Florida orchard photo session taken in late October 1935 resulted in several shots being used in advertising literature, including the 1936 piece shown at left.

bushing rather than by grease, and the brake pedals are revised as required by the lowered position of the operator. Estimated requirements — 300 tractors per year

The estimated requirements for many of the "specialty" tractors built by John Deere during the two-cylinder era were optimistic. This time, however, the estimate was low. The "BO" was manufactured during 13 production years, and even though 1935 and 1947 were not full years, the average number built per production year was 389 units.

Since the "BO" and "BR" were built on the same chassis, and differed in only a few specific areas of design, the same larger engine was adopted at the same time (June 1938). The last "BO" with the 4-1/4-inch bore, 5-1/4-inch stroke engine was serial number 328890. The first with the new 4-1/2 bore and 5-1/2-inch stroke engine was 329082.

Model "BI"

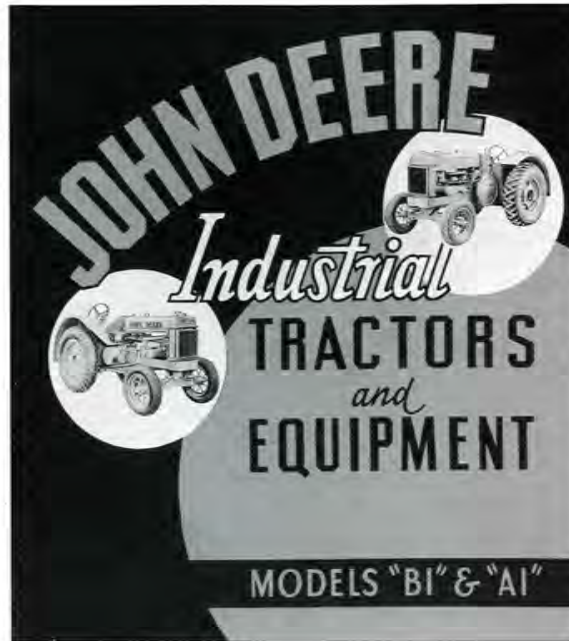
A wider departure from the base "BR" than the "BO", the Model "BI" was the industrial offering of the "B" Series Standard Treads.

Decision No. 6150, covering the Model "BI" Industrial Tractor, was published February 18, 1936:

To meet the requirements of industrial and road service, we will adopt the Model "BI" Tractor having its major parts common with the Model "BR". The tractors made up under this specification will be painted a "Highway Yellow" and stenciled in black. Estimated requirement — 500 for 1936 production.

The following changes are required from the Model "BR" design equipped with 550-16 4-Ply Front and 900x-28 4-ply Rear Low-Pressure Tires.

- I. Front End: To provide points of attachment for various types of industrial equipment, finished pads and tapped holes will be provided on the sides and front of the Front End Casting. Tapped holes in front will take regular "BN" Pedestal.
The Front Axle will be moved backward 5-1/4 inches to permit mounting of industrial equipment closer to the radiator and to provide a shorter turning radius.
The radius rod and drag link will be shortened to accommodate the change in location of the front axle.
Wheel base reduced from 68 to 62-3/4 inches.



Advertising literature for the early industrial tractors is quite rare.

- II. Drawbar: The agricultural drawbar with swinging link will be replaced by a heavier and shorter drawbar assembly more suitable for industrial service. The new design provides an open jaw-type of drawbar and conforming to the tentative ASAE tractor standard. A one-inch diameter coupling pin drilled for cotter pin will be provided.
Side members will be provided with holes to permit placing the coupling pin the following positions back of the axle — 17-3/4, 20-1/2, 23-1/4, and 26 inch.
The rear cross member will be provided with holes to permit placing the coupling pin the in the following positions: On center between wheels, 1-1/2 inches to the right; and 1-1/2, 3, and 4-1/2 inches to the left.
An offset clevis casting will permit placing the center of the open end clevis at 12-1/2 and 13-7/8 inches from the ground.

III. Rear Axle: Rear Axle Outer Bearings of greater capacity will be provided to take care of the greater loads imposed by industrial service.

Rear Axle Shafts with larger outer bearing seats, and larger rear axle bearing spacers, felt washers, and retainers will be required to accommodate the larger outer bearings. The flange of the felt retainers will be reduced to clear the bore of the brake carrier.

The rear axle housing will incorporate the following:

- A. Larger outer bearing bores.
- B. Machined flanges for attaching wheel brakes and two finished pads on rear for brake camshaft bracket.
- C. Provision for attachment of industrial equipment as follows:
 1. Finished pads and tapped holes on front and rear adjacent to each brake flange.
 2. Rear face of housing enlarged to provide four widely spaced finished pads and tapped holes.
 3. Finished pads and two added tapped holes on top surface to provide four widely spaced points for attachment.
 4. Cast grooves adjacent to brake flanges.
- D. Add two tapped holes on top for seat support.

IV. Seat and Mounting: We will adopt standard cushion seat to replace the regular tractor steel-seat. As this will remove the requirement for spring mounting, the channel seat support will be attached rigidly to the rear axle housing. Slots in channel seat support will provide 3-3/4 inches fore and aft adjustment.

V. Transmission Brake: A new design of transmission brake with the operating mechanism on top will be provided.

- A. More effective brake action through increased leverages.

- B. Brake Pedal pivoted on pin in brake housing provides simple direct operating mechanism.*
 - C. Operating mechanism entirely independent of drawbar or platform members.*
 - D. Brake assembly entirely above the dust shields.*
- VI. Low-Pressure Tire Equipment: New Drive Wheels similar to B-633-R will provide integral cast brake drums for use with optional equipment rear wheel brakes. The bolting flange is made thicker, and Model "A" longer attaching bolts are used.*
- VII. Fenders and Platform: Fenders and Platform will be provided with notches for clearing rear wheel brakes operating mechanism. A new brake dust guard will be provided to clear the new design of transmission brake with operation mechanism on top.*
- VIII. Air Stack: An air stack similar in design to that used on the Model "BR" Tractor, but lower, will be provided.*

The "BI" can be identified at a glance, primarily through its front support which has finished pads and tapped holes on both sides and the front for the attachment of industrial equipment. Also, the front axle of the "BI" sits back 5-1/4 inches farther than that of the "BR" and "BO" to permit mounting of industrial equipment closer to the radiator and to provide a shorter turning radius. A cushion-type seat and heavier, shorter drawbar are other identifying features.

Knowing the indelible identifying features of these rare tractors is important, as the factory industrial yellow paint with black lettering was covered in more than a few instances with a paint job that better suited the owner. For example, at least two were known to have been subsequently painted white, and one even left the factory painted red! Most of them not still industrial yellow were painted tradi-

tional John Deere green and yellow by later owners not knowing why they were "the wrong color" in the first place.

Lindeman "BO"

Although most people familiar with these tractors call them the John Deere-Lindeman "BO", that's not what was originally intended. John Deere was the supplier of the Model "BO" Tractor chassis — usually without wheel equipment, front axle, and other parts that would need to be removed when Lindeman added the track assembly, steering clutches, and related items to create the crawler.

The Lindeman Brothers (Jesse, Harry, Ross, and Joe) created the Lindeman Power Equipment company of Yakima, Washington. Among their many endeavors, in 1932 they added a crawler attachment to three John Deere Model "D" Tractors. Although these tractors were not considered to be practical, their previous idea of creating an orchard tractor by modifying a Model "GP" Standard had already gotten the attention of Deere & Company. Realizing that the "D" was too big to be nimble in an orchard, the Lindemans then made up about two dozen crawlers on the "GPO" chassis.

Impressed with the little crawler, Deere confided in the Lindemans by letting them know that the "GPO" was going to be dropped in favor of two new orchard models. Of the "AO" and "BO", the "BO" was chosen to continue with their crawler conversions.

Since the final product would be sold by the Lindeman Power Equipment Company, after considerable departure from Deere's original design, it was agreed that Lindeman would have to accept significant liability. Thus, the Lindeman-John Deere "BO" Crawler designation appears on the lion's share of documents. Not all, however, as later Parts Catalogs

show the tractor to be the John Deere-Lindeman Model "BO" Crawler — but that's after John Deere and Lindeman had developed a formal business relationship, resulting in the John Deere-Lindeman Company. It didn't end there. Deere so loved the Lindemans and their uncanny abilities to conceptualize, invent, develop, and manufacture quality equipment, that the little company started by Jesse in 1923 ultimately became the John Deere Yakima Works. After developing and producing the Model "MC" Tractor, the Yakima hitch, plows, land levelers, and other implements, the Yakima Works was closed in 1954.


There's an extra-large supply of romance and nostalgia connected with collecting anything Lindeman... especially the crawler tractors. The rarest of all is the one-only "BI" Crawler, serial number 330986, which was built for demonstration to the U.S. Armed Forces for possible use in the construction of airfields in the jungles of the Pacific. That's assuming that none of the three (much more common, but earlier) Model "D" Crawlers exist.

Next in line are the 29 Model "BR" Tractors shipped to Lindeman, 25 of them listed as having



The Lindeman Power Equipment Company of Yakima, Washington, as it appeared during World War II.

been equipped to be built into a crawler. It's possible that the other four were, as well. The serial numbers are:

333379	335356	336518
333381	335357	336519
333382	335358	336520
333383	335359	336521
334370	335360	336522
335351	336513	336524
335352	336514	336525
335353	336515	336527
335354	336516	336744
335355	336517	

Persons having one of the remaining 1645 "BO" Crawlers needn't feel slighted. These are wonderful little tractors, and they set the stage for John Deere to get serious in the business of providing crawler power to the agricultural customer. Just look at what has happened since then!



The Yakima hitch, plows, land levelers (above), and other implements were developed and produced at the John Deere Yakima Works.

Production Figures

Some total production figures have already been

provided in previous text. Be aware that the figures listed in the *Production Log*, which reflect *assembly line* production, do not precisely agree with those of the *Serial Number Register*, which was often updated as tractors changed identity prior to or following shipment. The *Serial Number Register* for "B" Standard-Tread Tractors provides the following tally:

"BR"	6552
"BO"	5037
"BI"	183

Overall, the *Production Log* and *Serial Number Register* differ by less than one percent.

A compilation of information from the Deere & Company Archives and Lindeman family archives has led to the conclusion that a total of 1675 Lindeman Crawlers were built using "B" Series Standard-Tread Tractors. Of these, 1645 were "BO" Tractors, 29 were "BRs", and one was a Model "BI".

Identification Tips

Since all of the "B" Series Standard Treads are considered to be a valuable collectible, some more so than others, it is important to be able to distinguish one from another and from other similar appearing John Deere models. That's why familiarity with the details of the Decisions shown earlier in this text is important. In addition, the following identification tips should help:

All "BO" Tractors had differential brakes, and almost all were equipped with an orchard-type hood that had a shield over the short air-intake stack and just forward of the fuel and gasoline caps. However, prior to serial number 334220, a "BO" could be ordered with the AB649R Air Intake Stack of the "BR". This has led some "BO" owners to think they have a "BR", restoring it accordingly. Here's the

background... Tractor ordering information supplied to John Deere dealers contained the following note: *The Model "BR" Tractor is equipped with service brake, while the Model "BO" is equipped with differential brakes. When the Model "BR" Tractor is wanted with differential brakes, you should specify for a Model "BO" Tractor equipped with AB649 High Air Stack.*

Effective October 31, 1944, Model "BR" Tractors could be ordered with differential brakes, in place of the service brake, for an additional \$25.00.

To further confuse the issue, "BR" Tractors could be equipped with an orchard hood and air stack, and even with citrus fenders. Final determination may rely on the type of brakes present. A brief overview...

All standard-equipped "BRs" had the service brake, operating from the differential shaft and applying equal pressure to both rear wheels. Model "BO" Tractors always had individual differential brakes, but never the "BI" type. Model "BI" Tractors had individual rear wheel brakes (if, as in most cases, the tractor had rubber tire equipment). Up through serial number 334219, Model "BR" Tractors with optional individual rear wheel brakes used the "BI" system. Model "BRs" after 334219 had individual differential brakes available as an option. Since "BRs" with optional differential brakes from serial number 334220 on used the same assembly as the Model "BO", it became no longer possible to use this feature for positive model identification.

Individual brakes were a boon in short field applications, reducing the turning radius from 12 feet, 8 inches to 10 feet, 8 inches on paper, and seemingly much more so in actual application. Saved fences.

Persons looking for "B" Series Standard Treads want to be able to tell them from the unstyled "A" Series Standard Treads. Saves a lot of time climbing fences and walking across fields.

The "AR" muffler attaches to the rear of the radiator top tank casting, which extends through the hood. The "BR" and "BO" muffler attaches directly to the manifold and can be turned downward, forward, or upward, the same as on the Model "AO".

The "B" Standards have an oval filler cap in the center of the radiator top tank. Model "A" Standards prior to serial number 260000 have their oval filler positioned at the left side of the top tank. At serial number 260000, the "A" Standards adopted a round cap in the center of the top tank, except for late 1943 and early 1944 models that had pressure caps.

A key identifier, the front axle of "B" Standards is set back from the front of the front end support — the "BI" even further than that of the "BR" and "BO". The "AR" and "AO" front axle is mounted flush with the front of the front support. The "AI" front axle is set way back, like the "BI", to create a short wheelbase and turning radius.

The ribs on the fenders of "B" Standards are well inboard of the sides and much closer together than those of the "A" Standards, citrus fenders excepted.

Model "BR" and "BO" Tractors, as well as Model "AO" Tractors starting with serial number 260000, have their seat attached to the rear cover. Prior to 260000, the seat assembly on "AR" and "AO" Tractors is attached to the top of the rear axle housing.

If the tractor is on steel or cutdown rear wheels, the "BR" and "BO" have 10 spokes while the "AR" and "AO" have 12 spokes. Front steel on the "BR" and "BO" is 24-inches in diameter with a 5-inch face, while the "AR" and "AO" have 28-inch wheels with a 6-inch face.

If approaching from the left side of a "B" Standard, one will notice the carburetor inlet and elbow attaching to the front of the carburetor rather than the rear as with the "A" Standard Treads.

If the tractor in question is equipped with a radiator shutter that extends the full width of the radiator sides, it is an "A" Standard. If the shutter frame extends *beyond* the shutter itself and is attached to the radiator sides with exposed bolts, it is a "B" Standard — *or* an "A" Standard prior to serial number 255948.

On tractors factory-equipped with electric lights, only "A" Standards serial numbered 260000 and up used 5-inch lamps. Earlier "A" Standards and all "B" Standards used 7-inch lamps.

Model "B" Standard Tractors have the same A80R Speed Control Lever used on the general-purpose "A", "B", and "G" Series Tractors of the period, while the "A" Standards used the much longer A947R.

Size is, of course, the major consideration in identification, but it takes a bit of study by comparison to become familiar with the difference. In general, "B" Standards are significantly smaller than "A" Standards — wheel tread alone being about ten inches narrower. Flywheel size is another particularly good reference point.

Engineering and Design

The multitude of minor and significant design changes that took place over the production span of the Series "B" Standard Treads is best studied through the use of John Deere Parts Catalogs. Keep in mind, however, that later catalogs often include parts that superseded the originals, and may not tell the whole story to a restorer interested in obtaining maximum authenticity.

Information not readily available is that pertaining to tractor speeds with various gear sets and wheel/tire equipment. This information, as published by the John Deere Tractor Works in 1941, is provided on page 9. Note the low tractor speeds

obtained with the AB1410R Gear Assembly, a favorite with slow race competitors.

Earlier in this article, reference was made to an increase in engine size at serial number 329000. This was the most significant change made during the production period, and even resulted in model code changes. Consequently, the series of four "B" Standard Tread models technically grows to eight. Collecting them just got more interesting, didn't it?

A later engine change that affected the general-purpose "B" series at serial number 96000 (1941 model year), was not carried over to the Standard Treads. This is important... Most parts from the later general-purpose tractor engines are not interchangeable with "B" Standard-Tread Tractors. Previous to this, many engine parts do interchange within their corresponding period. For example, general-purpose "B" Tractors 1000 to 59999 with "B" Standards 325000 to 328999; and general-purpose "B" Tractors 60000 to 95999 with "B" Standards 329000 to 337514. However, one thing to remember is that the crankshaft and many clutch parts on these tractors are not interchangeable.

Summary

They've been called the ugly duckling of the old John Deere Tractor line, but this writer regards the Model "B" Standard Treads to be very sharp and compact in appearance, and a wise choice as collectibles. As with several other tractor series, a collector focusing on the "B" Standards will have a major challenge on the table; while those desiring to have just one specimen can't go wrong with their choice of any model. To put it in perspective, I only ever met one person who bought a nice "B" Standard and really regretted it. So he got rid of it. Later on, he regretted that. ■

Table of Tractor Speeds

<u>Model</u>	<u>Gear Assembly No.</u>	<u>Serial No.</u>	<u>Type Wheel</u>	<u>Size</u>	<u>Rolling Radius</u>					<u>Rev. Under Drive</u>	
					<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>Rev.</u>		
"BR"/"BO"	Standard	325000-	Steel	8x40"	20"	1.91	3.01	3.93	6.20	3.15	
"BI"		326016-327933	Rubber	9.00x28"	22.6"	2.16	3.40	4.44	7.00	3.56	
			Rubber	11.25x24"	21.9"	2.09	3.30	4.30	6.79	3.45	
			Rubber	10-28"	21.5"	2.06	3.25	4.23	6.70	3.38	
			Rubber	11-26"	21.7"	2.08	3.27	4.27	6.76	3.42	
"BI"		326016-327933	Rubber	8.25x24"	20"	1.91	3.01	3.93	6.20	3.15	
"BI"	Standard	327934-	Rubber	8.25x24"	20"	1.91	3.01	5.67	8.94	3.14	
			Rubber	9.00x28"	22.6"	2.16	3.40	6.42	10.08	3.56	
			Rubber	11.25x24"	21.9"	2.09	3.30	6.21	9.78	3.45	
"BR"/"BO"	AB1298	325582-	Rubber	9.00x28"	22.6"	2.16	3.40	6.42	10.08	3.56	
			Rubber	11.25x24"	21.9"	2.09	3.30	6.21	9.78	3.45	
			Rubber	10-28"	21.5"	2.06	3.24	6.10	9.60	3.38	
			Rubber	11-26"	21.7"	2.08	3.27	6.15	9.68	3.42	
"BI"	AB1298	326016-327933	Rubber	8.25x24"	20"	1.91	3.01	5.67	8.94	3.14	
			Rubber	9.00x28"	22.6"	2.16	3.40	6.42	10.08	3.56	
			Rubber	11.25x24"	21.9"	2.09	3.30	6.21	9.78	3.45	
"BR"/"BO"	AB1410R	328845-	Steel	8x40"	20"	1.12	1.91	3.03	5.18	3.15	1.84
			Rubber	9.00x28"	22.6"	1.26	2.16	3.42	5.85	3.56	2.08
			Rubber	11.25x24"	21.9"	1.21	2.09	3.32	5.66	3.45	2.05
			Rubber	10-28"	21.5"	1.19	2.06	3.25	5.56	3.38	2.01
			Rubber	11-26"	21.7"	1.20	2.07	3.29	5.61	3.42	2.03
"BR"/"BO"	AB1588R	325000-	Rubber	9.00x28"	22.6"	2.16	4.07	4.44	8.38	3.56	
			"BI"	When installed in Standard Tractor.	326016-327933	Rubber	11.25x24"	21.9"	2.09	3.93	4.30
	Rubber	10-28"	21.5"		2.06	3.86	4.23	7.95	3.38		
	Rubber	11-26"	21.7"		2.08	3.90	4.27	8.03	3.42		
"BI"		326016-327933	Rubber		8.25x24"	20"	1.91	3.58	3.93	7.37	3.15
"BR"/"BO"	AB1588R	325582-	Rubber	9.00x28"	22.6"	2.16	4.07	6.45	12.15	3.56	
			"BI"	When installed in Tractors with AB1298R.	327934-	Rubber	11.25x24"	21.9"	2.09	3.93	6.24
	Rubber	10-28"	21.5"		2.06	3.86	6.14	11.54	3.38		
	Rubber	11-26"	21.7"		2.08	3.90	6.19	11.64	3.42		
"BI"		327934-	Rubber		8.25x24"	20"	1.91	3.58	5.69	10.73	3.15
"BR"/"BO"	AB2678R	325582-	Rubber	9.00x28"	22.6"	2.16	4.07	6.45	12.15	3.56	
			"BI"		326016-327933	Rubber	11.25x24"	21.9"	2.09	3.93	6.24
	Rubber	10-28"	21.5"		2.06	3.86	6.14	11.54	3.38		
	Rubber	11-26"	21.7"		2.08	3.90	6.19	11.64	3.42		
"BI"		326016-327933	Rubber		8.25x24"	20"	1.91	3.58	5.69	10.73	3.15

No. 138 Model "BR" Standard-Tread Tractor (Service Brake)

With Fenders — Built-In Power Take-Off — Four Speeds Forward
— Manually Controlled Radiator Shutter with Guard
(Heavy Cast Rear Wheels, Demountable Rims)

	<u>Weight</u>	<u>Price</u>
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 9.00x28-inch 4-ply R.T. Rear Wheels (AB2015)	3375	\$869.00
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 4-ply R.T. Rear Wheels (AB2154)	3415	\$895.50
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 6-ply R.T. Rear Wheels (AB2027)	3439	\$916.00
(With Spoke-Type Rear Wheels)		
Model "BR" Tractor with 24x5-inch Steel Flat Tire Front Wheels, AA341 — 1-1/2-inch Guide Bands and 40x8-inch Steel Flat Tire Rear Wheels, AB215 — 4-inch Spade Lugs	2895	\$715.00
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 40x8-inch Steel Flat Tire Rear Wheels	2888	\$740.00
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 4-ply R.T. Rear Wheels (AB2157)	2857	\$875.50
Model "BR" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 6-ply R.T. Rear Wheels (AB2026)	2881	\$896.00

Effective 1941

Lindeman-John Deere Crawler Tractor 16 Horsepower at Drawbar

(Ideal for handling 6-foot Offset Disc Harrow,
2-bottom 14-inch Plow, 600 Gallon Sprayer, etc.)

Operates on approximately one gallon fuel oil per hour.

	<u>Weight</u>	<u>Price</u>
Crawler Tractor, complete with belt pulley		\$1315.00
Power Take-Off Only		\$17.50

Effective 1941

No. 139 Model "BO" Standard-Tread Tractor (Differential Brakes)

With Fenders — Built-In Power Take-Off — Four Speeds Forward
— AB545 Air Stack — AB599 Muffler — Manually Controlled
Radiator Shutter with Guard
(Heavy Cast Rear Wheels, Demountable Rims)

	<u>Weight</u>	<u>Price</u>
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 9.00x28-inch 4-ply R.T. Rear Wheels (AB2016)	3441	\$909.00
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 4-ply R.T. Rear Wheels (AB2159)	3481	\$935.50
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 6-ply R.T. Rear Wheels (AB2029)	3505	\$956.00
(With Spoke-Type Rear Wheels)		
Model "BO" Tractor with 24x5-inch Steel Flat Tire Front Wheels, AA341 — 1-1/2-inch Guide Bands and 40x8-inch Steel Flat Tire Rear Wheels, AB215 — 4-inch Spade Lugs	2961	\$755.00
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 40x8-inch Steel Flat Tire Rear Wheels, AB215 4-inch Spade Lugs	2878	\$780.00
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 4-ply R.T. Rear Wheels (AB2161)	2923	\$915.50
Model "BO" Tractor with 5.50x16-inch 4-ply R.T. Disk Type Front Wheels and 11.25x24-inch 6-ply R.T. Rear Wheels (AB2028)	2947	\$936.00

Note: The Model "BR" Tractor is equipped with service brake, while the Model "BO" is equipped with differential brakes. When the Model "BR" Tractor is wanted with differential brakes, you should specify for a Model "BO" Tractor equipped with AB649 High Air Stack.

If 6.00x16-inch 4-ply Front Tires and Tubes are wanted on Models "BR" and "BO" Tractors in lieu of regular 5.50x16-inch 4-ply Tires and Tubes, add

6 \$3.75

Note: We recommend that every Rubber-Tired Tractor with Spoke-Type Rear Wheels be sold with Wheel Weights.

Effective 1941

No. 126 Model "BI" Industrial Tractor

Leather Seat Forward or Side Mounting — Built-in rear Power Take-Off — AB1053 Manually Controlled Radiator Shutters with Guard — AB599 Muffler — AB991 Platform — AB986 Fenders — AB774 Drawbar — AB508 Built-in Power Shaft — AD1297 Leather Cushion Seat

	<u>Weight</u>	<u>Price</u>
Model "BI" Tractor with 5.50x16" Front and 9.00x28" Heavy Cast Demountable Rim Rear Wheels, Low Pressure Tires and Tubes, Rear Wheel Drum Brakes Hand and Foot Controlled, AB800 Rear Wheel Brakes (not used on steel wheel tractors)	3633	\$1008.50
Model "BI" Industrial Tractor with Front Wheel Bearings, etc., but less Front and Rear Wheels only, and less Rear Wheel Brakes	2370	\$717.50
If wanted with 11.25x24" Low Pressure Tires and Tubes Rear		\$42.75
If wanted with 6.00x16" Low Pressure Tires and Tubes Front		\$3.25
If wanted with 24x3-1/2" Plain Solid Rubber Tires front and 40x5" Solid Non-Skid Hi-Type Cushion Rubber Tire Rear	460	\$69.50
If wanted with 24x3-1/2" Plain Solid Rubber Tires front and 40x8" Solid Non-Skid Hi-Type Cushion Rubber Tire Rear	882	\$178.75
If wanted with 24x5" Steel Front Wheels and 40x8" Steel Rear Wheels with Special Golf Course Spud Lugs, less Drum Brakes		-(\$248.00)

Accessories

AB464 Electric Lighting Outfit (generator type)		\$56.00
AA1150 Side Power Take-Off	50	\$40.00
AA1200 Automatic Coupler	28	\$16.00
AA1202 Pintle Hook	28	\$18.00
AB913 Front Push Plate Assembly	160	\$30.00
AB914 Front Push Plate Side Extensions, per pair (fits AB913)	70	\$10.00
AB1000 Rear Exhaust and Muffler Assembly		\$12.00

Effective 1937

CHOOSE THE JOHN DEERE TRACTOR *that fits your Farm*

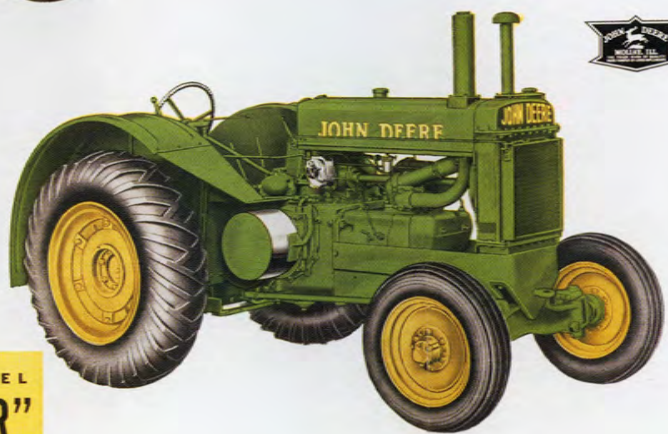


MODEL
"D"

In addition to handling a four-bottom plow in most soils and three bottoms in practically any condition, the Model "D" will pull a 20-foot combine under normal crop and soil conditions . . . double-disk (10-foot) 35 to 45 acres a day . . . single-disk (21-foot) 75 to 100 acres . . . harrow (spike-tooth) over 100 acres . . . field-cultivate (10-foot) from 25 to 40 acres, depending upon soil and depth of cultivation . . . bed (three-row) 50 to 40 acres . . . drill (20x6) 50 or more acres . . . pull and operate a two-row corn picker . . . operate a 28-inch thresher . . . handle many other drawbar, belt, and power-take-off jobs.

A favorite standard tread tractor for open field work on medium-sized farms is the Model "AR", which will pull two 16-inch bottoms under normal conditions, three 14-inch bottoms under favorable conditions, operate a 22-inch thresher. It will plow up to 12 acres in a 10-hour day . . . list 35 to 50 acres . . . drill 25 to 35 acres with a 16x6 grain drill . . . pick (two-row) 10 to 18 acres of corn, depending upon conditions . . . cut 25 to 35 acres of hay with a power mower . . . harvest 35 to 50 acres a day with a 10-foot power binder . . . do all kinds of belt work within its power range.

MODEL
"AR"



**3 Great Models
Famous for
Simple Construction
Economical Performance
Ease of Handling
Long Life**

FOR maximum economy and satisfaction you want the tractor of your choice to fit your farm. Oversized power means that you are not operating your tractor at peak efficiency. Undersized power, on the other hand, means high labor costs, longer hours in the field, untimely operations. With the three great standard tread tractors shown here, John Deere gives you the size of power that your farm requires. Moreover, you get a tractor that for seventeen years has been outstanding for its economy of operation, its dependability of performance, its ease of handling.

Smooth, Dependable Power Gets the Work Done

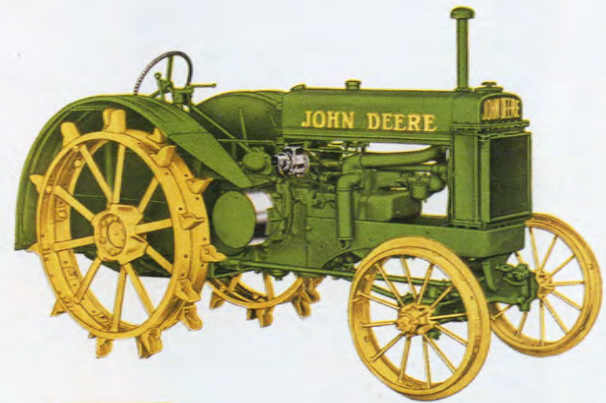
Of exclusive two-cylinder engine design, with a straight-line transmission, you have smooth, unflinching power that sticks right to the task . . . that makes big jobs seem like little ones. Proper distribution of weight, again the result of two-cylinder engine design, gives you maximum traction at all times . . . on the level . . . on hillsides . . . through rough spots in the field.

With the belt pulley mounted directly on the crankshaft, all the power of the engine is delivered to the belt. Thanks to a governor so sensitive that it almost anticipates the load, you have the smooth, responsive power that means a better job of threshing, grinding, shredding, as well as of plowing, disking, combining.

Outstanding Mechanical Advantages

Equally outstanding are the mechanical features of these tractors: the efficient, thermo-siphon cooling system . . . the shaft-driven fan . . . the effective oil-wash air cleaner . . . the positive, full-pressure lubrication system . . . the crankcase breather and ventilator . . . the short, heated manifold . . . the radiator shutter controlled from the tractor seat . . . the swinging drawbar . . . the replaceable oil filter that doubles the life of oil . . . the flexible front axle . . . the automatic oiling of transmission and differential.

Check these and all the other advantages of owning a John Deere standard tread tractor. You'll soon join that ever-increasing proportion of farmers in all sections of the country who say with pride — "Mine's a two-cylinder John Deere."



MODEL
"BR"

For the smaller farm, or as a supplementary tractor on the larger farm, the Model "BR" Tractor is ideal. It will pull two 14-inch bottoms in most soils. In a 10-hour day, the Model "BR" will plow up to 7 acres . . . list 8 to 12 acres . . . single-disk 35 to 45 acres with a 10-foot harrow . . . drill 20 to 30 acres . . . cut 25 to 35 acres with a power mower . . . harvest 25 to 35 acres a day with an 8-foot binder . . . and, within its power, operate many belt-driven machines.

The "BR" is in good company with the "AR" and "D". While the "D" beat the "AR" by a decade in receiving the "styling" treatment, the "B" Standard Treads never made it. The "BR" and "BO" were discontinued in 1947, the "BI" in 1941. Unfortunately, few Model "BR" Tractors are seen on original steel today.



Although Model "BR" Tractors were intended to serve as the primary tractors on small grain farms or as the secondary tractor on larger farms, they were also a practical choice for applications such as golf course maintenance. This early unit (note the front wheels) is pulling a gang mower around the Arsenal Golf Course at Rock Island, Illinois, in April 1936.



This early 1939 "BR" has the B1305R Cylinder Block with compression-relief cocks, but also has the flat-spoke steering wheel. This was the last year for the hump in the platform over the PTO, for the pressed steel wheels not having the four slots next to the rim, and for the wing nut on the seat bucket bolt. The implement is a No. 222 Disk Tiller.



John Deere Model "BO" Tractor with disk harrow. The photo was taken in 1935 near Buena Park, California. An identifying feature of "B" Series Standard Treads, versus the "A" Series, is the center-located oval radiator cap. Note the protective shields over the air intake and in front of the fuel and gasoline caps, and the location of the ribs on the fender.



A side view of the tractor shown on page 4 shows the effective design of the shields, intended to keep branches from damaging or removing the protected parts. Although this photo was taken in Florida, conditions and crop are remarkably similar to those pictured in California on the preceding page.



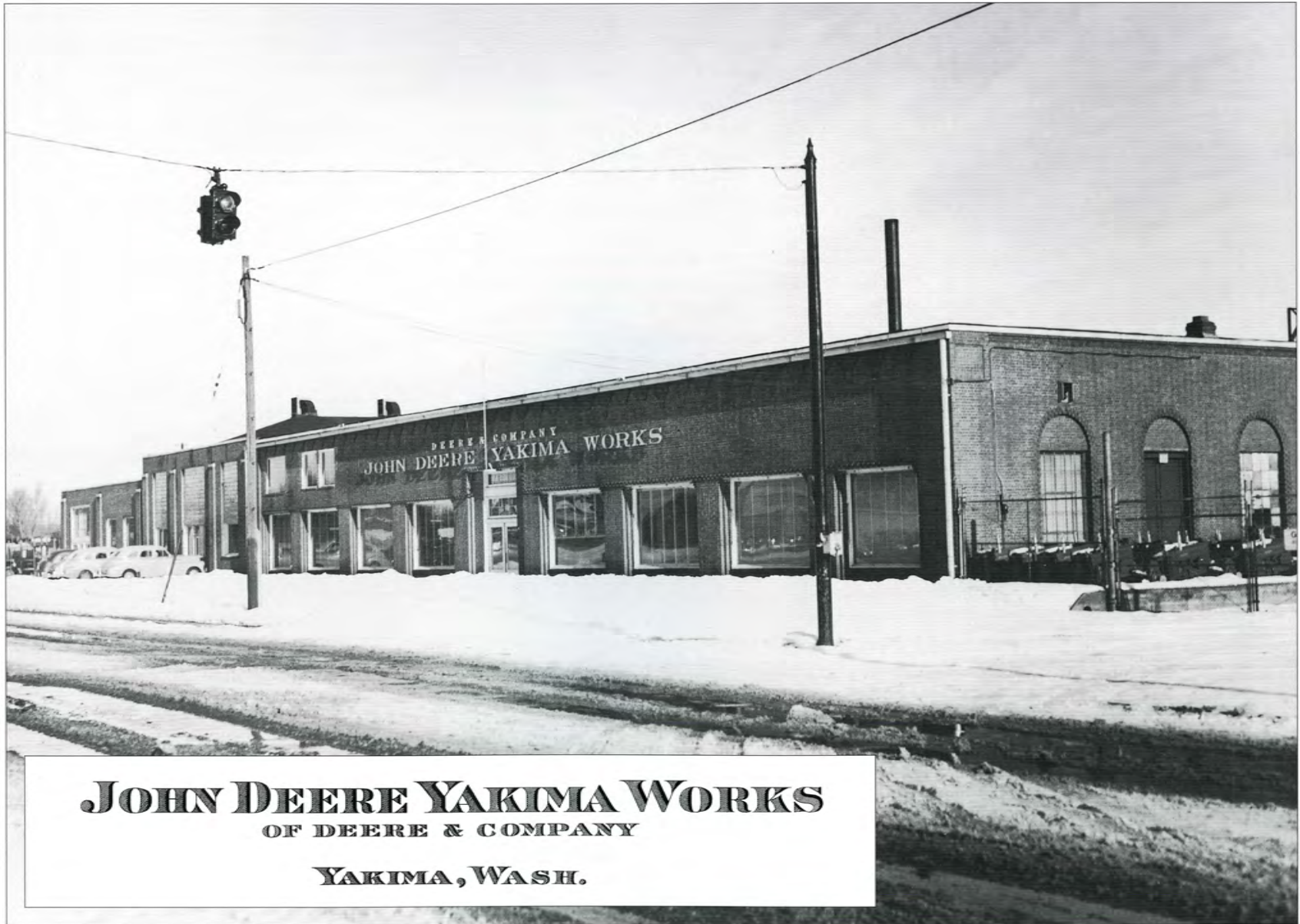
Rarest of the "B" Series Standard Treads, only 183 Model "B1" Tractors were built. Note the set-back front axle and machined front support (frame) of the tractor, as well as the industrial yellow paint job with black lettering. The equipment is a No. 30 Trailer with 1000-gallon Street Flusher.



The "BI" shown here is equipped for display of several pieces of equipment normally used individually. From the front: Detroit Street Sweeper and Snow Brush, John Deere Street Flusher and Sprinkler Unit (mounted on the No. 30 Trailer), and a "Caterpillar" No. 4 Hi-Way Patrol (road grader).



Lindeman-John Deere Model "BO" Crawler Tractor with 6-foot Killefer Chisel Plow. The terrain and often wet conditions were the inspiration behind the Lindeman Power Equipment Co. effort to develop a successful crawler attachment. The operator is identified as C.R. Chapman, Ashland, Oregon, May 1941.



JOHN DEERE YAKIMA WORKS
OF DEERE & COMPANY
YAKIMA, WASH.

The relationship began to develop in 1930 and in 1947 the company Jesse Lindeman started in 1923 became the John Deere Yakima Works. It remained in operation until 1954, at which time Deere transferred operations to Dubuque and other plants. Inset: Actual size letterhead from stationery of the John Deere Yakima Works.