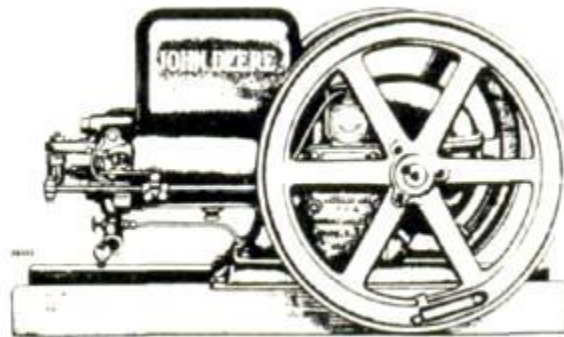
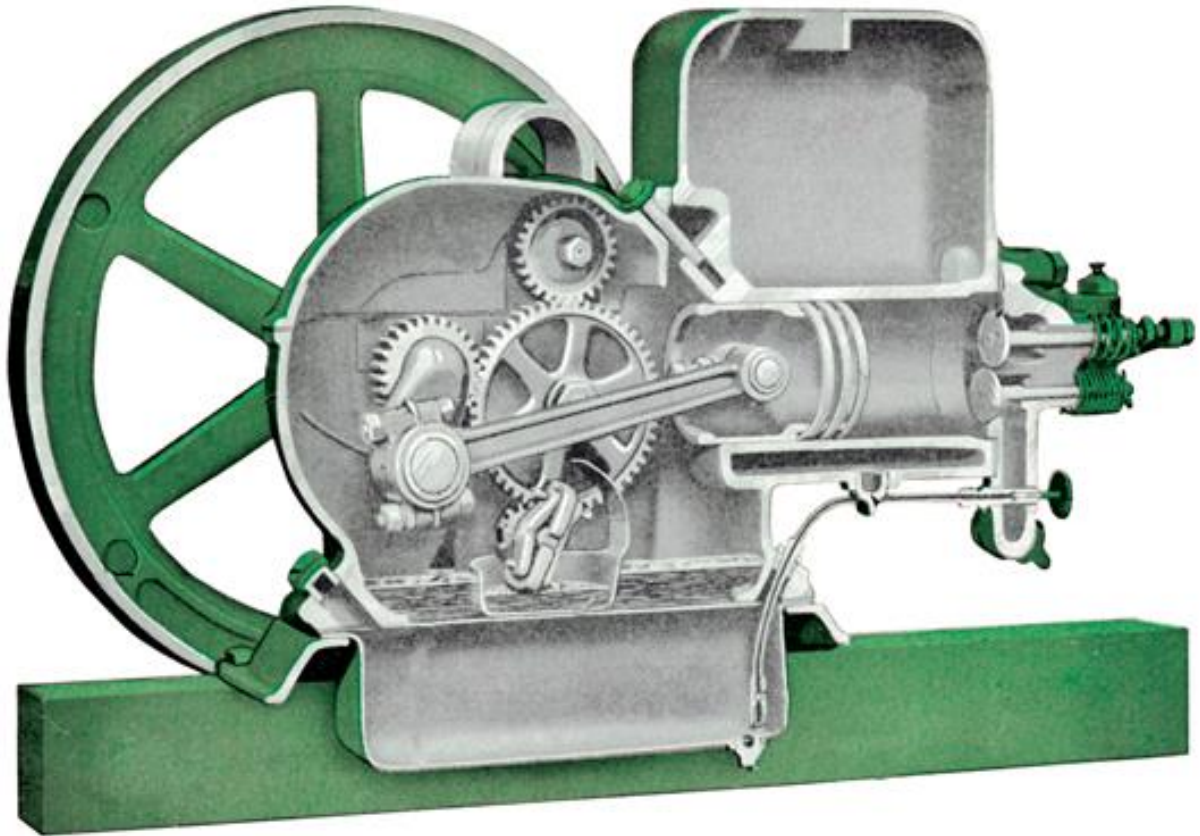


# The John Deere Model E Gasoline Engine

By Stanley Bessent

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# JOHN DEERE TYPE E GASOLINE ENGINE

THE ENCLOSED ENGINE THAT OILS ITSELF

## Better Farm Power For the Entire Family

The John Deere has no green spots to fill—no right hand where to watch. The gears, cylinder, bearings, in fact all important working parts are automatically oiled within the fan-pool case.

The John Deere requires not one moment's attention from the time you start it until the fuel is exhausted.

No dust, dirt or other foreign matter can get into the working parts to cause wear, loss of power, and repair expense.

The gears are enclosed, no shafts are exposed. The John Deere is safe for the woman folk to run and is easy to start under all weather conditions.

This illustration shows the John Deere Type E 3 H.P. engine and the John Deere Pump Jack as illustrated below.



## John Deere Direct Drive Pumping Outfit and Pump Jack

The John Deere Direct Drive Pump Jack consists of the John Deere Type E 1, 2, 3 H. P. engine and the John Deere Pump Jack as illustrated below.

This compact outfit may be used anywhere—in the barnyard, in the yard, right among the stacks—there are no tubes, chains or gears for the stock to get into. It will operate without attention until the fuel is exhausted.

The outfit has ample water and oil supply to protect the fuel supply.

The outfit has a steady and reliable delivery of water under all conditions. It is the ideal outfit for the stockman.



### The 3 H. P. John Deere Type E



### Features That Make the John Deere Smooth-Running, Long Lived, Easy to Operate

- All parts thoroughly oiled by a simple automatic oiling system.
- All parts completely enclosed in a more proved fan-pool method than all foreign makes.
- No green spots or areas to fill and to watch for oiling matters.
- Single step to start and stop and operate—engine automatically to oil.
- Speed can be changed by a simple adjustment while engine is running.
- Variable oil temperature working parts are hardened to wear away.
- Smooth-running, rigidly constructed without vibration—moving parts are carefully balanced.
- Easy to start—negative suction fan, hot spark—simple fuel system—simple oiler of fuel and oil—simple for all kinds of weather with-out starting difficulties.

In March of 1918 the Waterloo Gasoline Engine Company was bought by Deere & Company. For about 8 years Deere & Company continued to manufacture Waterloo Boy Gasoline engines at Waterloo, Iowa. In 1923 Deere & Company introduced the John Deere model E gasoline engine. They continued to manufacture this engine in 3 sizes (1, 3, and 6 Horsepower) until 1946 with very few and very minor changes in the design of the engine.

The smallest and most numerous of the model E is the 1 HP. This engine has a 3" bore and a 4" stroke. The shipping weight is listed at 226 pounds. This engine has hit and miss ignition, an igniter, and a low tension magneto. The head was a "dry" head with the fuel mixer cast as a part of the head. The gasoline tank is mounted below the flat oil pan and between the skids. The engine features an enclosed crankcase. Oiling of the engine is accomplished with an oil cup mounted on the oil pan. The balls of the governor rotate inside this cup of oil and splash oil to all parts of the engine. An improvement in this oil splash system was made to the 1 HP engine in 1933 beginning with engine No. 326572. The round oil cup was replaced with a larger rectangular cup and an extension similar to a paint stirrer was made onto the governor plunger to splash more oil.

The lack of crankcase ventilation was and still is the cause of many complaints about this engine. If the gaskets are not sealed well or if the piston rings or cylinder are worn this engine will blow an undesirable amount of oil past the main bearings and magneto gear onto the body of the engine. Many homemade remedies were devised to relieve this lack of crankcase ventilation. Most common was a hole cut in the top of the crankcase cover and a pipe brazed in the hole. In 1933 John Deere changed the crankcase cover of the 1 HP engine to include a crankcase ventilation valve with a leather and a metal washer which moved up and down with the crankcase blow by. When the engine was stopped the valve closed to prevent rain and dust from entering the crankcase. No crankcase ventilation was ever provided at the factory for the 3 and 6 HP engines.

The first model E engines had a brass identification tag attached to the rear of the sub-base. After this the identification was cast in the governor cover in raised letters. The first inscription on the governor cover reads "Waterloo Gasoline Engine Company, Waterloo, Iowa, USA" then the type, horsepower and RPM. Later the inscription was "John Deere" and then gave the HP and RPM. On the early "brass tag" models the serial number is on this tag. After the brass tag was discontinued the serial number was stamped on a brass or aluminum band which was riveted at the top of the governor cover above the identification.

Some 1 HP engines were equipped with a spark plug instead of an igniter. These engines were all sparked by a battery and buzz coil. No high tension magneto was ever manufactured for them. The model E was also manufactured in a kerosene model which was designated as model EK. These models are quite scarce in this country as almost all of them were exported.

The history of the 3 HP model E engine is much the same as the 1 HP with the following differences: The 3 HP is equipped with a "wet" head and a mixer which can be removed from

the head with two bolts. The 3 HP model E has a bore of 4" and a stroke of 5". Shipping weight is listed at 338 pounds. Very few changes in design were made on the 3 HP size.

One version of the 3 HP size differed radically from any of the other John Deere engines. It was a spark plug model designated model EP. This engine was designed primarily to power John Deere implements, however it could be easily removed and used as an all-purpose engine. The model EP has an enclosed exhaust rod, has crankcase ventilation, and an air cleaner on the mixer. The head was cast with a rectangular box cast with the head which completely enclosed the valves and exhaust lever when the cast iron cover was bolted on. This engine was sparked by a Wico high tension magneto Type A. This magneto was manufactured in England for John Deere.

Largest of these engines is the 6 HP size. It has a bore of 6' and a stroke of 7'. Its shipping weight is 698 pounds. It features a priming cup on the side of the cylinder. Up until engine No. 265316 the 6 HP had the same size key on the camshaft as did the other sizes of the engine. Evidently this key proved to be too small as a larger key was used with engine No. 265317 and all 6 HP engines thereafter.

No changes were made in any size of this engine after 1933 until production ceased in 1946.

At almost every engine show someone advances the theory that the first 2 digits of the John Deere's serial number represents the year the engine was built. This is only a myth. John Deere Model E engines were numbered in succession without regard to the year, engine size, or engine type. Below is a list of John Deere serial numbers and years which was copied at the John Deere Company archives:

Year

Serial Number series

1923

235001-235520

1924

235521-239584

1925

239585-251330

1926

251331-267415

1927

267416-278809

1928  
278810-293418

1929  
293419-309640

1939  
309641-320082

1931  
320083-324624

1932  
324625-325377

1933  
325378-326780

1934  
326781-330830

1935  
330831-336008

1936  
336009-340879

1937  
340880-346131

1938  
346132-348081

1939  
348082-349924

1940  
349925-352433

1941  
352434-354899

1942

354900-355866

1943

355867-356600

1944

356601-360790

1945

360791-365478

1946

365479-367985

During the years 1923 through 1926 John Deere manufactured the model E engines and also continued making the Waterloo Boy engines. The serial numbers were assigned in numerical succession without regard to the brand "John Deere" or "Waterloo Boy". Therefore in some cases a John Deere serial number may be followed by a Waterloo Boy with the next number or vice versa.

In closing I would like to thank Wally Steding of Fort Dodge, Iowa and Larry Fulk of Columbia City, Indiana. They both patiently answered any questions about the John Deere and both men have a great storehouse of knowledge about the John Deere E.