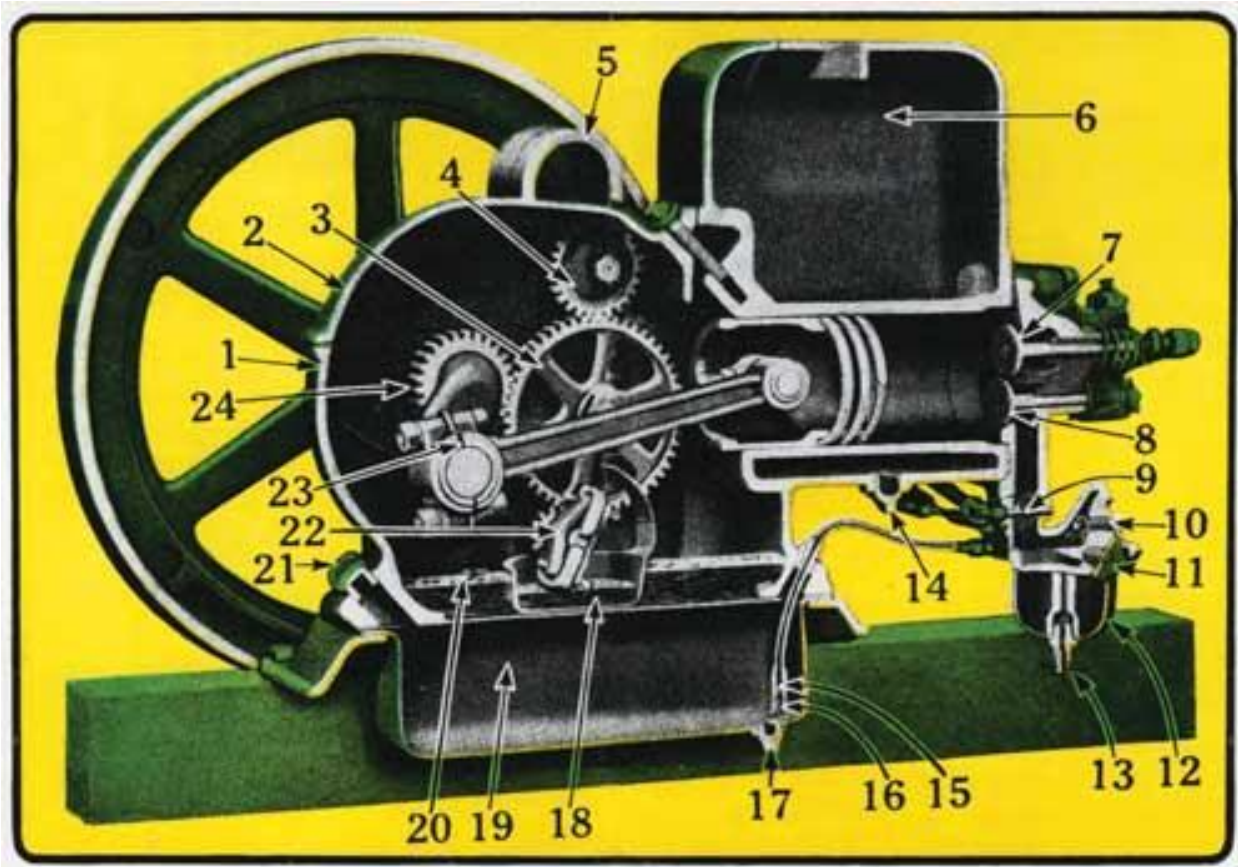


# John Deere EK Engine History

A quick look at the 1926-1946 kerosene John Deere EK engine line.

By Jim White  
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A cutaway drawing of John Deere's kerosene EK engine as shown in a factory brochure.  
*Image courtesy Jim White*













The “decision copy” to build John Deere EK engines was officially stamped May 20, 1926, by special clerk 2159. According to the copy, it states, “We will accept kerosene burning engines (type EK) which will be built from our standard 1-1/2, 3 and 6 hp engines with changes as listed on the reverse side of sheet. There EK engines have been built and tested in the Experimental Department with satisfactory results.”

The original “decision sheet” in the John Deere archives states “estimated production per year: 1-1/2 hp – 200, 3 hp – 150, and 6 hp – 150, with a total of 500.” Also handwritten on the decision sheet is “tools ready August 20.”

The first three EK engines shipped from John Deere were serial numbers 258067 – 1-1/2 hp, 258068 – 3 hp and 258069 – 6 hp, all going to Bulgaria and a shipping date of June 24, 1926. (An interesting note handwritten in the engine ledger states “returned, C.M. 5145.”) No explanation is given for the return of these engines or date of return.

According to the ledger, it appears for several years only Model E engines were manufactured, an example being 1935 and 1936. In the ledger the engines are listed as E, but handwritten in ink, a “K” is written beside the “E” and a note in ink “changed to EK.” My 6 hp EK was originally listed as an E, but changed to an EK at the factory on June 23, 1936, and exported July 25, 1936.

Serial numbers were assigned to the engines as they were produced, with no numbers being broken out for any particular model or horsepower. An example being number 271832 – 1-1/2 hp E, 271833 – 6 hp EK and 271834 – 1-1/2 hp E.

Because of the large number of EK engines produced, I randomly selected two months to give production numbers: October 1927: 27 – 1-1/2 hp EK, 30 – 3 hp EK and 33 – 6 hp EK.

June 1927: 107 – 1-1/2 hp EK, 35 – 3 hp EK and 19 – 6 hp EK.

An interesting fact is, in 1931 several 1-1/2 hp EK engines had a prefix listed in the ledger of “AD” before the serial number, and likewise some 3 hp EK had listed a “BD” prefix. (I once owned a 3 hp EK with serial number BD324129). No explanation was given as to why the letter prefix was there.

Several EK engines were shipped to distribution houses in the U.S., with hundreds going to New York and smaller numbers going to Minneapolis, Minnesota; Kansas City, Mo.; Bloomington, Illinois; Dallas, Texas; Arizona and other locations.

Major foreign countries receiving EK engines are numerous, but include Denmark, India, Argentina, South Africa, Finland, Canada and Australia. The last three EK engines were shipped as follows: 364036, a 1-1/2 hp EK, to Argentina; 634953, a 3 hp EK, shipped to Argentina; and 352033, a 6 hp EK, shipped to Canada. Total production of the John Deere EK engines was 5431.



## **EK differences**

The main difference between a John Deere E and EK is that the EK is a throttling governor, kerosene burning engine. The major visual difference is the large brass carburetor attached to the bottom of the head by two bolts, and a steel gasoline reservoir on the bottom of the carburetor. There are also some differences in the governor box parts and several pieces of linkage to work the butterfly in the throttle body.

The 1-1/2 hp EK has a different cylinder head than an E, with a flat area machined on the bottom of the head so the carburetor can be bolted to it, and a place machined on the side of the head so linkage may be attached. I have always run EKs on gasoline, but David Cave says “they are a little messy running on kerosene.” He indicated they smoked, smelled bad, and did not run as smooth. Each horsepower size EK has a different size carburetor.

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