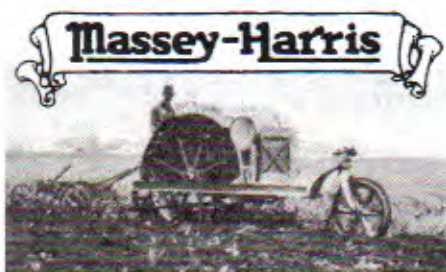


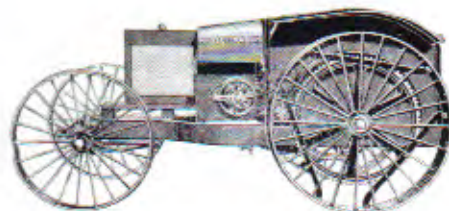


The Canada Connection

Massey-Harris Weston Series *by Rick Mannen*



Massey-Harris added the big Bull tractor to its catalog in 1917 in order to have a tractor to fill out the line and to help with the World War I food production crisis. This 12-24hp rated tractor, which is shown plowing in western Canada, was built in Minneapolis. It was not really a sales success for Massey-Harris.



Massey-Harris introduced its first tractor built in its own shops at the Manitoba Provincial Exhibition at Brandon in July 1918. Touted as the "Victory Tractor" in hopes of stirring patriotic emotions during World War I, it became better known as the No. 1 tractor.

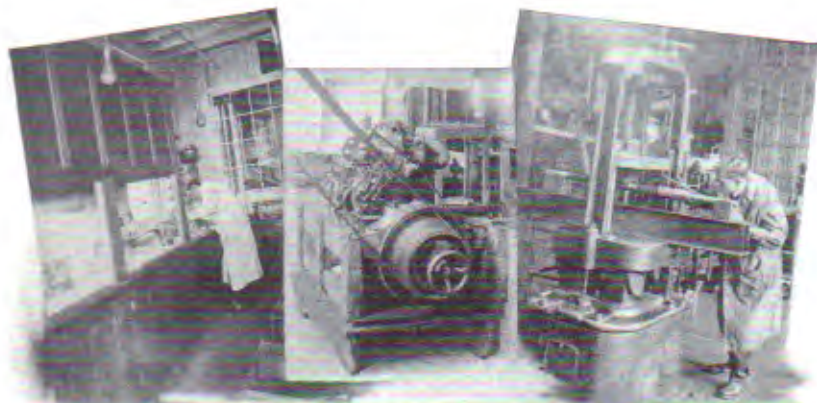
Massey-Harris was a venerable old Canadian farm equipment company that eventually grew to full-line status and worldwide reach, but it was surprisingly slow getting into the tractor game. The company didn't start producing tractors until 1918.

The first, a 12-25hp Victory Tractor (see *Antique Power* May/June 2008), was produced at the Massey-Harris downtown Toronto works. That the Victory Tractor drew its inspiration from the Dent Parrett design from the United States is self evident. Production quickly shifted to the new works in Weston, Ontario, which was placed in operation in 1919. This marked the beginning of a short series of tractors—the Weston tractors—that presaged Massey-Harris and its successor Massey Ferguson becoming one of the largest tractor builders in the world.

Parrotting Parrett

Dent Parrett is credited with a patent for a compact, compound steam motor (U.S. Patent No. 875,453), but turned his attention to the notion of a lightweight, gasoline farm tractor. Historian R.B. Gray wrote that Parrett designed and built his first tractor in Ottawa, Illinois, in 1911.

In 1913, in association with his brother Henry, Dent organized the Parrett Tractor Co., which is said to have built 30 tractors in its first year. The Parrett design was set out in several U.S. patents from 1915 to 1917 (No. 1,149,403, No. 1,231,292 and No. D51,424). The company re-established in Chicago Heights in 1915, and production was boosted to 300 tractors its first year there. The models E 10-20, H 12-25, and K 15-30 established the Parrett-style of 4-cylinder, crossmotor tractors with the radiator facing sideways and with high front wheels.



Inside the new Weston, Ontario, tractor works, Massey-Harris personnel also tested tractor components. Engines were put through exhaustive brake testing, and other components were placed under stress to prove their "wear-ability."



The main frames for the Massey-Harris tractors were built up from 7-inch structural steel and were hot-riveted together in the fashion of a bridge. While one man worked the pneumatic riveter another held the head of the white-hot rivet from below. The finished frame had to be square and true for all vital components to be aligned.

Massey-Harris inked a deal with Parrett Tractor Co. on March 5, 1918, giving Massey-Harris exclusive rights to manufacture and sell the 12-25hp-style tractors in Canada for three years and the rights to sole distribution in the United Kingdom, Australia, New Zealand, and other areas. Massey-Harris would pay Parrett a royalty of \$10 per tractor with a minimum payment of \$3,000 in the first year of the contract and \$5 per tractor in subsequent years.

The first machines built by Massey-Harris were introduced at the Provincial Exhibition in Brandon, Manitoba, in July 1918. The tractor was marketed in a patriotic fashion in those World War I years as the Victory Tractor, and it was powered by a 4-cylinder Buda model TU engine.

Tractor No. 2

By the spring of 1920, an improved version of the tractor was available to farmers. Massey-Harris marketed it as the No. 2 tractor, and after this, the Victory Tractor became more commonly known as the No. 1, including in Massey-Harris references. The No. 2 was essentially the same machine except for some improvements to the Buda engine upgraded to a model HTU, added gear shielding, and a new rating of 12-22hp. This tractor closely resembled the Parrett model H 12-25, although the Massey-Harris tractor used a two-speed transmission (see specifications) where Parrett had three speeds.

Tractor No. 3

Meanwhile in 1920, Dent Parrett sold his share of the Parrett tractor company in Chicago and went to work with Massey-Harris, where he was involved in tractor design. Indeed, some references suggest that he was head of experimental tractor design there. He may have had a hand in designing the last of the Massey-Harris Weston Series with the No. 3 tractor of circa 1921.

This outfit was of slightly larger capacity and was fitted with a Waukesha model DU10A engine and had a 15-28hp rating (see specifications). The radiator was turned to face forward in what would become the conventional position for all tractors. British tractor historian Stuart Gibbard suggests that the No. 3 might be related to a short-lived Parrett design, the 16-28 of similar style using a Midwest engine. The Massey-Harris No. 3, with its Waukesha power plant, was then a tractor unique to Massey-Harris.

Weston Series

In Massey-Harris literature, some of the design features of the Weston Series were highlighted, such as the heavy, 7-inch

channel steel frame said to be built like a bridge with heavy cross members all hot-riveted together. The high wheels were touted as saving power because they would travel over rough ground easily. The tractors had an 11-foot turning radius. As much as possible, vital components were enclosed for protection from dust. Massey-Harris produced a wide range of implements to accompany its tractors.

Massey-Harris re-inked a deal with the Parrett company in Illinois on April 5, 1921, renewing the \$5-per-unit royalty with a clause allowing either party to terminate the agreement with three months' notice. The Parrett Tractor Co. had closed shop by

Massey-Harris No. 2 Tractor

12 H.P.
on the Drawbar



22 H.P.
on the Brake

The Canadian-Built Tractor for Canadian Farms

Write for full particulars or see the Massey-Harris Agent

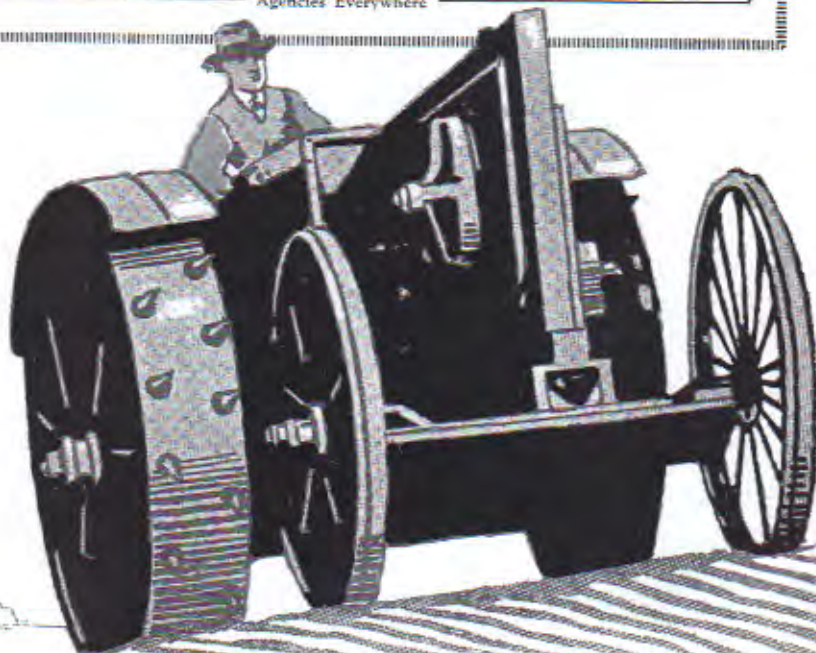
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NO detail, no matter how seemingly unimportant, is slighted in the Massey-Harris No. 2 Tractor. Every part is given that careful attention that makes for strength and durability. It is the Tractor built by Canadians to meet Canadian conditions.

Massey-Harris Tractor

is just the right size for the average farm, 12 H.P. on the Draw Bar and 22 H.P. on the Brake, and it is so simple that any farmer can easily operate it.

Send to the Branch Office nearest you for Folder giving full information, or

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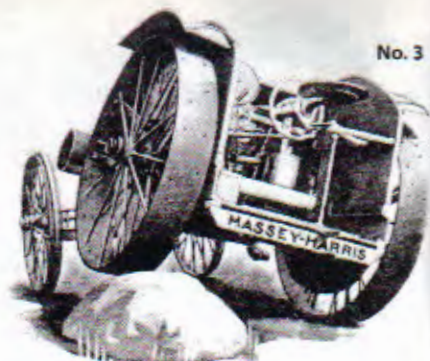
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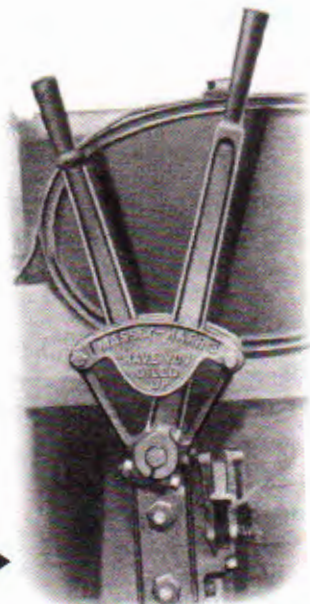
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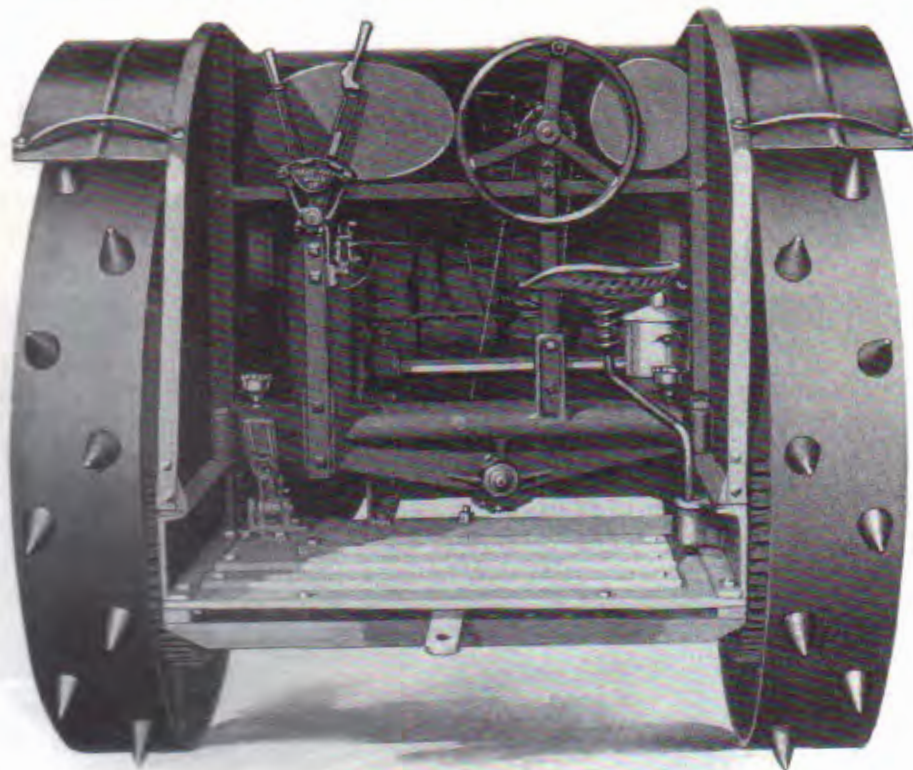
No. 3



Tractor companies liked to show the rugged flexibility of their designs with stunt shots, such as this. This may, however, have thwarted the efforts of the lowly riveters back in the Weston plant who maybe never expected their work to be put to such a test.



The command and control area of the Massey-Harris No. 2 tractor offered the ultimate in comfort with a spring-loaded seat in 1920. And yes, did you remember to oil up? ▼



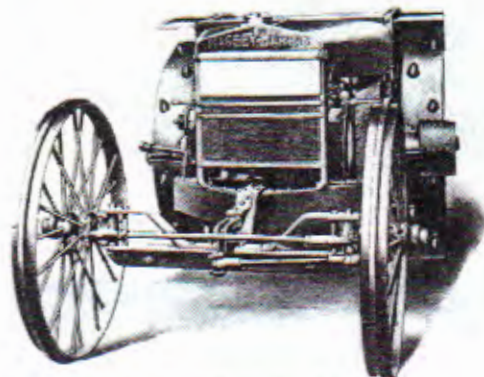
1922. Dent Parrett is said to have left Massey-Harris in 1923, and as it happened, this was the last year of tractor production at Weston. Dent Parrett moved on to an extended career in tractor design with smaller cultivating units of his own design.

Massey-Harris took a short hiatus from tractor production, although it began selling the Wallis line of tractors by 1927. In 1928, it purchased the J.I. Case Plow Works of Racine, Wisconsin, and got the Wallis line in the deal. This was a separate entity from the J.I. Case Threshing Machine Co., also of Racine, that made Case-branded tractors. Massey-Harris quickly sold the Case Plow name back to J.I. Case for a tidy sum, thus avoiding any brand confusion, but Massey-Harris retained the factory and Wallis line, and tractor production was then centered at Racine.

For a Canadian company, Massey-Harris built very few tractors in the homeland. Prior to building the Weston Series, it sold the Bull tractors that were made in the United States. Other tractors built at a Canadian plant were the post-World War II Pony and Pacer models at Woodstock, Ontario, in the old Bain wagon works. Implement and combine production became the forte of the Massey-Harris and Massey Ferguson Canadian plants. In later years, Massey Ferguson built heavy four-wheel-drive tractors and Perkins diesel engines at the Brantford, Ontario, combine works.



Many companies placed their radiators facing to the side because it simplified the drive arrangements for the cooling fan and cost less to produce. A straight, pulley-driven belt was easy as opposed to the bevel gears or twisted belt arrangements needed for turning corners on front-facing systems.



The attractive Massey-Harris No. 3 tractor was as close to a unique design as one could get from the Weston Series. The extended belt pulley is clearly shown along with the radiator curtain that provided for warmer engine temperatures to help when burning kerosene.

It would be interesting to know if any examples of the Victory, or No. 1 tractor, have been preserved. An unusual machine in a Saskatchewan museum deserves more study and may well be one of the early tractors. About 30 of the No. 2 are known, and only three of the No. 3. It is thought that fewer than 600 tractors were built in the Weston Series. Existing serial numbers have led to some confusion, though, because numbers range from the low 500s to the mid-3,000s. A Weston-series tractor is a fine addition to any collection today. 🛠️

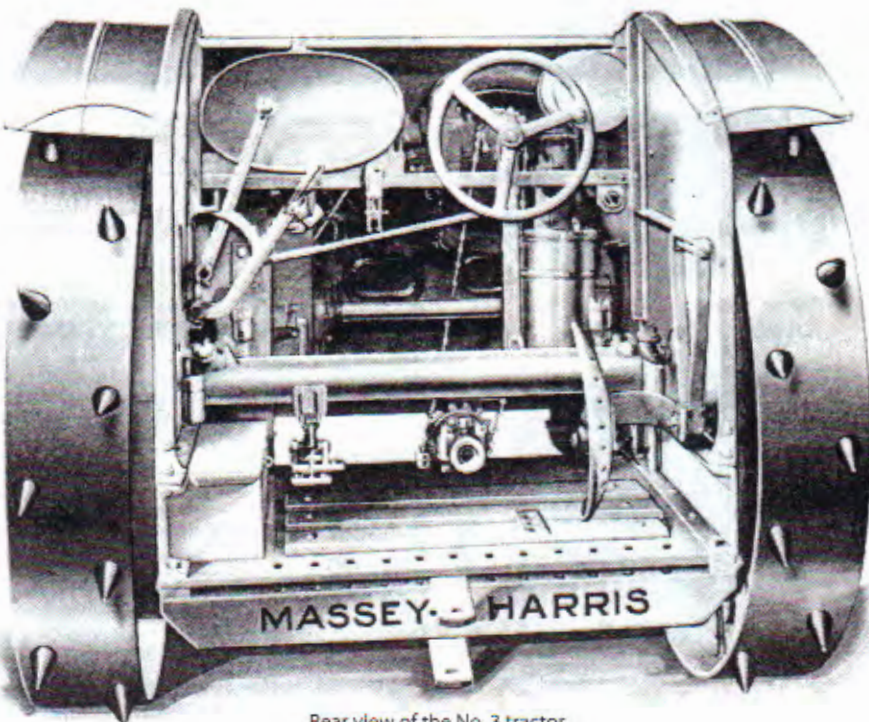
Source materials include The Agricultural Tractor 1855–1950 by R.B. Gray, ASAE, 1975; Antique Power magazine; Old Tractor magazine; and contemporary periodicals. Thank you goes to Jim Gordon, Peter Ledwith, Gary Oechsner, Craig Sitter, and Bud Tierney for their kind help.



All decked out after full restorations, a No. 3 (left) and a No. 2 tractor make a fine pair at a show at the former Ontario Agricultural Museum. The No. 3 takes on a more modern look with its forward-facing radiator. Other major changes in power plant, clutch, and drive components gave the No. 3 an extended drive pulley where the belt was run to the outside of the front wheel.



The operator can get plenty of leverage on the crank to turn the Waukesha engine of this No. 3 model over compression. Retard the spark, set the choke, get the throttle just right, make sure the tractor is out of gear, and ensure that your tongue is just protruding from the correct side of your mouth and that ol' girl should start every time.

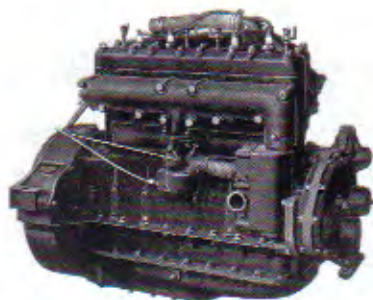


Rear view of the No. 3 tractor

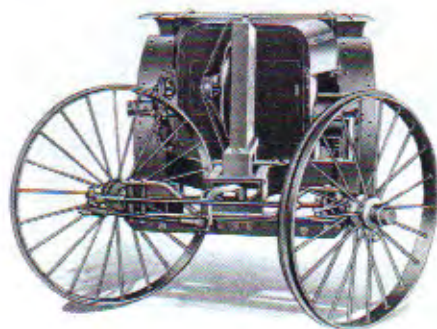
Massey-Harris NO. 2



No. 2 three-plate enclosed clutch



Buda HTU engine for No. 2 tractor with internal oiling system

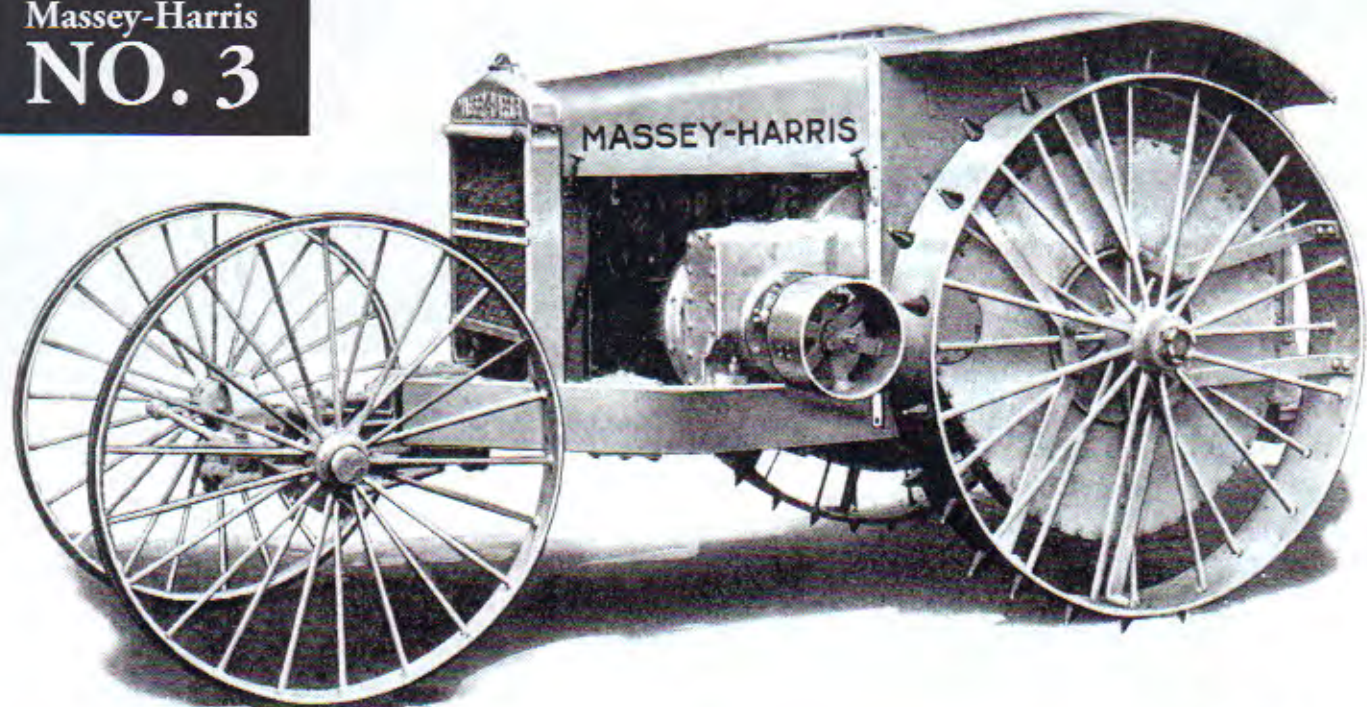


No. 2 with side-facing radiator

MASSEY-HARRIS NO. 2 SPECIFICATIONS

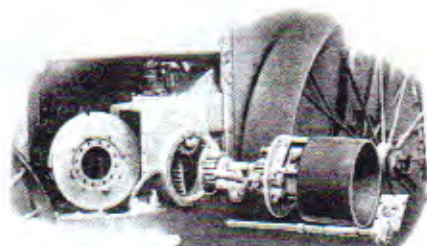
Engine	4-cylinder Buda model HTU
	4.25-inch bore and 5.5-inch stroke running at 1,000 rpm
	Kingston model L carburetor for gasoline and kerosene fuels
	Ignition via Kingston model LD high-tension magneto with impulse start
	Positive internal oiling system
	Water bath-type intake air cleaner
Transmission	Spur gear type
	Speeds: Two forward, 1.75 and 2.4 mph; one reverse, 1.8 mph
	Three-plate, enclosed, oil bath clutch
	Foot brake operating on drum on gear
Belt Pulley	12-inch diameter; 7-inch, leather-lined face
	Running at 1,000 rpm for belt speed of 3,142 feet per minute
Dimensions	Length: 12 feet
	Width: 6 feet
	Height: 5 feet, 6 inches
	Wheelbase: 92 inches
	Weight: 5,200 pounds
	Drawbar 19 inches from ground, pivoted ahead of rear axle
Advertised Power	15hp on drawbar; 22hp on belt pulley
	3,000-pound pull at drawbar
	Capacity: Three 14-inch plows
Wheels	Front: 46-inch diameter; 4-inch tread
	Rear: 60-inch diameter; 10-inch tread
	Optional rear wheel equipment: cone lugs (caulks); 2- or 3-inch angle steel lugs same width as wheel; 3-inch angle steel lugs extending 6 inches beyond wheel; spade lugs
Other	Fuel tank capacity
	Gasoline for starting: 2 Imperial gallons
	Kerosene for working: 16 Imperial gallons
	Water capacity: 3 Imperial gallons

Massey-Harris NO. 3

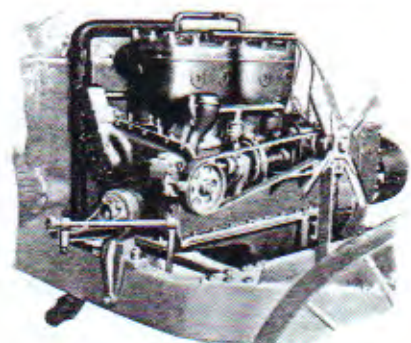


MASSEY-HARRIS NO. 3 SPECIFICATIONS

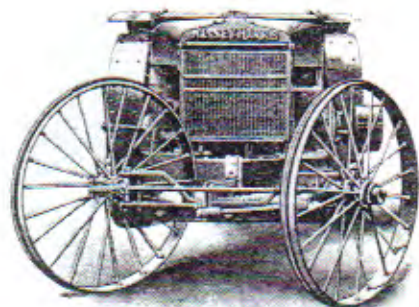
Engine	4-cylinder Waukesha model DU10A
	4.5-inch bore and 6.25-inch stroke running at 1,000 rpm
	Kingston model L carburetor for gasoline and kerosene fuels
	Ignition via high-tension magneto with impulse start
	Internal oiling system
	Water bath-type intake air cleaner
Transmission	Spur gear type
	Speeds: two forward, 2.5 and 3.25 mph; one reverse, 2 mph
	Three-plate, enclosed, oil bath clutch
Belt Pulley	12-inch diameter; 8-inch, leather-lined face
	Running at 1,000 rpm for belt speed of 3,142 feet per minute
	Note: Belt runs outside of left front wheel
Dimensions	Length: 12 feet, 9 inches
	Width: 6 feet, 6 inches
	Height: 5 feet, 7.5 inches
	Wheelbase: 92 inches
	Weight: 5,800 pounds
	Double drawbar: 14- and 19-inch ground clearance; 36-inch lateral adjustment
Advertised Power	15hp on drawbar; 28hp on belt pulley
	3,000-pound drawbar pull
	Capacity: Three 14-inch plows
Wheels	Front: 46-inch diameter; 4-inch tread
	Rear: 60-inch diameter; 10-inch tread
	Optional rear wheel equipment: cone lugs (caulks); 2- or 3-inch angle steel lugs same width as wheel; 3-inch angle steel lugs extending 6 inches beyond wheel; spade lugs
Other	Fuel tank capacity
	Gasoline for starting: 2.5 Imperial gallons
	Kerosene for working: 19 Imperial gallons



No. 3 clutch mechanism and belt pulley



Model DU10A Waukesha power plant in a No. 3 tractor



No. 3 with front-facing radiator.

Note: for specifications of the Massey-Harris Victory Tractor (No. 1), refer to the *Antique Power* May/June 2008 issue, page 19.