

# Sparta Economy Engine News

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About mid-1912 and near the 25,000 serial number mark, new model 4, 6, 8 and 10 HP engines were introduced. They were the model CX. They had a lot of characteristics that would be used extensively in the Hercules line of en-

gines to be introduced in early 1914. Please note that the 2 HP size was not redesigned but remained as the model CA.

New features of these larger size CX model Economy engines included a new design water cooled head, a spring loaded intake valve latch, a new design side rod, a new blade type igniter trip and eventually an Elkhart low tension magneto. The accompanying pictures illustrate these features.

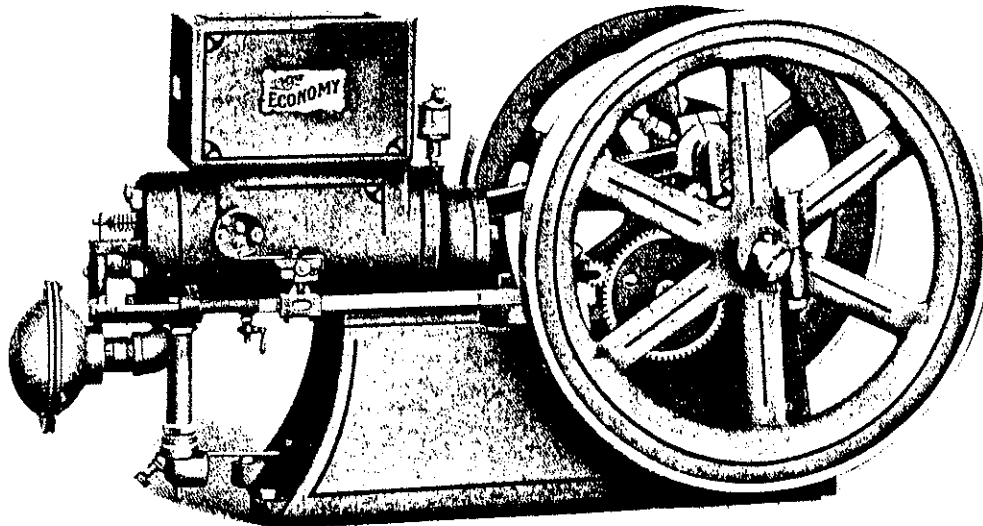
On the new head, the intake and exhaust positions have been reversed

from previous models with the intake toward the igniter side and the exhaust toward the off side.

These new design model CX engines had the serial number tag located on the front of the water hopper. For the first time a decal was put on the igniter side of the water hopper.

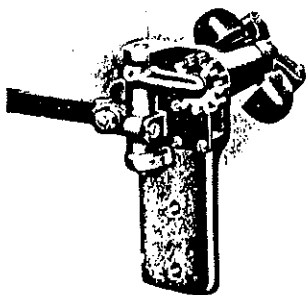
Specifications for these engines are shown in the chart on the next page.

Since last report, 18 more Sparta Economy engines have been made known along with three more Waterloo Economys. The Spartas now total about



## How Economy Gasoline Engines Are Governed

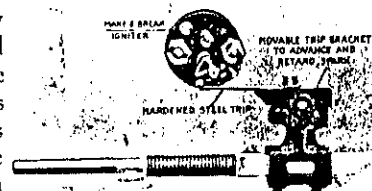
THE GOVERNOR ON AN ECONOMY GASOLINE ENGINE IS VERY SIMPLE, of the hit and miss fly ball type, as we have found this type to be more sensitive than any other. The fly ball governor has been in use on steam engines ever since they were first made and there is no doubt but what they control the speed of a steam engine very satisfactorily. The Economy governor is made along the same lines and works in the same way. When the engine runs beyond its regular speed, the governor balls widen their circuit, causing the lever on the governor to catch the rod that runs along the side of the engine. This holds the exhaust valve open, shuts off the gasoline and stops the spark. This not only controls the speed of the engine, but saves gasoline and the batteries.



The Governor.

## The Ignition

For the ignition of Economy Gasoline Engines we furnish a Stand-By Multiple Battery with spark coil. A switch is provided and the outfit is wired complete all ready to attach to the make and break igniter on the engine. The movable electrode on the igniter is operated by the hardened steel trip. This brings the points together on the inside of the engine so that when the trip slips off the contact is broken and the spark occurs, igniting the charge inside the cylinder. This hardened steel trip can be adjusted so as to keep the spark in the right position to give the best results.



Igniter and Igniter Trip.

360 that I am aware of.

The Elkhart magneto was an option on the 4 and 6 HP and standard on the 8 and 10 HP. The Elkhart magneto text in the catalog states, "Start the engine right from the magneto - no batteries, no coil, no switch, only one wire. All you have to do is fill the tank with gasoline, open the gasoline valve, turn over the flywheels and away she goes". The guy that wrote that probably never had to start one of the things. Most of my engines do not have that cooperative attitude. ○



HP	Bore	Stroke	RPM	Flywheel diameter	Actual weight	Crankshaft diameter	Price
4	4.5"	9"	400	26"	650lb	1.75"	\$ 74.45
6	5.5	10	375	30	1000	2.00	110.95
8	6.5	12	350	36	1585	2.25	157.95
10	7.5	13	300	42	2175	2.50	231.50