

The Truth about using a “Lawn Mower Battery” in a Power Wheel Vehicle

E-bay has numerous vendors selling instructions on how to convert a power wheel to use a single 12 Volt battery. Heck, I even sell one in my Tech Topics series. Unlike the rest, however, I specifically recommend against using a \$15 Walmart Garden Tractor battery. Not just because of the liquid acid inside that could burn your child if the case is ruptured OR the real chance of a battery explosion during recharging (among other safety problems), but because it doesn't make economic sense. To understand why, you have to know a little about the different types of Batteries.

\$15 Walmart Garden Tractor batteries are known as **SLI** batteries. This stands for **Starting, Lighting, Ignition**. This type of battery is commonly called a **Starting Battery**. Starting batteries are usually rated in CCA (Cold Cranking Amps). Starting batteries main purpose in life is to provide a lot of Amps for a very short time. It **IS NOT** designed to be discharged more than 3% of its capacity. Starting batteries are constructed with many thin porous lead plates to ensure high amps for rapid discharges. If a starting battery is discharged more than 5% of its capacity, it's life is severely shortened from sulfate build up inside the battery. By shortened, I mean **REALLY** shortened, like shortened to **30 - 50** total cycles shortened (1 charge/discharge is a cycle). This is exactly what you DON'T want in your power wheels vehicle. Ads that claim you can “Ride All Day” using a Garden Tractor Battery, don't tell you that you have only 29 more days like this before the battery is completely worthless, with each riding session shorter than the last.

Power Wheel Vehicles require **DEEP CYCLE** batteries. Deep Cycle Batteries are usually rated in Amp Hours. These batteries are designed to be discharged 20% - 50% of their capacity and then recharged hundreds, if not thousands of times. Deep Cycle Batteries are made with fewer, thicker and solid lead plates and produce much less peak current over a longer period of time. A similar sized Deep Cycle battery will outlast an SLI battery in Power Wheel usage anywhere from **2X** to **10X** and this is an Amps to Amps comparison, taking into account the SLI battery could have 5 times the amp hours of the deep cycle battery.

From an economic standpoint, a \$15 Garden Tractor battery makes no sense. Not when the equivalent 12 Volts in deep cycle batteries can be purchased for about \$30 - \$40, shipped to your door off E-bay. I won't even go into the safety problems of using a garden tractor battery as those should be obvious: (liquid acid, high amps, hydrogen explosion possibility, terminal corrosion, etc.).

And before anyone accuses me of being in the pocket of Big Battery, I've got no connection with any battery vendor. I'm just a parent of a kid who likes to drive power wheels. You don't have to believe me, either. I recommend you do an Internet search on the differences between Deep Cycle and SLI batteries. You might even come to the same conclusion I have.