**ParCar, Briggs & Stratton unveil revolutionary electric motor system**

**By Andrew Overbeck**

REEDSBURG, Wis. — In a unique joint venture agreement with Briggs & Stratton, Columbia ParCar Corp. has unveiled its new, more efficient ACE Electromotive Power System in select golf car and utility vehicle models.

The new cars use Briggs & Stratton’s new Etek electric motor system that utilizes neodymium permanent magnet technology allowing for a motor that is 50 percent smaller and 20 pounds lighter. As a result, the new ACE EPS 48v Electric Eagle golf car is 10 to 15 percent more efficient and 30 pounds lighter.

"By utilizing a permanent magnet motor, there is no need to use battery energy to generate a magnetic field," said Ward Utterback, ParCar’s manager of sales and marketing support. "The power is used more efficiently, significantly reducing heat energy loss, thus providing more energy for motion."

According to Utterback, the new car’s efficiencies will add up to cost savings. "You can get more rounds of golf per car, spend less time charging and save electricity," he said. "In addition you can control speed with the accelerator, leading to less brake wear."

**A FIRST FOR BRIGGS & STRATTON**

Sensing a market shift towards electric power sources, Briggs & Stratton, which makes 11 million gasoline engines a year, saw a need to diversify into making electric motors.

"If things keep going electric, like they have in golf cars, we need to get involved in electric motors," said John Fiorenza, director of business development for Briggs & Stratton. Briggs & Stratton, which has been developing the permanent magnet system for the past five years and holds a patent on the motor, formed a joint venture with ParCar to get the motor

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**Davey Golf rolls out laser mapping technology**

**By Andrew Overbeck**

DALLAS, Texas — Davey Golf has teamed up with Aerotec LLC to provide a high-tech alternative to conventional aerial topographic maps. LiDAR mapping technology, which is used primarily for mapping cellular sites and power transmission lines, was developed by NASA and later used by the U.S. military during the Gulf War for missile guidance systems.

Aerotec is one of the commercial suppliers of the technology and is offering LiDAR mapping services exclusively through Davey Golf.

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The system, which is faster, more accurate and less expensive than conventional mapping technologies, was introduced to the golf course industry at Dallas National Golf Club, which is currently being developed by TSC Golf.

"The developers needed a topographic map of the site," said Jack Swaye of Davey Golf, a division of the Davey Tree Expert Co. "They had tried conventional survey methods, which were becoming time-consuming and expensive because of the site’s size and vegetation.

"By utilizing LiDAR technology, we were able to develop the site in a matter of months," said Swaye. "The technology allows us to create a detailed map of the site that is used to design the course and install the irrigation system."