

OF THE OUTDOORS | GARY HOWEY

Marine Battery Care Tips

BY GARY HOWEY

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It's that time of the year when anglers and boaters have or are thinking about tarping up their boat and storing it for the winter. Even though your boat is in storage, this is the time of the year that's hardest on your boat batteries.

When it comes to boat batteries, most anglers and boaters put them in the boat and pretty much forget about them until their boat won't start.

They might throw a charge in the battery from time to time, but that's about it when it comes to boat maintenance for most boat owners.

I would bet most average boaters don't have the foggiest notion when it comes to what



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type of battery works best and what needs to be done when it comes to proper care/maintenance of a marine battery.

Recently I've had talks about marine batteries with several marine battery specialist and they shared their knowledge on marine batteries with me.

The question that I put to them was "I know there's a difference between an automotive and a marine battery, but I'm really not sure what those differences are, can you explain that difference to me?"

"There's a big difference between a used to start a car and one used in the marine industry.

Automotive batteries are made so they produce a high amount of energy for a short period of time. When a car is started only a small amount of the batteries capacity is used. Once the vehicles started, the alternator recharges the battery rapidly.

There are two basic types of



PHOTO: OUTDOORSMEN PRODUCTIONS
Before tarping up your boat and storing it for winter, your batteries should be checked and charged, as winter is the time of the year that's hardest on your batteries.

marine batteries, there are those designed to start your main engine and those made specifically for your electronics and trolling motors.

Batteries for starting your motor are your cranking batteries and those used for trolling batteries are deep-cycle batteries.

The difference between the two is the way they are constructed and by the type and number of plates in the case.

Cranking battery has more thin lead plates than a deep-cycle battery, giving better bursts of energy for a fast start. A deep-cycle battery has fewer but thicker plates and will provide better power output over an extended period of time.

Thicker plates can withstand the higher temperatures created when heavy current is drawn down from the battery over an extended run time.

You don't want to substitute a cranking battery for electronic-trolling motor use. A cranking battery in a deep cycle application will overheat quickly.

All batteries use lead plates that are separated by spacers and immersed in a solution of some type of an electrolyte. Traditional lead-acid batteries contain a mixture of about 35 percent sulfuric acid and 65 percent dis-

tilled water.

As batteries are used, they'll generate heat which evaporates the water, exposing the lead plates. Exposed plates are subject to overheating and warping. When plates warp and touch an adjacent plate, it won't be long before you'll be buying a new battery.

To avoid this problem, you'll want to keep from introducing contaminants like chlorine into your battery, never use tap water to top off the fluid in a battery. Distilled water is always the best choice.

When a battery is discharged, there will be sulfur deposits that form on the lead plates. When you recharge the battery, the sulfur will dissolve back into electrolyte. This sulfur oxidizes the plates and can shorten battery life. If these sulfur deposits become large enough they can short out the plates prematurely, cutting the battery's life down dramatically. That's why it's important to recharge batteries promptly after use and check water levels frequently, preventing sulfur from forming and solidifying.

Another type of battery used for marine purposes is the Gel cell battery which generally cost about twice as much as a wet-cell

battery; however, gels are not as prone to sulfur buildup. Another plus when it comes to gel cells is the safety factor. Since gel cells are sealed, they won't spill acid when tipped over or sloshed by heavy waves. Another factor is that gels aren't subject to the danger of explosion that's possible under certain conditions with lead-acid batteries.

When purchasing a marine battery, it's good to know how batteries are rated and the terms used that indicate information about the battery.

A couple of these terms that you should understand are MCA@32° (Marine Cranking Amps at 32 degrees Fahrenheit), CCA@0° (Cold Cranking Amps at 0 degrees Fahrenheit), and Ah (Ampere-hour rating).

The Marine Cranking Ampere (MCA) rating refers to the number of amps a battery can support for 30 seconds at a temperature of approximately 32°F.

Cold-Cranking Amps (CCA) of an automotive battery is the amount of current a given battery can deliver for 30 seconds at zero (0) degrees F.

An ampere-hour (Ah) rating refers to the capacity of a battery. A typical battery that's rated as a 100Ah battery, at the 10 hour rate of discharge, is capable of delivering 10A for 10 hours.

Hopefully, you won't need to do a whole lot of cranking at 0° or lower, but the reason this temperature is used for the rating standard is that batteries are at their lowest efficiency under really cold conditions. A battery that has high ratings under the worst conditions will perform even better during moderate or ideal conditions.

When it comes to the size of a battery needed, it's better to have a marine battery that's larger than required to do the job rather than one that's too small.

One thing that you'll need to take into consideration is the amount of space you have to store the battery in the boat. The larger the amperage of the battery, the larger the battery will be.

For motors up to 60 horsepower it's recommended that you use a 465 MCA. If you're running a 150 hp or larger motor, you're going to need a 500 MCA.

Because marine deep-cycle batteries are built with larger plates than an automotive battery, they have to take repeated charging. Because of this, the charging requirements are different than those of a standard automotive battery.

Marine batteries work the best when they are recharged after each trip. If you don't recharge them after each trip, your battery will develop a memory and when you recharge it, you'll find that it won't take a full charge.

"It's very important when charging a deep cycle battery that you use a 'true' deep cycle charger. A 10 amp regular automatic charger with a deep cycle setting works very well to recharge marine batteries. Voltage is the key to charging deep cycles. With the right charger you'll be able to charge your marine battery 40% faster using a deep cycle charger."

In the winter, it's recommended that prior to storing your boat for the winter that you charge up the battery, if possible, it's also a good idea to hook up your charger and put a charge into your batteries from time to time during the winter to make sure that they survive through the cold weather and are ready to go in the spring when you're ready to head for the water.

With proper care/ maintenance, clean connections, and correct charging, your marine battery will last for years.

Gary Howey, Hartington, Neb., is a former tournament angler, hunting and fishing guide. His award winning television series *Outdoorsmen Adventures* can be seen throughout the upper Midwest on Fox affiliates. He and Simon Fuller co-host the *Outdoor Adventures radio program* on KVHT 106.3 FM and ESPN Radio 1570 AM Monday-Friday. For more information on the shows and the outdoors, check out www.outdoorsmenadventures.com.

OUTDOORS DIGEST

S.D. Conservation Officer Honored Posthumously

PIERRE — A South Dakota Department of Game, Fish and Parks conservation officer who lost his battle with cancer this past summer is being honored in the naming of the agency's Boating Law Enforcement Officer of the Year Award.

Brook Brown served as conservation officer for Hamlin County in northeastern South Dakota. This past spring he was named recipient of the boating officer award. Now his peers have dedicated the award in his memory, and it will be known in the future as the Brook Brown Boating Law Enforcement Officer of the Year Award.

"Brook spent many hours on and off the water patrolling the lakes as well as attending association meetings, educating residents and answering questions," said Conservation Officer Supervisor Kraig Haase. "Brook's dedication to serving the public was evident by his enthusiasm and strong work ethic. There were not many summer weekends that Brook could not be found working on the water or at the lake."

Brown focused his patrol time on educating the boating public and building a close working relationship between GFP and the different stakeholders in his area. When asked to take on additional duties, such as his work during the 2011 Missouri River flooding in both Pierre and Dakota Dunes, he was willing and able to take on those challenges.

One of his achievements on Lake Poinsett, where water levels peaked at five feet above the ordinary high water mark, was to work with the lake association to create a no-wake boating zone to protect shoreline and structures.

Mountain Lion Shot Near Ainsworth

LINCOLN, Neb. — A male mountain lion was shot by a deer hunter Nov. 10, the opening day of the November firearm deer season. The incident occurred about 10 miles northeast of Ainsworth in Brown County.

The hunter reported the shooting to a Nebraska Game and Parks Commission conservation officer. According to the hunter, the cat walked parallel to him at about 35 yards as he left his hunting blind, made eye contact with him, then circled in front of the hunter's path. A subsequent investigation concluded the hunter was justified in killing the 150-pound animal.

By law, a person may kill a mountain lion without a permit only if it "stalks, attacks, or shows unprovoked aggression toward such person or another person," or if it is in the act of preying on livestock. Unlawful killing of a mountain lion is punishable by a fine of up to \$1,000 and up to three months in jail.

Santee Boat Basin Temporarily Closing Dec. 3

LINCOLN, Neb. — Missouri River waterfowl hunters should be aware of the temporary closure of the boat basin at Santee Recreation Area on Monday, Dec. 3.

The U.S. Army Corps of Engineers will dredge the basin to improve boating access. The basin and boat ramp, located just east of Santee in Knox County, will be closed for approximately two weeks.

As alternates, hunters may use the boat ramps at Bazile Creek Wildlife Management Area east of Niobrara off Nebraska Hwy. 12 and at Miller Creek Recreation Area east of Santee at Lewis and Clark State Recreation Area.

Parker

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ting errors than we normally make. In that last set, we missed a few serves right at the beginning. That took any momentum that we would have had away."

Parker scored the first two points of the final set. They then committed the first of two serving errors. Tied 5-11, Arlington came up with the match-deciding run. It started with the Pheasants committing three straight hitting errors. VanBoeckern recorded her final kill to give the Cardinals, who face No. 2 Warner tonight in the championship match, a 9-5

advantage. Weeldryer's last kill put Parker within 13-9 before Boeck had a kill and coupled with Brooklyn Judstra on a block that ended the match.

"In that last rotation when Boeck got up to the front and they got the lead, it was only going to be a matter of time unless we really got on a run of our own," Christensen said. "It was only a matter of time that they were going to get it to her."

Boeck was going early, recording three kills on the Cardinals' first four points en route to a 25-19 first set victory. Parker led from the outset of the second set but had to score the final two points after Arlington tied it 23-24. The Cardinals scored the initial six points in the third and then rolled off 11 straight points

later in the third set to take it 25-12.

Trailing 8-6 in the fourth set, the Pheasants pieced together eight straight points to go up 14-8. The lead ballooned to 20-12 before Arlington went on an 8-2 run to get within 22-20. The Pheasants then scored the final three points to force a deciding fifth set.

"We really wanted to win the fifth set," Weeldryer said. "We had all our hearts into it but just couldn't get it."

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