Charge into Spring

from the Rhumb Line
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With the spring fast approaching and the mercury slowly rising, I find myself thinking about getting my boat ready for another season. One of the things that we all face at this time of year is a dead, or very weak battery.

In all of our talks about safety we rarely give much thought to this potential trouble spot. Charging a battery is not a thoughtless operation. Safe handling of batteries is not an accident. A charging battery gives off hydrogen gas. Mix hydrogen gas with a little air, add a dash of spark and you have the perfect recipe for a bomb. Now that I have your attention I will lay down a few ground rules.

Rule #1: No smoking around a charging battery.
Rule #2: Charging should only be done in a well-ventilated area.
Rule #3: Do not charge batteries while connected to a wiring harness. Sensitive electrical equipment could be damaged.

When disconnecting a battery from the wiring harness remove the wires from negative terminal first. Then remove the wires from the positive terminal. By removing the negative first you will avoid the nasty little spark that will occur if you do it the wrong way. When reconnecting a battery, attach the positive first and then the negative for the same reason.

Once you have safely disconnected the battery you can remove it from its resting place. If you have one of those seventy-pound jobs down in the bowels of your boat you will need a quick trip to the chiropractor before proceeding.

The next step is to determine whether or not the battery needs to be charged. This step involves a simple piece of equipment called a hydrometer. Don't bother looking for one in the kitchen; your wife probably does not have one. A hydrometer is a glass vial with a calibrated weight on the inside. When fluid is drawn into the vial, the weight will float. The height at which the vial floats depends on the specific gravity of the liquid drawn into it. If you draw electrolyte from your battery into the vial and the specific gravity is below 1.225, the battery needs to be charged. If it is above 1.265 if does not need to be charged. The next step is to look for consistency in the cells of the battery. No two cells should have specific gravities that vary more than 10%. So not that we have concluded that the battery is or is not dead without the help of the Ashland coroner, we will proceed with charging the battery.

The first step in charging is to determine the rate of charge. The rate of charge for deep cycle batteries is 20% of the battery's ampere-hour rating. Next, hook up the battery to the charger (remember hook up the positive first then the negative). Do not use the high ampere automotive-type quick chargers or you will overheat and destroy your nice marine battery. Periodically shut off the charger and check the specific gravity of the cells to make sure it is charging.

Finally remember that battery acid is corrosive. Do not get it on your skin, clothes or especially in your eyes. Wear protective gloves, long sleeves and safety goggles. And don't touch your eyes!

If you have read all of this and are still with me, you can now go back to daydreaming about the spring.