

Boater Innovation Award!

Written by Ed Sherman

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OK, so this year I'm starting something new, the Eds Boat Tips Boater Innovation Award. You see every now and then I run into something that demonstrates some very creative effort on the part of a boater to solve a problem. So this year's EBT Innovation Award goes to Dan in Nova Scotia. For what you ask? Check this little beauty out:



So, now you're probably asking, what is it? Well, its an electric outboard engine...conversion. What started out as a burned out Yamaha 40 hp outboard engine is now an electric drive for Dan's homemade pontoon boat that he keeps on a lake in Nova Scotia, Canada. Dan took what was essentially an electric lawn mower motor and had a local machine shop fabricate a coupler and welded mount to affix the motor to the drive shaft on the outboard. For the electrical controls, a golf cart controller box has been added. The whole thing runs at 48 volts DC and Dan is supplying it from some AGM deep-cycle batteries. Totally quiet power that pushes his pontoon around the lake at 6-9 knots.

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So, what are the problems? Well cooling for the motor is the only real issue at this point. Initially getting the right prop pitch was a problem, but that's been resolved. The motor, which is designed to be air cooled is getting warmer than Dan would like when he runs the set-up with the stock motor cover on. Running the drive as shown with the cover off is no problem and the electric motor cools nicely. So, what's he going to do about this little design issue? More innovation. He removed the standard impeller water pump from the mid-section of the motor and has installed a bilge pump motor in its place. The white hose you see at the lower end of the drive motor is routed up through the old engine exhaust cavity and is ultimately going to be connected to a coil of copper pipe that will be wrapped around the motor housing. It in turn will self-drain back down through the drive leg into the lake. Sounds like a plan to me. About the only question I have on that is the duty cycle for the bilge pump motor..... Not sure its rated for continuous duty. Anyhow, nicely done Dan, and congratulations on your award. Look out Torqeedo!