



Technical Information No. 17

Subject	Installation of Electric Winches on Trintella 38
Section	Deck
Content	In this bulletin, a "best practice" example of replacing the standard winches with electric ones on a Trintella 38.

1. Introduction

With the passing years, affecting not only our Trintellas but also our skippers, both the condition of the original winches and physical strength have declined. To continue enjoying the optimal sailing performance of the boat, installing electric winches is often the solution. When sailboats were built in the 70s and 80s, no consideration was given to the later installation of electric winches regarding installation space. Therefore, retrofitting older Trintellas requires considerable creativity to make the most of the available space. After thorough preparations and exploring various possibilities, Ben Verhaaf describes his approach here. The photos clarify the story of the installation.

2. Replacing standard winches

Before switching to electric winches, I first researched the electric winch handles available on the market. However, after a practical test at the Hiswa boat show, I decided against them. They are cumbersome, and you still need to exert force as counter-pressure!

Renovating and electrifying the existing Barlow winches is possible, but after a failed Australian venture, we had to opt for the significantly more expensive complete renewal, choosing the Lewmar EVO50 winches. In hindsight, it seems likely that the larger (and stronger) motors from Barlow would not have fit in the space under the cockpit edge and would have required even more extensive modifications.

We decided to mount the new winches in the same place as the old ones. This choice necessitated several adjustments. The base of the new winches is smaller, so the old mounting holes had to be filled and new ones drilled. This can only be done after carefully determining the exact position of the winch. The sheet must engage the winch drum where the internal drive gear is located. This, in turn, affects the position of the motor below deck. Using cardboard templates, we determined this position. I also made a full-sized cardboard model of the gearbox with the electric motor. As a result, a small portion of both storage compartments in the cockpit had to be sacrificed. Don't be too stingy with this space because you need room to access the bolts under the deck with a wrench. The space is very tight (the order of assembly is crucial due to the limited space between the winch and the flange connection), and curved ring wrenches used in the automotive industry, for example, in

dismantling a gearbox, proved helpful. After a few months of use, it's important to retighten the bolts.

Additionally, careful consideration must be given to how and where to install the power supply and associated equipment. You need thick power cables (70 mm²); otherwise, you lose power, and the cables overheat.

An extra complication on this Trintella 38 was the presence of the filler opening and reservoir for the propeller shaft seal lubricant on the starboard side. The whole assembly was moved to the bulkhead in the aft locker. Mount the filler opening as high as possible to maintain sufficient fluid pressure against the outside water.

After a season of sailing, the experience is that the winches function as desired and are much easier to operate even without the drive. For those who are deterred by the cost (Approximate costs: €6400 for the winches and €2100 extra for labor and cabling. Prices as of 2018), note that reinforcing with epoxy (to restore the strength at the winch location) was entirely outsourced, and the electrical work was partially outsourced. The onboard battery capacity was increased to 350 Ah.

If winch replacement is necessary, you can also choose to first replace just the winches to see if this provides a sufficient solution. If needed, you can add the motors later.

3. Project photo's



Asymmetrical hole at the location of the old winch platform



Space for the winch motor



Unit for installation



New winch platform



Drive mounted -1. Note the sturdy backing plates.



Drive mounted – 2



Inspection hatch for access to the motor



New inspection hatch with control knob



New location for the filler opening of the propeller shaft lubrication and sealing reservoir



The Lewmar EVO 50 electric winch with control knob



Special ring wrench for easy access in tight spaces

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