

Transmission stiff shifting and control cable replacement

Over the week-end, we had an issue with the transmission where it was not possible to shift to forward gear anymore. Few minutes later and too much play with the gear control, I managed to shear the screw in the shift lever, as you can see in the picture below.



sheared screw in my
catalina 36 shift lever

After a safe back-up to the dock, thanks a lot to the help of Philippe Guillaud and his family!
It's now time to fix Hotel Catalina (again)!

Plan!

This issue looks to be current with Edson Pedestal (as all other issues before :)), according to multiple comments online:

- <https://www.catalina36.org/comment/58318#comment-58318>
- <http://c34.org/bbs/index.php/topic,4312.15.html>

So the plan will be to:

1. Remove the sheared screw from the lever
 1. How? Still need to figure it out
2. Replace this screw:

1. https://www.amazon.com/Button-Socket-Screws-Stainless-Quantity/dp/B00YSS9ZAG/ref=sr_1_2?ie=UTF8&qid=1488176791&sr=8-2&keywords=1%2F4-28+x+3%2F4+stainless+steel+screw
3. Check that the transmission shifts easily by itself to make sure the problem is coming from the control cable and not the transmission itself
4. Figure out what size of control cables needs to be ordered:
 1. 14' cable (transmission):
http://www.catalinadirect.com/index.cfm/product/1544_841/engine-control-cable-14br-c-270-c-28-c-310-c-320-c-36.cfm
 2. 15' cable (throttle):
http://www.catalinadirect.com/index.cfm/product/1545_841/engine-control-cable-15brc-34-c-36.cfm
5. Replace the old control cables with a coupling nut (10-32) connecting the old and new one:
 1. <http://www.ebay.com/itm/1JA51-Rod-Coupling-Nut-Grade2-10-32-Pk10-/381002901460>
6. Give some love to the engine parts who need a bit of painting:
 1. metal treatment:
<https://www.amazon.com/0spho-605-Metal-Treatment/dp/B000C02CDG>
 2. paint:
https://www.amazon.com/gp/product/B002JG01VQ/ref=ox_huc_add_on_msg_title_1?m=ATVPDKIKX0DER
 3. Protect the fuel line from chafing, not sure how I missed them during my last chafing protection mission.



Picture from the
control cable to
replace

New priority project on Hotel Catalina! Let's see how many week-end will I need to get it fixed ☐

Helm tear down and fixing

Most of this section is coming from this document from Edson Marine. Edson Marine has been very helpful to answer my questions about the different part numbers I was not able to find around.

<http://www.edsonmarine.com/support/PDFs/installation/EB396EngineControlInstr.PDF>



Edson Pedestal

Remove the broken screw in the 960-A-938 lever assembly

During the issue the screw broke and the gear handle got free:

- 1/4-28 x 3/4" SS screw going to the stainless clutch handle
- <https://www.amazon.com/Button-Socket-Screws-Stainless-Quantity/dp/B00YSS9ZAG/>

Easier than expected! I was able to get it out pretty easily with an easy out screw extractor after I drilled a small hole in it with a 1/16" cobalt drill bit.



1/16" cobalt drill
bit hole

Remove the compass

The 3 first ~~1/4"-20 x 3 1/2"~~ 1/4"-20 x 4" stainless machine screw came out very easily and of course as usual one didn't come at all after a lot of drilling and one drill bit broken I succeeded to get the compass out with only one screw to replace!



compass broken screw

Remove housing

Remove broken ~~$\frac{1}{4}$ "-20 x 3 $\frac{1}{2}$ "~~ $\frac{1}{4}$ "-20 x 4" stainless machine screw

At the beginning based on documentation and online information I ordered by mistake 3 $\frac{1}{2}$ " machine screws where needed 4" long screws.



broken screw
removing method

- $\frac{1}{4}$ "-20 x 4" stainless and should be coated with Tef Gel when installing.
- http://www.edsonmarine.com/marinestore/index.php?main_pa

ge=product_info&products_id=507

Lost lever assembly to control housing screw



Lost lever assembly to
control housing screw

I just had to send a quick email to edson to be able to order the needed screw on boltdepot.com.

Those screws are 8-32 pan head machine screws 3/8" long.

Remove screw holding the cable holder

I was doubtful about this part since it looks tedious to get it back there. But it was not as bad as it looked.



screw holding the
cable holder

Engine room side work

Now I am done on removing the different pieces on the pedestal side, I need to see how it looks on the transmission side.

Transmission control cable holder



Transmission control
cable holder

Pretty rusty but not too difficult to remove.



Pretty rusty but not
too difficult to
remove.

Transmission control cable is now free



Transmission control cable before cleaning



Transmission arm removal



Removed from the transmission but impossible to disconnect the cable from the arm



After some efforts the transmission cable is totally free!

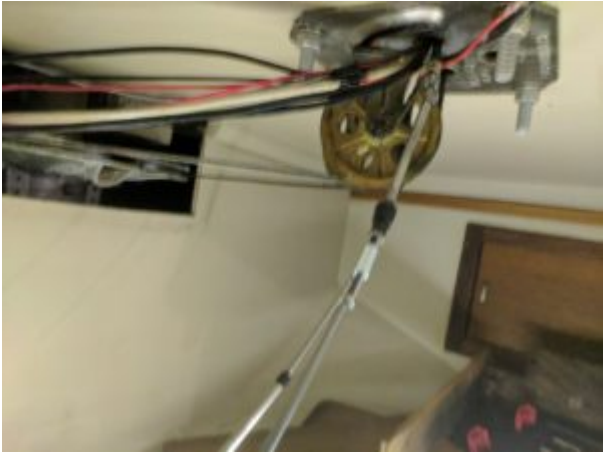


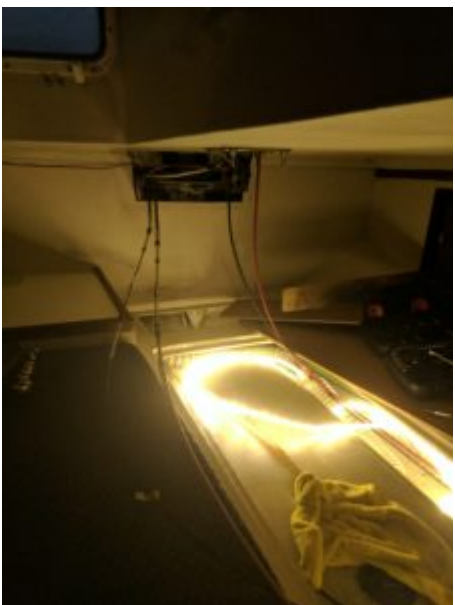
Cables pulling

Time to put a coupling nut (10-32) and

send the new control cables











Old cables removed





New screws from boltdepot.com arrived



Cables replaced. Time to put everything back together at the pedestal









Now at the engine

Bracket cleaned and painted

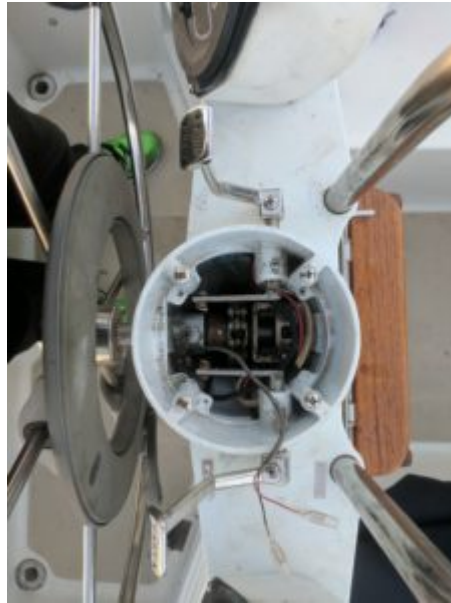


Cables in place



Machines Screw too small for the housing!

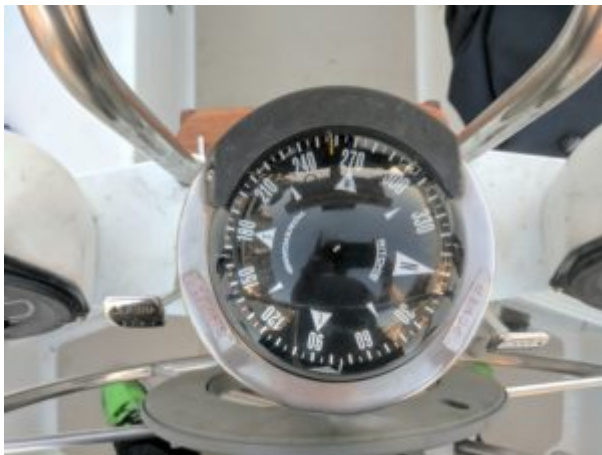
First I went back with the old one before to replace them later on.



Compas LED crimping for easier removal next time



Everything is now back to normal!







This project took me 2 week-ends, and some painting at home. When it happens I thought it will take a lot longer, but it got fixed pretty fast.

More information about this process

Here more good information about this issue:

- <http://www.catalinadirect.com/index.cfm/feature/167/engine-control-cable-replacement.cfm>
- <http://www.edsonmarine.com/support/PDFs/installation/EB396EngineControlInstr.PDF>
- <https://www.catalina36.org/forum/technical-discussion/replacing-edson-shift-cable-pedastle>
- <https://www.catalina36.org/forum/technical-discussion/edson-shift-cables-etc>