Installing A New Diesel Tank In A Leisure 27

When I bought my Leisure27 the original steel diesel tank was out of use because of leakage and a transportable plastic tank was used which was fixed in the cockpit locker.
Because this takes a lot of space there and the plastic tank was only 20 litre I decided to buy a new tank which should be as large as possible as an exchange for the old steel one.

Looking at the available alternatives in the internet I discovered that the available space in the stern (where the steel tank is fitted) does not fit most of the standard tanks. So I inquired for a custom made one. However this turned out to be very expensive so I took a further look.
In Vetus Catalogue I found a suitable 40 litre plastic tank at page 71.
Now came the problem how to get it in place and, worst of all, getting the old one out!

In the reference library at the LOA site I found a story from another L29 owner(situation almost identical to L27) who already told it to be quite a job.
First of all I removed the back of the quarter berth to find out if I could do it from there but that turned out to be impossible.
So I decided to remove the backside of the cockpit as was described in the story mentioned before.
Because my L27 has a wheel steering instead of a tiller I did not have to remove the rudder to get access to the grp part which had to be cut out. Just removing the wheel was enough.

After doing so I first removed the two cabinets where the engine panel and (originally) the speedometer are mounted. That way I got access to the "hole" where the old tank is situated and could have a look for cables etc. which might be cut when cutting through the grp. Now I was ready to make the cuts to remove the grp panel.
ATT: Care must be taken to leave about 3-5 cm flat surfaces around the cut-out to allow a good rebuilt later.

I used an electric jigsaw with a special grp cutting blade which turned out to do a fine job!
Now the old tank had to come out which really wasn't easy. Part of the fixings were at the back of the tank and it took a lot of "fidgeting" around to get the tank out.
After this job I had a look how to install the new tank and found that one of the cockpit drains was in the way and had to be slightly rerouted.

For supporting the new tank I used aluminium angle profile, available in every DIY shop which I bolted through to the stern and the cockpit wall.
The tank itself is strapped to the frame by the nylon straps, supplied with the new tank.

Connecting the deck filling hose turned out to be problematic because the connecting nozzle at the tank was angled but the filler nozzle was right above it in the middle of the stern!
Luckily enough I managed to get a straight nozzle at Vetus who however told me it was out of production nowadays! Otherwise I would have to make a new deck filler at another place on the boat.

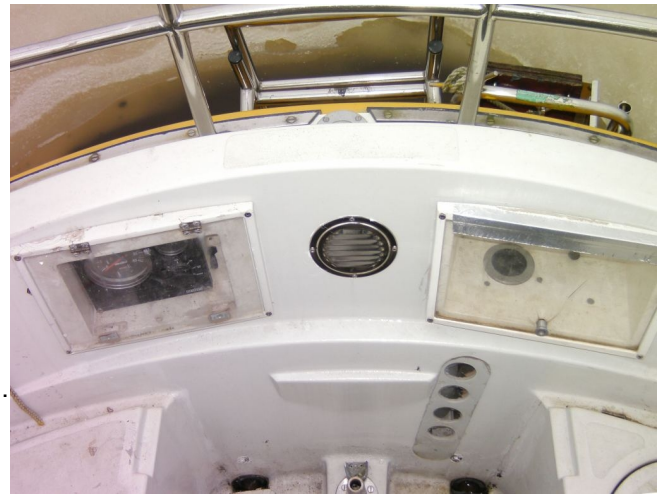
After connecting the fuel lines and filling tube to the tank the time had come to close-up the place again.
To get a smooth finish I glued 12mm plywood strips around the aperture and laminated them over.
That way I got a support to mount the grp part back into place the right way.

First I mounted it only with some screws through the grp and the plywood strips and found out that the grp was not even!
I decided to grind off some of the grp at the back of the grp cover just where it fits to the plywood in such a way that the cover fitted a bit below the surrounding grp. That way this unevenness could be removed by using fibre filled polyester to glue in place the grp cover. This turned out to work fine.

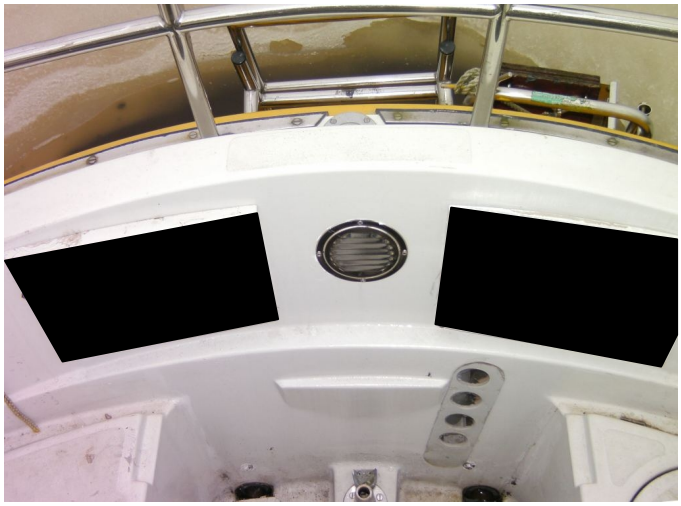
After mixing the filler, I filled up the seams and, after sanding, filling and sanding again I could paint over the seams.
To get the best result I had a tin of two pack polyurethane paint custom mixed to the right colour using the cut out part as a sample. Lucky enough there is a paint shop in my neighbourhood who could order it for me. I got this paint from www.de-ijssel-coatings.nl/_en_00_00_home.asp but this is a Dutch company.

After the paint job everything looked as before!
In the following pictures you can see how the job was done. These were taken on my L27 **after completion** of the job. I was not able to make all photographs because the steering pedestal is in the way and does not allow one to photograph the whole construction.

Because the new tank is transparent I also added the following solution for a level indicator.
I made a series of round holes in the grp and covered them with a 3 mm Perspex sheet. That way I am able to see the fuel level without having to install a fuel gauge

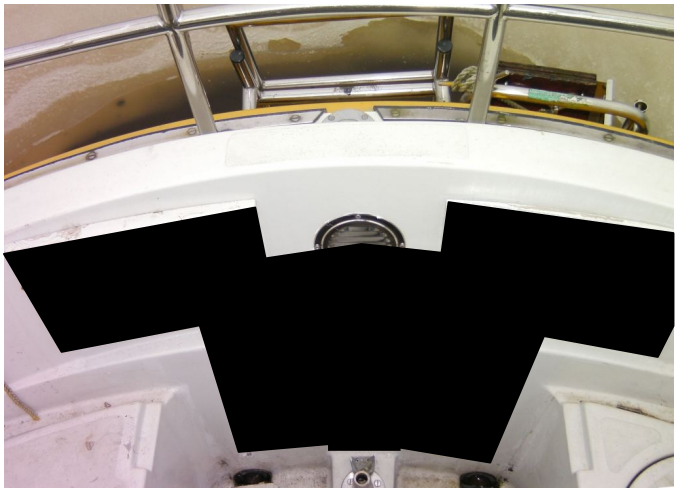


INSTRUMENT AND ENGINEPANEL BEFORE START
(of course without level checking holes)

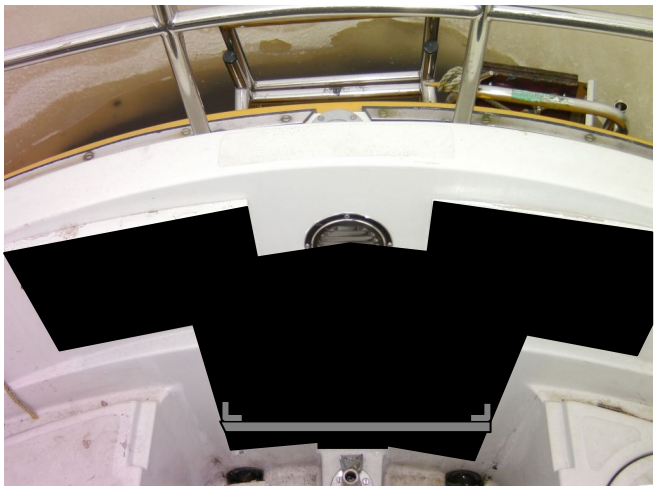


TAKEN OUT

AFTER CUTTING OUT PANEL



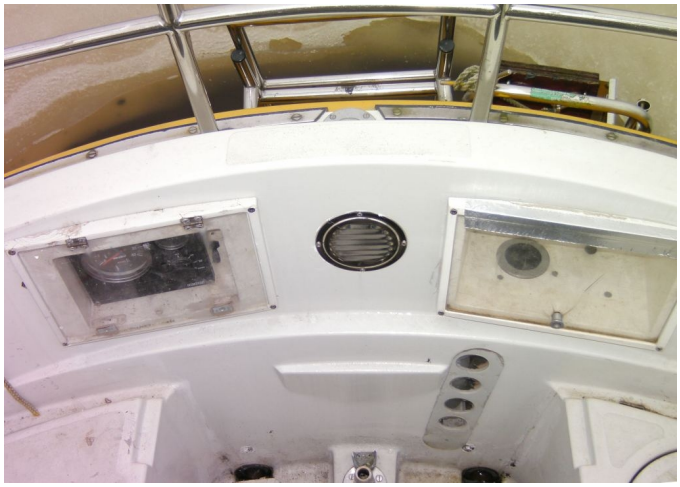
AFTER REMOVING OLD TANK



ALUMINUM SUPPORT FRAME INSTALLED

NEW TANK INSTALLED and
Strapped to Frame

PLYWOOD SUPPORT RIBS LAMINATED



FINISHED WITH INSTALLED FUEL LEVEL SIGHTING GUAGE