

M25XPB Heat exchanger Leak

After 2 weeks ownership we decided to go out for a small cruise, still the stress of the docking and undocking of this huge to us boat. Fortunately we will not have to dock it back ourselves this time!

Just out of the marina we started to hear the noise of the high temperature alarm yelling at us. Time to turn off the engine. Calling the radio and getting a free ride to our slip by the cost guard ☐

After few calls and some troubleshooting we realized the issue was a leaking heat exchanger. Learning the hard way...

I posted first these troubleshooting notes on the Catalina 36 user association, if you have a Catalina 36 I highly recommend to join as a paying member. You will get more content and receive mainsheet magazine once a quarter.

Troubleshooting

In the process to troubleshoot the leak we discovered it was the time to replace the heat exchanger!

Yesterday I removed it from its very unaccessible location. I will definitely mount it back aft at one point.

Once removed I was able to read the part number / SKU: Seakamp 200420 and take some measurements.

Now here is my question, do I replace with the exact same model? And where should I buy it?

Some pictures of the little guy ☐



seakamp 200420
m25xpb heat
exchanger 1



seakamp 200420
m25xpb heat
exchanger 2



seakamp 200420
m25xpb heat
exchanger 3

For the inches to mm value, I was using my vernier caliper, and not sure if it's in metric or standard. So maybe some numbers are a bit off, also since I guess this heat exchanger didn't move for the last 10 years, they are not the exact value.

So far I saw the required part there:

- \$436.80: <http://www.mrcool.us/200420cn-universal-westerbke-medalist-heat-exchanger.html>
- \$496.08: <http://inetmarine.com/skuni200420cnheatexchanger.aspx>

One other option would be to bring it to a radiator shop, have them clean it up, and give the outside a good coat of paint (or powder coat), but not sure about who I could ask to do that here in LA? And does it worth it? I have the feeling it needs more than a clean up.

Especially since it was leaking.

Heat exchanger replacement

So I decided to replace it with the SEAKAMP model shipped by Mr Cool (<http://www.mrcool.us/200420cn-universal-westerbeke-medalist-heat-exchang...>(link is external)). For now, I just replaced in the same location as it was before, the ultimate goal is to move it aft, but I want to avoid adding more troubleshooting for now.

The heat exchanger came with brackets AND clamps as you can see in this picture:



universal-medalist-200420cn

So I felt a bit concerned about the brackets shipped with the HE, if I use them, I don't see how I can use the clamps.

This is how it looked at first:



hotel catalina catalina36
seakamp 200420

Updated my setup, look a bit more pretty, even if it will be way better when I will move it the way Matthew from Catalina 36 forum suggested it!



Radiator flushing

I also did few (ok a lot of them) flush of my radiator since it seems a lot of salted water has been living on the fresh water side of the cooling system.

To do that I used a Water Quality TDS Tester, cheap tool found on amazon (<https://www.amazon.com/gp/product/B002C0A7ZY>) to measure how salty the remaining coolant was.

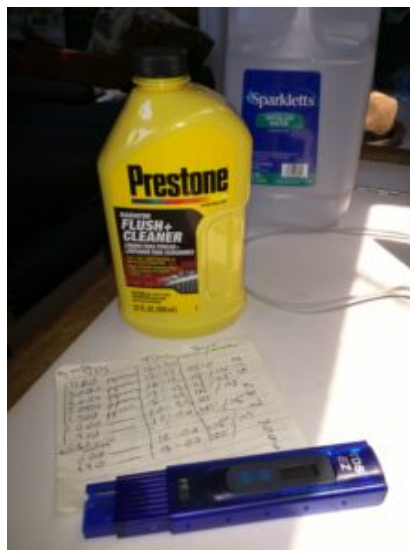
A temperature gun (<https://www.amazon.com/gp/product/B00K5QVBCU>) pointing the top of the thermostat and a lot of free time! Not sure it was really useful but it made me happy ☐

Day	Time	Cooling	TDS value (ppm)	Temp min (°F)	Temp max (°F)
Saturday	12:30	tap water	7100	95	146
Saturday	15:17	tap water	5000	118	146
Saturday	16:12	tap water	3000	118	146
Saturday	17:15	tap water	2000	115	148
Saturday	18:45	tap water	1400	103	148
Saturday	20:35	tap water	1000	107	148
Sunday	10:00	tap water	900	108	148
Sunday	12:00	distilled water	600	120	145
Sunday	13:00	distilled water	400	120	146
Sunday	18:50	flush cleaner	5000	120	146
Sunday	20:30	distilled water	4000	120	146
Sunday	21:30	dexcool	NA	120	146

Hotel Catalina M25XPB TDS values

- TDS value was always measured during the draining step when the engine had cool down
- Temp min was taken before to start the engine again
- Temp max was taken just after I ran the engine for at least 10 minutes

Here a picture of the radiator flush cleaner I used!



Prestone radiator flush cleaner

I am now done with my heat exchanger / cooling system replacement for a while I hope. It was a very instructive process ☐

Sources

- <https://www.catalina36.org/forum/technical-discussion/heat-exchanger-m25-xpb-seakamp-200420>
- Some information on the Catalina 34 sister web site:
<http://c34.org/bbs/index.php/topic,6920.0.html>
- More interesting comments on Catalina 36 about Heat Exchangers:
<https://www.catalina36.org/comment/57504#comment-57504>