

General Oil Cooling Questions

Posted by Manuel_M - 23 Dec 2013 16:15

Hey Guys,

I'm currently having an over heating problem which I believe is due to air somehow getting into the system (water is not circulating, no radiator obstructions, no thermostat). This made me think about engine health in general. I want to add an oil pressure light and I'm debating if I should add an oil cooler also. The car normally idles around 2.5 – 3 bar; however, after running it hard on the track it's usually around 1.7. So here are some of the questions I had: If I cooled the oil down would this help slightly increase my oil pressure (or is this even necessary)? Also, in general what are the benefits of running an oil cooler. I'm in the Mid South region and it usually gets into the 90's in the summer.

I've done some research and was thinking about going the sandwich plate route. This is how I plan to add the oil pressure warning light; unfortunately most of the thermostat plates do not have the NPT ports for the oil pressure switch. I've read a few threads here and it seems that some people run thermostat plates and some run non-thermostat plates. Are there any ill effects of running a non-thermostat plate or does it just take the oil longer to get up to temp? On occasion when we run its below freezing. Thanks in advance.

-Manny

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Re: General Oil Cooling Questions

Posted by Sterling Doc - 25 Dec 2013 09:17

It takes quite a while for the engine oil to warm up w/o a thermostat, and in cold temps, it may be hard to keep the oil warm. I'd get a thermostatically controlled one.

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Re: General Oil Cooling Questions

Posted by rd7839 - 26 Dec 2013 15:56

These cars are notoriously hard to get the air out the motor. Try jacking the front of the car up while you bleed and see if that helps. Bleed it more than you think you have to and then bleed it some more. I would recommend though putting the thermostat back in. Most cars work better with it in and the water flows just fine with it in.

I run a sandwich plate without a thermostat and it seems fine. Of course it doesn't get very cold here and the group we are usually in goes out under a yellow flag for at least one lap every session so I have time to warm it up before hammering on it. At first I worried about thick oil in a fragile cooler but with the Setrab cooler I've been fine. The only issue I ever had was that I mounted the oil cooler in front of the radiator at first which in deep summer ran water temps a wee bit high. I moved it to the right side behind the turn signal and water and oil temps are lower.

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Re: General Oil Cooling Questions

Posted by Manuel_M - 26 Dec 2013 18:09

Thanks for the info guys. Yea I probably couldn't get away with a non-thermostatic plate. When the time comes for the oil cooler I will go ahead and get a thermostatic plate.

The over heating issue has been a pain. Last track day, out of nowhere the car is in the red. I never had overheating issues before, it usually even idled cool in 80 degree temps. After getting the car in, the radiator was ice cold and the engine was boiling over so our first thought was that the thermostat wasn't opening. I had another session in an hour and we didn't have the appropriate tools (other than a hammer) so we just ripped out the thermostat to get me going. We refilled and bled the system, after which the radiator got hot and the engine temps were running cool. I went out again and after 2 laps it was way in the red. Brought it in and that was it for the day. A week later, I put the car on jack stands (front) and filled the system until it came out of the high point vent. Turned on the car and it started to over heat, radiator was cold again.

Later that day I got some help and we tried again. Finally got water to flow through the system and the radiator started getting hot. At this point we would watch the coolant reservoir and when the water would begin to well back up into it, we would open the high point vent to let air out and close it quickly. (The temps were below normal at this point since it had no thermostat.) We poured a little more water into it and continued to vent the system each time it wanted to well up. However this went on for 10 - 15 mins and the air never stopped coming out of the high point vent. At this point, we assumed that air was getting into the system since we had been burping the system continuously for that long. I saw no leaks on the ground. I also went back and did a compression test which I don't know what to think of. Prior to the track day it was 170, 165, 153, 165 and after it was 161, 159, 161, 159. So the plan now is to rent a pressure tester for the cooling system.

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Re: General Oil Cooling Questions

Posted by AgRacer - 26 Dec 2013 20:24

How old and what kind of radiator are you using? The turbo unit is widely used in most cars and provides the extra bit of cooling we need in racecars. Also, the stock radiator is notorious for not cooling after it hits a certain age. All visual inspections would say that the radiator is fine, but the water temp gauge would disagree and is solely based on how old the radiator is.

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Re: General Oil Cooling Questions

Posted by RacerX - 28 Dec 2013 00:16

If you keep burping the system that much, could it be a partially blown head gasket. This would explain the unusual amount of air in the system.

Sorry I didn't see your last post

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