

Post Race Problems & Weight Reduction

Posted by loftygoals - 17 Mar 2011 15:49

So I've started going over my car after the MSR Cresson race. I've found the following issues:

- Fuel Pressure erratic and low
- Motor running lean
- Driver side trailing arm bent
- Passenger side alignment hole/bolt stripped
- Oil cooler puking oil under pressure
- Cooling Fan cut the lower radiator hose

I've had a chance to look at these. Here are my fixes:

Fuel Pressure erratic and low

Unplugged the FPR and the fuel pressure would jump to 39 PSI. Plug it back in and the pressure would hold at 28 PSI. Under throttle, fuel pressure was low and all over the place.

The fix was going through the vacuum system. Simplifying it and reconnecting everything seemed to fix the problem.

Motor running lean

This was easy: Let the motor warm up, unplug the O2 sensor, and adjust the screw on the AFM until my A/F gauge was on the rich side of normal. When I started the process, the car was running so lean that it wasn't registering a reading on the gauge.

Driver side trailing arm bent

I'm too lazy to replace it right now. I was able to get the alignment dialed back in, so I'm leaving it alone for now.

Passenger side alignment hole/bolt stripped

Set the alignment and tack welded the eccentric into place. The alignment will hold this time!

Oil cooler puking oil under pressure

Still working on this one. May need to get a new cooler or weld this one back together.

Cooling Fan cut the lower radiator hose

I repaired the hose at the track, but had to unplug the fan to keep it from cutting the hose again. My resolution was to cut the passenger side fan completely out. This leaves on fan on the hot side of the radiator and the left side completely open for good air flow.

Weight Reduction

Started pulling out weight today. I was 70 lbs over weight with a near empty gas tank. Pulled the head lights today. Stripped the system down to just the covers (attaching with straps). Removed 50% of the vacuum system: A/C control valve, gas tank vapor reclaim valve, vacuum reservoir, and venturi valve.

Also removed the window washer fluid tank, 1 fan, and replaced the big battery with a ATV battery.

These items totaled an amazing 47 lbs! I'm over half way to my weight goal and I still have the power windows and a heater core. Looks like ballast maybe in my future.

-bj

=====

Re: Post Race Problems & Weight Reduction

Posted by 944Racer72 - 24 Mar 2011 19:10

I also have a single Spal fan. I believe it is 13" which fits perfectly to the turbo radiator. It is the medium profile fan and only weighs 3 Lbs.

=====

Re: Post Race Problems & Weight Reduction

Posted by loftygoals - 25 Mar 2011 05:52

Thanks guys. I hadn't measured yet. I assumed the radiator was bigger than that. 13" it is. We'll have to see if I even need it.

Just got a lower 71 degree C thermostat. (Stock is 82) I'm going to drill 3 1/4" holes in the flat face of it. This will allow more water to flow to the radiator with out increasing the flow rate to the point that the water doesn't stay in the radiator long enough to cool. It's an old trick that still works well for lowering temps.

-bj

=====

Re: Post Race Problems & Weight Reduction

Posted by 944Racer72 - 25 Mar 2011 08:31

I have the turbo radiator which is taller than the N/A. The 13" fan fits right up against the fins, perfectly between the upper and lower tanks. You should measure the N/A radiator if that is what you have.

Also, if you haven't had the radiator out yet, I'll bet money it is FULL of dirt and debris from road use. You wouldn't believe what comes out of those things.

=====

Re: Post Race Problems & Weight Reduction

Posted by Sterling Doc - 25 Mar 2011 08:40

On my N/A radiator, it does not quite sit on the fins, but right on the structural surround of the radiator. This makes it sit maybe 1cm off of the fins. I have a very small shroud around the edges of the fan to keep the efficiency up.

=====

Re: Post Race Problems & Weight Reduction

Posted by cbuzzetti - 25 Mar 2011 15:55

I did not run a fan all last year. We regularly see 100+ degrees in Ca during the summer. If the system is working properly then it is a non issue. Open the hood after run sessions and it cools down plenty fast.

Saves at least 15 lbs off the front of the car. Right where you don't want it.

Of course you do have to pay attention to temps in the Pitts.

I use a stock radiator and t-stat with large oil cooler.