

Keep your cool

STEVE STURGESS • EXECUTIVE EDITOR

I like cool old cars. I happen to have a couple of extra-cool, extra-old cars in a Jensen Interceptor II and a Porsche 928. But while they are cool, they don't cool very well. However, I have discovered Evans Cooling's NPG+ coolant.

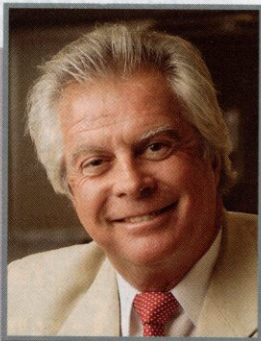
Its big plus is that it is a non-aqueous coolant – water doesn't come into the picture. What this means is that I don't have to worry about coolant temperatures heading for the red sector of the gauge, because instead of boiling at around 220-230 degrees like a conventional coolant, Evans' stuff doesn't boil below 370 degrees. So not only does it not boil and envelope the cars in steam, it also doesn't get overheated in the hotter passages in the heads and boil locally, a bad situation that leads to head gasket failures, cylinder head cracking and so on – altogether a sad thing, especially in the case of the Porsche V8 with its overhead camshafts.

And while it's no big thing here in Southern California, it doesn't freeze, though the flow reduces so that its lowest operating point is around 40 below.

The Evans coolant gives the whole system a much better ride, as it doesn't have to be pressurized. The reason the conventional coolant is pressurized is that it would otherwise boil at 212 degrees, so under pressure, there is a little extra margin in the conventional cooling system. Since NPG+ doesn't boil and doesn't need pressure, hoses are less at risk, water pump leaks are minimized – and if you've ever changed a water pump on a 928 you'll know that this is a very good thing indeed!

Heat transfer in the difficult-to-cool areas is what it is all about. That's why just about every factory racing-motorcycle is filled with Evans product. Ferrari has used it to great advantage in Formula One racing. And stationary power applications running in the hottest climates or at high altitudes are big users, too.

The coolant is especially appropriate to big diesels because it doesn't cavitate at the liners. In fact, in tests of the NPG+ by respected laboratories, the erosion of the liner is several orders of magnitude less than the best aqueous coolants. And aqueous coolants have to be fortified with supplemental coolant additives in order to perform at all. The Evans coolant has the same advantage over the organic, long-life coolants, too. Nothing comes close for cavitation protection.



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Did I say life? I will never change the coolant in my cars. For a heavy truck, you may be tempted to change at a half-million miles. And barring a problem with a hose, for instance, you will never have to add the 10 to 13 gallons a year of conventional make-up coolant, because NPG+ doesn't evaporate, either.

There has to be a downside, of course: It costs a lot compared to a standard coolant system fill. Over the counter at a consumer/racer store it runs better than \$40 a gallon. In fleet quantities it would probably be half that. But it does have a payback.

One of the intriguing things you can do is to raise the coolant temperature for a more efficient engine. In rigorous university testing with a 215-degree instead of 190 degree thermostat, Evans has proven a 3 percent fuel economy improvement, with a payback in as little as three months for a heavy-duty truck.

If you reset the fan-on temperature in the engine ECM to 230 degrees, there are even more fuel savings to be found.

Cooling system maintenance savings are there as well. The UCLA campus, for instance, has standby power generation with 60 generator sets. By eliminating five hours of maintenance on each per year, the school is saving \$100,000 annually.

All this aside, I really like the fact that the engine gets a much better ride. Here, in Los Angeles' summer traffic snarls, it's easy for the cooling system of these older cars to be compromised and those little pockets of steam up in the heads to just worry me to the point that my hands feel hotter and sweatier than the cooling system.

But no more.

A stylized handwritten signature of Steve Sturgess.

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