

Is service type accounted for in your PM system?

By Joel Levitt

I have to admit it. It is not politically correct, but I sure do like my Chevy Suburban. It can haul my trailer, go off road and get dirty, plow through all but the craziest snow storm and do it in style. I feel like the dealer who services it (I can put a plug in for AT Chevrolet in Sellersville, PA and David Harnak, my Service Consultant) cares about the vehicle and how I use and maintain it. I'm also a stickler for doing my oil changes and am a Nervous Nelly when it comes to things that I hear or feel wrong with the car.



I travel a good deal for the job and get to rent or be driven around in all kinds of vehicles in all kinds of environments. Two recent trips started me thinking.

The first trip was to Suriname, a small country in northeastern South America. Suriname is about 5 degrees above the equator so it is hot and humid in the summer and less hot and humid in the winter. With the exception of a road to the hydropower plant, the roads outside the capital, Paramaribo, were all dirt. With the heavy rainfall there was a lot of mud and ruts. Instead of lights and stop signs, they use speed bumps (to good effect) but hard on the chassis.

I signed up to visit the jungle (the Amazon!) during my day off. They picked me up in an older Suburban and we happily bounced off to Brownsberg, about 3 hours from the city. Of course, Suburbans like a certain amount of abuse and so was well suited to the job.

The second trip, a week later, was to Saudi Arabia. Another Suburban (a newer one) picked me up to drive the 2 hours between the Bahrain airport and into Saudi Arabia. The road was straight and the driving fast (but not furious). In the winter, Al Khobar in Saudi Arabia (the home of Aramco) is cool. There was a fine grit blowing all around that irritated my eyes and throat. Of course summers there are beyond brutal with temperatures well exceeding 125° F during the day.

In contrast, when I returned home we (outside Philadelphia) had more snow than we had in the last 5 years combined.

Just how sensitive are your PM lists to usage and environment?

Such varied conditions for the same equipment! Now if your fleet had to exist in such differing environments, how should your PM task list reflect this? Is the task list made to suit the environment or is it generic, just designed to be followed blindly?

Vehicle usage is also a factor. What about wear and tear on a Suburban in an urban environment which might be used by a building inspector (daytime only) or by emergency first responders (24/7)? They both drive Suburbans of the same make, model and year. One carries an inspector with a brief case and the other, half a ton of equipment. One is driven sedately while the other is always on the way to a fire or some other catastrophe.

The source (2010 Chevy Suburban Owner's Manual) advises, "Because of all the different ways people use vehicles, maintenance needs vary. The vehicle might need more frequent checks and services. Please read the information under Scheduled Maintenance. To keep the vehicle in good condition, see your dealer." Presumably the dealer would be intimately familiar with local conditions. Even Chevy says to modify the scheduled maintenance if needed.

Each environment and kind of service places different stress on the machine. Think about all the places and seasons where your fleet operates. Even within the United States we have Death Valley, Duluth, MN, Rocky Mountains and the Houston Ship Channel, environments with wildly different effects on machines.

The antidote

Take a close look at what is actually breaking down in your fleet. Some of those breakdowns reflect special stresses imposed by the environment, usage and service intensity.

To see this effect, answer the questions:

- Does the PM task list consider failure modes which actually appear on your repair order system (such as cranking systems in cold environments)?
- Are the systems being stressed to failure even covered by your current PM?
- Is the frequency of the task list appropriate, given the utilization of the unit? Example: a 24/7 unit sees a lot more use than a daytime only one. So if both have a 30 day PM frequency, one is over-PMed or one is under-PMed.
- Are you performing PMs and still having failures on those systems? How can you include those failing systems into your PM task list for the future?

The answer to these questions should help make a difference in the failure rates, resulting in improved safety, lower cost of operation, reduced waste and happier customers.

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