Telematics and Tires

Telematics, telematics, telematics! A common word used nowadays in the transportation industry. But, what is it, how does it work, and how is it going to help me?

In the early days of the telematics evolution, most in the transportation industry used it to simply communicate certain items back to the fleet via either satellite or cellular communications. These items initially included location, but other systems quickly came on board such as engine diagnostics and other vehicle metrics.

Fast forward to today. It is rare to have a day go by that doesn’t announce the launch of a new telematics product or a company entering the commercial vehicle market. With so many private and for-hire fleets, O/O’s, and leasing companies all having different ‘hot buttons’, it is no wonder why so many of the telematics solutions provide something a little different than the others.

These telematics now present fleets with tremendous opportunities to reduce costs through cost mitigation, preventative/predictive maintenance as well as the ability to analyze data to fine tune maintenance practices. The costs associated with obtaining the data is decreasing from early on and with the various types of data available increasing, developing an ROI that the fleet CFO supports is becoming easier. This is regardless of fleets having their own maintenance or contracting to a 3rd party. With tires being the #2 operational equipment costs behind fuel, combining telematics with tires is an obvious approach to reducing costs. Products like Automatic Tire Inflation Systems (ATIS) and Tire Pressure Monitoring Systems (TPMS) are becoming the norm (not to mention legally required in most applications depending on where Federal and State legislation goes). As a result, events such as a tire taking air, the notification of low tire pressure or excessive temperature are now readily available for transmission back to operations, by-passing the driver. Unless you are an O/O, most fleets agree that relying on the driver to pass along ‘events’ is less than desirable. The value of having this information in the fleet manager’s hand before the driver drops the unit off at the garage is significant.

The next question for the fleet manager is “What do I do with this alert and who do I send it to?” With the right system in place, many fleets are using this to schedule maintenance before the vehicle arrives at the shop and to better optimize their shop resources. Consider the following example: A truck is driving down the road and the ATIS light comes on and stays on. The fleet operations department knows that there is a service center that the company has a contract with at the next exit. The system can check the inventory of their tires to determine if the correct tire is in stock. An alert is sent to the service station that this vehicle with the tire inflation light on may need a puncture repair or a new tire. This is where all these conversations and sensors pay off – the driver has it already planned out for them and can make the most out of their driving time.

This is just the beginning. Once the pathway for the data is established and the right way of analyzing the data is set up, fleets are poised to attain a whole new level of efficiencies.

Q&A PSI ANSWERS YOUR QUESTIONS

Q. I am considering installing TPMS sensors that attach to the tire valve but concerned about theft. What can be done to make it difficult to hide/protect the sensor?

A. There are a few styles of sensors available. If you want to stay with the valve-stem mounted design, there are some that are theft-resistant and require a special tool to remove. Other options include an internal sensor that is typically banded to the rim, or a wheel mounted design that is attached using the wheel nuts, making removal more difficult. This version may also include a flow-through feature which provides the ability to add air to the tire, without removal of the sensor.