



The FleetguardFIT system from Cummins Filtration incorporates intelligent sensors (above, top right) that are added to the air, fuel and lube filter assemblies and connect to a stand-alone control module to provide real-time monitoring of the filters. The system is designed for on- and off-highway vehicles and equipment, as well as stationary and marine applications.

ADDING INTELLIGENCE TO FILTRATION SYSTEMS

Cummins Filtration's FleetguardFIT integrates sensing and data analytics to provide real-time monitoring of air, fuel and lube filters, plus lube oil condition

BY MIKE BREZONICK

The ever-growing array of electronic control and monitoring systems that have been integrated into vehicles and equipment over the last few years has provided a deeper understanding of the numerous things that occur when a machine goes about its job.

Yet, it's also true that while reams of data may be available, what's most often needed is a simple, straightforward way for machine owners and operators to receive critical, actionable information to keep their equipment running effectively and efficiently. Out of that need have come technologies like hydraulic hoses that can accurately predict hose failure before it occurs, or tire pressure monitoring systems that can forecast blowouts.

Most recently Cummins Filtration, the Nashville, Tenn.-based business unit within Cummins Inc., has taken that same concept and applied it to filtration systems used in heavy-duty engine applications. The new FleetguardFIT system — with FIT serving as an acronym for Filtration Intelligence Technology — is designed to gather comprehensive, real-time monitoring of air, fuel and lube filters, as

well as oil condition, and provide machine users and owners with information, alerts and warnings that can be used to help make more informed and intelligent decisions about maintenance of their equipment.

FleetguardFIT is being launched as a kit that can be applied to a variety of engine makes and equipment applications such as heavy-duty trucks, mobile off-highway equipment including but not limited to construction and mining equipment, as well as locomotive, marine and even large stationary power generation equipment. In addition to aftermarket retrofit installations, FleetguardFIT is also available for OEM installation.

For heavy-duty equipment and trucks, extending filter service intervals has proven to be an effective approach to reducing downtime and maintenance costs. "One piece that's been missing to further increase those savings is knowing precisely how to optimize those service intervals," said Arpana Brahmabhatt, FleetguardFIT business leader at Cummins Filtration.

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Typically, service intervals are based on time or duty cycle considerations rather than actual filter status and condition, Brahmbhatt said, noting that “depending on the environment, the right filters on high-horsepower engines can last two, four or even eight times longer than many engine manufacturers recommendations.

“Currently, a maintenance leader has no way to understand how a filter is performing while on an engine, or how to make predictions which could lead to potential damage to the fuel system, the air intake system, the lube system and even critical engine components.”

The FleetguardFIT system incorporates intelligent sensors that are added to the air, fuel and lube filter assemblies. Among the sensors included is a fluid property sensor that Brahmbhatt said “monitors the health of your oil. The sensors connect to a stand-alone control module and information on oil and filter condition is transmitted via user’s existing telematics systems to the cloud.

“After the data is transmitted to the cloud, advanced analytics provides information in more useful format such as flagged events and status alerts, which are easily accessible via a customer portal or mobile app. This allows customers to see how many hours or miles are left before filter services are needed so downtime can be scheduled only as required or synchronized with other service events. This approach also allows the customer to pinpoint system failure mechanisms and potentially prevent catastrophic engine damage.

“By partnering with almost any existing telematics provider, FleetguardFIT provides a user interface to visualize the real-time information from all your engine consumables. This means FleetguardFIT presents information that can enable optimizing filter service intervals and diagnosing potential engine or fluid system issues based on oil and filter health in real-world conditions and enables the end user to make better, smarter maintenance decisions to positively affect the bottom line.”

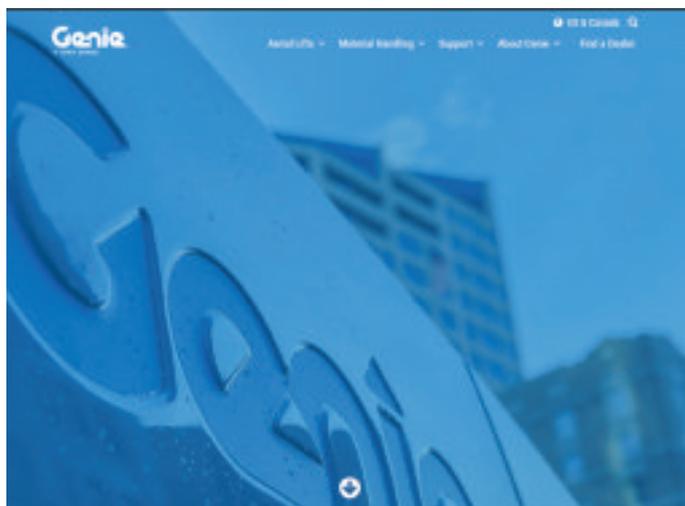
The FleetguardFIT system can be ordered with a choice of sensors, wire harnesses and fittings required for each specific installation. The most complex high-horsepower installations typically take around four hours to complete the company said.

In testing, Cummins said the system has been installed on a range of equipment in applications such as mining, rail, truck, bus and power generation around the world. “A recent test with high-horsepower equipment found that FleetguardFIT, when combined with genuine Fleetguard guard filters, could reduce expenses tied to oil and filters by 55% and maintenance downtime by 44%,” Brahmbhatt said. “And because FleetguardFIT reveals how your filters are functioning in real time, which is indicative of engine health, unplanned downtime can be cut by 15%.” **dp**

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Genie, a Terex brand, announced the relaunch of its online properties, including www.genielift.com, Genie used equipment (used.genielift.com), Genie Lift Pro Operator Training (www.genielift.com/en/support/training) and Genie Tech Pro Service Training (www.genielift.com/en/support/training) in North America. All four sites have been updated with content relevant to the most current global industry standards and new product and service offerings as well as new features including consolidated navigation and product filtering capabilities.

Volvo Penta announced the debut of its Easy Connect mobile app that includes an interface that allows boat owners to view boat, engine and route data on mobile devices onboard and at home. When used onboard, Easy Connect provides a dashboard display to view real-time boat and engine data. When away from the boat, the app provides an easy way to retrieve stored routes and data from previous trips. The app also includes a map function to share routes and provide engine data and troubleshooting codes to the dealer. The app is now available for iOS 10 or later devices. An Android version will be launched in the coming months. The Bluetooth interface is available directly from an authorized Volvo Penta dealership.

