Fuel Catalyst Engineered To Reduce Emissions, Improve Fuel Economy

The Fitch Fuel Catalyst from Advanced Power Systems International is designed to increase fuel economy while reducing emissions in outdoor power equipment, recreational vehicles, on-highway trucks and buses, construction equipment, marine vessels, power generation equipment and heating and industrial processing.

BY DAWN M. GESKE

As the next round of emissions regulations are phased in, vehicle and equipment manufacturers in both the on- and off-highway industries are focused on supplying efficient machines that meet emissions requirements while still maintaining fuel economy. In an effort to meet those goals, they are looking at a range of new technologies that have been developed over the last few years. Among these is a fuel catalyst system engineered by Advanced Power Systems International (APSI), Lakeville, Conn.

The Fitch Fuel Catalyst is a permanently installed fuel treatment system designed to improve fuel quality and thereby improve fuel economy and reduce exhaust emissions in diesel and gasoline engines. The catalyst is a poly-metallic alloy, which is installed directly into the fuel line and as fuel passes over the unit it induces a reaction that alters the molecular structure of the fuel before it enters the combustion chamber. This treated fuel produces a more efficient burn, which APSI said has been proved through independent laboratory testing to increase fuel economy and reduce emissions, along with inhibiting bacteria contamination of fuel.

"Fitch-treated fuel is like purchasing fuel directly from the refinery when fuel is the freshest and creating the most amount of energy," said Nora Hewitt, vice president at APSI. "If you could purchase that refinery-fresh gasoline or diesel for the same price as gas station quality fuel, you'd buy it. That's what we are offering — a better quality of fuel, all the time."

With several catalyst configurations available, the Fitch Fuel Catalyst is offered in an application for outdoor power equipment, recreational vehicles, consumer automotive vehicles, on-highway trucks and buses, construction equipment, marine vessels, power generation equipment and heat-

ing and industrial processing. “The catalyst technology is all the same in all applications,” Hewitt said, “but the amount of catalyst needed to treat fuel varies with each machine’s tank size, fuel flow rate or horsepower.

“On a larger piece of equipment, the installation is an inline application,” said Hewitt. “It looks similar to a fuel filter and housed inside is the catalyst.” It ranges from 15 minutes to one and a half hours to install directly into the fuel line.

APSI offers a 250,000 mile or 5000 hour warranty on all Fitch Fuel Catalysts and, according to the company, requires no maintenance while installed. Payback on the system is estimated at four months and no more than one year, depending on vehicle and usage.

APSI began producing the Fitch Fuel Catalyst more than 10 years ago with its initial design targeted at the outdoor power equipment and recreational power sports arena. Since then, APSI has expanded the technology’s capability, allowing it to be used with diesel, gasoline, ethanol, low sulfur and biodiesel fuels. In addition, the company has a continuing research agreement with the U.S. Department of Defense (DoD) to extend the capabilities of the Fitch Fuel Catalyst for fuels used by the military such as natural gas and JP fuels.

The Fitch Fuel Catalyst is offered by APSI through a worldwide distributor network as well as direct from the company’s Lakeville, Conn., headquarters. The system has reportedly been used by the U.S. military and is a vehicle option by OEMs like Oshkosh Truck Corp., Pierce Manufacturing, Crash Rescue and Emergency One. APSI manufactures the Fitch Fuel Catalyst at its plants in Fairfield, Conn. and Norwalk, Wis. **dp**