

APPLICATION
Combine & Tractors

LE's Fuel Improver Eliminates Smoke & Gelling in Farm Equipment

CUSTOMER TESTIMONIAL
Don Tschida Family Farm

CHALLENGE

Excessive smoke during operation and fuel gelling in extreme cold

SOLUTION

Full Torque™ W Diesel Fuel Improver (2411)

RESULTS

- Reduced visible exhaust smoke
- Eliminated gelling during cold weather operation
- Increased power and productivity

Customer Profile

The Don Tschida family farm in Pierz, Minn., has been in business since 1928. Running the farm requires maintaining various pieces of large machinery including tractors, plows, planters, combines and harvesters. This heavy equipment must be kept in perfect working condition for the farm to turn a profit. In 2014, Don Tschida began working with LE lubrication consultant Mike Tschida to develop a program that would enable the machinery to run at maximum potential without breaking down due to lubricant-related issues.

Application

Among the heavy machinery on the Don Tschida family farm are several tractors and a John Deere 185-hp 9400 combine, which is used primarily for harvesting oats, wheat, corn and soybeans.

Challenge

The farm's bulk fuel dealer sold Don a fuel additive, but he was not impressed with its performance. There was no performance gain, and the fuel still gelled during cold weather conditions, a problem that can lead to internal combustion engine problems, and even total engine replacement if the damage is severe enough.

Results

After the switch to Full Torque 2411, Don noticed a visible reduction in exhaust smoke, as well as an increase in power and productivity. When temperatures dropped to the low 30s (Fahrenheit), no more gelling occurred in the combine.

"The fuel treatment did the job in the winter too," Don said. "I had no problem with any of the tractors. The biggest test was a biting raw cold morning. A few degrees below zero with a lot of wind. The tractor never missed a beat. In the past it would have been a battle to keep it going and get it to run warm enough so the hydraulics work."

Because of these results, Don is planning to use it to treat the farm's bulk winter fuel tank.

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LE Solution

Mike recommended LE's Full Torque™ W Diesel Fuel Improver (2411). At the time of the recommendation, it was a relatively new product and had already proved to work well on multiple applications for LE customers.

Full Torque is a cetane-boosted, detergent-containing formulation that increases power, improves fuel economy, reduces emissions, and provides smoother performance year-round in diesel engines.

In addition to Full Torque 2411, Don has begun using additional LE products on the farm, including: Full Torque™ S Diesel Fuel Improver (2421) for summer fuel storage tank, Monolec® Ultra Syn Heavy Duty Engine Oil (8854) for the John Deere Combine and Almagard® Vari-Purpose Lubricant (3752) on all equipment.

In an email to Mike, Don said: "I also wanted to tell you how happy I am with that grease (Almagard 3752). That is such a smooth, easy-to-use grease. Another outstanding product."

Results (cont.)

The performance boost was first observed during the oat harvest. The combine was used on the first half of the field with standard fuel. The combine ran at 2,800 RPM. This is a set RPM, as the John Deere combine has an engaged rocker switch that brings the machine up to operating power; there aren't any additional operator input options available. The second half of the field was harvested after refueling and adding the appropriate amount of Full Torque. Operating RPM immediately climbed to 3,100 and held steady for the remaining half of the field.

"This is an amazing product," Don said. "Thanks very much for your help!"

Thank you to Don Tschida, owner, and Mike Tschida, LE lubrication consultant, for providing the information used in this report.



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