Toyota to Assemble Fuel Cell Modules at Kentucky Plant in 2023

August 25, 2021

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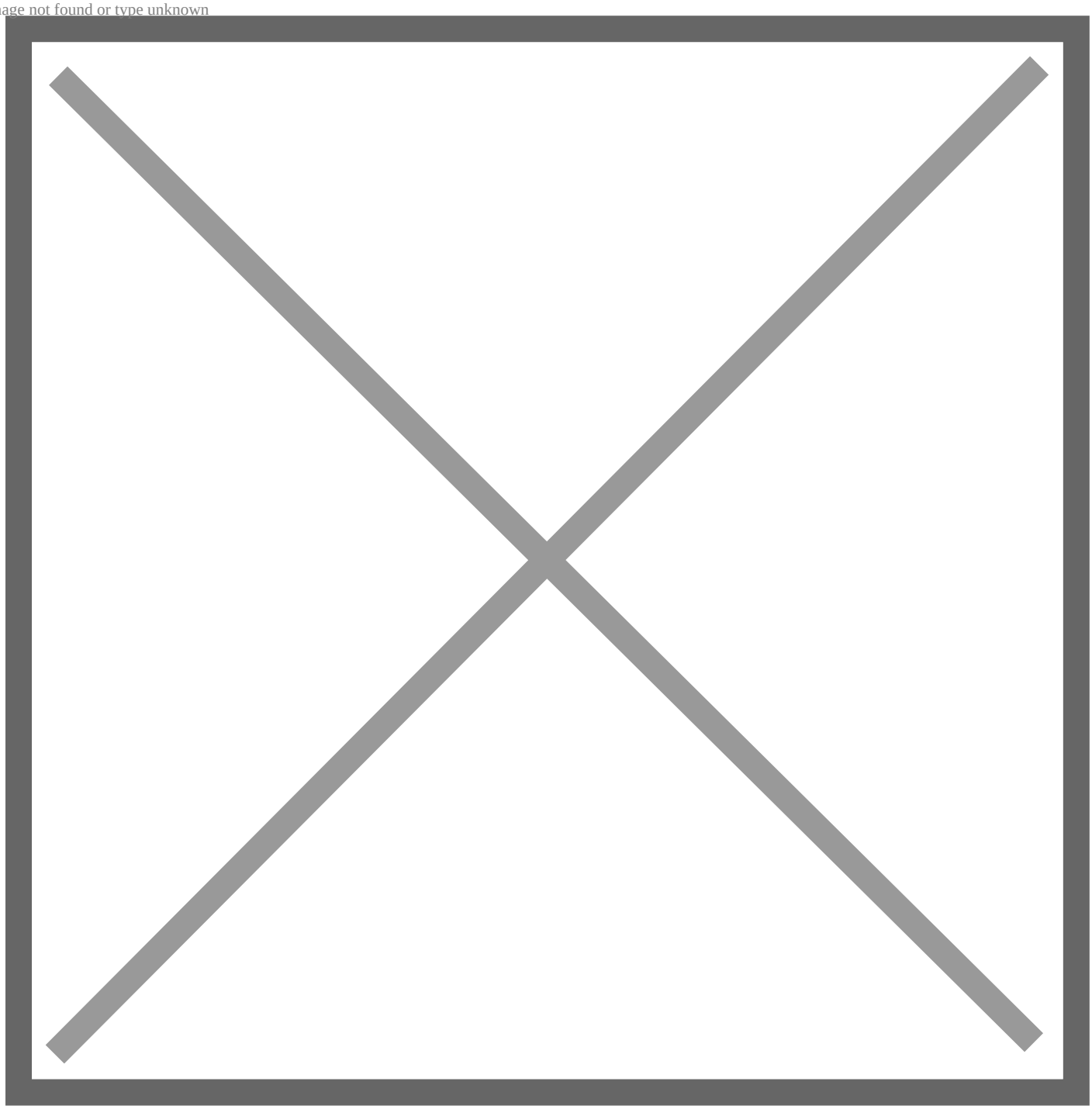

GEORGETOWN, Ky. (August 25, 2021) – After thousands of miles of real-world testing in the harsh environment of commercial trucking, Toyota is preparing to further expand its portfolio approach to products by taking its groundbreaking hydrogen-powered fuel cell electric technology from prototypes to production in its efforts toward carbon neutrality.

Starting in 2023, a dedicated line at Toyota Motor Manufacturing Kentucky (TMMK) will begin assembling integrated dual fuel cell (FC) modules destined for use in hydrogen-powered, heavy-duty commercial trucks. The FC modules bring Toyota's electrification strategy further into focus as it will allow truck manufacturers to incorporate emissions-free fuel cell electric technology into existing platforms with the technical support of Toyota under the hood.

"We're bringing our proven electric technology to a whole new class of production vehicles," said Tetsuo Ogawa, president and chief executive officer, Toyota Motor North America. "Heavy-duty truck manufacturers will be able to buy a fully integrated and validated fuel cell electric drive system, allowing them to offer their customers an emissions-free option in the Class 8 heavy-duty segment."

The dual fuel cell modules, which are a key component of an overall FC kit, weigh approximately 1,400 pounds and can deliver up to 160kW of continuous power. The FC kit also includes a high voltage battery, electric motors, transmission and hydrogen storage assembly from top-tier suppliers. Toyota will also offer its powertrain integration expertise that will help truck manufacturers adapt these emissions-free drivetrain systems to a wide variety of applications in the heavy-duty trucking sector.

"This second-generation fuel cell system is necessary for a carbon neutral future," says David Rosier, Toyota Kentucky powertrain head. "It delivers over 300 miles of range at a full load weight of 80,000 lbs., all while demonstrating exceptional drivability, quiet operation and zero harmful emissions."

Toyota will display this technology at the 2021 Advanced Clean Transportation (ACT) Expo in Long Beach, California on Aug. 31-Sept. 1. A prototype truck powered by Toyota's FC kit will also be on display at the show.