



P R E S S R E L E A S E

October 22, 2025

MFTBC unveils two hydrogen-powered heavy-duty truck concept models at Japan Mobility Show 2025

- World premiere of the hydrogen combustion engine truck "H2IC", powered by compressed hydrogen gas, and the fuel cell truck "H2FC" powered by liquid hydrogen at Japan Mobility Show 2025.
- MFTBC showcases two types of hydrogen-powered heavy-duty truck concept models, as a solution for achieving carbon-neutral transportation.

Mitsubishi Fuso Truck and Bus Corporation (Headquarters: Kawasaki City, Kanagawa Prefecture, President and CEO: Karl Deppen, hereafter "MFTBC") announces that it will hold the world premiere of two hydrogen-powered heavy-duty truck concept models at the Japan Mobility Show 2025 (hereinafter JMS 2025), organized by the Japan Automobile Manufacturers Association at Tokyo Big Sight (Koto Ward, Tokyo) from October 30, 2025 to November 9, 2025.

MFTBC will unveil two concept models at JMS 2025, the "H2IC," a heavy-duty truck powered by an internal combustion engine that combusts hydrogen, and the "H2FC," a heavy-duty truck powered by a fuel cell system. MFTBC believes hydrogen is an effective means to achieve carbon neutrality for commercial vehicles involved in heavy-duty transport and long-distance haulage, owing to its high energy content, long range, and short refueling time.

By utilizing components and technologies common to diesel trucks, the "H2IC" could enable faster and smoother transition to hydrogen vehicles. In particular, H2ICE technology shows particular strength in high-power applications such as construction vehicles. The "H2IC" is fueled with compressed hydrogen gas.

In the "H2FC", a fuel cell system converts hydrogen to electricity, which then powers an electric motor. The "H2FC" stores hydrogen in liquid form, which has a higher density compared to compressed hydrogen gas. This enables a vehicle with up to 1200 kilometers of driving range, refuellable in 15 minutes and with no compromise on load body space*.

In a Japan-first**, the heavy duty "H2FC" is equipped with a liquid hydrogen tank designed for subcooled liquid hydrogen (sLH2) refueling***. Jointly developed by Daimler Truck and Linde Engineering, a global leader in industrial gases and hydrogen infrastructure, this is a liquid hydrogen filling technology that eliminates the need to discharge the boil-off gas (evaporated hydrogen gas) by pressurizing hydrogen during refueling. It also reduces boil-off during operation. This addresses a challenge previously faced when handling liquid hydrogen. Furthermore, sLH2 significantly simplifies the equipment required at hydrogen stations when using compressed hydrogen gas, contributing to reduced infrastructure costs and the realization of a hydrogen society.

To establish the sLH2 technology in Japan, MFTBC has been conducting joint research with Iwatani Corporation (Headquarters: Osaka/Tokyo; President: Hiroshi Majima), the sole domestic supplier of liquid hydrogen****. The sLH2 is currently being discussed by the relevant parties with a view to develop ISO standardization. In Japan, MFTBC has been collaborating with Iwatani Corporation on joint research regarding sLH2 filling technology, regulations, and commercialization, advancing efforts to establish sLH2 filling technology in the country. MFTBC is also working to build collaborative frameworks with external companies and institutions to support the implementation of sLH2 refueling technology in Japan. At the MFTBC booth, visitors will be able to learn more about this cutting-edge technology through a panel discussion with Iwatani Corporation and dedicated exhibits on hydrogen technologies.

As a front runner in BEV solutions for light duty trucks, MFTBC now aims to demonstrate leading future ZEV solutions for heavy duty trucks also. At the JMS booth, visitors can experience MFTBC's envisioned future of transportation brought to life through exhibits showcasing solutions that are being developed together with customers and partners.

*Based on internal simulations with a vehicle of GVW 25 ton with 80 kilogram capacity liquid hydrogen fuel tanks)

**MFTBC research, as of October 2025

***The sLH2 refueling process uses a pump to slightly increase the pressure of the liquid hydrogen, making it subcooled. Due to this pressure, the boil-off gas in the vehicle tank is re-liquified, eliminating the need to discharge the boil-off gas.

**** As of Oct. 2025



“H2IC” and “H2FC” world premiere at JMS 2025

【Reference Press Release】

[MFTBC exhibits at Japan Mobility Show 2025](#)

(September 30, 2025)

[Mitsubishi Fuso and Iwatani Corporation sign MOU to study subcooled liquid hydrogen \(sLH2\) refueling technology](#)

(May 21, 2025)

MFTBC at a Glance

Mitsubishi Fuso Truck and Bus Corporation (MFTBC) is a commercial vehicle manufacturer based in Kawasaki City, Japan. 89.29% of its shares are owned by Daimler Truck AG and 10.71% by various Mitsubishi group companies. MFTBC provides trucks, buses and industrial engines under the FUSO brand with a longstanding history of over 90 years, serving approximately 170 markets worldwide. MFTBC proactively develops cutting-edge technologies such as electrification, with its eCanter being Japan's first mass-produced electric light-duty truck. MFTBC's heavy-duty Super Great Truck was also the first of its kind in Japan to include SAE Level 2-equivalent automated driving support technology, now a benchmark in the Japanese commercial vehicle market.

FUSO at a Glance

FUSO is a Daimler Truck brand, offering a range of commercial vehicles such as trucks and buses and industrial engines in about 170 markets worldwide. The brand is characterized by effectiveness, safety and comfort, built over its 90-year history with a foundation of and Japanese quality and craftsmanship. The Canter light-duty truck claims the top share in various markets around the world. FUSO leads electrification of commercial vehicles by globally offering Japan's first mass-produced electric light-duty truck, the eCanter. FUSO promises customers a "Future Together," a bold claim that continues to drive the brand's contributions to safe and sustainable transport.