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## **Komatsu announces new concept medium-sized hydraulic excavator equipped with hydrogen fuel cell system.**

*PoC advanced to accelerate towards achieving safe, highly productive, smart and clean workplaces of the future.*

**Vilvoorde May 2023** — Komatsu Ltd. (President and CEO: Hiroyuki Ogawa) has developed a new concept medium-sized hydraulic excavator that combines a hydrogen fuel cell and Komatsu-developed key components to achieve carbon neutrality at workplaces of construction equipment. By advancing the PoC (Proof of Concept) tests it started in May 2023, Komatsu has accelerated its efforts to embark on the commercial production of medium-sized and large construction equipment powered by hydrogen fuel cells in the near future.



— Concept machine for a medium-sized hydraulic excavator equipped with a hydrogen fuel cell

In its mid-term management plan, Komatsu committed to minimizing environmental impact throughout its business, targeting a 50% reduction in CO<sub>2</sub> emissions from use of its products and production of its equipment by 2030 (compared to 2010 levels) and a challenge target of achieving carbon neutrality by 2050. To help its customers achieve carbon neutrality, Komatsu has been providing a variety of products, services, and solutions that reduce environmental

impact, such as hybrid hydraulic excavators and electric mini excavators. Komatsu is also engaged in research and development to provide products equipped with new power sources.

For the new concept machine, Komatsu adopted a hydrogen fuel cell system and hydrogen tank, which were produced by Toyota Motor Corporation (Operating Officer, President: Koji Sato) (hereafter "Toyota"), on Komatsu's medium-sized hydraulic excavator. In addition to Komatsu's comprehensive control technology, the combination of Toyota's hydrogen fuel cell system and Komatsu key components, Komatsu is working towards zero exhaust emissions and a significant reduction in noise and vibration, while delivering the same powerful digging performance and high operability as engine-driven excavators.

Medium-sized and large construction equipment both require a power source with higher energy density than that of small construction equipment, which has led to the move to electrification with batteries. Because hydrogen has a higher energy density and can be refuelled in a shorter time than is required for recharging batteries, Komatsu has been advancing its R&D efforts as a promising electrification choice for medium-sized and large models. To contribute to realizing a hydrogen society and carbon neutrality, Komatsu will continue its efforts towards the commercial production of medium-sized and large construction machinery equipped with hydrogen fuel cells by conducting PoC tests of this new concept machine.

DANTOTSU Value is defined as customer value creation that generates a positive cycle of improvement of earnings and ESG resolutions in Komatsu's new mid-term management plan, entitled "DANTOTSU Value – Together, to "The Next" for sustainable growth". Through this DANTOTSU Value, Komatsu will strive to create new values in order to take steady steps forward to the next stage for the workplace of the future and pass on a sustainable future to the next generation.

### **About Komatsu**

Komatsu is an industry-leading manufacturer and supplier of equipment, technologies and services for the construction, forklift, mining, industrial and forestry markets. For over a century, Komatsu equipment and services have been used by companies worldwide to develop modern infrastructure, extract fundamental minerals, maintain forests and create technology and consumer products. The company's global service and distributor networks support customer operations, tapping into the power of data and technology to enhance safety and productivity while optimizing performance.

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