

CMB .TECH

WE BRING HYDROGEN TO THE INDUSTRY

CMB.TECH, cleantech division of CMB, is an active developer and integrator of hydrogen solutions with the focus on engineering, hydrogen production, industry and marine applications. H₂ dual fuel technology was developed by CMB.TECH.

Düsseldorf Nov 18th 2021



HYDROGEN TRUCK



The basis of all CMB.TECH designs is to offer affordable, reliable and clean solutions to lower the emissions footprint of their customers. CMB.TECH and HAESAERTS have now stepped into a partnership to bring this technology to the road.



HAESAERTS
MEMBER OF ALTREA LOGISTICS



Isopa



HAESAERTS INTERMODAL, member of ALTREA LOGISTICS GROUP, presents the first-generation **Hydrogen powered trucks** by CMB.TECH at the ECTA Congress in Düsseldorf today.

In an ever changing and more demanding world where many “clean fuel” trucks are still under development, we will operate a fleet of **Hydrogen dual fuel trucks** across Europe as from today already.

Through this initiative, we have materialised our ambitions into a daily operational reality, and thus can reduce our truck emissions by 80 % by combining proven diesel powered engine technology with innovative hydrogen technology.

It is important that the chosen hydrogen tank network is the one that only supplies hydrogen that has been generated in a 100 % green way.

Our “Strategy for the future” also includes the launch of an innovative digital platform connected to our new generation of **Smart 3.0 tanks**.

To further reduce our emissions and increase our efficiency in the next months we will put a new generation of **Lightweight Composite tanks** into service.

Some technical specifications of the **H₂ dual fuel truck**:

The **Dual fuel hydrogen truck** can mix hydrogen as fuel in its converted diesel engine to consume less diesel and produce less CO₂. If necessary, the engine can also operate entirely on diesel. In addition to CO₂, NO_x-emissions are also reduced to -70 %, but given the highly ecological after-treatment on new diesel engines, this also results in a reduction in AdBlue consumption. By using the existing diesel engine and drivetrain, the investment cost of this truck can be reduced to 1/3rd of a zero-emission alternative. With a full tank of hydrogen, the truck has a range of 500 km and, if necessary, the truck can drive another 3000 km on diesel.



VEHICLE

Axle: 4x2
Wheel base: 3600 mm

ENGINE

Type: 6Cyl 12,7 L
Power: 500 HP
Torque: 2500 Nm

FUEL TANKS

H₂ storage: 30 kg
Diesel tank: 600 + 450 L
AdBlue: 78 L
Transmission: ZF12TX2620

SAFETY

With a click of a button, the system can be switched to diesel only, instantly shutting down and closing the H₂ system. The technology is based on standards used and proven within the industry for more than 50 years.

SYSTEM INTEGRATION

- CMB.TECH developed H₂ ECU
- Proprietary SW to control operation
- Developed and validated for > 15 years
- Display for key system information
- Entire system weighing less than 930 kg



H₂ INJECTION SYSTEM

- Custom injector manifold assembly
- Minimal changes to the base engine
- Injects right amount of H₂, load-based
- Safe low pressure injection system
- Integrated safety features



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Interested in a **greener** chemical transport supporting sustainability objectives?

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