

## The ultimate diesel fuel @ emissions reduction technology

West Tech Mobile Inc. located in Calgary, Alberta, is an authorized dealer for dynaCERT HydraGEN™ products. The patented HydraGEN™ Technology, which has taken 16 years and CAD 60 Million in R&D to develop, helps significantly reduce carbon emissions, while also helping end users save money at the same time. Unlike the after treatment emission system where the exhaust gasses get cleaned through DPF, DOC or SCR after combustion, HydraGEN™ Technology enhances the engines combustion itself. The hydrogen and oxygen gases produced by the HydraGEN™ unit are introduced into the engine's air intake after the air filter, and before the turbo, by a gas feed line. These gases act as a catalyst, which help the diesel engine burn cleaner and more efficiently. This enhanced combustion leads to reduction in particulate matter of up to 55.3%. This means less DEF regens are needed and DPFs run cleaner with an extended life.

### **Certifications:**

#### *ABE Homologation from KBA*

dynaCERT GmbH has obtained from Kraftfahrt-Bundesamt ("KBA"), the Transport Ministry of Germany, the Allgemeine Betriebserlaubnis ("ABE") National Type Approval ("Homologation"). ABE Homologation, which emanates from KBA, permits the marketing, sales, installation and use of dynaCERT's HydraGEN™ Technology in Germany and is utilized throughout the entire European Union. dynaCERT's HydraGEN™ Technology is the only hydrogen gas supply system that has ever been approved by KBA and received Homologation for the ABE Type Approval.

#### *CE Marking Approval*

dynaCERT's HydraGEN™ HGx models have been granted the CE marking. The CE marking is a mandatory conformity marking needed for products to be sold in the European Economic Area.

#### *FCC Declaration of Conformity*

dynaCERT's HydraGEN HG1 has passed all criteria it was tested for by the FCC and has attained the FCC Declaration of Conformity. The FCC DoC is mandatory for the sale of all devices classified under part 15 and part 18 under FCC regulations.

#### *Smart Sustainable Company Rating Seal*

dynaCERT has received the Smart Sustainable Company Rating Seal based on the results of the rigorous analysis of Triple-A Analytics GmbH of Austria ("Triple-A"). This honourable distinction of dynaCERT and our HydraGEN™ Technology as it applies to the United Nations Sustainable Development Goals as well as United Nations Global Compact Principals has been evaluated as "high", the highest global ranking in its category.

### **Awards:**

- The prestigious Gold Medal at the 2018 Edison Best New Product Award™ for its HydraGEN™ Technology.
- The prize for Energy Solutions in 2019 in the Business-to-Business category at the German Innovation Awards ("GIA") competition.
- ESQR's Quality Choice Prize 2019 Winner.

#### AWARDS



#### VERIFICATION



Validated through both On-Road and accredited 3rd party testing, dynaCERT's HydraGEN™ Technology produced results of:

- Up to 19.2% reduction in Fuel Consumption
- Up to 88.7% reduction in NOx emissions
- Up to 46.7% reduction in CO emissions
- Up to 9.6% reduction in CO2 emissions
- Up to 57.1% reduction in THC emissions
- Up to 55.3% reduction in particulate matter (no black smoke)
- Increased engine power and torque
- Extended engine and oil life (lower maintenance costs)
- Up to 60% reduction of Diesel Emission Fuel (DEF) usage
- Reduction of Diesel Particulate Filter (DPF) replacement period by at least 33%

HydraGEN™ is an onboard electrolysis system that generates H2 and O2 from distilled water. It uses a 4.5 liters distilled water jug for 3000 to 5000 km travel at 105km/h.

The unit collects engine parameters data for the first 3 weeks through an OBD telematics system to collect various fuel and engine parameters which are used to ensure optimal HydraGEN™ performance.

HydraGEN™ Technology has been installed on Cummins, Volvo, Detroit Diesel, John Deere, Komatsu, Mack, Navistar, Caterpillar, EMD, MAN and Mercedes Benz. These engine manufacturers have provided warranty statements that protect that state HydraGEN™ Technology doesn't void the OEM warranty on the engine. We also provide a liability insurance certificate to cover any loss of revenue if engine is down due to HydraGEN™ unit malfunction.

HydraGEN™ technology is an on-demand system, meaning there is no storage of hydrogen gas. Hydrogen is the lightest gas and thus dissipates/disperses into the air very quickly. Only when it is stored can it become unsafe. As well as being produced on-demand, the quantity of hydrogen produced is designed to be in small quantities. The hydrogen that is produced in the HydraGEN™ unit is safe within the design parameters of the system.

Clients are getting real life 10-20% savings, some are getting more and some are getting less. Fuel savings are dependent on the driving habits of the driver, trailer load limits, driving terrain and environmental conditions. Fuel improvement of MPG varies by speed and load factor of the engine.

Regular maintenance includes refilling the unit with distilled water approximately every 5,000 km, or 50 hours of operation.

The Technology comes with a standard one-year warranty and the option to purchase warranty for an additional 2 years.

HydraGEN™ Technology has been engineered to operate at temperatures as low as -60 degrees Celsius. The system has built in heaters that automatically turn on as required. These heaters will bring the unit to operating temperatures in about 3 hours after an extended downtime in winter conditions.

The maximum consumption of electrical power is approximately 15-25 Amps in winter conditions. This is about the same amount of energy consumed by the vehicle's headlights. The unit is only running when the truck is turned on and the engine is running. So long as the engine is running, the trucks alternator will constantly produce enough electricity to charge the battery with the extra energy that is normally produced as waste. A HydraGEN™ unit uses the energy that would go to waste.

The improved engine combustion results in less soot build up inside the engine. The outcome of this is a cleaner running engine with cleaner oil, longer engine life and lower overall engine maintenance, thus resulting in lower overall costs.

The addition of H2 and O2 gases make the engine burn at a lower average temperature, run cooler overall and as a result engine life is extended.

It takes about 2.5 to 3 hours labor for 2 mechanics to install a HydraGEN™ unit on a truck.

An installed system cost is \$8,850 plus the shipping cost.

System needs to be flushed and refilled with potassium hydroxide every 9 months.

Drivers may feel more engine power and can perform deliveries faster.

Engine oil life may be extended following an oil sampling analyses.

The HydraLytics™ telematics software that is in development will collect fuel economy and emissions reduction information from the HydraGEN™ unit's operation and will be visible to drivers and dispatchers through the MyHydraGEN™ application. In the future, HydraLytics™ will allow for the collection of carbon credits, which will be shared with the owner of the HydraGEN™ unit.

The HydraGEN™ HG145B

Dimensions: 25.5" height x 20" width x 11.5" depth

Weight: 60 lbs.

Regards,  
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