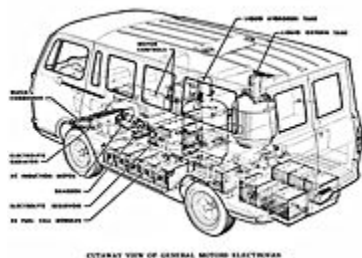


Generations of GM History

- Page

1966 GM Electrovan

Media



Cutaway view of 1966 GM Electrovan

I was there...

Tell us your story >

Written by Bill Bowman

The General Motors Electrovan, a converted GMC Handivan demonstrated that electric propulsion with fuel cells was technically feasible. The 1966 GM Electrovan was credited with being the first hydrogen fuel cell car ever produced. Though fuel cells have been around since the early 1800's, General Motors was the first to use a fuel cell to power the wheels of a vehicle.

The fuel cell van program started when it became apparent that modules were available with a power density high enough to make an experimental vehicle possible. The intent was to design a vehicle that could match a standard delivery van in acceleration, performance, and driving range.

Electrovan's fuel cell powerplant supplied a continuous output of about 32 kilowatts and a peak output of 160 kilowatts. It consisted of 32 thin-electrode fuel cell modules connected in series. The motor and control system on the Electrovan were mounted between and under the two front seats. Located beneath the floor were the 32 fuel cell modules interconnected by some 550 feet of plastic piping. Also part of the installation were cryogenic hydrogen and oxygen tanks and an electrolyte reservoir mounted behind the middle bench seat. About 45 gallons of potassium hydroxide were required to fill the modules, the piping and the reservoir. This electrolyte alone weighed 550 pounds bringing the van's total weight to 7,100 pounds.

The Electrovan had a top speed of 70 MPH. It could accelerate from 0-60 MPH in 30 seconds and had a range of approximately 150 miles. Because of safety concerns, the Electrovan was only used on company property.

After the GM Electrovan was built, tested and shown off to journalists in 1966, the project was scrapped, largely because it was cost-prohibitive. The platinum used in the fuel cell was enough to "buy a whole fleet of vans" and there was absolutely no supporting hydrogen infrastructure in place at that time.

Sources

GM Design Show Car Book: Volume I. 9/99

Hydrogen Cars: 1966 GM Electrovan (<http://www.hydrogencarsnow.com/gm-electrovan.htm>)

Related Links

1966, Working On The First Fuel Cell Vehicle

GM Heritage Center Open House

Watch Pod Tech video with Greg Wallace, GM Heritage Center, and the GM Electrovan

(<http://www.podtech.net/home/3577/the-electrovan-electrovair>)

Hydrogen Propulsion Circa 1966: The GM Electrovan (<http://jalopnik.com/cars/alternative-energy/hydrogen-propulsion-circa-1966-the-gm-electrovan-173962.php>)

New York Times Private Sector Section: "An Electrovan, Not an Edsel" by Danny Hakim. November 17, 2002

(<http://query.nytimes.com/gst/fullpage.html?res=950DE0D81530F934A25752C1A9649C8B63>)



English

Retrieved from "http://history.gmheritagecenter.com/wiki/index.php/1966_GM_Electrovan"

Categories: Design | Concept Vehicles | Eras | 1959-1981 Revolution | Environment & Energy | Alternative Propulsion

- Site map