

Inflatable electric car can drive off cliffs

June 4 2008, by Lisa Zyga



Some of XP Vehicles' designs in development. The company hopes to have a prototype of the inflatable electric car by the end of the year, with production in 2010 at the earliest.

It's hard to say what the most intriguing thing about XP Vehicles' inflatable car is. Maybe it's that the car can travel for up to 2,500 miles on a single electric charge (the distance across the US is roughly 3,000 miles).

Or maybe it's the fact that you buy the car online, it gets shipped to you in two cardboard boxes, and the estimated assembly time is less than two hours. Perhaps it's that the car is made out of "airbags" - the same polymer materials used to cushion NASA's rovers when they landed on Mars. Then again, it could be the company's claim that you can drive the

car off a cliff without serious injury, and that it will float in a flood or tsunami.

Together, these features characterize the Whisper, XP Vehicles' solution to the oil crisis. The company doesn't expect the car to be in production until 2010 at the earliest, but when it is, it will hopefully be an extremely affordable \$10,000 or less. XP Vehicles envisions four body styles, along with a special low-priced model for the Southeast Asian market.

As the San Francisco-based start-up explains on its Web site, the miracle behind the 2,500-mile range is a "hot-swap XPack Multi-Core Battery/Fuel Cell power plant" invented by the founders of XP Vehicles. Or, without the hot-swap technology, the car can travel up to 300 miles on a single charge, thanks to its light weight.

XP Vehicles hopes to have a prototype developed by the end of the year, and will begin working on built-to-order vehicles for its OEM partners only. Later, it plans to sell to dealers, who will assemble the vehicle before selling to consumers.

In the future, individuals may also order online, pick out their desired features as if customizing a PC, and receive the car by a common carrier. Options will include iPod mounts, 20 colors, trim, decals, roof/no roof, car covers, solar mounts, stereos, integrated pumps, home connections, GPS, battery clubs, alarms, and more. Two adults with a high school education should be able to unpack and inflate the car in less than two hours, according to the company. And, if you don't have enough room in the garage, some models even fold up after assembly for storage. Other models "can change bodies" (details on that are sparse).

Different models of the car will be made of various polymers, carbon fiber, and/or other strong, ultra-light-weight materials - the same stuff that protected the Mars rovers' sensitive electronics as they fell and

bounced along the planet's surface. XP Vehicles claims that the car will be one of the safest on the road for drivers, passengers, and pedestrians.

"Research shows that the metal in your car is the largest cause of death and injury," the company explains on its Web site. "The shrapnel, body compression immobility, lung compression, dismemberment and other serious results of a crash are most often caused by the inflexibility of metal and the permanent deformation of the body of the metal car around or into your body. Hence the need for, and name of, the Jaws of Life."

For another thing, the car won't "blow off the road," due to a special ballast and aerodynamic design features which make the car very stable. An inflatable car might even provide additional safety measures in certain circumstances, such as if someone were to accidentally drive it off a cliff - although the company says that it's not intended for this use.

If you're concerned that an inflatable car may be too tempting for a tire-slashing juvenile delinquent, XP Vehicles says that their car bodies are actually pretty difficult to pierce. The cars have multiple chambers, so a single slice wouldn't pop it like a balloon - "somebody would really have to go at it" to cause major damage, the company says. And, in the case of vandalism, you can repair it yourself.

Whether it's legal to drive an inflatable car on the road will depend on local ordinances, which dealers or individual buyers will be responsible for knowing. But, as XP Vehicles estimates a \$200 billion market for alternative energy vehicles, changes in regulations seem inevitable.

XP Vehicles is not releasing specific vehicle data until an official launch, which will be announced after the company receives various safety certification papers.

More information: <http://www.xpcarteam.com>

via: [Gizmodo](#)

Citation: Inflatable electric car can drive off cliffs (2008, June 4) retrieved 20 September 2024
from <https://phys.org/news/2008-06-inflatable-electric-car-cliffs.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.