

Re: Any physicist care to speculate about this idea?

Re: Any physicist care to speculate about this idea?

Source: <http://sci.tech-archive.net/Archive/sci.physics/2008-04/msg01471.html>

- *From:* "gb6724@xxxxxxxx" <gb6724@xxxxxxxx>
 - *Date:* Mon, 14 Apr 2008 16:02:57 -0700 (PDT)
-

On Apr 14, 5:15 pm, Martin Hogbin <goatNOSP...@xxxxxxxx> wrote:

gb wrote:

Using the break pedal, we can bring a very heavy object like a car to a quick stop. Can we use the break pedal to achieve equal energy not toward stopping but toward speed acceleration?

I came to the answer that yes. We can for example compress air with the force of the break pedal, and compressed air can run a car and produce equal force in acceleration given the right technological advances.

See article on car running on compressed air:
<http://www.msnbc.msn.com/id/6138972>

Let's put it this way: How much energy would be needed to bring a one ton object traveling at 100 kilometers an hour to a quick stop? Can we produce that much energy in reverse engineering to accelerate a car just as effectively to 100 kilometers an hour? Sure, there are hybrid systems that are able to withdraw a lot of energy from the breaking process. There is technology and space for taking energy from the slowing car and use some of it to drive the car electrically later on.

So the question is, and we see what break pads do by using pressure to force stop wheels, can we build energy out of a strong pressure that we make with a break pedal? How many bars of pressure do these breaks use? We know that the air car in the link above uses compressed air tanks that are pumped with 300 bars of pressure, about 10 times more pressure is used than what is inside a car's tire. This tank of

Re: Any physicist care to speculate about this idea?

compressed air can run a car for 50 miles with top speed. It takes four hours to compress the tank using electricity. When air is compressed in such a tank, there is a lot of back pressure, and a lot of energy is lost in the electric compression process, meaning the air compressing motor has to work a lot to raise the PSI in this tank to 300. But how much energy is in a single compression used by the car's break pedal, and how much energy can come out of this single pressing down of the break pedal with a human leg force back into the motor that runs on compressed air?

The question is how many cubic centimeters of compressed air with 300PSI we can produce with a single break pedal and how many seconds of full acceleration that can provide to this air car engine. If I would be a physicist I could probably calculate this.

The idea of recovering the energy lost in braking is well known. It could be stored electrically or, as you suggest, as compressed air. The energy that might be added by your leg when you press the brake pedal is insignificant.

Martin Hogbin

I suspected that. I thought based on the air car that it can be calculated how much energy is in a break pedal, how much compressed air it makes for a 30hp motor that runs on compressed air. A millisecond of power from the I don't know, a thousand cubic millimeters of compressed air that can be compressed by a break pedal, probably more cubic millimeters.

The question and idea is: a break pedal can apply a large force over a 1 ton car to stop it, that large force produced by the break pedal can create compressed air which in turn can run an air car for a period of time. I was wondering how long can a car like that operate on compressed air produced by foot.

.