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Can we use an air driven motor clean energy

Engine that works with compressed air or refrigerant phase change materials, the objective with this idea is to implement vehicles that consume the minimum amount of energy to do an amount of work, A rotary air engine is a great match for a generator, as they both spin and work best at constant speeds. This could be a good interim solution for regions like California, which may resurrect their zero emissions mandate.

Additional submitted attachment is included below.

Ultra-Efficient Rotary Compressed-Air Motor

The origin of the innovation was established with the objective to perform research and development on an innovative air motor design, invented and first tried by Angelo Di Pietro in 1997.The company focused on developing prototype models to test the concept and understand the performance characteristics. During this period additional prototypes were tested, showing improving performance, power to weight ratio and air consumption. Current development shows performance and efficiency to be considerable superior over state-of-the-art engine technology.

Rotary Air Engine is its ability to turn with a pressure differential of a mere 1 psi. This is accomplished by the use of sliding air gates or dams at six points around the rotor, which limit air flow, forcing the high pressure air to push the rotor, instead of rushing by it.
This very efficient, effective, non-reciprocating configuration allows the air engine to be very small and compact, yet very powerful. A combination of high power and small size / weight translates into a great application for personal transportation.

A rotary air engine is a great match for a generator, as they both spin and work best at constant speeds. This could be a good interim solution for regions like California, which may resurrect their zero emissions mandate, until cheaper, longer lasting and faster recharging solutions emerge.

A single engine can power a 900kg car. Our engine achieves a mechanical efficiency of 90% and delivers constant torque with virtually no friction. Only 1 PSI (≈ 6,8 kPa) of pressure is needed to overcome the friction.

It works the cylindrical shaft driver, forced by the air pressure on its outer wall, moves eccentrically, thereby driving the engines shaft by means of two rolling elements mounted on bearings on the shaft.

The rolling motion of the shaft driver inside the stator is cushioned by a thin film of air. Timing and duration of the air inlet and exhaust is governed by a slotted timer which is mounted on the output shaft and rotates at the same speed as the engine.

Variation of performance parameters of the motor is easily achieved by varying the time during which the air is allowed to enter the chamber: A longer air inlet period allows more air to flow into the chamber and therefore results in more torque.

A shorter inlet period will limit the air supply and allows the air in the chamber to perform expansion work at a much higher efficiency. In this way compressed air (energy) consumption can be exchanged for higher torque and power output depending on the requirements of the application.
Engine speed and torque are simply controlled by throttling the volume or pressure of air into the engine.

The different of this technology is that it does not require any fuel. By compressing air into a tank, the stored air will release which can then move the driveshaft, and then the wheels.The main benefit of the compressed car is that it produced absolutely no pollution