



DUO ENGINE THERMO ENERGY

INTRODUCTION:

In my previous paper we saw how to source electric energy from heat that could help us run an electric car through thermo energy conversion. Now, let us look into the idea of incorporating thermo electric powertrain in air boost technology, and that's what this paper is about, we are going to take a look on how both the thermo electric powertrain and air boost technology can be brought into a car to make it more eco friendly and with a secondary power source.

WHY DUO ENGINE:

Duo engine concept in a car is something that is more useful and helps you experience two different style of power generation from one car. I feel like this duo engine concept is something that helps keep the vehicle population considerably under control and helps reduce traffic by giving the customer, one performance oriented engine and one eco friendly tuned engine.

At the same time the vehicle overall maintenance expense will be reduced significantly.



HOW IT WORKS:

As my previous paper describes on how the thermo electric energy conversion works alone as a single powertrain, now lets see how the thermo energy conversion powertrain can be incorporated with the air boost technology.

First let me explain it step by step.

STEP-BY-STEP PROCESS:

1. The electric energy got through converting heat by the thermo energy unit is used to charge the batteries.
2. The power for the functioning of air boost engine will be sourced from the battery through a stabilizer to avoid any power fluctuations.
3. Power will also be distributed to various motors of the air boost engine that's required for its functioning.
4. When the motor is been powered the air suction motor will start sucking in air.
5. The air is filtered by allowing it to pass through the air filter.
6. Later the filtered air will be stored in an air storage box.



7. The stored air will then make its way through the air boost pump which will pressurize the air.

8. Air will get filtered again by an air filter.

9. Air gets boosted again by a air booster motor that's in the middle of exhaust piping.

10. The pressurized air gets out of the exhaust and pushes the car ahead.

11. The power from batteries will also be sent to the rear wheels through a vehicle power conversion motor to get extra momentum for the car.

Now let me explain the same in detail:

The car has 4 batteries in total, and 3 of the batteries are used to power the motors, 1 battery to power the accessories. Motor starts to suck in the air from both sides of the car and delivers the air to a air storage box after passing through a air filter.

Air storage box is being used here, because, incase the car is been turned off, the air in the motor can be stored in the storage box that



can instantly be used on restart for an instant thrust generation to move the car.

Once the air crosses the air storage container, It will be pressurized using an air boost motor that would generate the force needed to push the car ahead, and will go through it's final air filtration process.

The air gets boosted again for the last time and exits through the exhaust pipes that pushes the car ahead.

Eventually the batteries will power the vehicle energy conversion motor and convert the electrical energy to mechanical energy, and send the power to rear wheels of the car to get extra momentum for a instant move.

THE BENEFITS OF HAVING A THERMO POWERED AIR BOOST ENGINE:

- Low maintenance expense, because of electric energy and air boost technology, this car will have an easy and low cost maintenance.
- No transmission, means reaches more consumers, and makes driving the car much easier.

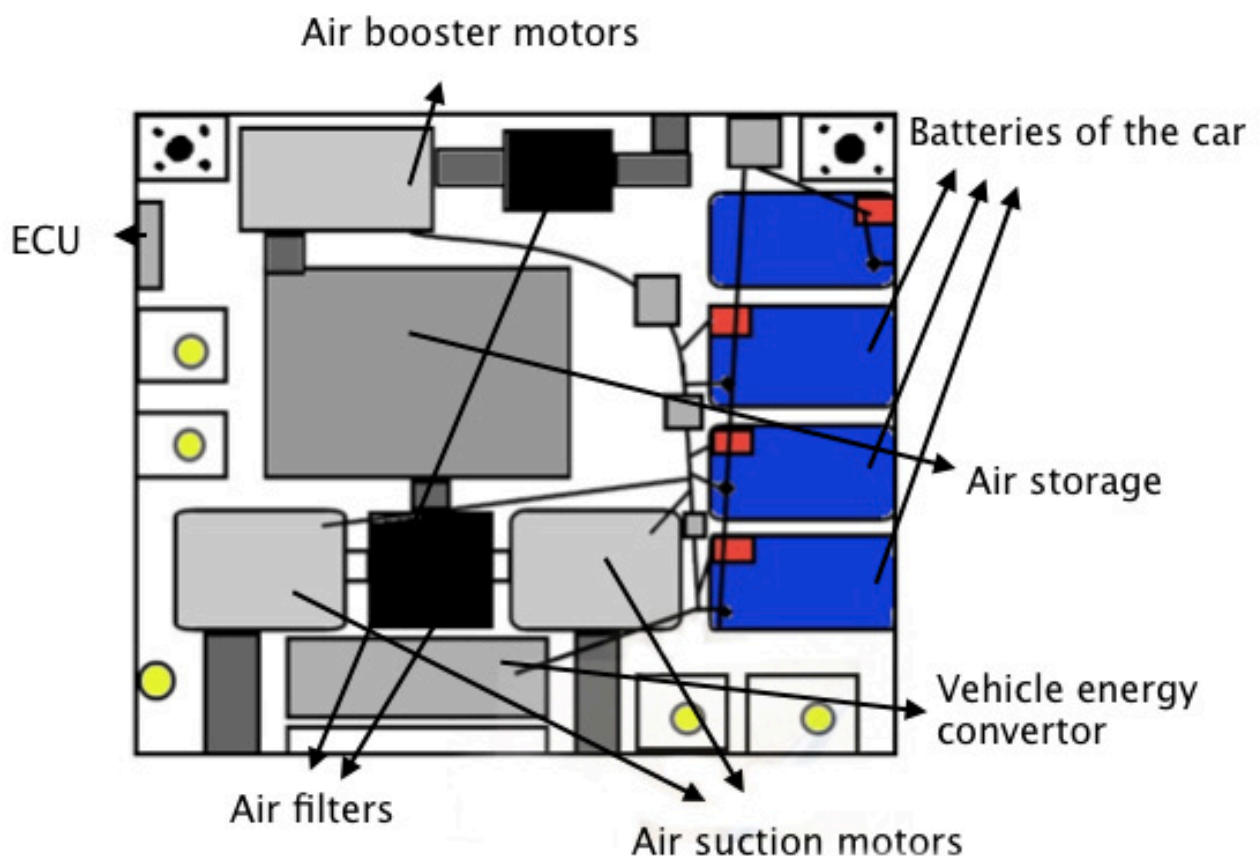


- Environmental friendly, because the batteries gets charged out of heat and air boost technology get powered by air and it also purifies air, makes this an environment healthy concept.
- No fuel expense, as this technology uses no fuel, it's probably one of the most user-friendly powertrain for daily usage.
- Reduction in pollution, as it is a environmental friendly technology and uses no fuel, there will be zero pollution with this technology.
- Aerodynamic design, an aerodynamic design not only reduces the body roll of a car while taking a corner but also reduces the cars overall drag and provides a free flow while travelling at high speeds, still having adequate amount of down force to keep the car planted and provide sense of confidence to the driver and occupants in the vehicle, and this aerodynamic design will let this technology perform with a free flow without wasting any power on unwarranted drag force.
- Brake energy recuperation and deceleration energy recuperation, this technology will help to use every possible energy source available to charge the batteries without wasting any bit of energy.

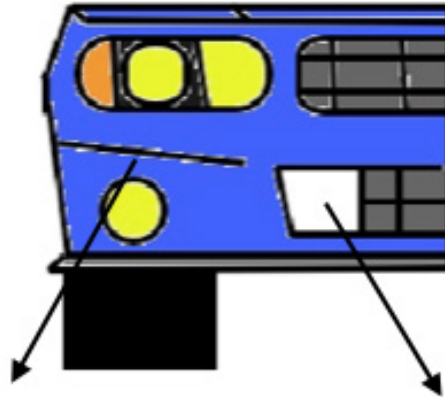
- Low NVH (Noise vibration and harshness), by removing the combusted engine, the typical engine sound and vibrations from it can be rectified, which will give the occupants of the car a nice pleasant journey.

Now, let us look into some diagrams on how the this technology will look like in a car.

Engine Bay:



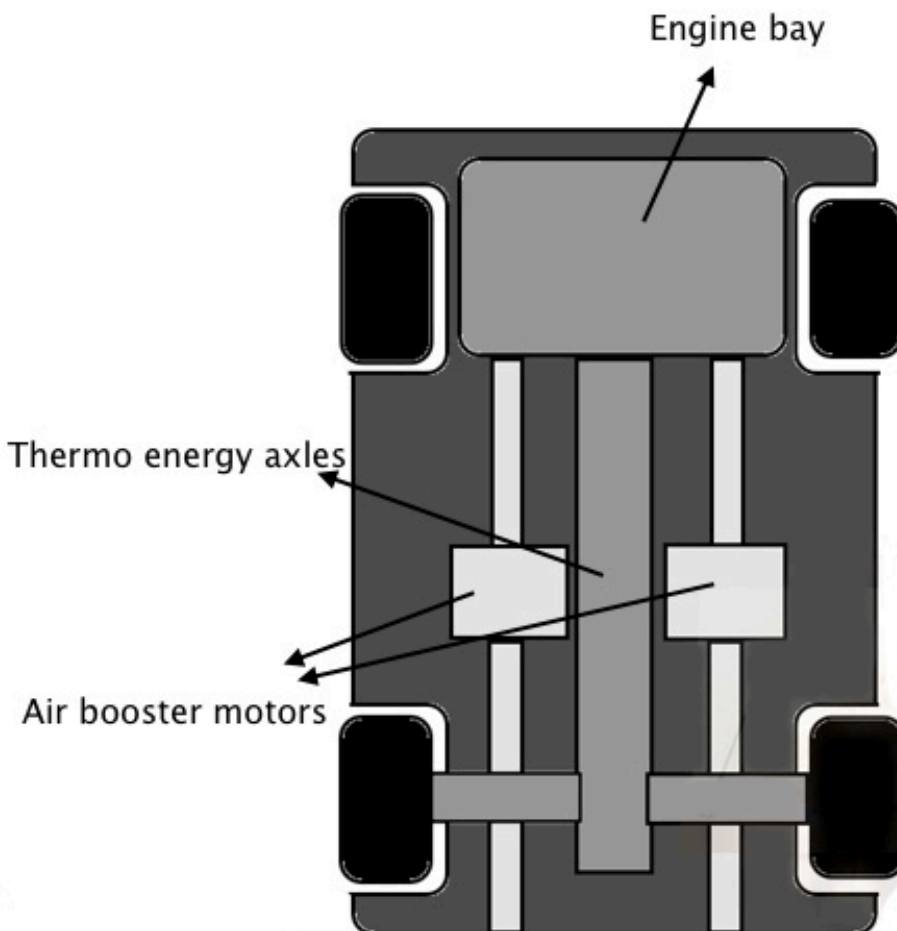
Front View:



Aerodynamic design

Hole for suction of air

Underbody View:





CONCLUSION:

So this is how the air boost technology can be used with a thermo electric device in a car, and this design is easy to use at the same time eco friendly. No transmission means the car can easily be driven without much distraction, as it filters the air we can get a pure air without pollution. I hope this design helps in building a much user friendly and eco friendly powered car.