

History of my achievements in the field of The diesel aircraft powered by a diesel car engine

Diesel engines have made great progress in recent years and have even exceeded the performance of gasoline engines in many ways.

The idea is to adapt a light homebuilt aircraft with modern aerodynamics putting all the best advantage of the benefits together they are: economy, reliability, simplicity, low-end torque, and ease of building.

Gazaile 2 is the culmination of 10 years of development and performance is appointment 3.5 liters, 62 mph to 138 mph (100 to 220 km / h), and 2 gallons / hour (7.7 l / h). It uses the engine of the PSA Citroën AX and Peugeot de106 of 53 hp which allows the Gazaile 2 to reach 250 km / h! You are not limited to this engine alone.



Below is the first was the first in recent years (1998) myself and in collaboration with my friend Lucas, we achieved a successful and operational demonstrator diesel aircraft with a diesel engine (engine Opel Corsa).



Then I realized the first ULM diesel (engine Citroen AX on COYOTE).



Then I made an enhanced version called the Diesel GAZ'AILE 1 (Motor Opel Astra) much better.



BENEFITS

On the economic front:

Energy saving:

The diesel engine-consumes 25% to 30% less than the gasoline engine!

A diesel engine can run on kerosene, bio-fuels etc...the fuel cost per liter may in some cases be a little higher, but is offset by the greater fuel economy!

Hence a very significant reduction of the cost per flight hour is very achievable with a diesel engine.

On purchasing the engine; the cost of buying a car diesel engine is much less than a comparable aircraft engine type Rotax commonly used. Price in US about \$20,000 for the Rotax and purchasing a rebuilt diesel is much much less!

An amateur can make a complete diesel engine plane for close to half the price Purchase a Rotax engine alone!

On the environmental front:

A nuisance of aircraft noise level is high, an aircraft diesel is less noisy as the exhaust is less abrupt than for gasoline internal combustion engines. The propeller is generating less noise, thanks to its torque at lower rpm the diesel engine allows you to run a larger prop at lower speeds and therefore reduce noise and increase performance.

In addition it is environmentally friendly it allows the use of biofuels (rapeseed, sunflower, bio-diesel).

I have used mixed with 50% of such fuels on diesel without modification and with the same comparable performance.

In terms of performance:

Maintains power at altitude, the turbo mounted original series compensates for the loss of power due to altitude which can allow you to fly higher and have a better airspeed cruise. The high torque allows a better adaptation of the helical pitch, ensuring a higher degree of mounting.

In terms of security:

You get improved reliability and durability with a diesel engine, ease of management, (no heating fuel, and control of wealth, electric pump, and magneto selection).

Less fuel consumed (reservoir management Easy0, and fuel is less flammable!

The idea is gaining ground:

In 96 I started the DIESEL project. This has generated much interest among homebuilders with 40 bundles of

plans being released; twenty Diesels are currently under construction around the world at this time. On the other hand a Dutch industrial company has made diesels in the composite same powertrain (see www.dac-ranger.nl) and they are expensive! Many manufacturers are working on this concept: Renault SMA, Thiele,

Dieselair ... and even more! Some aircraft are now equipped with CDN Diesel. The popularity of diesel engines is seen each month in the trade press as flying clubs are beginning to equip

themselves with Diamont, Socata,
and Robin diesel powered aircraft.

Everyone is beginning to understand the value of this method of propulsion. We can associate this type of engine performance with unprecedented economy, power, safety, reliability, and price best obtainable by the home builder! No aircraft or land vehicle comes close that consumes so little fuel, has such good speed and can carry an average of 2 persons!