

Israeli Inventions Reduce Fuel Dependency

by Hillel Fendel

Tammuz 22, 5769, 14 July 09 06:26

(Israelnationalnews.com) Two Israeli inventions, including one by a 16-year-old, should help render the world less dependent on oil.

The first one is an entirely different type of engine, while the second one is a simple add-on, built out of a special metal alloy that makes all the difference.

Binyamin Hugo Tour of Kiryat Gat in southern Israel, a former Israel Air Force officer and mechanic, came to his invention with a solid knowledge of the science involved. The principle of his new engine is simple: Instead of compromising on the necessary conditions for efficient combustion by carrying out the entire process in one cylinder, divide the process up into two cylinders, each one with optimum conditions for part of the process.

The result is a new type of internal combustion engine which Tour predicts will double engine efficiency, reduce carbon emissions by 50%, and cut nitrogen oxide emissions by 80%.

Tour and his son Oded co-founded a United States company to produce his new engine, and has received three patents on it.

The second invention was discovered by Tzion Badash, of the upper-class town of Savyon, when he was only 16. The small, circular device, called the Z5, has no moving parts, and can be fairly easily fitted onto nearly all existing car air filters. All it does, according to Badash – now 18 - is to change, for just a fraction of a second, the way air behaves when it enters the combustion chamber. This change, effected because of the precise metal alloy used in the device, allows the engine to use air more efficiently, saving up to 40% on fuel and giving more thrust at the same time.

For more information on the Z5, [click here](#), and for the two-cylinder engine, [click here](#).