

Bureaucracy brakes old cars

One normative of Portuguese Governmental Agency Institute of Mobility and Transport (IMT) prevents particle reducer to be validated in the Portuguese market
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An innovative device to optimize combustion engines made in Portugal reduces the exhaust gases emission and the fuel consumption, based in the induction of hydrogen. The device is being marketed in more than 50 countries, from Germany to United Kingdom, from Russia to China, from Brazil to South Africa and Middle East, being recognized worldwide as an effective particle emission reducer, but not in Portugal.

The device - Ultimate Cell - is tested and approved to install by the Mobility and Transportation Institute (IMT). The reduction capability of emissions up to 80% and fuel consumption reduction between 10% and 30% of diesel and petrol is proven, but it's still not recognized as a particle emissions reducer. This because in the IMT deliberation published in Portuguese "Law Gazette" in the 9th April 2012, only refers that "particle filters" installed must assure a reduction of the particle emissions of at least 50%, not including other devices.



Ideal solution

The deadlock, however, has everything to be resolved soon. The controversy caused by the circulation prohibition of vehicles over 14 years in Lisbon, with registration dates before 2000, is driving the Lisbon Municipality and IMT itself to adopt this new device as a serious candidate to solve this situation, recognizing it finally as a particle emissions reducer.

"This is the ideal solution for old cars, where the effectiveness of the product is more noticed", says Vítor Gonçalo, managing partner of the company Ultimate Power, located at Cacém, in the Sintra municipality, that is producing this device since 2012. The company believes that this device is the solution and the Lisbon Municipality knows it, having already asked to Ultimate Power a declaration that proves the practical results of the usage of this revolutionary cell. Only the municipal assembly and the IMT can give the next step to use this device, allowing old cars to run again through the capital without harm the environment. The city hall has already installed this new device in ten vehicles at service. The solution to this problem is urgent, since the penalty of non-compliance of the European Union environmental normatives can represent 650 thousand euros per day, as alerts Nuno Sequeira, president of QUERCUS.

The Light Vehicles Road Transporters Association (ANTRAL) was the first Portuguese entity to approach Ultimate Power. With 7500 taxis in Lisbon, from which 1289 are registered before the year of 1996, has already asked to this technology company to keep their cars rolling in the city without having to replace them on their fleet. "We were contacted in December 2013 and on the 3rd January 2014, advised by the IMT, make a test in a Periodical Inspection Center. A Mercedes Benz taxi from 1996, with 600 thousand kilometers, and another from 1995 with 750 thousand kilometers, measured the emissions of particles resulting in a reduction of 80, 5% in the first car and 57% in the second", keeps saying the navy ex-commander and hydrographic engineer, Vítor Gonçalo. Then were tested the passenger buses that obtained a reduction between 54% and 75% "Our lower level of reduction but still above the value that the legislation obligates", emphasizes the managing partner of the company.

World market

With certified results, the IMT has approved the installation of the device, but that's it. That's why the business is not yet full steam ahead in Portugal. In foreign countries, the sales are huge. "We are talking about devices that can also work in big ships, generators, trains, electric power plants... To be up to all the demand, the strategy of the company goes by creating four factories, one in Brazil to cover South America, another one in Mexico for Latin America, another one in Angola or South Africa and a last one in China. The worldwide sales results of the device keep the company growing.

In two and a half years, the company achieved "very positive" results always based in the definition of an initial investment of each distributor for each country, depending this initial investment on a market survey and the number of inhabitants for each region. The initial production of devices for each market is by this method paid in advance.

Each Ultimate Cell has, in Portugal, a final cost of around 250€ (199€+VAT+Installation). The return of investment period for a common user, which makes between 20 to 25 kilometers per year, is around three months, assures Vítor Gonçalo. A product liability insurance protects each device, ensuring any eventual fail that the innovative system may have.

How it works

Oposing the particle filters, this device is placed before the engine, and not on the exhaust system. It's powered directly by the battery 12volts of the car and, assured by the integrated electronic module, only turns on when the engine is running, avoiding unnecessary electric consumption.

When the engine is running, the unit starts an electrolysis process, also electronically managed, resulting in the chemical separation of the hydrogen molecules, that are mixed in the air intake into the engine. The device will optimize the fuel burn, making the engine more efficient with less environmental impact. The supplied electrolyte with the unit allows a car to run about 70 thousand kilometers or about 2 thousand hours.



FOTO NUNO BOTELHO