

## Fatally useful fuel improvement.

85 years ago, preparing for a big war, German Luftwaffe understood the need to maximize the bombing load and the range of the bombardier. **What else** can still be done if the most powerful engine is installed on the best chassis (aerodynamics, weight, strength), but the combat radius is necessary to increase, and the length of the take-off track must be reduced? The answer found the aircraft designer Hugo Junkers - improve fuel. It is **more accurate to improve existing fuel**.

Despite the fact that the quality of the German Aviation Kerosene guaranteed by German pedantry, SS and concentration camps, studies have shown that at the time of peak loads, part of the fuel burns not completely, which leads to its overrun, accelerated wear of motors, and most importantly, Reduces the load and increases the length of running.

In the conditions of the need to bomb England from German airfields and the upcoming war from the USSR with his primitive airfields, it was more than relevant. The technical solution was the "**Aviation Kerosene Activator**" - a mechanical device of a rotary type, which for a short time changed the physico-chemical structure of kerosene, due to which the combustion is increased, the power of the standard motor and the aircraft could be guaranteed to fly into the air in the conditions of overload or short runway. All Junckers type bombers used this device.



It was a terrestrial device through which refuel aircraft tank and it worked. Below our old experiences, how the temperature of the combustion of diesel fuel and wick increases (with the same Torch area) before and after such treatment.

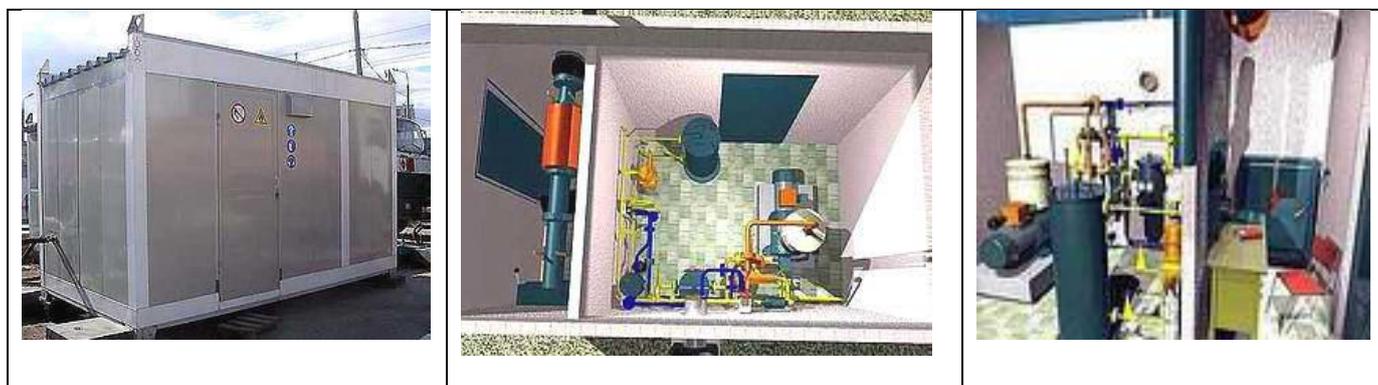


After the occupation of Germany, the Soviet military specialists reviewed and evaluated a device that was removed in the USSR, patented, put into production and used for the same purpose - maximizing the bomb load and minimizing the length of the runway for the long-range bombers of the USSR.



This device was twice patented by the defense industry of the USSR (mid 50hxx and early 70s), but during the restructuring period (87 -93), due to a sharp reduction in defense projects, was forgotten. In those days, many technical solutions were forgotten or lost.

In the early 1990s, one Moscow company patented this device several times and created a stationary module on its base to "improve the quality of diesel fuel", which, to maximize the sale price, was located in the sea container, together with additional passive centrifuges for water removal and filters, to remove dirt. The rest of the place was filled with a cabin for the operator, its table, chair, bed, a TV and a bedside table for money and condoms.



As in the German version, the "improved properties" of fuel were maximal immediately after treatment and kept, decreasing to the initial state, 2-4 days, depending on the air temperature, but the diesel truck immediately rode faster, which was instantly fixed drivers, by their backs and ass when starting and accelerating speed.

Our experiments showed that the maximum load of the engine, the growth of specific consumption of fuel processed minimum, in contrast to the linear growth of a standard diesel fuel. What are you still good noted?

Not much and not enough.

1. **Improved winter start.** Motors who demanded reinforced starter work at once, "from the chuck."

2. **Long operation of the motor in full load without its overheating.**

[www.energy-saving-technology.com/documentation/dies\\_eng/diesel\\_engine\\_en.pdf](http://www.energy-saving-technology.com/documentation/dies_eng/diesel_engine_en.pdf)

3. The effect of savings (**decrease in the specific consumption**) significantly depended on the load and the degree of wear of the motor. The more wear - the more savings. The newer the motor is the less savings. The range was from 1% at the factory. Malysheva on a new diesel diesel, up to 9-11% for a locomotive with womb 70% (Sevgok, Krivoy Rog).

[www.afuelsystems.com/ru/gok1/sevgok.html](http://www.afuelsystems.com/ru/gok1/sevgok.html) ( rus link)

4. We used **our module** for processing ship fuel type IFO-180 **on ferry** in Belgium and obtained a significant decrease in viscosity, the number and size of mechanical impurities, smoke and specific consumption by 4%.

[www.energy-saving-technology.com/documentation/ship/trga-ship-light-en.pdf](http://www.energy-saving-technology.com/documentation/ship/trga-ship-light-en.pdf)

5. This module was a great tool for the task of **reducing the limit filterability temperature of diesel fuel** in the conditions of early frosts and lack of summer diesel fuel.



[www.afuelsystems.com/ru/trga/s63.html](http://www.afuelsystems.com/ru/trga/s63.html)

[www.energy-saving-technology.com/en/trga\\_diesel\\_en.html](http://www.energy-saving-technology.com/en/trga_diesel_en.html)

6. The US Army uses such systems **for production in field conditions (Afghanistan, Iraq) of aviation fuel with specified characteristics** by mixing the basic fuel and individual additive package. (Photo lost).

In this way, the idea of Hugo Junkers is still in demand and especially now, when mix fuels are used everywhere, which are characterized by the use of additives, stratification, rigging (deterioration of properties, which leads to early crystallization, clogging the fuel system, reduce the burning speed, lost energy and heat transfer in area of valve and exhaust manifold). Often the packages of fuel additive do not maintain the surface of the piston group, especially when using falsification fuels in the third world countries.

Finally, the last

7. Processed fuel has a high **washing effect that allows to clean the fuel system** from the resins. Just by using processed fuel without using special additives, but with additives - this effect is even more ( it saves an expensive additive).

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### **Why did I write **our module?****

By the method of selection and experiments, we have created our device for modifying liquid fuels, which has improved and successfully used since 2007, to save heavy fuel types (HFO, coke, coal resin, mixed heavy fuels, natural oil, such as fuel, DHF). Why we started with heavy fuel? It is easier to prove fuel savings, and other effects even for investors without technical education, in view of the evidence of basic effects.

[www.energy-saving-technology.com/documentation/trga%20heater%20en%20mail.pdf](http://www.energy-saving-technology.com/documentation/trga%20heater%20en%20mail.pdf)

We started from boilers and stoves (160 successful projects since 2007), and then carefully moved to ship engines and industrial generators (5 projects). The effect is less obvious here without special equipment, but it confirms all 7 points above.

Our device can be both in stationary (filling) - both in Germany, USSR and the USA) and in the form of an on-board module that can be installed on a ship, a tank and even an airplane, in view of our principle of work, which provides smaller weight, power consumption and Great reliability than a fuel module of the Hugo Junkers design.

You will not believe, but our fuel module was used even in the Russian sailing barque Kruzenshtern (a separate issue why) - one of the most famous sailing ships of the world. [www.afuelsystems.com/ru/trga/s246.html](http://www.afuelsystems.com/ru/trga/s246.html) ( rus link )



It was interesting to me that would win - the technical necessity or hatred to Ukraine ... the **technical necessity won**. But after publishing this page, our device was dismantled from the ship...

The level of fuel economy in the amount of 3-4% is unlikely to initiate investors and their intermediaries who are accustomed to numbers with large zeros, but **for the military industry there are indisputable advantages. Repeat them.**

## 1. For ships and boats.

The onboard module / boom enhancer stops the accumulation of sludge behind the separator, several times extends the fuel centrifuge resource, the motor, reduces the smoke and eliminates the overheating of the motor at maximum turnover, increasing its power, reduces the specific fuel consumption and allows for a short time to work on the low-standard fuel. (more viscous). Proven here. Even with an international certificate.

[www.energy-saving-technology.com/documentation/ship/trga-ship-light-en.pdf](http://www.energy-saving-technology.com/documentation/ship/trga-ship-light-en.pdf)

2. **For heavy automotive equipment** (tanks, self-propelled artillery installations and rocket launchers). Lightweight launch in winter, reduced fuel frost temperature, no overheating on the maximum thrust, washing the fuel system, a small fuel economy during forced mode. Here is justified the onboard fuel module with power from the onboard power supply.

3. **For the heavy aircraft-** transport and bombers. There is nothing to add to patents H. Junkers and the USSR. [www.afuelsystems.com/ru/trga/s223.html](http://www.afuelsystems.com/ru/trga/s223.html)

4. **For the production of mixed fuel**, using additives, biodiesel and other components. The ability to prevent separation, to minimize the additives and to ensure uniformity of fuel when refueling. (US experience).

These are not revolutionary technologies, but can be in demand. Especially even if you remember – Junkers-88 and Henkel-111 are almost the same aircraft, with the same motors (the difference is 10 hp), the bombing load was almost the same, **but the average speed of Ju-88 was 37 kilometers more and the radius of Ju- 88 more by 25%**. Therefore, the production of aircraft was: "Heinkel" – 7 716; "Junkers" - 15 100.

You want to talk about this?

Andrii Ruban.

[www.afuelsystems.com](http://www.afuelsystems.com) [www.energy-saving-technology.com](http://www.energy-saving-technology.com)  
[5183898@ukr.net](mailto:5183898@ukr.net) [andrruban@gmail.com](mailto:andrruban@gmail.com)

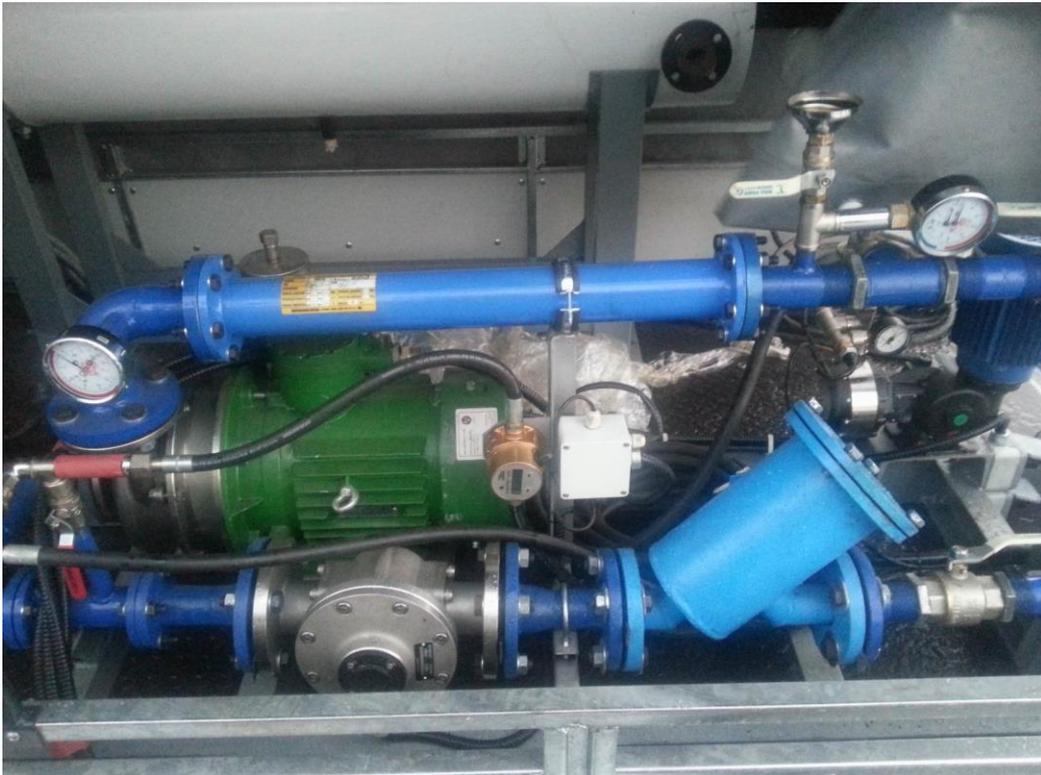
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Some links

[https://www.energy-saving-technology.com/en/trga\\_diesel\\_m.html](https://www.energy-saving-technology.com/en/trga_diesel_m.html)

[http://www.afuelsystems.com/ru/trga/s\\_ostrov.html](http://www.afuelsystems.com/ru/trga/s_ostrov.html)

<https://www.energy-saving-technology.com/en/bus-phil-en.html>



We use our special devices (as passive nozzles) in combination with standard local certified pumps. In this way, we can produce ready-made fuel modules in any country.



