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УДК 811.111

TYPES OF FUEL FOR CARS (ВИДИ ПАЛИВА ДЛЯ АВТОМОБІЛІВ)

Губницький О.О. – здобувач вищої освіти групи ММ1/2

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У статті розглянуті основні види палива їх переваги та недоліки , а також альтернативні.

Ключові слова: *паливо, альтернативне паливо, коефіцієнт корисної дії, вуглець.*

This article examines the main types of fuel, their advantages and disadvantages, as well as alternative fuels.

Keywords: *fuel oil, alternative fuel oil, energy conversion efficiency, carbon.*

Since the appearance of internal combustion engines and up to the present day, products of oil refining have been actively used: petrol, diesel fuel and scrapped gas. We describe the main types of fuel and also compare their environmental, energy and price aspects.

Gasoline is a liquid which is obtained through processing of crude oil. natural (derived from oil) or individually obtained carbohydrate composition composition which boils at most often between 33 °C and 205 °C. A petrol engine has the lowest energy conversion efficiency - 25%.

Advantages: gasoline has high energy capacity gasoline engines (GE) have great power in relation to their volume and weight; GE are reliable (with proper care can operate for tens of years); can operate over a wide range of temperatures, humidity levels and atmospheric pressure to suit most of the climatic conditions encountered.

The disadvantages: When gasoline is combusted, carbon dioxide (CO₂) - a greenhouse gas - is produced; when gasoline is not fully combusted (it occurs during engine operation), carbon monoxide (CO) is produced. CO is a lethal gas; petrol is flammable; inoperative operation.

Diesel fuel is a rare fuel which is used in diesel engines where ignition occurs without any spark. As for the efficiency factor of an atmospheric diesel engine, it is about 40%.

Advantages; diesel cars are economical for gasoline by 30-40%; have longer service life in comparison with gasoline cars (practically two times); has a lower price; have a simple design, produce less carbon emissions into the atmosphere.

The disadvantages are the lack of reliability of the DE (if the DE is of poor quality, the nozzles will soon fail); it requires a three-year warm-up; in cold weather there may be difficulties.

Hybrid engines. Hybrid vehicles utilise both internal combustion engines and electric motors, allowing the benefits of both systems to be utilised. In these models, the battery for the electric motor is often recharged during driving by the combustion engine or by the renewal of the galvanic energy. The corrosive power factor is higher than that of an internal combustion engine.

The advantage is the economical use of fuel in the city as well as the waste of coal. This is due to the fact that the system automatically switches to electric drive at low speeds, such as at a halt or in traffic jams.

Disadvantages: Relatively low driving range, high cost of the system.

The third most widespread fuel in the world is gas (methane natural gas as well as scrap gas). Sintered gas is a by-product of naphtha refining and belongs to alternative fuels. Beneficial efficiency of modern gas-turbine plants is 33-39%.

Consider in detail the main advantages of gas power plants in a car: economy (converting the car allows you to reduce fuel costs twice); smoother operation of the engine, less noise, the environment (less gas emissions).

Disadvantages: high cost of installation and mounting works; less space in luggage compartment; necessity of regular checkups.

Electricity. Electric cars with batteries. They use electric power to charge them. They are environmentally friendly with high efficiency of corrosive power, but the price, available fuel reserves and fuel combustion to generate electricity should be taken into account.

Water. This type of drive uses an oil element to produce electricity from gaseous water and acid. Only water is released from the exhaust pipe. Aside from the environmental aspect, the water engine has practical advantages over the electric motor. Water-powered cars are quick to refuel and do not require continuous charging, and they also have a greater range and less vibration compared with electric cars equipped with large batteries.

Ethanol. Ethanol is blended with petrol to increase the octane rating of the fuel and minimise toxic emissions. This fuel is marked E (E5 – E85).

Biodiesel or biodiesel is a liquid motor biofuel which is a mixture of monoalkyl esters of fatty acids, including waste products from the food industry. It is biodegradable, which makes it environmentally friendly. It is biodegradable, which makes it environmentally friendly.

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УДК 811.111

СYBERHYGIENE IN THE FINANCIAL SECTOR OF UKRAINE КІБЕРГІГІЄНА У ФІНАНСОВОМУ СЕКТОРІ УКРАЇНИ

***Жовта Н.А** – здобувач вищої освіти групи Б 3/1*

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Стаття присвячується кібергігієні як способу захисту має вищу ієрархію та більшу цінність, аніж різноманітне антивірусне програмне забезпечення

***Ключові слова:** кібергігієна, фінанси, сектор, фінансовий сектор, безпека, Україна*

The article focuses on cyberhygiene as a way of protection it has a higher hierarchy and greater value than various antivirus software

***Key words:** cyberhygiene, finance, sector, financial sector, security, Ukraine.*