

DEVELOPING PROSPECTS OF ELECTRICAL CAR

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Abstract: *the article deals with the issues of development and introduction of the environment-friendly vehicles: electric and hybrid ones. The advantages and disadvantages of their exploitation are discussed.*

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Introduction

Today road transport, of course, it is an integral part of living. It is the most confident, fast enough, and the most common way to travel. Also, it is the most popular transport in all spheres of activity.

On the positive side of this type of transport may include:

- Fast and timely delivery of goods and passengers;
- Delivery is made for short or long distances;
- Flexibility;
- An increased mobility;

In spite of this there are some negative side:

- High accident rate in comparison with other kind of transport;
- The high cost of transportation;
- Human mistake factor;

Against the background of these disadvantages, there is another important factor - high ecological damage to environment. Pollution this kind of transport happens to all stages of production, in service, in the processing of both the vehicles themselves and fuels, etc. During the same operations occurs in the ejection of large amounts of air gases, nitrogen and sulfur oxides which adversely affect the environment. Cars produce up to 70% of harmful emissions into the atmosphere. On average, each year, polluting emissions into the ecosphere of vehicles increased by 3.1%. Another important factor is the high costs of vehicles that run on gasoline.

Having all the these disadvantages resulted in the need to create and improve the new car, which will primarily be more environmentally friendly and less costly. In recent times it comes about electric cars, which may come to replace vehicles in the near future. Called electric vehicle is a vehicle which brings itself in motion is not of the internal combustion engine, while an electrical engine. Charging it as a battery, and on the home network. Moreover, in electric no gearbox, due to the shaft attachment directly to the wheels. Switching to electric cars in the period 2015-2020 gg. announced the governments of many countries that have approved projects for the development of electric transport in big cities suffer from air pollution.

The main advantage of electric front of the car is the high environmental friendliness, since their operation is completely no harmful emissions and compounds, because of the movement they do not use combustible mixture. In addition, many times reduced risk of explosion. The energy that is used in electric vehicles, many times cheaper than gasoline. The batteries of these vehicles can be charged while driving the slope and from sunlight. In addition, they are reliable and durable in operation and have a low noise level [1]. Easy assembly and construction of electric leads to cost savings during its operation.

However, as elsewhere, there are a few drawbacks. To the first of these difficulties are manufacturing cheap and capacious battery. To create them using precious metals. These batteries are discharged quickly enough, and their processing is a problem, because they contain toxic substances. In addition, the problem is the low mileage between charges.

In order for electric vehicles purchased in the market demand in the first place is to be formed as the infrastructure in towns and on intercity highways maintenance, inspection and repair of vehicles. In addition, it is necessary to apply the incentives from the state. But in spite of all these reasons, it is predicted more abundant introduction of electric vehicles in Kazakhstan, a competition that can make hybrid cars. The disadvantage of this car is its high cost. The more economical "hybrid", the higher its cost - by 15 - 20%. Consequently, today the most developed segments of the range of these vehicles are business-class and luxury. Another, a significant negative factor, as well as for electric vehicles is the recycling of batteries, which will sooner or later wear out the resource recharge.

Despite these difficulties, the process of introduction of electric and hybrid vehicles is developed, and perhaps in

the near future they will have a common sight on the roads of Kazakhstan.

References

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