## ELECTRIC MOTORS IN TRANSPORT TECHNOLOGY

Gorbeiko M.A., student
Pyzanov A.A., student
Scientific supervisor – Slesaryonok E. V., senior lecturer
English language department №1
Belarusian National University of Technology
Minsk, Republic of Belarus

Many people mistakenly believe that internal combustion engine vehicles came before the electric car, but in fact it was exactly the opposite. Already many years ago, in countries such as Russia, the USA, and Hungary, there were attempts to create something vaguely similar to an electric car. But it was a technique with low power, small amount of horsepower, small capacity, difficult to use. A similar electric car appeared back in 1828. Hungarian inventor Anjos Jedlik built an electrically powered cart that looked more like a skateboard than a car. But despite this, the invention served as a strong impetus for the development of a similar area of engineering.

Nowadays electric motors are gaining more and more popularity. This is due to the advantages over internal combustion engines due to the absence of emissions, dynamism and lack of noise. The advantages also include low maintenance costs, preservation of residual value during resale, high security and much more. Electric motors are distributed to various types of transport, such as: electric scooters, electric motorcycles, electric scooters, electric trucks, electric buses, water transport with electric motors and electric vehicles. The next type of transport that is offered for sale is car companies such as:

BMW Group (owns BMW, Mini and Rolls-Royce),

Daimler AG (owns Mercedes-Benz and Smart),

General Motors (owns Buick, Cadillac, Chevrolet and GMC), Volkswagen AG (owns Audi, Bentley, Bugatti, Lamborghini, Porsche and Volkswagen), Tesla and many others.

Electric water transport is becoming very popular. More and more companies are creating vehicles with fairly good technical characteristics. Electric hydrocycles, for example, can reach very high speeds - up to 100-120 km/h, but in this they are inferior to gasoline ones, which reach 200 km/h. Jet skis with an electric motor are cheaper to operate.

Charging a battery costs much less than the cost of fuel to run an internal combustion engine. Also, having a gasoline engine, you need to constantly monitor the filter and do not forget about changing the oil. Electric motors and engines have not yet fully taken over transportation technology. For example, a cruise ship or large cargo ships with an electric motor do not yet exist. Electric motors are not yet able to cope with too long distances and heavy loads. But it is quite possible that the creation of a stronger battery will be in the future in the coming years, since shipbuilding is now developing progressively.

The qualities of a car with an electric motor are almost the same as water transport: silence, environmental friendliness, high speeds, low operating costs. So, no matter what type of transport you want, if you need the above qualities, think about choosing an electric motor in your vehicle. Today, the issue of ecology is being discussed very vigorously. Various protests in defense of nature occur quite regularly, so that people pollute the environment less, and so that various enterprises take action regarding air pollution and toxic emissions. In modern world, innovation in the field of electric motors is quite a good event; and many professionals are very pleased to learn that more and more manufacturers are creating "green" transport. As it is listed (mentioned) above, environmental friendliness is not the only reason for its creation; electric transport has many advantages. It is important to underline that many people are conservative in their preferences, and will choose internal combustion engines for a very long time, but it is believed that soon the advantage will be on the side of electric motors. People would like to see not only vehicles with electric motors, but also many enterprises trying to at least to a lesser extent switch to electric motors or generators.

## References

- 1. Electric motor device [Electronic resource] Mode of access: <a href="https://ru.wikipedia.org/wiki/">https://ru.wikipedia.org/wiki/</a>. Date of access: 20.03.2024.
- 2. List of electric motor manufacturers [Electronic resource] Mode of access: <a href="https://ru.sogears.com">https://ru.sogears.com</a>. Date of access: 20.03.2024.
- 3. History of the electric motor [Electronic resource] Mode access: <a href="https://ru.about-motors.com/motorcontrol/history/">https://ru.about-motors.com/motorcontrol/history/</a> Date of access: 20.03.2024.