

WAYS TO IMPROVE ECO-DRIVING

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Eco-driving is becoming increasingly popular due to its effectiveness in reducing fuel consumption and CO₂ emissions [1]. However, excessive adherence to its principles can negatively affect the performance of the car. It is important to take into account that an eco-friendly approach requires a reasonable approach, otherwise it can lead to serious malfunctions of the engine and other key systems of the car [2].

The transport sector in developed countries deserves close attention from the point of view of minimizing damage to health. Improvements aimed at convenience are simultaneously aimed at protecting health and preserving life [3].

Improving the environmental friendliness of cars is carried out in two directions:

- improving the technical and operational characteristics of conventional cars with internal combustion engines;
- creating fundamentally new types of vehicles using alternative and/or renewable energy sources.

Internal combustion engine vehicles contribute to environmental pollution in various forms [4]. For example:

- Carbon dioxide emissions are the main greenhouse gas that increases global warming.
- Nitrogen oxide emissions cause smog and poor air quality, leading to respiratory diseases in humans.
- Microparticles and soot are formed during fuel combustion, polluting the air and settling on surfaces, causing harm to health and the environment.

All these factors highlight the importance of switching to environmentally friendly modes of transport or using methods to minimize the carbon footprint.

There are various ways to reduce the carbon footprint of driving [5]. For eco-friendly driving, it is important to consider the following aspects:

- maintain a constant speed, avoid sudden acceleration and braking, use cruise control on long journeys trips, which helps to maintain a steady speed;

- avoid long periods of engine idling, if you have to stop for a long time, it is better to turn off the engine;

- monitor your tire pressure, underinflation increases rolling resistance, which leads to increased fuel consumption, check the pressure regularly and maintain it within the manufacturer's recommendations;

- regularly service your car, regularly changing the oil, filters and spark plugs helps the engine run more efficiently, reducing emissions and fuel consumption;

- get rid of excess weight and drag, remove unnecessary items from the trunk, remove unnecessary racks and roof rails to reduce aerodynamic drag;

- plan your routes, try to avoid traffic jams and choose routes with a minimum number of stops [6].

Particular attention should be paid to the need for the reasonable application of these principles to prevent damage to vehicle systems. It is also important to switch to environmentally friendly vehicles and modernize existing technologies.

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