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## THE FORMATION OF TASKS FOR OVERVIEW OF OPERATING PROPERTIES OF VEHICLES

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**Khujamkulov Sardor Umidjon o'g'li**

Assistant, Fergana Polytechnic Institute, Fergana, Uzbekistan

**Masodiqov Qahramon Khusanboy o'g'li**

Assistant, Fergana Polytechnic Institute, Fergana, Uzbekistan

**Khodjayev Sanjar Mukhammedovich**

Senior Lecturer, Fergana Polytechnic Institute, Fergana, Uzbekistan

### ABSTRACT

This article sets out the tasks for monitoring the operational characteristics of vehicles. In addition, the longevity of the car, the suitability for loading and unloading, ease of loading and unloading of passengers, the level of safety, the reserve of the vehicle in the distance before maintenance or repair, the complexity of these works, the number of seats for passengers convenience, protection of the body or cabin from rain and dust, heating and ventilation efficiency, noise reduction and other similar indicators.

### KEYWORDS

Motor transport, operation, automobile, transport, construction, machinery, bus.

### INTRODUCTION

The technical readiness of any product can be assessed by comparing it with the technical readiness of

something else similar. In the same way, the readiness of each vehicle to operate can only be compared with



other vehicles of the same size and type. You can't compare in terms of the performance of the structures, for example, a van designed to lift light loads and a self-propelled dump truck for lifting heavy loads.

There are a large number of different performance indicators of vehicles that can be considered independently. E.A.Chudakov recommended 13 of the following performance indicators of vehicles: dynamics, economy, reliability, manoeuvrability, stability, easy handling, smooth movement, simplicity of maintenance, capacity, walking reserve, usability, usability and manoeuvrability. In addition, for example, the longevity of the vehicle, its suitability for loading and unloading, ease of loading and unloading of passengers, the level of safety, and the reserve of the vehicle in the interval before maintenance or repair.

### THE MAIN PART

During operation, the technical readiness of the product or material changes as a result of specific changes in the product (vehicle, unit, part) or material (fuel, oil, etc.) and changes in its constituent elements. For example, fuel consumption during transportation depends not only on the operating conditions or the design of the car but also on the current state of the

car's ignition and fuel supply system, the degree of wear of the cylinder-piston group, the angle of installation of the front wheels. and so on. Therefore, in the implementation of the purposes of road transport and its technical operation, the technical condition of vehicles, the reliability of which is interrelated with the above concepts of technical operation: technical condition, operation, reliability, technical readiness, consideration for a comprehensive assessment of the target scheme is very important. Technical readiness is a set of features that determine the suitability of a vehicle, process equipment, unit, part, or material for a specific purpose, to the extent that it can perform the tasks assigned to it during its operation. Technical preparation consists of several features (Figure 1). Each feature is characterized by one or more parameters called indicators and which can take different quantitative values during operation.

In analyzing or evaluating quality, the following chains are considered in sequence: in product evaluation and testing: indicators – parameters features - technical training;

After submitting the requirements to the products: technical readiness - features - parameters - indicators.

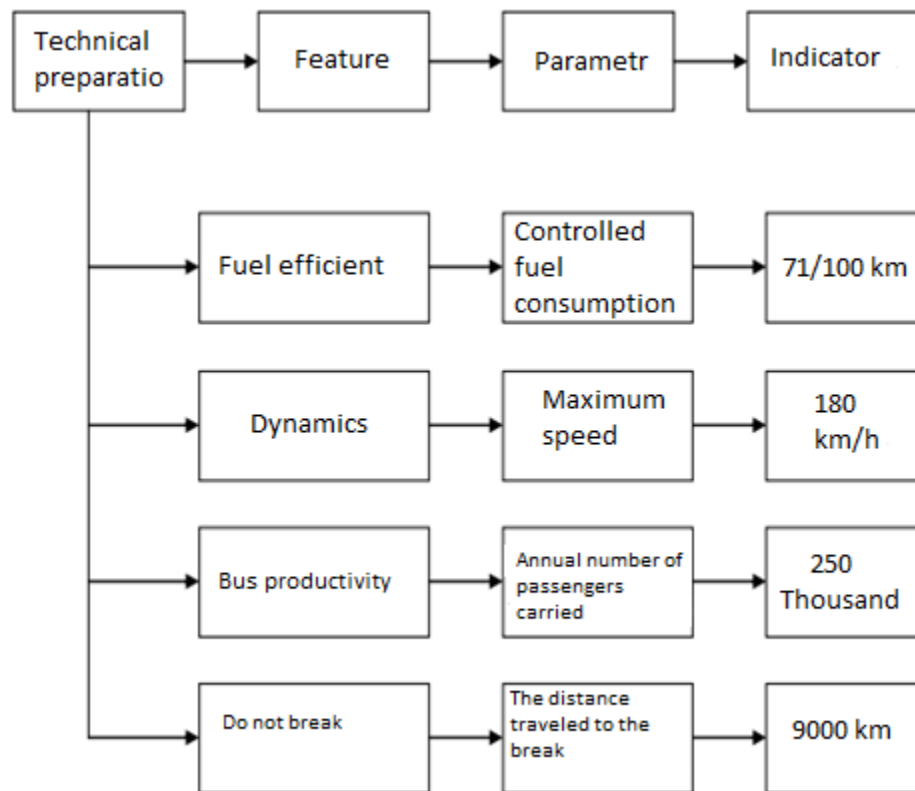


Figure 1 The logical structure of the concept of technical training

Fig. 1 shows examples of four quality characteristics indicators. Thus, one of the parameters of the fuel efficiency (feature) of the car is to control the fuel consumption, which has a quantitative value of 71/100 km (indicator) for this particular model.

The following basic technical and operational characteristics (M) of cars are usually considered:

- Load-carrying capacity;
- Dynamics (gravity-velocity property);
- Capacity;
- Manoeuvrability;
- Productivity;
- Security;
- Reliability.

Technical and operational characteristics are determined during the design and production process; are carried out at different stages of the production and operation process. In this research paper, we explore features such as fuel efficiency, dynamics (average maximum speed), productivity, and durability. Based on the monitoring of these features, a system will be developed to assess the feasibility of the interaction of vehicles with operational and technical measures. All currently known methods of planning the periodicity of maintenance (M) of individual units and components of the car can be divided into 3 groups.

- Simple - by changing the appearance of the object (method of analogy and comparison);

- Statistical - according to the allowable level of probability of trouble-free operation (feasibility, economic and probability and statistical test method);
- On the allowable value of changes in the technical parameters of the object.

An analysis of the available methods for determining the periodicity of maintenance shows that all of them are designed to perform the method of maintenance and repair according to the operating time, ie.

## CONCLUSION

According to the analysis, the most promising method that requires future development is the statistical-test method. Using this method, it is possible to schedule the optimal periodicity of the M for each vehicle on a computer. In addition, the statistical test method also allows determining the optimal periodicity of maintenance and current repairs (M and CR) to diagnose the technical condition of individual elements of the vehicle to prevent inefficient operation of vehicles.

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