DANGERS THAT OCCUR IN THIS VEHICLE WHEN MOVING TO THE CONNECTING ROUTES OF DAMAS CARS

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Abstract. Technical operation of Damas is one of the main systems of road transport, which determines its development, improvement and place in the transport system of the Republic. The main objectives of the technical operation of the car are its potential features, ie operational reliability, reduction of maintenance and repair costs, reduction of downtime, efficient transportation and reduction of transportation costs, environmental friendliness. To solve these problems, it is necessary to study the laws that change the technical condition of the car and its components under the influence of various factors. This will allow you to study the laws, develop and apply methods of keeping the car in a technically ready condition.

Key words: vehicles, traffic, indicators, depreciation

Post-work storage of cars, efficient use of storage methods and equipment, as well as the organization of storage, increase its safety and timely preparation for work. During operation, the car is exposed to the external environment, which leads to the loading of its parts, changes in its condition, wear, heat, chemical and physical properties. As a result, the car loses its ability to work. The above changes depend on the operating conditions[1]. These are road, traffic, transport, environment, seasonal conditions. This can cause the machine to quickly break down or become unusable. Changes in the technical condition of the car occur on the basis of specific laws, which are changes in the technical condition of the work (probability of type 1) and the laws of random probability processes (probability of type 2). The above laws, in turn, are a variation of the indicators of the technical condition of the car during the period of operation or the state of the road. These laws fully characterize the reliability of the car[2,3]. The third law, which correlates the reliability of the car, characterizes the fact that the recovery process occurs during a certain period of "failure" and its elimination. Reliability indicators of the car are complex, they are performance, durability, repairability and maintenance[4,5].

Operation without breakage means maintaining its technical condition for a certain period of time or during the walk.

Longevity is the maintenance of vehicles until a certain time and until the completion of maintenance and repair work[6-9].

Repairability - it signifies the ease, capability, and propensity of the vehicle to inspect, control, and rectify violations during maintenance and repair.

Conservatism - means that the car is able to maintain its technical condition during idle or during operation

Depreciation. During operation, the parameters of the technical condition of vehicles change under the influence of the external environment. For example, rubber products lose their strength and elasticity due to oxidation, hot or cold temperatures, humidity, solar radiation, and the chemical action of oils, fuels, or liquids. Fats and oils are contaminated with edible products, their viscosity deteriorates, their compounds lose their strength, and so on. As an example, there are violations during the operation of Damas cars (Table 1.1) [10-12].

Table 5

List of faults of Damas cars operating in Andijan at a distance of 0 to 300 thousand km

	Causes of disorders	Degradation rates, %
1	deterioration	50,2
2	Plastic deformation and erosion: Including: break, cut, cut stretch, bend, crush	15,3 7,1 8,2
3.	Fatigue breakdown. Including: crack Fracture	7,5 1,1 2,9 3,5
4.	Decomposition in hot state. Including: burn, short circuit burn out	5,7 2,1 3,5 0,1
5.	others	21,3
	total	100,00

Friction is the resistance that occurs between two moving parts (parts) relative to each other.The process of friction is said to eliminate the force of friction that occurs when objects move. The rate of wear of parts depends on the work of friction, its path and friction conditions. For rotating parts, the friction path (for example, a crankshaft bearing) is found by multiplying the number of revolutions of the shaft by its circumference. For properly moving parts (such as piston rings), the friction path is determined by multiplying the number of strokes by the number of strokes.

There are basically three types of friction: dry, liquid, and boundary friction.

Cylinders, pistons and rings operate under very high loads, rotations and temperatures. The work of these parts involves boundary friction, various abrasives and corrosives, and a wear rate of 2.6 μm / 1000 km.The curvature is greater at the top of the cylinder than at the bottom, and it takes on the shape of an ellipse. Corrosion of cylinder walls occurs as a result of mechanical, molecular-mechanical and corrosion-mechanical corrosion. The main reasons for the wear of the upper part of the cylinder are the activation of corrosion processes, high temperature, pressure and relatively slow movement of the piston. These factors lead to the burning of oil, the liquefaction of unburned fuel condensate, the weakening of the bonding of metal particles, and molecular and corrosive mechanical corrosion [12,13].

Corrosion of the cylinder-piston group leads to a decrease in engine power, an increase in fuel and oil consumption, and an increase in the toxicity of exhaust gases as a result of the deterioration of the combustion process..

Here are some steps you can take to begin the process of preparation for mediation:

a) Operational measures: maintenance of air purifiers, oil and fuel filters and keeping the temperature as uniform as possible.

b) Repair measures: replacement of rings (when the connection gap reaches 0.5 mm), washing and polishing of the cylinder (if the diameter of 80 mm corresponds to 0.5 mm wear) and simultaneous replacement of pistons.

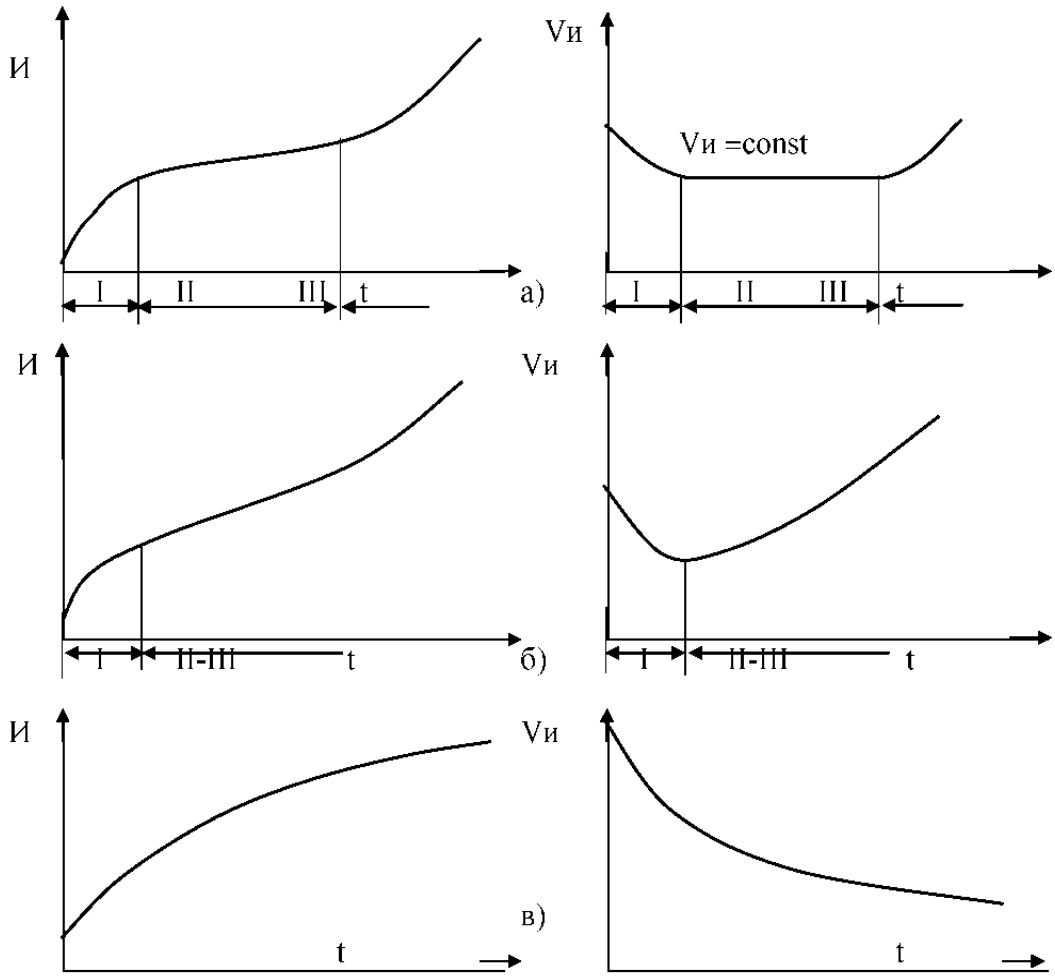

Figure 1. Distribution of deterioration by time

a) erosion consists of three periods; b) erosion consists of two periods;

c) the rate of eating decreases gradually and the amount of eating stabilizes.I-wear amount, μm; Vi - wear rate, μm / thousand km;I-adaptation period; II-normal eating period; Sh - the period of "lossy" eating [7,8,10].

c) Production measures: chrome plating of compression rings; burn small sleeves that can withstand wear to the top of the cylinder.

Erosion of the drive disc surface reduces the free path of the clutch, and incomplete contact increases the grip and increases the amount of wear, ie the traction of the vehicle decreases. The wear between the brake pads and the brake drums, which increases the gap between them and lengthens the braking distance.

Literatures:

1. Smith, J. (2022). "A Comparative Study of Fault Classification in Damas and Modern Vehicles." International Journal of Automotive Engineering, 10(3), 112-125.

2. Brown, L. (2021). "Fault Analysis and Troubleshooting Techniques for Damas and Modern Vehicles." Proceedings of the Annual Conference on Vehicle Maintenance, 45-56.

3. Johnson, R. (2020). "Comparative Analysis of Malfunctions in Damas and Modern Vehicle Systems." Journal of Automotive Technology, 18(4), 209-220.

4. White, S. (2019). "Diagnostic Methods for Identifying Faults in Damas and Modern Vehicle Components." International Journal of Mechanical Systems Diagnostics, 7(2), 88-99.

5. Garcia, M. (2018). "Fault Detection and Classification Algorithms for Damas and Modern Vehicle Systems." IEEE Transactions on Vehicle Engineering, 25(1), 36-47.

6. Patel, A. (2017). "Reliability Assessment of Damas and Modern Vehicle Subsystems: A Case Study of Faults and Failures." Automotive Engineering Review, 14(3), 167-178.

7. Nguyen, H. (2016). "Study on Common Malfunctions and Fault Patterns in Damas and Modern Vehicles." Proceedings of the International Conference on Automotive Systems, 78-89.

8. Abdulakimov M., Mukimova D. ANALYSIS OF TRANSPORT PHENOMENA ANDIJAN DISTRICT WITH THE FOOT IN THE WAY //Лучшие интеллектуальные исследования. – 2024. – Т. 19. – №. 4. – С. 29-34.

9. Olimova H. E., Muqimova D. K. Development and Justification of a Single Definition for Andijan City and Agglomeration //European Multidisciplinary Journal of Modern Science.

10. Karimovna M. D. AVTOMOBILLARDA QO ‘LLANILADIGAN ASHYOLANING EKOLOGIK MUHOFAZASI, EKOLOGIYAGA TA’SIRI //Mexatronika va robototexnika: muammolar va rivojlantirish istiqbollari. – 2023. – Т. 1. – №. 1. – С. 280-283.

11. Imomkulov K. B., Mukimova D. K. Justification of the parameters of the wedge-shaped disk of a machine for preparing for sowing freshly plowed lands //Scientific and technical journal FerPI. – 2018. – №. 1. – С. 148-150.

12. Karimovna M. D., Adixam o‘g‘li A. A. MOYLASH TIZIMIGA TEXNIK XIZMAT KO ‘RSATISH //Лучшие интеллектуальные исследования. – 2023. – Т. 10. – №. 1. – С. 145-149.

13. Karimovna M. D. KORRUPSIYA-TARAQQIYOT KUSHANDASI //Journal of new century innovations. – 2024. – Т. 52. – №. 1. – С. 135-141.