GLOBAL ANALYSE OF AUTOMOTIVE'S TECHNICAL STATUS BASED ON THE DATA OBTAINED BY TECHNICAL INSPECTIONS

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Abstract

Using the data collected at national level by periodical technical inspections of automotives for 2003, the authors find out that the distribution of the automotives park depending on their service period is the sum of two quasi-normal distributions: the old domestic park of automotives with an average service period of about 14 years and the automotives park constituted after 1990, with domestic or imported automotives, with an average service period of about 5 years. The global analyse of automotive's technical status depending on the service period is done using as parameter the automotive rejection percent at first technical inspection: we find out that it substantially increases with the increase of service period. The rejection percentage for the next successive returns to inspections (statistically speaking – rejection rate, because the number of rejected automotives is reported to the number of the automotives returned to inspection, not to the number of existing automotives) has continuing growing values. This shows that, in spite of efforts or insistences, a lot of rejected automotives could not be repaired to a corresponding technical status. So, it is timely the Romanian Government Program for sustaining the action of pull out of use for automotives "older" than 12 years. Based on this relevant parameter – rejection percent – it is also done the analyses on automotive categories, engine types and subassemblies. Among other aspects, we find out also:
- the rejection percent is greater for complex automotives and with special destination;
- for old automotives, diesel engines are hard to frame in the limits concerning chemical pollution in comparison with gasoline engines;
- the rejection percentage varies sensibly from county to county, and this could be explained not only by the automotive's technical status, but also by the different exigency between the technical inspection stations. Grouping the defects in three categories – defects affecting road safety, defects affecting chemical pollution and other defects – we find out that it is alarming the proportion of automotives that affect road safety and we are far from protecting the environment.

Keywords

Tehnical inspection report, "defective" code, rejection percent, automotive category, parameter