International Journal of Mechanical and Production Engineering Research and Development 2018 vol.8 NSpecial Issue 8, pages 465-471

## A research of technical condition of a paint and varnish covering of a body of the car before holding repair actions

Suleimanov I., Nazmutdinov A., Khasanov I., Rassokha V., Filippov A. *Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia* 

## **Abstract**

© TIPRC Pvt. Ltd. In the article "Investigation of the technical state of paint and varnish coating of the body of a car before and after repairs" the main results of studies of the technical state of the paint coating of the car body panels in the process of operation before the occurrence of the road accident and after the repair are presented. The relevance of scientific research in this work is that the issues related to the assessment of the technical condition of the body paintwork are not fully understood, especially for cars that are repainted due to damage of varying degrees of complexity as a result of emergencies, mainly after road accidents. The data obtained in this article can be used to analyse the technology of body repair, improve the methods for calculating damage caused by the accident, correcting the amount of natural physical wear of the vehicle, in the educational process for secondary special (professional) and higher educational institutions in the preparation of auto-oriented students. The results of the work make a significant contribution to increasing the efficiency of the operation of cars based on the technical condition of the protective coating of the tail of the body before and after the repair activities related to the preparation and painting operations. The scientific novelty of the article is to obtain the results of observations of the technical condition of the paintwork at the factory and repair painting of the body.

http://dx.doi.org/10.24247/ijmperddec201850

## **Keywords**

Body painting & technical condition, Body repair, Car, Paintwork

## References

- [1] Sinelnikov, A.F. Bodies of cars. Maintenance and current repair. / A.F. Sinelnikov, S.K. Losavio, R.F. Sinelnikov-Moscow: Transport, 2004.-334 p.
- [2] Losavio, S.K. Investigation of the paint and varnish coating of the car body. "ABS Auto" [Electronic source] / S.K. Losavio.-Access mode: https://expertauto.pro/car-body/issleduem-lakokrasochnoe-pokritie-kuzova.
- [3] Losavio, S.K. Investigation of the paint and varnish coating of the car body. Continuation. Effective techniques. "ABS Auto" [Electronic source] / S.K. Losavio.-Access mode: http://www.abs-magazine.ru/article/issleduem-lakokrasochnoe-pokritie-kuzova-prodoljenie-effektivnie-metodiki.
- [4] Khasanov I.Kh., Rassokha V.I., Zolotaryov E.S. Perfection of a technique of protection of a paint and varnish covering of a car body at operation of the car // Intelligence. Innovation. Investments, 2017.-No. 11.-P. 51-54.

- [5] I.Kh. Khasanov. Perfection of methods for diagnosing bodies of cars / / Bulletin of the Orenburg State University.-2015.-No. 4 (179).-P. 131-135.
- [6] E.V. Bondarenko, Yu. V. Golovanov, I. Kh. Khasanov. Nondestructive testing of the thickness of paint and varnish coating of the car body // Actual issues of innovative development of the transport complex. Materials of the 4-th International Scientific and Practical Internet Conference.-Orel: FSBEI HPE "State University-UNPK", 2014.-P. 24-28.
- [7] Golovanov Yu.V., Khasanovl. Kh. Thermal method for monitoring the technical condition of the body of a car // Bulletin of the Orenburg State University.-2014.-No. 10 (171).-P. 54-59.
- [8] Khasanov I.Kh., Golovanov Yu.V. Nondestructive testing of the technical condition of the body of a car using an eddy current method. // Transport and transport-technological systems: materials of the International Scientific and Technical Conference.-Tyumen: Tyumen State Oil-Gas University, 2014.-P. 259-263.
- [9] Carsten Keller, Matthias Putz. Force-controlled Adjustment of Car Body Fixtures Verification and Performance of the New Approach // Procedia CIRP. 2016. V. 44. P. 359-364.
- [10] Jaime Molina, J. Ernesto Solanes, Laura Arnal, Josep Tornero. On the detection of defects on specular car body surfaces // Robotics and Computer-Integrated Manufacturing. 2017. V. 48. P. 263-278.
- [11] Tahmassebpour, M., &Otaghvari, A. Increase Efficiency Data Processing with Using an Adaptable Routing Protocol on Cloud in Wireless Sensor Networks. Journal of Fundamental and Applied Sciences, 2016, Vol. 8(3S), p. 2434-2442.
- [12] Raj, V. C. S., Rao, B. M., & Prasad, V. Design Of 30,000 Dwt And 53,000 Dwt Bulk Carriers Both Conventional And Computer Aided Design Software.
- [13] Atafar, A., Shahrabi, M., Esfahani M. (2013). Evaluation of university performance using BSC and ANP. Decision Science Letters, 2(4), 305-311.
- [14] Khasanov I.Kh., Khasanov R.K., Rassokha V.I. Perfection of the technique of diagnosing the protective coating in the color selection of body repair of cars // Automotive industry, 2017.-No. 12.-P. 26-29.