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## Technique for monitoring the indicators of the total contact spot of spur gears of the truck's differential gear

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## Abstract

© Published under licence by IOP Publishing Ltd. The article contains the main provisions of the technique, which allows to control the area of the total contact patch and its position relative to the tooth edges. Graphical schemes for finding indicators are given. An example of the calculation of the indicators established by the methodology, as well as the results of its application for assessing the quality of the setup performance, is considered on the example of processing a differential satellite in the operation of circular gearing.

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## References

- [1] Chemborisov N A and Kondrashov A G 2008 Russian Engineering Research 28 809-811
- [2] Kondrashov A G, Safarov D T, Faskhutdinov A I and Davletshina G K 2017 Russian Engineering Research 37 812-813
- [3] Bevel and hypoid gears. Tolerances (Moscow: Izdatelstvo Standartov) GOST 1758-81 Basic norms of interchangeability in Russian
- [4] Cylindrical gearings. Tolerances. (Moscow: Izdatelstvo Standartov) GOST 1643-81 Basic requirements for interchangeability in Russian
- [5] Fine-pitch bevel gears. Tolerances (Moscow: Izdatelstvo Standartov) GOST 9368-81 Basic norms of interchangeability in Russian
- [6] Kasjanov S V, Kondrashov A G and Safarov D T 2017 Procedia Engineering 206 1508-1514
- [7] Safarov D T, Fedorova K A and Ilyasova A I 2016 IOP Conf. Series: Materials Science and Engineering 134 012036
- [8] Safarov D T and Kondrashov A G 2018 Journal of Physics: Conference Series 1050 012075