Design of the Rear Carriage Stabilizer of a Low-Floor Articulated Trolleybus

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In the course of ŠKODA 22 Tr low-floor articulated trolleybus modernization other type of the articulation and driving axles was used in construction among others. During test drives with the modernized trolleybus focused on the vehicle driving stability considerable rolling of the rear carriage appeared during all the driving manoeuvres. Using a stabilizer in the rear carriage is a suitable constructional solution. Verification of the suitability of its constructional solution from the point of view of the required effect on the driving stability was performed using the computer simulation with the trolleybus multibody models. Multibody models of the trolleybus with the rear carriage stabilizer are created in the alaska software. On the basis of the results of the test drives simulations the optimum diameter of the steel rod used for the stabilizer production was proposed and the suitability of the complete constructional solution of the rear carriage stabilizer for improving its driving stability was confirmed.

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