

Dear Readers

We are pleased to present you with the 197th issue of “Problemy Kolejnictwa” which contains five well-researched articles on important and interesting issues related to rail transport.

The first article, by M. Garbacz, deals with the subject of ageing tests relating to the physical and chemical properties of paint systems used in rolling stock. In particular, the effects of controlled irradiation dose on the change of selected properties of coatings are investigated.

M. Graff’s article shows the many-year process of evolution in the design of electric traction vehicles on the example of the Škoda locomotives produced after World War II in Czechoslovakia and later in the Czech Republic.

In a paper by W. Koc, the problem of the impact of the moving chord length on the determined values of curvature of a railway track was addressed. On the basis of analyses carried out, it was clearly shown that the choice of chord length taken for the determination of curvature in a railway track should depend on the value of the occurring radius of a circular curve.

D. Kowalczyk’s article refers to methods of testing prestressed concrete sleepers. Typically, such tests are carried out according to the method specified by the requirements of European standards, ie. PN-EN 13230. The article proposes the use of an additional measurement method – acoustic emission (AE).

The article by A. Zbieć deals with aerodynamic phenomena caused by the passage of a train. The effects of a train running at high speed on the train itself, on other trains, on objects near the track and on people are characterised. The effects of pressure on people are described in detail.

I hope that you will find the contents of this issue interesting and inspire further research and inquiry.

Wishing you an interesting read

Andrzej Massel
Editor-in-Chief