

*Mirosław Antonowicz: Rail Transport Corridors of the Organisation for Co-operation of Railways*

International transport corridors are part of the global transport system and are an important part of the activities of the Organisation for Co-operation of Railways<sup>2</sup>. The development activities in the Eurasian space are aimed at modernising and developing rail transport by upgrading the technical and operational parameters of the corridors in order to improve the competitiveness of railways in freight transport in Asia and Europe. These corridors are widely used to plan and organise the routing of container trains in international traffic between the OSJD member states. Today, nearly 300 container trains are in continuous operation. The aim of the article is to present the activities to date in the development of corridors, their role and importance in rail transport in the area of the member states of the Organisation for Co-operation of Railways. The article presents issues related to the development and freight transport on 13 international rail transport corridors from the Eurasian railway area. New corridor solutions were highlighted, as well as the New Silk Road<sup>3</sup> which is part of China's broader so-called One Belt, One Road Initiative concept. It is a global infrastructure plan developed in China and implemented in more than 100 countries, mainly in countries referred to as emerging markets.

Keywords: international transport corridor, rail transport corridor, indicators for transport corridors, New Silk Road

*Bartosz Mazur: Eligibility to Claim of Activities of Public Transport Authorities Within Passenger Services on the Regional Level – Remarks Based on Case II SA/Ke 329/15*

Prior announcement of intention of public transport authorities in the area of the chosen procedure of awarding PSC (direct or tender) is to ensure that the carriers interested in gaining contracts may act regarding the intentions. In the case of direct award, administrative judgement control may apply as a consequence of promoting transparent, non-discriminatory market procedures. The article describes successive actions undertaken by a public transport authority before contracting. The new-entrant to the market has to bear objective difficulties with defining which particular action of the authority could be claimed. The consequent steps were so complicated that it was hard to find the true intentions of the public transport authority.

Keywords: public procurement, public transport authority, judiciary claim

*Ireneusz Mikłaszewicz Malgorzata Frelek-Kozak: Railway Rail Material Quality Tests*

The article presents the obligatory qualitative tests of the material of railway rails, performed for the railway industry and having the status of qualifying tests, to which railway rails are subjected. They include tests of fracture mechanics (determination of the critical stress intensity factor K<sub>IC</sub>, determination of the fatigue crack development velocity da / dN), determination of stresses in rail feet and fatigue tests. The article presents the results of tests of standard-gauge rails type 60E1, rolled from R260 steel by selected European producers, and an analysis of the results was carried out based on the guidelines of the PN-EN 13674-1 + A1: 2017-07 standard.

Keywords: quality tests of rails, KIC coefficient, propagation da/dN, stress

*Małgorzata Ostromięcka , Andrzej Aniszewicz:* **Influence of the Applied Measurement Methodology on the Results of Geometric Measurements of the SB4 Spring Clips**

The article presents the results of measurements of the “b” dimension of the SB4 spring clips carried out using three measurement methods that differ in the method and width of the base plate contact. The results obtained are presented and the uncertainty of measurement for each method is estimated. Attention was paid to the issues of the obtained dispersion of the value of the “b” dimension. The tolerated dimensions are discussed. The proposed measurement methods can help to identify shape mismatches of spring clips.

Keywords: rail fastening, spring clip, dimensional measurements, clamping force

*Marek Pawlik:* **Cybersecurity Guidelines for the Employees of the Railway Entities**

European Commission has published a nearly 50-page-long document on cybersecurity in transport called the Transport cybersecurity toolkit. As part of the work of ISAC-Kolej (the Information Sharing and Analysis Center for the railway transport sub-sector), guidelines in terms of cybersecurity for the employees of the railway entities have been developed and adopted. This article briefly discusses the European and Polish activities taken in order to protect railway transport against cyberthreats and shares the guidelines for employees adopted by ISAC-Kolej. Considering the increasingly widespread use of digital solutions, both for supporting operations of the business entities that constitute the railway system and for railway traffic management and supervision, these guidelines should be disseminated to the maximum possible extent among railway employees that use computers in their work.

Keywords: information systems (IT), operational systems (OT), cybersecurity

*Andrzej Zbieć:* **Aerodynamic Phenomena Caused by the Passage of a Train. Part 1: Pressure Interaction With Objects**

The series of articles describing aerodynamic phenomena caused by train passage characterise the interaction of a train travelling at high speed with the moving train itself, on other trains, on trackside objects and on people. This interaction can be of two types – generated pressure and slipstream. Apart from the literature analysis, the author’s research was also taken into account. The first part presents the general classification of aerodynamic phenomena, the pressure change wave-form in open space caused by the passage of a train and the pressure interaction with trackside objects. Conclusions are presented on the construction of a high-speed rail vehicle and the strength and location of structures on high-speed lines.

Keywords: rolling stock, high-speed railways, aerodynamic phenomena