



Ing. Štefan Mayerberger – Ing. Bohumil Vančura

**DIAGNOSTICKÉ PROSTŘEDKY MĚŘENÍ KVALITY GEOMETRIE KOLEJE U  
ČESKÝCH DRAH  
DIAGNOSTICS MEANS OF MEASUREMENT OF QUALITY OF ČESKÉ DRÁHY  
TRACK GEOMETRY**

The aim of the article is to describe two new diagnostics railway vehicles designed for the measurement of parameters of the track geometric position, namely a measuring track motor car for measurements on lines of class 2 and 3, and a measuring car for measurements of the track geometric position, track surface defects, track cross profiles, and for the determination of the railway vehicle response on modernized lines.

doc. Ing. Ivan Konečný, CSc. – Ing. Libor Lochman

**DIAGNOSTIKA V ZABEZPEČOVACÍ TECHNICE  
DIAGNOSTICS IN THE SIGNALLING**

Diagnostic devices, jigs and methods in the repair sphere of the signalling technics become at present a necessity to maintain the required quality of repairs. Therefore, the article describes and summarizes some aspects of the knowledge and experience arising from the development and operation use of diagnostic devices in the railway protection technology. The article stresses the fact that the most efficient diagnostic methods are performed in modern computer orientated systems. The diagnostics of the relay signalling devices used until now can also be performed without problems using the present technical tools, however, the economic efficiency of such solution should be carefully considered and documented.

Ing. Karel Peška

**DIAGNOSTIKA VLAKOVÉHO ZABEZPEČOVAČE  
DIAGNOSTICS OF THE TRAIN SAFEGUARD**

The article deals with the diagnostics of a line train safeguard operated on the ČD network. Its first part introduces the problematics and present situation in the diagnostics of the station any part which is carried out during the usual operation. The second part introduces a new testing device - ZZLVZ 91.1, which is especially designed for the diagnostics of the train safeguard mobile part at the places of the operation treatment of driving cars.



Ing. Arnošt Dudek – Ing. Zdeněk Vomočil

**DIAGNOSTIKA V DATOVÉ SÍTI JEDNOTNÉHO SYSTÉMU PŘENOSU DAT  
DIAGNOSTICS IN THE JSPD DATA NETWORK**

The article deals with the protocols used in the ČD data network (X.25, Frame Relay, TCP/IP). It compares the diagnostic possibilities of individual protocols. A part is devoted to the bit error rate and its effect to the block fault rate with regard to the situation in ČD. Specifically, the values which can be acquired in the ČD data network nodes are mentioned.

Ing. Josef Konvičný – Ing. Jiří Kaštura – Ing. Libor Zátoupek - Marcela Šaňková

**DIAGNOSTIKA SJÍZDNOSTI A GEOMETRICKÉ POLOHY TROLEJOVÉHO  
VEDENÍ U ČD  
DIAGNOSTICS OF THE PRACTICABILITY AND GEOMETRIC POSITION OF THE  
ČD TROLLEY SYSTEM**

The article deals with a catenary measuring car. The car measures the trolley wire stagger and height. During measurements the car registers the swings of its body and corrects the above mentioned measured values of the trolley wire stagger and height by the swings of the car body.

The article analyses the results of and experience arising from measured data and their use in the maintenance.

Ing. Ivo Laníček – Ing. Jan Matouš – Ing. Karel Černovský

**OCHRANA ÚLOŽNÝCH ZAŘÍZENÍ PŘED NEGATIVNÍMI ÚČINKY BLUDNÝCH  
PROUDŮ  
PROTECTION OF EMBEDDED DEVICES AGAINST NEGATIVE EFFECTS OF  
STRAY EARTH CURRENTS**

The article describes in an encyclopedic form the legislative and technical measures for the protection of conductive embedded devices and structures against the effects of direct stray earth currents. The preventive activities performed by a ČD specialized workplace are stressed. The specialized workplace also provides for technical development tasks and cooperates at their solving.



Ing. Jan Kout, CSc.

**PORUŠOVÁNÍ TEPELNĚ ZUŠLECHTĚNÝCH PRUŽINOVÝCH OCELÍ V PROVOZU  
ČD  
FAILURE OF HEAT TREATED SPRING STEELS IN THE ČD OPERATION**

Determination of the state of stress using the method of finite elements and failure characteristics of materials. Prediction of expansion of the fatigue failure in the spring steel elements (the contribution for the diagnostics should be seen there).