

Using traffic speed deflectometer to measure deflections and evaluate bearing capacity of asphalt road pavements at network level

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Abstract. The paper deals with diagnostics of bearing capacity of asphalt pavements by a Traffic Speed Deflectometer (TSD device), which allows to measure pavement deflections continually at the traffic speed on the basis of dynamic loading induced by moving wheel of a reference axle at the speed of up to 80 km/h. The paper aims to inform of a new method to measure road pavement deflections, describes the principles of measuring pavement deflections by TSD device, and presents results of comparative measurements between FWD (Falling Weight Deflectometer) and TSD devices organized by CDV in Italy and Slovakia. Particular attention was paid to the difference between deflections measured by FWD and TSD devices.