NAGDAGA2009/564 The development of a CPX measurement set-up capable of measuring tire-road noise effectively

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In the Directive 2001/43 limits are put on the maximum noise level of a pass-by noise measurement on an ISO 10844 surface. This prescribed measurement set-up only gives an L_{Amax} level of the total passage of a whole vehicle equipped with four tires and does not provide enough information for a problem analysis or model validation. Measuring on one tire with (closed or open) CPX-trailers or -cars gives a better insight into tire-road noise. The difficulties with these measurement set-ups can be the noise generation of the set-up itself, the acoustics of the trailer-interior or vibrations directly disturbing the microphone signals. A CPX measurement set-up has been developed keeping these considerations in mind in order to be able to do proper problem analysis and model validation.

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