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SŽDC Installed New Type of Folding Anti-Noise Barriers at Sedlec in Prague

Requirements for decreasing the noise burden at places where classical anti-noise barriers cannot be used was the reason for installing a low folding anti-noise shutter on the railway line from Praha-Holešovice to Roztoky u Prahy at the site where the line passes through the city part Praha 6-Sedlec. This is the first use of an anti-noise shutter at all on the network of Správa železniční dopravní cesty (SŽDC).

For a long time already, SŽDC was struggling with complaints of inhabitants concerning noise and requirements of the Hygienic Station of the capital of Prague to decrease the noise burden in this locality with high transport intensity and housing density. Based on a study, a complex solution was suggested consisting in a suitable combination of several measures adopted in the vicinity of the Praha-Sedlec railway stop. *"While searching for a technical solution for a similar line section on high embankment and with restricted space conditions, we were inspired by our colleagues from Finland. Generally speaking, these shutters can be used especially on embankments where local housing is situated under the level of the railway line"*, said Mr. Petr Hofhanzl, Director of the Civil Engineering Administration West.

Anti-noise measures in the line section Praha-Bubeneč – Roztoky u Prahy included also rail heads' grinding to decrease rolling-resistance force and thus to reduce noise caused by passing trains. An installation of rubber noise absorbers damping resonance of rails during passage of vehicles on approximately 300 metres of the line followed. A classical anti-noise barrier consisting of steel supporting columns with light sandwich panels and an absorber from recycled rubber and pressed unwoven textile was built at the first open line track. The barrier is two metres high and its upper part is transparent, especially for aesthetic reasons.

The second track has a steep embankment which did not allow placing a classical anti-noise barrier there. It was therefore decided to use a unique solution by installing a folding shutter which can be shifted nearer to the track on specific conditions. *"This is a quite new concept where the shutter can be folded in case of need in the direction away from the track. This can be used e.g. during repair and maintenance works of the railway superstructure or for transports of exceptional goods with an extended loading gauge as well as while removing consequences of an exceptional event in railway transport"*, added Mr. Hofhanzl.

SŽDC was able to combine all anti-noise measures available being used on its lines for the construction "Anti-noise-measures Praha – Kralupy km 418.700 – 418.970". The result is a very effective solution of the noise issue in a densely built-up area of city agglomerations. A folding anti-noise barrier is situated only at this site for the time being; it is considered for use in other localities too for the future.

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