

Presseinformation

Press release

Information de presse

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Product innovations for ballasted track solutions:

RAIL.ONE develops prestressed-concrete sleepers for axle loads up to 44 tonnes.

Neumarkt and Berlin, 19 September 2006 – RAIL.ONE has developed and successfully tested a new prestressed concrete sleeper for the North American rail network, whose lines must be designed for static axle loads of over 40 metric tonnes. This new sleeper satisfies not only the demanding requirements of the American AREMA specifications, but also the stipulations of European standard EN 13230. As a result of high loads, especially from freight trains, everyday experience in the USA has revealed problems in the form of cracks occurring in conventional concrete sleepers, especially in the middle of the sleepers.

Extensive tests conducted with these newly developed monoblock sleepers at Munich Technical University have recently disclosed that the new sleeper satisfies the stipulations of both above-stated standards as required for official approval: in static testing (for determination of cracking and breaking strengths), in dynamic testing (to determine cracking behaviour during passage of trains), and in fatigue testing (for determination of long-term behaviour over approx. 30 ... 40 years).

For RAIL.ONE, these successfully conducted development tests represent the first step toward long-term access to a new product segment – one which in turn can enable entry into markets serving rail lines with high axle loads.

To be sure: the international increase in railway traffic volume, as well as rising demands for flexibility, traffic frequency, and on-time delivery per-

formance in rail transportation, will over the long run – at least on the most important rail arteries around the world – result in separation of passenger and freight traffic onto their own dedicated lines. This development will allow full orientation of the individual lines to the characteristic requirements and possibilities of separate passenger and cargo traffic.

With its innovative product developments for classical monoblock concrete sleepers, and its ballastless track technology for high-speed lines in passenger transport, RAIL.ONE offers – in addition to its standard products and systems – a comprehensive product portfolio for all applications in railway transportation.

As early as 1993, RAIL.ONE – together with a prominent track-construction company – began to further develop its standard prestressed-concrete sleeper, B 70, to provide a new version with modified width and length, and with corresponding improvements in weight. After 8 years of development and trial work, the so-called wide concrete sleeper, with designation BBS, obtained general approval from the German Federal Bureau of Railways (EBA). The essential advantages of this wide sleeper consist of reduced ballast compaction and more uniform pressure distribution on the ballast bedding, as well as increased resistance to lateral displacement owing to the greater sleeper load-bearing surface. Owing to its enhanced positional security, the wide sleeper is effectively suited for the support of greater axle loads and for conditions of higher temperature stresses (e.g., as originating from eddy-current brakes).

For further information:

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