

**Development of New Design Tongue Rail Adopting New Arrangement of Heat Treatment and New Material of Improved Wear Resistance**

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In both of standard gauge Shinkansen and meter gauge lines, tongue rails of branching side of turnout on which a lot of trains pass through must be replaced very often due to heavy wear. Hence, from the viewpoint of reducing maintenance cost of tongue rail by extending its service life, it is very important to develop a new tongue rail which has improved wear resistance. The new tongue rail was manufactured by adopting new material, new heat treatment and improved profile. This paper describes the details of newly developed tongue rail of improved wear resistance including its design and the results for vehicle running tests carried out in a revenue line of meter gauge.