

Calculate the Stresses in the Railway Caused by Axial Load for Unsteady Ballast Coefficient

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Abstract

The axial loads are the main vertical load, which effect upon the railway and impact stresses in permanent way. There are many methods to calculate the vertical stresses. They have the assumption that the ballast is homogeneous and has a constant modulus.

This paper deals with the case that the modulus has a non-constant modulus. Practically it comes by the crossing railway with roads at the same level.

We start from the differential equation of the continuous beam on the flexible foundation. The constants are determined by the boundary conditions.

¹ For the paper in Arabic see pages (27-46).

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