Calculation of the temperature distribution field in the deformation zone in metal rod rolling with the aid of locally homogeneous scheme

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Abstract - On the basis of heat-conduction equation is solved the three-dimensional problem of temperature distribution field for continuous casting and rolling line of metal rod. Wherein considered the temperature rate change in rolling mill and intercellular gap of rolling mill line.

In order to solve three dimensional problem of heat-conduction is used the score approximation method of locally one-dimensional schemes. With the aid of which multivariate problem reduced to locally one-dimensional problem. Calculation of temperature field distribution in deformation zone is executed under inherent scheme.

Keywords: continuous casting, a metal rod, distribution field, deformation zone, stand, locally one-dimensional scheme.