Invention relates to the railroad industry and can be used for the heat treatment of rails, specifically for carrying out a manufacturing process involving changes to the product's geometric parameters.
A device for the heat treatment of rails, comprising an induction current generator connected to an inductor. The inductor is designed as a three-dimensional structure having a base and side sections in the form of electrically and hydraulically interconnected tubes, wherein the base of the inductor consists of adjacent S-shaped tubular elements forming the tubes, which are connected to one another at right angles or with a rounded joint, wherein the inductor base is equipped with vertical tubes that have a height exceeding the thickness of the rail foot and are connected to S-shaped tubular elements arranged adjacent to one another and inclined relative to the horizontal plane; these elements are connected to adjacent S-shaped tubular elements, perpendicular to the base of the inductor, which is equipped with terminals for connection to an induction current generator, as well as fittings for connecting to a unit for supplying and draining coolant into the tubular elements of the inductor, and is designed to allow coolant circulation within the adjacent S-shaped tubular elements.
The invention ensures high efficiency in heating the structural elements of the rail over a wide temperature range.