

The invention relates to the field of metallurgy, in particular to welding engineering, and it can be used for restoration and strengthening the steel components of cylindrical form, such as shafts of rolling mills, rollers of roller conveyers etc. by automatic hidden arc welding the metal layer. An installation for restoration and strengthening massive steel components of cylindrical form by hard-facing a metal layer contains a deposition device with metal structures for its displacement, a self-propelled cart, a mechanism of retention and rotation of the cylindrical components. The massive steel component of cylindrical form, to be surfaced, is located in a special thermostatic housing, in upper part of which a dust-gas trap is provided and technological windows for positioning the lightweight deposition device, in the case its displacement is performed by the special self-propelled cart, on which cassette holders are installed for fastening the cassettes of increased volume with electrode materials and a bunker of increased volume with flux, and in the lower part of special thermostatic housing a system of air-gas burners of injector type and a bunker for collection of slag coverage are installed, at that the lightweight deposition device performs individual displacement relative to the special self-propelled cart. The special thermostatic housing with a system of air-gas burners of injector type ensures during hard-facing stabilization of the temperature conditions at heating the massive steel component of cylindrical form. Therefore it is possible to set it in the installation in cold state also, that substantially facilitates maintenance. In the special thermostatic housing it is possible to carry out heat treatment of the surfaced steel component of cylindrical form. The operation of installation is completely mechanized. Producing the layer of metal of high quality and improvement of operating condition of installation is achieved.