

The roller inlet box relates to the construction of rolling mills, preferably for finishing stands of the section or wire mills.

The roller inlet box contains a body, wherein there are placed roller holders with rolls, installed onto the axle by means of bearings. The roller holders have longitudinal channels, and the axle have communicating axial and cross channels.

According to the first variant the roll and the axle are made prefabricated. The roll is composed of symmetrically placed bosses of light alloy, forming, in the jointing points over the external surface, a groove. Into the groove it is installed a ring with pass, made of wear-resistant material, the thickness of which is commensurable with the width of the pass. Into the hole of the bosses it is installed a sleeve. The axle is additionally equipped with a sleeve with hole mated with the cross hole of the axle. Between the roll ends and the roller holders there are installed ceramic washers. The sleeves are made of high-tenacity engineering ceramics and form a plain bearing. In such case, the component parts of the roll and of the axle are rigidly fixed between them, for example, with epoxy adhesive.

According to the second variant of the invention, onto the axle of the roller inlet box, in place of the sleeve, on the formatore surface, is applied a diamondlike layer on carbon basis.

The result consists in prolonging 5-6 times the service life of the roller inlet box, in reducing the down time of the rolling mill.