Rail car loading station, Pará (Brazil)

Project description

Transport of freight by rail accounts for a large proportion of the total transport of goods around the world, especially in relation to dry bulk commodities such as coal, ore and grain. Within the U.S., for example, railroads carry 39.9 % of freight by ton-mile, followed by trucks (33.4 %), oil pipelines (14.3 %), barges (12 %) and air (0.3 %). Hopper cars, which are loaded from above and emptied through the bottom, are widely used to transport dry bulk commodities. This project involved the construction of a hopper car loading facility for iron ore in a mining area of northern Brazil.

mageba scope

The hopper car loading facility, which allows trains to be parked beneath it for loading from overhead silos, is supported by 22 RESTON®SPHERICAL bearings. These are designed for vertical loads of up to 7950 kN. Some of the bearings also resist horizontal forces, while others accommodate longitudinal and/or transverse sliding movements. The long-term sliding performance of the bearings in this demanding industrial location, where impacts and dust can be expected at all times, is ensured by the use of mageba's ROBO®SLIDE high-grade sliding material instead of the typically used PTFE.

Highlights & facts

mageba products:

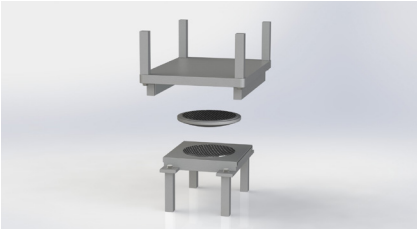
Type:	RESTON®SPHERICAL bearings
Features:	ROBO®SLIDE high-grade sliding material
Installation:	2013

Structure:

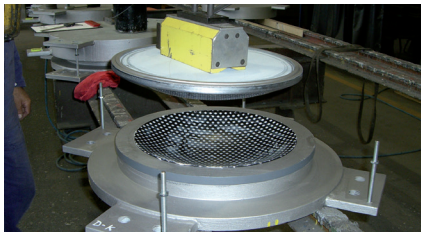
City:	Canaã dos Carajás
Country:	Brazil
Completed:	2013
Type:	Rail car loading station
Client:	Polysius do Brasil

The facility is located in Canaã dos Carajás city, in the southwest of Pará State, Brazil

Exploded view of a RESTON®SPHERICAL bearing (guided sliding type), showing calotte in middle



Assembly of a RESTON®SPHERICAL bearing, with calotte being placed on concave lower part



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