

ABSTRACT

CRANE RADIAL SUPPORT BEARING

The present invention, in one embodiment, is a system for receiving and delivering into a base the radial loads imposed on a crane where the crane has a center post operably connected to the base with a generally cylindrical outer bearing surface and the crane rotates in at least a partial circle around the axis of the center post. The system comprises three or more radial load rollers arranged in a linked sequence in an arc at the outer bearing surface of the center post. Each radial load roller includes an axle and an axis of rotation that is generally parallel to the axis of the center post. The system also comprises a means for anchoring a first radial load roller at one end of the arc and anchoring a second radial load roller at the other end of the arc. The system also comprises links connecting each roller between the first and the second radial rollers to its adjacent rollers to form a flexible chain of said rollers. Finally, the system comprises a means for tensioning the linked radial load rollers to draw each radial load roller into rolling contact with the outer bearing surface and to equalize substantially the radial forces exerted by the radial rollers on the outer bearing surface.

FIG. 1



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