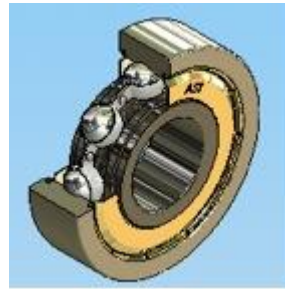


Track Ball Bearings



The following topics on Track Ball Bearings will be cover in this Technical Information Sheet:

- General
- Nomenclature
- Fitting and Mounting
- Load Ratings

General

Track Ball Bearings, also called Cam Rollers or Ball Bearing track rollers are specialty products designed for conveyor systems, cam drives, tracks, etc. These applications require the accommodation of heavy loads in addition to shock loads and axial loads. The outer rings are thick-walled to accommodate the anticipated heavy operational loads. They are available with a flat running surface (cylindrical OD), or a crowned running surface which can allow for misalignment between the bearing and the track. Other than the special dimensioning on the outer rings of the bearings, they are very similar in design to deep groove ball bearings and angular contact ball bearings.

AST's Track Roller Ball Bearings come in bore sizes from 10 mm to 40 mm and outer diameters from 32 mm to 85mm. Crowned outer rings have a curvature radius of 400mm. Double row Track ball bearings also have lubrication holes through the inner ring so that re-lubrication through the mounting shaft/stud is possible.

Nomenclature

Each Track ball bearing part number begins with the bearing series number. Three different series are available for track ball bearings:

LD2xx - Single Row Crowned Running Surface



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LD57xx - Double Row Flat Running Surface

LD58xx - Double Row Crowned Running Surface

Following the bearing series designation is the bore size designation. The bore size designations are as follows:

00=10mm, **01**=12mm, **02**=15mm, **03**=17mm, **>03**=BBx5 (example: LD208, 08x5=40mm bore)

Track ball bearings normally come with either double metal shields, or double rubber seals. The designation for either of the closure types follows the bore diameter designation. They are:

-ZZ – Double metal shields

-2RS – Double rubber seals

Fitting and Mounting

Normally, Track Ball Bearings are mounted using either a shaft or a stud. The fit between the shaft/stud should be a very close fitting “loose” tolerance to ease mounting. The shaft/stud needs to be a very close fit in order to support the inner ring under heavy loading. Also, the inner rings of Track ball bearings should be clamped in place with enough force to ensure that the inner ring remains stationary, only allowing outer ring rotation. Please contact AST Engineering for more information on fitting and mounting of Track Ball bearings.

Load Ratings

Life and load calculations are exactly the same as the calculations for standard deep groove ball bearings. The load ratings for track ball bearings differ from those of deep groove ball bearings though. The load ratings of deep groove ball bearings are for bearings that are fully supported by their respective housing/shafts. Since the thicker outer ring of Track ball Bearings do not usually get mounted into a housing, and have the load directly acting on the surface of the bearing, the load ratings are reduced due to the possible deformation of the outer ring.