The Torrington Company

W. C.

Ball Bearing Duplex Mounting Arrangements

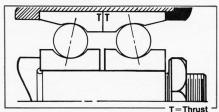
Torrington.

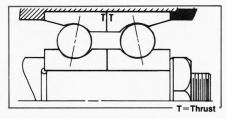
Fafnir.

Kilian.

DB Mount

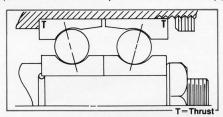
In a "DB" pair, the stamped outer ring faces go together or are "inboard." When preloaded bearings are arranged in this manner, the outer rings come in contact first, leaving a gap between the inner rings. When the shaft locknut is tightened, the inner rings are squeezed together and the gap is closed. This "loads" one bearing against another. Because the load lines diverge on the shaft, this arrangement provides excellent rigidity.

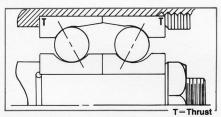




DF Mount

In a "DF" pair the stamped outer ring faces are mounted away from each other or are "outboard" when preloaded bearings are used in this manner, the inner rings come into contact first, leaving a gap between the outer rings. When the housing end cap is tightened, the outer rings are squeezed together. Like the DB Mount, all initial radial and axial "play" in the bearings is removed. The load lines converge in a DF Mount which is more forgiving of shaft misalignment than a DB Mount. As the shaft heats and grows radially and axially, preload in the DF pair rises rapidly. Because of this problem (Thermal Runaway), the DB Mount is preferred in most applications.





DT Mount

In a DT Pair, the stamped outer ring faces are mounted in the same direction. Unlike the DB and DF Mounts, a DT pair can only accept thrust in one direction. The purpose of a DT Mount is to allow the bearings to share a one directional thrust load, thus the pair has improved one directional thrust capability. Preloaded or flush ground bearings must be used to assure that the load is properly shared. Often, another bearing or set of bearings is used to accept thrust in the opposite direction.

