



Product

Customized Roller Bearing Assembly

Application

Minivan Folding Seat

Highlights

- Unique custom solution
- Extensive testing conducted
- Design met strict automotive regulations
- Millions sold

A major seating manufacturer that supplies products to one of the world's best-selling minivans needed a unique bearing to fit into a folding seat assembly that allows the second and third-row seats to be folded flat into the floor in less than 30 seconds. The manufacturer's engineers realized early on that an off-the-shelf bearing would not work for such a custom application. In addition to requiring a special mechanism to attach the assembly to the seats, the bearing material needed to accommodate tremendous loads, high stress and excessive torque.

The manufacturer's engineering team contacted Kilian Bearings and asked for a design solution to fit this unique application. The manufacturer worked closely with Kilian engineers and received a prototype in less than two weeks. Kilian then conducted in-house testing on the bearing that included torque-to-rotate, push-out force, durability testing and environmental testing for corrosion-resistance and grease retention.

Kilian engineers visited the seat manufacturing facility and supervised rigorous crash testing and environmental testing on the bearing to ensure it met strict quality regulations required by the automotive industry. After two years of development, the customized roller bearing was finalized for production.

The revolutionary seating system has now been in use for several years, using millions of customized bearings designed, developed and manufactured by Kilian.

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