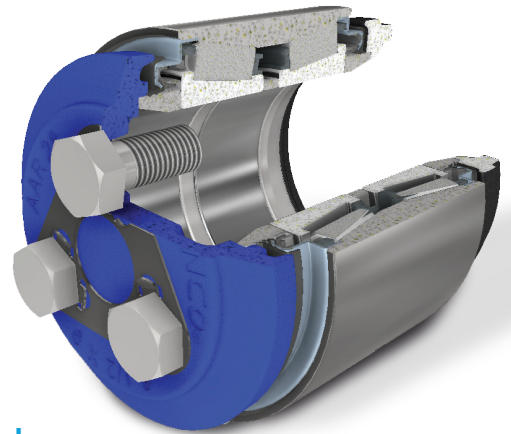


## PROJECT PROFILE:

# HOW INNO-SPIN™ PUT RAILCAR BEARING SEALS ON A FASTER TRACK



### The Situation:



Amsted Rail® Bearings Division provides heavy duty journal bearings for freight railcars. These bearings are one of the most safety-critical subsystems in

railcars, linking the rotating wheelset to the frame of the bogie or the running gear. They support high loads and maintain dimensional stability in an application with constant vibration and shock. These bearings work in the world's most rugged environments, from sub-zero temperature, to tropical moisture, to desert heat.

### The Problem:



Engineers wanted to reduce the scrap incurred in manufacturing cases on a radial lip cartridge seal for railroad journal bearings. The finished seal cases were 8-14" in diameter and formed from a low carbon steel. The company was also interested in reducing the environmental impact of their manufacturing process. Their traditional fabrication technology involved transfer stamping the seal cases, which was materials and oil intensive.

### The Solution:



Using the proprietary Inno-Spin technology for fabricating these rail seal cases provided several immediate benefits – reduced material costs, higher quality products, more environmentally responsible manufacturing. They realized savings in materials costs of 10% to nearly 40%, depending on product size and configuration. Extensive lab and field testing proved that the Inno-Spin process produced seal cases that were comparable and dimensionally more consistent than those they replaced. In addition, the Inno-Spin process allows for features which are not achievable in stamping processes and the product is fully compliant with the performance requirements established by the AAR (Association of American Railroads).

Seal cases made with Inno-Spin technology were direct replacements for the stampings, requiring no changes in raw material or coatings. They were integrated seamlessly into the already established seal molding and finishing operations. Using the Inno-Spin technology allowed for the decommissioning of an outdated and environmentally unfriendly transfer press process.



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