

# Fatigue Life Analysis of Remanufactured Radial Rolling Bearing with Replaced Loading Zone

<sup>1</sup>, Long Chen<sup>1</sup>, Feng Z.<sup>2</sup>, and Liu H.<sup>1</sup>

<sup>1</sup>Henan University of Science and Technology

<sup>2</sup>SKF China Co Ltd

October 19, 2022

## Abstract

The replacement of loading zone is not considered in active calculation method on fatigue life of remanufactured bearings. In practical application, when the radial bearings are reinstalled after remanufacturing, it is required to replace the loading zone, which results in a large deviation between the calculated fatigue life according to active calculation method and the actual life. In this paper, the fatigue life factors of radial bearings with different remanufacturing levels are calculated according to the actual application condition. The results of case studies show that the life factors by the method presented in this paper of remanufactured radial bearings with replaced loading zone are significantly higher than that of t active calculation method. The research results of this paper provides a more accurate calculation scheme for the fatigue life of remanufactured radial rolling bearings, which is a supplement to the active calculation method, and has important practical significance for the practice of bearing remanufacturing engineering.

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