

Bearing Remanufacturing Initiatives



Bearing appearance after inspection

Construction and agricultural machinery vehicles play an important role in improving the efficiency of work in construction and agricultural businesses, and for end-users, the most important factor for these machines is low life cycle cost. The replacement cost of bearings is one of the most significant life cycle costs. Bearings are used under various operating conditions and in various locations by end-users, and currently all bearings are disposed of at the time of inspection, even if they are still usable.

The ideal situation would be to reuse bearings and reduce the life cycle cost. Introduce the establishment of a bearing replacement flow that can contribute to reduced vehicle life cycle costs through the remanufacturing of bearings.

* The life cycle cost refers to the total cost of a machine from purchase to use and disposal by the end-user.

Development Objectives

To establish reuse technology for bearings for contributing to reduced life cycle costs

Issues and Countermeasures

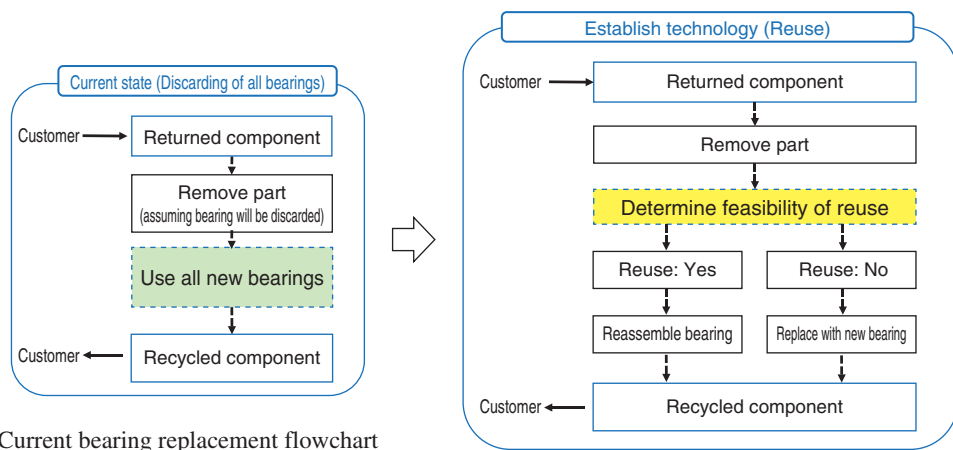
- ① Difficult for a customer to determine whether a bearing can be reused
 - Quantification of remaining bearing life by fatigue analysis technology
 - Establishment of criteria for reuse
- ② Metal cages are difficult to reassemble at a customer
 - Development of a cage that makes it possible to establish a method for reusing bearings

Achievements

May 2019: Komatsu Grand Partner Award for Remanufacturing Business



Award plaque



Current bearing replacement flowchart

Targeted bearing replacement flowchart

(Industrial Solutions Engineering Dept., Industrial and Bearing Business Unit)