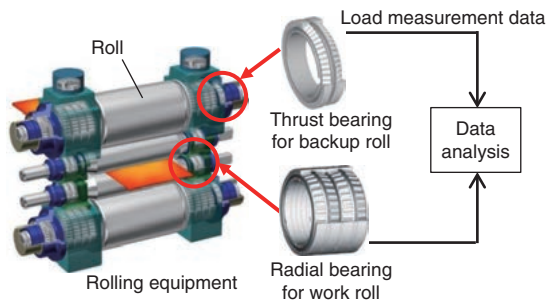


Bearings Load Sensing Technology for Steel Rolling Equipment

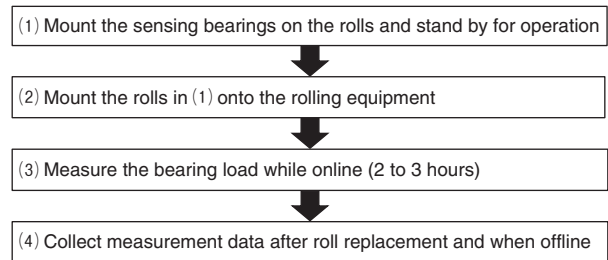
Steel rolling equipment is required to operate stably and reduce maintenance costs under severe conditions such as high temperatures, heavy loads, and high speed rotation, and it is important to prevent sudden failure of bearings which are major components, and the resulting secondary damage to the equipment. JTEKT has developed bearing load sensing technology for contributing to the stable operation and improved productivity of steel rolling equipment.

Features



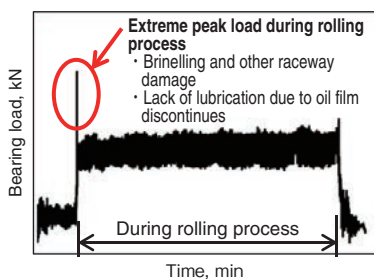
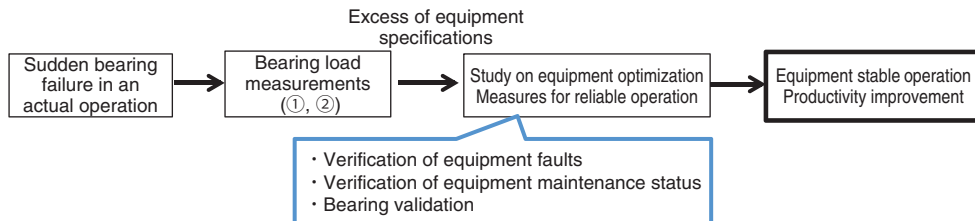
Overview of load measurement method

Load measurement flow

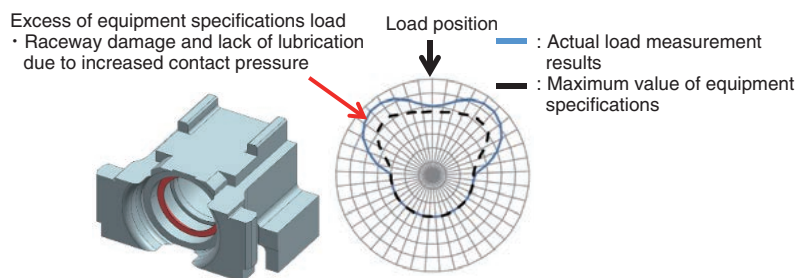


Usage Examples

- Soundness visualization of rolling equipment through bearings
- Refurbishment of high-reliability equipment under severe load conditions (for higher speeds and difficult-to-roll materials such as high-tensile steel)
- Estimation of bearing failure cause and propose the optimally designed durable bearings



① Bearing load measurement process



② Measurement of bearing rolling element load distribution in circumferential direction

Future Initiatives

- Simplification of sensing bearing assembly by wireless technology
- Measurement time extension by autonomous power generation

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

JTEKT CORPORATION