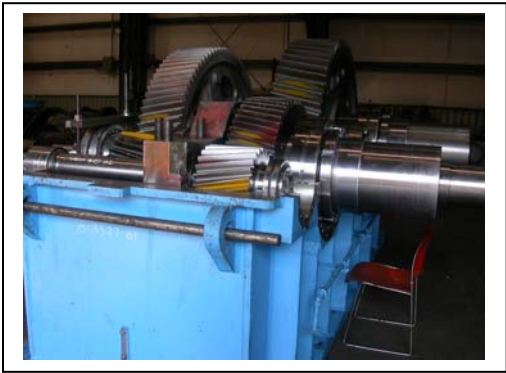
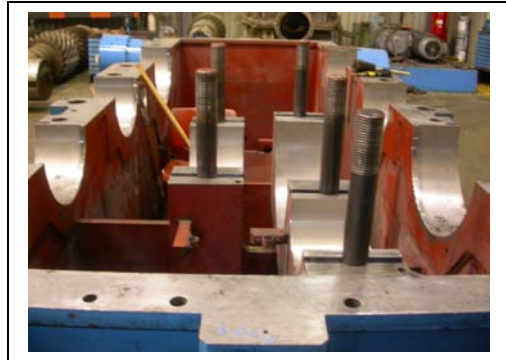


Xtek Service and Reconditioning Center

Caster Shear Gearbox Rebuild

Caster Shear Gearbox sent from steel mill to Xtek for evaluation and reconditioning as a result of a bearing failure.



The gearbox was disassembled, inspected, and evaluated:

- Gear ratings
- Bearing calculations
- Metallurgical (NDT), dimensional and visual inspections
- Housing qualification
- Lubrication system

The reconditioning workscope included:

- Regrinding all of the gears
- Weld repairing and re-machining the housing
- Rebuilding the brake and clutch
- Manufacturing a new flywheel
- Upgrading the lubrication system



Upon completion of the workscope above, The gearbox was reassembled and the following inspections were performed:

- Gear tooth contact patterns (yellow markings on gear teeth in photo above)
- Lubrication system check
- 24-hour no-load run test to monitor and record bearing temperatures and overall gearbox noise

Xtek provided on-site engineering assistance when this gearbox was installed into the mill several weeks later. We are currently in the process of reconditioning two identical gearboxes.

