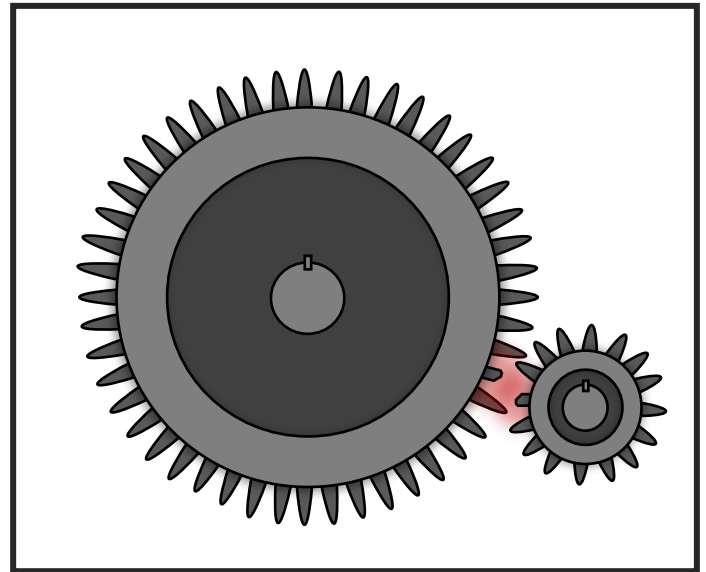


THE PROBLEM:

Gearbox failure is one of the most common reasons of malfunctions and production loss. In the Mining industry, gearbox failures can lead to unplanned downtime, lost production, and costly damage to connected equipment.



COST OF ASSET FAILURES

\$15,000/hour
Downtime Cost

6-8 hours
Downtime

Up to \$100,000 per incident
Secondary Damage

INDUSTRY SAVINGS POTENTIAL

Up to \$200,000 in savings related to downtime, asset cost, etc.

Over the course of 6 months, up to \$2m in savings across a plant.

ASSET BLIND SPOTS:

There are several inherent challenges related to monitoring gearboxes.



Challenge #1: Often, sight glasses on gearboxes are dirty and hard to see through. The inability to see the oil level in the gearbox causes under filling of crucial oil, leading to increased gear wear.



Challenge #2: Improper lubrication can lead to increased wear on gearboxes. With routes, the damage may happen before the next route is taken, leading to decreased life of the gearbox.



Challenge #3: Time-based oil samples may not capture damage to the gears quickly enough.

A NEW APPROACH TO GEARBOXES



Above: Planetary Gearbox with two V3 Vibration Sensors

Current Reality:

Historically, routes or PMs have been utilized to maintain the health of gearboxes. With the inconsistent nature of routes, problems are often overlooked or missed. With PMs, in many cases, performing work on the asset makes the health worse or has no affect on the asset at all, rendering the PM useless or harmful.

New Solution:

With continuous monitoring, customers can receive alerts from their assets in real time. Real time alerts enables site personnel to plan and prepare for maintenance on their schedule, not the asset's schedule.



HARDWARE

- 2 Vibration Sensors on the Motor
- 1 Vibration Sensor on the Input Shaft
- 1 Vibration Sensor on the Output Shaft
- Additional Sensors for Additional Shafts
- 1 Oil Quality Sensor
- Integrate Other Relevant Data Available (Input Speed, Output Speed, etc.)



SOFTWARE

- 24/7 Continuous Monitoring
- Warning and Alarm Threshold Settings
- Custom Built Indicators
- Dashboards
- Monthly Reports



REAL-TIME DATA

- Comprehensive Machine Health
 - Vibration
 - Temperature
 - Running Speed
 - Gearbox ratios
 - Oil Quality



TRAINING

- Sentry
 - Site visits: 2 times/year
 - In-person training
- Academy
- Customer training/handbooks
- Asset playbook

CONTACT US!

Call **814-867-4097** or email sales@kcftech.com for information.

