

LUBRICATION SKID PUMP

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MACHINE HEALTH SOLUTION FOR AUTOMOTIVE



THE PROBLEM:

A Lubrication Skid is a piece of lubrication equipment used to top off oils, greases, or other fluids for machinery. They reduce the need for oil storage lockers, barrels, and containers, which can be challenging to maintain.

This asset is essential to monitor because it is crucial to plant operations and could lead to serious downtime, as replacement parts can take a long to arrive.



COST OF ASSET FAILURES

~\$900k/hour Downtime Cost

3 hoursDowntime

INDUSTRY SAVINGS POTENTIAL

\$3,601,878

per asset

\$14,407,512

plant wide

based on estimated asset count

ASSET BLIND SPOTS:

There are challenges related to monitoring Lubrication Skid Pumps.



Challenge #1: Difficult for the human ear/eye to detect vibration frequencies.



Challenge #2: Typical route-based PMs for lubrication degradation does not capture the fully life of lubrication and can lead to false conclusions



Challenge #3: Waiting for audible/visual cues to problems can often be too late for a simple fix in the failure

A NEW APPROACH TO THE PROBLEM





Above: V3 Sensor and HUB

A HUB would be the optimal solution for monitoring lubrication skids as it allows for the deployment of both vibration and ultrasonic monitoring from one device.

Ultrasonic is a great early indication of lubrication issues and vibration can help to pinpoint the cause of these problems or areas that lubrication degradation could be impacting more than others.

The HUB also offers the unique solution of triggered measurements for lubrication skids that may not run as frequently as others.

HARDWARE

- Currently have 3 sensors monitoring the MIB, and both Pumps on each Lubrication Skid.
- 1 additional sensor to cover the additional axis on each and even potentially 2 more to cover MOB if deemed necessary for a total of 5 more sensors.
- IoT HUB could also supplement these sensors.



SOFTWARE

 Set thresholds and other indicators after collecting sample data. This will alert us when the vibration increases as problems arise.



REAL-TIME DATA

No additional information needed



TRAINING

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

