

# **PROJECT RECAP**



MECHANICAL FAILURES

# HORIZONTAL GRINDER

## **ILC ASSIGNMENT:**

After a mechanical failure, ILC identified the cause of damage, assessed the extent of damage, and verified the repair costs associated with the horizontal grinder's restoration.

## ILC ANALYSIS:

- The grinder was utilized for wood pulverization.
- A few months after its new purchase, the grinder experienced multiple mechanical failures, necessitating significant service part replacements.
- Following the part replacements, persistent breakdowns continued to occur.
- Approximately \$100,000 was expended on service parts and repairs to maintain grinder functionality.
- Three years after its new purchase, the insured concluded that the chopper had experienced a nearly catastrophic failure, rendering it inoperable.

## SUMMARY:

- The extensive list of grinder failures stemmed from sustained operation with severe vibrations caused by an inadequately repaired main rotor. The rotor had been operating out of dynamic balance since the initial failure of the rotor tooth mount.
- ILC determined that the recent grinder failure was a consequence of improper repairs, inadequate and untimely maintenance, and user misuse.
- We assessed that replacement of the machine was unnecessary to restore proper operation.
- The essential repairs, totaling \$125,967, were necessitated by the prolonged operation of a machine that had been repaired without adherence to industry-accepted practices or support from the original equipment manufacturer.