



**DECATUR
INDUSTRIAL
ELECTRIC**

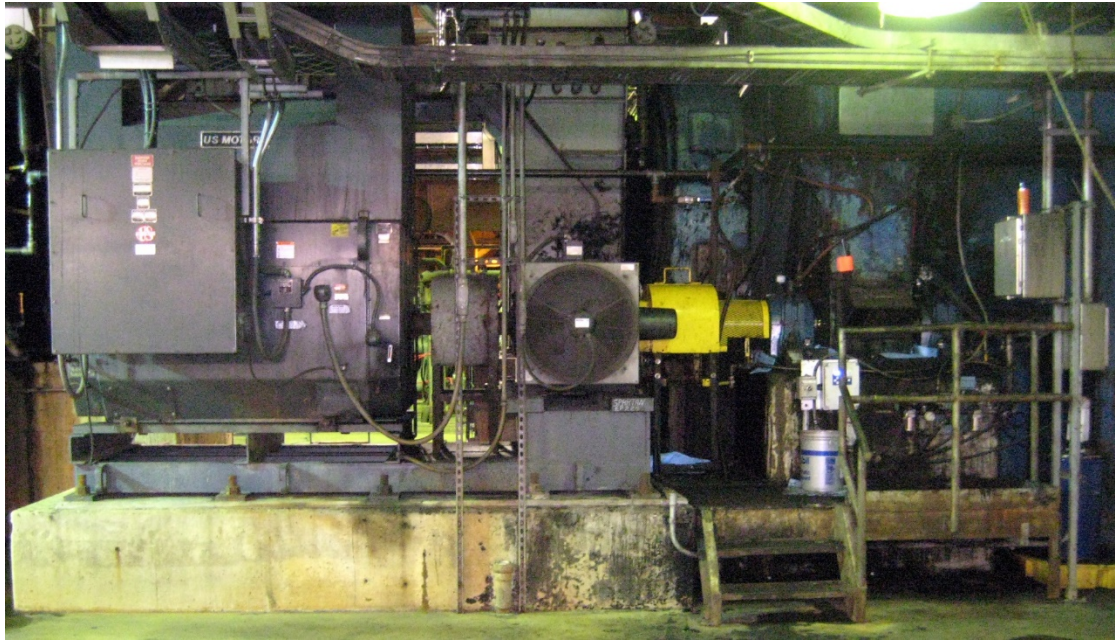
GEARBOX CASE STUDY:

How our FALK Select Partner status saved our customer \$350K.



**YES.
\$350K SAVINGS.**

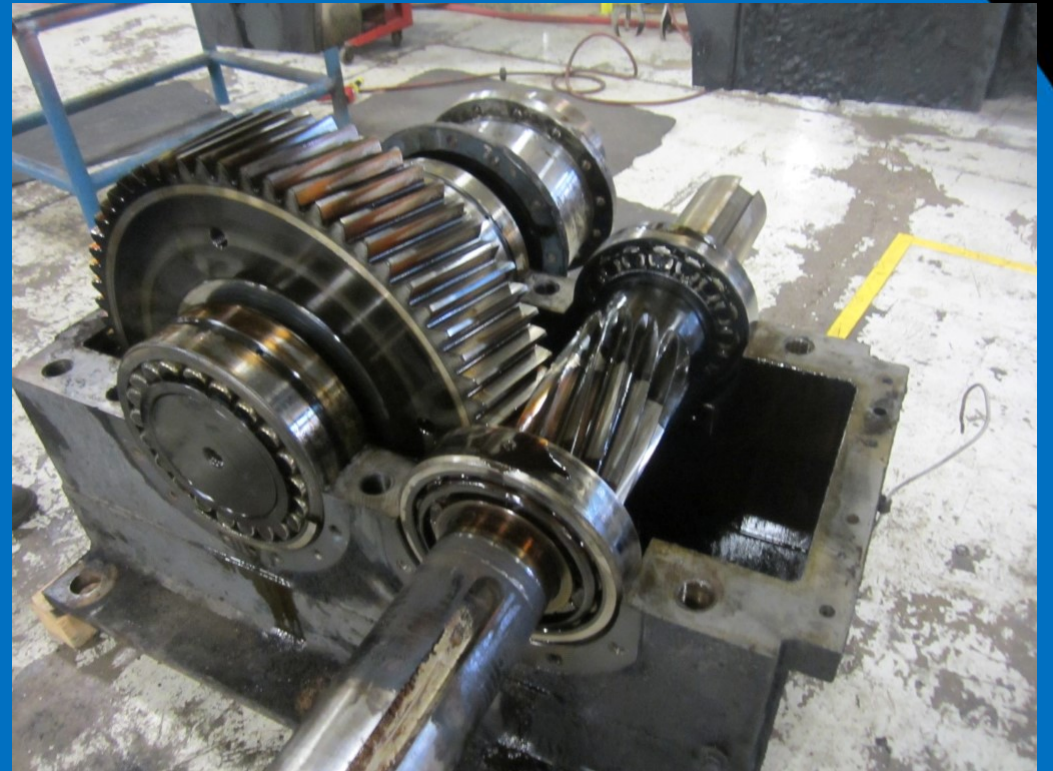
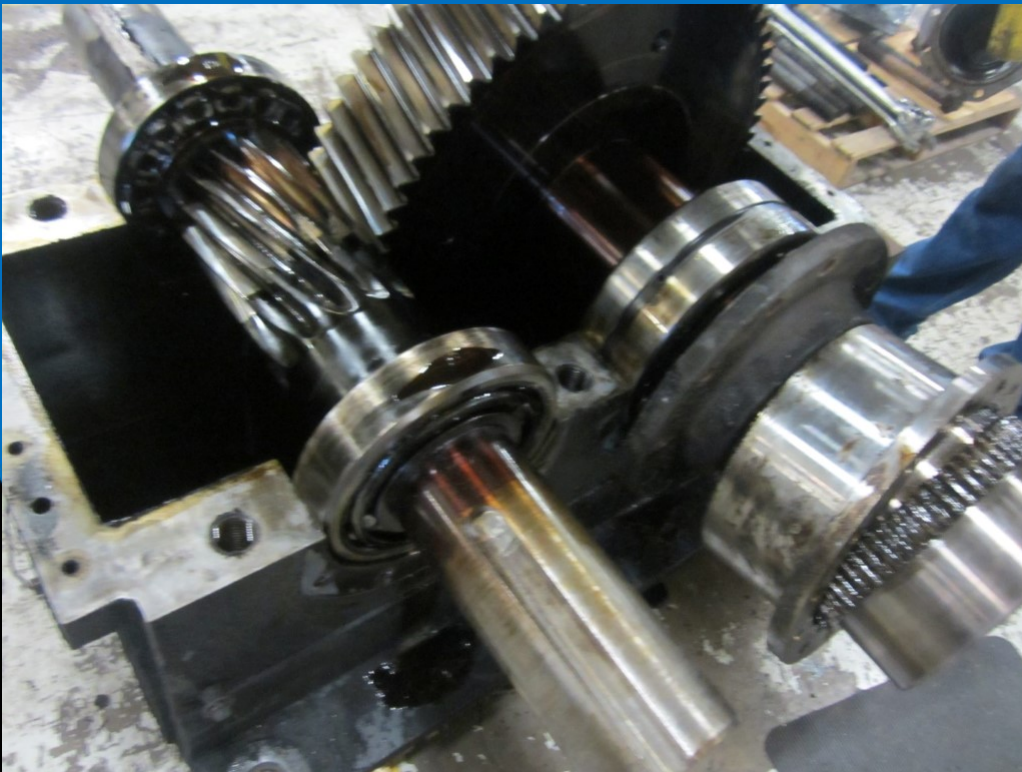
Coal Generating Facility Emergency Repair FALK Gearbox - Application Coal Crusher 1500HP



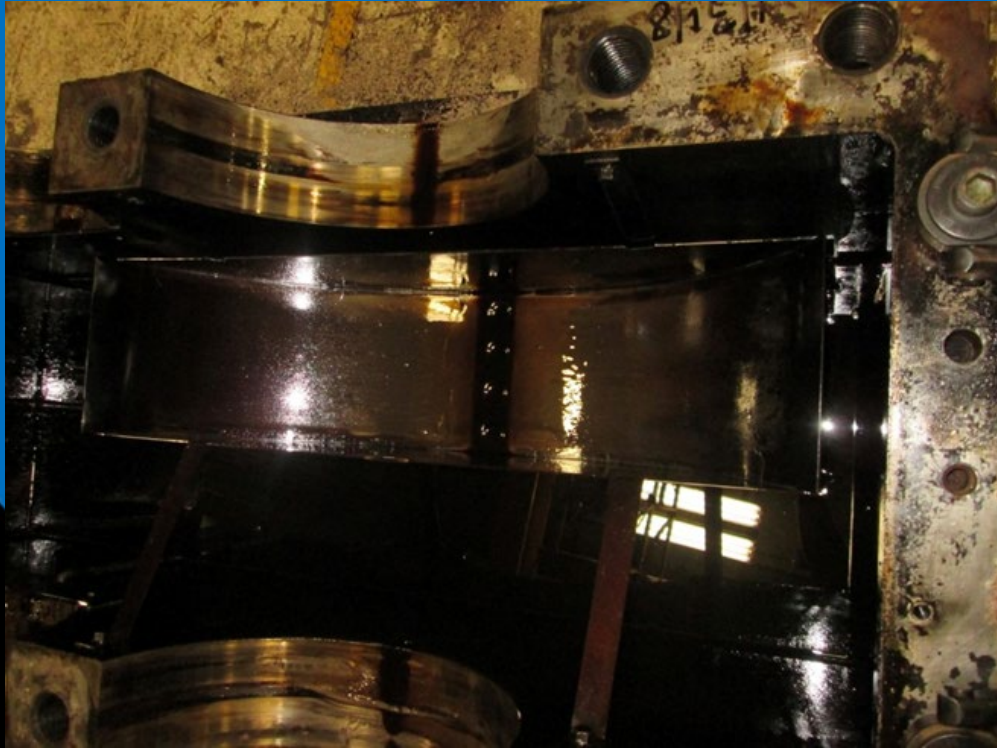
Incoming



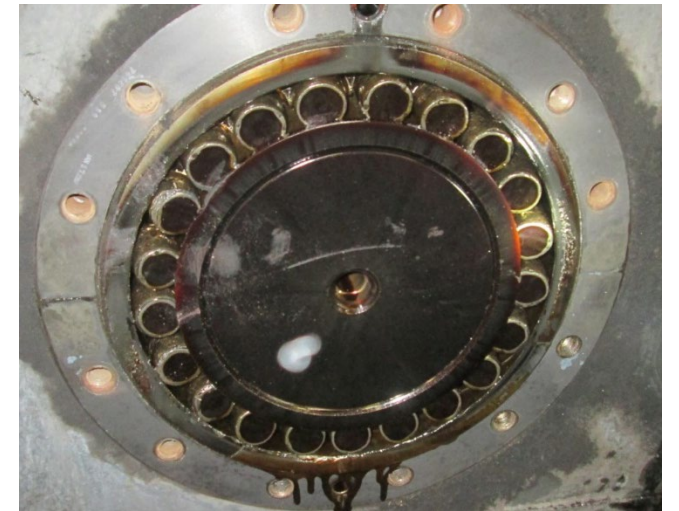
Disassembly



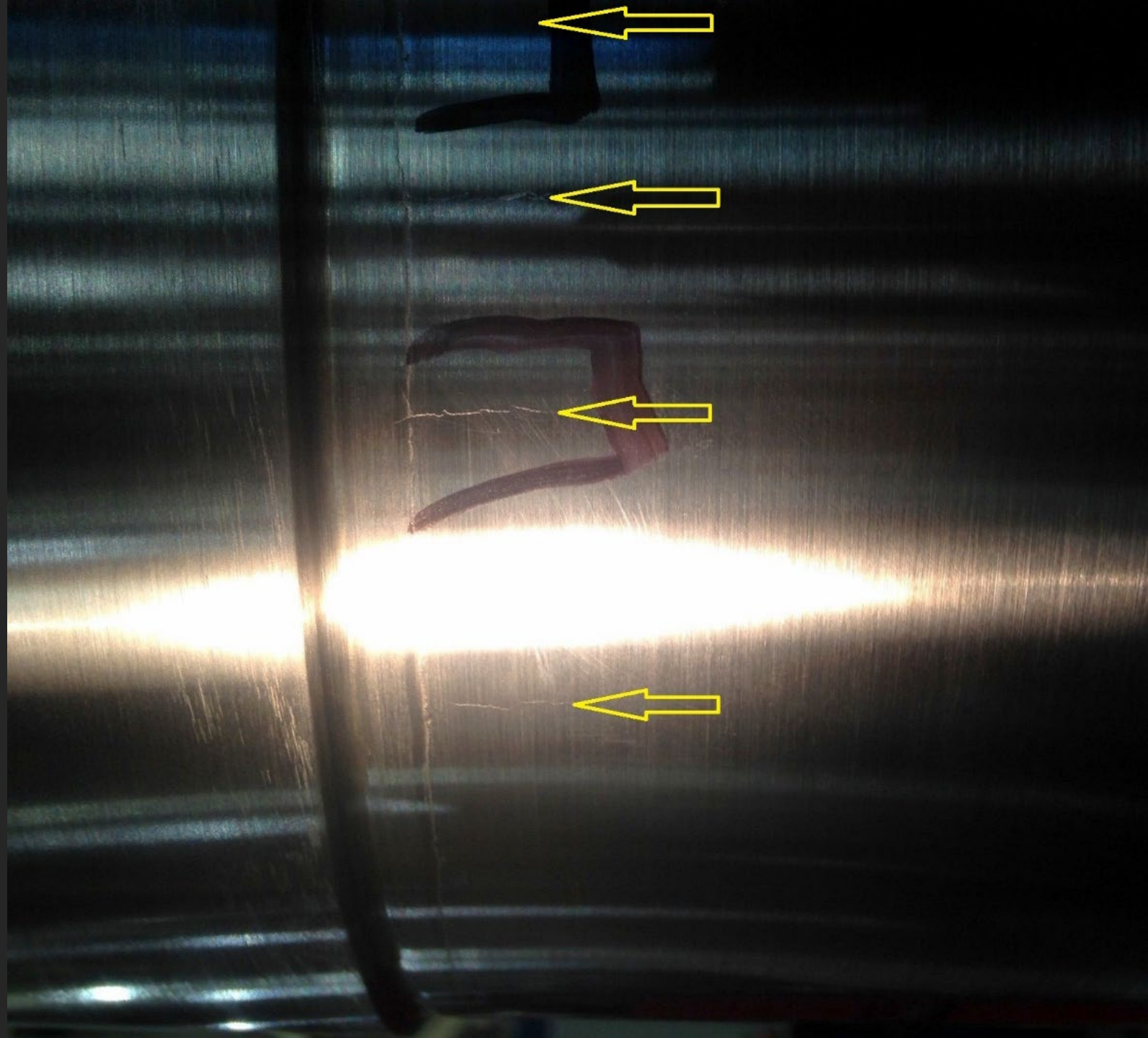
Heavy Oil Oxidation from Heat



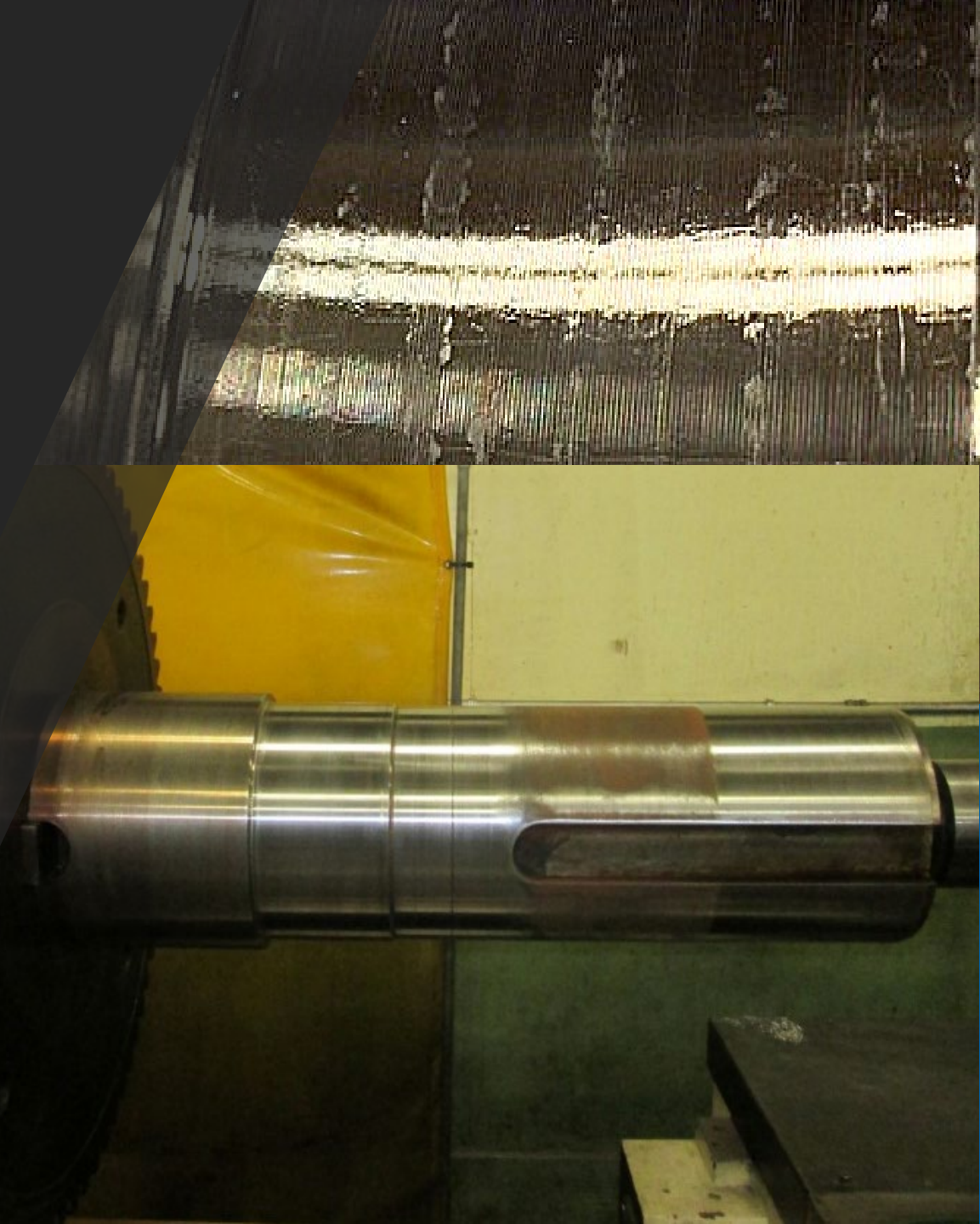
Fractured bearing discovered during autopsy.



Examination
of output
shaft found
repetitive
surface marks



Further investigation found
an output shaft
turn in lathe .100"
smaller for deeper structure
evaluation and
additional marks appeared



Dye penetrant check shows multiple parallel cracks due to fatigue





*DECATUR
INDUSTRIAL
ELECTRIC*

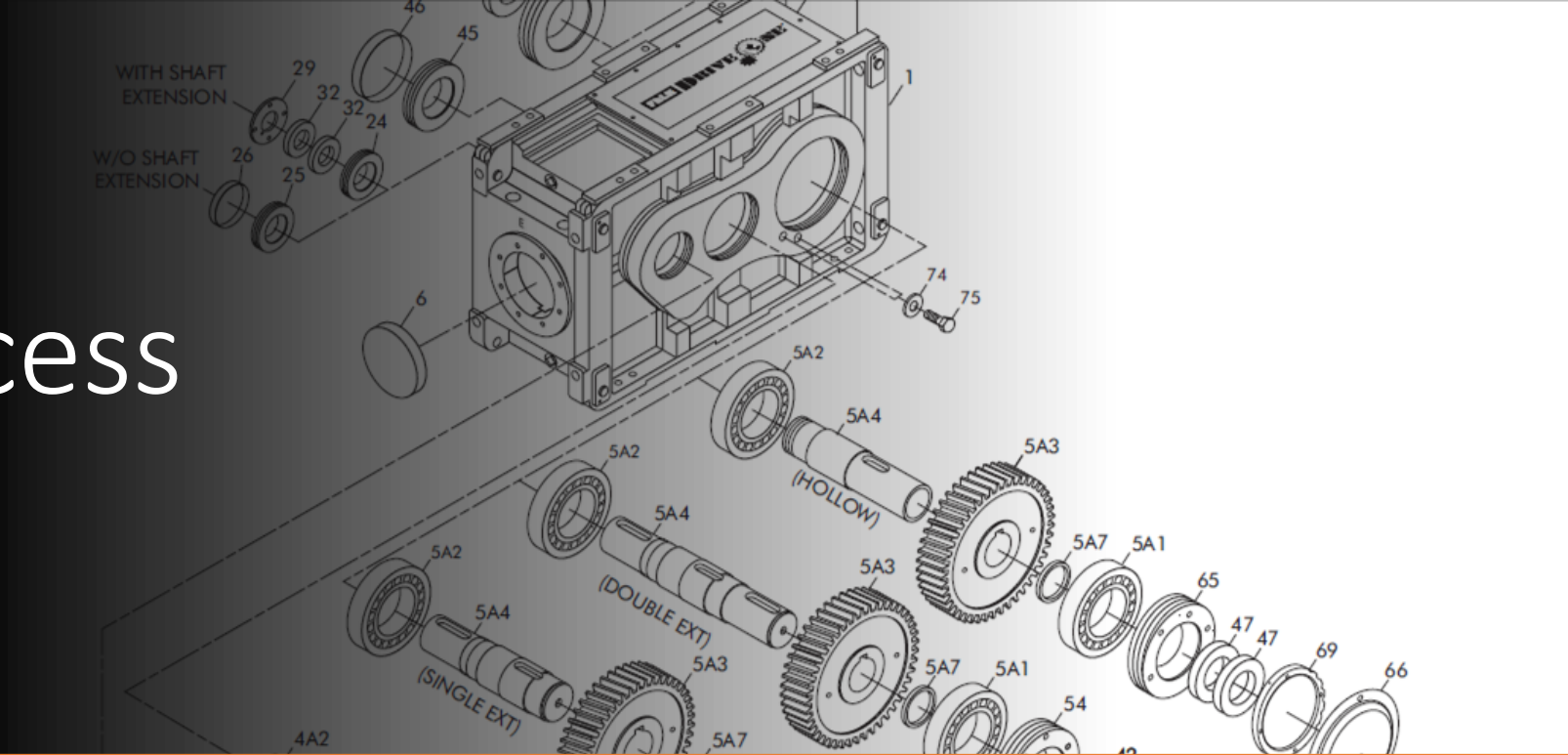
ROOT CAUSE OF FAILURE:

Bearing overloaded and failure due to coupling misalignment.

Subsequent shaft damage due to shock load fatigue.

R C F A

FALK Parts Access Requalified Output Shaft



As a FALK select partner, we have access to certain FALK parts that other shops simply do not.

After performing a RCFA, we contacted FALK for special access to their requalified parts.





Saturday
New Shaft Ordered

Overnight
Courier

Delivery at Sunday
6AM



- Factory Part was 8 to 10 weeks delivery
- Machining a new shaft would take 7-days

Calculated TCO Savings:

\$50,000 per day X 7 days

\$350,000 Savings

