

## Challenge

### Issue

A manufacturer of medium-density fiberboard (MDF) needed to increase the reliability of the main press cylinders on their large, single-daylight hydraulic presses. The number of cylinders per press range from 24-56.

### Root Cause

Excessive side loading was leading to premature wear of the bronze bushing and impacting press performance.

### Goal

Provide an economical solution to avoid the purchase of new bushings.



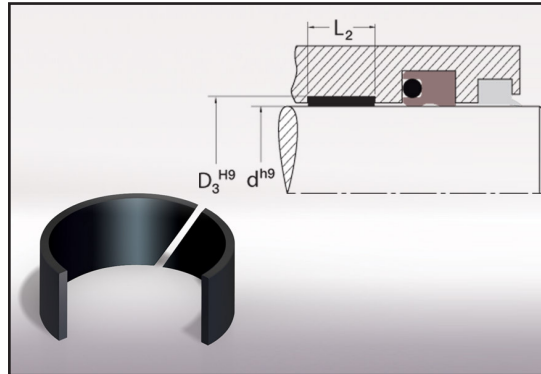
Damaged bronze bearing.

## Solution

### Recommendation

Retrofit the existing bearing groove to accept the **Chesterton 18K** and **19K** split replaceable bearing bands made from 40% glass filled nylon.

- Eliminate need to replace bronze bushings
- Provide the same carrying load as bronze
- High-performance thermoplastic polyimide resin that offers maximum heat stabilization
- Reduce radial movement, preventing metal-to-metal contact of moving parts
- Help prolong equipment and seal life



High-performance replaceable bearing bands for cylinders

## Results

### Improved Performance & Reliability

- Chesterton solution avoided costly reworking or replacement of bronze bearings\*
- Greatly lowered risk of recurring damage
- Extended life of moving components
- Prolonged seal life

### MTBR improvements: 5X

\*Typical bronze bearing replacement cost = \$500/bushing x 24 = \$12,000

\*Does not include savings of seal life extension

\$=USD



Replaceable bearing bands installed.