



*Adhesives for more
reliable assemblies*

APPLICATION CASE HISTORY

No. 208

LOCTITE® RETAINING PRODUCTS PREVENT HAMMER MILL SHUTDOWN

Manufacturing Reliability Training Gives Maintenance Team The Know-How

Problem:

A major tissue manufacturer operates a large hammer mill assembly used to de-bulk tissue product in their converting operation. This one machine supplies several converting machines. If an outage is experienced on this hammer mill, it will shutdown all the converting lines in the mill as soon as processed material is exhausted.

During a normal operating day (the plant operates 24-hours a day, seven days a week), it was discovered that a bearing on the hammer mill had spun on the rotor shaft. Normal maintenance procedures called for shutting down the hammer mill operation for four to six hours while replacing the bearings. This meant a substantial loss of production, a large idle workforce and also caused problems in the plant's "Just-In-Time" product delivery system.

Solution:

Several millwrights who had completed Loctite's Manufacturing Reliability Process suggested a procedure they had learned in the Retaining training session. As the bearing had not completely spun on the shaft, they suspected that the gap was not substantial. Rather than replace the bearings, they decided to use Loctite® 290 Adhesive/Sealant as a light retaining compound. Loctite 290 was spread around the gap between the shaft and the bearing and allowed to wick in and set up. After one hour, the hammer mill went back into service.

Results:

The hammer mill was operated for three weeks without incident until a scheduled holiday shutdown when maintenance personnel installed a new hammer mill rotor. They then mounted the bearings using Loctite RC™ 609 Retaining Compound to proactively reduce the probability of the bearing spinning on the shaft, thus reducing the likelihood of this type of failure.

The maintenance manager stated that this single event of using Loctite products saved the company more money than the entire cost of the Loctite Manufacturing Reliability Process.

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