

Penny Wise Pound Foolish?

CONSEQUENCES: Repeated Part Failures & Downtime



[Are you penny wise pound foolish?] Sure ... You can drive your car twenty thousand miles before changing the oil. You can brew a second pot of coffee with old grounds. And you even can go knee-deep into water to get your golf ball ... but is it worth it?.

Where does it get you?

Saving money “on-the-cheap” may sound good, but it can have serious consequences over the long haul ... the same applies with bogey aftermarket parts.

A real customer story.

One of the last independently owned manufacturers of Kraft linerboard, supplying corrugated converting manufacturers, is located in the southeastern U.S. A privately owned company with decades of experience in paper mills and converting facilities, this company's customers have come to know them as a highly-reliable supplier.

They've also been supported by ITT Goulds Pumps for more than thirty years.

Needing replacement parts, this manufacturing company contacted their ITT Goulds Pumps representative who has been their trusted partner, supporting the company for over 18 years as a senior sales engineer. The request was nothing unusual, wet-end parts for a Goulds model 3196 i-17, 4x6-17 pump.

As simple as their parts request seemed something wasn't right. The parts were for a relatively new pump, in operation for only a year – far too soon to be replaced.

How this problem started.

The company's maintenance supervisor, who'd requested the quote asked him to look into why the parts needed to be replaced so early.

After some investigation, it was pointed out that this pump's original design parameters were different from the current operating conditions. This was overtaxing parts, and resulting in premature wear and failure.

Purchasing focused primarily on cost reduction, by using “bogey” parts.

Recommendations along with a quote specifying genuine ITT Goulds Pumps parts, was turned over to purchasing. The company's newly-hired buyer decided to purchase cheaper “bogey” non-OEM parts, unbeknownst to their own mill maintenance personnel.

Maintenance installed the new bogey parts – and things got worse. During operation, the gland and sleeve immediately overheated to cherry red. The pump was again shutdown and taken offline so maintenance could investigate the problem. Upon further inspection, they found the replacement gland had come loose and was making contact with the sleeve. Damaged beyond repair, the gland and sleeve were not reusable. New parts were again ordered from the storeroom – this time, genuine ITT Goulds Pumps parts. To everyone's frustration, upon start up, the same problem recurred.

The pump was taken offline again.

Maintenance knew they needed to look deeper, and started looking for a cause. Upon inspection they discovered that the non-OEM stuffing box cover's bore was not concentric.

Maintenance contacted their ITT Goulds Pumps expert.

Newly invited back into the problem solving discussion, he began by supplying a genuine Goulds OEM stuffing box cover. Although the stuffing box problem was now resolved, he wanted to take it a step further to prove that even though the parts looked the same, they were vastly different ... he wanted the mill to be aware.

He recommended that maintenance install gauges, to monitor the pump's performance and check for new problems. This was a measure to show how non-OEM parts are not the same as OEM, regardless of bogey part claims.

As a result of installing the gauges, valuable testing data was collected.

Test findings revealed:

Staggering Head difference of 66'.

Roughly a 30% drop.

More energy was being consumed than required (approximately \$7200/yr). Comparatively speaking, if a replicator's impeller was to be sized to meet the original design parameters of 900 GPM, 180' of Head, a 15.25" impeller would be needed, as opposed to a 14" one. An additional 22HP would also be consumed.

A smaller pump could do the job.

If all that had originally been required was 114' of Head, a smaller pump would have been recommended. A smaller pump would have saved more than \$5k – upfront. Not to mention money lost on parts, and the consumption of additional energy required to operate the inefficiently setup system.

HOW WE FIXED IT:

A privately owned manufacturer of Kraft linerboard, located in the southeastern U.S., needed replacement parts. They were for a new pump, in operation for only a year. The company decided to purchase cheap "bogey" non-OEM parts. The parts failed, more than once, and caused new damage. ITT Goulds Pumps got involved. More than just identifying the problem (inadequate bogey parts) Goulds made recommendations that significantly improved pump efficiency, increased output, and reduced utility costs.

ITT Goulds Pumps expert's assumptions were spot on

Bogey parts were to blame. The gland and sleeve problem was fixed using a genuine Goulds OEM stuffing box cover – instead of cheap bogey parts. The secondary problems expected also came true. The results were brought to the customer's attention and resolved, thanks to ITT Gould's Pumps knowledge, and testing.

Conclusion

Don't get burned by bogey non-OEM parts, by being penny wise pound foolish. Saving a few bucks upfront isn't worth the price you'll pay in the long-run.