Written by MT Staff Monday, 11 January 2010 11:20

Failing Toward Success?

Several readers wrote regarding the November "My Take" column "Failing Toward Success," including two former contributors...

Dear Maintenance Technology:

Your "Failing Toward Success" reference to the development of cell-phone technology was indeed interesting. The R&D team at Motorola had a goal of producing a major commercial product that would have a financial impact on the company profits. The output would be a brand-new product that could be used by an average person at a very reasonable cost.

Maintenance issues within a plant do not have the same glamour as cell-phone technology. However, development of exceptional solutions to improving equipment life deserve to be recognized.

Consider these solutions, from different points in time, for sealing cryogenic fluids. The first involved liquid-oxygen-loading pumps for NASA's space shuttle. The failure of these pumps has been documented in the technical paper "Highly Reliable Oxygen (LOX) Pump for Vehicle Loading," by D. M. Pittman at NASA. On this project, the focus was on several maintenance issues that resulted in low reliability and failure to meet launch-pad fill rates. The initial design of the pumping system used a metal bellows seal. However, it was prone to bellows cracking and premature seal face wear from moisture freezing on the seal face. This pump was redesigned and now incorporates a new seal arrangement based on a series of labyrinth seals. Heat from friction was eliminated.

Several years later, a project developed with a different group of engineers. This involved a fleet of tanker trucks handling cryogenic fluids (as documented in my article "What Do Seal Failures Really Cost?" published in the April 2008 issue of *Maintenance Technology*). In this case, the best solution to seal failures was to allow a phase change of the fluid in the seal faces from a liquid to a gas. This was a significant development that resulted in major savings for the operator of the fleet.

Input/Output: Reader Feedback - MAINTENANCE TECHNOLOGY

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Jim Netzel, Consultant Via e-mail (Editor's Note: Jim Netzel spent many years as chief engineer for John Crane)

Another letter came from Professor Paul Feuerstein, author of our December 2009 cover feature "Attenuating Vibration: Look To The Dynamic Support System"...

Dear Maintenance Technology:

Regarding "Failing Toward Success," imagine where we would be if Orville and Wilbur had given up. After all, anyone in their right minds knew "that flying thing" would never fly. You coined the proper term; it's much better than perseverance. Thank you.

Paul E. Feuerstein, P.E. Via e-mail

"Made In China" Feedback

Bob Williamson's December "Uptime" column "Made In China" brought in a rash of complimentary notes, including the following...

Dear Mr. Williamson:

Very nice article regarding manufacturing in the U.S. I'm a Mechanical Engineer with an advanced degree in business. I'm hanging on in my career and totally understand all that you wrote. (As to the problem) look no further than the leadership, or lack thereof. "U.S. Management is doing the right things; whereas leadership is doing what is right," as Drucker said.

The recent Daytona 500 looked much like business in America: You step out of the draft, and you go to the back. Our current economy is the wreck that happens in the last 20 laps. I was upset to see Mark Martin get caught up in this type of wreck, as many good businesses do when trying to survive. But how did Jimmy Johnson do? He moved out of the draft to make sure he'd avoid the wreck and finish. He has won the NASCAR championship four years in a row.

Name withheld Via e-mail

About The Value Of Handmade

Written by MT Staff Monday, 11 January 2010 11:20

Finally, a number of you told us that you somehow identified with December's "My Take" column on "The Value of Handmade." Here's one thoughtful note about the issues this column raised...

Dear Maintenance Technology:

I have come up through the maintenance ranks (over the past 30 years) and seen the industry suffer from a lack of youth. As an example, our maintenance group was installing a 300 hp DC motor on a rubber mill that had come back from a PdM overhaul. I went out to see how the guys were coming on the coupling alignment. We still use indicators, and as the indicator rotated behind their easy vantage point, they got out the mirror to read it. The trouble was that neither maintenance tech could. I couldn't read it either. Out came the magnifying glass, and the realization that we need to hire some young people, if for nothing else than to tell us what we are looking at. (I am the youngest in our group at 49.)

When it is time to hire someone, we nearly always end up with someone over 40. At one time, we hired people as young as 21, hoping to train them. We did, but at great cost. Some ran forklifts into rack systems, others were not careful about workmanship or their own safety. It took from two to four years for them to be really productive. Then they moved on to the next job.

Hiring someone with years of experience is like bringing home a house-broken pet. You only need to show them where the food, water and litter box are, and they get along just fine. No mess, no accidents.

Steve Mathey DS Brown Company Via e-mail

Email questions or comments to: <u>jalexander@atpnetwork.com</u>. We reserve the right to edit letters for clarity and brevity.

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