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SAFETY MATTERS

Gear-machine manufacturers should place more emphasis on their equipment's safety features as selling points, according to our monthly columnist.

Did you attend Gear Expo 2003 in beautiful downtown Columbus last October? It certainly was a show worth attending.

The booths I visited were all well-manned, and well-designed to attract attention. The stories I heard from the exhibitors were that, while the number of attendees was down, the people that attended were the right ones, from a selling standpoint. I, of course, was an exception to that. My real purpose in attending the show was to search out new and better safety features that are being incorporated in the industry. What I found was both good and bad.

The "bad," from my point of view, was that there was little or no promotion of the safety aspects of the machines being shown. I understand that, from the manufacturer's viewpoint, the purpose of participating in a show such as this is to promote and sell their machines, and that the big selling features are production and ease of use. That said, I would still recommend that at least a sign showing their safety features could and would be an additional selling point.

Anyway, I talked to all of the machine makers at the show and asked that they send me any information they could on the safety features of their machines. I will share this information with you as it is received. I did find that the Bourn & Koch machines that were being shown had a new door lock feature that struck me as a big improvement. The doors on their machines have an interlock that physically prevents the door from being opened during cycle. In the past, the interlocks were just switches that shut the machine down when the door was opened. This new design is not only safer, but it could prevent damage to tools and blanks if the door was opened by mistake.

Last month we started to discuss some safety aspects of hob sharpening, and now I'd like to continue that discussion. I visit a great number of gear shops around the country, and most of those who sharpen their own hobs and shaper cutters do not have a dedicated operator. It seems to be the norm that each hobbing machine or shaper machine operator is expected to sharpen their cutting tools when they are dull. This practice seems to me to be a very dangerous


situation. The operators are typically trained on the proper operation of the hobbing or shaping equipment, and only given rudimentary training on cutter sharpening. Metal cutting and metal grinding are two different animals and present different hazards to the operator. Even simple things like changing a wheel can be hazardous if the personnel is not trained to determine if the wheel may be cracked, or on the proper tightening procedure for the clamp nuts. There is a larger hazard with the coolant than is typically seen in metal cutting. In many cases, the machines are not

as well-enclosed, and the grit from the grinding operation flies around and can be a hazard to the eyes. And these are just a couple of the possible hazards.

I am not suggesting that it be a requirement to have a dedicated operator for your sharpening equipment, but I do recommend that you put as much emphasis on training the personnel on all the machines they use as possible, as opposed to just the "productive" machines. I think the sharpening operation typically gets less attention simply because it is not a revenue generator, and while this thinking is understandable, it can add unforeseen costs to our bottom line if

just one of our people is injured.

The spotlight in *Gear Solutions* magazine this month is on "Retrofitting and Rebuilding." I would like for

you all to consider safety when contracting to have any of your equipment retrofitted or rebuilt. We normally look at these procedures from a standpoint of increased productivity, ease of use, or wear. The time when we are having this work done is the ideal time to incorporate the latest safety features, which typically add very little to the cost of the project, while contributing a great deal to the bottom line by protecting our fellow workers. 

"Incorporating the latest safety features during rebuild typically adds very little to the cost of the project, while contributing a great deal to the bottom line by protecting our fellow workers."

ABOUT THE AUTHOR:

With more than 30 years of experience in the gear industry, Terry McDonald is a manager with Repair Parts, Inc., a partner with Re-New Machine & Maintenance, Inc., and a current member and past-chairman of the American National Standards Institute B11.11 Subcommittee on Safety Requirements for Construction, Care, and Use of Gear Cutting Equipment. McDonald writes this monthly column specifically for *Gear Solutions* magazine. He can be contacted through the magazine at editor@gearsolutionsonline.com. Responses and reactions to his column are also welcome.