

# Managing the impact of fatigue and chronic back pain for employees

BY TOM WIERSMA

**T**he impact of globalization on the paperboard industry is undeniable. As a result, there are many operational costs that without exception must be even more precisely managed than ten years ago. Some of these costs are constants like the cost of energy. Some costs are escalating aimlessly while never adding any value to the product or the process at all, like the cost of health care.

Taken together the costs of doing business in North America seem to be conspiring to erode productivity. But taken

apart, some of these costs may be more directly manageable than once thought. Dealing effectively with muscular skeletal disorder (MSD) occurring in the paper and paperboard industry is one example.

## Most valuable asset: People

Improvements in automation-led productivity in the last ten years, together with older machines, consolidation and lower-priced overseas competitors are all having an erosive effect on today's workforce. As a rule, whenever personnel change occurs, usually only the most experienced people remain, resulting in the average age of a worker in the industry being higher than ten years ago. Yet veteran personnel are being asked to do more.



Notice this man's slight counter-lean to the right due to compensation for the load on the left.



This is an ergonomic and balanced tool carrying system similar to the one used by Smurfit-Stone at its La Tuque/Quebec mill. The more than 40 interchangeable tool modules allow the user to tune the rig to unique task-sets.

If workplace safety and productivity are to coexist in an industrial environment, then the workers' comfort and, ultimately, health, are prerequisites. The outcome must be nothing short of alert, intelligent, creative, motivated and safely equipped maintenance, engineering and production people. This is a holistic approach to productivity. And because these people are the backbone of a process enterprise they must

Smurfit-Stone paperboard mill in La Tuque, QC



be consulted. Fernand Lebel knows that.

Lebel is the Health and Safety Manager at Smurfit-Stone's 650-person La Tuque, QC, mill where the company runs two large board machines, producing its premium white top linerboard.

### How much can be carried safely?

Often 10 to 12 pounds of electrical, mechanical and special-purpose hand tools, devices, instruments and communication gear need to be carried over significant distances for extended periods of time. And they're regularly carrying their gear on narrow catwalks, up access ladders or into hot and tight quarters and confined spaces. Rotating machines and process equipment are a constant part of the environment. Improperly stowed personal gear can cause potential process upsets and represent a safety hazard.

The issue that concerned Lebel most was the carry-forward effect of poorly designed and jury-rigged tool carrying gear on the long term health of his maintenance and engineering team. Lebel reasoned that the team would be more alert, creative, innovative, safe and proactive if he could protect them from unnecessary chronic fatigue and recurring back pain. He concluded that he could find a uniform way to help his team be healthier and more comfortable. However, it's the people doing the work who ultimately will know what works and what doesn't. The members of the maintenance and engineering staff at La Tuque approached Lebel with the idea of using a flexible, self-customized and ergonomically balanced tool carrying solution.

### A scaleable remedy

According to Fernand Lebel, "It was Duckbill's unique approach to neutralizing back pain and worker fatigue, their willingness to adapt the product to our mill and the fast, creative response of their prototype team that ultimately led to the first order."

Safety is a function of training of course, but also the intelligent design of tool modules to fit the tool and the man, along with rugged industrial construction. The built-in redundancy of dual safety fasteners per tool module combined with full width velcro on the inside of each unit combined with a belt tunnel rather than a belt loop configuration is a further safety precaution and guards against accidental loss.

The environment in the La Tuque mill is a demanding one. Perhaps even more demanding are the rugged men of rural Quebec who know a faux when they see one and won't hesitate to tell it like it is. The frequent back, neck and hip discomfort — caused by constantly "leaning against the load" — has been eliminated. Further, Smurfit-Stone corporate has health and safety guidelines that must be followed. And OSHA has recommendations that need to be considered.

### Conclusion

Of the initial six users in the 2003 pilot test at the La Tuque mill, three reported their back, neck and hip pain had been eliminated. This intended result and the users' almost immediate acceptance was enough to prompt Lebel to order more gear. But there were three other unintended benefits. First: a commercial benefit was derived from the built-in flexibility of the W.A.S.P and P.I.T.S. approach. This flexibility is the result of the universal ergonomic tool-carrying platform that allows Lebel to equip different disciplines and trades within the mill with task-appropriate gear. From

supervisors who carry some, to plant electricians who carry a lot — all without changing the platform. Second; and just as important to Lebel, in addition to the per-person flexibility, his logistics are greatly simplified by a uniform tool carrying solution. Third: Lebel can now build an archive of documented best practices, improve training and reduce accidental tool losses. But most importantly, his team is healthier. **P&PC**

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