

On the cover

Dean Murphy, VP of corporate safety at Dynamic Attractions, shows Paul Bergin, WorkSafeBC occupational safety officer, part of the Tilt & Drop roller coaster the company is currently constructing.

# Taking the risk out of roller coaster manufacturing

By Sarah Ripplinger

When minor workplace injuries were adding up to lost work-time and increased premiums, Dynamic Attractions knew it was time to make a change. Today, the company hasn't had a lost-time injury in nearly five years.

When Dean Murphy first joined Dynamic Attractions, the company was eager to improve its safety record. Formerly called Dynamic Structures, it designs, manufactures, and installs roller coasters and other attractions around the world.

While the company's attractions have always been popular, back in 2005, behind-the-scenes excess costs were adding up.

"It could cost five times a worker's salary to replace them if they get injured," says WorkSafeBC occupational safety officer Paul Bergin. "Employers also lose an integral part of their workforce."

In 2005, Dynamic's workplace safety record was costing the business just over seven percent of its payroll in insurance premiums. Insurance premiums are calculated based on a company's experience rating, which takes into consideration its claim costs for the past three years, the size of the business, and how it compares to other businesses in the same industry.

"Not only were we paying a lot in premiums, I knew we could do better to protect our workers by taking additional steps to prevent injuries," explains vice-president of corporate safety, Dean Murphy, who works out of Dynamic's Port Coquitlam location.

## High stakes for safety

At Dynamic, there is no shortage of potential hazards that need to be kept in check.

"The combination of manufacturing and construction activities in our plants requires that our employees be familiar with numerous types of hazards and their control methods," explains Sasan Tahvili, safety coordinator at the Port Coquitlam location.

Work for the company can involve materials handling, mobile equipment, welding, grinding, power tools, and electrical equipment. Workers need to be protected from everyday hazards, such as slips and trips, and also be trained in protecting themselves from hazardous materials or exposures, such as welding fumes.

"We also have a range of education and experience levels among our British Columbia team of around 100 fabricators, welders, ironworkers, and millwrights, along with 240 designers, draftspersons, engineers, and support personnel."

## Getting safety on the right track

In 2005, the company was part of WorkSafeBC's Focus Firms Program — a program designed to reduce workplace injuries and improve health and safety infrastructure.

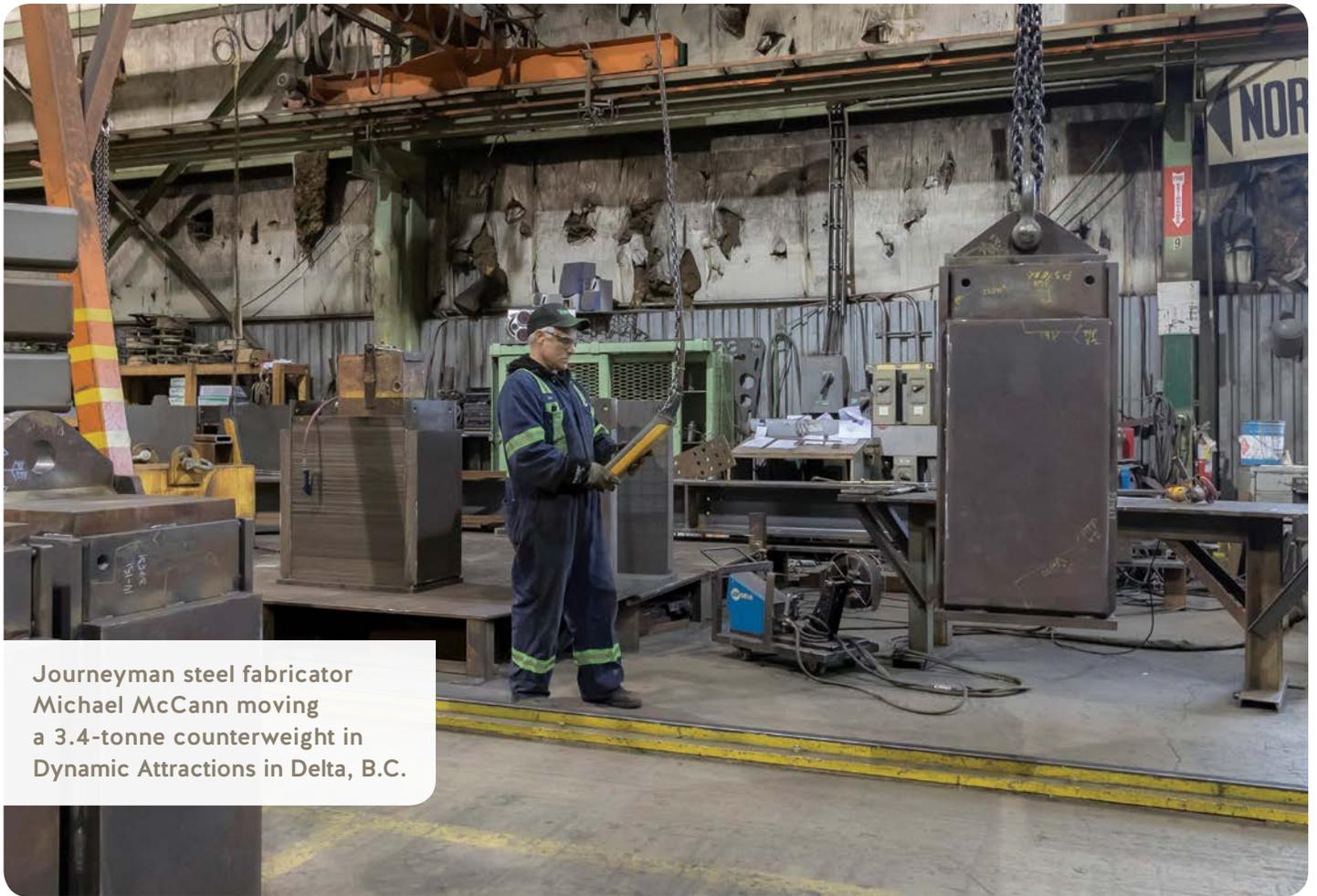
Along with aligning the company's health and safety program with the *Workers Compensation Act*, Dynamic revamped the orientation package for new hires and added a WHMIS training program on handling hazardous products to the onboarding process. Workers now complete a physical-demands analysis with a registered kinesiology technician at the time of hiring to establish a baseline of their physical abilities and limitations.

Dynamic makes sure that workers are informed of what to do should a safety incident occur. All workers sign a return-to-work agreement so that they know to report any and all injuries immediately, and how to work with the safety department on return-to-work opportunities. The return-to-work program accommodates injured workers wherever possible, so that they can stay active and productive at work while they recover. This is not just good business; recovering at work can help a person's health and well-being too.

## An eye for details

"Another extremely important long-term initiative that we implemented involves the delivery of weekly toolbox meetings with each shift every Monday," says Murphy. "This gives the safety department the opportunity to communicate hazards, provide safe work recommendations and training, and identify and mitigate safety-related issues with workers."

Management also keeps a close eye on the numbers. When Murphy noticed eye injuries were frequent, he investigated. The injuries were often a result of individuals who required prescription glasses not wearing protective eyewear. Murphy found a solution through the Occupational Vision Plan — now eyesafe — which provides prescription safety eyewear at cost. Since 2006, Dynamic has provided 291 pairs of prescription safety glasses to workers.



Journeyman steel fabricator Michael McCann moving a 3.4-tonne counterweight in Dynamic Attractions in Delta, B.C.

Now, because of its low workplace injury rates, Dynamic will receive a 48.5 percent discount on insurance premiums in 2019. Instead of 7 percent of its payroll going to insurance, Dynamic now only pays 1.17 percent.

### Utilizing the joint committee

Having established a solid occupational health and safety (OHS) program and drastically reducing premiums, you might think Dynamic was done learning about health and safety. But when the company was given the chance to participate in WorkSafeBC's Program and Committee Evaluation (PACE) Initiative in 2018, Dynamic saw it as yet another opportunity to build on its safety program.

Through the PACE Initiative, a WorkSafeBC safety officer evaluates a workplace's OHS program and the effectiveness of its joint health and safety committee or representative. A joint committee brings together representatives from the employer and workers to identify and help resolve health and safety issues

in the workplace. Workplaces with between 9 and 20 workers have a worker health and safety representative instead of a committee.

In addition to evaluating the committee, the officer will also engage with the company's senior leadership to strengthen the OHS program and committee roles. In working with officer Paul Bergin, Dynamic did uncover some more low-risk safety gaps in legal requirements, which the company is working to address.

"Working with WorkSafeBC on initiatives like PACE gives us an opportunity to learn new ways to improve the safety of our operations," says Murphy. "No matter how good you think your safety program is, there is always room for improvement."

### Leadership is key

As of December 2018, Dynamic has experienced almost five years without an employee missing work due to a workplace injury, which represents approximately 2 million hours on the job.



Dynamic Attractions' joint health and safety committee, from left to right: Sasan Tahvili, Dean Murphy, Rith Keo, Janet Pagobo, Ken Stroud, and Ken Anderson.

To get here, Murphy didn't just overhaul the health and safety program, he got buy-in from the company's senior management to make sure the changes stick.

Today, he says, "Dynamic Attractions' senior management recognizes that we needed to go above and beyond what is required in *Workers Compensation Act* regulations."

Jeryl Merryweather, a WorkSafeBC manager in Prevention Field Services, says there is a great deal of evidence that employers are more likely to decrease workplace incidents and injuries when there is buy-in from senior leadership:

"Leadership's commitment to OHS influences the workplace culture, and ensures that middle management and workers are also engaged in the development, implementation, and maintenance of managing safety."

Ideally, involvement from leaders would extend to joint committee meetings, adds Bergin. Their presence at

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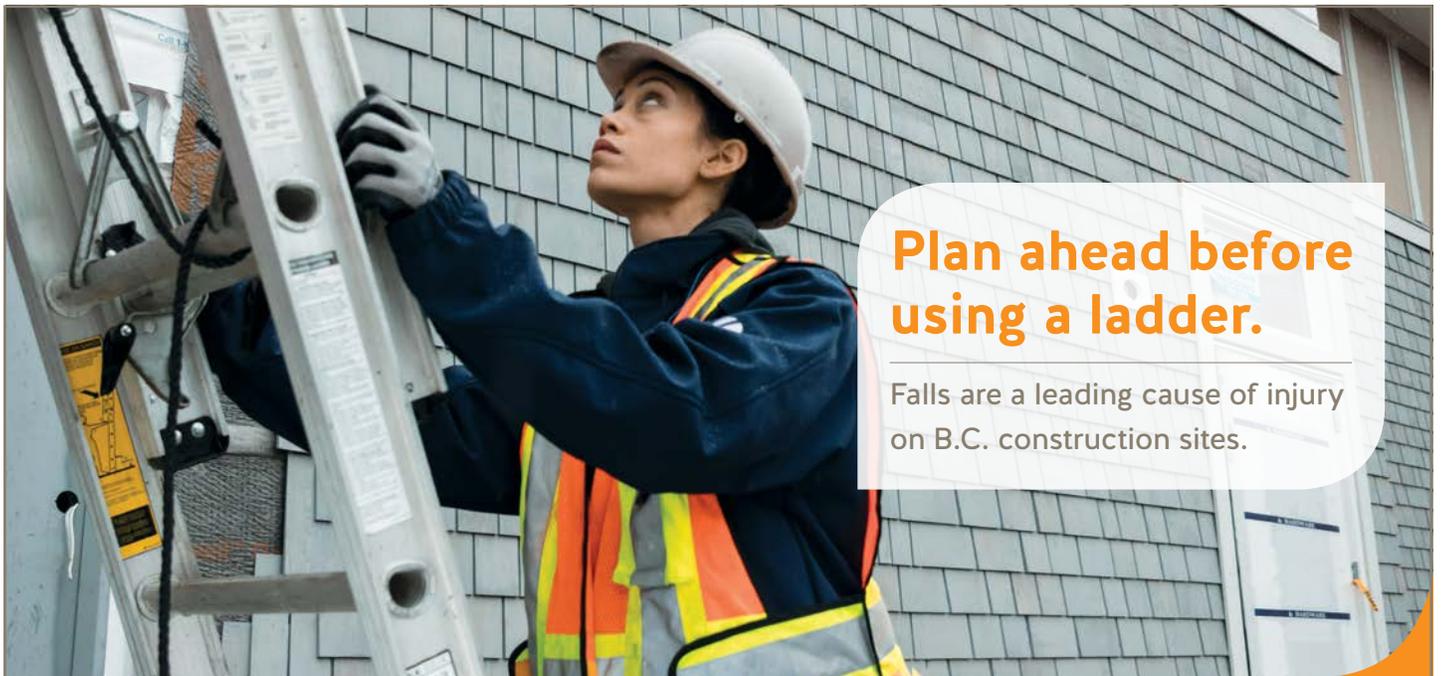
committee meetings adds legitimacy to the committee's role. It also helps leadership stay informed about and involved in OHS policies and practices, along with any issues that may bubble to the surface.

"Safety is now ingrained in our workplace culture," Murphy affirms. "Our workers know that their well-being in the workplace is just as important as the safety of the attractions they build. This way, everyone can enjoy the rides."

## How to make safety a priority

A few extra steps can go a long way when it comes to occupational health and safety (OHS) in the workplace. Here are some tips that might help:

- Develop and implement health and safety programs for each of the different departments in your workplace.
- Involve senior leadership in health and safety right from the beginning.
- Consider asking for insights from an association, or hiring consultants or a full-time safety employee to develop and implement OHS procedures.
- Make sure workers and supervisors are involved in your OHS program.
- Be open and honest when reviewing your OHS policies.
- Implement regular safety meetings, such as toolbox talks, where — for as little as five minutes — workers can learn about workplace health and safety topics and ask questions.
- Ensure that you have a functional joint health and safety committee or worker representative who meets the rules and responsibilities under the *Workers Compensation Act*. 🧑‍🔧



### Plan ahead before using a ladder.

Falls are a leading cause of injury on B.C. construction sites.

Learn how to use ladders and scaffolding safely at [worksafebc.com/construction](https://worksafebc.com/construction)

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