



**Ryan Parton**

Ryan Parton is a professional copywriter and the former Regional Director for British Columbia of the Professional Writers Association of Canada. In this issue, he heads just a few miles down the road from his studio in Courtenay, B.C., to speak with the owner of Island Bison for our cover story (page 7).



**Don Hauka**

In our safety talk, journalist, author, and screenwriter Don Hauka lays out the step-by-step instructions to ladder safety (page 17).



**Marnie Douglas**

Communications strategist, writer, and screenwriter Marnie Douglas investigates the ins and outs of a remote shut-down device for chlorine gas in Saanich, B.C., (page 13), and gets into the details of apprenticeship training in the Lower Mainland (page 28).



**Gail Johnson**

For one of our WorkSafeBC updates, certified group-fitness instructor and award-winning journalist Gail Johnson uncovers the facts about ammonia exposure while covering an emergency training exercise in Sicamous, B.C. (page 23).

# Focusing on tower crane safety



**Doug Younger**  
Occupational safety officer

**Region:** Port Moody

**Years on the job:** 11

One of WorkSafeBC's safety initiatives for 2018 focuses on [tower cranes](#). The provincial crane inspection team's goal is to identify and eliminate specific tower crane and construction equipment hazards and unsafe work practices that have the potential to cause serious injury, death, or catastrophic equipment failure. With that in mind, WorkSafeBC occupational safety officer Doug Younger, a member of our provincial crane inspection team, talks about the safe erection, inspection, maintenance, and operation of cranes.

## Q. What do I need to know about crane safety?

**A.** As an employer, you need to ensure your tower crane is erected according to the manufacturers' specifications and is inspected, maintained, and safe to operate.

You'll also need to have documentation that confirms you are completing preventive maintenance inspections both before and after the tower crane is erected, and that you are repairing the crane as required. You should be documenting all inspections and repairs in an equipment log. A safe tower crane operation program has:

- Foundation certifications, erection documents, and equipment pre-erection and annual inspection certifications
- Preventative maintenance inspections
- Qualified crane operators
- Safe work procedures
- Appropriate rigging and below-the-hook lifting devices

If you're a tower crane supplier, owner, erector or technician, you can use the Construction Site Tower Crane Report and tower crane inspection checklists at [worksafebc.com](http://worksafebc.com) as guides for inspecting your cranes or for preparing for a site inspection.

## Q. Who is responsible for crane safety on the job site?

**A.** Workplace safety is a shared responsibility between the owner, prime

contractor, and employer. It's not just about protecting the operators. You're also responsible for any other workers in the area at the time the crane is operating. You will need to perform a risk assessment and install measures to avoid the hazards for all workers on the site.

### Q. What should I include in my risk assessment?

A. Some of the more common and most dangerous hazards to look for during your assessment are the limits of approach to high-voltage overhead power lines, and an overlap with another tower crane or other piece of equipment. You'll also need site- and tower crane-specific plans for lockout, fall protection, blind lifts, and emergency rescue.

### Q. Are there any hazards that often get overlooked?

A. The crane operator's qualification often gets overlooked. A crane operator may be certified to operate a tower crane but often the employer neglects to have the operator demonstrate competency and confirm familiarity with the operating instructions for the specific make and model of crane being operated. This leads to equipment-operating errors or preventive maintenance not being completed. Employers can find more guidance on this in the Occupational Health and Safety Guideline G14.34 – Operator qualifications and competencies.

### Q. I'm a crane operator. What are best practices to ensure safe lifting of loads?

A. Plan every lift and lift to the plan. You're responsible for having full control of the equipment whenever hoisting loads, so don't move a load unless you're satisfied that it can be handled safely. Lift planning includes:

- Confirming the crane is inspected and safe to operate
- Determining the weight of each load to be hoisted

- Using the appropriate rigging or below the hook lifting device — rigging must be done by qualified workers
- Using tag lines to control load movement
- Using hand or radio signals that have been confirmed as effective
- Planning the lift to avoid passing loads over any person

### Q. Should tag lines always be used?

A. Tag lines or other effective means must be used when necessary to control hazardous movement of a load or to assist with positioning a load. Tag lines keep people from having to stand under or be close to elevated loads. Tag lines made from soft fibres are not recommended when lifting over or around overhead high-voltage power lines because they're conductive.

### Q. I supervise crews that sometimes work around cranes. What are some key safety tips I can give them?

A. You can start by evaluating site hazards and communicating the lift plan to everyone on site. Check to make sure workers are familiar with standard hand signals for controlling crane operations. And remind them never to stand under or pass beneath a suspended load. I often remind workers and employers that what gets lifted up by the crane will come down controlled or uncontrolled. Always expect the unexpected.

### Q. Where can I find more info about crane safety?

A. You'll find many free resources at [worksafebc.com](http://worksafebc.com) and [bccranesafety.ca](http://bccranesafety.ca).

Looking for answers to your specific health and safety questions? Send them to us at [worksafemagazine@worksafebc.com](mailto:worksafemagazine@worksafebc.com), and we'll consider them for our next Ask an Officer feature. ☺

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