

The Hydraulic Safety Press

SUMMER,
2012

HSAC
Hydraulic Safety Authority
of Canada Inc.™

YOUR SOURCE FOR HYDRAULIC SAFETY AWARENESS NEWS, TIPS & INFORMATION

News & Events

» Corporate Members Subscription

Our efforts to make hydraulic safety awareness training available to all personnel exposed poses difficulty with the cost of safety training. Conventionally safety training is charged out per person or in group rates for both instructor led and e-learning. To train 20-30 even 300 can be very expensive. HSAC will be launching the Corporate Membership offer later this summer. Corporations will be able to provide hydraulic Safety E-learning to all their employees through annual subscriptions. This would mean employees could get this needed training for as little as \$10 per person. For more information contact casey@hsac.ca.

» Visit Hydraulic Safety Authority of Canada Inc. at booth number 180 at the Canadian Society of Safety Engineers Professional Development Conference September 9-12, 2012 Sheraton on the Falls Hotel & Conference Centre Niagara Falls

» Trained In Hydraulic Safety

Congratulations to the following companies who recently completed hydraulic safety awareness training. TC Industries, WCB PEI Inspectors, BC Ministry of Energy and Mines, Work Place Safety North, Proactive Safety Services, Ledcor, City of Richmond Hill, BC Forest Safety Council, Cape Breton Regional Municipality, Hy-way Construction, Cenovus Energy, and Potash Corporation of Saskatchewan

» Hydraulic Technical Training

The Hydraulic Safety Authority of Canada is pleased to inform you of the addition of instructor led Hydraulic Technical Training. Contact casey@hsac.ca

» A thanks goes out to all the visitors that stopped by to visit the HSAC booth at the May 2012 Partners in Prevention Trade Show.



Meet the team (from left): Casey Ruttan, Katelyn Allan, Colin Bonner

New Safety Course

The Hydraulic Safety Authority of Canada has received many requests for safety information on Compressed Air Hazards. Compressed air is a fluid and like hydraulics is used for energy transmission. Compressed air is used significantly in all industry for powering tools, breathing, material handling, and production processes. Each Canadian Province has occupational acts and regulations on the use of compressed air due to the number of related hazards. Compressed air has caused many short and long term injuries, including death and property damage.

HSAC will begin compiling data for this awareness training with a release date set for late 2012. In this development HSAC is asking for assistance and input from our audience or any stakeholder who would have specific interests in this topic. Compressed air hazard awareness for those exposed would include a diverse audience from those who work in an office environment where compressed air maybe used for cleaning keyboards to construction workers sand blasting bridges. Compressed air safety training will greatly assist those who work with compressed air. Please send your input and inquires to colin@hsac.ca 🍁

Online Safety Courses

HSAC is very pleased to offer many more online safety training courses visit www.hsac.ca

- Aboriginal Awareness
- Alcohol and Drug Awareness
- Arc Flash Awareness
- Backing Safety Fundamentals
- D.R.I.V.E
- Electric Safety Training
- Fall Protection Awareness
- Firefighting Safety
- Goal Setting
- Hazard Assessment
- Lithium Battery Safety
- Safe Slings and Rigging
- Sexual Harassment Part 1-Hostile Environment
- Sexual Harassment Part 2-Quid Pro Quo & Retaliation
- The Effects of Stress on Driving
- Time Management
- Transportation of Dangerous Goods TDG
- WHMIS
- Winter Driving Fundamentals
- Workplace Harassment-The Real Deal



Hydraulic related fatality



Curtain barriers used to shield walkway from possible hydraulic fluid spray

Google Alerts: An Invaluable Tool

One of HSAC's research objectives is to compile data about incidents involving hydraulic equipment and systems. This has proven to be very difficult information to obtain from government organizations because most do not categorize "hydraulic" incidents on their own. A great alternative is the Google alert. Google alert is an automated search tool that once set up will run continuously until it is stopped. How it works is by inputting a keyword search string and any new webpage that is created containing those keywords is instantly sent to an email address.

HSAC has been utilizing several different combinations and the results are quite staggering. There were 24 incidents in May 2012 alone. That's almost one a day! Everything from hydraulic failures involving aircraft to crushing fatalities are happening all the time worldwide.

If you're having difficulty getting information on a specific topic give it a try. Some of our searches include: hydraulic incident, hydraulic fatality, crushed by hydraulic, and hydraulic safety to name a few.

Yours in Hydraulic Safety, Casey Ruttan

Machine Guarding

Machine guards are not only a method of preventing workers from entering hazardous areas but also are used to keep debris from exiting a machine.

Flying debris can come from cutting, chopping, and grinding processes as well from component failure. High speed flywheels drive shafts and other components carrying great inertia can be extremely dangerous should failure occur. Now please consider the energy being transmitted in a hydraulic hose. Take for example a hydraulic hose flowing 100 gallons per minute with a resistance to flow generating 3000 PSI, this equates to 175 horse power or 130,571 watts of energy. Should failure occur in an exposed hydraulic hose assembly that is not guarded, anyone exposed could be injured or killed. Is there a safe distance? No there is no safe distance! Consider a hydraulic hose as a component with a limited life expectancy from the time of its manufacture. To many, a hydraulic hose looks safe to be exposed to, and many workers are, but they are not! Consider this article and guard personnel from hydraulic hoses. For more information on guarding hoses contact: casey@hsac.ca

FAQ

HSAC RECEIVES MANY QUESTIONS FROM OUR VIEWING AUDIENCE AND WE'LL BEGIN SHARING THIS AS IT WILL GREATLY ASSIST MANY OTHERS WHO HAVE THE SAME QUESTIONS AND AFRAID TO ASK.

Q: Hello,
I had a question about repairing of hydraulic hoses. Is it appropriate/acceptable to "splice" in sections of hose after a failure? My gut says no, but I can't find any documentation/standards/etc. that I can use as reference to support this. Thanks.

A: Splicing failed hydraulic hoses can be done and some aftermarket manufacturers offer what is called splice kits. Although it can be done, it should **NEVER** be done for the following reasons; This includes re-ending hydraulic hoses, Re-ending a hose means crimping a new end including field attachable ends onto an old or used hose. All hoses degrade over time. The underlying integrity of the hose is unknown and cannot be fully determined through inspection.

Hoses that have burst, or received damage from impact etc. have been physically altered, crimp and reusable ends will only hold onto a hose that meets its original manufactured specifications. Reducing the length of a hose assembly designed by the manufacturer, may result in overstressing the hose when reinstalled.

Industry best practice states that hoses that are critical, or where failure would lead to injury and damages, should be changed every two years, and where their use is not so critical should not exceed 6 years. Recordkeeping



and inspections will assist in narrowing this down as each application endures different service environments.

Legal repercussions can result in the event of a failure causing injury or death, including property and environmental damage.

Liability would fall on the persons, supervisor and company responsible for making such a repair using components that have experienced previous failure. In the event of an investigation, the MOL/Department of Labor and the Crown Council/State Prosecutor would gather other court cases where people and companies were found negligent for making repairs to hydraulic hose where injury or death has occurred.

Although legislation does not exist specifically, the case often leans toward modification to a manufactured component and/or disregard of safe best practice.

I believe you and your personnel would greatly benefit from our training courses, most of the above is stated in several of the course chapters. For a link to where charges were laid for negligence in such a case contact colin@hsac.ca.
Colin Bonner, Hydraulic Safety Consultant

Poster Campaign A Success

HSAC is pleased to hear many organizations are making awareness of hydraulic hazards through the use of HSAC safety posters. To view the free safety posters please visit us at <http://www.hsac.ca/survey.html>

All safety posters are available for printing from the HSAC website. Please forward this link to colleagues, supervisors and field personnel for posting on bulletin boards and for use in safety meetings. HSAC will be posting a new poster every two weeks. Next month, posters will be available in French.



Next Issue

- MGD41
- Near miss reporting
- Hydraulic Safety Standards, what should be!
- What the Inspector will be looking for

Both conductors of energy...
both equally dangerous

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HSAC.ca Safety courses @ HSAC First Aid for Fluid Injection Injury

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Hydraulic fluid spray from a blown
hose is extremely flammable

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Do not check for leaks with your hands!
Hydraulic fluid injection injury causes extreme
tissue damage and often leads to amputation.

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100% of hydraulic hose failures will
result in a hazard; environmental &
property damage, fire & slip hazards

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Hydraulic fluid spills...
don't let this be the result

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Grease pumps at extreme pressure

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Some of our free safety posters, which are available on our website.

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