

Safety Alert of THE MONTH

May 2012

PLEASE PASS THIS ON TO PEOPLE AND ORGANIZATIONS IN BC'S FOREST INDUSTRY

Welding and Solvents – An Explosive Combination



Tim and his son got into the welding truck for the drive to the site where Brown's Logging had spent most of the summer. Bill Brown's feller buncher had lots of hours on it and it was time to do some welding and reinforcing on the buncher head. Tim had been doing Bill's welding for at least 20 years and knew the equipment and loggers well.

The buncher was parked beside the main road and Tim could see that the operator and the mechanic had already started to get it ready for the welding. Knowing that Bill didn't want to have his machines down for very long, Tim parked the welding truck and got right to work, unpacking tools and steel. Tim did a quick walk around of the buncher, sized up the steel needed and his son got to work with the cutting torch.

Tim noticed that there was still quite a bit of grease built up on parts of the head. He had been around long enough to know that the mechanic would be coming back with the brake cleaner to get rid of the built up grime.

He intercepted the mechanic just before he sprayed down the head. If he hadn't stopped him, the fumes from the brake cleaner and the ignition source from his son's cutting work would have combined to make an explosive situation.



Industrial forest worksites often have many types of fuel and ignition sources which can combine to create significant fires.

Examples of fuel types: diesel, gasoline, hydraulic oil, solvents (like brake cleaner) and logs or slash.

Examples of ignition sources: hot engines, sparks from equipment striking rocks, blasting, electrical shorts and welding.



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Recommended Preventative Actions:

- Experienced workers like this welder have the knowledge to prevent incidents. Make sure the veterans in your company are asked for their advice on handling difficult problems, use them to mentor and train young workers and identify hazards on new worksites. Involve experienced workers in the creation of safe work procedures, inspections and have them contribute during safety tailgate meetings so others can benefit from their experience.
- Prior to starting any new job, identify the hazards and assess the risks. Tim did this by completing a walk around of his new worksite and a mental risk assessment. He took the time to think about the hazards, anticipated a potential fire and took steps to prevent it.



- A vehicle or equipment fire often leads to a forest wildfire. Check the fire extinguishers and internal fire extinguisher systems on your equipment. Conduct an emergency drill related to responding to a wildfire.
- Welders are often faced with challenging work conditions. In addition to flammable environments, they may also encounter confined spaces. A thorough pre-work hazard and risk assessment should be done to identify confined spaces and the toxic gases or low oxygen levels that may be found there.

Additional Resources:

WSBC video – Welding Explosion Injures Young Worker

<http://www.youtube.com/watch?v=TyYG47xlInvo>

WSBC Fatality Alert – Welding on Assembled Wheel Results in Explosion

http://www2.worksafefbc.com/i/posters/2005/ib_tireblow.htm

Check out additional information on welding and fires on the BC Forest Safety Council's forum: forum.bcforestsafefbc.org Share your experiences on the forum and learn from others

