

Safely



## SPEAKING

BY BRUCE BURTON

# Gasoline transferring

**T**RANSFERRING gasoline is one of the most dangerous activities in a repair shop. If this process is not completed properly, fires can result. The opportunity to extinguish a fire is short and usually there is only time to evacuate the building. Unfortunately, serious damage and injuries are common.

Equipment dealerships that repair gasoline fueled equipment will at some point need to empty a gas tank. To do so, technicians must understand the dangers involved and know how to handle the procedure safely. There should be a shop procedure detailing the steps to transfer the gas properly. Most importantly, employees should be trained in the procedure and the dangers of working with gasoline.

### Why is gasoline so dangerous?

- It's all a matter of flashpoint. This is a technical term, but it's not complicated. Flashpoint is the lowest temperature at which flammable vapours are produced from liquid.
- For gasoline, the flashpoint is  $-43^{\circ}\text{C}$ . When gasoline is at  $-43^{\circ}\text{C}$  or warmer, flammable vapours are produced. An open pail of gasoline at room temperature releases flammable vapours into the atmosphere. The area above and around the pail is filled with invisible and explosive vapours. A spark, trouble light, static electricity, or a cigarette can ignite the vapours.

### How is gasoline transferred safely?

- Vapour containment is key. If there are no flammable vapours in the atmosphere, a fire cannot occur. Use a gas caddy, a large safety container with added features, to siphon or dispense gasoline safely. The safety features include a two-way hand pump, flame arrestors and a bonding cable to eliminate static electricity.
- Use explosion-proof lighting when working on fuel systems. Flashlights or trouble lights approved for hazardous locations will eliminate the ignition source.

Any shop involved in gasoline fuel system service work, including replacing fuel pumps or changing gasoline tanks, must have a gas caddy or enclosed pumping equipment. This is a requirement of the National Fire Code (Reference National Fire Code 4.1.8.4 Fuel Tanks of Vehicles point 2).

### We recommend:

- Using a gas caddy if you are involved in gasoline transferring
- Using hazardous location portable lighting
- Establishing and reviewing proper gasoline transferring procedures with all staff
- Ensuring all new employees receive immediate training on gasoline transferring

The need to empty a gas tank may not be an everyday event. Dealerships that sell and service gasoline-fueled agricultural equipment and consumer products will have a greater need than a shop that only services diesel equipment.

Regardless of the amount of gasoline being transferred, the same care and procedures must be followed to ensure everyone's safety. Being properly equipped to do the job when the need arises will be money well spent in equipment and training. The potential for property loss and injuries is significant and 100 percent preventable.

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The information provided is intended to be general in nature, and may not apply in your province. The advice of independent legal or other business advisors should be obtained in developing forms and procedures for your business. The recommendations are designed to reduce the risk of loss, but should not be construed as eliminating any risk or loss.

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