

Tear this out  
and share with  
your crew

# Fuel tank troubles

## Take special precautions when welding on diesel tanks

**The accident:** A welder had been instructed to find the leak on a truck's diesel fuel tank. Once he located the leak, the worker was assigned the task of using a MIG/Flux welder to repair the tank. When the welder struck an arc with the torch on the tank, the tank exploded. The welder was thrown 10 feet and landed on the shop floor. He was transported to the hospital, where he later died from his injuries.

**The bottom line:** A post-accident investigation determined the fuel tank contained diesel at the time of the accident, and had not been purged and ventilated. The welder, who spoke no English and had the equivalent of an eighth-grade education, had no formal training and had learned on the job. The company had no training or safety program in place.

### Step by step

When possible, replace a leaky fuel tank instead of repairing it. If you are assigned to repair a tank, it must be drained and clean prior to beginning work. Also, the tank must be tested to ensure no va-

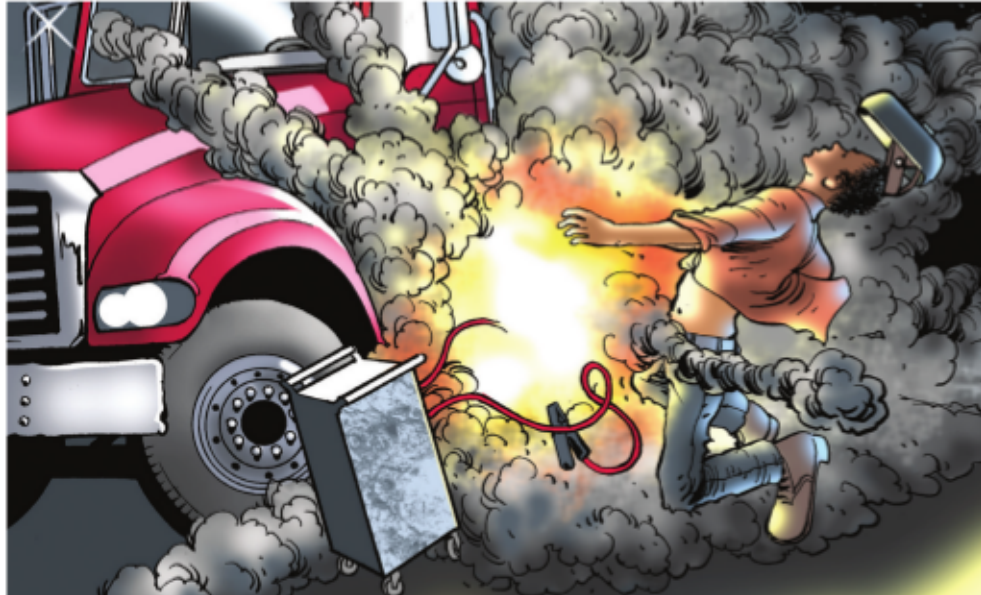


Illustration by Don Lomax

pors are present. If the tank you're welding is mounted on a vehicle, take the following precautions:

- Disconnect the battery and remove or turn off ignition sources before draining the tank.
- Drain tanks only in well-ventilated areas, preferably outdoors.
- Drain the fuel into containers that are approved for use with flammable liquids.
- Do not drain gasoline or diesel tanks over or near inspection pits.
- Use approved siphoning equipment to remove fuel. Do not use a hose.
- If the fuel tank is removed from the vehicle, or if welding will be carried out near the fuel lines, ensure that the lines

are drained and the vapors are purged from the lines before the welding activities are started.

- Thoroughly clean the surface on which the tank is mounted.
- Ventilate, purge, clean, and re-test before welding any area or space where a harmful atmosphere may exist.
- Filling the tank with water to within inches of the welding area can provide an extra measure of safety.

Familiarize yourself with your company's safety program and take advantage of all training opportunities. Remember, welding on fuel tanks should only be performed by certified welders. If you're not qualified, speak to your superintendent.

Information for this Safety Watch is from an accident report and the Center for Disease Control's NIOSH Fatality Assessment and Control Evaluation Program. It is for general information only.

Date of safety talk: \_\_\_\_\_ Leader: \_\_\_\_\_  
Attending: \_\_\_\_\_