

The James Myers Co., Inc.



# TOOLBOX TALKS

Week #18

NATIONAL ROOFING CONTRACTORS ASSOCIATION · CNA COMMERCIAL INSURANCE

## Oxygen-Acetylene Torch Safety

- ☛ **Oxy-Acetylene torches are used often in roofing to cut through heavy metal objects such as metal decking.**
  - Acetylene is a very flammable gas made from acetone. Acetone is a very flammable liquid commonly found in products like paint stripper.
  - Oxygen is mixed with acetylene so that the acetylene will burn at a higher temperature. The higher temperature makes cutting quicker and more effective.
- ☛ **Setting up the oxy-acetylene system is a critical step for everyone's safety.**
  - The oxygen and acetylene tanks must be placed in an upright and secured position.
  - In transit, the caps must be in place on each bottle.
  - **Do not travel with the gauges attached to the bottles!**
  - Do not smoke or have open flames in the area of oxy-acetylene jobs.
  - Never use oil to lubricate gauges or handles, and keep oily rags out of the area. Oxygen reacts violently with oil and will burn.
  - Inspect the equipment to make sure it is in good working order and that the hoses do not have holes in them.
  - Never use oxygen to blow dirt off of your clothes or yourself. The dirt may penetrate your skin under the high pressure.
- ☛ **When using an oxy-acetylene system, the valves on each bottle should not be turned more than one and one-half times.**
  - If a special wrench is needed on the acetylene bottle, leave it in place on the stem in case there is an emergency and the bottle needs to be shut off.
  - Quickly open each bottle and close them. This is called "cracking" and it cleans out the valve of any debris. Make sure the hoses are not connected when this is done.
  - Use only a spark generator to light the torch.
  - Always light the acetylene first, and adjust the flame with the oxygen.
  - When finished, shut the valves off at the bottles and purge the lines of any gases.
- ☛ **Personal protective equipment (PPE) is also required when torch cutting with oxy-acetylene.**
  - Make sure you use proper eye protection with correct lens shades. Ask your supervisor if you're not sure what shade of lenses to use.
  - Wear a long sleeved shirt and leather gloves.

### Oxygen-Acetylene Torch Safety Training Tips

- If possible, have an oxy-acetylene system available.
- Demonstrate the following:
  - Set up
  - Inspection
  - Lighting and properly setting the flame
- Ask the following questions:
  - Why shouldn't you use oxygen to clean off your clothes or skin?
  - What should you use to light the torch?