How to Extend Your Welding Life Expectancy

Welding can be a dangerous, life threatening, and dirty job, or a safe, rewarding, and well paying career. Whether one is learning to walk, ride a bicycle, play hockey, football, or just about any other activity you can think of, safety should be your first consideration, regardless of the task that one chooses to challenge. Unfortunately a lot of us humans tend to treat safety the way we treat the instruction manual that came with the new TV. We simply choose to ignore its existence until something goes wrong. The following tips represent some of the many safety recommendations that could save lives, including yours.

1. Oxygen, and acetylene, must never be transported in the trunk of a car, pick up truck toolbox, or a job toolbox being carried by a truck. The smallest, barely detectable leak can accumulate in a vehicles trunk, or toolbox leading to a potential bomb situation, just waiting for a potential source of ignition. Four cylinders of oxygen were used to magnify the explosive power of the truck bomb that was used in Oklahoma City.

2. Moving high-pressure gas cylinders around the shop, or transporting them to and from job sites, without their protective caps installed can result in severe damage to property, and possible severe injury, or loss of life.

3. Welding inside vessels, or any similar confined space requires adequate ventilation, and a constant supply of fresh air. This is especially necessary when utilizing welding processes requiring the use of inert gases, which can accumulate in a confined space, and displace the oxygen rich fresh air that we humans rely on to breathe.

4. Electric arc welding produces very powerful sources of light, including visible ultraviolet, and infrared. This means protective clothing and equipment must be worn during all welding operations. During oxyacetylene welding, and cutting processes, operators must use safety goggles to protect the eyes from heat, glare, and flying hot metal. The electric welding process requires the use of safety goggles, a hand shield or helmet equipped with a suitable filter glass to protect against the intense ultraviolet and infrared rays. When others are in the vicinity of the electric welding processes, the area must be screened so the arc cannot be seen either directly or by reflection from nearby glass or metal objects.

5. The necessary focus, and attention, as well as having to wear a welding shield, and completely isolating yourself from your surroundings, often requires the need for someone acting as a spark or fire watch, to ensure a safe environment is provided for the welder.

6. Never use oxygen from a cutting torch, compressed air, or any pressurized gases to blow dust or dirt from your clothing.

7. Welding lenses are designed to prevent flash burns and eye damage by filtering the infrared and ultraviolet rays produced by the arc. The clear cover glass protects the filter glass or plate from being damaged. The standard size of the filter plate is 2 x 4-1/4 in. (50 x 108 mm). In some helmets lens holders open or flip upwards. Filter glass or lenses come in various optical densities to filter out various light intensities; the lens used is determined by the welding process, type of base metal, and the welding current. The color of the lens, usually green, blue, or brown, is an added protection against the intensity of white light or glare. Colored lenses make it possible to clearly see the weld puddle. A magnifier lens placed behind the filter glass is sometimes used to provide clear vision, for some of us older welders, as an alternative to wearing glasses, which are prone to fogging.

8. GMAW (MIG) welding usually requires darker filter lenses than stick welding. The arc produced by MIG welding, can be much brighter than stick welding.

"Please practice what you read, to enjoy a long welding life!"

*Written by Brian Chalmers*

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