

Hazard Alert Live Tomorrow

Bulletin 25513- Welding Safety

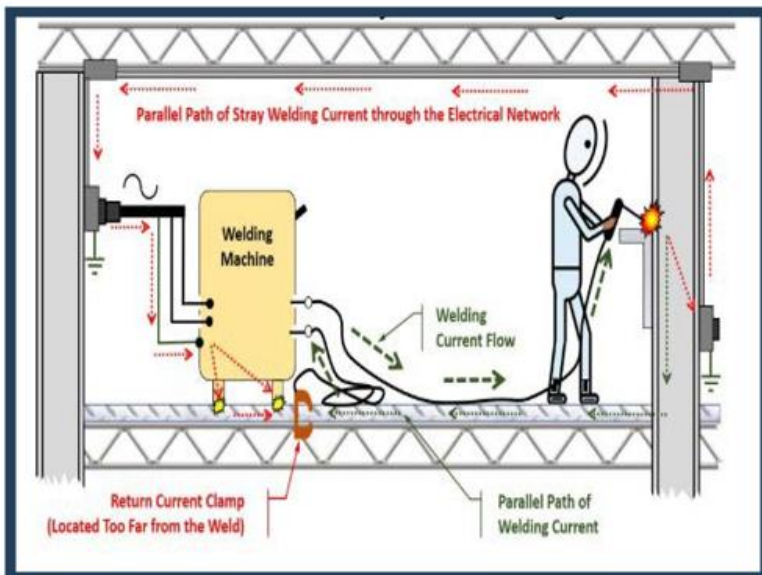
Recently, Virginia Energy Coal Mine Safety representatives investigated an accident in which a miner received an electrical shock while using a Direct Current welder to perform equipment repairs. The mechanic came into contact with an open circuit secondary voltage from the welder of approximately 80 volts DC.

Best practices to prevent secondary shock hazards when welding:

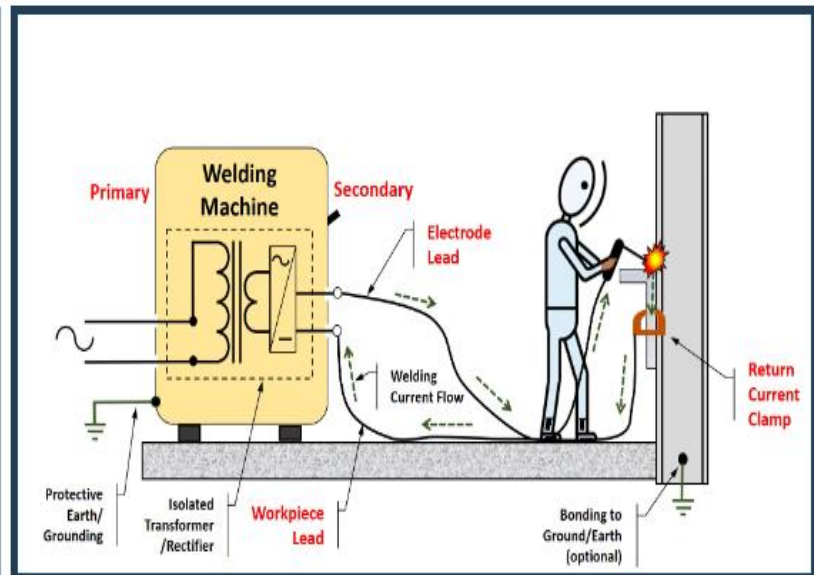
- ❖ Ensure personal protective equipment is available and used during welding including dry clothing, footwear and gloves.
- ❖ Avoid welding in wet areas. Utilize non-conductive material for personal isolation when welding in or around damp areas or in confined spaces.
- ❖ Ensure that welder return current clamps (often referred to as ground clamps) are placed as close as practicable to the work piece to avoid objectionable current flow and to lower shock potential.
- ❖ Examine welding cables, electrode holders and return current clamps prior to conducting welding operations.

Other best practices:

- ❖ Ensure proper ventilation is available, especially when welding in confined areas.
- ❖ Conduct proper gas detection prior to welding.
- ❖ Make sure proper fire-fighting equipment is available prior to and during welding operations.
- ❖ Utilize “Hot work permits” as an administrative control to enhance workplace safety.



Incorrect Return Current Clamp location



Correct Return Current Clamp location