# Welding

Project Superintendent: Kaitlyn Imhoff Phone: 574.453.7316

# State Fair Entry: Not eligible for State Fair

Project Check In: Tuesday, June 24, 2025; 4:30PM-5:45PM, Home & Family Arts Building, Kosciusko County Fairgrounds

### Judging: Tuesday, June 24, 2025; 6:00PM, Home & Family Arts Building, Kosciusko County Fairgrounds

### **Objectives**:

- To learn about different methods of welding and what materials are best suited for each type of welding.
- To acquire a working knowledge of the machines and equipment used in the building trade.
- To know the safety procedures and practices involving the equipment used.
- To understand the proper care and maintenance of welding equipment and accessories.
- To obtain a working knowledge of equipment and accessories in a modern workshop.
- To acquire knowledge of the techniques involved in arc and gas welding and oxygen cutting.
- To be familiar with the terms and definitions of welding.

## Exhibits:

- Each division will have a champion and reserve champion. One overall grand and reserve grand champion will be chosen.
- At their initial workshop, members will complete a combined safety/skills test to determine their starting level. After being placed in a division, you will remain in that division for a maximum of four years before advancing to the next division. Annual reevaluation of skills and comfort level may be conducted to make advancement recommendations.
- Those members not able to attend workshops must start as division 1 and may remain in that division for a maximum of four years before advancing to division 2.
- All metal must have burrs removed and a protective finish to prevent rust: oil or paint.

# Techniques to be taught:

- Safe practices; safety in welding, clothing, gloves, shoes, helmet, jacket.
- Basic skills: striking an arc, running a bead, setting heat range, learning electrodes and current flow, etc.
- Use of measurement and cutting tools, other fabrication techniques.
- Joint preparation (using a grinder).
- Out-of-position welding.
- Multiple fillet welds.
- Flame cutting and learning the parts, safety, igniting and stopping a cutting torch.

# Division I Beginner: Exhibit one of following

- A poster illustrating a butt weld, lap weld and a tee-weld in the flat position
- One of the following projects from the Arcs and Sparks publication
  - o Boot scraper
  - o Post Driver
  - o Hammer/jig

#### DIVISION II Intermediate: Exhibit one of following

- Exhibit a poster illustrating the four welding positions (flat, horizontal, overhead and vertical)
- One of the following projects from the Arcs and Sparks publication
  - o Christmas Tree Stand
  - Shelf with bracket
  - o Electrode Holder

#### DIVISION III Advanced: Exhibit one of the following

- A poster illustrating a detailed welding blueprint
- One of the following from the Arcs and Sparks publication
  - Welding Table
  - Pedestal
- One or more items of your own creation, which include a welding blue print.