



Our Hands...Building Our Future

Regional Skills Competition

Regional Skills Competition 2009 • Welding/Fitting • Scope

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Competition:

Welding/Fitting

Date:

Tuesday, May 12, 2009

Location:

Fleming College, McRae Campus,
555 Bonaccord St., Peterborough

Schedule:

| | |
|-------------|----------------------------|
| 9:00-9:30 | Registration & Orientation |
| 9:30-12:00 | Competition Session |
| 12:00-12:30 | Lunch |
| 12:30-1:00 | Written Test |
| 1:00-4:00 | Competition Session |

Purpose of Competition:

To test, evaluate and recognize outstanding students for various safety-oriented welding, fitting and flame cutting skills using general accepted welding/fitting practices to construct a project safely and accurately as per a given set of work drawings. In addition, print reading and welding symbols interpretation will also be assessed.

Skills & Knowledge:

- General safety on oxy-acetylene, arc welding
- Safe set-up of oxy-acetylene equipment for cutting
- Safe working habits
- Operating pressures for oxy-acetylene cutting
- Selection of arc welding electrodes by their classifications
- Selection of welding variables
- Shielding gases for Gas Metal Arc Welding (GMAW)
- Blueprint reading ability (dimensions are given in millimeters only)
- Transfer of measurements and other information from blueprint to the project
- Layout, position and fit components
- Oxy-acetylene flame cutting (freehand only, no guides allowed)
- Welding with various processes;
 - Shielded Metal Arc Welding (SMAW)
 - Gas Metal Arc Welding (GMAW)
 - Flux Core Arc Welding (FCAW)
- Interpretation and application of welding symbols
- Cleaning of finished welds

Components of Competitions:

Practical Project:

Each competitor will be given a project, based on blueprints, to assemble within the competition session.

PLEASE NOTE:

- Butane lighters are not allowed in the welding area
- Grinding is not permitted except on a pedestal grinder

Interview:

To assist competitors in fully preparing for their eventual job searches and to become valued employees, there will be a job interview incorporated into this competition. It is expected that the competitors arrive prepared WITH A RÉSUMÉ and be ready for interview questions and discussion (see Appendix A).

Written Test:

- 30 multiple choice questions
- Questions will cover all aspects of welding

Judging Criteria:

Total possible score is: 100%.

| | |
|-----------------------|------------|
| Written Test | 10 |
| Interview | 10 |
| Project | 60 |
| Worksite Organization | 10 |
| Safety | 10 |
| Total | <u>100</u> |

The project will be graded on the following:

- Fitting
- Safety (minus 2% per infraction)
- Flame cutting:
 - Oxy-acetylene cutting (OAC)
- Welding:
 - SMAW: 2F, E48018 (E7018) 2.5 and 3.2mm
 - GMAW: 2F, 1G, (root and fill) ER 480S-6 (ER70S) 0.9mm (0.035") 92% Ar + 8%Co2
 - FCAW: E491T-9

Equipment and Materials:

The competitor must wear the appropriate clothing and protective gear and are to provide their own CSA approved clear safety glasses, cutting goggles (optional) or face shields (optional) (must be #4 or #5 lens), welding helmet (#10 lens minimum), gloves, ALL-LEATHER SAFETY BOOTS and work clothing appropriate for welding and flame cutting. Speed lenses are permitted.

PLEASE NOTE: Failure to wear appropriate personal protective equipment during the competition will result in warnings and loss of marks.

Supplied by Committee:

- All power sources, consumables, and test materials. Materials can be plate or pipe.

Supplied by Competitor:

- Tape Measure
- Chipping Hammer
- Soap Stone
- Wire Brush
- Scriber, Pen, Pencil
- Cold Chisel
- Divider
- Hammer
- 12" Set Square
- Centre Punch
- Vice Grip, Clamps, Magnets
- Striker
- Welding Helmet
- Welding Gloves
- MIG Pliers



Appendix A

To help you prepare for a career in your chosen field, there is a Job Interview component for each competitor in each competition. You will be required to participate in a mock interview, and interview feedback will be provided. Please be prepared to answer any of the following questions.

- 1) What are your career goals?
- 2) Why are you interested in the field of Welding/Fitting?
- 3) What leadership abilities do you feel you have and please give examples?
- 4) What practical experience would you bring to a position?
- 5) What would you do if you saw a co-worker break a policy or procedure?
- 6) What are some of the difficulties/hazards that you may encounter in the working environment?
- 7) Tell me about a time you worked with others. Was the experience successful? Why or why not?
- 8) What do you feel it takes to be an expert in the field of Welding/Fitting?
- 9) What is the most fulfilling project you have worked on and what did you learn from it?
- 10) What is your competitive advantage?

