Skills Compétences Canada
Moncton2016

CONTEST DESCRIPTION

DESCRIPTION DE CONCOURS

STEAMFITTER - PIPEFITTER

TUYAUTERIE ET MONTAGE DE CONDUITES DE VAPEUR

POST-SECONDARY

NIVEAU POSTSECONDAIRE

CONTINUOUS LEARNING — FORMATION CONTINUE

DIGITAL — COMPÉTENCES NUMÉRIQUES

DOCUMENT USE — UTILISATION DE DOCUMENTS

NUMERACY — CALCUL

ORAL COMMUNICATION — COMMUNICATION ORALE

READING TEXT — LECTURE

WORKING WITH OTHERS — TRAVAIL D'ÉQUIPE

WRITING — RÉDACTION

THINKING — CAPACITÉ DE RAISONNEMENT

1. The Importance of Essential Skills for Careers in the Skilled Trades and Technology

SCC is currently working with Employment and Social Development Canada (ESDC) in order to bring awareness to the importance of Essential Skills that are absolutely crucial for success in the workforce. Part of this ongoing initiative requires the integration and identification of Essential Skills in contest descriptions, projects, and project documents. The next phase and very important aspect of our Essential Skills (ES) initiative is to provide an ES report card to each competitor at the Skills Canada National Competition. The purpose of the ES report card is to inform the competitor about their current level of essential skills based on their competition scores. With this knowledge, the competitor will be made aware which essential skill may require improvement. This will be piloted in a number of areas for 2016 with full implementation in the 2017 Skills Canada National Competition.

This is part of an ongoing initiative that requires the integration and identification of Essential Skills in contest descriptions, projects, and project documents. Essential skills are used in nearly every job and at different levels of complexity. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills means you will understand and remember concepts introduced in technical training. The level of Essential Skills required for most trades is as high as or higher than it is for many office jobs. The following 9 skills have been identified and validated as key essential skills for the workplace in the legend below:

[1]Numeracy, [2]Oral Communication, [3]Working with Others, [4]Continuous Learning, [5]Reading Text, [6]Writing, [7]Thinking, [8]Document Use, [9]Digital

These essential skills have been identified with in section 2.3 and/or 3.2 of your Contest Description. The top three Essential Skills for your area of competition have been identified on your Project and all other supporting project documents.

2. CONTEST INTRODUCTION

2.1 Purpose of the Challenge.

To assess the contestant's knowledge and skills in the fabrication of a piping system and components, with high regard to the aspects of quality, workmanship and accuracy of work.

2.2 Duration of contest.

12 hours

2.3 Skills and Knowledge to be tested.

- Applying mathematical concepts involving planning, measuring and layout of a piping system.
- Interpretation and application of blueprint specifications.
- Assembling and fabricating a piping system
  - Measure, cut, bevel and fabricate steel pipe and fittings
  - Use fabrication tools & equipment to join pipe and fittings
  - Applying safe work practices
- Assemble and fabricate a tubing system
  - Measure, cut, bend and install a tubing system and related components
  - Apply safe work practices
- Assemble and fabricate a heating system and related components
  - Measure, cut, thread and install a heating system (hydronic – steam)
  - Apply safe work practices

3. CONTEST DESCRIPTION

3.1 List of documents produced and timeline for when competitors have access to the documents.

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
Project	April, 2016

3.2 Tasks that may be performed during the contest

- Applying mathematical concepts involving offsets. [1]
- Interpreting and applying the blueprint specifications[8]
- Assembly of various pipe and fitting systems
  - Carbon steel threaded / socket / bolted
  - Copper /silver brazing / bending
  - Pipe Fabrication
  - Fabrication of structural steel for supports
- Bending of tubing using mechanical hand benders
- Apply safe work practices
- All dimensions shall be in millimetres
- All dimensions will be taken from the designated centerline or benchmarks unless directed otherwise
- Tool inspection proper to event or the evening before competition
- There will not be any onsite pipe joinery technique instruction
- Proper insertion for all pipe joint is mandatory
- It is to be understood that throughout the competition, safety and project judging will be ongoing

- No project specific aids, tools or jigs allowed
- Dimensions may be modified before competition

Essential Skills – [1]Numeracy, [8]Document Use

4. EQUIPMENT, MATERIAL, CLOTHING

4.1 Equipment and material provided by Skills/Compétences Canada

- Pipe threaders
- Tube benders
- Benches, vices and/or tables
- Welding machines
- Consumables
- 5" Grinder c/w discs (including cutting/grinding/buffing discs)
- 2 foot square
- Tri Square
- Spacing Tools (hi-lo gauge / gap gauge)
- Oxy/Ace Cutting Torch/with attachments
- 12" Adjustable Wrench
- Combination Wrench Sets (3/4-11/4”)
- 2' Level
- 9" Level
- Wrap-a-round
- Soap stone / and holder
- Permanent sharpie marker / calculators
- Ball Peen Hammer
- Centre Punch
- 1/4" Tube Benders
- Small Drill Index
- 1/4" -20 Tap and Die Handle
- Copper Tubing Cutters 1/4"-5/8" OD
- Set of Robertson Screwdrivers
- Master Pro-Dope, Brush top
- Teflon tape
- Power cords (GFCI)
- Welding gloves

Note: No other tools than the tools listed **ABOVE** will be allowed into competition area.

4.2 Equipment and materials provided by the competitor

- No equipment and material will be provided by the competitor

4.3 Required clothing (Provided by competitor)

- Coveralls / overalls allowed if sleeves used
- No jewellery
- Long hair must be tied back and concealed
- No cell phones or electronic devices allowed

5. SAFETY REQUIREMENTS

5.1 List of required personal protective equipment (PPE) provided by competitor

- Safety glasses
- CSA approved safety shoes
- Nitrile-coated gloves
- Hearing protection
- Face shield

6. ASSESSMENT

6.1 Point breakdown – All Assessments may be Subject to Change

POINT BREAKDOWN	/100
Pipe Fabrication	25
Mounting of HX/Bolting	25
Tubing Fabrication	25
Heating Fabrication	25

7. ADDITIONAL INFORMATION

7.1 Consecutive translation

If consecutive translation is required on site, the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this service might not be guaranteed.

7.2 Test Project change at the Competition

Where the Test Project has been circulated to Competitors in advance, NTC shall change a maximum of 30% of the work content. Please refer to the Competition Rules.

7.3 Tie (No ties are allowed)

In the event of a tie the competitor with the highest score in the Pipe Fabrication criteria will be declared the winner. If a second tie occurs the competitors with the highest score in the Tubing Fabrication criteria will be declared the winner.

7.4 Competition Rules

Please refer to the competition rules of the Skills Canada National Competition.

8. NATIONAL TECHNICAL COMMITTEE MEMBERS

Member Organisation	Name	Email address
British Columbia	Barry Donaldson	
Newfoundland and Labrador	Bruce Gillingham	
Ontario- Chair	Ray Lemieux	Ray.lemieux@ua527.com
Saskatchewan	Chris Henriksen	
New Brunswick	Michel Breau	
Alberta	Chris Waples	