

# 13TH PROVINCIAL SKILLS COMPETITION

## 2010 SKILLS CANADA NEWFOUNDLAND AND LABRADOR



**51**

### **INDUSTRIAL MECHANIC MILLWRIGHT**

**Scope Document**

**Post Secondary**

**Friday, March 26th, Carpenters Millwright College – Paradise**

*Note : One competitor per registered school*

**Duration of Contest: 4-6 hours**

#### **PURPOSE OF THE CHALLENGE**

To test the knowledge and skills of each competitor in the areas of: hydraulics, shaft alignment, alignment of power transmission components and the assembly of spherical roller bearings.

#### **SKILLS AND KNOWLEDGE TO BE TESTED**

**(Theory 15% / Practical 85%)**

- Interpret, draw assemble and operate a hydraulic circuit
- Perform Rim and Face shaft alignment
- Interpret, assemble and align mechanical power transmission systems
- Interpret and install spherical roller bearings

**Note: Knowledge of Imperial and Metric measurement and ANSI symbols required**

#### **CLOTHING REQUIREMENTS**

Competitors are expected to be dressed in an appropriate manner with their own safety glasses, work boots and coveralls or shop coat. (Without company or school identification)

#### **EQUIPMENT & MATERIALS**

##### **Provided by the Competitor:**

- Personal Protective equipment only, no tools or equipment.

##### **Provided by the Committee:**

- All required components, tools and equipment.

#### **POINT BREAKDOWN (1000 POINTS)**

- |  |            |
|--|------------|
| • Interpret, draw, assemble and operate a pneumatic circuit                                  | 200 points |
| • Interpret, machine component as shown in given drawing                                     | 200 points |
| • Interpret, assemble and align mechanical power transmission components with dial indicator | 200 points |
| • Interpret welding symbols and weld coupons using mig welder                                | 200 points |
| • Knowledge of Imperial and Metric measurements and ANSI symbols required                    | 200 points |

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**Note: In case of a tie in this competition, the competitors will write a 25 question theory test for an additional 25 points.**

**Project information will not be available beforehand.**

### TECHNICAL COMMITTEE

Neil Evely (Chair)  
Darrell Melvin

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Carpenters Millwrights College

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