

CONTEST DESCRIPTION DOCUMENT

51 – Industrial Mechanic / Millwright Post Secondary Level (NOTE: Scope may change without notice)

PURPOSE OF THE CHALLENGE

DURATION: 12 HOURS

Contestants will have the opportunity to show their knowledge and abilities in the Millwright trade while maintaining safe work practices and a positive attitude.

SKILLS AND KNOWLEDGE TO BE TESTED

PRACTICAL AND THEORY ON THE FOLLOWING:

- **Machining** – Basic Lathe turning and Milling to close tolerances and finishes with drilling and tapping to specifications from a provided blueprint.
- **Precision Measuring** – Use of vernier calipers, inside micrometers, outside micrometers, depth gauges, height gauges and other tools used in the millwright trade.
- **Power Transmission** – Contestants will be required to work with and show an understanding of different types of power transmission components including gears, pulleys, bearings and their lubrication. The ability to understand and calculate ratios will also be required.

- **Hydraulics and Pneumatics** – Circuit building and operation to specifications from a provided schematic with knowledge testing questions.

All registered apprentices in the Northwest Territories are welcome.
(Previous post-secondary schooling is not required).

ESSENTIAL SKILLS

Essential skills are used in nearly every job to varying degrees. They provide a foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills will help you understand and remember concepts introduced in technical training. The level of Essential Skills required for most trades is as high or higher than for many office jobs.

Of the nine skills that have been identified and validated as key essential skills for the workplace, this contest involves the following:

<input checked="" type="checkbox"/>	Continuous Learning	<input checked="" type="checkbox"/>	Numeracy	<input checked="" type="checkbox"/>	Thinking
<input type="checkbox"/>	Digital	<input type="checkbox"/>	Oral Communication	<input type="checkbox"/>	Working with Others
<input checked="" type="checkbox"/>	Document Use	<input type="checkbox"/>	Reading Text	<input type="checkbox"/>	Writing

EQUIPMENT, TOOLS & SUPPLIES

PROVIDED BY THE COMPETITOR:

- Work coveralls or smock (not mandatory)
- CSA approved steel-toed boots
- CSA Approved safety glasses

Note: Contestants who do not have the required protective gear will not be allowed to participate in the competition.

PROVIDED BY THE COMMITTEE:

- Appropriate hand tools
- Lockout equipment
- Hearing protection

SAFETY REQUIREMENTS

Failure to comply with safety regulations may result in disqualification or removal of the competitor from competition.

ASSESSMENT

POINT BREAKDOWN / 100 TOTAL

Practical	60%
Proper Use of Hand Tools and Safety	15%
Theory	25%

TECHNICAL COMMITTEE MEMBERS & JUDGES

Mark Bond, Technical Chair

City of Yellowknife

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Judges - TBA