



# TERRITORIAL COMPETITION

## CONTEST DESCRIPTION DOCUMENT

### 49 – Heavy Vehicle Technology Post-Secondary Level

(NOTE: Scope may change without notice)

#### PURPOSE OF THE CHALLENGE

**DURATION: 12 HOURS**

Provide competitors with an opportunity to display their skills, knowledge, and professionalism as they safely and efficiently diagnose, repair, and maintain any part of the powertrain, including its control systems, in mobile and stationary industrial equipment.

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

## SKILLS AND KNOWLEDGE TO BE TESTED

Use hand, power, and diagnostic tools to safely and competently carry out repairs according to manufacturer's specifications. Read and understand work orders, interpret technical manuals, and keep service records.

Competitors will complete practical tasks in the following categories relating to on road, off-road, mobile, and stationary heavy equipment. These **2-hour tasks** are designed to evaluate the competitor's ability to safely and efficiently maintain, diagnose, and repair heavy equipment (on-road and off-road, mobile and stationary).

- Engine Systems
- Electrical Systems
- Hydraulic Systems
- Drivetrain Systems
- Component Identification
- Workplace Practices

## EQUIPMENT, TOOLS, SUPPLIES, AND CLOTHING

### PROVIDED BY THE COMPETITOR:

- CSA approved steel-toed boots
- Pencils and Pens
- Flashlight
- coveralls/shop coat are recommended but not mandatory

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

### PROVIDED BY THE COMMITTEE:

- Safety goggles
- Bump hats
- Ear plugs or protectors
- Mechanics Gloves
- Nitrile Gloves
- Hand tools
- Jack stands
- Shop manuals
- Face shields

## SAFETY REQUIREMENTS

Upon arrival at the Skill area, Competitors will participate in a Safety workshop and they will be expected to work and maintain a safe working area during the competition. Any Competitor breaking any health, safety and environmental rules, may be required to undertake a second safety workshop, this will not affect the Competitor's competition time.

Competitors must wear pants and a shirt plus either coveralls or a shop coat. All must be clean and in good condition. Clothing must not be loose-fitting and must not have drawstrings or dangling pieces.

## ASSESSMENT

### POINT BREAKDOWN

- Use of safety equipment and safe and clean workspace
- Use and interpretation of service manuals & schematic diagrams
- Logical order of repair
- Proper use of tools
- Precise adjustment of components
- Accurate measurements
- Superior Workmanship
- Identification of faults, codes, or components

### TIES

- **Tiebreaker #1:** In the event of a tie, the competitor with the highest score in the Safety criteria will be declared the winner.
- **Tiebreaker #2:** If a tie remains, the competitor with the highest score in the Superior Workmanship criteria will be declared the winner.
- **Tiebreaker #3:** If a third tie occurs, the competitor with the highest score in the "Accurate Measurements" criteria will be declared the winner

## TECHNICAL COMMITTEE MEMBERS & JUDGES

### **Doug McRae, Tech Chair**

*Yukon College*

Phone: (867) 668-8768

[dmcrae@yukoncollege.yk.ca](mailto:dmcrae@yukoncollege.yk.ca)

Judges:

Gord Gibeault

Ron's Equipment Rental & Industrial Supply