



## 11th TERRITORIAL SKILLS COMPETITION - SCOPE DOCUMENT

### 33 - AUTOMOTIVE MAINTENANCE Secondary Level/Post-Secondary Level

#### PURPOSE OF THE CHALLENGE

**DURATION: 6 HOURS**

Assess the competitor skills in correctly inspecting, repairing and adjusting detached and/or mounted auto parts, as compared to industry standards. Practical assignments will be based on selected areas of the scope document.

#### SKILLS AND KNOWLEDGE THAT MAY BE TESTED

##### **Safety**

Proper eye protection and clothing **MUST** be worn at all times during the competition.

- CSA approved footwear
- Safety glasses / goggles
- Appropriate work apparel must be worn (coveralls, shop coat, pants and shirt).

All competitors must follow safety standards as per competition area.

##### **Service Information Retrieval**

- Electronic system use
- Traditional manual use

##### **Theory**

- Examination questions regarding all aspects of the repair and diagnosis of automobiles.

##### **Fabrication**

- Select and operate appropriate fabricating hand tools.

##### **Engine Mechanical**

- Assembly / disassembly
- Identify components
- Component fault diagnosis
- Inspection and testing
- Diagnosis of cylinder heads and blocks
- Measurements

##### **Fuel Systems**

- Identify components
- Inspection and testing

## **Engine Management**

- Identify components
- Driveability diagnostics
- Test equipment usage – Scan tool, Multimeter
- Component operation and testing

## **Ignition Systems**

- Identify components
- Inspection and testing
- Diagnostics
- Adjustments

## **Electrical**

- Starting systems
- Charging systems
- Batteries
- Testing and diagnosis of vehicle electrical equipment

## **Braking Systems (excluding air brakes)**

- Identify components
- Inspection and testing
- Assembly / disassembly
- Basic systems
- ABS
- Routine maintenance / adjustments
- Diagnostics

## **Suspension and Steering**

- Identify components
- Inspection and testing
- Assembly / disassembly
- Routine maintenance and adjustments
- Diagnostics

## **EQUIPMENT, TOOLS, AND SUPPLIES**

- Competitors must supply their own safety boots, safety glasses, clothing and hearing protection.
- Safety boots and eye protection must be worn at all times.
- All tools and equipment will be supplied and will be generic in nature whenever possible.
- Competitors are not required to supply any tools or equipment.

## **SAFETY REQUIREMENTS**

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

## **SCORING / POINT BREAKDOWN**

Each competition station will have a stated maximum available point score. The actual point scores from each station will be added up to calculate an individual competitor's final total score for the competition. In the event of a tie, the written exam mark will be used to determine the winner.

## **TECHNICAL COMMITTEE MEMBERS - JUDGES**

**Brent Currie, Technical Chair** – Kimberlite Career & Technical Centre

Judging will be by qualified industry representatives, wherever possible.