



CONTEST DESCRIPTION  
DESCRIPTION DE CONCOURS

# HEAVY EQUIPMENT SERVICES MÉCANIQUE DE MACHINERIE LOURDE

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 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:

<sup>1</sup>Numeracy, <sup>2</sup>Oral Communication, <sup>3</sup>Working with Others, <sup>4</sup>Continuous Learning, <sup>5</sup>Reading Text, <sup>6</sup>Writing, <sup>7</sup>Thinking, <sup>8</sup>Document Use, <sup>9</sup>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.

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 power train, including its control systems, in mobile and stationary industrial equipment.

### 2.2 Duration of contest.

12 hours

### 2.3 Skills and Knowledge to be tested.

Use hand, power, and diagnostic tools to safely and competently carry out repairs according to manufacturers specifications.<sup>7</sup>

Read and understand work orders, interpret technical manuals<sup>8</sup>, and keep service records.

## 3. CONTEST DESCRIPTION

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

DOCUMENT	OF DISTRTION VIA WEBSITE
Test Project	January, 2016

### 3.2 Tasks that may be performed during the contest

Competitors will complete practical tasks in the following categories relating to on-road, off-road, mobile, and stationary heavy equipment. The 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).<sup>7</sup>

- Hydraulic Systems (2 hours)
- Engine Systems (2 hours)
- Drive-Train Systems (2 hours)
- Component Measurement and identification, and fluid analysis (2 hours)
- Electrical Systems (2 hours)
- Work Place Practices (2 hours)

*Essential Skills – <sup>7</sup>Thinking (Problem solving, Decision Making) <sup>8</sup>Document Use*

## 4. EQUIPMENT, MATERIAL, CLOTHING

### 4.1 Equipment and material provided by Skills/Compétences Canada

Below are the manufactures that will be used along with the service information software:

- Caterpillar - software (Service Information System)
- John Deere – software (Service Advisor)
- Cummins - sorftware (Insite)
- Peterbilt – software (Electronic Service Analyst)

### 4.2 Equipment and material provided by the competitor

- Competitor must bring their own pencils, pens, and flashlight. Competitor may bring their own multimeter (optional).

#### 4.3 Required clothing (Provided by the competitor)

- Competitors must wear pants and a shirt plus either coveralls or a shopcoat. All must be clean and in good condition.

**Note:** Your contest area for SCNC 2016 will be hosted outside under tents. Come prepared for any weather conditions and dress accordingly.

### 5. SAFETY REQUIREMENTS

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

- CSA approved clear non-tinted Safety Glasses
- CSA approved Safety Footwear
- Hearing protection (Ear plugs or ear muffs)

**Note:** Competitors will not be allowed to compete if they do not bring and use these items

### 6. ASSESSMENT

#### 6.1 Point breakdown

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

### 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 before the competition or this service cannot be guaranteed.

#### 7.2 Tie (No ties are allowed)

In the event of a tie, the competitor with the highest score in the Safety criteria will be declared the winner.

### 7.3 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.

### 7.4 Competition Rules

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

## 8. NATIONAL TECHNICAL COMMITTEE MEMBERS

Member Organisation	Name	Email address
Alberta - Chair	Bobby Haraba	bharaba@nait.ca
Manitoba	Alan Demler	
Ontario	Angelo Spano	
Quebec	Victor Faria	
Newfoundland and Labrador	Greg Ryan	
Yukon	Doug McRae	
British Columbia	Brad Holcik	
New Brunswick	Jean-Luc Chiasson	