

2021 PROVINCIAL SKILLS CANADA COMPETITION



CONTEST DESCRIPTION

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| CONTEST AREA: HEAVY VEHICLE TECHNOLOGY | | | LEVEL: Post-Secondary |
| COMPETITION DATE AND TIMES: | | | LOCATION: Competitors will compete individually from their local Post-Secondary Institution |
| Orientation | May 1, 2021 | 8:00am | |
| Competition Day 1 | May 1, 2021 | 8:30am | |
| Competition Day 2 | May 2, 2021 | 8:30am | |
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| DURATION: 7.5 HOURS | | | WorldSkills Trade #: 49 |
| <p>COMPETITION FORMAT: (VIRTUAL, AT A POST-SECONDARY INSTITUTION) Competitors will compete individually, in person, from their local Post-Secondary Institution. Location specific COVID-19 protocols must be followed. Post-Secondary Institutions and competitors will need to work together to ensure the competitor is ready for success on their competition day. They will need to prepare their competition space with all of the required tools, equipment, materials, and technology (as listed below) that will be needed to complete the competition. This competition will be closed to the public. Only registered competitors and assigned Provincial Technical Committee members will be allowed to attend.</p> <p>COMPETITION ORIENTATION: The competition will begin with a virtual orientation. Competitors will join the assigned videoconference link that will be emailed to all registered competitors for the competition orientation. Camera's MUST be on and competitors visible on the camera during the orientation.</p> <p>LIVESTREAMED COMPETITION: (If applicable) Competitors must film their competition throughout the entire day. Camera's MUST be on and competitors visible on the camera, as well as mics working. Competitors must consider their camera angle and lighting in advance of the competition. It is the competitor's responsibility to ensure they are prepared for a day long livestream.</p> | | | |
| <p>SAFETY: The health, safety, and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the</p> | | | |



2021 PROVINCIAL SKILLS CANADA COMPETITION



required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

Safety Checklist: It is the responsibility of each competitor and teacher to review the Safety Checklist (<https://skillsalberta.com/additional-2021-competition-resources/>) in advance of the competition and ensure they are able to meet all safety requirements. During the orientation, the safety checklist will be formally reviewed.

AWARDS CEREMONY INFORMATION: Please join us for a live virtual awards ceremony on May 13th at 6:30PM.

Please note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in yellow

CONTEST INTRODUCTION

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

SKILLS AND KNOWLEDGE TO BE TESTED

Use hand, power, and diagnostic tools to safely and competently carry out maintenance or diagnosis and repair according to manufacturer's specifications.

Read and understand work orders, prepare estimates, and interpret technical service information.

PROJECT DESCRIPTION

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 or diagnose and repair heavy equipment (on-road and off-road, mobile, and stationary).

Competitors have equal opportunity to research, practice, and refine their knowledge and skill prior to the competition. Draft versions of the tasks will be posted online at a later date so



2021 PROVINCIAL SKILLS CANADA COMPETITION



competitors can review and train leading up to the Provincial Skills Canada Competition. Please keep referring back to this document for updates.

The actual tasks will not be disclosed to the competitors until the day of the Provincial Skills Canada Competition.

Each 1.5-hour task is valued at 100 points:

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| 1. 100 points | Hydraulic Systems | (1.5 hours) |
| 2. 100 points | Engine Systems | (1.5 hours) |
| 3. 100 points | Electrical Systems | (1.5 hours) |
| 4. 100 points | Steering, Braking, and Undercarriage | (1.5 hours) |
| 5. 100 points | Workplace Practices | (1.5 hours) |

EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

- CSA Approved Footwear (Grade 1 protective toe)
- CSA Approved Hearing Protection
- CSA Approved Clear (non-tinted) Safety Glasses
- Fitted mechanic's gloves
- Non-absorbent barrier gloves (latex or equivalent)
- Shop coats (smocks) or coveralls (in good and clean condition)
- Face mask
- Face shield
- Pencil, eraser, and pen
- Digital multimeter (Optional if you want to use your own, otherwise one will be supplied)
- Flashlight

Equipment and Materials Supplied by the Committee/Institute:

- Workbench with vise
- 120VAC
- Shop tools, equipment, and components
- Consumables



2021 PROVINCIAL SKILLS CANADA COMPETITION



JUDGING CRITERIA

The following judging criteria are weighted according to the task:

1. Use of safety equipment & safe and clean workspace
2. Use and interpretation of service manuals & schematic diagrams
3. Logical order of repair
4. Appropriate use of tools
5. Maintenance or repair of components or systems
6. Precision measurement
7. Superior Workmanship
8. Identification of faults, codes, or components
9. Communication of maintenance or repair process

TIE BREAKING PROCESS

In the event of a tie, the competitor with the higher safety evaluation in the practical tasks will be awarded the higher ranking.

SAFETY

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CONTEST AREA SPECIFIC SAFETY REQUIREMENTS

To participate, competitors must wear clean, rip-free work clothing that fits well--no loose-fitting clothing or casual wear such as shorts or open-toed shoes or sandals.

Competitors must not wear jewelry (rings, bracelets, watches, necklaces, pins), ties, lanyards, ID badges, or anything attached to them or dangling from them that might get caught in a piece of moving equipment.

Mandatory:



2021 PROVINCIAL SKILLS CANADA COMPETITION



- CSA-approved footwear (Grade 1 protective toe),
- CSA-approved hearing protection, and
- CSA-approved clear (NON-tinted) safety glasses.

CONTEST AREA SPECIFIC USE OF TECHNOLOGY

Competitors are not allowed to access or use personal laptops, tablets, camera, mobile phones, and wired or wireless earbuds during competition time.

CLOTHING REQUIREMENT

Appropriate work clothing must be worn to compete. All clothing must be neat and clean, and free of rips and tears. Casual wear such as shorts and open toed shoes/sandals will not be permitted. No loose-fitting clothes or jewelry.

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations
[Regional and Provincial Rules and Regulations](#)

Post-Secondary Competitor Information is [available here](#).

Lunch

Lunch will be provided by Skills Canada Alberta.

Team Alberta Information

Team Alberta will be selected from the competitions Gold medalists who will then be eligible to participate at the Skills Canada National Competition (SCNC) on June 1-5, 2021 in Quebec City, Quebec. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillscanada.com/>.

Please be prepared in advance to accept a position on Team Alberta and know how your school will support your participation.



2021 PROVINCIAL SKILLS CANADA COMPETITION



Ethical Conduct

We recognize that participants will be competing individually in their own unique environments. We expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Alberta.

Letter of Participation

Competitors who participate in the 2021 Provincial Skills Canada Competition are eligible for a Letter of Participation by request by contacting katherinek@skillsalberta.com.

COMMITTEE MEMBERS

| | | |
|----------------------|--------------------------------|---------------|
| Moe Tarrabain | Daimler Trucks | Edmonton |
| Darcy Williamson | Wajax Power Systems | Calgary |
| Patricia Nelson | Finning Canada | Red Deer |
| Morgan Garnett | Finning Canada | Edmonton |
| Sean Proulx | First Truck Centre | Edmonton |
| Gough Palmer | | Red Deer |
| Joe Mulder | | Edmonton |
| Marc Lalonde | Alberta Industry Training | Edmonton |
| Gavin Winter | Grand Prairie Regional College | Fairview |
| Allan Fenerty | Keyano College | Fort McMurray |
| Peter Ling | Lakeland College | Vermilion |
| Bill Petrosenko | Red Deer College | Red Deer |
| Mike Schell | Olds College | Olds |
| Bruce Brittain | Olds College | Olds |
| Keon Clift | Medicine Hat College | Medicine Hat |
| Walter Michel | Lethbridge College | Lethbridge |
| Rob Nagtegaal | SAIT Polytechnic | Calgary |
| Bobby Haraba (Chair) | NAIT | Edmonton |

