

Contest Description

Edmonton Expo Centre, Edmonton

May 8 & 9, 2024

EVENT: Heavy Vehicle Technology	LEVEL: Post-Secondary		
WORLDSKILLS TRADE #: 49	LOCATION: Hall C, Edmonton Expo Centre, Edmonton		
DURATION: 12 Hours (Two Days)	COMPETITORS: 12 Maximum		
COMPETITION SCHEDULE:			
May 8:	May 9:		
<i>ORIENTATION</i>	8:00 AM-8:30 AM	<i>COMPETITION (4 of 6)</i>	8:30 AM-10:30 AM
<i>COMPETITION (1 of 6)</i>	8:30 AM-10:30 AM	BREAK	10:30 AM-11:00 AM
BREAK	10:30 AM-11:00 AM	<i>COMPETITION (5 of 6)</i>	11:00 AM-1:00 PM
	AM	LUNCH	1:00 PM-2:15 PM
<i>COMPETITION (2 of 6)</i>	11:00 AM-1:00 PM	<i>COMPETITION (6 of 6)</i>	2:15 PM-4:15 PM
LUNCH	1:00 PM-2:15 PM	DEBRIEFING / PHOTOS	4:15 PM-5:15 PM
<i>COMPETITION (3 of 6)</i>	2:15 PM-4:15 PM		

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 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.

Due to unforeseeable uncertainties, competition stations and time allocation are subject to change.

Each 2-hour task is valued at 100 points:

1. **100 points** Hydraulic Systems (2 hours)
2. **100 points** Engine Systems (2 hours)
3. **100 points** Drive-Train Systems (2 hours)
4. **100 points** Electrical Systems (2 hours)
5. **100 points** Steering, Braking, and Undercarriage Systems (2 hours)
6. **100 points** Workplace Practices (2 hours)

EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

- Shop coats (smocks) or coveralls (in good and clean condition)
- CSA Approved Footwear (Grade 1 protective toe)
- CSA Approved Hearing Protection
- CSA Approved Safety Glasses

Equipment and Materials Supplied by the Committee:

Due to unforeseeable uncertainties, competition material, suppliers, and equipment are subject to change.

- Caterpillar equipment
- Caterpillar Electronic Technician (ET)
- Caterpillar Service Information System (SIS)
- Detroit Diesel engines
- Detroit Diesel Diagnostic Link software
- Freightliner trucks
- DTNA Connect Freightliner software
- All required tools and diagnostic equipment
- Multi-meters (Competitors may supply their own)
- Flashlights (Competitors may supply their own)
- Computer accessible service information
- Allison driveline software



JUDGING STANDARDS

The judging standards specify the knowledge, understanding, and specific skills that reinforce industry's best practices in technical and vocational performance. It reflects a shared global understanding of what the associated work roles represent for industry and business.

The following judging standards are weighted according to the task:

- a) Use of safety equipment & safe and clean workspace
- b) Logical order of repair
- c) Use and interpretation of service manuals & schematic diagrams
- d) Precision measurement
- e) Identification of faults, codes, or components
- f) Appropriate use of tools
- g) Maintenance or repair of components or systems
- h) Communication of maintenance or repair process
- i) Superior Workmanship

TIE-BREAKING PROCEDURE

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

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

CLOTHING REQUIREMENT

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:

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





ADDITIONAL INFORMATION

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

Test Project change at the Competition

Where the Test Project has been circulated to competitors in advance, PTC can change a maximum of 30% of the work content.

Lunch

Lunch for competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps

<http://edmontonexpocentre.com/attend/parking/>

Parking is FREE for all attendees.

Opening Ceremonies / On-site Provincial Competitor Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 7, 2024, at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremonies.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 9, 2024, at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at <http://skillsalberta.com/>

Team Alberta Information

Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 27- June 1, 2024, in Quebec City, QC. 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/>.

During the PSCC Awards Ceremony on Thursday May 9, 2024, gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individuals will be asked to participate. If a student is not able to attend the Awards Ceremony a letter confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 8, 2024.



Please prepare your students in advance to accept a position on Team Alberta and outline how your school will support their participation.

Questions?

Please contact Whitney Koop at whitneyk@skillsalberta.com if you have any questions regarding the Contest Description.

COMMITTEE MEMBERS

1	Moe Tarrabain	Daimler Trucks	Edmonton
2	Darcy Williamson	Wajax Power Systems	Calgary
3	Patricia Nelson	Finning Canada	Edmonton
4	Morgan Garnett	Finning Canada	Edmonton
5	Allan Fenerty	Finning Canada	Fort McMurray
6	Devan Burden	Syncrude	Fort McMurray
7	Sean Proulx	First Truck Centre	Edmonton
8	Aidan Brown	Grizzly Equipment Repair	Calgary
9	Gough Palmer		Red Deer
10	Joe Mulder		Edmonton
11	Chester Parisian	Keyano College	Fort McMurray
12	Peter Ling	Lloydminster	Lakeland College
13	Robert Young	Grande Prairie	GPRC – Northwestern Polytechnic
14	Bill Petrosenko	Red Deer Polytechnic	Red Deer
15	Mike Schell	Olds College	Olds
16	Keon Clift	Medicine Hat College	Medicine Hat
17	Justin Romeril	Lethbridge College	Lethbridge
18	Walter Michel	Lethbridge College	Lethbridge
19	Mike Hughes	SAIT Polytechnic	Calgary
20	Bobby Haraba (Chair)	NAIT	Edmonton
21	Brandon Sukkau		
22	Chris Fuhrmann		
23	Jack Reid		
24	Jeremy Parker		
25	Robert Marcolin		Cochrane