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1. General Contest Information

1.1: Purpose of Contest

To provide students with the opportunity to demonstrate, through practical and theoretical application, their skills and task knowledge in the industry relevant to outdoor powered equipment.

1.2: Objective/Description of event

Students will be tested in practical tasks including

- Engine Theory Exam
- No start diagnostic
- Engine Parts Identification
- Measurement (Engine and Electrical)
- Assembly and disassembly of a 4-stroke engine

1.3: Technical Committee

Chairs:

Brad Harpell, harpellb@limestone.on.ca

Allan Lalonde, lalondea@limestone.on.ca

1.4: Contest Schedule

Date and Location: Thursday, February 26, 2026 – Napanee District Secondary School

Competitors must be at Napanee District Secondary School for 8:30 am and the competition will start at 9:00am on Thursday, February 26th. The snow date will be Friday, February 27th.

*Competitors must be on time for their contest or may be disqualified at the discretion of the Technical Committee.

Closing ceremony: Thursday, February 26th hosted at St. Lawrence College at 5:30pm – transportation provided from NDSS



2. Skills and Knowledge to be Tested

2.1: Specific Requirements

· To demonstrate the skills and knowledge involved with air and liquid cooled engines, disassemble, and reassemble engines, carburetor theory and adjustments, electrical component testing, measuring, and identifying parts and measuring using tools such as, telescoping gauges, **non-digital** micrometers, Vernier calipers and auto ranging multi-meters.

- **All phases of measurement will deal exclusively with imperial units.**

- Use of repair manuals
- Technical competence
- Tool handling and recognition
- General knowledge of Multi meters
- General knowledge of 4 cycle engines
- General knowledge of 2 stroke engines
- Following instructions
- Electrical wiring 12-volt DC circuits

3. Judging Criteria

Written test	15
Electrical practical	25
Engine practical	35
Measurement	20
Safety	5

4. Equipment and Materials

Please note: Competitors are not to bring their own power tools unless specified in the scope. Competitors are not to bring their own computer, notes, materials and assisting devices are not permitted unless listed above.

Media devices, such as cell phones, smart phones, mp3 players or PDAs are not permitted on the contest site.

Prior to attending the students should be familiar and competent in the use of the tools and equipment listed, as well as what safety precautions will be observed during the competition.

4.2: Supplied by Competition

All tools are supplied.

- Feeler gauges
- Micrometers
- Vernier
- Bore gauges



- Dial indicators
- ¼ - 3/8 adapters or ratchets, 1/4 socket sets, 3/8 socket sets
- Piston ring compressors
- Torque wrenches
- Telescoping gauges
- Dead blow hammer
- Digital Multimeter
- Test light
- Engines: Briggs and Stratton 4 stroke
- Manuals
- Electrical Testing Board.

Please Note: Tools and materials may change based on availability.

4.3: Supplied by Competitor

- CSA approved safety glasses
- CSA approved footwear
- Lab/shop coat
- Writing utensils – pen/pencil
- Calculator
- Refillable water bottle and snacks for yourself throughout the day

4.4: Prohibited

Cell phones will not be allowed during the competition. Competitors will only be allowed their phones after completion of the competition and all work has been submitted.

5. Safety

Safety is a priority at the Ontario Technological Skills Competition. At the discretion of the judges and technical chairs, any competitor can be removed from the competition site for not having the proper safety equipment and/or not acting in a safe manner.

- It is mandatory for all competitors to wear CSA approved eyewear (including side shields for prescription eyewear).
- It is mandatory for all competitors to wear CSA approved footwear.
- Jewelry such as rings, bracelets and necklaces or any items deemed unsafe by competition judges shall be removed.
- Proper shop attire is to be worn (no loose straps, baggy sleeves). Any attire that is deemed unsafe by competition judges will not be permitted.

Competitors will not be permitted to compete until they have the necessary safety equipment.

Competition judges will have final authority on matters of safety.



5.1: PPE

Competitors will be required to wear the following to the competition:

- CSA approved safety glasses
- CSA approved footwear
- Full length pants – no cropped pants or shorts

5.2: Behaviors

Immediate disqualification may occur at the discretion of the technical chair if a competitor displays any one of the following

- Acts inappropriately
- Shows disregard for the safety of themselves or those around them
- Uses equipment or materials that is not permitted
- Dishonest conduct (cheating, plagiarism, etc.)
- Speaks with those outside the contest during the contest time

5.3: Equipment Knowledge

Competitors must show competence in the use of tools and/or equipment outlined in this scope and can be removed at the discretion of the judges and technical chairs if he/she does not display tool and/or equipment competency.