

AUTO VEHICLE MAINTENANCE BASIC (NY only)



SCOPE OF THE CONTEST

Purpose

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of basic vehicle maintenance.

CLOTHING REQUIREMENT

White crew neck short-sleeved T-shirt, work pants, safety glasses or goggles, leather or steel-toed work shoes. (Prescription glasses can be used only if they are equipped with side shields approved by OSHA (Z-87). If not, they must be covered with goggles.)

Note: Contestants must wear their official contest clothing to the contest orientation meeting. Also bring #2 pencil, resume, and safety assurance form.

ELIGIBILITY

Open to active SkillsUSA members enrolled in career and technical program with entry-level automotive job skills as the occupational objective. Must provide the Basic Participant form stating that the contestant is classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997, is required for participation. The eligibility form is to be presented to the contest chair at the contestant orientation meeting.

No written Contest Knowledge Test and no SkillsUSA Knowledge (PDT) test is required.

Equipment and Materials:

1. Supplied by the contest chairperson:
 - a. All materials, tools and equipment needed for the contest.
2. Supplied by the Contestant:
 - a. 3x5 – index card with name of contest, contestants name, name of CTE center, advisor/chaperone name, and Advisors/Chaperone cell phone number.
 - b. All competitors must create a one-page résumé using a word processor. Resume to be handed in at the orientation meeting.

Note: Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the NYS SkillsUSA Web site:

<http://www.nysskillsusa.org/>

Skills Performance

1. Contestants will demonstrate their ability to perform tasks selected from the following list of competencies (while adhering to all safety rules):
 - a. Remove and replace spark plugs and set the gap to manufacturer specifications.
 - b. Demonstrate under hood checks such as fluid levels, belts, hoses and coolant protection levels.
 - c. Perform a safety inspection and explain repair of faulty items, aim headlights, check air pressure in tires and tire tread depth.
 - d. Identify the main parts of the drum and disk brakes and ABS components.
 - e. Demonstrate correct method to disassemble and reassemble brakes.
 - f. Demonstrate correct procedure for installing spark plug wires to manufacturer specifications.
 - g. Identify the main parts of a tire and wheel.
 - h. Demonstrate correct use of a tire machine.
 - i. Remove, balance and replace a tire.
 - j. Identify tools of the trade (including measuring instruments)
 - k. Demonstrate and use a multi-meter for testing and, or diagnostic problems of electrical systems.
 - l. Construct an electrical circuit from supplied material and a wiring diagram.
 - m. Identify parts of a drive line and explain how to time a drive line.
 - n. Explain and identify parts of a differential. Be able to disassemble/assemble a differential.
 - o. Identify and measure parts of the camshaft or crankshaft.
 - p. Identify parts of a clutch and explain the workings of the clutch.
 - q. Demonstrate and be able to measure with micrometers (inside & outside).
 - r. Identify planetary gears and explain how the gear works.
 - s. Identify grade and thread of SAE and Metric bolts.
 - t. Demonstrate how to properly jack a vehicle and change a tire.
 - u. Job interview skills