

Automotive Service Technology

Purpose

Evaluate each contestant's preparation for employment. To recognize outstanding students for excellence and professionalism in the field of automotive service and technology

Equipment and Materials

Supplied by the technical committee:

- All necessary tools and equipment for the contest
- Safety glasses
- All necessary service publications for the contestants
- All necessary information and furnishings for judges and technical committee

Scope of the Contest

The scope of the contest will be consistent with the automotive technician task list outlined in guidelines published by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF).

Contestants will demonstrate their ability to perform jobs or skills selected from the standards mentioned above as determined by the Skills USA Championships Technical Committee.

Major Areas of the Contest

- Inspecting, repairing and replacing cooling, heating and air conditioning components and systems (postsecondary only)
- Identifying, checking, servicing and repairing electrical systems and components including: charging, lighting, ignition, cranking accessories, and electronic components
- Measuring and adjusting wheel alignment
- Diagnosing, servicing and repairing steering and suspension
- Diagnosing, servicing and repairing brake systems
- Performing task-related to engine overhauls, adjustments and component parts replacement
- Analyzing exhaust emissions, testing and replacing emission components
- Diagnosing, servicing and repairing fuel systems
- Performing tasks related to transmissions, differentials and universal joints
- Demonstrating merchandise and business practices
- Demonstrating ability to read and use service publications
- Completing a written test developed by Automotive Service Excellence

- Demonstrating safe and proper usage of industry equipment (scan tools, multi-meters, time-sert thread repair, soldering tools and hand tools)
- Demonstrating safe and proper use of tools and equipment

Note: Work stations consist of a vehicle, and/or simulators, components and service publications. Contestants will take a written test. Contestants will be tested on a variety of vehicles commonly assembled in the United States. This will include both domestic and import vehicles.

Contestants will be judged on safety, quality, ability to follow instructions and procedures, accuracy (in comparison with factory specifications), workmanship and other skills representative of the trades identified by industry leaders. Time limits will be assigned for each task, but no bonus points will be awarded for early completion.

The judge criteria and the points assigned will be determined by the difficulty of the task assigned.

A total of 6-8 stations will be assigned. Each station must be broken down into specific task criteria and separate steps based on the task.

For Example:

Station #1 Wire test and repair segments

Identify faulty circuit	=	x points	Compare values to specs	=	x points
Repair condition	=	x points	Workmanship	=	x points
Assemble/retest	=	x points	Safety Practices	=	x points
Resistor board tests	=	x points			

Each station will have the same point total assigned to it, except the written test which is limited to 5 percent of the total contest points.

The contest limit is 16 contestants. There will be a written test. Contestants must bring pencils and safety glasses. Contestants will be transported from UW-Stout to the Auto Mechanics laboratory at Menomonie High School.

Judging Criteria

Brakes, valves, tires, trouble codes, belt change, coolant checks, timing, plug wires, precision measurement of parts, parts identification.