MOTORCYCLE SERVICE TECHNOLOGY NYS

PURPOSE

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

ELIGIBILITY

Open to active SkillsUSA members enrolled in career and technical programs that include motorcycle service technology as an occupational objective.

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. 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.**

EQUIPMENT AND MATERIALS

1. **Supplied by the NYS chair/committee:**
   a. All necessary tools, equipment, supplies and publications for the contest
2. **Supplied by the contestant:**
   a. All competitors must create a one-page résumé using a word processor. Resume to be handed in at the orientation meeting. Failure to do so will result in a 10-point penalty.
   b. ***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/

SCOPE OF THE CONTEST

The scope of the contest is defined by industry standards as set by the current industry technical standards. The contest is divided into two parts: a written exam and series of skill-related tests designed to assess skills selected from the following lists of competencies as determined by the NY Chair and contest committee.

Knowledge Performance

The contest will include a written knowledge exam assessing knowledge of industry standards and competencies as identified by the NY Chair and contest committee.

Skill Performance

The contest will include a series of tests designed to assess skills identified by industry standards in the areas of accuracy, proper use of tools and equipment, and safety practices.

Contest Guidelines

1. Contestants will be tested on a variety of motorcycles, ATVs and scooters commonly found in the United States using both metric and American threads/wrenches.

Contestants will be judged on accuracy, proper use of tools and equipment and safety practices. Rating sheets will reflect each specific skill requirement as determined by the NY Chair and contest committee.

2. Standards and Competencies

MST 1.0 — Implement skills and apply knowledge needed to perform general shop procedures

1.1 Utilize the parts manual to identify part numbers of specified parts
1.2 Apply the knowledge needed to use and read service manuals to find specifications and procedures
1.3 Apply the knowledge to use proper techniques in the care and use of equipment
1.4 Demonstrate proper safety procedures
1.5 Fill out repair orders

MST 2.0 — Apply the knowledge and skills needed to test the performance of engine/drive train condition in a motorcycle service situation

2.1 Determine engine condition by performing a cylinder leak down and compression tests
2.2 Use dial bore gauges, micrometer and feeler gauges to determine the condition of cylinders, pistons, rings and other engine parts
2.3 Remove, measure and reinstall clutch components
2.4 Adjust valve clearance of screw-type and shim (pad) type valves
2.5 Diagnose, service and repair chain and sprocket and/or shaft driven and/or belt type final drive systems
2.6 Identify and inspect transmission components

MST 3.0 — Implement the skills and knowledge needed to run a carburetion inspection in a motorcycle service situation

3.1 Remove and disassemble carburetor, adjust the float, identify components and reassemble and reinstall carburetor
3.2 Inspect, service and reinstall an oil-foam air filter
3.3 Synchronize carburetors

MST 4.0 — Apply the knowledge needed and the skills required to inspect, repair and service wheels in a motorcycle service situation

4.1 Inspect, repair and service tubeless tires (street and ATV type)
4.2 Inspect, repair and service tube tires
4.3 Diagnose, service and repair disc and drum brake systems
4.4 Measure radial and lateral run out of a rim using a dial indicator true spoke wheel
4.5 Static balance the wheel

MST 5.0 — Demonstrate the skills needed to perform a routine inspection and maintenance check in a motorcycle service situation

5.1 Inspect, service and replace cables
5.2 Inspect, service and reinstall crankcase breather
5.3 Inspect fluid levels
5.4 Adjust ignition timing
5.5 Adjust clutch mechanisms and cable

MST 6.0 — Apply the knowledge and the skills needed to perform an electrical inspection in a motorcycle service situation

6.1 Use a multimeter to measure and diagnose resistance of specified components, amperage drain key off and on, battery voltage key off and key on, charging voltage and amperage
6.2 Locate and repair other electrical problems
6.3 Inspect the ignition timing