

2012 MICHIGAN SKILLS USA CHAMPIONSHIPS
TASK AND MATERIALS LIST
SKILL OR LEADERSHIP AREA: MOTORCYCLE SERVICE TECHNOLOGY
TASKS TO BE PERFORMED:

- Written test on parts identification using parts manual or Internet.
- Carburetor parts identification and theory of operation.
- Proper tool usage.
- Transmission operation and troubleshooting.
- Identification of components on a motorcycle.
- Diagnose problems with electrical systems.
- Measure various engine components and diagnosis condition. i.e.: cylinder block, pistons, clutch, etc.
- A select number of competition stations will be chosen from the following list of contest objectives.

STUDENTS MUST SUPPLY:

- 1 page resume. Failure to provide a resume will result in a 50 Point penalty.
- Safety glasses with side shields or goggles
- Plain clothing – i.e. No school logos, etc....
- ***Leather work shoes***

Note: Non compliance with clothing or safety gear requirements will result in points being deducted from the contestants score. THIS WILL BE STRICTLY ENFORCED!

Note: Engines could be Kawasaki, Yamaha, Honda, Suzuki, or Harley – Davidson.

Revised 1/9/12

Skills USA States Competition Motorcycle Service Technology Contest 2012 Workstation Objectives

Objective: Engine Bench Workstation #1

Given the tools, engine, and service manual, participants will demonstrate the necessary skills to correctly identify the manufactures component names and torque specifications.

Objective: Electrical Diagnostics Motorcycle Workstation #2

Given the tools, motorcycle, and service manual, participants will correctly diagnose a system fault in the starter circuit following the service procedures in the service manual.

Objective: Service Manual Test Bench Workstation #3

Given the service and parts manuals, participants will demonstrate the necessary skills to locate specific information to correctly answer questions on service procedures and specifications.

Objective: Precision Measurement Bench Workstation #4

Given the tools, various engine components, and service manual, participants will demonstrate the necessary skills to correctly identify and measure engine components with the appropriate measuring tools.

Objective: Brake Inspection Motorcycle Workstation #5

Given the tools, motorcycle, and service manual, participants will demonstrate the necessary skills to correctly remove and inspect the brake caliper and brake pads to meet manufacturing specifications by following the service procedures listed in the service manual and the instructions provided.

Objective: Carburetor Inspection Bench Workstation #6

Given a disassembled carburetor, components, and service manual, participants will demonstrate the necessary skills to correctly identify and answer question pertaining to their operation.

Objective: Transmission Inspection Bench Workstation #7

Given a motorcycle transmission assembly and service manual, participants will demonstrate the necessary skills to correctly identify transmission components and answer questions discussing power flow and possible troubleshooting solutions.

Objective: Wheel Inspection Bench Workstation #8

Given a motorcycle wheel assembly and service manual, participants will demonstrate the necessary skills to correctly identify, measure, and answer questions related to the assembly.

Objective: Steering Head Bearing Inspection Motorcycle Workstation #9

Given the tools, motorcycle front end assembly, and service manual, participants will demonstrate the necessary skills to correctly inspect the steering heads bearing assembly to meet manufacturing specifications by following the service procedures listed in the service manual and the instructions provided.

Objective: Clutch component Inspection Bench Workstation #10

Given the tools, complete clutch assembly, and service manual, participants will demonstrate the necessary skills to correctly identify, disassemble, inspect and measure components with the appropriate measuring tools.

Skills USA States Competition

Motorcycle Service Technology Contest

2012 Workstation Objectives

Objective: Honda Engine Bench Workstation #1

Given the tools, Honda engine, and Honda service manual, participants will demonstrate the necessary skills to correctly identify the manufactures component names and torque specifications.

Objective: Yamaha Electrical Diagnostics Motorcycle Workstation #2

Given the tools, motorcycle, and Yamaha service manual, participants will correctly diagnose a system fault in the starter circuit for a Yamaha “V-Star 1100” following the service procedures in the service manual.

Objective: Harley Davidson Service Manual Test Bench Workstation #3

Given the Harley Davidson service and parts manuals, participants will demonstrate the necessary skills to locate specific information to correctly answer questions on service procedures and specifications.

Objective: Precision Measurement Bench Workstation #4

Given the tools, various engine components, and service manual, participants will demonstrate the necessary skills to correctly identify and measure engine components with the appropriate measuring tools.

Objective: Harley Davidson Brake Inspection Motorcycle Workstation #5

Given the tools, motorcycle, and Harley Davidson service manual, participants will demonstrate the necessary skills to correctly remove and inspect the brake caliper and brake pads on a Harley Davidson “Fatboy” motorcycle to meet H-D manufacturing specifications by following the service procedures listed in the service manual and the instructions provided.

SCORECARD Motorcycle Service Technology

Contestant Number

Items Evaluated	Possible Points					
Station 1 Honda Engine Parts I.D.	160					
Station 2 Yamaha Electrical Diagnostics	230					
Station 3 H-D Service Manual Test	160					
Station 4 Precision Measurement	230					
Station 5 H-D Brake Systems	220					
Résumé Penalty	0 or -50 only					
Clothing Penalty	0 to -50					
Total Possible Points	1000					

Date: _____

Judges' Signatures:

