



## Power Equipment Technology 2025 Tool List and Scope of the Contest

All contestants report to the Contest Site in **Pinnacle Bank Expo Center**, for the orientation and written exam on **Thursday evening, 4-10-25 at 7:00 p.m.**, dressed in your SkillsUSA official dress. You will need to bring a pencil! **The 2025 Power Equipment Technology Contest on April 13, Group 1 will begin at 7:30 AM.** Contestant will need to bring: a pencil, a calculator, and your Safety Glasses **on Friday.**

### Clothing Requirement:

For the 2025 contest, contestants should wear the required SkillsUSA contest dress: light blue work shirt, navy pants, black, brown or tan leather work shoes. For the state contest, you may substitute a decent and acceptable T-shirt, jeans and appropriate work shoes/boots.

**All contestants must submit your Resume via email address to: [lkauf73@gmail.com](mailto:lkauf73@gmail.com) by 4-7-25.**

### Tools:

There are special tools you may want to become familiar with for the contest. You will find that most small engine dealerships will have most of these tools. Find a reputable small engine repair facility in your community to ask the technician if he/she would be willing to show you the tools they use and maybe even give you a short lesson on how to use them. These are just a few examples

Spark Tester      Digital Calculator      Digital Tach      Digital multimeter      iPad or laptop

### **Scope of the Contest:**

- A pen or pencil is required for the contest.
- All the specialty tools will be provided on for each contest station.
- Know how to read technical repair manual instructions to perform activity.
- Know how to use a computer to look up parts, such as, [www.partstree.com](http://www.partstree.com) web site.
- Understand common electrical circuit logic, safety inlock circuits, ignition interrupt circuits.  
Demonstrate how to test and troubleshoot system components with diagnostic tools.
- Know 2-cycle and 4-cycle theory of operation and how the engine functions.
- Be familiar with the various operating systems on small engines and know how to diagnose problems with these systems: fuel, electrical, power train, and the ignition system.
- Know how to use a digital multi-meter to measure and diagnose electrical problems, measure voltage and take resistance readings.
- Know how a basic **EFI fuel injection system** operates found on today's small engines.
- Have good customer relation's skills. Know how to greet the customer and how to process a **work order** using Excel to enter the customer's personal information, equipment information, and add parts/costs you looked up to complete the work order.
- You will be required to diagnose a failed engine component. Find some type of guide to study failed engines and or parts. It does not matter whose guide you study. Engines fail from the same problems.
- Know basic troubleshooting, repair, the adjustment of engine components and the service procedures on L-head or OHV engine in single or twin cylinders