

## Diesel Equipment Technology 2024

*The Diesel Equipment Technology contest will consist of hands-on test of skills pertaining to theory, application and repair of heavy-duty diesel trucks.*

Possible stations that a student may see during the competition are but not limited to:

Diesel Engine Electrical – connecting a laptop and diagnosing a fault code.

Diesel Engine Mechanical – identifying components of a diesel engine and possible assembly of those components.

5<sup>th</sup> Wheel Operation and inspection – understanding the operations and being able to rebuild if necessary.

DOT Inspection – locating and understanding federal violations on semi-trucks.

Shop Skills - thread repair, bolt extraction and demonstration of best safety practices.

HVAC identification and diagnostics – identifying components on an HVAC system and diagnosing a potential issue.

Electrical Troubleshooting – Digital Multimeter will be used to test Available voltage and Voltage drops within a circuit to locate a known issue.

Precision Measurement – Micrometer fundamentals, how to read and understand the tool.

Job Interview – being able to conduct a good job interview and providing a resume.

Wheel End – wheel bearing adjustments

Manual Transmission/Drivetrain – possible disassembly and assembly of a component.

Hydraulics – theory of operation and hooking up hoses to valves based on a schematic.

Aftertreatment – diagnosing issues with the aftertreatment system.

Air Brakes – diagnostics and component identification of the air brake systems.

Tire and Alignment – identifying tire wear issues and the effects on the alignment.

*Students will need to bring safety glasses, steel toe shoes, and pants. Students will need a Resume in hand to submit for the Interview station.*