Heavy Equipment Operations

The **Heavy Equipment Operations** program technical standards have been developed to inform students of the nonacademic essential functions of the program and profession. Examples are not all inclusive.

| **Standard** | **Essential Function** | **Examples** |
| --- | --- | --- |
| **Communication** **Oral / Written** | * Skills sufficient to communicate information and ideas so others will understand | * Effectively communicate with classmates and instructional staff using appropriate visual and/or auditory communication from a distance of 20 feet. * Write work orders * Read prints, schematics, and documents |
| **Mobility / Motor Skills** | * Motor skills sufficient to move the hands and use hands to grasp or manipulate * Ability to safely operate in and around machinery * Ability to physically setup, move, or climb ladders, scaffolding, etc., unaided, using the designated safety method. | * Make repairs * Assemble parts * Work with many types of hand, air, or other power tools * Work at heights up to 35’ while carrying tools and equipment * Physical activities may include:   + Climbing   + Lifting   + Balancing   + Stooping   + Reaching |
| **Physical Strength and Stamina** | * Lift and carry up to or 50 pounds of building materials/equipment | * Lift and carry wheels, engine parts, brake rotors, etc. |
| **Sensory**   * **Sight** * **Sound** * **Taste** * **Touch** * **Smell** | * Visual skills sufficient to see details at close range * Listening skills sufficient to communicate with others * Identify sounds from the vehicle during diagnostic phase * Identify and react to safety alarms which include, but not limited to, fire alarms, back up alarms and those meant for emergencies * Visual skills to inspect or assess for safety | * Identify defects and make repairs * Clearly distinguish all primary colors * Read meters and testers * Listen to customer’s assessment of problem * Hear others inside of an industrial shop or in the field by voice, loud speaker, phone, and/or two-way radio * Listen for various pitches emitted by testers and meters * Inspect an area or piece of equipment for potential failures or safety issues * Detect potential dangers in the shop such as smelling gas leaks, identifying leaks in hydraulic lifts, etc. |
| **Environmental / Occupational Exposure** | * Possible exposure to extreme noise levels * Possible exposure to extreme weather * Possible exposure to dust, chemicals, and fumes * Ability to use petroleum products or other chemicals | * Work around motors and air tools * Work outside or inside of a non-climate-controlled shop * Work around diesel fuel, motor oil, etc. |
| **Field or Industry Professional Standards** | * Wear safety equipment * Valid Driver’s License * CDL standards (for vision/etc.) | * Wear safety glasses * Good peripheral vision and depth perception * 20/40 corrected in at least one eye (CDL standard) |