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
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| **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.
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| **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.
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| **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)
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