

**PURPOSE/APPLICATION**

Boosting a battery or jump starting is the process of using the power from a charged battery to supplement the power of a discharged battery and successfully start a vehicle engine. 12volt battery systems are typically found in light-duty vehicles.

**PPE**

- Strike Minimum PPE

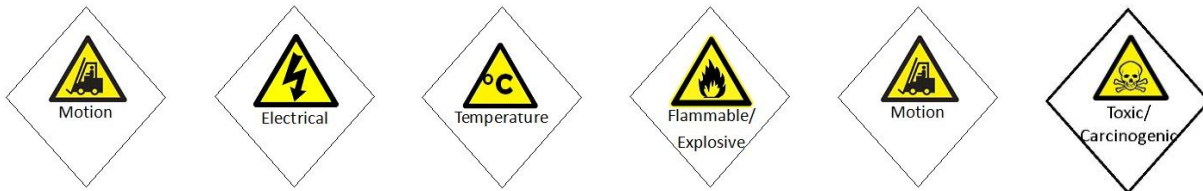
**TRAINING**

- Strike New Worker Orientation

**TOOLS/EQUIPMENT**

- Booster Cables
- Charged Battery

**HAZARD SOURCES**



#	Job Steps	Hazards	Control Measures
1	Ensure both vehicles are in park, with the park brakes set and turn off the ignition and all accessories in both vehicles.	Motion - Crush injury or collision from rolling vehicle Electrical - Incidental energization of touching vehicles Temperature - Shock or burn from running vehicle	<ul style="list-style-type: none"> <li>▪ Set the park brake on both vehicles</li> <li>▪ Vehicles should be parked close (vehicles must not be touching) for the cables to reach without crossing engine components</li> <li>▪ Ensure the vehicle is off and cool to the touch before proceeding</li> </ul>
3	Confirm that batteries are of the same voltage.	Flammable - Fire &/or explosion, burn out electrical system	<ul style="list-style-type: none"> <li>▪ Inspect batteries to ensure they are in good condition (e.g. not deformed, leaking, etc.)</li> <li>▪ Do not continue with the boosting process if battery voltage cannot be confirmed</li> <li>▪ Contact a mechanic</li> </ul>
4	Attach one of the positive booster cable clips (red handled) to the positive (red) terminal of the booster battery then attach the other red handled end of the positive booster cable clip to the positive terminal of the dead battery.	Flammable - Sparks, Short circuits fire or electrical shock	<ul style="list-style-type: none"> <li>▪ Do not allow the ends of both cables to touch while attached to the batteries</li> <li>▪ Have a send person hold the other end of the cables with the ends apart</li> </ul>



**SAFE JOB PROCEDURE**

**SJP-01**

**November 17, 2023**

**BATTERIES (BOOSTING)**

#	Job Steps	Hazards	Control Measures
6	Attach the negative cable clip (black) to the negative (black) terminal of the booster battery.	Electrical - Incorrect grounding can lead to sparks, fire, or explosion	<ul style="list-style-type: none"> <li>Ensure that the cable is clipped to a metal part of the vehicle to ensure the system is grounded</li> </ul>
7	Connect the remaining negative end of the cable (black clip) to the engine block or thick metal frame of the vehicle with the dead battery.	Electrical - Incorrect grounding can lead to sparks, fire, or explosion	<ul style="list-style-type: none"> <li>Ensure that the cable is clipped to a metal part of the vehicle to ensure the system is grounded</li> </ul>
8	Start the engine of the vehicle that has the booster battery. Let it run for a few minutes with the cables attached before trying to start the vehicle with the dead battery.	Toxic - Exhaust fumes from running vehicle Motion - Unintended movement of vehicle Motion - Moving engine components in the charging vehicle	<ul style="list-style-type: none"> <li>Start the vehicle outdoors, or ensure there is adequate ventilation</li> <li>Ensure all workers are clear of the engine before starting</li> </ul>
9	After the boosted engine has been started, disconnect the booster cables in reverse order of attaching them.	Toxic - Exhaust fumes from running vehicle	<ul style="list-style-type: none"> <li>Keep booster cables apart until they are both removed</li> </ul>
10	Clean up work area, put away all tools and equipment.	Motion - Slips, trips, falls	<ul style="list-style-type: none"> <li>Ensure all tools and equipment are returned to their proper place and debris is collected and disposed of. Refer to SWP- 19 Housekeeping</li> </ul>

**Additional Precautions:**

Refer to the original equipment manufacturer’s specifications for any battery configuration outside of the scope of this safe job procedure.

**Reduce the Need for Booster Starts:**

- Maintain the battery. Keep the battery and its connections clean and tight.
- Realize that repeated heavy use of a battery will shorten its productive life.
- Do not use vehicle accessories when the engine is not running.
- Be sure to turn off all accessories, such as headlights and two-way radios before turning off the engine.

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