

LOSS CONTROL NEWSLETTER

MARCH 2019

AUTOMOBILE BATTERY SAFETY

Ordinary automobile batteries appear harmless, so many people are unaware of their potential danger. The result is an increasing number of injuries related to the misuse or abuse of batteries.

Many of these injuries can be prevented by recognizing the hazards associated with batteries:

- The electrolytic agent in battery cells is diluted sulfuric acid that can burn exposed skin and eyes.
- When a battery is on charge, hydrogen gas can build up in the air space near the cap of each cell. Unless the gas is allowed to escape, a spark can ignite the trapped gas and cause the battery to explode.

An important rule when working under the hood of a vehicle is to keep metal tools away from the battery. The spark of metal against metal or from accidental grounding by a tool can ignite the battery's hydrogen gas. For the same reason, never light a match near a battery and never smoke when working near one.

CHARGING

Charging a battery builds up hydrogen gas that is ignitable. Because of this, all charging must be done with battery caps removed and in an open-air or well-ventilated area. Remember to first connect the clamps of the charger to the battery terminals, and then plug the charger into a wall outlet.

REFILLING

When refilling a battery with electrolyte, do not overfill the battery cells. Use distilled or demineralized water when topping off battery cells with low levels caused by normal electrolysis.

WHAT IS LOCKOUT/ TAGOUT?

Lockout/tagout (LOTO) is a practice to prevent injury due to unexpected start-ups or the release of stored energy in equipment during a maintenance or service activity.

The item is either locked to prevent the operation of the machine or tagged to provide warning to not start the machine.

If you see locks or tags on equipment, leave the devices in place and wait for an authorized employee (i.e., the person designated to LOTO equipment in order to perform service or maintenance) to communicate that it is ready to use again.

If you operate equipment, you should understand the steps authorized employees follow to properly implement LOTO before performing service or maintenance.

The authorized employee:

1. Notifies affected employees of the planned lockout or tagout.
2. Shuts down the equipment.
3. Isolates the equipment from energy sources.
4. Applies the LOTO energy isolation device to prevent unexpected start-up.
5. Releases all stored energy from the equipment or restrains it from activating, such as disconnecting steam or hydraulic pressure lines.
6. Tests the machine by restarting it to make sure the power source has really been isolated and the equipment actually de-energized.

Battery Safety CONTINUED

If you spill any electrolyte:

- Wipe it up immediately with rags or disposable wipes, being careful to protect exposed skin and eyes.
- Discard the wipe-up rags or papers where others will not be exposed to them.
- Small acid spills can be neutralized using baking soda, but all residue must be properly disposed of.

REPLACEMENT

Never install a battery in a vehicle until the battery has been inspected for weakened posts, split sides, or cell leaks.

You should never work around a battery that has a buildup of dried or dust-like corrosive acid until you have safely removed the buildup.

The dust is as potentially harmful as the electrolyte and can dislodge and blow into your face. Goggles or other eye protection is recommended to guard against dust or electrolyte.

There are special carrying straps for batteries to gently move and lift them. The straps help avoid bumping or dropping. Mishandling of a battery can lead to acid or hydrogen gas leaks that shorten its life and can be hazardous to anyone working near the defective battery.

If you have any questions or need assistance regarding workplace safety, please contact your independent insurance agent or the Auto-Owners Loss Control HelpLine at 855.586.5388, or send an email to LossControlSupport@aoins.com.

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