SWP Purpose

Changing vehicle tires can be hazardous, if due care is not taken. This safe work practice (SWP) is intended to help workers in following correct steps in changing tires. When done correctly, hazards will be controlled.

Scope

This SWP applies to any worker who is faced with changing vehicle tires, which could occur in a range of settings.

Responsibilities

Responsibilities apply to the **Trip Manager**/Volunteer Lead, all workers, and the Health and Safety Committee.

It is the responsibility of the **Trip Manager**/Volunteer Lead to

- Communicate to workers the importance of taking due care and following correct steps in changing vehicle tires.
- Reinforce to workers that any recommended controls must be applied consistently
- Require that this SWP be implemented for all vehicles used

It is the responsibility of the Workers to

- Know the proper approach and steps to changing vehicle tires safely.
- Ensure recommended controls are implemented and used appropriately.
- Immediately report any infractions to the Crew Lead.

It is the responsibility of the Safety Committee to

- Maintain this Safe Work Practice
- Perform periodic audits to assess that these requirements/SWP are being acted upon.
- Reinforce that recommended controls are to be implemented and used appropriately.

Hazards

Hazards relative to changing vehicle tires may be due to environmental conditions such as setting and location, weather conditions, time of day/visibility.

Hazards may also be caused by a lack of appropriate tools or traffic control warning devices. Wearing gloves is a useful control, as strands of steel may be poking through the tire and may cause injury.

Hazards due to worker behavior include drowsiness/fatigue, distractions within or around the vehicle, psychological factors such as stress, lack of familiarity with the vehicle or the task. Safe lifting should be practiced during this task.

Controls

Controls may include elimination/substitution, engineering, warnings, administrative, and/or PPE.

- Checking tire pressure regularly and as part of the safe driving pre-use vehicle checklist may prevent the need to change a tire in an awkward or remote location by identifying the issue early.
- Where the tire will be changed is important. Avoid areas of slope, if possible, to limit the possibility of vehicles being unstable/rolling.
- Pull the vehicle safely off the road and onto the right shoulder, if available. If the shoulder is narrow or sloped, try to locate a safe parking location (e.g. turn out). The goal is to keep both you and the travelling public safe.
- Turn the vehicle off.
- Set the emergency brake.
- Turn on hazard lights. You may also wish to open the hood, to signal to other drivers that you are stopped for repairs.
- Pre-planning is useful; if there are passengers or others in the team, share the responsibility and communicate tasks to be done, who will do them, etc.
- Always refer to the vehicle's owner manual prior to starting the task.
- Set up cones/triangles/pylons/reflectors, if available. Set them far enough from the rear of your vehicle to provide adequate warning to approaching traffic.
- Use headlamps/flashlights if this is being done in the dark.
- Place an object in front or behind the tires on the opposite side to act as a wheel chock to prevent the vehicle from rolling.
- Locate, remove, and check the spare tire, the tire iron/lug wrench, and vehicle jack. If any of the equipment looks faulty, do not use it.
- Attempt to loosen lug nuts prior to jacking the vehicle – rotate counterclockwise to loosen.
- Loosen the lug nuts following a star pattern, until all the lug nuts have been slightly loosened.
- Set the jack on level ground and in the location indicated in the owner's manual.
- Slowly jack the vehicle, checking for vehicle and jack stability intermittently. Check that the jack is well-positioned and will not be dislodged.
- Raise the vehicle just high enough for the tire to spin freely.
- Remove the lug nuts and store them in a safe, visible location.
- Carefully support and remove the defective tire from the vehicle and set it on the ground away from oncoming vehicle traffic and so that it will not be a tripping hazard for you or your assistants. Safe lifting should be considered while completing the task.
- Lift the replacement tire onto the wheel studs, ensuring that the tire valve is facing you.
- Replace the lug nuts on the wheel studs and begin to hand tighten, in the star pattern, prior to using the wrench.
- Tighten all lug nuts until snug and rim is tight to hub.
- Slowly lower the vehicle on the jack, until most of the weight is on the tire.

- Again, using the star pattern, use the tire iron to completely tighten the lug nuts onto the vehicle's wheel studs.
- Remove the jack from under the vehicle and place it out of your way and out of the way of oncoming traffic.
- Perform an additional check of the lug nuts to make sure that they are tight and secure, using the tire iron.
- Replace hub cap, if present.
- Clean up the area, returning all tools, tire, reflectors, blocks, etc. to their correct storage locations.
- Re-enter vehicle and safely pull onto roadway.
- Check and re-torque lug nuts on affected wheel after a short period of driving to ensure that the wheel was properly seated after repair.

Training

Workers must be adequately trained. On the job/scenario or demo-based training is useful. If a worker is involved in an accident, training should be reviewed.

Resources, References, Definitions

Revision History

Revision	Date	Description of Change	Personnel Involved
REV 0	Feb 2020	New SWP	D Yanchula
Rev 1	Feb 2023	Reviewed – No change	D Yanchula