From January to August 2004, 2 workers have died due to vehicle crushing incidents.

In the first work fatality, a 42-year-old auto body repairman died when the car he was repairing rolled off its support and crushed him. The car was jacked up in the body shop when it rolled off the jack and fell on him. The repairman died later that morning due to “traumatic chest compression from vehicular collapse off of jack”.

A 29-year-old service technician died in the second incident when a bus fell on him. The service technician and a coworker were removing tires from an old bus in a grassy area with (2) 20 ton air-over-hydraulic bottle jacks. Two tires were removed from the left rear of the bus and another tire was being placed on the axle. The replaced tire would not fit correctly so the service technician climbed under the bus to adjust the jack. The coworker turned his head away from the victim and when he turned back around, the bus had fallen on the victim. The service technician died from a compound skull fracture. The front wheels of the bus had not been chocked. There was no support blocking of the jack stands or blocking between the cap and the load.

To prevent motor vehicle repair injuries:

- Ensure that vehicles are positively restrained from moving with chocks.
- Do not place jack stands under potential moving vehicle parts.
- The space under a jack-suspended vehicle should not be entered unless suitable vehicle support stands are utilized.

**Vehicles Should Be Positively Restrained to Prevent Rolling.**
**Ensure that vehicles are positively restrained from moving with chocks.**

Wheels that are not to be jacked should be blocked with chocks, both front and back, to prevent moving. Additionally, ensure all brakes are applied. Do not use the jack if any cracks or weaknesses are found.

**Do not place jack under potentially moving vehicle parts.**

A jack needs to be used on a solid foundation such as concrete to prevent sinking and should be blocked under the load as well. Never use a jack on soft ground.

In order to grip the frame and prevent slippage, the jack should have a serrated surface on the contact point. If the contact surface is smooth or damaged, the jack should not be used as it may slip when the full weight is placed on the jack to prevent slippage.

One suggested way to diagnose movement of the vehicle would be to use a plum bob and string. Attach the plum bob to the bumper and paint a circle on the ground under the plum bob. Monitor the plum bob and if the plum bob moves out of the circle, this indicates that the vehicle is shifting. The vehicle will need to be resecured and ensure all chocks and jacks are in proper position.

According to 29CFR 1910.244(a)(2) (i), as adopted by 803 KAR2:315, the base of the jack and the space between the load and the cap should be blocked.

**The space under a jack-suspended vehicle should not be entered unless suitable vehicle support stands are utilized.**

After a load is raised, it should be cribbed, blocked, or otherwise secured (under 29CFR 1910.244 (a) (2) (iii), as adopted by 803 KAR2:315). When the load is not secure, the load can shift and fall resulting in injuries.

Jacks should be used and operable away from the vehicle so that the space under a jacked vehicle does not need to be entered.

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**References:**
2. California FACE Report #99CA006, California FACE Program, California Department of Health Services, Occupational Health Branch, 1515 Clay St., Suite 1901, Oakland, CA 94612.

For more information, contact:
KY Fatality Assessment & Control Evaluation (FACE) Program, Kentucky Injury Prevention and Research Center (KIPRC)
333 Waller Ave., Suite 202

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