Spot The Safety Violation: 10 Jack Safety Tips

This worker could easily be killed if the car falls off these rigged up jacks. How should he have elevated the vehicle instead’

Workers in many industries have to repair or perform maintenance on cars, trucks or other vehicles or pieces of powered mobile equipment. This work often requires the worker to get underneath the vehicle or equipment. In many cases, the worker should use a jack to elevate the vehicle or equipment. But if a jack isn't available, a worker may improvise'and create a dangerous situation.

In this picture, the worker has used a variety of materials and equipment to elevate the car so he can work underneath it. But the precariously perched car could very easily fall'and

just as easily crush him to death.

The worker should be using one or more jacks to elevate the car safely. But even the use of jacks can be hazardous if they're not used correctly.

Example: While a worker was changing a tire on a tractor, the jack failed. The tractor fell on the worker, injuring his spine and paralyzing him from the waist down. At the time, there were no blocks in place in case the jack failed. His employer pleaded guilty to not using blocking to protect workers. The court fined it $22,000 [*R. v. T & L Den Brok Enterprises Inc.*, [2014] SKPC 97 (CanLII), April 29, 2014].

JACK SAFETY TIPS

To ensure that workers safely use jacks when working on vehicles or equipment in your workplace, have them follow these tips:

1. Determine the weight of a vehicle or equipment before jacking it up and then choose jacks that can safely support that weight.

Example: According to a BC hazard alert, the front end of a semi-truck was jacked up and left supported by a pair of jack stands. The jack stands failed while a worker was underneath it. One side of the front end dropped onto him, causing serious crushing injuries. An investigation found that none of the workers knew the weight of the truck's front end (6 tonnes), where to find that information or the rated capacity of the jack stands that were used (3 tonnes).

2. Check the manufacturer's instructions and the safety labels on the jacks themselves to confirm their capacity. Note that most jack stands must be used in pairs to achieve their rated capacity.

3. Follow the manufacturer's instructions for using the jacks

safely. If the instructions aren’t available, contact the manufacturer or get written instructions from an engineer.

4. Ensure that jacks are assembled and used by qualified workers.

5. Visually inspect the jack before each use by checking for abnormal conditions such as cracked welds, leaks and damaged, loose or missing parts. Don’t use a jack that’s damaged, worn or operates abnormally. Any sign of hydraulic fluid leakage is sufficient reason to remove the jack from use.

6. The jacks should be placed on solid, level ground. If the ground is soft, ensure the jack is supported by a block.

7. Ensure that the lifting end of the jack presses against a solid part of the load or is correctly fitted into the lifting points indicated in the jacking instructions, which may be found on vehicle or equipment decals or on the jack itself.

8. Check the lifting points and the lift adapters for damage or corrosion that may affect the support of the vehicle, and for wet, oily, or slick surfaces that may cause slippage.

9. Use axle stands, blocks or ramps to support the load securely once it’s up. Don’t use cinder blocks or concrete, which may crack under the weight.

10. Once suspended, vehicles and equipment should be properly immobilized, blocked or secured against accidental movement. Otherwise, they could fall on workers underneath them.

Example: A worker in Ontario was replacing a tire on an excavator using two jacks to lift its rear. There were no other stands supporting the vehicle. While he was underneath, the excavator tipped off the jacks, fatally crushing him. The company and its president pleaded guilty to failing to ensure that the excavator was securely and solidly blocked to prevent it from moving or falling on the worker. The court fined the

company $75,000 and the president $10,000 [*Holmes Tire Inc. and Michael Holmes*, Govt. News Release, Aug. 14, 2012].