

NRMCA Monthly Safety Initiative

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Wheel Chock Safety... Let's Just Stop It!

Wheel Chocks and the Ready Mixed Concrete Industry

Wheel chocks are a wedge of sturdy material, such as polyurethane or rubber, placed against a vehicle's wheels to prevent accidental movement. At a ready mixed concrete plant wheel chocks are commonly used for mixer trucks, frontend loaders, hauls trucks, trailers, forklifts, and various other vehicles. Wheel chocks are effective safety devices when used properly. There are several key procedures to proper chocking that may not be obvious to everyone. To ensure safety for both workers and equipment, it is the responsibility of ready mixed concrete producers to make the final determination about proper chocking of a vehicle under the circumstances presented. You cannot simply test a pair of wheel chocks with a specific vehicle on a specified grade and broadly assume that the wheel chocks will hold the same truck every time.

What to Know About Wheel Chock Safety

A number of variables exist when selecting the most appropriate wheel chock used for a mixer truck or loader or shop maintenance truck or any other type of vehicle. Thorough testing must be completed at each location to ensure that specific wheel chocks will meet their specific chocking requirements. In addition, wheel chocks require regular visual inspection for cracking, chipping or other deterioration signaling the need for replacement; however, they should require little or no maintenance. Smaller tire diameters require smaller chocks, while larger ones require larger chocks. Heavier vehicles, like mixer trucks, require larger chocks than lighter vehicles. Chocks need to be positioned in different ways depending on if the ground is level or not. Ensuring that the chocking configuration is correct based on surface grade is paramount for proper chocking. It is important to monitor tire pressure, especially in harsh environments, such as winter months. Improperly inflated tires can lead to chocking failures. Whether the ground is firm, soft, wet, dry, icy, or frozen is a key determination in the type of chock to use. For frozen or icy terrains, choose a chock with a cleated bottom. For severely wet or muddy terrains, multiple chocks may be necessary to ensure safe chocking. Ensure that the brakes are set, the vehicle is at a complete standstill, and that it will not roll forward or backward before chocking the wheels. If you are performing maintenance or parking the vehicle for an extended period of time, chock the wheels. Always ensure the chock is centered and squared with the tire. Position the chock snugly against the tire tread. Always use wheel chocks in pairs. Wheel chocks must be positioned downhill and below the vehicle's center of gravity. On a downhill grade, position the chocks in front of the front wheels. On an uphill grade, position the chocks behind the rear wheels. On a level grade, position the chocks on the front and back of a single wheel.



Wheel Chock Do's and Don'ts

- Think first before using wheel chocks
- Know the hazards associated with wheel chocking
- Wear good work gloves when handling chocks
- Don't use lumber, cinder blocks, rocks, or other make-shift items to chock
- Always use chocks in pairs
- Do place chocks centered and square to the tire
- Inspect chocks on a regular basis for cracks and deterioration
- When not in use, stow chocks safely with tie downs
- Do set the emergency brake prior to chocking



Resources

NRMCA: [Mixer Driver Manual](#) | OSHA: [Mechanical Means to Secure Trucks](#)

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