# MOTION SAFETY

# WHEEL CHOCK GUIDELINES BROCHURE

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# MONSTER ...

# WHEEL CHOCKS FOR GROUND USE

Monster Wheel Chocks comply with the safety requirements of a variety of industries and ensure a safe working environment while your vehicles are at rest. Offered in a variety of styles, our wheel chocks provide a safe chocking solution for any type of vehicle.

Monster Wheel Chocks were engineered in collaboration with safety experts to work with a wide range of ground equipment, commercial, and military vehicles. Whether you are chocking a fully-loaded 400-ton haul truck or a utility trailer, we have the wheel chocks you need to safely secure your vehicle and meet compliance standards.

Monster Wheel Chocks have been field-tested by expert Checkers® team members under various conditions to prove our products prevent nonmotorized, uncontrolled movement of on and off-road vehicles. Checkers® has also worked with a third-party laboratory to certify that each model meet the specifications indicated on the Checkers® Wheel Chock Reference Guide. Specific models of our MONSTER® Wheel Chocks meet specifications required by MSHA (Mine Safety and Health Administration), OSHA (Occupational Safety and Health Administration), SAE (Society of Automotive Engineers), NFPA (National Fire Protection Agency), and the DOT (Department of Transportation).

### GROUND VEHICLE AND EQUIPMENT WHEEL CHOCKS

### HEAVY DUTY WHEEL CHOCKS

- Includes the MC and AT Series wheel chocks
- Urethane makes chocks durable, lightweight and easy to use
- These heavy duty wheel chocks are ideal for Heavy Equipment, Haul Trucks, Loaders, Cranes, Underground Mining Vehicles, Fire Engines and Trucks, Large Military Tactical Vehicles
- After thorough testing, the MC series wheel chocks are approved and being used by Caterpillar and mines worldwide

### GENERAL PURPOSE WHEEL CHOCKS

- Includes the UC Series wheel chocks
- UC Series is constructed of durable, impact-absorbing urethane, creating a lightweight, easy to use chock
- Ideal for Over the Road Trucks, Trailers, Pickups, Utility Vehicles
- UC chocks have been 3rd party tested, certified and trusted by fleets globally

## ADVANTAGES OF USING MONSTER® WHEEL CHOCKS

- We are one of the largest manufacturers of wheel chocks in the world
- We manufacture the most trusted wheel chocks in the highly-demanding mining industry
- Checkers wheel chocks are manufactured at company headquarters in Broomfield, Colorado
- Polyurethane wheel chocks are resistant to extreme weather conditions, tears, abrasions, oils, and solvents
- Polyurethane chocks are extremely lightweight compared to excessive steel and aluminum counterparts
- Long-lasting product life span results in cost savings
- Checkers produces a wheel chock for virtually every type of tire-based vehicle
- Our wheel chocks are engineered to reduce damage to your vehicle's tires
- High visibility safety colors used on most of our wheel chocks
- Checkers wheel chocks satisfy MSHA, OSHA, SAE, NFPA, and DOT compliance standards
- Recessed carrying handles included on most models
- Mounting brackets available for most models

# CHOOSING THE RIGHT MODEL

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**TIRE DIAMETER:** Be sure to pick the necessary Checkers wheel chock based upon your vehicle's tire diameter.

**GROSS VEHICLE OPERATING WEIGHT:** Be sure you understand the vehicle's gross operating weight to ensure you select the correct wheel chock for your specific requirement.

**SURFACE:** Know what type of ground you will be placing your wheel chock on when making your selection. Whether it's a gravel or paved surface, Checkers manufactures wheel chocks that adhere to all types of surfaces.

### WHEEL CHOCK COMPARISONS



Four Monster wheel chocks, model MC3011 used on a 400-ton CAT 797

### **COMPARED TO METAL WHEEL CHOCKS...**

### Urethane Wheel Chocks are:

- Made with high visibility yellow and orange safety colors
- Not painted and will not chip, scratch or peel
- Constructed from a high impact absorbing urethane material
- User friendly with molded-in user guidelines in English on all models, and in English, Spanish, and French on the MC3011
- Easy to transport with molded-in carrying handle (no sharp or jagged edges)
- Not a risk of theft for scrap metal
- Available with anti-skid rubber traction pads on MC & AT series
- No threat of tire puncture
- Non-conductive



Monster Urethane Chock model UC1500-6 being used on a mine support truck

### **COMPARED TO WOOD WHEEL CHOCKS...**

### Urethane Wheel Chocks are:

- Maintenance free resistant to fuels, oils & lubricants
- Weather and abrasion resistant will not rot, crack or split like wood
- Not painted, and will not chip, scratch or flake
- Constructed from a high impact absorbing urethane material
- Available with anti-skid rubber traction pads on MC & AT series
- Lightweight and will not get waterlogged, heavy, or hard to handle like wood
- Easy to transport with built-in carrying handle
- Available with optional mounting brackets
- Foreign Object Debris (FOD) Compliant



Four Monster wheel chocks, model MC3011 used on a 400-ton Liebherr haul truck

### **COMPARED TO RUBBER WHEEL CHOCKS...**

### **Urethane Wheel Chocks are:**

- Lighter weight
- Weather and abrasion resistant will not dry rot, crack, or chip like rubber
- High load bearing capacity
- Resistant to fuels, oils & lubricants
- Constructed from a high impact absorbing urethane material
- Engineered and built to last longer
- Easy to transport with built-in carrying handle
- Available with optional mounting brackets



# **PROPER CHOCKING PROCEDURES FOR WHEEL CHOCKS**





### WHEEL CHO<u>CK USER <mark>GUIDELINES</mark></u>

IMPORTANT SAFETY WARNINGS AND INSTRUCTIONS: Wheel chocks are effective and safe holding devices when used properly. Users must comply with all warnings and instructions provided with the Checkers wheel chock product. Wheel chocks must be used in pairs, positioned downhill firmly against the tire and below the truck's center of gravity. This could mean chocking in front of the front wheels if the truck is disabled while traveling down a grade or chocking the back of the rear wheels if the truck is disabled while traveling up a grade. This could also mean chocking the front and back of one wheel if the direction of the grade cannot be determined, or even using multiple pairs of chocks in severe conditions. Wheel chocks must also be positioned firmly and squarely against the center of the tire tread. Improper positioning decreases the wheel chock's effectiveness. Although these are generally accepted chocking procedures, it is the responsibility of the end user to make the final determination about proper chocking of a vehicle under the circumstances presented.

It is our goal to educate end users on the proper use of wheel chocks. We want to create safety awareness so that users can avoid the potentially severe dangers of not using wheel chocks, or not using them properly.

Many factors must be considered before using wheel chocks. The user must take into account multiple variables that may affect the wheel chock's performance including:

- A. Tire Size (See Checkers Wheel Chock Selection Guide)
- B. Gross Vehicle Operating Weight (See Checkers Wheel Chock Selection Guide)
- C. Level or grade of the ground surface
- D. Radial tires vs. Bias Ply tires (Radial tires by design deflect more than a bias-ply tire. This flexibility provides a smooth ride but also allows the tire to wrap around the wheel chock, thus reducing the chock's effectiveness)
- E. Varying tire pressures that naturally occur with changes in the environment
- F. Condition of ground surface (i.e. firm, soft, wet, dry, icy, frozen)

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. Countless combinations of conditions exist and this must be considered when selecting the most appropriate wheel chock for each application. Thorough testing must be completed at each location to ensure that specific wheel chocks will meet their specific chocking requirements.

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.

# MONSTER Wheel Chocks meet the requirements of the DOT, NFPA, SAE, OSHA and MSHA as specified below:

### **OSHA SPECIFIES:**

### 1910.178(k)...

(1) The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.

### 1910.178(m)...

(7) Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailer, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semitrailer during loading or unloading when the trailer is not coupled to a tractor.

### 1910.111(f)...

(9) Chock blocks. At least two chock blocks shall be provided. These blocks shall be placed to prevent rolling of the vehicle whenever it is parked during loading and unloading operations.

### **MSHA SPECIFIES:**

### **MSHA Standard for Surface Operations**

30 CFR § 56.14207 - Parking procedures for unattended equipment. Mobile equipment shall not be left unattended unless the controls are placed in the park position and the parking brake, if provided, is set. When parked on a grade, the wheels or tracks of mobile equipment shall be either chocked or turned into a bank.

### MSHA Standard for Underground Mines

30 CFR § 57.14207 - Parking procedures for unattended equipment. Mobile equipment shall not be left unattended unless the controls are placed in the park position and the parking brake, if provided, is set. When parked on a grade, the wheels or tracks of mobile equipment shall be either chocked or turned into a bank.

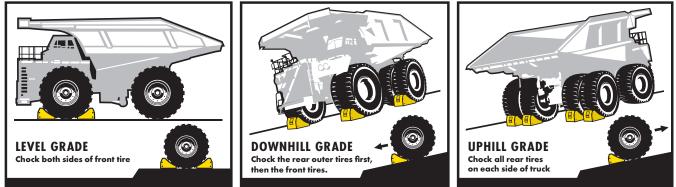
### MSHA Standard for Procedures During Repairs or Maintenance

30 CFR § 56.14105 - Repairs or maintenance of machinery or equipment shall be performed only after the power is off, and the machinery or equipment blocked against hazardous motion. Machinery or equipment motion or activation is permitted to the extent that adjustments or testing cannot be performed without motion or activation, provided that persons are effectively protected from hazardous motion.

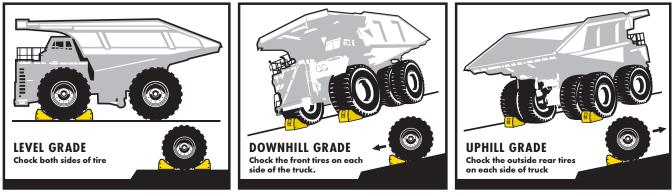
WARNING: Individual end user testing required to ensure proper chock selection and application

# WHEEL CHOCK GUIDELINES

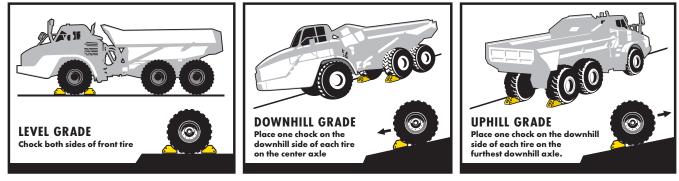
### **PROPER CHOCKING PROCEDURES FOR PAYLOADS OVER 240 TONS**



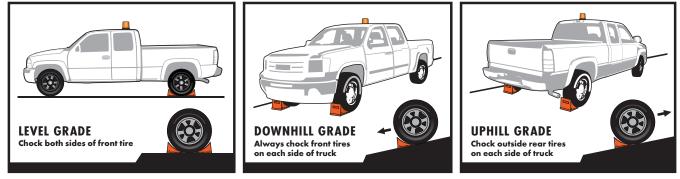
### **PROPER CHOCKING PROCEDURES FOR PAYLOADS UP TO 240 TONS**



### **PROPER CHOCKING PROCEDURES FOR ARTICULATED TRUCKS**



### **PROPER CHOCKING PROCEDURES FOR VEHICLES WITH TWO OR MORE AXLES**



NOTE: Diagrams shown are for land vehicle use only. For more detailed information and for aviation chock user guidelines, visit our website at www.monster-safety.com.

VER: WCUG 9/16



### Wheel Chock Reference Guide

We have set the standard. Checkers is the first manufacturer to test and certify our wheel chocks to provide an easy to use Wheel Chock Reference Guide.

	UP TO 32" DIAMETER (81.3 cm)	UP TO 35" DIAMETER (88.9 cm)	UP TO 38" DIAMETER (96.5 cm)	UP TO 46" DIAMETER (116.8 cm)	UP TO 65" DIAMETER (165.1 cm)	UP TO 95" DIAMETER (241.3 cm)	UP TO 105" DIAMETER (266.7 cm)	UP TO 142" DIAMETER (360.7 cm)	UP TO 165" DIAMETER (419.1 cm)	
Up to 30,000 lb. (13,608 kg)	UC1700/ UC1400-4.5	UC1700	UC1500-4.5	UC1500-4.5	MC3009/ UC1210	MC3010	-	-		
Up to 40,000 lb. (18,144 kg)	UC1600/ UC1400-6	UC1600	UC1500-6	UC1500-6	MC3009/ UC1210	MC3010	MC3010	-	-	
Up to 50,000 lb. (22,680 kg)	UC1400-6	UC1500-4.5	UC1500-6	UC1500-6	MC3009/ UC1210	MC3010	MC3010	-	-	
Up to 60,000 lb. (27,216 kg)	UC1500-4.5/ UC1400-6	UC1500-4.5	UC1500-6	UC1500-6/ AT3514	MC3009/ UC1210	MC3010	MC3010	-	-	
Up to 70,000 lb. (31,751 kg)	UC1500-6	UC1500-6		AT3514	MC3009/ UC1210	MC3010	MC3010	-	-	
Up to 80,000 lb. (36,287 kg)	AT3512			AT3514	MC3009/ UC1210	MC3010	MC3010	-	-	
Up to 150,000 lb. (68,039 kg) *35 ton	-		-	AT3514	MC3009/ UC1210	MC3010	MC3010	MC3012	MC3011	
Up to 245,000 lb. (111,130 kg) *70 ton	-	-	-	MC3009	MC3009/ UC1210	MC3010	MC3010	MC3012	MC3011	
Up to 366,000 lb. (166,015 kg) *100 ton	-	-			MC3010	MC3010	MC3010	MC3012	MC3011	
Up to 550,000 lb. (249,476 kg) *165 ton	-	-	-	-	MC3010	MC3010	MC3010	MC3012	MC3011	
Up to 855,000 lb. (387,821 kg) *240 ton					-	MC3012	MC3012	MC3012	MC3011	
Up to 1,600,000 lb. (725,748 kg) *400 ton	-	-	-	-	-	MC3011	MC3011	MC3011	MC3011 (Min. 4 Required)	
Up to 1,600,000 lb. (725,748 kg) *400 ton	-	-	-	-	-	-	MC3000	MC3000	MC3000 (Only 2 Required)	

### **TIRE DIAMETER RANGE**

\* Maximum Load Capacity, Ton = 2,000 lb. (907 kg)



# WHEEL CHOCK GUIDELINES

# WHEEL CHOCKS

Monster wheel chocks comply with the safety requirements of a variety of industries and ensure a safe working environment while vehicles are at rest. Offered in a variety of styles, Monster wheel chocks provide a safe chocking solution for any type of vehicle. Monster chocks were engineered in collaboration with safety experts to work with a wide range of ground equipment, commercial, and military vehicles.



### **MINING CHOCKS**

Model # MC3000

- Light weight with tough urethane construction
- Optional studs available for snow and ice
- Chocking protocols imprinted on back of chock





# **ALL-TERRAIN CHOCKS**

Model # AT3512

**RUBBER CHOCKS** 

Model # RC915

against tire

unloading

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- Light weight with tough urethane ٠ construction
- Chocking protocols imprinted on back of chock
- Complies with SAE-J348, NFPA 1901, and NFPA 1906 Standards

Either side can be positioned

Ideal for keeping truck trailers

in place during loading or

Durable rubber construction



# **HEAVY DUTY CHOCKS**

Model # MC3011

- Tough urethane construction
- Mounting hole for ropes or chains
- Designed for haul trucks and heavy equipment
- Lightweight compared to steel and aluminum counterparts

### **GENERAL PURPOSE CHOCKS**

Model # UC1700

- Oil and chemical resistant
- Designed for utility vehicles
- Mounting hole for ropes, chains or brackets
- Mounting brackets available
- Recessed carrying handle •

### **AVIATION CHOCKS**

Model # AC4600

- For mid-size to large aircraft
- Impact-absorbing, lightweight urethane
- Weather and abrasion resistant
- Resistant to aircraft fuels, oils, and lubricants





### **MONSTER MOTION SAFETY<sup>™</sup>**

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For more information visit: www.checkers-safety.com

Checkers Safety Group is committed to providing revolutionary product designs and visionary safety solutions that protect people, assets, and the environment.

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NOT RESPONSIBLE FOR BROKEN WINDSHIELDS