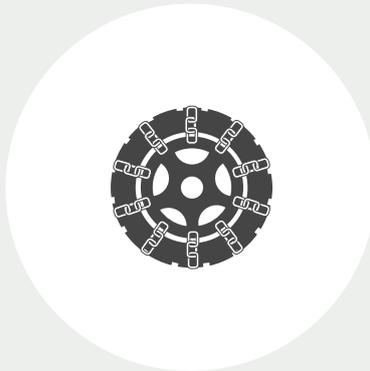


Tire chains – what alternatives?



Automatic tire chains



Conventional tire chains



Textile tire socks



As a professional rescue driver, you know the importance of keeping response time as short as possible. Effective traction control reduces the risk of delays caused by slippery road conditions. In this sense, traction control is a tool for keeping response times short. Conventional tire chains are well-tried and effective to increase road grip, but there are flaws. For example the time for mounting and dismounting considerably increases response time. Even though textile tire socks are lighter and faster to mount, you still need to stop the vehicle and get out to mount. That is why automatic tire chains may be the optimal traction control for your rescue vehicle: Instant traction just by flipping a switch in the cab. You don't even have to stop!

Automatic Tire Chains



The Onspot Automatic Tire Chain System is an uncomplicated yet very reliable solution for increasing traction. It's a chain wheel attached to a rotatable arm that in turn is permanently mounted on the vehicle.

When it's engaged, compressed air swings the arm so the chain wheel gets contact with the drive wheel. The contact between the tire and the chain wheel causes the chain wheel to rotate, creating enough centrifugal force to swing the chains out in front of and under the tire. In this way traction is increased similar to conventional tire chains. When the system is disengaged the arm swings back the chain wheel to its resting position.

The system is engaged (and disengaged) while driving. It is conveniently controlled from a switch on the dashboard so the driver doesn't have to leave the cab.

Service, maintenance and consumption

Onspot Automatic Tire Chain System requires very little maintenance. Typically, engaging the system occasionally – in order to keep the bearings in good condition – is sufficient.

The chains will typically last for 2,000 engaged miles (3,000 km) and are easily replaced.

Pros

- Permanently mounted – always ready to use
- Activated by switch – driver stays in cab
- Weight optimized
- Durable and reliable
- Custom fit – simplified installation and long product life
- Works forward, in reverse and together with ABS braking
- Activated and operated without having to stop the vehicle – up to 35 mph (50 km/h)
- Reduces braking distance
- Only used when required – chains last longer

Cons

- Does not work when the chain wheel cannot spin freely (e.g. off-road)
- Reduced effectiveness in deep snow
- Max speed 35 mph (50km/h)

Conventional tire chains



Conventional tire chains are a set of metal chains that are attached to the drive wheels to increase traction. They must be matched to a particular tire size (tire diameter and tread width). Fitting to the tire is very important. Poorly fit – or poorly mounted – tire chains may come loose and damage the vehicle.

Service, maintenance and consumption

Conventional tire chains are service and maintenance free.

Pros

- Simple and well-trying design
- Durable
- Works in virtually all snow and ice conditions
- Fits all vehicles
- Locally available in most regions
- Works forward, in reverse and together with ABS braking
- Reduces braking distance

Cons

- Heavy and time-wasting manual mounting
- Limited speed
- Driver must leave the cab to mount
- Driver must leave the cab to dismount
- May cause damages on vehicle if not mounted properly

Textile tire socks



Textile tire socks are designed as a temporary winter traction aid. They increase tire to road grip and traction when driving under adverse winter conditions. Compared to conventional tire chains textile tire socks are quick and easy to mount. However, due to their textile nature they should be dismantled immediately on dry roads – otherwise they will wear down very quickly. Also, they must not be left mounted when the vehicle is parked because if the sock freezes to the ground it might shred when the vehicle starts moving.

Service, maintenance and consumption

Textile tire socks are service and maintenance free. However, due to textile wear and tear they need to be entirely replaced often compared to more robust solutions e.g. tire chains.

Pros

- Extremely light weight and easy to store
- Easier to mount compared to conventional tire chains
- Works forward, in reverse and together with ABS braking
- Reduces braking distance

Cons

- Does not withstand dry road surfaces e.g. asphalt
- Risk of shredding if frozen to the ground
- Must be removed immediately if road is dry
- Driver must leave the cab to mount and dismount
- Max speed 35 mph (50 km/h)