

## Vehicle maintained:

# Load distribution and securement

Use this guide to help lead a discussion with employees on the importance of loading trailers properly and ensuring items are secure to help prevent accidents. Empower them with strategies to minimize risks and become safer drivers. Use the form on Page 2 to record meeting details.

Making sure that trailers are properly loaded, and items secured can help reduce accidents that occur when things fall from a trailer, or the trailer affects the driver's ability to control the entire combination. Many of the load securement regulations found in FMCSA 49 CFR Part 393 can be considered best practices even for vehicles not covered under federal regulations. Review with your drivers the following concepts if they are loading and securing materials to trailers.

### 1 Determine the weight and length:

- Know the weight and length to determine the working load limits (WLL) of the securement devices needed to properly secure the loads.
- Secure 50% of the weight of the loads with properly rated securement devices.
- Note that nylon straps default to 1000 pounds per inch WLL but can be rated higher.
- Chain WLL depends on size and grade.

### 2 Use sufficient securement devices:

- Items up to 10 feet long, use at least two devices securing at least 50% of weight.
- Add an additional device for each additional segment of 10 feet.
- When securing vehicles or other wheeled equipment, use 4 direct tiedowns at each axle, each with its own tensioning device or binder. With heavier vehicles, use chains.
- Block tires when loading to prevent movement. Lower hydraulic attachments to trailer.
- Recalculate to ensure the number and WLL rating of the devices can secure 50% of the vehicle weight.

### 3 Pre-trip check for securement devices:

- Drivers should verify the WLL of the securement device prior to using it.
- Always inspect for defects that may reduce effectiveness.
- Make sure drivers understand what devices to avoid—bungee cords or small personal-use type straps.

### 4 Inspect securement points on the trailer:

- This is just as important as inspecting securement devices.
- Examine attachment points for any cracks or looseness.
- Drivers should only attach devices to solid points.

### 5 Load distribution:

- When pulling trailers at highway speeds stability is affected so use the 60-40 rule when loading trailers.
- Place 60% of the weight in front of the trailer axles.
- Place the remaining 40% behind the axle.

For additional information related to driver safety, visit [MyNSightOnline.com/DriveThe5](https://MyNSightOnline.com/DriveThe5)

For further guidance, refer to Federal Motor Carrier Safety Administration 49 CFR Part 393 ([ecfr.gov/current/title-49/part-393](https://ecfr.gov/current/title-49/part-393)).



For assistance with risk management services or safety resources, contact us at [RMSolutions@nationwide.com](mailto:RMSolutions@nationwide.com) or 1-800-260-1356.

# Toolbox Talk

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

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## Discussion notes:

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