



Competency 7

Securing the Goods

Lesson Objectives:

- Recognize the hazards associated with loading and unloading
- Applying securement standards

Hazards

Most workplace accidents involving truck drivers occur during the loading or unloading of their vehicles. Depending on the type of transport, the associated risks are more or less great.

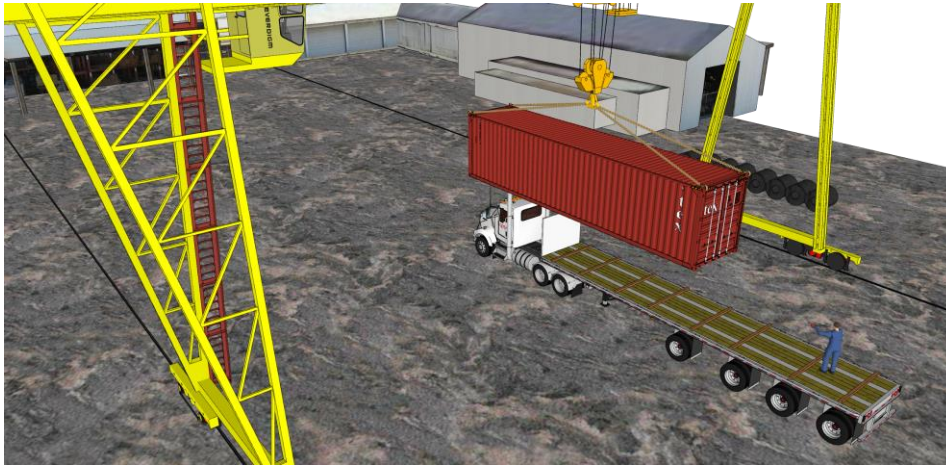
Identify hazards and risks in loading and unloading flatbed transport.

Side loading: **Find the error.**



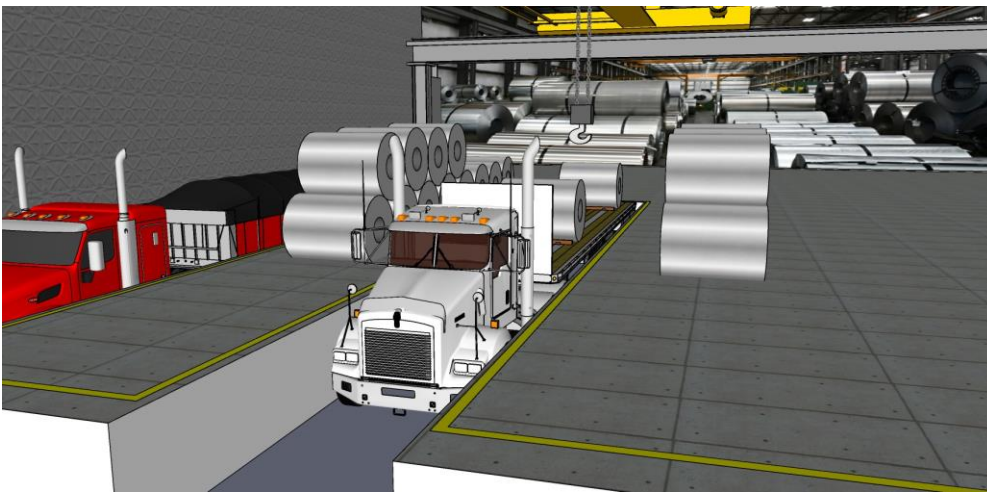
Hazards and risks:

Overhead loading: **Find the error.**



Hazards and risks:

Loading in a bay:

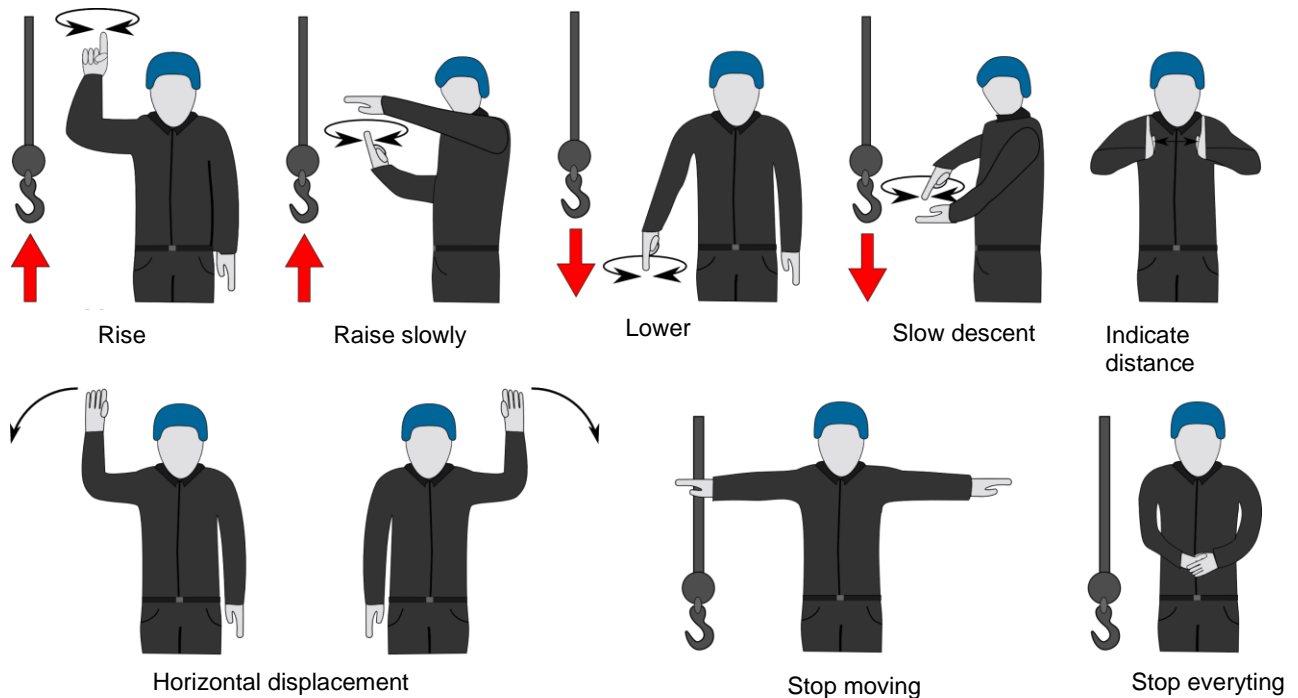


Hazards and risks:



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Common gestures of communication with the crane operator.



Crane operator's sound signals

Made with the horn, sound signals are used to alert and warn people in the vicinity of the crane. You can listen to the sounds by clicking on the green square.

The way to use the sound signal is represented by dots or dashes. Explanations are given each time.



1 short horn blast.

The crane operator has received the order given to him.



2 short horn blasts.

The crane operator did not understand or did not hear the order given to him, and he asks to be told again.



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Long, rushed signals (to be continued as long as the danger is present). The crane operator honks the horn in this way to warn others of a danger.

For example:

- when a person is about to pass under the load.
- when the crane operator sees an anomaly (poorly tied load...)



Continuous signal.

The crane operator keeps pressing the button to warn that they are in trouble.

For example, the wind is too strong and the crane operator has a hard time holding their boom.



Isolated and spaced signals.

Is done throughout the travelling when a crane is mounted on a travel track. Used to warn that the crane is moving.

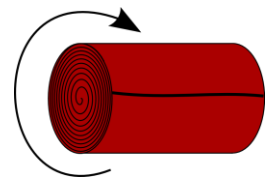
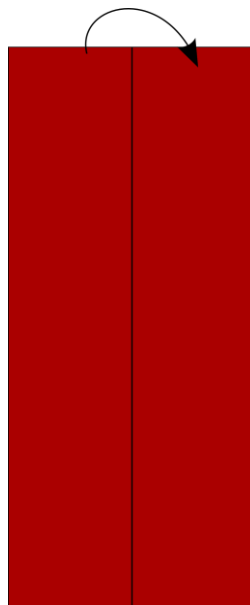
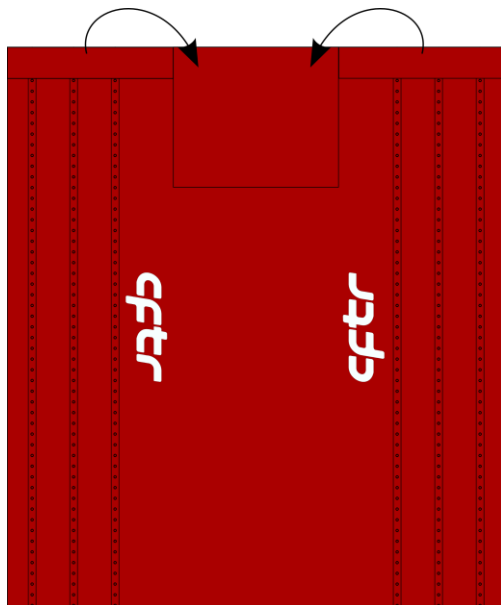
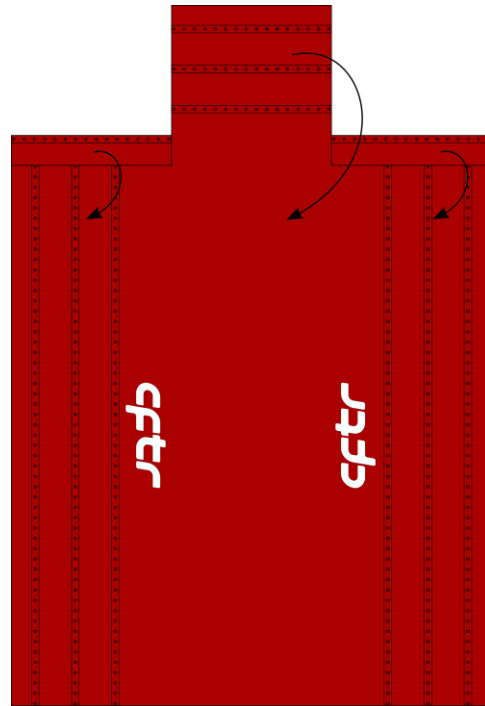
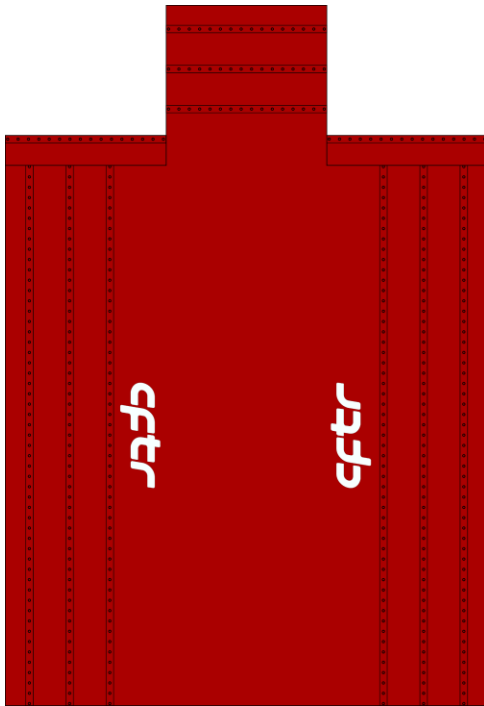


Identify the hazards and risks in loading and unloading of canvas-bound transport.



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How to fold canvas

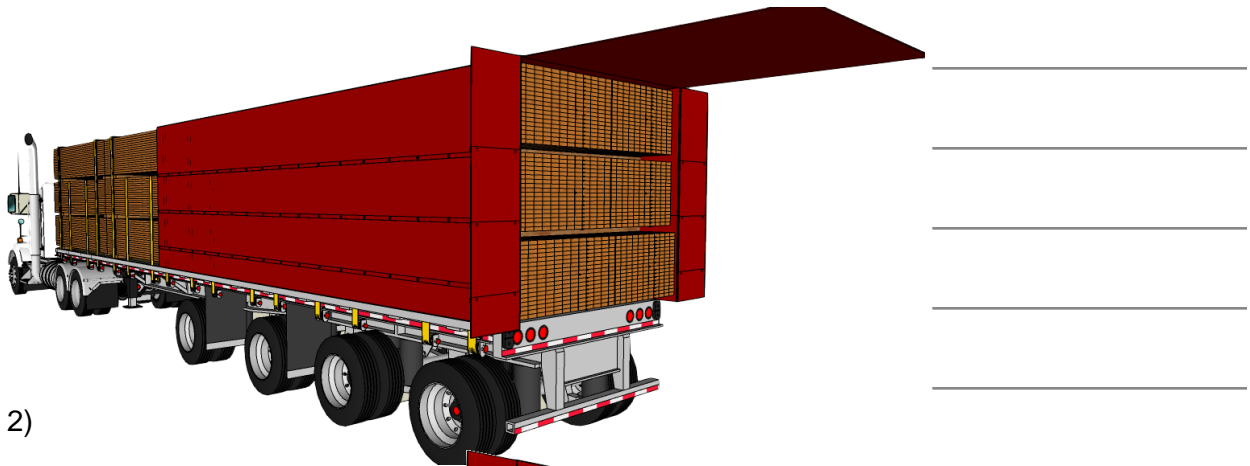


Installation de toiles

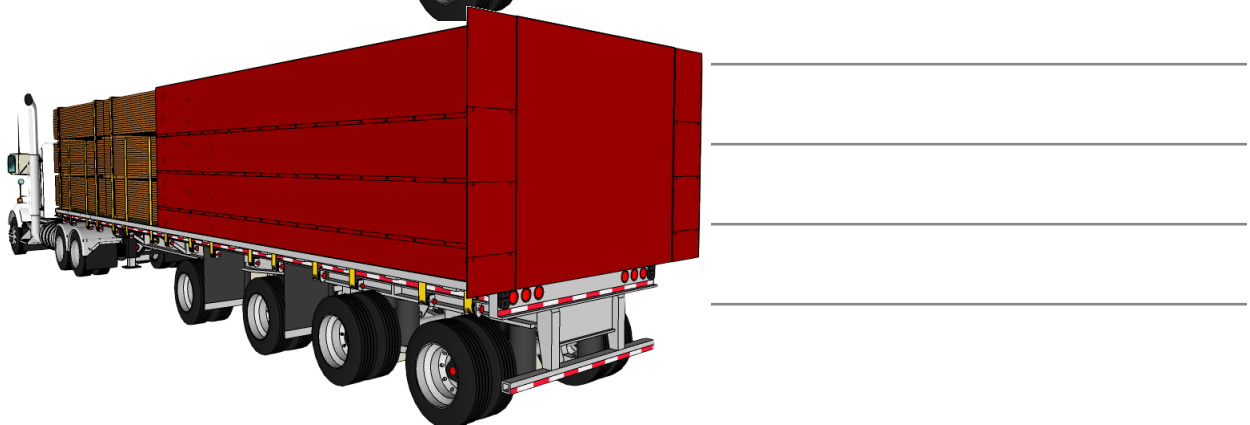


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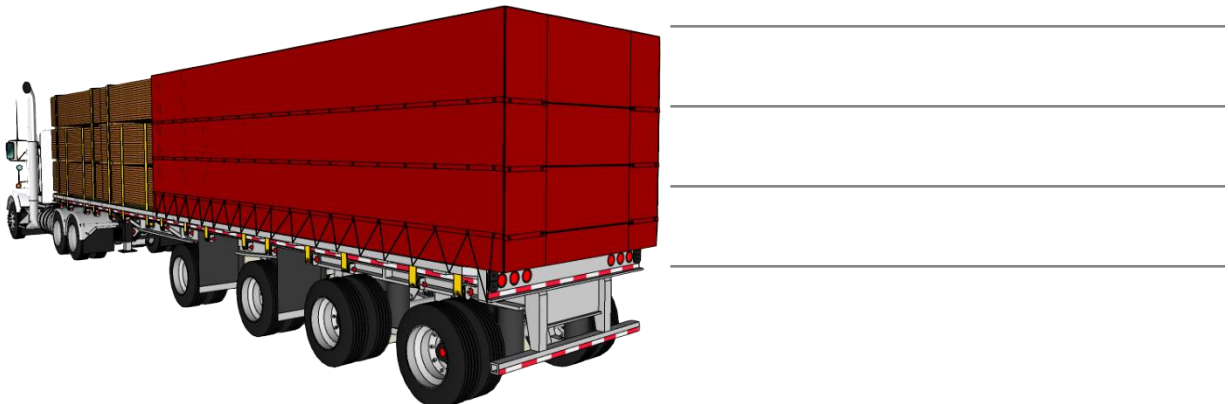
How to install canvases 1)



2)



3)



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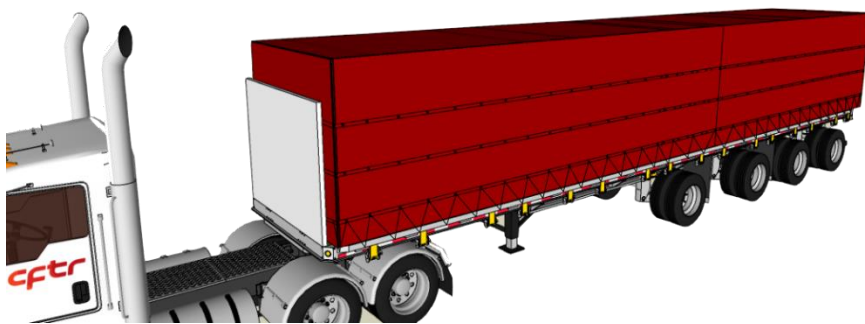
4)



5)



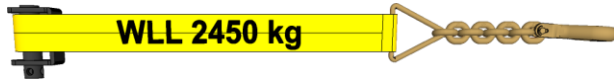
6)





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Return exercises



As you draw lines, place the necessary tie-down straps to secure subsequent loads.

CARGO ANCHORING / ANCRAGE DE CHARGEMENT		
<small>Cargo anchoring devices installed by Manac have been tested and are certified for the CMVSS 905 requirement. (Working load limit - Minimum 5000 lbs)</small>		<small>Les ancrages de chargement installés par Manac ont été testés et certifiés pour être conformes à la réglementation CMVSS 905. (Limite minimale de 5000 lbs de charge de travail)</small>
ANCHOR TYPE	WLL / LCT	TYPE D'ANCRAGE
Winch binder installation	5500 lbs	Installation des treuils
Floor tie-down chains	5500 lbs	Chaînes d'attaches dans le plancher
Floor chains	5500 lbs	Chaînes d'attaches dans un dalot
Floor D-rings (3/4" dia)	5500 lbs	Anneaux en "D" (3/4" dia) sur plancher
D-rings (1" dia)	12000 lbs	Anneaux en "D" (1" dia)
Rub rail spacers	5500 lbs	Espaceurs de bande de frottement
Stake pockets	5500 lbs	Pochettes latérales
J-hooks on side rail	5500 lbs	Crochet en "J" sur longeron de côté
Cargo hands	5500 lbs	Mains d'attaches
Bar attached	5500 lbs	Barre d'attache

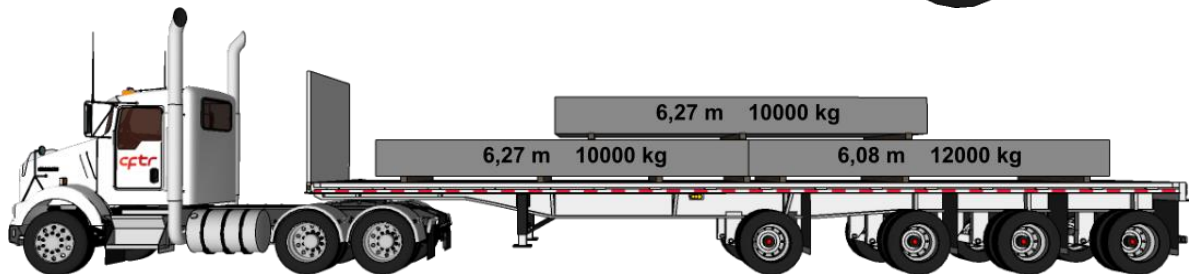
Web belts and chains are not certified by Manac. Les courroies et les chaînes ne sont pas certifiées par Manac.

manac 30380371 (REV.06/12)

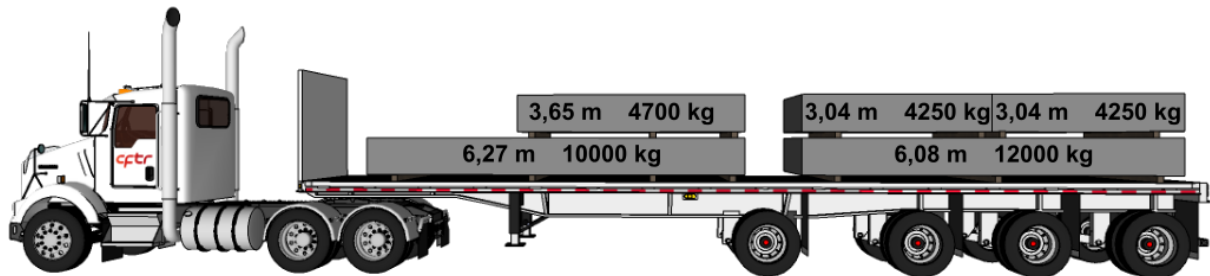
1)



2)



3)



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You can chose among the following devices; which ones would you use to perform the securement in the scenarios on the following pages?



1)



2)



3)



4)





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5)



6)



7)



8)





(7.7)











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13)



Would you know how to tell if your securement material was in bad shape?

Except in specific situations, the securement of the goods will be done with either straps or chains. Steel wire ropes are also used for some loads.

All of the securement devices must be thoroughly inspected before use. Unless otherwise specified, any alteration seen in a given device will result in the removal of that device. Otherwise, fines may be imposed on the driver and operator.

The following are examples of defective

devices. Straps



Decommissioning criteria:



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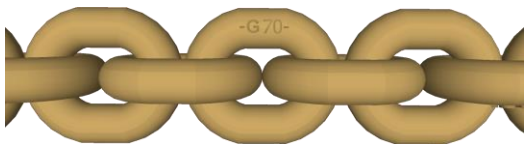
Chains



Decommissioning criteria:

Look for stretched, nicked, bent or worn links, as well as for components (including hooks) that may have an open groove, a crack or a deformation. If a component is damaged, decommission the device.

Grade 70 chain or conveyor chain



The grade 70 chain is designed to work with securement devices. Its strength to weight ratio is greater than that of an ordinary round chain. It meets the standards of the DOT (Department of Transport). It is usually golden in color. Its capacity is permanently stamped, on one of every ten links. You will see the indication of its "WLL" or one of the following numbers: 7, 70 or 700.

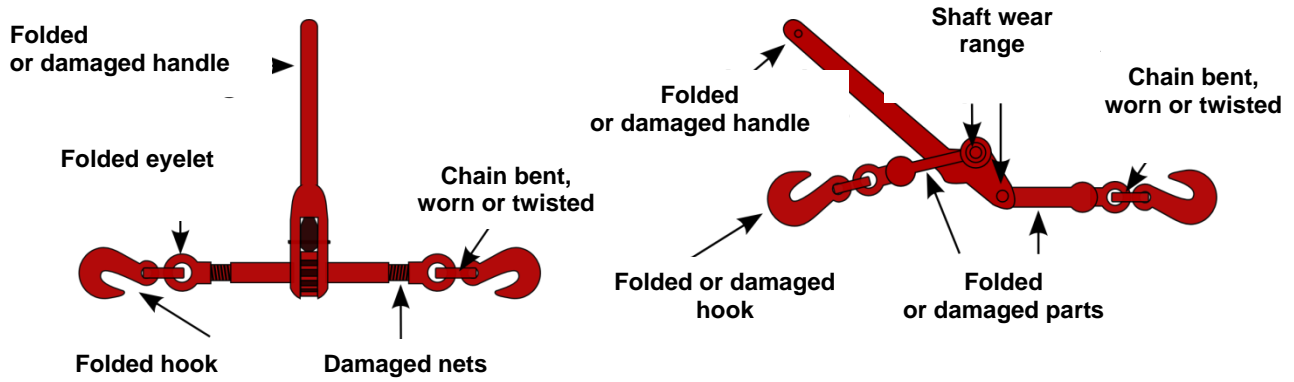
This chain is not designed for overhead lifting.



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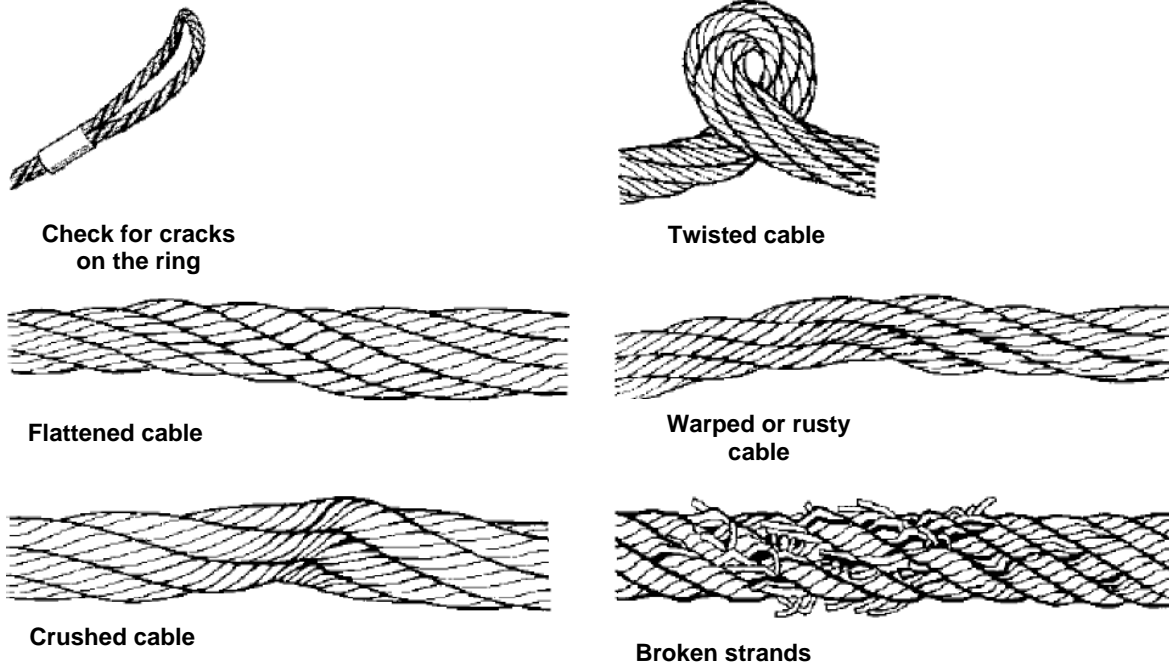
Tensioners

Decommissioning criteria:



Steel wire ropes

Decommissioning criteria:



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Arrangement of the goods on a flatbed semi-trailer.



Find the error.



Find the error.



(7.7)

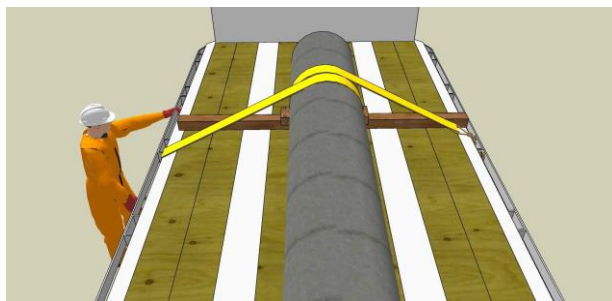


Find the error.

Tips from a pro

Cylindrical parts

It is not easy to secure this type of cargo, since it is difficult to achieve the optimal value of the pressure force exerted on it. One way to increase the friction on the object is to make a magnifying glass with the straps around it. This magnifying glass acts as a bottleneck if there is forward movement.



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Separating the tiers

According to the regulations, when lumber bundles are transported on a flatbed semi-trailer and there are more than two tiers, tie-down straps must be placed over the middle tier of bundles for each stack of bundles over 1.85 meters high.



Applying the same technique to other types of cargo can only increase the strength of the securement.



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Blocking at the front with securement

For various reasons, it is sometimes impossible to block the cargo at the front. However, it is possible to provide for blocking with the help of tie-down straps.



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