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# ProLoader

## Trainer Manual

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[www.project-futuredrv.eu](http://www.project-futuredrv.eu)

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This document is a summary of how the Professional Loader (ProLoader) training app can be used in driver training, with technical information, detailed description of content and the correct answers. This Truck Driver Training Pilot has been produced as a part of the project FutureDRV, funded by the Erasmus+ programme of the European Union.

## How to use the application in training

ProLoader is a fun way to evaluate someone's knowledge in load securing. Your mission is to check the load before departure. Is it safe to drive or are there any faults? You need to consider a lot of things before clearing the transport:

- Friction between trailer floor and goods (And between layers of goods)
- Weight of goods
- Centre of gravity of goods
- Type of lashing method
- Numbers of lashings
- Type of lashing tools and status of equipment

The ProLoader app is available in 4 languages: English, German, French and Hungarian.

The pilot can be used in several different ways, or in combinations:

- **In classroom:** Proloader can be used as a tool to start a dialogue with the class. The instructor can choose a suitable scenario and ask the class to help out in solving it. It can also be used as a motivating competition to finish a training class in a fun and memorable way.
- **In group:** It's also possible to divide the class in several smaller groups and make them compete against each other to increase interest and motivation. First group to finish a challenge can present their strategy for the whole class.
- **Using the app individually** to practice how to calculate sufficient load securing. You can pass the levels in the game quite easy, but you have to try it several times to get three stars on all the exercises.

Of course, this training can be **used individually** after training as a repetition. Why not compete against colleagues?

## How to play

You need to check cargo and lashings by clicking on every object. Make sure that the cargo can't glide or tip by doing these steps:

1. Determine lowest friction between materials (see friction table)
2. Use table for actual lashing method. How many lashings are needed to prevent cargo from GLIDING?
3. Use table for actual lashing method. How many lashings are needed to prevent cargo from TIPPING?
4. Report any errors found by pressing "Faulty" button (while cargo is activated)
5. Check all lashing equipment for damages or errors.
6. Report any errors by pressing Faulty button (while lash is activated)
7. Press "Inspection done" when all objects are reported.

(Note: A cargo can have more than one fault!)

### Information about the use of tables:

The tables used in this software uses the standard EN 12195-1:2010

The friction table is valid for both dry and wet conditions

If you can't find a matching material in the table, use 0,3 as minimum friction.

This app is design so that it should be hard to complete. As a training instructor you should go through the levels and learn how to solve the challenges before training session. Correct answers for the challenges are presented below.



## Technical information

There are two versions available: An Android version and a browser version for web. The Android version is faster with better graphics, but it needs installation on your smart phone or tablet. A tablet is preferred because of the larger screen size. The ProLoader web version works as a webpage, but with less performance than the smart phone app version.

### Installation guideline:

Download installation file (.APK) to your phone (<https://www.project-futuredrv.eu>)

1. After downloading is complete, go to the "My files manager" app on your phone
2. Click the downloaded file and choose "install".
3. Depending on your operation system, you will probably have to confirm the installation
4. If you're not able to install the .apk file, change following setting (on most Android devices):
  - Go to your phone's **Settings**.
  - Go to **Security & privacy > More settings**.
  - Tap on **Install apps from external sources**.
  - Select the browser you want to download APK files from.
  - Toggle Allow app installs ON.

You can also use the browser version of ProLoader: [www.project-futuredrv.eu/proloader](http://www.project-futuredrv.eu/proloader)

This version can be used with most modern browsers. If you would like to install it locally on your computer you must use the Firefox browser, otherwise you need to install the web files on a web server.

For further information on this application please get in touch with:

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## Content manuscript with correct answers

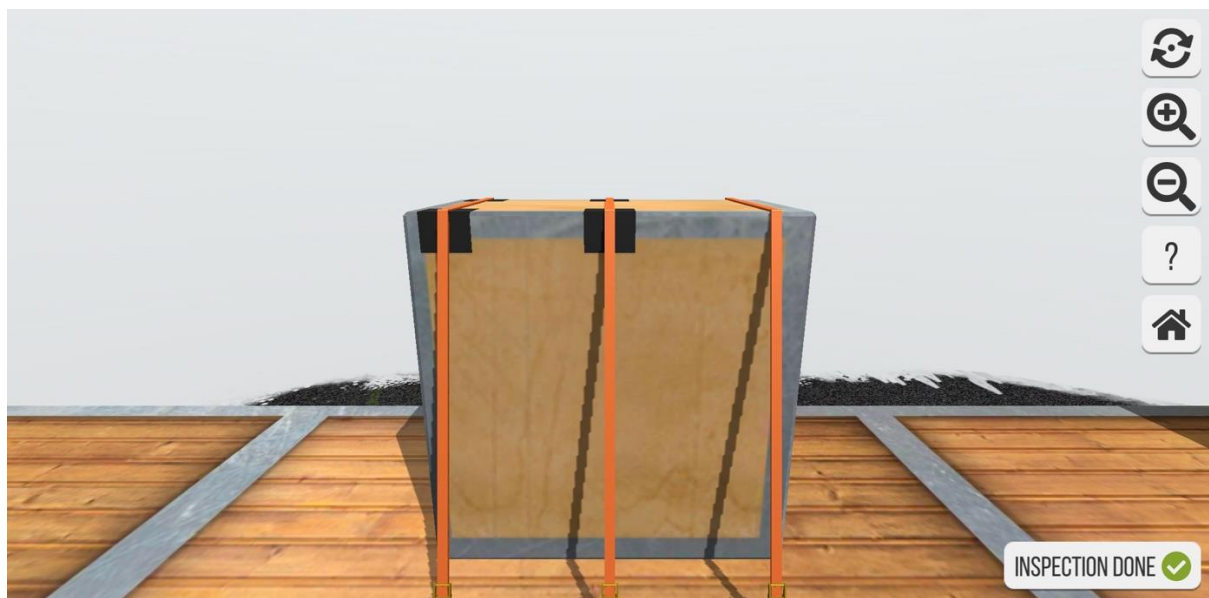
The scoring system works like this: **Hidden errors: Error A, Error B, Error C**

(The first “Error A” is the most important error. This gives you two stars

The second/third “Error B/Error C” is of minor importance. They give one star each.

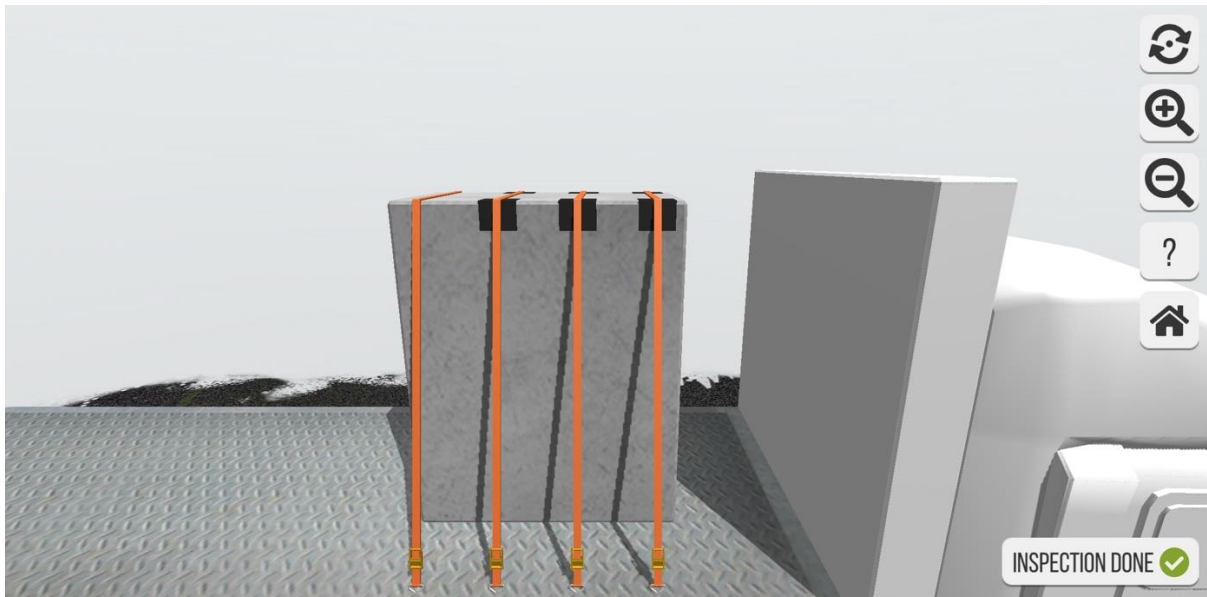
note: if there are only one error, this error will give 3 stars). “Forward” refers to the direction of the truck.

### Scenario 1



**Hidden errors:** Forward top-over lashing: Edge protection is missing. Wooden box: Not enough top-over-lashings

## Scenario 2



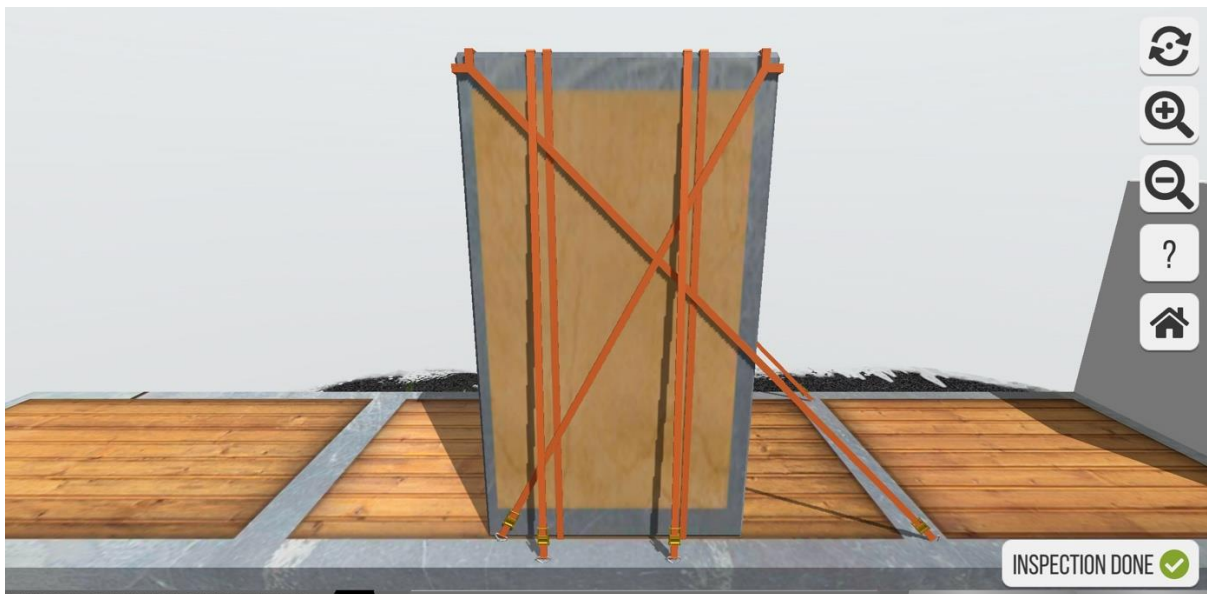
**Hidden errors:** Backward top-over lashings: Edge protection is missing. Concrete object: Not enough top-over-lashings

## Scenario 3



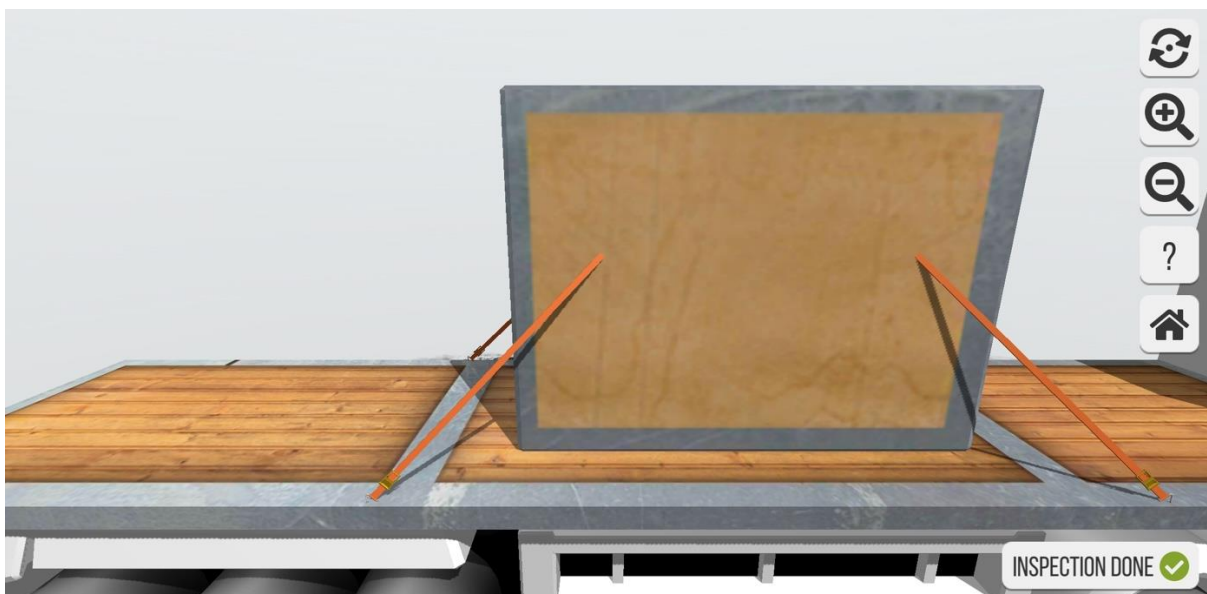
**Hidden errors:** Third top-over lashing from the back: Lash is not correctly pre-tensioned

## Scenario 4



**Hidden errors:** Forward direction spring lashing: Lash is worn and could break. Backward direction spring lashing: Lash has a faulty angle

## Scenario 5



**Hidden errors:** Backward right straight lashing: Lash label is missing. Forward right straight lashing: Lash is worn and could break. Wooden box: Lashings are too weak

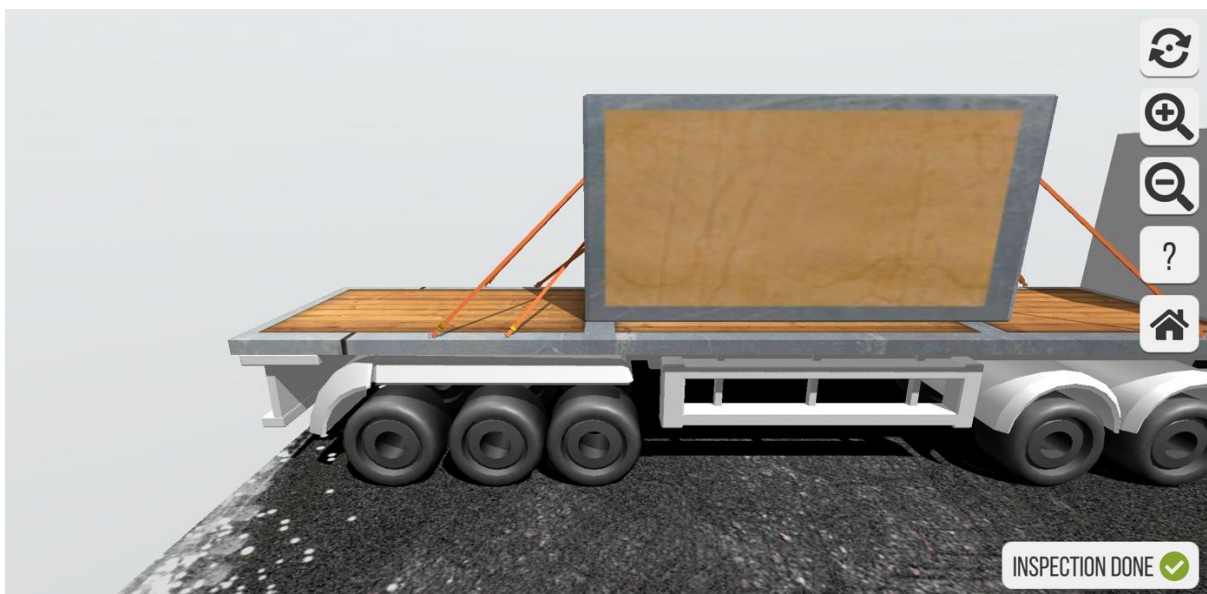


## Scenario 6



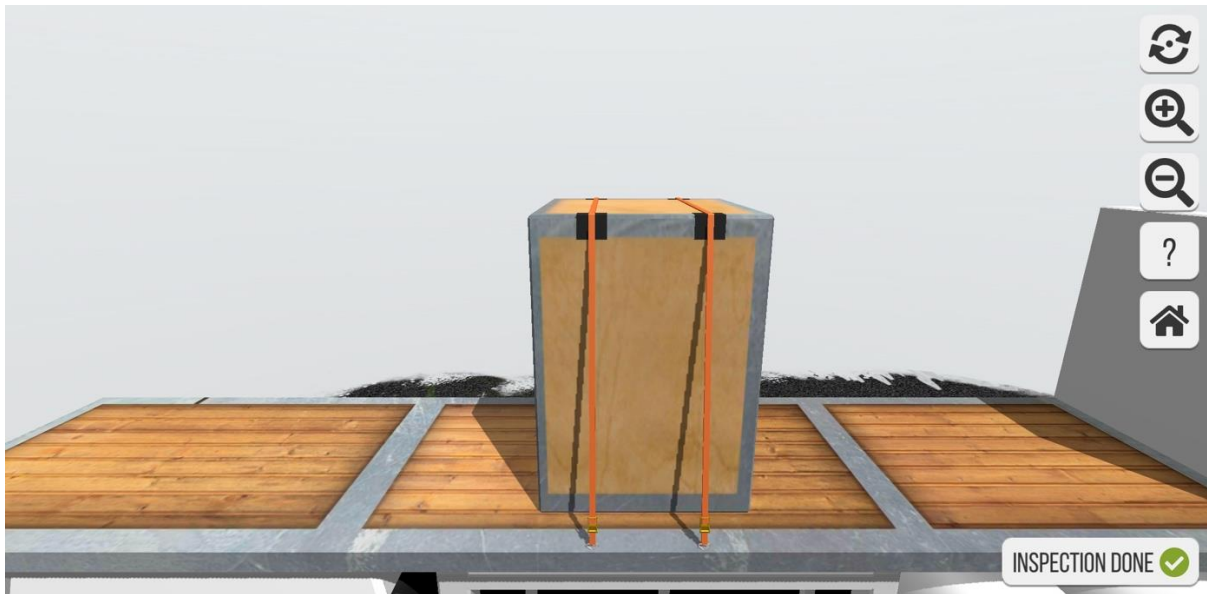
**Hidden errors:** Backward chain spring lashing: Chain is worn and could break. Forward concrete elements: Not blocked against head board

## Scenario 7



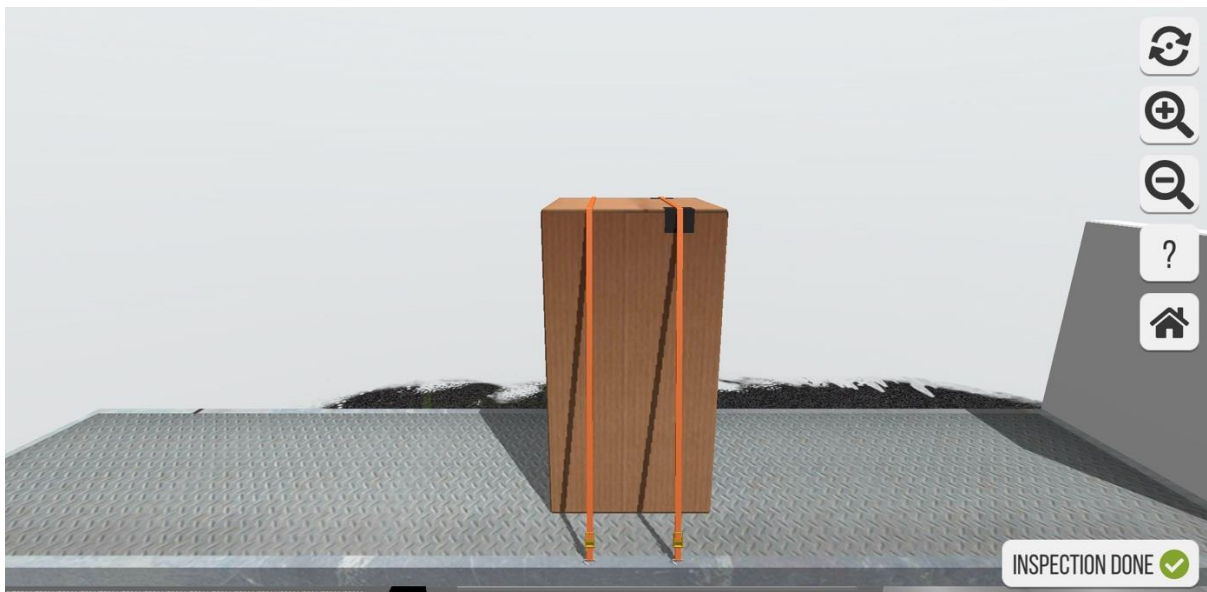
**Hidden errors:** Backward right direction straight lashing: Lash has a tied knot. Wooden box: Not enough straight lashings

## Scenario 8



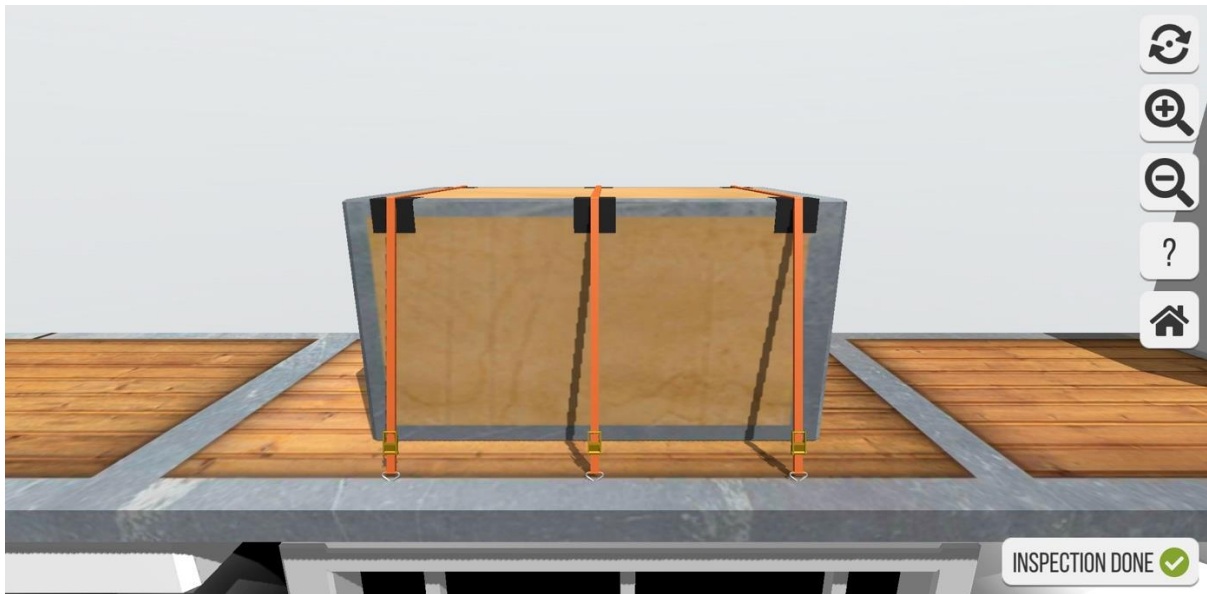
**Hidden errors:** Wooden box: Not enough top-over-lashings. One top-over lashing: Lash is worn and could break

## Scenario 9



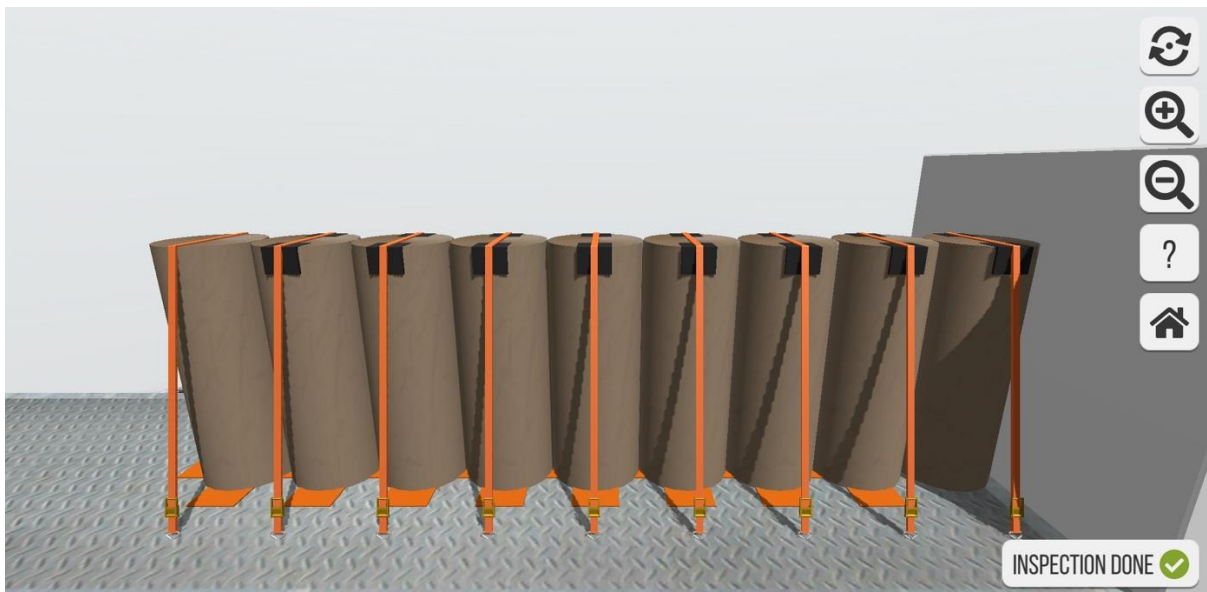
**Hidden errors:** Paper box: Not enough top-over-lashings. One top-over lashing: Edge protection is missing

## Scenario 10



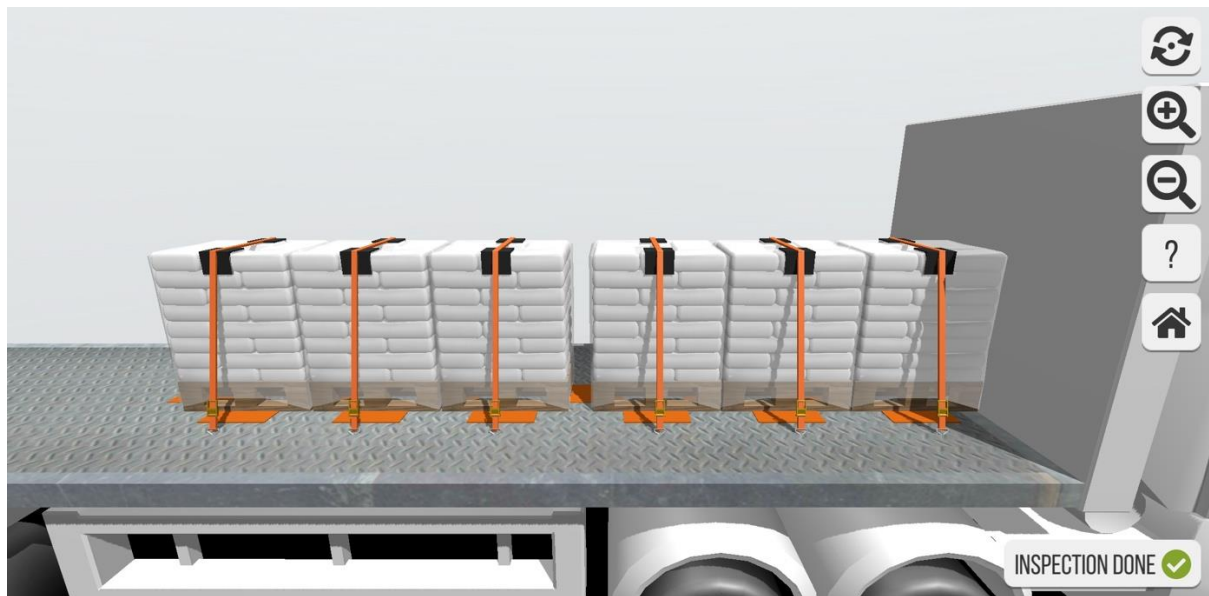
**Hidden errors:** Wooden box: Not enough top-over-lashings. One top-over lashing: Lash is not correctly pre-tensioned. One top-over lashing: Lash label is missing

## Scenario 11



**Hidden errors:** First paper roll from front: Needs friction mats. Last paper roll from front top-over lashing: Edge protection is missing

## Scenario 12



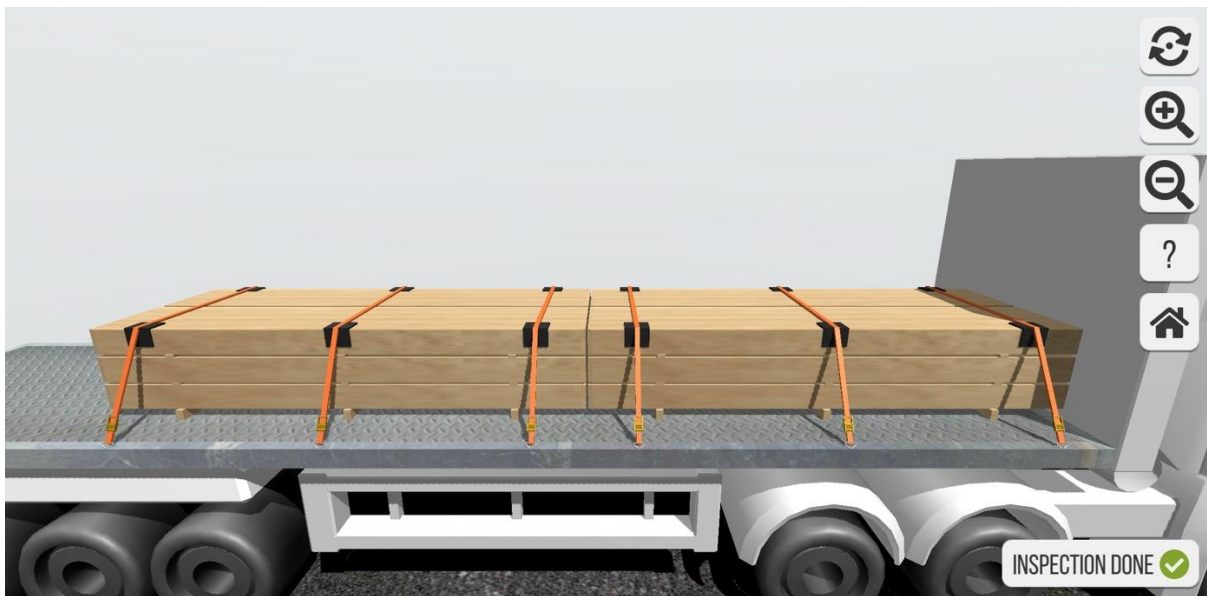
**Hidden errors:** Second pallet from front top-over lashing: Lash has cuts and could break. Third pallet from front: Too much space between cargo items. Fourth pallet from front: Too much space between cargo items

## Scenario 13



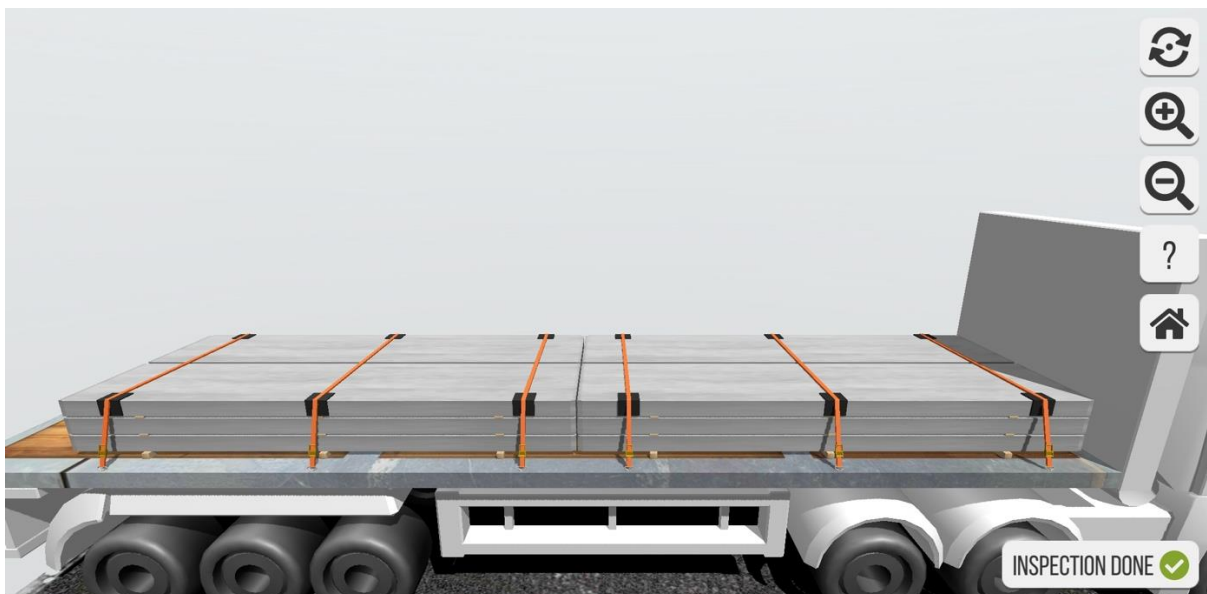
**Hidden errors:** Container: Not enough straight lashings. One backward chain: Chain is worn and could break. Forward chain: Lash is not correctly pre-tensioned

## Scenario 14



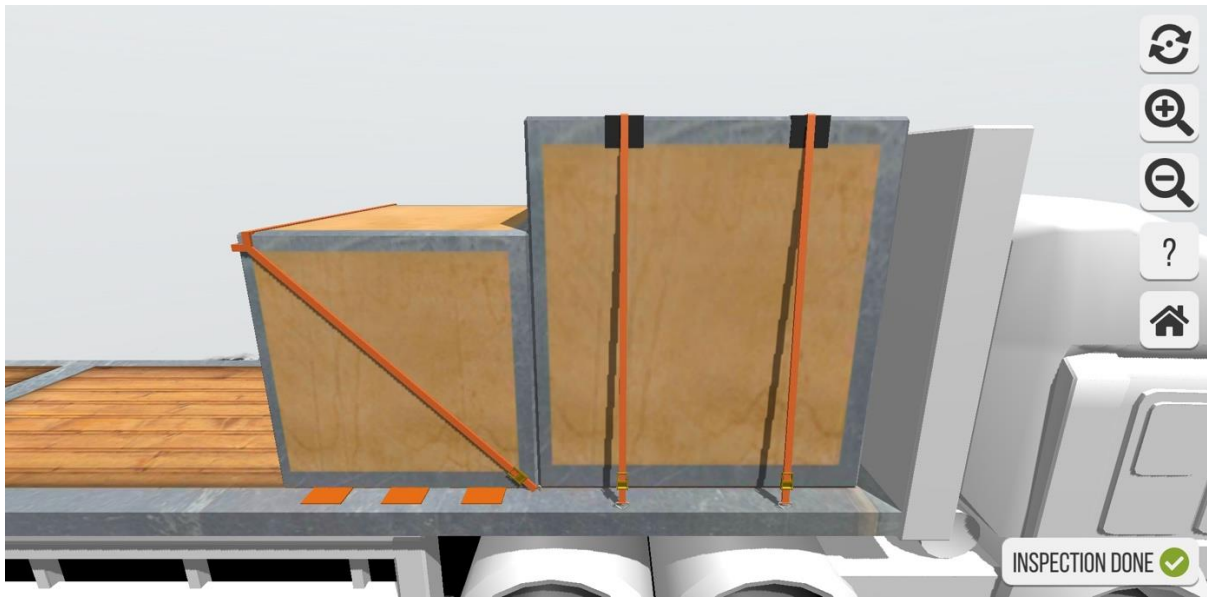
**Hidden errors:** BOTH timber stacks: Faulty underlays. Forward timber stack forward top-over lashing: Lash label is missing. Back timber stack forward top-over lashing: Lash is worn and could break

## Scenario 15



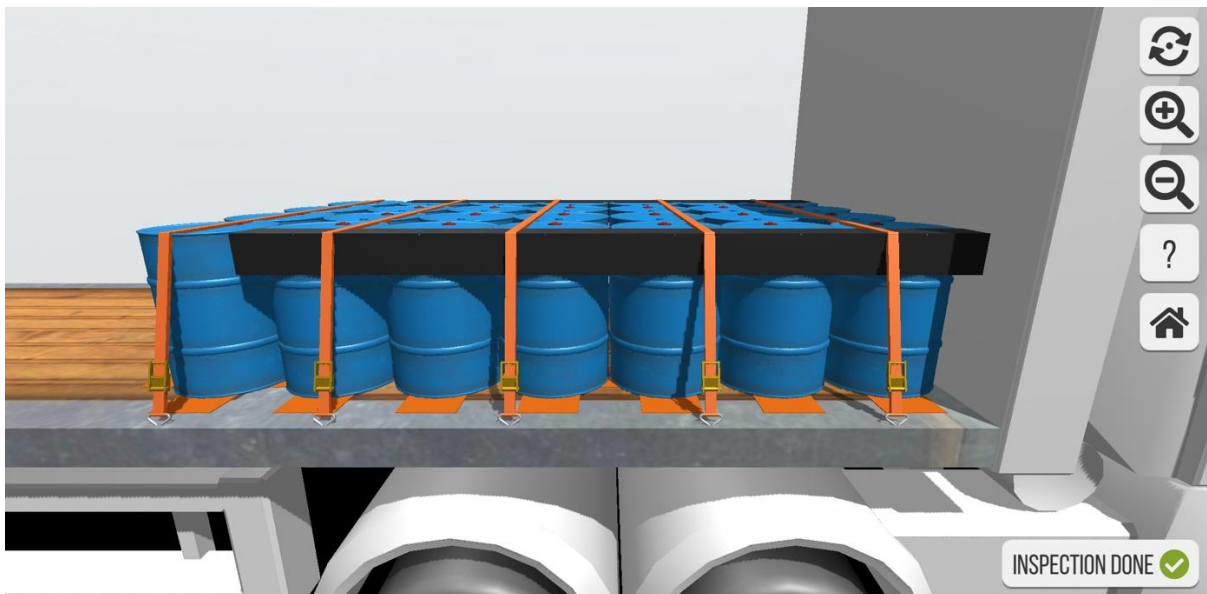
**Hidden errors:** BOTH concrete stacks: Faulty underlays. Forward concrete stack: Not blocked against head board

## Scenario 16



**Hidden errors:** Forward box: Not blocked against head board. Backward box spring lashing: Lash label is missing

## Scenario 17



**Hidden errors:** Back row: Needs spring lashing. Back row top-over lashing: Edge protection is missing

## Scenario 18



**Hidden errors:** Wooden box: Needs spring lashing. Spring lashing: Lash has a faulty angle. Spring lashing: Lash is worn and could break

## Scenario 19



**Hidden errors:** Container: Not enough straight lashings. BOTH backward spring lashings: Lash has a faulty angle. BOTH forward spring lashings: Lash is not correctly pre-tensioned. One forward spring lashing: Chain is worn and could break