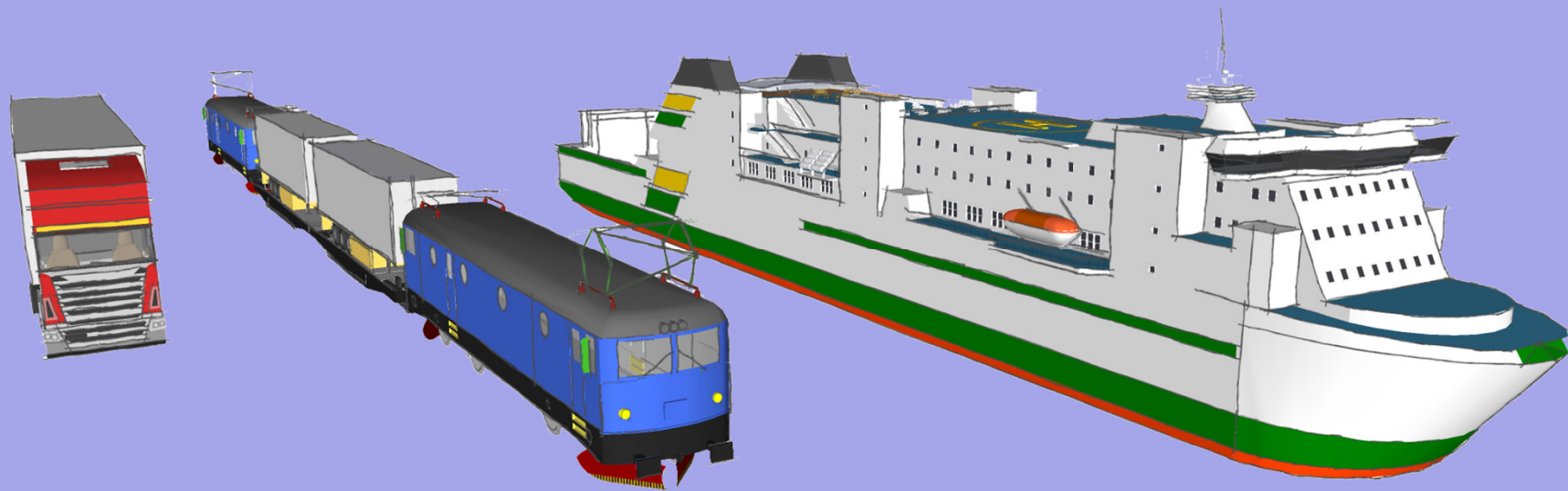
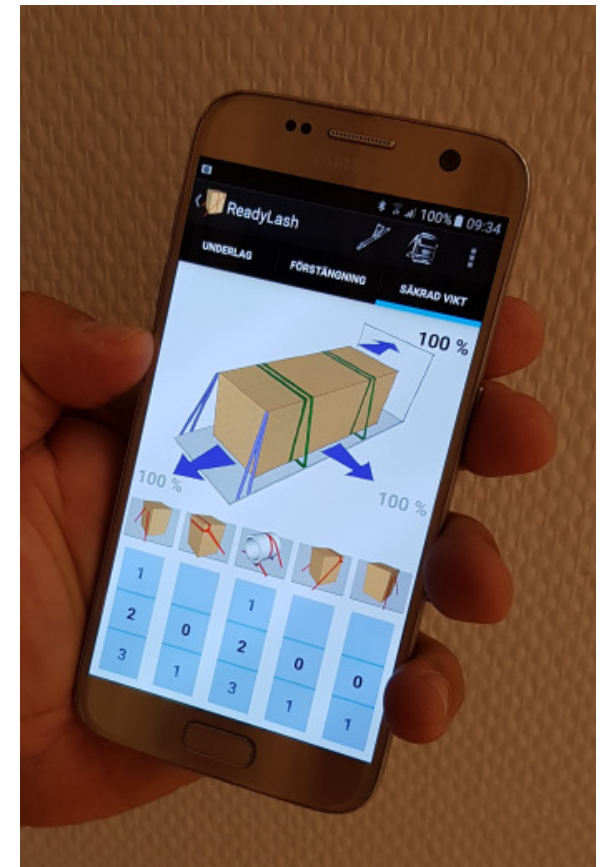
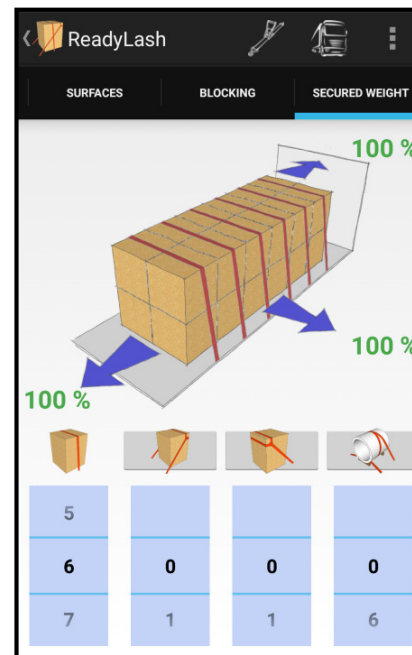
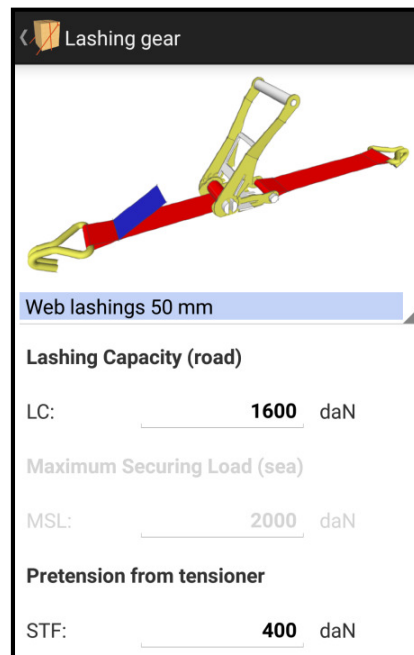


Guide for ReadyLash



Guide for ReadyLash

ReadyLash – Cargo Securing by MariTerm AB is a very user-friendly tool for checking required cargo securing measures according to different rules or standards and for different modes of transport. ReadyLash allows the user to easily combine and test different cargo securing methods to find the most suitable solution.



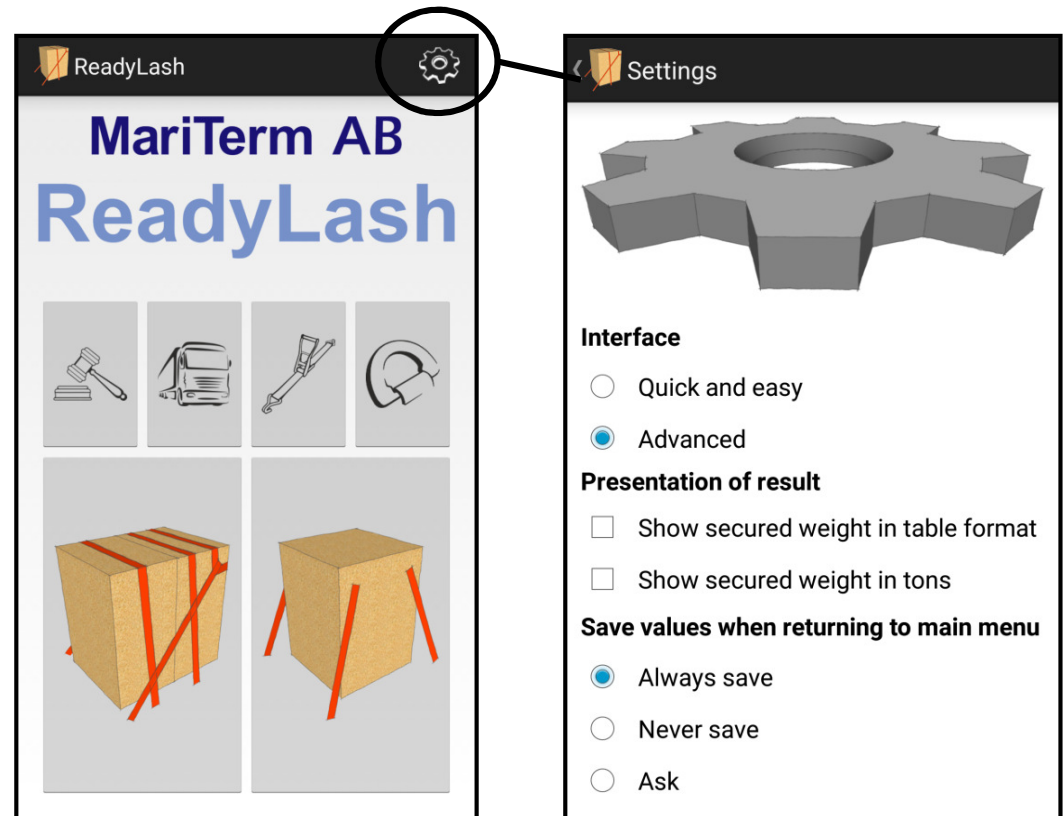
Guide for ReadyLash

The user may choose between **Quick and easy** interface to quickly get an answer to which method to use or **Advanced** settings, which allows more detailed cargo, lashing and cargo transport unit properties to be entered.

The results can be presented in different ways:

- As percentage of cargo weight that is safely secured
- As actual secured cargo weight in ton
- In detailed table format or in simple layout

This guide will be based on the interface Advanced



Guide for ReadyLash

Rules

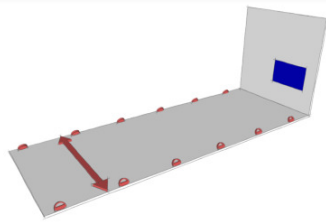


- ☒ European standard EN 12195-1(2010)
- ☐ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

Set the rules or standard which are to be followed when checking or dimensioning required cargo securing measures.

Set the lashing fittings available in the CTU. Also the allowable force in the fittings can be set as well as the lateral distance between the fittings.

Fittings



Road vehicle (Standard)

Allowable force


LC, MSL: daN

Lateral distance

m

Set the different modes of transport for which the cargo shall be exposed to.

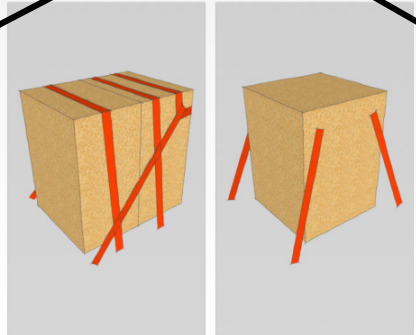

Mode of transport



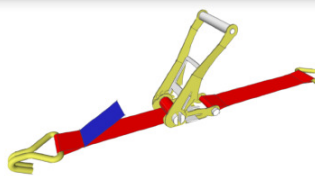
- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☐ Sea area B
- ☐ Sea area C

ReadyLash

MariTerm AB ReadyLash



Lashing gear



Web lashings 50 mm

Lashing Capacity (road)

LC: daN

Maximum Securing Load (sea)

MSL: daN

Pretension from tensioner

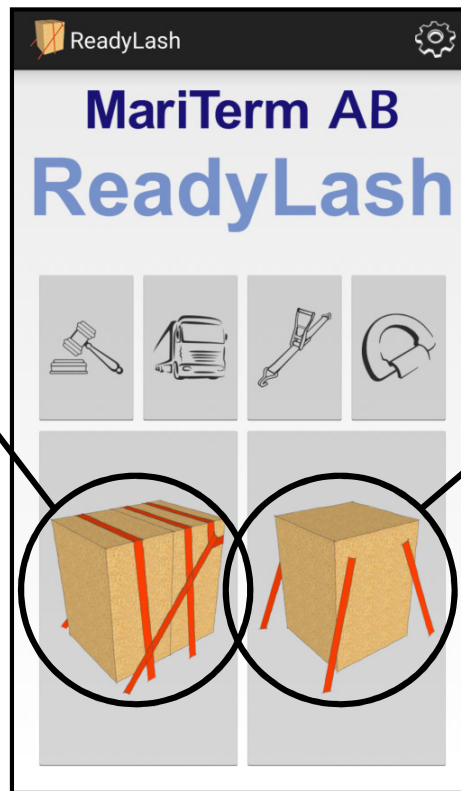
STF: daN

Set what type of lashing equipment which is to be used. Also LC/MSL and S_{TF} can be set.

Guide for ReadyLash

Depending on which type of cargo securing method which is to be used, the user has two choices:

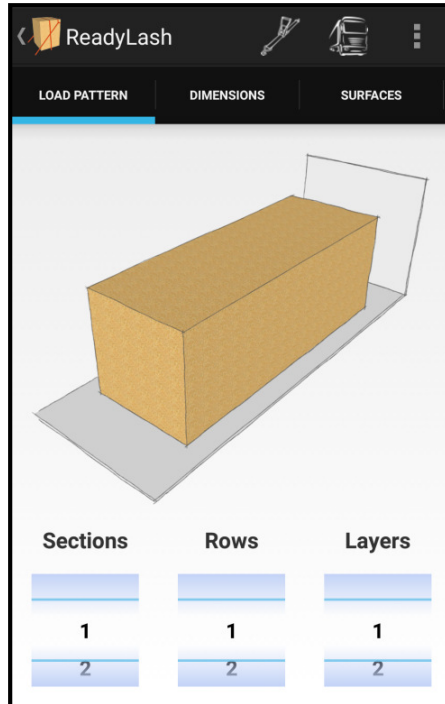
1. If Top-over lashing, Loop lashing or Spring lashing are used, this button should be selected.



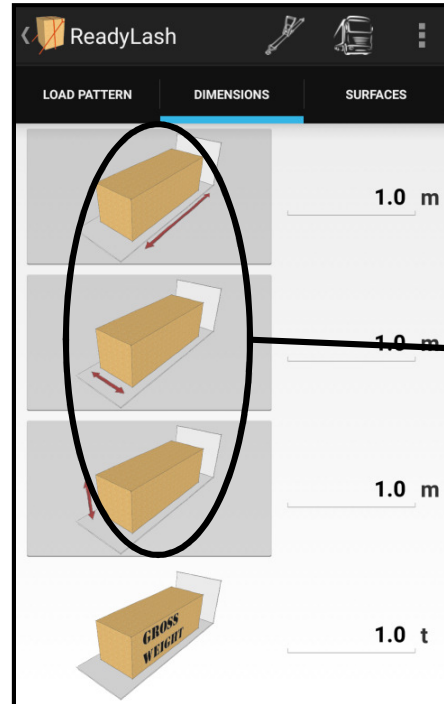
2. If Straight lashing is used, this button should be selected.

Guide for ReadyLash

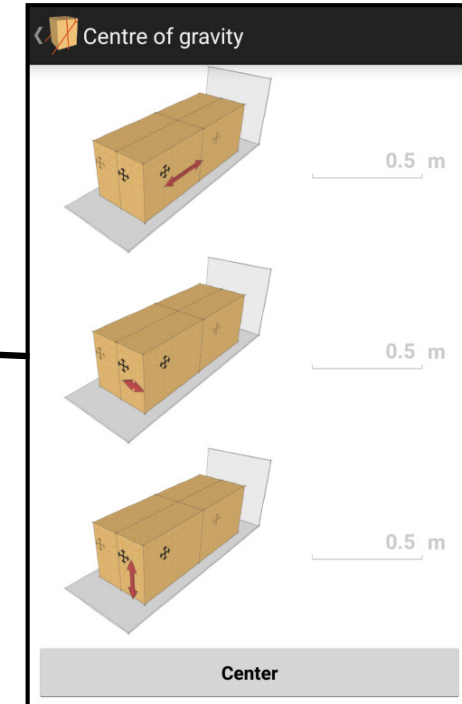
1. If Top-over lashing, Loop lashing or Spring lashing are used



The first thing which has to be stated is the loading pattern of the goods – how many sections, rows and layers



Then the dimensions of the goods are stated – length, width, height and weight. If the goods has a shifted COG the boxes marked in grey can be selected



The shifted COG is stated by clicking on the values and set them to the right dimensions. The default input is a centered COG

Guide for ReadyLash

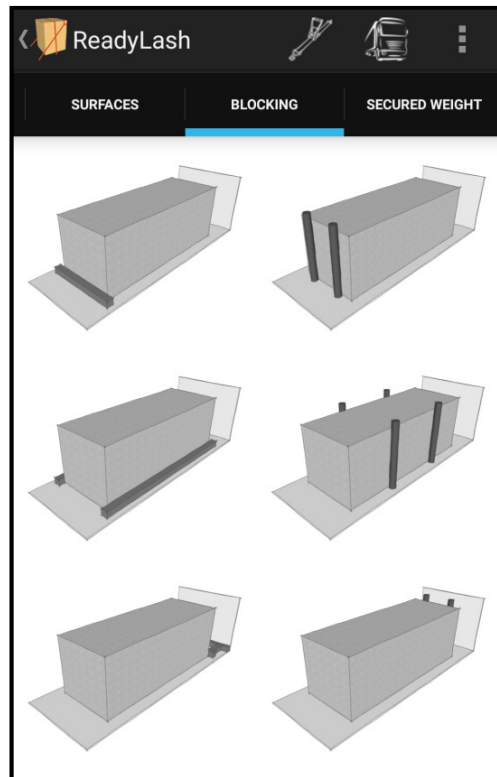
1. If Top-over lashing, Loop lashing or Spring lashing are used

The surfaces of the Platform of the CTU and Cargo is set. If the surfaces are dry, wet, icy or greased this is set. If the surfaces are unknown or not in the table, select "other". If rubber mats are used this can be set under Dunnage

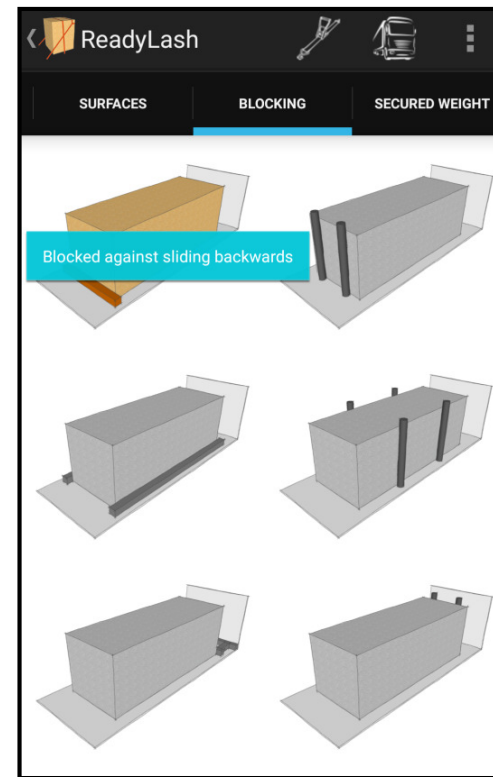
The table for Platform have a number of different surfaces. If the goods are loaded in multiple layers it is possible to set the surfaces between the different layers of goods

Guide for ReadyLash

1. If Top-over lashing, Loop lashing or Spring lashing are used



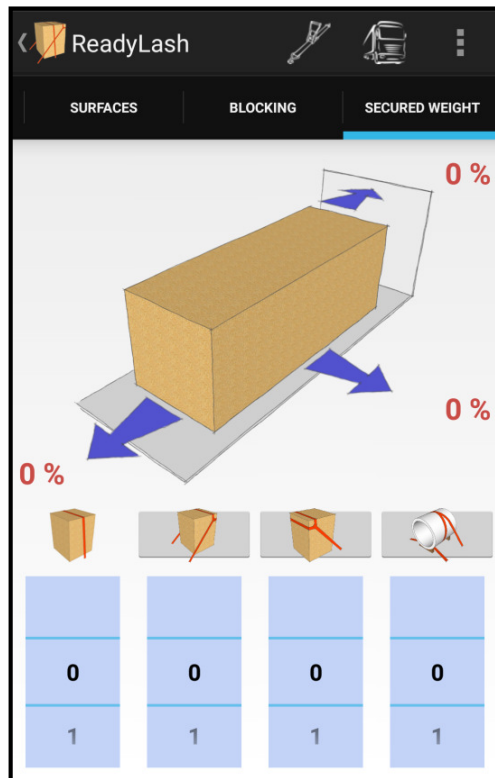
If there is a blocking arrangement this is set. The blocking arrangements in the left column are against sliding and the ones in the right column are against both sliding and tipping



When a blocking arrangement is selected it is highlighted with color. Multiple blocking arrangements can be selected

Guide for ReadyLash

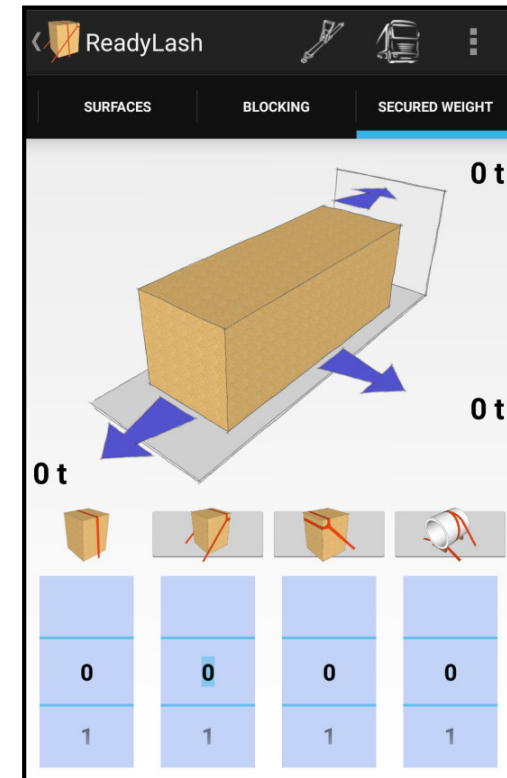
1. If Top-over lashing, Loop lashing or Spring lashing are used



The secured weight is presented in the next step. In this picture a percent of the secured weight is presented. The different sliders adds the different lashings



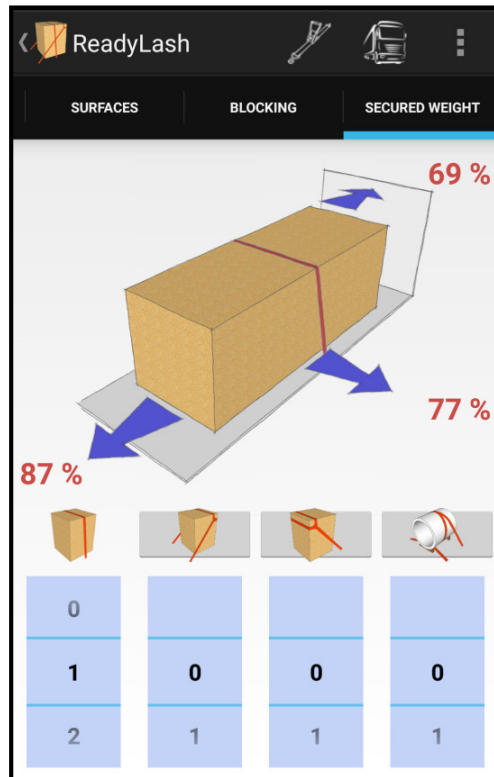
If "Show secured weight in table format" is selected under settings the secured weight will be presented in a table according to the image above



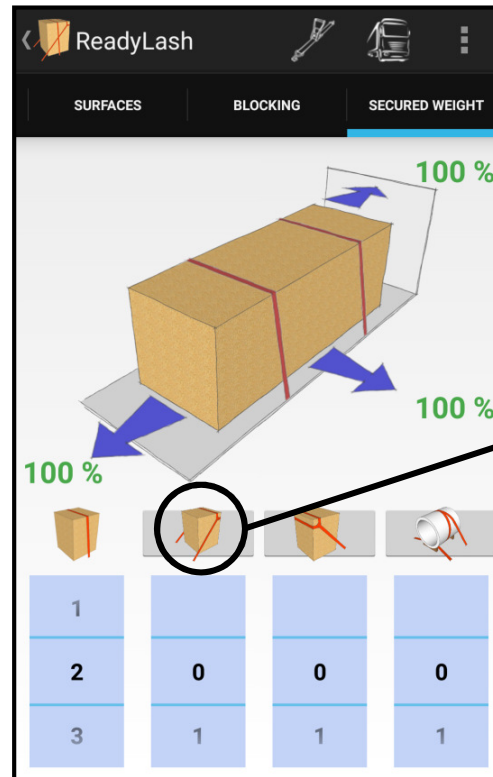
If "Show secured weight in tons" is selected under settings the secured weight will be presented according to the image above

Guide for ReadyLash

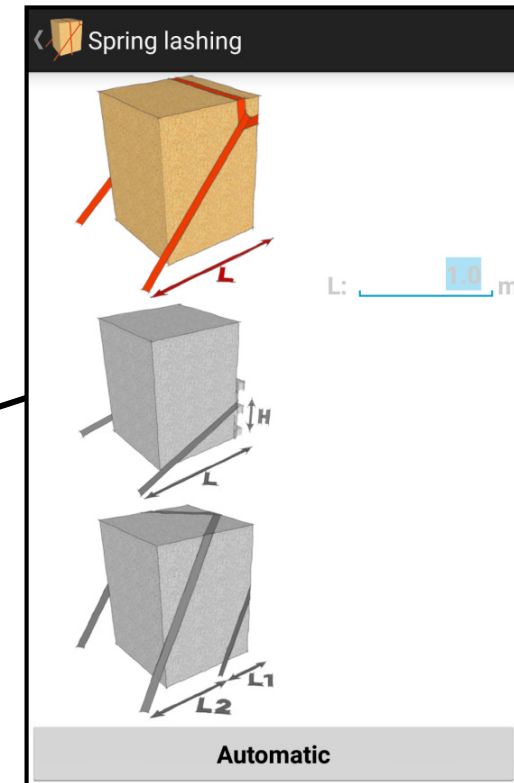
1. If Top-over lashing, Loop lashing or Spring lashing are used



One top-over lashing has been added and 87% of the cargo weight is secured backwards, 69% forwards and 77% sideways



Two top-over lashings have been added and the cargo weight is 100% secured in all directions. The grey marked images of spring and loop lashings can be selected

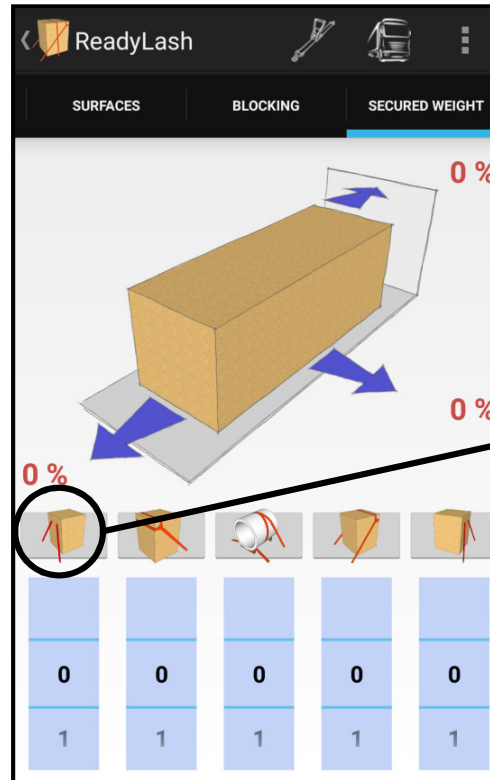


The length of the lashings can be set and also what type of spring or loop lashings which are used in the cargo securing arrangement

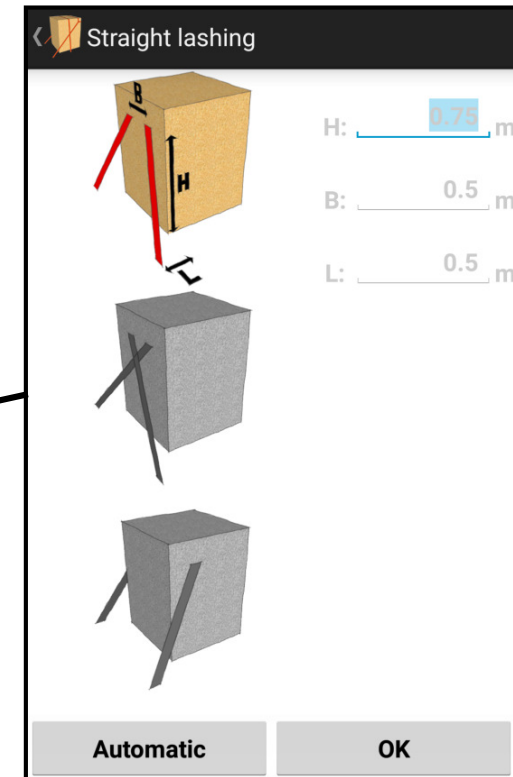
Guide for ReadyLash

2. If Straight lashing is used

The same principles are valid for securing goods with Straight lashing; first stating the load-pattern, the dimensions of the goods, the surfaces and blocking arrangement. The difference is under the tab "Secured weight" where the straight lashings are available



The different sliders adds the different lashings; straight lashing in different directions, spring lashing and loop lashing. The grey marked images of straight, spring and loop lashings can be selected

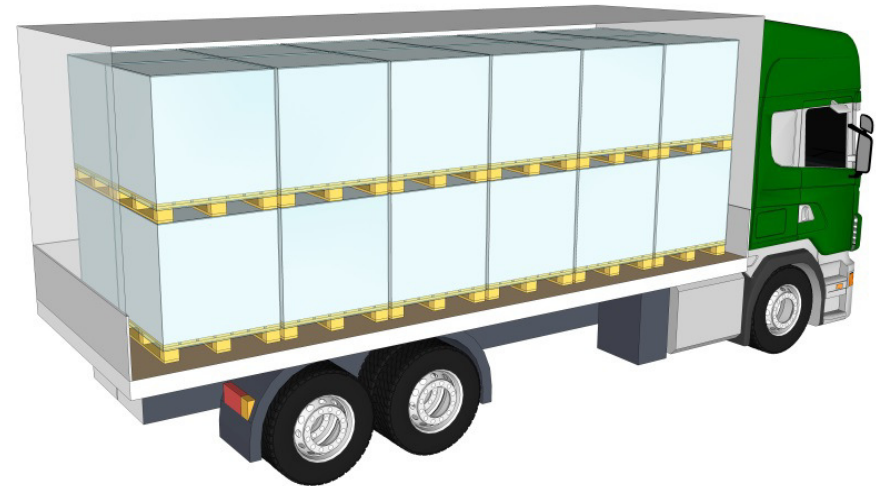


The different dimensions of the straight lashing can be set and also what type of straight, spring or loop lashing which are used in the cargo securing arrangement

Guide for ReadyLash

Example 1

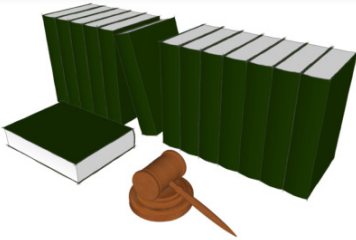
- A truck with a platform of plywood
- Six sections of paper on pallets
- Each pallet is shrink filmed
- $H \times B \times L = 1.1 \times 1.0 \times 1.0$ m
- Weight 500 kg/pallet, in total 12 tons
- Each section consists of four pallets loaded in two rows and two layers
- The pallets are blocked against a strong headboard forward and the doors backward
- Top-over lashing are to be used
- The transport is European cross-border on road



How many top-over lashings have to be used?


Guide for ReadyLash

Rules



- ☒ European standard EN 12195-1(2010)
- ☐ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

Mode of transport



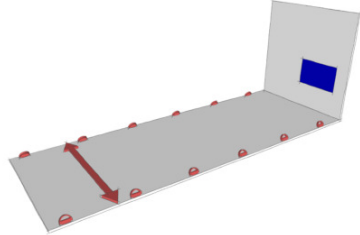
- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☐ Sea area B
- ☐ Sea area C

ReadyLash

MariTerm AB ReadyLash



Fittings



Road vehicle (Standard)

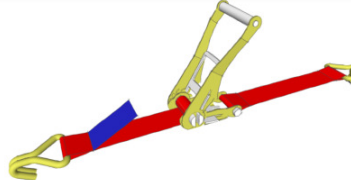
Allowable force

LC, MSL: daN

Lateral distance

m

Lashing gear



Web lashings 50 mm

Lashing Capacity (road)

LC: daN

Maximum Securing Load (sea)

MSL: daN

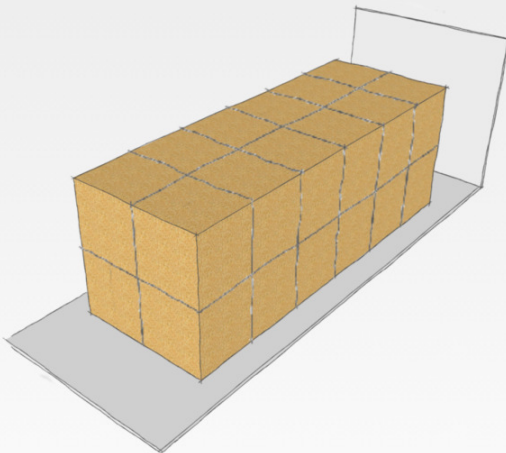
Pretension from tensioner

STF: daN

Guide for ReadyLash

ReadyLash

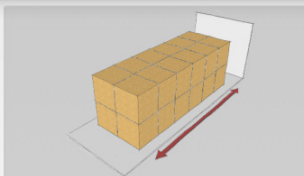
LOAD PATTERN DIMENSIONS SURFACES



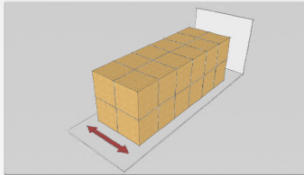
Sections	Rows	Layers
5	1	1
6	2	2
7	3	3

ReadyLash

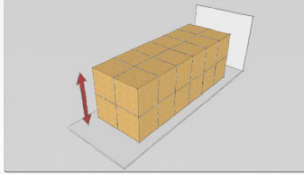
LOAD PATTERN DIMENSIONS SURFACES




6.0 m



2.0 m



2.2 m

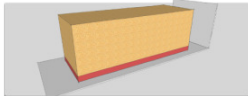


12.0 t

ReadyLash

DIMENSIONS SURFACES BLOCKING

☒ Dry ☐ Wet ☐ Icy ☐ Greased

Against platform: 

Platform:

Cargo:

Dunnage:

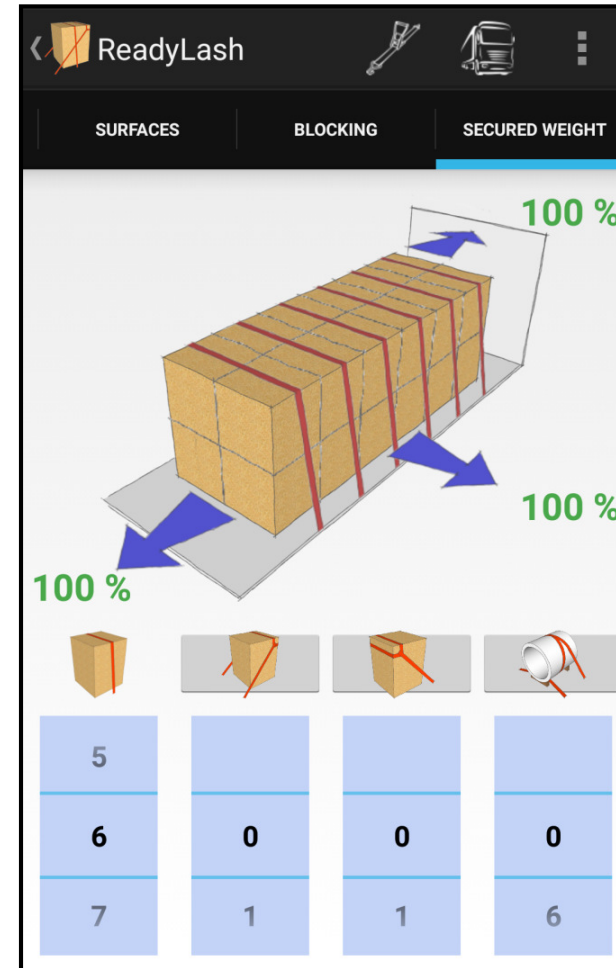
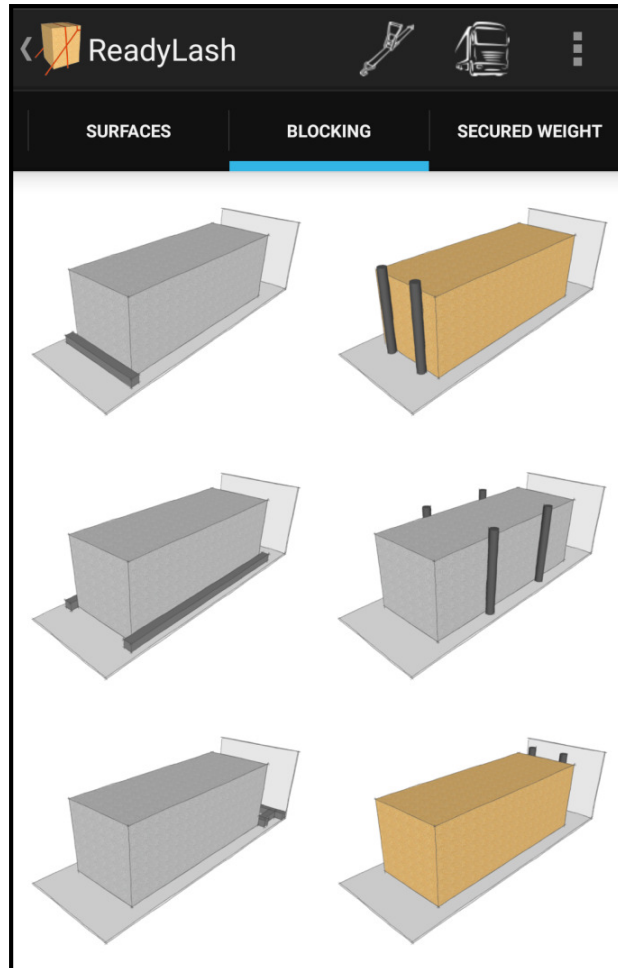
Between layers 

Bottom layer:

Top layer:

Dunnage:

Guide for ReadyLash



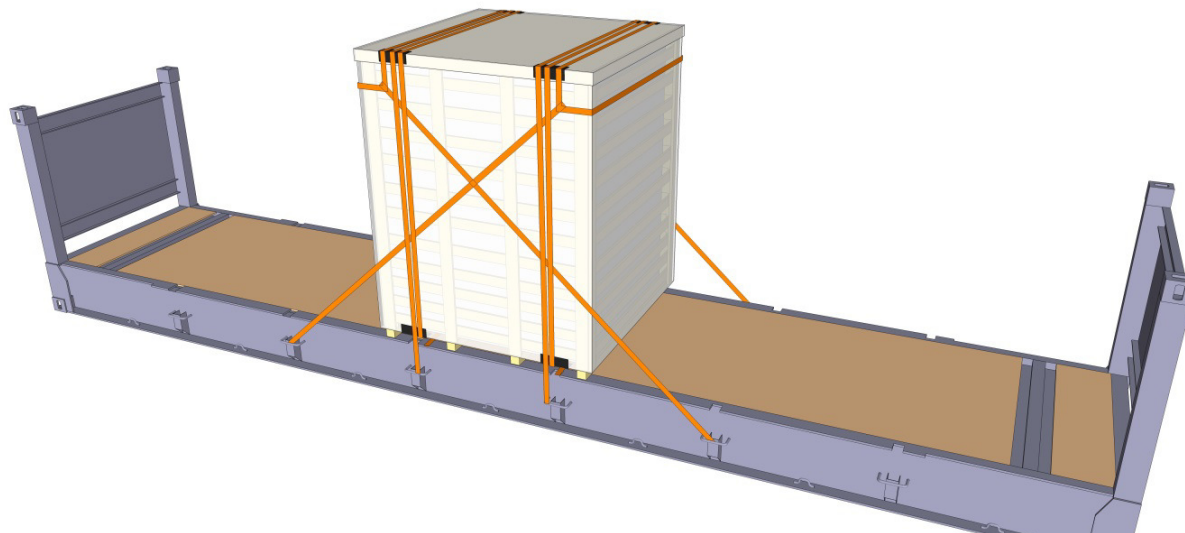
Six top-over lashings have to be used

Guide for ReadyLash

Example 2

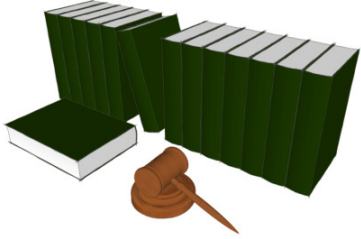
- A flat rack with wooden floor
- A box with the dimensions $L \times B \times H = 2 \times 2.4 \times 3.5$ m is placed in the middle of the flat rack
- Weight 5 000 kg
- The box shall be secured with two pairs of loop lashings and one spring lashing in forward direction and one in backward direction
- The flat rack shall be transported on road and in sea area C

Is the cargo securing arrangement sufficient?




Guide for ReadyLash

Rules



- ☒ European standard EN 12195-1(2010)
- ☒ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

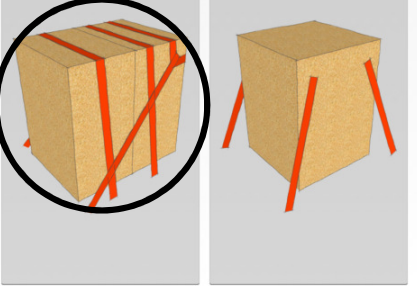

Mode of transport



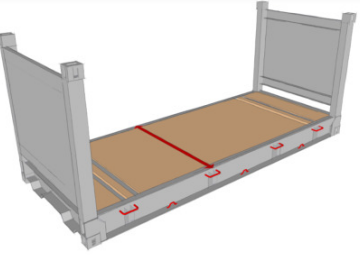
- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☐ Sea area B
- ☒ Sea area C

ReadyLash

MariTerm AB ReadyLash



Fittings



Flat rack (Standard - 5t)

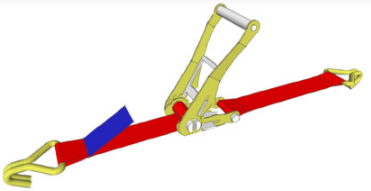
Allowable force

LC, MSL: daN

Lateral distance

m

Lashing gear



Web lashings 50 mm

Lashing Capacity (road)

LC: daN

Maximum Securing Load (sea)

MSL: daN

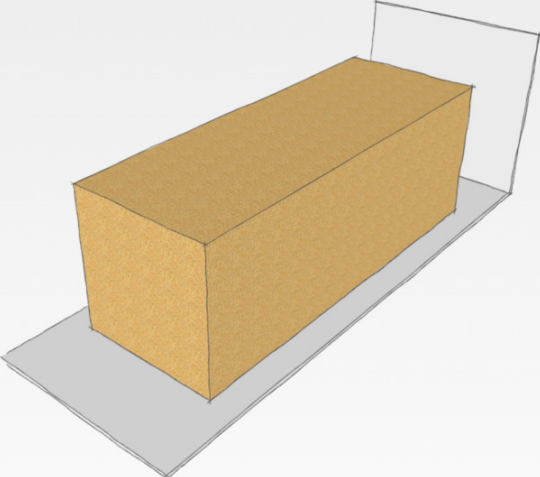
Pretension from tensioner

STF: daN

Guide for ReadyLash

ReadyLash

LOAD PATTERN DIMENSIONS SURFACES

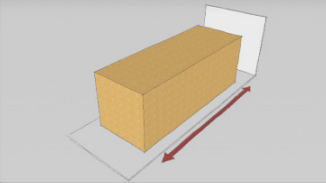


Sections Rows Layers

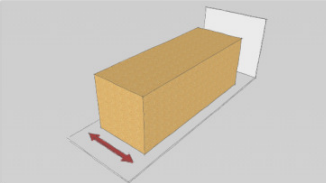
1	1	1
2	2	2

ReadyLash

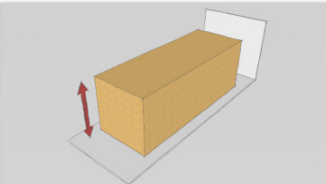
LOAD PATTERN DIMENSIONS SURFACES




2.0 m



2.4 m



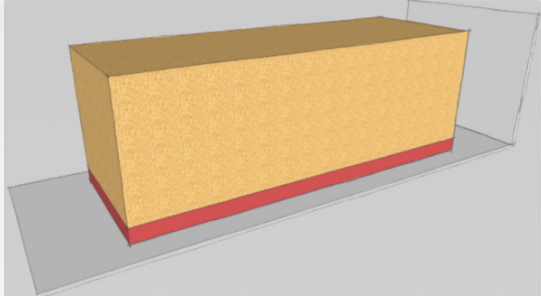
3.5 m



5.0 t

ReadyLash

DIMENSIONS SURFACES BLOCKING



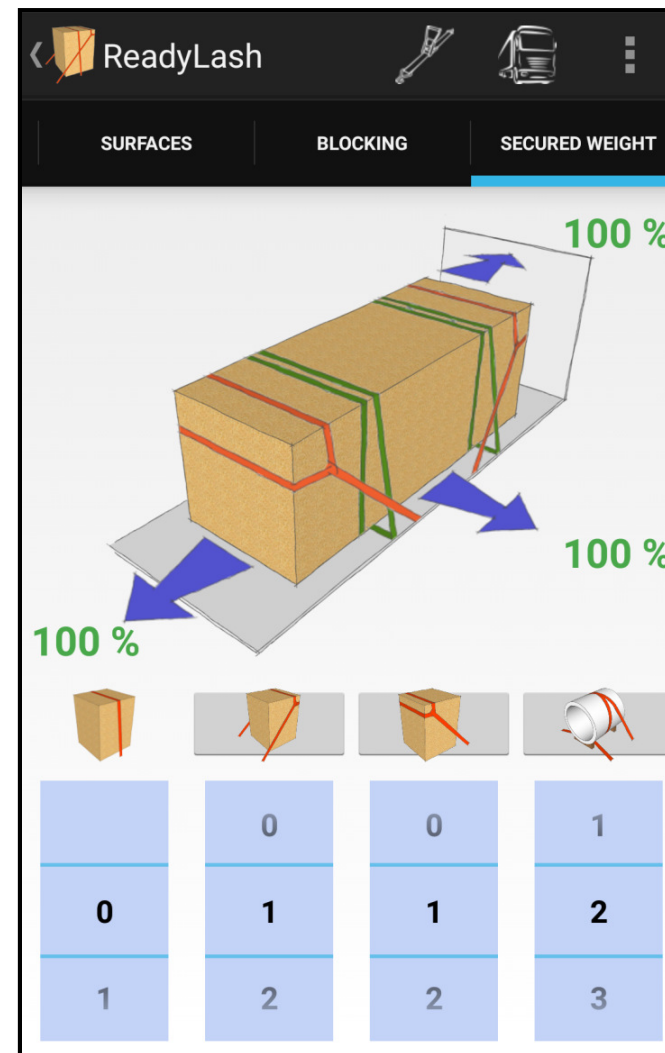
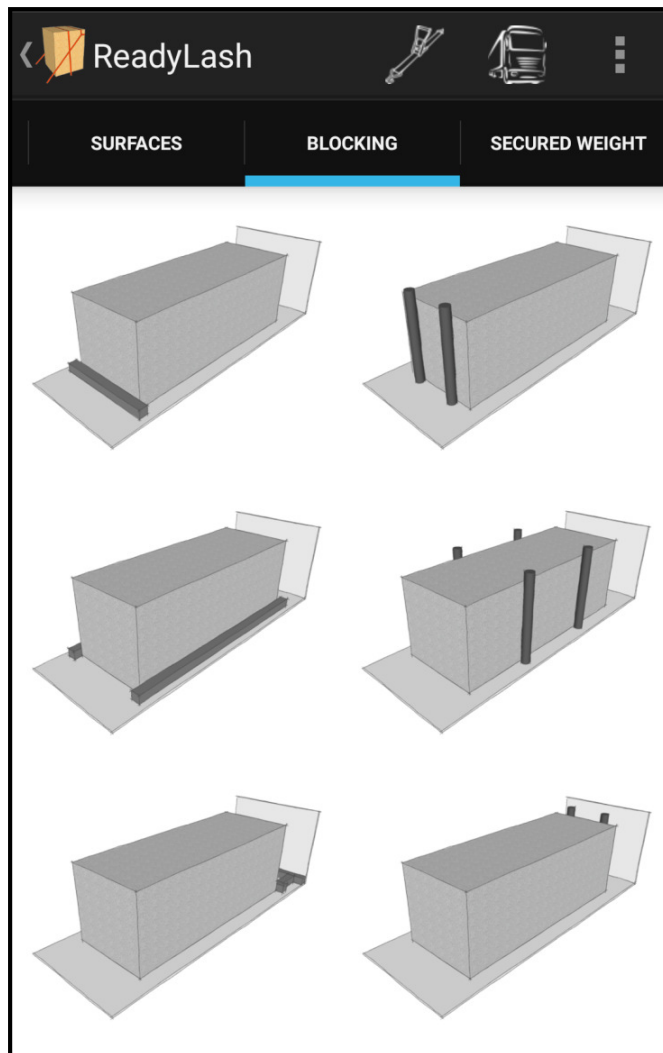
☐ Dry ☒ Wet ☐ Icy ☐ Greased

Platform: Plywood/Wood/Fabric base laminate

Cargo: Sawn wood/wooden pallet

Dunnage: None

Guide for ReadyLash



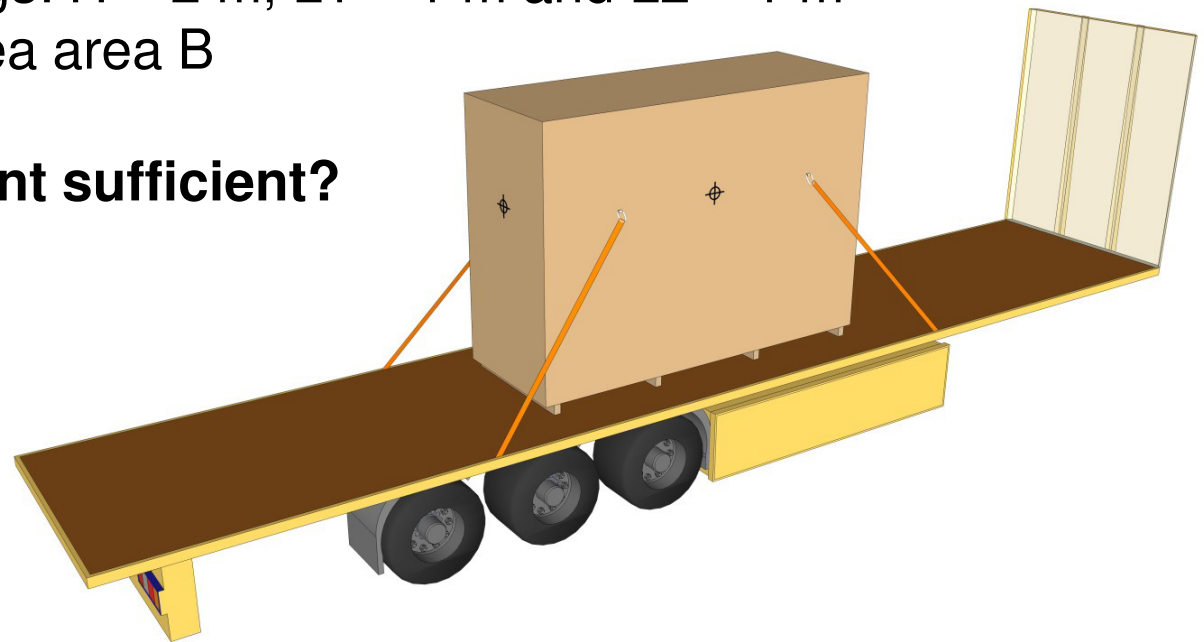
Yes, the cargo securing arrangement is sufficient

Guide for ReadyLash

Example 3

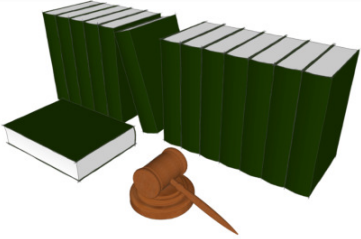
- A trailer with a platform of plywood
- A box on wooden battens with the dimensions $H \times B \times L = 3.0 \times 1.5 \times 4.0$ m
- The box has a shifted Centre of Gravity $H_{CG} \times B_{CG} \times L_{CG} = 2.0 \times 0.75 \times 2.0$ m
- Weight 4 000 kg
- Four straight lashings according to the image
- The lashings have LC/MSL = 2 500 daN and $S_{TF} = 500$ daN
- Dimensions of the straight lashings: $H = 2$ m, $L1 = 1$ m and $L2 = 1$ m
- The transport is on road and in sea area B

Is the cargo securing arrangement sufficient?




Guide for ReadyLash

Rules



- ☒ European standard EN 12195-1(2010)
- ☒ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

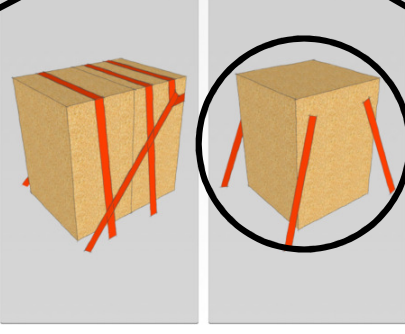

Mode of transport



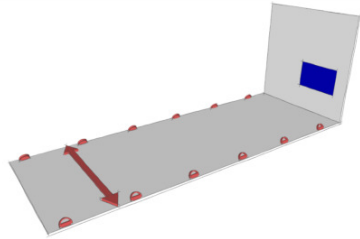
- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☒ Sea area B
- ☐ Sea area C

ReadyLash

MariTerm AB ReadyLash



Fittings



Road vehicle (Standard)

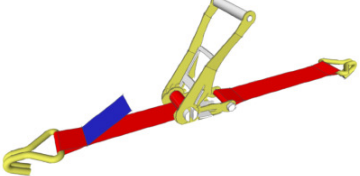
Allowable force

LC, MSL: daN

Lateral distance

m

Lashing gear



Other

Lashing Capacity (road)

LC: daN

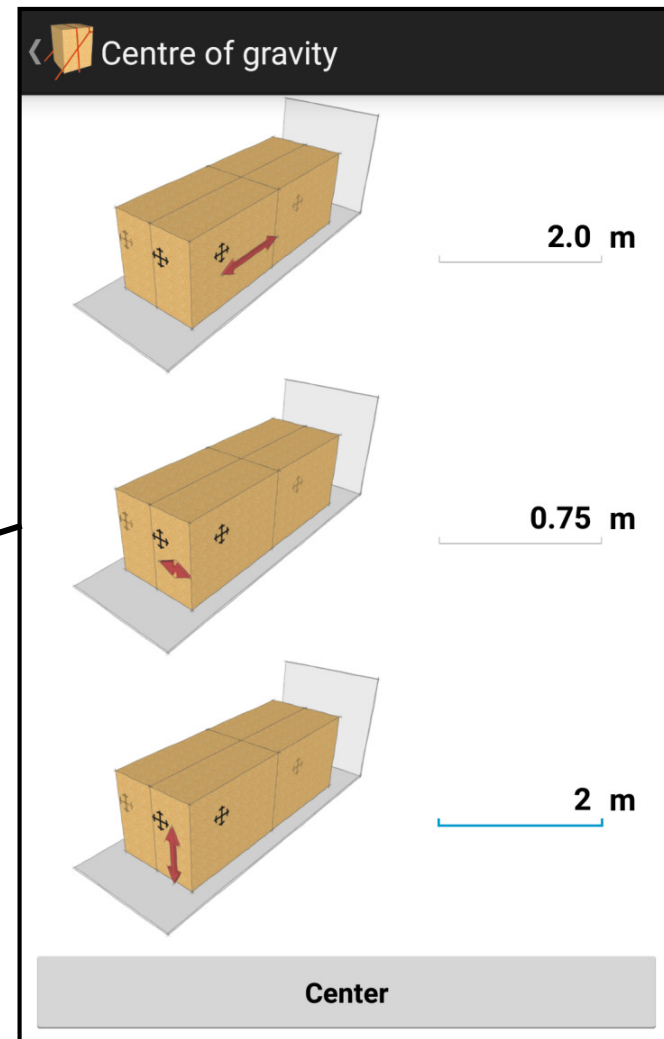
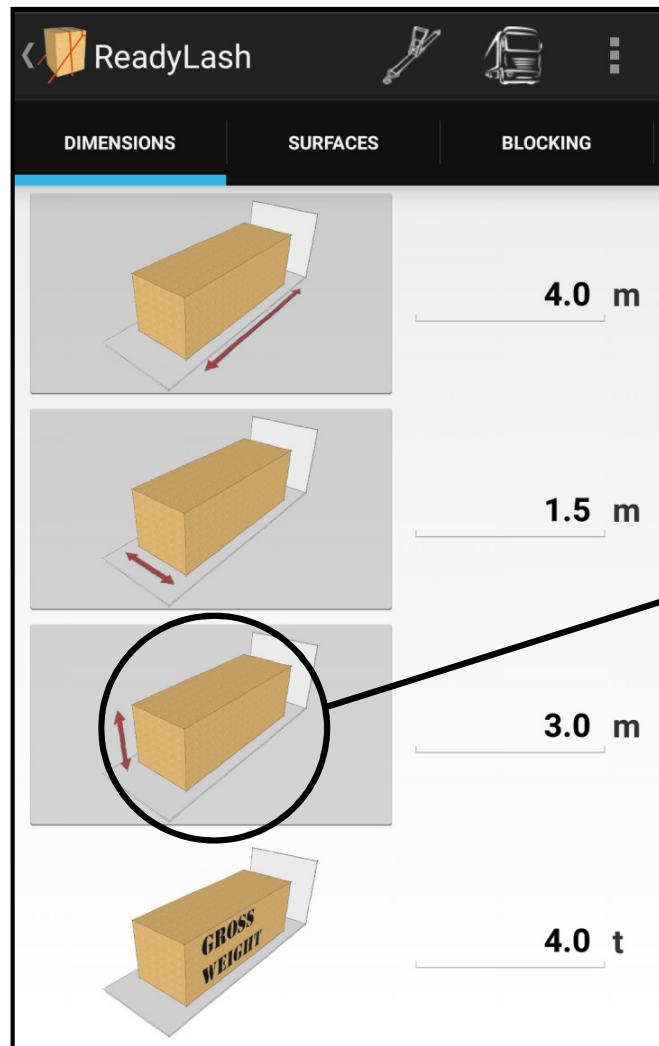
Maximum Securing Load (sea)

MSL: daN


Pretension from tensioner

STF: daN

Guide for ReadyLash



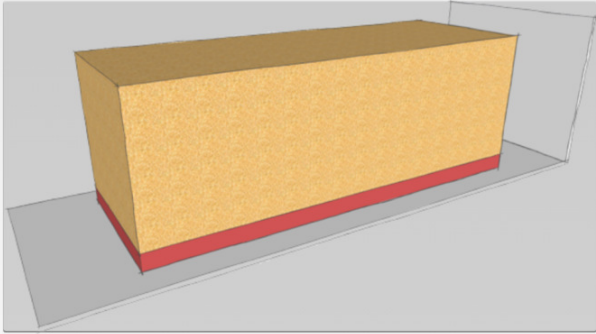
Guide for ReadyLash

 ReadyLash

DIMENSIONS

SURFACES

BLOCKING

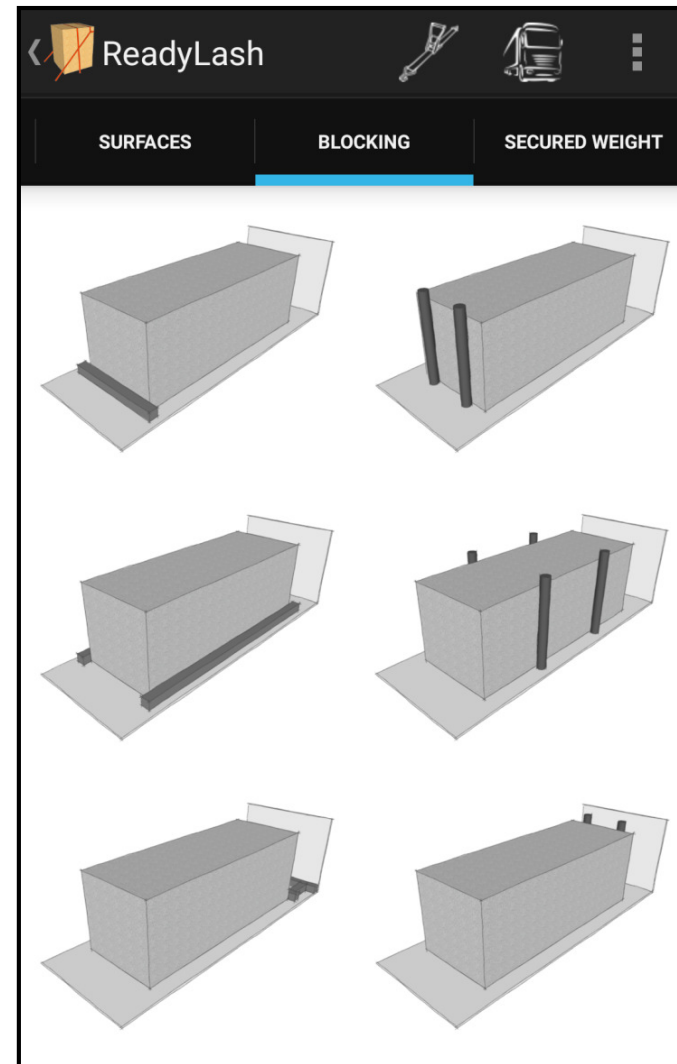


☒ **Dry** ☐ **Wet** ☐ **Icy** ☐ **Greased**

Platform:

Cargo:

Dunnage:



Guide for ReadyLash

The image displays three screenshots of the ReadyLash software interface, illustrating the process of calculating and verifying cargo securing arrangements.

Left Screenshot (Main Interface): Shows the 'ReadyLash' application with tabs for 'SURFACES', 'BLOCKING', and 'SECURED WEIGHT'. The 'SECURED WEIGHT' tab is active, displaying a 3D model of a cargo box on a truck bed. The status is '0 %' for both 'SURFACES' and 'BLOCKING'. Below the model is a table of results:

0	0	0	0	0
1	1	1	1	1

Middle Screenshot (Straight Lashing): Shows a detailed view of 'Straight lashing' for a cargo box. The dimensions are: H: 2 m, L1: 1 m, L2: 1 m. The 'OK' button is highlighted, indicating a sufficient arrangement.

Right Screenshot (ReadyLash): Shows the 'ReadyLash' application with tabs for 'SURFACES', 'BLOCKING', and 'SECURED WEIGHT'. The 'SECURED WEIGHT' tab is active, displaying a 3D model of a cargo box on a truck bed. The status is '100 %' for both 'SURFACES' and 'BLOCKING'. Below the model is a table of results:

0	0	0	0	0
1	0	0	0	1
2	1	1	1	2

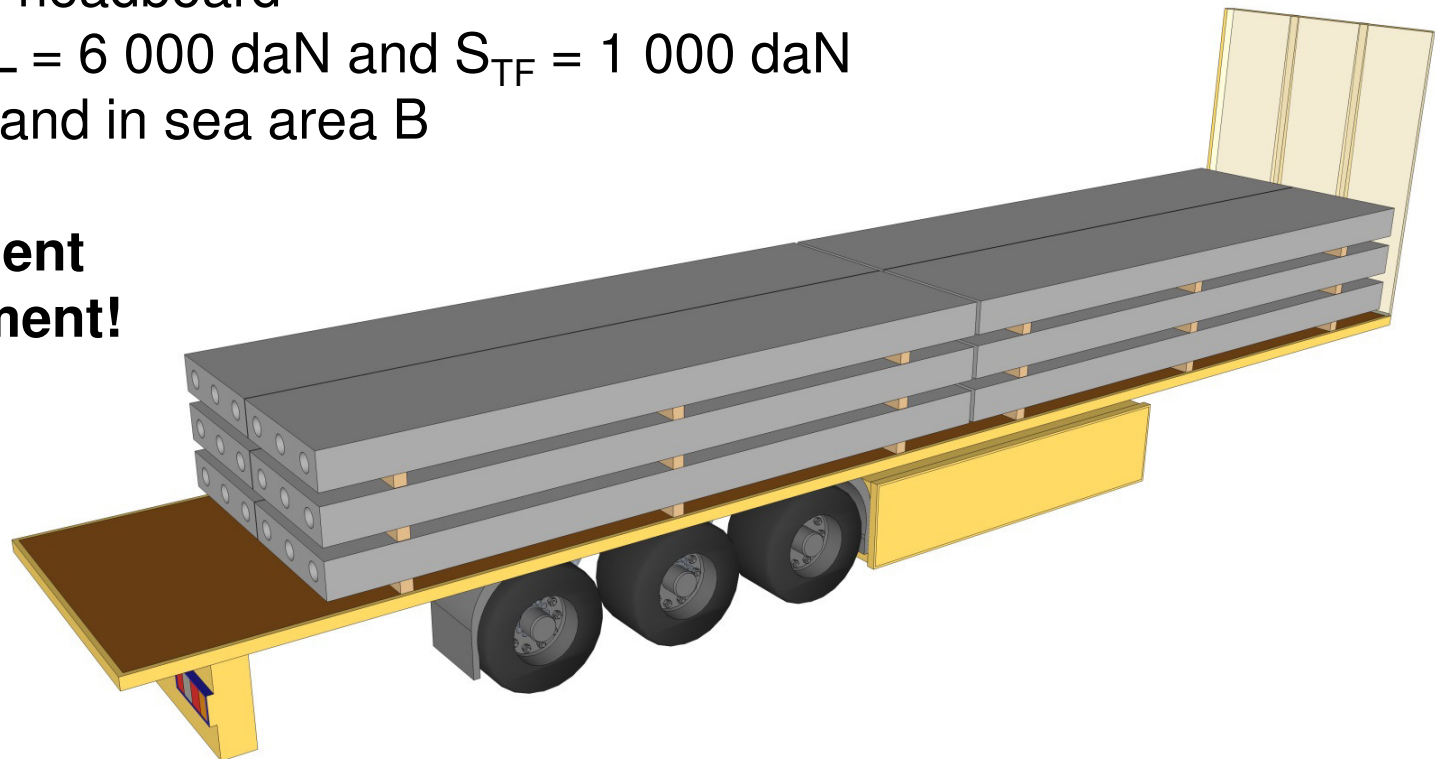
Yes, the cargo securing arrangement is sufficient

Guide for ReadyLash

Example 4

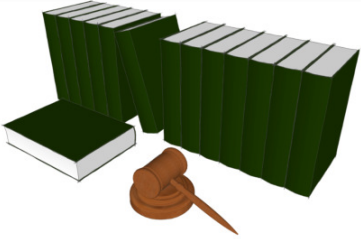
- A trailer with a platform of plywood
- Concrete elements in three layers, two rows and two sections on wooden battens with the total dimensions $H \times B \times L = 1.5 \times 2.4 \times 12.0$ m
- Weight 30 000 kg
- Ø 10 mm chains should be used
- Blocked against a strong headboard
- The chains have LC/MSL = 6 000 daN and $S_{TF} = 1\,000$ daN
- The transport is on road and in sea area B

Develop a safe and efficient cargo securing arrangement!




Guide for ReadyLash

Rules



- ☒ European standard EN 12195-1(2010)
- ☒ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

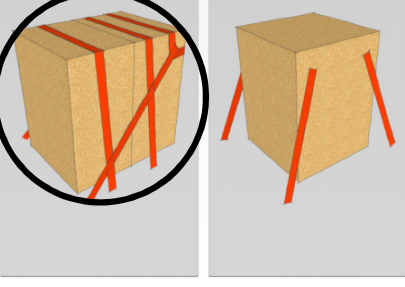

Mode of transport



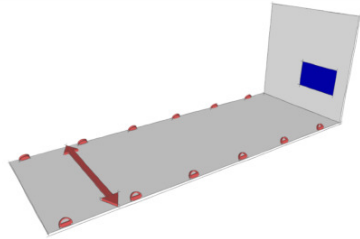
- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☒ Sea area B
- ☐ Sea area C

ReadyLash

MariTerm AB ReadyLash



Fittings



Road vehicle (Standard)


Allowable force

LC, MSL: daN

Lateral distance

m

Lashing gear



Other

Lashing Capacity (road)

LC: daN

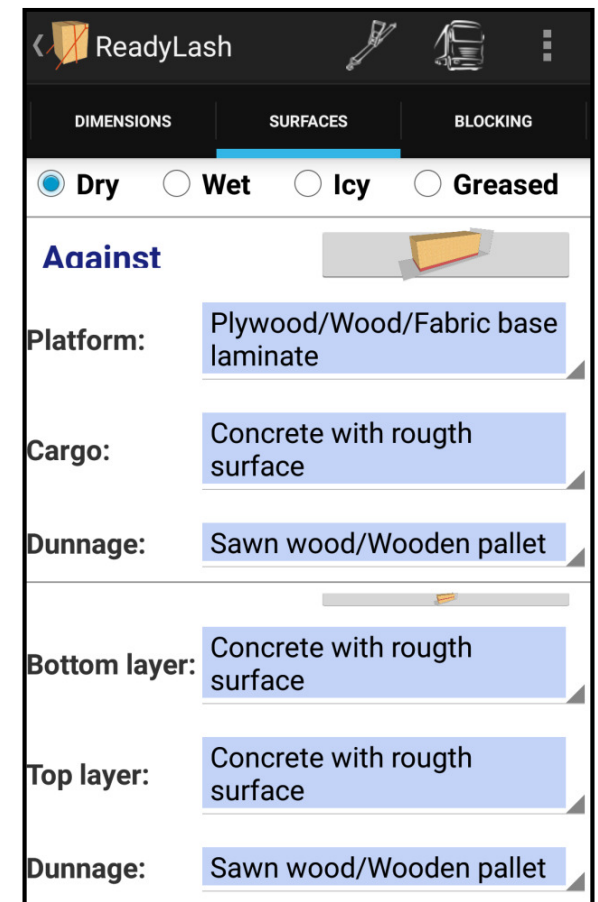
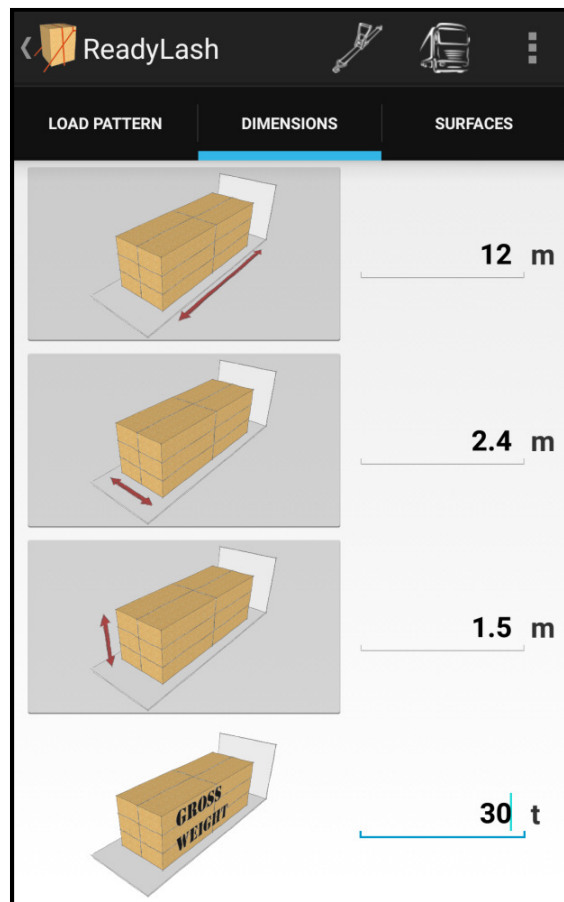
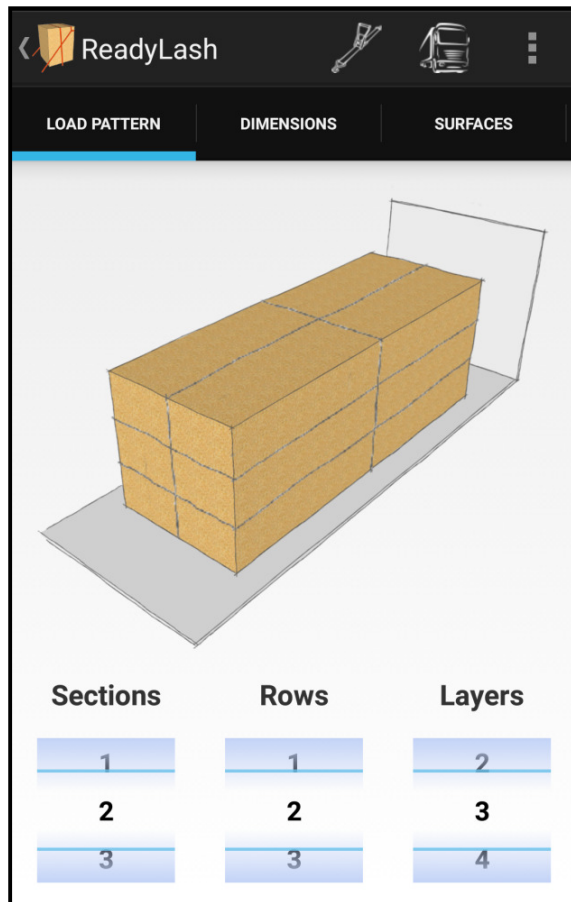
Maximum Securing Load (sea)

MSL: daN

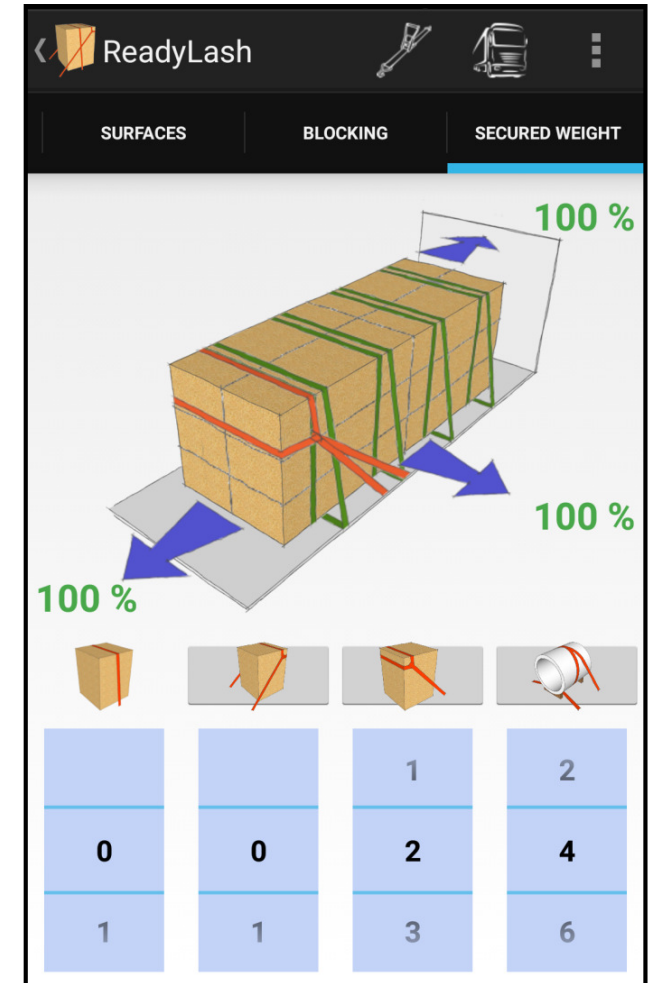
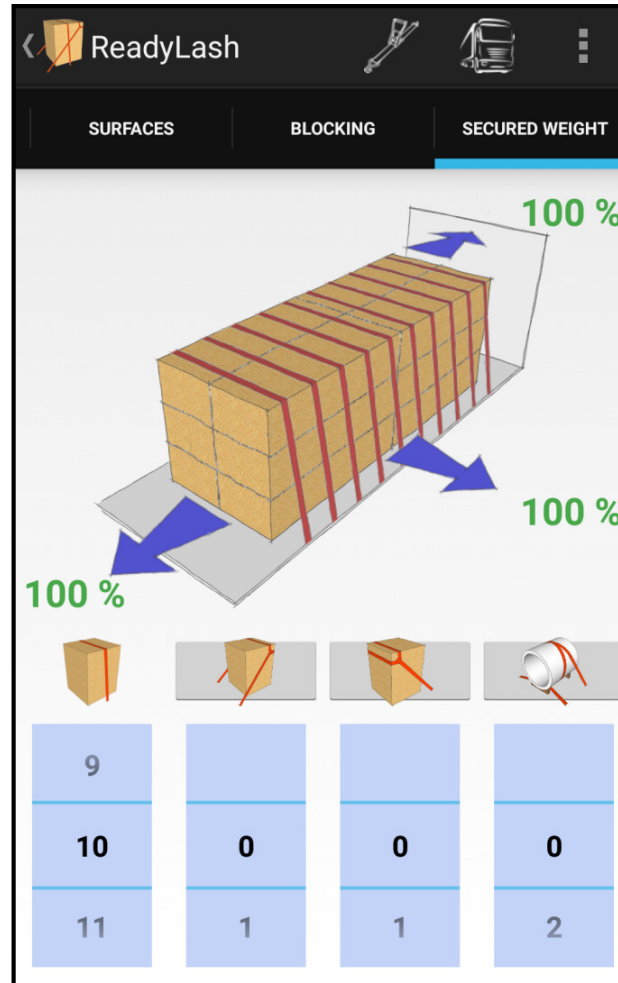
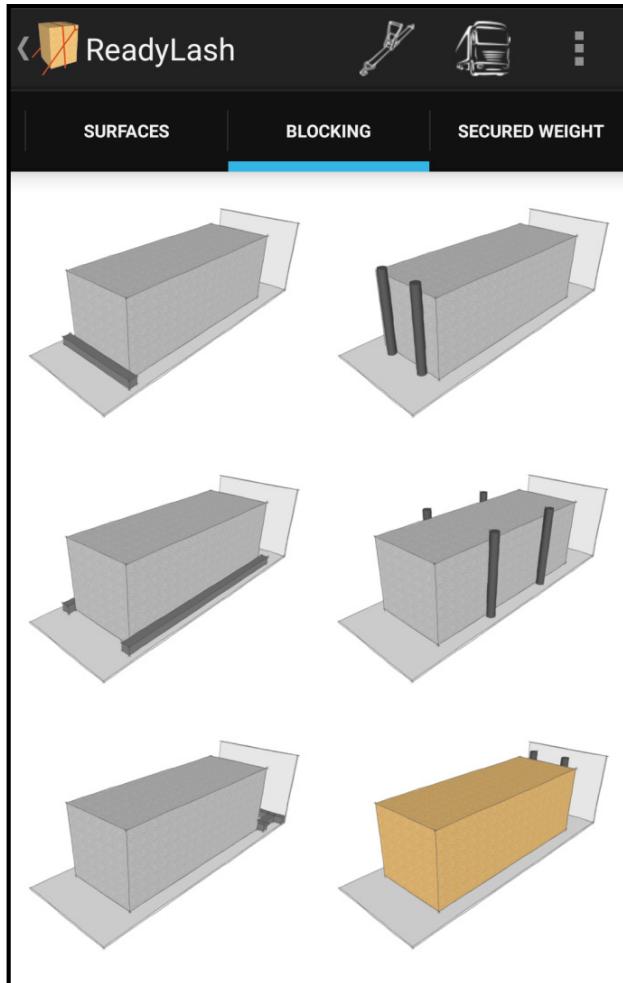
Pretension from tensioner

STF: daN

Guide for ReadyLash



Guide for ReadyLash



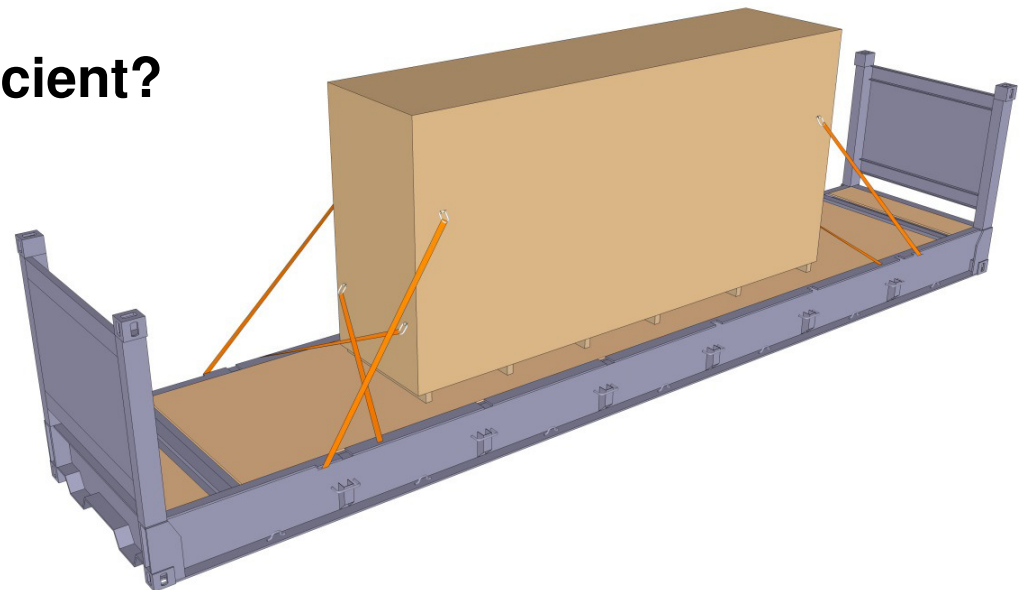
Two examples of lashing arrangements

Guide for ReadyLash

Example 5

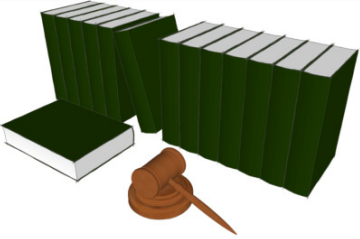
- A flat rack with wooden floor
- A box on wooden battens with the dimensions $H \times B \times L = 3.0 \times 1.5 \times 6.0$ m
- Weight 8 000 kg
- Eight straight lashings according to the image
- The lashings have $LC/MSL = 2\,000$ daN and $S_{TF} = 400$ daN
- Dimensions of the straight lashings: $H = 2$ m, $L1 = 1$ m and $L2 = 1$ m
- Dimensions of the crossed straight lashings: $H = 1$ m, $B = 1.2$ m and $L = 0.5$ m
- The transport is on road and sea area C

Is the cargo securing arrangement sufficient?




Guide for ReadyLash

Rules



- ☒ European standard EN 12195-1(2010)
- ☒ IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU code)
- ☐ Swedish regulations TSVFS 1978:10 and VVFS 1998:95

Mode of transport

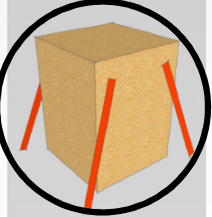
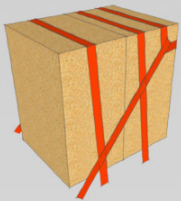



- ☒ Road
- ☐ Railway (combi)
- ☐ Sea area A
- ☐ Sea area B
- ☒ Sea area C


ReadyLash

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ReadyLash



Settings



Interface

- ☐ Quick and easy
- ☒ Advanced

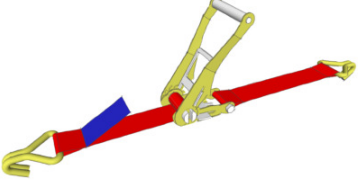
Presentation of result

- ☒ Show secured weight in table format
- ☐ Show secured weight in tons

Save values when returning to main menu

- ☐ Always save
- ☐ Never save
- ☒ Ask

Lashing gear



Web lashings 50 mm

Lashing Capacity (road)

LC: daN

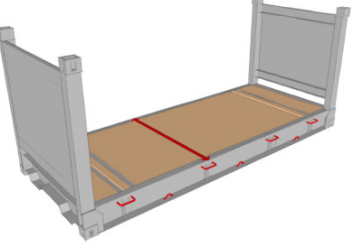
Maximum Securing Load (sea)

MSL: daN

Pretension from tensioner

STF: daN

Fittings



Flat rack (ISO - 3t)


Allowable force

LC, MSL: daN

Lateral distance

m

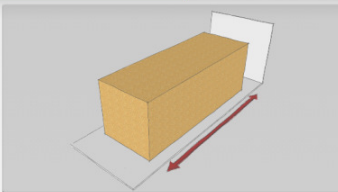
Guide for ReadyLash

 ReadyLash

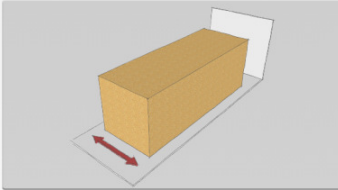
DIMENSIONS

SURFACES

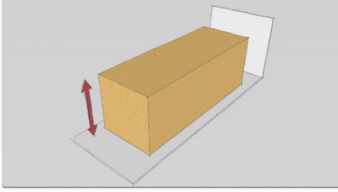
BLOCKING




6.0 m



1.5 m




3.0 m



GROSS WEIGHT

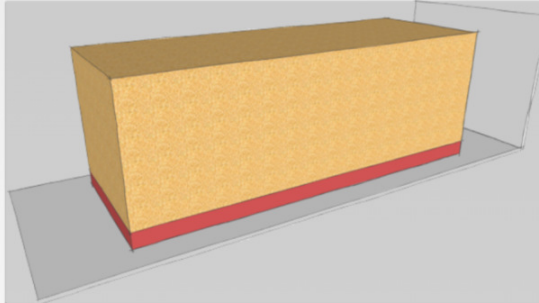
10.0 t

 ReadyLash

DIMENSIONS

SURFACES

BLOCKING



☒ Dry ☐ Wet ☐ Icy ☐ Greased

Platform:


Plywood/Wood/Fabric base laminate

Cargo:

Sawn wood/wooden pallet

Dunnage:

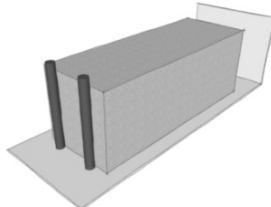
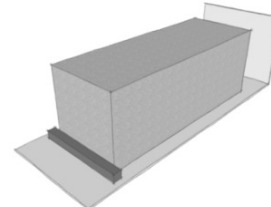
None

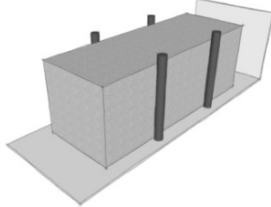
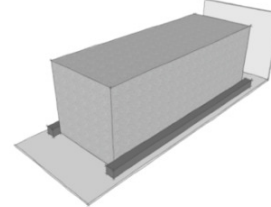
 ReadyLash

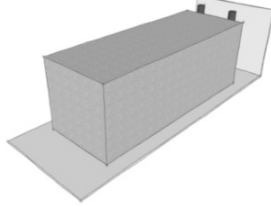
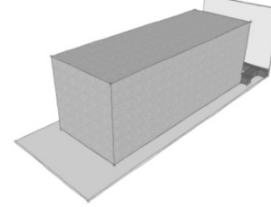
SURFACES

BLOCKING

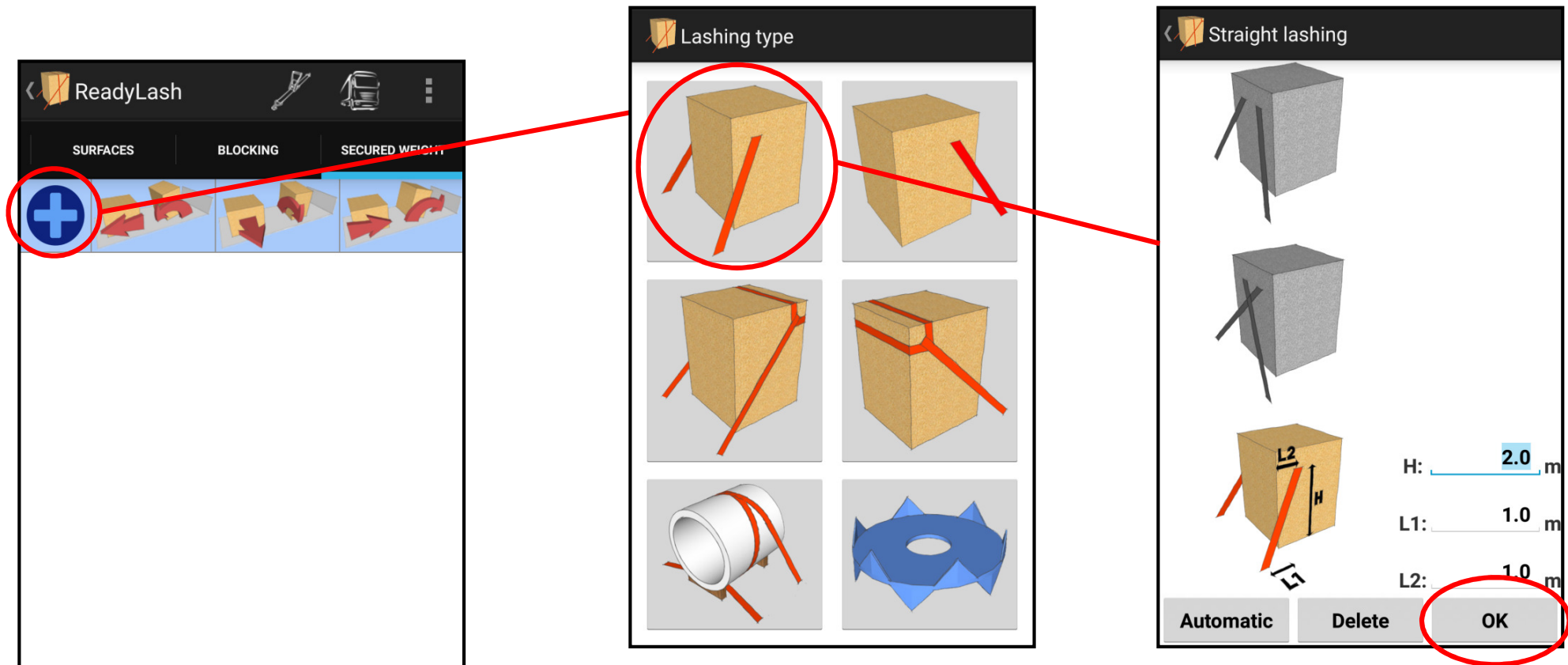
SECURED WEIGHT







Guide for ReadyLash



Note! If there are already lashings in the table, select one of the lashings and press delete. Repeat for the rest of the lashings

Guide for ReadyLash

ReadyLash

SURFACES BLOCKING SECURED WEIGHT

	0	100	17	33	82	100
%	0	100	17	33	82	100

Lashing type



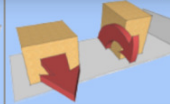
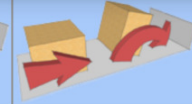


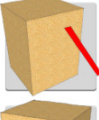
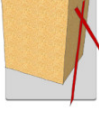
Straight lashing

H: 1.0 m
B: 1.2 m
L: 0.5 m

Automatic Delete OK

Repeat these steps for the straight lashings in the Other direction

Guide for ReadyLash

ReadyLash						
SURFACES		BLOCKING		SECURED WEIGHT		
						
	0 100	17 33	82 100			
	0 100	44 22	35 100			
	100 100	17 33	0 0			
	48 100	44 22	0 0			
%	100 100	100 100	100 100			

All lashings have been added and the box is secured 100% in all direction. The cargo securing arrangement is sufficient!