

Rules and regulations: transport and cargo securing



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Preface

Working safely is of paramount importance at Roba Metals. We make demands on everyone involved in our business processes, both internally and externally. Transportation of our products is also part of this.

We want to prevent cargo from tipping over, rolling, moving or even falling out of the vehicle during transport. This is to protect persons involved while loading, unloading, driving a vehicle, other road users and pedestrians. In addition, it is important that the cargo itself or the vehicle in which it is transported will not be damaged.

This document has been set up to be uniform in communication, to categorize all types of products involved, how to fasten them in the truck and also the enforcement procedure within all Roba Metals subsidiaries. It must be clear that for every transport order different rules and regulations are applicable, depending on type of products to be transported. In the event of any doubts, your contact person within Roba Metals should always be contacted.

Working together is important. In association with our partners, we aim to achieve the safe transportation of all our products.

ROBA METALS B.V.

ROBA METALS N.V.

ROBA METALS PROCESSING N.V.

ROBA VAN DER RIJN N.V.

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1. General requirements for driver and carrier

Roba Metals applies the same rules and requirements with regard to transport, equipment and drivers for all of its locations. Prior to the transportation of goods, Roba Metals will always provide a transport document and/or another (electronic) document to inform the carrier regarding the content of the cargo. This document shows:

1. Nature of the goods;
2. Number of packages;
3. Dimensions of the goods;
4. Individual package weights.

If the information provided by Roba Metals is not sufficient for a specific situation, the carrier must request Roba Metals to provide additional information. It is the responsibility of the carrier to do this on time and prior to the loading of the goods.

Carrier/material

1. Every carrier¹ must have the correct equipment with him at every registration at one of the Roba Metals sites. This means in any case:
 - a. Straps: at least 16 pieces;
 - i. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - ii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed.
 - b. Sufficient anti-slip mats to cover at least the loading floor and the entire first loading layer in the trailer;
 - i. Entire means: such that the first loading layer does not touch the loading floor in any way;
 - ii. Minimum coefficient of friction must be 0.6 μ ;
 - iii. The size of the anti-slip mat must be at least 10x10 cm.
 - c. Corner protection: at least 32 pieces (2 per strap).
2. Every carrier must comply with the legal requirements with regard to the maximum mass of a loaded vehicle;
 - a. Maximum permissible mass may differ per country;
 - b. This also includes the distribution of the total mass to get a correct axle pressure distribution.
3. If swaptrailers are used, the anti-slip mats must be present in the trailer when uncoupling on Roba Metals sites before loading.

¹ If this concerns the transport of bulk goods, reference is made to chapter 6 (Transport of bulk goods / bulk goods) of this document.

Drivers

1. Every driver must always follow instructions from Roba Metals staff and always adhere to the safety rules described in this document.
2. Every driver should always wear the personal protection equipment mentioned and shown below, without this equipment there is no access to Roba Metals warehouses or sites:
 - a. Safety helmet;
 - a. Safety shoes/boots;
 - b. Fluorescent safety vest;
 - c. Long pants;
 - d. Gloves.



3. In the warehouses the following applies: every driver should stay within a circle of a maximum of 5 meters from his/her vehicle. It is not permitted to move elsewhere in the warehouses, with the exception of the indicated walkways.

Roba Metals does not facilitate the above resources. If not present or insufficiently present, the shipper/driver will not be admitted to the site and he/she will have to turn to the nearest supply source in the vicinity. The obligation to execute the transport order on time remains and is entirely the responsibility of the carrier.

2. Transportation of coils

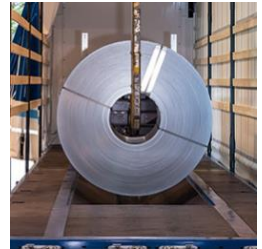
Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of coils:

A distinction is made between the following variants for this type of loads:

1. Coils with a skid (pallet);
2. Coils without a skid (pallet).

1. Coils without a skid

- a. Transportation of coils without a skid, regardless of their weight, must always be transported in a suitable trailer, so-called coil trailer;
- b. Trailer must be certified for load securing for coil transport in accordance with VDI 2700, page 19 or meet the requirements set out in the "Guidelines for European best practices (securing cargo) P.68 / 8.7" or at least equivalent thereof;
- c. An individual coil must always be placed in the coil gutter against the official positionable stanchions;
- d. Multiple coils must always be loaded against each other in a suitable trailer as mentioned in 2.1.b.;
- e. Anti-slip mats must be provided between the loading floor of the coil gutter and each loaded coil;
- f. Every coil must be secured with at least 2 straps through the eye of the coil;
 - i. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - ii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed;
 - iii. If the coil does not rise more than 25 cm above the edge of the coil gutter, only one tensioning strap is needed to be stretched over the top of each coil.
- g. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap;
 - ii. In the case of paragraph 1.f.iii, the use of corner protection does not apply.



2. Coils on a skid

The following ratio tables apply to transporting coils on a skid:



Applicable width/outside diameter ratio (stainless steel and steel coils)

Width in mm Max. skid weight

1500	9000 kg.
1250	7500 kg.
1000	6000 kg.
900	5400 kg.
800	4800 kg.
700	4100 kg.
600	3500 kg.

Applicable width/outside diameter ratio (aluminum)

Width in mm Max. skid weight

1500	4000 kg.
1250	3500 kg.
1000	3250 kg.
900	1800 kg.
800	1600 kg.
700	1400 kg.
600	1200 kg.

Outer diameter of coils on a skid has a maximum of 1100 mm.

Transportation of coils on a skid can be done in two ways:

1. Loaded directly against the (created) head of the trailer¹;
2. Loaded elsewhere in the trailer, not directly against the (created) head of the trailer.

1. Loaded directly against the (created) head of the trailer

- a. Anti-slip mats must be provided between the loading floor and every skid;
- b. Multiple coils on skids have to be loaded against each other without space in between;
 - i. If this is not the case, the regulations as described in paragraph 2.2.2. apply.
- c. Every coil must be secured with at least 2 straps through the eye of the coil;
 - i. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - ii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed.
- d. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap.

2. Loaded elsewhere in the trailer, not directly against the (created) head of the trailer

- a. Anti-slip mats must be provided between the loading floor and every skid;
- b. Every coil must be secured with at least 2 straps through the eye of the coil + 1 strap stretched over the top of each coil;
 - i. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - ii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed.
- c. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap.

¹ What is meant by a (created) head of the trailer?



3. Transportation of strips

Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of strips:

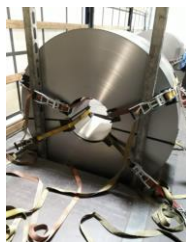
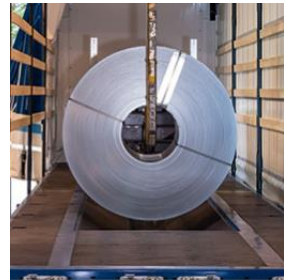
A distinction is made between the following variants for this type of loads:

1. Strips without a skid (pallet);
2. Strips on a skid (pallet).

1. Strips without a skid

1. Eye-to-the-side

- a. Transportation of coils without skid, regardless of their weight, must always be transported in a suitable trailer, so-called coil trailer;
- b. Trailer must be certified for load securing for coil transport in accordance with VDI 2700, page 19 or meet the requirements set out in the "Guidelines for European best practices (securing cargo) P.68 / 8.7" or at least equivalent thereto;
- c. An individual strip must always be placed in the coil gutter against the official positionable stanchions;
- d. Multiple strips will always have to be loaded against each other in a suitable trailer as mentioned in 3.1.b.;
- e. Anti-slip mats must be provided between the loading floor of the coil gutter and each strip;
- f. Every strip must be secured with at least 2 straps through the eye of the strip;
 - I. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - II. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed;
 - III. If several strips have been bundled, have been combined into one unit, it applies that this bundling must be secured with a minimum of 4 straps (according the correct LC and STF value as mentioned in paragraph 1.f.I in this chapter) through the eye of this bundle. See example on this page below.
- g. The use of corner protection in combination with straps is mandatory.
 - ii. At least 2 corner protectors must be used per strap.



Example

2. Strips on a skid

1. Eye-to-side

The following ratio tables apply to transporting coils on a skid:



Applicable width/outside diameter ratio (stainless steel and steel coils)

Width in mm	Max. skid weight
1500	9000 kg.
1250	7500 kg.
1000	6000 kg.
900	5400 kg.
800	4800 kg.
700	4100 kg.
600	3500 kg.

Applicable width/outside diameter ratio (aluminum)

Width in mm	Max. skid weight
1500	4000 kg.
1250	3500 kg.
1000	3250 kg.
900	1800 kg.
800	1600 kg.
700	1400 kg.
600	1200 kg.

Outer diameter of coils on skids has a maximum of 1100 mm.

Transportation of coils on a skid can be done in two ways:

1. Loaded directly against the (created) head of the trailer¹;
2. Loaded elsewhere in the trailer, not directly against the (created) head of the trailer.

1. Loaded directly against the (created) head of the trailer¹

- a. Anti-slip mats must be provided between the loading floor and every skid;
- b. Multiple skids have to be loaded against each other without space in between;
 - i. If this is not the case, the regulations as described in paragraph 3.2.2. apply.
- c. Every strip must be secured with at least 2 straps through the eye of the strip;
 - ii. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - iii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed.
- d. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap.

2. Loaded elsewhere in the trailer, not directly against the (created) head of the trailer¹

- a. Anti-slip mats must be provided between the loading floor and every skid;
- b. Every strip must be secured with at least 2 straps through the eye of the strip + 1 strap stretched over the top of the strip;
 - i. Tension: a minimum LC-value of 5000 daN and a minimum STF-value of 400;
 - ii. If less than a LC value of 5000 daN and a STF value of 400, a proportionate number of extra straps is needed.
- c. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap.

2. Eye-to-the-sky

- 1. Anti-slip mats must be provided between the loading floor and every pallet;
 - a. Such that the loading floor and the first layer of the load are entirely provided with anti-slip material.
- 2. The following applies to the use of the number of straps:
 - a. Form-fitting loading and/or use of the (created) head of the trailer:



loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12

- i. Form-fitting loading means: the goods to be loaded are loaded directly and without empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
- ii. A (created) head of the trailer must meet the following requirements:
 - a. Certified load securing for coil transport in accordance with VDI 2700, page 19 or to meet the requirements set out in the “Guidelines of European best practices (securing cargo) P.68 / 8.7” or at least equivalent to this. This applies to both head of the trailer and stanchions to be placed in the (coil) trailer.

¹ Definition (created) head of a trailer: see page 8 of this document.

b. Non-form-fitting loading and no use of the (created) head of the trailer¹:

loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12

- i.** Non-form-fitting loading means: the goods to be loaded are not loaded directly and with empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
3. The use of corner protection in combination with straps is mandatory.
- a. At least 2 corner protectors must be used per strap.

¹Definition (created) head of a trailer: see page 8 of this document.

4. Transportation of sheets, stacking bins & pallets

Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of sheets, stacking bins and pallets:

1. Anti-slip mats must be provided between the loading floor and first loading layer;
 - a. Such that the loading floor and the first layer of the load are entirely provided with anti-slip material.



2. The following applies to the use of the number of straps:
 - a. Form-fitting loading and/or use of the (created) head of the trailer ¹:

loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12



- I. Form-fitting loading means: the goods to be loaded are loaded directly and without empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
 - II. A (created) head of the trailer must meet the following requirements:
 - b. Certified load securing for coil transport in accordance with VDI 2700, page 19 or to meet the requirements set out in the “Guidelines of European best practices (securing cargo) P.68 / 8.7” or at least equivalent to this. This applies to both head of the trailer and stanchions to be placed in the (coil) trailer.
- b. Non-form-fitting loading and no use of the (created) head of the trailer²:

loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12

- ii. Non-form-fitting loading means: the goods to be loaded are not loaded directly and with empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);

¹ If loading with an overhead crane and stanchions are present in the trailer to create a head of the trailer, these must always be placed.

² Definition (created) head of a trailer: see page 8 of this document.

3. The use of corner protection in combination with straps is mandatory.
 - a. At least 2 corner protectors must be used per strap.

Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of metal stacking bins:

1. Form-fitting loading, starting at the head of the trailer towards the rear of the trailer, the load should only be secured against upward forces by using straps;



- a. Form-fitting loading means: the goods to be loaded are loaded directly and without empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);

- b. The last two rows of stacking bins (viewed from the side) in the trailer/tautliner must be secured with at least 1 strap stretched over the top of each row;

- c. The use of corner protection in combination with straps is mandatory.
 - i. At least 2 corner protectors must be used per strap.

2. For non-form-fitting loads (partial loading, not starting at the head of the trailer, but elsewhere in the trailer) the following applies in addition to the method mentioned in paragraph 1 of this chapter: the use of anti-slip mats is mandatory.

- a. Non-form-fitting loading means: the goods to be loaded are not loaded directly and with empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
- b. Each row of stacking bins must be secured with at least 1 strap stretched over the top of each row;
- c. Anti-slip mats must be provided between the loading floor and first loading layer;
 - i. Such that the loading floor and the first layer of the load are entirely provided with anti-slip material.

5. Transportation of long products, big bags & profile racks

Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of long products, big bags & profile racks:

1. Anti-slip mats must be provided between the loading floor and first loading layer;
 - a. Such that the loading floor and the first layer of the load are fully provided with anti-slip material.



2. The following applies to the use of the number of straps:
 - a. Form-fitting loading and/or use of the (created) head of the trailer ¹:

loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12



- I. Form-fitting loading means: the goods to be loaded are loaded directly and without empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
- II. A (created) head of the trailer must meet the following requirements:
 - a. Certified load securing for coil transport in accordance with VDI 2700, page 19 or to meet the requirements set out in the "Guidelines of European best practices (securing cargo) P.68 / 8.7" or at least equivalent to this. This applies to both head of the trailer and stanchions to be placed in the (coil) trailer.

- b. Non-form-fitting loading and no use of the (created) head of the trailer²:

loading meters # straps

<3	2
4	3
6	5
8	6
10	8
12	10
13,6	12

- I. Non-form-fitting loading means: the goods to be loaded are not loaded directly and with empty spaces up to the boundaries of the loading space (head of the trailer, side wall, stanchions, etc.);
3. The use of corner protection in combination with straps is mandatory.
 - b. At least 2 corner protectors must be used per strap.

¹ If loading with an overhead crane and stanchions are present in the trailer to create a head of the trailer, these must always be placed.

² Definition (created) head of a trailer: see page 8 of this document.

6. Transportation of bulk products

Roba Metals demands that the following minimum requirements are met for securing materials for the transportation of bulk products:



1. Weight distribution;

- a. A load distribution that is as homogeneous as possible;
 - i. Seen from the side: the center of gravity of the load must be above the towing axle of the vehicle and as low as possible;
 - ii. Viewed from the rear of the vehicle: the center of gravity must be in the center of the vehicle.

2. Strength of load space limitation;

- a. There are no legal requirements with regard to the strength of the load space limitation;
- b. Roba Metals follows standard NEN-EN 283;
 - i. Upon first request, it must be possible to prove that the relevant interchangeable container complies with the aforementioned standard or equivalent.

3. Coverage of load;

- a. The load must always be completely covered by means of:
 - i. Tarpaulin;
 - ii. Net;
 - iii. Another way to close the container entirely;
- b. This covering must prevent the load from falling out of the interchangeable container at all times.

4. Coverage of interchangeable containers.

- a. Interchangeable containers may only be transported with a vehicle that has been developed for the transport of such containers;
 - i. These vehicles can secure the interchangeable containers in all directions;
 - ii. These vehicles have a CE declaration (Declaration of Conformity) and have been issued by the vehicle supplier/supplier of the superstructure of the vehicle.
- b. Upon first request, it must be possible to prove that the vehicle has the CE declaration mentioned above.

7. Combined loads

Combined loads for products as described in this document is only permitted if the following rules are met:

1. All individual parts of a combined load must be secured against sliding, tilting and moving in all directions;
2. Each type of loading must be secured as described in the previous chapters of this document.

8. Additional customer requirements

If different/additional securing methods are requested by our customers, these must be approved in advance by those responsible within Roba Metals. The different/additional methods must always meet the minimum requirements. If honoured, these are communicated internally to all stakeholders and followed up by our staff.

9. Enforcement

All outgoing cargo will be visually inspected after loading and securing by the loader of the vehicle for all requirements described in this document. If deviations are found, these first have to be solved before the vehicle is allowed to leave Roba Metals site/warehouse.

It is the responsibility of the carrier to meet its obligations towards Roba Metals. If the carrier does not meet the requirements set out in this document, this will result in an attributable shortcoming in the fulfillment of the obligations towards Roba Metals.

Statement of agreement

Rules and regulations: transport and cargo securing

The undersigned declares to have fully read and understood the transport and cargo securing document of Roba Metals and agrees with its contents:

Company name:

Name:

Function:

Street + number:

Post code + address:

Telephone:

E-mail:

Comments:

In case of using subcontractors you must share this document with them, they must also comply with the requirements set out in this document.

Place and date:

Signature:

.....