

Loading of roro ramp

Conversion factor

The roro ramp at Hara Holmen is owned and managed by Piteå Hamn AB. This quick reference guide has a simplified conversion factor of 1:10 between kg and Newtons. I.e. 10 kN = 1 tonne and 10 N = 1 kg

Type vehicles

This document gives examples of normally occurring vehicles, so that operators and shipping companies can easily know whether the roro ramp is suited to their particular vehicles. In the event of uncertainty and difficulty in interpreting, the port office must be contacted.

Capacity of the roro ramp

Dimensions

- The depth is at least the depth of the shipping channel 12.5 m or greater.
- The width is 24.6 m between the outside of the concrete dry cargo quay and the roro ramp.
- The length is 44.2 m between the outsides of the concrete on the roro ramp.
- The upper surface is executed in a radius of 150 m with the possibility of mooring from both directions.
- The level of the top edge runs from +1.42 m to +3.03 m RH 2000 (Baltic Sea Chart Datum 2000).

Equipment

- Heated upper surface for ice- and snow-free platform.
Started manually before vessels with a need for the roro function call.
- General lighting and 400 V/63 A.
- Socket for shore-side electricity supply 6kV/55 Hz.
- 30 tonne bollard for mooring on outside of roro ramp.
- Wooden spar 50 mm/2" as scrape protection against ships.

Loading of different vehicles

Ordinary road vehicles

- Vehicles approved to travel on roads with load-bearing capacity 4 (BK 4) according to the Swedish Transport Administration can be driven via roro without taking account of frequency, number or other parameters.
See: www.trafikverket.se/for-dig-i-branschen/vag/bk-barighetsklasser-pa-vagar-och-broar/

Other road vehicles

- Vehicles and trailers fitted with rubber wheels with an axle pressure of less than 11 tonnes/110 kN and a width of at least 2.2 m between the outsides of the tyres can be driven via ro-ro without taking account of frequency, number or other parameters.
- Vehicles and trailers fitted with rubber wheels with an axle pressure of more than 11 tonnes/110 kN and a width of at least 2.2 m between the outsides of the tyres **must be approved in each individual case by the port office.**

Tractors, lift trucks and similar

- Tractors, lift trucks and similar fitted with air-filled rubber wheels, with at least 2 axles and a total weight of:
 - 40 tonnes, if the total weight between axles is above 3.5 m and the width between the outsides of the tyres is above 3.0 m
 - 65 tonnes, if the total weight between axles is above 4.5 m and the width between the outsides of the tyres is above 3.5 mcan be driven via ro-ro without taking account of frequency, number or other parameters.
- Other tractors, lift trucks and similar with a total weight exceeding 65 tonnes **must be approved in each individual case by the port office.**

Tracked machinery

- Tracked machinery with a total weight of less than 40 tonnes/400 kN can be driven via ro-ro without taking account of frequency, number or other parameters.
- The ro-ro ramp can also handle tracked machinery with a total weight exceeding 40 tonnes but **must be approved in each individual case by the port office.**

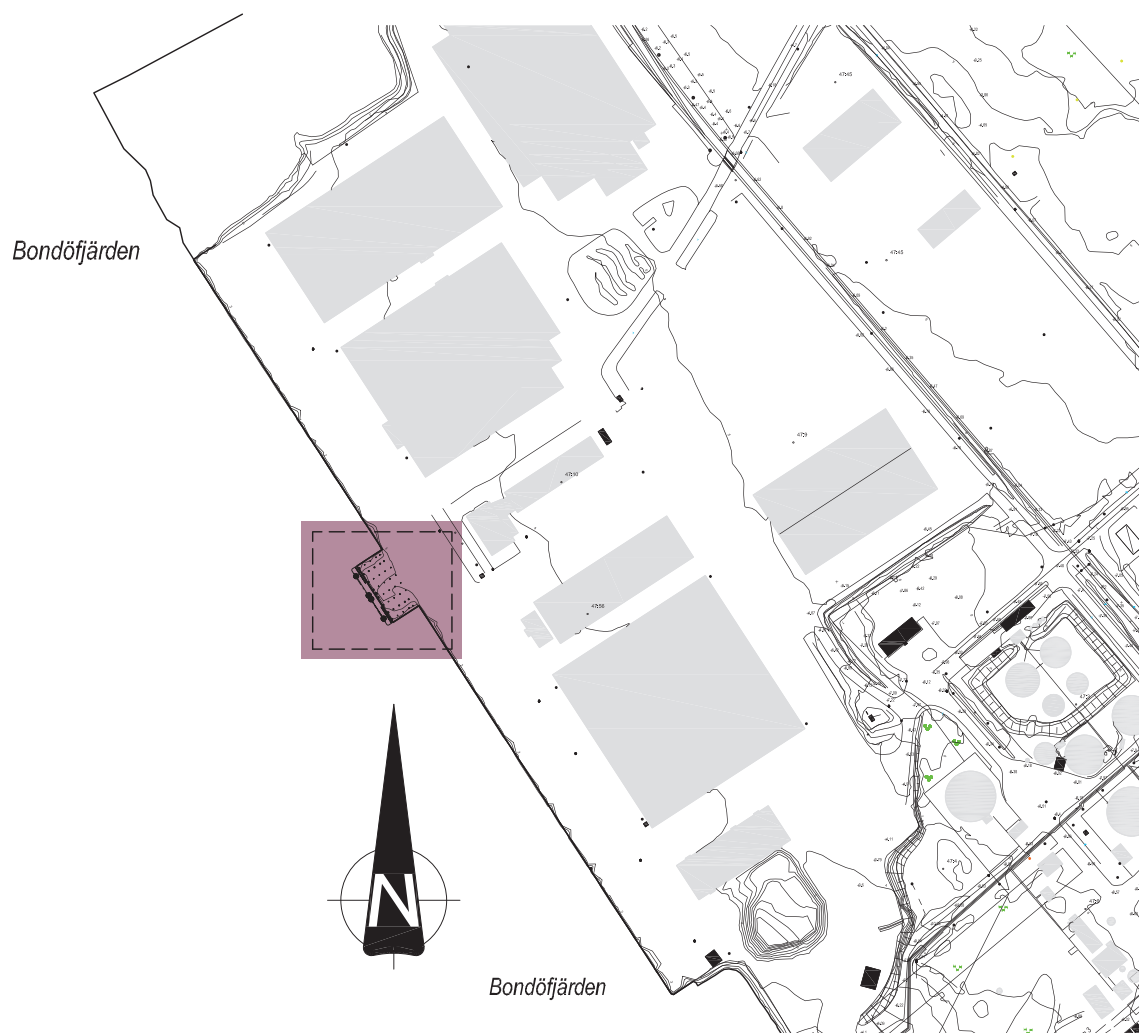
MAFI roll trailers

- Cargo weighing 45 tonnes on any MAFI roll trailer can be driven via ro-ro without taking account of frequency, number or other parameters.
- Cargo weighing 60 tonnes on a MAFI roll trailer, L=12 can be driven via ro-ro without taking account of frequency, number or other parameters.
- Cargo weighing up to 75 tonnes on a MAFI roll trailer which is at least L=12 m, in order to be allowed to be driven via ro-ro, require the loading from the cargo to be distributed exactly centred sideways and lengthways, 45% on the tow tractor and 55% on the wheel pair of the roll trailer. Each individual case requires separate written reporting to the port office in advance.
- Further increase in weight of cargo on a MAFI roll trailer may be approved. **However, investigation at expertise level under the responsibility of the port is required, at the customer's expense.**

Expanded load

- The ro-ro ramp can be loaded with expanded loads of 3.5 tonnes/tonnes/m² or 35 kN/m² without taking account of frequency, time or other parameters.
- After special assessment, the ro-ro ramp can handle 5 tonnes/m² or 50 kN/m² **but must be approved in each individual case by the port office.**

Geographical location of ro-ro ramp



Roro ramp in plan

