

**PORT
OULU**

**Vihreäsaaren harbour
OPERATIONAL SAFETY
INSTRUCTIONS**



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1 INTRODUCTION

These instructions are based on the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), the International Convention for the Prevention of Pollution from Ships (MARPOL), the International Safety Guide for Oil Tankers & Terminals (ISGOTT 6), the International Ship and Port Facility Security Code (ISPS Code), regulations concerning liquid fuels, and the port's quality and environment handbook. In addition, the port regulations of the Port of Oulu must be followed.

1.1. Purpose of the instructions

The purpose of this document is to explain the safety instructions of Vihreäsaari harbour and assist and guide the personnel and harbour users in functions related to the handling of hazardous substances in the area of Vihreäsaari harbour.

1.2. Areas of responsibility, harbour and terminals/operators

The oil quay and loading arms and pipelines of Vihreäsaari harbour are the property of the Port of Oulu. The port is responsible for the maintenance and servicing of the above.

Operators and terminals are responsible for all equipment and functions within their respective areas. In addition, the operators who handle loading and unloading in the area must follow their internal instructions regarding vessel and terminal cooperation to ensure operational safety.

1.3. Availability of safety instructions

These instructions are available from the Satamatalo office building in Oulu (Poikkimaantie 16, FI-90400 OULU, Finland). Shipmasters, shipping companies and their agents, receivers and loaders of cargo, and operators are obligated to know these rules, relay them to all their personnel, and ensure that they are observed. These instructions have been distributed to all operators in Vihreäsaari, and they are also available on the Port of Oulu website.

2 HARBOUR AREA

2.1 Vihreäsaari harbour map and operators

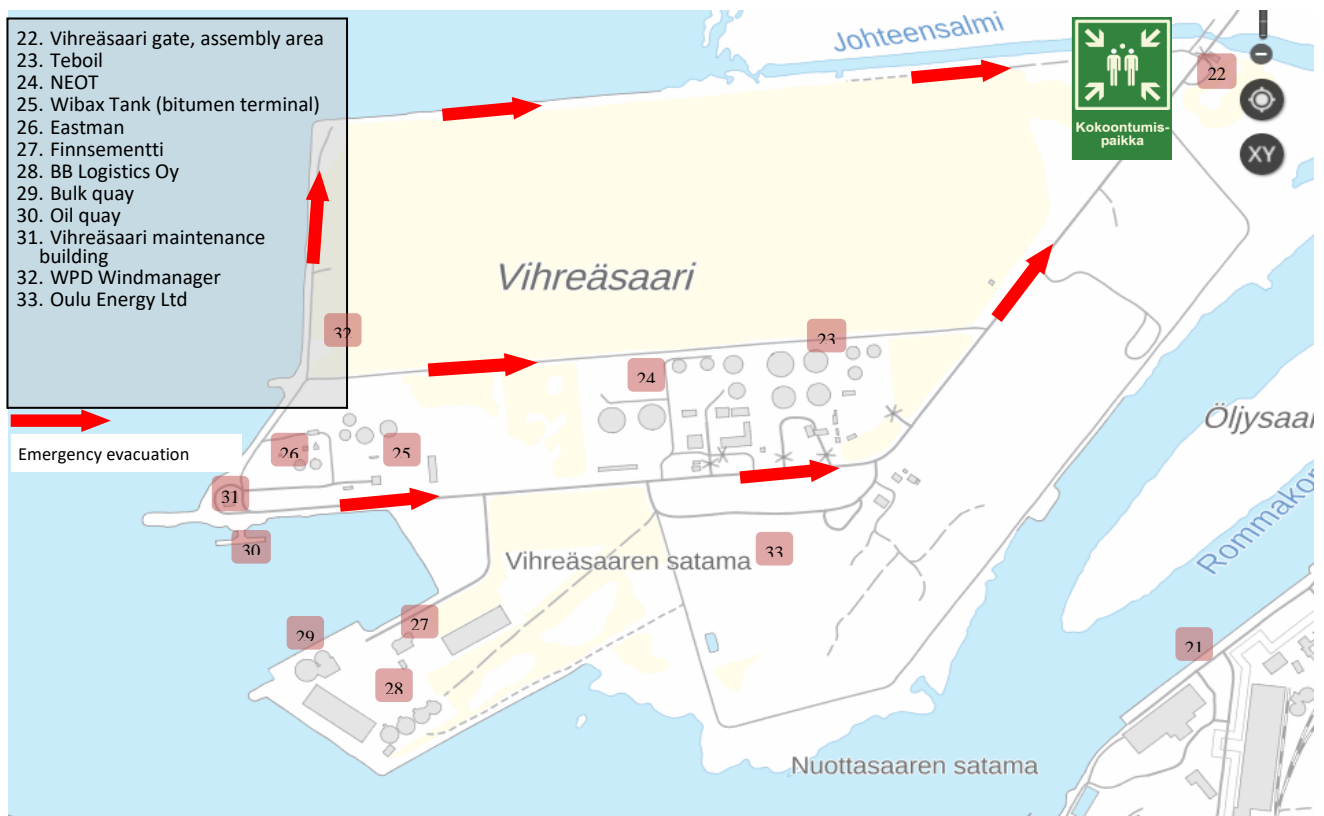


Figure 1. Map of Vihreäsaari. Escape routes are marked with red arrows.

2.2 Harbour access and parking

Only authorised persons may access the harbour. Access permits are issued by the Port of Oulu safety manager or their authorised deputy. See Appendix 8 and www.ouluport.com for contact information. In addition to the authorities, the person or persons authorised by the port may remove unauthorised persons from the area.

The Vihreäsaari harbour facility has been approved in accordance with the ISPS Code and certified by the Finnish Transport and Communications Agency Traficom.

Parking is only permitted in marked parking locations.

2.3. Safety zones

A safety zone of 25 metres is established around all vessels docked at the Vihreäsaari oil quay. During a vessel's loading, unloading, or similar operations, NO other activities, motor vehicles, or watercraft are permitted within the safety zone. No electronic devices may be used within the safety zone unless specifically rated for operation within such a zone.

2.4. Hot work, open flame, and smoking

Permission is always required for hot work from the port representative or whichever operator manages the working area. For hot work on the port's premises, permission may only be granted by the Port of Oulu's infrastructure manager, tel. +358 50 379 6271, or the traffic and safety manager, tel. +358 44 703 2751.

Open flame is absolutely prohibited on the port's premises.

Smoking is ONLY permitted in specific signposted facilities both on board and on land.

2.5. Photography within the harbour

Permission is always required for photography from the operator who manages the area in question.

2.6. Alcohol and narcotics

Appearing under the influence of alcohol or narcotics is absolutely prohibited in the harbour area. The consumption of alcohol on board during cargo handling and similar operations is prohibited.

3. ARRIVAL, DOCKING, AND DEPARTURE

3.1. Vihreäsaari oil quay, maximum vessel dimensions and quay specifications

The following table includes the quay's specifications and the maximum dimensions for vessels based on quay design and strength analysis.

| Water depth and maximum draft in the approach | |
|---|------|
| Lowest water depth, m | 11,0 |
| Max draft, m | 10,0 |

| Maximum vessel size docking at berth | |
|--------------------------------------|--------|
| DWT | 53,000 |
| Displacement, ton | 46,500 |
| LOA, m | 200 m |
| Max Beam, m | 33 |
| Max draft, m | 10,0 |

| Berth data | |
|--|----------|
| Depth at lowest astronomical tide, LAT | 11,5 m |
| Length of berth front, m | 72 m |
| Fenders at berth corner | 7 piece |
| Fender capacity | |
| Max berthing speed: | |
| 20000 DWT | 0,15 m/s |
| 53000 DWT | 0,1 m/s |
| Tug support | 0,1 m/s |
| | |

| Bollard sizes | | | | | | | | | | | | | | |
|---------------|-----|----|----|----|----|----|----|-----|---|----|----|----|----|----|
| Bollard | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Rating (ton) | 150 | 75 | 75 | 75 | 75 | 75 | 75 | 150 | | | | | | |

Table 1. Maximum vessel dimensions and quay specifications for the Vihreäsaari oil quay.

3.2 Advance notice

The rules concerning advance notices are included in the port regulations. Advance notice must be given at least 24 hours before the estimated time of arrival in the port. The notice must be sent from the Portnet system.

3.3 Towage

Due care must be taken when fastening and releasing moorings and while docked to avoid damaging the quay and the equipment on it. If necessary, a tug must be used to assist in mooring and departure. The port authority may also order a vessel to be assisted by a tug.

3.4. Moorings

The shipmaster is always responsible for safely mooring their vessel. Vessels must always be moored according to the prevailing and foreseeable weather conditions. Vessels must always retain sufficient crew to depart from the quay and add moorings, should changes in weather make this necessary. During loading and unloading, the tautness of moorings must be monitored and the moorings slackened or tightened to maintain the vessel's position in relation to the quay. Self-adjusting winches may not be used while docked. See section 6 (Mooring Plan) for the port's mooring arrangements and minimum requirements.

3.5. Precautions while docked

Vessels with hazardous cargo on board must keep the international signal flag B raised and turn on a 360-degree red light at night while docked.

Appropriate and approved protective clothing or CE-marked hi-visibility vests, protective helmets, and the personal protective equipment required for the work must be worn while working at the oil quay.

3.6. Vessel maintenance and repairs

Vessels must keep their propulsion machinery at the ready at all times while docked. No maintenance or repairs may be carried out that would prevent the machinery from running, unless permitted in writing by the port authority. If a vessel requires such maintenance or repairs, permission must be acquired in good time before arrival in the port. If repairs prevent the use of the vessel's propulsion machinery, a tug must be kept on standby to remove the vessel from the quay. In this case, the shipping company is responsible for the cost of the tug.

3.7. Access to vessels

Vessels or their representatives must notify the Port of Oulu in advance of all personnel, replacement crew, visitors, suppliers, etc. who must have access to certain vessels. If a person attempts to access a vessel without prior notice, port security will verify the purpose of their visit from the vessel's representative before the person is let through the gate.

Access control from quay to vessel is managed according to the instructions of the vessel's head of security.

4 **LOADING AND UNLOADING FUNCTIONS AT VIHREÄSAARI HARBOUR**

All loading and unloading of vessels in Vihreäsaari harbour must be carried out in cooperation by the operator in question and the shipmaster. The port is responsible for its property, including equipment, such as mechanical loading arms and loading pipelines. The person in charge of Vihreäsaari harbour is the traffic manager of Port of Oulu Ltd. See section 8 for contact information.

For the locations of the mechanical loading arms, see section 6.

4.1. Preliminary measures

Vessels and operators must verify the following information before undertaking cargo operations:

- The Ship/Shore Safety Check List, ISGOTT 26.3.3. Must be reviewed and signed by both parties.
- Reliable radio contact. Must be established between the vessel and operator on a predetermined frequency.
- Vessel earthing. Must be accomplished before connecting any loading arms or pipes.
- Tightness of loading arm and pipe connections.
- Manifold guard. Must be in place before pumping may begin.

In addition, the vessel must ensure the following:

- All scuppers on the vessel's deck leading into the sea must be closed before cargo handling may begin.
- All doors, windows, and other such openings leading to crew quarters must be closed during cargo handling and similar operations.

4.2 Cargo handling

- Carefully increase pumping pressure to the predetermined full working pressure while checking the tightness of connections.
- Pumping pressure **MUST NEVER EXCEED 9 BAR.**
- During a thunderstorm, the shipmaster, operator, or port authority may interrupt cargo handling, if necessary.
- Cargo handling must be halted if wind speeds continuously exceed 20 m/s. The lines must be emptied but the loading arms must be left connected for safety reasons.

4.3 Cleaning and ventilation of vessel cargo spaces

The cargo spaces of vessels may not be cleaned or ventilated while docked. Cargo space cleaning, ventilation, and similar operations must be carried out in the anchorage located by the port's entrance channel.

5 INSTRUCTIONS FOR FIRES AND OIL SPILLS

In case of a fire or spill, the vessel or terminal must sound the alarm immediately and all cargo handling must be stopped, the lines emptied, and valves closed.

Fire or spill on board

Vessel measures:

- Sound the alarm aboard and use the vessel's horn to sound short blasts continuously.
- Notify the terminal.
- Begin first extinguishing and/or attempt to limit the spread of the spill.
- Prepare to disengage the loading arms and be ready for immediate departure.

Terminal measures:

- Sound the alarm and alert the emergency response centre (ERC; call 112).
- Notify the port by calling +358 44 703 2759 (round the clock).
- Assist in first extinguishing and attempt to limit the spread of any spills.
- Prepare to disengage the loading arms and be ready to immediately remove the vessel from the quay.

Terminal fire or spill

Terminal measures:

- Sound the alarm and alert the emergency response centre (ERC; call 112).
- Notify the vessel on the agreed upon frequency and the port by calling +358 44 703 2759 (round the clock).
- Begin first extinguishing and/or attempt to limit the spread of the spill.
- Prepare to disengage the loading arms and be ready to immediately remove the vessel from the quay.

Vessel measures:

- Sound the alarm aboard the vessel.
- Prepare to stop loading and unloading.
- Prepare to disengage the loading arms and be ready for immediate departure.

PORT OF OULU, VIHREÄSAARI



Figure 2. Vihreäsaari safety instructions and escape routes to the assembly area.

6 MOORING PLAN (MINIMUM), VESSEL LENGTH APPROX. 140 M

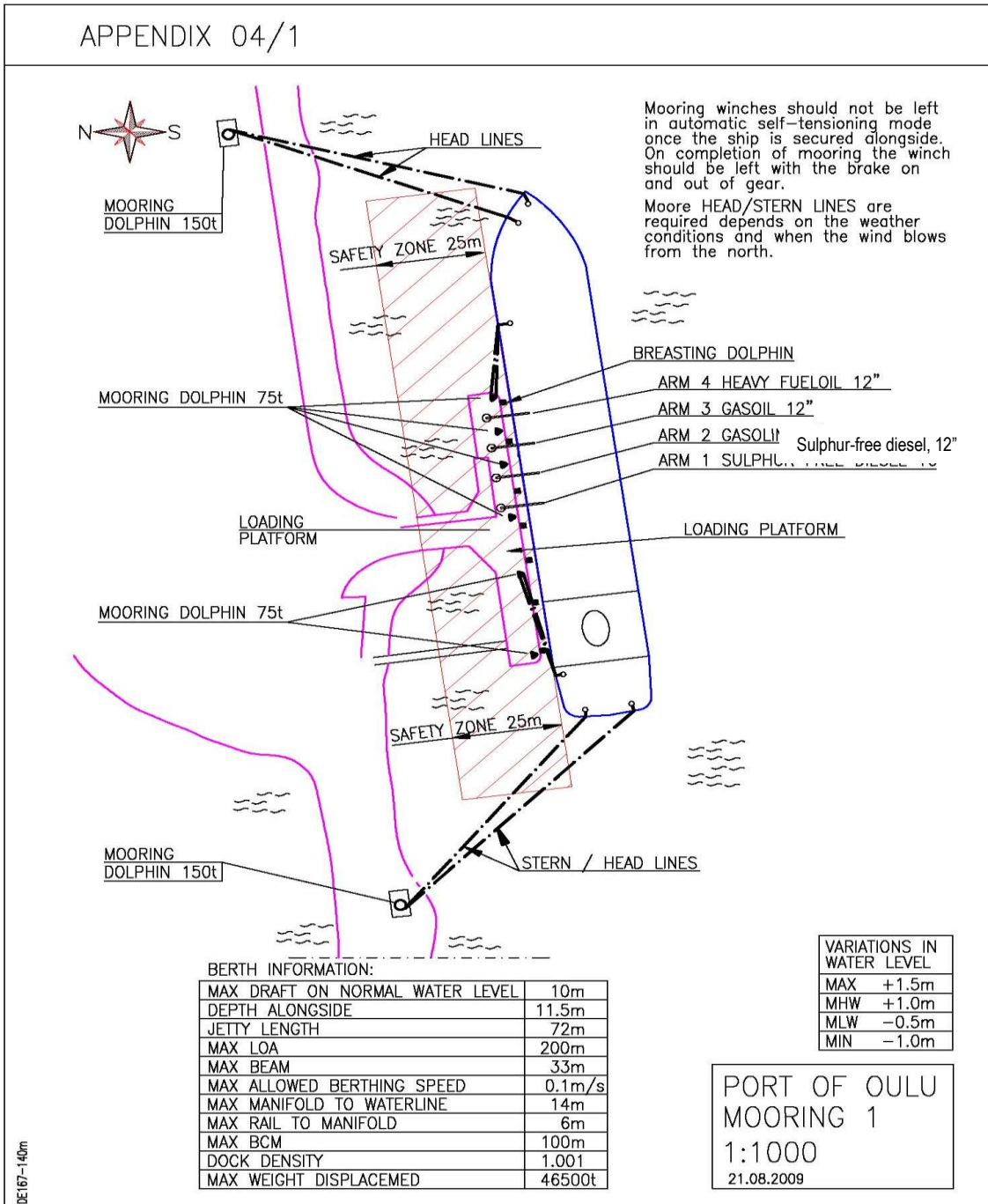
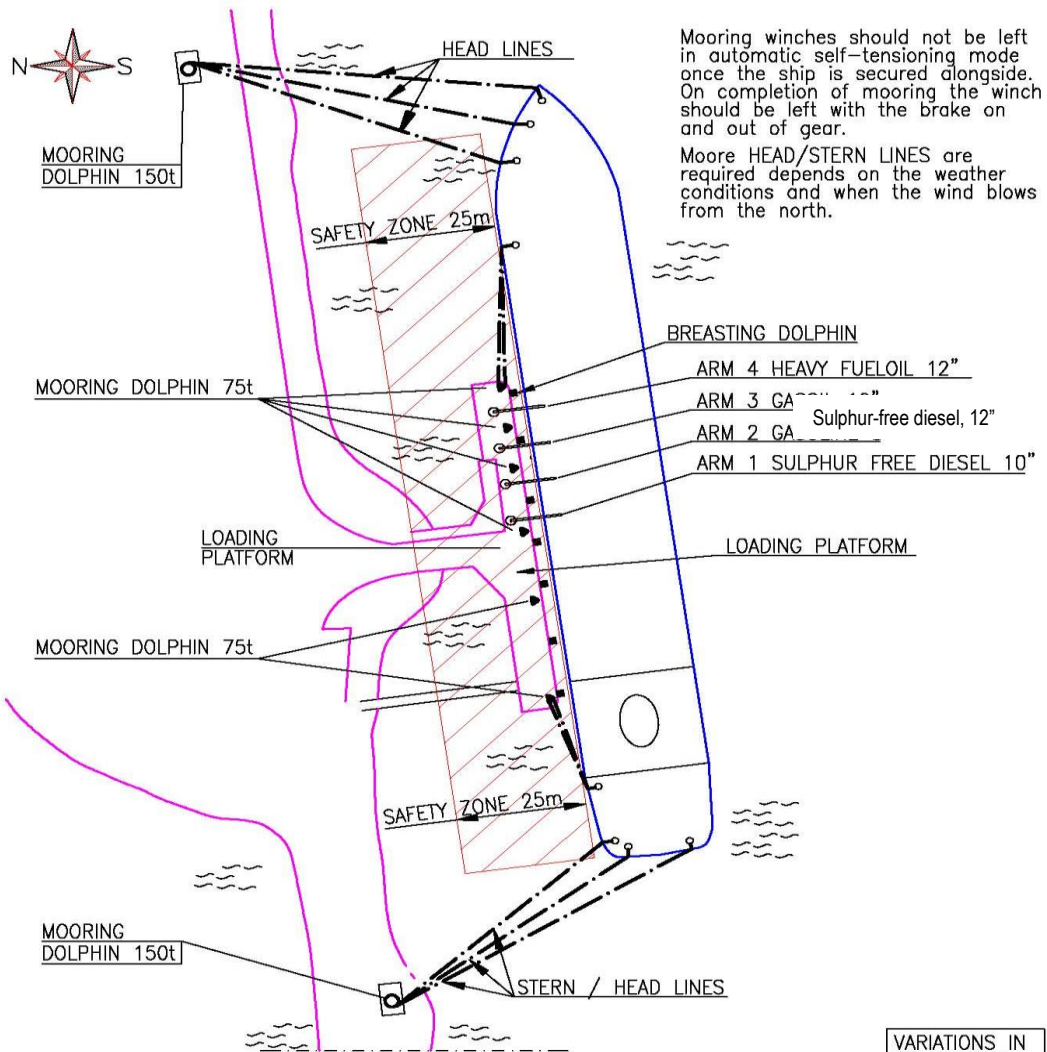


Figure 3. Mooring arrangements for vessels about 140 metres long.

7 MOORING PLAN (MINIMUM), VESSEL LENGTH APPROX. 170 M

APPENDIX 04/2



Mooring winches should not be left in automatic self-tensioning mode once the ship is secured alongside. On completion of mooring the winch should be left with the brake on and out of gear.
 Moore HEAD/STERN LINES are required depends on the weather conditions and when the wind blows from the north.

BERTH INFORMATION:

| | |
|---------------------------------|--------|
| MAX DRAFT ON NORMAL WATER LEVEL | 10m |
| DEPTH ALONGSIDE | 11.5m |
| JETTY LENGTH | 72m |
| MAX LOA | 200m |
| MAX BEAM | 33m |
| MAX ALLOWED BERTHING SPEED | 0.1m/s |
| MAX MANIFOLD TO WATERLINE | 14m |
| MAX RAIL TO MANIFOLD | 6m |
| MAX BCM | 100m |
| DOCK DENSITY | 1.001 |
| MAX WEIGHT DISPLACEMED | 46500t |

| VARIATIONS IN WATER LEVEL | |
|---------------------------|-------|
| MAX | +1.5m |
| MHW | +1.0m |
| MLW | -0.5m |
| MIN | -1.0m |

PORT OF OULU
 MOORING 2
 1:1000
 21.08.2009

DE167-170m

3/11/2023

Figure 4. Mooring arrangements for vessels about 170 metres long.

8 MECHANICAL LOADING ARM RANGE OF MOTION

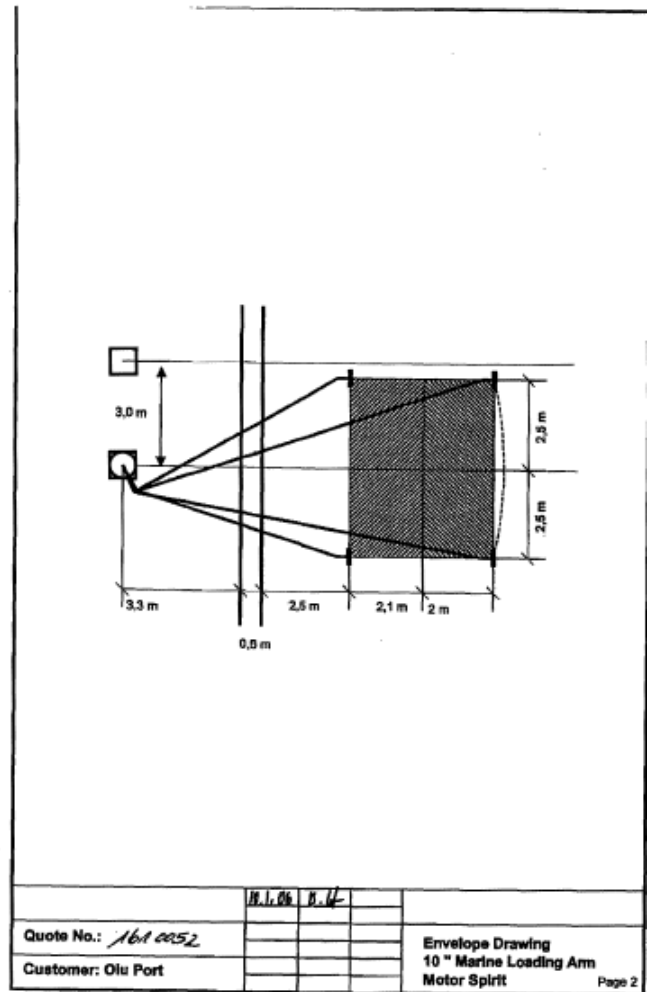
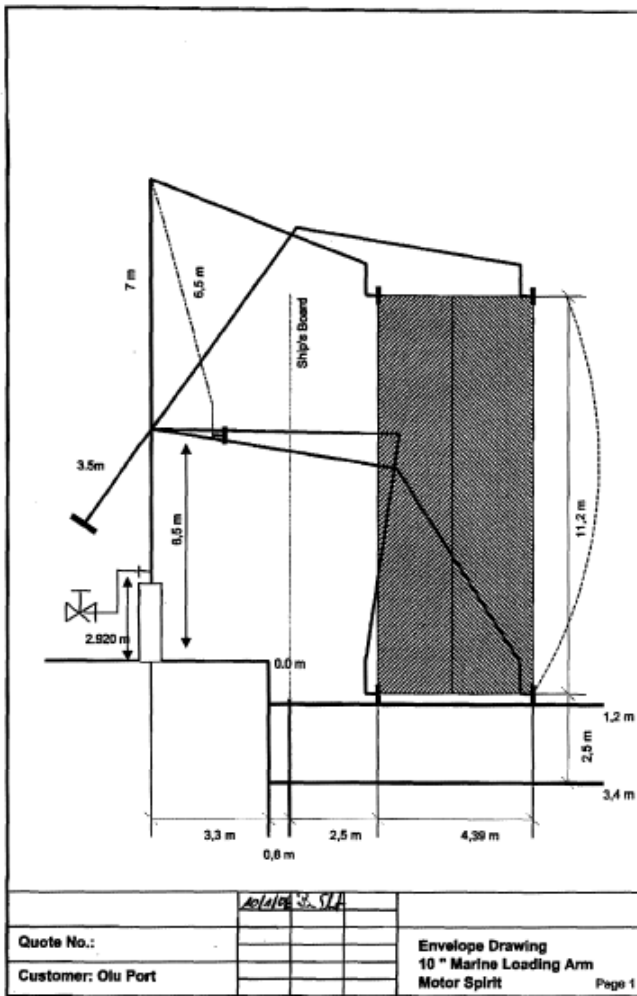


Figure 5. Loading arm range of motion.

9 CONTACT INFORMATION

Street address:

Poikkimaantie 16
90400 Oulu, Finland

□ [Guide map](#)

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Email: firstname.lastname@ouluport.com

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Infrastructure manager

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Development manager

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Port coordinator

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Vessel services

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Maintenance services

Maintenance
Tel. +358 44 703 2781

Maintenance, divers
Tel. +358 44 703 2780

Ice breaking and towage

R-Towing Oy
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