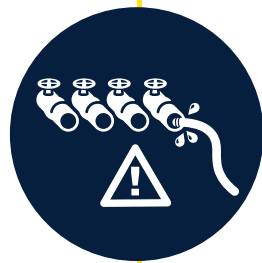


Every year, some 30,000 sea-going vessels and 110,000 inland vessels call on the port of Rotterdam.

The Harbour Master of Rotterdam bears responsibility for the safe, smooth, sustainable and secure handling of shipping traffic in Rotterdam's port area.

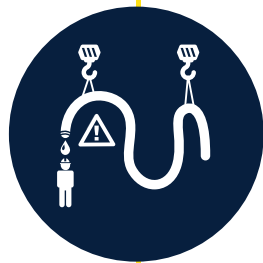
A safe port is not only important for local shipping, but also for the people who live and work in and around the port. Safety is always our number one priority and is the joint responsibility of all parties involved.

Platform Zero Incidents (PZI) is an initiative of the inland shipping sector. Freight forwarders, shipping companies and ship-owners share and develop knowledge about incidents in the inland shipping sector in order to avoid recurrence. PZI makes a concrete contribution to a widely-held ambition to achieve zero incidents in the inland shipping sector.



## 6. END OF LOADING

- Ensure the valves on the manifold are closed.
- Ensure the tank to which the hoses are drained is depressurised.
- Depressurise and empty hoses and pipes before disconnecting.
- Be careful with liquid released from the tank during purging.



## 7. DISCONNECTION

- Ensure there are no product residues in the pipeline.
- Block off any open connections.
- Use spark-free tools where necessary.

## SUMMARISED PRE-ARRIVAL CHECKLIST

### 1. Exchanging construction information of sea and inland ships

- Ship's dimensions
- Manifold location
- Connection sizes (DIN/ASA)
- Hose length

### 2. Technical data vessel

- Maximum pressure tanks/pumps (in bar)
- Maximum flow rate (in m<sup>3</sup>/h)
- Maximum to be loaded/unloaded (in m<sup>3</sup>)
- Maximum tank capacity (in m<sup>3</sup>)

### 3. Communication

- Language during operation
- Communication means
- Exchanging mobile telephone numbers

### 4. Suitability

- Is the sea-going vessel suitable for receiving/returning means for STS handling (incl. hoses)?

### 5. Choice of means/fitting

- Rental or own hoses
- Last cargoes and hose certification date
- Type of hose

- Insulation hose/insulation flange
- Hose diameter
- Number/size of fenders

### 6. sts operational plan

- Steps sts operation
- Ship's officer or external expert in charge
- Mooring and unmooring procedures
- Responsibilities of persons involved
- Explosion safety
- Emergency procedure
- Drip tray procedure
- Procedure for reporting spills
- Approved risk management plan
- Loading and ballast plan, including transshipment conditions

### 7. Changing ships

- Means to change ships
- Fall protection
- Life-saving equipment

### 8. MSDS - original from sender

### 9. PPE

**SAFE.  
SMOOTH.  
SERVICE.  
MAKE IT HAPPEN.**



# SAFE. SMOOTH. SERVICE. MAKE IT HAPPEN.

## MANUAL FOR SAFE SHIP TO SHIP HANDLING

The Port of Rotterdam is a safe port with few major incidents. We want to keep it that way. Some activities in the port are potentially dangerous. Risk analysis shows that ship to ship handling presents a risk of unsafe situations.

Rules and guidelines have been drawn up to ensure safe ship to ship handling. These are listed in the Rotterdam Port Management Bye-Laws. There are also many safety guidelines. Nevertheless, there are still safety issues.

Practical guidelines were drawn up to improve safety.

1. Preparation
2. Mooring/changing ships
3. Lifting
4. Attaching
5. Transshipment
6. End of loading
7. Disconnect

All these activities require continuous supervision, the right protective equipment and knowledge of the emergency procedures.



### 1. PREPARATION

#### Communication

Proper communication is vital. Agree on communication methods: by VHF or radio, but also exchange mobile phone numbers. Test these methods and pay attention to explosion safety!

#### Pre-arrival checklist

Always complete the pre-arrival checklist. A summary is provided on the back of this folder. The full list is on the websites of Platform Zero Incidents ([www.platformzeroincidents.nl](http://www.platformzeroincidents.nl)) and the Port of Rotterdam Authority ([www.portofrotterdam.com/scheepvaart](http://www.portofrotterdam.com/scheepvaart)).

#### Handling plan

Ensure there is a ship to ship handling plan that everyone knows and adheres to.



### 2. MOORING/CHANGING SHIPS

- Be extra alert when mooring. Make agreements in advance and monitor them.
- Learn the escape route.
- Be careful when receiving and securing the mooring ropes.
  - Never position yourself where you may be struck by a mooring rope.
  - Avoid overloading the mooring ropes.
- After mooring, the access to and from the vessel is placed. This also serves as an escape route.
- Change ships carefully.
- Wear life jackets.



### 3. LIFTING

- Always supervise the lifting of hoses on the ships.
- Never obstruct the view between the crane operator and the signaller.
- Use approved, preferably double slings.
- Ensure adequate lighting.
- Make sure no one walks under the load.
- Beware of whipping hoses/flanges.
- Prevent loose flange connections and bolts.
- Prevent leakage of residual products.



### 4. ATTACHING

- Hold a safety meeting and discuss procedures and safety measures.
- Connect the hoses and check the connections.
- Ensure the hoses are connected to the correct connections.
- Use the ISGINTT checklist and agree on re-inspections.
- Do not start the transshipment until everything is in order and signed off.
- Use spark-free tools where necessary.



### 5. TRANSHIPMENT

- Ensure the transshipment is supervised from both vessels.
- Keep contact with the other vessel.
- Ensure the hoses are not kinked or run over sharp edges;
- Be alert when topping off, reduce pumping speed and keep pump emergency stops manned.
- STOP the transshipment in case of disturbances or deviations.