

D201

Hatch cover cranes / gantry cranes

This ARBO chapter is part of the Health and Safety Index for the shipping industry.

It is intended to help employers to comply with the requirements of health and safety legislation. It may be used as a checklist by employees.

It contains the necessary measures to be taken in order to safely carry out certain work-related activities.

Compliance with these regulations, or alternative regulations offering an equivalent level of protection, is essential.

This chapter describes the requirements to work safely with hatch cover cranes.

This chapter contains the measures that must be taken to ensure the safe operation of hatch cranes/ cranes

PPE to be used



Several activities

Hatch cranes are used for several activities:

- Handling of hatch covers and/or tweendecks
- Placing of bulkheads
- Use as mobile crane

Working safely with hatch cranes

- ✓ Before use, check that all parts, safety devices and signals are in good working order.
- ✓ Whilst operating hatch cover crane cranes always ensure that the manufacturer's requirements are complied with.
- ✓ Specific cargos may cause crane tracks to be slippery, which may seriously limit the use of the hatch cover crane, especially in case of trim.
- ✗ Hatches, tweendecks and bulkheads should not be removed when work is being carried out underneath or on top of them.
- ✗ Do not use the hatch cover crane if the ship has a trim or a list exceeding the manufacturer's indicated limits.
- ✗ Do not use the hatch cover crane if the hatch crane carriage has visible defects
- ✗ Hatches should never be handled by a single person. Make sure that the job is performed by at least two people –one on each side of the hatch– who are in continuous communication with each other.

L.p.p. [m]	Trim 1,5 degree [m]
60	0,90
70	1,05
80	1,20
90	1,35
100	1,50
110	1,65
120	1,80
130	1,95
140	2,10
150	2,25

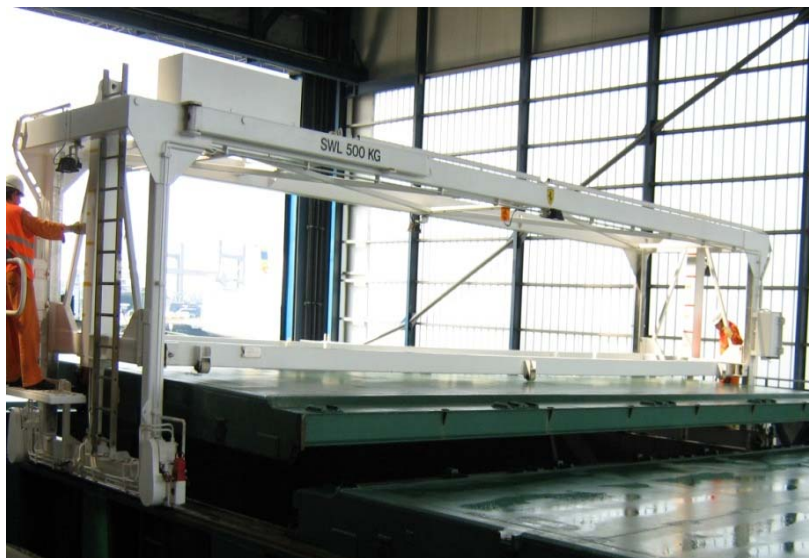
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Opening and closing hatches

- ✓ Check that all wedges and securing pins have been removed.
- ✓ Bring the hatch cover crane into position and check that the hooks are inserted in line with the hoisting points before lowering the spreader



- ✓ Ensure that the hooks on both starboard and portside have been attached properly to the hoisting points before starting to hoist.



- ✓ Check the movements of the power cable
- ✓ Move the hatch cover crane slowly and with consideration
- ✓ Move hatch covers as low as possible and avoid all obstacles
- ✗ Do not move and hoist at the same time

Employees' checklist

- Hatch cover cranes should always be operated by at least two crewmembers
- Check that no people, cables or other equipment are on or near the track.
- Check the working order of the bell, the lighting, the signal lights and the emergency stop
- Ensure that the wheels are properly on the track
- Only use appliances that are suitable for the job, and that are in good working order
- Evaluate the degree of trim and list before and during hatch cover crane activities

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Employers' checklist

- Manufacturers' safety modifications are to be fitted or applied (hooks and pockets).
- In new buildings, consider during construction the hatch cover carriage is equipped with a T-rail with rail clamps to prevent the hatch crane toppling over.
- Consider T-rail modification in existing ships.
- Hatches to be are to be marked by means of coloured stripes, in order to be able to ascertain that the hatch crane is in line with the markings while the hatch is lifted.
- Emergency stops accessible to be operated on deck.
- Wheel guards should be placed in front of the crane's wheels to prevent running over obstacles.
- Ensure that the crane has been equipped with appropriate lighting and audible and visible alarms.
- Always use an adequate number of crew when using the hatch crane.
- Manufacturer's instructions should be included in the company's operating instructions/procedures.
- Periodical maintenance and safety inspections should be included in the regular maintenance schedule.

Use as hoisting device

- ✓ Prevent the hatch cover crane from toppling over (see picture)



- ✓ Only use suitable equipment that has been specifically designed for this purpose
- ✓ Ensure that the hoisting points' SWL cannot be exceeded

SWL= Safe Working Load; WLL= Work Load Limit



- ✓ Ensure that the capacity of the hoisting devices attached to the hatch crane do not exceed the SWL of the hoisting point.
- ✓ Free-hanging loads should only be moved at the lowest possible speed and in a flowing movement
- ✓ Sound preparation is half of the job

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More info/ used basis documentation

- ✓ Arbeidsomstandighedenwet
(Netherlands' Labour Conditions Decree)
- ✓ Arbeidsomstandighedenbesluit, Hoofdstuk 7
(Netherlands' Labour Conditions Policy Rules, Chapter 7)
- ✓ "Dat is juist/Safety First"
- ✓ Arbo Informatieblad 17
(Netherlands' Labour Conditions Information sheet 17)
- ✓ Ongevalonderzoeken en uitspraken "raad voor de Scheepvaart"
(Accident Investigation and Verdicts of the Council for Shipping)
- ✓ Gebruiksaanwijzingen en veiligheidsinformatie van fabrikanten
(Manufacturers' user manuals and safety information)