

Overview

This standard covers the competence required to support safe navigation within port areas. This includes the assembly, laying and retrieving of navigation buoys, under supervision, as well as mooring for ship tiers and general moorings for yachts and other small craft within an enclosed port area. It also includes establishing the depth of water, under supervision, in navigable channels and other areas, as part of hydrographic surveys. This standard is also about maintaining navigable channels and water areas such as berths within the port area. It includes working under supervision to keep such areas clear of flotsam and other hazards, as well as dredging channels.

It is often necessary for individuals involved in these activities to be competent in handling small craft. The handling of such craft is covered by another standard.

Target Group

This standard applies to port workers, who under supervision, support safe navigation within port areas

There are 3 elements in this standard:

- Position moorings and lay buoys (Performance Criteria 1-8)
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Maintain clear channels and water areas (Performance Criteria 9-18)

- Establish water depths (Performance Criteria 19-26)

Performance criteria

You must be able to:

1. obtain all the equipment for assembly, laying and retrieval operations
2. conduct a pre-use check before leaving the shore to establish that all equipment functions are working within approved operating parameters before beginning operations, addressing any queries or faults according to organisation procedure
3. assemble moorings and buoys according to operational procedure and within agreed timescales, ensuring that:
 1. the mooring is of the right length
 2. the sinker or anchor is of the correct weight for the mooring or buoy
 3. swivels are positioned
 4. shackles are housed, in accordance with standard operating procedures
4. identify the location and water depth where the moorings or buoys are to be positioned, and lay them in position
5. ensure that the handling of materials and equipment is undertaken with care to avoid undue wear and tear
6. refer any operational difficulties and defects in equipment to the relevant person
7. ensure that craft and other work areas are kept clean, tidy and free of obstructions
8. ensure that all required records are maintained and up to date
9. undertake regular visual and hydrographic inspections of the port's navigable channels
10. respond to reports of obstructions in line with organisational procedures
11. report actual and potential obstructions or hazards in navigable channels
12. identify, and obtain, the appropriate gear and equipment required to carry out clearance operations, and confirm that it is in good working order before leaving the shore
13. establish and confirm clear communication links with relevant persons before leaving the shore
14. remove hazards or obstructions following a procedure that accounts for weather conditions, licencing or permissions and a safety management system that minimises risk to self and others.
15. identify the area to be dredged, and operate dredging equipment ensuring that dredging occurs at the required level
16. dispose of items and dredged materials removed from the water according to organisational procedure

17. report any suspicious items to the relevant person
18. ensure that working areas above water are clean, tidy and free from obstructions on completion of the task
19. obtain all of the equipment for establishing the depth of water and confirm that it is fit for purpose before leaving the shore
20. identify the areas of water where depth measurements are required, before leaving the shore
21. monitor and record the vessel's position continuously, together with the height of the tide, throughout the survey operations
22. mark the depth-gauging equipment at regular intervals, and cross-reference it to known positions
23. apply corrections in establishing water depths allowing, for vessel draught, heave, pitch and roll, the depth of the sensor, and the height of the tide, and record these corrections
24. use all equipment in line with manufacturers' instructions, ensuring that it is calibrated, and carrying out all recommended error checks
25. refer any operational difficulties, and defects in equipment, to the relevant person
26. identify any variations from charted water depths and report to the relevant person

Knowledge and understanding

You need to know and understand:

1. the legal responsibilities for maintaining own and others' health and safety in the workplace
2. the requirements placed upon the individual and the organisation by current legislation relevant to supporting safe navigation within port areas
3. current industry guidance relevant to supporting safe navigation within port areas
4. own organisation's policies, procedures and working practices relevant to supporting safe navigation within port areas, including those for positioning mooring and laying buoys, maintaining clear channels and water areas and establishing water depths
5. the purpose and limitations of the components of mooring gear, including, buoys, swivels, anchors, chains, risers and sinkers
6. how to test and maintain mooring gear
7. how a craft's stability may be affected by lifting operations
8. the operation and limitations of the principal types of lifting and hauling gear used in ports
9. organisational requirements for addressing and reporting difficulties and faults in craft, gear and equipment
10. organisational inspection regime for lifting equipment
11. the safe working limits of the equipment used in positioning moorings and laying buoys within own organisation
12. the typical types of obstructions and hazards found within ports, and methods for dealing with them
13. how to interpret weather information and how different types of adverse weather can impact upon craft movements within port areas
14. the importance and impact of the relevant legal requirements of the dredging licence and upon dredging operations
15. organisational requirements for dealing with reports of hazards and obstructions within navigable channels
16. the local geography, including advertised water depths, and water conditions, and their impact upon the movement of crafts, obstructions and hazards within the port
17. how to apply the theory of chart work and navigation techniques appropriate to locating areas within a port
18. how to interpret weather information and understand how different types of adverse weather can impact upon vessel movements in port areas, and how heave, pitch and roll can impact upon the transducer head
19. buoyage systems and navigation lights
20. depth-gauging methods
21. how to operate communications, depth measurement, position finding, and tidal measurement equipment used within your port
22. organisational procedures for reporting operational difficulties and defects in equipment occurring when establishing the depth of water
23. the local geography and water conditions, including navigable channels and tides, and their consequence for establishing water depths

Support safe navigation within port areas

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