



S-101PT10

Mooring/Warping Facility

Agenda Item 7.5

S101PT10, Brest, France, 13 – 15 June 2023



IHO

BACKGROUND

International
Hydrographic
Organization

S-57 models some real world objects as more generic facility objects. Mooring Facility is one case where the modelling could be improved. This paper proposes a way ahead for this remodelling.

Although Small Craft Facility and Harbour Facility also use a generic feature these are considered more appropriate.

S-101 has created more specialist features to better represent the real world examples include;

LIGHTS – Light All Around, Fog Detector Light....

LNDMRK+PILNT – Offshore Wind Turbine

**IHO**

CHANGES 1-3

International
Hydrographic
Organization

Code	Label	Definition	Primitives	Comments
1	Dolphin	A post or group of posts, used for mooring or warping a vessel, or as an aid to navigation. The dolphin may be in the water, on a wharf or on the beach.	Point/Surface	Create new feature Dolphin. Potential for OCIMF definition to be used. "An independent platform incorporating mooring hooks or bollards for securing ship's mooring lines"
2	Deviation Dolphin	A post or group of posts, which a vessel may swing around for compass adjustment.	Point/Surface	Create new feature Dolphin and use a Boolean attribute to indicate deviation Dolphins. .
3	Bollard	Small shaped post, mounted on a wharf or dolphin used to secure ship's lines.	Point, Surface	Propose create a dedicated feature this would allow an attribute for Safe Working Load to be included. Elevation as present on MORFAC should be retained. An attribute

S-101PT10_2023_07.5_EN_Moorin x

www.bing.com

Little Monkey Taster! Have your 4 x

www.bing.com

https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/S-101PT10/S-101PT10_2023_07.5_EN_Moorin...

2 of 3

Draw

Read aloud

2 of 3

be included.

4	Tie-Up Wall	A section of wall designated for tying-up vessels awaiting transit. Bollards and mooring devices are available for both large and small ships.	Curve/Surface	Shore line construction includes categories of various walls, fender and landing steps. Propose making this a category of shoreline construction.
5	Post or Pile	A long heavy timber or section of steel, wood, concrete, etc., forced into the seabed to serve as a mooring facility.	Point	Pile already exists as an S-101 feature, add additional value for Category of Pile.
6	Mooring Cable	A chain or very strong fibre or wire rope used to anchor or moor vessels or buoys.	Curve	Submarine Cable also has a category of mooring cable (6). Propose map any instances to that feature in S-101.
7	Mooring Buoy	A buoy secured to the bottom by permanent moorings with means for mooring a vessel by use of its anchor chain or mooring lines.	Point	Propose making a specific Mooring Buoy feature with the relevant attributes.

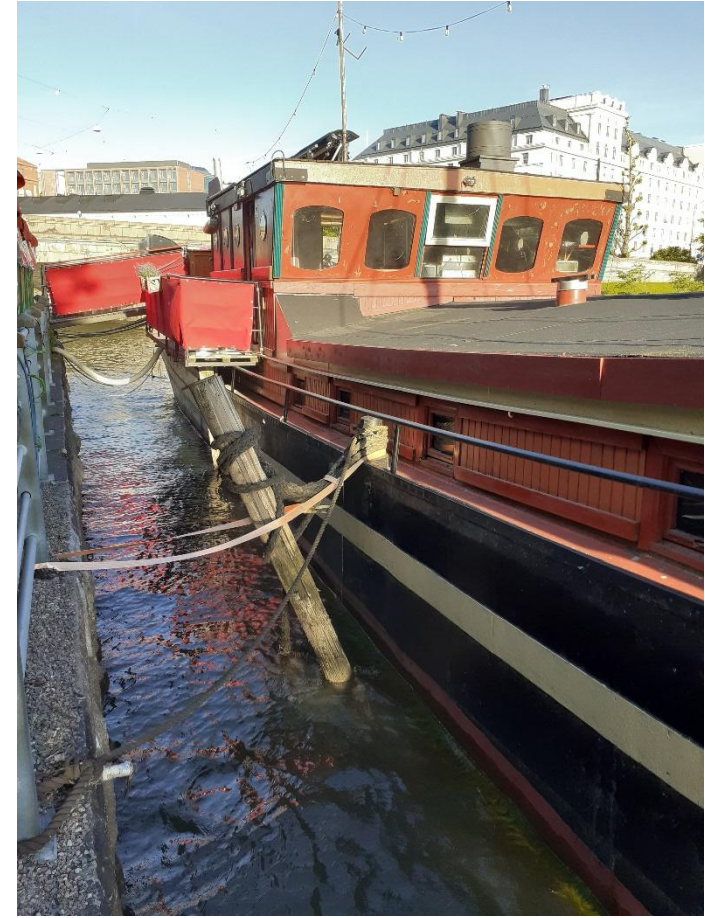
Table 1 - Review of Category of Mooring Warping Facility values in S-101 1.1.0.



IHO

EXAMPLES

International
Hydrographic
Organization





IHO

BOLLARDS

International
Hydrographic
Organization

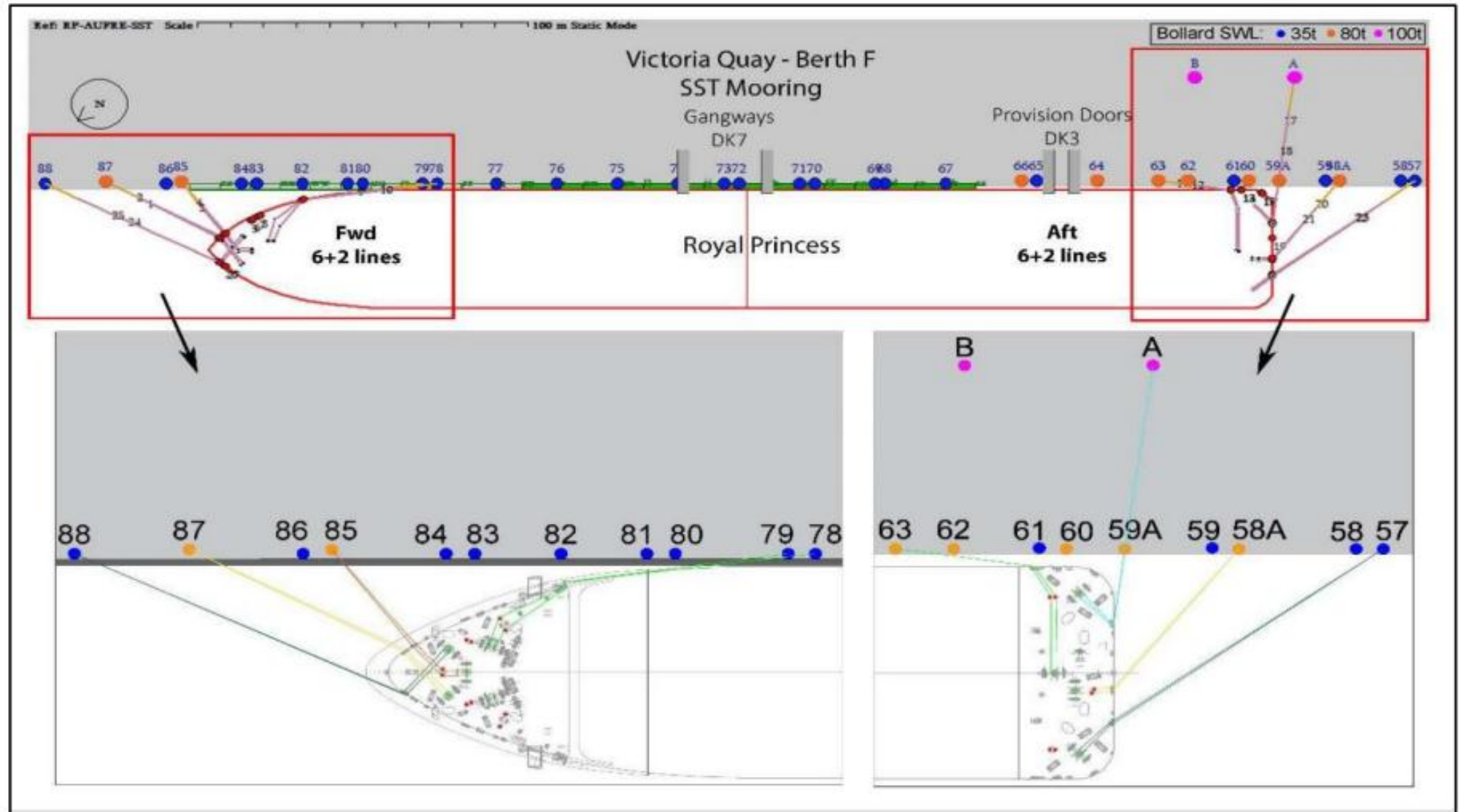


Figure 1 – An existing mooring diagram showing bollard Safe Working Load.



IHO

ACTION REQUIRED

International
Hydrographic
Organization

Action Required of S-101PT

- A. S-101PT adapt the Mooring/Warping Facility feature to improve modelling and make changes to the Feature Catalogue and DCEG in S-101 1.2.0.
- B. S-101PT as a consequence of A should engage with the Conversion Subgroup to update conversion guidance for these changes.
- C. Review any affected S-101 validation checks.
- D. D. S-101PT consider adding Safe Working Load as a new attribute on the proposed new feature Bollard. No new or amended symbols are proposed at this stage but the 1.2.0 Portrayal Catalogue will need to be edited due to the modelling changes.
- E. E. Engage with NIPWG on potential changes in S-131 given S-101PT discussions.