

OPERATING PROCEDURES FOR SEAWALK-GEIRANGER CRUISE SHIP BERTH

Version 2.6 - 4.5.2018

A : GENERAL INFORMATION

1. Authorities

The SeaWalk installation in Geiranger is a part of the general port administration regime in Geiranger, based on the Norwegian Harbour Act, 2009-04-17-19 and prevailing regulations and other information that applies to Stranda Port Authority KF and the seafront area of Stranda Municipality. Allocation of berth is governed by Stranda Port Authorities in cooperation with the Pilot Authorities and the ships agents with reference to the Regulation dated 2004-12-07, nr 1634 § 3. The Norwegian Coastal Administration has established guidelines for assigning anchor positions in the Geirangerfjord.

2. The SeaWalk

The SeaWalk is a **236 m** long and **4,5 m** wide steel, ADA compliant construction, floating on 10 wave damping pontoons with a capacity of more than **4000** passengers per hour and can carry a passenger load of more than **300** tons. SeaWalk consists of 3 bridges, two link pontoons and the hinged landing point. The two inner bridges, 1 and 2, are 72 meters long, bridge 3 - "Shipside -bridge" is **84 m long**. The walkway is approx. **210 cm** above sea level and the railings are 110 cm high.

Shipside-bridge, meant to cover two of the ship doors, is moored to ship's side by ropes with six 10t mooring bollards and manual operated winches. When moored the distance between the ship side and walkway is **3,3** meters. Rails are removable to allow ships gangways. Ship will normally use own gangways, elevation ladders can be received and there are gangways available from shore if needed.

SeaWalk can be folded in for storage when not in operation. SeaWalk is operated by two hydraulic thrusters, located on the ship side bridge and powered by a diesel engine, controlled from a remote unit.

The SeaWalk is constructed to move with the ship in the moorings, in various weather conditions. This patented system is referred as "**Soft edge**" technology.

3. The ships moorings

The ship is moored between two buoys (north and south buoy); each buoy has two anchor chains with approx. 40 deg. spread. The normal course between the buoys is approx. **315/135** deg. The distance between the buoys is approx. 450m. Each anchor is dimensioned for a 300t brake load.

Ships bow and stern **mooring lines must be equally tightened** and we recommend lead through the centralized fairlead (halegatt) if possible to multiple brake load.

We recommended pre-tension on the mooring lines, with e.g. 4 lines - set to ca 20 tons.

NB: max load on un-even tightened moorings is brake load on a single line.

A mooring support buoy no 3 is installed east of South buoy, for unfavourable wind conditions - to secure the SeaWalk reach and to avoid the ship "pendeling" in the moorings.

NB: buoy 3 is not a primary mooring, and the pre-tension must not alter the normal mooring course 315/135 in the "neutral" line between the primary buoys. Buoy 3 is dimensioned for 300tonn BL, but only in the direction as indicated on figure 1

Question or advice by Costal administration – Kystverket can be directed to chief pilot Hans Petter James, tel +47 4745 4572.

4. Vital limitations for mooring of SeaWalk, NOT to be exceeded:

Please be aware that exceeding the limits can endanger the operation or may cause mechanical damage on the infrastructure.

- a) Distance from the south buoy to ships' stern shall normally not exceed 40 m for ships longer than 250m.
- b) Preferable distance between south buoy and SW link 2 when moored to the ship shall be between 85 m and 105 m. Distance from the south buoy to SW link 2 shall not exceed 110 m, when moored to ship.
- c) For ships between 180-250 meters, distance between south buoy and stern may exceed 40m, but distance from south buoy to SW link 2 shall not exceed 110 m.
- d) The anchor/buoy installation can only allow pull loads from the ship within the mooring area (see fig.1 – mooring area limited between the buoys). Pull forces from the ship on the buoys - outside of the mooring area will cause damage on the construction.

5. Communication

In the planning phase normal communication with the port authorities is via the ships' agent. VHF channels **16** and **13** is mandatory for ships and boats to guard.

Port control C/S is "**Friaren**". Line boat C/S is "Friaren". SeaWalk crew C/S is "**SeaWalk ONE**", and telephone +47 9288 5655

B : SeaWalk OPERATING PROCEDURES

6. Pre call procedures

The "Operating procedures for SeaWalk Geiranger cruise ship berth" shall be known to the captain in due time before the call. The following to be identified in cooperation with the port:

- a) Length of mooring lines,
- b) What ship doors to be used, and their distance from stern
- c) Which ship side bollards to be used,
- d) Most favourable position to place the SeaWalk at ships side,
- e) Ship gangway length

All information to be communicated via the ships agent minimum 24 hours prior to arrival.

7. Mooring of the ship

Ships can be moored with the bow on northerly or southerly course, starboard or port side to the SeaWalk – at the captain's discretion, but shall be positioned in a direct straight line between the two buoys before the SeaWalk mooring operation commences.

The port control will lead the mooring operation in cooperation with the pilots. The line boat Friaren is available to receive mooring lines. Estimated time for the mooring operation will be a little more than for a normal anchor operation.

Also see para 3 **and the remark about buoy no 3.**

8. Mooring of the SeaWalk

During the buoy operation the SeaWalk will be fully manned but in folded mode away from the ships manoeuvring area. SeaWalk will wait for captains' permission to go along side the ship after the captain has verified and confirmed the distance from the ships stern to the inner buoy which also is verified by "Friaren". To reach the ship side bollards, the crew uses "line sticks" to reach and return the lines to be tightened and fastened on the manually operated winches on the SeaWalk. Gangways will be lowered and secured accordingly and SeaWalk is ready to receive passengers. Anticipated time to secure the SeaWalk is normally between 5 and 10 minutes.

9. Safety readiness levels

SeaWalk is constantly guarded by the crew during the call.

Green safety level: normal procedures - SeaWalk is ready to operate within minutes.

Red level: SeaWalk is unmoored, passengers evacuated by walking ashore, ship leaves the moorings. If severe problems with the moorings occur, red level is established accordingly.

10. The local weather

The normal weather in Geiranger is calm condition, but can change. Weather conditions must constantly be evaluated by ship captain, pilots, port and SeaWalk crew. Under some conditions the weather can change rapidly.

Winds from west and north are normally constant and predictable. Winds from south and east shall not be underestimated. Early in the season “fall-winds” caused by high temperature differences top down can occur, with strong gusts from south/east.

11. Post call routines, to gain experience

This is a document to be constantly updated by Stranda Port Authority. Please help us improve the total service by sharing with us your experiences.

Geiranger xxxxx

Rita Berstad Maraak
Director
Stranda port authority

Figures - SeaWalk Geiranger operating procedures:

Figure 1

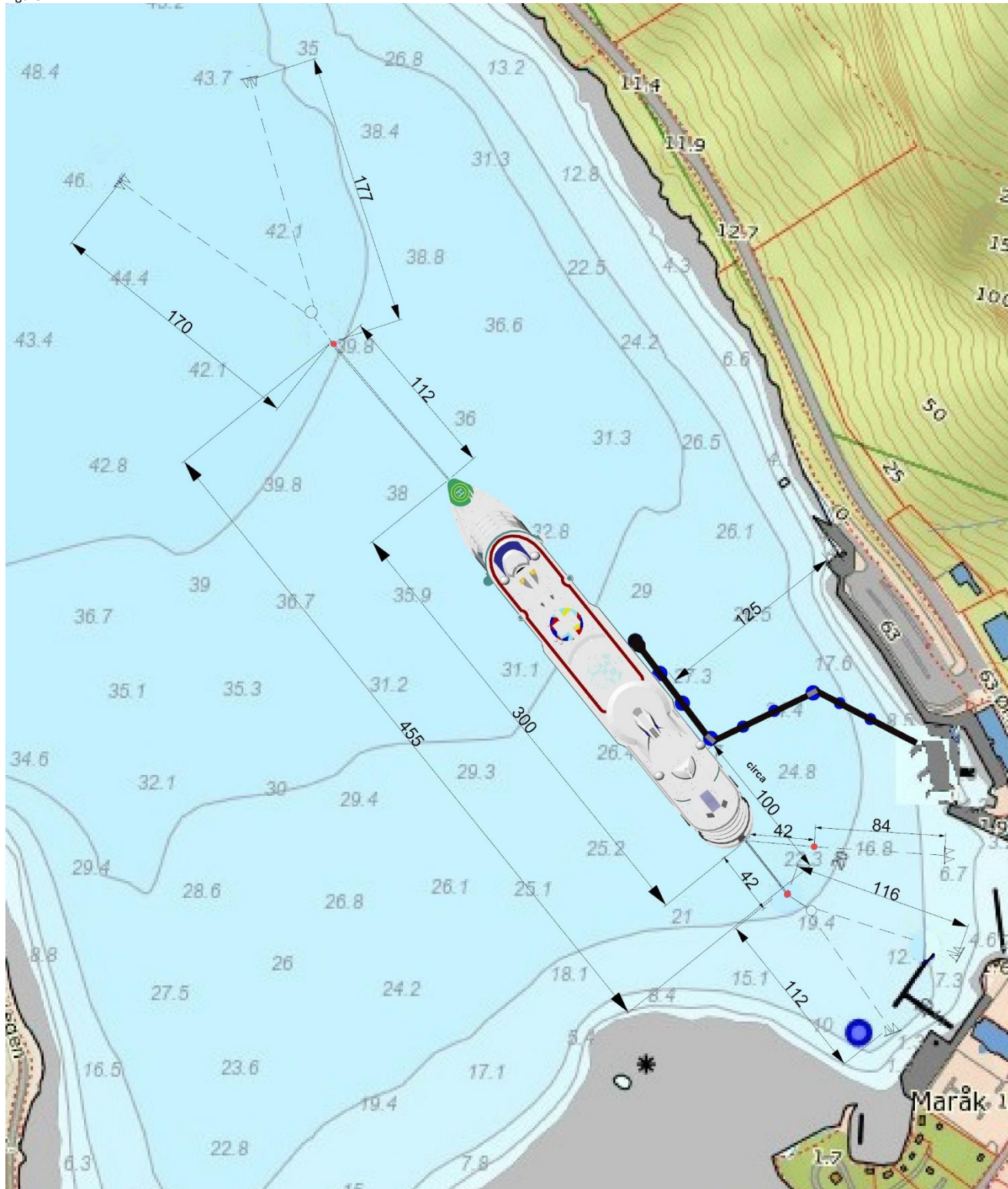




Figure 2

Figure 3

