OPERATING PROCEDURES FOR
SEAWALK-GEIRANGER CRUISE SHIP BERTH

Version 2026-1
07.04.2026

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, prevailing regulations and other guidelines applying 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. **Communication**
   In the call planning phase normal communication with the port authorities is via the ships' agent.
   Before/during the call VHF channels **16** and **13** are always mandatory to be used for ships and boat monitoring.
   Port control C/S: "Geiranger Harbour" and "SeaWalk"
   Tlf + 47 99 10 20 79.

3. **Pre call procedures**
   The ships agent together with the ships crew and the Port Authority shall generate a mooring plan in due time before the call, that defines the following as a minimum:
   a) Length and strength of mooring lines.
   b) What ship doors to be used, and their distance from stern/bow.
   c) Info regarding ship side fastening points in relation to the SeaWalk.
   d) Ship gangway length(s).
   e) Pilot Card including ship's thruster capacities and response time
   All information to be communicated via the ship's agent or directly with the port minimum 24 hours prior to arrival.

4. **Port safety brief**
   Immediately after the mooring operation is completed and prior to the landing of passengers commence, a representative from the ship's Captain and the Harbourmaster shall meet for a safety brief regarding the current weather and the ships limitations etc.
   The following topics shall be discussed as a minimum: Communication, responsibilities, daily weather and forecast, mooring line strengths and limitations, "Pendulum-like effects", use of thrusters, decision of the limits for "Safety Readiness Levels", and when to abort the passenger operation, all in accordance with good seamanship.

5. Safety Readiness Levels

- **Green safety level (up to 15 knots average wind speed):**
  Normal procedures - SeaWalk is ready to operate within minutes.

- **Yellow safety level (from 15 knots to 25 knots average wind speed):**
  Ready to operate SeaWalk and ship include ships thrusters.

- **Red safety level (over 25 knots average wind speed):**
  SeaWalk and ship ready to abort operation and unmoor.

Wind speeds refer to average values measured by the ship's anemometer, typically located approximately 50–60 meters above sea level, depending on ship size.

Ships moored to the SeaWalk must have a pilot and sufficient bridge personnel on duty at all times during their stay. In addition, propulsion systems must be kept ready for immediate maneuvering if conditions require it.

NB: For wind speeds above 7 m/s, it is recommended to have the thrusters on standby.

6. The local weather

Weather conditions in Norwegian fjords, including the Geirangerfjord, are typically calm but can change rapidly. Continuous monitoring and assessment by the ship's captain, pilots, port personnel, and SeaWalk crew are therefore essential to ensure safe operations and a comfortable stay.

7. The ships moorings

With reference to Figure 1, the ship is moored between three primary buoys—two to the north (A and D) and one to the south (B)—as well as a southern side buoy (C).

- Buoy A & B has two anchor chains with approx. 40 deg spread
- Buoy C & D has one anchor chain

The distance between buoys A & B and D & B are both approx. 445m.
Once the ship is moored between all buoys, the heading will be approx. 319/139 degrees

All anchor & buoy systems are 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 multiply brake load (figure 5).
We recommend pre-tension on the mooring lines, with e.g. 4 lines - set to more than 20 tons each, to be decided ref para 4. Port safety brief.

NB1: max load on un-even tightened moorings is equivalent to brake load on a single line.
A mooring support **buoy C** is installed in close proximity to the main **buoy A**, to stabilize and secure the SeaWalk reach and to avoid the ship "pendulum-like" movements in the moorings.

NB2: Buoy C is **not** a primary mooring, and the pre-tension must not alter the ships heading of approx. 319/139 too much (300ton break load, in direction as indicated figure 1).

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

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

NB: Notice that exceeding the above-mentioned limits can endanger the operation or may cause mechanical damage to the infrastructure.

9. Mooring of the ship

Ships may be moored with the bow oriented either northbound or southbound, and with either the starboard or port side facing the SeaWalk, at the captain's discretion. However, prior to commencing the SeaWalk mooring operation, the ship must be correctly positioned and securely moored between all primary buoys in a straight line.
Mooring lines to the buoys shall be confirmed properly tensioned before the SeaWalk is brought alongside.
Port Control will coordinate the mooring operation in cooperation with the pilot(s).
A line boat will be available to receive mooring lines. The total duration of the mooring operation is expected to be slightly longer than that of a standard anchoring procedure.
Refer also to paragraph 7 and the note concerning buoy C.

10. Mooring of the SeaWalk

During the buoy mooring operation, the SeaWalk will be fully manned and kept in a folded position, clear of the ship's manoeuvring area. The SeaWalk will only proceed alongside upon the captain's approval, following verification of the distance between the vessel's stern and the inner buoy, as confirmed both by the captain and the mooring boat.
To secure lines to the ship's side bollards, the crew utilizes line sticks to pass and retrieve the lines, which are then tightened and fastened using manually operated winches on the SeaWalk.
Once the SeaWalk is properly secured to the ship, the gangways will be lowered and locked in position, and the facility will be ready to receive passengers. The time required to secure the SeaWalk is typically approx. 10 minutes.

11. SeaWalk main specifications

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 **6000** 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 manually operated winches. When moored the distance between the ship side and walkway is approx. **3,3** meters. Rails on the SeaWalk are removable to allow the ships own gangways to be lowered onto the SeaWalk.

SeaWalk is folded in a stored position 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 to as "**Soft edge**" technology.

12. Post call routines, to gain experience.

This document is intended to be continuously updated by Stranda Port Authority in cooperation with SeaWalk Geiranger AS and other relevant stakeholders. We welcome your feedback and encourage you to share your experiences to help us further improve the overall service.

Figures - SeaWalk Geiranger operating procedures:

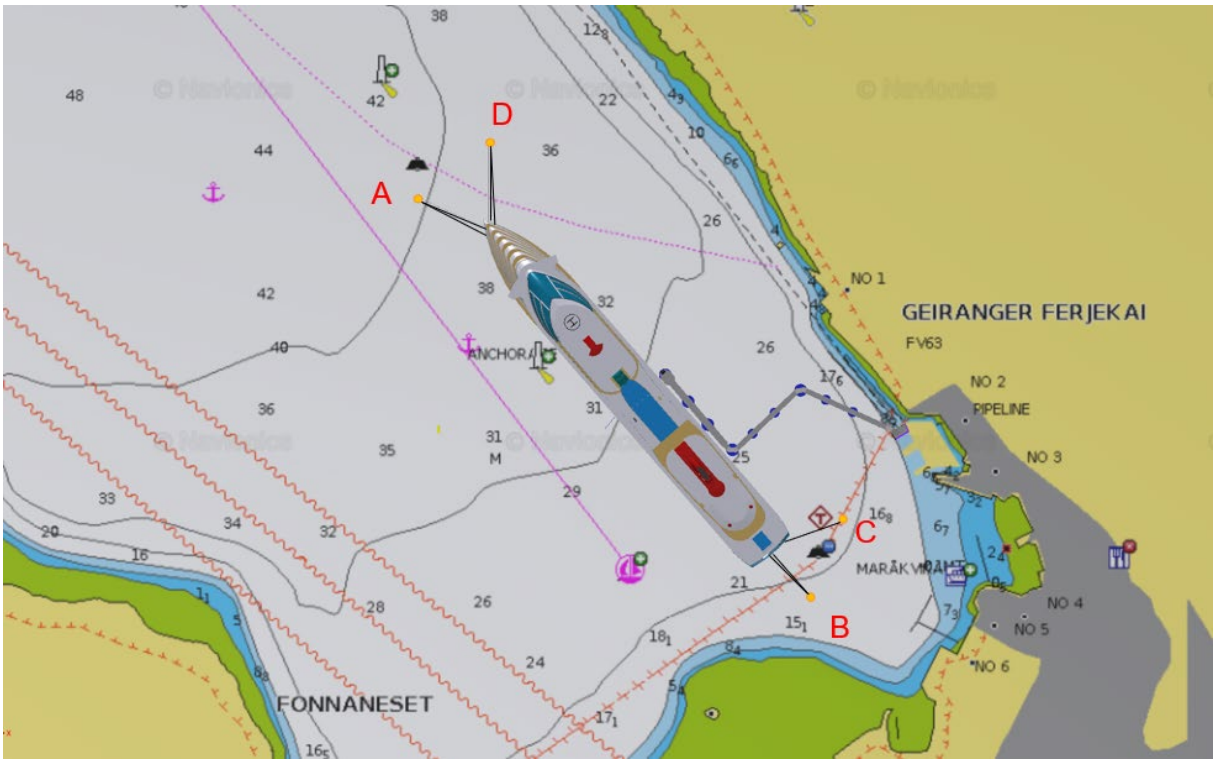

Figure 1 – Illustrated LOA=350m

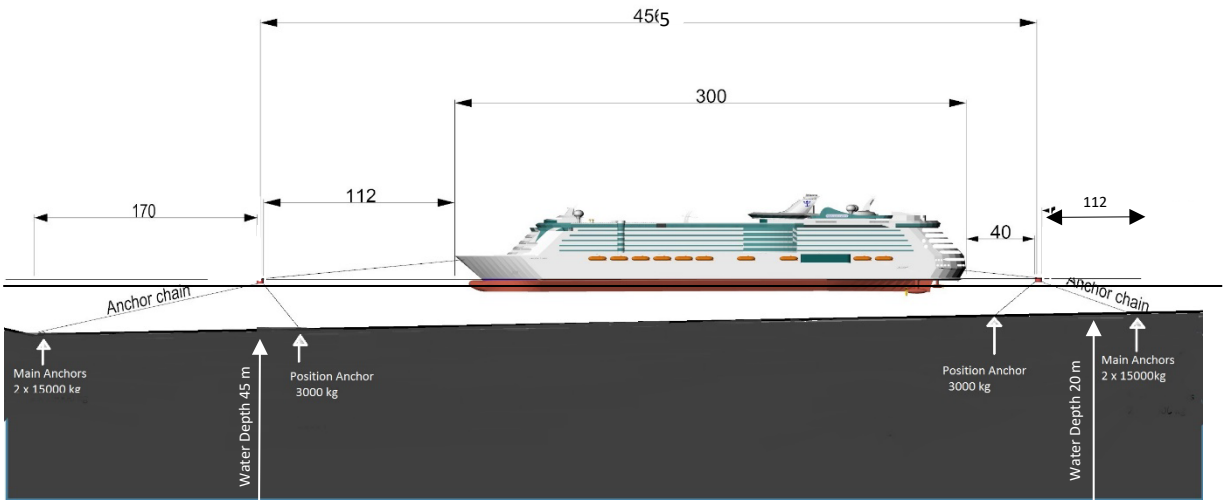

Figure 2 – Illustrated LOA=300m

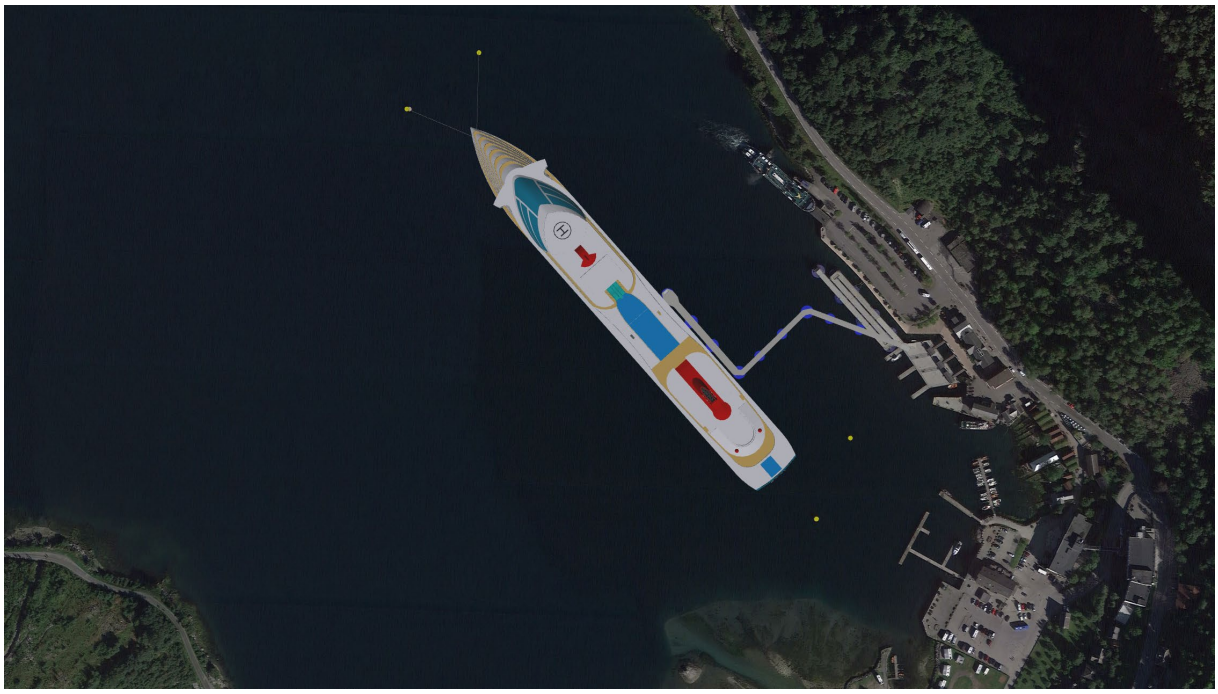

Figure 3 – Illustrated LOA=350m

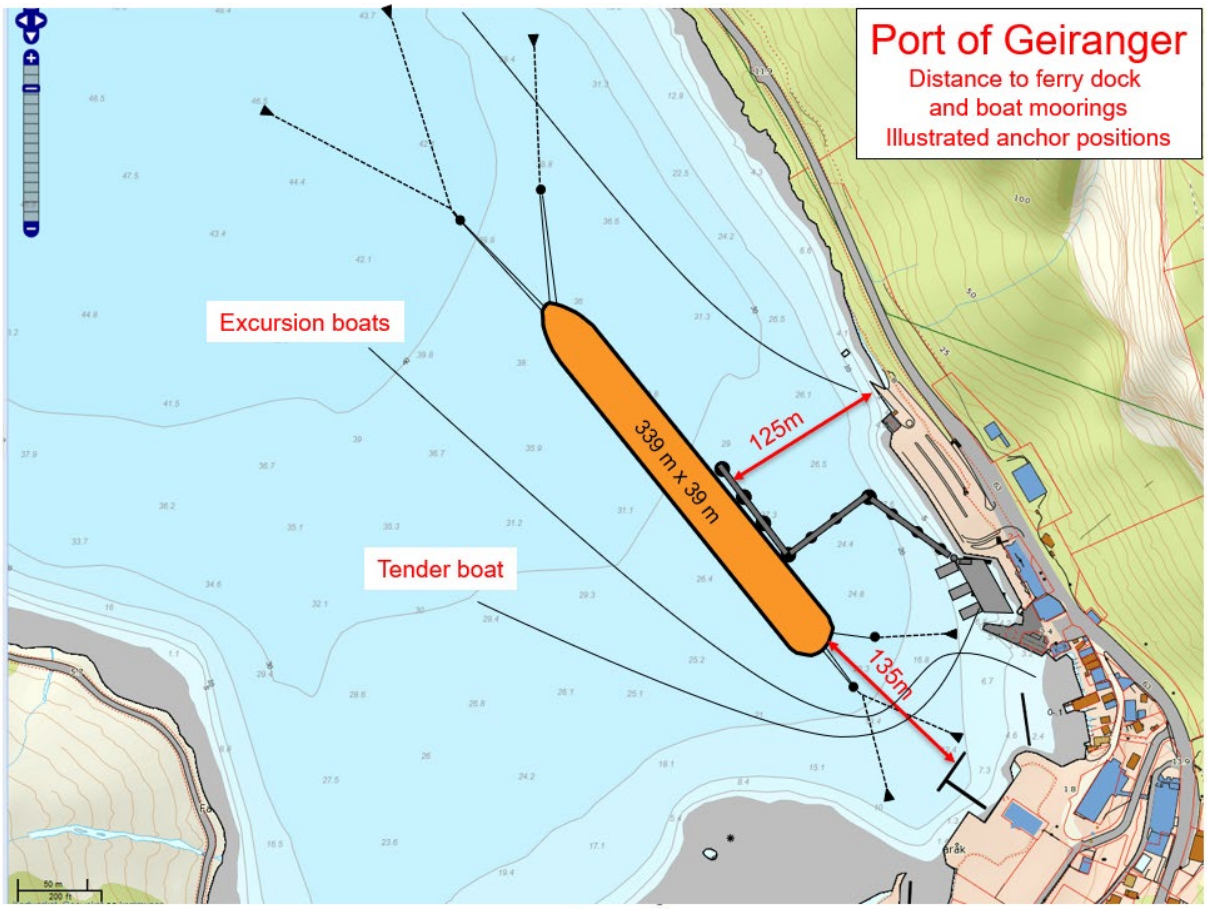

Figure 4 – Illustrated LOA=339m

Figure 5

Geiranger, 07.04.2026