Underwater Survey & Inspection of Main Marine Dock & Anchors

Completed on:

May 27, 2025

Completed for:

Honeymoon Bay Resort Association

Completed By:

ISLAND FLOATATION LTD

391 West Eagle Drive
Salt Spring Island BC V8K 1E4
250-217-3649

Introduction

On May 27, 2025, Island Floatation conducted an underwater survey & inspection of the main marine dock and anchors for the Honeymoon Bay Resort Association. Inspection conditions were high overcast, little wind, and clear underwater visibility. The current water level for Cowichan Lake on the day of the inspection was recorded as 1.165 metres (Station 08HA009 – Lake Cowichan Weir).

The diving inspection was conducted by Lief Wenstob and occurred from 9 am to 11 am. A map of the anchor configuration was provided by the Honeymoon Bay Resort Association but was found to have some inaccuracies. An update drawing has been included in the report along with general observations of the existing components (i.e. chain, rope, shackles and anchors) used in the anchoring system. No underwater photography was completed during this inspection.

General Observations and Recommendations:

Overall, the underwater inspection did not reveal any major issues with the exiting anchoring system. There are several anchors that were observed to be in a bad vertical position that will make reusing the anchor problematic when its time to replace the anchor wrap chains (detailed contained in the next section). Most chains were at their half life or above, so no replacement of chain is required anytime soon. Rope connections were determined to be fine and no expected failure points were observed. Ropes were all inspected and look to be in good condition.

The dock connection point where Lines 5 and 6 are attached is being stressed to potential failure. This is due to the weight of everything being connected to a single eyebolt and timber. Some bending of the timber was noted. It is recommended that the lines be redistributed to two or more connection points – preferrable on a different timber – to alleviate the stress. More details of this issue can be found in the next section.

Figure 1 - Checking Lines

Figure 2 - Bubbles indicating anchor locations

Detailed Observations

Refer to map for line number locations

Line	[1]Chain Strength		Anchor Depth	[2]Anchor Type & Position	General Observation
	Dock	Anchor			
1	6	8	40'	2T LB / Bad	20' of chain shackled to 1½" rope to anchor. Rope has thimble end attached to anchor chain.
2	7	9	40'	2T LB (2) / Bad	2' of chain shackled to 4" rope down to 1st anchor, rope is chained around anchor and than continues for at 90-degree angle (west) 30' to 2nd anchor. Keyhole anchor from swim dock is located between the 1st and 2nd anchor.
3	7	8	72'	2T LB / Good	10' of chain to 4" rope (tied to chain) down to anchor where it is looped around lock block. Approx 25' along rope (from dock) there is a knot in the rope. At the anchor block there is a rope heading up to the boomstick breakwater.
4	8	7	80'	2T LB / Bad	12' of chain shackled to 4" rope down to anchor.
5	7	8	75'	2T LB (2) / Good	12' of chain to 4" rope tied on down to barrel anchor (suspended). Rope from that barrel anchor to 1st lock block anchor. From the 1st lock block a rope is tied on and goes to deeper water and is attached to a 2nd lock block – the rope between the two lock blocks is slack and floats upwards. From the same eyebolt at the dock, another chain is attached and has a barrel anchor attached (suspended). The eyebolt also has Line 6 attached to it. See detailed drawing.
6	8	8	35'	2T LB / Bad	20' of round link chain to 1½" rope shackled (thimbled both ends) and chained to anchor.
7	8	8	20'	Barrel / Good	4' of round link chain to 1½" rope shackled (thimbled both ends). Runs to concrete barrel anchor and tied in. There is also a 4x4x12 concrete pad beside the barrel anchor that the rope is tied to. Anchor is shared with Line 15.
8	8	8	20'	Barrel / Good	5' of round link chain to 1½" rope shackled (thimbled both ends). Same anchor config as Line 7. This anchor is shared with Line 13.
9	6	2	20'	Barrel / Good	Rope is attached directly to eyebolt on dock. There is a chain attached but is hanging into the water with nothing on it. Same anchor config as Line 7. This anchor is shared with Line 11.
10	6	5	6'	Barrel / Good	8' of round link chain to 1½" rope to barrel anchor embedded into mud (top is visible), rope continue towards shore and disappears into mud (unknown anchor) – rope is under tension.

[1] Chain Strength is a ranking out of 10 and estimates the strength (quality) compared to a new chain.

[2] Anchor Type is either a 2T Lock Block or Concrete Barrel. Position indicates if anchor connection point can be re-used when replacing the chain.

Line	[1]Chain Strength		Anchor Depth	[2]Anchor Type & Position	General Observation
	Dock	Anchor			
11	6	6	6'	Barrel / Good	6' of round link chain to rope anchor shared with Line 9.
12	5	6	6'	Barrel / Good	5' of round link chain to rope (thimbled) to barrel anchor, rope is shackled to rope but pass thru shackle to continue to second anchor (that is embedded in mud).
13	7	7	20'	Barrel / Good	5' of round link chain to rope anchor shared with Line 8.
14	3	7	6'	Barrel / Good	5' of round link chain to rope attached to barrel anchor.
15	7	7	20'	Barrel / Good	5' of round link chain to rope anchor shared with Line 7.
16	7	8	35'	2T LB / Bad	5' of round link chain to rope and wrapped around anchor. Looks like anchor rolled when it was dropped.

Marine Dock Diagram

Original diagram revised to reflect actual anchor system.

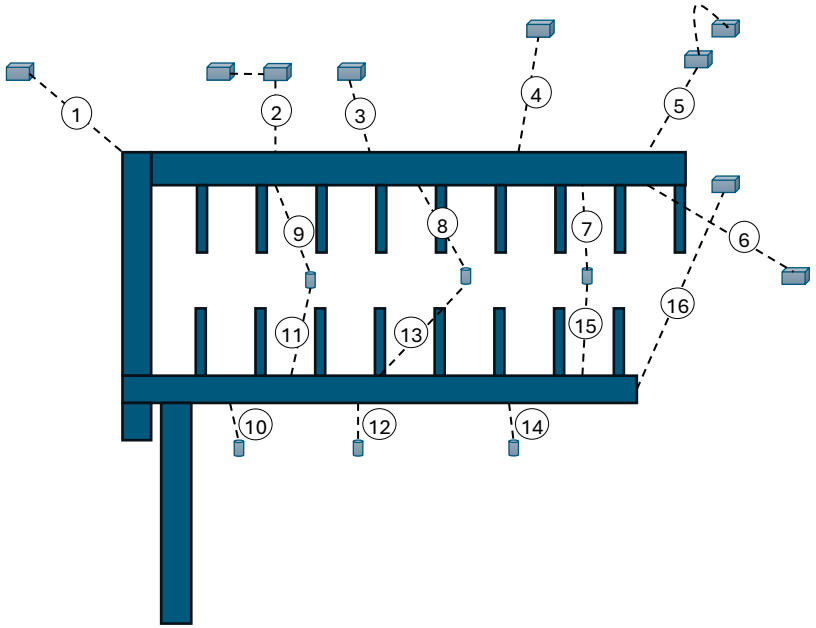

Diagram of Line 5/6 dock connection