Ocean Networks Canada

Ferry Maintenance Report – Queen of Alberni

Vessel: Queen of Alberni @ Twass.Terminal docked at Berth 3 Date: May 6th 2015

Arrival: Caught 7am Ferry. Arrive < 9am @ Tsawwasssen. We signed in at terminal supervisor. Meet with All Sea Divers (Josh, Tom(diver), and Mark)

Reporter: Denis Hedji Staff: Denis Hedji and Lisa Bethell (Coop)

Reason for Visit

Possible Intake Pod debris build up which may cause intermittent sea water flow into Seakeeper system.

Observations

1. Upper bird eye deck instruments inspection
2. Lower Bosun Stores instrumentation inspection
3. Divers check in with Golam @ Engineering and setup afterwards. At 11am dive was safe time due to multiple ferry departure and arrivals within the area

Actions Taken

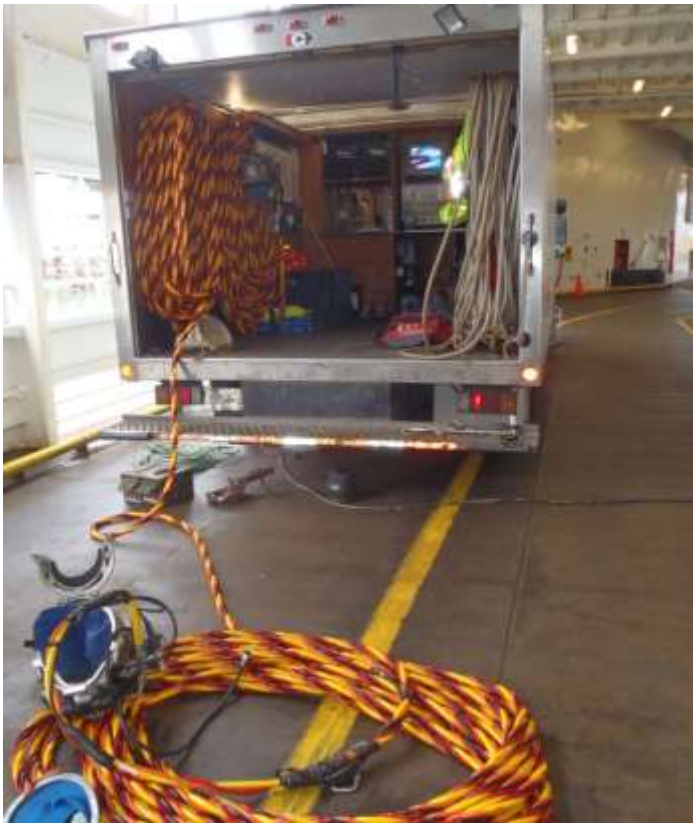
1. Sign in Engineering room
2. Discuss plan with divers, and Engineers. Divers complete paperwork with BC Ferries.
3. @ Bosun's store room open instrument and PC housings. Check both and are OK.
4. Instrument housing dry and clean.
5. During diving setup, went up to upper bird nest to inspect upper instrumentation. The wires/ cables visually look good. Cell antenna OK. Radiometer electronics housing connectors corroded. Need to swap with another box with no connectors externally.
6. Open Upper box, and check for loose items. Verify Rogers Comm. Card fully connected to USB port. Check OK. Was glued in place. DC adapters connected and glued OK. No signs of Moisture within box. Close box.
7. Open Radiometer box. Internal box shows no signs of moisture. Connections /wires OK.
8. Divers in water at 11am. Must be out by 12:15pm due to a set of ships arriving back to terminal.
9. Diver located pod intake. Diver noticed that there is a lug missing from the pod. There seemed that only one lug held down the pod.
10. Diver visually looked into the intake valve and it showed minimal or next to none growth. Diver wiped with finger the insides of the intake chamber. Video is being developed by All Sea, and will be available to ONC once emailed to us.
11. Pod on deck. Pod Ball easily moving left to right inside its chamber. Observed slight dents on each side of stainless steel intake screens.
12. Dismantle pod. Clean pod thoroughly. Insert new ball and insert 3" coppe tubing into intake to refrain pod from twisting. Twisting or turning of the pod is possible due to the missing lug. The 3" copper tubing may help position the pod in place, and help pod from turning on its side.

13. Diver install pod, and check OK. Video of dive has been captured. Josh to email copy of video.
14. Power down system, and pull off BBFL2 instrument. Clean, and re-mount.
15. Power system back ON. Check instrumentation data output via Hyperterminal and Seakeepers software.
16. Ran pump for couple minutes to check leaks. No leaks apparent. Turn OFF pump, but, left system powered ON. Close housings.
17. Sign out at Engineering room

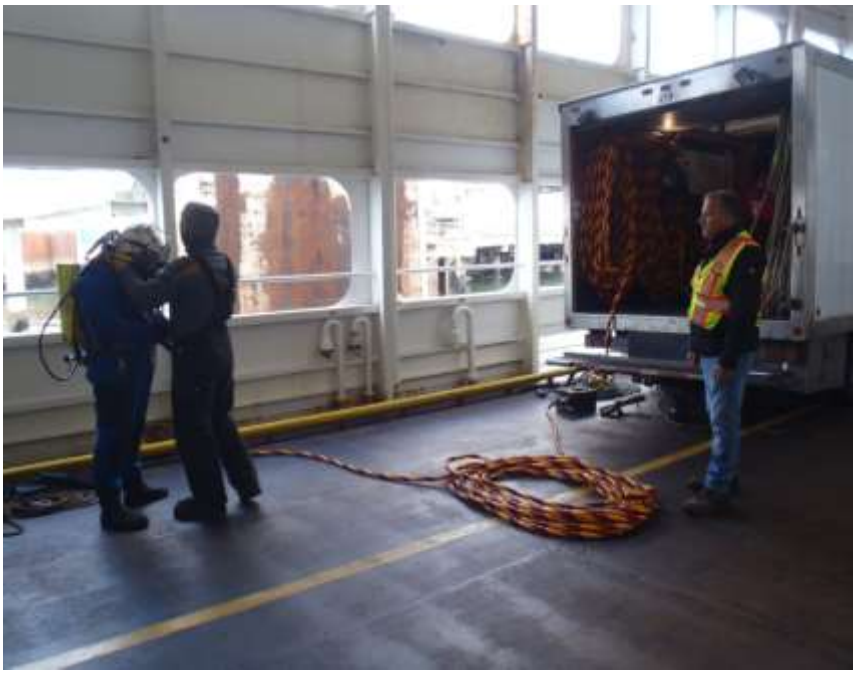
Future Actions

1. Use All SEA divers to weld on top of the existing POD intake lug bolt a plate that has four lugs pre-attached. Intake pod can be mounted, and tighten down on top of this new plate.
2. Bring more Desicant bags
3. QoA on Dry dock Oct 2016
4. Update Rogers Cell network card /service to better service system/ network
5. Strip down Intake manifold if not replace it. Internal manifold back flow spring loaded valve may be bad, or marine growth (especially mussels) may be building in areas where we cannot see.

Pictures

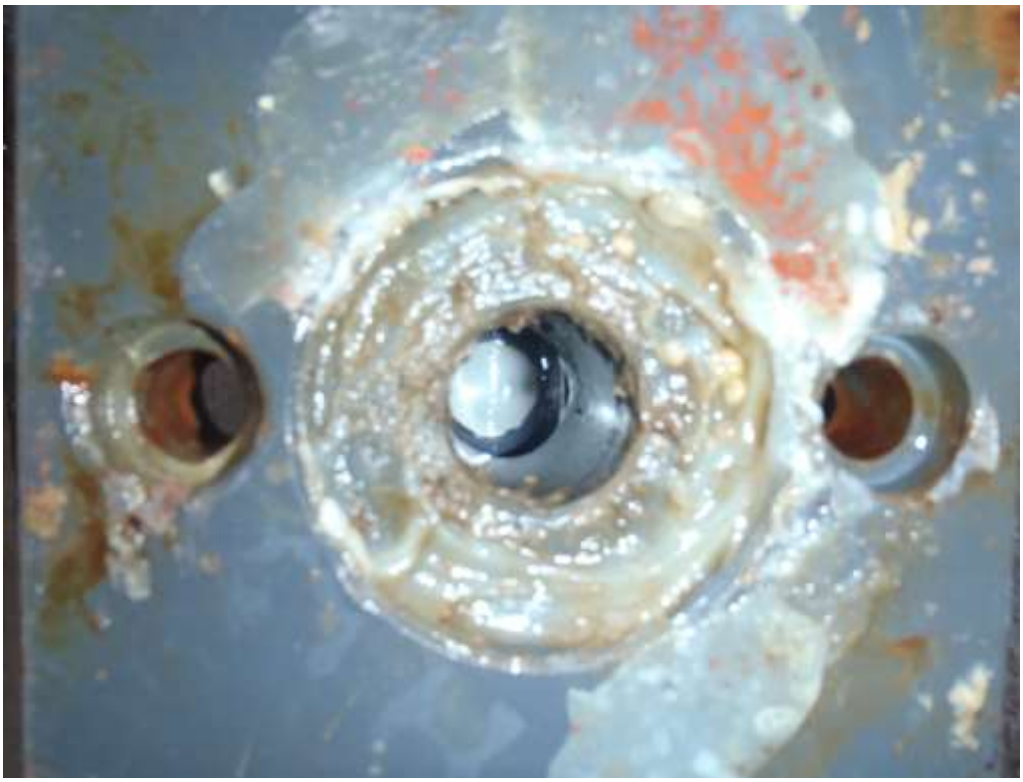


All Sea Divers preparing deck dive station



Denis supervising Dive Ops

Intake Pod after recovery – notice dents in grills



Intake Pod internals –notice minimal growth

Intake Pod – insert Copper piping in intake chamber to resist twisting when ship is underway and pod under pressure. Had to do this due to one of the lugs to tighten the pod was missing.

Intake Pod – Copper tube inserted into intake

BBFL2 prior to cleaning

Kipp and Zonen Radiometers, and GPS

MET station at upper deck with Radiometers/GPS in background

Cell Antenna – no damage/ looks good !

Radiometer Data Logger box – connectors corroding

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Data logger housing interior – dry, and connections intact

Upper deck electronics housing – dry and connections intact

Rogers Wireless Card/adapter at LHS – connections good + glued in place

Josh (ALL SEA divers) and Denis (ONC) watch diving operation