



Ocean Networks Canada

Ferry Maintenance Report – Queen of Alberni

Date: Feb 25th, 2015

Arrival: Drive to Duke point Terminal. Sign in with Terminal Supervisor. Board Queen of Alberni (QoA) ship at 12:35pm. Stayed on the ship as walk on Visitors to Twass, and back.

Reporter/Attending: Denis Hedji (Servicing/Reporter), Ian Beliveau (Servicing)

Reason for Visit

SeaKeeper system electrical issue.

Possibility Power and / or Relay board, wiring, and / or Web power bar faulty at upper funnel. Initial problem was due to a leak in instrument housing and pump controller box was affected. Pump control box may have affected power board. Also another possibility, after the install of the new re-conditioned housing installed may have affected power up of the Seakeeper lower electronics. Ship did state that there was a “total” electrical black out on Feb 18th.

Observations

1. System intermittently powered up. Didn't fully boot up. Web power bar port 1 kept tripping.
2. Instruments in instrument housing were dry from previous plumbing strip down, and rebuild service Chris and Denis did.
3. Power conditioner Red light illuminated - The earth prong on the ferry outlet is grounded to hull. Neutral is isolated from the hull. That's why the fault LED on the Tripplite is coming on.

Actions Taken

1. Sign in with QoA Engineering department.
2. In Bosun stores. Power ON the Seakeeper. Issue is still in same state.
3. Disconnect all instruments connectors to produce no load. Power ON, and still same issue.
4. Disconnect connectors to power board, and relay board. Re-solder crimped pins, and re-seat connectors back on board. Disconnect and re seat ribbon IO cable from PC to Relay board.
5. Inspect and repair Impulse bulkhead connectors in PC housing as well as Instrument housing. Found some wires with barely any strands.



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6. Connect new power board aside to existing power board, and power ON. Still same issue present. At this point, we were convinced this was not a power board issue.
7. Re-connect all items and instruments as they were.
8. At Twass terminal. Check in with Chief Steward and request permission to access upper deck at funnel the electronics housing by Deck # 2 aft deck.
9. At upper electronics area. Open box, it was dry, no leaks nor moisture apparent.
10. Swap Port # 1 AC cord to Port #6. Denis went down to Bosun store to power up. Ian standby to inspect power bar as seakeeper powering up. Ian notified while he was at upper deck that system is powering up.
11. Power ON the new port #6 on web power bar. Normal boot up and startup of instruments.
12. Inspect plumbing for leaks. No leaks apparent. Monitor system operations.
13. Verify data output via collected data folders on each instrument(s). Data are in files and seems OK.
14. Clean up. Sign out at Engineering Department. Signed out of Terminal at Duke point 17:30hrs

15. Future Actions

1. Replace newly replaced tygon tubing with thicker tygon tubing to 3/16 ID, 7/16 OD and replace the hose clamps with newer rounder style clamps.
2. Replace Web power bar, and maybe return damaged one while under warranty.
3. Replace crimp ring fitted tube with new flex hose and install new assoc. fittings
4. Purchase and build a replica PC of the QoA layout(in case PC fails have easy swap out on hand)
5. Calibrate upper deck instruments

ADDENDUM/NOTE: