Ferry Maintenance Report

Vessel: Queen of Alberni

Date: Aug 18, 2013 01:00 am. BC Ferries are shut down at 01:00Am hrs. Gates are locked at front entrance restricting access to anyone. You must call the Terminal Supervisor on duty ph 604-312-5077 who starts shift at 10pm nightly. The Supervisor has met us at the ticket booth Gate # 17 on far right hand side and allowed us in via Staff gated entrance. We signed in at terminal. We met with Sergiy Chief Engineer, and discussed issue. They had made an adapter for us to connect a fire hose to our valve.

Reporter: Denis Hedji

Reason for Visit

Hull intake valve plugged with debris restricting water flow to Seakeeper instrument cage

Observations

1. The intake valve was capped off and Seachest was not installed. No leaks apparent.

Actions Taken

1. Open Floor cover plate.
2. Assure valve is shut
3. Disassemble end cap, and install fire hose adapter
4. Connect fire hose end to adapter
5. Turn ON fire hose via Ferries staff for ~ 4 minutes. Observed Fire hose pressure line, and it was very hard, and hardly squeezable.
6. Disconnect fire hose. Spin open valve and observed water flow output. Water output from the intake was very slow, and some debris was apparent. It seemed that the fire hose did not push out the plug, and just caused debris to float around in valve cavity. Engineer present allowed the water to flow out of Valve as he stated the bilge pump will pump out the water.
7. We took long wood drill bit, and slowly drilled in valve cavity while valve wide open. Observed thick wood chunks coming out, but, no water flow improvement.
8. Changed drill to heavy duty drill with same long wood bit and tried to drill through the PVC end plate as instructed. If a hole was drilled through this may open a hole and bypass the clogged pair of inlets. The drill bit was in-affective to PVC and barely drilled at all especially using a heavy duty electrical drill. We asked Ferry staff if they had long drill bit and they didn't.
9. We kept trying to pick away the debris, and noticed the water flow did not improve at all.

10. We re-installed the fire hose adapter, and pressurized the intake valve again hoping the drilling and picking would break up the debris in the cavity and it didn't even with the hose pressurized longer.

11. We disconnect fire hose adapter, and turn ON valve and observe water output. It slightly improved but not much to make a noticeable difference

12. It seems that hard wood had plugged the intake cavity, and having to blow pressure in the PVC intake may have packed the debris up more….Cannot tell whatsoever

13. With little improvement on the water flow, we believe the intake is still plugged and the Seakeeper system shall not be re-assembled to turn ON until the plug and debris is thoroughly cleaned+removed. If we connect the system with the water flow we have now we may not receive the water flow in the Seakeeper as needed, and the possibility of running a pump dry may damage it if the pump isn't already damaged? The intake is packed now and over time it will become completely plugged soon.

14. Re-connect End cap to intake. Notified Engineer of situation. Signed out at ship and terminal.

Future Actions

1. <u>We call in a diver</u> during ship non operation to take off the PVC intake plate on hull.

2. We need an Intake that is NOT "T" shaped inlets. T shaped intake does not allow one to easily remove a plug. If the intake was straight through will the valve it would be much easier to clean cause one would have to push debris straight out using ready rod or something straight

3. I recommend a Sea Strainer on the intake. One with a mesh big enough to capture large items and still allow seawater and science items to pass into Seakeepers instruments. The strainer will protect our system from this kind of problem in the future. This is a typical piece of hardware on ships today