

Statement of Work 13IN257

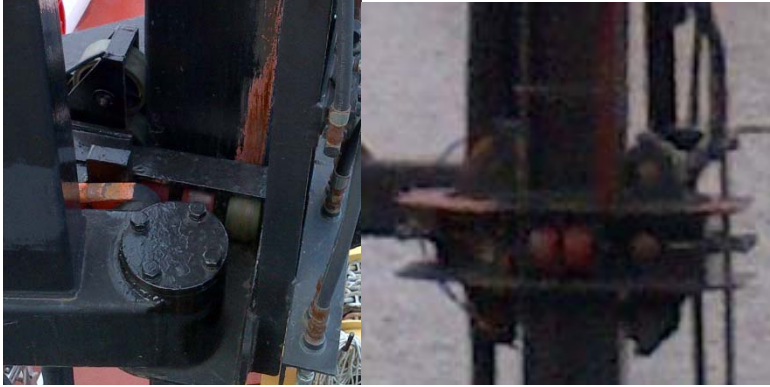
Complete overhaul of the sounding booms on the *F.C.G. Smith*:

Summary:

1. Disassemble the three booms (port, centre and starboard) and place them flat on the dock for a complete inspection. It is the Contractor's responsibility to provide a temporary wood structure for safe storage of the booms on the dock.
2. Using an ultrasound test, inspect all fulcrums, pins, and holes in the three booms.
3. Replace all hydraulic hoses in the hydraulic motors on the foredeck, as well as the cylinders and boom rams with new hoses.
4. Complete overhaul of the hydraulic motors on the main deck forward (4X). Remove hydraulic motors from vessel in order to disassemble them in the workshop. Take internal measurements and verify the general good working order of the motors (brakes, gears, bed plate, etc.) and replace the bearings with new ones. After the work is approved by a Coast Guard representative, reassemble and test the motors in the workshops and reinstall them on the vessel.

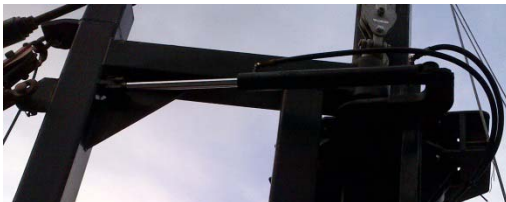


5. Disassemble the 24 wheels that allow the external booms to be raised and lowered on their posts in order to inspect them. Carefully inspect these wheels to determine their condition, and try to identify all signs of abnormal wear. Show the inspection results to the Coast Guard representative. Reattach the wheels with new hardware.



(Photos for section 5)

6. Complete overhaul of the hydraulic cylinders (2X) on port and starboard booms. Remove the hydraulic motors from the booms in order to disassemble them in the workshop. Take internal measurements and verify that the cylinders are in good working order. After work is approved by a Coast Guard representative, reassemble and test the cylinders in workshops and reinstall them on the vessel.



7. Remove the hydraulic motors (2X) with their respective hoses as well as their pulleys (4X), which are directly on the starboard and port booms. Return these parts to the Coast Guard representative.



8. Complete overhaul of the hydraulic rams on the front boom. Remove the hydraulic rams from the vessel in order to disassemble them in the workshop. Take internal measurements and verify that the rams are in good working order. After work is approved by a Coast Guard representative, reassemble and test the rams in workshops and reinstall them on the vessel.



9. Remove the two spindles from the external booms. Take internal measurements to determine if there is abnormal wear. Show the state of the spindles to the Coast Guard representative.



Reattach the boom spindles.

10. Complete overhaul of the spindles on the front boom. Replace the bearings with new ones.



11. Paint the booms. Mechanically clean all surfaces in order to have a rust-free surface with a porous profile, to allow paint to adhere. Bare metal surfaces should receive a coat of aluminum-colour Intershield 300. White surfaces should be painted with a coat of Interthane 990 white. Black surfaces should be painted with a coat of Interthane 870 black.
12. Fully reassemble the booms and do the tests needed to ensure that all of the booms are in good working order. A first test on the functioning of the hydraulics and free movement of the booms could be done on the dock. However, the test with the booms deployed should be done at sea, when the vessel resumes operations at the start of April 2014.

13. All hardware removed for disassembly will be replaced by new, stainless steel hardware (Nuts, bolts, washers, etc.).
14. All work must be done in compliance with Oil Pollution Prevention Regulations.
15. A crane will be available on the Sorel dock to handle the booms and material to be loaded onto (or unloaded from) the ship. It is the Contractor's responsibility to make arrangements with the supervisor to ensure that the crane is available to carry out the work.
16. Any additional work must be approved in advance by a Coast Guard representative. (form 1379)
17. The work will be performed at the Sorel dock between February 1, 2014, and March 15, 2014.

Complete a five-year overhaul of the two Hiab cranes on the *F.C.G. Smith*:

Summary:

1. Complete the five-year verification of the two Hiab cranes (Heila HLM series, 7-2s type, serial number H6917 95 tri and HMF series, M111-K2 type, serial number 8519181 bab)
2. Disassemble the cranes from their footings, making sure to cover all ducts with screwed metal fittings in order to prevent pollution and contamination. Check for cracks in the footings and replace defective bolts with new ones.
3. Offload the cranes using a crane (provided by the Coast Guard), and transport them to the workshop in order to perform a full disassembly (approximate weight of each crane: 2000 lbs) The sections should be solidly attached before raising the cranes, to keep them from folding into one another.
4. Disassemble, clean, and do a non-destructive test on all the pins of the cylinders and sections, to the satisfaction of the Marine Safety inspector. Before the pins are reattached, the Contractor must prove that the grease ways are clean, and lubricate them. Provide an aspect ratio of the pins and sleeves.
5. Plan to disassemble, clean and perform a non-destructive test for cracks on all extensions, to the inspector's satisfaction. All cranes and components must be mechanically sanded to obtain a

porous profile and ensure paint adhesion. The interior of the sections will also be mechanically cleaned, and a coat of Interzinc 52 and two coats of "buff" colour Interthane 990 applied, keeping in mind that the sections slide. (RAL 9001 colour).

6. Lubricate the sections during reassembly.
7. Disassemble the vertical support so that the internal components can be inspected by the TC/SS inspector.
8. Disassemble the hydraulic winches so that the motor, clutch brake and gears can be inspected by the TC/SS inspector. Replace the oil (80W90 gear oil). Replace all seals and bearings with new ones (submit a report).
9. Using an anti-corrosive jointing compound on all pins, sleeves, screws and nuts, reassemble all components. Then, perform a test lift, to the satisfaction of the TC/SS inspector, who must provide a T-3 certificate signed the same day. (test of 1.25 times the maximum load).
10. Replace the steel cable with a new one with the same specifications. Provide a certificate with the new cable.
11. The hooks must be certified.
12. Construct two plastic signs that are resistant to sun and cold in order to display the load and distance tables. These must be affixed to the crane in a location chosen by the Coast Guard representative.
13. A load test of the cranes must be done in the presence of the OBS inspector once the cranes are reassembled on board. The test will be 1.25 times the maximum load, and the hydraulic technician must be present to adjust the pumps as necessary. The test will be done after April 1, 2009.
14. Additional work such as hose replacements, parts replacements and paint touch ups must be approved by the Coast Guard representative. Cables and pulleys must be removed and reattached by the Contractor. Fill to the correct level with oil provided by the Contractor.