

Thompson Mid-life Update

Timeline - Milestones

- ✓ Contract awarded 24 August 2015
- ✓ Thompson finishes science 24 May 2016
- ✓ Entered shipyard 16 June
- ✓ First seismic compressor removed 28 June
- ✓ Drydocked 15 August
- ✓ First generator set removed 19 August
- ✓ First new generator set onboard 22 September
- ✓ Undocked 25 October
- Shipyard complete Oct 2017
- Shakedown cruise late Oct/early Nov 2017
- Return to science late 2017

Major Issues

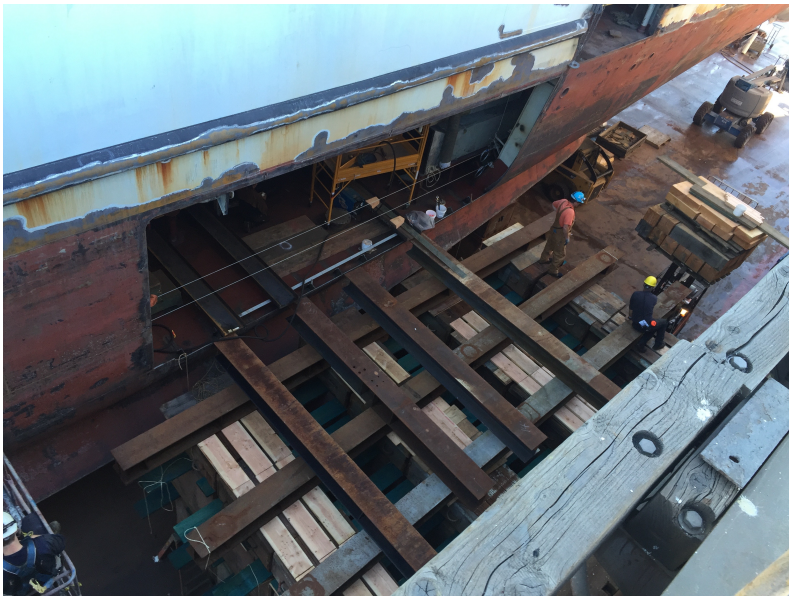
- Propulsion Motors
- Z-drive Lower Gear Box
- Steel repairs
- Replaced more piping than anticipated
- Couldn't re-use old cabling
- Extensive crane repairs
- Changes even more expensive than anticipated
- Late start of shipyard's design sub-contractor
- Slow ramp up of shipyard project team



Shortly after arrival at Vigor



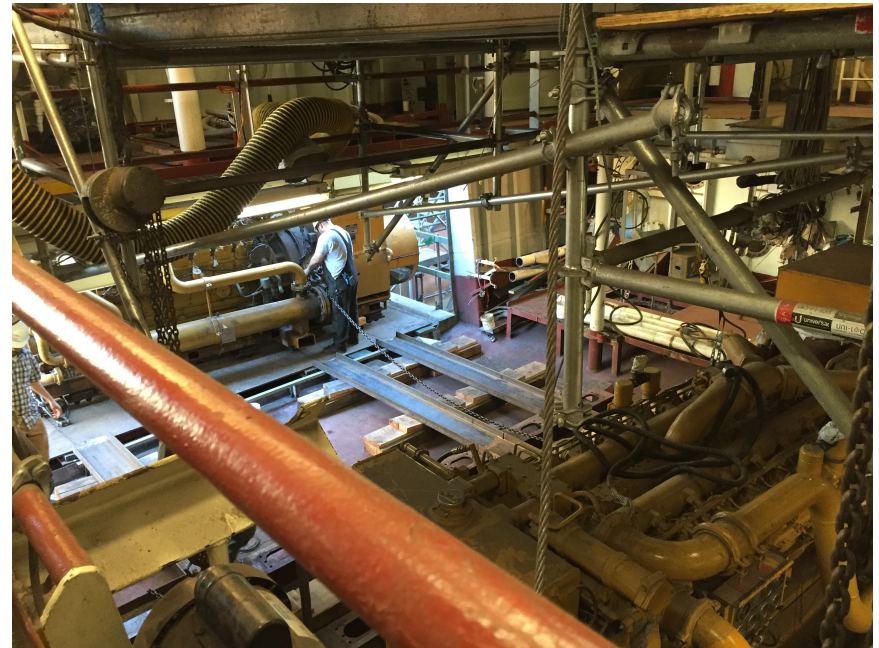
1st seismic compressor coming out



Ready to remove the generator sets

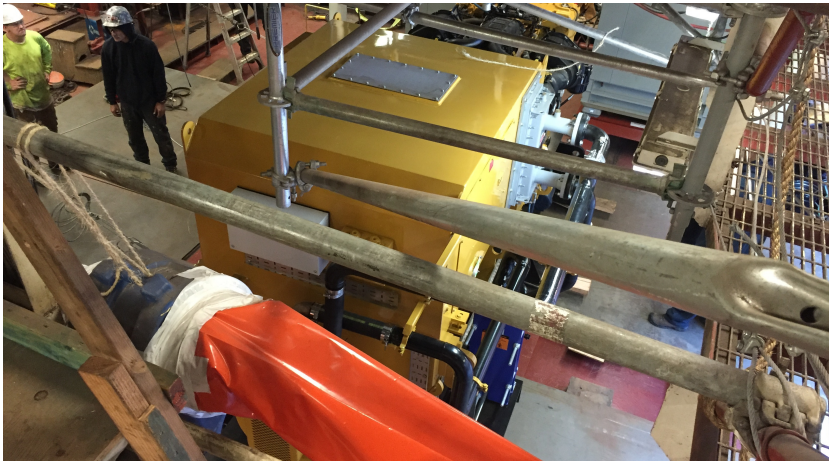


1st generator set out



1st generator set comes off





First new generator set being moved into place

1st new generator set comes onboard





EM-302 being replaced



Bridge gutted & prepped for new consoles



4/16/17 Blasting the aft main deck



Ballast tank before blast & paint

Bad old stuff – piping & wires





Badly corroded vent ducting



Computer Lab gutted



Senior Scientist S/R



Heavily corroded O2 Deck



New Main Control Console in place



Old Switchboards & Drives being removed



A-frame refreshed / upgraded



New switchboards in place



New drainage piping for head modules



New firemain piping



4/16/17 New instrument well

RVOC Spring 2017



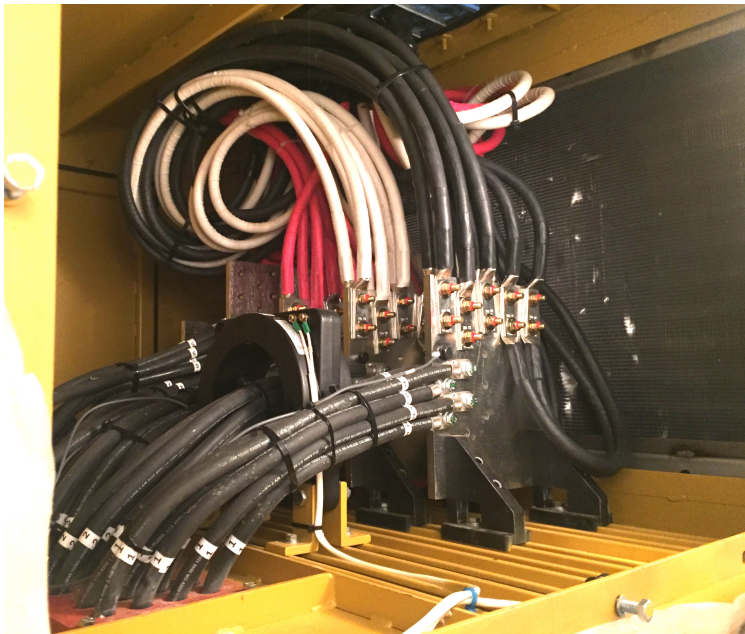
Transducer Void "refreshed"



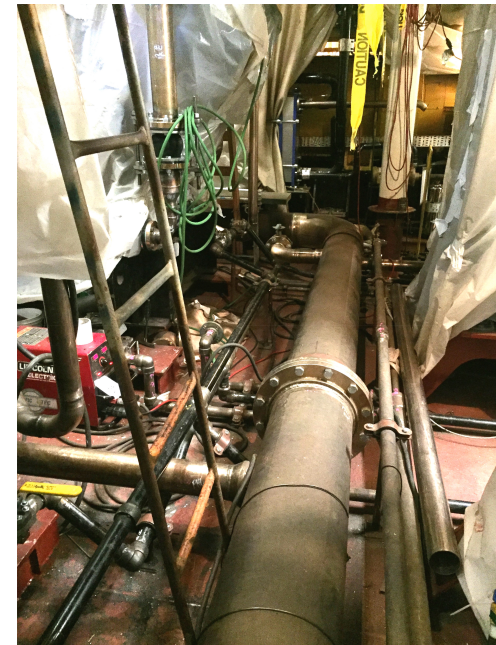
Refurbished hydro-winches in place



Cables prepared for feeding into switchboards



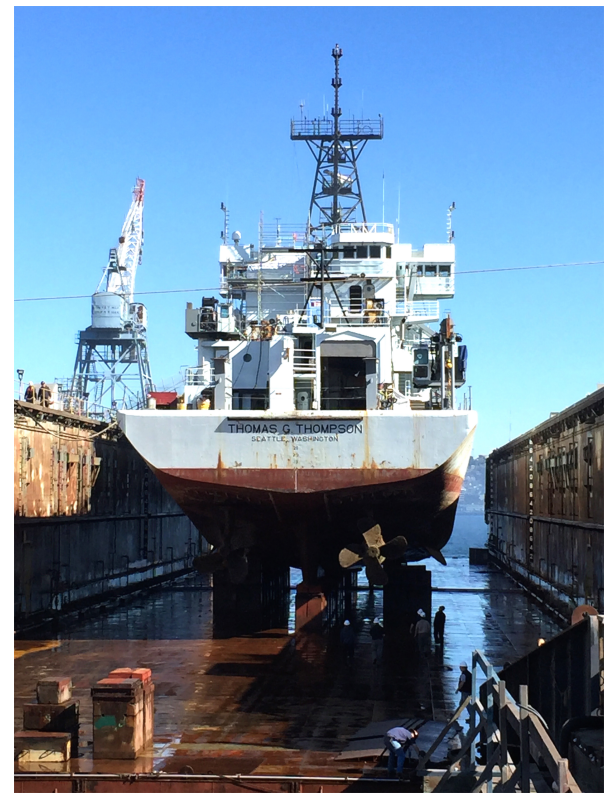
Cable connections in new generator



New piping systems



Looking tired
& worn out



Starting to
look
refreshed





Back alongside – with a lot more work to be done