R/V SIKULIAQ

RVOC April 24th, 2014

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Tentative R/V SIKULIAQ Schedule

Tentative Date	Schedule
November/December, 2013	Propulsion Trials Builders Sea Trials I and II Completed
February, 2014	Acceptance Trial
April to early May	Drydock Bay Shipbuilding Sturgeon Bay (Z-drive Repair/Modification)
May	Acceptance Trial part II
Late May , 2014	Accept the SIKULIAQ
June, 2014	Dockside MMC (Outfit and Crew Training)
Late June, 2014	Depart Great Lakes via St Lawrence Sea Way
July,2014	WHOI (PCO2, Gravimeter, Geo Cam install)
July, 2014	Puerto Rico Winch Trials
August, 2014	Transit to the Pacific via Panama Canal
September, 2014	Begin Science Operations

Stern Looking Forward

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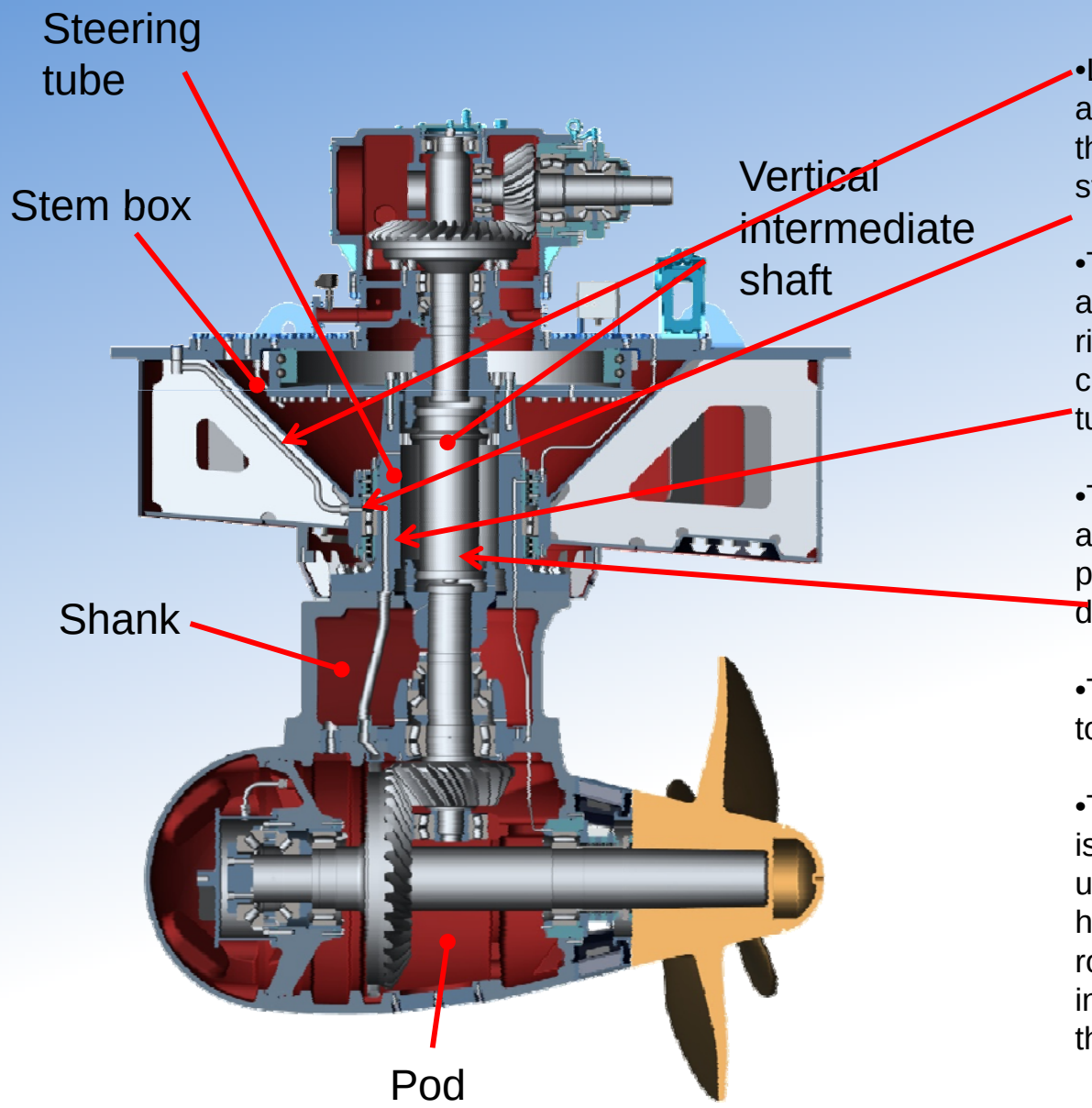


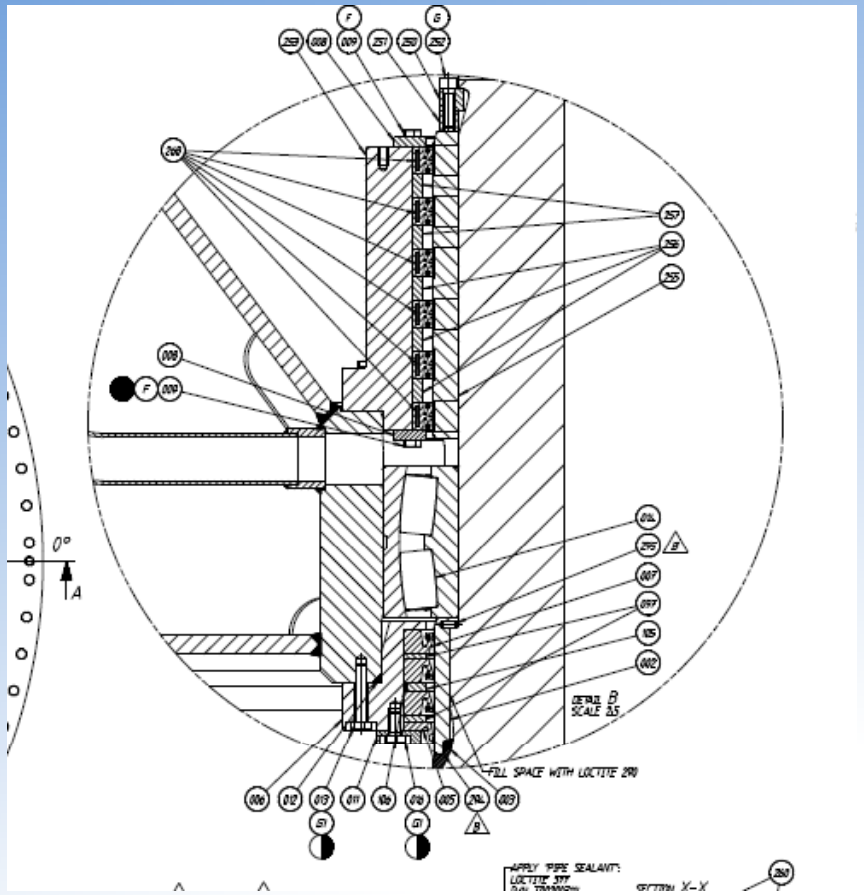
•Lube oil suction line passes through the stem box and into the housing for the seals and bearing at the bottom of the stem box. The housing is stationary.

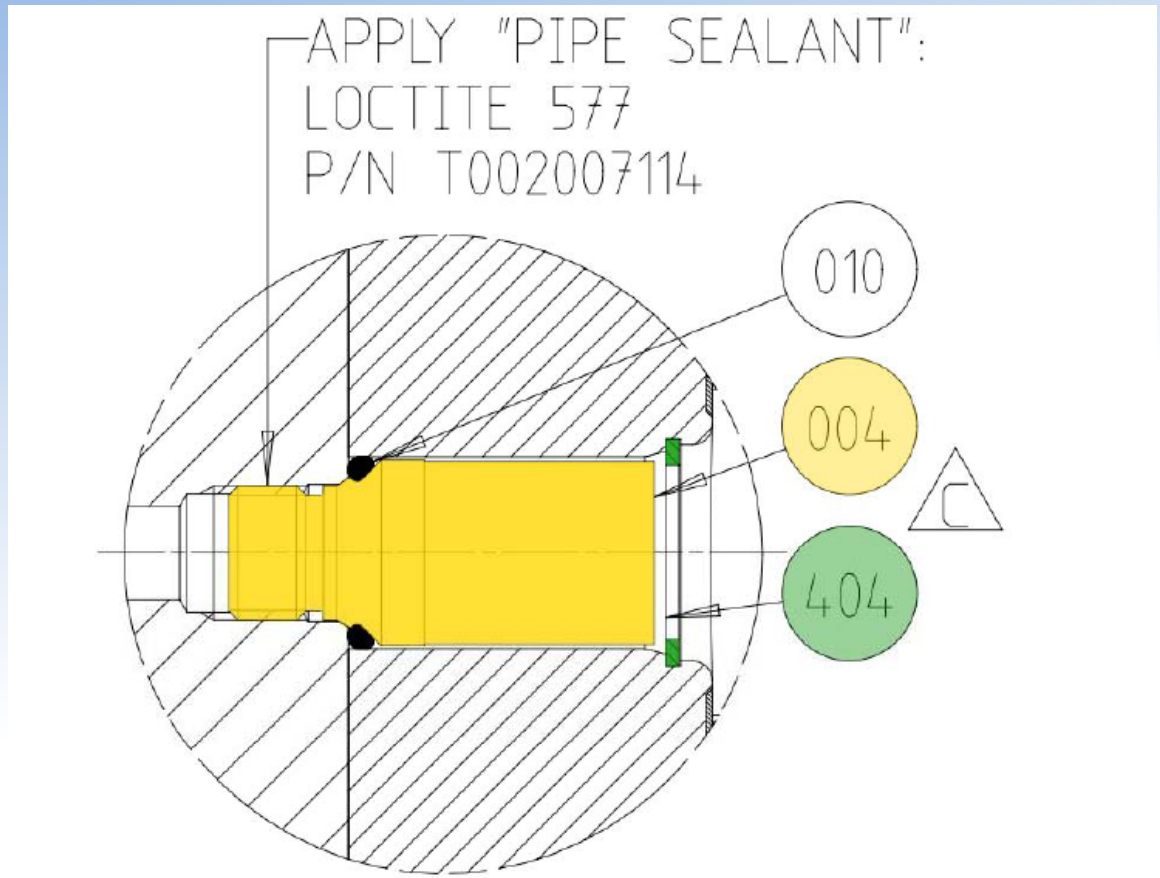
•The lube oil passes through a port in the housing and mates up with an oil groove in a lining that rides on the steering tube. The steering tube connects to the shank and the pod and rotates to turn the Z-drive.

•There is a port in the groove of the lining that allows the oil to pass from the groove through a passage machined within the steering tube and down into the pod for the suction pickups.

•The vertical shaft rotates within the steering tube to transmit the power down to the lower gear box.

•The lining on the steering tube with the oil groove is pinned in place to rotate with the steering tube using three pins. Wartsila believes the three pins have failed which allowed the lining to shift rotationally relative to the steering tube so the port in the groove of the lining no longer lines up with the internal oil passage in the steering tube.





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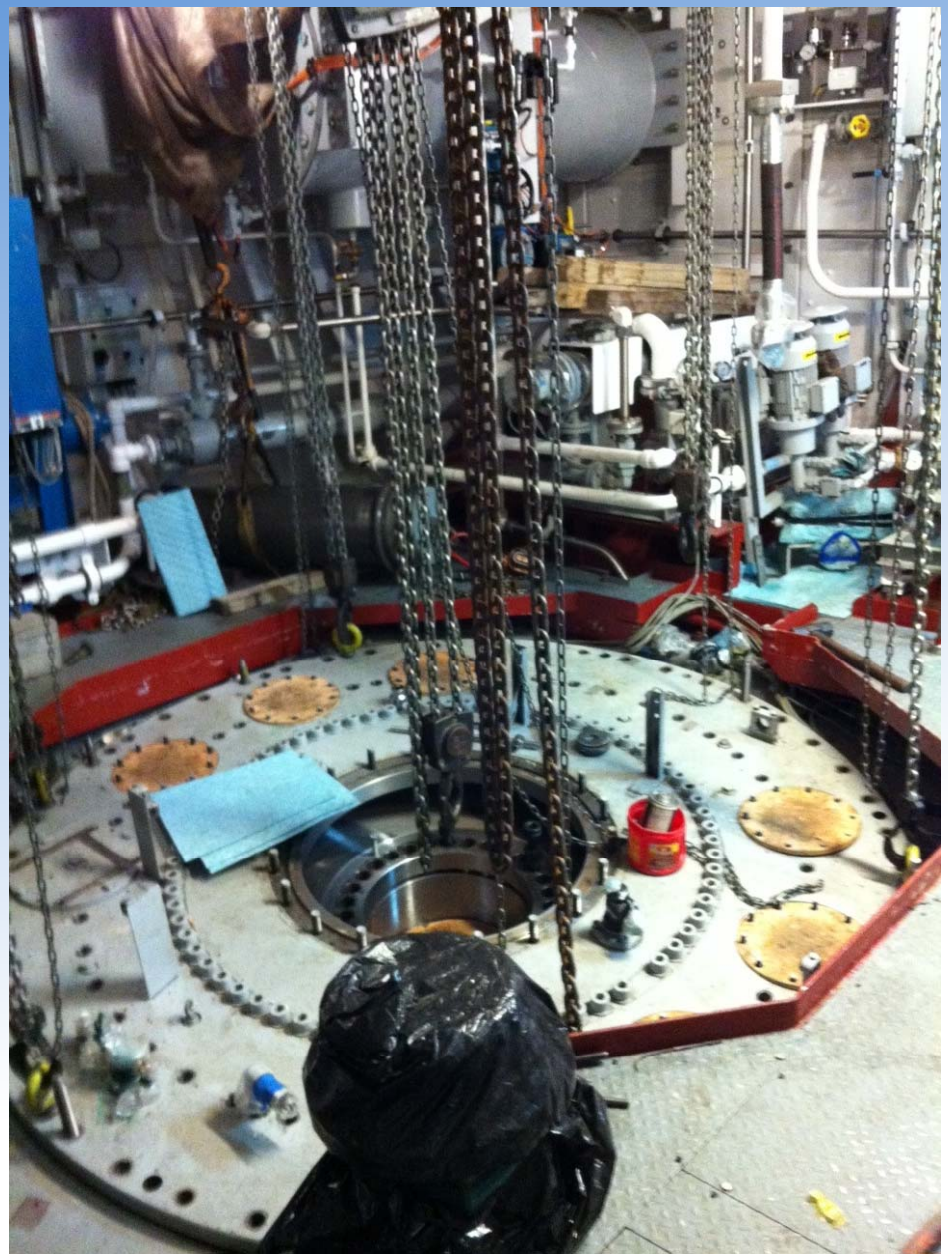

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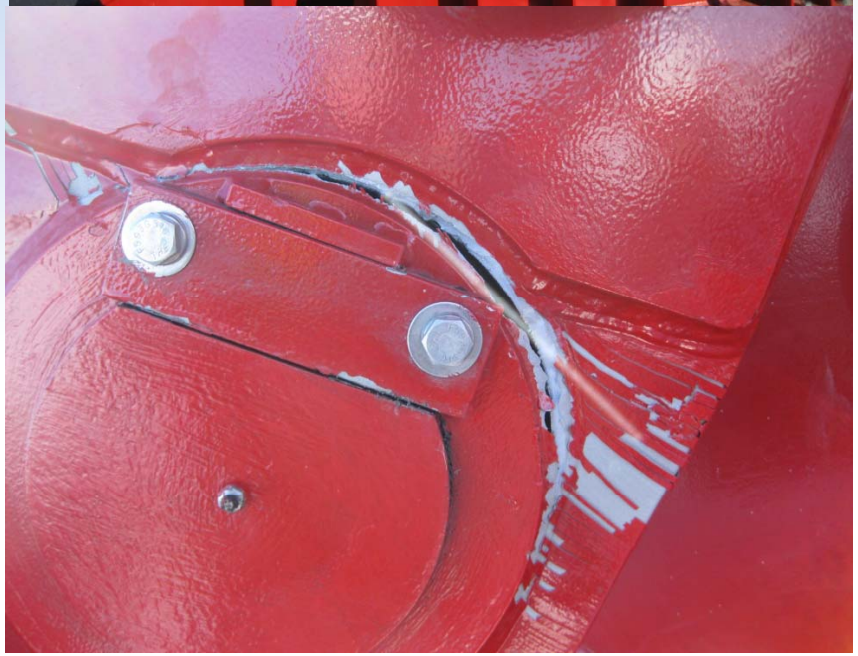

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CTD Load Handling System

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Multi-Tool Interface Pack & Tooling Development

April Status Slides

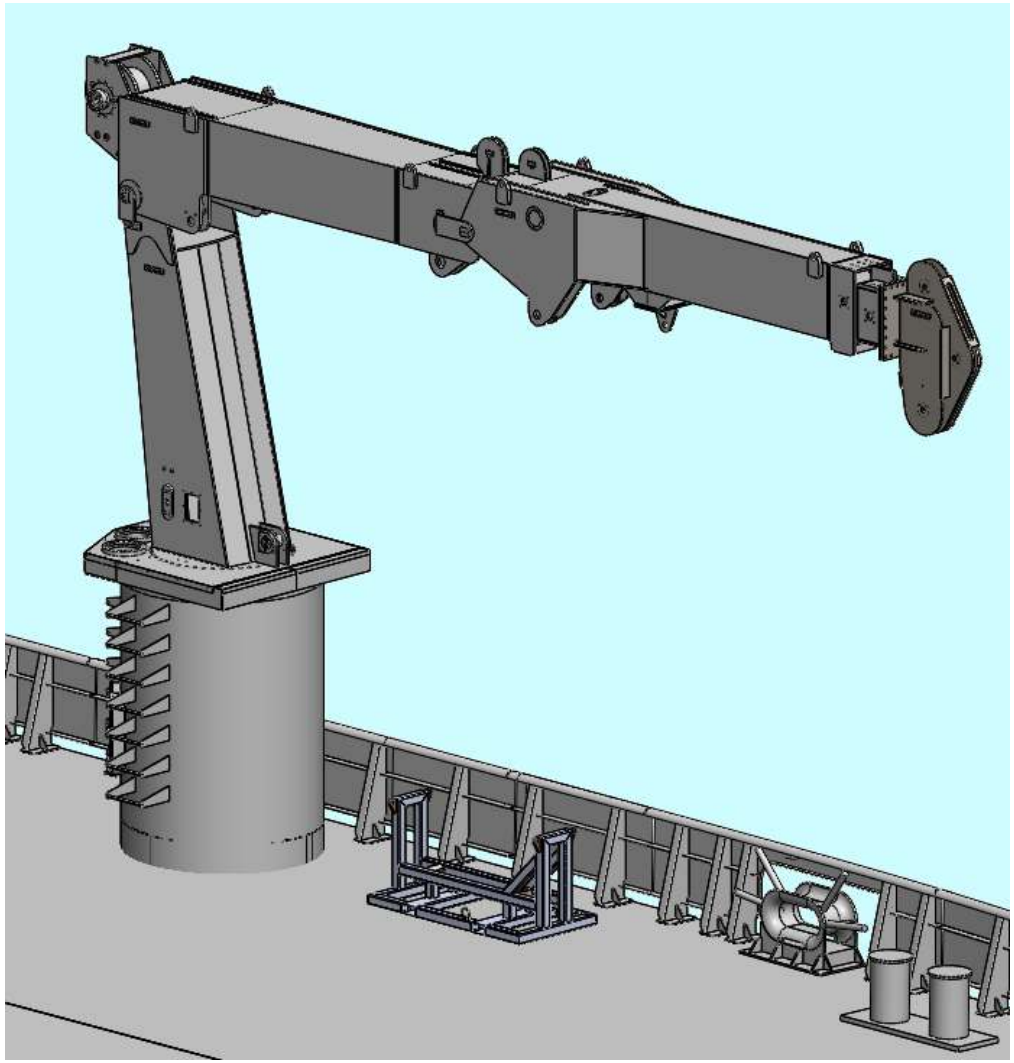
Prepared for : The Glosten Associates

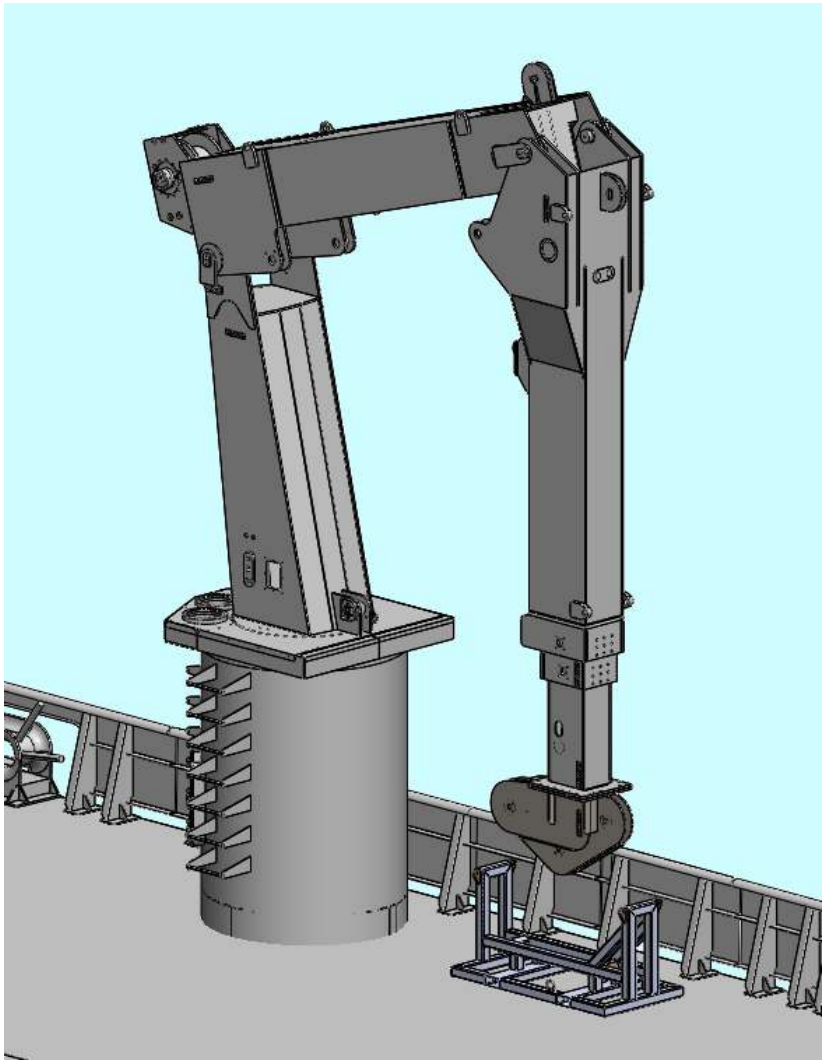
18 April 2014

By: Michael T. Einhorn P.E.
Einhorn Engineering, PLLC

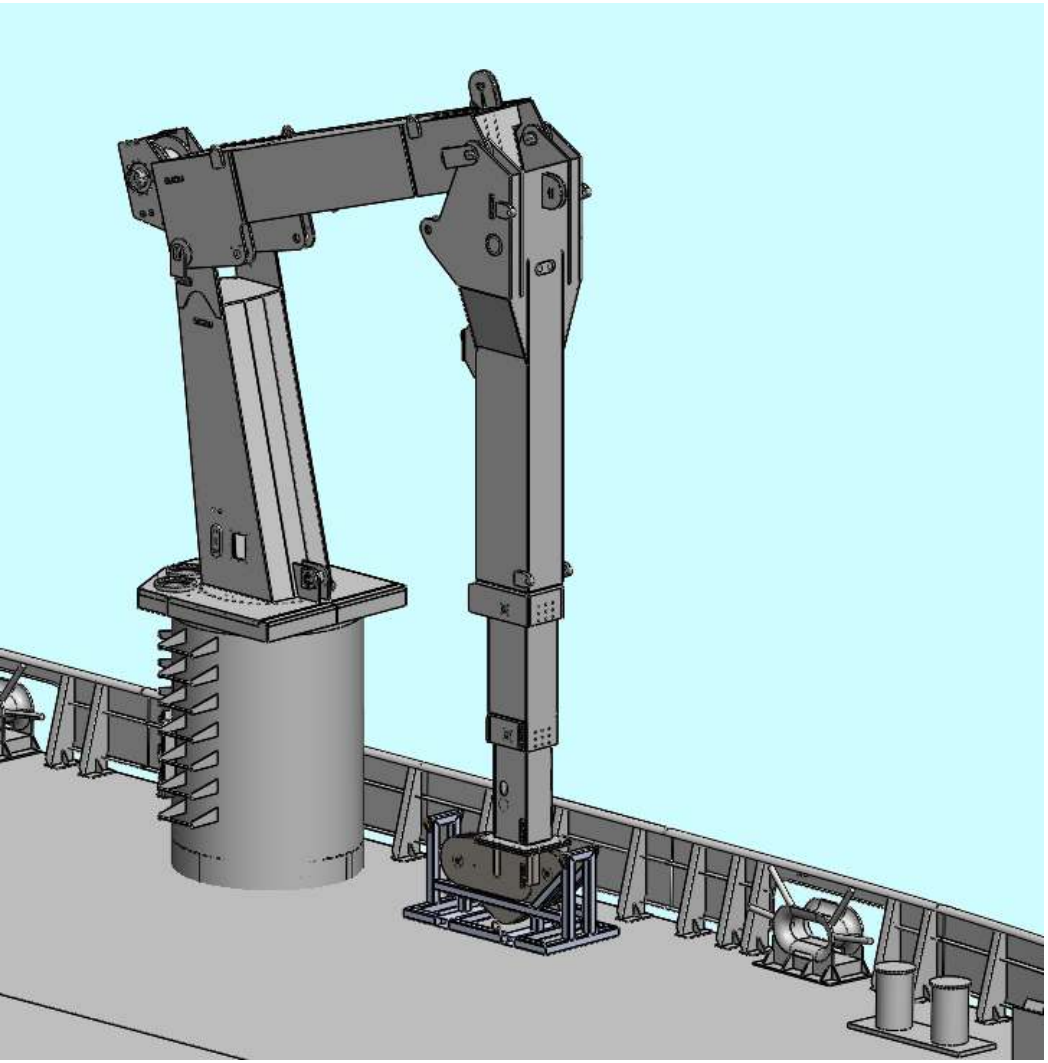
EINHORN ENGINEERING PLLC

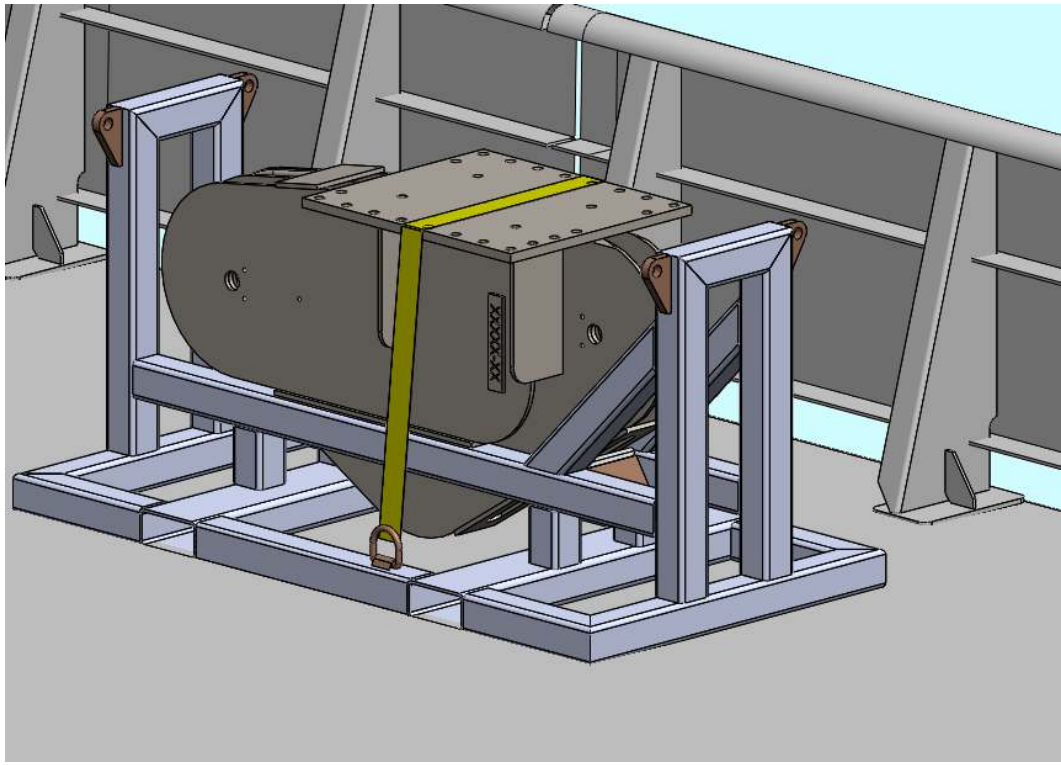
Headbox Detachment





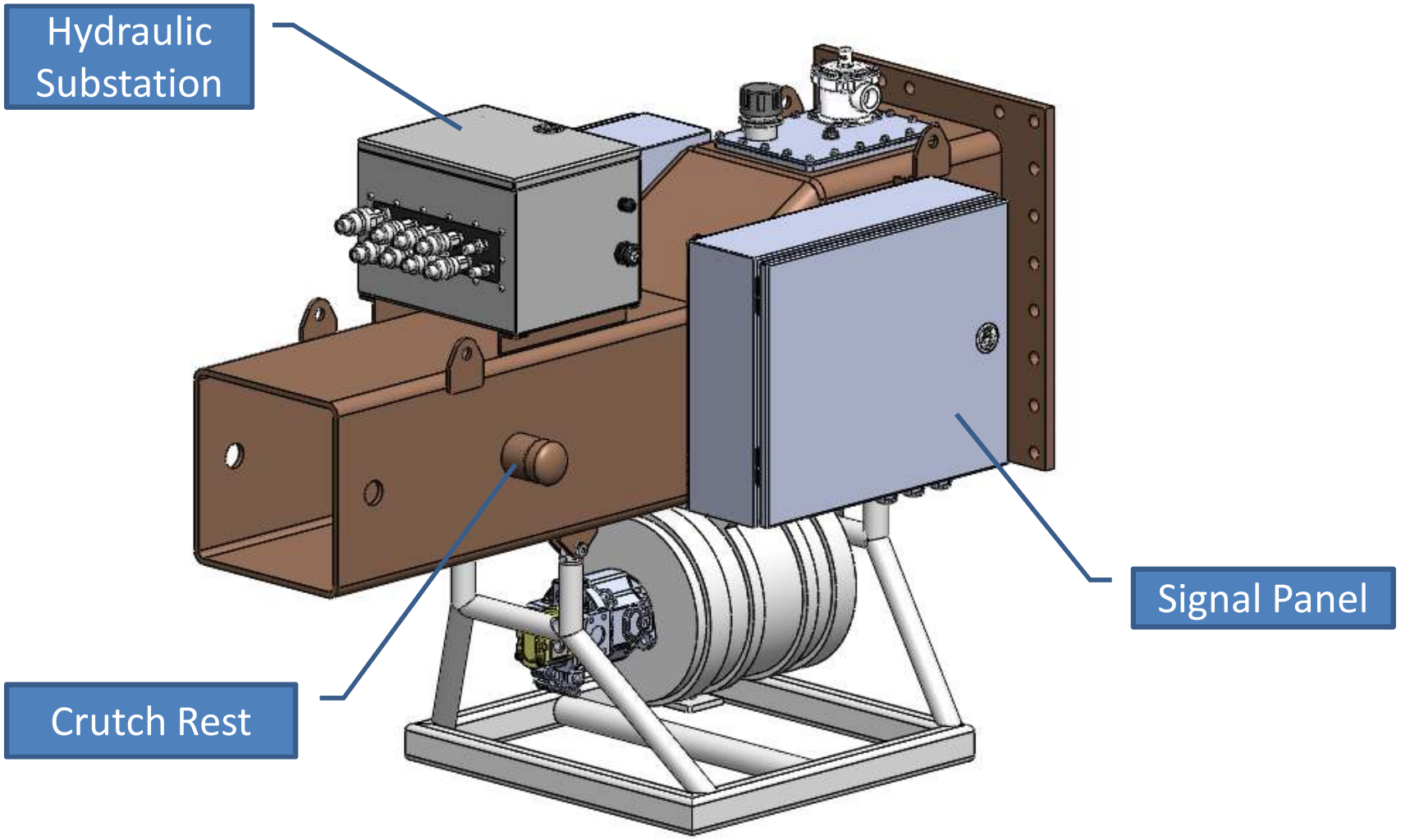
Headbox Detachment



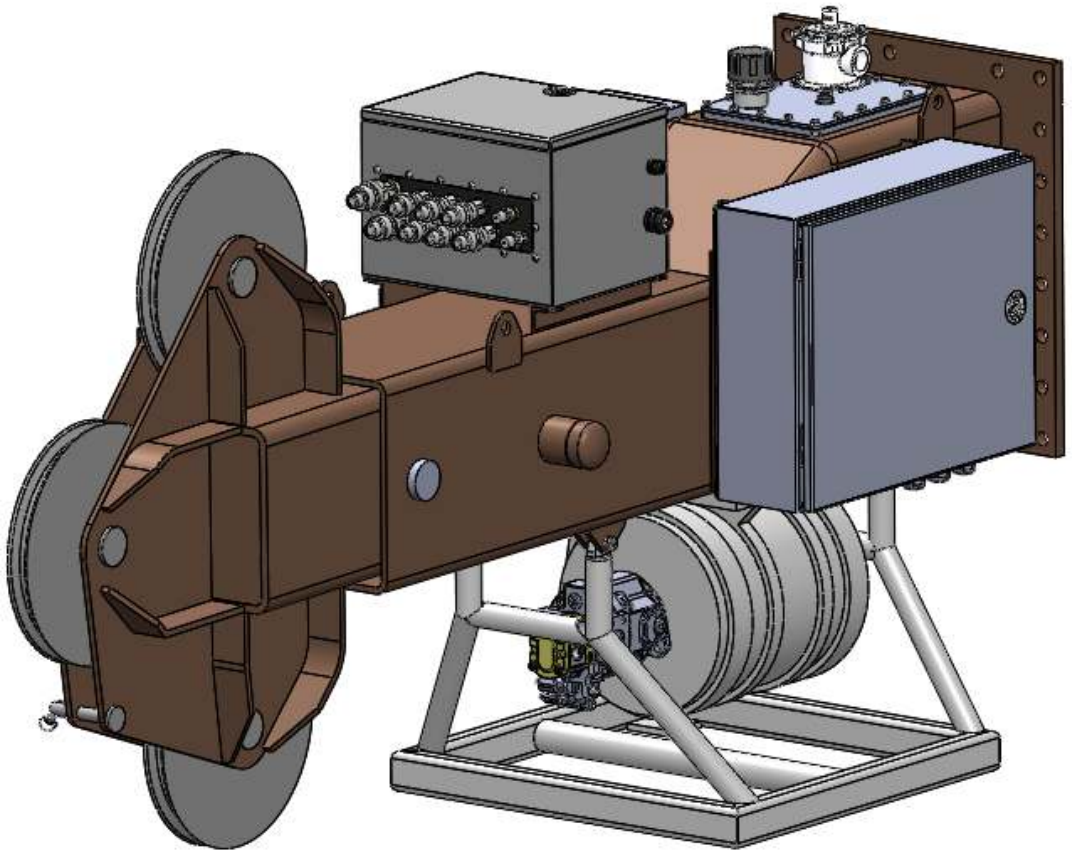


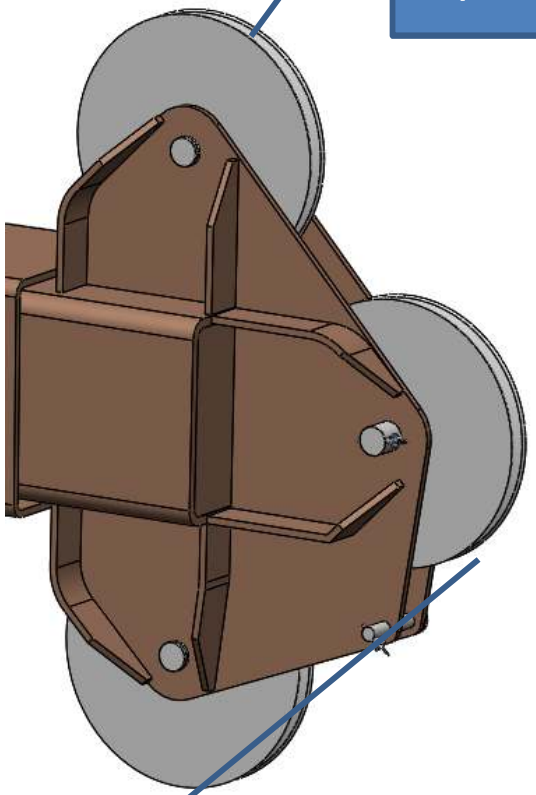
Strap and stow

MTIP Isometric View



Jib Attachment





Nylatron Sheave

Quick Release Pin

Quick Release Pin

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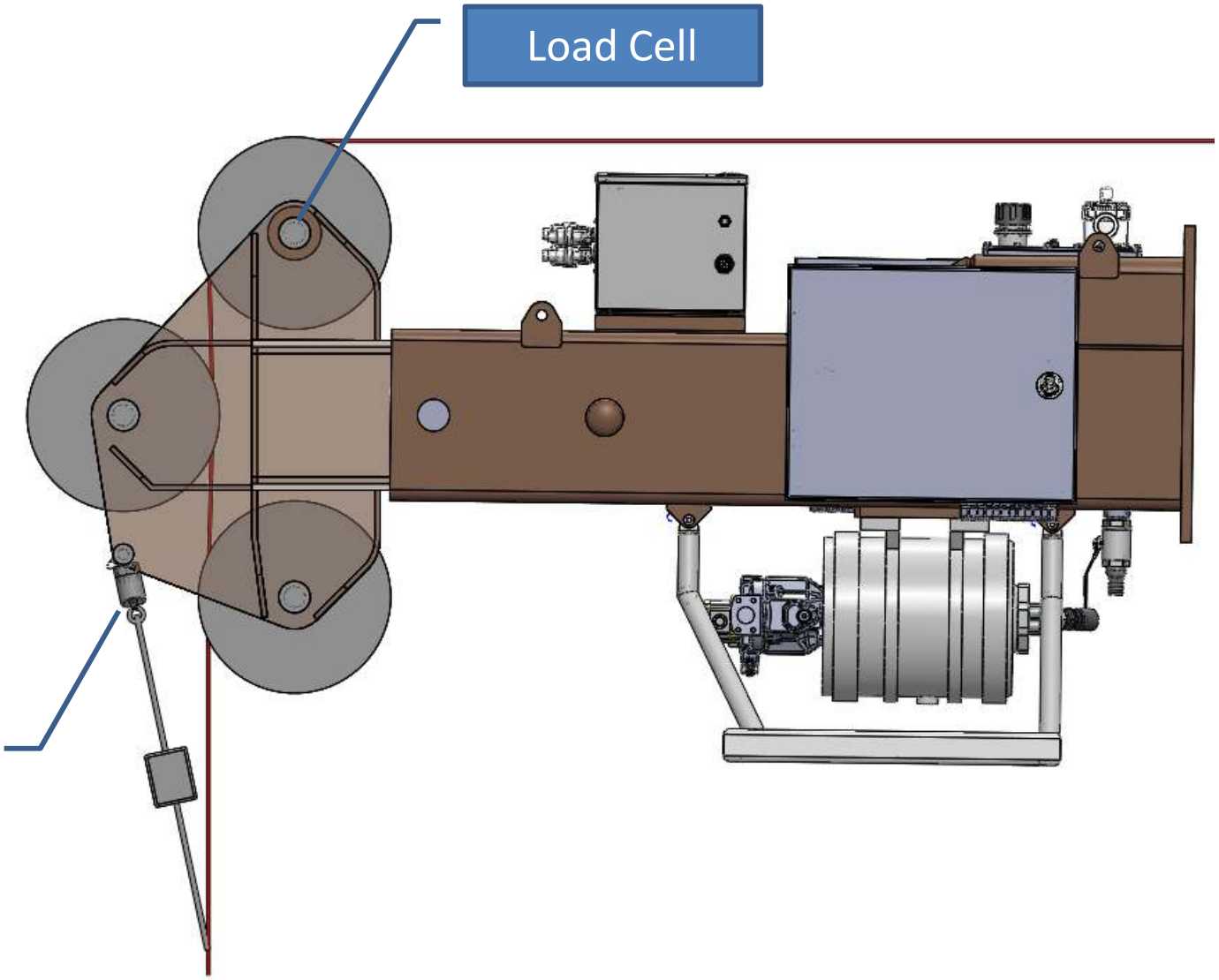
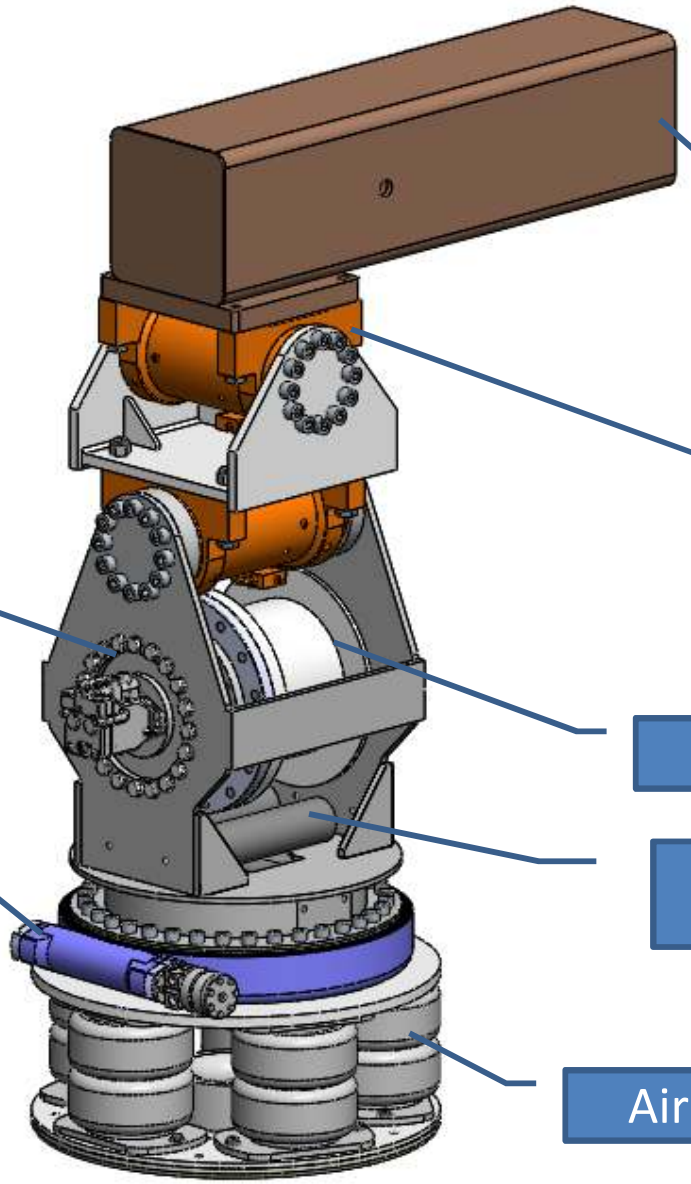
Jib Attachment Wire Routing



Wireless Anti-two block sensor (transferred from AMI headbox)

Docking Head Concept-Jason configuration



MTIP Interface

Hydraulic Helical Drive (1/2)

Gear Box

Lift winch

Slewing drive

Guide roller (1 of 4)

Air springs

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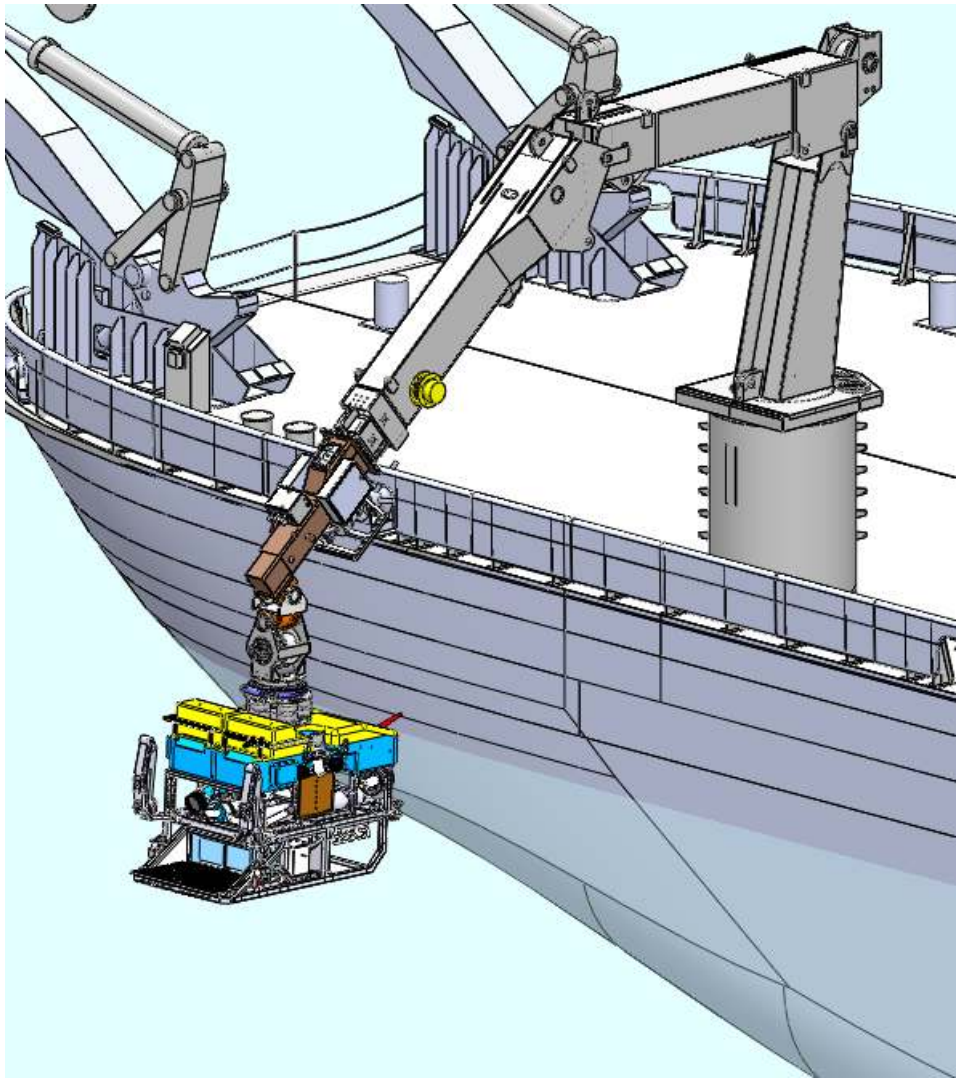
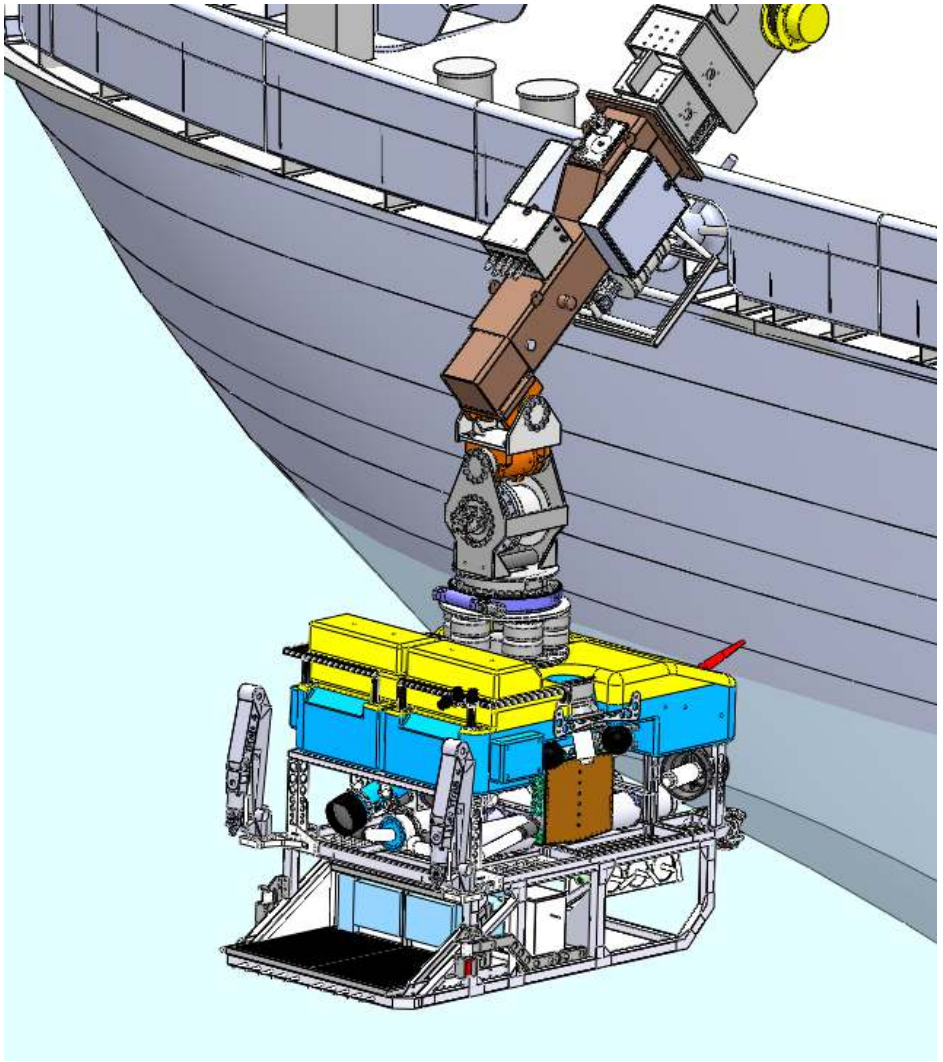
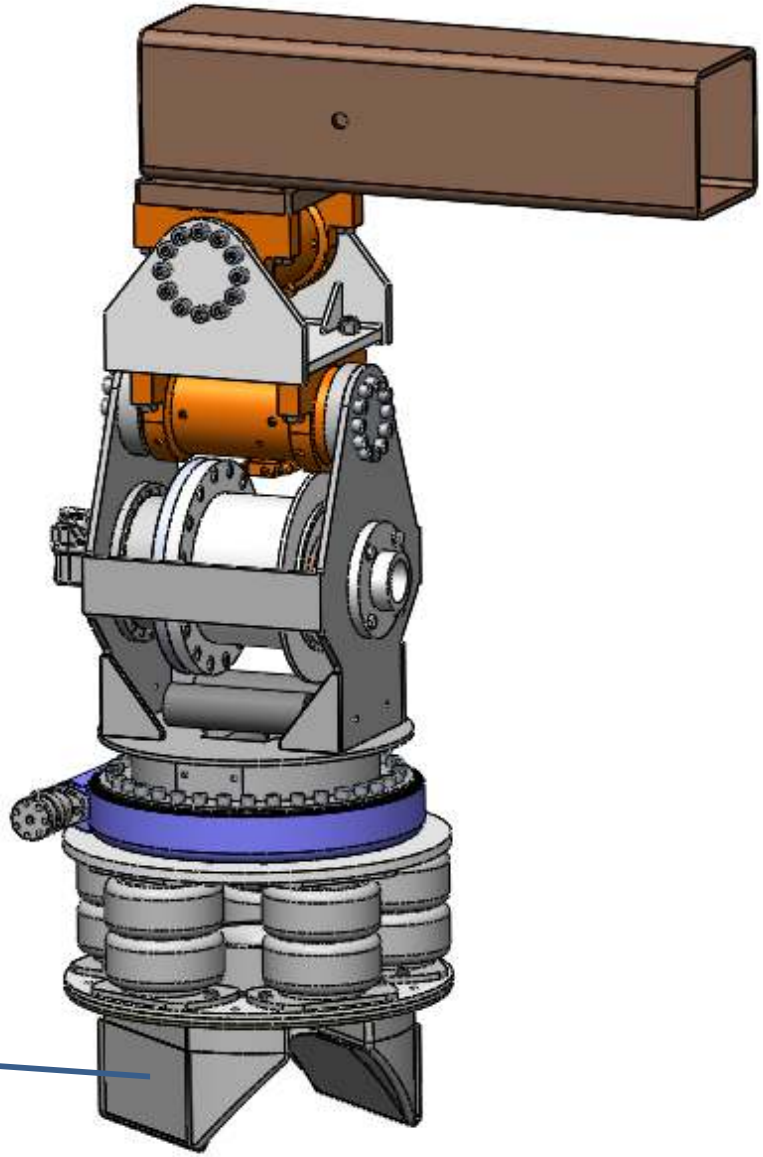
Docking Head with Jason ROV



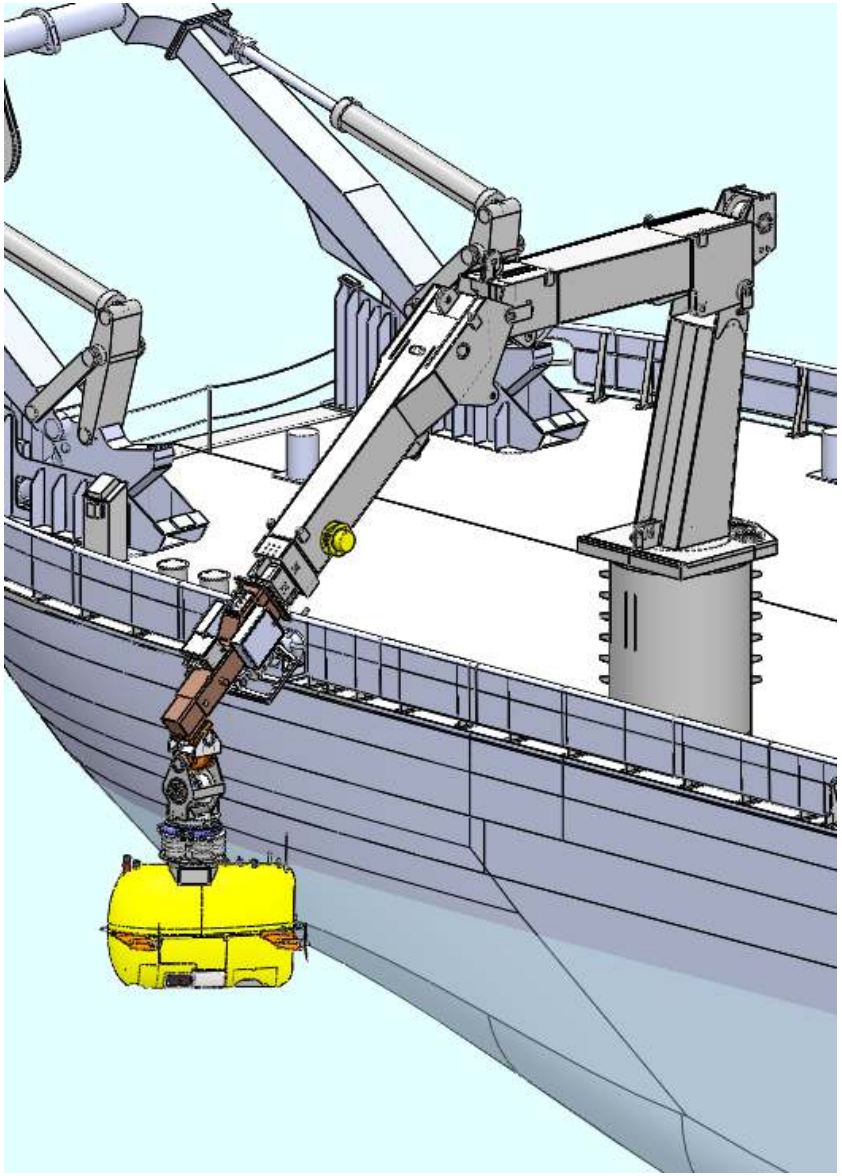


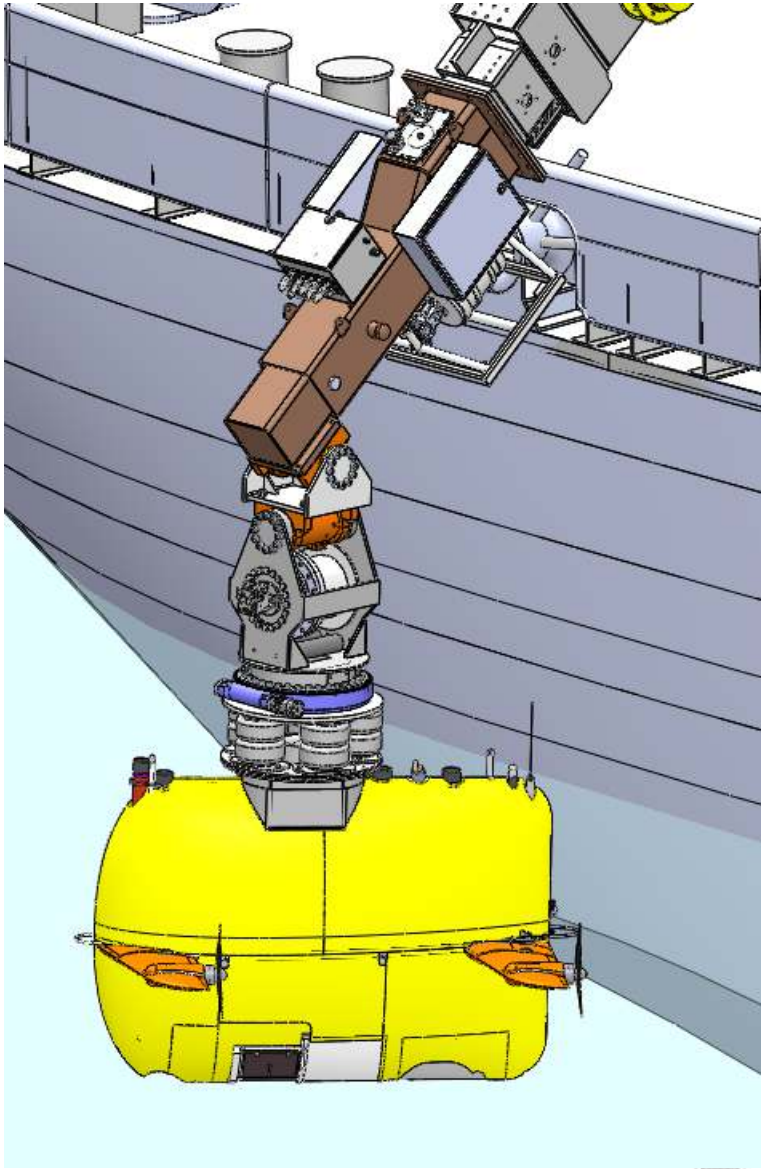
Docking Head Concept-Sentry Configuration



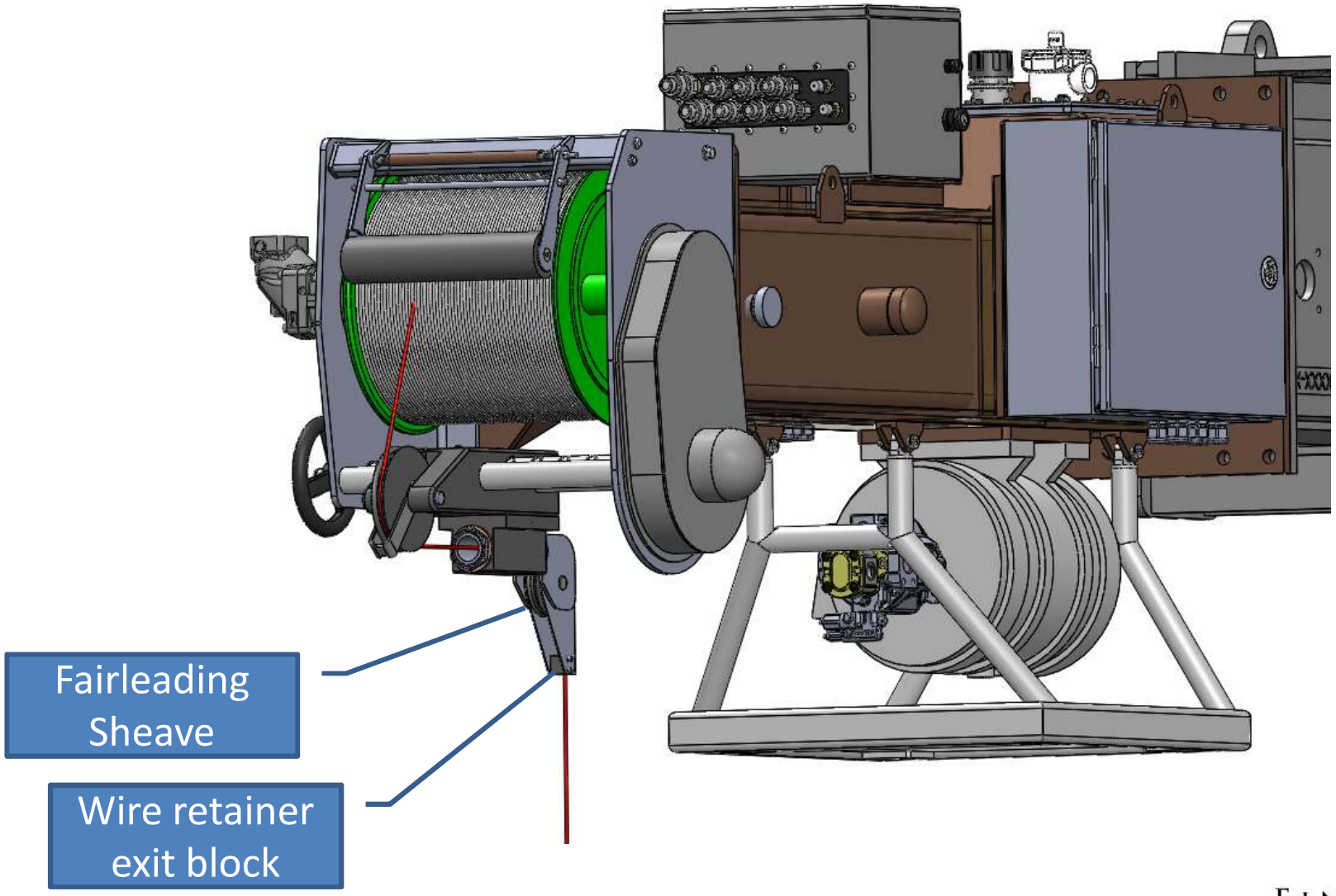
Sentry Mating Module

Docking Head with Sentry ROV





Science Winch Tool



Integrated Bridge
(Marine Technologies)

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AFT Winch Room (Traction Winch)

ARRV (0650) MV SIKULIAQ
PROGRESS PHOTO

VIEW: 031
DATE: 10-13-13
CONTRACT NO.: UAF-10-0040
DESCRIPTION: Aft Wench Room 2-85-0

NSF

UAF
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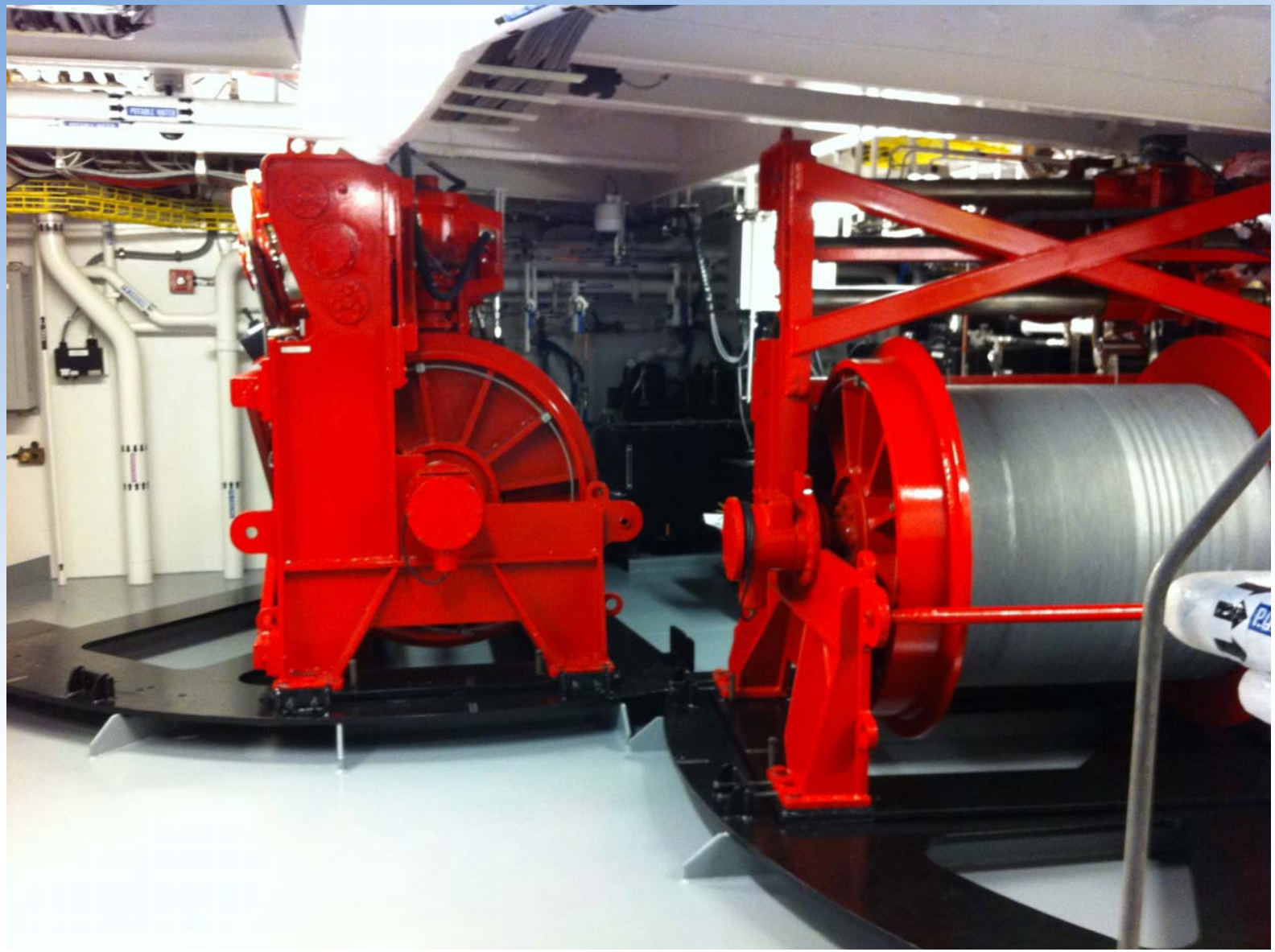
Forward Winch Room



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Acceptance Trials
February, 2014

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Questions?