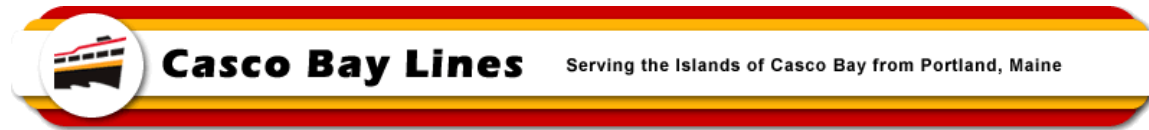


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TO: File

FROM: Paul D. Pottle, Director of Projects

DATE: April 10, 2024

SUBJECT: Construction Progress-Photos for MV Battery Steele at Senesco - # 7

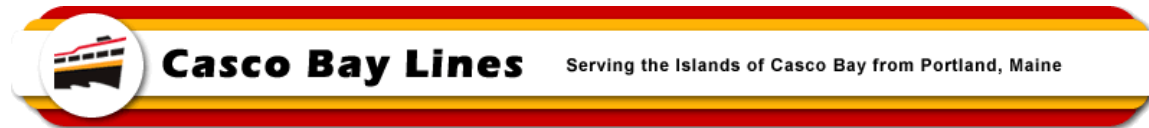
This report covers construction at the Senesco Shipyard for the months of February 2024 and March 2024. Work continues to move along well on the structure of the vessel. The 11 modules that make up the basic vessel form have been fabricated and assembled together in the yard with a majority of the final welding done. The last module for the vessel, Module 12, consists of a two story deckhouse and pilot house arrangement. That section was fabricated this period and will be installed after additional outfitting for the pilot house is completed. There was a much greater focus on fabricating and installing piping throughout the vessel along with many of the outfitting components. Work associated with the propulsion system continues to advance and staff during this period spent a week in Houston doing Factory Acceptance Testing on the Power and Energy Management Systems to ensure a smooth interface with CBL crew when the vessel is put into service. Work still continues on developing various submission for the Coast Guard and approvals to those submissions continue to come in. Inspections by the US Coast Guard are ongoing, with no major issues identified as of this writing.

As expected, the work associated with the electrical systems has been complicated and it has taken more time for the various team members to get through the development and approval processes. This was complicated when the battery system changed, and it is having an impact on the delivery of the vessel. When the battery changes first became known, the immediate impact to the schedule moved it from June to late August. At this time, it appears like delivery will be further delayed to November of 2024. Staff is currently working with the shipyard to review schedule impacts and determine a new delivery date.

The following is a brief overview of the work done from February 1st, 2024 to March 31st 2024:

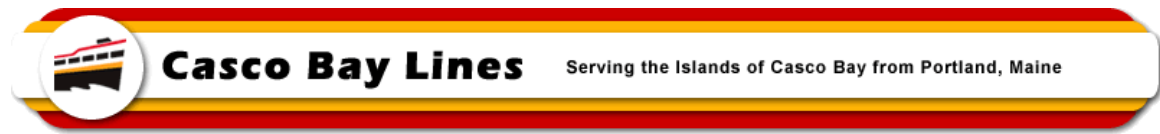
- Crowley Engineering continues to work on plan development for both US Coast Guard submission and for the shipyard to follow for actually building the vessel.
- ABB (propulsion provider) is working on their documents for submission to the US Coast Guard and continues to advance the development and delivery of key pieces of equipment and the operating systems.
- Senesco continued with piping fabrication and started installing various piping systems on the vessel. The main focus seemed to be on deck drainage piping, bilge piping, saltwater sprinkler piping and some of the potable water piping.
- Constructed and installed battery rack foundation and transformer foundations.
- Constructed and installed the HPU foundations.
- Finishing up on some module seam welding as well as some deck plate welding and getting Coast Guard sign-off.
- Fabricating and installing bulwark sections on the Main deck.
- Installing insulation studs (pins) throughout the vessel.
- Finished constructing module 12 which was comprised of the deckhouse and pilot house that create a two story structure. The deckhouse becomes the base for the pilot house.

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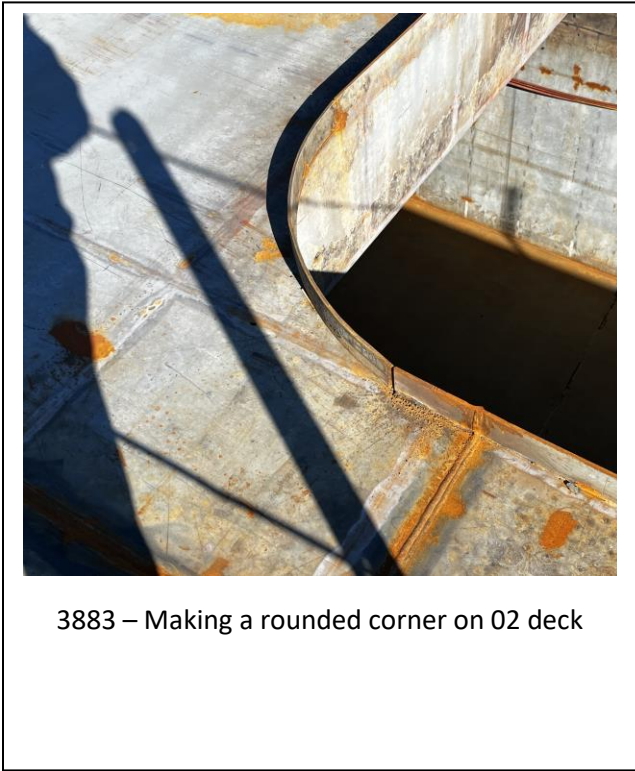


- Started installing elevator trunk panels.
- Senesco had a focus on constructing and installing various outfitting features, now that the main vessel structure is in good shape.
- Fabricated and installed insert plates with kevels (cleats) throughout the vessel.
- Installed mooring line chocks in the bulwark sections.
- Fabricated stair framing and treads and installed throughout the vessel.
- Started fabricating handrail sections and installing. This is a work in progress.
- Fabricated and installed the draft water markings for the vessel.
- Installed bulwark side gates.
- Fabricated and started installing foundations for PFD (personal floatation devices) lockers.
- Did limited painting on various framing members in preparation of painting the inside of the vessel. Weld areas that have not been inspected and approved were taped out to facilitate the inspection.
- ABB's (propulsion provider) subcontractor has been fabricating and erecting the shoreside charger. The base structure is close to being assembled, but it will need additional work and final assembly before it can be put through the factory acceptance testing that needs to be done and approved before shipping the unit. Once testing is completed and satisfactory, the unit will be partially disassembled and made ready for shipping. It is expected to take several weeks for the unit to arrive in the US and then be transported to Maine.

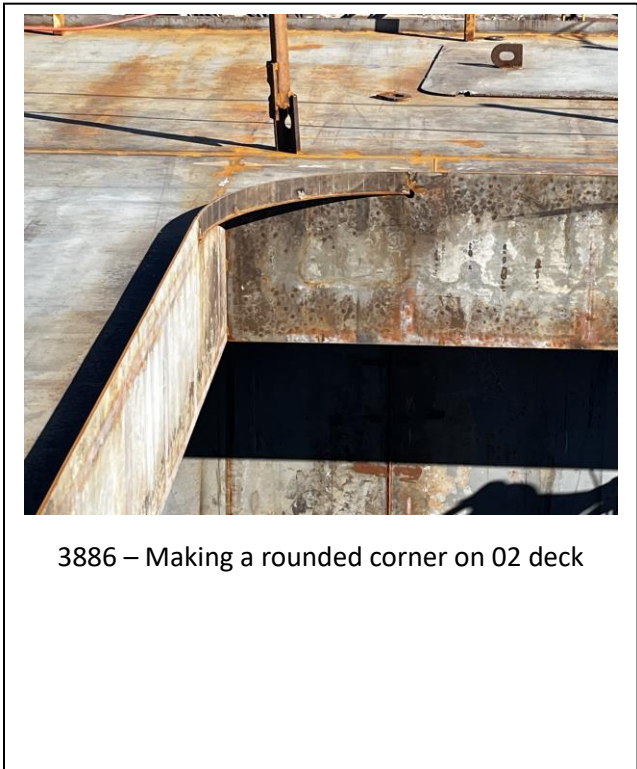
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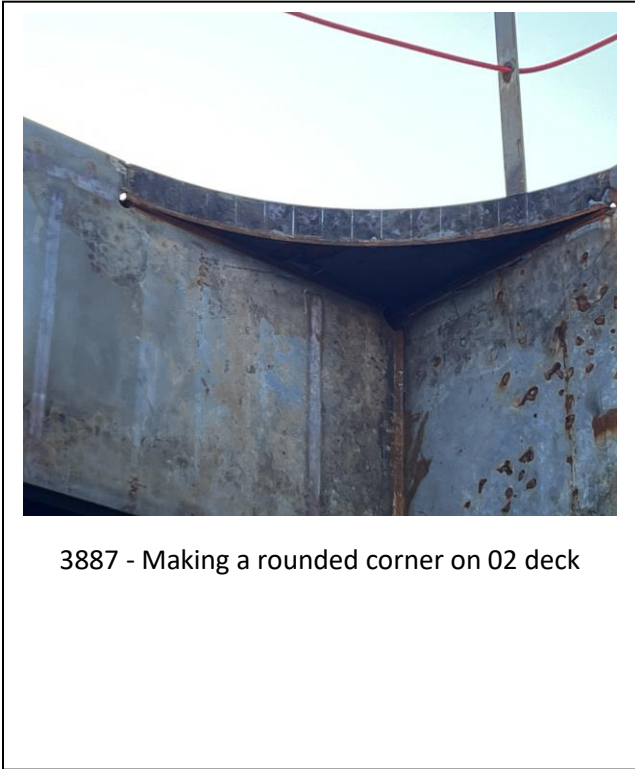
3877 – Stern Tube



3883 – Making a rounded corner on O2 deck

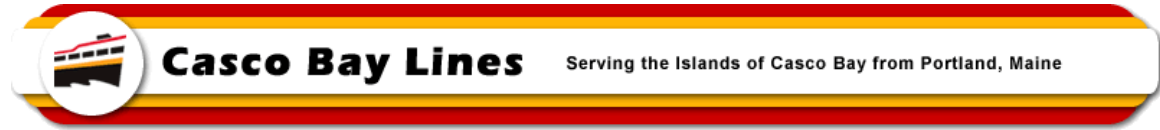


3886 – Making a rounded corner on O2 deck



3887 - Making a rounded corner on O2 deck

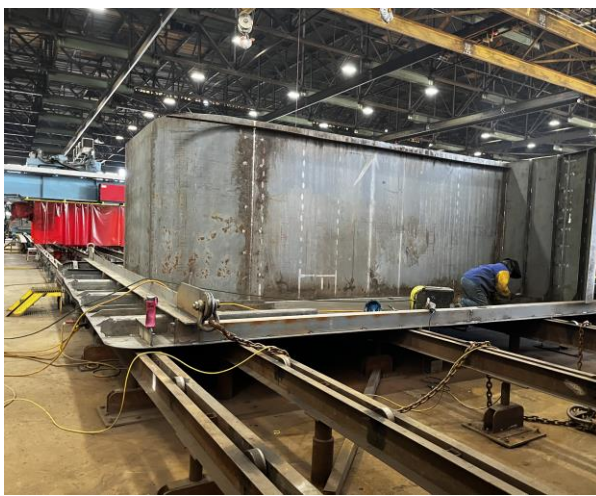
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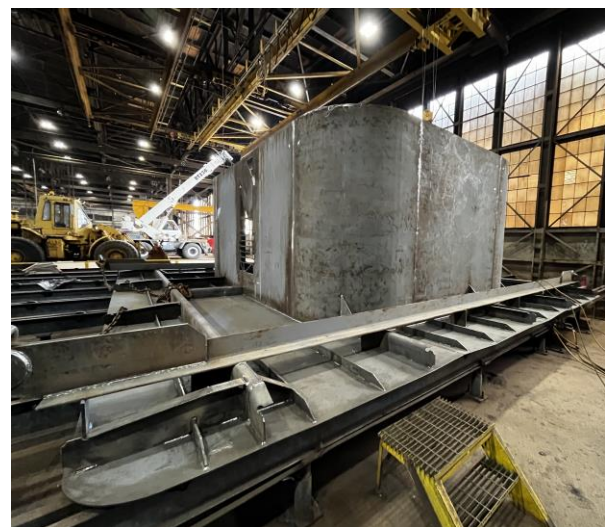
3890 – Pilot House being constructed upside down



3891 – Deckhouse (Pilot House Base) being constructed upside down

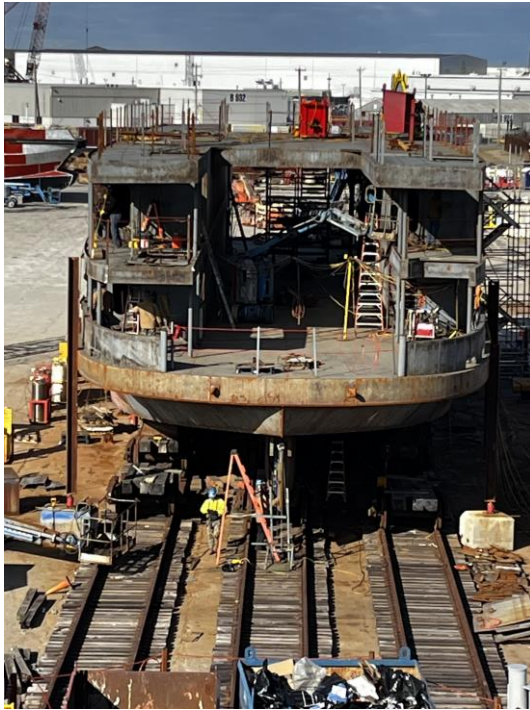
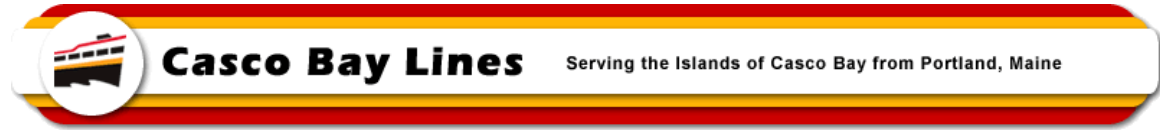


3892 – Deckhouse with decking & framing for deck at Pilot House level



3893 – Deckhouse with decking & framing for deck at Pilot House level

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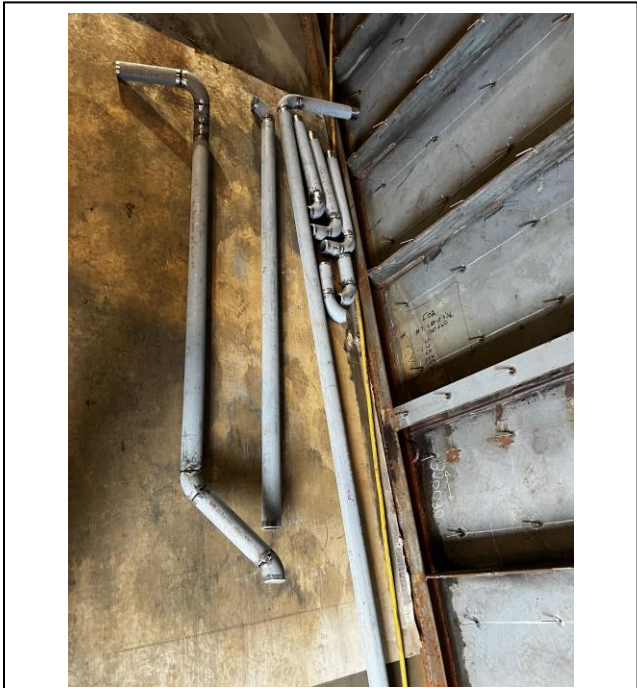
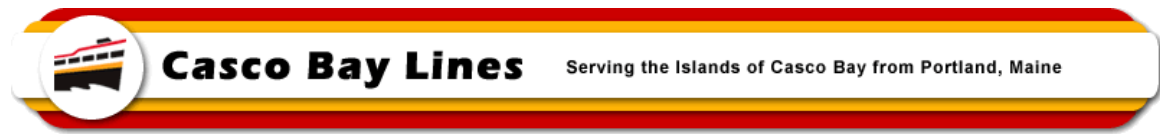


3894 – View of the Bow of Battery Steele with all decks in place but no Pilot House



3899 – View of Battery Steel, Starboard Side

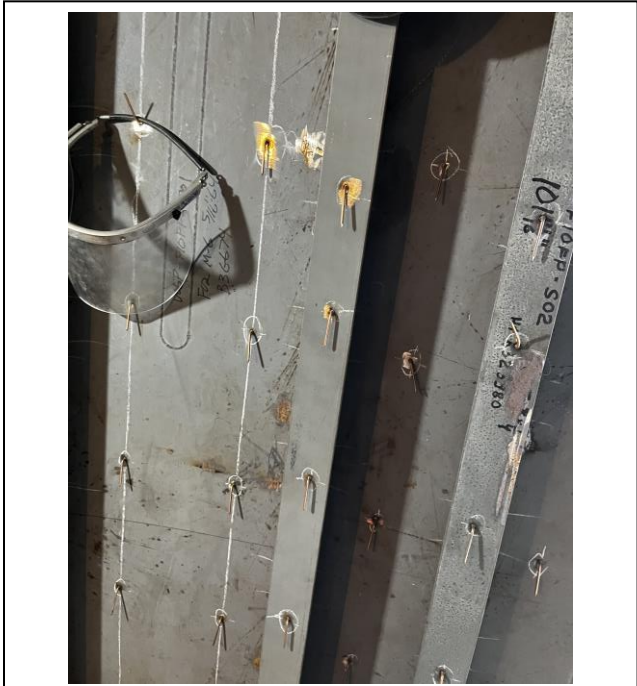
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3895 – Piping for Deck Drains



3896 – Fabricating Piping Sections

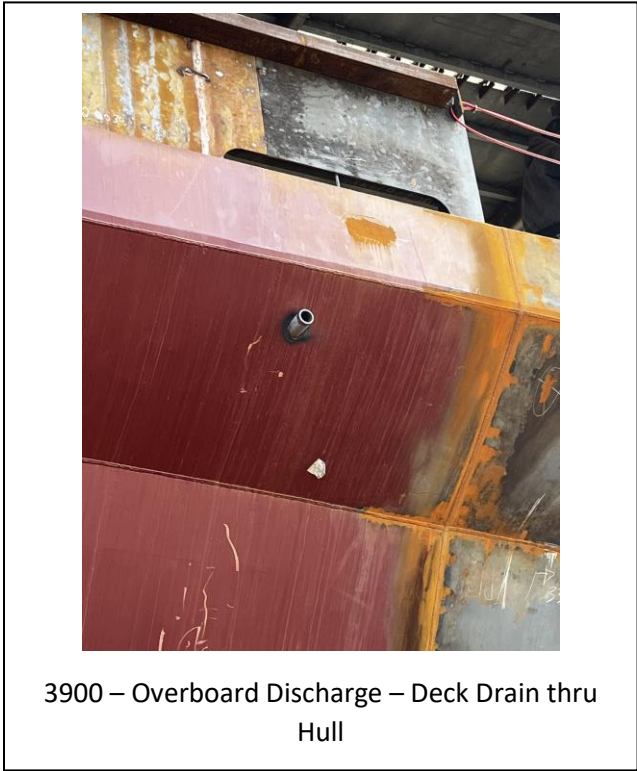
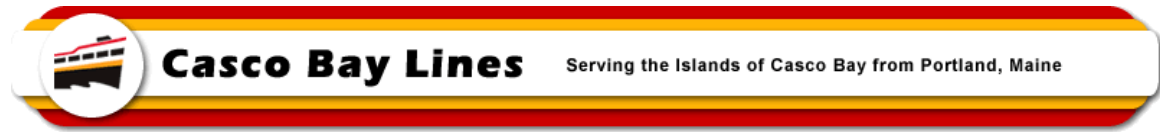


3897– Insulation Studs in Engine Room

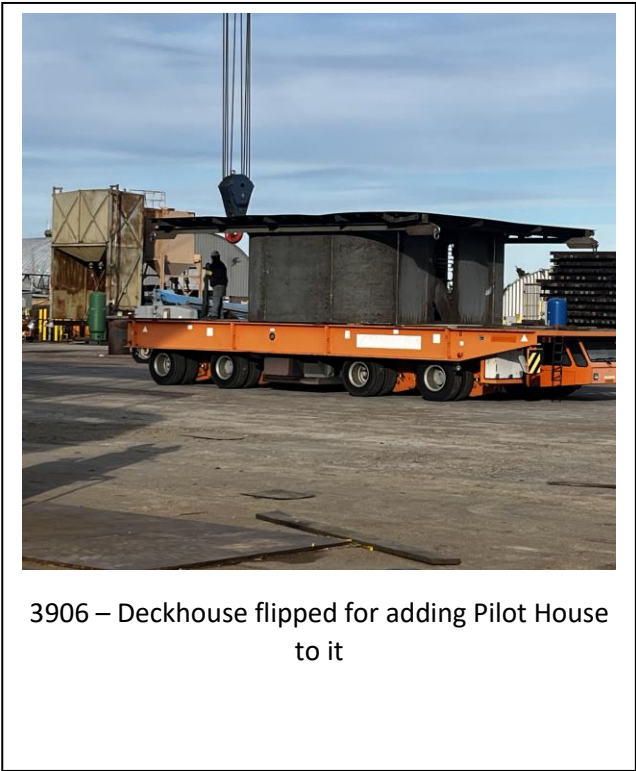


3898 – Bulwark Section on Port Stern End near Anchor Location

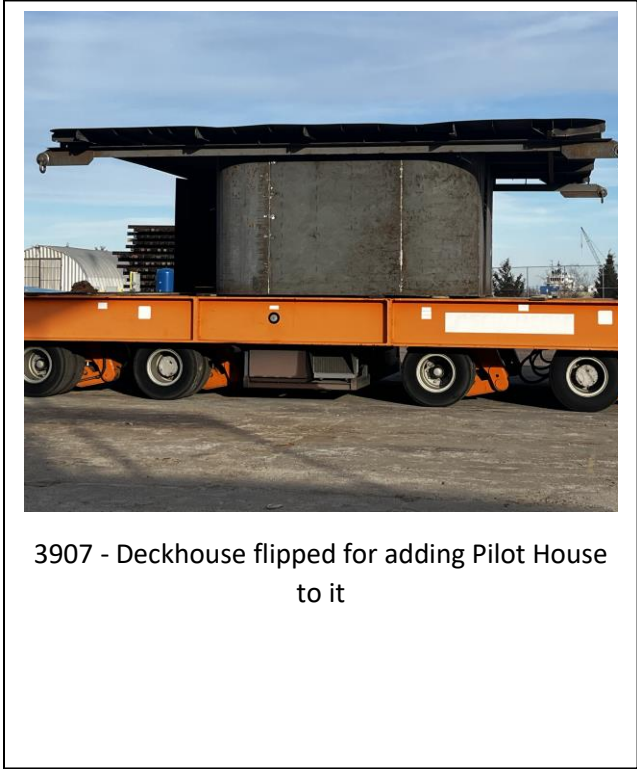
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3900 – Overboard Discharge – Deck Drain thru Hull



3906 – Deckhouse flipped for adding Pilot House to it

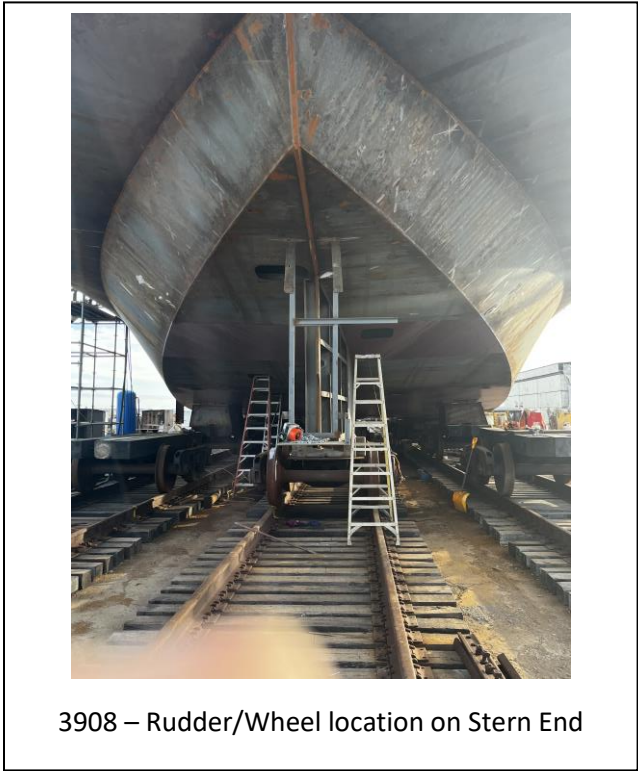


3907 - Deckhouse flipped for adding Pilot House to it

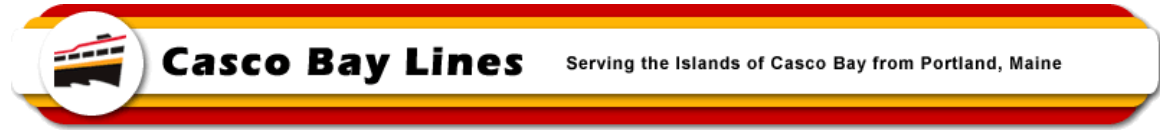


3915 – Deckhouse flipped for adding Pilot House to it

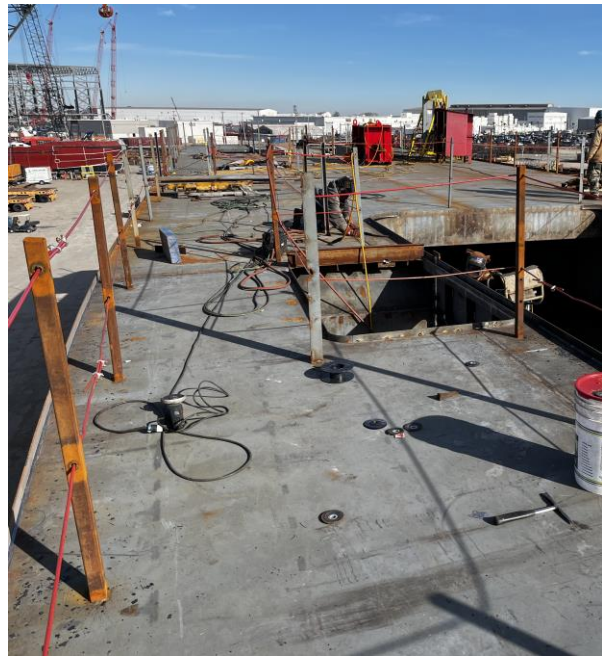
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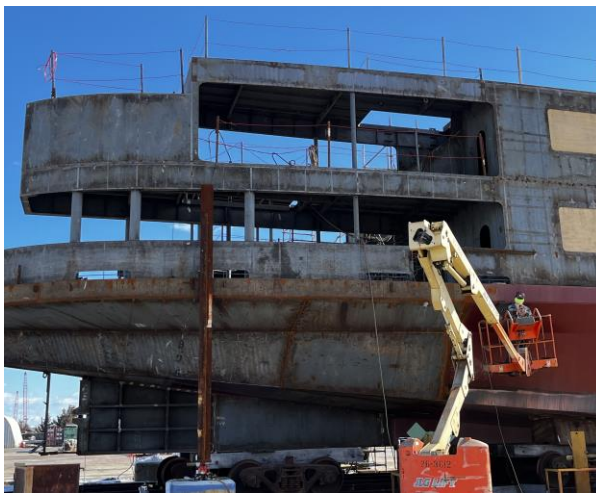
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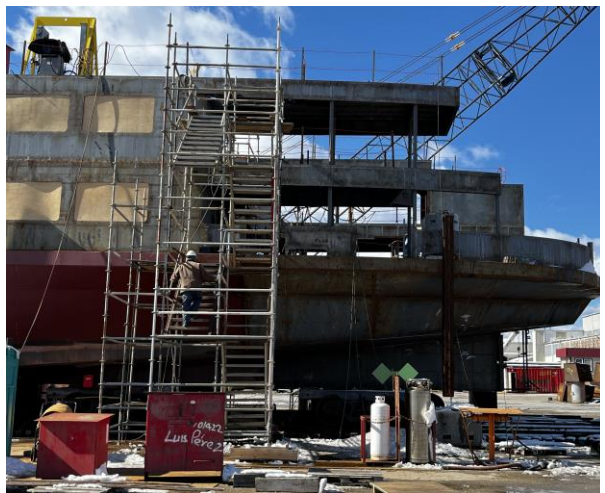
3924 – Deckhouse in Foreground, Pilot House in Background



3925 – 02 Deck, Starboard Side, Bow End, Stair Opening



3926 – Port Side at Bow

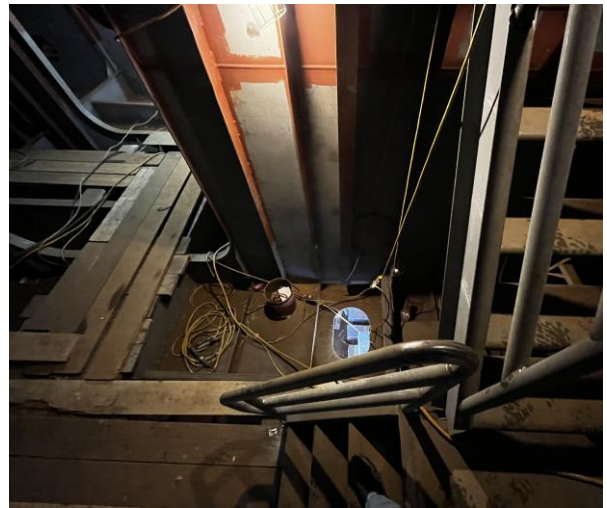


3927 – Port Side at Stern

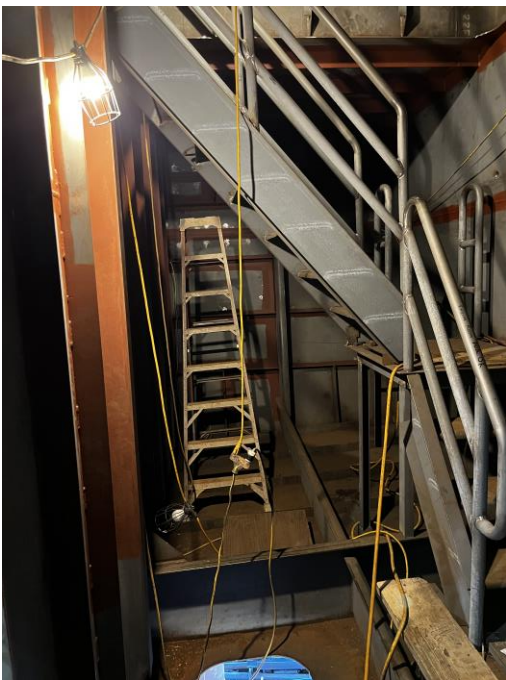
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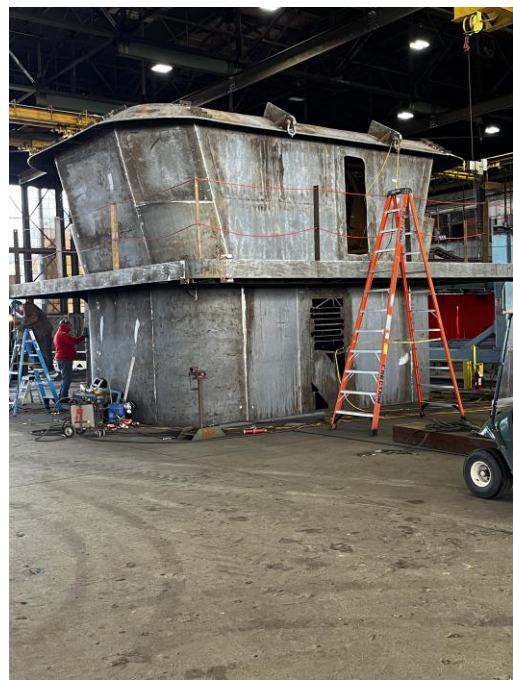
3935 – On Main Deck Bow End looking toward Stern



3936 – Stair Access into Engine Room

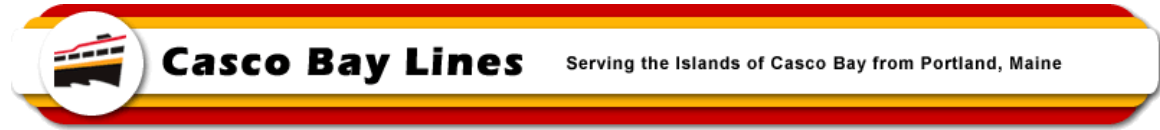


3937 – Stairs to Engine Room

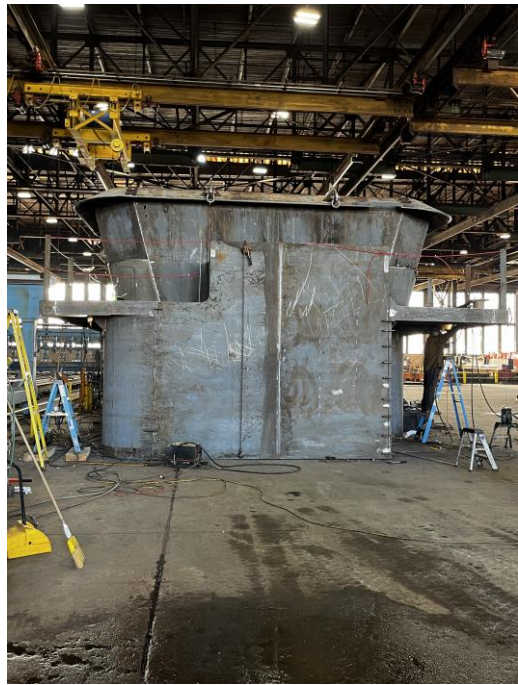


3956 – Pilot House set on Deckhouse – Port Side

MEMO



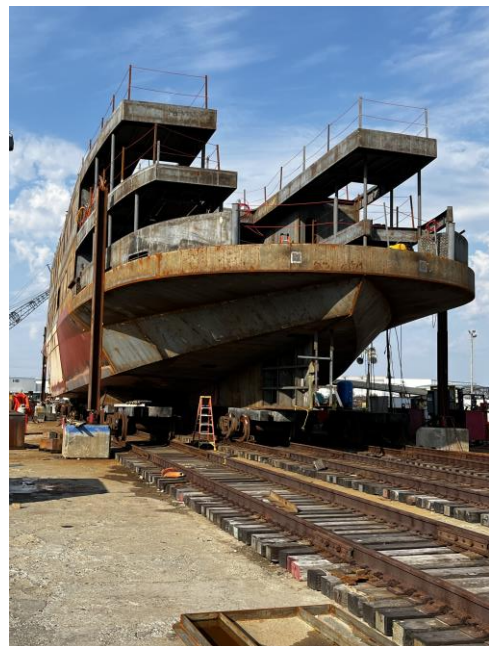
3957 – Pilot House on Deckhouse – Starboard Side (extended area of base is for elevator shaft)



3958 – Same as 3957



3959 – Looking down Starboard side of Battery Steele



3960 – Looking down Starboard side of Battery Steele

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3999 – Deck Drain Piping Section



4001 – Bilge Piping Sections

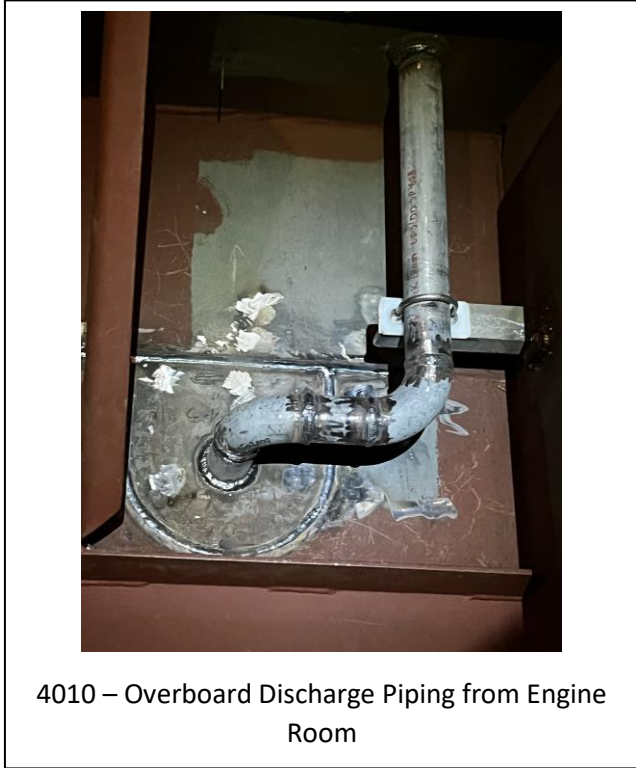
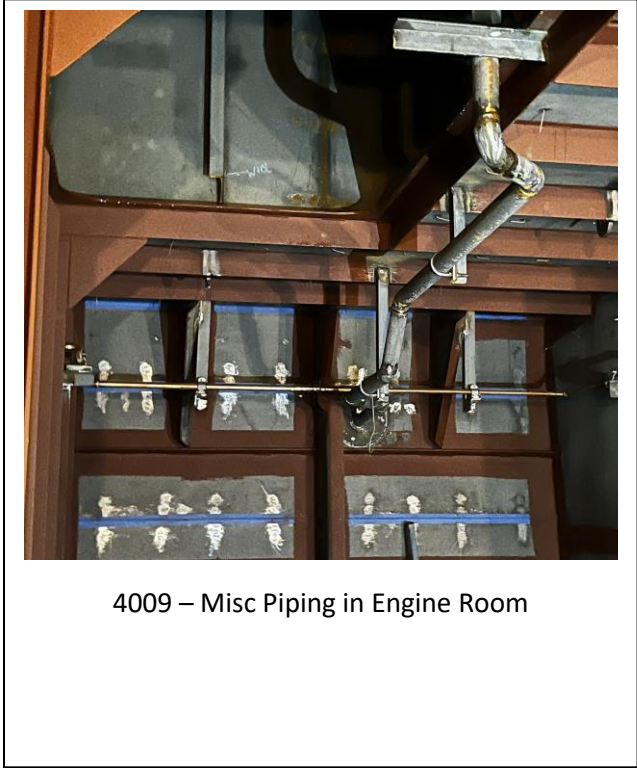
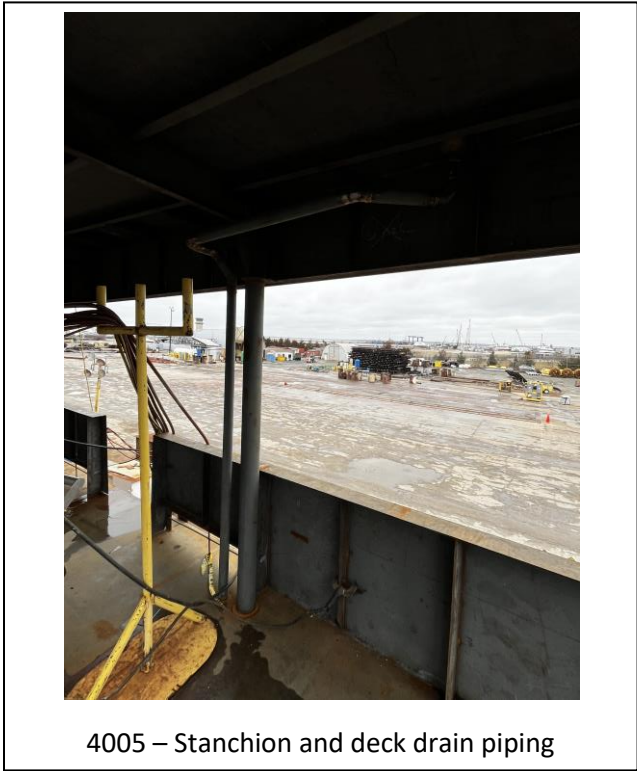
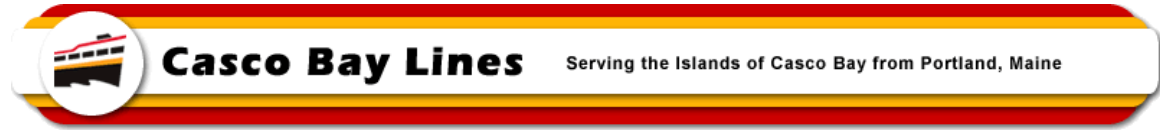


4003 – Assorted Piping, mainly exhaust and deck drains

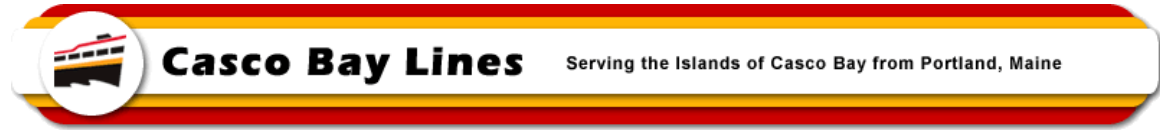


4004 – Piping Fabrication

MEMO



MEMO



4011 – Partial Painting of Framing (red) and blue tape is to cover welds for a later inspection



4012 – Deck Drain Piping on Starboard Stern

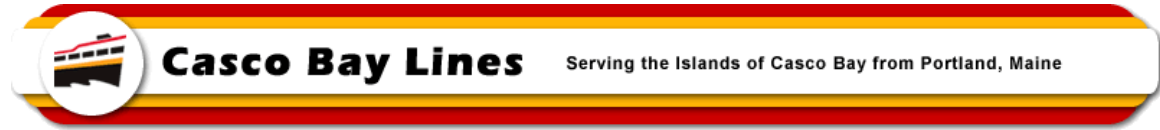


4014 – Cutting Opening for inserting Kevel (cleat) Plating with Kevel

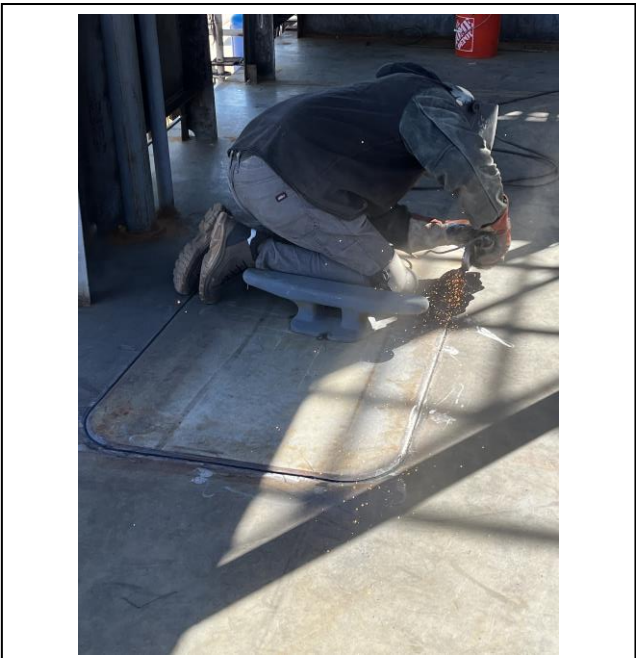


4056 – Opening with stiffeners for Kevel Installation

MEMO



4057 – Kevel Being set and Cleaning Joint for Welding



4058 – Kevel Being set and Cleaning Joint for Welding

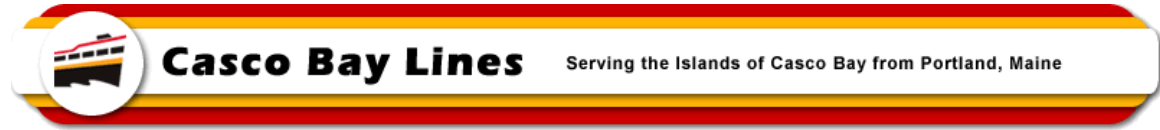


4061 – Kevel Plate Opening with Stiffener Added

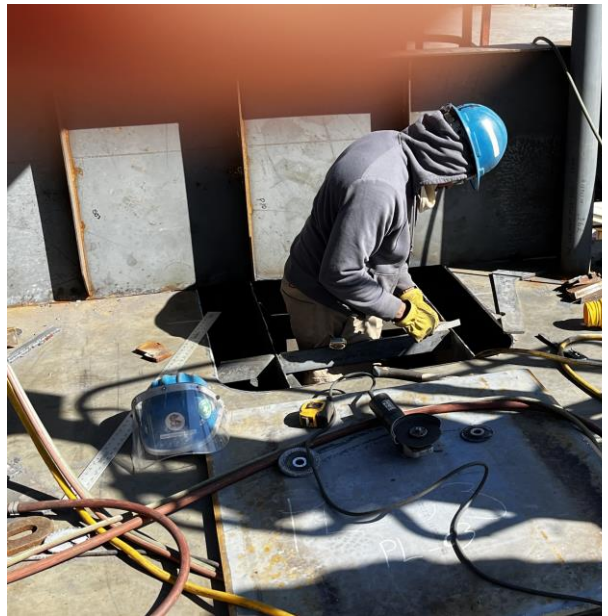


4062 – Kevel Set and Ready for Welding

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4063 – Kevel (cleat) Tack Welded to Plate



4064 – Prepping a Kevel Location

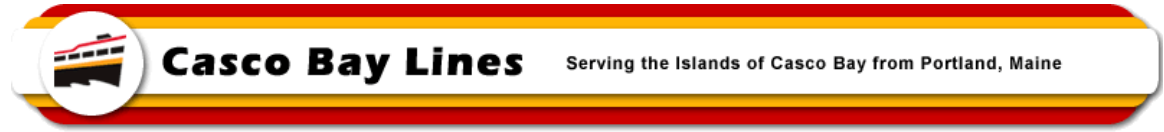


4065 – Piping Fab and Insulation Studs in Engine Room



4094 – Starboard Bow End with Stairs from Main to 01 Deck

MEMO



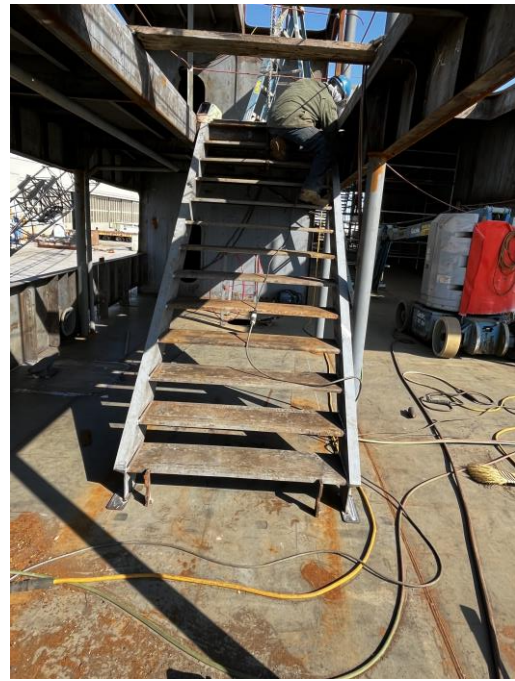
4095 – Port Bow End, Stairs from Main to 01 Deck



4096 – Bow End with Stairs in Both Sides from Main to 01 Deck



4097 – Bow Port Stairs at Main Deck

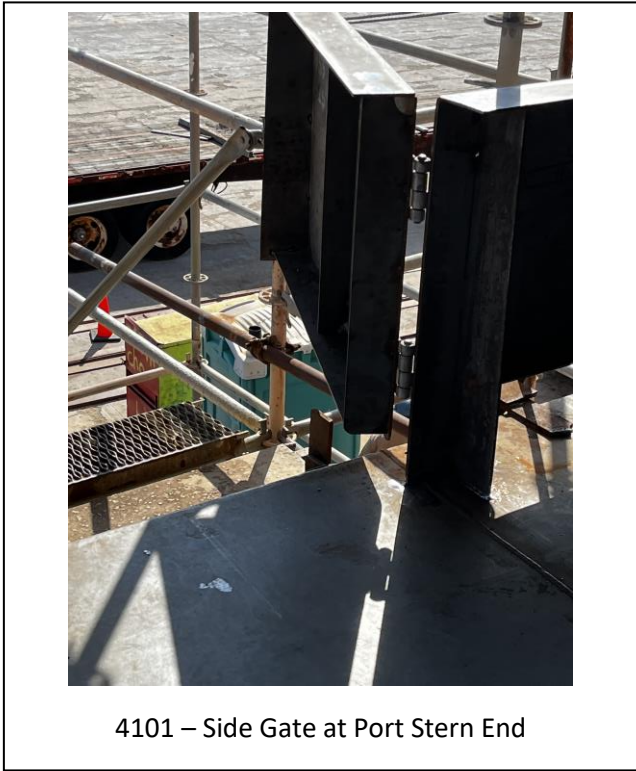


4098 – Bow Starboard Stairs at Main Deck

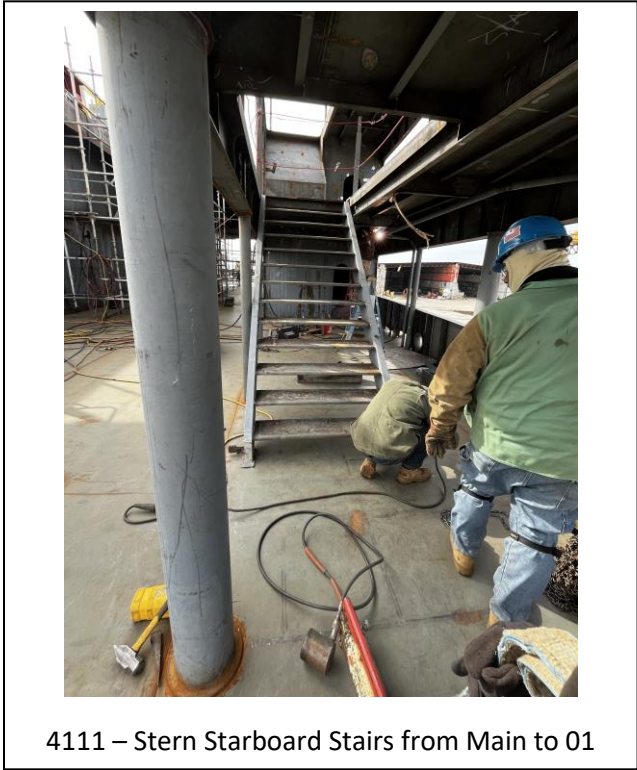
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4100 – Foundation Frame for PFD Locker



4101 – Side Gate at Port Stern End

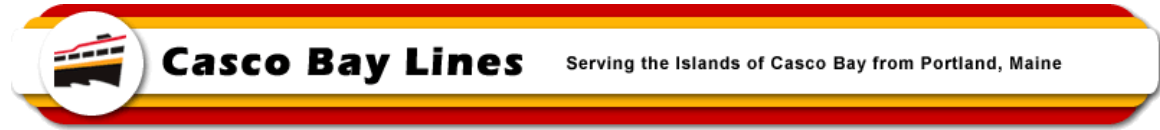


4111 – Stern Starboard Stairs from Main to 01

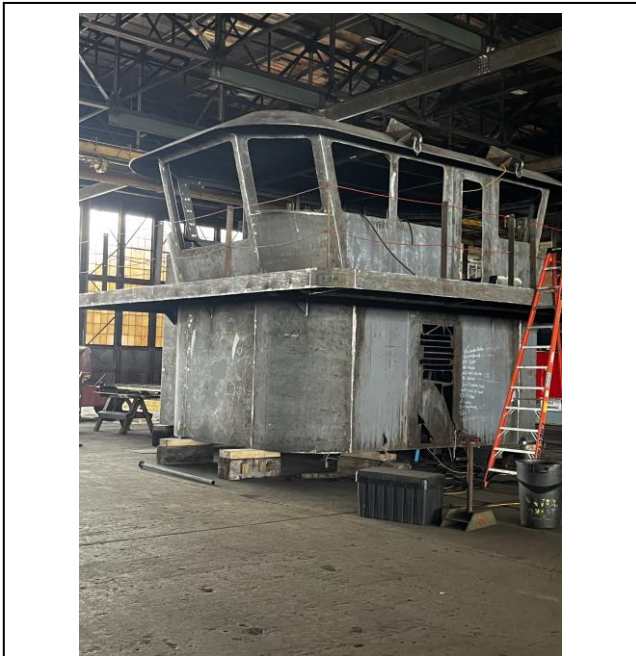


4113 – Bow Starboard Stairs from Main to 01 with Railings

MEMO



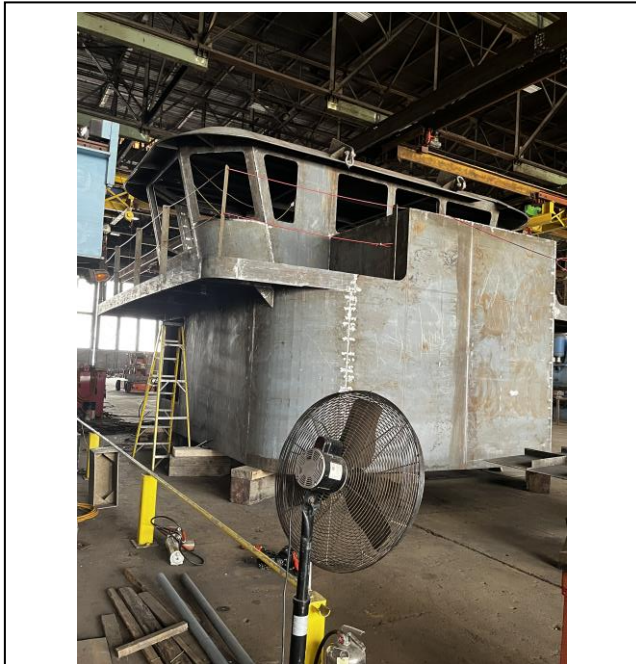
4014 – Bow Starboard Stairs from Main to 01 with Railings



4123 – Pilot House on Deckhouse with Windows Cut Out – Port Side

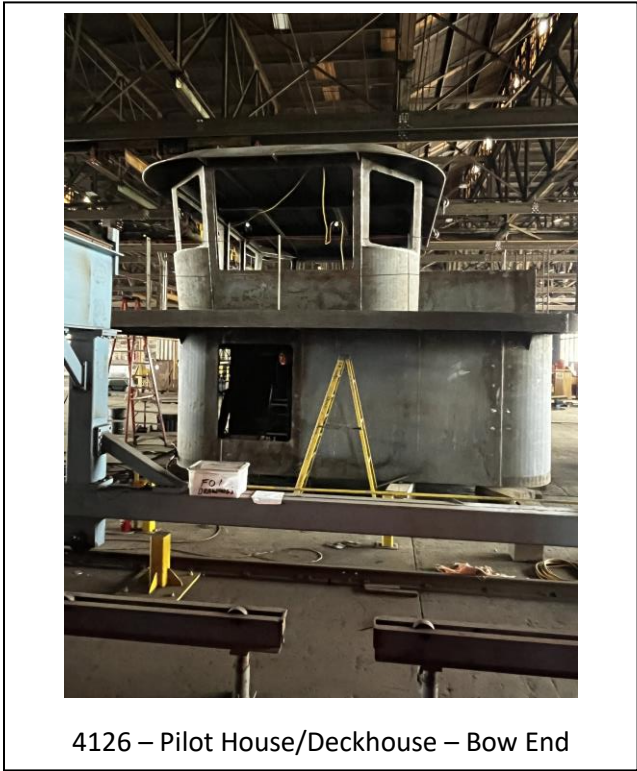
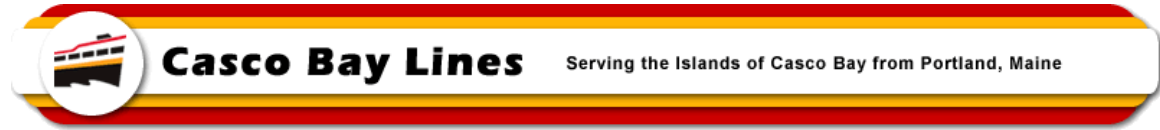


4124 – Pilot House on Deckhouse with Windows Cut Out – Starboard Side – Stern End

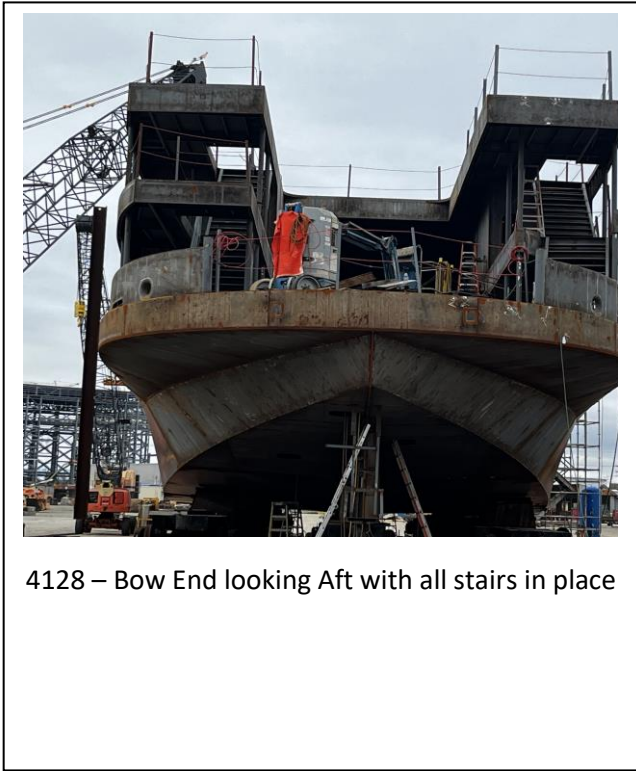


4125 – Pilot House on Deckhouse with Windows Cut Out – Starboard Side – Bow End

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4126 – Pilot House/Deckhouse – Bow End



4128 – Bow End looking Aft with all stairs in place

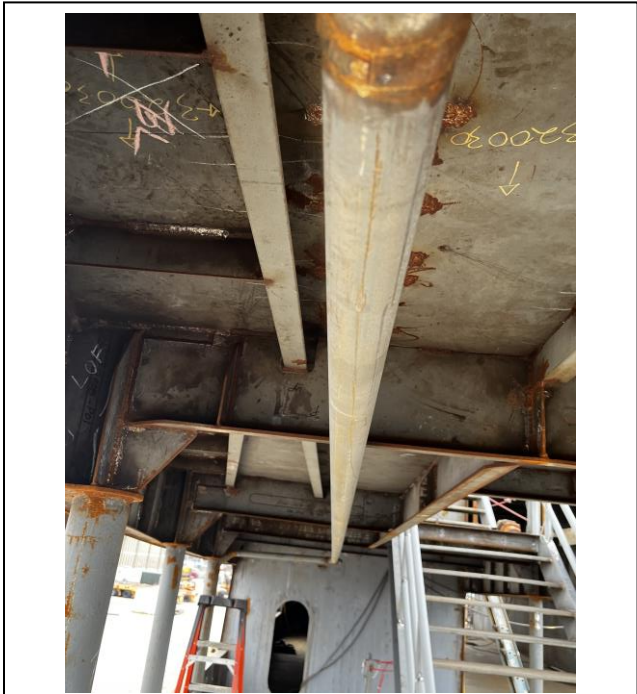


4129 – Potable Water Piping (foil wrapped to protect during construction)

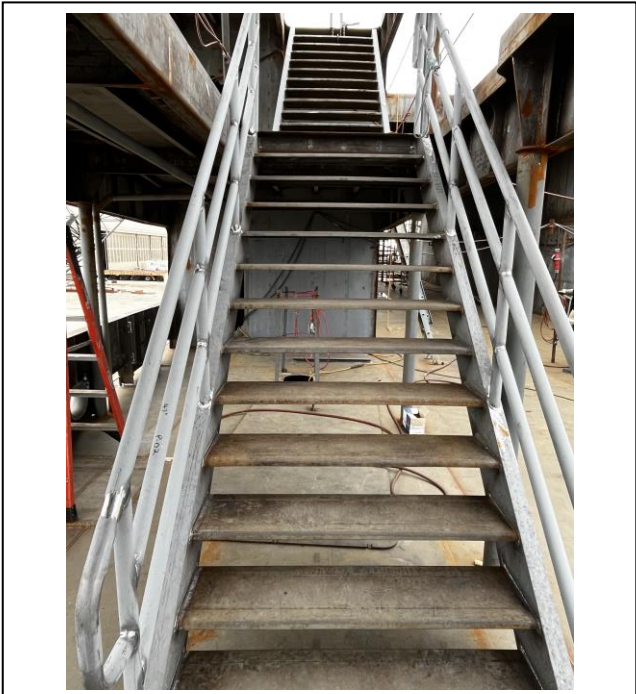


4130 - Potable Water Piping (foil wrapped to protect during construction)

MEMO



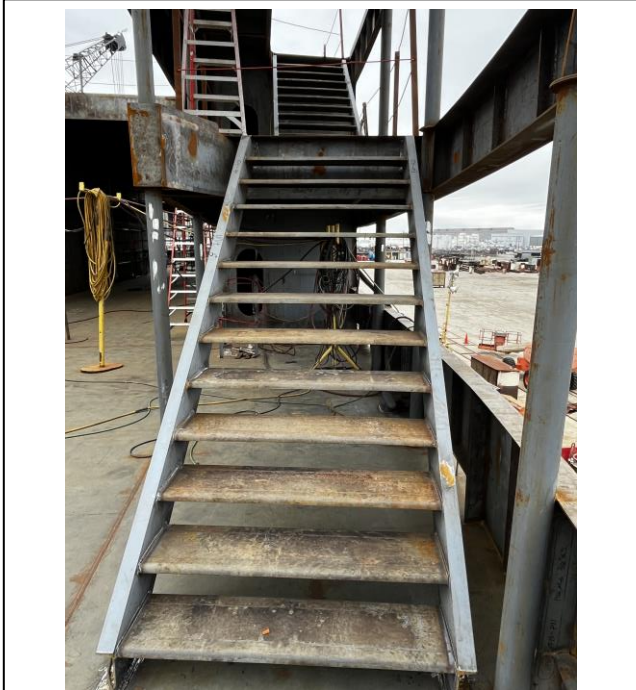
4132 – Deck Drain Piping, Starboard Looking Aft



4133 – Bow Starboard Stairs Looking Aft

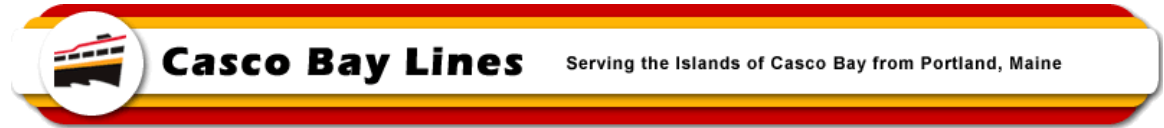


4134 – Fully Welded in Keel (Cleat) With Line Chock in Bulwark



4135 – Bow Port Stairs Looking Aft

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Charger 10 – Ferry Charger Rotating Ring



Charger 9 – Ferry Charger Base Tower

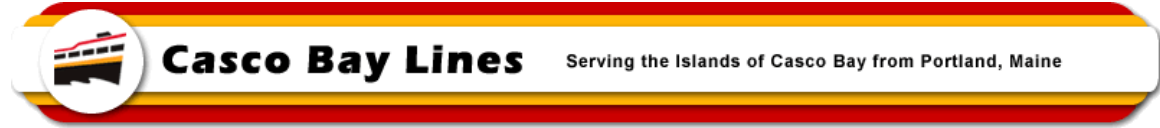


Charger 8 – Tower Base with Electrical Components



Charger 11 – Constructing Telescoping Arm of Charger

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Charger 7 – Charger Tower Base with Ring Partially Attached. Ready for Next Section



Charger 5 – Adding Charger Plug to Telescoping Arm with Wiring Going In

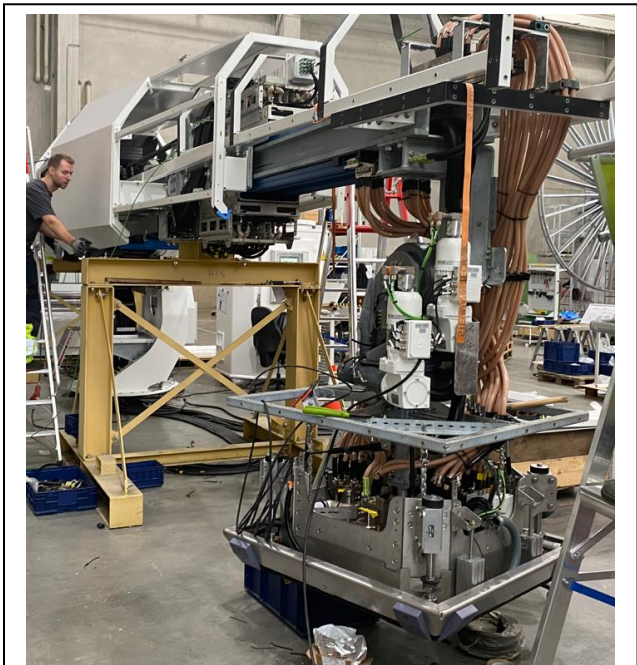
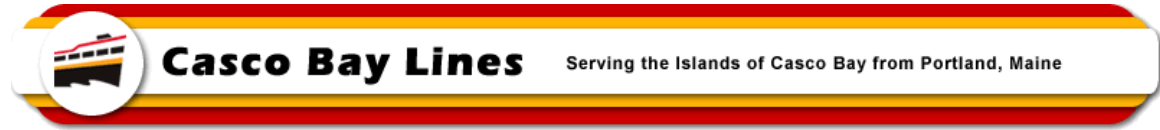


Charger 6 - Adding Charger Plug to Telescoping Arm with Wiring Going In



Charger 4 – Side View of Arm and Plug Systems

MEMO



Charger 2 – Adding Housing to Charger Arm –
Note the Plug Set-Up

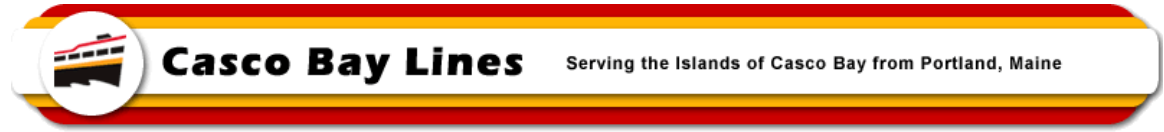


Charger 3 - Side View of Arm and Plug Systems

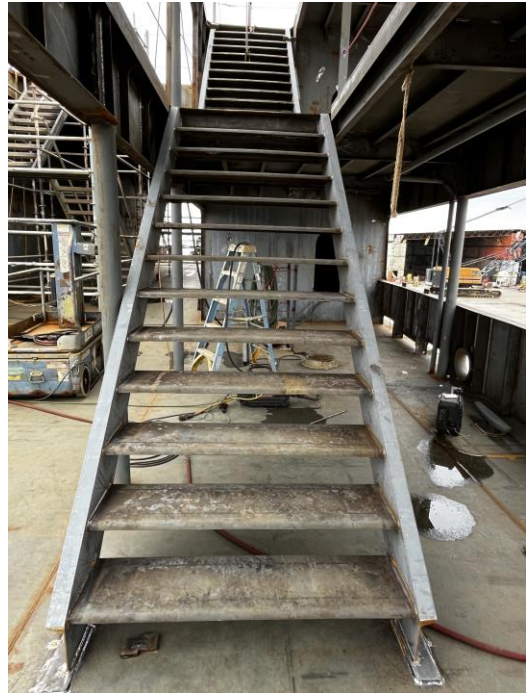


Charger 1 – Charger Arm with Additional Housing In Place

MEMO



4136 – Piping and Insulation Studs in a 01 Deck Cabin



4137 – Stern Starboard Stairs in Place



4127 – Starboard Side View of Battery Steele