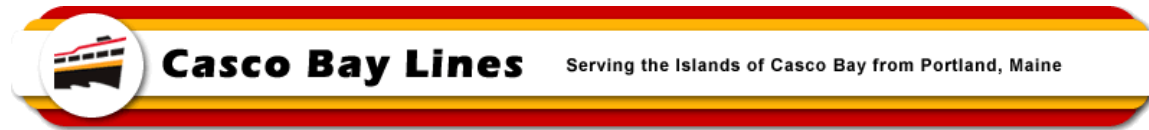


MEMO



TO: File

FROM: Paul D. Pottle, Director of Projects

DATE: October 12, 2023

SUBJECT: Construction Progress-Photos for New Vehicle/Passenger Ferry at Senesco - #4

This report covers construction at the Senesco Shipyard for the months of August and September 2023. Work continues to move along well, and the current schedule still has the vessel being delivered in June 2024. The last two months continued to focus a majority of the physical work on the first five modules that make up the entire hull. The electronic equipment for the propulsion systems is being advanced with some components being shipped or delivered to the shipyard for installation in the vessel at the appropriate time. Submissions to the US Coast Guard are ongoing and several items have been approved. The Coast Guard also has a regular presence at the shipyard to inspect work in progress.

The following is a brief overview of the work done from August 1st to September 30th of 2023:

- 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.
- Submissions continue to be responded to or accepted by the US Coast Guard (Marine Safety Center).
- Issues around the battery change have been reviewed and resolved and all parties are moving forward with implementing the required changes.
- Module 4 was painted and then moved to the assembly area (erection runway) for attachment to modules 2 and 3.
- Modules 2 and 3 were aligned and the process for preparation and actually welding them together is in progress.
- Work on Module 1 (bow or Peaks end) continued in the fabrication building with the fit up of various bulkheads, hull plating, guard framing & plating and the deck framing and plating. More attention to steel warping has been required due to the amount of curvature and the welding necessary to pull this together.
- Work began on Module 5 (stern or Portland end) and is progressing nicely with framing, hull plating and guard mostly being fit up.
- The module 7 production package was finalized and cutting of plate and shapes for the module has begun.
- The module 10 production package has been finalized as well and cutting of plating and shapes should begin soon.
- Senesco took delivery of the charging socket for the vessel from ABB. Other key components of the propulsion system are in the midst of fabrication or are ready to be shipped to the shipyard.

Additional update memos will follow as the work progresses so that those interested in the work can follow along without having to be at the shipyard.

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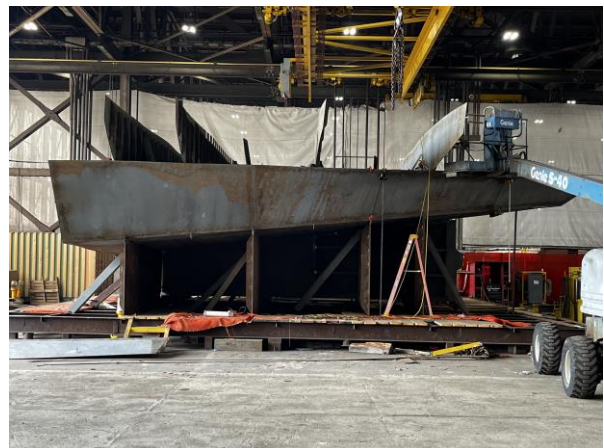
2955 – Hull plating for Module 1



2957 – Starboard Main Deck plating for Module 5



2958 – Bulkhead plating for Module 5 on the Panel Line



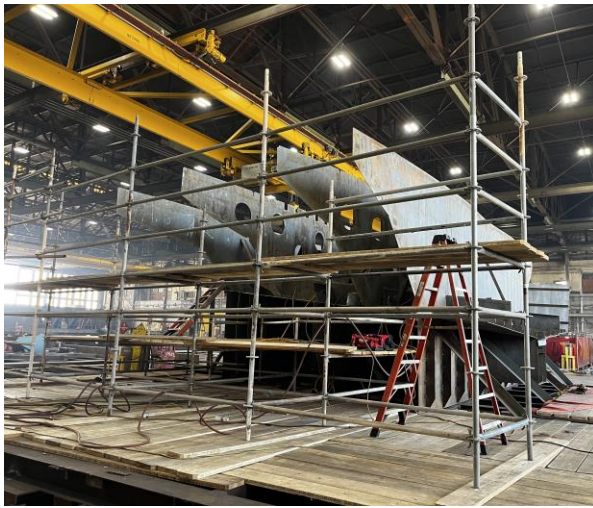
2960 – Module 1 hull with Transverse Bulkheads being installed

MEMO

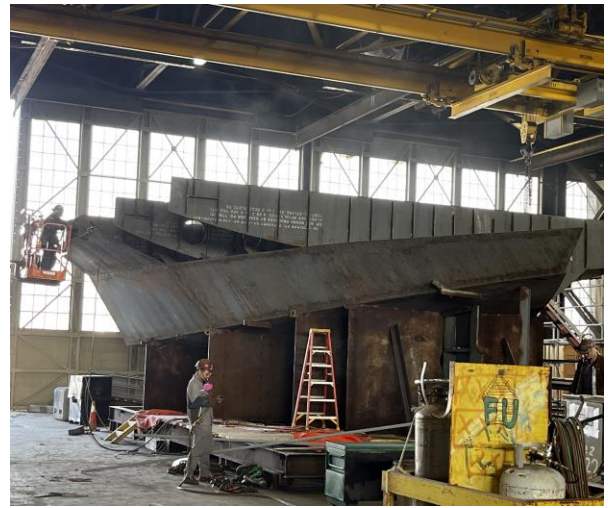


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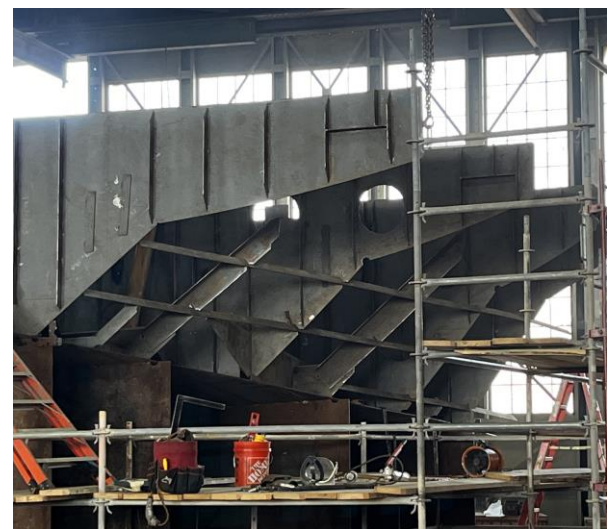
2968 – Module 1 with Transverse Bulkheads



2973 – Module 1 with Side Shell plating being installed



2974 – Module 1 at the Bow



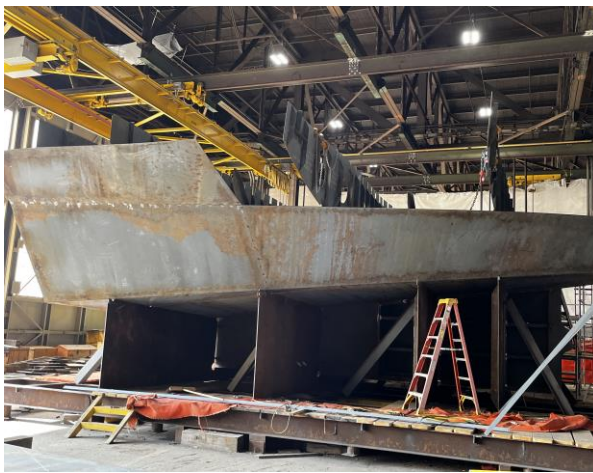
2975 – Module 1 looking at Starboard side Bulkheads

MEMO

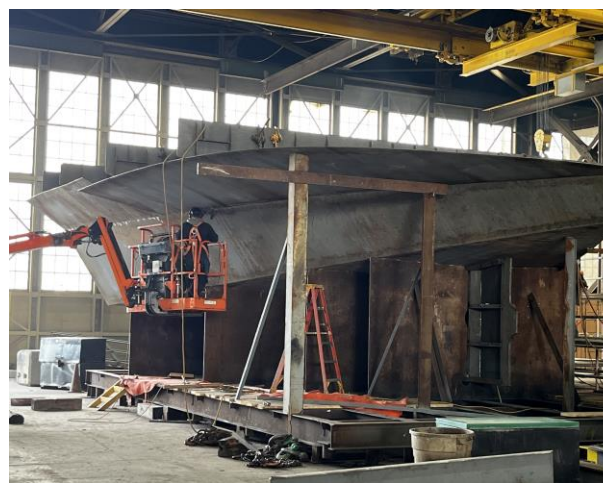


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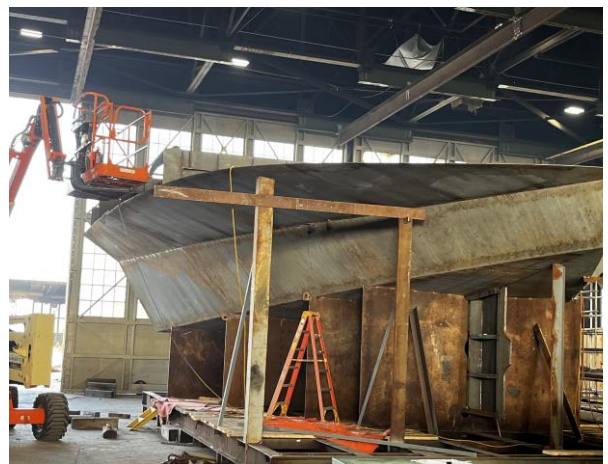
2977 – Module 1 with hull plating being fit up



2978 – Module 1 with more hull plating being added

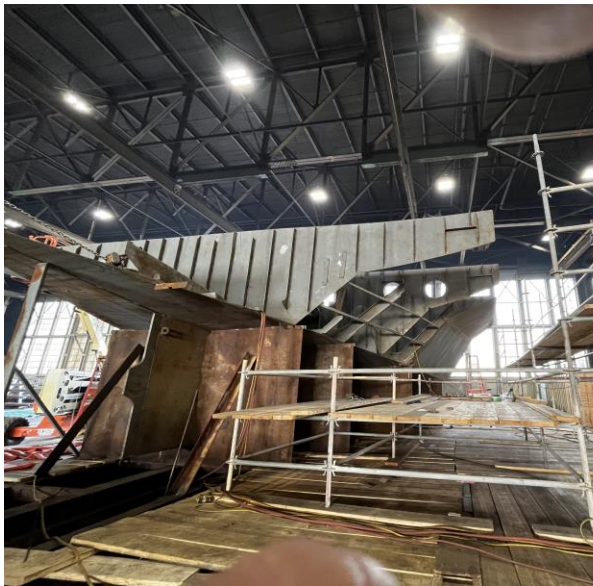
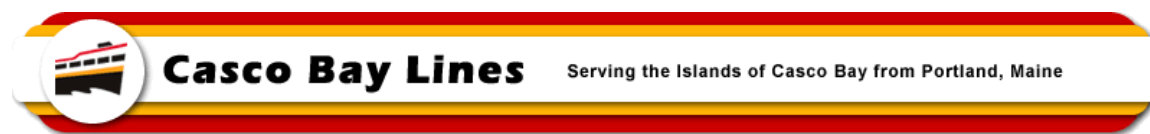


2986 – Module 1 with Bulkheads being fitted



2987 – Module 1, same activity – Starboard side

MEMO



2988 – Module 1, Port side with side hull plating just getting started



2997 – Module 1 with more Port side plating being installed

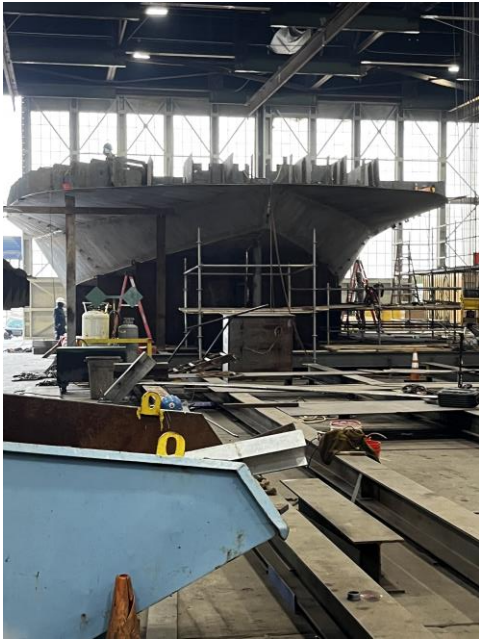
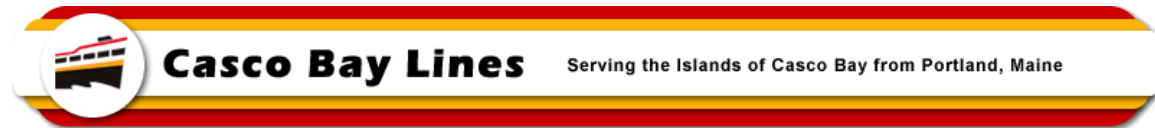


3004 – Module 1 with most of hull plating in place



3005 – Module 1 Guard framing being installed

MEMO



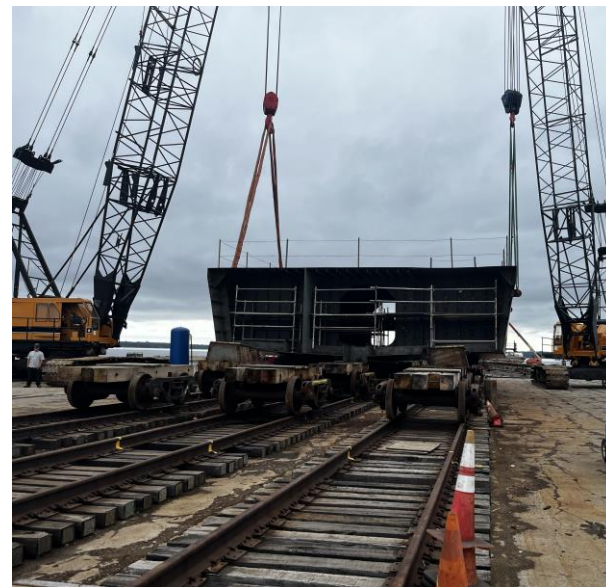
3023 – Overview of Module 1 looking at the bow end



3024 – Up close of Module 1, looking at the bow end

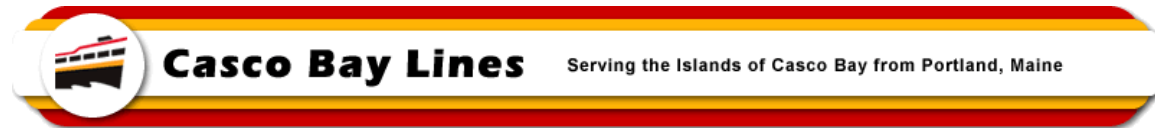


3027 – Module 3 after painting, being moved to the Erection Runway area for assembly with other modules

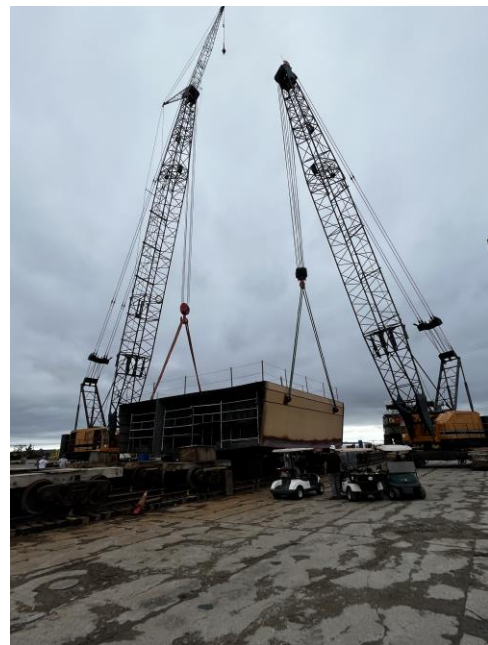


3031 – Module 3 being placed on rail wheel chassis on the Erection Runway

MEMO



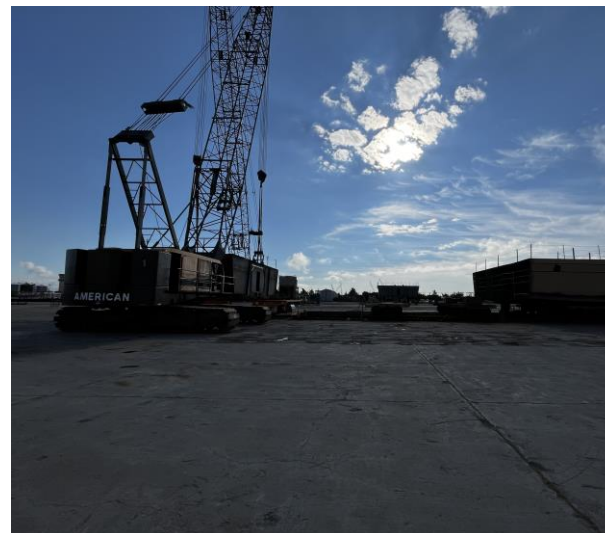
3032 – Module 3 being lifted onto the Erection Runway



3033 - Module 3 being lifted onto the Erection Runway

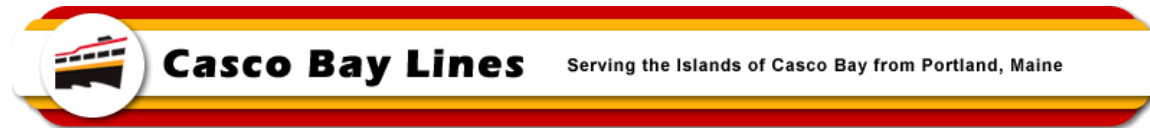


3040 - Module 3 being lifted onto the Erection Runway

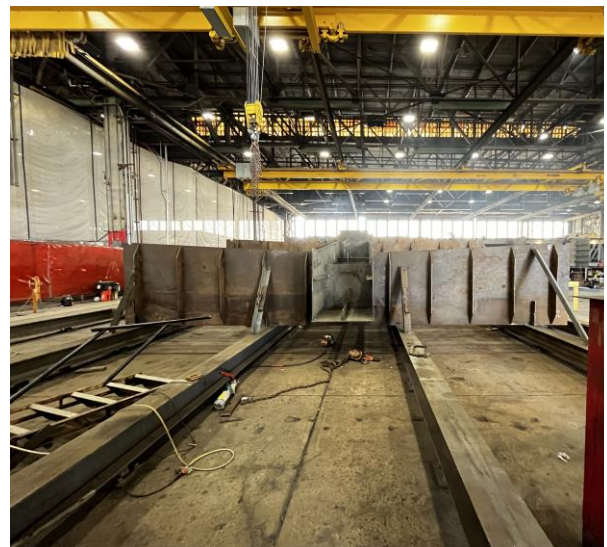


3041 – Preparing to lift Module 4 onto the Erection Runway

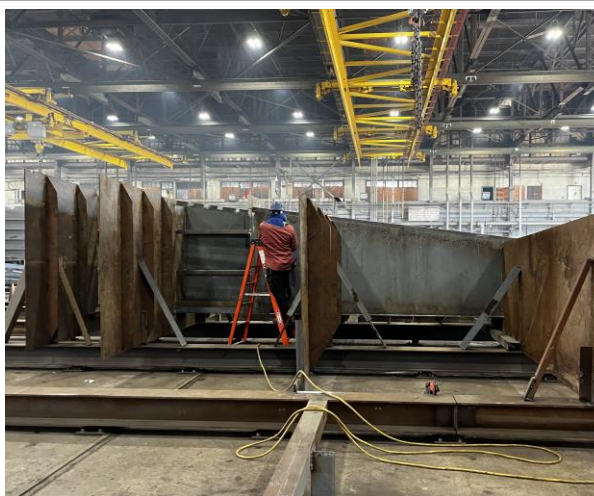
MEMO



3039 – The Falsework Gig for Module 5



3057 – Module 5 keel set in the gig

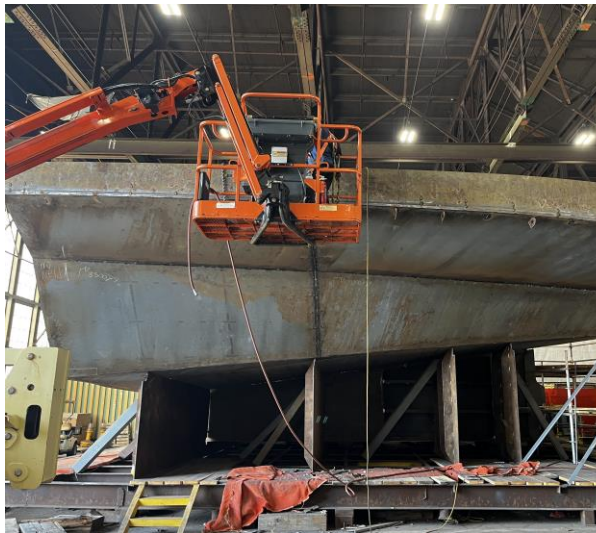
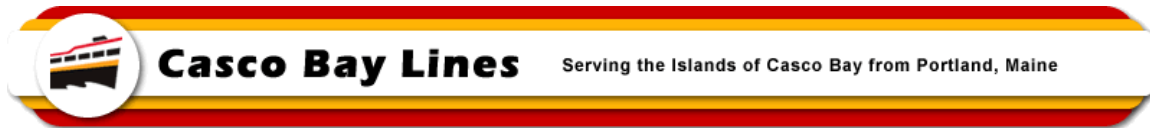


3060 – Side view of Module 5 gig

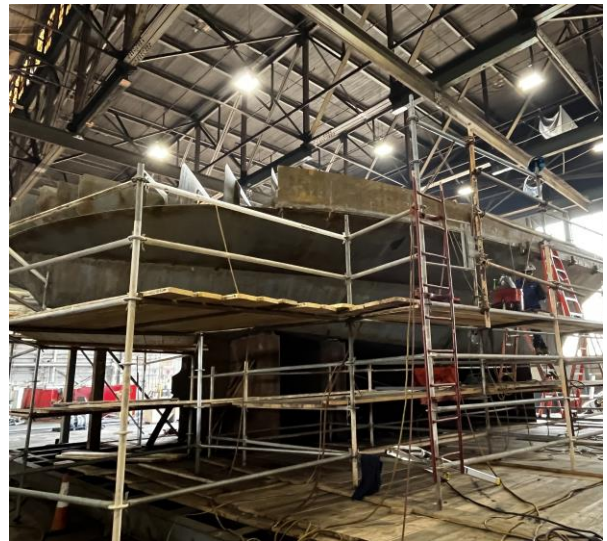


3061 – Forward (stern end) of Module 5 gig

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3056 – Module 1 Guard plating being installed –
Starboard Side



3058 - Module 1 Guard plating being installed –
Port Side

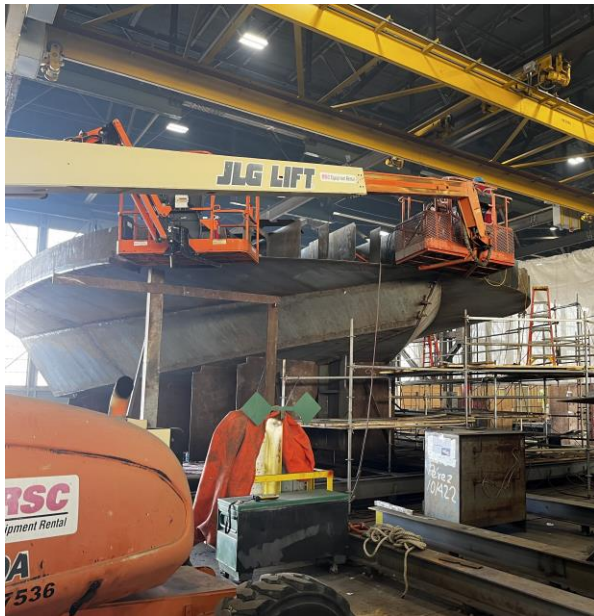
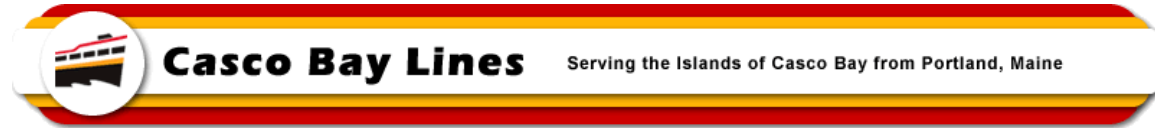


3062 – Aligning Modules 3 & 4

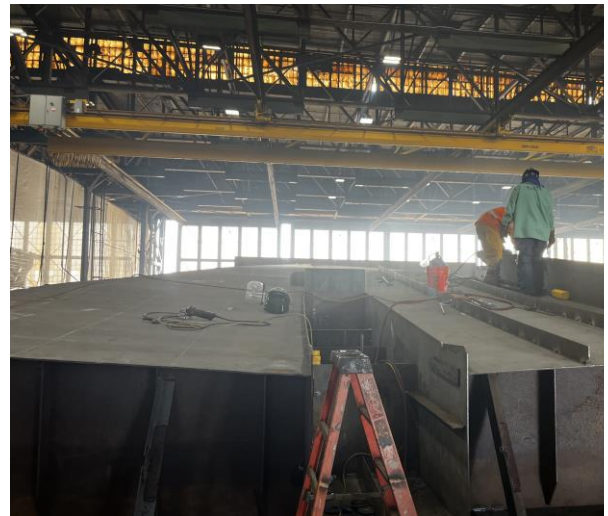


3063 - Aligning Modules 3 & 4

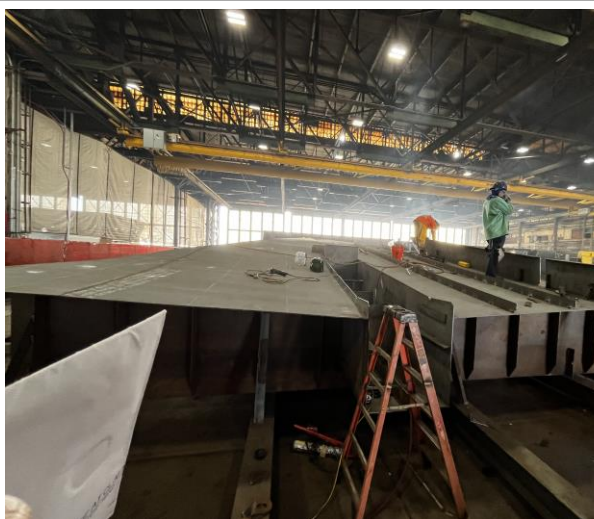
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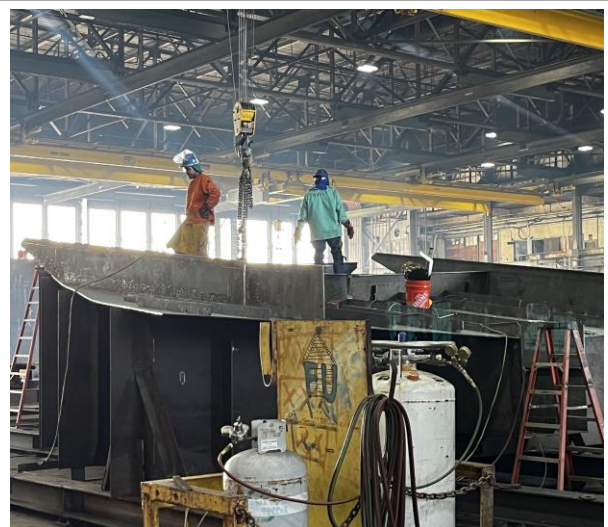
3073 – Module 1 Guard area at bow being made ready for plate installation



3074 – Module 5 bottom hull plating being installed and longitudinal flanges being added



3076 - Module 5 bottom hull plating being installed, and longitudinal flanges being added



3085 - Module 5 bottom hull plating being installed, and longitudinal and transverse flanges being added

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3078 – Preparing the Master Butt (seam)
between modules 3 & 4



3087 – Strong Backs on the Master Butt between
3 & 4. These help hold the seam at the proper
alignment



3099 – Module 2 heading for the Erection
Runway



3100 – Module 2 being lifted into place on the
Runway

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3102 – Lifting Module 2 into place on the Runway



3103 - Lifting Module 2 into place on the Runway



3105 - Lifting Module 2 into place on the Runway



3106 - Lifting Module 2 into place on the Runway

MEMO

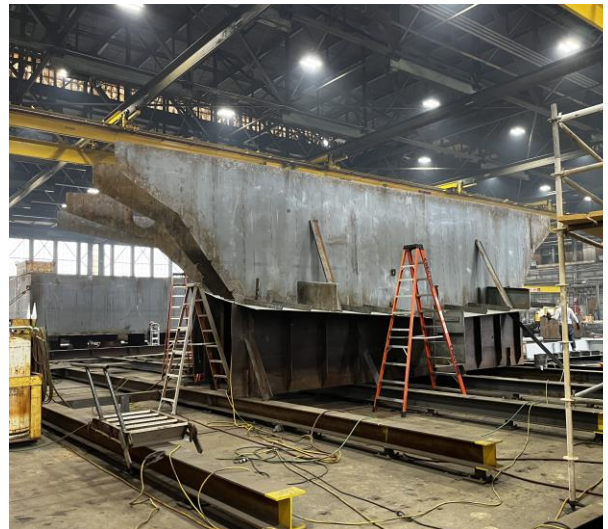


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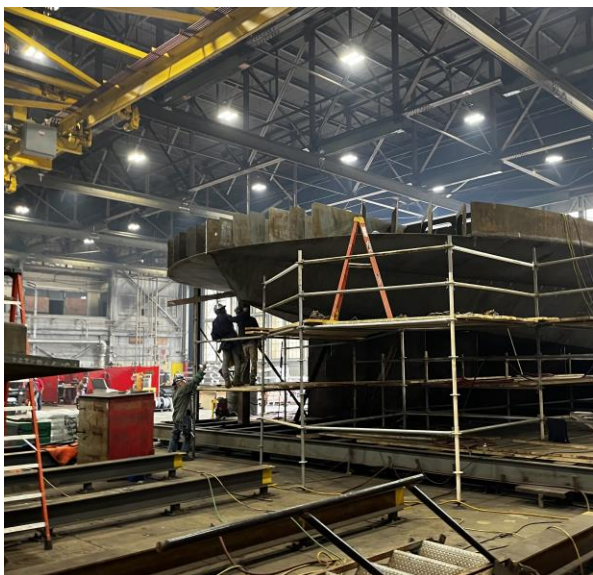
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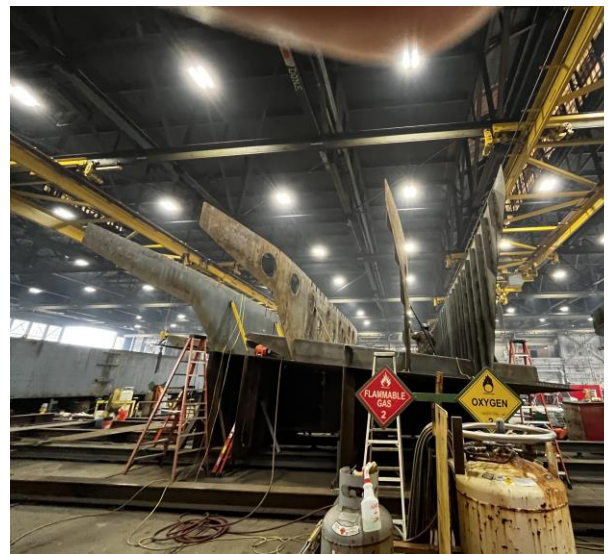
3120 – Module 5 Transverse Bulkheads in-place



3122 - Module 5 Transverse Bulkheads in-place



3123 – Module 1 Guard plating being installed



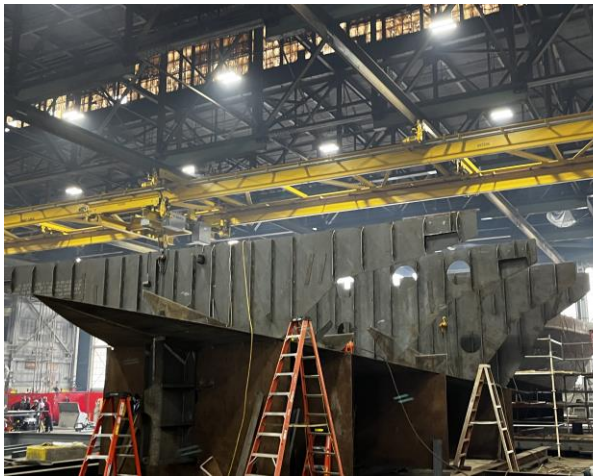
3124 - Module 5 Transverse Bulkheads in-place

MEMO

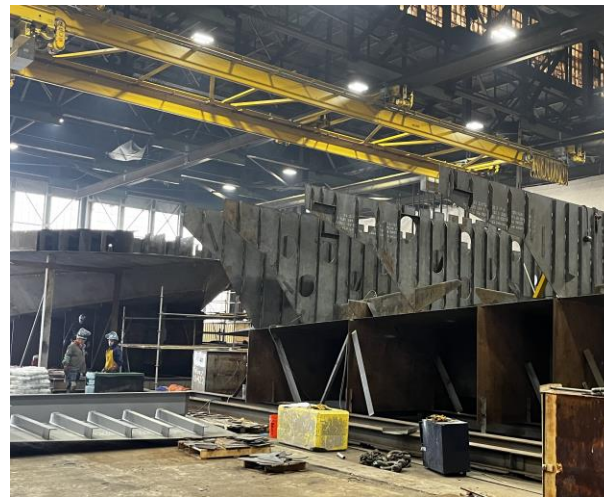


Casco Bay Lines

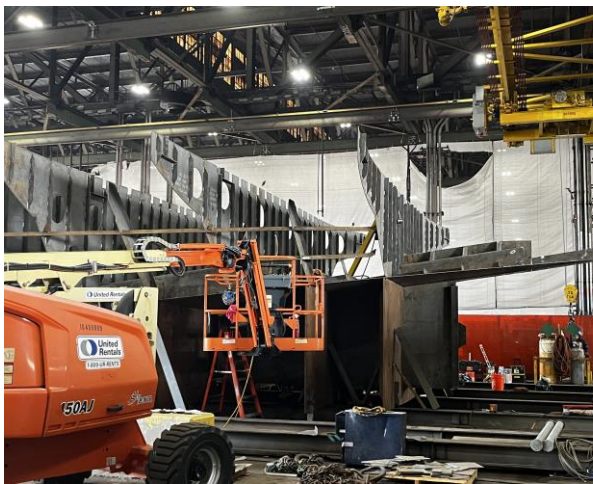
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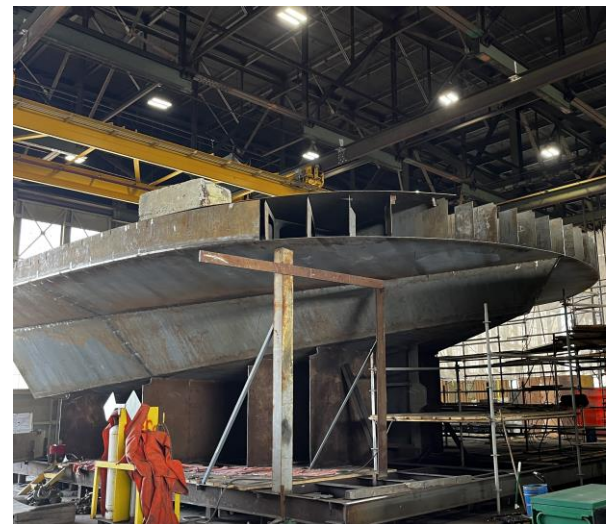
3125 - Module 5 Transverse Bulkheads in-place



3126 - Module 5 Transverse Bulkheads in-place



3128 - Module 5 Transverse Bulkheads in-place



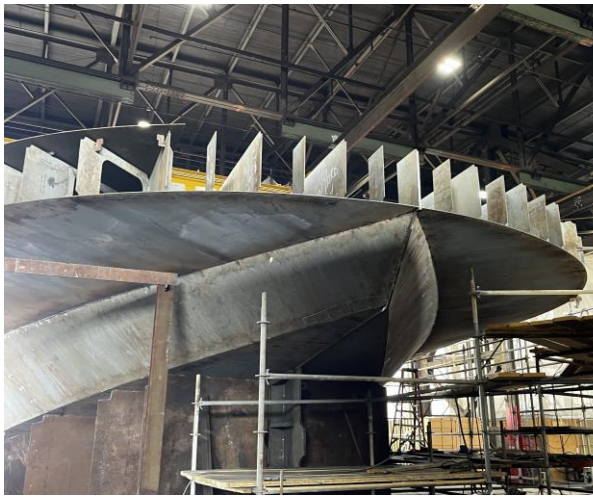
3144 – Module 1 with Starboard side deck being installed. Using weight to help flatten before welding in place

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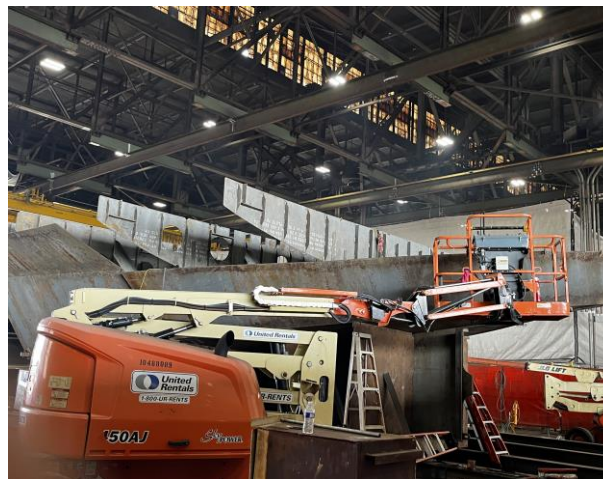
3145 – Module 1 Guard framing installed at the bow end



3143 – Guard plate after coming out of the break press. Conforms the plate to the curve of the vessel.

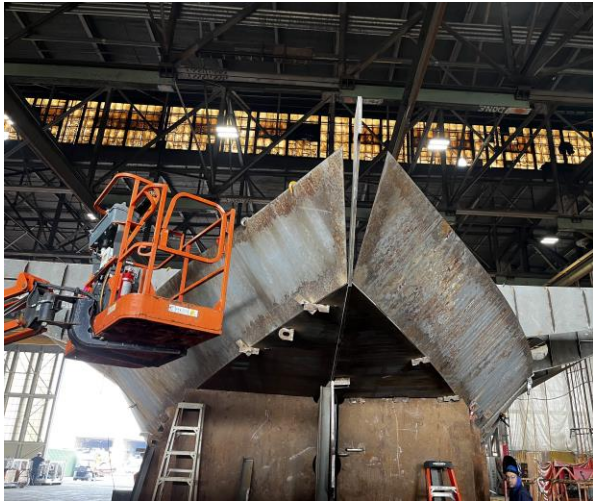
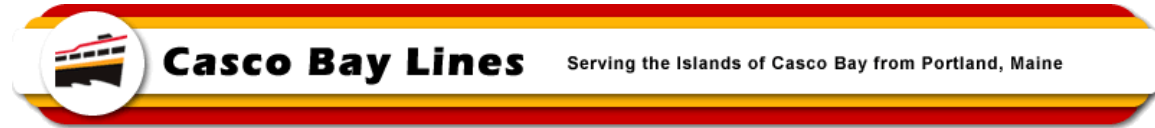


3146 - Guard plate after coming out of the break press. Conforms the plate to the curve of the vessel.



3147 – Module 5 progressing with hull plating

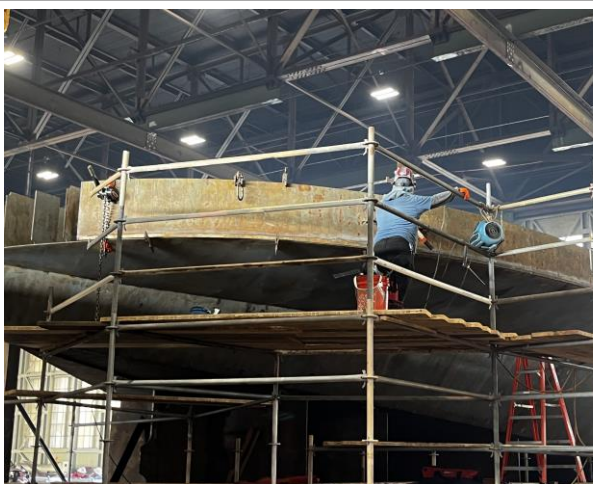
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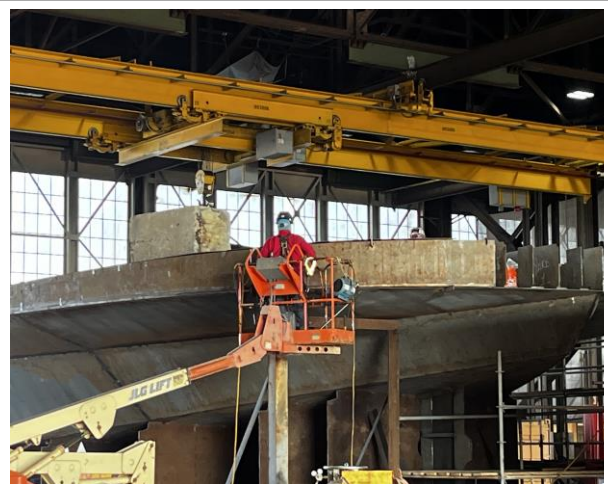
3148 – Module 5 having side shell hull plating installed



3152 - Module 5 having side shell hull plating installed

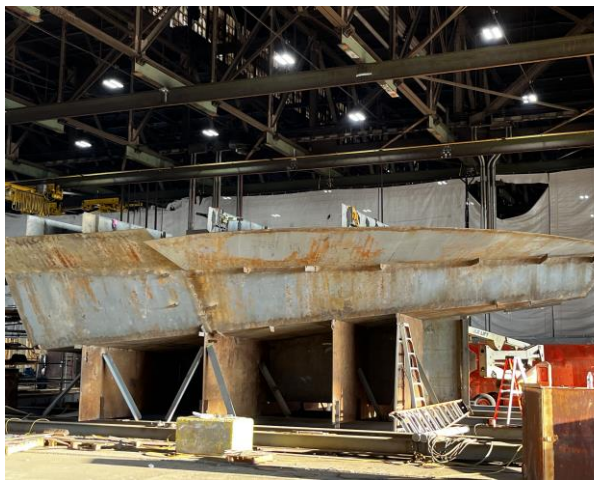
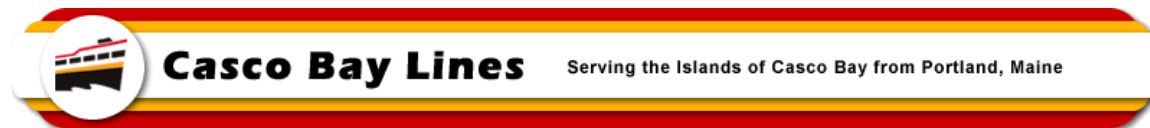


3153 – Module 1 Guard plating on Port Side

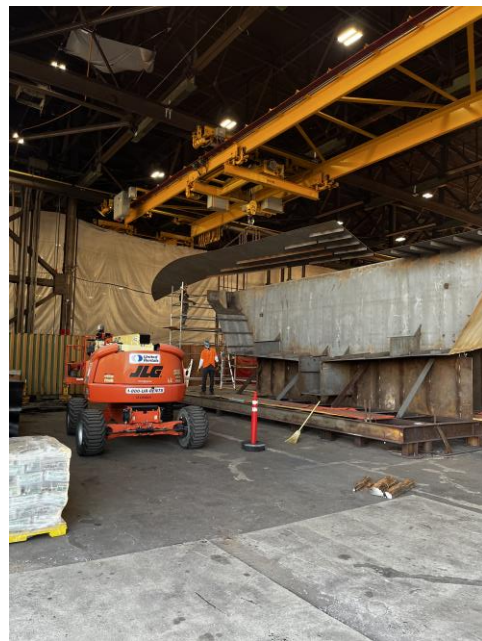


3156 - Module 1 Guard plating on Starboard Side

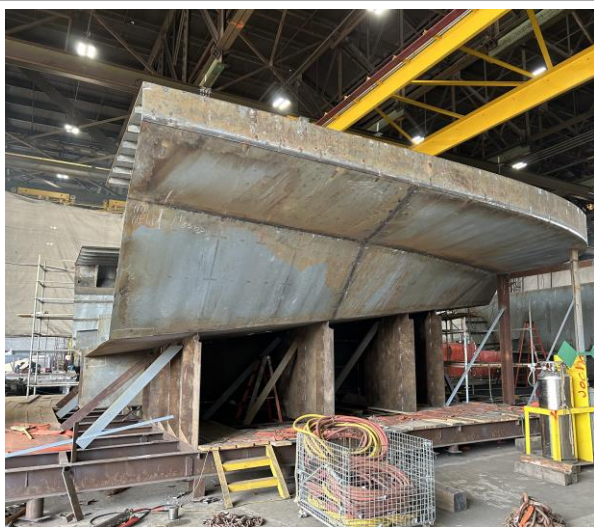
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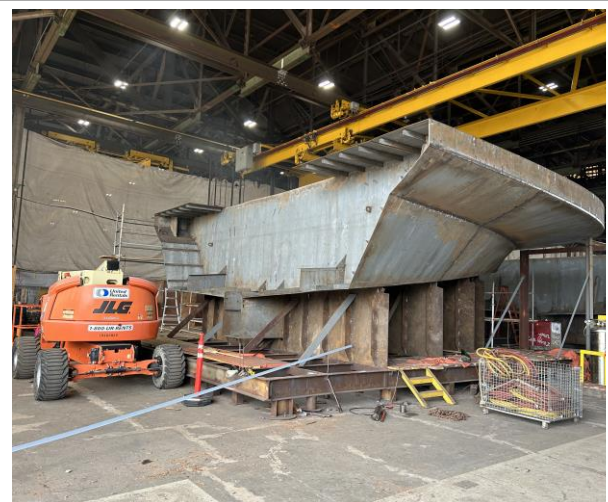
3157 – Module 5 side shell hull plating being installed



3158 – Module 1 Port Deck plating being lifted into position



2363 – Module 1, Starboard side



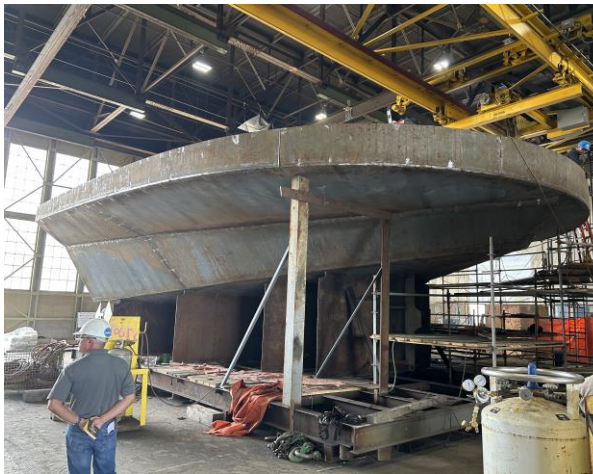
2364 – Module 1, aft view of starboard side

MEMO

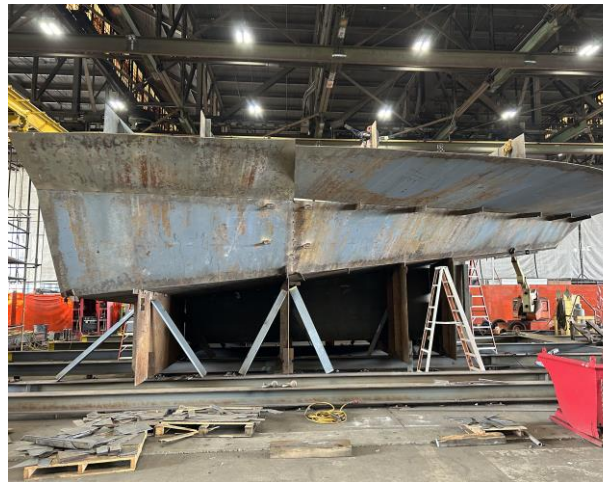


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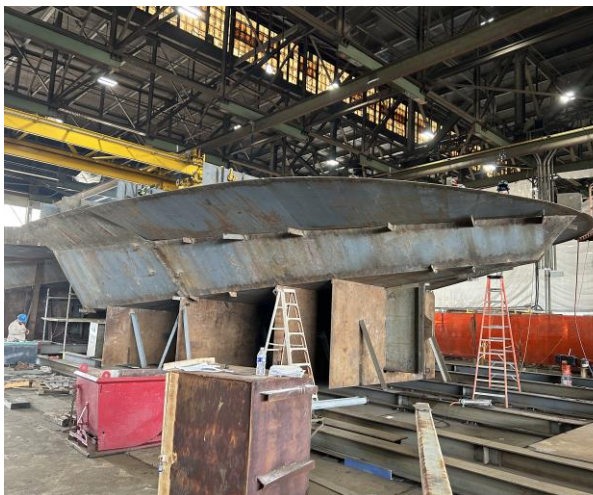
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2366 – Module 1 with most of fit up done. Still needs some deck plating before final fit-up inspection and final welding to occur.



2367 – Module 5 with side hull plating being installed

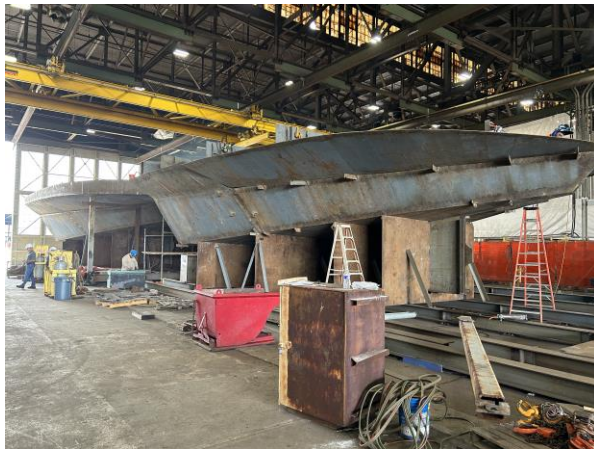
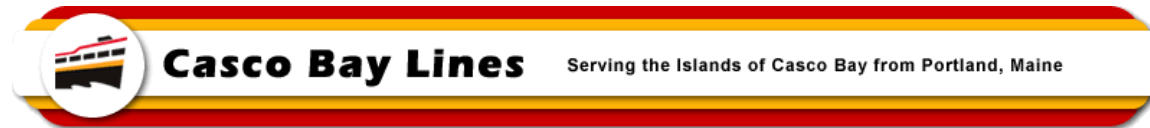


2368 - Module 5 with side hull plating being installed



2370 – View of Module 1 from below the bow

MEMO



2369 – Module 1 in background, Module 5 in foreground



2371 – Modules 2, 3 & 4 aligned on Erection Runway



2372 - Modules 2, 3 & 4 aligned on Erection Runway



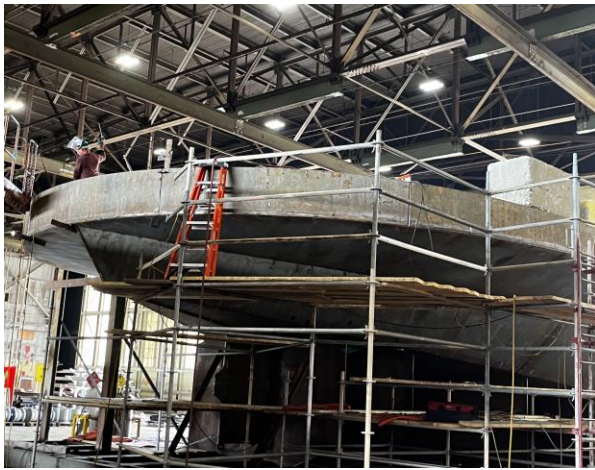
2376 – On the deck of modules 2, 3 & 4 with elevator pit next to people

MEMO

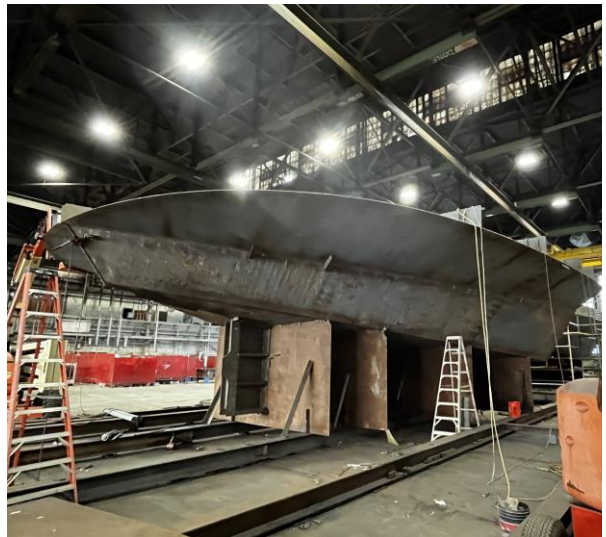


Casco Bay Lines

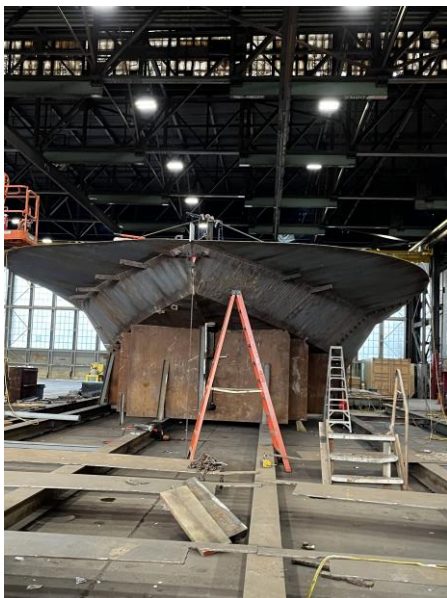
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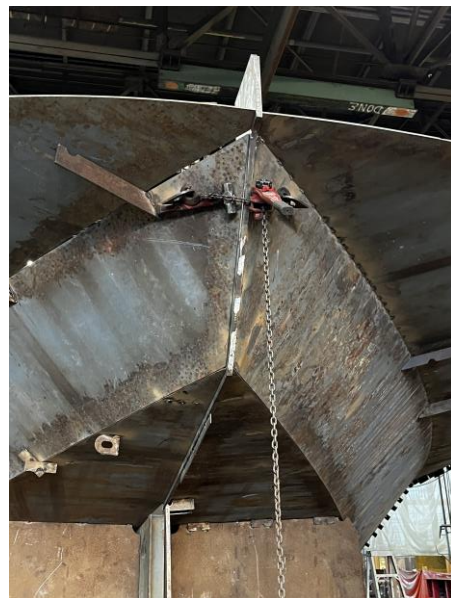
3165 – Module 1 with weights holding deck plating flat



3189 – Module 5 with hull side plating in place



3190 - Module 5 with hull side plating in place, distant view of stern



3191 – Up close view of stern plating (Module 5)

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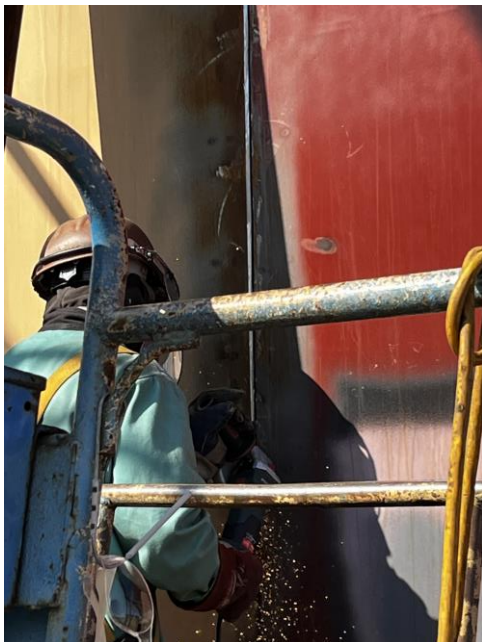
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3223 – Master Butt Joint for Modules 3 & 4. Note the strongback plate holding joint in alignment.



3227 – Preparation of Master Butt Joint so can weld from outside. Ceramic tape is used to help properly contain weld.



3228 – Preparing the Master Butt Joint on the outside of the vessel



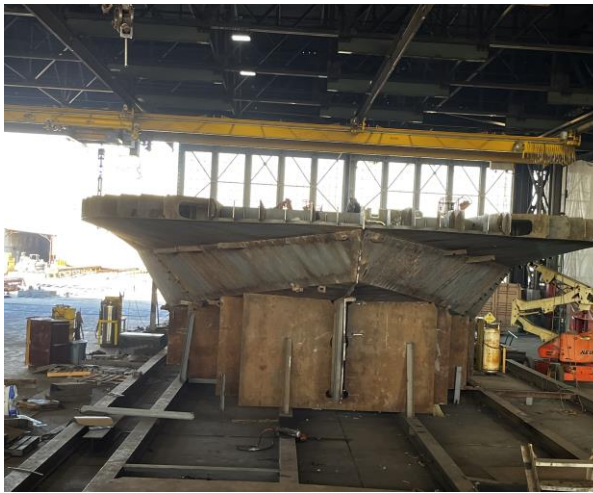
3229 – Master Butt Joint ready for welding

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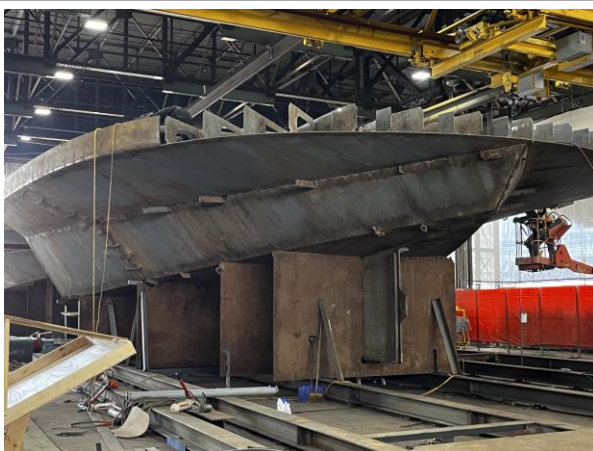
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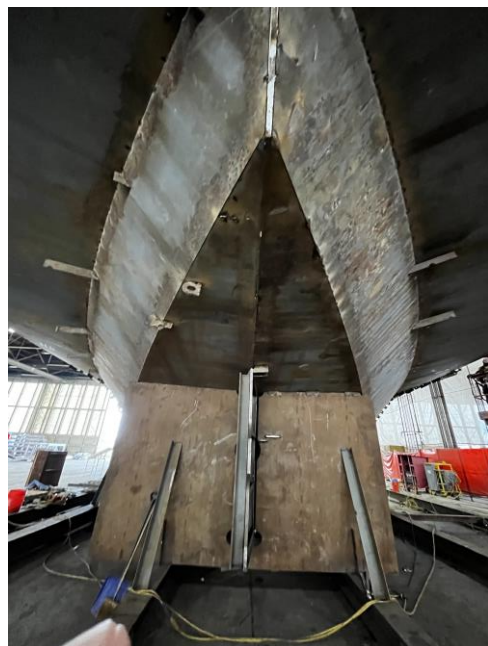
3230 – Module 5 with Guard framing in place



3232 - Module 5 with Guard framing in place

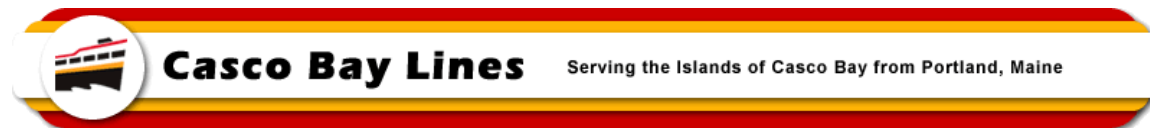


3254 – Module 5 with Guard plating being install
on Port side



3257 – Module 5 from below the Stern, strong
backs used to keep plating in alignment

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3258 – Charging Socket for the shoreside charger



3259 – Typical wiring in socket



3260 – Control box on socket



3261 – Control Panel on socket

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3264 – View of Portion of Shipyard and the first three modules being assembled. Working on deck welds.