JACKSONVILLE TRANSPORTATION AUTHORITY

Safety and Security Report

INCIDENT INVESTIGATION
Alert 3

Ferry Collision with Dock

INITIAL REPORT

Confidential Communication
Date of Incident: May 4, 2025
Date of Submission: June 20, 2025

Incident Reviewers

- Jeff Smith, SVP - Chief Operations Officer: Jeff Smith
- Chris Geraci, VP - Chief Safety Officer: Chris Geraci
- Ben Bradley, Safety and Security Manager
- Jordan Edwards, Safety and Emergency Preparedness Administrator

Executive Summary

At approximately 6:33pm on May 4, 2025, the St Johns River Ferry *Jean Ribault* collided with the Gantry dock at the Mayport ferry landing, while attempting to depart northbound. Seven customer vehicles were aboard the ferry at the time of the collision. There were no reported injuries by the crew or customers. The collision resulted in minimal damage to the vessel, and major damage to the gantry bridge. The collision was reported to the JTA as a 'hard bump' due to a stuck throttle, neither of which were found to be accurate. The collision resulted in a service interruption of 39 days and a repair cost of approximately $670,000.

Weather Conditions/ Environmental Factors

The weather conditions at the time of the accident were as follows:

Tide- Ebb; Temperature- 83°F; Visibility- 10 miles; Wind Speed- 4-10 mph from the WSW; Scattered Clouds; sun glare from the west

Personnel Involved Information

HMS ferry captain William Baldwin

- 72-year-old male
- Worked 3 shifts in the 30 days prior to this incident
- 4 years employed as a captain for HMS Ferries
- Over 50 years experience as a captain, including 3 years as a deck officer on commercial and military vessels

HMS ferry engineer on duty was Thomas Suneson

- 68-year-old male
- 4 years employed as a ship's engineer with HMS Ferries

Equipment Information

The Jean Ribault is a double ended ferry with a length of 153' and a 56' beam. The vessel has a 40-car/207-person capacity. She is controlled from an elevated central bridge/cockpit and operates with a crew of 7. There is a propeller and rudder on each end of the ship, and can travel at 11 knots. The vessel has 2 engines which are controlled by 2 consoles in the cockpit. The 'A' (or fore) side of the ship faces Mayport. The 'B' (or aft) side faces Fort George.

The captain stated that the vessel is in good running order, however, there have been prior problems with the B throttle. Specifically, he recalled a B throttle problem on February 26, 2025, wherein the B engine exhibited intermittent surging. This was reportedly determined to be the result of a broken wire on the B console. He recalled another incident on January 25, 2025, where the A engine tachometer on the B console would cycle up and down 10 RPM without the throttle being moved.

Incident Investigation

The JTA conducted a thorough incident investigation with internal safety and operations staff, and with the support of several subject matter experts and engineers.

- CCTV footage from the Mayport landing and vessel was reviewed
- Captain and engineer logbooks were reviewed
- Comprehensive inspections and functional tests were conducted on the vessel's control consoles, throttles and associated infrastructure, electronics and wiring systems, engines and engine control systems
    - JTA retained engineering firms CED Technologies and Marine Engine Controls Inc. to conduct tests and inspections on all vessel systems
- Allied Adjusters interviewed the ferry captain with the port captain present; and the ship's engineer with the port engineer present; their statements are below
- HMS Ferries general manager was interviewed by JTA operations and safety personnel
- JTA retained Morales Consulting Engineers and CED Technologies to conduct a structural inspection of the ferry landing bridges at Mayport and Ft. George
- US Coast Guard responded to the scene and inspected the vessel's A side rudder void space
- HMS and USCG conducted a full simulation of all systems—including mechanical functions and throttle controls
- Repair estimates for the damaged bridge ramp were received from Morales Consulting Engineers and C&D Construction

HMS Captain's Statement

The captain was alone on the bridge when the incident occurred, and stated this was standard practice. The engineer on duty was below deck in the engine room at the time of the incident.

The captain stated that the ship was prepared for departure as follows: The A console was active with the A throttle set at 200 RPM and the B Throttle set at 200 RPM in opposite direction. The rudder was forward midship 15 degrees. In this state, the vessel is pushing against the Mayport side access bridge. The B side was not active, but the captain pre-set the throttles and rudders in preparation for the switch over to the B side control. The B Side A and B Throttles were set at 350 RPM and the rudder set at full so that the boat would pivot to the port side. The captain testified that he proceeded to press both B console station transfer buttons. The captain stated that after pressing the buttons, the tachometer for both A and B engine increased to 350 RPM as expected and that he observed both indicator lights on the A and B throttles were lit, indicating a successful transfer to the B console. The vessel began to slowly pull away from the dock. The captain then attempted to decrease the B engine power with the B console throttle. The captain stated that the engine RPM did not decrease indicating that the B throttle was not responding. At this point he realized there was a problem. He began moving the B throttle forward and back with no response. The captain then proceeded to check for throttle response from the A engine. He stated that he pulled back on the A throttle which did reduce the A engine power. The captain stated that this was the cause of the incident. When he backed power off the A engine, this allowed the B engine to propel the vessel back toward the dock. The captain moved to try and engage the A console controls to regain control, but it was too late, and the vessel struck the access bridge.

HMS Vessel Engineer's Statement

The engineer stated that he was on duty on May 4, 2025, when the incident occurred. He was in the engine

room below the deck. He stated that he has no way to know when the vessel has left dock, but he can tell what is happening with the engines. He recalled that just prior to the impact, the engines were at a steady state with 45 PSI on the governor, which indicates about 350 RPM on both engines. A few moments before the impact he received a call from the captain that he had a runaway B engine. The engineer moved to the throttle control in the engine room which was still reading 45 PSI which does not indicate a runaway engine. He could not move the throttle as it was under pressure, which is normal. Out of caution he killed the engine with the kill switch a moment before the vessel struck the dock. He could not recall what engine A was doing as he was focused on Engine B.

The captain was asked if he called down to the engineer prior to the impact. He stated that he placed one call to the engineer a few seconds prior to the impact but received no response. He did not recall reporting a runaway engine.

HMS General Manager's Statement

General Manager Dexter Smith responded to the scene. Below is a verbal accounting of the incident given to JTA Safety personnel on May 5th:

- At approximately 1830, the St Johns River Ferry collided with the dock at the Mayport station
- The Caption of the ferry was pulling into the Mayport dock when throttle B became stuck at 300 RPMs
- The captain then attempted to correct by adjusting throttle A
- The captain overcorrected throttle B and while doing so, the front right side of the ferry collided with the dock
- 7 customer vehicles and 13 passengers were aboard the ferry at the time of the collision
- Crew members immediately began to assess the customers aboard
- All customers and crew members denied injuries at the time of the incident
- An initial assessment of the damage was conducted by the crew, and reported as minor
- All 7 customer vehicles were then allowed to disembark the ferry across the Mayport dock at 1838
- The vessel captain notified the General Manager at 1839
- The General Manager arrived on scene at 1930
- The decision to suspend operations was made by the General Manager at 1953
- Initial call was placed to the US Coast Guard at 2141 with no response

US Coast Guard

The USCG responded onsite the following day, May 5th. USCG Inspector Lionel Campbel and met with Port Engineer Michael Esley and Port Captain Tyler Caruthers for a vessel inspection.

- A full simulation of all systems – including all mechanical functions, throttle controls, and inspection of the A-side rudder void space – was conducted
  - No damage to the vessel was identified by the USCG
  - All systems functioned and operated properly
- Upon completion of the review, the USCG cleared the vessel to return to service

Previous Logbook Findings

Captain and engineer logbooks were reviewed for the 30 days prior to the collision, with the below relevant anomalies noted:

- April 16, 2025: B engine emergency stop tested and deemed functional
- April 23, 2025: USCG quarterly inspection; no issues noted

- April 30, 2025: A engine revs up from 180-220rpm
- May 2, 2025:
  - A engine revs 50rpm
  - A engine revs up then down at 200rpms
  - B engine 25-50rpms u/w
- May 3, 2025: A engine revs up to 50rpm in the Ft. George slip
- May 4, 2025 (0643/12hrs prior to collision): A engine revs up to 50rpm increase

HMS Monthly Reports to JTA Findings

- February 26, 2025: B-engine main throttle intermittent surging reported while in the Ft. George slip, resulting in a service interruption of 3 trips
  - Work items completed: Replaced B MDE throttle control in wheelhouse, console B

Inspection and Repair

JTA retained CED Technologies to conduct an inspection of the ferry engines to rule out mechanical failure, which was conducted on May 6th. Mechanical Engineer Greg Krall, P.E. started and inspected the A and B ferry engines and found no malfunctions.

Port Engineer Elsey recommended an independent inspection of the electronic systems by Marine Engine Controls, Inc. (MEC), which was conducted on May 7th. President of MEC Dustin Forrest conducted a complete and comprehensive electronics system inspection. All tests were successfully completed and no faults were found.

JTA retained two engineering firms to conduct structural inspections of the ramp bridge. Morales Consulting Engineers conducted their inspection on May 5th. CED Technologies conducted an inspection on May 6th. Both firms found significant structural damage to the bridge, which can be found in their respective reports, in the Attachments.

Repairs completed include replacement of the facia girder, replacement of all stringers supporting the girder, the first floor beam, stringers back to the second beam, and new bolts and hardware throughout the repaired areas. In order to complete the work, the terminal bridge also had to be removed. While the bridge was out, the contractor also painted structural steel to protect against corrosion. Since service was suspended, the vessel was taken out of the water for unrelated preventive maintenance. Repairs were completed on June 2, 2025. FDOT completed their final inspection on June 4, 2025. Ferry service resumed on June 13, 2025.

Primary Cause

Based on our investigation, the damage to the Mayport Landing Access Bridge was the result of human error on the part of Captain Baldwin. While there is evidence of prior problems with the B side throttle, the investigation by multiple experts revealed no mechanical breakdown or failure was involved in this incident.

Captain Baldwin testified that he believed that he properly engaged the B console controls to depart from Mayport. When attempting to reduce B engine power at the B side console, he testified that the B throttle was not responsive. At that point the vessel was still stable as the A engine was pushing the vessel away from the dock. Captain Baldwin reacted to the lack of throttle response by moving the B throttle back and forth but continued to receive no response.

At this point, Captain Baldwin should have checked to make sure that the B console B throttle indicator light was still lit or potentially attempted to gain control of B engine by switching control to the A side. Instead, Captain Baldwin decided to check for A throttle response by backing off power on the A engine.

This action removed the counter force of the A engine and allowed the B engine to propel the vessel to the dock where it struck the Mayport Landing ramp bridge causing substantial damage.

Contributing Factors

- The bridge being in a lowered position during normal docking operations
- Vessel captains using the ramp bridge landing pad as a 'bump stop' as a common practice when docking causes minor repetitive damage that may have exacerbated impacts from this strike

Conclusions

- Weather was not a factor in this collision, although strong tides do effect normal docking operations
- Employee fatigue was not a factor in this collision
- Infrequency of the captain's shifts may have impacted his response to the atypical vessel actions
- The collision could have been prevented by switching full control of the vessel to throttle A, as described above
- The vessel should have returned to Ft. George landing to disembark customers there, instead of allowing vehicles to exit via the damaged ramp bridge

Recommendations

- Install CCTV inside of the vessel bridge/cockpit
- Update HMS JTA contact list and reinforce protocols
- Refresher training for HMS captains on proper docking techniques
- Position ramp bridges in a slightly raised position when docking, to prevent minor strikes
- Develop HMS procedures specific to mechanical/throttle malfunctions
- Perform drills/exercises related to mechanical and throttle failures/malfunctions
- Establish work shift requirements for part-time employees (e.g., part-time employees should work 'X' number of shifts per month to maintain competency on vessel operations)

Attachments

- Allied Adjusters Incident Report
- HMS Ferries Incident Report
- MECI Service Report
- MEC Service Report
- CED Technologies Report
- Incident Photos

ALLIED ADJUSTERS, INC.

1555 Blanding Boulevard
Jacksonville, FL 32210
(904) 396-0261
FAX (904) 398-3630
E-Mail: claims@aadjusters.com

May 7, 2025

Julie Bonsall
Risk Manager
Jacksonville Transportation Authority
100 LaVilla Center Drive
Jacksonville, FL 32204

Re: Our Client: Jacksonville Transportation Authority
Claimants: Jacksonville Transportation Authority
Date of Loss: 5/4/2025
Our File Number: 45356

Dear Ms. Bonsall;

This will acknowledge your assignment received in our office on May 5, 2025. You requested that we investigate an incident involving the Ferry at Mayport. The following will advise you regarding the status of the claim.

DATE, TIME, PLACE, AND DESCRIPTION OF ACCIDENT:

This incident occurred on May 4, 2025, at approximately 6:30 PM. The weather was clear and dry. The St. Johns River Ferry struck the access bridge on the Mayport side causing substantial damage to the access Bridge. The ferry sustained no damage. There were 7 vehicles on the ferry none of which were damaged. There were no injuries reported.

CAUSE AND ORIGIN INVESTIGATION – MECHANICAL FAILURE:

As instructed by JTA, we coordinated an investigation to determine if the incident was related to a mechanical breakdown or failure.

JTA retained CED Technologies to conduct an inspection of the Ferry engine to rule out any mechanical failures. We met with Greg Krall, P.E**.,** Mechanical Engineer, on May 6, 2025. The following people were present at this inspection:

1. Zacharey Colemnan – Allied Adjusters Inc.
2. Tyler Caruthers – Port Captain – St. Johns Ferry
3. Michael Esely - St. Johns River Ferry Port Engineer
4. Thomas Caulder – JTA Interim Mobility Contract Manager
5. Greg Krall, P.E., Mechanical Engineer – CED Technologies Inc.

Both the A and B Ferry Engines were started and inspected by Mr. Krall. We secured a verbal opinion from Mr. Krall. In his opinion, the ferry engines and all mechanical components were in

good running order. Mr. Krall was unable to assess ship electronic controls as he is not an electrical engineer. Note that we secured copies of the captain's logs and engineering logs for one month prior to the incident and these were provided to Mr. Krall for review with his report. We are pending his written report.

We discussed the electronic controls with Michael Esely - St. Johns River Ferry Port Engineer. Mr. Esely recommended an outside inspection of the electronic systems by Marine Engine Controls, Inc. We agreed to attend an inspection of the electronic system scheduled for May 7, 2025. The following people were present at this inspection:

1. Zacharey Colemnan – Allied Adjusters Inc.
2. Tyler Caruthers – Port Captain – St. Johns Ferry
3. Michael Esely - St. Johns River Ferry Port Engineer
4. Thomas Caulder – JTA Interim Mobility Contract Manager
5. Dustin Forrest- President – Marine Engine Controls, Inc.

Mr. Forrest conducted a complete system inspection. We received a copy of the assessment which is attached. Mr. Forrest indicated all tests were completed and no faults were found.

We also reviewed the preliminary report presented by HMS Ferries Inc. Following the incident, USCG Inspector Lionel Campbell arrived and met with Port Engineer Michael Esley and Port Captain Tyler Caruthers. A full simulation of all systems—including mechanical functions, throttle controls, and inspection of the A-side rudder void space—was conducted. All systems were operating properly, and no damage to the vessel was identified by the USCG. Upon completion of its review the USCG granted clearance for *Jean Ribault* to return to service.

Based on the inspections by Mr. Krall and Mr. Forrest, the ship engines are in good running order and the electronic controls for the throttles are functioning properly. A mechanical failure can be ruled out at this time.

SHIP CAPTAIN – WILLIAM BALDWIN:

A non-recorded interview was conducted with the ship's captain on May 8, 2025. Present at the interview was the captain and Tyler Caruthers – Port Captain – St. Johns Ferry.

The captain declined to agree to a recorded statement therefore we conducted a non-recorded interview with Mr. Caruthers present.

William Claiborne Baldwin is a 72-year-old male born on [redacted]. He is married to Susan Baldwin, and they reside at [redacted], Jacksonville, FL 32225. He can be reached on his cell phone at [redacted]. His email address is h[redacted]. He is employed by HMS Ferries Inc. as a ships captain. He has been employed in that capacity for 4 years. He is a part-time employee and works on an as needed basis. He has over 50 years of experience as a captain including 3 years as a deck officer on commercial ships and military experience.

The captain described Jean Ribault as a double ended ferry with a propeller and rudder on each end of the ship. The vessel has 2 engines which are controlled by 2 consoles in the cockpit. The A or fore side of the ship faces Mayport. The B or aft side faces Fort George. The captain stated that the vessel is in good running order, however, there have been prior problems with the B throttle. Specifically, he recalled a B throttle problem on February 26, 2025, wherein the B engine exhibited intermittent surging. This was apparently determined to be the result of a broken wire on the B console. He recalled another incident on January 25, 2025, where the A engine tachometer on the B Console would cycle up and down 10 RPM without the throttle being moved.

The captain testified that the incident occurred on May 4, 2025, at approximately 6:30 PM. The weather was clear and dry. There was a glare on the Fort George side as the sub was low in the west, however the captain stated this was not a factor in the incident. The wind was 10 knots and there was an ebbing current.

The captain testified that he had not consumed any alcohol or drugs on the date of the incident. He takes [redacted] which does not cause impairment.

The captain was alone in the cockpit when the incident occurred and stated this is standard practice. The engineer on duty was Thomas Suneson. The engineer was below the deck in the engine room.

The captain stated that there were 7 vehicles on the deck. He did not know how many passengers were in the vehicles. The captain advised that he received all clear from the deck crew and prepared to depart from the Mayport side.

The captain stated that the ship was prepared for departure as follows: The A console was active with the A throttle set at 200 RPM and the B Throttle set at 200 RPM in opposite direction. The rudder was forward midship 15 degrees. In this state, the vessel is pushing against the Mayport side access bridge. The B side was not active, but the captain pre-set the throttles and rudders in preparation for the switch over to the B side control. The B Side A and B Throttles were set at 350 RPM and the rudder set at full so that the boat would pivot to the port side. The captain testified that he proceeded to press both B console station transfer buttons. The captain stated that after pressing the buttons, the tachometer for both A and B engine increased to 350 RPM as expected and that he observed both indicator lights on the A and B throttles were lit, indicating a successful transfer to the B console. The vessel began to slowly pull away from the dock. The captain then attempted to decrease the B engine power with the B console throttle. The captain stated that the engine RPM did not decrease indicating that the B throttle was not responding. At this point he realized there was a problem. He began moving the B throttle forward and back with no response. The captain then proceeded to check for throttle response from the A engine. He stated that he pulled back on the A throttle which did reduce the A engine power. The captain stated that this was the cause of the incident. When he backed power off the A engine, this allowed the B engine to propel the vessel back toward the dock. The captain moved to try and engage the A console controls to regain control, but it was too late, and the vessel struck the access bridge. The impact caused him to lose balance, but he did not fall down. He was able to engage the A console controls and set the engines to maintain position against the access bridge.

We inquired if the captain had called down to the engineer prior to the impact. He stated that he did place one call to the engineer a few seconds prior to the impact but received no response. He did not recall reporting a runaway engine.

SHIP ENGINEER THOMAS SUNESON:

We conducted a non-recorded interview with the ship's engineer. Present during the interview was Michael Esely - St. Johns River Ferry Port Engineer.

Thomas Suneson is a 68-year-old male born on [redacted]. He resides at [redacted]eet, Jacksonville, FL 32204. He can be reached on his cell phone at [redacted]. He is employed by HMS Ferries Inc., as an engineer and has been employed in that capacity for 4 years.

The engineer stated that he was on duty on May 4, 2025, when the incident occurred. He was in the engine room below the deck. He stated that he has no way to know when the vessel has left dock, but he can tell what is happening with the engines. He recalled that just prior to the impact, the engines were at a steady state with 45 PSI on the governor, which indicates about 350 RPM on both engines. A few moments before the impact he received a call from the captain that he had a runaway B engine. The engineer moved to the throttle control in the engine room which was still reading 45 PSI which does not indicate a runaway engine. He could not move the throttle as it was under pressure, which is normal. Out of caution he killed the engine with the kill switch a moment before the vessel struck the dock. He could not recall what engine A was doing as he was focused on Engine B.

MAYPORT LANDING ACCESS BRIDGE DAMAGE:

JTA coordinated with General Contractor Mike Baker International to schedule a bridge inspection with Morales Engineering Consultants. This inspection occurred on May 5, 2025.

JTA also retained CED Technologies Inc. to conduct a separate investigation. This inspection occurred on May 6, 2025. George F. Mayforth, PE, PMP | Civil Engineer
CED Technologies Inc. conducted an inspection of the bridge.

We were provided with a copy of the report from Morales Engineering Consultants on May 8, 2025. We reviewed the report and forwarded a copy to Mr. Mayforth. Mr. Mayforth will provide a report advising if he agrees with the assessment by Morales.

LEXINGTON INSURANCE COMPANY:

A claim was opened by Lexington (AIG) under policy 61384929 for Insured "JTA Inc."
The claim file number is NYC25996630. The adjuster is Brian Seaton with Lexington.
As instructed, we contacted Mr. Seaton and will attend his inspection scheduled for May 12, 2025, at 1:30 PM.

REMARKS:

Based on our investigation the damage to the Mayport Landing Access Bridge was the result of human error on the part of captain Baldwin. While there is evidence of prior problems with the B side throttle, the investigation by multiple experts revealed no mechanical breakdown, or failure was involved in this incident.

We have attached a short photo report with photos of the B console throttle controls for reference.

Captain Baldwin testified that he believed that he properly engaged the B console controls to depart from Mayport. When attempting to reduce B engine power at the B side console, he testified that the B throttle was not responsive. At that point the vessel was still stable as the A engine was pushing the vessel away from the dock. Captain Baldwin reacted to the lack of throttle response by moving the B throttle back and forth but continued to receive no response. At this point, Captain Baldwin should have checked to make sure that the B console B throttle indicator light was still lit or potentially attempted to gain control of B engine by switching control to the A side. Instead, Captain Baldwin decided to check for A throttle response by backing off power on the A engine. This action removed the counter force of the A engine and allowed the B engine to propel the vessel to the dock where it struck the Mayport Landing Access Bridge causing substantial damage.

We will follow up with CED Technologies Inc. for the reports from Mr. Krall and Mr. Mayforth and will continue to assist with the investigation as needed.

Sincerely:

Zacharey Coleman (zcoleman@aadjusters.com)
SENIOR ADJUSTER

Enclosures:

1. Photo report
2. Captain and engineer logs
3. Morales Engineering report and diagram
4. MECI Service Report

Allied Adjusters Inc.

Allied Adjusters Inc.
1555 Blanding Blvd
Jacksonville, FL 32210

Insured:	Jacksonville Transportation Authority
Property:	100 Lavilla Center Drive Jacksonville, FL 32204
Claim Rep.:	Zacharey Coleman
Company:	Allied Adjusters Inc.
Estimator:	Zacharey Coleman
Company:	Allied Adjusters Inc.

Claim Number: 45356 **Policy Number:** **Type of Loss:**

Date Contacted:	5/5/2025 8:00 AM		
Date of Loss:	5/4/2025 6:30 PM	Date Received:	5/5/2025 8:00 AM
Date Inspected:	5/6/2025 10:00 AM	Date Entered:	5/8/2025 2:52 PM

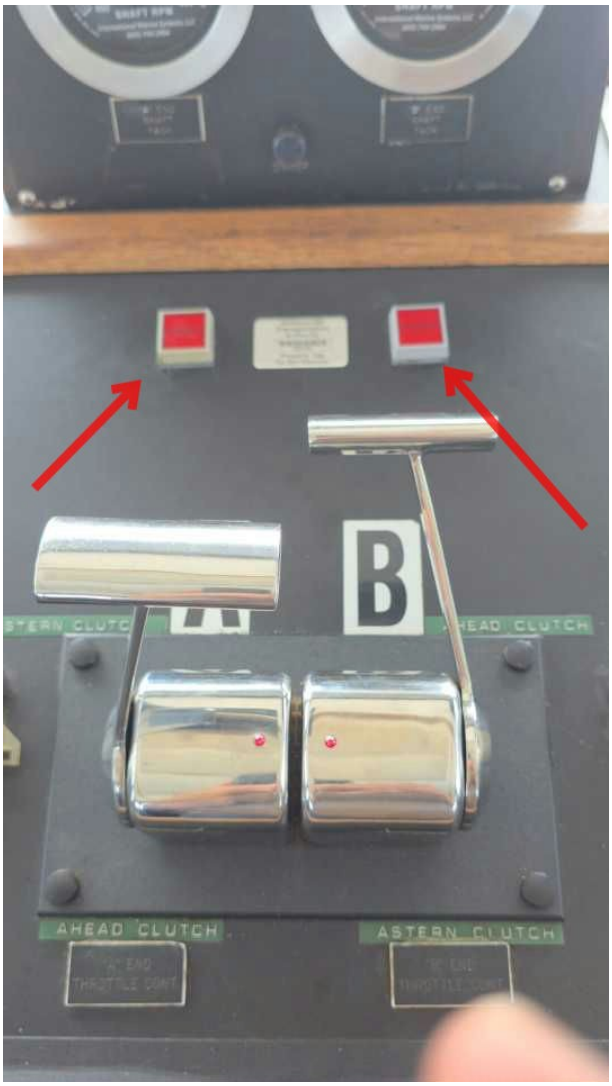
Price List:	FLJA8X_MAY25 Restoration/Service/Remodel
Estimate:	2025-05-08-1452

Allied Adjusters Inc.
1555 Blanding Blvd
Jacksonville, FL 32210

1 7-20250507_090029 Date Taken: 5/7/2025

B console throttles

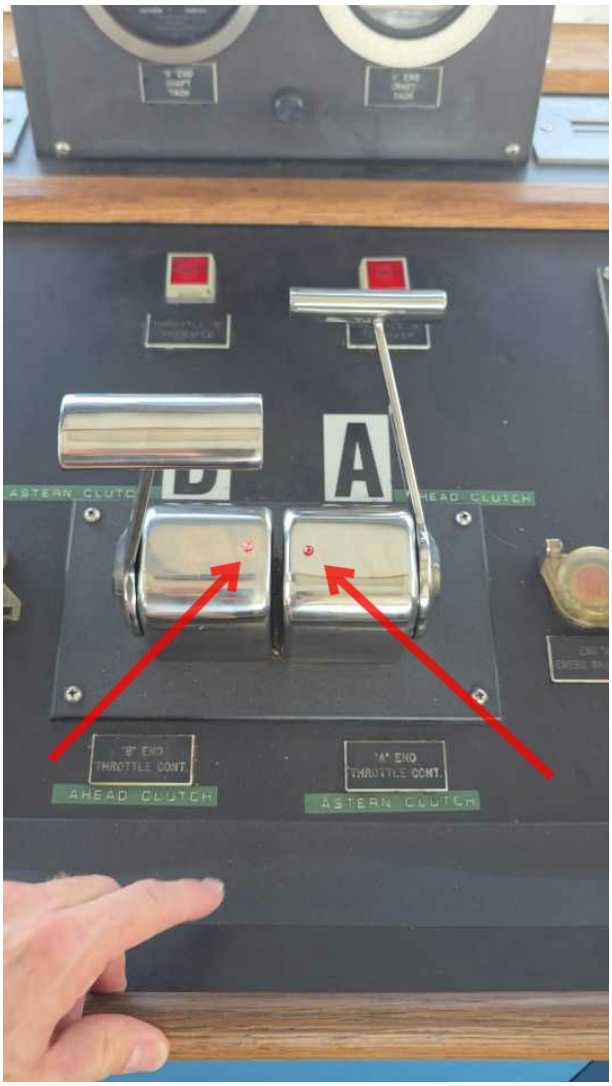
Allied Adjusters Inc.
1555 Blanding Blvd
Jacksonville, FL 32210



2 8-20250507_103952_exported_0 Date Taken: 5/7/2025

Arrows to Station transfer buttons

Allied Adjusters Inc.
1555 Blanding Blvd
Jacksonville, FL 32210



3 9-20250507_103952_exported_10643 Date Taken: 5/7/2025

Arrows to throttle indicator lights

Internal Incident and Investigation Report

Final Review

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1. Executive Summary

On May 4, 2025, at approximately 1833, the *Jean Ribault* made contact with the Mayport Ferry ramp while maneuvering away from the Mayport slip during an ebb tide. The vessel was operating from the B control station at the time. No injuries were reported, and the vessel sustained no damage. All passengers and vehicles were safely disembarked, and operations were suspended pending further assessment.

Post-incident inspections conducted by the U.S. Coast Guard, internal engineering teams, and a third-party contractor (MECI) confirmed no mechanical or electrical faults in the vessel's throttle or control systems. The vessel was cleared by USCG to return to service on May 5, 2025.

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2. Crew and Passenger Information

- **Captain on Duty:** William Baldwin
- **Engineer on Duty:** Thomas Suneson
- **Crew Roster:** Cynthia Higginbotham, Jorge Avila Molina, Ryan Burns, Nathan Rush
- **Alcohol Testing:** Completed at ~2h10m post-incident, negative results
- **Drug Testing:** Completed offsite, results pending
- **Passengers in Vehicles:** 13
- **Vehicles Onboard:** 7
- **Walk-on Passengers:** 0

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3. Vessel Condition

- **Immediate Damage to Vessel:** None
- **Post-Incident Inspection Findings:** No mechanical faults
- **HELM Records:** Normal operational parameters

Prepared by: Dexter Smith, General Manager **Date:** May 21, 2025	**Confidentiality Notice:** *This document contains preliminary information and is intended solely for internal use and review by JTA. Contents are subject to revision pending completion of the investigation.*

4. Preliminary Assessment of Contributing Factors

Following the incident, HMS Ferries conducted a structured review of all potential contributing factors in coordination with the U.S. Coast Guard, Marine Engine Controls, Inc. (MECI), and internal engineering and operations teams.

1. **Mechanical/Electromechanical Issue**
   The captain initially reported a lack of throttle response while operating from the B control station, raising concerns about a potential malfunction in the engine control or helm transfer system. On May 7, MECI technicians boarded the vessel and performed a comprehensive inspection, including more than 20 control transfer tests across both helm stations under varied conditions. All tests were successful, and no faults were detected. Control head wiring, plug terminations, solenoids, and switches were confirmed to be intact and functioning properly. These findings were independently corroborated by USCG and HMS engineering personnel. As a result, the probability of a mechanical or electrical failure is now considered low.

2. **Operational Oversight**
   The *Jean Ribault* employs a dual-switch protocol for transferring throttle control between helm stations. It is possible that control of the B-engine was not successfully transferred during the transition from the A to B console. This would result in the throttle appearing unresponsive at the B station, despite all systems functioning correctly.

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5. Corrective Actions Underway

- Continue to monitor and evaluate throttle control and helm transfer systems.
- Fully assess MECI's recommendation to implement a single-switch transfer system and add secondary visual indicators for station control awareness.
- Conduct a comprehensive review of training materials, SOPs, and crew transfer protocols, ensuring procedural clarity and operational consistency across all operators.

Prepared by: Dexter Smith, General Manager **Date:** May 21, 2025	**Confidentiality Notice:** *This document contains preliminary information and is intended solely for internal use and review by JTA. Contents are subject to revision pending completion of the investigation.*

6. Regulatory Reporting

While it remains under review whether this incident qualifies as a Serious Marine Incident (SMI) under 46 CFR §4.05, HMS Ferries voluntarily conducted post-incident alcohol and drug testing in accordance with best practices and notified the U.S. Coast Guard out of an abundance of caution.

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7. Supporting Documentation (Available Upon Request)

- USCG Incident Notification Record
- MECI Inspection Report – May 7, 2025
- February 2025 MECI Invoice and Work Summary

HMS Ferries remains committed to operational transparency, safety, and continuous improvement. This report reflects a thorough and good-faith effort to evaluate contributing factors and identify corrective actions. Final findings and any procedural updates will be shared upon completion of the internal review.

Prepared by: Dexter Smith
Date: May 21, 2025
Company: HMS Ferries, Inc.

Confidentiality Note: This document contains preliminary findings and is intended for internal use and authorized external review. Final conclusions remain pending until completion of all investigative actions.

Prepared by: Dexter Smith, General Manager **Date:** May 21, 2025	**Confidentiality Notice:** *This document contains preliminary information and is intended solely for internal use and review by JTA. Contents are subject to revision pending completion of the investigation.*

MORALES CONSULTING ENGINEERS

PURPOSE

Observe impact damage to the Access Bridge on the Mayport Landing.

BACKGROUND

On May 4th, 2025, around 6:30 PM, the St. Johns River Ferry purportedly experienced a loss of power while approaching the Mayport Landing. The ferry then impacted the Access Bridge.

OBSERVATIONS

We arrived on site at approximately 8:30 AM on May 5, 2025. Initial observations indicated that the Access Bridge was subjected to a significant impact. The bumper blocks at the ends of the bridge had impacted the backwall and were damaged. Further investigation of the deck showed multiple sheared off bolts that formerly held the steel grating and curbing in place. Upon reaching the free end of the Access Bridge, we asked the crew to back out the ferry and lift the access bridge so that we could observe the underside of the bridge. The underside revealed the extent of the damage. When the ship impacted the access bridge it caused the curved end Facia Girder to laterally deflect and rotate back under the bridge. This deformation caused all the stringers in the first bay to buckle at their connection points to the first floor beam. The first floor beam also deflected and rotated causing all the stringers in the next bay to also buckle at the connection to the second floor beam. Although this was obviously not the first impact with the facia girder it appears to have been significant and had a cumulative effect from previous impacts that has caused significant damage. We were then provided with access to a small boat which allowed us to get under the entire span and determine the extent of the damage. The amount of structural damage at this time has led to the recommendation that the Access Bridge be closed to vehicular traffic. This damage does not appear to affect the structure's capacity to remain in place, but with so many compromised structural members traffic should be prohibited.

RECOMMENDATIONS

It is recommended to replace the curved Facia Girder, all the stringers supporting the Facia Girder, the first Floor Beam and all the stringers in the second span. It appears that all the grating can be reused, the curbing should be able to be restored and reused. For the repairs I would recommend that the access bridge be removed and placed on dunnage so that the damaged structural elements can be replaced. This would provide for safer, cleaner and higher quality repair.

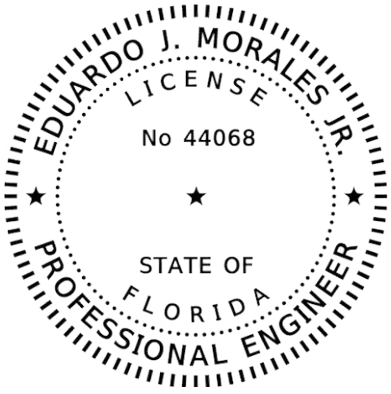
For docking procedures, it has been recommended that the access bridge be held in a position above the deck until the ship is in position, then the access bridge can be lowered onto the deck. This would prevent damaging the Access Bridge with the impact of a hard landing.

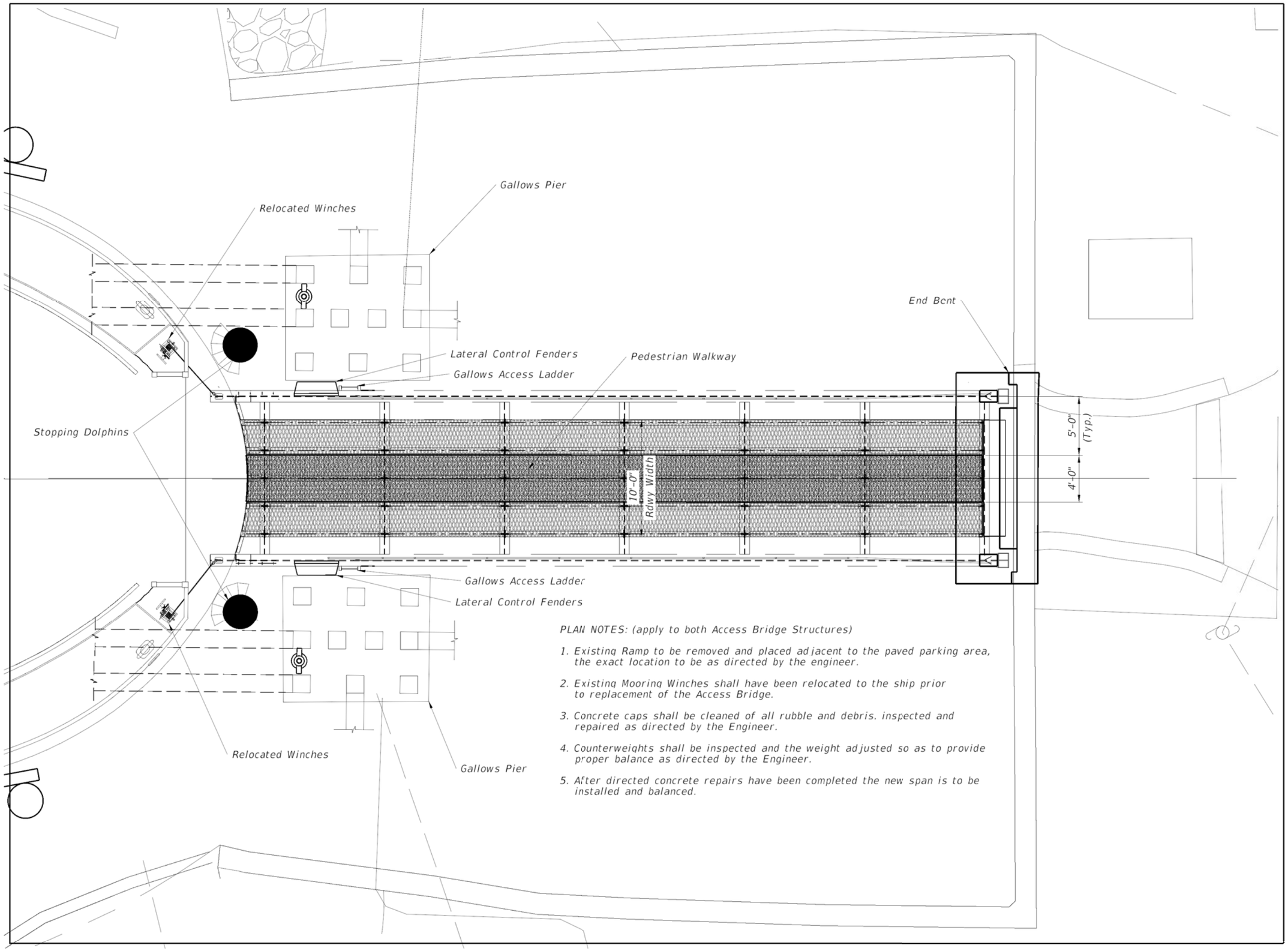
Thank you for allowing us to provide this service. If you have any questions or need additional assistance, please call or email.

Sincerely,

Morales Consulting Engineers, Inc.

Ed Morales Jr., PE.
(904) 434-4366





PLAN NOTES: (apply to both Access Bridge Structures)

1. *Existing Ramp to be removed and placed adjacent to the paved parking area, the exact location to be as directed by the engineer.*
2. *Existing Mooring Winches shall have been relocated to the ship prior to replacement of the Access Bridge.*
3. *Concrete caps shall be cleaned of all rubble and debris. inspected and repaired as directed by the Engineer.*
4. *Counterweights shall be inspected and the weight adjusted so as to provide proper balance as directed by the Engineer.*
5. *After directed concrete repairs have been completed the new span is to be installed and balanced.*

St. Johns River Ferry Fender Replacement

Jacksonville, Florida

MORALES CONSULTING ENGINEERS

3832-010 Baymeadows Rd,
Suite 132
Jacksonville, Florida 32217
office: 904.434-4366
www.morales-ce.com
Certificate of Authorization No. 30712

REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

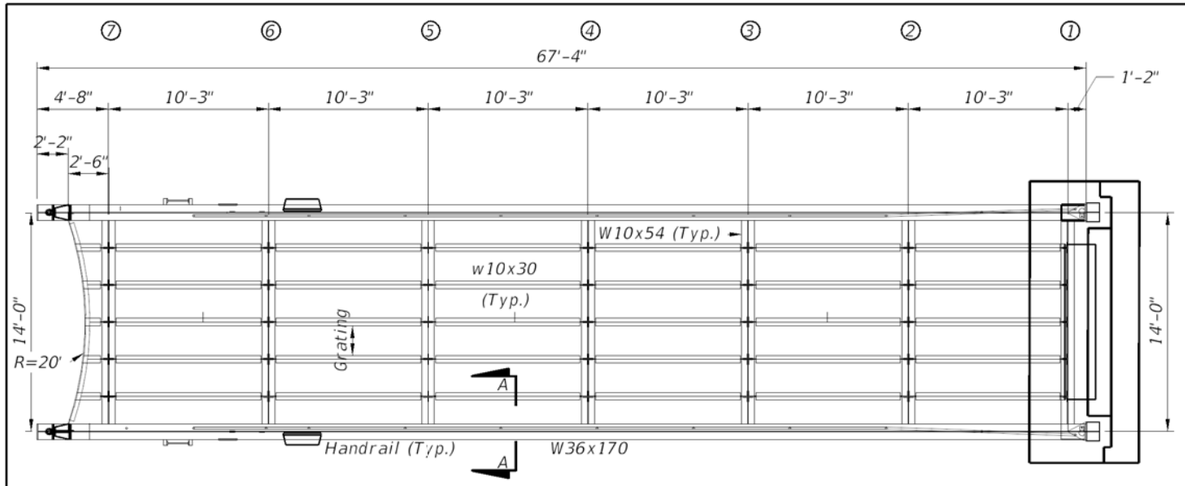
DRAFT

PHASE III

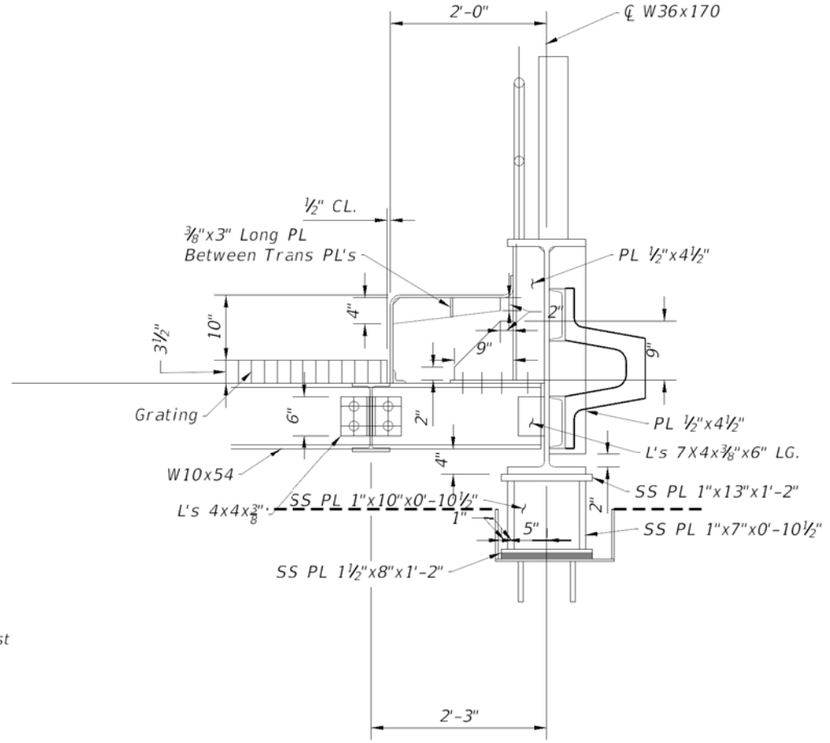
MAYPORT ACCESS BRIDGE PLAN

Project Manager:	EJM JR
Designed by:	EJM JR
Drawn by:	EJM JR
Checked by:	EJM SR
Date Issued:	06/12/18
Scale:	NTS
Date:	
Project Number:	File Name:
Drawing Number:	

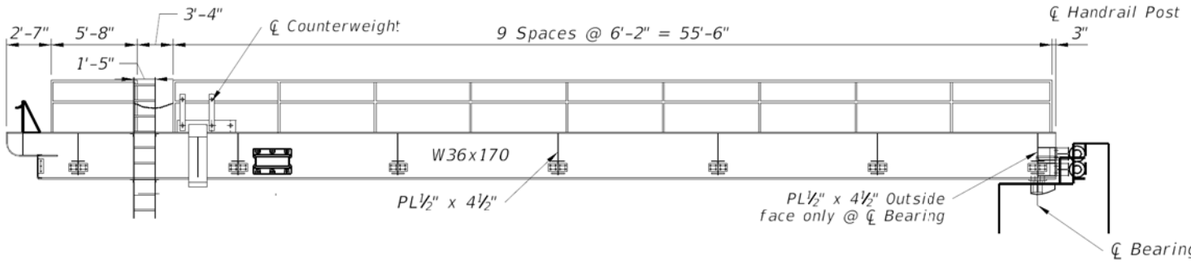
AB-101



FRAMING PLAN



SECTION A-A



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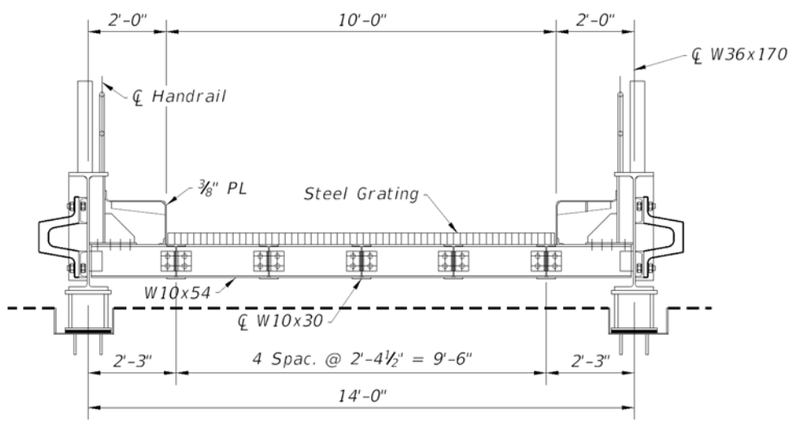

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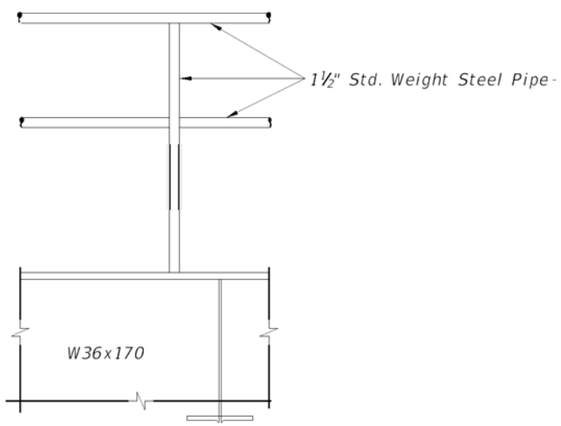
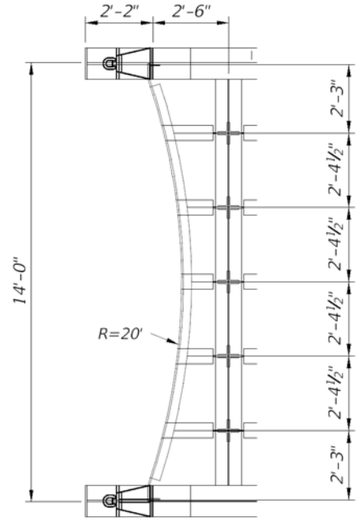


HANDRAIL DETAIL



SEAWARD SPAN DETAILS

St. Johns River Ferry Fender Replacement

Jacksonville, Florida

MCE
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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

DRAFT

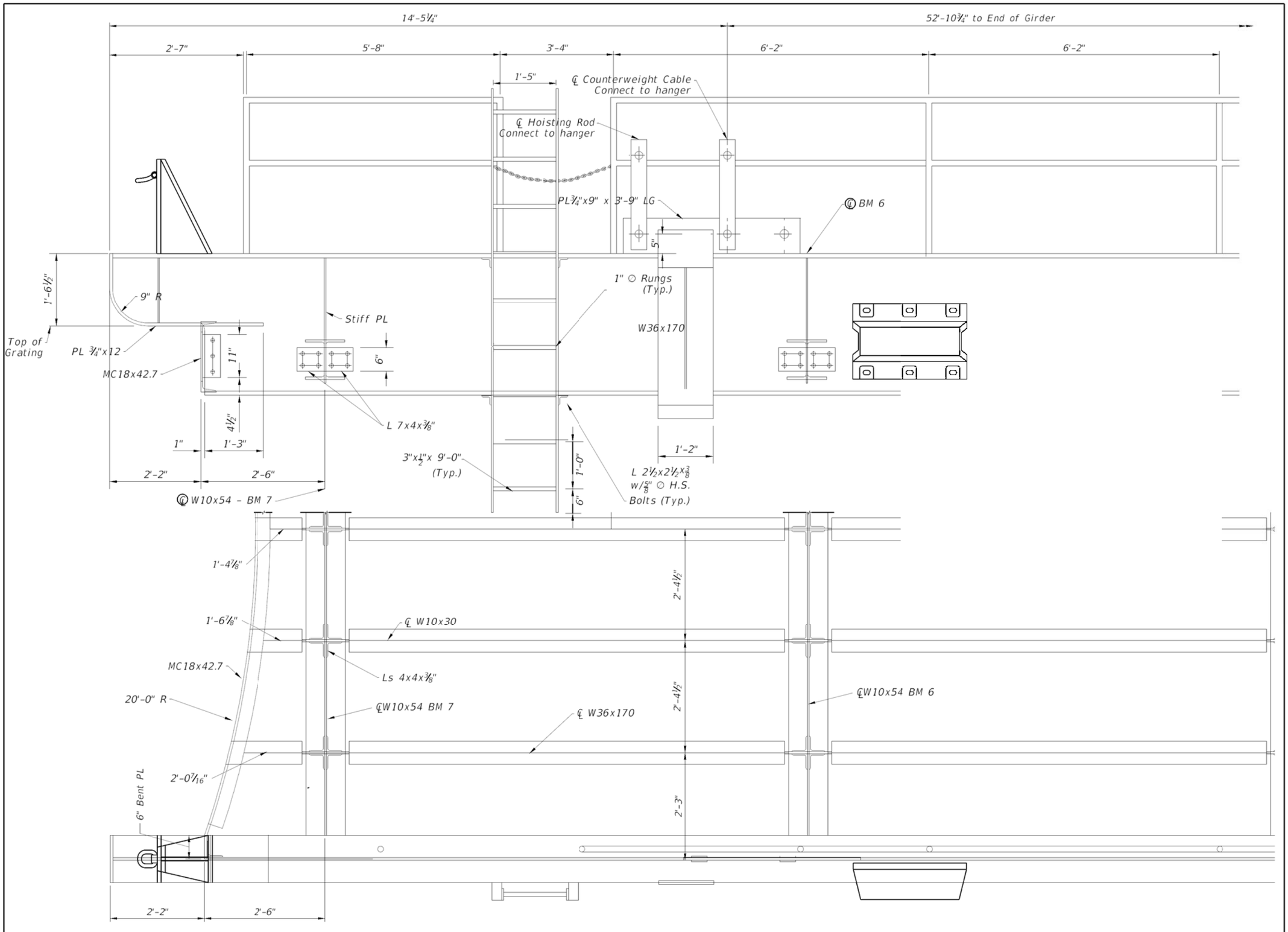
PHASE III

MAYPORT ACCESS BRIDGE FRAMING PLAN & DETAILS

Project Manager:	EJM JR
Designed by:	EJM JR
Drawn by:	EJM JR
Checked by:	EJM SR
Date Issued:	06/12/18
Date:	
Scale:	NTS
Project Number:	
File Name:	

Drawing Number:

AB-103



St. Johns River Ferry Fender Replacement

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NO.	DATE	DESCRIPTION	REV.	CK'D

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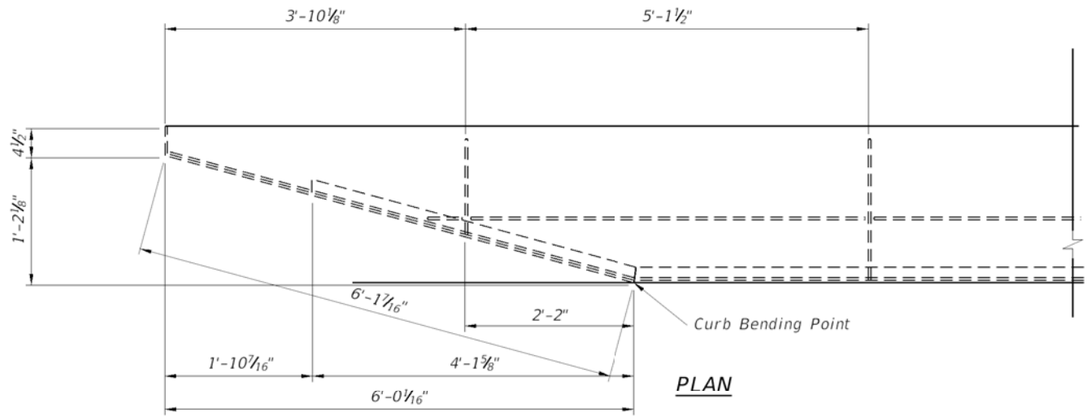
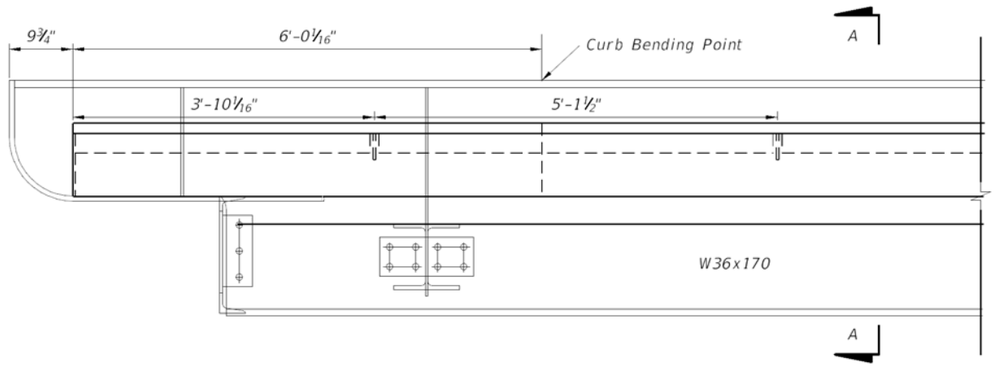
PHASE III

MAYPORT ACCESS BRIDGE DETAILS

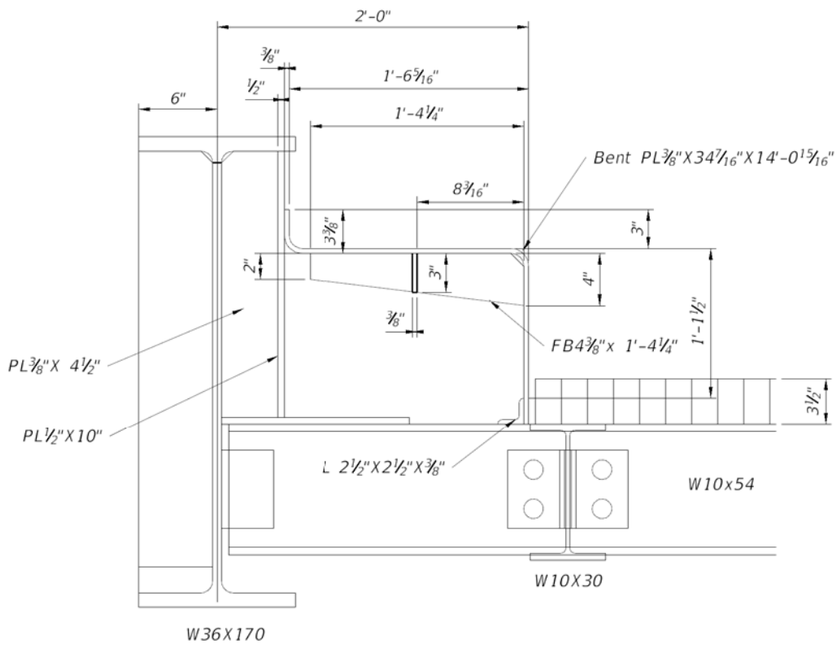
Project Manager:	EJM JR
Designed by:	EJM JR
Drawn by:	EJM JR
Checked by:	EJM SR
Date Issued:	06/12/18
Scale:	NTS
Date	
Project Number:	File Name:
Drawing Number:	AB-105



PLAN



ELEVATION



SECTION A-A

St. Johns River Ferry Fender Replacement

Jacksonville, Florida

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office: 904.434-4366
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Certificate of Authorization No. 30712

REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

DRAFT

PHASE III

MAYPORT ACCESS BRIDGE CURB DETAILS

Project Manager:	EJM JR
Designed by:	EJM JR
Drawn by:	EJM JR
Checked by:	EJM SR
Date Issued:	06/12/18
Scale:	NTS
Date	
Project Number:	File Name:
Drawing Number:	AB-107

MECI

Marine Engine Controls, Inc.

SERVICE REPORT

DATE: 05/07/2025
VESSEL: JEAN RIBAULT
COMPANY: MAYPORT FERRY
CHIEF: UNKNOWN
P/E: MIKE
TECHNICIAN: DF

SERVICE DESCRIPTION

Requested on 05.06.25 By Mike Via Phone 904-333-9690 @ 12:08 To Complete a System Inspection, Due To System Operation Concerns. Vessel Intended to leave on B Side Controls with A Side Controls Previously Engaged & B Engine Actively in Gear Holding Vessel Against Dock During Loading & Station Transfer. Captain Attempted to Take Command of B Side Controls and only Obtained Control of 1 Engine (Engine A) at the B Side Operating Station. This resulted in the Location A Side Control Still Being Active & Controlling the B Main Engine and Gear Box, and set to the previously desired throttle position and clutch engagement (Rpm & Clutch Direction That Was Holding Vessel At The Dock).

We visited the vessel on 05/07/2025 @ 0900 and met with Mike, Thomas, Tyler & Zacharey. Upon arrival we discussed the presumed control locations and how the system is designed and should operate prior to testing. So all parties were aware of what should be seen during testing and prior to any controls being operated, to try to validate the problem of B Engine not transferring from the A Side Operating Station. All testing was completed with all parties above observing function and operation of each component / test.

The first item inspected was a visual inspection of the transfer button, switch contact and wiring. All items were properly terminated; no broken or loose wires present and mounts for the switch contact assembly attached properly.

The second items, control heads, control head plugs / wiring were visual inspected and deemed to be properly connected and no visible damage .

We then moved to the engine room Control Units visually inspecting (Main Engine Board, Solenoids, Tcm's & Wiring / Input from Control Heads. No Issues Found. Plugs were securely in place for all stations, and everything looked to be in operational condition.

This system utilizes a pressure switch / source voltage interrupter from Source Power to the Control Unit. We temporally installed alligator clips to bypass the pressure switches to static test controls (Test with Main Engines Offline). Once installed and system was Energized, we moved back up to the bridge to test control transfer's.

Appx 20 or more station transfer's were completed starting with both controls in neutral position, Then again in presumed control position when issue arose (A Station B Engine in Ahead appx.300rpm And B Station in Neutral). Then with (A Station B Engine in Ahead appx.300rpm And B Station B Engine in Ahead appx.300rpm). Multiple other configurations were checked and transfer was successful every time. No Issues Found !

Final test to complete. Control head operation from all stations. Testing all clutch directions and speed from every location with visible and audible activation/confirmation in the engine room. All tests completed were successful and no faults found.

Preventive Measure / System Simplification To Be Completed:

Install a single switch setup for the transfer of both control heads simultaneously at each station in the bridge. This will replace the independent switching setup for each engine at the A & B Locations. We will also be adding secondary light indication in the console penetrations of the old buttons for secondary visible indication of station in command, To reflect the control head indicators currently installed.

May 23, 2025

Mr. Zacharey Coleman
Senior Adjuster
Allied Adjusters, Inc.
P. O. Box 47198
Jacksonville, FL 32207

Reference: JTA Mayport Ferry Claim
CED Case Number: 75687.1

Dear Mr. Zacharey Coleman,

At your request, CED Technologies, Inc. (CED) performed an investigation of an incident which occurred at the Mayport ferry landing that allegedly involved an issue with the ferry *Jean Ribault*'s throttle control. CED was asked to determine if an issue with the engines or throttle controls existed, and, if so, how it may have contributed to the incident. Attached at the end of this report is the Curriculum Vitae of this engineer's education, experience, and qualifications for reference.

CED's investigation is ongoing; therefore, the opinions and conclusions presented in this report are only as current as the date of issuance. CED has not finalized any conclusions or opinions as of the date of this report as discovery is ongoing. CED reserves the right to add conclusions should new information become available.

Background

It was reported that on or about May 4, 2025 at 6:30 pm, the JTA Ferry *Jean Ribault* was departing its slip on the Mayport side of the St. Johns River. While approximately 6-10 feet from the loading bridge, the B-end engine allegedly stopped responding to throttle inputs when the A-end throttle was reduced and the vessel moved back towards the bridge, striking it. The vessel is shown below in Figure 1.

FIGURE 1: THE *JEAN RIBAULT* AT ONE OF ITS SLIPS[1]

Investigation

CED's investigation included an inspection of the vessel and document review outlined below.

Document Review

CED's investigation of this matter also included a review of the following documents and/or resources:

1. *Jean Ribault* Captain's Log from February 26, 2025;
2. *Jean Ribault* Engine Room Rounds from February 26, 2025;
3. *Jean Ribault* Captain's Logs from April 4, 2025, to May 6, 2025;
4. *Jean Ribault* Engine Room Logs from April 10, 2025, to May 6, 2025;
5. *Jean Ribault* Engine Room Rounds from April 7, 2025 to May 6, 2025;
6. *Jean Ribault* February 2025 Monthly Report to JTA;
7. Marine Engine Controls, Inc. Invoice #31353, dated February 13, 2025; and
8. Marine Engine Controls, Inc. Service Report, dated May 07, 2025.

Jean Ribault Captain's Log from February 26, 2025

A review of this document revealed the following information:

- At 0930, the "B" engine had intermittent surging while in the Fort George Slip.
- At 1115, the vessel was taken out of service "due to Engine B throttle problems."
- At 1145, the throttle was reported as repaired, and the vessel was returned to service at 1200 after successful "sea trials."

Jean Ribault Engine Room Rounds from February 26, 2025

A review of this document revealed the following information:

- Remarks: *B-Eng Throttle Hunting Loose Brake wire: Repairs made*

[1] https://www.jacksonville.gov/city-council/st-johns-river-ferry-commission/ferry-operations

Jean Ribault Captain's Logs from April 4, 2025, to May 6, 2025

A review of this document revealed the following information:

- Captain "Bill D" worked 23 shifts, Captain "Sam" worked 22 shifts, Captain "Chris" worked 16 shifts, and Captain "Baldwin" worked 3 shifts.
- April 16, 2025 – "B" engine emergency stop tested and deemed functional.
- April 23, 2025 - U.S. Coast Guard was aboard for quarterly inspection – no issues noted in log.
- April 30, 2025, at 10:16 am - *A Engine Revs up From 180Rpm-220Rpm in FT George slip.*
- May 2, 2025:
    - 1:40 pm – *A Engine revs 50 rpm.*
    - 2:42 pm – A engine revs *up, then down. Happens at 200 rpm*
    - 2:51 pm – *B Engine 25-50 RPMS u/w.*
- May 3, 2025 – *A Engine revs 50 rpm in FT George Slip*
- May 4, 2025: Captain "Baldwin," Engineer "Sonny"
    - 6:43 am – *Engine A rev's up to 50 rpm increase.*
    - 6:30 pm - *"B" ENGINE JAMMED [?] AT 300 rpm AHEAD; RETURNED TO RAMP (MAYPORT); HIT VERY HARD…*
    - 7:05 pm - *ENGINEER RPTS ENGINE FIXED…*
- May 5, 2025, at 13:15 - *TEST MAIN ENGINES WITH USCG MR. CAMBELL. TEST COMPLETE.*
- May 6, 2025, at 10:30 - *Tested B Engine FWD/RVSE with engine room. Tested B engine E-Stop.*

Jean Ribault Engine Room Logs from April 10, 2025, to May 6, 2025

A review of this document revealed the following information:

- April 23, 2025, 9:30-11:00 am – U.S. Coast Guard aboard for quarterly inspection.
- May 4, 2025:
    - 6:45 am - *CAPT SAM REPORTED "A" MAIN ENG RPM CREAP 50+ TURNS - INSPECTED GOVERNOR - CONTROLS & INPUTS - ALL NORMAL*
    - 8:00 pm - *Roughly 1830 Captain Call said B-Engine throttle control not reacting. I trip Engine Shut Down Machinery on shore Power startup Roughly 2000 Ran + Tested Engines all in good working order; Tested Throttle control switch seemed in good working order. Drop screw on switch and Had to Replace switch. Started Engines and test Ran all in good working order.*

- May 5, 2025:
    - 10:30 am - *Inspection of (A) End Throttle/Pressure switch wiring - all normal*
    - 1:15-1:30 pm – Main engines tested for U.S. Coast Guard

Jean Ribault Engine Room Rounds from April 7, 2025 to May 6, 2025

A review of this document revealed the following information:

- April 23, 2025, am – *USCG QUARTERLY INSPECTION*
- April 26, 2025, pm – *B-MAIN ENG Cleaned Brake Disc.*
- May 4, 2025, am - *0645-CAPT STATED "A" ME HUNTING 50 RPMS - INSPECTED - ALL SYSTEMS NORMAL NO FAULT FOUND*
- May 4, 2025, pm – *B-Engine Throttle trouble trip Engine*
- May 5, 2025, am – *INSPECTION OF WIRING ON (A) END THROTTLE WIRING*
- May 5, 2025, pm – *Tested Main Engs for Const load*

Jean Ribault February 2025 Monthly Report to JTA

A review of this document revealed the following information:

- Page 1 - Missed 3 runs on February 26th due to B Main Engine throttle switch.
- Page 4 - Work items completed: *Replaced B MDE throttle control in wheelhouse, console B*.

Marine Engine Controls, Inc. Invoice #31353, dated February 13, 2025

A review of this document revealed the following information:

- Technical representative service call including mileage.
- Parts/services included:
    - *SS Control Head w/opto switching 10VDC*
    - *REBUILD CONTROL HEAD WITH 10VDC BOARD HIGH OUT SWITCHING (Cam Not Included)*

Marine Engine Controls, Inc. Service Report, dated May 07, 2025

A review of this document revealed the following information:

- Incident description as understood by Marine Engine Controls, Inc. (MECI):

  Vessel intended to leave on B Side Controls with A Side Controls Previously Engaged & B Engine Actively in Gear Holding Vessel Against Dock During Loading and Station Transfer. Captain Attempted to Take Command of B Side Controls and only Obtained Control of 1 Engine (Engine A) at the B Side Operating Station. This resulted in the location A Side Control Still Being Active & Controlling the B Main Engine and Gear Box, and set to the previously desired throttle position and clutch engagement (Rpm & Clutch Direction That Was Holding Vessel At The Dock.)

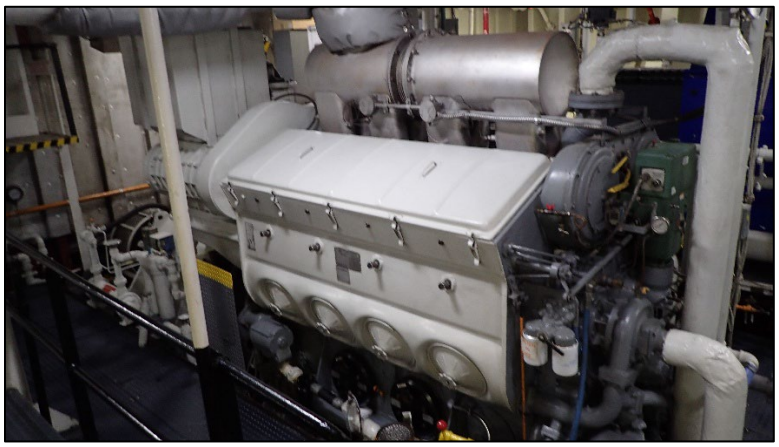
- Objective of May 7, 2025 testing: *…to try to validate the problem of B Engine not transferring from the A Side Operating Station.*
- Visual inspection of the transfer button, switch contact and wiring showed: *…no broken or loose wires present and mounts for the switch contact assembly attached properly.*
- The control heads, along with their plugs and wiring, were deemed to be properly connected with no visible damage.
- Visual inspection of the engine room control units did not reveal any issues.
- 20+ station transfers were completed starting with both controls in the neutral position. Additional tests were performed with the station controls in the presumed position as at the time of incident as well as other configurations. No issues were discovered in any of the tests.
- All clutch directions and speeds were tested from every control head location with visual/audible confirmation in the engine room. No faults found.
- Recommended system changes:
  - *Install a single switch setup for the transfer of both control heads simultaneously at each station in the bridge.*
  - Add: *secondary light indication in the console penetrations of the old buttons for secondary visible indication of station in command.*

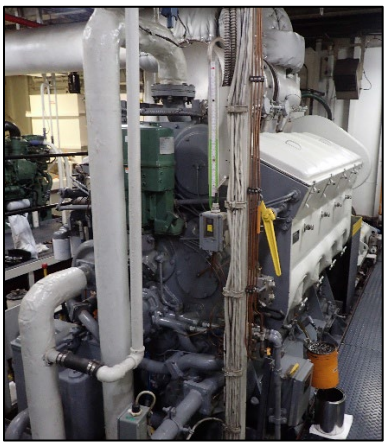
Inspection of the Vessel

CED's inspection was conducted on the morning of May 6, 2025. The inspection was documented with photographs and videos. Inspection photographs are provided for reference in a separate document *(Appendix A)*. Some of the photographs have been reformatted and appear as figures in this report for illustrative purposes.

Inspection revealed that the vessel is powered by two Electro-Motive Diesel (EMD) model 645, eight-cylinder engines remanufactured by Hatch & Kirk in 1995 (Figures 2 and 3). These engines are arranged facing each other along the vessel's center line. The B-end engine is nearest

the Fort George landing while the A-end engine is nearest the Mayport landing. Power is transferred to the props via clutched, reversible reduction gears with an approximately 3 to 1 gear ratio. Hence for about every three rotations of the engine, the corresponding propeller rotates once.





FIGURES 2 AND 3: B-END ENGINE (LEFT), A-END ENGINE (RIGHT)

Throttle, clutch, and shaft brake control was managed by an electronic system with the main controllers mounted in the engine room (Figure 4).

FIGURE 4: B-END ENGINE ELECTRONIC ENGINE CONTROLS

Both engines were equipped with Woodward PGA series governors. The governor itself translates a variable air pressure signal from the control system to a corresponding mechanical movement of the fuel control racks, and subsequent increase in engine speed, without allowing the engine to exceed its maximum intended speed. The governor also allows for shutdown of the engine by cutting off the flow of fuel at the fuel injectors.

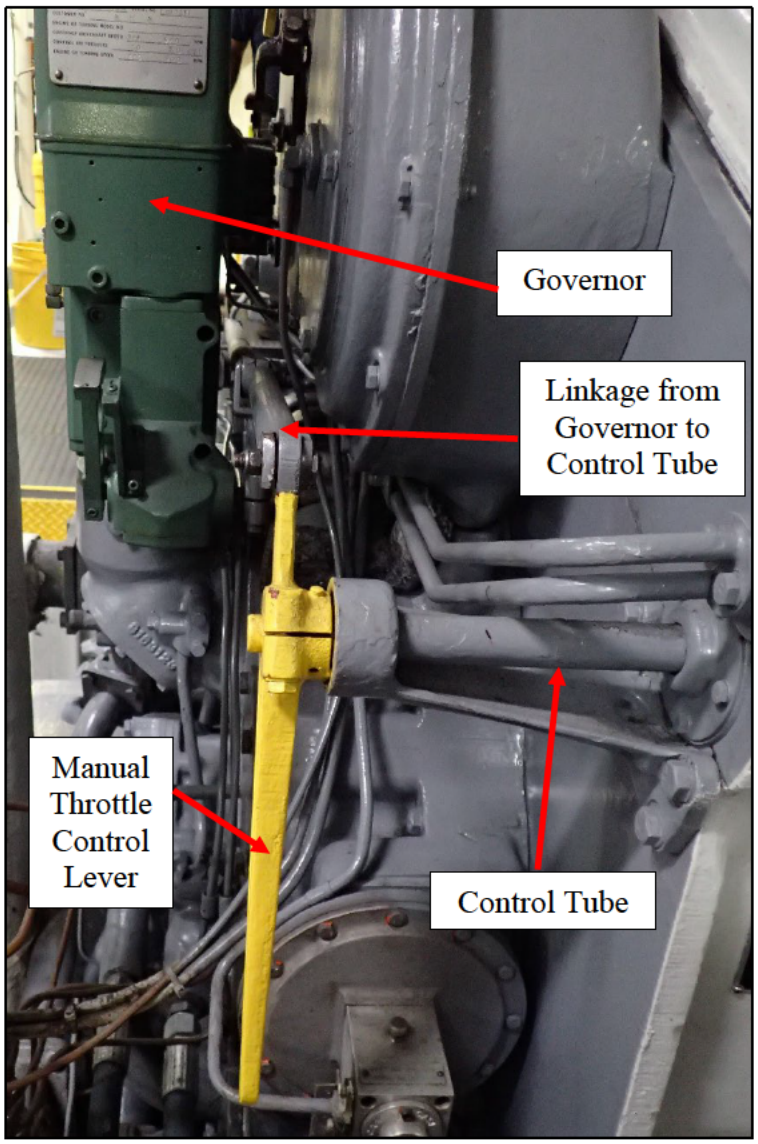
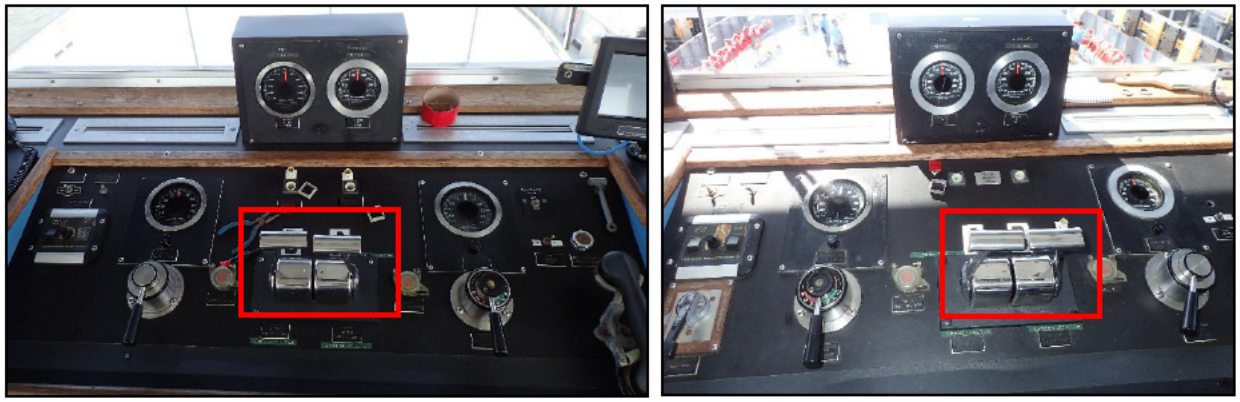


FIGURE 5: B-END ENGINE GOVERNOR, LINKAGE, AND CONTROL TUBE WITH MARKUPS

The idle speed of the B-end engine governor, with no air pressure signal, was set near 350 RPM. In actuating the throttle of the B-end engine manually via the lever in Figure 5, without the engine running, there was no apparent slack or unintended movement in the assembly.

The wheelhouse at the center of the bridge across the vessel (elevated structure above the vehicle deck seen in Figure 1) contained two operator stations directly across from one another with similar, but not identical, controls, at each location (Figures 6-7). Control heads for the engines are circled in red. Note that only the propeller shaft speeds, in Revolutions Per Minute (RPM) are displayed at the control stations in the wheelhouse. Engine speed was monitored below deck in the engine room.



FIGURES 6 AND 7: B-END OPERATING STATION (LEFT), A-END OPERATING STATION (RIGHT) WITH MARKUPS

At the time of CED's arrival, the throttle transfer switches at both stations were partially disassembled, as seen in Figures 6 and 7. The transfer switches allow for an operator to move from one operating station to another without having to simultaneously operate the throttle control heads on both sides. Covered emergency shutdown switches for both main engines were present on each of the operating stations. While CED was onboard, a successful emergency shutdown of the B-end engine was conducted after demonstration of the B-end throttle engaging clutches and operating in both directions. Abnormalities in the operation of the throttle were not observed by CED while aboard. The B-end engine governor appeared to be operating as-intended and was responsive to compressed air signals supplied to it by the control system.

Discussion

The *Jean Ribault* is atypical compared to most other marine vessels in that its two main engines oppose each other with a prop at each end of the vessel instead of a single prop or multiple props on one end. There is also a steering rudder on each end of the vessel. Figure 8 illustrates the general layout of the *Jean Ribault*'s powertrain. Note the ovular shape of the hull also illustrated in Figure 1 for orientation purposes.

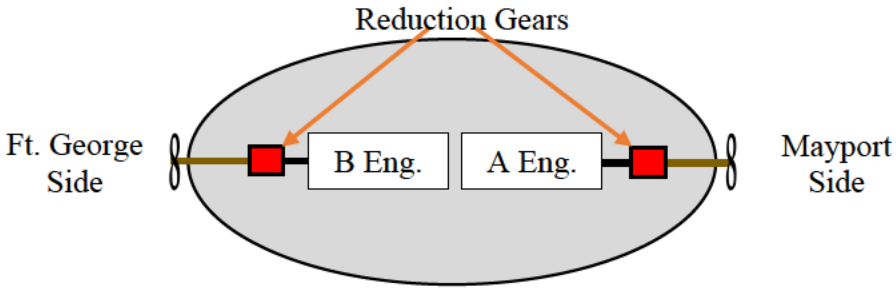


FIGURE 8: *JEAN RIBAULT* POWERTRAIN GENERAL LAYOUT (NOT TO SCALE)

Diesel engines differ from their gasoline counterparts in that the engine speed is controlled only by the amount of fuel injected into the engine's cylinder(s). Since there is no throttle valve to control the flow of air into the cylinders, as on a gasoline engine, there is always sufficient oxygen to burn, and the engine will always attempt to accelerate to meet a commanded fuel injection rate.

The *Jean Ribault*'s main engines, EMD 645s, are two-stroke diesel engines which inject fuel toward the end of each upward stroke of the pistons. To do so, these engines utilize unit fuel injectors mechanically driven and timed by the camshaft. The amount of fuel delivered during each fuel injection event is controlled via the position of each injector's control rack (Figure 9).

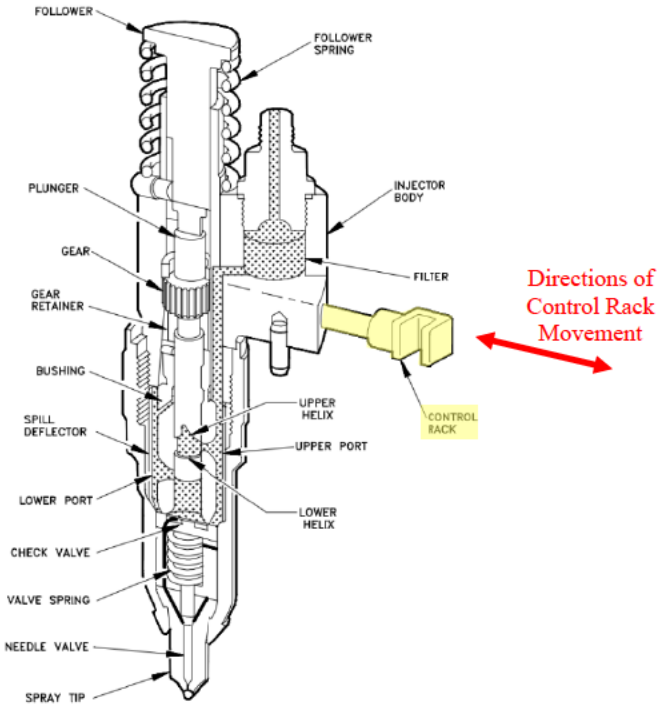


FIGURE 9: FUEL INJECTOR CUTAWAY[2] WITH MARKUPS

The control racks are connected to the control tubes (one of which is seen in Figure 5) via levers which translate the rotational motion of the control tubes to back-and-forth linear motion. The control tubes are, in turn, what the engine governor is connected to via linkages, as seen in Figure 5. When the control tube is rotated by the governor linkage, the rack levers extending from the control tube linearly move the unit injector racks to alter the amount of fuel injected into the cylinder for that stroke.

[2] U.S. Department of Energy. (1993). *Mechanical Science Handbook*, Volume 1.

Surging throttle or idle of a two-stroke diesel can sometimes be attributed to improper adjustment of the fuel injector control racks relative to the control tube. The positions of the racks must be correctly set in relation to the governor to ensure equal distribution of the load between each cylinder. When a cylinder, or cylinders, are receiving more fuel than others at a constant throttle load, this may result in the engine speed momentarily increasing and then decreasing, or surging.

Although the vessel's records indicate that surging engine speed was noted by the captain on six different occasions in the 30 days preceding the incident, they did not consistently occur with the same engine or under the same underway conditions. CED's observation of the B-end engine idling showed it maintaining a relatively constant engine speed with only minor fluctuations. Under light loading, the engine was still able to maintain a stable speed. On February 26th, throttle surging was attributed to a "loose brake wire," although the exact location of the issue was not noted. A loose wire in the brake control assembly could have caused intermittent application of a propeller shaft brake, applying and removing a load to the corresponding engine and not allowing engine speed to stabilize. Earlier in the month of February, a control head for the B-end engine had been rebuilt and/or replaced by MECI, but it is unknown if the faulty connection was directly related to it. Regardless, it is not apparent that mechanical adjustments or the overall condition of the fuel injection system and governor assembly had been contributing to various inconsistencies in engine speed or were related to the incident which occurred on May 4th, and the cause of most of these instances of engine surging remains unknown.

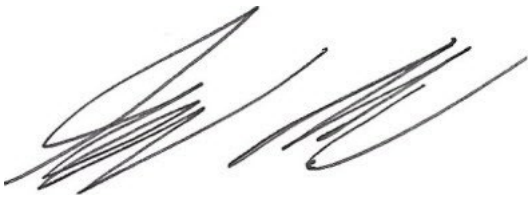
During MECI's visit the day after CED's inspection, no wiring issues with the control system were reported. MECI's testing of the throttle controls did not reveal any issues with the transfer of throttle control between the operator stations nor any issues with the control heads themselves. The throttle transfer switches, which were partially disassembled before CED arrived, were tested and determined to function as intended. Testing of the throttles in the presence of U.S. Coast Guard personnel on May 5th also did not produce any throttle events worthy of note.

At this time, it is not apparent that any defects or abnormalities existed in the throttle control system or main engines which would cause one of the main engines to fail to respond to a throttle input by the operator.

The intention of the client for whom this report has been prepared, and the intention of the author, is to generate expert witness engineering reports, calculations, and supplemental materials solely in connection with expert witness testimony or anticipated testimony for use in a judicial proceeding. The analysis and conclusions provided are not to be relied upon for any other specific purpose related to safeguarding the life, health or property of any persons or entities whatsoever, and are provided solely for use in the process for which the services of the author were retained.

In that discovery is ongoing, CED reserves the right to amend this report should additional material become available. As previously stated, CED has not finalized any conclusions or opinions as of the date of this report as discovery is ongoing and additional evidence, which may or may not alter conclusions, is anticipated to be reviewed. If there are any questions about the content of this report, or if new information becomes available, please contact our offices.

Submitted by:



Gregory W. Krall
Mechanical Engineer

Reviewed by:

M. Aaron Carr
Mechanical Engineer

CED TECHNOLOGIES INC
SCIENCE EXPLAINED

CURRICULUM VITAE
GREGORY W. KRALL, P.E.
Mechanical Engineer

Academic Background
B.S., Mechanical Engineering, Pennsylvania State University, University Park, Pennsylvania, 2013

Registrations
Registered Professional Engineer, State of Florida, License No. PE95214

Qualifications
Florida Class A Commercial Driver's License, 2024
CXLT, Certified XL Tribometrist, Excel Tribometers, LLC, Tampa, Florida, 2021
BOT-3000E Digital Tribometer Training Certificate, Walkway Management Group, Inc., 2021
FAA Remote Pilot of a Small Unmanned Aircraft System, Certificate No. 4605667, 2021
OSHA 30 Hour Construction Safety and Health, 1926, Beaufort, South Carolina, 2019

Professional Work History
Mechanical Engineer, CED Technologies Inc., 2021 – Present
Project/Construction Manager, Public Works Department, Beaufort, SC, United States Navy, 2018 – 2021
Project/Construction Manager, Public Works Department, Mayport, FL, United States Navy, 2017 – 2018
Utilities Commodity Manager, Public Works Department, Mayport, FL, United States Navy, 2016 – 2017
Division Officer, Naval Mobile Construction Battalion 133, United States Navy, 2014 – 2016

Professional Societies
American Society of Mechanical Engineers (ASME)
Society of Automotive Engineers (SAE)
National Association of Professional Accident Reconstruction Specialists (NAPARS)
National Association of Fire Investigators (NAFI)
International Association of Arson Investigators (IAAI)
National Fire Protection Association (NFPA)

Areas of Expertise
Mechanical Engineering
Accident Reconstruction
Trucking Accidents
Premises Liability
Vehicle Defects
Crash Data Retrieval
Risk Management
Utility System Management
Construction Site Safety/OSHA
Tire Evaluation and Analysis
Automotive Repair and Restoration
Project Management
Construction Defects
Slip, Trip and Fall Evaluation
Fleet Management
Outdoor Power Equipment

TECHNOLOGIES INC
SCIENCE EXPLAINED

CURRICULUM VITAE
GREGORY W. KRALL, P.E.
Mechanical Engineer

Professional Education

- Traffic Crash Reconstruction, IPTM at the University of North Florida, Jacksonville, FL, 2025
- Commercial Truck Driving, Jones Technical Institute, Jacksonville, FL, 2024
- Crash Investigation 2 Online, NUCPS, 2024
- Nighttime Crash Scene Investigation; Muttart, NAPARS, 2024
- HVEDR Technician-Analysis Training, Forensic Training Group, Savannah, GA, 2024
- Safety Training for the Professional Forklift Operator, Equipment Classes 1, 4, and 5; Southern States Toyotalift, Jacksonville, FL, 2023
- Fire Investigation Training Program, National Association of Fire Investigators, Denver, CO, 2023
- Video Analysis in Collision Reconstruction; Molnar, World Reconstruction Exposition 2023
- Nighttime Recognition and Visibility; Dinakar, World Reconstruction Exposition 2023
- The Use of Mobile Device LiDAR in Collision Reconstruction; Liscio, World Reconstruction Exposition 2023
- Automotive Test Equipment, DTCs & Pre-crash Data Sources; Boots, World Reconstruction Exposition 2023
- Learning Proper Methodologies by Learning from the Mistakes of Others; Muttart, World Reconstruction Exposition 2023
- Methods for Establishing Motorcycle Impact Speed; Peck, World Reconstruction Exposition 2023
- Late Model EDR Accuracy; Ruth, World Reconstruction Exposition 2023
- Advanced Tire Analysis and Forensics, Tennent and Associates, Latrobe, Pennsylvania, 2022
- Crash Investigation 1 Online, NUCPS, 2021
- Tire Analysis and Forensics 101, Tennent and Associates, Latrobe, Pennsylvania, 2021
- Using 3D Laser Scanners & Drones to Document Crash Scenes, FARO Technologies, 2021
- Heavy Vehicle Forensic Mechanical Inspection for Crash Investigators, NUCPS, Chattanooga, Tennessee, 2021
- Bendix Air Brake Training 101, Brake-School.com, 2021
- BOT-3000E Certificate Training Course, Walkway Management Group, 2021
- CXLT Certification Program, Excel Tribometers LLC, Tampa, Florida, 2021
- Airfield Pavement Construction Inspection (WENG 555), Air Force Institute of Technology, 2020
- OSHA 30 Hour Construction Safety and Health, NAVFAC Mid-Atlantic, Beaufort, South Carolina, 2019
- NAVFAC 40 Hr. Contract Safety Hazard Awareness Course, NAVFAC Mid-Atlantic, Beaufort, South Carolina, 2019

Additional Complete Professional Education Addendum Available Upon Request

APPENDIX A: Photographic Evidence

JTA Mayport Ferry

CED Case Number: 75687.1

Gregory W. Krall, P.E.

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Ferry Inspection Photographs

5/6/2025

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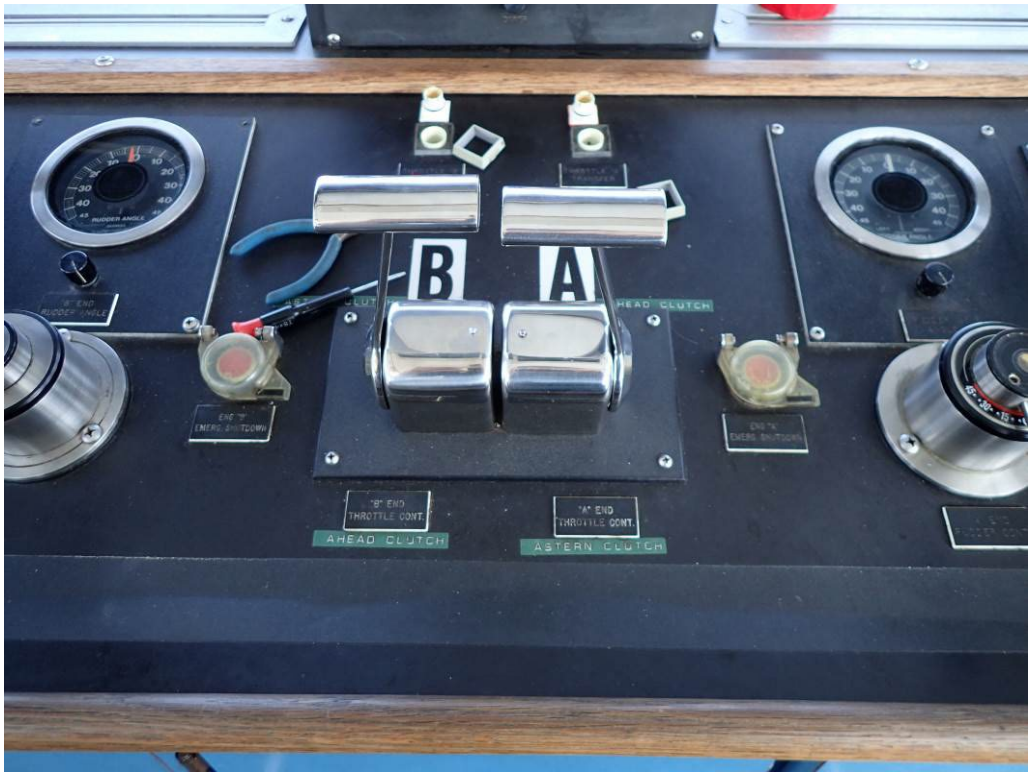
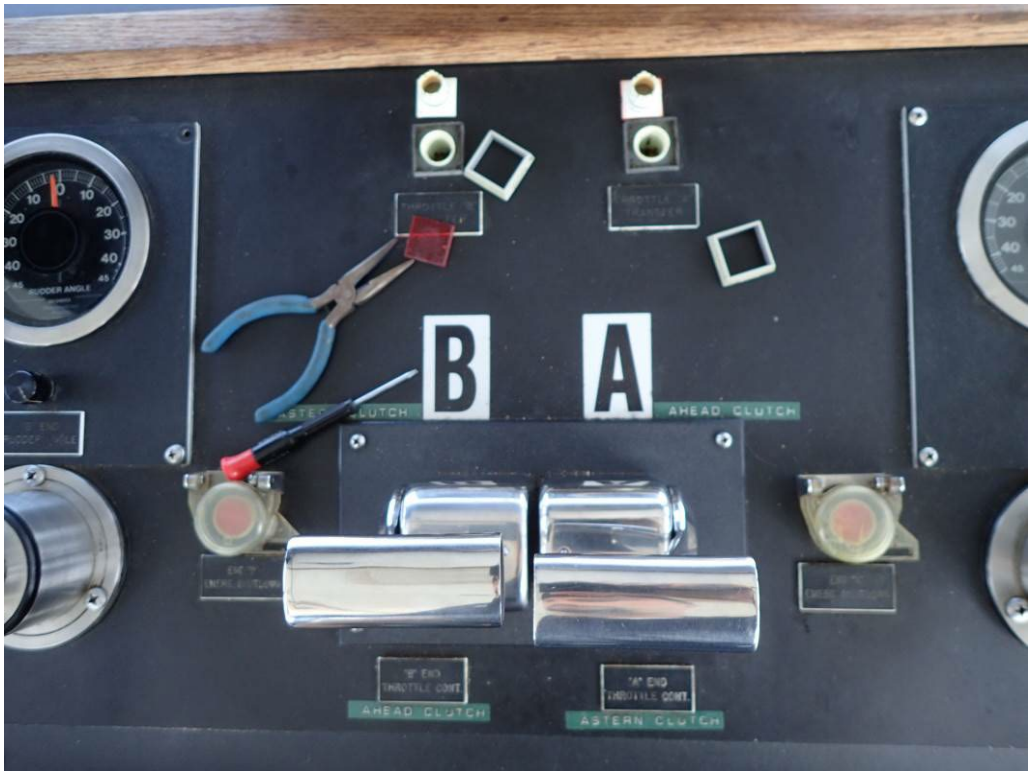
Photograph 1. – Ft. George-Facing/"B" End Bridge Controls

Photograph 2. - Ft. George-Facing/"B" End Bridge Controls

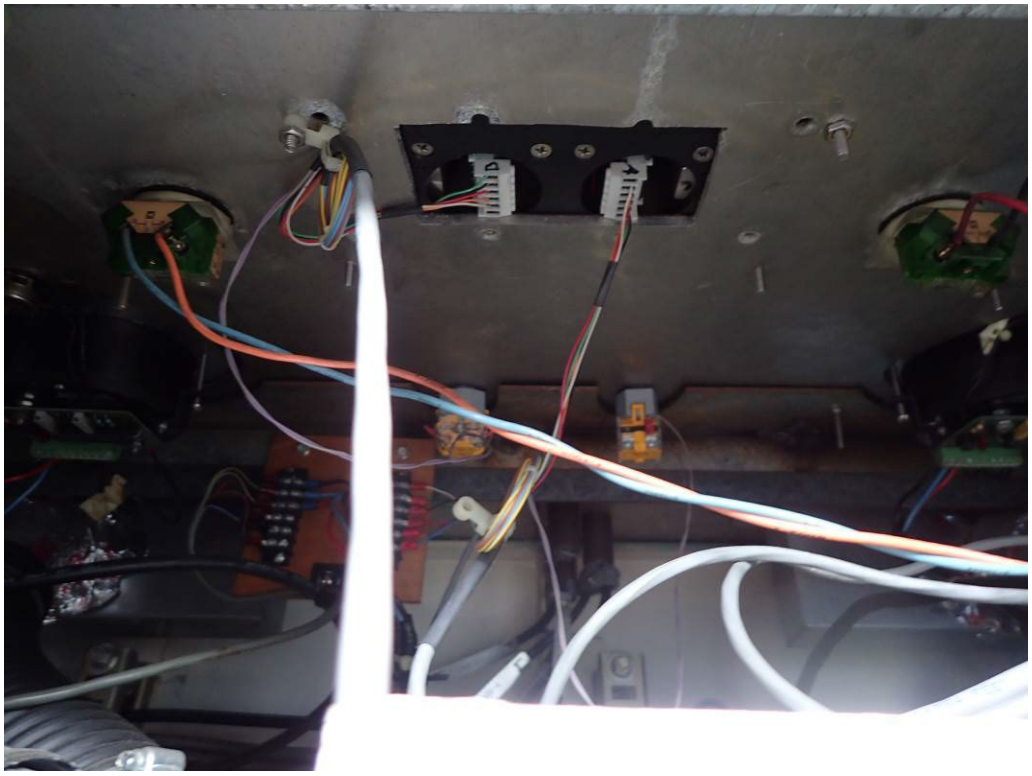


Photograph 3. - Ft. George-Facing/"B" End Clutch and Throttle Controls

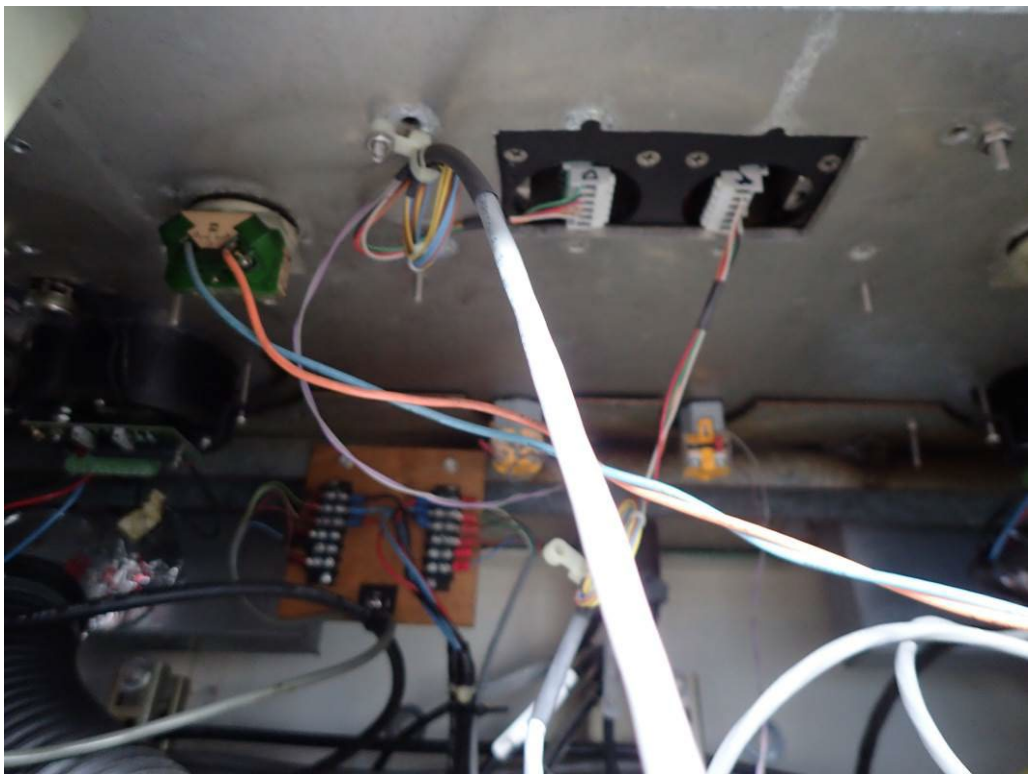


Photograph 4. - Ft. George-Facing/"B" End Clutch and Throttle Controls

Photograph 5. - Ft. George-Facing/"B" End Control Cabinet Wiring

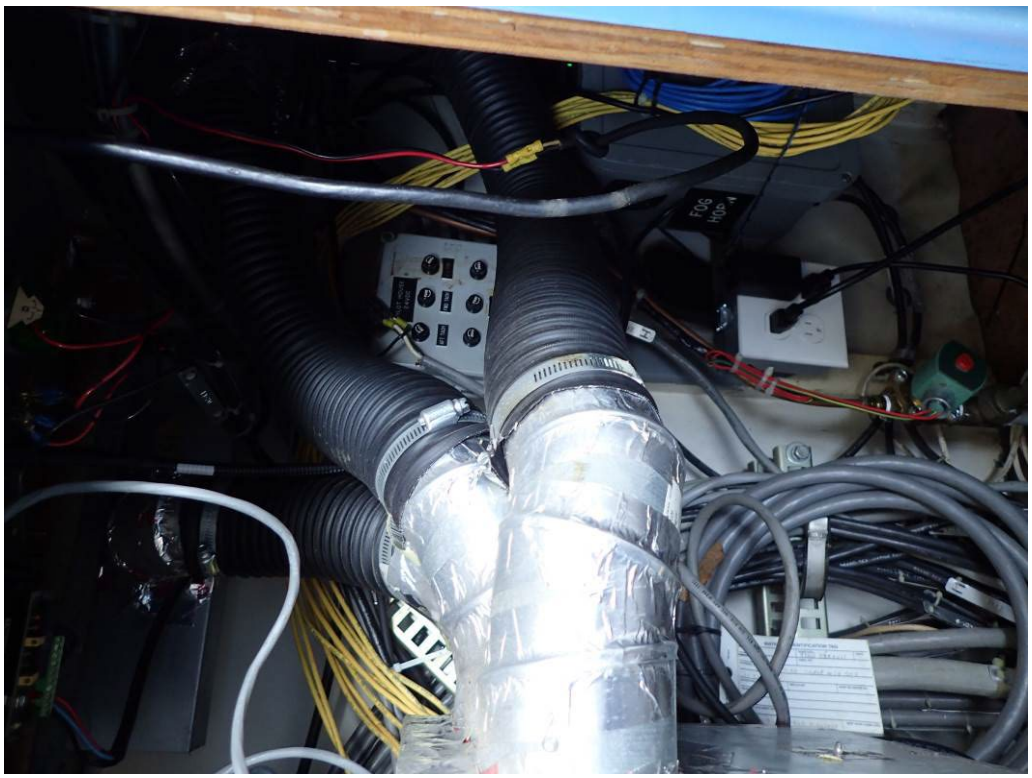


Photograph 6. - Ft. George-Facing/"B" End Control Cabinet Wiring

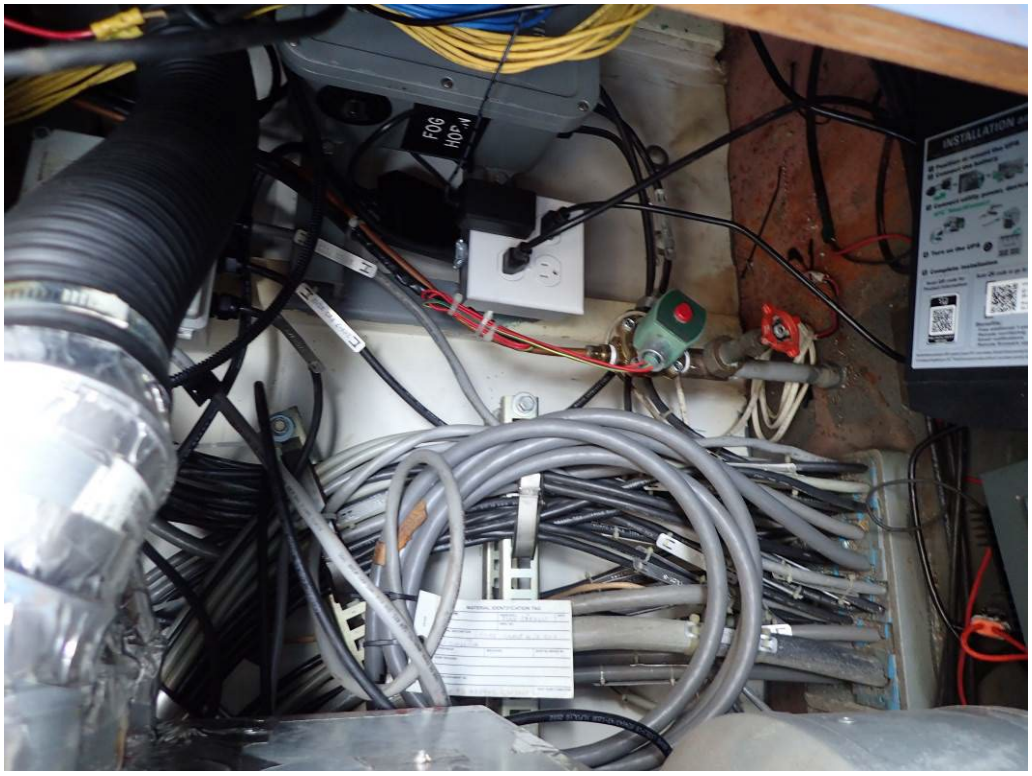


Photograph 7. - Ft. George-Facing/"B" End Control Cabinet Wiring

Photograph 8. - Ft. George-Facing/"B" End Control Cabinet Wiring

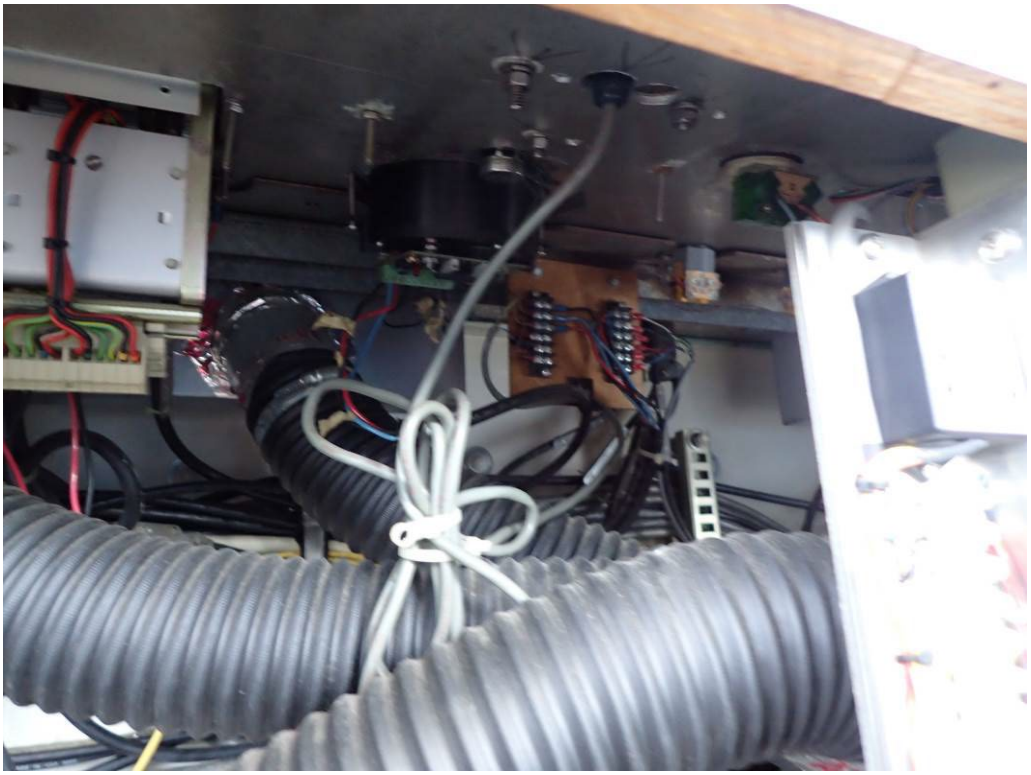


Photograph 9. - Ft. George-Facing/"B" End Control Cabinet Wiring

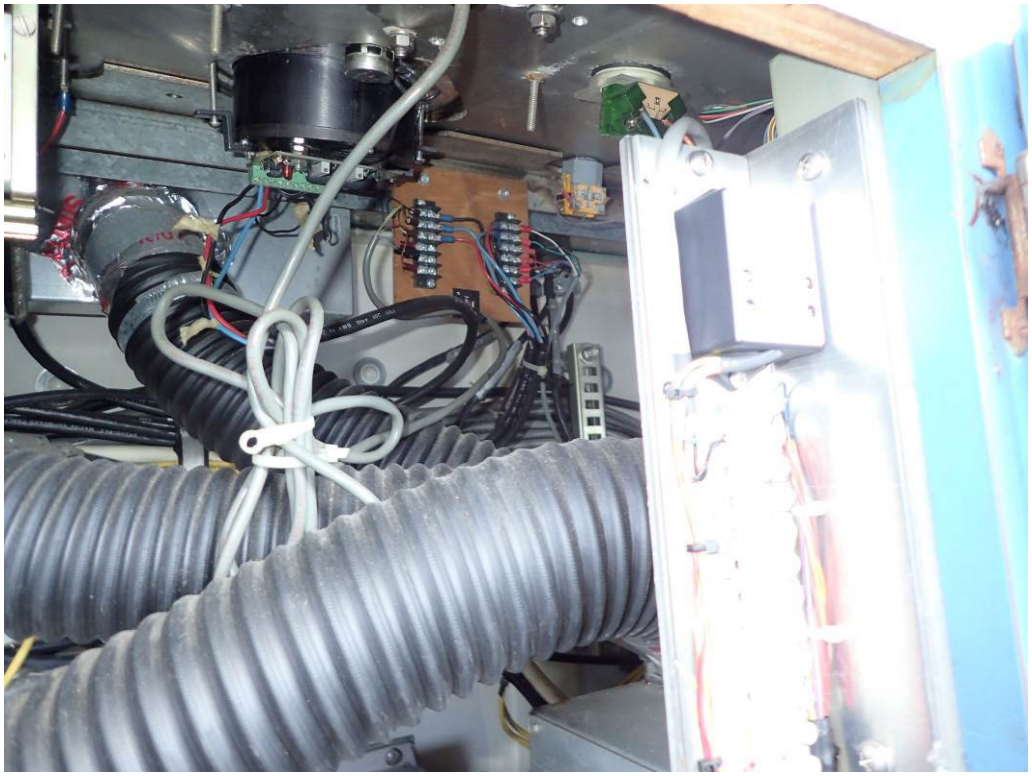


Photograph 10. - Ft. George-Facing/"B" End Control Cabinet Wiring

Photograph 11. - Ft. George-Facing/"B" End Shaft Tachometers



Photograph 12. - Ft. George-Facing/"B" End Control Cabinet Wiring



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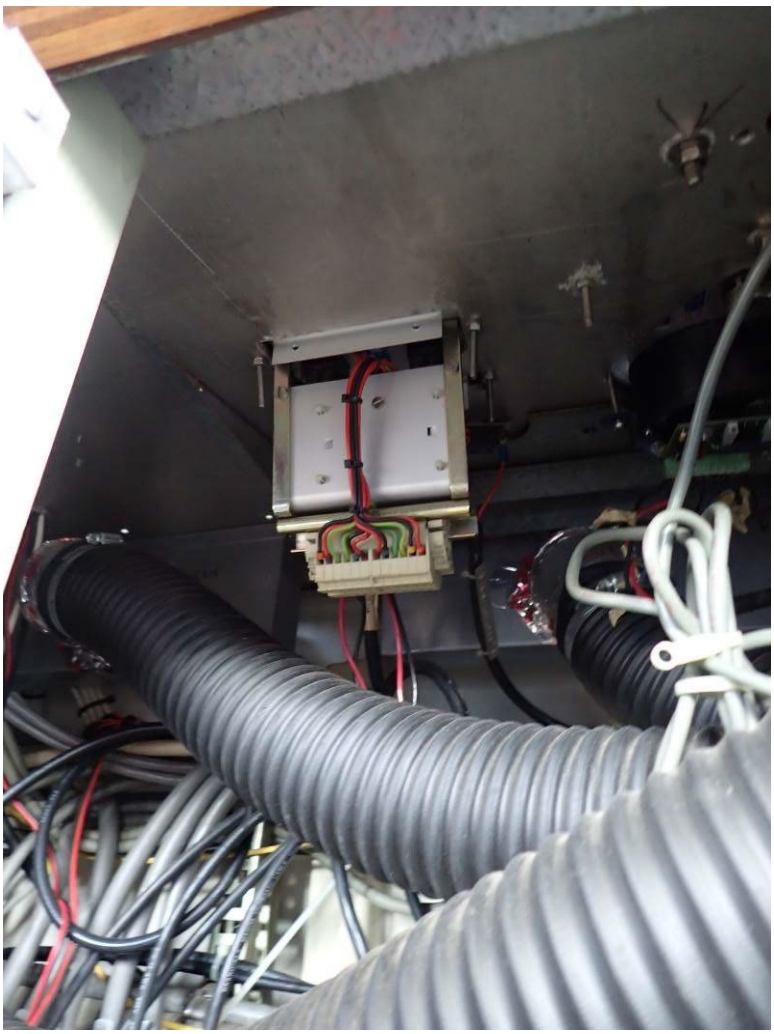

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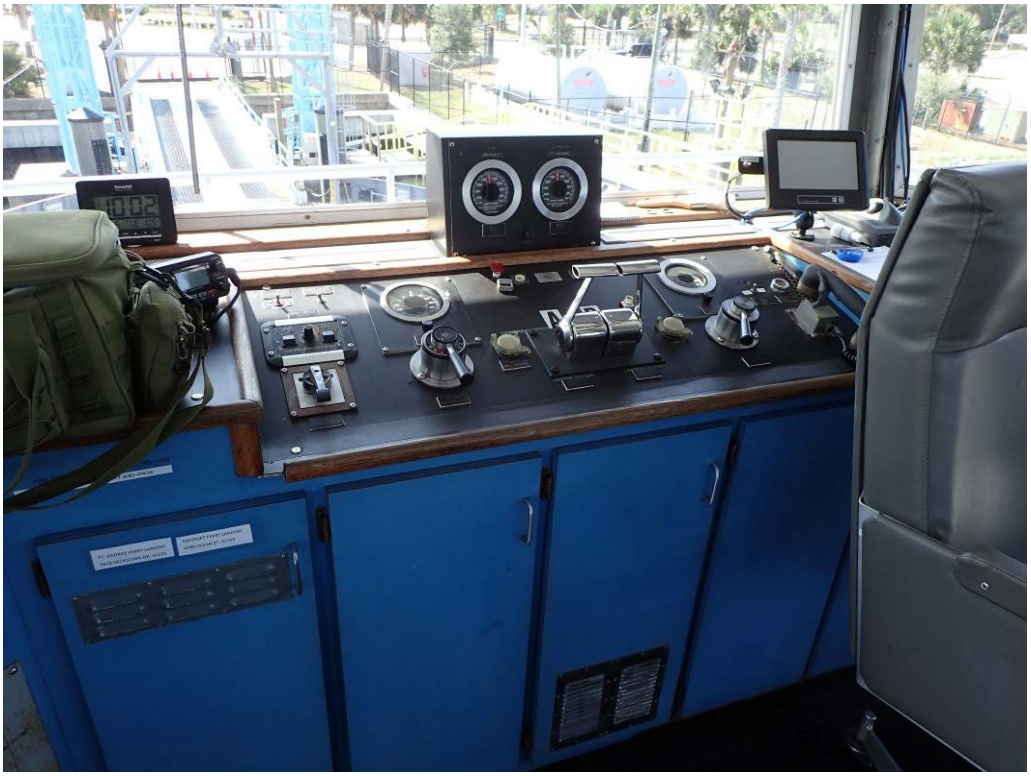
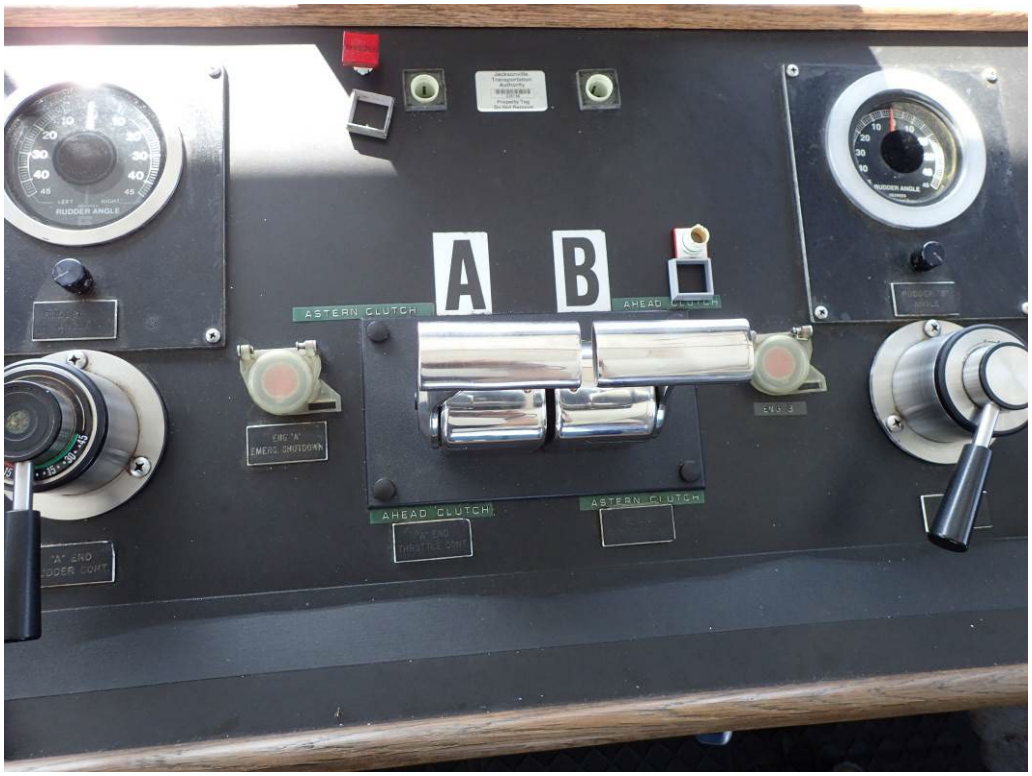


Photograph 15. – Mayport-Facing/"A" End Bridge Controls

Photograph 16. – Mayport-Facing/"A" End Bridge Controls



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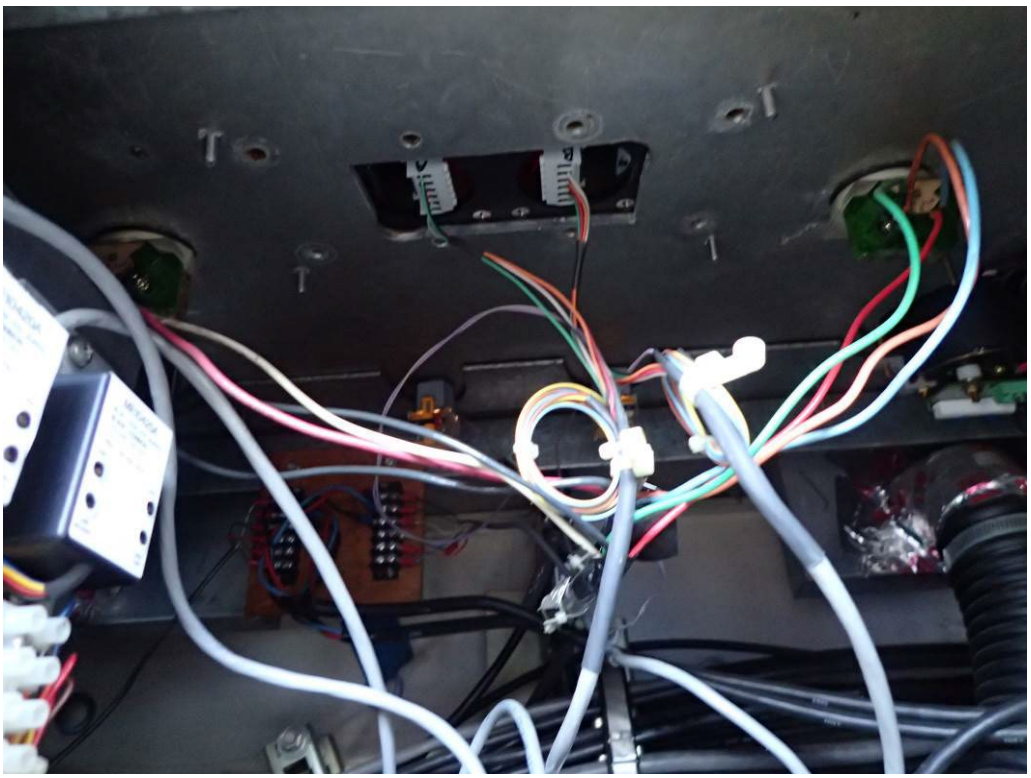
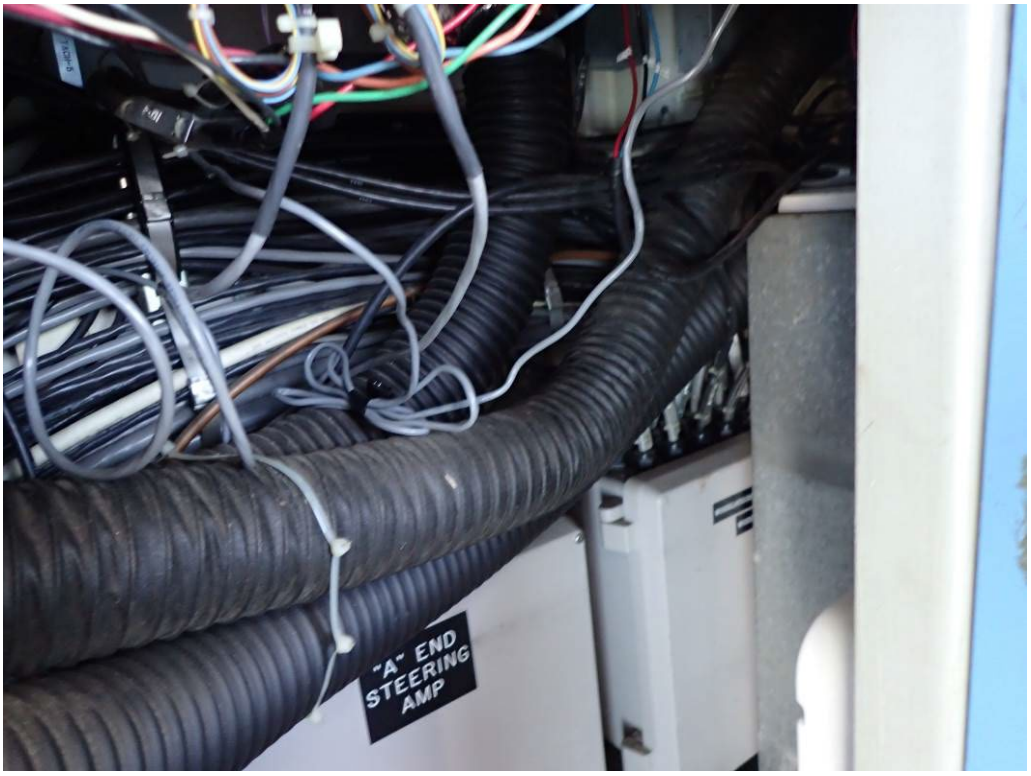
Photograph 18. – Mayport-Facing/"A" End Control Cabinet Wiring

Photograph 19. – Mayport-Facing/“A” End Control Cabinet Wiring



Photograph 20. – Mayport-Facing/“A” End Control Cabinet Wiring



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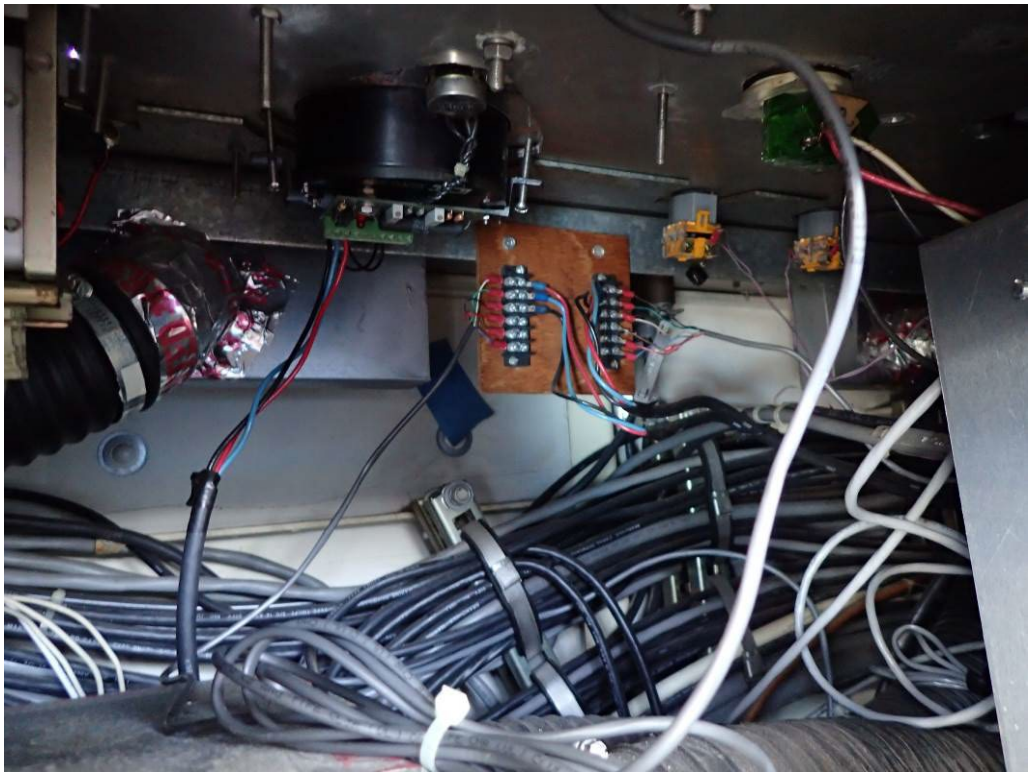

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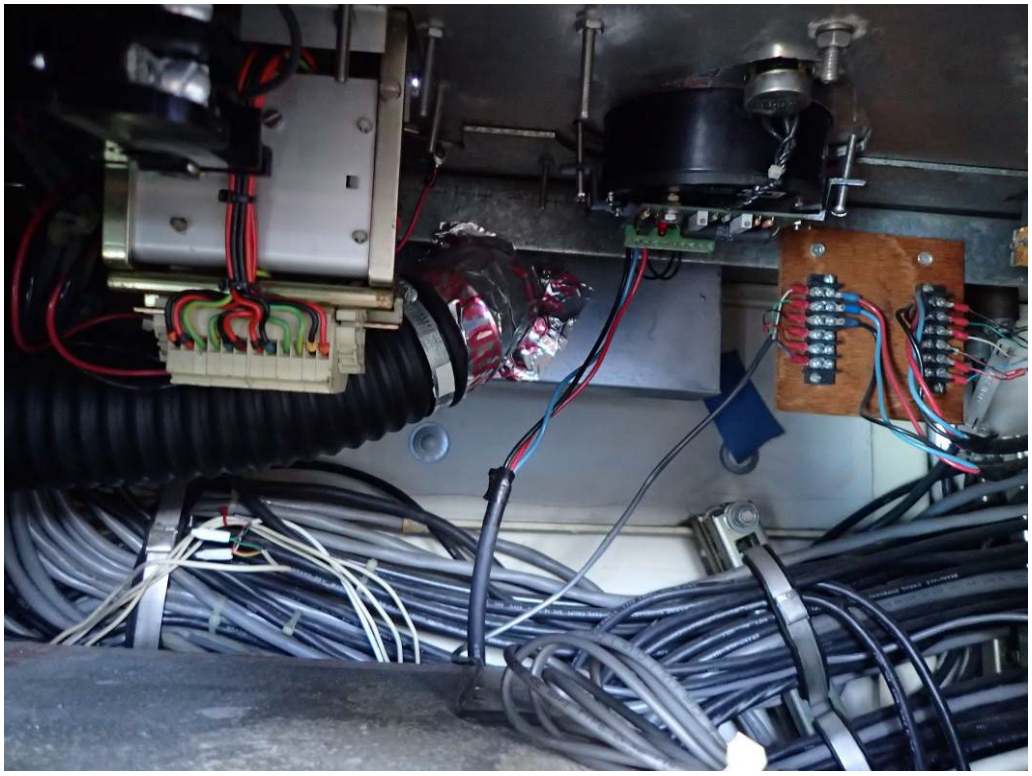

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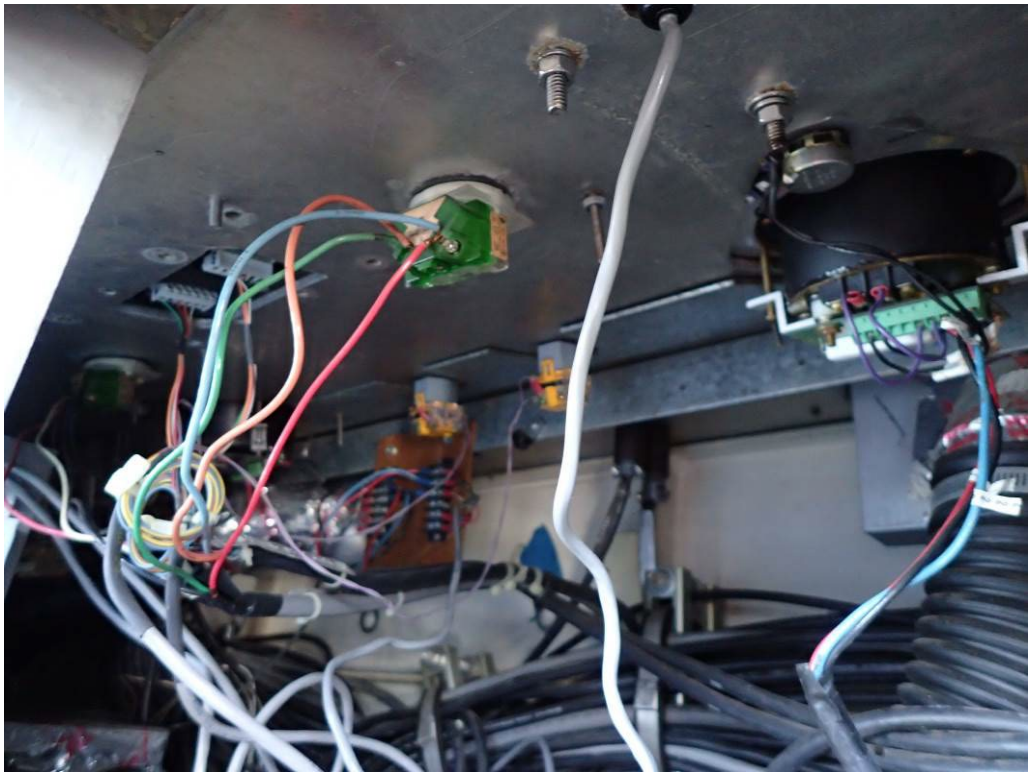

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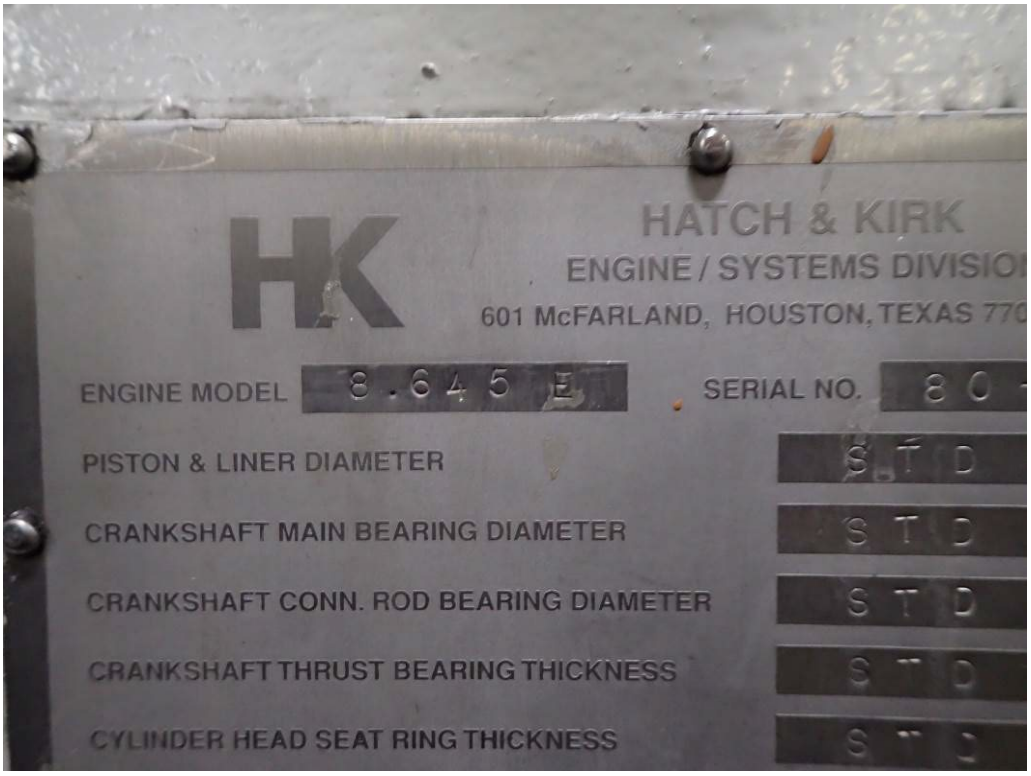

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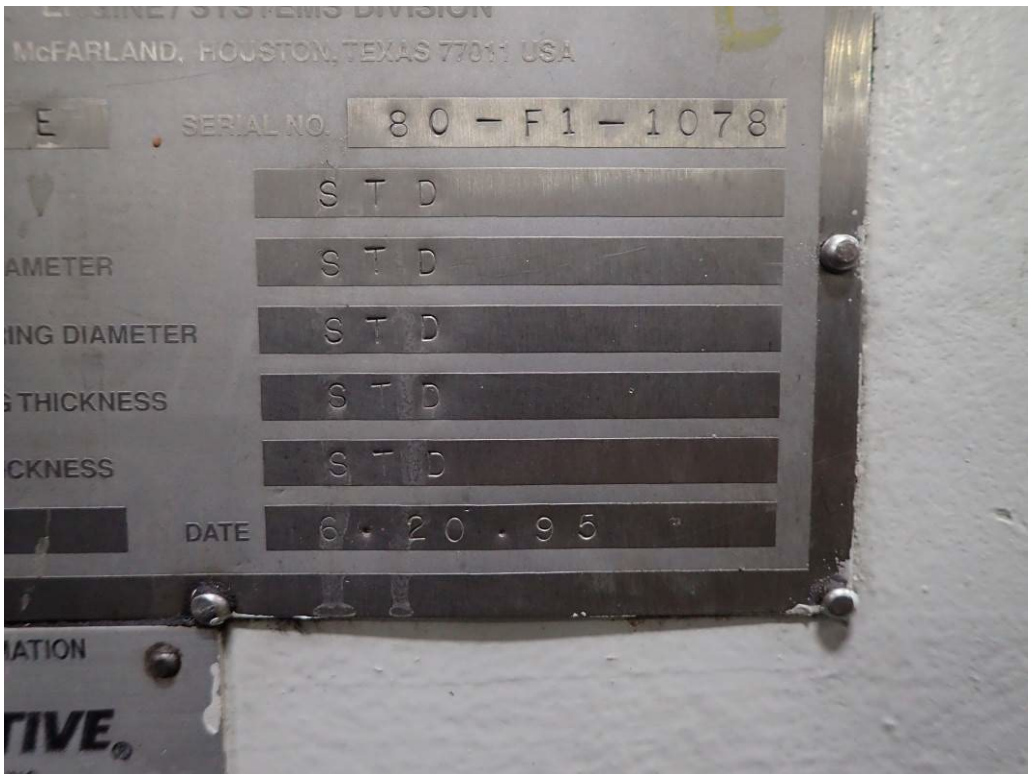

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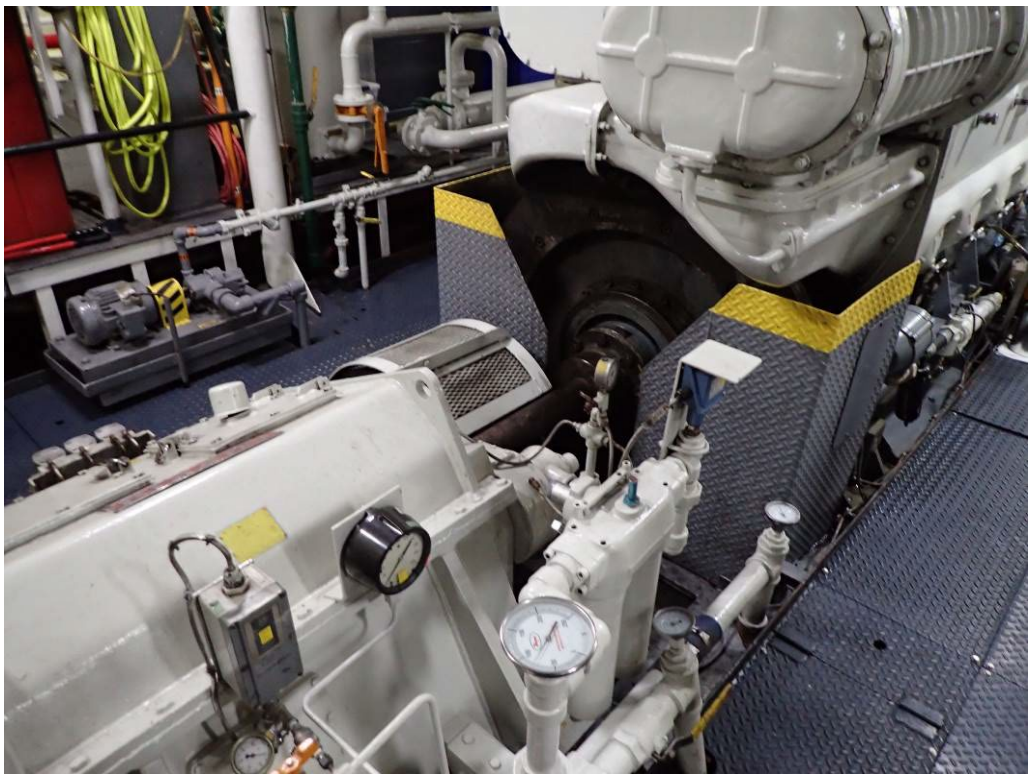
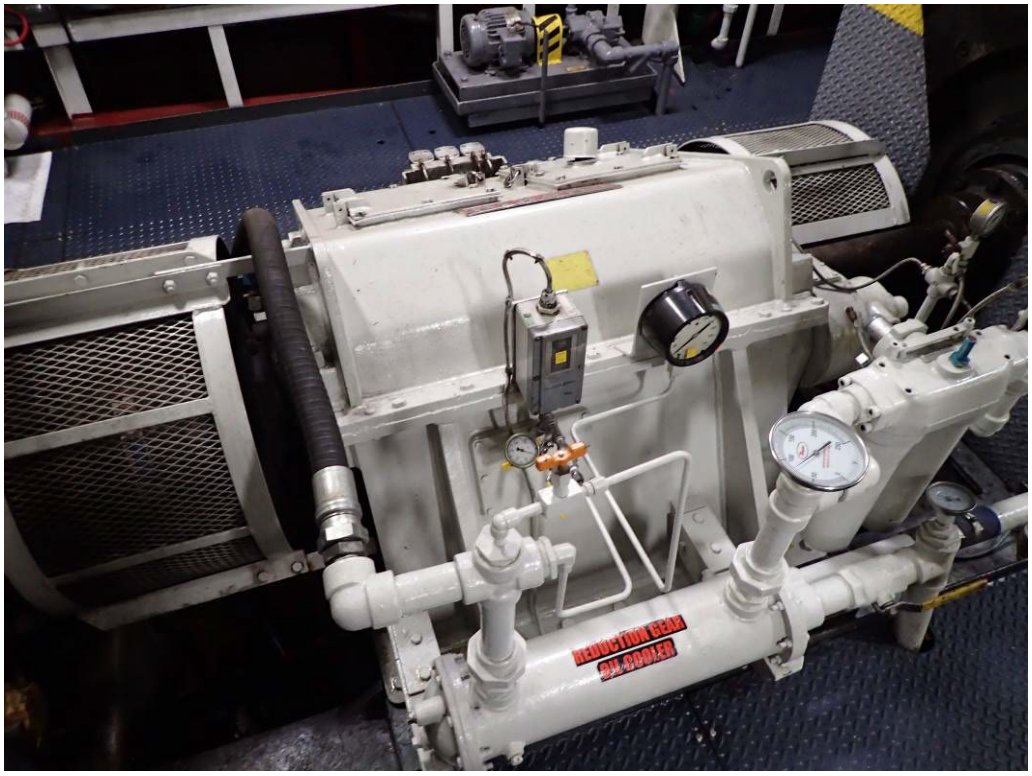


Photograph 33. – "B" Engine Output and Reduction Gears



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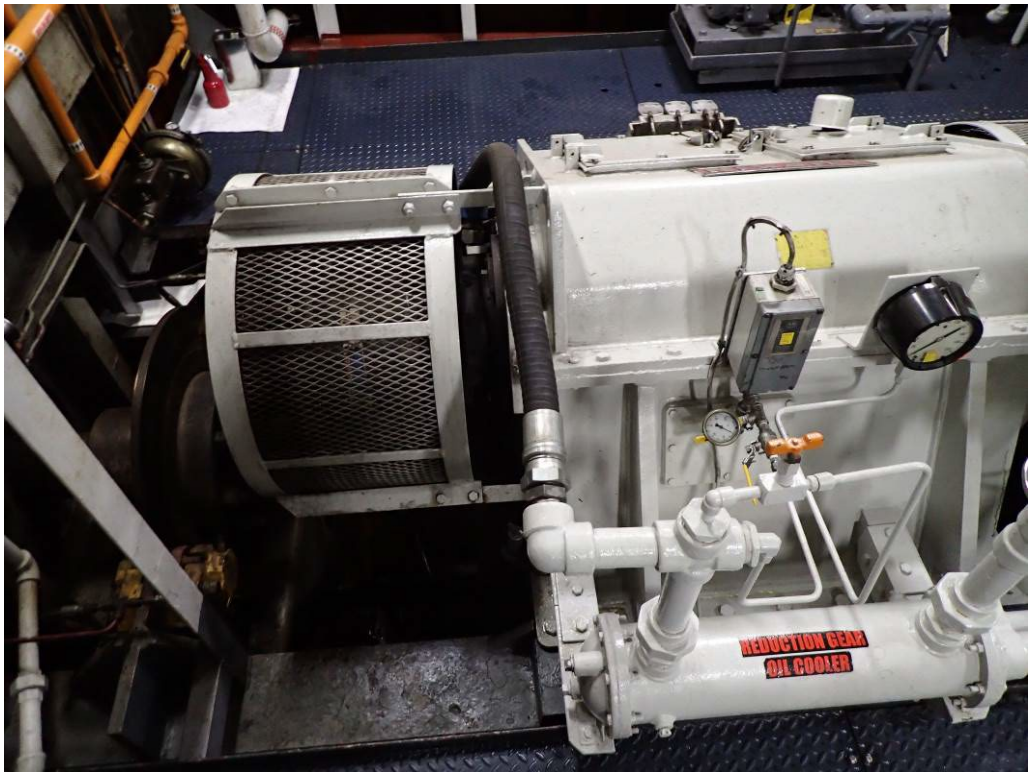
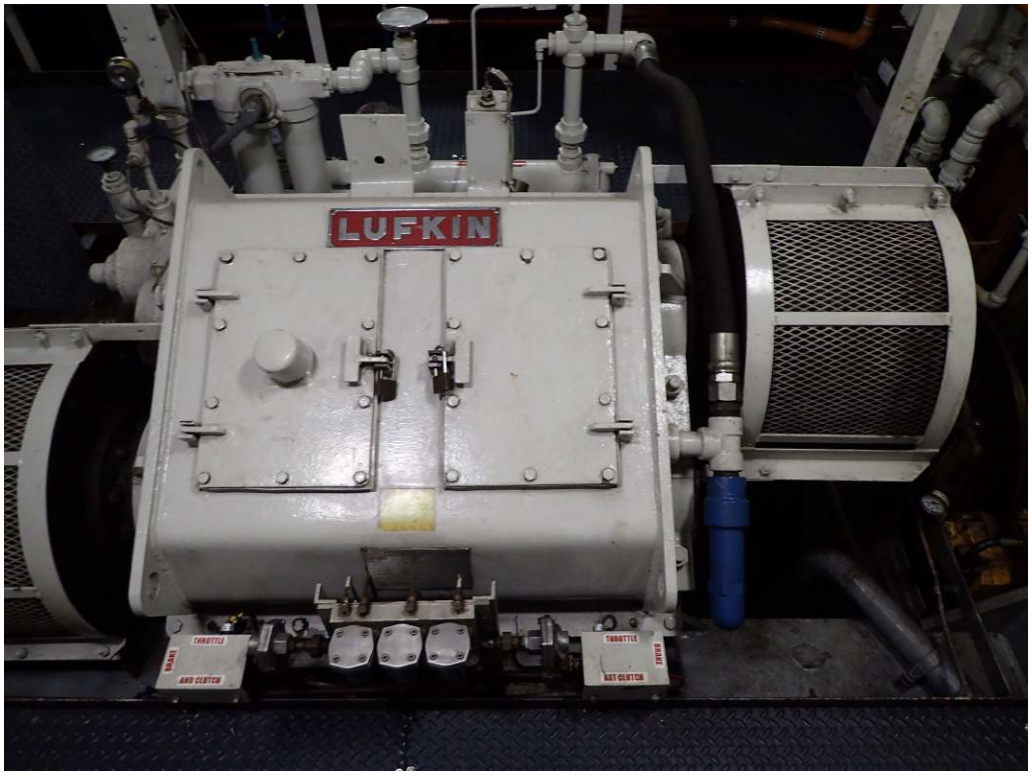
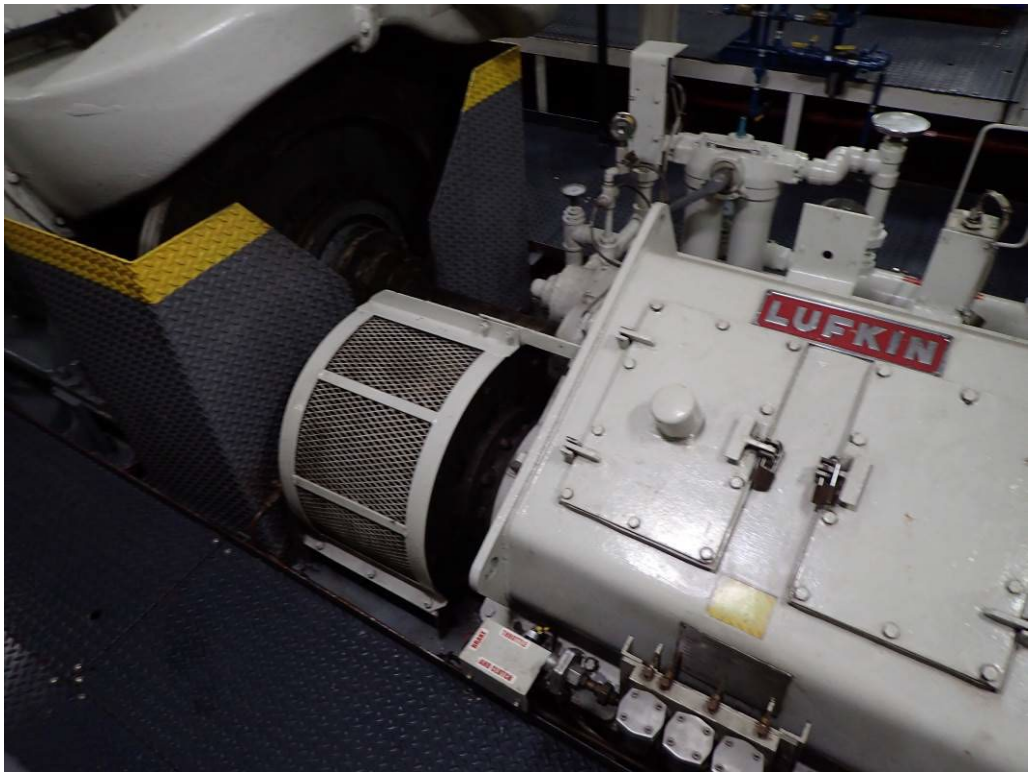


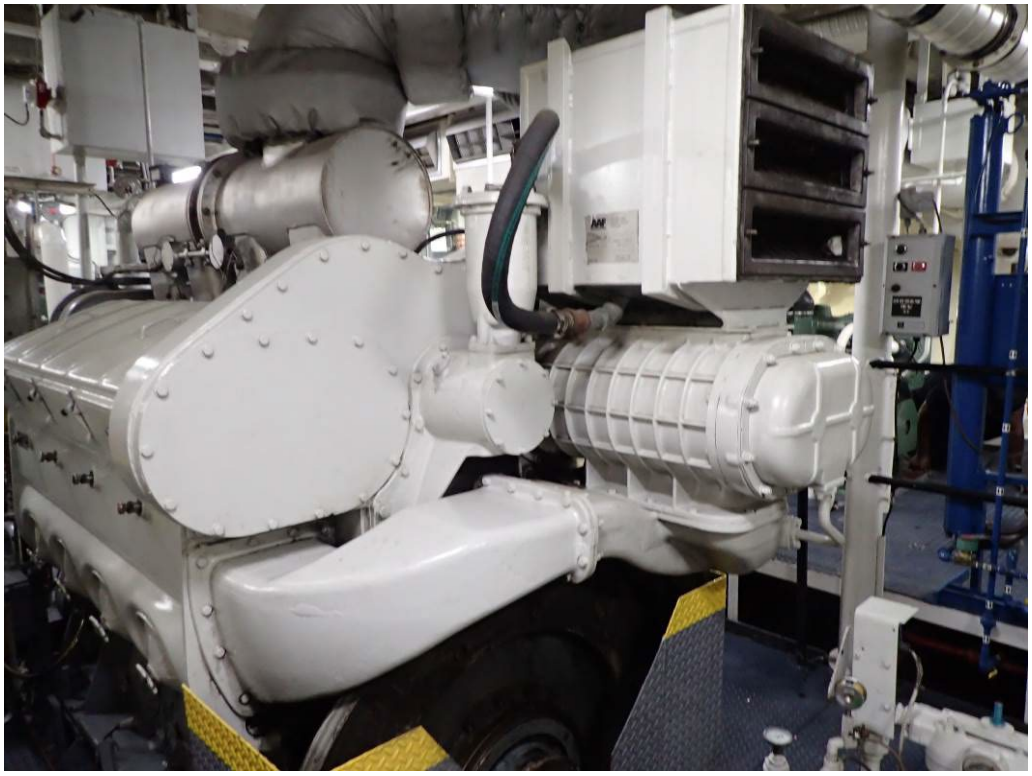
Photograph 35. - "B" Engine Reduction Gears



Photograph 36. - "B" Engine Reduction Gears



Photograph 37. - "B" Engine Output and Reduction Gears



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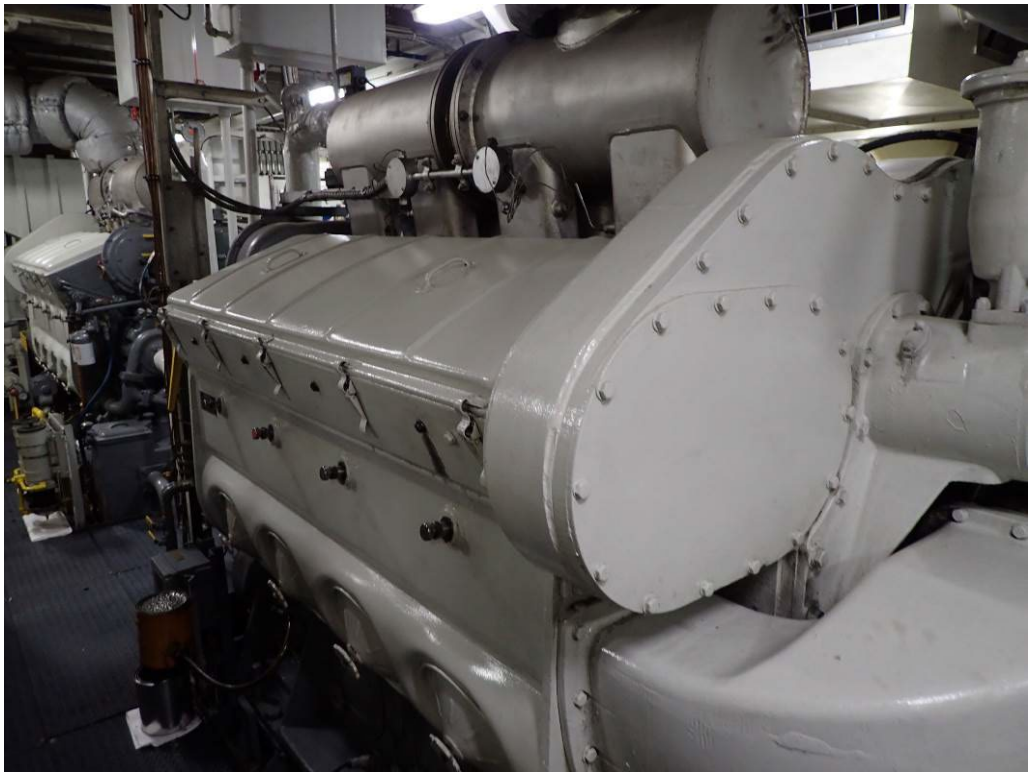

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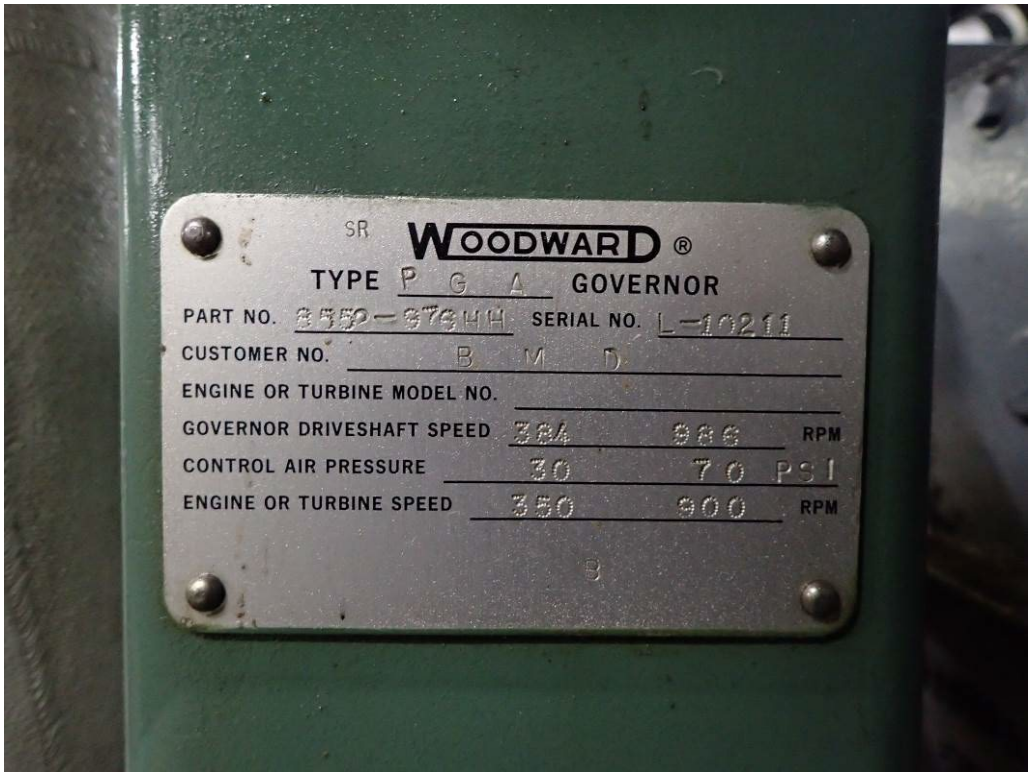

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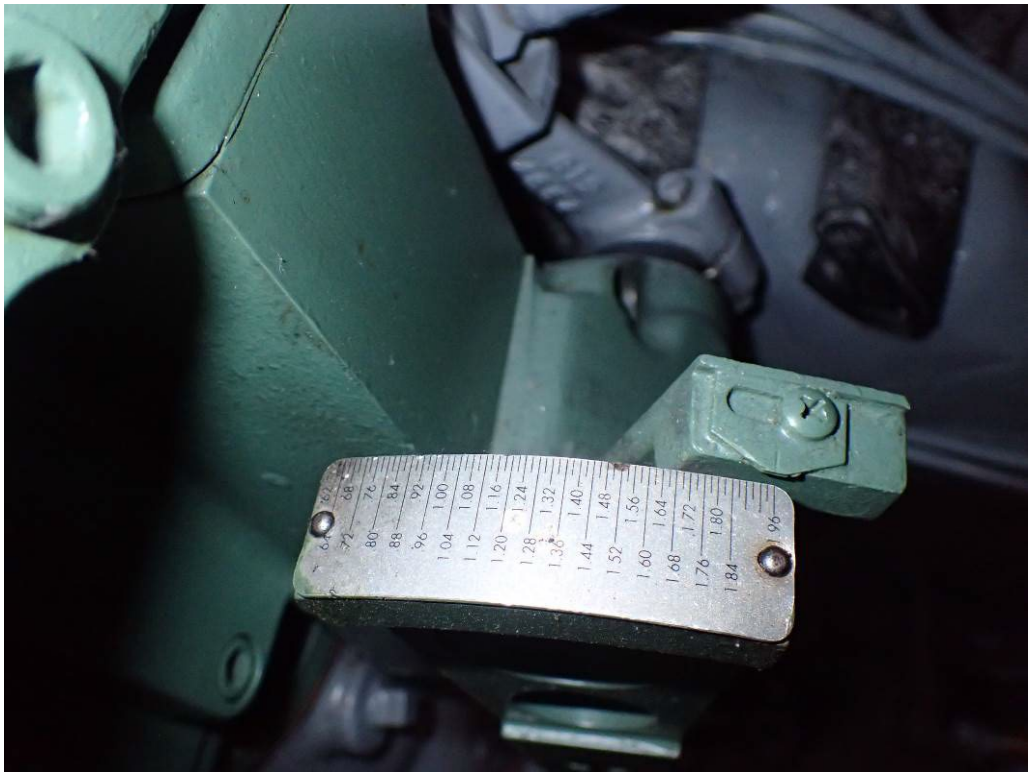
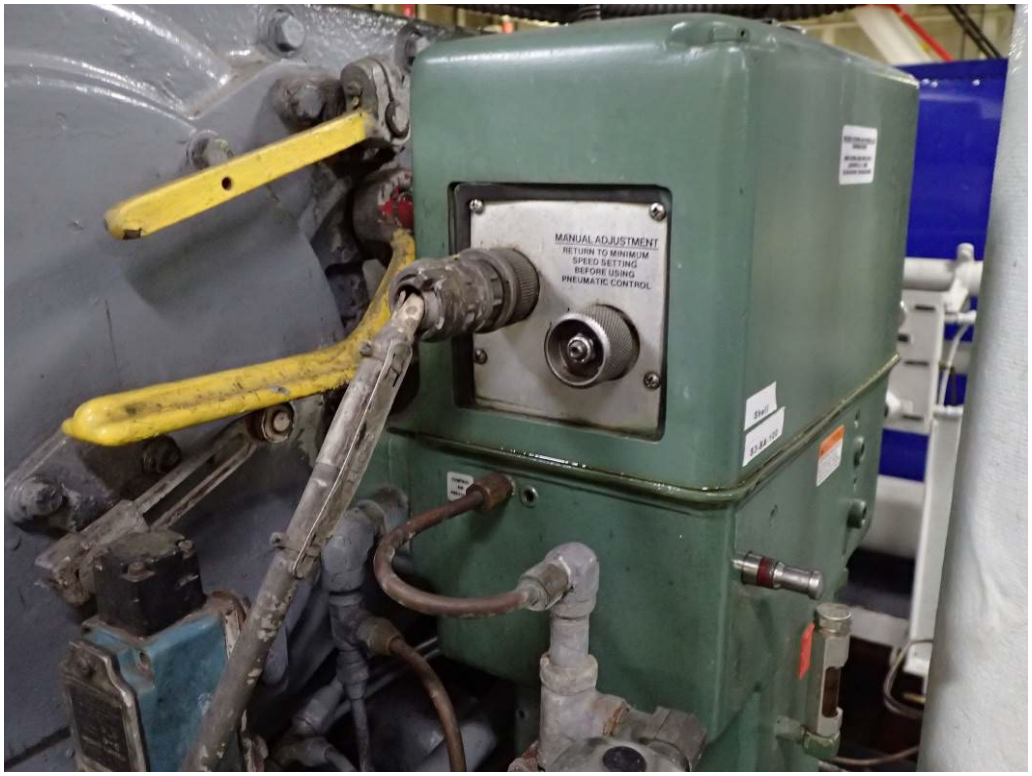


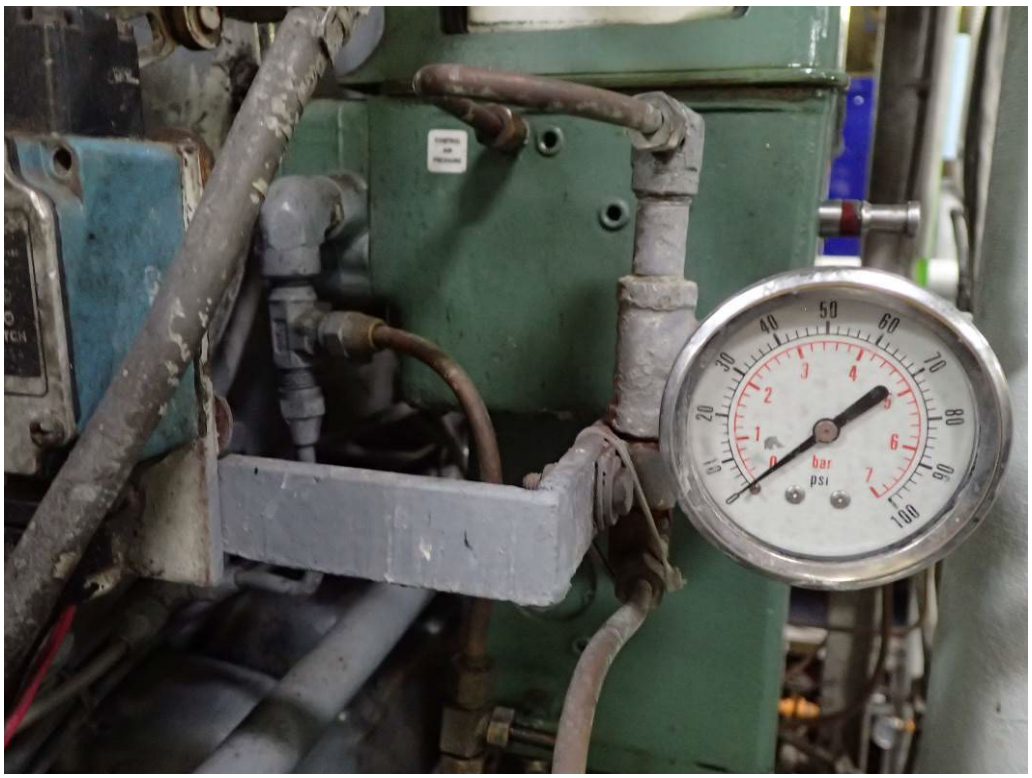
Photograph 43. - "B" Engine Governor Position – Engine Stopped

Photograph 44. - "B" Engine Governor and Linkages

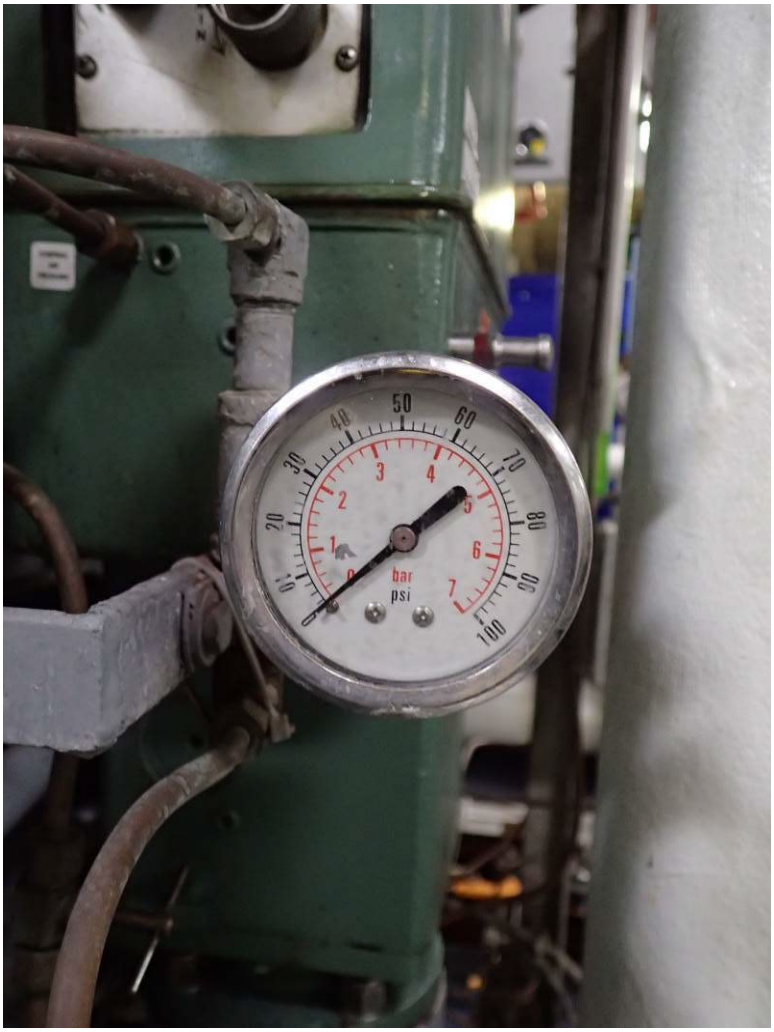


Photograph 45. – "B" Engine Governor

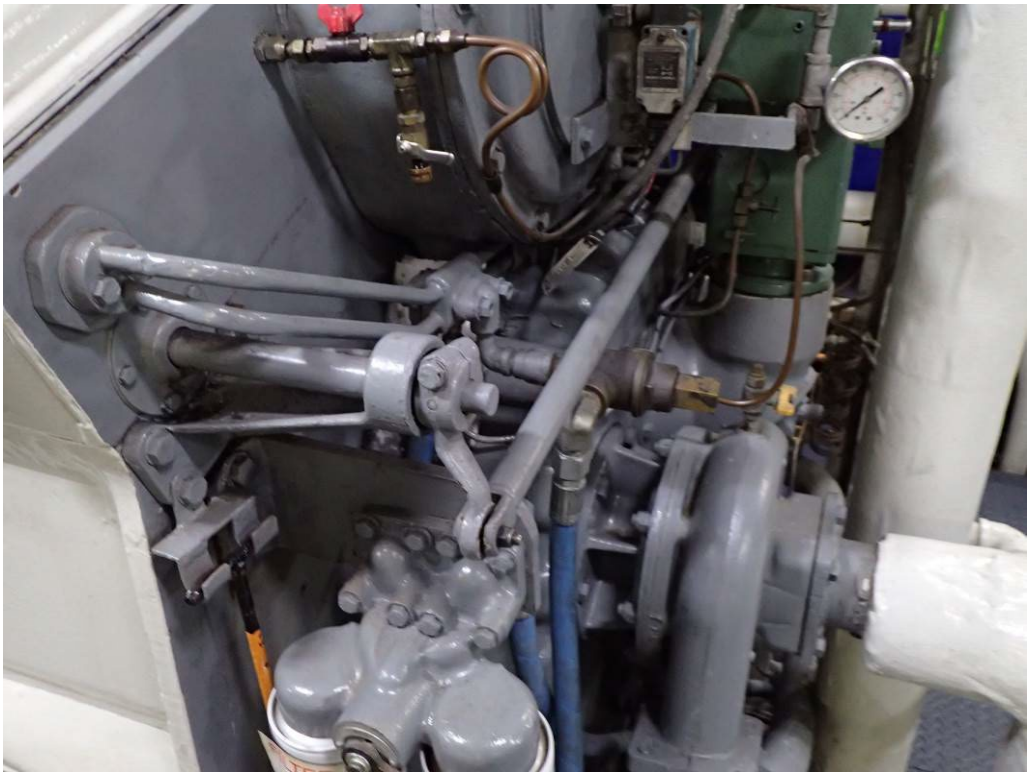
Photograph 46. - "B" Engine Governor



Photograph 47. - "B" Engine Governor Control Air Inlet Plumbing and Pressure Gauge



Photograph 48. - "B" Engine Governor Control Air Inlet Plumbing and Pressure Gauge



Photograph 49. - "B" Engine Governor and Linkages

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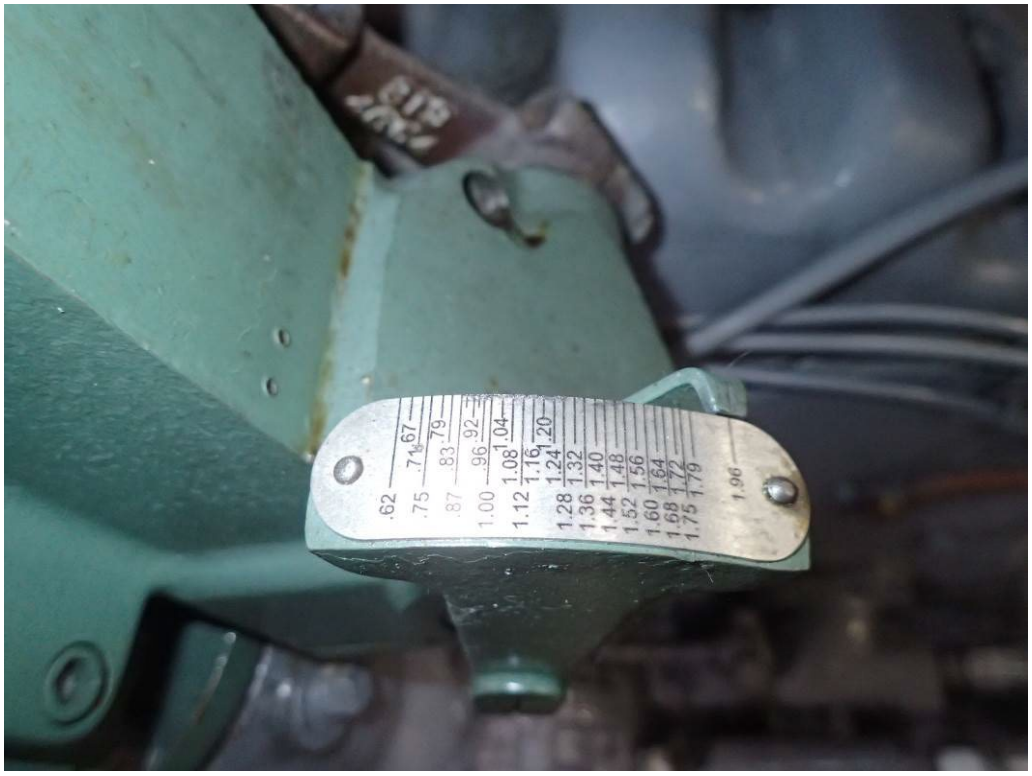
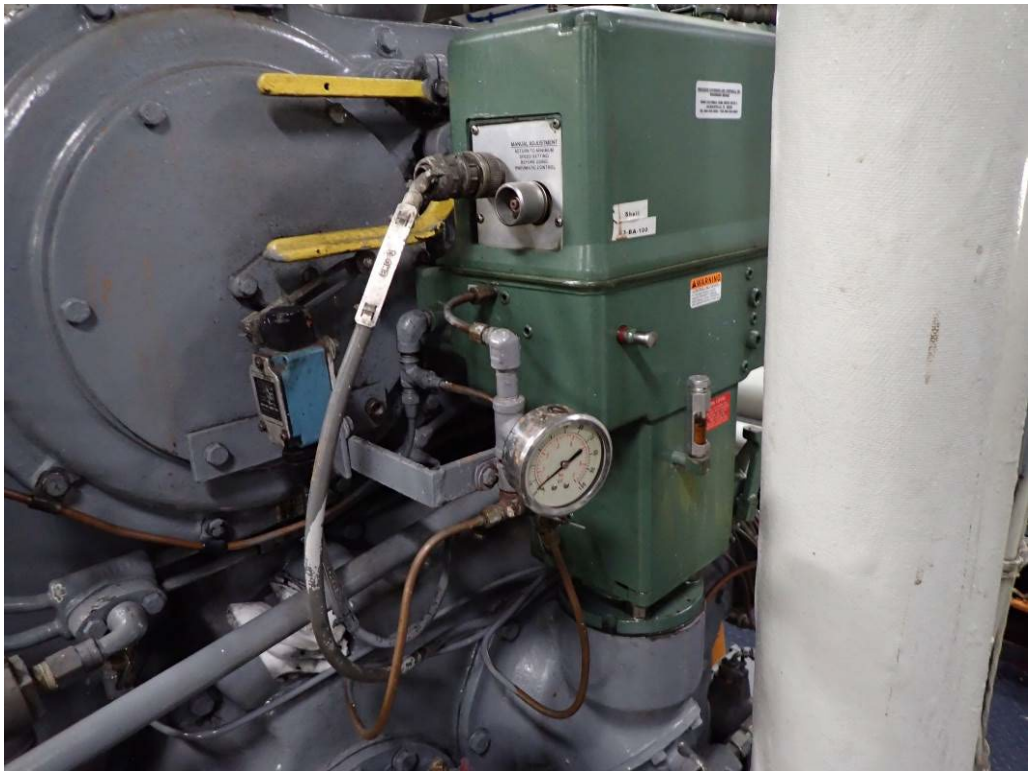
Photograph 53. - "A" Engine Governor Position – Engine Stopped

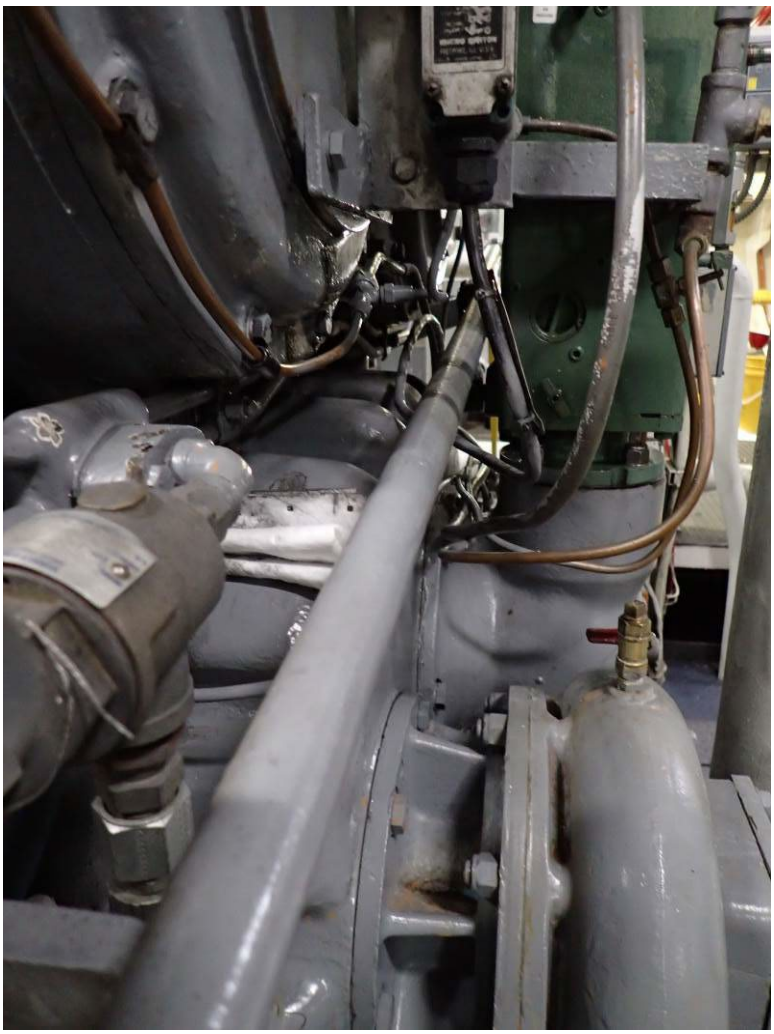


Photograph 54. - "A" Engine Governor Position – Engine Stopped

Photograph 55. - "A" Engine Governor Data Plate

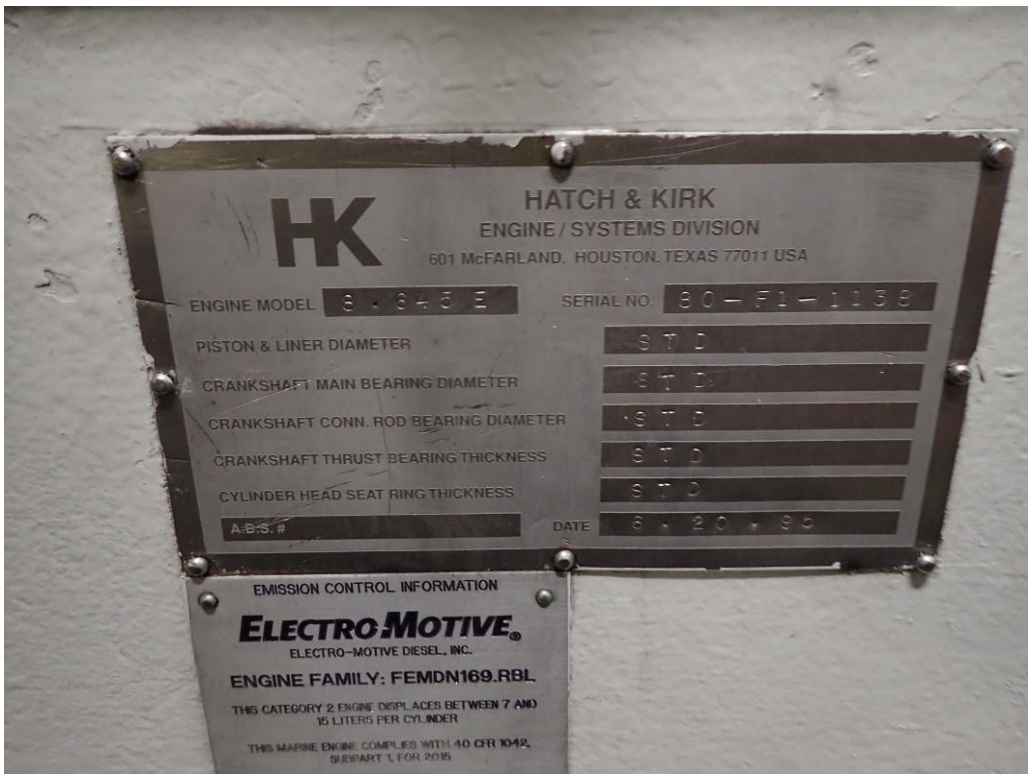


Photograph 56. - "A" Engine Governor Control Air Inlet Plumbing and Pressure Gauge



Photograph 57. - "A" Engine Governor and Linkages

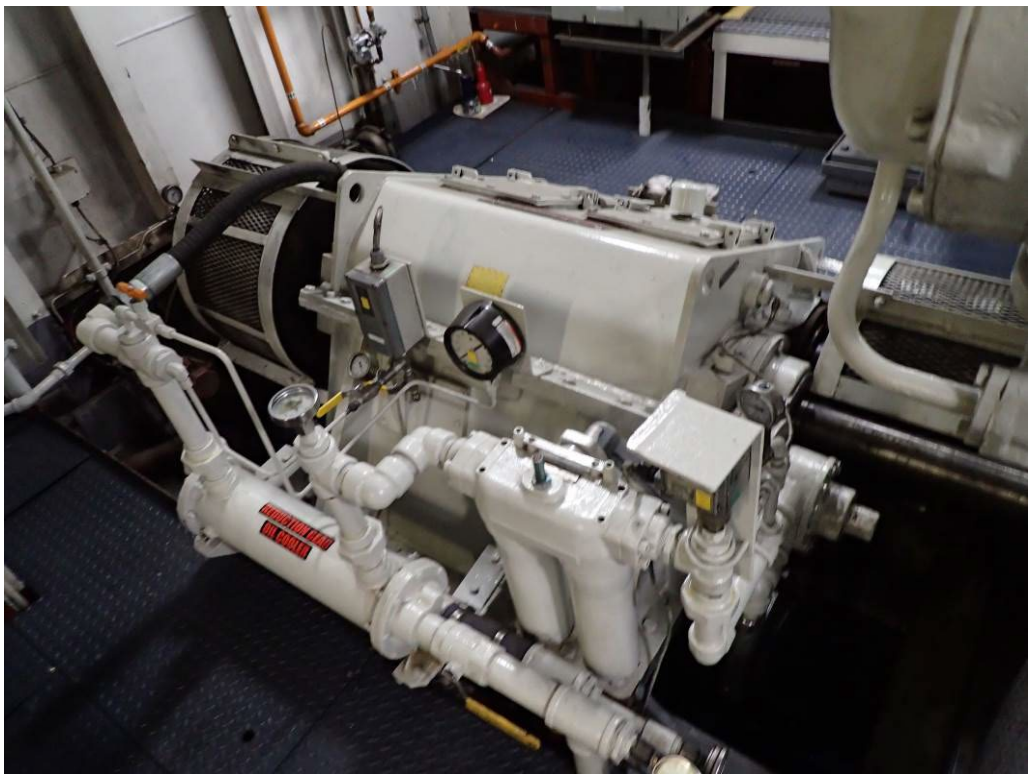
Photograph 58. - "A" Engine Governor



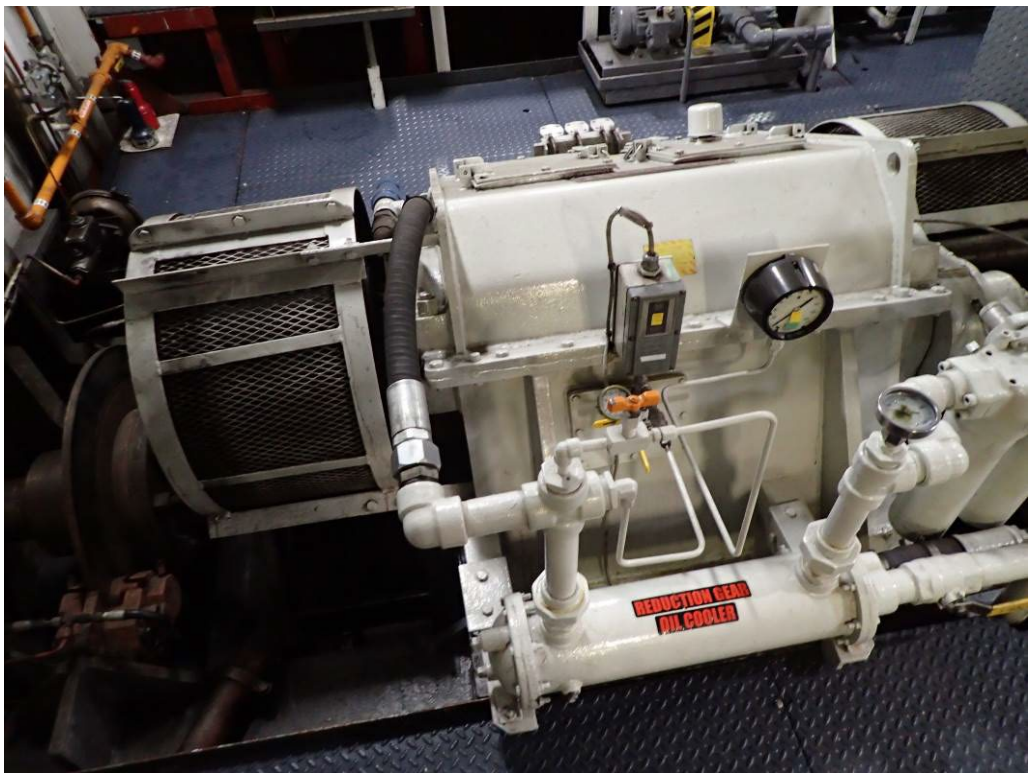
Photograph 59. – "A" Engine Data Plates

Photograph 60. - "A" Engine Data Plates

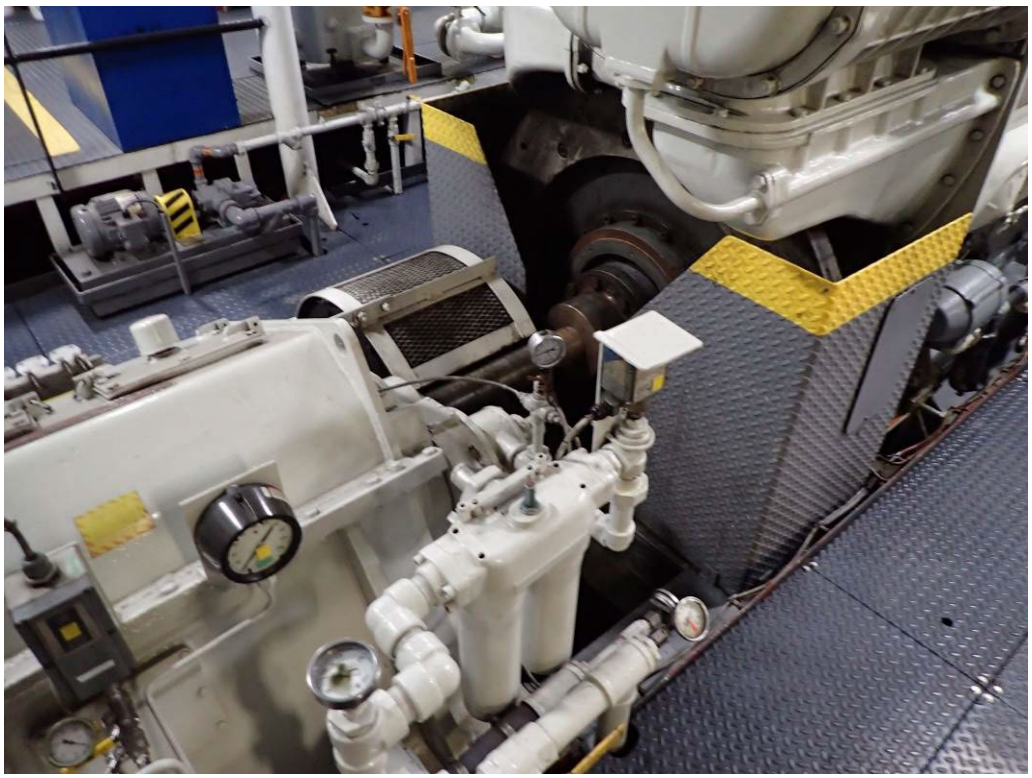
Photograph 61. - "A" Engine Data Plates



Photograph 62. – "A" Engine Reduction Gears



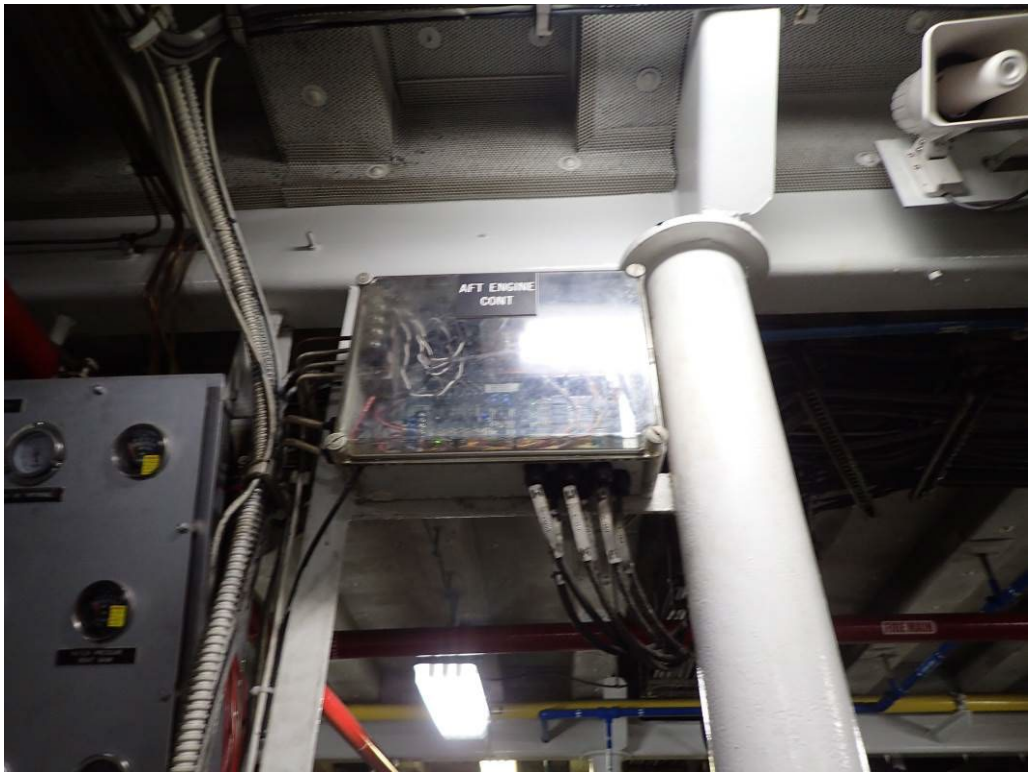
Photograph 63. - "A" Engine Reduction Gears



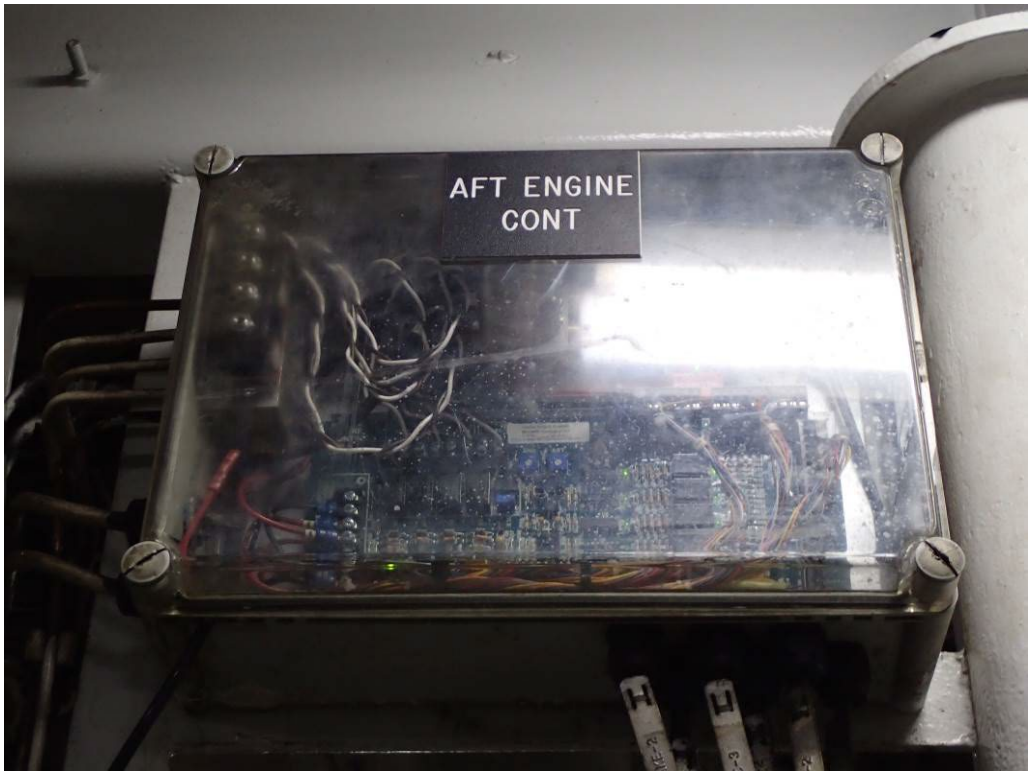
Photograph 64. - "A" Engine Output and Reduction Gears

Photograph 65. – "B" Engine Instrumentation – Engine Idling

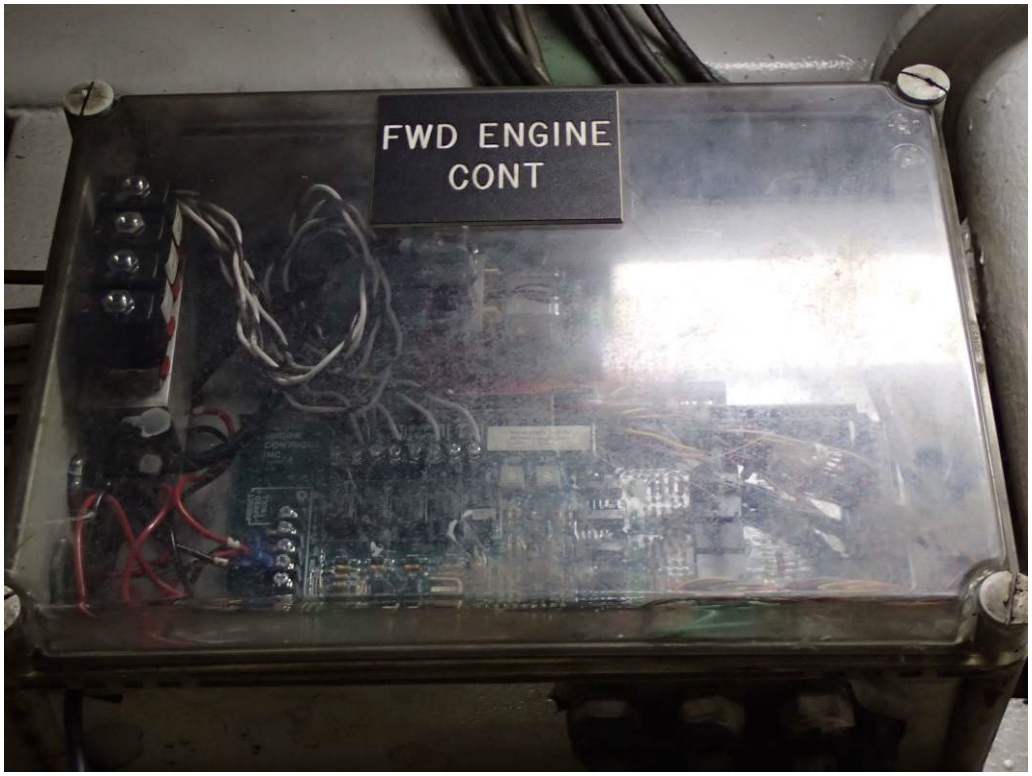
Photograph 66. – "B" Engine Governor and Linkages – Engine Idling



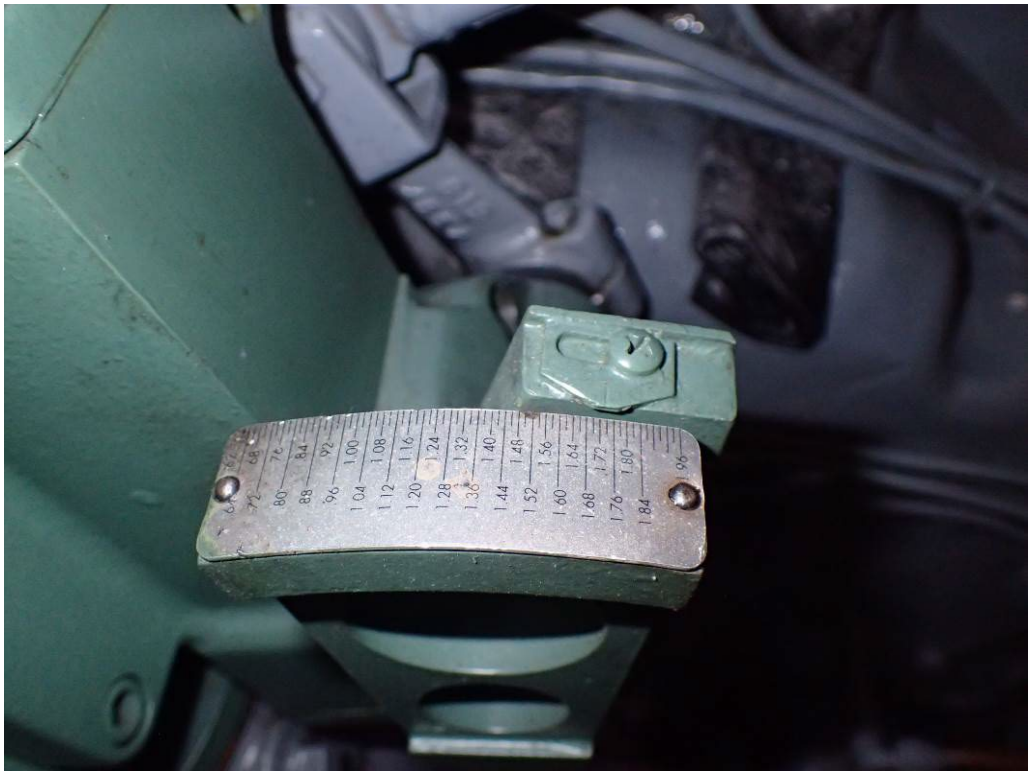
Photograph 67. – "B" Engine Electronic Controls Enclosure



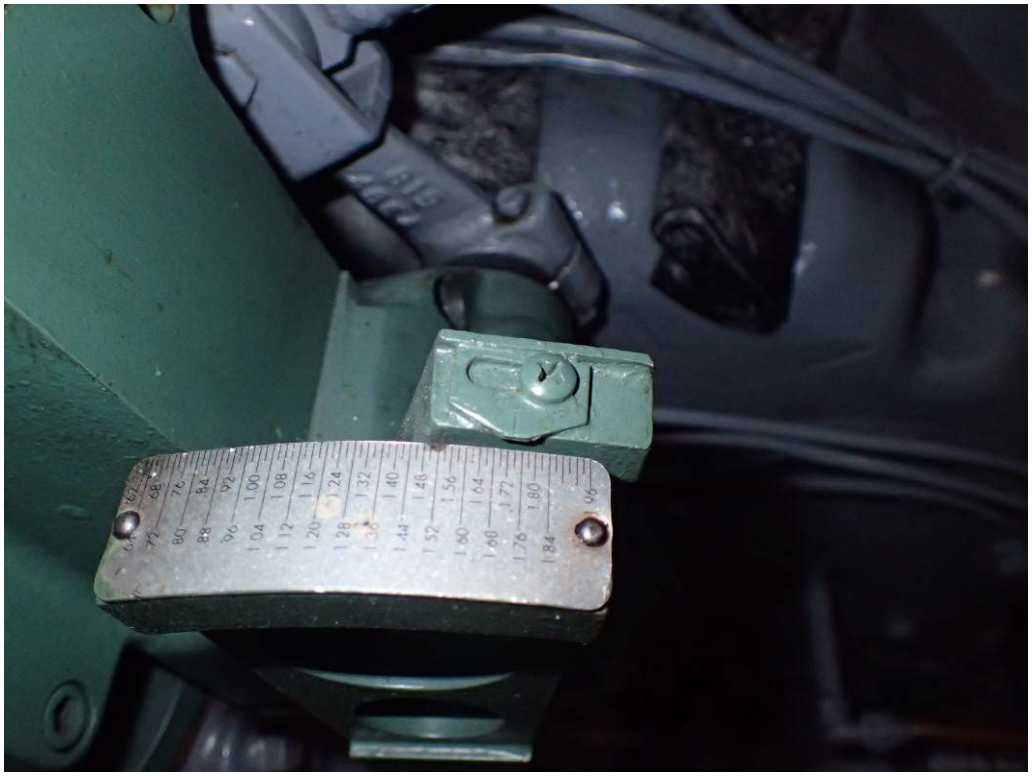
Photograph 68. - "B" Engine Electronic Controls Enclosure



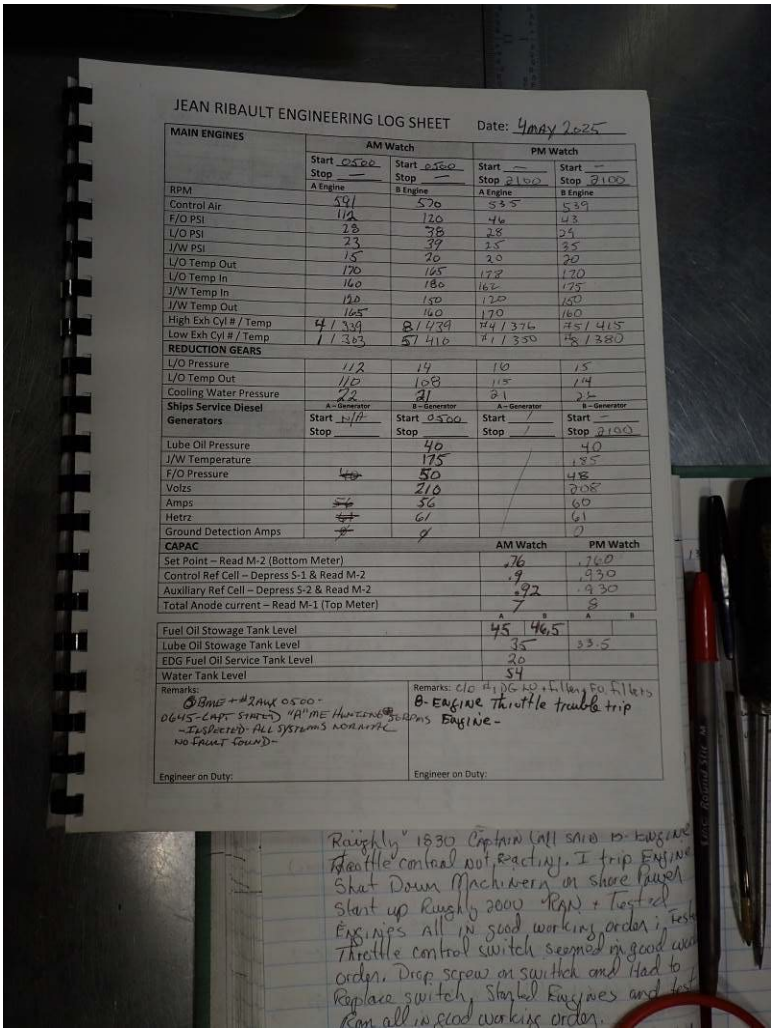
Photograph 69. - "B" Engine Electronic Controls Enclosure



Photograph 70. – "B" Engine Governor Position – Engine Idling



Photograph 71. - "B" Engine Governor Position – Engine Idling



JEAN RIBAULT ENGINEERING LOG SHEET Date: 4MAY 2025

MAIN ENGINES	AM Watch		PM Watch	
	Start 0500 Stop —	Start 0500 Stop —	Start — Stop 2100	Start — Stop 2100
	A Engine	B Engine	A Engine	B Engine
RPM	591	570	535	539
Control Air	112	120	46	43
F/O PSI	28	38	28	24
L/O PSI	23	39	25	35
J/W PSI	15	20	20	20
L/O Temp Out	170	165	178	170
L/O Temp In	160	180	165	175
J/W Temp In	120	150	120	150
J/W Temp Out	165	140	170	160
High Exh Cyl # / Temp	4 / 339	8 / 439	#4 / 376	#5 / 415
Low Exh Cyl # / Temp	1 / 363	5 / 410	#1 / 350	#8 / 380
REDUCTION GEARS				
L/O Pressure	112	14	10	15
L/O Temp Out	110	108	115	14
Cooling Water Pressure	22	21	21	25
Ships Service Diesel Generators	A – Generator Start N/A Stop —	B – Generator Start 0500 Stop —	A – Generator Start / Stop /	B – Generator Start — Stop 2100
Lube Oil Pressure		40		40
J/W Temperature		175		185
F/O Pressure	~~40~~	50		48
Volzs		210		208
Amps	~~56~~	56		60
Hetrz	~~61~~	61		61
Ground Detection Amps	~~0~~	0		0

CAPAC	AM Watch	PM Watch
Set Point – Read M-2 (Bottom Meter)	.76	.760
Control Ref Cell – Depress S-1 & Read M-2	.9	.930
Auxiliary Ref Cell – Depress S-2 & Read M-2	.92	.930
Total Anode current – Read M-1 (Top Meter)	7	8

	A	B	A	B
Fuel Oil Stowage Tank Level	45	46.5		
Lube Oil Stowage Tank Level	35		33.5	
EDG Fuel Oil Service Tank Level	20			
Water Tank Level	54			

Remarks: @ 0AM E + #2 AUX 0500 - 0645 - LAST START "A" ME HUNTING SPEEDS - INSPECTED ALL SYSTEMS NORMAL - NO FAULT FOUND -

Engineer on Duty:

Remarks: C/O #1 DG NO. + filters, FO filters. B- ENGINE Throttle trouble trip B ENGINE -

Engineer on Duty:

Roughly 1830 Captain Call said B Engine Throttle control not reacting. I trip Engine Shut Down Machinery on shore Power Start up Roughly 2000 "RAN" + Tested Engines all in good working order; Fresh Throttle control switch seemed in good working order. Drop screw on switch and Had to Replace switch, Started Engines and Tested Ran all in good working order.

Photograph 72. – May 4, 2025, Engine Room Rounds