

RV F.G. Walton Smith Engine Replacement Project 2022





July 6th





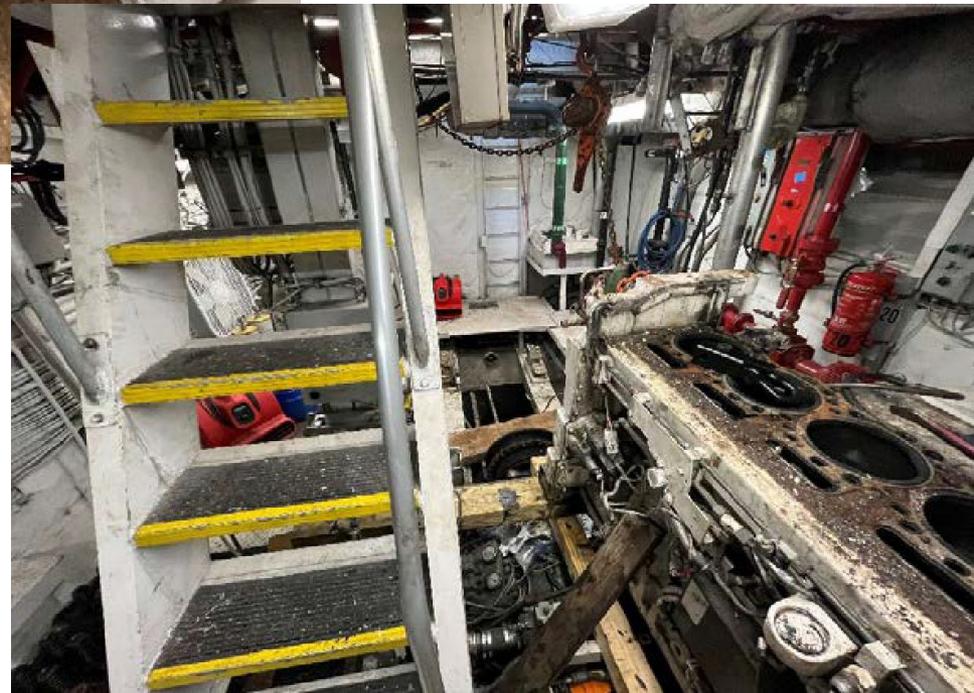
Cummins QSK-19 M engines (2)

July 15th





July 19th



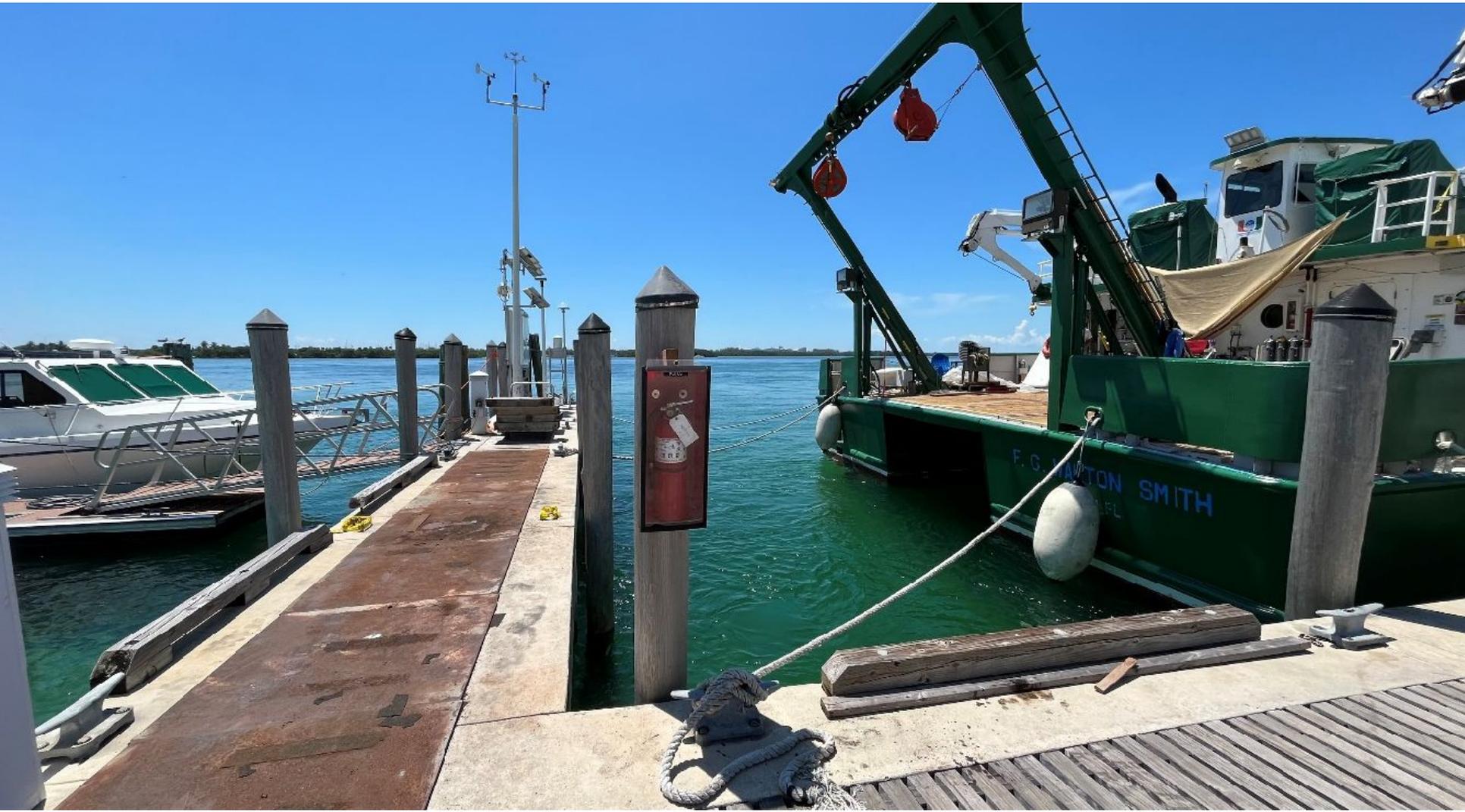


CAUTION

CAUTION
STAY AWAY
USING WOODEN
RACING STAIRS

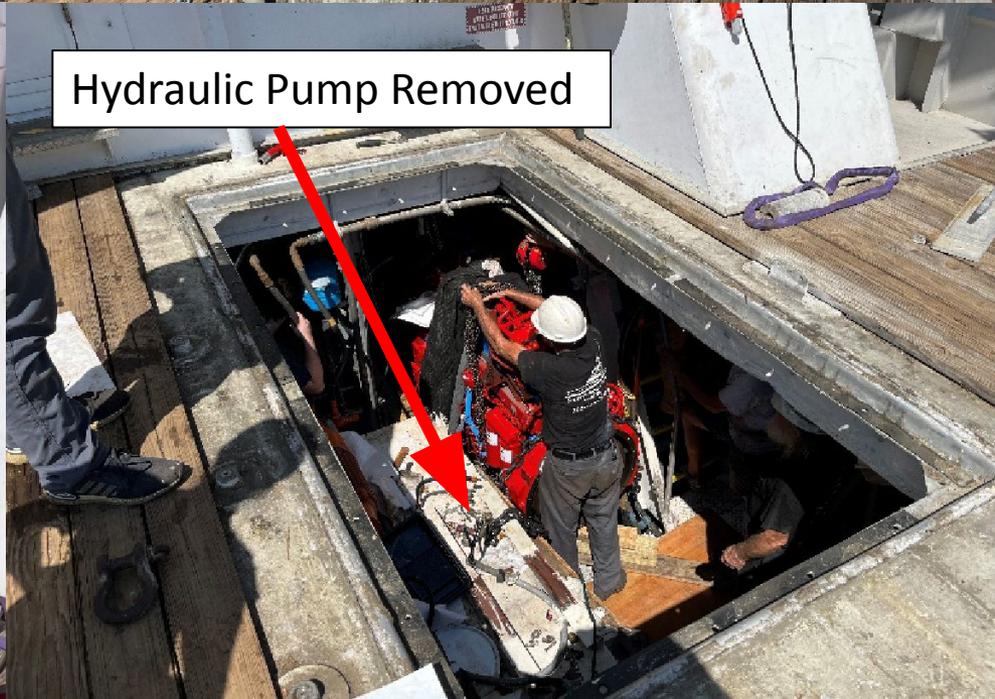
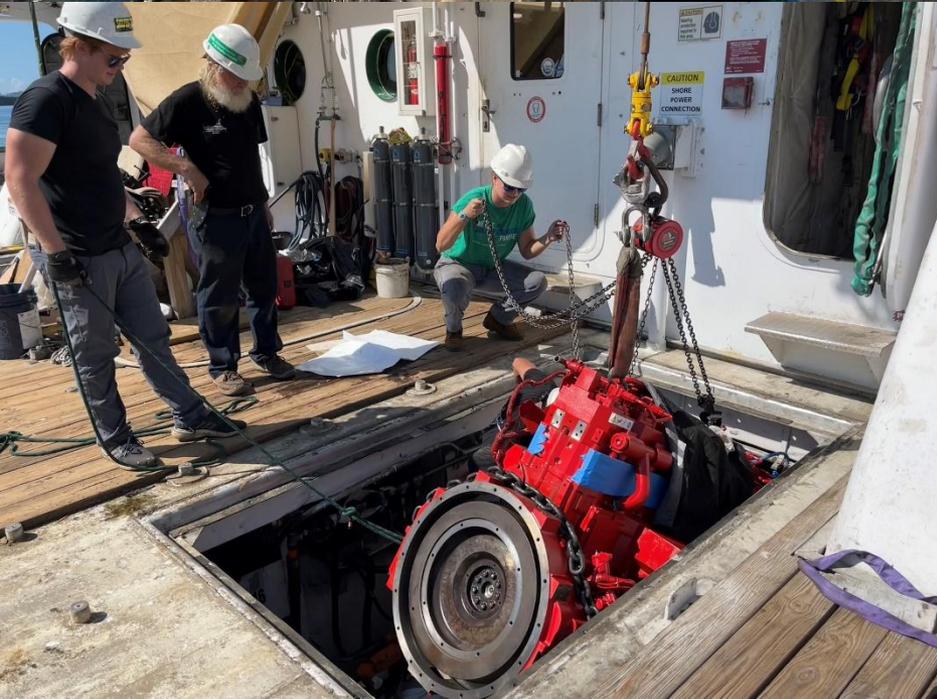
ESCAPE

ESCAPE
FOR USE IN
EMERGENCY

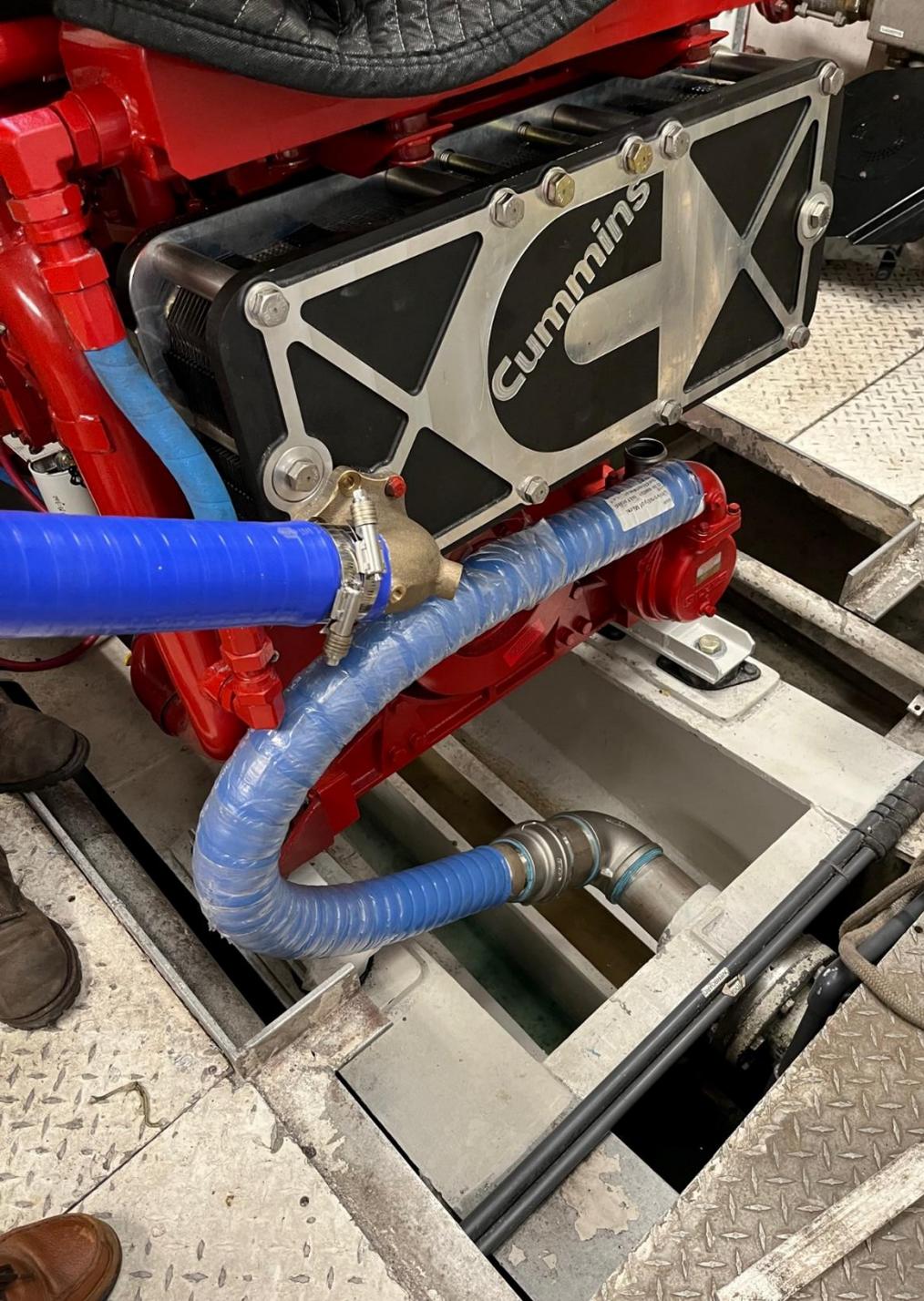














Engine exhaust
blankets installed

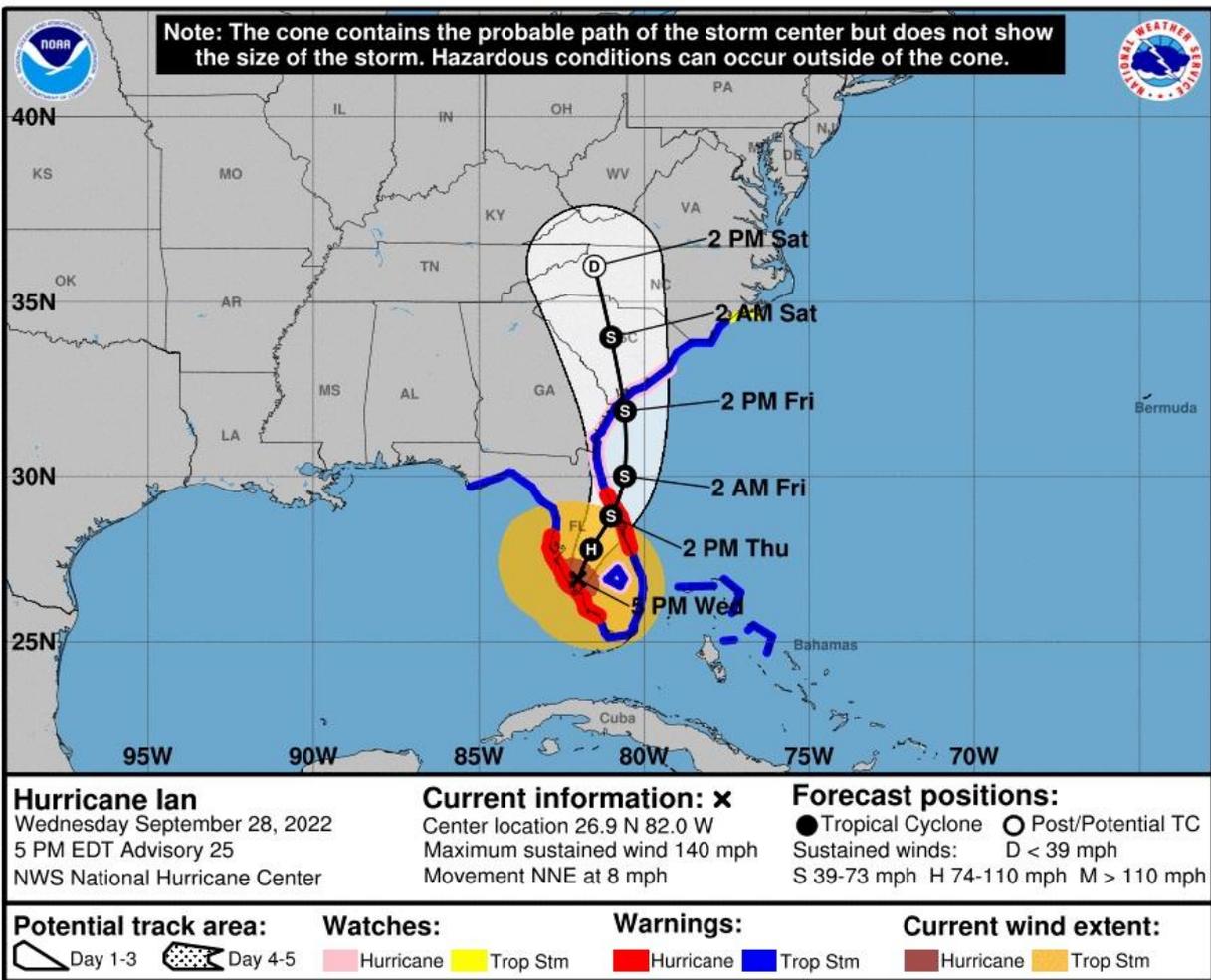




Sept. 20th
Engines started for first time
at the dock.
650 RPMs at idle – very stable

New engine controls installed





Slight delay last week in Sept. due to Hurricane Ian

Had plan to have ship towed up Miami River to our emergency Hurricane dockage location, if needed.

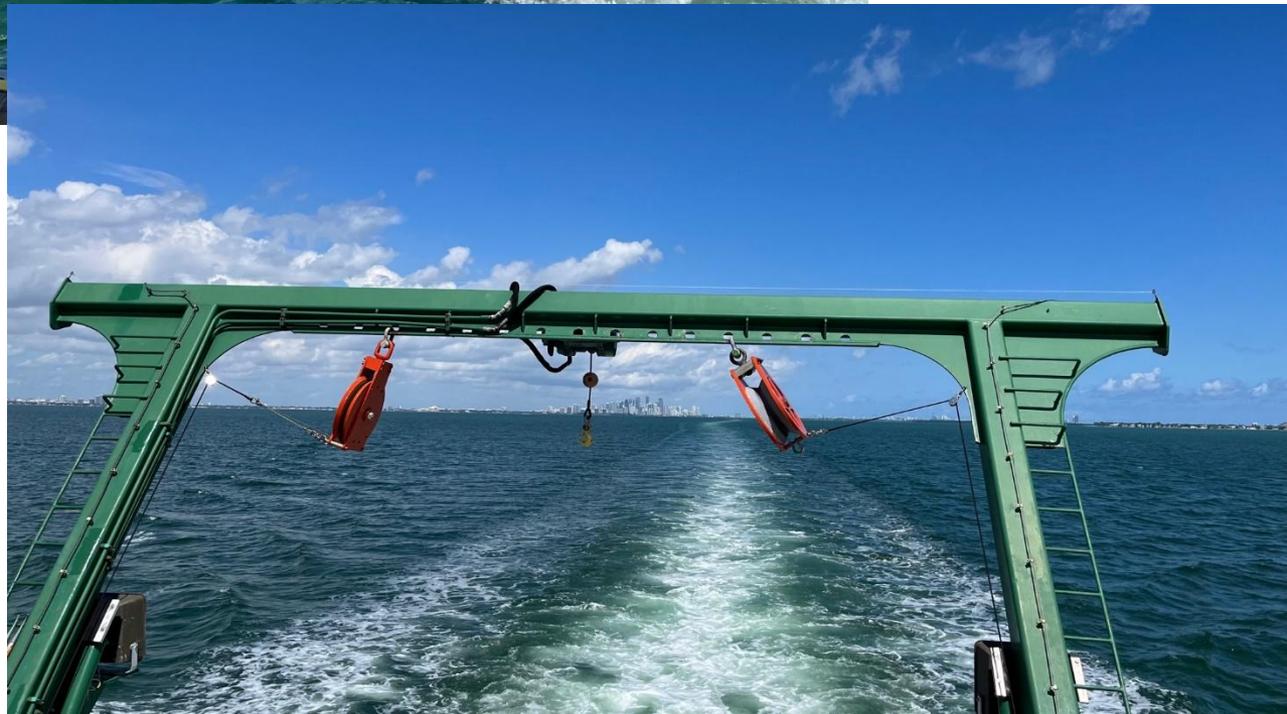


Sept. 30th
First time RV F.G. moved off the dock under new power



Oct. 5th Official Sea Trial
Cummins Application Engineer
was on board to certify the
engines. Engines passed and
were certified!

Post-vibration analysis was also
done during sea trial.
All passed!





**A very happy Bridge Crew
We have working new engines!!!**



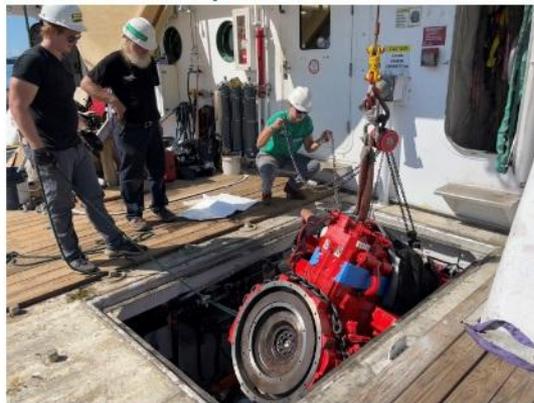
Oct. 8th

First oceanographic research trip

7 day NOAA trip – SFER; South Florida Ecosystem Restoration Research

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New Life for the R/V F. G. WALTON SMITH



New starboard engine, QSK-19 M, going through the soft patch on F.G. WALTON SMITH. Pictured: Captain Clay Dundas, Engine Installer Technician Ron Cheeseman (Maintenance Marine Plus), and Mate Alesha Gregoire. Photo Credit: Don Cucchiara

The research vessel F.G. WALTON SMITH, operated by University of Miami, has had new life breathed into it with a full re-power. The 22 year old engines were replaced in kind with two Cummins QSK-19 M (IMO Tier II, EPA Tier 3 compliant), each producing 760 horsepower. The 96-foot vessel also replaced engine controls, winch controls, the entire exhaust system, and upgraded the POS-MV. The decision was made to conduct the work alongside at their facility versus going into a shipyard.

It was a huge success overall, but as with all maintenance periods, it did not go without challenges. Due to the onset of hurricane season in the Southeast, the delivery of the engines was scheduled for April, which would have given U of Miami ample time to complete the re-power. However, the two engines did not arrive until mid-July (over a month into hurricane season). This meant a "Plan B" had to be devised which included tugging the R/V SMITH upriver in the case of a storm. Fortunately, luck was on their side and they were able to stick with their original plan.

Additional challenges arose between loading the engines aboard, like lowering the engines into place, however the crew were able to find creative solutions which allowed them to stay on track. The engines were officially certified by Cummins on October 5th, which was just in time for R/V SMITH's first cruise post-repower with NOAA on October 8th. A huge Bravo Zulu to the crew and shoreside team of the R/V F.G. WALTON SMITH for their exemplary teamwork and ability to overcome challenges.

RV Walton Smith Engine Replacement

University of Miami - Marine Operations
Don Cucchiara

Project Start: Mon, 6/13/2022

Display Week: 1



