

10 May 2011

R/V CAPE HATTERAS BEST PRACTICES EXAMPLES

BEST USE OF THE DEEP FAT FRYER

The aft generator (3406 CAT) on the R/V CAPE HATTERAS is capable of running on used cooking oil. The used cooking oil is held in an empty/unused tank (~400 gallon capacity) located in the engine room port side aft. The oil is filtered (10 micron) before being transferred into the holding tank and then again via the fixed generator fuel oil filter. The generator is started and warmed up on diesel fuel. The used cooking oil is heated via generator jacket water heat exchanger to ~180 degrees before being delivered to the engine. A three way valve arrangement is used to switch from diesel fuel to used cooking oil. Prior to shutdown, the engine is switched back to diesel fuel to prevent the "trumpeting" of the fuel oil injector nozzles and fouling of the supply lines.



The generator was modified April of 2008. Approximately 300 gallons of used cooking oil have run through the generator's engine, providing ~4 days of power. The cooking oil was used only while the vessel was at the dock. The R/V CAPE HATTERAS found that the logistics and supply consistency were the biggest challenge of the operation.

OBSERVATION WINDOW FOR THE MARKEY DUSH-5 WINCH

The RV CAPE HATTERAS crew recently replaced the gear observation window on the Markey DUSH-5 winch. The original Markey view ports become difficult to see through with age. The ability to easily observe the gears is a great benefit when clutching in the winch drum, verifying that the clutch is sufficiently engaged, and observing the lubrication oil.



SMALL WINCHES TO AID IN TAG LINE CONTROL

RV CAPE HATTERAS has mounted sailboat style boat winches to the stern A-Frame to aid on tag line control during overboarding operations. Also installed are staple fairleads to help position the tag line on the winch.

Additionally, a small electric winch is mounted to the overhead at the CTD station. It aids in moving the CTD Carousel inboard after deployment.

