



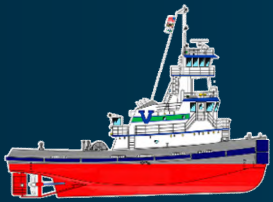
The Vane Brothers Company

Damage Control Standardization

AWO Safety

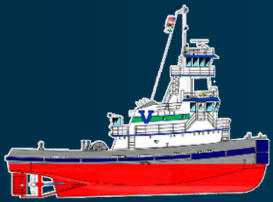
22 Feb 2024

Striving to Set the Standard of Excellence in the Marine Transportation Industry



Incident

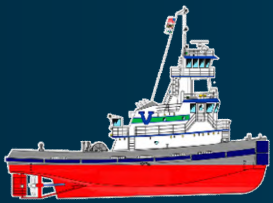
- Towing vessel operating in Port of NY/NJ when vessel experienced a reduction in propulsion.
- The Operator was conducting twin screw maneuvers when he heard a loud “clunk” sound.
- The Operator quickly identified an issue with the starboard shaft, sounded general alarm, and made emergency notifications.
- The crew identified the starboard shaft had broken inside the vessel, causing flooding to the machinery space.
- Several Vane tugs and 3rd party vessels assisted.



Damage Assessment

- The shaft broke 14 inches forward of the aft bulkhead and slid aft, resulting in flooding.
- Dive reports and photos revealed a large diameter hawser line was entangled in the propeller and shaft.

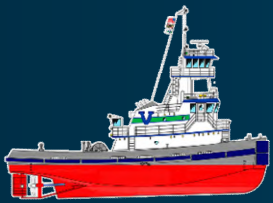




Damage Control Efforts

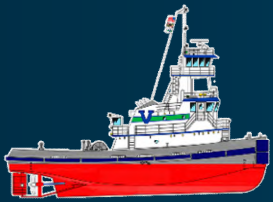
- Multiple vessels responded immediately to assist with damage control, dewatering, and safe transport efforts.
- The crew utilized onboard equipment as well as damage control equipment from assisting vessels.
- Assisting vessel crewmembers were instrumental in mitigating water ingress.





After-Action Findings

- Crew training, expertise, immediate response, and nearby vessel assistance all played a key role in managing the damage and maintaining vessel integrity.
- The standard damage control equipment inventory aboard the vessel was adequate; however, the location, complexity, and size of the damage required larger materials and creative solutions.
- The dewatering equipment aboard functioned as intended and provided relief; however, additional resources were utilized to enhance dewatering.

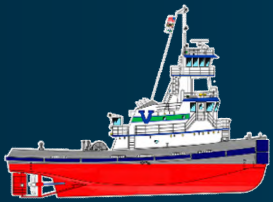


Vane Safety Council

Comprised of Shore-side vessel management and Senior Mariners. Utilized to evaluate and weigh in on feasible solutions and improvements.

A survey was distributed to the fleet detailing the events and asking for input on:

- Dewatering pump outfitting (hoses & connections)
- Damage control equipment inventory
- Pneumatic stern tube seals

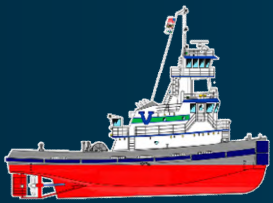


Lessons Learned

Dripless shaft seals are equipped with inflation bladders to allow for maintenance and repair of the system. This bladder also can seal the area in an emergency.

Are the service air tools and hand pump available and are inflation procedures understood by all?

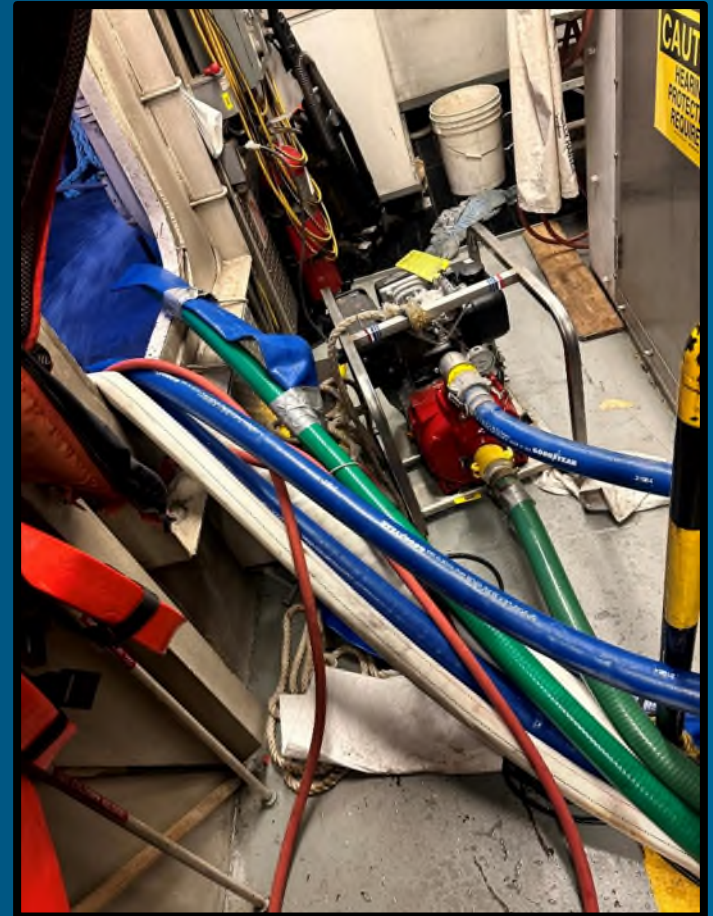


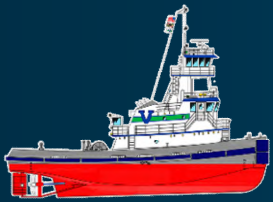


Lessons Learned

Portable dewatering equipment was readily available and deployed quickly.

- Other vessels' dewatering fittings were incompatible with incident vessels.
- Some of the hoses did not reach the lower bilges.

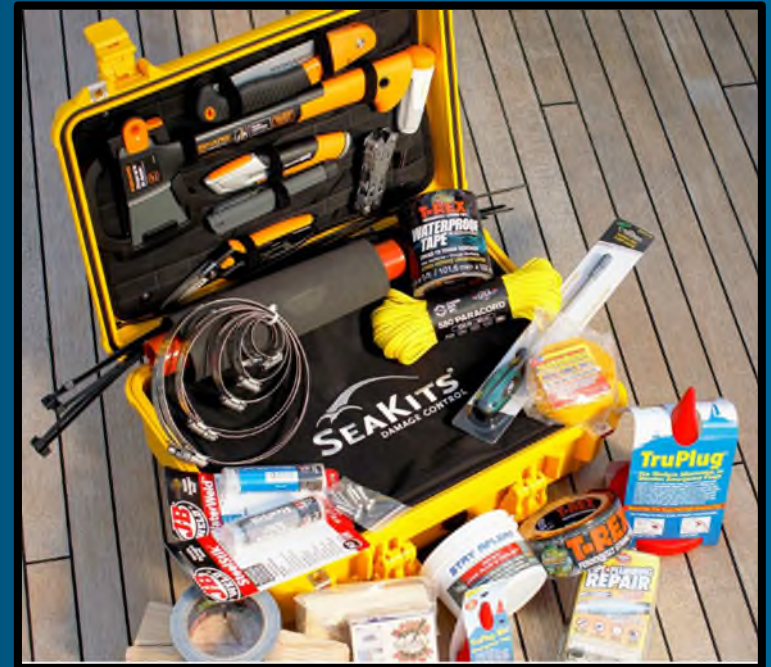


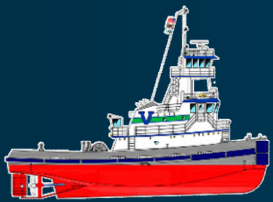


Lessons Learned

Damage control equipment inventories were standardized upon outfitting.

Each vessel crew added more equipment based on their experiences and industry knowledge.





Questions & Answers

