

**PURPOSE:**

To maintain all Cajun's Company Owned Equipment (COE) work boat, crew boats, and tug boats in order to uphold the company image and ensure that our equipment is in good working condition throughout its life span.

**PROCESS:**

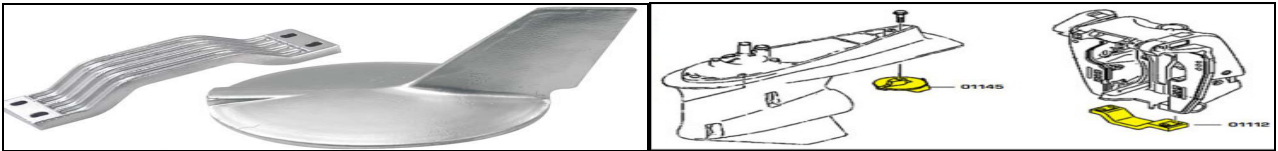
- Visually inspect cabins, motors and props for damage, check leakage of fluids daily, and report any abnormal findings to the Cajun Equipment Services Manager for repair.
  - **The Superintendent shall visually inspect** the hull from the waterline up as well as the interior of the cabin for damage and cleanliness daily. The Superintendent shall ensure that no trash, food, drinks, or construction materials be left onboard the vessels overnight. All trash shall also be removed from vessels when docking or trailering the boat at the end of the shift. All spills shall be promptly cleaned up to prevent slip hazards and additional spread. **In addition, a daily inspection form must be filled out daily when the boat will be used and any deficiency shall be reported to Cajun Equipment Services Manager. All damage due to incident must be reported per Cajun's incident reporting procedure.**
  - **When using the boats to perform work over water**, take it into consideration that Cajun owns both small work barges and jack boats that are designed as an over-water personnel work platform—and should be used if at all possible. The crew boats are intended for over-water personnel transportation.
  - **At a minimum**, the boats should be washed once every two weeks inside and out with soap and water, above the water line. This may need to be performed more often depending on how much dirt/mud is being carried on by foot traffic.
  - **The bilge / engine rooms** of the boats shall be checked daily and cleaned of any oil, dirt, or debris that might cause the bilge pumps to malfunction or discharge of fuels / oil into the waterways. Bilge pumps must have a working automatic float switch. When leaving the boat docked in the water, bilge pumps shall be checked at the end of the shift to ensure adequate working condition.
  - **Below the water line care:** all crew boats shall be hoisted out of the water **once a month** and scraped to remove algae, barnacles, or other growths from the bottom. While hoisted and cleaned, the hulls can be visually inspected for damage such as cuts, cracks, broken welds, etc. Time SHALL BE MADE available to trailer the boat to a car wash in order for it to be cleansed with high pressure water and soap once the bottom growth has been removed.
  - **Tug Boats** shall be maintained in a similar manner: when tug boats are on site and left in the water for extended periods of time, they shall be hoisted at least once every 6 months and the bottom growth scraped from the hull. Doing so will help ensure that the tug boat's engines run cooler. A tug boat's cooling system is located on the bottom side of the hull and is known as a

keel cooler. When barnacles and other growth build up on the keel cooler, it will cause the engines to overheat.

- Both tug and crew boats also have anodes on them to help with electrolysis. These anodes protect the underwater metal from galvanic corrosion. The anodes on the tug boats are welded on the side and bottom of the hull and may look like this: (see the pictures below).



- Outboard engines have several anodes and are located in on various parts of the motor: one anode is on the foot, another on the tilt and trim bracket, and the others are on the motor itself and would have to be inspected by a mechanic. Mounted anodes degrade over time and should be visually inspected when you have the opportunity. In general, anodes should be changed at least once every 12 months or when it has corroded to half of its original size to ensure it is working to its optimum level (see the picture below for common locations of anodes on an outboard engine).



- **There are two types of outboard motors:** 2-stroke and 4-stroke – Cajun owns both types.
  - A 2-stroke motor has a separate oil tank that uses 2-stroke oil and has to be visually checked and refilled as required.
  - A 4-stroke motor is similar to a common vehicle motor. It has a dip stick on the engine to check the oil level and uses a different type of oil such as 10W-30. Either review the operator’s manual for the correct oil type to use or, if unavailable, call the Cajun Equipment Services Manager for assistance in determining the correct oil type for the 4-stroke outboard motor.

### **PAYOFF:**

By following this Standard Operating Procedure to maintain our boats, use of our work boats, crew boats, and tug boats will be safer, cleaner, and more efficient. The Cajun company’s image will be upheld as our equipment is clean, well maintained, and well managed. Cajun’s COE vessels will also last longer with fewer repairs and unexpected breakdowns which will offer a cost savings to our projects.

- Note to the Superintendents;

**It is your responsibility to make sure that Cajun’s equipment is maintained and operated in the safest and best possible manner. Proper maintenance of COE equipment speaks directly to your image as a supervisor for Cajun.**

John Gillis - SCM BU 23