

## **JOB DESCRIPTION ENGINEER**

**WORK SCHEDULE:** The standard work schedule for an engineer is 30 days on the vessel then either 15 or 30 days off. There is normally only one engineer on a boat at a time. Therefore, the daily watch schedule followed by the pilothouse personnel and deck crew does not apply to the engineer. Each engineer will develop a self directed work schedule which will allow them to be in the machinery spaces on a timely basis and often enough to monitor closely all operating equipment for unusual temperatures, pressures, or other variations from normal operations.

When an engineer is off duty, it is their responsibility to get adequate sleep and rest so they are capable of working safely and efficiently when required. An engineer may be requested to return to a boat during their scheduled time off if an emergency arises.

**PHYSICAL DUTIES OF THE JOB:** Engineers must be capable of lifting and moving equipment that may weigh in excess of 100 pounds. It will frequently be necessary to move equipment that is heavy, large, and awkward, sometimes from one level to another. Mechanical lifting devices are provided and must be used as necessary. Assistance must be obtained from other members of the crew when appropriate. The engineer must consider the requirements of a particular job prior to undertaking the task so he or she can be assured that all available equipment or assistance is readily available.

All engineers must ascend and descend stairs or ladders, sometimes while transporting tools or objects. They must correctly use portable ladders or stools to allow them to work in the overhead section of machinery spaces and use handrails when appropriate.

The engineer must have color vision that allows him to safely work on electrical systems that have color coded wires; make the distinction between warning, alarm, and normal operating lights; discern system components that are identifiable by color code; and observe basic safety precautions that may be related to color identification.

An engineer's hearing must be adequate for assuring his own personal safety while working in a machinery space which has high levels of background noise and for detecting changes in operating sounds of machinery. He or she shall be capable of communicating in English with the pilothouse or other personnel via portable or fixed VHF radio as well as intercom systems or voice communication.

The engineer must be capable of reading English well enough to read and understand the various manufacturers instruction manuals that describe preventative and corrective maintenance procedures for the equipment aboard his boat. The engineer must also be capable of reading and understanding written directives that may affect their job or emergency assignment.

The engineer must be capable of performing their assigned emergency duties without undue danger to themselves or the boat. The engineer must know how and when to use the emergency equipment located on the boat and be able to properly wear any safety equipment required by their duties.

The physical dexterity required of an engineer demands that he be able to manipulate small items in restricted spaces or large objects when using mechanical lifting devices. A broad range of strength and physical dexterity is required. Repairs may require that an engineer reach into difficult to access areas of machinery; work on equipment that has pressurized or hot components; shut off or separate equipment to prevent a safety hazard; trouble shoot equipment that is difficult to access; work in areas that have high noise levels; work below decks in areas that may not be well lighted; and work in restricted spaces.

Engineers are responsible for performing any necessary hot work aboard the boat. Hot work includes welding or cutting with an oxygen-acetylene torch (or similar apparatus). The engineer must be certain that any hot work can be performed safely, with no danger for the crew or boat.

**SECURITY DUTIES:** The engineer will perform security duties as directed by the Vessel Security Officer. Duties may include standing security watch, controlling access to the vessel and screening of persons, baggage, supplies, stores and personal effects brought on board.

**MISCELLANEOUS DUTIES:** The engineer is responsible for safe and efficient

operation of all the machinery and associated systems aboard the boat. The daily routine will require that periodic inspections be made of all equipment and machinery spaces. The main engines, generators, steering system, gears, shafts, fuel oil system, fire main, electrical distribution system, emergency equipment, deck winches, lights, alarms, water and air piping systems, fuel tanks, compressors, control systems, marine sanitation system and occasionally barge equipment, will require the attention of the engineer.

The engineer shall maintain all the machinery and auxiliary equipment in accordance with the manufacturers recommended standards, as modified by written company policy. He must keep the office advised of problems encountered; parts needed; request assistance when necessary; and assist in major repairs when appropriate. Support from shore based mechanics will be provided in most repair situations; however, the engineer is responsible for the maintenance and operation of his boat.

The engineer is responsible for the transfer of all fuel oil, lube oil, and chemicals aboard the boat. He must make every effort to comply with all pollution prevention laws, company policy, and reasonable safety standards. Pollution of the navigable water is against the operating policy of Southern Towing Company.

The engineer is responsible for the annual servicing of portable fire extinguishers on the boat and barges.

**Daily** engine room logs shall be maintained accurately and an inventory of all oils and supplies shall be monitored and kept at a level that is adequate to support uninterrupted boat operations. **Engine room logs are to be submitted to the Port Engineer monthly.**

**The engineer is responsible to submit monthly engine oil samples to the Port Engineer.**

**The engineer is responsible to test the boat's jigger pumps monthly.**

**The engineer is responsible for the required semi-annual inspection. A checklist for that inspection can be found in the Operations section of this manual.**

When a cook is not assigned the engineer will share food preparation duties with other crewmembers.

**OTHER INFORMATION:** Every crewmember is required to be aware of and comply with all directives, policies, and procedures contained in the Safety Training Operations and Personnel (STOP) Manual. Good working relationship with other members of the crew are an important part of the daily routine aboard the boat; every crewmember is expected to promote good working relationships.

Medical facilities and drug stores are not readily available to vessels along the river system. In some instances a lengthy delay in obtaining medical assistance or medicine may occur. Anyone needing medication or periodic medical treatment is responsible for obtaining that treatment and medicine during their time off the boat.

It is the responsibility of every Southern Towing Company employee to report to their job in a timely manner, fit and ready for duty. Any change in your physical condition that could affect your personal safety or the safety of the boat and crew must be reported to the personnel office.