

SAFE LOADING AND POWERING

Most fatal boating accidents happen when a vessel capsizes. All too often, these accidents occur because operators try to carry more passengers and gear than their boat can safely handle. Boats will become unstable, and the risk of an accident will increase, if you fail to follow some simple safety precautions when boarding, loading, or powering. It is especially important to follow safe loading and powering practices when handling small boats.

The safe loading regulations were developed to provide guidance to boat operators about their boats' safe loading capacities. These regulations address two different load capacities of your boat: 1) its maximum person capacity (expressed in both the number of pounds and the number of persons) and 2) its maximum weight capacity.

The Capacity Plate

Federal law requires manufacturers to install a capacity plate on all single hull motorboats under 20 feet in length. The capacity plate must be located where it is visible to the operator and should provide the following information:



Maximum number of persons and total passenger weight or

Maximum weight capacity of people, gear, and motor

Maximum engine horsepower on boats designed for outboard motors only

Manufacturers of sailboats, canoes, kayaks, and inflatable boats are not required to attach a capacity plate, but many do. If your small boat does not have a capacity plate, you should consult your owner's manual, contact the boat manufacturer or contact the USCG Boating Safety Hotline at 1-800-368-5647.

Other Factors to Consider

A capacity plate provides the *maximum limits* for loading and powering a boat. But these are the limits in normal conditions; you must consider other factors that affect the capacity and stability of a boat in order to make a prudent decision about your boat's

capacity in the prevailing conditions. They include:

- State of the sea. If the weather or water conditions are rough, you should carry less weight. This allows the boat to ride higher in the water, thus reducing the chances of water entering the boat.
- Activity planned. If you plan an activity that requires equipment and movement in the boat, like fishing or water-skiing, you need to balance the number of passengers with the amount of equipment. If there is a lot of equipment and a lot of passengers, you run the risk that someone may trip and be injured.
- Other Gear. If you are carrying gear of any substantial weight, you will not be able to carry as many people safely. Consider the total pounds capacity, including persons, gear, supplies, etc. As a general rule you should remove one person from the vessel's rated capacity for each 150 lbs you carry.

Safe Loading

All of the gear, equipment and passengers that are aboard your vessel count toward its capacity, and affect the way the vessel handles. If heavy objects aren't stowed properly, they may shift and that movement can affect your boat's handling, too (Plus, moving objects on your boat can cause injury!). To be sure that your boat handles properly when loaded, follow four simple rules:

- 1) Distribute the load evenly
- 2) Keep weight low, especially heavy objects
- 3) Don't exceed the limits on the capacity plate
- 4) Secure objects from shifting, especially larger items like a full cooler

Failure to observe these rules may cause your boat to capsize, swamp or sink.

There are no state or federal regulations against exceeding the safe loading capacity. However, if a marine patrol officer believes a boat is overloaded, the officer has the power to send the boat back to shore. Overloading can lead to disaster, and it can certainly ruin a pleasant day on the water. Abide by your boat's capacity rating.

Safe Boarding

You're responsible for making sure that your passengers board your boat safely, so teach them how to do it:

Step directly into the center of the boat, and stay low as you do so. Hold onto the sides to move once inside the boat. Caution-don't catch your fingers between the boat and the dock or another boat! Keep your fingers inside the boat.

If more than one person is boarding your boat, you should get in the boat first, and then help your guests aboard. Whenever possible, keep your hands free. Bring your

passengers on board first, and then load your gear from the dock. Be sure to secure it in the manner outlined in the previous section.

Everyone should stay seated once the boat gets underway. Bring the boat to a complete stop before people change positions. The action of people moving on the boat can be enough to throw off the boat's stability, especially if there are waves or the water is choppy. So be safe; ask your passengers to be still while the boat is moving.

Safe Powering

It's very important to select the appropriate outboard motor for your boat. Your vessel's capacity plate will tell you the maximum recommended horsepower of a motor for the boat. Never exceed the maximum recommended horsepower! A motor that is too big will weigh down the stern—transoms can collapse if they must hold a motor that is too heavy. Plus, a motor with too much horsepower will reduce the boat's stability and make the boat susceptible to



swamping and capsizing. And if your steering mechanism can't handle the extra power, you may lose control at higher speeds. On the other hand, a motor which is too small won't perform well—and won't last long--because it will have to work too hard to power the boat. Find a motor suitable for your boat.

It isn't a violation of state or federal regulations to install or use an engine larger than specified on the capacity label, but if your over-powered engine affects your boat's seaworthiness, a marine officer may cite you for reckless operation. And your insurance company may refuse to cover you if your boat motor's horsepower exceeds the boat's capacity.