



BoatUS.com/foundation

A Guide FOR Boaters



"AN OUNCE OF PREVENTION..."

Portable gas tanks should be filled ashore or at the dock, keeping in mind human and environmental health precautions.

- Sparks are a primary concern when refilling portable metal fuel tanks. Remove the tanks from the boat and put onshore to provide a ground for any sparks. Keeping the nozzle in contact with the fill opening prevents sparks.
- When fueling on the dock, put an oil absorbent cloth under the tank to absorb any drips or spills. Once fueling is complete, wipe off the outside of the tank with the cloth.
- Don't top the tank off—fill it about 90% full. This allows room for the gas to expand in hot weather without spilling out the vent.
- Watch inside the tank as you dispense fuel to prevent overfilling.



Illustration by Tom Payne



"A RECIPE FOR SUCCESS"

Putting the right amount of oil and fuel together is critical to get the cleanest and best performance from your boat's outboard.

- Use premium two-cycle oil and the fuel octane level recommended by your engine's manufacturer.
- Measure the amount of oil you are pouring into the portable gas can by using the marks on the side of the oil bottle.
- Consider adding a fuel stabilizer to your tank, particularly if you are not regularly using a lot of fuel.
- Use the gasoline-to-oil ratio specified in your owner's manual. Some outboard manufacturers suggest different ratios for the break-in period. Most motors now require a 50:1 mixture.
- For outboards that are not oil injected, always add oil to the fuel tank before adding fuel. This will ensure that the oil is in the fuel, and that it is well mixed.
- For outboards with oil injection, check the oil supply with each fueling. Some higher-horsepower engines may use oil at a ratio that varies with engine speed.



"TAKE CARE FOR TANK CARE"

Taking care of fuel tanks can reduce environmental and safety risks of boat fuel tanks.

- Secure tank vents and caps when fuel is not in use and store tanks in the shade to reduce evaporation and vapors going in the air.
- Make sure portable fuel tanks are strapped down in the boat to prevent unnecessary chafe.
- Make sure metal fuel tanks aren't resting against anything that holds water (i.e. wood, carpet).
- Keep a Type B, CO₂ or dry chemical fire extinguisher onboard. Never use water to put out a fuel fire.



Illustration by Tom Payne



"...A POUND OF CURE"

Keeping fuel out of the water and air takes some precautions, but it's worth the time.

- Remember that discharging any oily water, oil, or petroleum product into the water is against federal law because it pollutes the water and the air.
- You are responsible for any environmental damage caused by your fuel spill under the Oil Pollution Act of 1990. Preventing spills will help the water and your boating environment.
- If you have spilled fuel, immediately stop the source of the leak, use oil absorbent pads or booms, and notify your marina. Call the U.S. Coast Guard and your insurance company.
- By law, any oil or fuel spill that leaves a sheen on the water must be reported to the U.S. Coast Guard at 1-800-424-8802.
- It is against the law to use detergent or other chemicals on a spill to disperse the oil or sheen. These products can cause the petroleum to sink in the water, causing more harm to marine animals and bottom sediments.



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"FACTS AND FIGURES"

Local air and water quality depend on our responsible use of petroleum products.

An estimated 11 million marine engines are in operation in the United States.

Petroleum products contain toxics and metals. Gasoline has more than 100 hydrocarbon compounds.

Petroleum hydrocarbons may be toxic to larvae of fish, shellfish, and other marine organisms.

When the sheen disappears from the surface of the water, the effects of the fuel are not yet gone. Hydrocarbons may remain suspended in the water or accumulate in bottom sediments. Everything that evaporates pollutes the air, especially on hot, sunny days when ozone (brown haze) forms most easily.

Maximizing the efficiency of your boat's engine can improve local ozone air-quality and reduce water pollution problems.



"SPRING PREPARATION FOR CLEAN FUELING"

Consider the following tips for a clean boating and fueling season:

Figure out how much fuel your tank holds and maintain a reliable fuel gauge.

Label your fuel fill cap or use a color coded cap to prevent mistaking it for the water or sewage tank.

Add a fuel/air separator in your tank vent hose. It prevents fuel from pouring out the vent when vapor builds up.

Stock your boat with petroleum absorbent sheets to use while refueling. Use a bilge sock too.



Illustration by Tom Payne



"FILL 'ER UP"—IT'S NOT LIKE A CAR

Careful fueling of inboards can make the difference between a great boating day and an environmental disaster.

Remember that the automatic shut-off on the gas nozzle may not work on your boat.

Never leave a gas hose unattended while refueling.

If your marina's gas hoses have "click on" devices that allow you to take your hands off the nozzle while fueling, ask that they be removed to prevent spills from overflowing tanks.

While fueling, hold a petroleum absorbent pad around the tank fill hole and another under the tank vent on the side of the boat.

Ask your fuel dock to get a fuel recovery container that you can suction cup to the side vent while fueling your boat. Several manufacturers make them. They catch drips from your vent before the fuel can get to the water.

Stop before the top! Excess fuel will flow out the vent when it warms and expands. In addition, gas may stand in the fill and vent hoses, which are not intended to hold fuel.



"TUNE UP TO CLEAN UP"

Carefully maintaining your boat's engine can reduce both fuel consumption and emissions.

Give your engine "a physical." Keeping it tuned and checking carburetors and spark plugs can reduce the amount of unburned fuel and oil that escape with the exhaust gases.

Examine seals, gaskets, and fuel lines to prevent leaks of oil and fuel from dripping into the bilge.

Keep diesel injectors clean by regularly changing filters and using fresh fuel. Changing the air filter offers the additional advantage of aiding combustion, which makes a cleaner burn.

Change fuel filters regularly. Any contaminant in marine fuel can make your engine run dirtier, as well as less efficiently.



Illustration by Tom Payne



"PREVENTING SLICKS IS SLICK"

Taking care while changing your engine's oil can keep petroleum out of the water and the Coast Guard out of your marina!

When changing engine oil, disable automatic bilge pumps to prevent accidental overboard discharge of spilled oil. (Remember to reconnect the pumps later!)

Don't drain oil into the bilge. Use drip pans and absorbent pads in the engine compartment.

In small engine compartments, investigate using a small pump to pull used oil from the fill port.

Recycle the used oil through your marina, community used oil recycling center, or an automobile oil change business.

Be careful not to mix used oil with any other liquids. If you do, it will make the oil harder to recycle and the mixture may be considered hazardous waste.

Keep track of oil changes in a log to accurately determine when you need to replace oil.

"CONSERVE FUEL AND SAVE DOLLARS"

Did you know you can reduce the pollution coming out of your boat's engine and save dollars at the gas pump?

Reduce engine idling to gain extra operating time out of each tankful of gas.

Consider purchasing a newer outboard. They are cleaner burning, quieter, and more fuel efficient.

Replace a damaged prop. Have your prop tuned.

Get extra weight out of your boat. Leave unnecessary supplies and equipment ashore.

Clean your boat's bottom regularly to reduce drag and to improve performance.

Take advantage of favorable tides and currents to get to your destination.



Illustration by Tom Payne

