

GENERAL SAFETY AT THE PUMP

Gas and other petroleum products are extremely flammable. Something as small as a static spark can cause an explosion or fire.

- * *Always* shut off your vehicle's engine.
- * *Never* smoke while pumping or handling fuel.
- * Use only safety approved containers for transporting fuel.



- * Set portable fuel containers on the ground outside the vehicle for filling. Keep nozzle in contact with container. This assures the container is grounded and reduces the danger of static sparking.

- * Never fill an ungrounded container (for example, one in a pickup bed or a car trunk). This creates an extremely dangerous spark hazard.
- * Keep an eye on the people around you.
- * Persons using dispensers with hold-open latches must remain at the refueling point during refueling.
- * Keep cellular phones or other electronic devices in your vehicle during refueling.



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Don't Get Fooled When You Get Fueled !



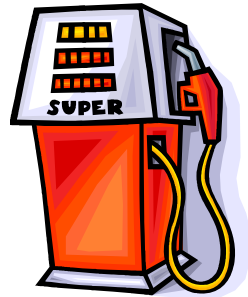
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WHY 'FILLING-IT-UP' TAKES MORE THAN 'TANK CAPACITY'

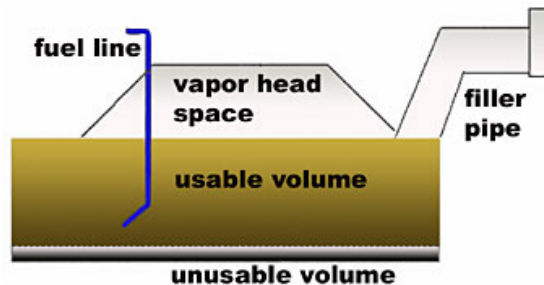


Unauthorized tampering with pumps does happen, even though state and local weights and measures officials regularly check gasoline pumps to ensure their accuracy. But there are also legitimate reasons for a discrepancy between the amount of fuel metered by a gas pump and an automobile's rated fuel tank capacity, according to a recent paper from the National Institute of Standards and Technology (NIST).

For example, some manufacturers estimate the actual fuel tank capacity can vary as much as 3 percent from the tank capacity rating because of design characteristics, the manufacturing process, and even the physics associated with the components that monitor emissions and the electronic of the fuel system and fuel indicators.

NIST notes that it is important to consider which parts of a vehicle's fuel tank are used to determine its capacity rating and what happens to these components when operating and fueling vehicles. A small area at the bottom of a tank is considered unusable because the fuel pump cannot reach that level to draw fuel. In addition, the tank's rated capacity does not include the "vapor head space," the uppermost portion of the tank compartment, nor does it include the volume of the filler pipe where fuel enters the vehicle.

Passenger Vehicle Fuel Tank Capacity



Note: This diagram illustrates the part of the fuel tank that relate to tank capacity. The dimensions do not represent the exact scale of each tank component.

Drivers, however, sometimes fill the tank beyond the pump's automatic shut-off point, resulting in fuel being drawn into the vehicle's vapor recovery system or filler pipe. Similarly, if the lanes that surround the service station pumps are not level, fuel can shift in to the vapor space allowing more fuel to be delivered to the tank.

NIST cautions against using the "half full" reading on the fuel gauge to determine the exact number of gallons it will take to fill the tank. The fuel gauge is intended as an approximate indication of the fuel level. Manufacturers may set the "full" indicator at a level just below the tank's actual capacity. Reserve fuel can also be presented if the manufacturer designs the fuel gauge to indicate empty at a level above the actual point where the tank runs out of gas.

IF A DISCREPANCY IS FOUND

Bring the discrepancy to the station manager's attention. If he or she does not satisfactorily solve the problem, call the Geauga County Weights & Measures Inspector. His job is ensuring that neither consumers nor vendors are unfairly paying for products they haven't received. If you prefer, your complaint can be made anonymously.

The Weights & Measures Inspector will make an unannounced visit to the station. The Inspector will:

- * Check the pumps to see if they are dispensing the correct amount of fuel.
- * Verify that the pumps are calculating correctly by multiplying the price per gallon by the amount of fuel dispensed.
- * Verify that the pump readouts match those on the register inside the station.
- * Either place a new seal on the pump if it is working correctly, or remove the current sticker and lock the pump until he verifies the pump has been fixed.

