Fuel

Your STIHL chain saw uses an oil-gasoline mixture for fuel (see the chapter on "Fuel" of your instruction manual).

⚠️ WARNING

Gasoline is an extremely flammable fuel. If spilled and ignited by a spark or other ignition source, it can cause fire and serious burn injury or property damage. Use extreme caution when handling gasoline or fuel mix. Do not smoke or bring any fire or flame near the fuel or the chain saw. Note that combustible fuel vapor may escape from the fuel system.

Fueling Instructions

⚠️ WARNING

Pick a Safe Location

To reduce the risk of fire and explosion, fuel your chain saw in a well-ventilated area, outdoors away from flames, pilot lights, heaters, electric motors, and other sources of ignition. Vapors can be ignited by a spark or flame many feet away. Select bare ground for fueling and move at least 10 feet (3 m) from the fueling spot before starting the engine. Wipe off any spilled fuel before starting your chain saw. Take care not to get fuel on your clothing. If this happens, change your clothing immediately.

Allow the Saw to Cool Before Removing the Fuel Cap

⚠️ WARNING

Gasoline vapor pressure may build up inside the fuel tank. The amount of pressure depends on a number of factors such as the fuel used, altitude and temperature. To reduce the risk of burns and other personal injury from escaping gas, vapor and fumes, always shut off the engine and allow it to cool before removing the fuel cap.

The engine is air cooled. When it is shut off, cooling air is no longer drawn across the cylinder and engine temperatures will rise for several minutes before starting to cool. In hot environments, cooling will take longer. To reduce the risk of burns and other personal injury from escaping gas, vapor and fumes, allow the saw to cool. If you need to refuel before completing a job, turn off the machine and allow the engine to cool before opening the fuel tank.

Fuel Spraying or “Geysering”

⚠️ WARNING

Removing the cap on a pressurized fuel tank can result in gasoline, vapors and fumes being forcefully sprayed out from the fuel tank in all directions. To reduce the risk of burns, serious injuries or property damage from fuel spraying:

- Follow the fueling instructions in this chapter.
- Always assume your fuel tank is pressurized.
- Allow the chain saw to cool before removing the fuel cap.

Sometimes also referred to as "fuel geysering," fuel spraying is an expulsion of fuel, vapors and fumes which can occur in hot conditions, or when the engine is hot, and the tank is opened without allowing the saw to cool adequately. It is more likely to occur when the fuel tank is half full or more.

Pressure is caused by fuel and heat and can occur even if the engine has not been running. When gasoline in the fuel tank is heated (by ambient temperatures, heat from the engine, or other sources), vapor pressure will increase inside the fuel tank.

Some blends of gasoline, particularly winter blends, may cause tanks to pressurize more quickly or create greater pressure. At higher altitudes, fuel tank pressurization is more likely.

How to Avoid Fuel Spraying

Removing the fuel cap on a pressurized tank can result in gasoline, vapors and fumes being forcefully sprayed out from the fuel tank in all directions. To reduce the risk of burns, serious injuries or property damage from fuel spraying:

- Follow the fueling instructions in this chapter.
- Always assume your fuel tank is pressurized.
- Allow the chain saw to cool before removing the fuel cap.
In hot environments, cooling will take longer.

The engine is air cooled. When it is shut off, cooling air is no longer drawn across the cylinder and the engine temperature will rise for several minutes before starting to cool.

After the saw has cooled appropriately, follow the safety instructions in this chapter for removing the cap. Never remove the cap by turning it directly to the open position. First check for residual pressure by turning the cap slowly to the vent position, approximately 1/8 turn counterclockwise. Use only good quality fuel that is appropriate for the season (summer v. winter blends). Some blends of gasoline, particularly winter blends, are more volatile and can contribute to fuel spraying.

Removing the Toolless Fuel Cap: Turn Slowly and Stop in the Vent Position

WARNING

Installing the Toolless Fuel Cap

WARNING

An improperly tightened fuel filler cap can loosen or come off and spill quantities of fuel. To reduce the risk of fuel spillage and fire from an improperly installed fuel cap, correctly position and tighten the cap in the fuel tank opening:

- Raise the grip on the top of the cap until it is upright at a 90° angle. Insert the cap in the fuel tank opening with the exterior positioning mark (1) lined up with the "unlocked" symbol (2) on the fuel tank housing.

- Using the grip, press the cap down firmly while turning it clockwise to the closed position (approximately 1/4 turn). In the closed position, the interior (4) and exterior (1) positioning marks will align with the "locked" symbol (3) on the fuel tank housing.

- Fold the grip flush with the top of the cap and check for tightness.

- Never remove the cap by turning it directly to the open position without first allowing the saw to cool adequately and then letting it release any residual pressure at the vent position (2).

- Never attempt to remove the cap while the engine is still hot or running.

Removing the cap on a pressurized fuel tank can result in gasoline, vapors and fumes being forcefully sprayed out from the fuel tank in all directions. The escaping gasoline, vapors or fumes can cause serious personal injury, including fire and burn injury, or property damage.