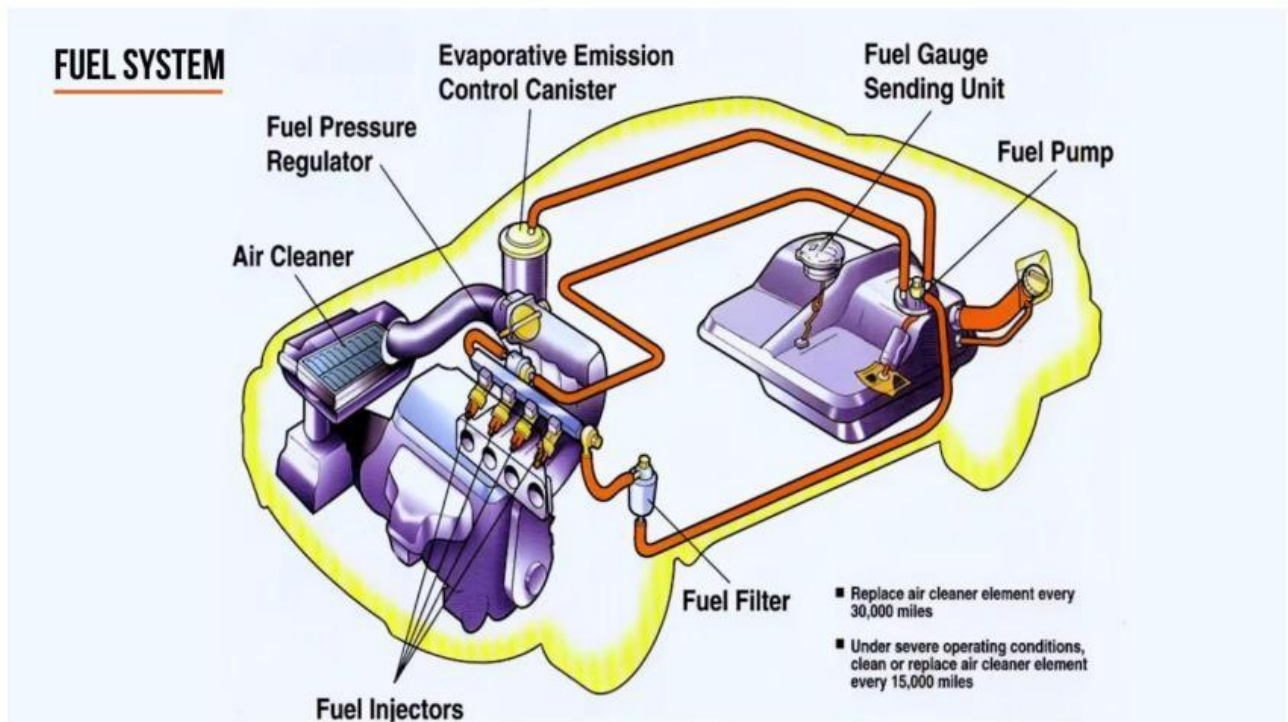


## Fuel system



### Task 1. Listen and read the text.

Basic components of fuel system: a **fuel tank**, a **fuel pump**, a **fuel lines**, a **fuel filter**, **fuel injectors**, carburetors.

Engines need three things to run: air, fuel and spark. The fuel system is critical and storing and delivering the gasoline or diesel fuel your engine needs to run.

Basic components of fuel system.

**Fuel tank** basically a holding tank for your fuel. When you fill up at a gas station the gas travels down the filler tubing into the tank. In the tank there is the sending unit which tells the gas gauge how much gas is in the tank. In recent years the gas tank has become a little more complicated as it now often houses the fuel pump and has more emissions controls to prevent vapors leaking into the air.

**Fuel pump.** On newer cars the fuel pump is usually installed in the fuel tank older cars have the fuel pump attached to the engine or on the frame rail between the tank and the engine. If the pump is in the tank were on the frame rail then it is electric and it's run by your car's battery fuel pumps mounted to the engine use the motion of the engine to pump the fuel. Most often being driven by the camshaft but sometimes the crankshaft.

**Fuel lines.** There are three types of diesel fuel lines these include heavyweight lines for the high pressures found between the injection pump and the injectors medium weigh

lines for the light or medium fuel pressures found between the fuel tank and injection pump and light away lines where there is little or no pressure.

**Fuel filter.** Clean fuel is critical to engine life and performance. Fuel injectors and carburetors have tiny openings which clog easily so filtering the fuel is a necessity filters can be before or after the fuel pump sometimes both. They are most often made from a paper element but can be stainless steel or synthetic material and are designed to be disposable. In most cases some performance fuel filters will have a washable mesh which eliminated the need for replacement

**Fuel injectors.** Most domestic cars after 1986 and earlier foreign cars came from the factory with fuel injection. Instead of a carburetor to mix the fuel and air a computer controls when the fuel injectors open to let fuel into the engine this has resulted in lower emissions and better fuel economy. The fuel injector is basically a tiny electric valve which opens and closes with an electric signal.

**Carburetors.** A carburetor takes the fuel and mixes it with air without computer intervention while simple in operation they tends to need frequent tuning and rebuilding. This is why newer cars have done away with carburetors in favor of fuel injection.

**Task 2. Match the words (1-5) with the definitions (A-E).**

- |                  |   |
|------------------|---|
| 1. fuel line     | A) a part that mixes fuel and air                                     |
| 2. carburetor    | B) a device that screens out dirt in the fuel                         |
| 3. fuel tank     | C) a storage container for fuel                                       |
| 4. fuel filter   | D) a tube that delivers fuel to the engine                            |
| 5. fuel injector | E) a pump that delivers fuel to the combustion chamber of the engine. |

**Task 3. Fill in the blanks with the correct words and phrases from the word bank.**

**fuel system cold air collection box fuel filter air filter gasoline direct injection**

1. The function of a(n) \_\_\_\_\_ is to remove impurities from fuel.
2. A(n) \_\_\_\_\_ is used to remove dirt from air that mixes with fuel.
3. The \_\_\_\_\_ contains the air filter.
4. The \_\_\_\_\_ uses a pump to deliver fuel to the engine.
5. With \_\_\_\_\_, fuel is sent directly into the cylinder.