

Types of fuel feed systems of a petrol engine :

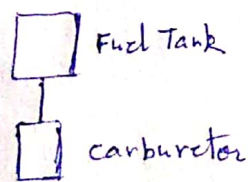
- Gravity system
- Pump feed
- Fuel Injection system

The main purpose of the fuel feed system is to control the fuel supply to the engine. To supply the fuel from the fuel tank to the engine cylinders, manufacturers use mainly the above methods in case of a petrol engine.

Out of these the fuel injection system uses an injector to supply the fuel to the engine cylinders.

GRAVITY FEED SYSTEM :

The 'gravity system' is confined to smaller vehicles such as entry level two wheelers, bikes. In this design the fuel tank is mounted at the highest position. It feeds the fuel into the carburetor float chamber by gravity. This system has a very simple design and hence cheaper to produce and maintain. In this, the fuel tank has to be placed over the carburetor.



PUMP FEED SYSTEM :

This system uses a steel pipe to supply the petrol to the fuel pump which then pumps it into the carburetor float chamber through flexible pipe. If it is a mechanical fuel pump, then it gets the drive from the engine camshaft. Hence it is attached to the engine. On the other hand, electrically operated fuel pumps can be placed anywhere.

## PRINCIPAL OF HYDRAULIC SYSTEM

The working principle of hydraulic system is based on pascal's law. This law states that the pressure applied to an enclosed fluid is transmitted equally in all directions. Small force acting on small area can produce higher force on a surface of larger area.

Hydraulic system in a tractor is a mechanism to raise, hold or lower the mounted or semi-mounted equipments by hydraulic means. All tractors are equipped with hydraulic control system for operating three-point hitch of the tractor.

### BASIC COMPONENTS OF HYDRAULIC SYSTEM :

1. Hydraulic pump
2. Hydraulic cylinder and ~~pump~~ piston
3. Hydraulic tank
4. Control valve
5. Safety valve
6. Hose pipe and fittings
7. Lifting arms.